



AGENDA
CITY OF ORMOND BEACH, FLORIDA
CITY COMMISSION MEETING
May 3, 2022
7:00 PM

Mayor Bill Partington

Zone 1 – Commissioner Dwight Selby

Zone 3 – Commissioner Susan Persis

Zone 2 – Commissioner Troy Kent

Zone 4 – Commissioner Rob Littleton

COMMISSION CHAMBERS

22 South Beach Street, Ormond Beach, FL 32174

Phone: 386-677-0311

Web: www.ormondbeach.org

- 1. CALL TO ORDER**
- 2. INVOCATION**
- 3. PLEDGE OF ALLEGIANCE**
- 4. PRESENTATIONS AND PROCLAMATIONS**
- 5. AUDIENCE REMARKS - REGARDING ITEMS NOT ON THE AGENDA**
- 6. APPROVAL OF MINUTES**

A. Kiwanis Ormond Beach Reads

A. Minutes from City Commission meeting – April 19, 2022

7. CONSENT AGENDA

The action proposed is stated for each item on the Consent Agenda. Unless a City Commissioner removes an item from the Consent Agenda, no discussion on individual items will occur and a single motion will approve all items.

- A. **RESOLUTION NO. 2022-60:** A RESOLUTION AUTHORIZING THE EXECUTION OF A QUITCLAIM DEED IN FAVOR OF GREGORY WILLARD AND CATHERINE RENEE CARLOCK RELEASING A PORTION OF A TWENTY-FOOT (20.0') DRAINAGE EASEMENT LOCATED ALONG THE REAR PROPERTY OF LOT 156, CHELSEA PLACE, PHASE III;

PROVIDING FOR RECORDATION; AND SETTING FORTH AN EFFECTIVE DATE.

Staff Contact: Steven Spraker, Planning Director (386-676-3341)

- B. **RESOLUTION NO. 2022-61:** A RESOLUTION AUTHORIZING THE EXECUTION OF AN AGREEMENT WITH HOLUB DEVELOPMENT, LLC REGARDING THE CONSTRUCTION OF AN OUTDOOR BASKETBALL COURT AND INSTALLATION OF NEW LIGHTING AT THE SOUTH ORMOND NEIGHBORHOOD CENTER; AND SETTING FORTH AN EFFECTIVE DATE.

Staff Contact: Robert Carolin, Leisure Services Director (386-676-3279)

- C. **Request for Qualifications - Cassen Park Re-Design**

Staff Contact: Alex Schumann, City Engineer (386-676-3302)

Disposition: Approve as recommended in the City Manager memorandum dated May 3, 2022.

- D. **Request for Qualifications - Construction Management at Risk Services**

Staff Contact: Alex Schumann, City Engineer (386-676-3302)

Disposition: Approve as recommended in the City Manager memorandum dated May 3, 2022.

- E. **Intent to Bid - Police Station HVAC Upgrades**

Staff Contact: Alex Schumann, City Engineer (386-676-3302)

Disposition: Approve as recommended in the City Manager memorandum dated May 3, 2022.

- F. **Intent to Bid - CDBG - S. Washington Street West Side Sidewalk Improvements**

Staff Contact: Alex Schumann, City Engineer (386-676-3302)

Disposition: Approve as recommended in the City Manager memorandum dated May 3, 2022.

- G. **Transportation Consulting Renewal**

Staff Contact: Alex Schumann, City Engineer (386-676-3302)

Disposition: Approve as recommended in the City Manager memorandum dated May 3, 2022.

- H. **Intent to Bid - Emergency Lighting for Police Vehicles**

Staff Contact: Kevin Gray, Deputy Public Works Director (386-676-3577)

Disposition:

Approve as recommended in the City Manager memorandum dated May 3, 2022.

8. PUBLIC HEARINGS

- A. **ORDINANCE NO. 2022-11:** AN ORDINANCE AMENDING THE FUTURE LAND USE ELEMENT OF THE COMPREHENSIVE PLAN BY AMENDING THE FUTURE LAND USE MAP TO INCORPORATE THE PROVISIONS OF THE SECOND AMENDED NORTH US HIGHWAY 1 INTERLOCAL SERVICE BOUNDARY AGREEMENT BETWEEN THE CITY OF ORMOND BEACH AND THE COUNTY OF VOLUSIA; AUTHORIZING TRANSMITTAL; PROVIDING FOR PUBLIC HEARINGS; PROVIDING FOR CONFLICTING ORDINANCES; AND SETTING FORTH AN EFFECTIVE DATE. **(SECOND READING)**

Staff Contact: Steven Spraker, Planning Director (386-676-3341)

- B. **ORDINANCE NO. 2022-12:** AN ORDINANCE AMENDING THE FUTURE LAND USE ELEMENT OF THE COMPREHENSIVE PLAN OF THE CITY OF ORMOND BEACH BY AMENDING THE FUTURE LAND USE MAP FOR REAL PROPERTY TOTALING 19.19± ACRES ASSOCIATED WITH THE RIDGEHAVEN PROPOSED SUBDIVISION FROM “LOW INTENSITY COMMERCIAL” (LIC) TO “MEDIUM DENSITY RESIDENTIAL” (MDR); PROVIDING FOR CONFLICT; AUTHORIZING TRANSMITTAL; AND SETTING FORTH AN EFFECTIVE DATE. **(SECOND READING)**

Staff Contact: Steven Spraker, Planning Director (386-676-3341)

- C. **ORDINANCE NO. 2022-14:** AN ORDINANCE AMENDING THE FUTURE LAND USE ELEMENT AND THE INTERGOVERNMENTAL COORDINATION ELEMENT OF THE COMPREHENSIVE PLAN BY INCORPORATING THE PROVISIONS OF THE SECOND AMENDED NORTH US HIGHWAY 1 INTERLOCAL SERVICE BOUNDARY AGREEMENT (ISBA) BETWEEN THE CITY OF ORMOND BEACH AND THE COUNTY OF VOLUSIA; PROVIDING FOR TRANSMITTING COPIES OF THE NOTICE AND AMENDMENT TO THE STATE REVIEWING AGENCIES, THE COUNTY OF VOLUSIA, AND ANY OTHER LOCAL GOVERNMENT OR GOVERNMENTAL AGENCY REQUESTING A COPY; PROVIDING FOR PUBLIC HEARINGS; PROVIDING FOR CONFLICTING ORDINANCES; AND SETTING FORTH AN EFFECTIVE DATE.

Staff Contact: Steven Spraker, Planning Director (386-676-3341)

- D. **RESOLUTION NO. 2022-62:** A RESOLUTION AUTHORIZING THE EXECUTION AND ISSUANCE OF A DEVELOPMENT ORDER FOR A SPECIAL EXCEPTION REGARDING THE PROPOSED "NEIGHBORHOOD SCOOP" ICE CREAM SHOP LOCATED AT 100 WEST GRANADA BOULEVARD, WITHIN THE B-4 (CENTRAL BUSINESS) ZONING DISTRICT, WITHIN THE DOWNTOWN OVERLAY DISTRICT; TO ALLOW ALTERNATIVE BUILDING SIGNAGE TOTALING APPROXIMATELY 25 SQUARE FEET; ESTABLISHING CONDITIONS

AND EXPIRATION DATE OF APPROVAL; AND SETTING FORTH AN EFFECTIVE DATE.

Staff Contact: Steven Spraker, Planning Director (386-676-3341)

- E. **RESOLUTION NO. 2022-63:** A RESOLUTION AUTHORIZING THE EXECUTION AND ISSUANCE OF A DEVELOPMENT ORDER FOR A SPECIAL EXCEPTION REGARDING THE PROPOSED "PUMPHOUSE" RESTAURANT LOCATED AT 124 WEST GRANADA BOULEVARD, WITHIN THE B-4 (CENTRAL BUSINESS) ZONING DISTRICT, WITHIN THE DOWNTOWN OVERLAY DISTRICT; TO ALLOW ALTERNATIVE BUILDING SIGNAGE TOTALING APPROXIMATELY 30.33 SQUARE FEET; ESTABLISHING CONDITIONS AND EXPIRATION DATE OF APPROVAL; AND SETTING FORTH AN EFFECTIVE DATE.

Staff Contact: Steven Spraker, Planning Director (386-676-3341)

9. SECOND READING OF ORDINANCES

- A. **ORDINANCE NO. 2022-13:** AN ORDINANCE REGARDING THE OFFICE OF MAYOR AND CITY COMMISSIONERS FOR ZONES 1 THROUGH 4 BY PROVIDING FOR AND CALLING A PRIMARY MUNICIPAL ELECTION OF THE REGISTERED ELECTORS OF THE CITY OF ORMOND BEACH TO BE HELD ON AUGUST 23, 2022; PROVIDING FOR AND CALLING A REGULAR MUNICIPAL ELECTION OF THE REGISTERED ELECTORS RESIDING IN THE CITY OF ORMOND BEACH TO BE HELD ON NOVEMBER 8, 2022; PROVIDING FOR QUALIFYING AND ELECTION PROCEDURES; ESTABLISHING A DATE FOR TAKING OFFICE; AUTHORIZING THE EXECUTION OF A MEMORANDUM OF UNDERSTANDING FOR SERVICES AND MATERIALS WITH THE COUNTY OF VOLUSIA; PROVIDING FOR SEVERABILITY; AND SETTING FORTH AN EFFECTIVE DATE. **(SECOND READING)**

Staff Contact: Susan Dauderis, City Clerk (386-676-3340)

10. REPORTS, SUGGESTIONS, REQUESTS

11. ADJOURNMENT

Website Address – www.ormondbeach.org

NOTICE – Pursuant to Section 286.0105 of the Florida Statutes, if any person decides to appeal any decision made by the City Commission with respect to any matter considered at this public meeting, such person will need a record of the proceedings and for such purpose, such person may need to ensure that a verbatim record of the proceedings is made, including the testimony and evidence upon which the appeal is to be based.



For special accommodations, please notify the City Clerk's Office at least 72 hours in advance.
Phone: 386-677-0311



Help for the hearing impaired is available through the Assistive Listening System. Receivers can be obtained from the City Clerk's Office.

In accordance with the Americans with Disabilities Act (ADA), persons with a disability, such as a vision, hearing or speech impairment, or persons needing other types of assistance, and who wish to attend City Commission meetings or any other board or committee meeting may contact the City Clerk's Office in writing, or may call 386-677-0311 for information regarding available aids and services.

MINUTES
ORMOND BEACH CITY COMMISSION
HELD AT CITY HALL COMMISSION CHAMBERS

April 19, 2022	7:00 p.m.	Commission Chambers
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Present: Mayor Bill Partington, Commissioners Dwight Selby, Troy Kent, Susan Persis, and Rob Littleton, City Manager Joyce Shanahan, Assistant City Manager Claire Whitley, City Attorney Randy Hayes, and City Clerk Susan Carroll Dauderis.

A G E N D A

- 1. CALL TO ORDER
- 2. INVOCATION
- 3. PLEDGE OF ALLEGIANCE
- 4. PRESENTATIONS AND PROCLAMATIONS
 - A. Civil Air Patrol Awards
 - B. Emily Kraft
- 5. AUDIENCE REMARKS - REGARDING ITEMS NOT ON THE AGENDA
- 6. APPROVAL OF MINUTES

- A. Minutes from City Commission meeting – April 5, 2022

7. CONSENT AGENDA

The action proposed is stated for each item on the Consent Agenda. Unless a City Commissioner removes an item from the Consent Agenda, no discussion on individual items will occur and a single motion will approve all items.

- A. **RESOLUTION NO. 2022-56:** A RESOLUTION AUTHORIZING THE SOLE SOURCE PROCUREMENT OF A NITROGEN PROBE FROM HACH COMPANY FOR THE WATER RECLAMATION FACILITY; AUTHORIZING THE EXECUTION OF A PURCHASE AUTHORIZATION; AND SETTING FORTH AN EFFECTIVE DATE.

Staff Contact: Shawn Finley, Public Works Director (386-676-3292)

- B. **RESOLUTION NO. 2022-57:** A RESOLUTION ACCEPTING THE PROPOSAL OF EMPIRE COMPUTING & CONSULTING, INC., REGARDING INSTALLATION OF THE POLICE DEPARTMENT ACCESS CONTROL SYSTEM AND THE PROVISION OF SUPPORT SERVICE ON AN AS NEEDED BASIS; AUTHORIZING THE EXECUTION OF AN AGREEMENT AND PAYMENT THEREFOR; REJECTING ALL OTHER PROPOSALS; AND SETTING FORTH AN EFFECTIVE DATE.

Staff Contact: Alex Schumann, City Engineer (386-676-3302)

- C. **RESOLUTION NO. 2022-58:** A RESOLUTION ACCEPTING THE PROPOSAL OF STRATEGIC PLANNING GROUP, INC., REGARDING PROFESSIONAL SERVICES TO PERFORM AN UPDATE TO THE CITY’S ECONOMIC DEVELOPMENT STRATEGIC PLAN; AUTHORIZING THE EXECUTION OF AN AGREEMENT AND PAYMENT THEREFOR; REJECTING ALL

OTHER PROPOSALS; AND SETTING FORTH AN EFFECTIVE DATE.

Staff Contact: *Brian Rademacher, Economic Development Director (386-676-3266)*

- D. **RESOLUTION NO. 2022-59:** A RESOLUTION APPROVING SETTLEMENTS WITH CVS HEALTH CORP., TEVA, AND ALLERGAN IN CONNECTION WITH THE NATIONAL OPIOID LITIGATION MATTER; AUTHORIZING THE EXECUTION OF SETTLEMENT PARTICIPATION FORMS, INCLUDING ALL DOCUMENTS NECESSARY AND INCIDENTAL THERETO; AND SETTING FORTH AN EFFECTIVE DATE.

Staff Contact: *Ann-Margret Emery, Deputy City Attorney (386-676-3218)*

- E. **Volusia League of Cities 2022 Distinguished Service Awards**

Staff Contact: *Claire Whitley, Assistant City Manager (386-676-3202)*

Disposition: Approve as recommended in the City Manager memorandum dated April 19, 2022.

- F. **City Manager Status Report, April 2022**

Staff Contact: *Joyce Shanahan, City Manager (386-676-3200)*

Disposition: Approve as recommended in the City Manager memorandum dated April 19, 2022.

8. PUBLIC HEARINGS

- A. **ORDINANCE NO. 2022-11:** AN ORDINANCE AMENDING THE FUTURE LAND USE ELEMENT OF THE COMPREHENSIVE PLAN BY AMENDING THE FUTURE LAND USE MAP TO INCORPORATE THE PROVISIONS OF THE SECOND AMENDED NORTH US HIGHWAY 1 INTERLOCAL SERVICE BOUNDARY AGREEMENT BETWEEN THE CITY OF ORMOND BEACH AND THE COUNTY OF VOLUSIA; AUTHORIZING TRANSMITTAL; PROVIDING FOR PUBLIC HEARINGS; PROVIDING FOR CONFLICTING ORDINANCES; AND SETTING FORTH AN EFFECTIVE DATE.

Staff Contact: *Steven Spraker, Planning Director (386-676-3341)*

- B. **ORDINANCE NO. 2022-12:** AN ORDINANCE AMENDING THE FUTURE LAND USE ELEMENT OF THE COMPREHENSIVE PLAN OF THE CITY OF ORMOND BEACH BY AMENDING THE FUTURE LAND USE MAP FOR REAL PROPERTY TOTALING 19.19± ACRES ASSOCIATED WITH THE RIDGEHAVEN PROPOSED SUBDIVISION FROM “LOW INTENSITY COMMERCIAL” (LIC) TO “MEDIUM DENSITY RESIDENTIAL” (MDR); PROVIDING FOR CONFLICT; AUTHORIZING TRANSMITTAL; AND SETTING FORTH AN EFFECTIVE DATE.

Staff Contact: *Steven Spraker, Planning Director (386-676-3341)*

9. FIRST READING OF ORDINANCES

- A. **ORDINANCE NO. 2022-13:** AN ORDINANCE REGARDING THE OFFICE OF MAYOR AND CITY COMMISSIONERS FOR ZONES 1 THROUGH 4 BY PROVIDING FOR AND CALLING A PRIMARY MUNICIPAL ELECTION OF THE REGISTERED ELECTORS OF THE CITY OF ORMOND BEACH TO BE HELD ON AUGUST 23,

2022; PROVIDING FOR AND CALLING A REGULAR MUNICIPAL ELECTION OF THE REGISTERED ELECTORS RESIDING IN THE CITY OF ORMOND BEACH TO BE HELD ON NOVEMBER 8, 2022; PROVIDING FOR QUALIFYING AND ELECTION PROCEDURES; ESTABLISHING A DATE FOR TAKING OFFICE; AUTHORIZING THE EXECUTION OF A MEMORANDUM OF UNDERSTANDING FOR SERVICES AND MATERIALS WITH THE COUNTY OF VOLUSIA; PROVIDING FOR SEVERABILITY; AND SETTING FORTH AN EFFECTIVE DATE.

Staff Contact: Susan Dauderis, City Clerk (386-676-3340)

10. SECOND READING OF ORDINANCES

- A. **ORDINANCE NO. 2022-08:** AN ORDINANCE AMENDING SECTION 4-3, CONSUMPTION IN PUBLIC PLACES; EXCEPTIONS, OF CHAPTER 4, ALCOHOLIC BEVERAGES; AND SECTION 15-92, DEFINITIONS, AND SECTION 15-99, DISPLAY, PROMOTION OR SALE OF ALCOHOLIC BEVERAGES, OF ARTICLE III, SPECIAL USES OF CITY PROPERTY, OF CHAPTER 15, PARKS AND RECREATION, OF THE CODE OF ORDINANCES OF THE CITY OF ORMOND BEACH, TO ALLOW FOR THE SALE AND CONSUMPTION OF ALCOHOLIC BEVERAGES ON CITY PROPERTY PURSUANT TO A WRITTEN AGREEMENT APPROVED BY THE CITY COMMISSION BETWEEN THE CITY OF ORMOND BEACH AND A CIVIC NON-PROFIT ORGANIZATION; REPEALING ALL INCONSISTENT ORDINANCES OR PARTS THEREOF; PROVIDING FOR SEVERABILITY; AND SETTING FORTH AN EFFECTIVE DATE. **(SECOND READING)**

Staff Contact: Ann-Margret Emery, Deputy City Attorney
(386-676-3218)

- B. **ORDINANCE NO. 2022-09:** AN ORDINANCE AMENDING SECTION 2-258, ADMINISTRATIVE FINES AND LIENS, OF DIVISION 2, ENFORCEMENT PROCESS, OF ARTICLE VII, CODE ENFORCEMENT, OF CHAPTER 2, ADMINISTRATION; SECTION 8-4, UNSAFE BUILDING ABATEMENT, OF ARTICLE I, IN GENERAL, OF CHAPTER 8, BUILDINGS AND CONSTRUCTION REGULATIONS; AND SECTION 14-98, LIENS, OF ARTICLE VIII, SITE MAINTENANCE/NUISANCES, OF CHAPTER 14, OFFENSES, OF THE CODE OF ORDINANCES OF THE CITY OF ORMOND BEACH, TO AMEND THE AUTHORITY FOR THE RELEASE AND SATISFACTION OF LIENS; REPEALING ALL INCONSISTENT ORDINANCES OR PARTS THEREOF; PROVIDING FOR SEVERABILITY; AND SETTING FORTH AN EFFECTIVE DATE. **(SECOND READING)**

Staff Contact: Ann-Margret Emery, Deputy City Attorney
(386-676-3218)

11. REPORTS, SUGGESTIONS, REQUESTS

12. ADJOURNMENT

MINUTES

Item #1 – Meeting Call to Order

Mayor Partington called the meeting to order at 7:00 p.m.

Item #2 – Invocation

Mayor Partington provided the invocation.

Item #3 – Pledge of Allegiance

Mayor Partington led the Pledge of Allegiance.

Item #4 – Presentations and ProclamationsItem #4A – Civil Air Patrol Awards

Mayor Partington explained once a cadet earns the General Billy Mitchell Award, he or she was promoted to the grade of Cadet 2nd Lieutenant. Lieutenant Colonel Joseph Wisniewski presented the General Billy Mitchell Award to Cadet Evan G. Jameson, Cadet Conner F. Reese and Cadet Duke O. Neubecker.

Mayor Partington stated once a cadet earns the Amelia Earhart Award, he or she was promoted to the grade of Cadet Captain. Lieutenant Colonel Wisniewski presented the Amelia Earhart Award to Cadet Emily Kraft and Cadet Jameson.

Mayor Partington announced once a cadet earns the General Ira C. Eaker Award, he or she was promoted to the grade of Cadet Lieutenant Colonel and would be challenged to lead and serve junior-ranking cadets not just in the hometown squadron but around their state as well. Lieutenant Colonel Wisniewski presented the General Ira Eaker Award to Cadet Kraft.

Item #4B – Emily Kraft

Mayor Partington presented a proclamation to Cadet Lieutenant Colonel Emily Kraft, in honor of her excellence in the Civil Air Patrol cadet program, United States Army Junior Reserve Officer Training Corps and for her attendance at the 2020 Civic Leadership Academy. He proclaimed April 19, 2022, as a day to recognize Cadet Lieutenant Colonel Kraft and urged all residents to join him in wishing her all the best in her career in the United States Navy.

Mayor Partington expressed his support of the Civil Air Patrol program.

Lieutenant Colonel Wisniewski present the Commission with a certificate of appreciation honoring the Ormond Beach Municipal Airport.

Commissioner Persis congratulated Cadet Lieutenant Kraft.

Item #5 – Audience Remarks

Ms. Carol Taylor, 19 Village Drive, discussed her concerns regarding the possible RidgeHaven development and the impact on the environment, wildlife and quality of life in the neighborhood. It was her understanding that there were Native American artifacts found on the property.

Mr. George Taylor, 19 Village Drive, voiced his concerns regarding the development of the land near the Pine Run subdivision, the potential clearing of land and proposed number of homes per acre.

Item #6 – Approval of Minutes

Mayor Partington advised the minutes of the April 5, 2022, meeting had been sent to the Commission for review and were posted on the city's website for public viewing. He asked for any corrections, additions, or omissions. He stated that hearing no corrections, the minutes would stand approved as presented.

Commissioner Kent moved, seconded by Commissioner Persis, for approval of the April 5, 2022, City Commission meeting minutes.

The motion passed by voice vote.

Item #7 – Consent Agenda

Mayor Partington advised the actions proposed for the items on the Consent Agenda were so stated on the agenda. He asked if any member of the Commission had questions or wished to discuss any items separately.

Commissioner Persis moved, seconded by Commissioner Littleton, for approval of the consent agenda.

Call Vote:	Commissioner Selby	Yes
	Commissioner Kent	Yes
	Commissioner Persis	Yes
	Commissioner Littleton	Yes
Carried.	Mayor Partington	Yes

Comments on the Consent Agenda

No one had additional comments on the consent agenda.

Item #8 – Public Hearings

Item #8A – N. US 1 Second Amended Future Land Use Map Amendment-Small Scale

City Clerk Susan C. Dauderis read by title only:

ORDINANCE NO. 2022-11
AN ORDINANCE AMENDING THE FUTURE LAND USE ELEMENT OF THE COMPREHENSIVE PLAN BY AMENDING THE FUTURE LAND USE MAP TO INCORPORATE THE PROVISIONS OF THE SECOND AMENDED NORTH US HIGHWAY 1 INTERLOCAL SERVICE BOUNDARY AGREEMENT BETWEEN THE CITY OF ORMOND BEACH AND THE COUNTY OF VOLUSIA; AUTHORIZING TRANSMITTAL; PROVIDING FOR PUBLIC HEARINGS; PROVIDING FOR CONFLICTING ORDINANCES; AND SETTING FORTH AN EFFECTIVE DATE.

Mr. Steven Spraker, Planning Director, reviewed a PowerPoint presentation and explained the item was a land use amendment to the city’s comprehensive plan based on the Interlocal Service Boundary Agreement (ISBA) that was approved at the December 7, 2021, City Commission meeting. He stated the land use amendment would provide an overall vision of use and the developed units per acre. He explained the land use action proposed would have a decrease of residential units by 422 dwelling units and a decrease of 1,100,000 square feet of non-residential building entitlements. He reviewed the series of actions needed if approved, noting staff recommended approval.

Commissioner Persis inquired if approved would the Commission be required to stick with the number of residential units per acre; whereby, Mr. Spraker stated the item would supply a maximum number and the number of actual units approved could be discussed during the site plan review process.

Commissioner Selby inquired about the southern piece of land; whereby Mr. Spraker stated that property would be addressed during item 8B.

Mayor Partington inquired if the item was reducing the number of units by 529; whereby, Mr. Spraker stated for the entire subdivision that would be correct. Mayor Partington expressed his support of the item.

Mr. Joseph Valerio, 1213 North Side Drive, requested the Commission try to preserve the land and incorporate trees into the design of the property.

Mr. Glen Storch, 420 Nova Road, Daytona Beach, stated he was at the meeting on behalf of the Storch Law Firm representing the property owner for the item. He explained the county would allow a much higher density, noting they promised a lower maximum density. He discussed the transportation analysis based on what the county allowed versus the lowered maximum density. He clarified he was willing to work with the surrounding neighborhoods during the site plan review phase and neighborhood meetings.

Commissioner Littleton moved, seconded by Commissioner Selby, for approval of Ordinance No. 2022-11, on first reading, as read by title only.

Call Vote:	Commissioner Kent	Yes
	Commissioner Persis	Yes
	Commissioner Littleton	Yes
	Commissioner Selby	Yes

Carried. Mayor Partington Yes

Item #8B – Future Land Use Amendment - RidgeHaven

City Clerk Susan C. Dauderis read by title only:

ORDINANCE NO. 2022-12
AN ORDINANCE AMENDING THE FUTURE LAND USE ELEMENT OF THE COMPREHENSIVE PLAN OF THE CITY OF ORMOND BEACH BY AMENDING THE FUTURE LAND USE MAP FOR REAL PROPERTY TOTALING 19.19± ACRES ASSOCIATED WITH THE RIDGEHAVEN PROPOSED SUBDIVISION FROM “LOW INTENSITY COMMERCIAL” (LIC) TO “MEDIUM DENSITY RESIDENTIAL” (MDR); PROVIDING FOR CONFLICT; AUTHORIZING TRANSMITTAL; AND SETTING FORTH AN EFFECTIVE DATE.

Mr. Spraker stated the item was for the southern portion of the property and seeks to change from commercial use to residential use. He reviewed the series of actions needed if approved, noting staff recommended approval.

Commissioner Littleton inquired if the property would have a commercial business due to the location away from United States Highway One; whereby, Mr. Spraker stated it was entitled to but was unsure when or if it would happen.

Mr. Jason Zaniewski, 122 Oak Lane, voiced his concerns regarding the increased traffic and the environment; such as the Ormond Scenic Loop & Trail. He explained his daughter found arrowheads and other artifacts around the Pine Run subdivision, of which he had photographs. He acknowledged the residential growth in the state and noted the number of homes for sale in Ormond Beach from an online search.

Mayor Partington requested Mr. Zaniewski send the photographs to the City Clerk.

Ms. Barbara Schubert, 21 Village Drive, expressed her concerns regarding the wildlife.

Mr. Terry Schubert, 21 Village Drive, indicated his concerns regarding the property including the wildlife and environment.

Mr. Valerio inquired if the 298 units would be built first and requested the smaller southern property be preserved for green space.

Mr. Storch stated logically the site would not be commercial but could have been an apartment complex. He stated the plan was to cluster the density to provide for conservation with native vegetation.

Commissioner Littleton inquired if the item was reducing the non-residential entitlements by 167,000 square feet; whereby, Mr. Spraker confirmed that was accurate.

Commissioner Persis moved, seconded by Commissioner Littleton, for approval of Ordinance No. 2022-12, on first reading, as read by title only.

Call Vote:	Commissioner Persis	Yes
	Commissioner Littleton	Yes
	Commissioner Selby	Yes
	Commissioner Kent	Yes
Carried.	Mayor Partington	Yes

Item #9 – First Reading of Ordinances

Item #9A – Ordinance Calling 2022 Regular City Election

City Clerk Susan C. Dauderis read by title only:

ORDINANCE NO. 2022-13
AN ORDINANCE REGARDING THE OFFICE OF MAYOR AND CITY COMMISSIONERS FOR ZONES 1 THROUGH 4 BY PROVIDING FOR AND CALLING A PRIMARY MUNICIPAL ELECTION OF THE REGISTERED ELECTORS OF THE CITY OF ORMOND BEACH TO BE HELD ON AUGUST 23, 2022; PROVIDING FOR AND CALLING A

REGULAR MUNICIPAL ELECTION OF THE REGISTERED ELECTORS RESIDING IN THE CITY OF ORMOND BEACH TO BE HELD ON NOVEMBER 8, 2022; PROVIDING FOR QUALIFYING AND ELECTION PROCEDURES; ESTABLISHING A DATE FOR TAKING OFFICE; AUTHORIZING THE EXECUTION OF A MEMORANDUM OF UNDERSTANDING FOR SERVICES AND MATERIALS WITH THE COUNTY OF VOLUSIA; PROVIDING FOR SEVERABILITY; AND SETTING FORTH AN EFFECTIVE DATE.

Ms. Susan Dauderis, City Clerk, explained qualifying period would be from June 13, 2022, 12:00 PM through June 17, 2022, 12:00 PM and noted November 15, 2022, would be when the Mayor and Commissioners would be sworn in and take office.

Commissioner Selby moved, seconded by Commissioner Kent, for approval of Ordinance No. 2022-13, on first reading, as read by title only.

Call Vote:	Commissioner Littleton	Yes
	Commissioner Selby	Yes
	Commissioner Kent	Yes
	Commissioner Persis	Yes
Carried.	Mayor Partington	Yes

Item #10 – Second Reading of Ordinances

Item #10A – Code of Ordinances Amendment, Sections 4-3, 15-92, and 15-99

City Clerk Susan C. Dauderis read by title only:

ORDINANCE NO. 2022-08
AN ORDINANCE AMENDING SECTION 4-3, CONSUMPTION IN PUBLIC PLACES; EXCEPTIONS, OF CHAPTER 4, ALCOHOLIC BEVERAGES; AND SECTION 15-92, DEFINITIONS, AND SECTION 15-99, DISPLAY, PROMOTION OR SALE OF ALCOHOLIC BEVERAGES, OF ARTICLE III, SPECIAL USES OF CITY PROPERTY, OF CHAPTER 15, PARKS AND RECREATION, OF THE CODE OF ORDINANCES OF THE CITY OF ORMOND BEACH, TO ALLOW FOR THE SALE AND CONSUMPTION OF ALCOHOLIC BEVERAGES ON CITY PROPERTY PURSUANT TO A WRITTEN AGREEMENT APPROVED BY THE CITY COMMISSION BETWEEN THE CITY OF ORMOND BEACH AND A CIVIC NON-PROFIT ORGANIZATION; REPEALING ALL INCONSISTENT ORDINANCES OR PARTS THEREOF; PROVIDING FOR SEVERABILITY; AND SETTING FORTH AN EFFECTIVE DATE. **(SECOND READING)**

Commissioner Persis moved, seconded by Commissioner Littleton, for approval of Ordinance No. 2022-08, on second reading, as read by title only.

Call Vote:	Commissioner Selby	Yes
	Commissioner Kent	Yes
	Commissioner Persis	Yes
	Commissioner Littleton	Yes
Carried.	Mayor Partington	Yes

Item #10B – Code of Ordinances Amendment, Sections 2-258, 8-4, and 14-98

City Clerk Susan C. Dauderis read by title only:

ORDINANCE NO. 2022-09
AN ORDINANCE AMENDING SECTION 2-258, ADMINISTRATIVE FINES AND LIENS, OF DIVISION 2, ENFORCEMENT PROCESS, OF ARTICLE VII, CODE ENFORCEMENT, OF CHAPTER 2, ADMINISTRATION; SECTION 8-4, UNSAFE BUILDING ABATEMENT, OF ARTICLE I, IN GENERAL, OF CHAPTER 8, BUILDINGS AND CONSTRUCTION REGULATIONS; AND SECTION 14-98, LIENS, OF ARTICLE VIII, SITE MAINTENANCE/NUISANCES, OF CHAPTER 14, OFFENSES, OF THE CODE OF ORDINANCES OF THE CITY OF ORMOND BEACH, TO AMEND THE AUTHORITY FOR THE RELEASE AND SATISFACTION OF LIENS; REPEALING ALL INCONSISTENT ORDINANCES OR PARTS

THEREOF; PROVIDING FOR SEVERABILITY; AND SETTING FORTH AN EFFECTIVE DATE.

Commissioner Littleton moved, seconded by Commissioner Persis, for approval of Ordinance No. 2022-09, on second reading, as read by title only.

Call Vote:	Commissioner Kent	Yes
	Commissioner Persis	Yes
	Commissioner Littleton	Yes
	Commissioner Selby	Yes
Carried.	Mayor Partington	Yes

Item #11 – Reports, Suggestions, Requests

Upcoming Meetings

Ms. Shanahan stated the Impact Fee Workshop would likely be moved and noted the budget workshops on June 7, 2022, and July 19, 2022.

Events

Commissioner Selby reminded citizens that the Ormond Beach MainStreet Celtic Festival would happen on Saturday, April 23, 2022, and Sunday, April 24, 2022, at the Rockefeller Gardens regardless of the weather. He invited citizens to the Vadner Park dedication on April 26, 2022, at 10:00 AM.

Commissioner Persis discussed the Drug Abuse Resistance Education (D.A.R.E.) graduation at Pathways Elementary School and expressed her support of the program, students and Ormond Beach Police Officers involved.

Commissioner Littleton thanked the Commission and staff for the well wishes towards the birth of his daughter.

Low Impact Development

Commissioner Persis discussed the low impact development the city encourages but requested staff look into requiring it. She stated she would like to see increased buffers and tree requirements.

River Bend Tax Litigation

Mayor Partington addressed the information regarding the tax litigation at the airport and noted the Department of Revenue issued a memorandum explaining what applicable tax law was in the state of Florida, noting the fundamental legal principal was public money cannot be used to pay a private debt. He stated he would not allow tax payers to pay those taxes.

Item #12 – Adjournment

The meeting was adjourned at 8:03 p.m.

APPROVED: May 3, 2022

BY: _____
Bill Partington, Mayor

ATTEST:

Susan Carroll Dauderis,
City Clerk



CITY OF ORMOND BEACH

City Manager • 22 S. Beach Street • Ormond Beach • Florida • 32174 • (386) 676-3200 • Fax (386) 676-3384

CITY MANAGER MEMORANDUM

To: The Honorable Mayor Partington and City Commissioners

Through: Joyce A. Shanahan, City Manager

From: Steven Spraker, Planning Director

Date: May 3, 2022

Subject: 348 Nottingham Street, Partial Drainage Easement Release

Commission Goal: Community Development - Other

Introduction

This is a request submitted by Gregory Carlock, property owner of 348 Nottingham Street, for a partial easement release on the west side of the property legally described per Exhibit A. This request is being made in order to construct a paver patio with a screen enclosure, approximately 17' by 12' on the back of the house.

Background

The subject property is part of the Chelsea Place Phase III subdivision. The lot is conforming to the Planned Residential Development (PRD) zoning designation as approved June 7, 2016. As part of the plat recorded in 2017, there is a twenty (20') foot drainage easement along the west lot line of the property dedicated to the Chelsea Place at Ormond Beach Homeowners Association. The property owners are requesting a portion of the twenty (20') foot drainage easement be vacated to construct a paver patio with a screen enclosure in the back of the existing home.

Discussion

All other easements along the property's boundaries will be maintained if the requested drainage easement vacation is approved. As part of the easement release request, the property owner has provided a letter of no objection from the potentially affected Chelsea Place Homeowners Association. Additionally, the City's Site Plan Review Committee has reviewed the proposed easement vacation and has no objections to the request. In summary, there are no objections to the requested partial easement vacation.

Budget Impact

There is no budget impact to this request.

Citizen Impact

There is no citizen impact associated with this request.

Recommendation

It is recommended that the City Commission approve a partial drainage easement release as legally described per Exhibit A, Sheet 2 of 2 for the property located at 348 Nottingham Street, to allow the construction of a new paver patio with a screen enclosure.

Attachments:

- 22-60 348 Nottingham St Partial Drainage Easement Release (P22-0051G) (PDF)
- 348 Nottingham Street - Quitclaim Deed - Partial Drainage Easement Release (PDF)
- 348 Nottingham Street - Exhibit A (PDF)
- 348 Nottingham St Location Map (PDF)
- 348 Nottingham easement release app (PDF)
- 348 Nottingham Warranty Deed (PDF)
- Chelsea Place HOA letter of no object (PDF)

REVIEWED BY:


Kelly McGuire, Finance Director 4/20/2022


Claire Whitley, Assistant City Manager 4/25/2022

APPROVED BY:


Joyce A. Shanahan, City Manager 4/27/2022

RESOLUTION NO. 2022-60

A RESOLUTION AUTHORIZING THE EXECUTION OF A QUITCLAIM DEED IN FAVOR OF GREGORY WILLARD AND CATHERINE RENEE CARLOCK RELEASING A PORTION OF A TWENTY-FOOT (20.0') DRAINAGE EASEMENT LOCATED ALONG THE REAR PROPERTY OF LOT 156, CHELSEA PLACE, PHASE III; PROVIDING FOR RECORDATION; AND SETTING FORTH AN EFFECTIVE DATE.

BE IT RESOLVED BY THE CITY COMMISSION OF THE CITY OF ORMOND BEACH, FLORIDA, THAT:

SECTION ONE. The Mayor and the City Manager are hereby authorized and directed to execute that Quitclaim Deed in favor of Gregory Willard and Catherine Renee Carlock, a copy of which is attached hereto and incorporated herein by reference, for the purpose of releasing a portion of a twenty-foot (20.0') drainage easement in the rear yard of the property described therein for drainage purposes, said property being commonly located at 348 Nottinghill Street, Volusia County Parcel ID Number 4230-16-00-1560.

SECTION TWO. The City Clerk is hereby directed to record a certified copy of this Resolution and the executed Quitclaim Deed in the public records of Volusia County, Florida.

SECTION THREE. This Resolution shall take effect immediately upon its adoption.

APPROVED AND AUTHENTICATED this 3rd day of May, 2022.

BILL PARTINGTON
Mayor

ATTEST:

SUSAN CAROLL DAUDERIS
City Clerk

THIS INSTRUMENT PREPARED BY:

RANDAL A. HAYES, ESQUIRE

Florida Bar No. 0747157

173 South Beach Street

Post Office Box 277

Ormond Beach, FL 32175

386-676-3217

Location: 348 Nottingham Street, Ormond Beach, FL 32174

A Portion of Parcel ID #: 4230-16-00-1560

QUITCLAIM DEED

THIS QUITCLAIM DEED, executed this 3rd day of May 2022, by the **CITY OF ORMOND BEACH**, a Florida municipal corporation, whose post office address is 22 South Beach Street, Ormond Beach, Florida 32174 ("the Grantor"), to **GREGORY WILLARD AND CATHERINE RENEE CARLOCK**, whose post office address is 348 Nottingham Street, Ormond Beach, Florida 32174 ("the Grantee"):

WHEREAS, the Grantee is the owner of certain land by virtue of that Warranty Deed dated March 15, 2019 and recorded at Book 7669, Page 4781 of the Public Records of Volusia County, Florida, said land being legally described within as follows: "LOT 156, CHELSEA PLACE PHASE III, ACCORDING TO THE MAP OR PLAT THEREOF RECORDED AT PLAT BOOK 58, PAGES 11 THROUGH 17 INCLUSIVE, PUBLIC RECORDS OF VOLUSIA COUNTY, FLORIDA."

WITNESSETH, that the Grantor, for and in consideration of the sum of \$10.00, in hand paid by the Grantee, the receipt whereof is hereby acknowledged, does hereby remise, release and quitclaim unto the Grantees forever, all of the right, title, interest, claim and demand which the Grantor has in and to a portion of the twenty-foot (20.0') drainage easement at the rear yard property line, a portion of that real property described and depicted on Exhibit "A" attached hereto and incorporated herein by reference (348 Nottingham Street, Ormond Beach, Volusia County, Florida [Parcel ID # 4230-16-00-1560]).

THE PURPOSE OF THIS QUITCLAIM DEED IS TO RELEASE ANY INTEREST WHICH THE CITY OF ORMOND BEACH MAY HAVE IN AND TO THE USE OF THE AFOREDESCRIBED REAL PROPERTY FOR A PORTION OF THE TWENTY (20') FOOT DRAINAGE EASEMENT AT THE REAR YARD PROPERTY LINE.

TO HAVE AND TO HOLD the same together with all and singular the appurtenances thereunto belonging or in any wise appertaining, and all the estate, right, title, interest, lien, equity and claim whatsoever of the Grantor, either in law or equity, to the only proper use, benefit and behoof of the Grantee forever.

IN WITNESS WHEREOF, the Grantor has signed and sealed these presents the day and year first above written.

**Signed, sealed and delivered
in presence of:**

CITY OF ORMOND BEACH, a Florida
municipal corporation

Print Name: _____

By: _____
BILL PARTINGTON, Mayor
22 South Beach Street
Ormond Beach, FL 32174

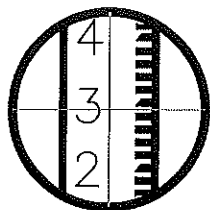
Print Name: _____

Attest: _____
JOYCE A. SHANAHAN, City Manager
22 South Beach Street
Ormond Beach, FL 32174

STATE OF FLORIDA)
)ss:
COUNTY OF VOLUSIA)

The foregoing instrument was acknowledged before me this 3rd day of May, 2022, by **BILL PARTINGTON** and **JOYCE A. SHANAHAN**, as the Mayor and the City Manager, respectively, of the City of Ormond Beach who are personally known to me.

NOTARY PUBLIC State of Florida-at-large
Official Seal



SLIGER & ASSOCIATES, INC.

PROFESSIONAL LAND SURVEYORS

LICENSED BUSINESS CERTIFICATION NO. 3019

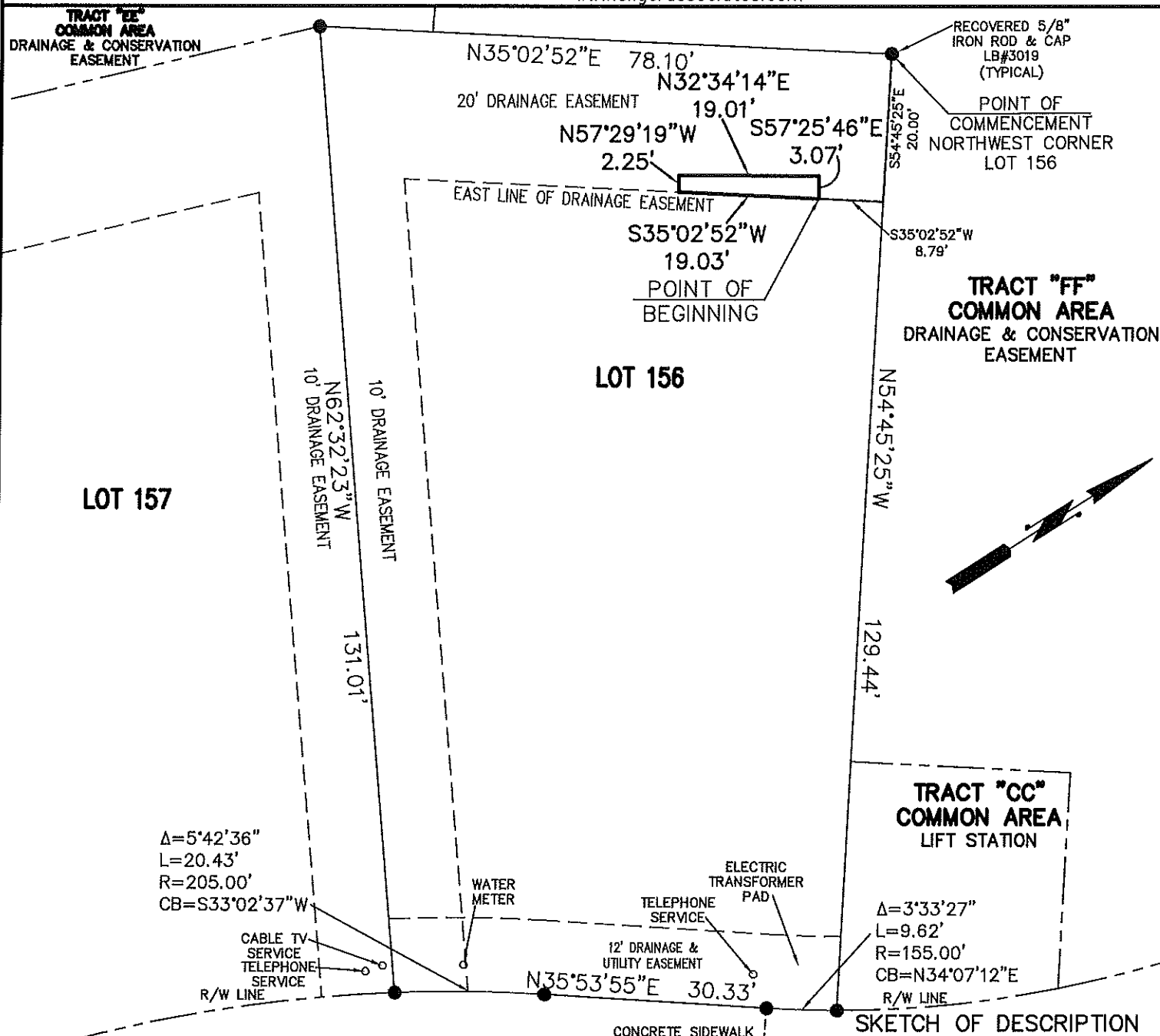
3921 NOVA ROAD

PORT ORANGE, FL. 32127

(386) 761-5385

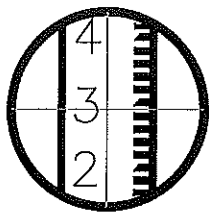
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www.sligerassociates.com



FOR: GREGORY CARLOCK
DESCRIPTION: A PORTION OF LOT 156,
CHELSEA PLACE PHASE III, AS RECORDED IN
MAP BOOK 58, PAGE 11-17 OF THE PUBLIC
RECORDS OF VOLUSIA COUNTY, FLORIDA. SEE
SHEET 2 OF 2 FOR FULL DESCRIPTION
ADDRESS: 348 NOTTINGHILL STREET

SHEET 1 OF 2



SLIGER & ASSOCIATES, INC.

7.A.c

PROFESSIONAL LAND SURVEYORS

LICENSED BUSINESS CERTIFICATION NO. 3019

3921 NOVA ROAD
PORT ORANGE, FL. 32127
(386) 761-5385Copyright © 2022 Sliger & Associates, Inc.
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SURVEYORS NOTES

1. NOTICE: THERE MAY BE ADDITIONAL RESTRICTIONS AND/OR OTHER MATTERS THAT ARE NOT SHOWN ON THIS PLAT OF SURVEY/SKETCH OF DESCRIPTION THAT MAY BE FOUND IN THE PUBLIC RECORDS OF THIS COUNTY. THIS SURVEY/SKETCH OF DESCRIPTION PREPARED WITHOUT BENEFIT OF AN ABSTRACT.
2. DIMENSIONS ARE SHOWN IN FEET AND DECIMALS THEREOF.
3. BEARING STRUCTURE BASED ON RECORD PLAT WITH THE BEARING ON SOUTHERLY LINE OF LOT 156 BEING N62°32'23"W.
4. UNDERGROUND FOUNDATIONS, IF ANY, NOT LOCATED.
5. ELEVATIONS REFER TO N.G.V.D. OF 1929, PER U.S.C. & G.S. BENCHMARK 1-95 71 A-30 HAVING A PUBLISHED ELEVATION OF 43.291 FEET.
6. THIS PROPERTY IS LOCATED IN FLOOD INSURANCE RATE MAP (F.I.R.M.) ZONES "X" PER F.E.M.A. CASE 17-04-59964. THE LOCATION OF THE PROPERTY IS DETERMINED BY SCALING FROM F.I.R.M. MAP NO. 12127C0213J. MAP EFFECTIVE DATE: FEB. 19, 2014. APPROXIMATE SCALE: 1"= 500'.
7. "NOT VALID WITHOUT THE SIGNATURE AND THE ORIGINAL RAISED SEAL OF A FLORIDA LICENSED SURVEYOR AND MAPPER."
8. UNLESS OTHERWISE SHOWN, RECORD DISTANCES AND DIRECTIONS AND FIELD MEASURED DISTANCES AND DIRECTIONS ARE THE SAME.

NOTE:

NOT VALID WITHOUT THE SIGNATURE AND THE ORIGINAL RAISED SEAL OF A FLORIDA LICENSED SURVEYOR AND MAPPER.

DESCRIPTION: A PORTION OF LOT 156, CHELSEA PLACE PHASE III, MORE PARTICULARLY DESCRIBED; COMMENCE AT THE NORTHWEST CORNER OF SAID LOT 156, THENCE S54°45'25"E A DISTANCE OF 20.00 FEET ALONG THE NORTH PROPERTY LINE OF SAID LOT 156 TO THE EAST LINE OF A DRAINAGE EASEMENT; THENCE S35°02'52"W ALONG SAID EAST LINE, A DISTANCE OF 8.79 FEET TO THE POINT OF BEGINNING. THENCE CONTINUE S35°02'52"W ALONG SAID EAST LINE, A DISTANCE OF 19.03 FEET; THENCE DEPARTING SAID EAST LINE, N57°29'19"W A DISTANCE OF 2.25 FEET; THENCE N32°34'14"E A DISTANCE OF 19.01 FEET; THENCE S57°25'46"E A DISTANCE OF 3.07 FEET BACK TO THE EAST LINE OF SAID DRAINAGE EASEMENT AND THE POINT OF BEGINNING.

PLAT PREPARED FOR THE FOLLOWING: (ONLY THE LAST DATE IS CERTIFIED ON SEALED COPY)

THIS PLAT OF SURVEY IS CERTIFIED TO AND PREPARED FOR THE SOLE AND EXCLUSIVE BENEFIT OF THE ENTITIES AND/OR INDIVIDUALS LISTED BELOW, ON THE MOST CURRENT DATE, AND SHALL NOT BE RELIED UPON BY ANY OTHER ENTITY OR INDIVIDUAL WHOMSOEVER.

TYPE OF SURVEY	CERTIFIED TO	SURVEY DATE	JOB NUMBER
SKETCH OF	GREGORY CARLOCK	FEB. 15, 2022	22--0247
DESCRIPTION	NOT CERTIFIED TO ANY ENTITIES AND/OR INDIVIDUALS OTHER THAN THOSE LISTED ABOVE.		

SHEET 2 OF 2 VALID WITH SIGNATURE & EMBOSSED SEAL ONLY EXCEPT THOSE WITH AN ELECTRONIC SEAL

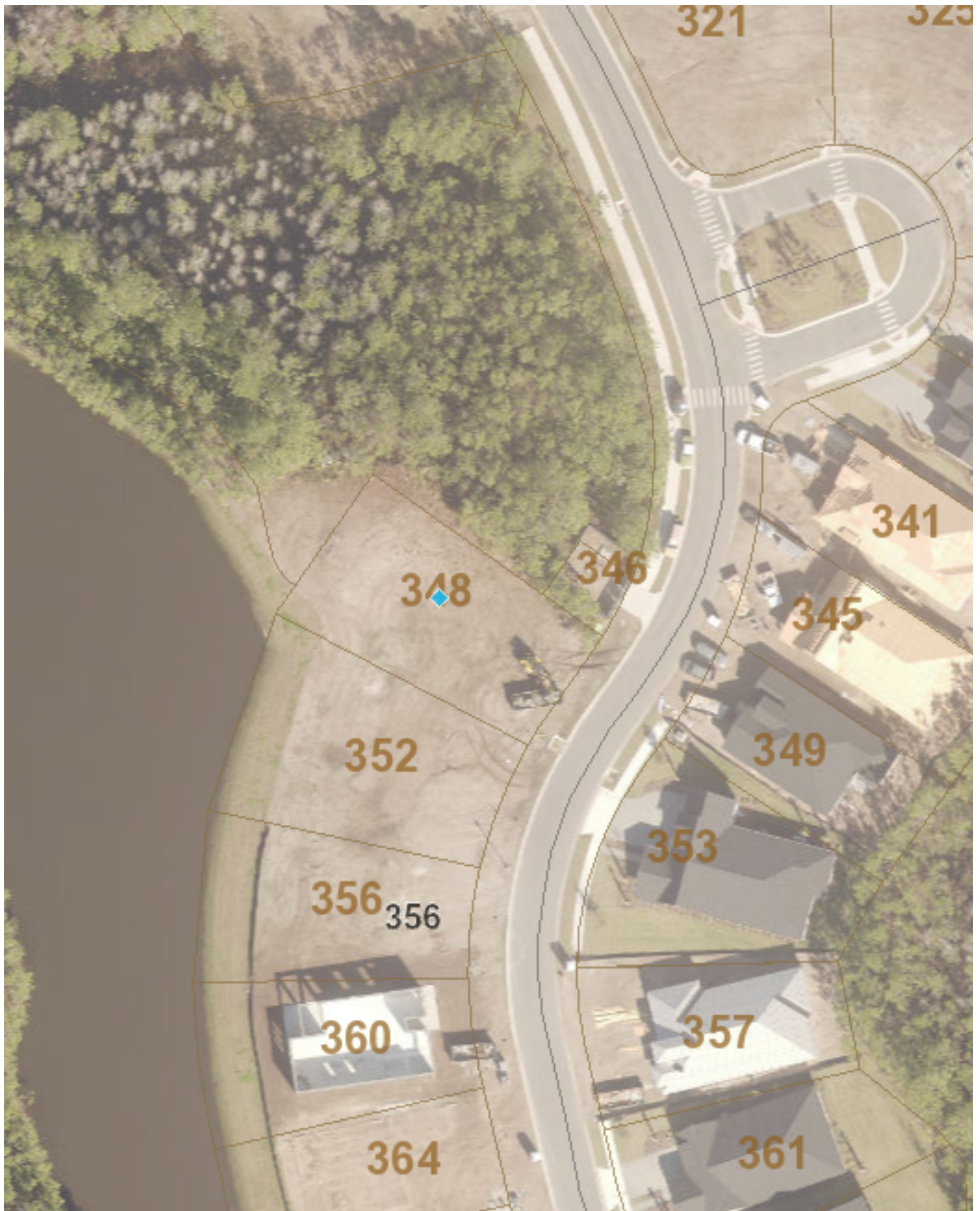
FOR: GREGORY CARLOCK

	DATE	JOB NO.	P.C.	DRW.	CHECKED BY
SKETCH OF DESCRIPTION	FEB. 15, 2022	22-0247		MB	JR
BOUNDARY SURVEY					
TOPOGRAPHIC SURVEY					
FOUNDATION LOCATED					
FINAL IMPROVEMENTS					
RECERTIFICATION					
PROPOSED HOUSE LOCATION					

I HEREBY CERTIFY THAT THIS PLAT MEETS THE STANDARDS OF PRACTICE SET FORTH BY THE FLORIDA BOARD OF PROFESSIONAL SURVEYORS AND MAPPERS IN CHAPTER 5J-17.05, FLORIDA ADMINISTRATIVE CODE, PURSUANT TO SECTION 472.027, FLORIDA STATUTES.

Clyde O Van
KleeckDigitally signed by Clyde O
Van Kleeck
Date: 2022.02.28 10:23:39
-05'00'J.E. ZAPERT, P.L.S. NO. 4046
JEFF BARNES, PSM NO. 5576
C.O. VAN KLEECK JR.,
MICHAEL S. MURPHY, P.

Packet Pg. 20



LOCATION MAP
348 Nottinghill St.





Updated October 1, 2021

City of Ormond Beach Site Plan Review Committee Application

Planning Department

22 South Beach Street, Room 104, Ormond Beach, FL 32174

(386) 676-3238 www.ormondbeach.org comdev@ormondbeach.org

INSTRUCTIONS

Submittals to the Site Plan Review Committee require either a (1) pre-application meeting or a (2) pre-application waiver. Please complete this application and submit to comdev@ormondbeach.org to receive an invitation to upload to Project Dux. Please upload all site plans (individual sheets of the site plan sheets) and related documents. Assistance is available by e-mailing comdev@ormondbeach.org or calling (386) 676-3238.

PROJECT INFORMATION

Project Type:*	Easement release for patio		*Complete fee sheet (page 3)
Project Name:	Gregory Carlock		
Project Address:	348 Nottingham St. Ormond Beach, FL 32174		
Volusia County parcel number(s):			
Description:	Addition of a 17' x 12' paver patio with screen on the back of my house. A small portion of the project extends into a drainage easement.		
Pre-application date:		Pre-application waiver granted:	

PROJECT COORDINATOR

Name:	Serene Pavaas
Address:	
City, State, Zip code:	
Telephone:	
E-mail:	

APPLICANT INFORMATION

Same as project coordinator	☐	Same as property owner	☒
Name:			
Address:			
City, State, Zip code:			
Telephone:	361 290-7281		
E-mail:	gcarlock@netzero.net		

PROPERTY OWNER

Same as project coordinator	☐	Same as property owner	☐
Name:	GREGORY W CARLOCK		
Address:	348 NOTTINGHILL ST		
City, State, Zip code:	ORMOND BEACH, FL 32174		
Telephone:	(386) 290 7281		
E-mail:	Gcarlock@netzero.net		

VIEW ONLY ACCESS TO PROJECT DOX (Provides viewing access to the project)

Name:		E-mail	
Name:		E-mail	
Name:		E-mail	
Name:		E-mail	

CERTIFICATION

By submitting this application, I hereby certify that the information provided is true and correct to the best of my knowledge and that I am aware of the application submittal requirements and the review process for this application. I authorize Ormond Beach staff to access the subject property during typical business hours to review the site plan application.

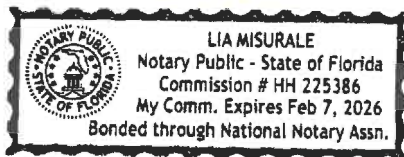
Signature: _____

Gregory W. Carlock

STATE OF FLORIDA

COUNTY OF Volusia

The forgoing instrument was acknowledged before me this 21st day of March, 2022, by Gregory W. Carlock as owner (title*) for 348 Nottinghill St. (name of corporation*), who (☒) provided driver license as identification, or () who is personally known to me.



Lia Misurale
 Notary Public, State of Florida
 My Commission Expires:

* If you are executing this document on behalf of a corporation please complete the spaces with your title and the name of your company as indicated.



Updated October 1, 2021

City of Ormond Beach Site Plan Review Committee Application Fees

Planning Department

22 South Beach Street, Room 104, Ormond Beach, FL 32174

(386) 676-3238

www.ormondbeach.orgcomdev@ormondbeach.org

INSTRUCTIONS

Site plan submittals require the submittal of applications per Ordinance 2021-30, codified in Section 8-10, Application processing fees, of the Code of Ordinances. All applications shall calculate the fees which shall be verified by city staff. **Assistance is available by e-mailing comdev@ormondbeach.org or calling (386) 676-3238.**

SITE PLAN FEES (Ordinance 2021-30 - Section 8-10 of Code of Ordinances)

Check all that apply	SPRC reviews	Fee	Applicant determined fees	Staff verification of fees
☐	Concept plan (comment review)	\$100		
☐	Downtown CRA, initial application	\$300		
☐	Downtown CRA, minor modification	\$600		
☒	Easement Release	\$200		
☐	Initial application	\$2,000		
☐	Lot Split	\$350		
☐	Minor modification (existing buildings)	\$700		
☐	Neighborhood meeting newspaper advertisement	\$350		
☐	Outside of the city utility connection	\$600		
☐	Resubmittals	\$300 (after 3rd submittal)		
☐	Site work only (no new building square footage)	\$300		
☐	Surface water management plan	\$350		
☐	Traffic Impact Analysis	\$3,000 deposit, actual cost of review		
☐	Other:			
TOTALS:				

NOTES

1. Checks are payable to the City of Ormond Beach.
2. Public hearing applications shall have separate application fees.
3. Site plan fees include landscape and wetland reviews.
4. Application fees are due with the submittal of the site plan application.



Updated October 1, 2021

City of Ormond Beach Site Plan Review Committee Project Information

Planning Department

22 South Beach Street, Room 104, Ormond Beach, FL 32174

(386) 676-3238

www.ormondbeach.orgcomdev@ormondbeach.org

INSTRUCTIONS

Please complete key project information regarding the SPRC application. Items that are not applicable can be marked as NA. Assistance is available by e-mailing comdev@ormondbeach.org or calling (386) 676-3238.

PLANNING

Land Use:		Zoning:	
Property acreage:		Phasing proposed?:	
Existing building square footage:		New building square footage:	
Parking required:		Parking provided:	
Impervious area (acres):		Previous area (acres):	
Water meter size:		Irrigation source:	

CONCURRENCY

Proposed project average daily trips: ⁽¹⁾	
Proposed water generation: ⁽²⁾	
Proposed sewer generation: ⁽³⁾	
Note 1:	Trip generation from the ITE Trip generation manual. Daily trip projects over 1,000 require traffic impact analysis.
Note 2:	Residential, water = 243 gallons per day per unit. Commercial/Industrial water = (SF/100) X 15 gallons of water per day.
Note 3:	Residential, sewer = 281 gallons per day per unit. Commercial/Industrial sewer = Water gallons per day X 85% of water generation.

PROPERTY CHARACTERISTICS

Floodplain designation:		Fill in the floodplain (acres):	
Wetlands on site? (yes/no):		Acres of wetlands on-site:	
Wetland impacts (acres):			
Type of wetland mitigation:			
Wooded site? (yes or no) :			
If wooded site, calculated required natural area (project site X 15%):			
If wooded site, natural area provided:			

Record and Return to:
Southern Title Holding Company, LLC
2335 Beville Road
Daytona Beach, FL 32119

Prepared by:
Shirley Balbuzoski
Southern Title Holding Company, LLC
2335 Beville Road
Daytona Beach, FL 32119

File Number: OB183008

(Space Above This Line For Recording Date)

CORPORATE WARRANTY DEED

This Indenture made 3/19/19 A.D. between CP and SP Residential Land, LLC., a Florida Limited Liability Company whose post office address is: 2379 Beville Road, Daytona Beach, Florida 32119, a corporation existing under the laws of the State of Florida, Grantor and Gregory Willard Carlock and Catherine Renee Carlock, Husband and Wife, whose post office address is: 348 Nottingham Street, Ormond Beach, Florida 32174, Grantee,

Witnesseth, that the said Grantor, for and in consideration of the sum of TEN AND NO/100 DOLLARS (\$10.00) to it in hand paid by the said Grantee, the receipt whereof is hereby acknowledged, has granted, bargained and sold to the said Grantee forever, the following described land, situate, lying and being in the County of Volusia, State of Florida, to wit:

LOT 156, CHELSEA PLACE PHASE III, ACCORDING TO THE MAP OR PLAT THEREOF RECORDED AT PLAT BOOK 58, PAGES 11 THROUGH 17 INCLUSIVE, PUBLIC RECORDS OF VOLUSIA COUNTY, FLORIDA.

Subject to taxes for the current year, covenants, restrictions and easements of record, if any.

Parcel Identification Number: 423016001560

And the said Grantor does hereby fully warrant the title to said land, and will defend the same against the lawful claims of all persons whomsoever.

In Witness Whereof, the said Grantor has caused this instrument to be executed in its name by its duly authorized officer and caused its corporate seal to be affixed the day and year first above written.

Signed and Sealed in Our Presence:

Witness:

Seller:

Kelvin Caldwell
Witness Signature
Witness Name: Kelvin Caldwell

CP and SP Residential Land, LLC
a Florida limited liability company
By ICI Homes Residential Holdings, LLC
a Florida limited liability company
its sole member.

Jennifer M. Hayden
Witness Signature
Witness Name: Jennifer M. Hayden

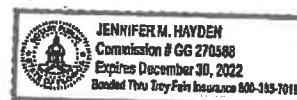
By: Kimberly A. Newkirk
Assistant Vice President

(Corporate Seal)

State of Florida
County of Volusia

The foregoing instrument was acknowledged before me this 3/19/19 by Kimberly A. Newkirk, Assistant Vice President of BY ICI Homes Residential Holdings, LLC., a Florida Limited Liability Company, its sole member CP and SP Residential Land, LLC., a Florida Limited Liability Company, on behalf of the corporation, she is personally known to me or () has produced Driver(s) License as identification.

Jennifer M. Hayden
NOTARY PUBLIC
My Commission Expires: 12/30/2022





Chelsea Place
AT ORMOND BEACH
HOMEOWNERS ASSOCIATION, INC.
1190 Pelican Bay Drive, Daytona Beach, Florida 32119

March 13, 2022

Noel Eaton
Senior Planner
22 S Beach Street
Room 104
Ormond Beach, FL 32174

Re: 348 Nottinghill Street, Ormond Beach, FL

Dear Mr. Eaton,

In response to your request for a release of the common area drainage easement at 348 Nottinghill Street, Ormond Beach, located in the community of HOA, I hereby grant the following:

The release of an approximately 2 foot deep by 18 foot wide area located in the Northwest corner of the rear of the house to the owner. In conjunction with this, the owner will now be responsible for any drainage issues resulting from the modification of this area.

Sincerely,

Robert Henin, President, Chelsea Place HOA



CITY OF ORMOND BEACH

City Manager • 22 S. Beach Street • Ormond Beach • Florida • 32174 • (386) 676-3200 • Fax (386) 676-3384

CITY MANAGER MEMORANDUM

To: The Honorable Mayor Partington and City Commissioners

Through: Joyce A. Shanahan, City Manager

From: Robert Carolin, Leisure Services Director

Date: May 3, 2022

Subject: The South Ormond Neighborhood Center Outdoor Basketball Court Agreement

Commission Goal: Quality of Life - Other

Introduction

This is a request for the City Commission to enter into an agreement with Holub Development, for the purpose of constructing an outdoor basketball court at the South Ormond Neighborhood Center and update all the light fixtures throughout the park and the parking lot to LED energy efficient fixtures.

Background

At the April 5, 2022 meeting, the Holub Development's proposal to build an outside basketball court and update all the lighting throughout the park and parking lot at the South Ormond Neighborhood Center was brought to the City Commission as a discussion item. The City Commission moved and approved the basketball court and lighting improvements unanimously.

Discussion

Mr. Holub and Holub Development will donate the design and installation of a new outdoor basketball court at South Ormond Neighborhood Center, along with updating all light fixtures throughout the park and parking lot to LED energy efficient fixtures.

Citizen Impact

The new outdoor basketball court will be enjoyed by the residents and visitors of Ormond Beach.

Budget Impact

There will be no impact on the budget.

Recommendation

It is staff's recommendation that the City Commission enter into an agreement with Holub Development to build an outdoor basketball court and update all light fixtures throughout the park and parking lot.

Attachments:

- 22-61 SONC basketball ct Holub (P22-0052G) (PDF)
- Holub Development-SONC BB court (P22-0052G) (PDF)
- 01 Site Layout & grading (PDF)
- 02 DETAILS (PDF)
- 03 DETAILS (PDF)

REVIEWED BY:


Kelly McGuire, Finance Director 4/20/2022


Claire Whitley, Assistant City Manager 4/26/2022

APPROVED BY:


Joyce A. Shanahan, City Manager 4/27/2022

RESOLUTION NO. 2022-61

A RESOLUTION AUTHORIZING THE EXECUTION OF AN AGREEMENT WITH HOLUB DEVELOPMENT, LLC REGARDING THE CONSTRUCTION OF AN OUTDOOR BASKETBALL COURT AND INSTALLATION OF NEW LIGHTING AT THE SOUTH ORMOND NEIGHBORHOOD CENTER; AND SETTING FORTH AN EFFECTIVE DATE.

WHEREAS, Paul Holub of Holub Development, LLC (“Holub”) desires to construct an outdoor basketball court and install new lighting at the South Ormond Neighborhood Center property at no cost to the City, and then donate and convey the basketball court and lighting to the City upon its completion (“the Project”), and

WHEREAS, the City desires to enter into an agreement with Holub for the Project, a copy of said Agreement being attached hereto and incorporated herein by reference, and

WHEREAS, the City Commission concurs with the foregoing recommendations, now therefore,

BE IT RESOLVED BY THE CITY COMMISSION OF THE CITY OF ORMOND BEACH, FLORIDA, THAT:

SECTION ONE. The Mayor and the City Manager are hereby authorized and directed to execute an Agreement between the City and Holub Development, LLC regarding the construction of an outdoor basketball court and installation of new lighting at the South Ormond Neighborhood Center property.

SECTION TWO. This Resolution shall take effect immediately upon its adoption.

APPROVED AND AUTHENTICATED this 3rd day of May, 2022.

BILL PARTINGTON
Mayor

ATTEST:

SUSAN CARROLL DAUDERIS
City Clerk

AGREEMENT

THIS AGREEMENT is made and entered into by and between the **City of Ormond Beach** (“City”), a Florida municipal corporation, 22 South Beach Street, Ormond Beach, Volusia County, Florida and **Holub Development, LLC** (“Contractor”), 1185 W. Granada Boulevard, Suite 12, Ormond Beach, FL 32174, and in consideration of the mutual promises and covenants herein contained, the receipt and sufficiency of which are hereby acknowledged, the parties hereby agree to the following:

WHEREAS, the City desires to enter into this agreement with Contractor for the purpose of constructing an outdoor basketball court installing new lighting at the South Ormond Neighborhood Center, (“the Project”), and

WHEREAS, Contractor will be responsible for bearing all costs of the Project, which is intended to be donated to the City upon completion, and

WHEREAS, the Project will not require any matching funds from the City,

NOW THEREFORE, in consideration of the mutual promises made herein, and for other good and valuable consideration, receipt of which is hereby acknowledged by each party, the parties, intending to be legal bound, hereby agree as follows:

1. **Recitals.** The parties agree that the foregoing recitals are true and correct and are incorporated herein by reference and are part of this Agreement.
2. **Responsibilities of the Respective Parties.**

A) Contractor shall be responsible for the following:

- 1) Complying with the City’s insurance requirements, as well as obtaining and maintaining at Contractor’s sole expense, all applicable licenses, permits and certificates which are necessary to construct the Project; and
- 2) Completing the construction of the Project as depicted on the site plans attached hereto as Exhibit “A”; and
- 3) Constructing the Project in accordance with this agreement and all applicable laws, rules and regulations; and
- 4) Being solely responsible for paying all costs relative to the discharge of its duties under this agreement.

B) City shall be responsible for the following:

- 1) Providing the site upon which the Project will be constructed; and

- 2) Upon the City's final acceptance of the Project, the City shall be responsible for maintenance and repairs to the basketball court and lighting that are not covered by any warranties provided by Contractor.
3. **Term.** This Agreement shall be effective on the date it is last signed by the undersigned parties and shall continue in effect through the completion of the construction of an outdoor basketball court and installation of new lighting at the South Ormond Neighborhood Center, said completion date being reasonably estimated to be 150 days from permit issuance.
4. **Consideration.** The parties agree that the promises, representations, and covenants provided herein constitute good and valuable consideration for entering into this agreement.
5. **Acceptance.** For purposes of Paragraph 2.B)2) above, the City shall accept the Project upon passing final inspection by the City's Chief Building Official or his designee.
6. **Assignment.** The Contractor shall not assign, convey or transfer all or any part of this Agreement, or all or any part of Contractor's interest herein, or all or any part of any interest in the Contractor, without the prior written consent of the City Commission, which consent shall not be unreasonably withheld.
7. **Complete Agreement.** This Agreement, including the provisions set forth in the exhibit attached hereto and incorporated by reference herein, constitutes the entire and complete agreement of the parties, and the promises and covenants herein contained shall survive the life of this Agreement.
8. **Amendment to Agreement.** Any amendment, change, or modification of this Agreement must be in writing and fully executed by both parties.
9. **Notices.** All notices which are required by this Agreement shall be provided to the parties at the following addresses, or such other addresses as may be requested in writing by either party:
- | | |
|--|--|
| <p>City of Ormond Beach
 Joyce Shanahan, City Manager
 (copy to City Attorney)
 22 South Beach Street
 Ormond Beach, FL 32174</p> | <p>Holub Development, LLC
 Paul Holub, Jr.
 1185 W. Granada Blvd., Suite 12
 Ormond Beach, FL 32174</p> |
|--|--|
10. **Sovereign Immunity.** The City expressly retains and reserves all rights, privileges, immunities, and benefits of sovereign immunity. This provision shall be construed broadly in favor of the City.
11. **Venue.** The terms and conditions of this Agreement shall be construed and enforced under the laws of the State of Florida. Any action or proceeding, either at law or in equity,

regarding this Agreement shall be brought in the circuit court, Seventh Judicial Circuit in and for Volusia County, Florida. Venue in any other jurisdiction or forum, whether it be any other circuit, state or federal venue, is hereby expressly waived.

12. **Waiver of Conditions.** No waiver by the City of any condition or breach of performance by the Contractor shall constitute an irrevocable, continuing, or subsequent waiver by the City of the same condition or breach of performance, or of any other condition or other breach of performance.
13. **Severability.** If any part of this Agreement is declared to be unenforceable or void by a court of competent jurisdiction, the remaining parts of the Agreement shall remain in full force and effect as long as the services to be provided by the Contractor are not materially affected, altered or impaired as a result of said judicial declaration.
14. **Conflicting Provisions.** In the event of any conflict between the provisions of this Agreement and any exhibits, the provision most favorable to the City shall control and shall be given full force and effect.
15. **Loss Control/Safety Measures.** Precaution shall be exercised at all times by Contractor for the protection of all persons and property, and Contractor shall comply with all applicable laws, regulations and ordinances related to safety and health, and shall take prompt action when loss control/safety measures are reasonably necessary.
16. **Indemnification.** The City, its agents, employees, and officials, both elected and appointed, shall be indemnified and held harmless by Contractor from any and all liabilities, claims, and causes of action which may arise out of the willful, negligent, or unlawful acts or omissions of the Contractor or its subcontractors in the performance of this Agreement, unless such claims are a result of the City's sole negligence, as determined by the final decision maker of such claim.
17. **Duty to Defend.** The Contractor shall defend all suits and administrative actions, including all appellate proceedings, brought against the City, its agents, employees, and officials, both elected and appointed and shall pay all attorneys' fees and costs associated with the City's legal defense, as may be selected by the City, arising from all claims and causes of action described in Section 16 above. Such payment on behalf of the City shall be in addition to any and all other legal or equitable remedies available to the City and shall not be considered to be the City's exclusive remedy.
18. **Contractor's Insurance.** The Contractor shall purchase and maintain for the entire life of this Agreement, including any and all approved time extensions, until its final acceptance by the City, such insurance as will protect the Contractor from claims under Workers' Compensation, disability benefit laws or other similar employee benefit laws; from claims for damages because of bodily injury, occupational sickness or disease, or death of Contractor's employees; from claims insured by usual or unusual injury liability coverage; from claims or injury to or destruction of tangible property and from claims insured by usual Commercial General Liability coverage. This includes loss of use resulting

therefrom, any or all of which may arise out of the Contractor's operations under this Agreement, whether such operations be by the Contractor, or by any Subcontractor, or by anyone directly or indirectly employed by any of them or for whose acts any of them may be legally liable. The Contractor's deductibles/self-insured retentions shall be disclosed to the City and may be disapproved by the City, and may be reduced or eliminated at the sole discretion of the City. The Contractor is responsible for the amount of any deductible or self-insured retention.

19. **Types of Insurance and Limits of Liability**

The insurance required herein shall be written for not less than any limits of liability specified and incorporated as part of the Contract Documents or as required by law, whichever is greater, and shall include and not limited to the following:

- (a) Workers' Compensation Insurance in statutory limits for the State of Florida with Coverage B - Employer's Liability limits of not less than:

\$100,000 Each Accident Bodily Injury by Accident
\$100,000 Each Employee Bodily Injury by Disease
\$500,000 Policy Limit Bodily Injury by Disease

Certificate of Exemptions. If the contractor has a State-issued Certificate of Exemption, the contractor may provide a copy in place of the requirement for coverage. However, if the contractor subcontracts or retains any other person or entity to perform under the contract, that person or entity must provide proof of workers' compensation insurance as required by law or provide a Certificate of Exemption.

It is the intent of the City that any individual who either contracts directly with the city or performs any work on behalf of any such contractor be covered by workers' compensation insurance or have a valid exemption from said coverage.

(If applicable to the Project, the policy must include benefits under the United States Longshoremen's and Harbor Workers' Act and the Jones Act coverage--all maritime coverage.)

- (b) Commercial General Liability Insurance shall be written on a coverage form as broad as Insurance Services Office (ISO) Form CG 00 01 11 85, or its successor form, including but not limited to the following coverage (any deviation shall be noted on the Certificates of Insurance):

- a. Premises, Operations, Products and Completed Operations
- b. Owners' & Contractors' Protective
- c. Products & Completed Operation
- d. Explosion, Collapse & Underground Conditions
- e. Blanket Contractual Liability

- f. Personal Injury Liability
- g. Broad Form Property Damage Endorsement, including Completed Operations
- h. Independent Contractors
- i. Watercraft--Owned and Non-Owned (if applicable, endorsement must be included in General Liability policy or a separate Protection & Indemnity Policy must be written)
- j. Pollution Liability (if applicable)
- k. Asbestos Abatement (if applicable)
- l. Fire Damage Liability

Certain coverage outlined above may not be required if they do not relate to the Project, as may be determined at the sole discretion of the City.

Commercial General Liability Coverage shall be written on an occurrence basis and the limits shall be no less and not limited to the following amounts:

Limits (not less than)

\$1 Million Each Occurrence
 \$2 Million General Aggregate
 \$1 Million Aggregate Products & Completed Operations

NOTE: Commercial General Liability Coverage must be purchased on either a project basis (separate policy per contract) or an endorsement allocating an aggregate limit per location or specified project.

- (c) Automobile Liability Insurance is required if an Automobile(s) is used in the performance of the contract.

ISO Symbol 1 (Any Auto), or alternatively a combination of Symbol 2 (Owned Autos), Symbol 8 (Hired Autos), and Symbol 9 (Non-Owned Autos), and limits shall be no less than:

\$1 Million Combined Single Limit for Bodily Injury
 and Property Damage

- (d) Excess Liability

For contracts \$250,000 or greater an Excess Liability Policy of at least but not limited to \$1,000,000 in addition to the scheduled underlying policies for Commercial General Liability, Automobile Liability and Employers' Liability, the Contractor shall also provide an Excess Liability Policy with a maximum self-insured retention not to exceed \$25,0000 per occurrence.

- (e) Builder's Risk

Contractor shall purchase Builder's Risk Insurance for any contracts that are deemed to be vertical construction on an All-Risk policy, and shall also include coverage for wind, hail, and named storm. Limits of coverage shall be at least and not limited to the value of the project.

(f) Professional Liability, Malpractice and/or Errors and Omissions

The Contractor shall purchase and maintain professional liability, malpractice, or errors or omissions insurance with minimum limits of \$1,000,000 per occurrence. If a claims made form of coverage is provided, the retroactive date of coverage shall be no later than the inception date of claims made coverage, unless the prior policy was extended indefinitely to cover prior acts. Coverage shall be extended beyond the policy year either by a supplemental extended reporting period (ERP) of as great a duration as is available, and with no less coverage and with reinstated aggregate limits, or by requiring that any new policy provides a retroactive date no later than the inception date of claims made coverage.

20. Requirements for Certificates of Insurance.

- (a) With the execution of this Agreement, the Contractor shall provide certificates of such insurance acceptable to the City. These certificates and insurance policies shall contain a provision that the coverage under the policies will not be canceled, non-renewed or materially changed until at least **thirty (30)** days' prior written notice of such cancellation, non-renewal or change [except for nonpayment of premium, which shall be **ten (10)** days] has been given to the City. The Contractor shall be required to replace any expired or canceled policies in like amount and coverage to the satisfaction of the City. The Certificate of Insurance shall be the ACORD FORM 25-S (7/90), or its successor form, and shall be made a part of this Agreement.
- (b) New certificates of insurance shall be provided to the City at least fifteen (15) days prior to coverage renewals.
- (c) If requested by the City, the Contractor shall furnish complete copies of the Contractor's insurance policies, forms and endorsements.
- (d) For Commercial General Liability coverage the Contractor shall, at the option of the City, provide an indication of the amount of claims payments or reserves chargeable to the aggregate amount of liability coverage. If the Commercial General Liability form of coverage includes an annual aggregate limitation on the amount of insurance provided, a separate project aggregate limit may be required by the City for the given contract.
- (e) If the Contractor fails to obtain and maintain for the life of the Agreement the insurance required hereby or to replace any such expired or canceled policy, the City may obtain and maintain such insurance with such company as it deems

satisfactory. Any amounts expended by the City in payment of premiums for such insurance shall be deducted by the City from the amount due the Contractor for the work covered by the Agreement.

(f) **Policies of Insurance**

1. Except as otherwise provided herein, all insurance policies shall be issued by insurers licensed to do business in the State of Florida on an admitted basis or which is an eligible surplus lines insurer in the State of Florida, and any such insuring company is required to have a minimum financial rating of (A-) in the latest edition of "Best's Key Rating Guide", published by A. M. Best Co., Inc., or some similarly nationally recognized rating authority, including Standard and Poors and Demotech.

2. For Workers' Compensation coverage only, self-insurance programs are acceptable with a minimum A- rated reinsurance carriers; written confirmation is required.

3. All policies of insurance or certificates thereof referred to herein shall be deposited with the City Clerk.

4. The City shall be named an Additional Insured on General Liability and Automobile Liability policies of insurance and certificates thereof.

21. **Enforcement of Costs.** If any legal action or other proceeding is brought for the enforcement of this Agreement, or because of an alleged dispute, breach, default, or misrepresentation in connection with any provision of this Agreement, the successful or prevailing party or parties shall be entitled to recover reasonable attorneys' fees, court costs, and all expenses even if not taxable court costs (including, without limitation, all such fees, costs and expenses incident to arbitration, appellate, bankruptcy, and post-judgment proceedings), incurred in that action or proceeding or any appeal, in addition to any other relief to which the party or parties may be entitled. Attorneys' fees include legal assistant fees, expert witness fees, investigative fees, administrative costs, and all other charges billed by the attorney for the prevailing party.
22. **Compliance With Laws.** Contractor shall comply with all applicable federal, state and local laws and regulations.
23. **Compliance With Florida Public Records Law.** Contractor expressly agrees that it shall comply with the public records law provided in Florida Statutes, Chapter 119, and specifically to:
 - (a) Keep and maintain public records required by the City to perform the contracted service.
 - (b) Upon request from the City Clerk, provide the City with a copy of the requested records or allow the records to be inspected or copied within a reasonable time at

a cost that does not exceed the cost provided in Chapter 119, Florida Statutes, or as otherwise provided by law.

(c) Ensure that public records that are exempt or confidential and exempt from public records disclosure requirements are not disclosed except as authorized by law for the duration of the contract term and following completion of the contract if the contractor does not transfer the records to the City.

(d) Upon completion of the contract, transfer at no cost, to the City all public records in possession of the contractor or keep and maintain public records required by the City to perform the service. If the contractor transfers all public records to the City upon completion of the contract, the contractor shall destroy any duplicate public records that are exempt or confidential and exempt from public records disclosure requirements. If the contractor keeps and maintains public records upon the completion of the contract, the contractor shall meet all applicable requirements for retaining public records. All records stored electronically must be provided to the City, upon request from the City Clerk, in a format that is compatible with the information technology systems of the City.

(e) Failure of the Contractor to comply with Public Records Law as provided by Florida Statutes, Chapter 119, shall subject the Contractor to penalties under Chapter 119.10 and subject this Agreement to termination for cause by the City.

IF THE CONTRACTOR HAS QUESTIONS REGARDING THE APPLICATION OF CHAPTER 119, FLORIDA STATUTES, TO THE CONTRACTOR'S DUTY TO PROVIDE PUBLIC RECORDS RELATING TO THIS CONTRACT, CONTACT THE CUSTODIAN OF PUBLIC RECORDS AT:

**CITY CLERK
22 SOUTH BEACH STREET
ORMOND BEACH, FLORIDA 32175. (386)677-0311
CITYCLERK@ORMONDBEACH.ORG**

Ref: Fla. Stat. §119.0701(2016)

24. **Limitation of Remedy and Liability.** Contractor and Owner expressly waive any claim for consequential damages against the other including but not limited to, a waiver of claims for diminished bonding capacity, loss of financing, loss of business reputation, lost profits on other projects or other lost opportunity damage claims.

All liability of the City allegedly resulting from, arising out of or connected with this Agreement or from the performance or breach thereof, shall terminate three years from the termination of this Agreement.

25. **Waiver of Right to Jury Trial.** THE PARTIES HEREBY KNOWINGLY, VOLUNTARILY AND INTENTIONALLY WAIVE ANY RIGHT WHICH ANY

PARTY MAY HAVE TO TRIAL BY JURY IN RESPECT OF ANY PROCEEDING, LITIGATION OR COUNTERCLAIM BASED ON, OR ARISING OUT OF, UNDER OR IN CONNECTION WITH THIS AGREEMENT OR ANY COURSE OF CONDUCT, COURSE OF DEALING, STATEMENTS (WHETHER VERBAL OR WRITTEN) OR ACTIONS OF ANY PARTY. IF THE SUBJECT MATTER OF ANY LAWSUIT IS ONE IN WHICH THE WAIVER OF JURY TRIAL IS PROHIBITED, NO PARTY TO THIS AGREEMENT SHALL PRESENT AS A NON-COMPULSORY COUNTERCLAIM IN ANY SUCH LAWSUIT ANY CLAIM BASED ON, OR ARISING OUT OF, UNDER OR IN CONNECTION WITH THIS AGREEMENT. FURTHERMORE, NO PARTY TO THIS AGREEMENT SHALL SEEK TO CONSOLIDATE ANY SUCH ACTION IN WHICH A JURY TRIAL CANNOT BE WAIVED.

26. **Verification of Employment Status Using E-Verify System**

- (a) Section 448.09, *Florida Statutes*, makes it unlawful for any person to knowingly employ, hire, recruit, or refer, either for herself or himself, or on behalf of another, for private or public employment within the state, an alien who is not duly authorized to work in the United States. Contractor warrants that it is registered with the U.S. Department of Homeland Security's E-Verify system, and is compliant with the requirements of Sections 448.09 and 448.095, *Florida Statutes*.
- (b) Contractor agrees that if the contractor enters into an agreement with a subcontractor, the subcontractor must provide the contractor with an affidavit stating that the subcontractor does not employ, contract with, or subcontract with an unauthorized alien, and contractor warrants it shall maintain any such affidavits for the duration of the contract. If the City has a good faith belief that a subcontractor knowingly violated Section 448.09 (1), the City shall promptly notify the contractor and order the contractor to immediately terminate the contract with the subcontractor.
- (c) In the event the City has a good faith belief that the contractor has knowingly violated Section 448.09 (1), *Florida Statutes*, the City shall terminate the contract, and as provided by statute, the contractor may not be awarded a public contract for at least one (1) year after the date of termination. The contractor may also be held liable for any additional costs incurred by the City as a result of the termination of the contract.

27. **No Conflict of Interest.** The Contractor warrants and agrees that neither it, nor any of its employees, agents, officers, directors, shareholders and independent contractors are, or will become, under contract with or accept compensation from any individual, business, corporation or governmental entity that has the possibility of an adverse interest to those of the City of Ormond Beach. The Contractor and its officers, directors, shareholders, employers, agents and subcontractors, agree not to provide any services or assistance to any entity directly or indirectly relating to the services provided to the City and to immediately notify the City Manager and City Attorney of any contact with any entity that has, or potentially has, a conflict of interest with the City of Ormond Beach. This provision shall be interpreted as broadly as possible to prevent any potential or actual conflict of interest presently or in the future by the Contractor.

28. **Effective Date.** This Agreement shall become effective upon the date last signed by the parties hereto.

IN WITNESS WHEREOF, the undersigned parties have caused this Agreement to be signed on the dates indicated hereinbelow.

DATED this ____ day of _____, 2022.

Witnesses:

CITY OF ORMOND BEACH

Print Name: _____

By: _____
BILL PARTINGTON
Mayor

Print Name: _____

By: _____
JOYCE SHANAHAN
City Manager

DATED this ____ day of _____, 2022.

Witnesses:

HOLUB DEVELOPMENT, LLC

Print Name: _____

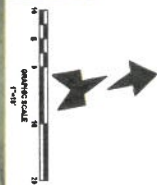
By: _____
Print Name: _____

Title: _____

Print Name: _____

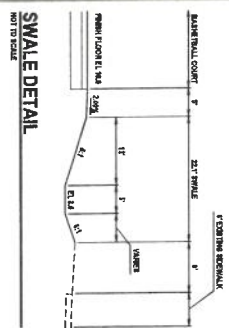
Attest: _____
Print Name: _____

Title: _____



GENERAL NOTES:

1. CITY OF ORMOND BEACH BUDGET REQUEST WAS RECEIVED FOR BASKETBALL COURT CONSTRUCTION. THIS PROJECT IS A PART OF THE CITY'S BUDGET REQUEST FOR 2022-23.
2. ALL DIMENSIONS ARE TO THE FACE OF THE CURB OR PAVEMENT AND CENTER FACE OF THE DRIVE.
3. THE CONTRACTOR SHALL COORDINATE WITH THE CITY ENGINEER REGARDING THE LOCATION OF THE COURT AND THE LOCATION OF THE DRIVE.
4. THE CONTRACTOR SHALL COORDINATE WITH THE CITY ENGINEER REGARDING THE LOCATION OF THE COURT AND THE LOCATION OF THE DRIVE.
5. THE CONTRACTOR SHALL COORDINATE WITH THE CITY ENGINEER REGARDING THE LOCATION OF THE COURT AND THE LOCATION OF THE DRIVE.
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10. THE CONTRACTOR SHALL COORDINATE WITH THE CITY ENGINEER REGARDING THE LOCATION OF THE COURT AND THE LOCATION OF THE DRIVE.



LEGEND

- PROPOSED FINISH GRADE (SEE DETAIL SHEET No. 1)
- EXISTING FINISH GRADE (SEE DETAIL SHEET No. 1)
- PROPOSED FINISH GRADE (SEE DETAIL SHEET No. 1)
- EXISTING FINISH GRADE (SEE DETAIL SHEET No. 1)
- PROPOSED FINISH GRADE (SEE DETAIL SHEET No. 1)
- EXISTING FINISH GRADE (SEE DETAIL SHEET No. 1)
- PROPOSED FINISH GRADE (SEE DETAIL SHEET No. 1)
- EXISTING FINISH GRADE (SEE DETAIL SHEET No. 1)
- PROPOSED FINISH GRADE (SEE DETAIL SHEET No. 1)
- EXISTING FINISH GRADE (SEE DETAIL SHEET No. 1)



WARNING !!
CONTRACTOR SHALL TAKE ALL PRECAUTIONS DURING CONSTRUCTION TO AVOID CONTACT WITH EXISTING UNDERGROUND UTILITIES AND OVERHEAD ELECTRICAL IN THE RIGHT-OF-WAY.

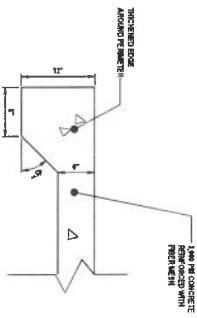
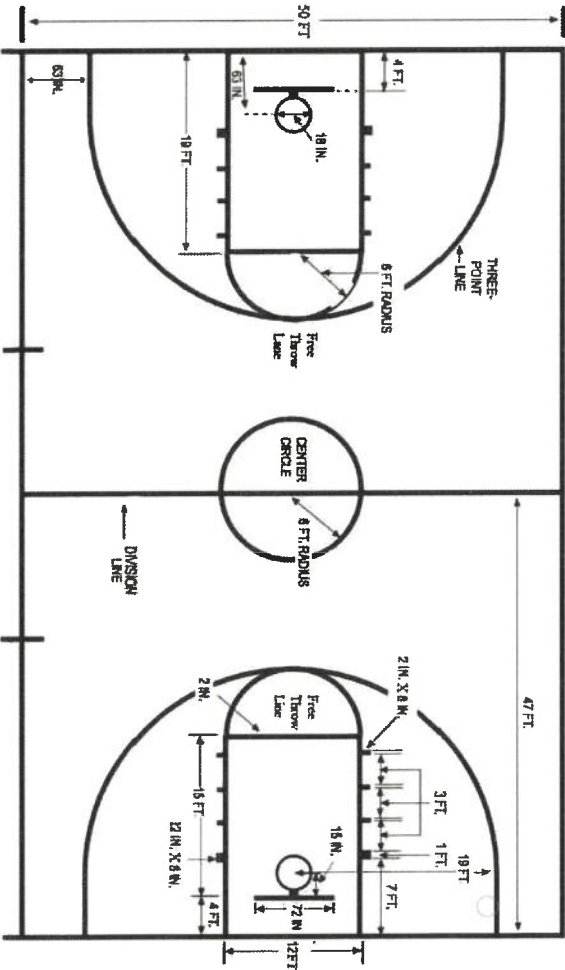
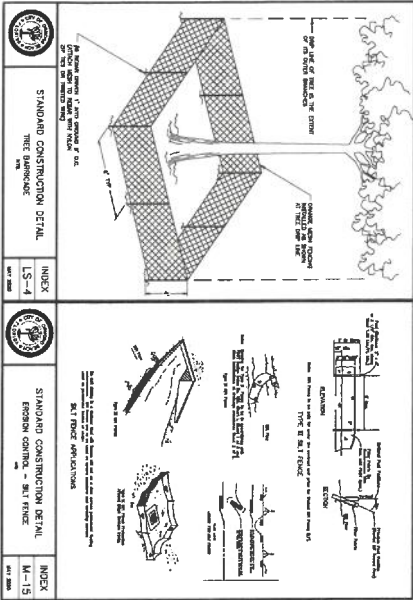
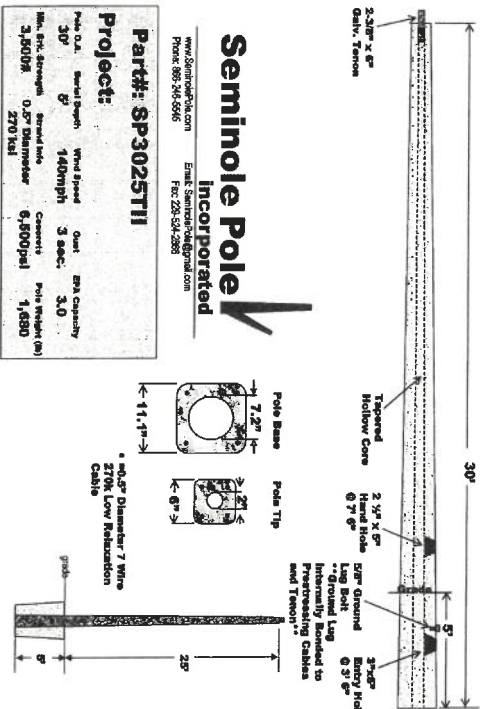
REVISIONS

DATE	DESCRIPTION

1234 North US1, Suite 3
Ormond Beach, Florida 32174
Phone (407) 877-7744
Fax (407) 877-7744
www.NEI-Orlando.com
C.E. 8 30265
P.E. 8 30265
© 2013
Civil Engineering
Transportation, C&A
Landscape Architecture

SITE LAYOUT & GRADING PLAN
SOUTH ORMOND REC CENTER
BASKETBALL COURT
BOSTROM LANE
ORMOND BEACH, FLORIDA 32174

PROJECT No. 2022-23
DATE: MARCH 2022
DESIGN BY: H&N
CHECKED BY: JFL
SCALE: 1" = 2'
DRAWING NUMBER: 1



CONCRETE BASKETBALL COURT DETAIL

REVISIONS	
DATE	DESCRIPTION

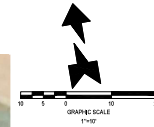
1230 North US1, Suite 3
Ormond Beach, Florida 32172
Phone (386) 872-7794
www.Kendrick-Engineering.com
C.A. # 30209
L.C. # 24000684
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Civil Engineering,
Transportation, GEI &
Landscape Architecture



DETAILS AND NOTES
SOUTH ORMOND REC CENTER
BASKETBALL COURT
BOSTROM LANE
ORMOND BEACH, FLORIDA 32174

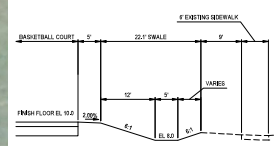


PROJECT No:	2022-7
DATE:	MARCH 2022
DESIGN BY:	HSE
DRAWN BY:	JT
CHECKED BY:	HSE
SCALE:	AS SHOWN
DRAWING NUMBER	



GENERAL NOTES:

1. CITY OF ORMOND BEACH BUILDING PERMITS ARE REQUIRED FOR BUILDING, DRAINAGE, EROSION CONTROL, FENCE, SCREEN WALLS AND MONUMENT MARK. CONTRACTOR SHALL BE RESPONSIBLE FOR SUBMITTING APPROPRIATE INFORMATION (ENGINEERING, SPECIFICATIONS, SHOP DRAWINGS, ETC).
2. ALL CONCRETE AND TIES ARE TO THE EDGE OF PAVEMENT AND OUTSIDE FACE OF BUILDING.
3. ALL IMPROVEMENTS SHALL BE STAKED FOR CONSTRUCTION BY MEANS OF CENTRAL CORNERPOINTS BY SURVEYOR UTILIZING GEODETIC TOTAL STATION OR GPS. STAKING OF DRAWINGS FOR PURPOSES OF STAKING ARE AT THE SURVEYORS RISK.
4. THE CONTRACTOR SHALL COORDINATE WITH THE EXISTING ADJACENT BUSINESSES TO ENSURE THERE IS NO DISRUPTION TO THEIR RESPECTIVE OPERATIONS.
5. THE CONTRACTOR AT ITS OWN DISCRETION SHALL MAINTAIN THE CONSTRUCTION SITE SECURE FROM TRESPASS.
6. USGS ALL TOWERS AND/OR STRUCTURES WITHIN 500' OF THE CONSTRUCTION SITE SHALL BE MAINTAINED.
7. ALL CONSTRUCTION IN THE FOOT CROWN SHALL CONFORM TO THE LATEST EDITIONS OF THE FOOT DESIGN STANDARDS. HOWEVER, THE FOOT STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION, AND THE FOOT UTILITY ACCOMMODATION MANUAL.



SWALE DETAIL

NOT TO SCALE

LEGEND

- PROPOSED 4' x 4' FENCE (SEE DETAIL SHEET NO. 2)
- PROPOSED TREE BARRICADE (SEE DETAIL SHEET NO. 2)
- 2' x 2' CONCRETE BASE FOR BASKETBALL POLE INSTALL PER MANUFACTURERS SPECIFICATION
- CONCRETE BASKETBALL COURT, 8' x 10' 10' x 10' CONCRETE WITH FIBER MESH (SEE DETAIL SHEET NO. 2)
- 8' x 10' 10' x 10' CONCRETE WITH FIBER MESH (SEE DETAIL SHEET NO. 2)
- 8' x 10' 10' x 10' CONCRETE WITH FIBER MESH (SEE DETAIL SHEET NO. 2)



WARNING !!
CONTRACTOR SHALL TAKE ALL PRECAUTIONS DURING CONSTRUCTION TO AVOID CONTACT WITH EXISTING UNDERGROUND UTILITIES AND OVERHEAD ELECTRIC IN THE RIGHT-OF-WAY.

REVISIONS

DATE	DESCRIPTION



SITE LAYOUT & GRADING PLAN
SOUTH ORMOND REC CENTER
BASKETBALL COURT
12345 SOUTH ORMOND BEACH, FLORIDA 32174



PROJECT No: 2022-72
DATE: MARCH 2022
DESIGN BY: HNN
DRAWN BY: JTL
CHECKED BY: HNN
SCALE: 1" = 10'
DRAWING NUMBER

1

**1230 North US1, Suite 3
Ormond Beach, Florida 32174
Phone (386) 872-7794
www.NewKirk-Engineering.com**

**C.A. # 30209
L.C. # 26000584
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**Civil Engineering,
Transportation, CEI &
Landscape Architecture**



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ENGINEERING INC.**

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EXPRESSED WRITTEN CONSENT OF NEWKIRK
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RESERVED

Digitally signed by Harry Newkirk
 DN: cn=U, o=NEIOSYS, email=HARRY@NEIOSYS.COM, c=US
 Reason: I am the signer of this document.
 Unique Identifier: 80E0E00000991A, c=US
 Date: 2022.03.08 09:16:05 -0500

2

Packet Pg. 46

	STANDARD CONSTRUCTION DETAIL	INDEX		STANDARD CONSTRUCTION DETAIL	INDEX
	TREE BARRICADE	LS-4		EROSION CONTROL – SILT FENCE	M-15
	NTS	MAY 2020		NTS	MAY 2020



CITY OF ORMOND BEACH

City Manager • 22 S. Beach Street • Ormond Beach • Florida • 32174 • (386) 676-3200 • Fax (386) 676-3384

CITY MANAGER MEMORANDUM

To: The Honorable Mayor Partington and City Commissioners

Through: Joyce A. Shanahan, City Manager

From: Alex Schumann, City Engineer

Date: May 3, 2022

Subject: Request for Qualifications - Cassen Park Re-Design

Commission Goal: Quality of Life - Other

Introduction

This disposition item provides public notice of the City Commission's intent to issue a Request for Qualifications (RFQ) to solicit qualification submittals for engineering services for the engineering design and required permitting for the construction of a public dock and breakwater system at the City's Cassen Park.

Background

In February, 2022, the City's Engineering Department conducted a series of public meetings directed to gather public input for the redesign of Cassen Park. These meetings, held before the general Public, Ormond Beach MainStreet, Leisure Services Advisory Board, and the Quality of Life Board generated discussion and public input related to the re-imagining of this park. The concept plans presented at the public meetings, as well as a summary of public comments were presented to the City Commission's in a workshop held February 15, 2022. After presentations of various concepts from the Public Works Director and the City Engineer, it was decided that the next step was the incorporation of community input into a design by a qualified professional engineer experienced in the design of public parks; it was further decided that the RFQ process would be used to select this consultant. The draft minutes from the Workshop, and advisory board meetings are included the RFQ.

Discussion

The RFQ calls for the design firm to submit their qualifications demonstrating experience in the design of public facilities, specifically parks. Key qualifications highlighted in this RFQ include the integration of low impact design and permitting through state agencies and public outreach. The proposals will also be scored on concept plan, project team and project approach and schedule.

Budget Impact

The project was included in a prior year CIP. As such, a budget amendment will be required.

Citizen Impact

As one of the City's "Four Corners Parks", Cassen Park is a heavily used recreation facility that serves many populations. A redesign of the park incorporating collected public input will further enhance user experience and the use of park by all citizens.

During the design process the consultant will solicit citizen input in addition to the numerous opportunities already afforded to the residents. Upon completion, citizens will be able to utilize the new restroom and bait shop facilities and enjoy all the City of Ormond Beach has to offer.

Recommendation

Staff intends to publicly issue a Request for Qualifications (RFQ), unless otherwise directed by the City Commission.

Attachments:

- RFQ 2022-16 Cassen Park Re-Design (PDF)

REVIEWED BY:


Kelly McGuire, Finance Director 4/26/2022


Claire Whitley, Assistant City Manager 4/27/2022

APPROVED BY:


Joyce A. Shanahan, City Manager 4/28/2022



City of Ormond Beach

22 South Beach Street
Ormond Beach, Florida 32174
Telephone (386) 676-3223
Fax (386) 676-3374

REQUEST FOR QUALIFICATIONS PROPOSER ACKNOWLEDGEMENT FORM

THIS PAGE MUST BE COMPLETED AND RETURNED WITH YOUR PROPOSAL

RFQ TITLE: **Cassen Park Re-Design**
RFQ NUMBER: **2022-16**
RFQ DUE DATE & TIME: **Tuesday, June 7, 2022 at 2:00 PM**
RFQ OPENING LOCATION: **City Hall Training Room**
PRE-PROPOSAL MEETING: **Wednesday, May 25, 2022 at 2:00 PM**
City Hall Training Room

Proposals Received After The Above Date And Time Will Not Be Accepted.

PROPOSER/FIRM NAME: _____

PROPOSER'S MAILING ADDRESS: _____

CITY-STATE-ZIP: _____

F.E.I.N.: _____

PHONE NUMBER: _____

EMAIL: _____

If returning as a "No Proposal", please state reason (s):

RFQ RESPONSE FORM

The undersigned SUBMITTER agrees, if this Proposal is accepted, to enter into a Contract with the CITY that reflects the items of this Request for Qualifications (RFQ) and to provide all services, as specified or indicated in the RFQ Documents, in full accordance with the terms and conditions set forth therein.

SUBMITTER has examined all of the RFQ Documents and of the following Addenda, receipt of which is hereby acknowledged.:

<u>Addendum Date</u>	<u>Addendum Number</u>
_____	_____
_____	_____
_____	_____

This Submittal is genuine and not made in the interest of or on behalf of any undisclosed person, firm or corporation and is not submitted in conformity with any agreement or rules of any group, association, organization or corporation; SUBMITTER has not directly or indirectly induced or solicited any other Submitter to submit a false or sham Submittal; SUBMITTER has not solicited or induced any person, firm or a corporation to refrain from bidding; and SUBMITTER has not sought by collusion to obtain for himself any advantage over any other Bidder or over the CITY.

THIS RESPONSE IS SUBMITTED BY:

FIRM NAME: _____

FIRM'S PROFESSIONAL LICENSE NUMBER: _____

SUBMITTER'S NAME: _____
(Typed or Printed)

TITLE: _____

AUTHORIZED SIGNATURE: I, _____
hereby declare that I have read and fully understand the RFQ Documents, including the General Conditions and the Scope of Work, and that I am duly authorized to sign and submit this Proposal.

The CITY reserves the right to reject any and all Submittals, to waive informalities, and to accept any Submittal or parts thereof as the CITY, in its sole discretion, determines to be in the best interest of the CITY.

***OMISSION OF A SIGNATURE ON THIS PAGE
MAY RESULT IN REJECTION OF YOUR PROPOSAL***

GENERAL CONDITIONS

PUBLIC ENTITY CRIMES: A person or affiliate who has been placed on the convicted vendor list following a conviction for a public entity crime may not submit a Bid or Proposal on a contract to provide any goods or services to a public entity, may not submit a Bid or Proposal on a contract with a public entity for the construction or repair of a public building or public work, may not submit Bids or Proposals on leases or real property to a public entity, may not be awarded or perform work as a contractor, supplier, subcontractor, or consultant under a contract with any public entity, and may not transact business with any public entity in excess of the threshold amount provided in Section 287.017, for CATEGORY TWO for a period of 36 months from the date of being placed on the convicted vendor list.

DISCRIMINATION: Pursuant to Section 287.134(2)(a), Florida Statutes, an entity or affiliate who has been placed on the discriminatory vendor list may not submit a bid or proposal on a contract to provide any goods or services to a public entity, may not submit a bid or proposal on a contract with a public entity for the construction or repair of a public building or public work, may not submit bid or proposal on leases of real property to a public entity, may not be awarded or perform work as a contractor, supplier, subcontractor, or consultant under a contract with any public entity, and may not transact business with any public entity.

NON-CONFIDENTIALITY OF BIDS AND/OR PROPOSALS/PUBLIC RECORDS: The City of Ormond Beach cannot and does not warrant the confidentiality of any information submitted in response to this solicitation. Florida law provides that municipal records shall at all times be open for personal inspection by any person, Section 119.01, F.S., The Public Records Law. Information and materials received by the City of Ormond Beach in connection with all Proposers' response shall be deemed to be public records subject to public inspection upon award, recommendation for award, or 30 days after bid/proposal opening, whichever occurs first. Section 119.071, F.S.

DISTRIBUTION OF BIDS AND RFP/RFQ: The City uses the services of DemandStar (www.demandstar.com) to distribute its bids and RFP/RFQ's on-line on the Internet. If you have received a copy of this RFQ from any source other than DemandStar, please be aware that you may not have received the latest version of the RFQ or any related addendums.

SUBMISSION OF PROPOSALS: All Proposals shall be submitted in a sealed envelope. The Request for Qualifications (RFQ) number, title, and opening date shall be clearly displayed on the outside of the sealed envelope. The delivery of said Proposal to the Purchasing Office on or before the specified opening date and time is solely and strictly the responsibility of the Proposer. Any Proposal received by the Purchasing Office after the specified date and time will not be accepted. Proposals must be submitted on forms provided by the City. No other forms will be accepted. No Proposal may be modified after opening. No Proposal may be withdrawn after opening for a period of ninety (90) days unless otherwise specified.

EXECUTION OF RFQ: Proposal must contain a manual signature of authorized representative in the space(s) provided. Proposals must be typed or printed in ink. Use of erasable ink is not permitted. All corrections made by Proposer to any Proposal entry must be initialed. The company name and Federal Employer Identification Number (F.E.I.N.) shall appear in the space(s) provided.

RFQ OPENING: Proposals shall be opened at the time, date and place specified in the RFQ, and the name of the Proposer shall be read aloud publicly. No discussion of the submittals will occur.

RFQ TABULATION: Any Proposer wishing to receive a copy of the RFQ tabulation is required to enclose a stamped, self-addressed envelope with their Proposal. The RFQ tabulation will be posted on DemandStar.com.

CLARIFICATION/CORRECTION OF RFQ ENTRY: The City of Ormond Beach reserves the right to allow for the clarification of questionable entries and for the correction of obvious mistakes.

INTERPRETATION: Any questions concerning conditions and specifications shall be directed to the City's Purchasing Coordinator. Those interpretations which may affect the eventual outcome of this Proposal will be furnished in writing to all prospective Proposers. No interpretation shall be considered binding unless provided in writing by the City of Ormond Beach.

MINORITY POLICIES: The City of Ormond Beach, Florida, encourages the full participation of Disadvantaged and Women Business Enterprises (D&WBE) in the provision of goods and services.

ADDITIONAL TERMS AND CONDITIONS: The City of Ormond Beach reserves the right to reject Proposals containing any additional terms or conditions not specifically requested in the original conditions and specifications.

TAXES: The City of Ormond Beach is exempt from Federal Excise Taxes and all sales taxes.

ASSIGNMENT: Any purchase order or contract issued pursuant to an RFQ and the monies which may become due thereunder are not assignable except with the prior written approval of the City Manager or City Commission, whichever authorized the purchase order or contract.

LIABILITY: The vendor shall hold and save the City of Ormond Beach, its officers, agents, and employees harmless against claims by third parties resulting from the vendor's or supplier's breach of contract or negligence, including all attorney's fees and costs, and shall pay any and all damages, fees, and costs assessed on behalf of the City. The City expressly reserves all rights, privileges and benefits of sovereign immunity.

AWARDS: The City reserves the right, in its sole discretion, as the best interest of the City may require, to make award(s) by individual item, group of items, all or none, or a

combination thereof; on a geographical basis and/or with one or more vendors or contractors; or to reject any and all Proposals or waive any minor irregularity or technicality in the Proposals received.

OTHER AGENCIES: All Bidder(s) awarded contracts from this bid or proposal may, permit any municipality or other government agency to participate in the contract under the same prices, terms, and conditions, if agreed to by both parties.

It is understood that at no time will any city, municipality, or other agency be obligated for placing an order for any other city, municipality, or agency: nor will any city, municipality, or agency be obligated for any bills incurred by any other city, municipality, or agency. Further, it is understood that each agency will issue its own purchase orders to the awarded bidder(s).

TERMS AND CONDITIONS

- A. The City of Ormond Beach reserves the right without prejudice to reject any or all proposals, to request clarification of information submitted, and to request additional information of one or more proposers.
- B. The City reserves the right to award the contract to the next most qualified firm if the successful firm fails to execute a contract within two weeks after the award of the contract by the City Commission.
- C. In accordance with federal, State, and local regulations, the firm shall not discriminate under the contract against any person.
- D. The firm shall not assign or transfer any interest in the contract without prior approval of the City Commission.
- E. The City reserves the right to terminate the contract at any time due to the vendor's default under terms of agreement.
- F. Submission of a proposal indicates acceptance by the firm of the conditions contained in this Request for Qualifications unless clearly and specifically noted in the proposal submitted and confirmed in the contract between the City of Ormond Beach and the firm selected.

COMPLIANCE WITH FLORIDA PUBLIC RECORDS LAW

Contractor expressly agrees that it shall comply with the public records law provided in Florida Statutes, Chapter 119, and specifically to:

- (a) Keep and maintain public records required by the City to perform the contracted service.
- (b) Upon request from the City Clerk, provide the City with a copy of the requested records or allow the records to be inspected or copied within a reasonable time at a cost that does not exceed the cost provided in Chapter 119, Florida Statutes, or as otherwise provided by law.
- (c) Ensure that public records that are exempt or confidential and exempt from public records disclosure requirements are not disclosed except as authorized by law for the duration of the contract term and following completion of the contract if the contractor does not transfer the records to the City.
- (d) Upon completion of the contract transfer, at no cost to the City, all public records in possession of the contractor or keep and maintain public records required by the City to perform the service. If the contractor transfers all public records to the City upon completion of the contract, the contractor shall destroy any duplicate public records that are exempt or confidential and exempt from public records disclosure requirements. If the contractor keeps and maintains public records upon the completion of the contract, the contractor shall meet all applicable requirements for retaining public records. All records stored electronically must be provided to the City, upon request from the City Clerk, in a format that is compatible with the information technology systems of the City.
- (e) Failure of the Contractor to comply with Public Records Law as provided by Florida Statutes, Chapter 119, shall subject the Contractor to penalties under Chapter 119.10 and subject this Agreement to termination for cause by the City.

IF THE CONTRACTOR HAS QUESTIONS REGARDING THE APPLICATION OF CHAPTER 119, FLORIDA STATUTES, TO THE CONTRACTOR'S DUTY TO PROVIDE PUBLIC RECORDS RELATING TO THIS CONTRACT, CONTACT THE CUSTODIAN OF PUBLIC RECORDS AT:

**CITY CLERK
22 SOUTH BEACH STREET
ORMOND BEACH, FLORIDA 32174 (386) 677-0311
CITYCLERK@ORMONDBEACH.ORG**

Ref: Fla. Stat. §119.0701(2016)

THE CITY OF ORMOND BEACH RESERVES THE RIGHT TO REJECT ANY OR ALL PROPOSALS, AND TO WAIVE INFORMALITIES, AS MAY BE DEEMED TO BE IN THE BEST INTEREST OF THE CITY.
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STATEMENT OF PURPOSE

The City of Ormond Beach, in compliance and in accordance with the provisions of the Consultants Competitive Negotiation Act, Section 287.055, Florida Statutes, and Section 287.057, Procurement of Contractual Services, Florida Statutes, is seeking qualified consultants to provide engineering design services for the development of the proposed project referred to as Cassen Park Re-Design, 1 South Beach Street.

SCHEDULE OF PROPOSAL

May 8, 2022	Advertisement
May 25, 2022 at 2:00 PM	Non-mandatory pre-proposal meeting City Hall Training Room, 22 South Beach Street
May 31, 2022 at 5:00pm	Last Day for Questions
June 7, 2022, 2:00 PM	Proposals Due - one (1) signed original of the complete proposal packet along with one (1) fully complete electronic file in pdf format on either a CD or thumb drive. Both versions must be in the sealed envelope. Submit proposals to the Purchasing Coordinator, Room 101, City Hall, 22 South Beach Street, Ormond Beach, FL 32174.
June 13-17, 2022	Proposal Short Listing
June 27 to July 1, 2022	Proposal Presentations, and ranking
July 19, 2022	City Commission Approval of contracts.

TERM OF AGREEMENT

The agreement shall become effective upon execution and approval of the contract by the City Commission, and shall be in effect for the duration of the project until the project is satisfactorily complete.

SCOPE OF WORK

The City of Ormond Beach seeks a consultant qualified in engineering design services for the reimagining, and design of Cassen Park. Consultants should have demonstrable experience in the design of public facilities including parks and the integration of low impact design, permitting through state agencies and public outreach. The firm will work

with the City's architect (Hall & Ogle Architects, Inc.) to utilize the previously designed bait shop and restroom building. Work will include the extension of new utility services from the Beach Street right-of-way.

DESIGN TEAM

The City envisions selecting a firm or individual with sufficient knowledge and experience preparing plans and specifications specializing in coastal/beachfront public parks and/or other coastal developments similar in nature. The firm should have also have sufficient knowledge and experience of coastal construction requirements, and associated environmental concerns, that would apply to this type of development for the issuance of construction permits (Federal, State and Local), and to receive competitive bids for construction. The qualified firm must also possess strong graphic and presentation skills as public meetings/presentations will be required.

At a minimum, the qualified design team should be comprised of the following professional disciplines:

- Civil Engineer
- Landscape Architect
- Land Surveyor

DESIGN ELEMENTS

Initial discussions envisioned the proposed project to include the following design elements, although these elements are subject to change during the course of the project through open public meetings. The conceptual design/rendering should include the following design elements:

- Maintain or Increase Parking (Trailer and Car)
- Sidewalk trail connectivity for walkers/joggers
- Increased river views
- Location for previously designed bait shop
- Low Impact Design Principles
- Landscaping and irrigation
- Site furnishings
- Site lighting
- Storage and dumpster/trash collection area.

PUBLIC INVOLVEMENT

This project will include significant public involvement, with participation from the City Commission, City Staff, City advisory Boards, identified stakeholders, and interested citizens. The tasks will include:

- Assist in carrying out public processes that encourage the participation of all interested parties
- Attend regular meetings of City Advisory Boards and City Commission to gather input from stakeholders and provide project updates
- Attend and facilitate three to four public workshops to solicit input from the public during the design process and keep community members informed.
- Provide graphic and written information as required to support public outreach efforts.

GENERAL INSTRUCTIONS

- Inquiries: Technical questions may arise as firms are preparing their proposals. The City will accept written inquiries regarding this RFQ until seven (5) working days prior to the RFQ due date. Questions received after that time will not be responded to. Answers to questions that warrant attention of all the potential proposers will be distributed in the form of an addendum. Please direct written inquiries to:

Rob Hart
 Purchasing Coordinator
 22 South Beach Street
 Ormond Beach, Florida 32174
 Telephone: (386) 676-3223 e-mail: rob.hart@ormondbeach.org

The last day to submit questions is May 31, 2022 at 5:00pm.

- Signature Requirements: Proposals must be signed by a duly authorized officer(s) of the proposing firm. Consortiums, joint ventures, or teams submitting proposals, although permitted and encouraged, will not be considered responsive unless it is established that all contractual responsibility rests solely with one firm or legal entity which shall not be a subsidiary or affiliate with limited resources. Each proposal shall indicate the entity responsible for execution on behalf of the proposal team.
- Proposal Delivery: Submit one (1) unbound original of the complete proposal packet along with one (1) fully complete electronic file in pdf format on either a CD or thumb drive, no later than May 25, 2022, 2:00 PM. Submit proposals to the Purchasing Coordinator, Room 101, City Hall, 22 South Beach Street, Ormond Beach, FL 32174. Proposals shall be in a sealed envelope with the RFQ title and number plainly marked on the outside of the delivery envelope or package. It is the sole responsibility of the submitter to ensure that the Proposal is delivered on or before the specified date and time. Late submittals will not be accepted.
- Addenda and Supplements to the Request for Qualifications (RFQ): In the event that it becomes necessary to revise any part of this RFQ, or if additional information is

necessary to enable the proposing firm to make an adequate interpretation of the provisions of this RFQ, a supplement to the RFQ will be provided to each firm that has requested a copy of this document.

- Rejection Rights: The City of Ormond Beach reserves the right, at any time, to modify, waive or otherwise vary the terms and conditions of this RFQ including, but not limited to, the deadlines for submission and submission requirements. The City further reserves the right to reject any or all submittals, to cancel or withdraw this RFQ at any time and to negotiate with any party prior to or after submittal of proposals. Selection is also dependent upon the negotiation of a mutually acceptable contract with the successful proposers.
- Cost of Proposal Preparation: No reimbursement will be made by the City of Ormond Beach for any costs incurred in the preparation of the proposal or presentation.
- Proposals to be in Effect: Each proposal shall state that it is valid for a period of not less than 90 days from date of receipt.

INFORMATION TO BE SUBMITTED:

Submit one (1) signed original of the complete proposal packet along with one (1) complete electronic copy in pdf format on either a CD or thumb drive which must include the following:

1. Letter of Interest
2. Request for Qualifications Proposer Acknowledgement Form, completed
3. RFQ Response Form, completed and signed
4. Philosophy and general design approach of the firm or individual
5. Proposed organizational chart. Include sub-consultants, if proposed.
6. Detailed resumes of the project team utilizing Form SF 330
7. Past performance experience- Similar Projects. List five similar projects which the proposed project manager or designated office of the engineering firm has completed with the past five (5) years including
 - a. Project Name
 - b. A brief description including construction costs
 - c. The Owner, contact person and telephone number
 - d. Project completion date
 - e. Engineer of Record
8. Proposed project approach including a rendered conceptual plan (11" x 17")
9. Project Timeline based on the Notice to Proceed being September 1, 2022
10. Location of Office(s) where the project management team will be located.

11. Whether or not the firm or individual is a certified Minority Business Enterprise as defined by the Florida Small and Minority Business Assistance Act.
12. Copy of Engineering firm's current Florida Professional License renewal
13. Copy of Engineering firm's Certificate of Insurance
14. Completed Conflict, Non-conflict of Interest Statement/Litigation statement
15. Completed Drug-Free Workplace Certification
16. Completed Verification of Employment status using E-Verify system.

Submittals shall be limited to a maximum of one hundred (100) pages

SELECTION OF FIRM

Professional Qualifications: Any firm or individual licensed to perform professional engineering services in the State of Florida, having demonstrable professional experience in the project type.

Evaluation Criteria: Evaluation Criteria: The City will evaluate prospective candidates based upon the experience and past performance of the firm. Evaluation will also be based upon the abilities and accomplishments of the individuals to be assigned to the project and relevant project experience.

Scoring Parameters:

- Qualifications of the Firm (20 points)
- Project Team (20 points)
- Relevant Project Experience (20 points)
- Concept Plan (20 points)
- Project Approach and Schedule (10 points)
- Location of Firm (10 points)
 - Located in Ormond Beach City Limits – 10 points
 - Located in Volusia County – 7 points
 - Located within 100 miles – 3 points

Selection Process: The responses will be evaluated in accordance with Florida Statutes Section 287.055 known as the Consultants Competitive Negotiations Act.

A designated selection committee will review and evaluate responses to this RFQ for each firm that submits and will rank the proposals based on the evaluation criteria. These proposers may be invited to appear for interview by City staff or be asked to further demonstrate their qualifications. Final contracts will then be negotiated and submitted to the City Manager for approval and recommendation to the City Commission.

Insurance Requirements: The Consultant shall purchase at his own expense and maintain throughout the duration of the contract the types and amounts of insurance in form and from companies satisfactory to the City and shall furnish proof of insurance prior to commencing work.

The Consultant shall indemnify and hold harmless the City and its employees from and against all claims, damages, losses, and expenses including, but not limited to, attorneys' fees arising out of or resulting from work provided that the claim, damages, loss and expense is caused in whole or in part.

The City reserves the following rights:

- Modify, extend, or cancel this RFQ at any time to obtain additional proposals or for any other reason the City determines to be in its best interest;
- Issue a new RFQ with terms and conditions that are the same, similar or substantially different as those set forth in this or a previous RFQ in order to obtain additional proposals or for any other reason the City determines to be in its best interest;
- Conduct pre-award discussion and/or pre-award negotiations with any or all responsive and responsible proposer(s) who submit proposals determined to be reasonably acceptable of being selected for award; and, conduct personal interviews or require presentations of any or all proposer(s) prior to selection.
- Request that proposer(s) furnish additional information as the City may reasonably require.
- Accept or reject qualifications or proposals in part or whole, and/or waive any defect or deficiency in any proposal, if in the City's sole judgment, the defect or deficiency is not material in response to this RFQ;
- Limit and/or determine the actual contract services to be included in a contract.
- Engage outside experts to assist staff in evaluating the merits and viability of each proposer.
- Obtain information for use in evaluating submittals from any source.
- Verify the information received in the proposal. If a proposer knowingly and willfully submits false information or data, the City of Ormond Beach reserves the right to reject that proposal. If it is determined that an Agreement was awarded as a result of false statements or other data submitted in response to this RFQ, the City of Ormond Beach reserves the right to terminate the Agreement. The City shall be the sole judge of the proposer's qualifications.

Insurance Requirements

1. Contractor's Insurance General

The Contractor, including service-related contractors, shall purchase and maintain for the entire life of the Project, including any and all approved time extensions, until its final acceptance by the City, such insurance as will protect the Contractor from claims under Workers' Compensation, disability benefit laws or other similar employee benefit laws; from claims for damages because of bodily injury, occupational sickness or disease, or death of Contractor's employees; from claims insured by usual or unusual injury liability coverage; from claims or injury to or destruction of tangible property and from claims insured by usual Commercial General Liability coverage. This includes loss of use resulting therefrom, any or all of which may arise out of the Contractor's operations under the Contract Documents, whether such operations be by the Contractor, by any Subcontractor, or by anyone directly or indirectly employed by any of them or for whose acts any of them may be legally liable. The Contractor's deductibles/self-insured retentions shall be disclosed to the City and may be disapproved by the City, and may be reduced or eliminated at the sole discretion of the City. The Contractor is responsible for the amount of any deductible or self-insured retention.

2. Types of Insurance and Limits of Liability

The insurance required herein shall be written for not less than any limits of liability specified and incorporated as part of the Contract Documents or as required by law, whichever is greater, and shall include and not limited to the following:

- (a)** Workers' Compensation Insurance in statutory limits for the State of Florida with Coverage B - Employer's Liability limits of not less than:

\$100,000 Each Accident Bodily Injury by Accident
 \$100,000 Each Employee Bodily Injury by Disease
 \$500,000 Policy Limit Bodily Injury by Disease

Certificate of Exemptions. If the contractor has a State-issued Certificate of Exemption, the contractor may provide a copy in place of the requirement for coverage. However, if the contractor subcontracts or retains any other person or entity to perform under the contract, that person or entity must provide proof of workers' compensation insurance as required by law or provide a Certificate of Exemption.

It is the intent of the City that any individual who either contracts directly with the city or performs any work on behalf of any such contractor be covered by workers' compensation insurance or have a valid exemption from said coverage.

(If applicable to the Project, the policy must include benefits under the United States Longshoremen's and Harbor Workers' Act and the Jones Act coverage--all maritime coverage.)

(b) Commercial General Liability Insurance shall be written on a coverage form as broad as Insurance Services Office (ISO) Form CG 00 01 11 85, or its successor form, including but not limited to the following coverage (any deviation shall be noted on the Certificates of Insurance):

- a. Premises, Operations, Products and Completed Operations
- b. Owners' & Contractors' Protective
- c. Products & Completed Operation
- d. Explosion, Collapse & Underground Conditions
- e. Blanket Contractual Liability
- f. Personal Injury Liability
- g. Broad Form Property Damage Endorsement, including Completed Operations
- h. Independent Contractors
- i. Watercraft--Owned and Non-Owned (if applicable, endorsement must be included in General Liability policy or a separate Protection & Indemnity Policy must be written)
- j. Pollution Liability (if applicable)
- k. Asbestos Abatement (if applicable)
- l. Fire Damage Liability

Certain coverage outlined above may not be required if they do not relate to the Project, as may be determined at the sole discretion of the City.

Commercial General Liability Coverage shall be written on an occurrence basis and the limits shall be no less and not limited to the following amounts:

Limits (not less than)

\$1 Million Each Occurrence

\$2 Million General Aggregate

\$1 Million Aggregate Products & Completed Operations

NOTE: Commercial General Liability Coverage must be purchased on either a project basis (separate policy per contract) or an

endorsement allocating an aggregate limit per location or specified project.

- (c) Automobile Liability Insurance is required if an Automobile(s) is used in the performance of the contract.

ISO Symbol 1 (Any Auto), or alternatively a combination of Symbol 2 (Owned Autos), Symbol 8 (Hired Autos), and Symbol 9 (Non-Owned Autos), and limits shall be no less than:

\$1 Million	Combined Single Limit for Bodily Injury and Property Damage
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- (d) Excess Liability

For contracts \$250,000 or greater an Excess Liability Policy of at least but not limited to \$1,000,000 in addition to the scheduled underlying policies for Commercial General Liability, Automobile Liability and Employers' Liability, the Contractor shall also provide an Excess Liability Policy with a maximum self-insured retention not to exceed \$25,0000 per occurrence.

- (e) Builder's Risk

Contractor shall purchase Builder's Risk Insurance for any contracts that are deemed to be vertical construction on an All-Risk policy, and shall also include coverage for wind, hail, and named storm. Limits of coverage shall be at least and not limited to the value of the project.

- (f) Professional Liability, Malpractice and/or Errors and Omissions

The Contractor shall purchase and maintain professional liability, malpractice, or errors or omissions insurance with minimum limits of \$1,000,000 per occurrence. If a claims made form of coverage is provided, the retroactive date of coverage shall be no later than the inception date of claims made coverage, unless the prior policy was extended indefinitely to cover prior acts. Coverage shall be extended beyond the policy year either by a supplemental extended reporting period (ERP) of as great a duration as is available, and with no less coverage and with reinstated aggregate limits, or by requiring that any new policy provides a retroactive date no later than the inception date of claims made coverage.

D. Requirements for Certificates of Insurance

1. With the execution of the Contract Documents, the Contractor, including service related contractors, shall provide certificates of such insurance acceptable to the City. These certificates and insurance policies shall contain an endorsement that the coverage under the policies will not be canceled, non-renewed or materially changed until at least thirty (30) days' prior written notice of such cancellation, non-renewal or change (except for nonpayment of premium, which shall be ten (10) days) and a copy of the cancellation endorsement signed by an authorized representative of the insurer, be given to the City. The contractor shall be required to replace any expired or canceled policies in like amount and coverage to the satisfaction of the City. The Certificate of Insurance shall be the ACORD FORM 25-S (7/90), or its successor form, and shall be made a part of the Contract Documents.
2. New certificates of insurance shall be provided to the City at least fifteen (15) days prior to coverage renewals.
3. If requested by the City, the contractor shall immediately furnish complete copies of the Contractor's insurance policies, forms and endorsements.
4. For Commercial General Liability coverage, the Contractor shall, at the option of the City, provide an indication of the amount of claims payments or reserves chargeable to the aggregate amount of liability coverage. If the Commercial General Liability form of coverage includes an annual aggregate limitation on the amount of insurance provided, a separate project aggregate limit may be required by the City for the given contract.
5. If the Contractor fails to obtain and maintain for the life of the Project the insurance required hereby or to replace any such expired or canceled policy, the City may obtain and maintain such insurance with such company as it deems satisfactory. Any amounts expended by the City in payment of premiums for such insurance shall be deducted by the City from the amount due the Contractor for the work covered by the Contract.

E. Policies of Insurance

1. Except as otherwise provided in this Exhibit, all insurance policies shall be issued by insurers licensed to do business in the State of Florida on an admitted basis or which is an eligible surplus lines insurer in the State of Florida, and any such insuring company is required to have a minimum financial rating of (A-), in the latest edition of "Best's Key Rating Guide", published by A. M. Best Co., Inc., or some similarly nationally recognized rating authority, including Standard and Poors and Demotech.
2. For Workers' Compensation coverage only, self-insurance programs are

acceptable with a minimum A- rated reinsurance carrier; written confirmation is required.

3. All policies of insurance or certificates thereof referred to in this Exhibit shall be deposited with the City Clerk.
4. The City shall be named an Additional Insured on General Liability including products and completed operations and Automobile Liability policies of insurance and certificates thereof.

THIS PAGE MUST BE COMPLETED AND RETURNED WITH YOUR PROPOSAL

VERIFICATION OF EMPLOYMENT STATUS USING E-VERIFY SYSTEM

1. Undersigned firm warrants it **IS** currently registered with the U.S. Department of Homeland Security's E-Verify system, **and** is compliant with the requirements of Sections 448.09 and 448.095, *Florida Statutes*.
2. Undersigned firm warrants it **has not** had any contracts terminated as a result of violations of Sections 448.09 or 448.095, *Florida Statutes*, that prohibit it from contracting with a public agency.
3. Undersigned firm warrants that if it enters into an agreement with a subcontractor, an express provision shall be included in all of its subcontracts requiring subcontractors, who perform work or provide services pursuant to the contract, to use the E-Verify system to verify employment eligibility of all new employees hired by the subcontractor during the contract term.
4. Undersigned firm understands that any subcontractor must provide the contractor with an affidavit stating that the subcontractor does not employ, contract with, or subcontract with an unauthorized alien, and the contractor understands it shall maintain any such affidavits for the duration of the contract, and the contract with the subcontractor must be immediately terminated if the City has a good faith belief that the subcontractor knowingly violated Section 448.09 (1), *Florida Statutes*.
5. Undersigned firm understands that in the event the City has a good faith belief that the contractor has knowingly violated Section 448.09 (1), *Florida Statutes*, the City shall terminate the contract, and the contractor may not be awarded a public contract for a period of at least one (1) year after the date of termination. The contractor may be held liable for any additional costs incurred by the City as a result of termination of the contract.

COMPANY NAME

AUTHORIZED SIGNATURE

NAME

TITLE

DATE

THIS PAGE MUST BE COMPLETED AND RETURNED WITH YOUR PROPOSAL

City of Ormond Beach
CONFLICT, NON-CONFLICT OF INTEREST STATEMENT,
LITIGATION STATEMENT

1.

- [] To the best of our knowledge, the undersigned firm has no potential conflicts of interest due to any other clients or contracts for this project.
- [] The undersigned firm, by attachment to this form, submits information which may be a potential conflict of interest due to other clients or contracts for this project.

2.

- [] The undersigned firm has had no litigation on any project in the last five (5) years.
- [] The undersigned firm, by attachment to this form, submits a summary and disposition of individual cases of litigation during the past five (5) years.

COMPANY NAME

AUTHORIZED SIGNATURE

PRINT NAME

TITLE

DATE

THIS PAGE MUST BE COMPLETED AND RETURNED WITH YOUR PROPOSAL

City of Ormond Beach

DRUG-FREE WORKPLACE CERTIFICATION

IDENTICAL OR "TIE" PROPOSALS: Preference shall be given to businesses with drug-free workplace programs. Whenever two or more proposals which are equal in respect to price, quality, and service are received by the State or by any political subdivision for the procurement of commodities or contractual services, a proposal received from a business that certifies that it has implemented a drug-free workplace program shall be given preference in the award process. Established procedures for processing tie proposals will be followed if none of the tied vendors have a drug-free workplace program. In order to have a drug-free workplace program, a business shall:

Publish a statement notifying employees that the unlawful manufacture, distribution, dispensing, possession, or use of a controlled substance is prohibited in the workplace and specifying the actions that will be taken against employees for violations of such prohibition.

Inform employees about the dangers of drug abuse in the workplace, the business's policy of maintaining a drug-free workplace, any available drug counseling, rehabilitation, and employee assistance programs, and the penalties that may be imposed upon employees for drug abuse violation.

Give each employee that engages in providing the commodities or contractual services that are under proposal a copy of the statement specified in subsection (1).

In the statement specified in subsection (1), notify the employees that, as a condition of working on the commodities or contractual services that are under proposal, the employee will abide by the terms of the statement and will notify the employer of any conviction of, or plea of guilty or nolo contendere to, any violation of Chapter 893 or of any controlled substance law of the United States or any state, for a violation occurring in the workplace no later than five (5) calendar days after such conviction.

Impose sanctions on, or require the satisfactory participation in a drug abuse assistance or rehabilitation program if such is available in the employee's community, by any employee who is so convicted.

Make a good faith effort to continue to maintain a drug-free workplace through implementation of this section.

Name

Signature

Title

Appendix A

Proposed Contract

**PROFESSIONAL SERVICES AGREEMENT
PROJECT TITLE**

This Agreement is made and entered into by and between the CITY OF ORMOND BEACH, FLORIDA, a municipal corporation (hereinafter referred to as "CITY"), 22 South Beach Street, Ormond Beach, Florida 32174 and CONSULTANT NAME, (hereinafter referred to as "CONSULTANT"), address _____.

PREMISES

WHEREAS, the CITY wishes to employ a professional engineering firm to assist the CITY in the _____ project.

WHEREAS, the CITY desires to employ the CONSULTANT in connection therewith upon terms and conditions hereinafter set forth, and the CONSULTANT is desirous of obtaining such employment and has represented that it is qualified and competent to perform such services, and,

WHEREAS, on ____ date ____, the CITY advertised for Requests for Qualifications (RFQ XXXX-XX) for the "_____" project from qualified engineering firms and selected the CONSULTANT in accordance with the "Consultants Competitive Negotiation Act" (CCNA) pursuant to §287.055 Florida Statutes; and

WHEREAS, this Agreement shall constitute an Engineering Services Contract as defined under the laws of the State of Florida.

NOW, THEREFORE, in consideration of the premises and mutual covenants hereinafter set forth, CITY and CONSULTANT agree as follows:

SECTION 1. SCOPE OF PROFESSIONAL SERVICES. A detailed description of the scope professional services ("Scope of Services") to be provided is provided in Exhibit "A".

SECTION 2. TIME FOR COMPLETION. The services to be rendered by the CONSULTANT shall commence upon the receipt of a Notice to Proceed and shall be for the duration of the project through completion of design. The City, with the mutual agreement of the

CONSULTANT may elect to amend the agreement to include, but not be limited to, construction engineering services. CONSULTANT shall perform all services under any amendments in accordance with the terms and conditions herein.

SECTION 3. COMPENSATION. CITY agrees to compensate CONSULTANT for the professional services called for under this Agreement for a fixed fee in the amount of \$_____. A detailed copy of the negotiated fees for the project are attached in Exhibit "B".

SECTION 4. REIMBURSABLE EXPENSE.

Costs to the CONSULTANT for the performance of the work are reimbursable if they have been included in the negotiated fixed fee as a reimbursable expense and subject to the limits as follows:

(1) Travel expenses in connection with the Project consistent with Sections 112.061, Florida Statutes, or its successor. Reimbursement for meals, travel, vehicle mileage, tolls, and parking shall not apply to local employees of CONSULTANT.

(2) Reimbursement for mileage shall be at the rate allowable by the Federal Internal Revenue Services. Reimbursement for local mileage, defined as within a fifty (50) mile radius of the job site, is not allowed.

(3) In-house copying charges, computer fees, photocopies less than 11" x 17", telephone services, and other similar items shall be considered a portion of the CONSULTANT's overhead costs and shall not be billed separately to the CITY. Any other reimbursable costs not specifically identified within this Section are authorized at actual cost only. The CITY shall not be billed and will not pay any "up charges" or any cost over and above the CONSULTANT's actual cost.

(4) If authorized in writing in advance by CITY, the cost of other expenditures made by CONSULTANT in the interest of the Project.

(5) Any reimbursable expenses under this Agreement shall be supported by a source document, such as a receipt or invoice, with the employee's name, project name, and brief explanation of the expense. All reimbursable expenses shall be itemized on the invoices.

(6) All reimbursable expenses must be allowable, specific to the Agreement, and reasonable, as solely determined by CITY.

SECTION 5. PAYMENT AND BILLING.

CONSULTANT may invoice the amount due based on the percentage of total services actually performed and completed, but in no event shall the invoice amount exceed a percentage of the Fixed Fee amount equal to a percentage of the total services actually completed.

Payments shall be made by CITY to CONSULTANT when requested as work progresses for services furnished, but not more than once monthly. At the close of each calendar month, CONSULTANT shall render to CITY a properly dated itemized invoice describing any services rendered, the cost of the services, the name and address of CONSULTANT, and all other information required by this Agreement.

The invoice shall be sent to:

Engineering Division
CITY of Ormond Beach
Post Office Box 277
Ormond Beach, Florida 32175-0277

Payments shall be made by the CITY to the CONSULTANT within thirty (30) days after receipt of a properly documented, supported and approved invoice.

CONSULTANT's acceptance of final payment shall constitute a full waiver of any and all claims by CONSULTANT against CITY arising out of this Agreement or otherwise relating to the work for which final payment is made, except those identified in writing by CONSULTANT as unsettled in the final Application for Payment. Neither the acceptance of the Work nor payment by CITY shall be deemed to be a waiver of CITY'S right to enforce any obligations of

CONSULTANT hereunder or to the recovery of damages for defective services not discovered by CITY at the time of completion of services, and/or payment.

SECTION 6. PAYMENT AND BILLING DISPUTES/AUDIT.

(a) If CONSULTANT disputes any determination by the CITY's project manager that some or all of an invoice shall not be paid, the determination shall be appealed by the CONSULTANT to the CITY Manager within fifteen (15) days of notification to the CONSULTANT that some or all of the disputed invoice will not be paid. The CITY Manager, or her designee, shall schedule and conduct a hearing within ten (10) days of the receipt of the notice of appeal. The CITY Manager, or her designee, will render a decision on the appeal within five (5) business days from the date of the hearing. The decision of the CITY Manager is final administrative action. Either party may appeal the decision of the CITY Manager by petition for writ of certiorari to the Circuit Court in and for Volusia County. Such an appeal shall not be a hearing de novo but shall be limited to appellate review of the record created before the CITY Manager. An appeal shall be filed within thirty (30) days of the execution of the order to be appealed.

(b) CITY may perform or have performed an audit of the records of CONSULTANT before or after final payment to support final payment hereunder. Total compensation to CONSULTANT may be determined subsequent to an audit and shall be used to calculate final payment to CONSULTANT.

(c) In addition to the above, if federal or state funds are used for any work under the Agreement, their duly authorized representatives shall have access to any books, documents, papers, and records of CONSULTANT which are directly pertinent to work performed under this Agreement for purposes of making audit, examination, excerpts, and transcriptions.

(d) CONSULTANT agrees to maintain all books, documents, papers, accounting records, and other evidence pertaining to work performed under this Agreement in such a manner as will readily conform to the terms of this Agreement and to make such materials available at

CONSULTANT's office at all reasonable times during the Agreement period and for five (5) years from the date of final payment under the Agreement for audit or inspection as provided for in subsections (b) and (c) of this Section.

(e) In the event any audit or inspection conducted after final payment, but within the period provided in paragraph (d) of this Section, reveals any overpayment by CITY under the terms of the Agreement, CONSULTANT shall refund such overpayment to CITY within thirty (30) days of notice by CITY.

SECTION 7. RESPONSIBILITIES OF CONSULTANT.

(a) CONSULTANT shall be responsible for the professional quality, technical accuracy, competence, methodology, and the coordination of all of the following which are listed for illustration purposes and not as a limitation: documents, analysis, reports, data, plans, plats, maps, surveys, specifications, and any and all other services of whatever type or nature furnished by CONSULTANT under this Agreement. CONSULTANT shall, without additional compensation, correct or revise any errors or deficiencies in his plans, analysis, data, reports, designs, drawings, specifications, and any and all other services of whatever type or nature.

(b) Neither CITY's review, approval, or acceptance of, nor payment for, any of the services required shall be construed to operate as a waiver of any rights under this Agreement nor of any cause of action arising out of the performance of this Agreement; and CONSULTANT shall be and always remain liable to CITY in accordance with applicable law for any and all damages to CITY caused by CONSULTANT'S negligent or wrongful performance of any of the services furnished under this Agreement.

(c) CONSULTANT hereby represents and warrants that it has and will continue to maintain all licenses and approvals required to conduct its business and that it will at all times conduct its business activities in a reputable manner.

SECTION 8. OWNERSHIP OF DOCUMENTS. All deliverable analysis, reference data, survey data, plans, and reports or any other form of written instrument or document that may result from CONSULTANT'S services or have been created during the course of CONSULTANT's performance under this Agreement shall become the property of CITY after final payment is made to CONSULTANT.

SECTION 9. EXPERT WITNESS. CONSULTANT shall serve as an expert witness for the CITY in any legal proceeding regarding projects undertaken pursuant to this Agreement. The expert witness fee for CONSULTANT shall be at the same hourly rate as provided in the fee schedule attached, up to a maximum of One Thousand Dollars (\$1,000.00) for any one day.

SECTION 10. TERMINATION.

(a) The CITY may, by written notice to CONSULTANT, terminate, in whole or in part, at any time, either for CITY's convenience or because of the failure of CONSULTANT to fulfill its obligations. Upon receipt of notice from the CITY to terminate the Agreement, CONSULTANT shall:

(1) immediately discontinue all services affected unless the notice directs otherwise; and

(2) deliver to CITY all data, drawings, specifications, reports, estimates, summaries, and any and all such other information and materials of whatever type or nature as may have been accumulated by CONSULTANT in performing this Agreement, whether completed or in process.

(b) If the termination is for the convenience of CITY, CONSULTANT shall be paid compensation for services performed to the date of termination. CONSULTANT shall be paid no more than a percentage of the fixed fee amount equivalent to the percentage of the completed work as determined solely and conclusively by CITY.

(c) If the termination is due to the failure of CONSULTANT to fulfill its Agreement obligations, CITY may take over the work and prosecute the same to completion by other Agreements or otherwise. In such case, CONSULTANT shall be liable to CITY for all reasonable additional costs occasioned to CITY thereby. CONSULTANT shall not be liable for such additional costs if the failure to perform the Agreement arises without any fault or negligence of CONSULTANT; provided, however, that CONSULTANT shall be responsible and liable for the actions of its subconsultants, agents, employees, and persons and entities of a similar type or nature. Such causes may include acts of God or of the public enemy, acts of CITY in its sovereign or contractual capacity, fires, floods, epidemics, quarantine restrictions, strikes, freight embargoes, and unusually severe weather; but, in every case, the failure to perform must be beyond the control and without any fault or negligence of CONSULTANT.

(d) If after notice of termination for failure to fulfill its Agreement obligations it is determined that CONSULTANT had not so failed, the termination shall be conclusively deemed to have been effected for the convenience of CITY. In such event, adjustment in the Agreement price shall be made as provided in subsection (b) of this Section.

(e) The rights and remedies of CITY provided for in this Section are in addition and supplemental to any and all other rights and remedies provided by law or under this Agreement.

(f) All covenants, agreements and warranties made under this Agreement (including but not limited to representation relating to disclosure or ownership of documents) survive the termination of this Agreement.

SECTION 11. DOCUMENTS IN CONFLICT. Whenever the terms of this Agreement conflict with any other document, Exhibit or Change Order, the Agreement shall prevail.

SECTION 12. ASSIGNMENT. This Agreement, or any interest herein, shall not be assigned, transferred, or otherwise encumbered, under any circumstances, by the parties hereto

without prior written consent of the other party and in such cases only by a document of equal dignity herewith.

SECTION 13. SUBCONSULTANTS. In the event that CONSULTANT, during the course of the work under this Agreement, requires the services of any subconsultants or other professional associates in connection with services covered by this Agreement, CONSULTANT must first secure the prior express written approval of CITY. If subconsultants or other professional associates are required in connection with the services covered by this Agreement, CONSULTANT shall remain fully responsible for the services of subconsultants or other professional associates.

SECTION 14. INDEMNIFICATION OF CITY/ LOSS CONTROL SAFETY. The parties recognize that the CONSULTANT is an independent contractor. The CONSULTANT agrees to assume liability for and indemnify, hold harmless, and defend the CITY, its commissioners, mayor, officers, employees, agents, and attorneys of, from, and against all liability and expense, including reasonable attorney's fees, in connection with any and all claims, demands, damages, actions, causes of action, and suits in equity of whatever kind or nature, including claims for personal injury, property damage, equitable relief, or loss of use, to the extent caused by the negligence, recklessness, or intentionally wrongful conduct of the CONSULTANT, its agents, officers, contractors, subcontractors, employees, or anyone else employed or utilized by the CONSULTANT in the performance of this Agreement. The CONSULTANT's liability hereunder shall include all attorney's fees and costs incurred by the CITY in the enforcement of this indemnification provision. This includes claims made by the employees of the CONSULTANT against the CITY and the CONSULTANT hereby waives its entitlement, if any, to immunity under Section 440.11, Florida Statutes. The obligations contained in this provision shall survive

termination of this Agreement and shall not be limited by the amount of any insurance required to be obtained or maintained under this Agreement.

In the event of any claim arising out of the paragraph above, the CITY will elect, in its sole discretion, that either:

1) The CONSULTANT assume control of the defense of any claim asserted by a third party against the CITY and, in connection with such defense, shall appoint lead counsel, in each case at the CONSULTANT's expense. The CITY shall have the right, at its option, to participate in the defense of any third party claim, without relieving CONSULTANT of any of its obligations hereunder. If the CONSULTANT assumes control of the defense of any third party claim in accordance with this paragraph, the CONSULTANT shall obtain the prior written consent of the CITY before entering into any settlement of such claim. If the CONSULTANT assumes control of the defense and the CONSULTANT has failed or is failing to prosecute or defend vigorously the third party claim, the CITY may assume the control of the defense as provided by subparagraph (2); or

2) The CITY will assume control of the defense of any third party claim, but CONSULTANT shall pay the fees of counsel retained by the CITY and all expenses, including experts' fees.

Each party shall cooperate, and cause its agents to cooperate, in the defense or prosecution of any third party claim and shall furnish or cause to be furnished such records and information, and attend such conferences, discovery proceedings, hearings, trials, or appeals, as may be reasonably requested in connection therewith.

It is the specific intent of the parties hereto that the foregoing indemnification complies with Section 725.08, Florida Statutes, as amended. CONSULTANT expressly agrees that it will not claim, and waives any claim, that this indemnification violates Section 725.08, Florida Statutes, as amended. Nothing contained in the foregoing indemnification shall be construed as a waiver of any immunity or limitation of liability the CITY may have under the doctrine of sovereign immunity or Section 768.28, Florida Statutes.

Precaution shall be exercised at all times by the CONSULTANT for the protection of all persons, including employees and property. The CONSULTANT shall comply with all applicable laws, regulation and ordinances related to safety and health, shall make special efforts to detect hazardous conditions, and shall take prompt action with loss control/safety measures as are reasonably necessary. The CITY may order work to be stopped if conditions exist that present an immediate danger to persons or property. The CONSULTANT acknowledges that such work stoppage will not shift responsibility for any damages from the CONSULTANT to the CITY.

SECTION 15. INSURANCE.

1. General. CONSULTANT shall maintain the minimum insurance requirements established by CITY Resolution, and any amendments to thereto. The CONSULTANT, including service-related CONSULTANTS, shall purchase and maintain for the entire life of the Project, including any and all approved time extensions, until its final acceptance by the CITY, such insurance as will protect the CONSULTANT from claims under Workers' Compensation, disability benefit laws or other similar employee benefit laws; from claims for damages because of bodily injury, occupational sickness or disease, or death of CONSULTANT'S employees; from claims insured by usual or unusual injury liability coverage; from claims or injury to or destruction of

tangible property and from claims insured by usual Commercial General Liability coverage. This includes loss of use resulting therefrom, any or all of which may arise out of the CONSULTANT'S operations under the Contract Documents, whether such operations be by the CONSULTANT, by any Subconsultant, or by anyone directly or indirectly employed by any of them or for whose acts any of them may be legally liable. The CONSULTANT'S deductibles/self-insured retentions shall be disclosed to the CITY and may be disapproved by the CITY, and may be reduced or eliminated at the sole discretion of the CITY. The CONSULTANT is responsible for the amount of any deductible or self-insured retention.

2. Types of Insurance and Limits of Liability

The insurance required herein shall be written for not less than any limits of liability specified and incorporated as part of the Contract Documents or as required by law, whichever is greater, and shall include the following:

- (a)** Workers' Compensation Insurance in statutory limits for the State of Florida with Coverage B - Employer's Liability limits of not less than:

\$100,000 Each Accident Bodily Injury by Accident
 \$100,000 Each Employee Bodily Injury by Disease
 \$500,000 Policy Limit Bodily Injury by Disease

Certificate of Exemptions. If the contractor has a State-issued Certificate of Exemption, the contractor may provide a copy in place of the requirement for coverage. However, if the contractor subcontracts or retains any other person or entity to perform under the contract, that person or entity must provide proof of workers' compensation insurance as required by law or provide a Certificate of Exemption.

It is the intent of the City that any individual who either contracts directly with the city or performs any work on behalf of any such contractor be covered by workers' compensation insurance or have a valid exemption from said coverage.

(If applicable to the Project, the policy must include benefits under the United States Longshoremen's and Harbor Workers' Act and the Jones Act coverage--all maritime coverage.)

- Certain coverage outlined above may not be required if they do not relate to the Project, as may be determined at the sole discretion of the City.

Limits (not less than)

\$1 Million Aggregate Products & Completed Operations

(c) Automobile Liability Insurance is required if an Automobile(s) is used in the performance of the contract.

Packet Pg. 82

\$1 Million

Combined Single Limit for Bodily Injury
and Property Damage

(d) Excess Liability

For contracts \$250,000 or greater an Excess Liability Policy of at least but not limited to \$1,000,000 in addition to the scheduled underlying policies for Commercial General Liability, Automobile Liability and Employers' Liability, the Contractor shall also provide an Excess Liability Policy with a maximum self-insured retention not to exceed \$25,0000 per occurrence.

(e) Builder's Risk

Contractor shall purchase Builder's Risk Insurance for any contracts that are deemed to be vertical construction on an All-Risk policy, and shall also include coverage for wind, hail, and named storm. Limits of coverage shall be at least and not limited to the value of the project.

(f) Professional Liability, Malpractice and/or Errors and Omissions

The Contractor shall purchase and maintain professional liability, malpractice, or errors or omissions insurance with minimum limits of \$1,000,000 per occurrence. If a claims made form of coverage is provided, the retroactive date of coverage shall be no later than the inception date of claims made coverage, unless the prior policy was extended indefinitely to cover prior acts. Coverage shall be extended beyond the policy year either by a supplemental extended reporting period (ERP) of as great a duration as is available, and with no less coverage and with reinstated aggregate limits, or by requiring that any new policy provides a retroactive date no later than the inception date of claims made coverage.

D. Requirements for Certificates of Insurance

1. With the execution of the Contract Documents, the Contractor, including service-related contractors, shall provide certificates of such insurance acceptable to the City. These certificates and insurance policies shall contain an endorsement that the coverage under the policies will not be canceled, non-renewed or materially changed until at least thirty (30) days' prior written notice of such cancellation, non-renewal or change (except for nonpayment of premium, which shall be ten (10) days) and a copy of the cancellation endorsement signed by an authorized representative of the insurer, be given to the City. The contractor shall be required to replace any expired or canceled policies in like amount and coverage to the satisfaction of the City. The Certificate of Insurance shall be the ACORD FORM

25-S (7/90), or its successor form, and shall be made a part of the Contract Documents.

2. New certificates of insurance shall be provided to the City at least fifteen (15) days prior to coverage renewals.
3. If requested by the City, the contractor shall immediately furnish complete copies of the Contractor's insurance policies, forms and endorsements.
4. For Commercial General Liability coverage the Contractor shall, at the option of the City, provide an indication of the amount of claims payments or reserves chargeable to the aggregate amount of liability coverage. If the Commercial General Liability form of coverage includes an annual aggregate limitation on the amount of insurance provided, a separate project aggregate limit may be required by the City for the given contract.
5. If the Contractor fails to obtain and maintain for the life of the Project the insurance required hereby or to replace any such expired or canceled policy, the City may obtain and maintain such insurance with such company as it deems satisfactory. Any amounts expended by the City in payment of premiums for such insurance shall be deducted by the City from the amount due the Contractor for the work covered by the Contract.

E. Policies of Insurance

1. Except as otherwise provided in this Exhibit, all insurance policies shall be issued by insurers licensed to do business in the State of Florida on an admitted basis or which is an eligible surplus lines insurer in the State of Florida, and any such insuring company is required to have a minimum financial rating of (A-), in the latest edition of "Best's Key Rating Guide", published by A. M. Best Co., Inc., or some similarly nationally recognized rating authority, including Standard and Poors and Demotech.
2. For Workers' Compensation coverage only, self-insurance programs are acceptable with a minimum A- rated reinsurance carrier; written confirmation is required.
3. All policies of insurance or certificates thereof referred to in this Exhibit shall be deposited with the City Clerk.
4. The City shall be named an Additional Insured on General Liability including products and completed operations and Automobile Liability policies of insurance and certificates thereof.

SECTION 16. AVAILABILITY OF FUNDS. The obligations of the CITY under this Contract are subject to the availability and appropriation of funds by and in the sole discretion of the CITY Commission of Ormond Beach.

SECTION 17. REPRESENTATIVES OF CITY AND CONSULTANT.

(a) It is recognized that questions in the day-to-day conduct of performance pursuant to this Agreement will arise. CITY, upon request by CONSULTANT, shall designate in writing and shall advise CONSULTANT in writing of one (1) or more of its employees to whom all communications pertaining to the day-to-day conduct of this Agreement shall be addressed. The designated representative shall have the authority to transmit instructions, receive information, and interpret and define CITY's policy and decisions pertinent to the work covered by this Agreement.

(b) CONSULTANT shall at all times during the normal work week designate or appoint one or more representatives of CONSULTANT who are authorized to act on behalf of and bind CONSULTANT regarding all matters involving the conduct of the performance pursuant to this Agreement and shall keep CITY continually and effectively advised of such designation.

SECTION 18. LIAISON. During the course of providing any services under this Agreement, the CONSULTANT shall maintain liaison with the CITY and the CITY Commission, and to meet with them for consultation or conferences, including but not limited to public hearing/presentations before the CITY Commission or any CITY advisory board, when requested by the CITY. Any compensation for such liaison shall be included in the fee negotiated in advance of the time of providing service.

SECTION 19. ALL PRIOR AGREEMENTS SUPERSEDED. This document incorporates and includes all prior negotiations, correspondence, conversations, agreements, or understandings applicable to the matters contained herein and the parties agree that there are no commitments, agreements, or understandings concerning the subject matter of this Agreement

that are not contained or referred to in this document. Accordingly, it is agreed that no deviation from the terms hereof shall be predicated upon any prior representations or agreements, whether oral or written.

SECTION 20. MODIFICATIONS, AMENDMENTS OR ALTERATIONS.

(a) No modification, amendment, or alteration in the terms or conditions contained herein shall be effective unless contained in a written document executed between the parties. NO OFFICER, EMPLOYEE OR AGENT OF CITY IS AUTHORIZED TO DIRECT ANY EXTRA WORK ORALLY.

(b) The CITY reserves the right to make changes in any Scope of Services, including alterations, reductions therein or additions thereto. Upon receipt by the CONSULTANT of the CITY's notification of a contemplated change, the CONSULTANT shall if requested by the CITY: (1) provide a written estimate for the increase or decrease in cost due to the contemplated change, (2) notify the CITY in writing of any estimated change in the completion date, and (3) advise the CITY in writing if the contemplated change shall effect the CONSULTANT's ability to meet the completion dates or schedules as set for the in the Scope of Services.

(c) If the CITY elects to make the change, the CITY shall issue a Change Order for the additional work and the CONSULTANT shall not commence work on any such change until such Change Order has been issued and signed by each of the parties.

SECTION 21. INDEPENDENT CONSULTANT. It is agreed that nothing herein contained is intended or should be construed as in any manner creating or establishing a relationship of co-partners between the parties or as constituting CONSULTANT (including its officers, employees, and agents) an agent, representative, or employee of CITY for any purpose, or in any manner, whatsoever. CONSULTANT is to be and shall remain forever an independent CONSULTANT with respect to all services performed under this Agreement.

SECTION 22. EMPLOYEE STATUS. Persons employed by CONSULTANT in the performance of services and functions pursuant to this Agreement shall have no claim to pension, workers compensation, unemployment compensation, civil service, or other employee rights or privileges granted to CITY's officers and employees either by operation of law or by CITY.

SECTION 23. EQUAL OPPORTUNITY EMPLOYMENT. CONSULTANT agrees that it will not discriminate against any employee or applicant for employment for work under this Agreement because of race, color, religion, sex, age, disability, or national origin and will take steps to ensure that applicants are employed, and employees are treated during employment, without regard to race, color, religion, sex, age, disability, or national origin. This provision shall include, but not be limited to, the following: employment; upgrading, demotion or transfer; recruitment advertising; layoff or termination; rates of pay or other forms of compensation; and selection for training, including apprenticeship.

SECTION 24. SERVICES NOT PROVIDED FOR. CONSULTANT shall have no claim for services furnished by CONSULTANT not specifically provided for herein or by fully executed Change Order.

SECTION 25. COMPLIANCE WITH FLORIDA PUBLIC RECORDS LAW. CONSULTANT expressly agrees that it shall comply with the public records law provided in Florida Statutes, Chapter 119, and specifically to:

(a) Keep and maintain public records required by the CITY to perform the contracted service.

(b) Upon request from the CITY Clerk, provide the CITY with a copy of the requested records or allow the records to be inspected or copied within a reasonable time at a cost that does not exceed the cost provided in Chapter 119, Florida Statutes, or as otherwise provided by law.

(c) Ensure that public records that are exempt or confidential and exempt from public records disclosure requirements are not disclosed except as authorized by law for the duration of

the contract term and following completion of the contract if the CONSULTANT does not transfer the records to the CITY.

(d) Upon completion of the contract, transfer at no cost, to the CITY all public records in possession of the CONSULTANT or keep and maintain public records required by the CITY to perform the service. If the CONSULTANT transfers all public records to the CITY upon completion of the contract, the CONSULTANT shall destroy any duplicate public records that are exempt or confidential and exempt from public records disclosure requirements. If the CONSULTANT keeps and maintains public records upon the completion of the contract, the CONSULTANT shall meet all applicable requirements for retaining public records. All records stored electronically must be provided to the CITY, upon request from the CITY Clerk, in a format that is compatible with the information technology systems of the CITY.

(e) Failure of the CONSULTANT to comply with Public Records Law as provided by Florida Statutes, Chapter 119, shall subject the CONSULTANT to penalties under Chapter 119.10 and subject this Agreement to termination for cause by the CITY.

IF THE CONSULTANT HAS QUESTIONS REGARDING THE APPLICATION OF CHAPTER 119, FLORIDA STATUTES, TO THE CONSULTANT'S DUTY TO PROVIDE PUBLIC RECORDS RELATING TO THIS CONTRACT, CONTACT THE CUSTODIAN OF PUBLIC RECORDS AT:

**CITY CLERK
22 SOUTH BEACH STREET
ORMOND BEACH, FLORIDA 32174 (386) 676-3331
CLERK@ORMONDBEACH.ORG**

Ref: Fla. Stat. §119.0701(2016)

SECTION 26. COMPLIANCE WITH LAWS AND REGULATIONS. In providing all services pursuant to this Agreement, CONSULTANT shall abide by all statutes, ordinances, rules, and regulations pertaining to or regulating the provisions of such services, including those now in effect and hereafter adopted. Any violation of said statutes, ordinances, rules, or regulations shall

constitute a material breach of this Agreement and shall entitle CITY to terminate this Agreement immediately upon delivery of written notice of termination to CONSULTANT.

SECTION 27. CONTINGENT FEES. The CONSULTANT warrants that it has not employed or retained any company or person, other than a bona fide employee working solely for the CONSULTANT to solicit or secure this Contract, and that it has not paid or agreed to pay any person, company, corporation, individual, or firm, other than a bona fide employee working solely for the CONSULTANT, any fee, commission, percentage, gift, or any other consideration contingent upon or resulting from the award or making of this Contract. In the event of a breach of this provision, the CITY shall have the right in its sole discretion to immediately terminate this Contract without liability of any kind whatsoever, and to deduct the full amount of any such fee, commission, percentage, gift, or consideration from any amount due under the Contract, or to bring any action at law or in equity as it may determine appropriate.

SECTION 28. CONFLICT OF INTEREST. The CONSULTANT represents that is presently has no interest and shall acquire no interest, either direct or indirect, which would conflict in any manner with the performance of services required hereunder, as provided for in Section 112.311, Florida Statutes. The CONSULTANT further represents that no person or entity having any interest shall be employed for this purpose.

SECTION 29. FEDERAL AND STATE TAX. The CITY is exempt from State Sales Tax Payment. The CONSULTANT shall not be exempted from paying sales tax to their suppliers for materials to fulfill contractual obligations with the CITY, nor shall the CONSULTANT be authorized to use the CITY's Tax Exemption Number in securing such materials.

SECTION 30. TRUTH-IN-NEGOTIATION CERTIFICATE. The execution of this Contract by CONSULTANT shall act as the execution of a truth-in-negotiation certificate certifying that the wage rates and costs used to determine the compensation provided for in this Contract are accurate, complete and current. CONSULTANT's rates and costs shall be adjusted to

exclude any significant sums should the CITY determine that the rates and costs were increased due to inaccurate, incomplete or noncurrent wage rates or due to inaccurate representations of fees paid to CONSULTANT. The CITY shall exercise its rights under this "Certificate" within one (1) year following final payment.

SECTION 31. ENFORCEMENT COSTS / VENUE / WAIVER OF JURY TRIAL / LIMITATION OF REMEDY AND LIABILITY. If any legal or other proceeding is brought for the enforcement of this Agreement, or because of an alleged dispute, breach, default, or misrepresentation in connection with any provision of this Agreement, the successful or prevailing party or parties shall be entitled to recover, from the losing party, reasonable attorney's fees, court costs and all expenses, even if not taxable as court costs, including costs and expenses related to appeals, incurred in that action or proceeding, in addition to any other relief to which such party is entitled.

The venue for any dispute, action, or proceeding involving this Agreement, whether at law or in equity, shall be in the county or circuit courts for the Seventh Judicial Circuit, Volusia County, Florida.

THE PARTIES HEREBY KNOWINGLY, VOLUNTARILY AND INTENTIONALLY WAIVE ANY RIGHT WHICH ANY PARTY MAY HAVE TO TRIAL BY JURY IN RESPECT OF ANY PROCEEDING, LITIGATION OR COUNTERCLAIM BASED ON, OR ARISING OUT OF, UNDER OR IN CONNECTION WITH THIS AGREEMENT OR ANY COURSE OF CONDUCT, COURSE OF DEALING, STATEMENTS (WHETHER VERBAL OR WRITTEN) OR ACTIONS OF ANY PARTY. IF THE SUBJECT MATTER OF ANY LAWSUIT IS ONE IN WHICH THE WAIVER OF JURY TRIAL IS PROHIBITED, NO PARTY TO THIS AGREEMENT SHALL PRESENT AS A NON-COMPULSORY COUNTERCLAIM IN ANY SUCH LAWSUIT ANY CLAIM BASED ON, OR ARISING OUT OF, UNDER OR IN CONNECTION WITH THIS AGREEMENT. FURTHERMORE, NO PARTY TO THIS AGREEMENT SHALL SEEK TO CONSOLIDATE ANY SUCH ACTION IN WHICH A JURY TRIAL CANNOT BE WAIVED.

CONSULTANT and CITY expressly waive any claim for consequential damages against the other including but not limited to, a waiver of claims for diminished bonding capacity, loss of financing, loss of business reputation, lost profits on other projects or other lost opportunity

damage claims. CONSULTANT expressly agrees that any claim (tort, contract, claim in equity, or otherwise) by CONSULTANT for damages against CITY shall not exceed the total amount of the contract price less any amounts actually paid to the CONSULTANT by the CITY (or by an insurer of the CITY).

SECTION 32. NOTICES. Whenever either party desires to give notice unto the other, it must be given by written notice, sent by registered or certified United States mail, return receipt requested, addressed to the party for whom it is intended at the place last specified. The place for giving of notice shall remain such until it shall have been changed by written notice in compliance with the provisions of this Section. For the present, the parties designate the following as the respective places for giving of notice, to-wit:

For CITY:

City Engineer
City of Ormond Beach
22 South Beach Street, Suite 104
Ormond Beach, Florida 32174

For CONSULTANT:

SECTION 33. SURVIVAL OF TERMS / SEVERABILITY. The terms of this Agreement shall survive the expiration or termination of this Agreement to the full extent necessary for their enforcement and for the protection of the party in whose favor they operate. Should any provision of this Agreement be determined by a court to be unenforceable, such a determination shall not affect the validity or enforceability of any other section or part thereof.

SECTION 34. RIGHTS AT LAW RETAINED. The rights and remedies of CITY, provided for under this Agreement, are in addition and supplemental to any other rights and remedies provided by law.

IN WITNESS WHEREOF, the parties hereto have made and executed this Agreement on the dates below, and the Agreement shall become effective upon the date last signed.

DATED this _____ day of _____, 2022.

Witnesses:

CITY OF ORMOND BEACH

By: _____
BILL PARTINGTON
Mayor

Print Name

Print Name

Attest: _____
JOYCE A. SHANAHAN
City Manager

DATED this _____ day of _____, 2022.

Witnesses:

CONSULTANT

By: _____
Name
Title

Print Name

Print Name

Attest: _____
Name
Title

EXHIBIT "A"

Scope of Services

SAMPLE

EXHIBIT “B”

Fee Schedule

SAMPLE

Appendix B

- City Commission Workshop Minutes, 3 pgs
- Quality of Life Advisory Board Minutes, 7 pgs
- Leisure Services Advisory Board Minutes, 3 pgs

MINUTES
CITY OF ORMOND BEACH
CITY COMMISSION
CASSEN PARK WORKSHOP

February 15, 2022

5:30 p.m.

City Commission Conference Room

I. CALL TO ORDER

Mayor Bill Partington called the meeting to order at 5:30 p.m.

Present were Mayor Bill Partington, Commissioners Dwight Selby, Troy Kent, Susan Persis, and Rob Littleton, City Manager Joyce Shanahan, Assistant City Manager Claire Whitley, City Attorney Randy Hayes, Public Works Director Shawn Finley and City Engineer Alex Schumann.

II. DISCUSSIONS

Ms. Joyce Shanahan, City Manager, explained the Cassen Park design was brought forward by staff as the restroom and bait shop were in need of upgrades. She stated the ideas that would be presented were concept ideas and explained staff was looking for feedback, noting the Commission did not need to decide on a design at the workshop.

Mayor Partington inquired if a Request for Proposal (RFP) would be the next step in the design process; whereby, Ms. Shanahan stated that was correct and clarified that staff did not complete that step as they wanted the public and Commissions' input before moving forward.

Mr. Shawn Finley, Public Works Director, reviewed a PowerPoint presentation and discussed the history and features of Cassen Park. He reviewed the Community Redevelopment Agency (CRA) Downtown Master Plan recommended improvements which included landscaping, aquatic landscaping, shaded furnishings, reconfigured parking and educational signage. He stated the Ormond Beach Downtown Rotary had a project they received a grant for to do educational signage in the community. He discussed an online survey that was completed during the summer of 2021 and stated the most requested improvements included walking paths, river view seating, green space, car parking and restroom availability.

Mr. Finley reviewed four concepts, noting Concept 1 featured a relocated bait shop, two fewer trailer parking spaces, two more car parking spaces, paths for pedestrians and one covered pavilion. He discussed Concept 2 features including a relocated bait shop, six fewer trailer parking spaces, three more car parking spaces, paths for pedestrians and six covered pavilions. He described Concept 3 as having a relocated bait shop, three additional trailer parking spaces, seven more car parking spaces, paths for pedestrians and three covered pavilions. He stated Concept 4 saw the most changes and featured relocated restrooms and bait shop, one additional trailer parking space, three additional car parking spaces, pedestrian paths, eight covered pavilions and a playground. He explained with Concept 4 the on-street parking on South Beach Street was removed as the entrance to the park was relocated. Mr. Finley reviewed the estimated costs of the concepts, noting as more features and green initiatives, such as pervious pavement, were added costs would go up.

Mr. Finley discussed the public outreach behind the project including an online survey, public meeting and meetings with Ormond Beach MainStreet, the Leisure Services Advisory Board and Quality of

Life Advisory Board. He explained the online survey had 350 respondents who favored Concept 4 and noted Mr. Ike Leary, owner of Ike's Granada Pier Bait & Tackle, was in favor of Concept 1. He reviewed the outcome from the public meeting stating majority were in favor of Concept 1. He explained there was an additional concept presented by a resident at the public meeting which received eight out of 15 votes when asked which concept the participants preferred. He stated Ormond Beach MainStreet preferred Concept 4 as they liked the green space, small playground and walking paths. He explained the Leisure Services Advisory Board preferred Concept 4 and the concept provided at the public meeting, noting they liked the parking, playground with adjacent bathrooms and parking, pavilions and stressed the need for parking. He stated the Quality of Life Advisory Board did not have a preference on a single concept but wanted to emphasize the importance of boating, need for both car and trailer parking, safe walking paths and noted the board had concerns on the playground.

Commissioner Selby stated his initial preference was for Concept 4, noting the need for the on-street parking on Beach Street and the need for floating boat docks. He inquired if the traffic would be one way around the circle; whereby, Mr. Finley stated that was correct. He believed there was a need for paths to go directly from the bridge to Beach Street. He requested staff and the Commission look into the purchase of submerged land located off of South Beach Street near Cassen Park.

Commissioner Kent inquired if the pavilions in Concept 2 could be added to Concept 1; whereby, Mr. Finley stated the pavilions could be added. He stated his preference for keeping the Beach Street parking and emphasized the importance of the boat launch and trailer parking. He voiced his concerns regarding the playground and inexperienced boaters. He reviewed the concept choices made at the public meeting and the online survey noting the difference in what the public wanted. He stated he would not be in favor of the purchase of submerged land. He explained he was in favor of Concept 1 and Concept 4 if the playground was removed.

Commissioner Persis stated she felt citizens wanted on-street parking, water views, seating and walking paths. She stated she was concerned about the addition of too many parking spaces as Concept 3 seemed like a parking lot and not a park. She stated her indifference towards a playground, noting her apprehension of water safety. She stated she preferred Concept 4 but felt it was busy and preferred Concept 1 if more features were added. She inquired about lighting; whereby, Mr. Finley stated the lights were on during park hours but could be extended and would check with Leisure Services Director Robert Carolin.

Commissioner Littleton stated his preference was Concept 1, but wanted to take the public's input into account with their preference of Concept 4. He stated he disliked the new entrance and lack of on-street parking in Concept 4.

Mayor Partington voiced concerns on the crosswalks within the designs. He discussed the online survey results and overflow parking at City Hall. He reviewed a possible option of the boat launch being in a separate area from the parking. He requested the bait shop and restrooms be located in the northeast corner, stating he believed with that shift the parking lot would be safer and better functionally. He discussed the importance of the water view and lack of need for a playground. He requested a camera be set up and face the park on a busy weekend so staff can review the walking and driving patterns of the residents.

Commissioner Selby agreed with Commissioner Littleton on the entrance to the park in Concept 4, and requested if the entrance were to be moved he believed there should not be a left turn from Beach Street into the park. He discussed the possibility of altering the on-street parking on Beach Street.

Commissioner Kent stated he would prefer to keep the on-street parking in its present state. He requested to keep the round-about in the walking path with the king palm trees.

Commissioner Persis stated she would prefer a mix of Concept 1 and Concept 4 with a spectacular view.

Commissioner Littleton stated the concept submitted at the public meeting would be the option to choose if the Commission wanted to keep the use of the park for primarily boater traffic. He reviewed Concept 4, noting it had the most walking paths and stated he could support Concept 4 with minor adjustments.

Mayor Partington stated Concept 4 had too many pavilions and wanted to keep the entrance at the present location. He discussed the possibility of a time lapse video of the park usage to determine what features were being utilized.

Ms. Shanahan stated staff would review all input the Commission provided and bring back new Concepts.

Commissioner Kent agreed with Mayor Partington and supported the idea of a time lapse video. He stated he supported the costs but would not support a concept that was more of a parking lot than a park.

Mayor Partington inquired if the costs included repaving the parking lot; whereby, Mr. Finley stated it was an all-inclusive cost estimate. Mayor Partington asked if there were storm protections needed; whereby, Mr. Finley stated anything the city builds would need to meet certain hurricane wind loads and commercial standards due to potential storms and the heavy foot traffic.

Commissioner Persis agreed with Commissioner Kent and voiced her support of keeping a round-about path structure with nice landscaping to make the feature stand out.

Mayor Partington stated he believed the round-about feature could be added to Concept 4.

Commissioner Littleton and Mayor Partington discussed if relocating the bait shop would hurt business or improve business, due to the increase in foot traffic.

III. ADJOURNMENT

The meeting was adjourned at 6:31 p.m.

Prepared by: Taylor Lochert

**MINUTES
CITY OF ORMOND BEACH
QUALITY OF LIFE ADVISORY BOARD
REGULAR MEETING**

February 10, 2022

5:00 PM

**City of Ormond Beach
Training Room 103
22 South Beach Street
Ormond Beach, Florida**

1) Call to Order- Roll Call

Recording Secretary Kelly Britto called the meeting to order at 5:02 p.m. and called the roll.

Members present: Peggie Hart, Kenneth Kimble, Troy Railsback, David Romeo and Dr. Philip Shapiro.

Members absent: John Adams and William Masters.

Staff present were: Assistant City Manager Claire Whitley, Public Works Director Shawn Finley, City Engineer Alex Schumann, Recording Secretary Denise Cisson and Recording Secretary Kelly Britto.

2) Election of Chairman and Ormond Memorial Art Museum and Gardens Liaison

Ms. Kelly Britto, Recording Secretary, read City Ordinance 2012-31, Section 2.219(c) into the record.

Ms. Hart inquired about the Ormond Memorial Art Museum and Gardens Liaison and if two nominations were required. Ms. Claire Whitley, Assistant City Manager, clarified the motion would be one nomination for a chairperson who would also serve as the liaison.

Mr. Railsback moved, seconded by Mr. Romeo to nominate Dr. Shapiro as Chairman. The motion passed unanimously.

Dr. Shapiro thanked everyone and stated that he did not know of the city ordinance about the liaison between the Ormond Art Museum and Gardens when he was elected as chairman and believed there should be disclosure that the chairman would be on two boards.

3) Election of Vice-Chairman

Dr. Shapiro stated that he had not missed a meeting since chairing the board, but the Vice-Chairman needed to be familiar with the overall functions of the board.

Mr. Romeo moved, seconded by Mr. Kimble to nominate Mr. Railsback as Vice-Chair. The motion passed unanimously.

Dr. Shapiro congratulated Mr. Railsback and stated that they could not communicate outside of the meeting, but if needed Mr. Railsback would know how to proceed.

Dr. Shapiro stated the Quality of Life Advisory Board typically meets the first Thursday of every other month at 5:00 p.m. in the Commission Conference Room 103, noting a tentative schedule was provided to the board members.

Mr. Railsback motion to approve the tentative dates presented, seconded by Ms. Hart. The motion passed unanimously.

Dr. Shapiro requested the Board Members to mark the meeting dates in their calendars and

Dr. Shapiro gave a brief overview of the Sunshine Law and suggested the board members speak with Assistant City Manager Claire Whitley if they had any questions regarding Sunshine Law.

Ms. Claire Whitley, Assistant City Manager, stated that if anyone had questions or concerns of a conflict of interest, they should reach out to Deputy City Attorney Ann-Margret Emery or herself.

Dr. Shapiro informed the board members that Ms. Whitley was the Staff Liaison and explained Ms. Kelly Britto, Leisure Services Advisory Board Recording Secretary, was temporarily filling in as Recording Secretary. He introduced Ms. Denise Cisson, Recording Secretary, noting Ms. Taylor Lochert, former Recording Secretary, would no longer be the Recording Secretary for the Quality of Life Advisory Board.

4) Approval of Minutes

a. June 17, 2021- Regular Quality of Life Advisory Board Meeting

Dr. Shapiro explained his name was misspelled and noted it should be Dr. Philip Shapiro.

Mr. Railsback moved, seconded by Mr. Kimble to approve minutes as amended to include the correct spelling of Dr. Shapiro's name. The motion passed unanimously.

**b. December 7, 2021- Joint Meeting with Leisure Services Advisory Board
(Action Items Only)**

Dr. Shapiro stated the joint meeting with the Leisure Services Advisory Board (LSAB) on December 7, 2021, was disappointing as the LSAB did not have a quorum, therefore, Quality of Life Advisory Board was the only voting board at the meeting.

Mr. Railsback motion to approve the minutes for the joint board from December 7, 2021, seconded by Ms. Hart. The motion passed unanimously.

5) Discussion Item

a) Cassen Park Redesign

Dr. Shapiro introduced City Engineer Alex Schumann. He then turned the meeting over to Public Works Director Shawn Finley. Dr. Shapiro explained he would like for public input to happen before the board member discussion due to the nature of the topic.

Mr. Finley stated that Cassen Park started out as a simple resurfacing project but once they got into the project they realized how important Cassen Park was to the community. He explained staff put together four concepts that were not definite, noting that staff was looking for feedback on elements the board liked and did not like. The four concepts were created from the recommendations taken from an online survey of 650 residents completed in 2021, the Downtown CRA Master Plan, a public meeting which was held on February 8, 2022, a meeting with the LSAB and a meeting with Ormond Beach MainStreet. Mr. Finley explained he would convey the input to the City Commission at the workshop on February 15, 2022.

Mr. Finley explained that Cassen Park was a three-acre site with limited space but there was still room for improvements. He discussed the history of the park and explained that in 2020, staff received authorization from the City Commission to design a new bait shop and reimagine Cassen Park. He reviewed some of the features staff would try to keep which include the boat ramp, dock, pier, gazebo, pavilion, parking for boat trailers and cars, picnic areas, restrooms and walking and jogging paths. Mr. Finley stated that the Downtown CRA Master Plan recommended improvements to clear overgrown landscaping, add shaded furnishings such as picnic tables, update art, refigure parking, aquatic landscaping and educational signage. He reported the most requested features from the online survey, were paths for walking and jogging, river view seating, green space, car parking and restroom availability. He highlighted that the city was finalizing the Parks and Recreation Master Plan and the biggest response received from that master plan was residents wanted walking and jogging paths.

Mr. Finley presented the four concepts. He explained with Concept One the bait shop would be relocated, there would be two less trailer parking spaces and two additional car parking spaces, one covered pavilion and paths for walkers and joggers. He explained the concept would not add parking, additional seating or furnishings, although

it would contribute to the green scape, landscape, walking paths, bathrooms and bait shop.

Mr. Finley reviewed Concept Two noting the relocation of the bait shop and restrooms, six fewer trailer parking spaces, three more car parking spaces, paths for walkers and joggers and six covered pavilions.

Mr. Finley explained Concept Three was a variation of Concept Two with the relocated bait shop, three additional trailer parking spaces, seven additional car parking spaces, paths for walkers and joggers and three covered pavilions. He noted the additional parking would create a loss of green space.

Concept Four had the most changes and explained the bait shop and restrooms were relocated, one additional trailer parking space, thirteen additional car parking spaces, extensive paths for walkers and joggers, eight covered pavilions and a children's playground. Mr. Finley explained staff was looking forward to comments and feedback.

Dr. Shapiro thanked Mr. Finley and asked if there were any audience comments before opening up board discussions.

Mr. Bill Partington Sr., 54 West Granada Boulevard, stated the features he would like to see were 50 percent more green space closer to the river, dock, fishing area and car parking near Beach Street. He stated any amenities on Concept One through Concept Four could be placed anywhere in the park on his plan, noting there could be a children's playground or exercise station and had availability in the middle of the park for the war memorial currently in the park. He noted his preference was for the sidewalk to go from Beach Street to the river front and explained his plan had about 50 parking spaces that could be incorporated in the final layout. Mr. Partington Sr. distributed a handout of the plan and asked the board members if there were any questions for his design.

Mr. Romeo inquired about the length of the parking spots on Beach Street; whereby, Mr. Partington Sr. explained, the car parking was 12 feet by 20 feet, and the trailer parking was 12 feet by 40 feet, noting there was a variable, as there could be longer spaces.

Dr. Shapiro expressed his concerns regarding two boat launches, not enough parking spaces and a playground that may not get utilized. He explained, clearing out the vegetation for a better view, increasing the parking for more boat trailers, adding a third boat launch, making the restrooms more presentable and where the bait house was relocated needed to be considered. He explained that he preferred the wider boat launches and the concept with the pull through parking space.

Mr. Railsback agreed with Dr. Shapiro's comments. He explained that he preferred the wider boat launches and the concept with the pull through parking space for boat trailers.

Mr. Finley stated staff had received feedback to make pull through parking spaces for boat trailers.

Mr. Railsback explained he liked the idea of a small playground for when a guardian would load or unload a boat but was concerned about the traffic.

Dr. Shapiro asked Mr. Railsback if he would prefer swings where the picnic area was located; whereby, Mr. Railsback agreed, noting his apprehension of crossing the parking lot with small children.

Ms. Hart agreed with Mr. Railsback noting her concern of the parking lot traffic.

Mr. Railsback stated he would prefer a blend of Concept Three and Four, he liked less vegetation for a cleaner view and the opportunity for citizens to see the bridge lit up at night. He thought pavilions were a great idea, however he did not think there was a need to have so many. He stated he believed the playground was in a spot that would not replace any other local playgrounds.

Mr. Finley agreed stating the response from residents about the playground was a place to put children when the guardians would launch a boat or after visiting the Ormond Beach Regional Library.

Ms. Hart explained she liked the walkway that did not cross where the parking lot traffic was.

Dr. Shapiro stated his concern in regards to not enough parking for trailers or vehicles and noted his apprehension of too many features on a small property. He inquired if the board wanted to promote more spaces for boaters and discussed boat size, experience of boaters and concerns of a waterfront playground.

Mr. Railsback excused himself from the meeting at 5:40 p.m.

Mr. Romeo discussed his preference to keep the walkway and playground farther from the pier and provide more open space, noting that two launches were enough. He inquired about a size limit for the boat launch area; whereby, Mr. Finley stated a marine design facility would review the plan.

Mr. Romeo explained with Mr. Partington Sr.'s design he noticed a lot of parking spaces and inquired if there could be a walkway and more green space.

Dr. Shapiro inquired about when there was a king tide; whereby, Mr. Finley explained that was one reason for the relocation of the bait shop as those high tides would flood the park. He asked Mr. Finley if the square footage was adequate for the bait shop; whereby, Mr. Finley explained the plan was to add more kitchen facilities to include a sink and options for more in-depth appliances, noting it was not for a restaurant level

kitchen. Dr. Shapiro discussed his concerns of the mud and requested the boat launch and select parking be paved.

Mr. Romeo inquired if there were plans to plant anything, and requested staff keep native plants in mind. He asked about plans for drainage and if they were planning on using pavers, pavement or cement; whereby, Mr. Finley informed him staff was looking at pervious pavement and would submit engineering plans that would be permitted through the St. Johns River Water Management District for the drainage and treatment of the runoff water.

Dr. Shapiro asked Mr. Finley for the stormwater retention pond location. Mr. Finley explained there could be shallow dry retention or underground drainage. Dr. Shapiro expressed his concern if the ponds would dry out; whereby, Mr. Finley stated not with a properly engineered design. Dr. Shapiro stated the main concern based on all designs, was parking for both vehicles and boat trailers.

Mr. Finley stated he would share with the City Commission the Quality of Life Advisory Board wanted a focus on the parking and boat launch as the board members felt it was primarily a boater's park.

Mr. Romeo stated based on the online survey, he believed paths should be a priority because that was what the citizens requested.

Dr. Shapiro asked if the concepts were available when the survey was done; whereby, Ms. Whitley explained the concepts were completed based on the feedback from the survey. Dr. Shapiro inquired if there were options on the survey regarding the boat launch and parking; whereby, Mr. Romeo stated he participated in the survey and reported there were options regarding boating.

Mr. Kimble stated that he likes Mr. Partington Sr.'s design which addressed the walkway, noting Concept Two and Mr. Partington's concept provide an easily maneuverable path from the launch when pulling a boat out of the water.

Mr. Romeo asked if the bait shop pays rent; whereby, Mr. Finley discussed the history of the contract and reported the bait shop did pay rent.

Ms. Hart stated Mr. Partington Sr.'s design appeared to be the safest for the residents.

Dr. Shapiro asked the board members if they wanted to endorse a concept or key points of priority; whereby, Mr. Romeo stated he preferred key priorities and believed the priorities should be based on the online survey results.

Ms. Hart stated she believed the board should create their own priorities.

Ms. Hart and Dr. Shapiro discussed their concerns on the playground.

Mr. Finley asked if an emphasis should be on car parking or boat trailer parking; whereby, Dr. Shapiro stated the emphasis should be on both.

Mr. Romeo suggested shortening the parking spaces on Beach Street in order to add area to the green space or walking paths.

Mr. Finley clarified the board wanted to emphasize the park would primarily be used by boaters, provide adequate parking for boaters, passenger vehicles, safe walking trails and that a children's playground would not be a priority.

Mr. Romeo stated residents from the survey mostly wanted walking and jogging paths and he wanted to emphasize the need for a direct path walking from the bridge.

Ms. Hart motioned, seconded by Mr. Kimble, for staff to consider Cassen Park as a park to be primarily used by boaters, ensure adequate parking for all trailers and passenger vehicles and safe and direct walking trails for residents. The motion passed unanimously.

Mr. Finley stated staff would share the motion and the priorities of the Quality of Life Advisory Board at the City Commission Workshop on Tuesday, February 15, 2022.

7) Audience Comments

Mr. Partington, Sr. invited the board members to share any supported ideas from his design with staff or at the February 15, 2022 City Commission Workshop.

8) Member Comments

There were no further comments by the board members.

9) Adjournment- Next Meeting would be April 7, 2022

The meeting adjourned at 6:13 p.m.

Respectfully submitted,

Denise Cisson, Recording Secretary

ATTEST:

Dr. Philip J. Shapiro, Chairman

MINUTES
CITY OF ORMOND BEACH
LEISURE SERVICES ADVISORY
BOARD

February 9, 2022

6:00

PM

Performing Arts Center Conference Room

399 N US 1

Ormond Beach, Florida

I. Call to Order

The meeting was called to order by Recording Secretary Kelly Britto at 6:02 PM.

II. Roll Call

Kelly Britto took roll call. Members present were: Rick Boehm, Andrea Bolles, Lucy Jackman, Shannon Julien, Christy Kurz, Lori Tolland, Doug Wigley. Robert Bowling, and Brian Nave were excused.

Also present were: Robert Carolin, Leisure Services Director, Shawn Finley, Public Works Director, Alex Schumann, City Engineer and Kelly Britto, Recording Secretary.

III. Approval of January 12, 2022 Minutes

Lori Tolland made a motion to approve the minutes as written, seconded by Christy Kurz. All were in favor.

IV. Re-Design of Cassen Park

Shawn Finley, Public Works Director and Alex Schumann, City Engineer presented four options for the re-design of Cassen Park. The project started off as a resurfacing project and has grown. The bait shop and the restrooms are in a flood zone and the goal is to move them to keep them protected. The designs were created from recommendations taken from a public survey last summer, the Downtown CRA Master Plan, a public meeting that was held February 8, 2022, and a meeting with Ormond Beach MainStreet. The designs were presented to the Leisure Service Advisory Board for additional feedback to bring back to the City Commission Workshop later this month.

Mr. Finley reviewed features that staff would like to keep at the park. The boat ramp, dock pier, gazebo, pavilion, parking for boat trailers and cars, picnic areas, restrooms and walking trails were noted to be important. Paths for walking trails, river view seating, green space, car parking and restroom availability were features that were recommended from the online survey. The Downtown

CRA Master Plan recommended to clear overgrown landscaping, add shaded furnishings, update art, refigure parking, aquatic landscaping and educational signage.

In first design the bait shop would be relocated, there would be less trailer parking and two additional car parking spaces, one covered pavilion and paths for walkers.

The second design also relocated the bait shop and the restrooms, less trailer parking, more car parking spaces, paths for walkers and six covered pavilions.

The third design was similar to the second design which would relocate the bait shop, more trailer parking, more car parking spaces, and three covered pavilions. The additional parking will take away from the green space.

The fourth design also relocated the bait shop and restrooms, only one additional trailer parking space, thirteen additional car parking spaces, many paths for walker's, eight covered pavilions and a children's playground.

Mr. Bill Partington Sr. presented a fifth option that provides parking on Beach Street, 50 percent and much more green space throughout the area. This option could include pavilions and a playground if needed.

The Leisure Services Advisory Board took different ideas from all the options and put together a list of things that they would like to see included in the design. The board members would like more parking on Beach Street, a playground added to the park, pavilions, the bait shop and the restrooms to be located near each other, and more parking for trucks and cars within the park.

V. Attendance Requirements for Leisure Services Advisory Board meetings

Doug Wigley went over the attendance requirements to be on the Leisure Services Advisory Board. A board member cannot have more than three excused absences and no more than two unexcused absences to stay on the board. Mr. Wigley asked the members that want to stay on the board to attend meetings regularly.

VI. Time Change for Leisure Services Advisory Board meetings

Lori Tolland made a motion to move the time of the Leisure Services Advisory Board meetings to 6 pm, seconded by Lucy Jackman. All we in favor.

VII. Board Members Updates

Lucy Jackman- We received a \$240,000 grant, we applied for \$300,000. There was some competition this year. Now we are just waiting for the echo grant. The designs go in this month. Everyone has been very supportive through the whole process.

Christy Kurz- No update

Andrea Bolles- Jimmy Hagen will be stepping down after this season.

Rick Boehm- We have the notice to proceed for the new gym at South Ormond Neighborhood Center.

Lori Tolland- Vadner Park is still on schedule for the grand opening on April 26th. There will be an arbor built soon, we are just waiting for the updated quote. Rick Ferritto passed recently. The celebration is Friday at St. James, 4pm.

Shannon Julien- No update

Doug Wigley- Registration is winding down. There is a waitlist for t-ball and machine pitch. We need clay for the infields. The fields are dangerous to play on. We have the clay, we need to address the infields because kids are getting hurt.

VIII. Director's Update

We have the Reel in the Fun Fishing Tournament at Central Park next weekend. Please continue to read your updates as they come in.

IX. The next Leisure Services Advisory Board Meeting is scheduled Wednesday, March 9, 2022 at 6 pm in the Performing Arts Conference Room.

X. There being no further business, the meeting is adjourned at 7:48 pm

ATTESTED TO:

SUBMITTED BY:

Doug Wigley, Chairman

Kelly Britto, Recording Secretary



CITY OF ORMOND BEACH

City Manager • 22 S. Beach Street • Ormond Beach • Florida • 32174 • (386) 676-3200 • Fax (386) 676-3384

CITY MANAGER MEMORANDUM

To: The Honorable Mayor Partington and City Commissioners

Through: Joyce A. Shanahan, City Manager

From: Alex Schumann, City Engineer

Date: May 3, 2022

Subject: Request for Qualifications - Construction Management at Risk Services

Commission Goal: Governance - Other

Introduction

This disposition item provides public notice of the City's intent to issue a Request for Qualifications (RFQ) to solicit qualification submittals for Construction Management at Risk Services. The Request for Qualifications document is attached.

Background

In 2017 staff re-advertised for continuing contracts for construction management at risk services. Upon review of the submittals, the city selected four construction management firms for continuing contracts:

A.M. Weigel Construction - Daytona Beach, FL
Bomar Construction - Ormond Beach, FL
Hall Construction Company - Daytona Beach, FL
Saboungi Construction - Ormond Beach, FL

Through these contracts, the City has successfully managed a number of projects that have added to the quality of life in Ormond Beach, while saving time and expense over traditionally bid projects.

The term limits for the continuing contracts were for a period of five years and expire this year. With this RFQ, staff intends to advertise a Request for Qualifications for construction management at risk services in order to enter into new continuing contracts.

Discussion

The construction management at risk services is an open book contract that allows the City to see all final payments to subcontractors and allows the City to receive all cost

savings that may be incurred with subcontractors through the course of a construction project. Staff and the construction manager meet at the end of a job and review all the costs and savings prior to issuance of final payments. This process does not occur with the open bid general contractor process. Many times subcontractor savings go unreported with the contractor receiving the benefit as opposed to the City benefitting from costs savings that may occur.

Other advantages of utilizing this process are:

- 1) Lower design cost - engineers and architects need to charge a lot more for preparing documents for open hard bidding plus extra management time for dealing with low bidder issues.
- 2) Shorter project delivery time - subcontractors are bidding concurrent with final design and permitting.
- 3) Higher quality, better long-term value - the contract manager acts as an extension of the City staff and has the best long-term interest of the city in mind.
- 4) Conduit of very useful information and advice - from trade subcontractors, material suppliers and manufacturers, the contract manager is able to work with staff to develop the best approach for the project and at the same time optimize the costs.
- 5) Provide GC expertise - consultation to help with all types of construction decision making before, during, and after construction completion.
- 6) Competitive bidding - Contract manager solicits bids of trade subcontractors just as a general contractor does during the open bid process.
- 7) Increased use of local trade subcontractors - subcontractor participation is geared toward local firms.
- 8) Owner flexibility - decisions and changes can be made at all stages of the project without having change orders or settling for less than expected quality.

Staff has prepared a Request for Qualifications document (see attached) and intends to advertise for interested contractors to submit qualifications for contracting with the City. Staff's intention is to contract with up to four qualified firms. Under this RFQ, contracts will be limited to five-year terms.

Budget Impact

There is no budget impact with this request.

Citizen Impact

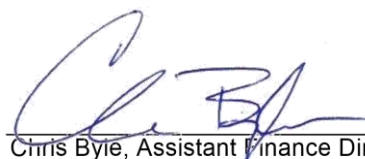
With the construction management at risk services the construction timeline can be reduced thereby reducing impacts from construction to the general public. Potential increased cost savings are a benefit to reducing taxpayer money expenditures for CIP projects.

Recommendation

Staff intends to advertise the RFQ for construction management at risk services, unless otherwise directed by the City Commission.

Attachments:

- RFQ 2022-17 CMAR (PDF)

REVIEWED BY:
Chris Byie, Assistant Finance Director 4/25/2022
Claire Whitley, Assistant City Manager 4/26/2022**APPROVED BY:**
Joyce A. Shanahan, City Manager 4/27/2022



City of Ormond Beach

22 South Beach Street
Ormond Beach, Florida 32174
Telephone (386) 676-3223
Fax (386) 676-3374

REQUEST FOR QUALIFICATIONS PROPOSER ACKNOWLEDGEMENT FORM

THIS PAGE MUST BE COMPLETED AND RETURNED WITH YOUR PROPOSAL

RFQ TITLE: **Construction Management at Risk Services**
RFQ NUMBER: **2022-17**
RFQ DUE DATE & TIME: **Tuesday, June 7, 2022 at 2:30 PM**
RFQ OPENING LOCATION: **City Hall Training Room**
PRE-PROPOSAL MEETING: **Wednesday, May 25, 2022 at 3:00 PM**
City Hall Training Room

Proposals Received After The Above Date And Time Will Not Be Accepted.

PROPOSER/FIRM NAME: _____

PROPOSER'S MAILING ADDRESS: _____

CITY-STATE-ZIP: _____

F.E.I.N.: _____

PHONE NUMBER: _____

EMAIL: _____

If returning as a "No Proposal", please state reason (s):

RFQ RESPONSE FORM

The undersigned SUBMITTER agrees, if this Proposal is accepted, to enter into a Contract with the CITY that reflects the items of this Request for Qualifications (RFQ) and to provide all services, as specified or indicated in the RFQ Documents, in full accordance with the terms and conditions set forth therein.

SUBMITTER has examined all of the RFQ Documents and of the following Addenda, receipt of which is hereby acknowledged.:

<u>Addendum Date</u>	<u>Addendum Number</u>
_____	_____
_____	_____
_____	_____

This Submittal is genuine and not made in the interest of or on behalf of any undisclosed person, firm or corporation and is not submitted in conformity with any agreement or rules of any group, association, organization or corporation; SUBMITTER has not directly or indirectly induced or solicited any other Submitter to submit a false or sham Submittal; SUBMITTER has not solicited or induced any person, firm or a corporation to refrain from bidding; and SUBMITTER has not sought by collusion to obtain for himself any advantage over any other Bidder or over the CITY.

THIS RESPONSE IS SUBMITTED BY:

FIRM NAME: _____

FIRM'S PROFESSIONAL LICENSE NUMBER: _____

SUBMITTER'S NAME: _____
(Typed or Printed)

TITLE: _____

AUTHORIZED SIGNATURE: I, _____
hereby declare that I have read and fully understand the RFQ Documents, including the General Conditions and the Scope of Work, and that I am duly authorized to sign and submit this Proposal.

The CITY reserves the right to reject any and all Submittals, to waive informalities, and to accept any Submittal or parts thereof as the CITY, in its sole discretion, determines to be in the best interest of the CITY.

***OMISSION OF A SIGNATURE ON THIS PAGE
MAY RESULT IN REJECTION OF YOUR PROPOSAL.***

GENERAL CONDITIONS

PUBLIC ENTITY CRIMES: A person or affiliate who has been placed on the convicted vendor list following a conviction for a public entity crime may not submit a Bid or Proposal on a contract to provide any goods or services to a public entity, may not submit a Bid or Proposal on a contract with a public entity for the construction or repair of a public building or public work, may not submit Bids or Proposals on leases or real property to a public entity, may not be awarded or perform work as a contractor, supplier, subcontractor, or consultant under a contract with any public entity, and may not transact business with any public entity in excess of the threshold amount provided in Section 287.017, for CATEGORY TWO for a period of 36 months from the date of being placed on the convicted vendor list.

DISCRIMINATION: Pursuant to Section 287.134(2)(a), Florida Statutes, an entity or affiliate who has been placed on the discriminatory vendor list may not submit a bid or proposal on a contract to provide any goods or services to a public entity, may not submit a bid or proposal on a contract with a public entity for the construction or repair of a public building or public work, may not submit bid or proposal on leases of real property to a public entity, may not be awarded or perform work as a contractor, supplier, subcontractor, or consultant under a contract with any public entity, and may not transact business with any public entity.

NON-CONFIDENTIALITY OF BIDS AND/OR PROPOSALS/PUBLIC RECORDS: The City of Ormond Beach cannot and does not warrant the confidentiality of any information submitted in response to this solicitation. Florida law provides that municipal records shall at all times be open for personal inspection by any person, Section 119.01, F.S., The Public Records Law. Information and materials received by the City of Ormond Beach in connection with all Proposers' response shall be deemed to be public records subject to public inspection upon award, recommendation for award, or 30 days after bid/proposal opening, whichever occurs first. Section 119.071, F.S.

DISTRIBUTION OF BIDS AND RFP/RFQ: The City uses the services of DemandStar (www.demandstar.com) to distribute its bids and RFP/RFQ's on-line on the Internet. If you have received a copy of this RFQ from any source other than DemandStar, please be aware that you may not have received the latest version of the RFQ or any related addendums.

SUBMISSION OF PROPOSALS: All Proposals shall be submitted in a sealed envelope. The Request for Qualifications (RFQ) number, title, and opening date shall be clearly displayed on the outside of the sealed envelope. The delivery of said Proposal to the Purchasing Office on or before the specified opening date and time is solely and strictly the responsibility of the Proposer. Any Proposal received by the Purchasing Office after the specified date and time will not be accepted. Proposals must be submitted on forms provided by the City. No other forms will be accepted. No Proposal may be modified after opening. No Proposal may be withdrawn after opening for a period of ninety (90) days unless otherwise specified.

EXECUTION OF RFQ: Proposal must contain a manual signature of authorized representative in the space(s) provided. Proposals must be typed or printed in ink. Use of erasable ink is not permitted. All corrections made by Proposer to any Proposal entry must be initialed. The company name and Federal Employer Identification Number (F.E.I.N.) shall appear in the space(s) provided.

RFQ OPENING: Proposals shall be opened at the time, date and place specified in the RFQ, and the name of the Proposer shall be read aloud publicly. No discussion of the submittals will occur.

RFQ TABULATION: Any Proposer wishing to receive a copy of the RFQ tabulation is required to enclose a stamped, self-addressed envelope with their Proposal. The RFQ tabulation will be posted on DemandStar.com.

CLARIFICATION/CORRECTION OF RFQ ENTRY: The City of Ormond Beach reserves the right to allow for the clarification of questionable entries and for the correction of obvious mistakes.

INTERPRETATION: Any questions concerning conditions and specifications shall be directed to the City's Purchasing Coordinator. Those interpretations which may affect the eventual outcome of this Proposal will be furnished in writing to all prospective Proposers. No interpretation shall be considered binding unless provided in writing by the City of Ormond Beach.

MINORITY POLICIES: The City of Ormond Beach, Florida, encourages the full participation of Disadvantaged and Women Business Enterprises (D&WBE) in the provision of goods and services.

ADDITIONAL TERMS AND CONDITIONS: The City of Ormond Beach reserves the right to reject Proposals containing any additional terms or conditions not specifically requested in the original conditions and specifications.

TAXES: The City of Ormond Beach is exempt from Federal Excise Taxes and all sales taxes.

ASSIGNMENT: Any purchase order or contract issued pursuant to an RFQ and the monies which may become due thereunder are not assignable except with the prior written approval of the City Manager or City Commission, whichever authorized the purchase order or contract.

LIABILITY: The vendor shall hold and save the City of Ormond Beach, its officers, agents, and employees harmless against claims by third parties resulting from the vendor's or supplier's breach of contract or negligence, including all attorney's fees and costs, and shall pay any and all damages, fees, and costs assessed on behalf of the City. The City expressly reserves all rights, privileges and benefits of sovereign immunity.

AWARDS: The City reserves the right, in its sole discretion, as the best interest of the City may require, to make award(s) by individual item, group of items, all or none, or a

combination thereof; on a geographical basis and/or with one or more vendors or contractors; or to reject any and all Proposals or waive any minor irregularity or technicality in the Proposals received.

OTHER AGENCIES: All Bidder(s) awarded contracts from this bid or proposal may, permit any municipality or other government agency to participate in the contract under the same prices, terms, and conditions, if agreed to by both parties.

It is understood that at no time will any city, municipality, or other agency be obligated for placing an order for any other city, municipality, or agency: nor will any city, municipality, or agency be obligated for any bills incurred by any other city, municipality, or agency. Further, it is understood that each agency will issue its own purchase orders to the awarded bidder(s).

TERMS AND CONDITIONS:

- A. The City of Ormond Beach reserves the right without prejudice to reject any or all proposals, to request clarification of information submitted, and to request additional information of one or more proposers.
- B. The City reserves the right to award the contract to the next most qualified firm if the successful firm fails to execute a contract within two weeks after the award of the contract by the City Commission.
- C. In accordance with federal, State, and local regulations, the firm shall not discriminate under the contract against any person.
- D. The firm shall not assign or transfer any interest in the contract without prior approval of the City Commission.
- E. The City reserves the right to terminate the contract at any time due to the vendor's default under terms of agreement.
- F. Submission of a proposal indicates acceptance by the firm of the conditions contained in this Request for Qualifications unless clearly and specifically noted in the proposal submitted, and confirmed in the contract between the City of Ormond Beach and the selected firm.

COMPLIANCE WITH FLORIDA PUBLIC RECORDS LAW

Contractor expressly agrees that it shall comply with the public records law provided in Florida Statutes, Chapter 119, and specifically to:

- (a) Keep and maintain public records required by the City to perform the contracted service.
- (b) Upon request from the City Clerk, provide the City with a copy of the requested records or allow the records to be inspected or copied within a reasonable time at a cost that does not exceed the cost provided in Chapter 119, Florida Statutes, or as otherwise provided by law.
- (c) Ensure that public records that are exempt or confidential and exempt from public records disclosure requirements are not disclosed except as authorized by law for the duration of the contract term and following completion of the contract if the contractor does not transfer the records to the City.
- (d) Upon completion of the contract transfer, at no cost to the City, all public records in possession of the contractor or keep and maintain public records required by the City to perform the service. If the contractor transfers all public records to the City upon completion of the contract, the contractor shall destroy any duplicate public records that are exempt or confidential and exempt from public records disclosure requirements. If the contractor keeps and maintains public records upon the completion of the contract, the contractor shall meet all applicable requirements for retaining public records. All records stored electronically must be provided to the City, upon request from the City Clerk, in a format that is compatible with the information technology systems of the City.
- (e) Failure of the Contractor to comply with Public Records Law as provided by Florida Statutes, Chapter 119, shall subject the Contractor to penalties under Chapter 119.10 and subject this Agreement to termination for cause by the City.

IF THE CONTRACTOR HAS QUESTIONS REGARDING THE APPLICATION OF CHAPTER 119, FLORIDA STATUTES, TO THE CONTRACTOR'S DUTY TO PROVIDE PUBLIC RECORDS RELATING TO THIS CONTRACT, CONTACT THE CUSTODIAN OF PUBLIC RECORDS AT:

**CITY CLERK
22 SOUTH BEACH STREET
ORMOND BEACH, FLORIDA 32174 (386) 677-0311
CITYCLERK@ORMONDBEACH.ORG**

Ref: Fla. Stat. §119.0701(2016)

THE CITY OF ORMOND BEACH RESERVES THE RIGHT TO REJECT ANY OR ALL PROPOSALS, AND TO WAIVE INFORMALITIES, AS MAY BE DEEMED TO BE IN THE BEST INTEREST OF THE CITY.
--

STATEMENT OF PURPOSE

The City of Ormond Beach, in compliance and in accordance with the provisions of the Consultants Competitive Negotiation Act, Section 287.055, Florida Statutes, and Section 287.057, Procurement of Contractual Services, Florida Statutes, is seeking qualified firms or individuals to provide Construction Management at Risk services for the City on a continuing contract basis. The method of compensation is a Negotiated Fee with a Guaranteed Maximum. It is anticipated that a maximum of 4 firms will be selected.

SCHEDULE OF PROPOSAL

May 8, 2022	Advertisement
May 25, 2022 at 3:00 PM	Non-mandatory pre-proposal meeting City Hall Training Room, 22 South Beach Street
May 31, 2022 at 3:00 PM	Last Day for Questions
June 7, 2022, 2:30 PM	Proposals Due - one (1) signed original of the complete proposal packet along with one (1) fully complete electronic file in pdf format on either a CD or thumb drive. Both versions must be in the sealed envelope. Submit proposals to the Purchasing Coordinator, Room 101, City Hall, 22 South Beach Street, Ormond Beach, FL 32174
June 13 - 17, 2022	Proposal Rankings
July 19, 2022	City Commission Approval of contracts

TERM OF AGREEMENT

The agreement shall become effective upon execution of a contract and approval of the contract by the City Commission. It is anticipated that the contract shall provide for a term of 5 years.

GENERAL INSTRUCTIONS

- **Inquiries:** Technical questions may arise as firms are preparing their proposals. City will accept written inquiries regarding this RFQ until five (5) working days prior to the RFQ due date. Questions received after that time will not be responded to. Answers to questions that warrant attention of all the potential proposers will be distributed in the form of an addendum. Please direct written inquiries to:

Rob Hart
 Purchasing Coordinator
 22 South Beach Street
 Ormond Beach, Florida 32174
 Telephone: (386) 676-3223 e-mail: rob.hart@ormondbeach.org

The last day to submit questions is May 31, 2022 at 3:00pm.

- **Signature Requirements:** Proposals must be signed by a duly authorized officer(s) of the proposing firm. Consortiums, joint ventures, or teams submitting proposals, although permitted and encouraged, will not be considered responsive unless it is established that all contractual responsibility rests solely with one firm or legal entity which shall not be a subsidiary or affiliate with limited resources. Each proposal shall indicate the entity responsible for execution on behalf of the proposal team.
- **Proposal Delivery:** Submit one (1) unbound original of the complete proposal packet along with one (1) fully complete electronic file in pdf format on either a CD or thumb drive, no later than June 7, 2022, 2:30 PM. Submit proposals to the Purchasing Coordinator, Room 101, City Hall, 22 South Beach Street, Ormond Beach, FL 32174. Proposals shall be in a sealed envelope with the RFQ title and number plainly marked on the outside of the delivery envelope or package. It is the sole responsibility of the submitter to ensure that the Proposal is delivered on or before the specified date and time. Late submittals will not be accepted.
- **Addenda and Supplements to the Request for Qualifications (RFQ):** In the event that it becomes necessary to revise any part of this RFQ, or if additional information is necessary to enable the proposing firm to make an adequate interpretation of the provisions of this RFQ, an Addendum will be issued and provided to each firm that has requested a copy of this document.
- **Rejection Rights:** The City of Ormond Beach reserves the right, at any time, to modify, waive or otherwise vary the terms and conditions of this RFQ including, but not limited to, the deadlines for submission and submission requirements. The City further reserves the right to reject any or all submittals, to cancel or withdraw this RFQ at any time, and to negotiate with any party prior to or after submittal of proposals.

Selection is also dependent upon the negotiation of a mutually acceptable contract with the successful proposers.

- Cost of Proposal Preparation: No reimbursement will be made by the City of Ormond Beach for any costs incurred in the preparation of the proposal or presentation.
- Proposals to be in Effect: Each proposal shall state that it is valid for a period of not less than 90 days from date of receipt.

SELECTION OF CONSTRUCTION MANAGEMENT AT RISK FIRM

Professional Qualifications: Any firm or individual experienced and authorized to do business in the State of Florida is invited to submit a qualifications packet. The CM must possess professional service registrations and construction licenses in accordance with applicable statutes, regulations, and rules. CM's must be able to demonstrate financial strength appropriate to the scale of projects to be managed.

Information to be Submitted:

One (1) signed original of the complete proposal packet along with one (1) fully complete electronic file in pdf format on either a CD or thumb drive:

TAB 1 – General

1. Letter of interest
2. RFQ Proposer Acknowledgement Form, completed
3. RFQ Response Form, completed and signed
4. Whether or not the firm or individual is a certified Minority Business Enterprise as defined by the Florida Small and Minority Business Assistance Act of 1985
5. Copy of firm's current Florida registration as a licensed General Contractor
6. Copy of firm's Certificate of Insurance
7. Completed Conflict, Non-Conflict of Interest Statement/Litigation Statement
8. Completed Drug-Free Workplace Certification
9. Completed Verification of Employment status using E-Verify system

TAB 2 – Experience

1. Provide a brief introduction narrative letter highlighting the qualifications of the firm including legal nature of organization, number of years in business, pertinent capabilities, and experience in contracting and managing municipal projects.
2. Provide an organizational chart of the firm.

3. Provide a listing of at least 5 projects completed by the firm comparable in nature and costs to the projects identified in the "Construction Management Project List" provided in the RFQ Packet as Exhibit 1.
Include the following for each project:
 - a. Name and location of the project.
 - b. The nature of the firm's responsibility on the project.
 - c. Project owner's representative name, address, telephone and e-mail contact information.
 - d. Date project was completed or is anticipated to be completed.
 - e. Scope of work of project and cost of project.
 - f. Firm's project manager and other key professionals involved on the project.
4. Detailed resumes of key personnel that will be working on projects assigned if contracted with the City.
5. Provide list of current construction management contracts (if applicable) that the firm currently has including contact information for each contract.

TAB 3 – Financial Capability

1. Provide a summary of the firm's financial resources for the past 3 years (including the latest year audited financial statements and holding company). Provide most recent certified financial statements as of a date not earlier than the end of the Proposer's preceding official tax accounting period, together with a statement in writing, signed by a duly authorized representative, stating that the present financial condition is materially the same as that shown on the balance sheet and income statement submitted, or with an explanation for a material change in the financial condition. A copy of the most recent business income tax return will be accepted if certified financial statements are unavailable.
2. Provide proof of financial bonding capacity of the firm by submitting a bonding capacity letter from a State approved Surety Agency.

TAB 4 – Construction Disputes

1. Describe and explain any pending litigation, major disputes, contract defaults, and/or claims against your firm in the last 5 years. Limit this information to the office submitting qualifications for this submittal. Name the litigants involved and the month and year the case or claim was filed, venue, and a full description of the claims raised in the litigation. Please provide the name, phone number and email address of a contact person in your organization who can provide additional information or clarify any questions regarding these matters. If there is no litigation pending against your firm, please provide a notarized statement stating this fact.

TAB 5 – Location

1. Provide the location of office(s) where the project management team will be located.

Evaluation Criteria: The City will evaluate prospective candidates based upon the experience and past performance of the firm. Evaluation will also be based upon the abilities and accomplishments of the individuals to be assigned to the project and relevant project experience. The location of the firm's home office where the work will occur from will also be an important factor. Selection will be based on aggregate of rank received from reviewers.

Scoring Parameters:

General (5 points)

Experience (40 points)

Financial Capability (20 points)

Construction Disputes (15 points)

Location of Firm (20 Points):

- Located in Ormond Beach - 20 points
- Located in Volusia County – 14 points
- Located within 100 miles of City Hall – 6 points

Selection Process: The responses will be evaluated in accordance with Florida Statutes Section 287.055 known as the Consultants Competitive Negotiations Act.

A designated selection committee will review and evaluate responses to this RFQ for each firm that submits and will rank the proposals based on the evaluation criteria. The Committee shall designate no less than two of the most qualified proposers based on rankings to be considered for continuing contracts. These proposers may be invited to appear for interview by City staff or be asked to further demonstrate their qualifications. It is intended to select a maximum of four firms for continuing contracts (assuming four or more proposals are received). Contracts will then be prepared and submitted to the City Manager for approval and recommendation to the City Commission.

Insurance Requirements: The Consultant shall purchase at his own expense and maintain throughout the duration of the contract the types and amounts of insurance in form and from companies satisfactory to the City and shall furnish proof of insurance prior to commencing work.

The Consultant shall indemnify and hold harmless the City and its employees from and against all claims, damages, losses, and expenses including, but not limited to, attorneys'

fees arising out of or resulting from work provided that the claim, damages, loss and expense is caused in whole or in part.

The City reserves the following rights:

- Modify, extend, or cancel this RFQ at any time to obtain additional proposals or for any other reason the City determines to be in its best interest;
- Issue a new RFQ with terms and conditions that are the same, similar or substantially different as those set forth in this or a previous RFQ in order to obtain additional proposals or for any other reason the City determines to be in its best interest;
- Conduct pre-award discussion and/or pre-award negotiations with any or all responsive and responsible proposer(s) who submit proposals determined to be reasonably acceptable of being selected for award; and, conduct personal interviews or require presentations of any or all proposer(s) prior to selection.
- Request that proposer(s) furnish additional information as the City may reasonably require.
- Accept or reject qualifications or proposals in part or whole, and/or waive any defect or deficiency in any proposal, if in the City's sole judgment, the defect or deficiency is not material in response to this RFQ;
- Limit and/or determine the actual contract services to be included in a contract.
- Engage outside experts to assist staff in evaluating the merits and viability of each proposer.
- Obtain information for use in evaluating submittals from any source.
- Verify the information received in the proposal. If a proposer knowingly and willfully submits false information or data, the City of Ormond Beach reserves the right to reject that proposal. If it is determined that an Agreement was awarded as a result of false statements or other data submitted in response to this RFQ, the City of Ormond Beach reserves the right to terminate the Agreement
- The City shall be the sole judge of the proposer's qualifications.

Insurance Requirements

1. Contractor's Insurance General

The Contractor, including service-related contractors, shall purchase and maintain for the entire life of the Project, including any and all approved time extensions, until its final acceptance by the City, such insurance as will protect the Contractor from claims under Workers' Compensation, disability benefit laws or other similar employee benefit laws; from claims for damages because of bodily injury, occupational sickness or disease, or death of Contractor's employees; from claims insured by usual or unusual injury liability coverage; from claims or injury to or destruction of tangible property and from claims insured by usual Commercial General Liability coverage. This includes loss of use resulting therefrom, any or all of which may arise out of the Contractor's operations under the Contract Documents, whether such operations be by the Contractor, by any Subcontractor, or by anyone directly or indirectly employed by any of them or for whose acts any of them may be legally liable. The Contractor's deductibles/self-insured retentions shall be disclosed to the City and may be disapproved by the City, and may be reduced or eliminated at the sole discretion of the City. The Contractor is responsible for the amount of any deductible or self-insured retention.

2. Types of Insurance and Limits of Liability

The insurance required herein shall be written for not less than any limits of liability specified and incorporated as part of the Contract Documents or as required by law, whichever is greater, and shall include and not limited to the following:

- (a)** Workers' Compensation Insurance in statutory limits for the State of Florida with Coverage B - Employer's Liability limits of not less than:

\$100,000 Each Accident Bodily Injury by Accident
 \$100,000 Each Employee Bodily Injury by Disease
 \$500,000 Policy Limit Bodily Injury by Disease

Certificate of Exemptions. If the contractor has a State-issued Certificate of Exemption, the contractor may provide a copy in place of the requirement for coverage. However, if the contractor subcontracts or retains any other person or entity to perform under the contract, that person or entity must provide proof of workers' compensation insurance as required by law or provide a Certificate of Exemption.

It is the intent of the City that any individual who either contracts directly with the city or performs any work on behalf of any such contractor be covered by workers' compensation insurance or have a valid exemption from said coverage.

(If applicable to the Project, the policy must include benefits under the United States Longshoremen's and Harbor Workers' Act and the Jones Act coverage--all maritime coverage.)

(b) Commercial General Liability Insurance shall be written on a coverage form as broad as Insurance Services Office (ISO) Form CG 00 01 11 85, or its successor form, including but not limited to the following coverage (any deviation shall be noted on the Certificates of Insurance):

- a. Premises, Operations, Products and Completed Operations
- b. Owners' & Contractors' Protective
- c. Products & Completed Operation
- d. Explosion, Collapse & Underground Conditions
- e. Blanket Contractual Liability
- f. Personal Injury Liability
- g. Broad Form Property Damage Endorsement, including Completed Operations
- h. Independent Contractors
- i. Watercraft--Owned and Non-Owned (if applicable, endorsement must be included in General Liability policy or a separate Protection & Indemnity Policy must be written)
- j. Pollution Liability (if applicable)
- k. Asbestos Abatement (if applicable)
- l. Fire Damage Liability

Certain coverage outlined above may not be required if they do not relate to the Project, as may be determined at the sole discretion of the City.

Commercial General Liability Coverage shall be written on an occurrence basis and the limits shall be no less and not limited to the following amounts:

Limits (not less than)

\$1 Million Each Occurrence

\$2 Million General Aggregate

\$1 Million Aggregate Products & Completed Operations

NOTE: Commercial General Liability Coverage must be purchased on either a project basis (separate policy per contract) or an

endorsement allocating an aggregate limit per location or specified project.

- (c) Automobile Liability Insurance is required if an Automobile(s) is used in the performance of the contract.

ISO Symbol 1 (Any Auto), or alternatively a combination of Symbol 2 (Owned Autos), Symbol 8 (Hired Autos), and Symbol 9 (Non-Owned Autos), and limits shall be no less than:

\$1 Million	Combined Single Limit for Bodily Injury and Property Damage
-------------	---

- (d) Excess Liability

For contracts \$250,000 or greater an Excess Liability Policy of at least but not limited to \$1,000,000 in addition to the scheduled underlying policies for Commercial General Liability, Automobile Liability and Employers' Liability, the Contractor shall also provide an Excess Liability Policy with a maximum self-insured retention not to exceed \$25,0000 per occurrence.

- (e) Builder's Risk

Contractor shall purchase Builder's Risk Insurance for any contracts that are deemed to be vertical construction on an All-Risk policy, and shall also include coverage for wind, hail, and named storm. Limits of coverage shall be at least and not limited to the value of the project.

- (f) Professional Liability, Malpractice and/or Errors and Omissions

The Contractor shall purchase and maintain professional liability, malpractice, or errors or omissions insurance with minimum limits of \$1,000,000 per occurrence. If a claims made form of coverage is provided, the retroactive date of coverage shall be no later than the inception date of claims made coverage, unless the prior policy was extended indefinitely to cover prior acts. Coverage shall be extended beyond the policy year either by a supplemental extended reporting period (ERP) of as great a duration as is available, and with no less coverage and with reinstated aggregate limits, or by requiring that any new policy provides a retroactive date no later than the inception date of claims made coverage.

D. Requirements for Certificates of Insurance

1. With the execution of the Contract Documents, the Contractor, including service related contractors, shall provide certificates of such insurance acceptable to the City. These certificates and insurance policies shall contain an endorsement that the coverage under the policies will not be canceled, non-renewed or materially changed until at least thirty (30) days' prior written notice of such cancellation, non-renewal or change (except for nonpayment of premium, which shall be ten (10) days) and a copy of the cancellation endorsement signed by an authorized representative of the insurer, be given to the City. The contractor shall be required to replace any expired or canceled policies in like amount and coverage to the satisfaction of the City. The Certificate of Insurance shall be the ACORD FORM 25-S (7/90), or its successor form, and shall be made a part of the Contract Documents.
2. New certificates of insurance shall be provided to the City at least fifteen (15) days prior to coverage renewals.
3. If requested by the City, the contractor shall immediately furnish complete copies of the Contractor's insurance policies, forms and endorsements.
4. For Commercial General Liability coverage, the Contractor shall, at the option of the City, provide an indication of the amount of claims payments or reserves chargeable to the aggregate amount of liability coverage. If the Commercial General Liability form of coverage includes an annual aggregate limitation on the amount of insurance provided, a separate project aggregate limit may be required by the City for the given contract.
5. If the Contractor fails to obtain and maintain for the life of the Project the insurance required hereby or to replace any such expired or canceled policy, the City may obtain and maintain such insurance with such company as it deems satisfactory. Any amounts expended by the City in payment of premiums for such insurance shall be deducted by the City from the amount due the Contractor for the work covered by the Contract.

E. Policies of Insurance

1. Except as otherwise provided in this Exhibit, all insurance policies shall be issued by insurers licensed to do business in the State of Florida on an admitted basis or which is an eligible surplus lines insurer in the State of Florida, and any such insuring company is required to have a minimum financial rating of (A-), in the latest edition of "Best's Key Rating Guide", published by A. M. Best Co., Inc., or some similarly nationally recognized rating authority, including Standard and Poors and Demotech.
2. For Workers' Compensation coverage only, self-insurance programs are

acceptable with a minimum A- rated reinsurance carrier; written confirmation is required.

3. All policies of insurance or certificates thereof referred to in this Exhibit shall be deposited with the City Clerk.
4. The City shall be named an Additional Insured on General Liability including products and completed operations and Automobile Liability policies of insurance and certificates thereof.

THIS PAGE MUST BE COMPLETED AND RETURNED WITH YOUR PROPOSAL

VERIFICATION OF EMPLOYMENT STATUS USING E-VERIFY SYSTEM

1. Undersigned firm warrants it **IS** currently registered with the U.S. Department of Homeland Security's E-Verify system, **and** is compliant with the requirements of Sections 448.09 and 448.095, *Florida Statutes*.
2. Undersigned firm warrants it **has not** had any contracts terminated as a result of violations of Sections 448.09 or 448.095, *Florida Statutes*, that prohibit it from contracting with a public agency.
3. Undersigned firm warrants that if it enters into an agreement with a subcontractor, an express provision shall be included in all of its subcontracts requiring subcontractors, who perform work or provide services pursuant to the contract, to use the E-Verify system to verify employment eligibility of all new employees hired by the subcontractor during the contract term.
4. Undersigned firm understands that any subcontractor must provide the contractor with an affidavit stating that the subcontractor does not employ, contract with, or subcontract with an unauthorized alien, and the contractor understands it shall maintain any such affidavits for the duration of the contract, and the contract with the subcontractor must be immediately terminated if the City has a good faith belief that the subcontractor knowingly violated Section 448.09 (1), *Florida Statutes*.
5. Undersigned firm understands that in the event the City has a good faith belief that the contractor has knowingly violated Section 448.09 (1), *Florida Statutes*, the City shall terminate the contract, and the contractor may not be awarded a public contract for a period of at least one (1) year after the date of termination. The contractor may be held liable for any additional costs incurred by the City as a result of termination of the contract.

COMPANY NAME

AUTHORIZED SIGNATURE

PRINT NAME

TITLE

DATE

THIS PAGE MUST BE COMPLETED AND RETURNED WITH YOUR PROPOSAL

City of Ormond Beach
CONFLICT, NON-CONFLICT OF INTEREST STATEMENT,
LITIGATION STATEMENT

1.

[] To the best of our knowledge, the undersigned firm has no potential conflicts of interest due to any other clients or contracts for this project.

[] The undersigned firm, by attachment to this form, submits information which may be a potential conflict of interest due to other clients or contracts for this project.

2.

[] The undersigned firm has had no litigation on any project in the last five (5) years.

[] The undersigned firm, by attachment to this form, submits a summary and disposition of individual cases of litigation during the past five (5) years.

COMPANY NAME

AUTHORIZED SIGNATURE

PRINT NAME

TITLE

DATE

THIS PAGE MUST BE COMPLETED AND RETURNED WITH YOUR PROPOSAL

City of Ormond Beach

DRUG-FREE WORKPLACE CERTIFICATION

IDENTICAL OR "TIE" PROPOSALS: Preference shall be given to businesses with drug-free workplace programs. Whenever two or more proposals which are equal in respect to price, quality, and service are received by the State or by any political subdivision for the procurement of commodities or contractual services, a proposal received from a business that certifies that it has implemented a drug-free workplace program shall be given preference in the award process. Established procedures for processing tie proposals will be followed if none of the tied vendors have a drug-free workplace program. In order to have a drug-free workplace program, a business shall:

1. Publish a statement notifying employees that the unlawful manufacture, distribution, dispensing, possession, or use of a controlled substance is prohibited in the workplace, and specify the actions that will be taken against employees for violations of such prohibition.
2. Inform employees about the dangers of drug abuse in the workplace, the policy of maintaining a drug-free workplace, any available drug counseling, rehabilitation, and employee assistance programs, and the penalties that may be imposed upon employees for drug abuse violation(s).
3. Give each employee that engages in providing the commodities or contractual services that are under proposal a copy of the statement specified in subsection 1.
4. In the statement specified in subsection 1, notify the employees that, as a condition of working on the commodities or contractual services that are under proposal, the employee will abide by the terms of the statement and will notify the employer of any conviction, or plea of guilty or nolo contendere to, any violation of Chapter 893, or of any controlled substance law of the United States, or any state, for a violation occurring in the workplace no later than five (5) calendar days after such conviction.
5. Impose sanctions on, or require the satisfactory participation in a drug abuse assistance or rehabilitation program if such is available in the employee's community, by any employee who is so convicted.
6. Make a good faith effort to continue to maintain a drug-free workplace through implementation of this section.

Signature

Print Name

Title

EXHIBIT 1
Construction Management Project List
2017-2022

Project	GMP	Year Constructed
Andy Romano Beachfront Park - Hurricane Matthew Storm Repairs	\$ 24,654	2017
Police Station Sally Port Repairs	\$ 55,556	2017
OBSC Field 12 Renovation	\$ 21,450	2017
Andy Romano Beachfront Park - Hurricane Irma Storm Repairs	\$ 24,983	2018
MacDonald House Recladding	\$ 19,478	2018
Main Trail Bridge Repair	\$ 35,517	2018
OBSC Field Lighting Fields 4 - 10	\$ 1,268,229	2018
Rockefeller Gardens Shade Structure	\$ 56,870	2018
WTP Claricone Walkway & Support Structure Replacement	\$ 126,006	2018
OBSC Field Lighting, Baseball 3, Soccer 1-3	\$ 999,712	2019
Granada Blvd Medians Irrigation Reuse Connection	\$ 125,050	2020
OBSC Girls Championship Softball Field 7 Renovations	\$ 1,200,000	2020
OBSC Playground Resurfacing & Central Park Phase II Exercise Stations Equipment Replacement	\$ 99,858	2020
OBSC Soccer Field 6 Resurfacing	\$ 24,801	2020
The Casements Rockefeller Room Renovation	\$ 58,262	2020
WTP Static Mixer Shade Structure	\$ 23,885	2020
56 North Beach Street Bldg Asbestos Abatement	\$ 24,927	2021
56 North Beach Street Bldg Demo & Parking Lot Construction	\$ 125,579	2021
Birthplace of Speed Park Overlook Replacement	\$ 81,449	2021
MacDonald House Restoration/East & West Elevations	\$ 519,184	2021
Nova Community Park Tennis Court Lighting	\$ 330,385	2021
OBSC Field Resurfacing	\$ 21,950	2021
ARBP ADA Ramp Repair/Replacement	\$ 89,047	2022
	<u>\$ 5,356,832</u>	

EXHIBIT 2

EVALUATION FORM
Construction Management at Risk Services
RFQ 2022-17

Name of Firm: _____

Reviewer: _____

Date: _____

Points

General (5 pts Max)

Experience (40 pts Max)

Financial Capability (20 pts Max)

Construction Disputes (15 pts Max):

Location (20 pts Max):

TOTAL POINTS:

Rank



CITY OF ORMOND BEACH

City Manager • 22 S. Beach Street • Ormond Beach • Florida • 32174 • (386) 676-3200 • Fax (386) 676-3384

CITY MANAGER MEMORANDUM

To: The Honorable Mayor Partington and City Commissioners

Through: Joyce A. Shanahan, City Manager

From: Alex Schumann, City Engineer

Date: May 3, 2022

Subject: Intent to Bid - Police Station HVAC Upgrades

Commission Goal: Governance - Other

Introduction

This disposition item provides public notice of the City's intent to issue an Invitation to Bid for the Ormond Beach Police Station HVAC Upgrades Project, Bid Number 2022-21.

Background

The Ormond Beach Police Station HVAC Upgrades Project is a scheduled Capital Improvement Project (CIP) which will provide for the replacement of the existing air handler, chilled water pumps, variable air volume (VAV) boxes, thermostats, controls, and related components at the Police Station that were installed in 2000 and have exceeded their expected service life. The HVAC system has noticeable deterioration and corrosion and has had numerous repairs. Significant repairs have been made to the HVAC equipment over the past several years in order to keep the system operational. The isolation valves are no longer operational and are beyond repair and the air handler and chilled water pumps are in very poor condition and in need of replacement as well. The controls are also scheduled for replacement with modern control systems compatible with HVAC systems in use at various other City owned facilities.

Discussion

Bidding documents for HVAC Upgrades were prepared by SGM Engineering, Inc., a continuing contract consultant for the City. The plans require that a temporary HVAC system is installed for the Police Station during construction to provide a climate-controlled environment at all times for Police Station occupants.

Budget Impact

Funding for the Ormond Beach Police Station Chiller Replacement Project was included

in the FY 2021-22 Capital Improvement Program budget with \$225,000.00 in funding to be provided through the 317-Facilities Renewal and Replacement Fund. The engineer's opinion of probable cost for this project is \$479,216.54. If the bid is overbudget and the City Commission chooses to award the bid, a budget amendment will be necessary to allocated General Fund Reserves for the overage.

Citizen Impact

The Police Station HVAC system is an essential component for operation of the Police Station and is critical for the safety and comfort of its occupants.

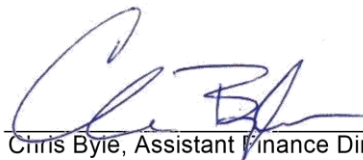
Recommendation

Staff intends to publicly advertise this project for competitive bidding, unless otherwise directed by the City Commission.

Attachments:

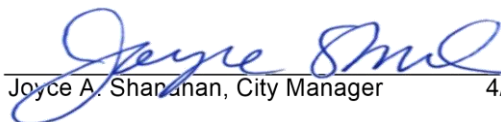
- Bid No 2022-21 PD HVAC Project Manual (PDF)

REVIEWED BY:


Chris Byie, Assistant Finance Director 4/26/2022


Claire Whitley, Assistant City Manager 4/26/2022

APPROVED BY:


Joyce A. Shanahan, City Manager 4/27/2022

Police Station HVAC Upgrades

Bid No. 2022-21



City of Ormond Beach

Project Manual

PREPARED BY:

SGM ENGINEERING

935 Lake Baldwin Lane
Orlando, Florida 32814

POLICE STATION HVAC UPGRADES PROJECT
Ormond Beach, Florida

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POLICE STATION HVAC UPGRADES PROJECT
Ormond Beach, Florida

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Ormond Beach, Florida

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SECTION 00030
ADVERTISEMENT FOR BIDS

Sealed bids for furnishing all labor, materials and equipment necessary for constructing the **POLICE STATION HVAC UPGRADES PROJECT, Bid No. 2022-21** for the City of Ormond Beach, Florida, will be received at the Office of the Purchasing Coordinator, City Hall, Ormond Beach, Florida, until **June 9, 2022 at 2:30 PM**, at which time bids will be opened and publicly read aloud in the Training Room located in the breezeway between City Hall and the Public Library. Bids received after the above time and date will be returned unopened.

The Work consists of: replacing the Police Station chilled water pumps, chilled water treatment and filtration, air handler, VAV boxes, thermostats, control systems, all associated piping, valves, dampers and all related components and systems, and providing temporary HVAC equipment as described in the Contract Documents. All workers will be required to be CJIS Certified prior to the start of work. The work is shown on the Drawings and specified in the Project Manual. The project Drawings, Specifications and related Bidding documents are available on-line at **www.demandstar.com**, or by calling DemandStar at (206) 940-0305. If you have difficulty obtaining these documents, please contact the City's purchasing office at (386) 676-3223.

A **pre-bid conference** to discuss the details and requirements of the contract will be held on **May 19, 2022 at 10:00 AM**, in the Training Room at City Hall. All prospective bidders are strongly encouraged to attend. The deadline for submitting questions is **June 3, 2022 at 4:00 PM**.

END OF SECTION

SECTION 00100 INSTRUCTION TO BIDDERS

00101. Defined Terms

Terms used in these Instructions to Bidders are defined in the General Conditions of the Construction Contract and have the meanings assigned to them in the General Conditions. The term "Successful Bidder" means the lowest, qualified, responsible Bidder to whom OWNER (on the basis of OWNER's evaluation as hereinafter provided) makes an award.

The OWNER for this project is:

The City of Ormond Beach
22 South Beach Street
Ormond Beach, Florida 32174

The ENGINEER for this project is:

SGM Engineering
935 Lake Baldwin Lane
Orlando, FL 32814

00102. Copies of Bidding Documents

2.1 The City uses the services of DemandStar (www.demandstar.com) to advertise/distribute its bids and RFP's via the internet.

2.2 Complete sets of the Bidding Documents may be obtained from the issuing office designated in the Advertisement for Bids.

2.3 Complete sets of Bidding Documents shall be used in preparing Bids; neither OWNER nor ENGINEER assume any responsibility for errors or misinterpretations resulting from the use of incomplete sets of Bidding Documents.

2.4 OWNER and ENGINEER in making copies of Bidding Documents available, on the above terms, do so only for the purpose of obtaining Bids on the Work and do not confer a license or grant for any other use.

00102.1 COMPLIANCE WITH FLORIDA PUBLIC RECORDS LAW

Contractor expressly agrees that it shall comply with the public records law provided in Florida Statutes, Chapter 119, and specifically to:

(a) Keep and maintain public records required by the City to perform the contracted service.

(b) Upon request from the City Clerk, provide the City with a copy of the requested records or allow the records to be inspected or copied within a reasonable time at a cost that does not exceed the cost provided in Chapter 119, Florida Statutes, or as otherwise provided by law.

(c) Ensure that public records that are exempt or confidential and exempt from public records disclosure requirements are not disclosed except as authorized by law for the duration of the contract term and following completion of the contract if the contractor does not transfer the records to the City.

(d) Upon completion of the contract, transfer at no cost, to the City all public records in possession of the contractor or keep and maintain public records required by the City to perform the service. If the contractor transfers all public records to the City upon completion of the contract, the contractor shall destroy any duplicate public records that are exempt or confidential and exempt from public records disclosure requirements. If the contractor keeps and maintains public records upon the completion of the contract, the contractor shall meet all applicable requirements for retaining public records. All records stored electronically must be provided to the City, upon request from the City Clerk, in a format that is compatible with the information technology systems of the City.

(e) Failure of the Contractor to comply with Public Records Law as provided by Florida Statutes, Chapter 119, shall subject the Contractor to penalties under Chapter 119.10 and subject this Agreement to termination for cause by the City.

IF THE CONTRACTOR HAS QUESTIONS REGARDING THE APPLICATION OF CHAPTER 119, FLORIDA STATUTES, TO THE CONTRACTOR'S DUTY TO PROVIDE PUBLIC RECORDS RELATING TO THIS CONTRACT, CONTACT THE CUSTODIAN OF PUBLIC RECORDS AT:

**CITY CLERK
22 SOUTH BEACH STREET
ORMOND BEACH, FLORIDA 32174 (386) 676-3331
CITYCLERK@ORMONDBEACH.ORG**

Ref: Fla. Stat. §119.0701(2016)

00102.2 Public Records/Non-Confidentiality of Bids

The City of Ormond Beach cannot and does not warrant the confidentiality of any information submitted in response to this bid solicitation. Florida law provides that municipal records shall at all times be open for personal inspection by any person, Section 119, F.S., the Public Records Act. Information and materials received by the City of Ormond Beach in connection with responsive bids

shall be deemed to be public records subject to public inspection upon award, recommendation of award, or 30 days after bid opening, whichever occurs first.

00103. Qualifications of Bidders

To demonstrate qualifications to perform the Work, each Bidder must be prepared to submit, within seven days after the OWNER's request, written evidence of his ability to perform the work, such as financial data, previous experience, and evidence of authority to conduct business in the jurisdiction where the Project is located. Each Bid must contain evidence of Bidder's qualification to do business in the state where the Project is located or covenant to obtain such qualification prior to award of the contract.

00104. Public Entity Crimes:

A person or affiliate who has been placed on the convicted vendor list following a conviction for a public entity crime may not submit a Proposal on a contract to provide any goods or services to a public entity, may not submit a Proposal on a contract with a public entity for the construction or repair of a public building or public work, may not submit Proposals on leases or real property to a public entity, may not be awarded or perform work as a contractor, supplier, subcontractor, or consultant under a contract with any public entity, and may not transact business with any public entity in excess of the threshold amount provided in Section 287.017, for CATEGORY TWO for a period of 36 months from the date of being placed on the convicted vendor list.

4.1 Discrimination Pursuant to Section 287.134(2)(a), Florida Statutes, an entity or affiliate who has been placed on the discriminatory vendor list may not submit a bid on a contract to provide any goods or services to a public entity, may not submit a bid on a contract with a public entity for the construction or repair of a public building or public work, may not submit bids on leases of real property to a public entity, may not be awarded or perform work as a contractor, supplier, subcontractor, or consultant under a contract with any public entity, and may not transact business with any public entity.

00105. Examination of Contract Documents and Site

5.1 Before submitting a Bid, each Bidder must (a) examine the Contract Documents thoroughly, (b) visit the site to familiarize himself with local conditions that may in any manner affect cost, progress or performance of the Work, (c) familiarize himself with federal, state and local laws, ordinances, rules and regulations that may in any manner affect cost, progress or performance of the Work; and (d) study and carefully correlate Bidder's observations with the Contract Documents.

5.2 Reference is made to the Supplementary Conditions for the identification of those reports of investigations and tests for subsurface and latent physical conditions at the site or otherwise affecting cost, progress or performance of the Work which have been relied upon by ENGINEER in preparing the Drawings and Specifications. OWNER will make such reports available for inspection to any Bidder or copies may be obtained from the ENGINEER by the Bidder at reproduction cost. These reports are not guaranteed as to accuracy or completeness, nor are they part of the Contract

Documents. Before submitting his Bid each Bidder will, at his own expense, make such additional investigations and tests as the Bidder may deem necessary to determine his Bid for performance of the Work in accordance with the time, price and other terms and conditions of the Contract Documents.

5.3 On request OWNER will provide each Bidder access to the site to conduct such investigations and tests as each Bidder deems necessary for submission of his Bid. Bidders making such investigations shall return site to original condition and shall pay for any damages resulting therefrom.

5.4 The lands upon which the Work is to be performed, rights-of-way for access thereto and other lands designated for use by CONTRACTOR in performing the Work are identified in the Supplementary Conditions, General Requirements, or Drawings.

5.5 The submission of a Bid will constitute an incontrovertible representation by the Bidder that he has complied with every requirement of this Article 4 and that the Contract Documents are sufficient in Scope and detail to indicate and convey understanding of all terms and conditions for performance of the Work.

00106. Clarification/Correction of Proposal

The City of Ormond Beach reserves the right to allow for the clarification of questionable entries and for the correction of obvious mistakes.

00107. Interpretations

All questions about the meaning or intent of the Contract Documents shall be submitted in writing to the Purchasing Coordinator via email to Rob.Hart@ormondbeach.org. Replies will be issued by Addenda mailed or delivered to all parties recorded by ENGINEER as having received the Bidding Documents. Only questions answered by formal written Addenda will be binding. Oral and other interpretations or clarifications will be without legal effect.

00108. Minority Policies

The City of Ormond Beach, Florida, encourages the full participation of Disadvantaged and Women Business Enterprises (D&WBE) in the provision of goods and services.

00109. Bid Security

9.1 Bids shall be accompanied by a Bid Security. The Security shall be made payable to OWNER, in the amount of five percent (5%) of the total bid, and in the form of a certified or cashier's check or a Bid Bond issued by a Surety meeting the requirements of paragraph 5.1 of the General Conditions. The Bid Security shall be irrevocable after the time and date set for the opening of bids, and for a period of ninety (90) days thereafter.

9.2 The Bid Security of the Successful Bidder will be retained until such Bidder has executed the Agreement and furnished the required Contract Security, whereupon it will be returned; if the successful Bidder fails to execute and deliver the Agreement and furnish the required Contract Security within fifteen (15) days of the Notice of Award, OWNER may annul the Notice of Award and the Bid Security of that Bidder will be forfeited. The Bid Security of any Bidder whom OWNER believes to have a reasonable chance of receiving the award may be retained by OWNER until the seventh day after the "effective date of the Agreement" or the first day after the expiration of the period that Bids are specified to remain open in the Advertisement for Bids. Bid Security of other Bidders will be returned within seven (7) days of the Bid opening.

00110. Contract Time

The number of days within which, or the date by which, the Work is to be completed (the Contract Time) is set forth in the Bid Form and will be included in the Agreement.

00111. Liquidated Damages

Provisions for liquidated damages, if any, are set forth in the Bid Form and Agreement.

00112. Subcontractors

12.1 If the Supplementary Conditions, Bid Form and/or Specifications require the identity of certain subcontractors to be submitted to the OWNER with the bid, the bidder will list in his bid all subcontractors proposed for those portions of the work for which such identification is so required. When requested, an experience statement, pertinent information as to similar projects satisfactorily completed and other evidence of qualifications for each listed subcontractor shall be submitted within seven (7) days after the bid. If the OWNER after due investigation has reasonable objection to any proposed subcontractor, OWNER may before giving the Notice of Award request the apparent low bidder to submit an acceptable substitute without an increase in his bid price. If the apparent Successful Bidder declines to make any such substitution, the contract shall not be awarded to such Bidder, but his declining to make any such substitution will not constitute grounds for sacrificing his Bid Security. Any Subcontractor so listed and to whom OWNER does not make written objection prior to the giving of the Notice of Award will be deemed acceptable to OWNER.

12.2 In contracts where the Contract Price is on the basis of Cost-of-the-Work Plus a Fee, the apparent Successful Bidder, prior to the Notice of Award, shall identify in writing to OWNER those portions of the Work that such Bidder proposes to subcontract and after the Notice of Award may only subcontract other portions of the Work with OWNER's written consent.

00113. Material and Equipment List (Manufacturers)

If the Supplementary Conditions, Bid Form and/or Specifications require the identity of certain material and equipment manufacturers be submitted to the OWNER with the bid, the bidder will list in his bid all material and equipment manufacturers proposed for those portions of the work for which such identification is so required. Such list shall be supplemented by product descriptions for each listed material and equipment item. Supplemental information will be submitted with the bid

unless it has been prefiled with the ENGINEER. In this latter case, the bid shall state that the information has been prefiled. Equipment manufacturers/suppliers must agree to OWNER'S terms of purchase. In no event will OWNER accept terms of sale that limit OWNER'S ability to reasonably recover in the event of equipment failure/defect such as, but not limited to; mandatory arbitration clauses, venue of court proceedings and applicable law outside of Volusia County, Florida, or damage limitations that preclude recovery for failed or defective equipment that would be less than full compensation for OWNER's loss. If the OWNER after due investigation has reasonable objection to any proposed material or equipment item, OWNER may before giving the Notice of Award request the apparent low bidder to submit an acceptable substitute without an increase in his bid price. If the apparent Successful Bidder declines to make any such substitution, the contract may not be awarded to such Bidder, but his declining to make any such substitution will not constitute grounds for sacrificing his Bid Security. Any material or equipment manufacturer so listed and to whom OWNER does not make written objection prior to the giving of the Notice of Award will be deemed acceptable to OWNER. This acceptance of a material or equipment manufacturer does not relieve the CONTRACTOR from the responsibility of submitting shop drawings in accordance with Section 01300 before incorporating said material and/or equipment into the Work.

00114. Material and Equipment Substitutions

Excluding items called for in the bidders Equipment and Subcontractors List in the Bid, Section 00300, whenever it is indicated on the Drawings or specified in the Specifications that a substitute or "or equivalent" item of material or equipment may be furnished or used by CONTRACTOR if acceptable to ENGINEER, application for such acceptance will not be considered by ENGINEER until after the "effective date of the Agreement". The procedure for submittal of any such application by CONTRACTOR and consideration by ENGINEER is set forth in Section 01630 - Substitutions and Product Options.

00115. Bid Form

15.1 Bids shall be submitted on standard forms which are furnished in this Project Manual.

15.2 Bid Forms must be completed in ink or by typewriter. All blank spaces must be filled. Where indicated on the Bid Form, the Bid price of each item on the form must be stated in words and numerals; in case of a conflict, words will take precedence.

15.3 The estimate of the various quantities of work applicable to unit price items as shown on the Bid Form is approximate and is intended solely to provide the basis of comparison upon which the award of contract is made. Final payment will be made on the basis of the actual completed quantities of each item.

15.4 Bids by corporations must be executed in the corporate name by the president or a vice president (or other corporate officer accompanied by evidence of authority to sign) and the corporate seal must be affixed and attested by the secretary or an assistant secretary. The corporate address and state of incorporation shall be shown below the signature.

15.5 Bids by partnerships must be executed in the partnership name and signed by a partner, whose title must appear under the signature and the official address of the partnership must be shown below the signature.

15.6 Bids by a Joint Venture must be executed by all individuals, Partners, or Corporations interested in the Joint Venture in the same manner that bids by these separate entities are required to be executed.

15.7 All names must be typed or printed below the signature.

15.8 The Bid shall contain an acknowledgment of receipt of all Addenda (the numbers of which shall be filled in on the Bid Form).

15.9 The address to which communications regarding the Bid are to be directed must be shown.

15.10 Only one bid from any individual, firm, partnership or corporation under the same or different names, will be considered. Should it appear to the OWNER that any Bidder is interested in more than one bid, all bids in which such Bidder is interested will be rejected.

00116. Submission of Bids

Bids shall be submitted at the time and place indicated in the Advertisement for Bids and shall be included in an opaque sealed envelope, marked with the Bid Number, Project Title, and Bidder's Name and Address, accompanied by the Bid Security and other required documents. Include one (1) original bid form and (1) electronic file (thumb/flash drive or CD). If the Bid is sent through the mail or other delivery system, the sealed Bid shall be sent in a separate envelope with the notation "BID ENCLOSED" as well as the Bid Number, Project Title, and Bid Opening Date clearly displayed on the shipping envelope/package.

Submit bids to:

City of Ormond Beach
Purchasing Coordinator
22 South Beach Street
Ormond Beach, FL 32174

00117. Modification and Withdrawal of Bids

Bids may be modified or withdrawn by an appropriate document duly executed (in the manner that a Bid must be executed) and delivered to the place where Bids are to be submitted at any time prior to the opening of Bids.

00118. Opening of Bids

Bids will be opened publicly and read aloud and an abstract of the amounts of the base Bids and major alternates (if any) will be made available after the opening of Bids.

00119. Bids to Remain Open

All Bids shall remain open for ninety (90) days after the day of the Bid opening, but OWNER may, in his sole discretion, release any Bid and return the Bid Security prior to that date.

00120. Award of Contract

20.1 OWNER reserves the right to reject any and all Bids, to waive any and all informalities and to negotiate contract terms with the Successful Bidder, and the right to disregard all nonconforming, nonresponsive or conditional Bids. Discrepancies between words and figures will be resolved in favor of words. Discrepancies between the indicated product of quantities and unit prices and the correct product thereof will be resolved in favor of the correct product. Discrepancies between the indicated sum of any column of figures and the correct sum thereof will be resolved in favor of the correct sum.

20.2 In evaluating Bids, OWNER shall consider the qualifications of the Bidders, whether or not the Bids comply with the prescribed requirements, and alternates and unit prices if requested in the Bid forms. It is OWNER's intent to accept alternates (if any are accepted) in the order in which they are listed in the Bid form but OWNER may accept them in any order or combination.

20.3 OWNER may consider the qualifications and experience of Subcontractors and other persons and organizations (including those who are to furnish the principal items or material or equipment) proposed for those portions of the Work as to which the identity of Subcontractors and other persons and organizations must be submitted as provided in the Supplementary Conditions. Operating costs, maintenance considerations, performance data and guarantees of materials and equipment may also be considered by OWNER.

20.4 Irregular bids may be rejected. Irregular bids are defined as those containing serious omissions, unauthorized alternative bids, incomplete bids or unbalanced bids. Failure to provide all of the information required to accompany the bid will be considered to be a serious omission.

20.5 OWNER may conduct such investigations as he deems necessary to assist in the evaluation of any Bid.

20.6 OWNER reserves the right to reject the Bid of any Bidder who does not pass any such evaluation to OWNER's satisfaction.

20.7 If the contract is to be awarded it will be awarded to the lowest responsible Bidder whose evaluation by OWNER indicates that the award will be in the best interests of the Project. The low bid will be based on the total cost of the Base Bid and, when applicable, any Additive or Deductive Alternates that are to be included in the Contract, as decided by the OWNER.

20.8 If the contract is to be awarded, OWNER will give the Successful Bidder a Notice of Award within the number of days after the day of the Bid opening specified in the Advertisement for Bids to remain open.

00121. Performance and Other Bonds

Paragraph 5.1 of the General Conditions and the Supplementary Conditions set forth OWNER's requirements as to performance and other Bonds. When the Successful Bidder delivers the executed Agreement to OWNER it shall be accompanied by the required Contract Security.

00122. Signing of Agreement

When OWNER gives a Notice of Award to the Successful Bidder, it will be accompanied by at least five (5) unsigned counterparts of the Agreement and all other Contract Documents. Within ten (10) days thereafter CONTRACTOR shall sign all and deliver at least five (5) counterparts of the Agreement to OWNER with other Contract Documents attached. Within ten (10) days thereafter OWNER will deliver fully signed counterparts to CONTRACTOR.

00123. Special Requirements

23.1 Financing. Funds will be available for payment of estimate draws as they become due.

23.2 Prohibited Interests. No official of the OWNER who is authorized in such capacity, and on behalf of the OWNER to negotiate, make, accept or approve, or to take part in negotiating, making, accepting, or approving any architectural, engineering, inspection, construction or material supply contract or any subcontract in connection with the construction of the project shall become directly or indirectly interested, personally, in this Contract or in any part thereof. No officer, employee, architect, attorney, engineer, or inspector of or for the OWNER who is authorized in such capacity and on behalf of the OWNER to exercise legislative, executive, supervisory, or other similar functions in connection with the construction of the project, shall become directly or indirectly interested personally, in this Contract or in any part thereof, any material supply contract, subcontract, insurance contract, or any other contract pertaining to the project.

23.3 Performance of Work by CONTRACTOR:

Contract Assignment. The successful Bidder (or Bidders) will be required to perform the work as a prime contractor.

The CONTRACTOR shall not sublet, sell, transfer, assign or otherwise dispose of the contract or any portion thereof, or of his right, title or interest therein, without written consent of the OWNER.

END OF INSTRUCTION TO BIDDERS

SECTION 00300
BID

CONTRACTORS NAME _____ LICENSE NO. _____

PROJECT IDENTIFICATION: **POLICE STATION HVAC UPGRADES PROJECT**

CONTRACT IDENTIFICATION AND NUMBER: Bid No. 2022-21

THIS BID IS SUBMITTED TO:

(Name and Address of Owner)

City of Ormond Beach
22 South Beach Street
Ormond Beach, Florida 32174

1. The undersigned BIDDER proposes and agrees, if this Bid is accepted, to enter into an Agreement with OWNER in the form included in the Contract Documents to complete all Work as specified or indicated in the Contract Documents for the Contract Price and within the Contract Time indicated in this Bid and in accordance with the Contract Documents.

2. BIDDER certifies that he has investigated the requirements to do business in the jurisdiction where the project is located, and that he is either qualified to do business or will obtain such prequalification prior to award of the contract.

3. BIDDER accepts all of the terms and conditions of the Instructions to Bidders (Section 00100) including, without limitation, those dealing with the disposition of Bid Security, Public Entity Crimes, and Minority Policies. This Bid will remain open for 90 days after the day of Bid opening. BIDDER will sign the Agreement and submit the Contract security and other documents required by the Contract Documents within ten (10) days after the date of OWNER'S Notice of Award.

4. In submitting this Bid, BIDDER represents, as more fully set forth in the Agreement, that:

(a) BIDDER has examined copies of all the Contract Documents and of the following addenda:

<u>Date</u>	<u>Number</u>
_____	_____
_____	_____
_____	_____
_____	_____

(receipt of all of which is hereby acknowledged) and also copies of the Advertisement to Bid and the Instructions to Bidders;

BID (Cont'd.)
POLICE STATION HVAC UPGRADES PROJECT
ORMOND BEACH, FLORIDA

(b) BIDDER has examined the site and locality where the Work is to be performed, the legal requirements (federal, state and local laws, ordinances, rules and regulations) and the conditions affecting cost, progress or performance of the Work and has made such independent investigations as BIDDER deems necessary.

(c) This Bid is genuine and not made in the interest of or on behalf of any undisclosed person, firm or corporation and is not submitted in conformity with any agreement or rules of any group, association, organization or corporation; BIDDER has not directly or indirectly induced or solicited any other Bidder to submit a false or sham Bid; BIDDER has not solicited or induced any person, firm or a corporation to refrain from bidding; and BIDDER has not sought by collusion to obtain for himself any advantage over any other Bidder or over OWNER; and

5. BIDDER will complete the Work for the following price(s):

BID SCHEDULE

<u>Item No.</u>	<u>Description</u>	<u>Estimated Quantity</u>	<u>Unit</u>	<u>Unit Price</u>	<u>Total Estimated Price</u>
1.	Mobilization/Demobilization	<u>1</u>	LS	\$_____	\$_____
2.	General Conditions	<u>1</u>	LS	\$_____	\$_____
3.	Indemnification	<u>1</u>	LS	\$_____	\$_____
4.	Demolition	<u>1</u>	LS	\$_____	\$_____
5.	Furnish and Install Chilled Water Pumps	<u>1</u>	LS	\$_____	\$_____
6.	Furnish and Install Chilled Water Treatment and Filtration	<u>1</u>	LS	\$_____	\$_____
7.	Furnish and Install Air Handler	<u>1</u>	LS	\$_____	\$_____
8.	Furnish and Install Control Systems	<u>1</u>	LS	\$_____	\$_____
9.	Furnish and Install Temporary HVAC System	<u>1</u>	LS	\$_____	\$_____
10.	Disconnect and Remove Temporary HVAC System	<u>1</u>	LS	\$_____	\$_____
11.	Temporary HVAC System Rental Fee (Per Month)	<u>6</u>	Months	\$_____	\$_____

BID (Cont'd.)
POLICE STATION HVAC UPGRADES PROJECT
ORMOND BEACH, FLORIDA

BID SCHEDULE (continued)

12. Permit Fees and Allowances	1	LS	\$10,000.00	\$10,000.00
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TOTAL BASE BID			\$	
				(Figures)

(Words)

Additive Alternate Bid #1, Remove and Replace all VAV Controllers and Thermostats	1	LS	\$	\$
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Additive Alternate Bid #2, Remove and Replace all VAV Boxes and Thermostats (NIGHT WORK)	1	LS	\$	\$
--	---	----	----	----

BID (Cont'd.)
POLICE STATION HVAC UPGRADES PROJECT
ORMOND BEACH, FLORIDA

BIDDER acknowledges that the quantities are not guaranteed and final payment will be based on actual quantities determined as provided in the Contract Documents.

BIDDER agrees that the Work will be substantially completed within 270 calendar days after the date when the Contract Time commences to run, and completed within 300 calendar days after the date when the Contract Time commences to run.

BIDDER recognizes that time is of the essence to complete this Project and that OWNER will suffer financial loss if the Work is not substantially complete within the time specified above, plus any extensions thereof allowed in accordance with Article 12 of the General Conditions. The BIDDER also recognizes the delays, expense and difficulties involved in proving, in a legal or arbitration proceeding, the actual loss suffered by OWNER if the Work is not substantially complete on time. Accordingly, instead of requiring any such proof, OWNER has determined and BIDDER agrees to accept that as liquidated damages for delay (but not as a penalty) CONTRACTOR shall pay OWNER Five Hundred Dollars (\$ 500.00) for each calendar day that expires after the time specified above for substantial completion until the Work is substantially complete. After substantial completion, if CONTRACTOR shall neglect, refuse or fail to complete the remaining Work within the time specified above for completion and readiness for final payment or any proper extension thereof granted by OWNER, CONTRACTOR shall pay the OWNER an amount equal to all actual expenses incurred by the OWNER as a direct result of the CONTRACTOR'S negligence, refusal, or failure to so complete the remaining work. In the event the CONTRACTOR is terminated or abandons the work prior to the scheduled date for final completion, the CONTRACTOR may be liable for both liquidated damages attributable to delay and for excess completion costs.

6. The following documents are attached to and made a condition of this Bid:

- (a) Required Bid Security in the form of
 - (1) a certified check drawn in favor of the City of Ormond Beach in the amount of 5 percent of the total bid; or
 - (2) a Bid Bond in the amount of 5 percent of the total bid.
- (b) Equipment, Material, and Subcontractors List
- (c) All information required by the Trench Safety Act (Part VI, Chapter 553, Florida Statutes).
- (d) Drug Free Workplace Certificate
- (e) Conflict, Non-Conflict of Interest, Litigation Statement
- (f) Local Vendor Preference
- (g) Verification of Employment Status Using E-Verify System

BID (Cont'd.)
POLICE STATION HVAC UPGRADES PROJECT
ORMOND BEACH, FLORIDA

7. Communications to the BIDDER concerning this Bid shall be addressed to:

Mailing Address: _____
 Street Address: _____
 City, State, Zip Code: _____
 Email: _____
 Telephone No.: _____ Fax No.: _____

8. The terms used in this Bid which are defined in the General Conditions of the Construction Contract included as part of the Contract DOCUMENTS have the meanings assigned to them in the General Conditions.

SUBMITTED on _____, 20 ____.

If BIDDER is:

An Individual

By _____
 (Individual's Name - Signature)

_____ (SEAL)
 (Individual's Name - Typed or Printed)

doing business as _____

Business address: _____

Phone No.: _____

Fax No.: _____

BID (Cont'd.)
POLICE STATION HVAC UPGRADES PROJECT
ORMOND BEACH, FLORIDA

If BIDDER is:

A Partnership

By _____ (SEAL)
(Firm Name)

(General Partner - Signature)

(General Partner - Typed or Printed)

Business Address: _____

Phone No.: _____

Fax No.: _____

BID (Cont'd.)
POLICE STATION HVAC UPGRADES PROJECT
ORMOND BEACH, FLORIDA

If BIDDER is:

A Corporation

By _____
(Corporation Name)

(State of Incorporation)

By _____
(Name of Person Authorized to Sign - Signature)

(Name of Person Authorized to Sign - Typed or Printed)

(Title)

(Corporate Seal)

Attest _____

Business address: _____

Phone No.: _____

Fax No.: _____

BID (Cont'd.)
POLICE STATION HVAC UPGRADES PROJECT
ORMOND BEACH, FLORIDA

If BIDDER is:

A Joint Venture

By _____
 (Name - Signature)

 (Name - Typed or Printed)

Address: _____

Phone No.: _____

Fax No.: _____

By _____
 (Name - Signature)

 (Name - Typed or Printed)

Address: _____

Phone No.: _____

Fax No.: _____

(Each joint venturer must sign. The manner of signing for each individual, partnership and corporation that is a party to the joint venture should be in the manner indicated above.)

BID (Cont'd.)
POLICE STATION HVAC UPGRADES PROJECT
ORMOND BEACH, FLORIDA

EQUIPMENT AND SUBCONTRACTORS LIST

List the names of the manufacturers whose product is proposed for use. No more than one manufacturer's name shall be inserted for each item of material and/or equipment listed. Failure to list materials and equipment supplier may result in the Bid being rejected as incomplete and nonresponsive. If any Subcontractors are proposed to be used for any portions of the Work, the names, addresses, phone numbers and work classifications of each such Subcontractor must be listed. The failure to list all Subcontractors proposed for the work may result in the Bid being rejected as incomplete and nonresponsive. If more than one manufacturer or subcontractor is listed, selection will be made by the OWNER. If none is listed, those listed as the "Basis for Design" will be used.

Materials and Equipment:

<u>Item</u>	<u>Supplier</u>
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____

Subcontractors:

Work Classification: _____

Name: _____

Address: _____

Phone Number: _____ Fax Number: _____

BID (Cont'd.)
POLICE STATION HVAC UPGRADES PROJECT
ORMOND BEACH, FLORIDA

Subcontractors:

Work Classification: _____

Name: _____

Address: _____

Phone Number: _____ Fax Number: _____

Work Classification: _____

Name: _____

Address: _____

Phone Number: _____ Fax Number: _____

Work Classification: _____

Name: _____

Address: _____

Phone Number: _____ Fax Number: _____

Work Classification: _____

Name: _____

Address: _____

Phone Number: _____ Fax Number: _____

Work Classification: _____

Name: _____

Address: _____

Phone Number: _____ Fax Number: _____

BID (Cont'd.)
POLICE STATION HVAC UPGRADES PROJECT
ORMOND BEACH, FLORIDA

TRENCH SAFETY STANDARDS

If this project includes trench excavation in excess of five (5) feet in depth, the following trench safety standards will be in effect during the period of construction of the project:

The Occupational Safety and Health Administration's excavation safety standards, 29 C.F.R.s. 1926.650 Subpart P, and any regulation promulgated there under are hereby incorporated as the standard for this project.

The Bidder hereby certifies that the Contractor performing the trench excavation will comply with the applicable trench safety standards.

The Bidder further certifies that the cost (which is included in his unit cost) of compliance with applicable trench safety standards is:

	<u>Estimated Quantity</u>	<u>Units</u>	<u>Unit Price</u>	<u>Total Estimated Price</u>
<u>ITEM</u>				
1. Trench Excavation	_____	L.F.	_____	_____
2. Sheeting/Shoring	_____	S.F.	_____	_____

 Name (signature) Date

 Name (typed or printed)

 Title

BID (Cont'd.)
POLICE STATION HVAC UPGRADES PROJECT
ORMOND BEACH, FLORIDA

DRUG-FREE WORKPLACE CERTIFICATION

Identical Or “Tie” Bids: Preference shall be given to businesses with drug-free workplace programs. Whenever two or more proposals which are equal in respect to price, quality, and service are received by the State or by any political subdivision for the procurement of commodities or contractual services, a bid received from a business that certifies that it has implemented a drug-free workplace program shall be given preference in the award process. Established procedures for processing tie bids will be followed if none of the tied vendors have a drug-free workplace program. In order to have a drug-free workplace program, a business shall:

- 1) Publish a statement notifying employees that the unlawful manufacture, distribution, dispensing, possession, or use of a controlled substance is prohibited in the workplace and specifying the actions that will be taken against employees for violations of such prohibition.
- 2) Inform employees about the dangers of drug abuse in the workplace, the business’s policy of maintaining a drug-free workplace, any available drug counseling, rehabilitation, and employee assistance programs, and the penalties that may be imposed upon employees for drug abuse violation.
- 3) Give each employee that engages in providing the commodities or contractual services that are under bid a copy of the statement specified in subsection (1).
- 4) In the statement specified in subsection (1), notify the employees that, as a condition of working on the commodities or contractual services that are under bid, the employee will abide by the terms of the statement and will notify the employer of any conviction of, or plea of guilty or nolo contendere to, any violation of Chapter 893 or of any controlled substance law of the United States or any state, for a violation occurring in the workplace no later than five (5) calendar days after such conviction.
- 5) Impose sanctions on, or require the satisfactory participation in a drug abuse assistance or rehabilitation program if such is available in the employee’s community, by any employee who is so convicted.
- 6) Make a good faith effort to continue to maintain a drug-free workplace through implementation of this section.

 Name (signature)

 Date

 Name (typed or printed)

 Title

BID (Cont'd.)
POLICE STATION HVAC UPGRADES PROJECT
ORMOND BEACH, FLORIDA

CONFLICT, NON-CONFLICT OF INTEREST STATEMENT
LITIGATION STATEMENT

1.

- [] To the best of our knowledge, the undersigned firm has no potential conflicts of interest due to any other clients or contracts for this project.
- [] The undersigned firm, by attachment to this form, submits information which may be a potential conflict of interest due to other clients or contracts for this project.

2.

- [] The undersigned firm has had no litigation on any project in the last five (5) years.
- [] The undersigned firm, by attachment to this form, submits a summary and disposition of individual cases of litigation during the past five (5) years.

COMPANY NAME

AUTHORIZED SIGNATURE

NAME (PRINT OR TYPE)

TITLE

DATE

BID (Cont'd.)
POLICE STATION HVAC UPGRADES PROJECT
ORMOND BEACH, FLORIDA

LOCAL VENDOR PREFERENCE

The following is taken from the Code of Ordinances, City of Ormond Beach, Chapter 2, Financial Matters, Division 3, Purchasing, Article IX, Section 2-304:

Except where otherwise provided by federal or state law or other funding source restrictions, purchases of goods and services under the Purchasing Code shall give preference to local businesses as follows:

- (a) Under a competitive bid solicitation, the City *may* give a local preference in the amount of three percent (3%) of the bid price or \$25,000, whichever is less. The bid price shall include not only the base bid price but all alternatives which are part of the bid and actually purchased or awarded.
- (b) A *local business* shall mean a vendor that has a valid occupational license issued by the City of Ormond Beach at least one year prior to bid opening, with a physical business address located within the municipal boundaries of the City of Ormond Beach from which the vendor operates or performs business on a day-to-day basis that is a substantial component of the goods or services being offered and has provided a Local Vendor Affidavit of Eligibility at the time the bid is submitted.
- (c) A *Local Vendor Affidavit of Eligibility* shall accompany the bid submittal to be considered valid and shall include, but not be limited to, the following information:
 - (1) A physical business and location address;
 - (2) A copy of current City of Ormond Beach Local Business Tax Receipt (occupational license) to verify the business location;
 - (3) Proof of payment of business tax and real property tax due to the City of Ormond Beach;
 - (4) A copy of the firm's most recent annual corporation report to the Florida Division of Corporations;
 - (5) Any additional information necessary to verify local status.
- (d) *Exemptions:* Goods or services provided under a cooperative purchasing agreement, contracts for professional services subject to Consultants' Competitive Negotiation Act, purchases or contracts funded in whole or part by a governmental entity that does not allow local preferences, purchases made under another agency's agreements or contracts (piggybacking), purchases under emergency or sole source situations and procurements subject to formal proposals including but not limited to request for proposals (RFP) or continuing contract, and request for quotes (RFQ) versus straight competitive bids.
- (e) This section shall not be deemed to require the granting of a local preference, and nothing herein prohibits the award of a contract to a non-local vendor where such award is in the public interest.

BID (Cont'd.)
POLICE STATION HVAC UPGRADES PROJECT
ORMOND BEACH, FLORIDA

LOCAL VENDOR AFFIDAVIT OF ELIGIBILITY

I certify that my company meets all of the following qualifications to be eligible for the local vendor preference:

- a. My company has a physical business address located within the municipal boundaries of the City of Ormond Beach which is used to perform business on a day-to-day basis.
- b. My company holds any business (occupational) or contractor license required by the City of Ormond Beach at least one year prior to bid opening.
- c. Payment of business tax and real property tax due to the City of Ormond Beach is current
- d. My company is in compliance with annual reporting to the Florida Division of Corporations

Company Name: _____

Address: _____

Business or Contractor License Number: _____

Phone Number: _____ Fax Number: _____

Owner's Name: _____ Signature: _____

Sworn to before me this _____ day of _____

Notary Public for the State of _____ My Commission Expires _____

Notary Public Signature: _____

Printed Name: _____

To be approved as a local bidder and receive bid preference on an eligible local project, this affidavit of eligibility, a copy of your local business or contractor license, copy of business tax/real property tax and a copy of the firm's most recent annual corporation report must be submitted with your bonafide BID package. Bid preference is provided at the City's sole discretion.

VENDOR DO NOT COMPLETE BELOW

To be verified and completed by an authorized representative of the City of Ormond Beach's Purchasing Department:

Vendor Certified by: _____ Date: _____

BID (Cont'd.)
POLICE STATION HVAC UPGRADES PROJECT
ORMOND BEACH, FLORIDA

VERIFICATION OF EMPLOYMENT STATUS USING E-VERIFY SYSTEM

1. Undersigned firm warrants it **IS** currently registered with the U.S. Department of Homeland Security's E-Verify system, **and** is compliant with the requirements of Sections 448.09 and 448.095, *Florida Statutes*.
2. Undersigned firm warrants it **has not** had any contracts terminated as a result of violations of Sections 448.09 or 448.095, *Florida Statutes*, that prohibit it from contracting with a public agency.
3. Undersigned firm warrants that if it enters into an agreement with a subcontractor, an express provision shall be included in all of its subcontracts requiring subcontractors, who perform work or provide services pursuant to the contract, to use the E-Verify system to verify employment eligibility of all new employees hired by the subcontractor during the contract term.
4. Undersigned firm understands that any subcontractor must provide the contractor with an affidavit stating that the subcontractor does not employ, contract with, or subcontract with an unauthorized alien, and the contractor understands it shall maintain any such affidavits for the duration of the contract, and the contract with the subcontractor must be immediately terminated if the City has a good faith belief that the subcontractor knowingly violated Section 448.09 (1), *Florida Statutes*.
5. Undersigned firm understands that in the event the City has a good faith belief that the contractor has knowingly violated Section 448.09 (1), *Florida Statutes*, the City shall terminate the contract, and the contractor may not be awarded a public contract for a period of at least one (1) year after the date of termination. The contractor may be held liable for any additional costs incurred by the City as a result of termination of the contract.

 COMPANY NAME

 AUTHORIZED SIGNATURE

 NAME (PRINT OR TYPE)

 TITLE

 DATE

END OF BID

00300-16

**SECTION 00410
BID BOND**

KNOW ALL MEN BY THESE PRESENTS, that we _____

(hereinafter called *Principal*) and

(hereinafter called the *Surety*) a corporation chartered and existing under the Laws of the State _____ of with its principal offices in the County of _____ and authorized to do business in the State of Florida, in the full and just sum of _____ Dollars (\$ _____) good and lawful money of the United States of America, to be paid upon demand of the _____, Florida, to which payment well and truly to be made we bind ourselves, our heirs, executors, administrators, and assigns, jointly and severally and firmly by these presents,

WHEREAS, the Principal is about to submit, or has submitted to the City of Ormond Beach, Florida, a bid for work to be done on the **Police Station HVAC Upgrades Project (Bid No. 2022- 21)** in, and for the City and

WHEREAS, the Principal desires to file this bond in accordance with law, in lieu of a certified or cashier's check otherwise required to accompany this Bid.

NOW, THEREFORE: the conditions of this obligation are such that if the Bid be accepted the Principal shall within ten (10) days after the receipt of notification of the acceptance thereof execute a contract in accordance with the Bid and upon the terms, conditions and unit or lump sum prices set forth therein, in the form and manner required by the Owner, and execute a sufficient and satisfactory Contract Bond payable to the Owner, in an amount not less than the total contract price, as indicated by the approximate quantities shown in the Bid, in form and with security satisfactory to the said City, then this obligation to be void; otherwise to be and remain in full force and virtue in law; and the Surety shall upon the failure of the Principal to comply with any or all of the foregoing requirements within the time specified above, immediately pay to the aforesaid City upon demand the amount hereof in good and lawful money of the United States of America, not as a penalty, but as liquidated damages.

IN TESTIMONY WHEREOF, the Principal and Surety have caused these presents to be duly signed and sealed this _____ day _____, 20____.

(Principal)

By: _____

ATTEST:

(Surety)

By: _____

(SEAL)

**END OF SECTION
00410 - 1**

**SECTION 00500
FORM OF AGREEMENT**

THIS AGREEMENT is by and between City of Ormond Beach, a Municipal Corporation in the State of Florida (hereinafter called OWNER) and

(hereinafter called CONTRACTOR)

The bid for this contract was approved by the City Commission on _____, 2022.

Article 1. WORK

CONTRACTOR shall complete all Work as specified or indicated in the Contract Documents. The Work is generally described as follows:

The Work consists of: replacing the Police Station chilled water pumps, chilled water treatment and filtration, air handler, VAV boxes, thermostats, control systems, all associated piping, valves, dampers and all related components and systems, and providing temporary HVAC equipment as described in the Contract Documents.

The Project for which the Work under the Contract Documents may be the whole or only a part is generally described as follows:

**POLICE STATION HVAC UPGRADES PROJECT
and BID NUMBER 2022-21**

Article 2. ENGINEER

The Project has been designed by SGM Engineering, 935 Lake Baldwin Lane, Orlando, FL 32814, who is hereinafter called ENGINEER and who will assume all duties and responsibilities and will have the rights and authority assigned to ENGINEER in the Contract Documents in connection with completion of the Work in accordance with the Contract Documents.

Article 3. CONTRACT TIME

3.1 The Work will be substantially completed within 270 calendar days after the date when the Contract Time commences to run as provided in paragraph 2.3 of the General Conditions, and completed and ready for final payment in accordance with paragraph 14.10 of the General Conditions within 300 calendar days after the date when the Contract Time commences to run.

3.2 Liquidated Damages. OWNER and CONTRACTOR recognize that time is of the essence of this Agreement and that OWNER will suffer financial loss if the Work is not substantially complete within the time specified in paragraph 3.1 above, plus any extensions thereof allowed in accordance with Article 12 of the General Conditions. They also recognize the delays, expense and difficulties involved in proving in a legal or arbitration proceeding the actual loss suffered by OWNER if the Work is not substantially complete on time. Accordingly, instead of requiring any such proof, OWNER and CONTRACTOR agree that as liquidated

damages for delay (but not as a penalty) CONTRACTOR shall pay OWNER Five Hundred Dollars (\$ 500.00) for each calendar day that expires after the time specified in paragraph 3.1 for Substantial Completion until the Work is substantially complete. After Substantial Completion, if CONTRACTOR shall neglect, refuse or fail to complete the remaining Work within the time specified in paragraph 3.1 for completion and readiness for final payment or any proper extension thereof granted by OWNER, CONTRACTOR shall pay the OWNER an amount equal to all actual expenses incurred by the OWNER as a direct result of the CONTRACTOR'S negligence, refusal, or failure to so complete the remaining work. In the event the Contractor is terminated or abandons the Work prior to the scheduled date for final completion, the Contractor may be liable for both liquidated damages attributable to delay and for excess completion costs.

Article 4. CONTRACT PRICE

OWNER shall pay CONTRACTOR for completion of the Work, in accordance with the Contract Documents, an amount in current funds equal to the lump sum TOTAL BID of \$ _____, as listed in the Bid Form. Payment shall be for the actual completed work, as specified in the Measurement and Payment section of the project Manual and in accordance with Article 14 of the General Conditions.

Article 5. PAYMENT PROCEDURES

CONTRACTOR shall submit Applications for Payment in accordance with Article 14 of the General Conditions. Applications for Payment will be processed by ENGINEER as provided in the General Conditions.

5.1 Progress Payments. OWNER shall make progress payments on account of the Contract Price on the basis of CONTRACTOR'S Applications for Payment as recommended by ENGINEER, on or about the 15th day of each month during construction as provided below, provided Applications for Payment are timely delivered pursuant to Article 14.1 of the General Conditions. All progress payments will be on the basis of the progress of the Work measured by the schedule of values provided for in paragraph 14.1 of the General Conditions.

5.1.1 When applicable, all progress payments shall be in an amount equal to:

Ninety-Five percent (95%) of the Work completed.

Ninety-Five percent (95%) of materials and equipment not incorporated in the Work but delivered and suitably stored, less in each case the aggregate of payments previously made and less such amounts as ENGINEER shall determine in accordance with paragraph 14.4 of the General Conditions.

5.2 Final Payment. Upon final completion and acceptance of the Work in accordance with paragraph 14.10 of the General Conditions, OWNER shall pay the remainder of the Contract Price as recommended by ENGINEER as provided in said paragraph 14.10.

Article 6. CONTRACTOR'S REPRESENTATIONS

In order to induce OWNER to enter into this Agreement CONTRACTOR makes the following representations:

6.1 CONTRACTOR has familiarized himself with the nature and extent of the Contract Documents, Work, locality, and with all local conditions and federal, state and local laws, ordinances, rules and regulations that in any manner may affect cost, progress or performance of the Work.

6.2 CONTRACTOR has studied carefully all reports of investigations and tests of subsurface and latent physical conditions at the site or otherwise affecting cost, progress or performance of the Work which were relied upon by ENGINEER in the preparation of the Drawings and Specifications and which have been identified in the Supplementary Conditions.

6.3 CONTRACTOR has made or caused to be made examinations, investigations and tests and studies of such reports and related data in addition to those referred to in paragraph 6.2 as he deems necessary for the performance of the Work at the Contract Price, within the Contract Time and in accordance with the other terms and conditions of the Contract Documents, and no additional examinations, investigations, tests, reports or similar data are or will be required by CONTRACTOR for such purposes.

6.4 CONTRACTOR has correlated the results of all such observations, examinations, investigations, tests, reports and data with the terms and conditions of the Contract Documents.

6.5 CONTRACTOR has given ENGINEER written notice of all conflicts, errors or discrepancies that he has discovered in the Contract Documents and the written resolution thereof by ENGINEER is acceptable to CONTRACTOR.

Article 7. CONTRACT DOCUMENTS

The Contract Documents which comprise the entire agreement between OWNER and CONTRACTOR are attached to this Agreement, made a part hereof and consists of the following:

7.1 This Agreement (pages 1 to 5 , inclusive).

7.2 Exhibits to this Agreement (pages ____ to ____ , inclusive).

7.3 Performance and other Bonds, identified as exhibits 00610 AND 00615 and consisting of 4 pages.

7.4 Notice of Award.

7.5 General Conditions (pages 1 to 35 , inclusive).

7.6 Supplementary Conditions (pages 1 to 7 , inclusive).

7.7 Specifications bearing the title:

POLICE STATION HVAC UPGRADES PROJECT

and consisting of 27 divisions, as listed in table of contents thereof.

7.8 Drawings, consisting of 27 sheets numbered T001 through E801 inclusive and bearing the following general title:

ORMOND BEACH POLICE DEPARTMENT HVAC REPLACEMENT

7.9 Addenda numbers ___ to ___, inclusive.

7.10 CONTRACTOR'S Bid (pages 1 to ___, inclusive) marked exhibit _____ (Attach Bid Form only in special circumstances).

7.11 Documentation submitted by CONTRACTOR prior to Notice of Award (pages ___ to ___, inclusive).

7.12 Any Modification, including Change Orders, duly delivered after execution of Agreement.

There are no Contract Documents other than those listed above in this Article 7. The Contract Documents may only be altered, amended or repealed by a Modification (as defined in Section 1 of the General Conditions).

Article 8. MISCELLANEOUS

8.1 Terms used in this Agreement which are defined in Article 1 of the General Conditions shall have the meanings indicated in the General Conditions.

8.2 No assignment by a party hereto of any rights under or interests in the Contract Documents will be binding on another party hereto without the written consent of the party sought to be bound; and specifically but without limitation, moneys that may become due and moneys that are due may not be assigned without such consent (except to the extent that the effect of this restriction may be limited by law), and unless specifically stated to the contrary in any written consent to an assignment no assignment will release or discharge the assignor from any duty or responsibility under the Contract Documents.

8.3 OWNER and CONTRACTOR each binds himself, his partners, successors, assigns and legal representatives to the other party hereto, his partners, successors, assigns and legal representatives in respect to all covenants, agreements and obligations contained in the Contract Documents.

IN WITNESS WHEREOF, the parties hereto have signed this Agreement. One counterpart each has been delivered to OWNER and CONTRACTOR, and to ENGINEER as applicable. All portions of the Contract Documents have been signed by OWNER and CONTRACTOR or identified by ENGINEER on their behalf.

This Agreement will be effective on _____, 2022

OWNER City of Ormond Beach

CONTRACTOR _____

By _____

Bill Partington
Mayor

By _____

(Title)

[CITY SEAL]

[SEAL]

Attest _____

Joyce A. Shanahan
City Manager

Attest _____

(Title)

Address for giving notices:

City of Ormond Beach

PO Box 277

Ormond Beach, FL 32175-0277

Address for giving notices:

License No. _____

Registered Agent for service process:

(Name)

(Title)

END OF AGREEMENT

**SECTION 00610
PERFORMANCE BOND**

KNOW ALL MEN BY THESE PRESENTS: that

(Name of Contractor)

(Address of Contractor)

a(n) _____, hereinafter called Principal, and
(Corporation, Partnership or Individual)

(Name of Surety)

(Address of Surety)

hereinafter called Surety, are held and firmly bound unto

(Name of Owner)

(Address of Owner)

hereinafter called OWNER, in the penal sum of _____

_____ Dollars, (\$ _____) in lawful money of the United States, for the payment of which sum will and truly to be made, we bind ourselves, successors, and assigns, jointly and severally, firmly by these presents.

THE CONDITION OF THIS OBLIGATION is such that whereas, the Principal entered into a certain contract with OWNER, dated ____ day of _____, 20____, for the construction of:

POLICE STATION HVAC UPGRADES PROJECT

Bid No. 2022-21

NOW, THEREFORE, if the Principal shall well, truly and faithfully perform its duties, all the undertakings, covenants, terms, conditions, and agreements of said contract during the original term thereof, and any extensions thereof which may be granted by the OWNER, with or without notice to the Surety and during the one-year guaranty period, and if he shall satisfy all claims and demands incurred under such contract, and shall fully indemnify and save harmless the OWNER from all costs and damages which it may suffer by reason of failure to do so, and shall reimburse and repay the OWNER all outlay and expense which the OWNER may incur in making good any default, then this obligation shall be void; otherwise to remain in full force and effect.

PROVIDED, FURTHER, that the said Surety, for value received hereby stipulates and agrees that no change, extension of time, alteration or addition to the terms of the contract or to WORK to be performed thereunder or the SPECIFICATIONS accompanying the same shall in any wise affect its obligation on this BOND, and it does hereby waive notice of any such change, extension of time, alteration or addition to the terms of the contract or to the WORK or to the SPECIFICATIONS. The Surety agrees that modifications and changes to the terms and conditions of the Contract that increase the total amount to be paid the Principal shall automatically increase the obligation of the Surety on this bond and notice to Surety is not required for such increased obligation.

PROVIDED, FURTHER, that no final settlement between the OWNER and the CONTRACTOR shall abridge the right of any beneficiary hereunder, whose claim may be unsatisfied.

IN WITNESS WHEREOF, this instrument is executed in _____ counterparts, each one of which shall be
 deemed an original, this _____ day of _____, 20_____.
 (number)

ATTEST:

Principal

By _____ (s)

(Principal) Secretary

(SEAL)

(Witness to Principal)

(Address)

(Address)

(Surety)

ATTEST:

(Surety) Secretary

(SEAL)

Witness to Surety

Attorney-In-Fact

(Address)

(Address)

NOTE: Date of BOND must not be prior to date of Contract. If CONTRACTOR is Partnership, all partners should execute BOND. All BONDS signed by an agent must be accompanied by a certified copy of the authority to act.

IMPORTANT: Surety companies executing BONDS must appear on the Treasury Department's most current list (Circular 570 as amended) and be authorized to transact business in the state where the PROJECT is located.

END OF SECTION

**SECTION 00615
PAYMENT BOND**

KNOW ALL MEN BY THESE PRESENTS: that

(Name of Contractor)

(Address of Contractor)

a(n) _____, hereinafter called Principal, and
(Corporation, Partnership or Individual)

(Name of Surety)

(Address of Surety)

hereinafter called Surety, are held and firmly bound unto

(Name of Owner)

(Address of Owner)

hereinafter called OWNER, in the penal sum of _____

_____ Dollars, (\$ _____) in lawful money of the United States, for the payment of which sum will and truly to be made, we bind ourselves, successors, and assigns, jointly and severally, firmly by these presents.

THE CONDITION OF THIS OBLIGATION is such that whereas, the Principal entered into a certain contract with OWNER, dated ____ day of _____, 20____, for the construction of:

POLICE STATION HVAC UPGRADES PROJECT

Bid No. 2022-21

NOW, THEREFORE, if the Principal shall promptly make payment to all persons, firms, SUBCONTRACTORS, and corporations furnishing materials for or performing labor in the prosecution of the WORK provided for in such contract, and any authorized extension or modification thereof, including all amounts due for materials, lubricants, oil, gasoline, coal and coke, repairs on machinery, equipment and tools, consumed or used in connection with the construction of such WORK, and all insurance premiums on said WORK, and for all labor, performed in such WORK whether by SUBCONTRACTOR or otherwise, then this obligation shall be void; otherwise to remain in full force and effect.

PROVIDED, FURTHER, that the said Surety, for value received hereby stipulates and agrees that no change, extension of time, alteration or addition to the terms of the contract or to WORK to be performed thereunder or the SPECIFICATIONS accompanying the same shall in any wise affect its obligation on this BOND, and it does hereby waive notice of any such change, extension of time, alteration or addition to the terms of the contract or to the WORK or to the SPECIFICATIONS. The Surety agrees that modifications and changes to the terms and conditions of the Contract that increase the total amount to be paid the Principal shall automatically increase the obligation of the Surety on this bond and notice to Surety is not required for such increased obligation.

PROVIDED, FURTHER, that no final settlement between the OWNER and the CONTRACTOR shall abridge the right of any beneficiary hereunder, whose claim may be unsatisfied.

IN WITNESS WHEREOF, this instrument is executed in _____ counterparts, each one of which shall be
(number)
deemed an original, this _____ day of _____, 20_____.

ATTEST:

Principal

By _____ (s)

(Principal) Secretary

(SEAL)

(Witness to Principal)

(Address)

(Address)

(Surety)

ATTEST:

(Surety) Secretary

(SEAL)

Witness to Surety

Attorney-In-Fact

(Address)

(Address)

NOTE: Date of BOND must not be prior to date of Contract. If CONTRACTOR is Partnership, all partners should execute BOND. All BONDS signed by an agent must be accompanied by a certified copy of the authority to act.

IMPORTANT: Surety companies executing BONDS must appear on the Treasury Department's most current list (Circular 570 as amended) and be authorized to transact business in the state where the PROJECT is located.

END OF SECTION

OPINION OF ATTORNEY

This is to certify that I have examined the attached Contract Documents, and that I am of the opinion that such documents conform to the Laws of the State of Florida, and that the execution of the Contract is in due and proper form, and that the foregoing agreements constitute valid and binding obligations on such parties.

Attorney for Owner

This the _____ day of _____, 2022.

END OF SECTION

SECTION 00700 GENERAL CONDITIONS OF THE CONSTRUCTION CONTRACT

ARTICLE 1 - DEFINITIONS

Whenever used in these General Conditions or in the other Contract Documents, the following terms have the meanings indicated which are applicable to both the singular and plural thereof.

1.01. Addenda - Written or graphic instruments issued prior to the opening of Bids which clarify, correct or change the bidding documents of the Contract Documents.

1.02. Agreement - The written agreement between OWNER and CONTRACTOR covering the Work to be performed; other Contract Documents are attached to the Agreement and made a part thereof as provided therein.

1.03. Application for Payment - The form accepted by ENGINEER which is to be used by CONTRACTOR in requesting progress or final payment and which is to include such supporting documentation as required by the Contract Documents.

1.04. Approve - The word approve is defined to mean review of the material, equipment or methods for general compliance with the design concepts and with the information given in the Contract Documents. It does not imply a responsibility on the part of the ENGINEER to verify in every detail conformance with the Drawings and Specifications.

1.05. Bid - The offer or proposal of the Bidder submitted on the prescribed form setting forth the prices for the Work to be performed.

1.06. Bonds - Bid, Performance and Payment Bonds and other instruments of security.

1.07. Change Order - A written order to CONTRACTOR signed by OWNER authorizing an addition, deletion or revision in the Work, or an adjustment in the Contract Price or the Contract Time issued after the effective date of the Agreement.

1.08. Contract - The Agreement.

1.09. Contract Documents - The Agreement, Addenda (which pertain to the Contract Documents), CONTRACTOR's Bid (including documentation accompanying the bid and any post-Bid documentation submitted prior to the Notice of Award) when attached as an exhibit to the Agreement, Notice of Award, the Bonds, these General Conditions, the Supplementary Conditions, the Specifications and the Drawings as the same are more specifically identified in the Agreement, any other exhibits identified in the Agreement, together with all Modifications issued after the execution of the Agreement.

1.10. Contract Price - The Contract Price constitutes the total compensation (subject to authorized adjustments) payable by OWNER to CONTRACTOR for performing the Work.

1.11. Contract Time - The number of days (computed as provided in paragraph 16.2) or the

date stated in the Agreement for the completion of the Work.

1.12. CONTRACTOR - The person, firm or corporation with whom OWNER has entered into the Agreement.

1.13. Day - A calendar day of twenty-four hours measured from midnight to the next midnight.

1.14. Defective - Work that is unsatisfactory, faulty or deficient, or does not conform to the Contract Documents or does not meet the requirements of any inspection, test or approval referred to in the Contract Documents, or has been damaged prior to ENGINEER's recommendation of final payment.

1.15. Drawings - The drawings, which will be identified in the Agreement, which show the character and scope of the Work to be performed and which have been prepared or approved by ENGINEER and are referred to in the Contract Documents.

1.16. Effective Date of the Agreement - The date indicated in the Agreement on which it becomes effective, but if no such date is indicated it means the date on which the Agreement is signed and delivered by the last of the two parties to sign and deliver.

1.17. ENGINEER - The City Engineer of the City of Ormond Beach, Florida, or the designee of such Engineer.

1.18. Engineering Order - A written request issued by ENGINEER to CONTRACTOR requesting a cost for certain modifications to the Work. An Engineering Order is not an authorization to perform the modifications.

1.19. Field Order - A written order issued by ENGINEER which clarifies or interprets the Contract Documents or orders minor changes in the Work in accordance with paragraph 10.2, but which does not involve a change in the Contract Price or the Contract Time.

1.20. Furnish - The words "furnish", "furnish and install", "install", and "provide" or words with similar meaning shall be interpreted, unless otherwise specifically stated, to mean "furnish and install complete in place and ready for service".

1.21. General Requirements - Sections of Division 1 of the Specifications.

1.22. Inspection - The term "Inspection" and the act of inspecting as used in these Contract Documents is defined to mean examination of construction to ensure that it conforms to the design concept expressed in the Drawings and Specifications. These terms shall not be construed to mean supervision, superintending and/or overseeing.

1.23. Modification - (a) A written amendment of the Contract Documents signed by both parties, (b) a Change Order, or (c) a Field Order. A modification may only be issued after the effective date of the Agreement and must be in writing to be effective.

- 1.24. Notice of Award - The written notice by OWNER to the apparent successful Bidder stating that upon compliance by the apparent successful Bidder with the conditions precedent enumerated therein, within the time specified, OWNER will sign and deliver the Agreement.
- 1.25. Notice to Proceed - A written notice given by OWNER to CONTRACTOR (with a copy to ENGINEER) fixing the date on which the Contract Time will commence to run and on which CONTRACTOR shall start to perform his obligation under the Contract Documents.
- 1.26. OWNER - The City of Ormond Beach, Florida.
- 1.27. Product - Materials, systems, and equipment provided by the CONTRACTOR.
- 1.28. Project - The total construction of which the Work to be provided under the Contract Documents may be the whole, or a part as indicated elsewhere in the Contract Documents.
- 1.29. Project Manual - The term "Project Manual" includes Bidding Requirements, Conditions of the Contract, Specifications, and Drawings.
- 1.30. Project Representative - The authorized representative of ENGINEER who is assigned to the site or any part thereof.
- 1.31. Shop Drawings - All drawings, diagrams, illustrations, schedules and other data which are specifically prepared by CONTRACTOR, a Subcontractor, manufacturer, fabricator, supplier or distributor to illustrate some portion of the Work and all illustrations, brochures, standard schedules, performance charts, instructions, diagrams and other information prepared by a manufacturer, fabricator, supplier or distributor and submitted by CONTRACTOR to illustrate material or equipment for some portion of the Work.
- 1.32. Specifications - Those portions of the Contract Documents consisting of written technical descriptions of materials, equipment, construction systems, standards and workmanship as applied to the Work and certain administrative details applicable thereto.
- 1.33. Subcontractor - An individual, firm or corporation having a contract with CONTRACTOR or with any other Subcontractor for the performance of a part of the Work at the site.
- 1.34. Substantial Completion - The point reached when the Work (or a specified part thereof), in the opinion of ENGINEER as evidenced by his final certificate of Substantial Completion, is sufficiently complete, in accordance with the Contract Documents, so that the Work (or specified part) can be utilized for the purposes for which it was intended; or if there be no such certificate issued, when final payment is due in accordance with paragraph 14.10. The terms "substantially complete" and "substantially completed" as applied to any Work refer to Substantial Completion thereof.
- 1.35. Surety - Any person, firm or corporation which is bound with CONTRACTOR and which engages to be responsible for CONTRACTOR and his acceptable performance of the Work by a Performance or Payment Bond, or by a Public Construction Bond.

1.36. Work - The entire completed construction or the various separately identifiable parts thereof required to be furnished under the Contract Documents. Work is the result of performing services, furnishing labor and furnishing and incorporating materials and equipment into the construction, all as required by the Contract Documents.

ARTICLE 2 - PRELIMINARY MATTERS

Delivery of Bonds:

2.1. When CONTRACTOR delivers the executed Agreements to OWNER, CONTRACTOR shall also deliver to OWNER such Bonds as CONTRACTOR may be required to furnish in accordance with paragraph 5.1.

Copies of Documents:

2.2. OWNER shall furnish to CONTRACTOR, at OWNER's expense, up to three copies of the Contract Documents. Additional copies will be furnished, upon request, at the cost of reproduction.

Commencement of Contract Time; Notice to Proceed:

2.3. The Contract Time will commence on the day indicated in the Notice to Proceed.

Starting the Project:

2.4. CONTRACTOR shall start to perform the work on the date when the Contract Time commences to run, but no work shall be done at the site prior to the date on which the Contract Time commences to run, and no work shall be done at the site before the Payment and Performance Bond is executed, delivered to the OWNER, and recorded in the public records of Volusia County, Florida.

Before Starting Construction:

2.5. Before undertaking each part of the Work, CONTRACTOR shall carefully study and compare the Contract Documents and check and verify pertinent figures shown thereon and all applicable field measurements. CONTRACTOR shall promptly report in writing to ENGINEER any conflict, error or discrepancy which CONTRACTOR may discover; however, CONTRACTOR shall not be liable to OWNER for failure to report any conflict, error or discrepancy in the Drawings or Specifications, unless CONTRACTOR had actual knowledge thereof or should reasonably have known thereof. No verbal agreement or conversation with any officer, agent or employee of OWNER, either before or after the execution of this Contract, shall affect or modify any of the terms or obligations herein contained.

2.6. Before any Work at the site is started, CONTRACTOR shall deliver to OWNER certificates (and other evidence of insurance requested by OWNER) which CONTRACTOR is

required to purchase and maintain in accordance with paragraphs 5.3, 5.4, 5.6 and 5.7.

2.7. CONTRACTOR shall not allow any on-site Subcontractor to commence work on his subcontract until insurance required of the Subcontractor has been obtained and approved by the CONTRACTOR. Failure to obtain this insurance will be the sole responsibility of the CONTRACTOR.

ARTICLE 3 - CONTRACT DOCUMENTS; INTENT AND REUSE

3.1. The Contract Documents comprise the entire Agreement between OWNER and CONTRACTOR concerning the Work. They may be altered only by a Modification.

3.2. The Contract Documents are complementary; a requirement contained in one is applicable to all. If, during the performance of the Work, CONTRACTOR finds a conflict, error or discrepancy in the Contract Documents, he shall report it to ENGINEER in writing at once and before proceeding with the Work affected thereby; however, CONTRACTOR shall not be liable to OWNER for failure to report any conflict, error or discrepancy in the Specifications or Drawings unless CONTRACTOR had actual knowledge thereof or should reasonably have known thereof. The various Contract Documents shall be given precedence, in case of conflict, error or discrepancy, as follows: Modifications, Agreement, Addenda, Supplementary Conditions, General Conditions, Drawings and Specifications. In a series of Modifications or Addenda the latest will govern.

3.3. It is the intent of the Specifications and Drawings to describe a complete project (or part thereof) to be constructed in accordance with the Contract Documents. Any Work that may reasonably be inferred from the Specifications or Drawings as being required to produce the intended results shall be supplied whether or not it is specifically called for. When words which have well-known technical or trade meaning are used to describe Work, materials or equipment such words shall be interpreted in accordance with such meaning. Reference to standard specifications, manuals or codes of any technical society, organization or association, or to the code of any governmental authority, whether such reference be specific or by implication, shall mean the latest standard specification, manual or code in effect at the time of opening of Bids (or, on the effective date of the Agreement if there were no Bids), except as may be otherwise specifically stated. However, no provision of any referenced standard specification, manual or code (whether or not specifically incorporated by reference in the Contract Documents) shall change the duties and responsibilities of OWNER, CONTRACTOR or ENGINEER, or any of their agents or employees from those set forth in the Contract Documents. Clarifications and interpretations of the Contract Documents shall be issued by ENGINEER as provided for in paragraph 9.2.

3.4. The Contract Documents will be governed by the law of the State of Florida, and venue for any action brought thereunder shall lie solely and exclusively in the Circuit Court in and for Volusia County, Florida.

Reuse of Documents:

3.5. Neither CONTRACTOR nor any Subcontractor, manufacturer, fabricator, supplier or distributor shall have or acquire any title to or ownership rights in any of the Drawings, Specifications or other documents (or copies of any thereof) prepared by or bearing the seal of ENGINEER; and they shall not reuse any of them on extensions of the Project or any other project without written consent of OWNER and ENGINEER and specific written verification or adaptation by ENGINEER.

ARTICLE 4 - AVAILABILITY OF LANDS; PHYSICAL CONDITIONS; REFERENCE POINTS

4.1. OWNER shall furnish, as indicated in the Contract Documents, the lands upon which the Work is to be performed, rights-of-way for access thereto, and such other lands which are designated for the use of CONTRACTOR. Easements for permanent structures or permanent changes in existing facilities will be obtained and paid for by OWNER, unless otherwise provided in the Contract Documents. If CONTRACTOR believes that any delay in OWNER's furnishing these lands or easements entitles him to an extension of the Contract Time, CONTRACTOR may make a claim therefor as provided in Article 12. CONTRACTOR shall provide for all additional lands and access thereto that may be required for temporary construction facilities or storage of materials and equipment.

Physical Conditions - Investigations and Reports:

4.2. Reference is made to the Supplementary Conditions for identification of those reports of investigations and tests of subsurface and latent physical conditions at the site or otherwise affecting cost, progress or performance of the Work which have been relied upon by ENGINEER in preparation of the Drawings and Specifications. Such reports are not guaranteed as to accuracy or completeness and are not part of the Contract Documents.

Unforeseen Physical Conditions:

4.3. CONTRACTOR shall promptly, after becoming aware of and before further disturbing conditions affected thereby or performing any work in connection therewith, notify ENGINEER in writing of any subsurface or latent physical conditions at the site or in an existing structure differing materially from those indicated or referred to in the Contract Documents. CONTRACTOR, upon discovering and notifying OWNER of such subsurface or latent conditions, shall not perform work in the affected area until authorized to do so by OWNER. ENGINEER will promptly review those conditions and determine if further investigation or tests are necessary. If so determined by the ENGINEER, OWNER shall promptly obtain the necessary additional investigations and tests and furnish copies to CONTRACTOR. If ENGINEER finds that the results of such investigations or tests indicate that there are subsurface or latent physical conditions which differ materially from those intended in the Contract Documents, and which could not reasonably have been anticipated by CONTRACTOR, a Change Order authorizing CONTRACTOR to perform the additional work may be issued incorporating the necessary revisions.

Reference Points:

4.4. OWNER shall provide engineering surveys for construction to establish reference points which in his judgment are necessary to enable CONTRACTOR to proceed with the Work. CONTRACTOR shall be responsible for laying out the Work (unless otherwise specified in the General Requirements), shall protect and preserve the established reference points and shall make no changes or relocations without the prior written approval of OWNER. CONTRACTOR shall report to ENGINEER whenever any reference point is lost or destroyed or requires relocation because of necessary changes in grades or locations, and shall be responsible for replacement or relocation of such reference points by professionally qualified personnel.

ARTICLE 5 - BONDS AND INSURANCE

Performance and Other Bonds:

5.1. CONTRACTOR shall furnish Performance and Payment Bonds, each in an amount at least equal to the Contract Price as security for the faithful performance and payment of all CONTRACTOR's obligations under the Contract Documents. The City will record the bonds in the public records at the CONTRACTOR's expense. These Bonds shall remain in effect at least until one (1) year after the date of final payment, except as otherwise provided by law. All bonds shall be deemed to contain all of the Conditions of Section 255.05, Florida Statutes, even if such language is not directly contained within the bond. CONTRACTOR shall also furnish such other Bonds as are required by the Supplementary Conditions. All Bonds shall be in the forms prescribed by the bidding documents or Supplementary Conditions and be executed by such Sureties as (i) are licensed to conduct business in the State of Florida, and (ii) are named in the current list of "Companies Holding Certificates of Authority as Acceptable Sureties on Federal Bonds and as Acceptable Reinsuring Companies" as published in Circular 570 (amended) by the Audit Staff Bureau of Accounts, U.S. Treasury Department. All Bonds signed by an agent must be accompanied by a certified copy of the authority to act.

5.2. If the Surety on any Bond furnished by CONTRACTOR is declared bankrupt or becomes insolvent or its right to do business is terminated in the State of Florida or it ceases to meet the requirements of clauses (i) and (ii) of paragraph 5.1, CONTRACTOR shall within five (5) days after notice thereof, substitute another Bond and Surety, both of which shall meet the requirements of clauses (i) and (ii) of paragraph 5.1.

CONTRACTOR's Liability Insurance:

5.3. CONTRACTOR and on-site Subcontractors shall purchase and maintain such Commercial General Liability and other insurance as will provide protection from claims set forth below which may arise out of or result from CONTRACTOR's performance of the Work and CONTRACTOR's other obligations under the Contract Documents, whether such performance is by CONTRACTOR, by any Subcontractor, by anyone directly or indirectly employed by any of them, or by anyone for whose acts any of them may be liable;

5.3.1. Claims under workers' compensation, disability benefits and other similar employee benefit acts;

5.3.2. Claims for damages because of bodily injury, occupational sickness or disease, or death of CONTRACTOR's employees;

5.3.3. Claims for damages because of bodily injury, sickness or disease, or death of any person other than CONTRACTOR's employees.

5.3.4. Claims for damages insured by personal injury liability coverage which are sustained (i) by any person as a result of an offense directly or indirectly related to the employment of such person by CONTRACTOR, or (ii) by any other person for any other reason.

5.3.5. Claims for damages, other than to the Work itself, because of injury to or destruction of tangible property, including loss of use resulting therefrom; and

5.3.6. Claims for damages because of bodily injury or death of any person or property damage arising out of the ownership, maintenance or use of any motor vehicle.

The insurance required by this paragraph 5.3 shall include the specific coverages and be written for not less than the limits of liability and coverages provided in the **Supplementary Conditions**, or required by law, whichever is greater. The Commercial General Liability insurance shall include completed operations insurance. All such insurance shall contain a provision that the coverage afforded will not be canceled, materially changed or renewal refused until at least **sixty** (60) days prior written notice of such cancellation, non-renewal or change (except for nonpayment of premium, which shall be fifteen (15) days) has been given to OWNER. All such insurance shall remain in effect until final payment and at all times thereafter when CONTRACTOR may be correcting, removing or replacing defective Work in accordance with paragraph 13.12. In addition, CONTRACTOR shall maintain such completed operations insurance for at least two years after final payment and furnish OWNER with evidence of continuation of such insurance at final payment and one year thereafter.

Contractual Liability Insurance:

5.4. The Commercial General Liability insurance required by paragraph 5.3 will include contractual liability insurance applicable to CONTRACTOR's obligations under paragraphs 6.15 and 6.16. The OWNER shall be named as "Additionally Insured" under the CONTRACTOR's Commercial General Liability insurance policy.

Owner's Liability Insurance:

5.5. OWNER may, at its option, purchase and maintain its own liability insurance and, at its option, may purchase and maintain such insurance as will protect OWNER against claims which may arise from operations under the Contract Documents.

Property Insurance:

5.6. CONTRACTOR shall purchase and maintain property insurance upon the Work at the site to the full insurable value thereof (subject to such deductible amounts as may be provided in the Supplementary Conditions or required by law). This insurance shall include the interests of

OWNER, CONTRACTOR, and Subcontractors in the Work, shall insure against the perils of fire and extended coverage and shall include "all risk" insurance for physical loss and damage including theft, vandalism and malicious mischief, collapse and water damage, and such other perils as may be provided in the Supplementary Conditions, and shall include damages, losses and expenses arising out of or resulting from any insured loss or incurred in the repair or replacement of any insured property (including fees and charges of engineers, architects, attorneys and other professionals). If not covered under the "all risk" insurance or otherwise provided in the Supplementary Conditions, CONTRACTOR shall purchase and maintain similar property insurance on portions of the Work stored on and off the site or in transit when such portions of the Work are to be included in the Application for Payment. The policies of insurance required to be purchased and maintained by CONTRACTOR in accordance with paragraphs 5.6 and 5.7 shall contain provisions that the coverage afforded will not be canceled or materially changed until at least **sixty** (60) days prior written notice has been given to OWNER.

5.7. CONTRACTOR shall purchase and maintain such boiler and machinery insurance as may be required by the Supplementary Conditions or by law. This insurance shall include the interests of OWNER, CONTRACTOR and Subcontractors in the Work.

5.8. OWNER shall not be responsible for purchasing and maintaining any property insurance to protect the interests of CONTRACTOR or Subcontractors in the Work to the extent of any deductible amounts that are provided in the Supplementary Conditions. If CONTRACTOR wishes property insurance coverage within the limits of such amounts, CONTRACTOR may purchase and maintain it at his own expense.

5.9. If CONTRACTOR requests in writing that other special insurance be included in the property insurance policy, OWNER shall, if possible, include such insurance, and the cost thereof shall be charged to CONTRACTOR by appropriate Change Order. Prior to commencement of the Work at the site, OWNER shall in writing advise CONTRACTOR whether or not such other insurance has been procured by OWNER.

Waiver of Rights:

5.10. OWNER and CONTRACTOR waive all rights against each other and the Subcontractors and their agents and employees and separate contractors (if any) and their subcontractors' agents and employees, for damages caused by fire or other perils to the extent covered by insurance provided under paragraphs 5.6 and 5.7, inclusive, or any other property insurance applicable to the Work, except such rights as they may have to the proceeds of such insurance held by OWNER as trustee. OWNER shall require similar written waivers from each separate contractor, and CONTRACTOR shall require similar written waivers from each Subcontractor (in accordance with paragraph 6.8 as applicable); each such waiver will be in favor of all other parties enumerated in this paragraph 5.10.

Receipt and Application of Proceeds:

5.11. Any insured loss under the policies of insurance required by paragraphs 5.6 and 5.7 shall be adjusted with CONTRACTOR and made payable to CONTRACTOR as trustee for the insured, as their interests may appear, subject to the requirements of paragraph 5.12. CONTRACTOR shall

deposit in a separate account any money so received, and shall distribute it in accordance with such agreement as the parties in interest may reach. If no other special agreement is reached the damaged Work shall be repaired or replaced, the moneys so received applied on account thereof and the Work and the cost thereof covered by an appropriate Change Order.

5.12. CONTRACTOR as trustee shall have power to adjust and settle any loss with the insurers unless one of the parties in interest shall object in writing within fifteen days after the occurrence of loss to CONTRACTOR's exercise of this power. If such objection be made, CONTRACTOR as trustee shall make settlement with the insurers in accordance with such agreement as the parties in interest may reach. If required in writing by any party in interest, CONTRACTOR as trustee shall upon the occurrence of an insured loss, give bond for the proper performance of his duties.

Acceptance of Bonds and Insurance:

5.13. If OWNER has any objection to the coverage afforded by or other provisions of the Bonds or Insurance required to be purchased and maintained by CONTRACTOR in accordance with Article 5 on the basis of non-conformance with the Contract Documents, OWNER shall so notify CONTRACTOR in writing within ten days after receipt of the certificates (or other evidence requested) required by paragraph 2.6. CONTRACTOR shall provide to OWNER such additional information in respect of insurance provided as OWNER may reasonably request. If CONTRACTOR does not purchase or maintain all of the Bonds and Insurance required of CONTRACTOR by the Contract Documents, CONTRACTOR shall notify OWNER in writing of such failure to purchase prior to the start of the Work, or such failure to maintain prior to any change in the required coverage. Without prejudice to any other right or remedy, OWNER may elect to obtain equivalent Bonds or Insurance to protect OWNER's interests at the expense of CONTRACTOR, and a Change Order shall be issued to adjust the Contract Price accordingly.

Partial Utilization - Property Insurance:

5.14. If OWNER finds it necessary to occupy or use a portion or portions of the Work prior to Substantial Completion of all the Work, such use or occupancy may be accomplished in accordance with paragraph 14.7; provided that no such use or occupancy shall commence before the insurers providing the property insurance have acknowledged notice thereof and in writing effected the changes in coverage necessitated thereby. The insurers providing the property insurance shall consent by endorsement on the policy or policies that the property insurance shall not be canceled or lapse on account of any such partial use of occupancy.

ARTICLE 6 - CONTRACTOR'S RESPONSIBILITIES

Supervision and Superintendence:

6.1. CONTRACTOR shall supervise and direct the Work competently and efficiently, devoting such attention thereto and applying such skills and expertise as may be necessary to perform the Work in accordance with the Contract Documents. CONTRACTOR shall be solely responsible for the means, methods, techniques, sequences and procedures of construction.

CONTRACTOR shall be responsible to see that the finished Work complies accurately with the Contract Documents.

6.2. CONTRACTOR shall keep on the Work at all times during its progress a competent resident superintendent, who shall not be replaced without written notice to OWNER except under extraordinary circumstances. The superintendent will be CONTRACTOR's representative at the site and shall have authority to act on behalf of CONTRACTOR. All communications given to the superintendent shall be as binding as if given to CONTRACTOR.

Materials and Equipment:

6.3. All materials and equipment installed in the Work shall be of good quality and new, except as otherwise provided in the Contract Documents. If required by ENGINEER, CONTRACTOR shall furnish satisfactory evidence (including reports of required tests) as to the kind and quality of materials and equipment.

Equipment manufacturers/suppliers must agree to OWNER'S terms of purchase. In no event will OWNER accept terms of sale that limit OWNER'S ability to reasonably recover in the event of equipment failure/defect such as, but not limited to; mandatory arbitration clauses, venue of court proceedings and applicable law outside of Volusia County, Florida, or damage limitations that preclude recovery for failed or defective equipment that would be less than full compensation for OWNER's loss.

6.4. All materials and equipment shall be applied, installed, connected, erected, used, cleaned and conditioned in accordance with the instructions of the applicable manufacturer, fabricator, supplier or distributor, except as otherwise provided in the Contract Documents.

Concerning Subcontractors:

6.5. CONTRACTOR shall not employ any Subcontractor or other person or organization (including those who are to furnish the principal items of materials or equipment), whether initially or as a substitute, to which OWNER may have any reasonable objection. CONTRACTOR shall submit with his Bid in writing the names, mailing addresses, and work classifications of all Subcontractors proposed for the Work. The failure to list all Subcontractors proposed for the Work may result in the Bid being rejected as incomplete and nonresponsive. A Subcontractor or other person or organization identified in writing to OWNER by CONTRACTOR prior to the Notice of Award and not objected to in writing by OWNER prior to the Notice of Award will be deemed acceptable to OWNER. Acceptance of any Subcontractor, other person or organization of OWNER shall not constitute a waiver of any right of OWNER to reject defective Work. If OWNER after due investigation has reasonable objection to any Subcontractor, other person or organization proposed by CONTRACTOR after the Notice of Award because the qualifications and experience of the Subcontractor, other person or organization indicate that he cannot perform or provide work, materials or equipment which will perform the specified functions, CONTRACTOR shall submit an acceptable substitute and the Contract Price shall be increased or decreased by the difference in cost occasioned by such substitution, and an appropriate Change Order may be issued. CONTRACTOR shall not be required to employ any Subcontractor, other person or organization to which CONTRACTOR has any reasonable objection. Whether

objections are reasonable shall be determined as specified in paragraph 9.8.

6.6. CONTRACTOR shall be fully responsible for all acts and omissions of his Subcontractors and of persons and organizations directly or indirectly employed by them and of persons and organizations for whose acts any of them may be liable to the same extent that CONTRACTOR is responsible for the acts and omissions of persons directly employed by CONTRACTOR. Nothing in the Contract Documents shall create any contractual relationship between OWNER and any Subcontractor or other person or organization having a direct contact with CONTRACTOR, nor shall it create any obligation on the part of OWNER to pay or to see to the payment of any moneys due any Subcontractor or other person or organization, except as may otherwise be required by law. OWNER may furnish to any Subcontractor or other person or organization, to the extent practicable, evidence of amounts paid to CONTRACTOR on account of specific Work done.

6.7. The divisions and sections of the Specifications and the identifications of any Drawings shall not control CONTRACTOR in dividing the Work among Subcontractors or delineating the Work to be performed by any specific trade.

6.8. All Work performed for CONTRACTOR by a Subcontractor will be pursuant to an appropriate agreement between CONTRACTOR and the Subcontractor which specifically binds the Subcontractor to the applicable terms and conditions of the Contract Documents for the benefit of OWNER and contains waiver provisions as required by paragraph 5.10. CONTRACTOR shall pay each Subcontractor an appropriate share of any insurance proceeds received by CONTRACTOR on account of losses under policies issued pursuant to paragraphs 5.6 through 5.8.

6.9. Neither the OWNER nor the ENGINEER will undertake to settle any differences between CONTRACTOR and his Subcontractors or between Subcontractors.

Patent Fees and Royalties:

6.10. CONTRACTOR shall pay all license fees and royalties and assume all costs incident to the use in the performance of the Work or the incorporation in the Work of any invention, design, process, product or device which is the subject of patent rights or copyrights held by others. If a particular invention, design, process, product or device is specified in the Contract Documents for use in the performance of the Work and if to the actual knowledge of OWNER its use is subject to patent rights or copyrights calling for the payment of any license fee or royalty to others, the existence of such rights shall be disclosed by OWNER in the Contract Documents. CONTRACTOR shall **indemnify** and **hold harmless** OWNER and anyone directly or indirectly employed by either of them from and against all claims, damages, losses and expenses (including attorneys' fees) arising out of any infringement of patent rights or copyrights incident to the use in the performance of the Work or resulting from the incorporation in the Work of any invention, design, process, product or device not specified in the Contract Documents, and shall defend all such claims in connection with any alleged infringement of such rights. OWNER will promptly notify CONTRACTOR of any such allegation of infringement of such rights.

Safety and Protection:

6.11. Precaution shall be exercised at all times by the CONTRACTOR for the protection of all persons, including employees, and property. The CONTRACTOR shall comply with all laws, regulations or ordinances related to safety and health, shall make special effort to detect hazardous conditions, and shall take prompt action where loss control/safety measures are reasonably expected. The OWNER may order work to be stopped if conditions exist that present on immediate danger to persons or property. The CONTRACTOR acknowledges that such stoppage will not shift responsibility for any damages from the CONTRACTOR to the OWNER.

6.12. CONTRACTOR be responsible for initiating, maintaining and supervising all safety precautions and programs in connection with the Work. CONTRACTOR shall take all necessary precautions for the safety of, and shall provide the necessary protection to prevent damage, injury or loss to:

6.12.1. All employees on the Work and other persons who may be affected thereby.

6.12.2. All the Work and all materials or equipment to be incorporated therein, whether in storage on or off the site, and

6.12.3. Other property at the site or adjacent thereto, including trees, shrubs, lawns, walks, pavements, roadways, structures and utilities not designated for removal, relocation or replacement in the course of construction.

CONTRACTOR shall comply with all applicable laws, ordinances, rules, regulations and orders of any public body having jurisdiction for the safety of persons or property or to protect them from damage, injury or loss; and shall erect and maintain all necessary safeguards for such safety and protection. CONTRACTOR shall notify owners of adjacent property and utilities when prosecution of the Work may affect them. All damage, injury or loss to any property referred to in paragraph 6.12.2 or 6.12.3 caused, directly or indirectly, in whole or in part, by CONTRACTOR, any Subcontractor or anyone directly or indirectly employed by any of them or anyone for whose acts any of them may be liable, shall be remedied by CONTRACTOR. CONTRACTOR's duties and responsibilities for the safety and protection of the Work shall continue until such time as all the Work is completed and ENGINEER has issued a notice to OWNER and CONTRACTOR in accordance with paragraph 14.12 that the Work is acceptable.

6.13. CONTRACTOR shall designate a responsible member of his organization at the site whose duty shall be the prevention of accidents. This person shall be CONTRACTOR's superintendent unless otherwise designated in writing by CONTRACTOR to OWNER.

Emergencies:

6.14. In emergencies affecting the safety or protection of persons or the Work or property at the site or adjacent thereto, CONTRACTOR, without special instruction or authorization from OWNER, is obligated to act to prevent threatened damage, injury or loss. CONTRACTOR shall give OWNER prompt written notice of any significant changes in the Work or deviations from the Contract Documents caused thereby.

Indemnification/Hold Harmless:

6.15 The parties recognize that the CONTRACTOR is an independent contractor. The CONTRACTOR agrees to assume liability for and indemnify, hold harmless, and defend the CITY, its commissioners, mayor, officers, employees, agents, and attorneys of, from, and against all liability and expense, including reasonable attorney's fees, in connection with any and all claims, demands, damages, actions, causes of action, and suits in equity of whatever kind or nature, including claims for personal injury, property damage, equitable relief, or loss of use, to the extent caused by the negligence, recklessness, or intentionally wrongful conduct of the CONTRACTOR, its agents, officers, contractors, subcontractors, employees, or anyone else utilized by the CONTRACTOR in the performance of this Agreement. The CONTRACTOR's liability hereunder shall include all attorney's fees and costs incurred by the CITY in the enforcement of this indemnification provision. This includes claims made by the employees of the CONTRACTOR against the CITY and the CONTRACTOR hereby waives its entitlement, if any, to immunity under Section 440.11, Florida Statutes. Such obligations contained in this provision shall survive termination of this Agreement and shall not be limited by the amount of any insurance required to be obtained or maintained under this Agreement.

In the event of any claim arising out of the paragraph above, the CITY will elect, in its sole discretion, that either:

- 1) The CONTRACTOR assume control of the defense of any claim asserted by a third party against the CITY and, in connection with such defense, shall appoint lead counsel, in each case at the CONTRACTOR's expense. The CITY shall have the right, at its option, to participate in the defense of any third party claim, without relieving CONTRACTOR of any of its obligations hereunder. If the CONTRACTOR assumes control of the defense of any third party claim in accordance with this paragraph, the CONTRACTOR shall obtain the prior written consent of the CITY before entering into any settlement of such claim. If the CONTRACTOR assumes control of the defense and the CONTRACTOR has failed or is failing to prosecute or defend vigorously the third party claim, the CITY may assume the control of the defense as provided by sub (2); or
- 2) The CITY will assume control of the defense of any third party claim, but CONTRACTOR shall pay the fees of counsel retained by the CITY and all expenses, including experts' fees.

Each party shall cooperate, and cause its agents to cooperate, in the defense or prosecution of any third party claim and shall furnish or cause to be furnished such records and information, and attend such conferences, discovery proceedings, hearings, trials, or appeals, as may be reasonably requested in connection therewith. It is further the specific intent and agreement of said parties that all the Contract Documents on this Project are hereby amended to include the foregoing indemnification. CONTRACTOR expressly agrees that it will not claim, and waives any claim, that this indemnification violates Section 725.06, Florida Statutes or is unenforceable pursuant to Section 725.06, Florida Statutes.

Nothing contained in the foregoing indemnification shall be construed as a waiver of any immunity or limitation of liability the CITY may have under the doctrine of sovereign immunity or Section 768.28, Florida Statutes.

Precaution shall be exercised at all times by the CONTRACTOR for the protection of all persons, including employees and property. The CONTRACTOR shall comply with all applicable laws, regulation and ordinances related to safety and health, shall make special efforts to detect hazardous conditions, and shall take prompt action with loss control/safety measures as are reasonably necessary. The CITY may order work to be stopped if conditions exist that present an immediate danger to persons or property. The CONTRACTOR acknowledges that such work stoppage will not shift responsibility for any damages from the CONTRACTOR to the CITY.

Payment on Behalf of OWNER:

6.16. The CONTRACTOR agrees to pay on behalf of the OWNER, and to pay the cost of the OWNER's legal defense, as may be selected by the OWNER, for all claims described in 6.15 Indemnification/Hold Harmless. Such payment on behalf of the OWNER shall be in addition to any and all other legal remedies available to the OWNER and shall not be considered to be the OWNER's exclusive remedy.

ARTICLE 7 - WORK BY OTHERS

7.1. OWNER may perform additional work related to the Project by itself, or have additional work performed by utility service companies, or let other direct contracts therefor which shall contain General Conditions similar to these. CONTRACTOR shall afford the utility service companies and the other contractors who are parties to such direct contracts (or OWNER, if OWNER is performing the additional work with OWNER's employees) reasonable opportunity for the introduction and storage of materials and equipment and the execution of work, and shall properly connect and coordinate his Work with theirs.

7.2. If any part of CONTRACTOR's Work depends for proper execution or results upon the work of any such other contractor or utility service company (or OWNER), CONTRACTOR shall inspect and promptly report to ENGINEER in writing any patent or apparent defects or deficiencies in such work that render it unsuitable for such proper execution and results. CONTRACTOR's failure so to report shall constitute an acceptance of the work as fit and proper for integration with CONTRACTOR's Work except for latent or non-apparent defects and deficiencies in the other work.

7.3. If the performance of additional work by other contractors or utility service companies or OWNER was not noted in the Contract Documents, written notice thereof shall be given to CONTRACTOR prior to starting any such additional work. If CONTRACTOR believes that the performance of such additional work by OWNER or others involves additional expense to CONTRACTOR or requires an extension of the Contract Time, CONTRACTOR may make a claim therefor as provided in Articles 11 and 12.

7.4. Should any other contractor having, or who shall hereafter have, a contract with

OWNER for the performance of work upon the site of the Work to be performed hereunder sustain any damage through any act or omission of CONTRACTOR hereunder or through any act or omission of any Sub-contractor of CONTRACTOR, CONTRACTOR agrees to reimburse such other contractor for all such damages and to indemnify, defend and hold OWNER harmless from all such claims.

ARTICLE 8 - OWNER'S RESPONSIBILITIES

- 8.1. OWNER shall issue all communications to CONTRACTOR through ENGINEER.
- 8.2. OWNER shall furnish the data required of OWNER under the Contract Documents promptly and shall make payments to CONTRACTOR promptly after they are due as provided in paragraphs 14.3 and 14.10.
- 8.3. OWNER's duties with respect to providing lands and easements and providing engineering surveys to establish reference points are set forth in paragraphs 4.1 and 4.4. Paragraph 4.2 refers to OWNER's identifying and making available to CONTRACTOR copies of reports of investigations and tests of subsurface and latent physical conditions at the site or otherwise affecting performance of the Work which have been relied upon by ENGINEER in preparing the Drawings and Specifications.
- 8.4. OWNER's responsibilities with respect to the purchase and maintenance of liability insurance are set forth in paragraph 5.5.
- 8.5. In connection with OWNER's rights to request changes in the Work in accordance with Article 10, OWNER (especially in certain instances as provided in paragraph 10.4) may execute Change Orders.
- 8.6. OWNER's responsibility with respect to certain inspections, tests and approvals is set forth in paragraph 13.4.
- 8.7. The provisions relative to the OWNER's right to stop Work or suspend Work are set forth in paragraphs 6.11, 13.10 and 15.1.

ARTICLE 9 - ENGINEER'S STATUS DURING CONSTRUCTION

- 9.1. ENGINEER will be OWNER's representative during the construction period. The authority of ENGINEER shall, under no circumstances, relieve CONTRACTOR from CONTRACTOR's responsibilities to perform the Work in accordance with this Contract.

Clarifications and Interpretations:

- 9.2. ENGINEER will issue with reasonable promptness such written clarifications or interpretations of the Contract Documents (in the form of Drawings or otherwise) as ENGINEER may determine necessary, which shall be consistent with or reasonably inferable from the overall

intent of the Contract Documents. If CONTRACTOR believes that a written clarification or interpretation justifies an increase in the Contract Price or Contract Time, CONTRACTOR may make a claim therefor as provided in Article 11 or Article 12.

Rejecting Defective Work:

9.3. ENGINEER will have authority to disapprove or reject WORK which is defective, and will also have authority to require special inspection or testing of the Work as provided in paragraph 13.9, whether or not the Work is fabricated, installed or completed.

Change Orders and Payments:

9.4. In connection with ENGINEER's responsibilities as to Change Orders, see Articles 10, 11 and 12.

9.5 In connection with ENGINEER's responsibilities as to Applications for Payment, etc., see Article 14.

Project Representation:

9.6. ENGINEER may designate a Project Representative to assist ENGINEER in inspecting the performance of the Work. The duties, responsibilities and limitations of authority of any such Project Representative and assistants will be as provided in paragraphs 9.6.1 through 9.6.3.

9.6.1. General: Project Representative is ENGINEER's Agent. He shall have the authority to do anything which the ENGINEER could do. His dealings in matters pertaining to the on-site work will in general be only with OWNER, ENGINEER and CONTRACTOR. His dealings with subcontractors will only be through or with the full knowledge of CONTRACTOR or his superintendent.

9.6.2. Duties and Responsibilities: Project Representative shall:

9.6.2.1. Schedules: Review the progress schedule, schedule of Shop Drawing submissions, schedule of values and other schedules prepared by CONTRACTOR and consult with ENGINEER concerning their acceptability.

9.6.2.2. Conferences: Attend preconstruction conferences.

9.6.2.3. Liaison: Serve as ENGINEER's liaison with CONTRACTOR, working principally through CONTRACTOR's superintendent, and assist him in understanding the intent of the Contract Documents. Assist in obtaining from OWNER additional details or information, when required at the job site for proper execution of the Work.

9.6.2.4. Shop Drawings and Samples: Receive and record date of receipt of Shop Drawings and samples which have been furnished by CONTRACTOR. Review the Shop Drawings for conformance with the information given in the Contract Documents. Provide office review and approval of Shop Drawings (as that term is defined in Article 1) and samples, the results of tests

and inspections and other data which any contractor is required to submit, but only for conformance with the design concept of the project and compliance with the information given in the Contract Documents; determine the acceptability of substitute materials and equipment proposed by CONTRACTOR(S); and receive and review (for general content as required by the Specifications) maintenance and operating instructions, schedules, guarantees, bonds and certificates of inspection which are to be assembled by CONTRACTOR(S) in accordance with the Contract Documents.

9.6.2.5. Review of Work, Rejection of Defective Work, Inspections and Tests: Conduct on-site inspections of the Work in progress to assist ENGINEER in determining that the Project is proceeding in accordance with the Contract Documents and that completed Work will conform to the Contract Documents. Report to ENGINEER whenever he believes that any Work is unsatisfactory, faulty or defective or does not conform to the Contract Documents, or has been damaged, or does not meet the requirements of any inspections, tests or approvals required to be made; and advise ENGINEER when he believes Work should be corrected or rejected or should be uncovered for observation, or requires special testing or inspection. Verify that tests, equipment and systems start-ups and operating and maintenance instructions are conducted as required by the Contract Documents and in the presence of the required personnel, and that CONTRACTOR maintains adequate records thereof; observe, record and report appropriate details relative to the test procedures and start-ups.

9.6.2.6. Modifications: Consider and evaluate CONTRACTOR's suggestions for modifications in Drawings or Specifications and report them to ENGINEER with recommendations. Prepare change orders as required; he may, as OWNER's representative, require special inspection or testing of the work; he shall act as interpreter of the requirements of the Contract Documents, judge of the performance thereunder by the parties thereto, and transmitter of clarification and interpretation of the Contract Documents. Process contract change orders to reflect final measured contract quantities and to reflect changes in the contract Drawings and Specifications.

9.6.2.7. Payment Requisitions: Based on his on-site observations and on his review of CONTRACTOR(S) applications for payment and the accompanying data and schedules, determine the amounts owed the CONTRACTOR(S). The ENGINEER will then approve in writing payments to CONTRACTOR(S) in such amounts; such approvals of payment will constitute a presentation to OWNER, based on such observations and review, that the Work has progressed to the point indicated and that, to the best of his knowledge, information and belief, the quality of the Work is in accordance with the Contract Documents (subject to an evaluation of the Work as a functioning Project upon Substantial Completion, to the results of any subsequent tests called for in the Contract Documents, and to any qualifications stated in his approval).

9.6.2.8. Guarantees, Certificates, Maintenance and Operation Manuals: During the course of the Work verify that guarantees, certificates, maintenance and operation manuals and other data required to be assembled and furnished by CONTRACTOR are applicable to the items actually installed; and deliver this data to ENGINEER for his review prior to final acceptance of the Project.

9.6.2.9. Completion: Before ENGINEER issues a Certificate of Substantial Completion, submit to CONTRACTOR a list of observed items requiring correction. Conduct final inspection in the company of CONTRACTOR and prepare a final list of items to be corrected. Verify that all items

on final list have been corrected and make recommendations to ENGINEER concerning acceptance.

9.6.3. Limitations of Authority: The Project Representative; shall not undertake any of the responsibilities of CONTRACTOR, subcontractors or CONTRACTOR's superintendent; shall not expedite Work for CONTRACTOR; shall not advise on or issue directions as to safety precautions and programs in connection with the Work; and shall not assist CONTRACTOR in maintaining up-to-date copies of Record Drawings.

Decisions on Disagreements:

9.7. ENGINEER will be the initial interpreter of the requirements of the Contract Documents and judge of the acceptability of the Work thereunder. Claims, disputes and other matters relating to the acceptability of the Work or the interpretation of the requirements of the Contract Documents pertaining to the execution and progress of the Work shall be referred initially to ENGINEER in writing with a request for a formal decision in accordance with this paragraph, which ENGINEER will render in writing within a reasonable time. Written notice of each such claim, dispute and other matter shall be delivered by the claimant to ENGINEER and the other party to the Agreement within fifteen days of the occurrence of the event giving rise thereto, and written supporting data will be submitted to ENGINEER and the other party within forty-five days of such occurrence unless ENGINEER allows an additional period of time to ascertain more accurate data. Failure to give the required notice constitutes a waiver of the claim.

9.8. The rendering of a decision by ENGINEER pursuant to paragraph 9.7 with respect to any such claim, dispute or other matter (except any which have been waived by the making or acceptance of final payment as provided in paragraph 14.13) will be a condition precedent to any exercise by OWNER or CONTRACTOR of such rights or remedies as either may otherwise have under the Contract Documents or at law in respect of any such claim, dispute or other matter. If the Owner agrees to pay all or part of a claim for which notice was not timely made, such agreement shall not be deemed a waiver of the right to enforce notice requirements in connection with any other claim.

Limitations on ENGINEER's Responsibilities:

9.9. Neither ENGINEER's authority to act under this Article 9 or elsewhere in the Contract Documents nor any decision made by ENGINEER in good faith either to exercise or not exercise such authority shall give rise to any duty or responsibility of ENGINEER to CONTRACTOR, any Subcontractor, any manufacturer, fabricator, supplier or distributor, or any of their agents or employees or any other person performing any of the Work.

9.10. Whenever in the Contract Documents the terms "as ordered", "as directed", "as required", "as allowed" or terms of like effect or import are used, or the adjective "reasonable", "suitable", "acceptable", "proper" or "satisfactory" or adjectives of like effect or import are used, to describe requirements, decision, review or judgment of ENGINEER as to the Work, it is intended that such requirement, direction, review or judgment will be solely to evaluate the Work for compliance with the Contract Documents (unless there is a specific statement indicating otherwise). The use of any such term or adjective never indicates that ENGINEER shall have

authority to supervise or direct performance of the Work or authority to undertake responsibility contrary to the provisions of paragraphs 9.11 or 9.12.

9.11. ENGINEER will not be responsible for CONTRACTOR's means, methods, techniques, sequences or procedures of construction, or the safety precautions and programs incident thereto, and ENGINEER will not be responsible for CONTRACTOR's failure to perform the Work in accordance with the Contract Documents.

9.12. ENGINEER will not be responsible for the acts or omissions of CONTRACTOR or of any Subcontractors, or of the agents or employees of any CONTRACTOR or Subcontractor, or of any other persons at the site or otherwise performing any of the Work.

ARTICLE 10 - CHANGES IN THE WORK

10.1. Without invalidating the Agreement, OWNER may, at any time or from time to time, order additions, deletions or revisions in the Work; these will be authorized by Change Orders. Upon receipt of a Change Order, CONTRACTOR shall proceed with the Work involved. All such Work shall be executed under the applicable conditions of the Contract Documents. If any Change Order causes an increase or decrease in the Contract Price or an extension or shortening of the Contract Time, an equitable adjustment will be made as provided in Article 11 or Article 12 on the basis of a claim made by either party.

10.2. ENGINEER may authorize minor changes in the Work not involving an adjustment in the Contract Price or the Contract Time, which are consistent with the overall intent of the Contract Documents. These may be accomplished by a Field Order and shall be binding on OWNER, and also on CONTRACTOR who shall perform the change promptly. If CONTRACTOR believes that a Field Order justifies an increase in the Contract Price or Contract Time, CONTRACTOR may make a claim therefor as provided in Article 11 or Article 12.

10.3. Additional Work performed without authorization of a Change Order will not entitle CONTRACTOR to an increase in the Contract Price or an extension of the Contract Time, except in the case of an emergency as provided in paragraph 6.14 and except as provided in paragraphs 10.2 and 13.9.

10.4. OWNER may execute appropriate Change Orders covering changes in the Work which are required by OWNER, or required because of unforeseen physical conditions or emergencies, or because of uncovering Work found not to be defective or as provided in paragraph 11.9, or because of any other claim of CONTRACTOR for a change in the Contract Time or the Contract Price which is recommended by ENGINEER.

10.5. If notice of any change affecting the general scope of the Work or change in the Contract Price is required by the provisions of any Bond to be given to the Surety, it will be CONTRACTOR's responsibility to so notify the Surety, and the amount of each applicable Bond shall be adjusted accordingly. CONTRACTOR shall furnish proof of such adjustment to OWNER.

ARTICLE 11 - CHANGE OF CONTRACT PRICE

11.1. The Contract Price constitutes the total compensation (subject to authorized adjustments) payable by OWNER to CONTRACTOR for performing the Work. All duties, responsibilities and obligations assigned to or undertaken by CONTRACTOR shall be at his expense without change in the Contract Price.

11.2. The Contract Price may only be changed by a Change Order. Any claim for an increase in the Contract Price shall be based on written notice delivered to ENGINEER within fifteen days of the occurrence of the event giving rise to the claim. Notice of the amount of the claim with supporting data shall be delivered within forty-five days of such occurrence unless ENGINEER allows an additional period of time to ascertain accurate cost data.

11.3. The value of any Work covered by a Change Order or of any claim for an increase or decrease in the Contract Price shall be determined in one of the following ways:

11.3.1. Where the Work involved is covered by unit prices contained in the Contract Documents, by application of unit prices to the quantities of the items involved (subject to the provisions of paragraph 11.9).

11.3.2. By mutual acceptance of a lump sum.

11.3.3. On the basis of the Cost of the Work (determined as provided in paragraphs 11.4 and 11.5) plus a Contractor's Fee for overhead and profit (determined as provided in paragraph 11.6).

Cost of the Work:

11.4. The term Cost of the Work means the sum of all costs necessarily incurred and paid by CONTRACTOR in the proper performance of the Work. Except as otherwise may be agreed to in writing by OWNER, such costs shall be in amounts no higher than those prevailing in the locality of the Project, shall include only the following items and shall not include any of the costs itemized in paragraph 11.5:

11.4.1. Payroll costs for employees in the direct employ of CONTRACTOR in the performance of the Work under schedules of job classifications agreed upon in advance by OWNER and CONTRACTOR. Payroll costs for employees not employed full time on the Work shall be apportioned on the basis for their time spent on the Work. Payroll cost shall include, but not be limited to, salaries and wages plus the cost of fringe benefits which shall include social security contributions, unemployment, excise and payroll taxes, workers' compensation, health and retirement benefits, sick leave, vacation and holiday pay applicable thereto. Such employees shall include superintendents and foremen at the site.

11.4.2. Cost of all materials and equipment furnished and incorporated in the Work, including costs of transportation and storage thereof, and manufacturers' field services required in connection therewith. All cash discounts shall accrue to CONTRACTOR unless OWNER deposits funds with CONTRACTOR with which to make payments, in which case the cash discounts shall accrue to OWNER. All trade discounts, rebates and refunds, and all returns from sale of surplus materials

and equipment shall accrue to OWNER and CONTRACTOR shall make provisions so that they may be obtained.

11.4.3. Payments made by CONTRACTOR to the Subcontractors for Work performed by Subcontractors. CONTRACTOR shall obtain competitive bids from Subcontractors acceptable to CONTRACTOR and shall deliver such bids to OWNER who will then determine which bids will be accepted. If a subcontract provides that the Subcontractor is to be paid on the basis of Cost of the Work Plus a Fee, the Subcontractor's Cost of the Work shall be determined in the same manner as CONTRACTOR's Cost of the Work. All subcontracts shall be subject to the other provisions of the Contract Documents insofar as applicable.

11.4.4. Costs of special consultants (including, but not limited to, engineers, architects, testing laboratories, surveyors, lawyers and accountants) employed for services specifically related to the Work. Any such special consultants covered by the Consultants' Competitive Negotiations Act (Section 287.055, Florida Statutes), shall be selected in accordance with such Act.

11.4.5. Supplemental costs including the following:

11.4.5.1. The proportion of necessary transportation, travel and subsistence expenses of CONTRACTOR's employees incurred in discharge of duties connected with the Work.

11.4.5.2. Cost, including transportation and maintenance, of all materials, supplies, equipment, machinery, appliances, office and temporary facilities at the site and hand tools not owned by the workmen, which are consumed in the performance of the Work, and cost less market value of such items used but not consumed which remain the property of CONTRACTOR.

11.4.5.3. Rentals of all construction equipment and machinery and the parts thereof whether rented from CONTRACTOR or others in accordance with rental agreements approved by OWNER, and the costs of transportation, loading, unloading, installation, dismantling and removal thereof - all in accordance with terms of said rental agreements. The rental of any such equipment, machinery or parts shall cease when the use thereof is no longer necessary for the Work.

11.4.5.4. Sales, use or similar taxes related to the Work, and for which CONTRACTOR is liable, imposed by any government authority.

11.4.5.5. Deposits lost for causes other than CONTRACTOR's negligence, royalty payments and fees for permits and licenses.

11.4.5.6. Losses and damages (and related expenses), not compensated by insurance or otherwise, to the Work or otherwise sustained by CONTRACTOR in connection with the execution of the Work, provided they have resulted from causes other than the negligence of CONTRACTOR, any Subcontractor, or anyone directly or indirectly employed by any of them or for whose acts any of them may be liable. Such losses shall include settlements made with the written consent and approval of OWNER. No such losses, damages and expenses shall be included in the Cost of the Work for the purpose of determining Contractor's Fee. If, however, any such loss or damage requires construction and CONTRACTOR is placed in charge thereof, CONTRACTOR shall be paid for services a fee proportionate to that stated in paragraph 11.6.2.

11.4.5.7. The cost of utilities, fuel and sanitary facilities at the site.

11.4.5.8. Minor expenses such as telegrams, long distance telephone calls, telephone service at the site, expressage and similar petty cash items in connection with the Work.

11.4.5.9. Cost of premiums for additional Bonds and insurance required because of changes in the Work.

11.5. The term Cost of the Work shall not include any of the following:

11.5.1. Payroll costs and other compensation of CONTRACTOR's officers, executives, principals (of partnership and estimators, lawyers, auditors, accountants, purchasing and contracting agents, expeditors, timekeepers, clerks and other personnel employed by CONTRACTOR whether at the site or in his principal or a branch office for general administration of the Work and not specifically included in the agreed upon schedule of job classifications referred to in subparagraph 11.4.1. - all of which are to be considered administrative costs covered by the Contractor's Fee.

11.5.2. Expenses of CONTRACTOR's principal and branch offices other than CONTRACTOR's office at the site.

11.5.3. Any part of CONTRACTOR's capital expenses, including interest on CONTRACTOR's capital employed for the Work and charges against CONTRACTOR for delinquent payments.

11.5.4. Cost of premiums for all Bonds and for all insurance whether or not CONTRACTOR is required by the Contract Documents to purchase and maintain the same (except for additional Bonds and insurance required because of changes in the Work).

11.5.5. Costs, including damages, due to the negligence of intentional acts of CONTRACTOR, any Subcontractor, or anyone directly or indirectly employed by any of them or for whose acts any of them may be liable, including but not limited to, the correction of defective Work, disposal of materials or equipment wrongly supplied and making good any damage to property.

11.5.6. Other overhead or general expense costs of any kind and the costs of any item not specifically and expressly included in paragraph 11.4.

Contractor's Fee:

11.6. The Contractor's Fee allowed to CONTRACTOR for overhead and profit shall be determined as follows:

11.6.1. A mutually acceptable fixed fee; or if none can be agreed upon,

11.6.2. A fee based on the following percentages of the various portions of the Cost of the Work;

11.6.2.1. For costs incurred under paragraphs 11.4.1. and 11.4.2., the Contractor's Fee shall be ten percent,

11.6.2.2. For costs incurred under paragraph 11.4.3., the Contractor's Fee shall be five percent; and if a subcontract is on the basis of Cost of the Work Plus a Fee, the maximum allowable to the Subcontractor as a fee for overhead and profit shall be ten percent, and

11.6.2.3. No fee shall be payable on the basis of costs itemized under paragraphs 11.4.4., 11.4.5. and 11.5.

11.7. The amount of credit to be allowed by CONTRACTOR to OWNER for any such change which results in a net decrease in costs, will be the amount of the actual net decrease. When both additions and credits are involved in any one change, the combined overhead and profit shall be figured on the basis of the net increase, if any.

Adjustment of Unit Prices:

11.8. Whenever the cost of any Work is to be determined pursuant to paragraphs 11.4. and 11.5., CONTRACTOR will submit in form acceptable to ENGINEER an itemized cost breakdown together with supporting data.

11.9. Where the quantity of Work with respect to any item that is covered by a unit price differs materially and significantly from the quantity of such Work indicated in the Contract Documents, an appropriate Change Order may be issued on recommendation of ENGINEER to adjust the unit price.

ARTICLE 12 - CHANGE OF THE CONTRACT TIME

12.1. The Contract Time may only be changed by a written Change Order. Any claim for an extension in the Contract Time shall be based on written notice delivered to ENGINEER within fifteen days of the occurrence of the event giving rise to the claim. Notice of the extent of the claim with supporting data shall be delivered within forty-five days of such occurrence unless ENGINEER allows an additional period of time to ascertain more accurate data. All claims for adjustment in the Contract Time shall be determined by ENGINEER if OWNER and CONTRACTOR cannot otherwise agree. Any change in the Contract Time resulting from any such claim shall be incorporated in a written Change Order.

12.2. The Contract Time will be extended in an amount equal to time lost due to delays beyond the control of CONTRACTOR if a claim is made therefor as provided in paragraph 12.1. Such delays shall include, but not be limited to, acts or neglect by OWNER or others performing additional Work as contemplated by Article 7, or fires, floods, labor disputes, epidemics, abnormal weather conditions, or acts of God.

12.3. All time limits stated in the Contract Documents are of the essence of the Agreement. The CONTRACTOR shall not be entitled to any claim for damages on account of hindrances or delays from any cause whatsoever, but if occasioned by an act of God, or by any act or omission

on the part of the Owner, such act, hindrance or delay may entitle the CONTRACTOR to an extension of time in which to complete the work which shall be determined by the ENGINEER, provided that the CONTRACTOR will give notice in writing of the cause of such act, hindrance or delay within ten (10) days after its occurrence.

ARTICLE 13 - WARRANTY AND GUARANTEE; TESTS AND INSPECTIONS; CORRECTION, REMOVAL OR ACCEPTANCE OF DEFECTIVE WORK

Warranty and Guarantee:

13.1. CONTRACTOR warrants and guarantees to OWNER that all Work will be in accordance with the Contract Documents and will not be defective. Prompt notice of all defects shall be given to CONTRACTOR. All defective Work, whether or not in place, may be rejected, corrected or accepted as provided in this Article 13.

Access to Work:

13.2. ENGINEER and ENGINEER's representatives, other representatives of OWNER, testing agencies and governmental agencies with jurisdictional interests will have access to the Work at reasonable times for their observation, inspection and testing. CONTRACTOR shall provide proper and safe conditions for such access.

Tests and Inspections:

13.3. CONTRACTOR shall give ENGINEER timely notice of readiness of the Work for all required inspections, tests or approvals.

13.4. If any law, ordinance, rule, regulation, code, or order of any public body having jurisdiction requires any Work (or part thereof) to specifically be inspected, tested or approved, CONTRACTOR shall assume full responsibility therefor, pay all costs in connection therewith and furnish ENGINEER the required certificates of inspection, testing or approval. CONTRACTOR shall also be responsible for and shall pay all costs in connection with any inspection or testing required in connection with OWNER's acceptance of a manufacturer, fabricator, supplier, or distributor of materials or equipment proposed to be incorporated in the Work, or of materials or equipment submitted for approval prior to CONTRACTOR's purchase thereof for incorporation in the Work. The cost of all other inspections, tests and approvals required by the Contract Documents shall be paid by OWNER (unless otherwise specified).

13.5. All inspections, tests or approvals other than those required by law, ordinance, rule, regulation, code or order of any public body having jurisdiction shall be performed by organizations acceptable to OWNER and CONTRACTOR.

13.6. If any Work that is to be inspected, tested or approved is covered without written concurrence of ENGINEER, it must, if requested by ENGINEER, be uncovered for observation. Such uncovering shall be at CONTRACTOR's expense unless CONTRACTOR has given ENGINEER timely notice of CONTRACTOR's intention to cover such Work and ENGINEER

has not acted with reasonable promptness in response to such notice.

13.7. Neither observations by ENGINEER, nor inspections, tests or approvals by others shall relieve CONTRACTOR from his obligations to perform the Work in accordance with the Contract Documents, and in all events in no less than a workmanlike manner.

Uncovering Work:

13.8. If any Work is covered contrary to the written request of ENGINEER, it must, if requested by ENGINEER, be uncovered for ENGINEER's observation and replaced at CONTRACTOR's expense.

13.9. If ENGINEER considers it necessary or advisable that covered Work be observed by ENGINEER or inspected or tested by others, CONTRACTOR, at ENGINEER's request, shall uncover, expose or otherwise make available for observation, inspection or testing as ENGINEER may require, that portion of the Work in question, furnishing all necessary labor, material and equipment. If it is found that such Work is defective, CONTRACTOR shall bear all the expenses of such uncovering, exposure, observation, inspection and testing and of satisfactory reconstruction, including compensation for additional professional services, and an appropriate deductive Change Order shall be issued. If, however, such Work is not found to be defective, CONTRACTOR shall be allowed an increase in the Contract Price or an extension of the Contract Time, or both, directly attributable to such uncovering, exposure, observation, inspection, testing and reconstruction if he makes a claim therefor as provided in Articles 11 and 12.

Owner May Stop the Work:

13.10. If the Work is defective, or CONTRACTOR fails to supply sufficient skilled workmen or suitable materials or equipment, OWNER may order CONTRACTOR to stop the Work, or any portion thereof, until the cause of such order has been eliminated; however, this right of OWNER to stop the Work shall not give rise to any duty on the part of OWNER to exercise this right for the benefit of CONTRACTOR or any other party.

Correction or Removal of Defective Work:

13.11. If required by ENGINEER, CONTRACTOR shall promptly, without cost to OWNER and as specified by ENGINEER, either correct any defective Work, whether or not fabricated, installed or completed, or, if the Work has been rejected by ENGINEER, remove it from the site and replace it with nondefective Work.

One Year Correction Period:

13.12. If within one year after the date of Substantial Completion or such longer period of time as may be prescribed by law or by the terms of any applicable special guarantee required by the Contract Documents, any Work is found to be defective, CONTRACTOR shall promptly, without cost to OWNER and in accordance with OWNER's written instructions, either correct such defective Work, or, if it has been rejected by OWNER, remove it from the site and replace it with nondefective Work. If CONTRACTOR does not promptly comply with the terms of such

instructions, or in an emergency where delay would cause serious risk of loss or damage, OWNER may have the defective Work corrected or the rejected Work removed and replaced, and all direct and indirect costs of such removal and replacement, including compensation for additional professional services, shall be paid by CONTRACTOR.

Acceptance of Defective Work:

13.13. If, instead of requiring correction or removal and replacement of defective Work, OWNER prefers to accept it, OWNER may do so. In such case, if acceptance occurs prior to ENGINEER's recommendation of final payment, a Change Order shall be issued incorporating the necessary revisions in the Contract Documents, including appropriate reduction in the Contract Price; or, if the acceptance occurs after such recommendation, an appropriate amount shall be paid by CONTRACTOR to OWNER.

OWNER May Correct Defective Work:

13.14. If CONTRACTOR fails, within a reasonable time after written notice of ENGINEER to proceed, to correct and to correct defective Work or to remove and replace rejected Work as required by ENGINEER in accordance with paragraph 13.11., or if CONTRACTOR fails to perform the Work in accordance with the Contract Documents (including any requirements of the progress schedule), OWNER may, after seven days' written notice to CONTRACTOR, correct and remedy any such deficiency. In exercising his rights under this paragraph OWNER shall proceed expeditiously. To the extent necessary to complete corrective and remedial action, OWNER may exclude CONTRACTOR from all or part of the site, take possession of all or part of the Work, and suspend CONTRACTOR's services related thereto, take possession of CONTRACTOR's tools, appliances, construction equipment and machinery at the site and incorporate in the Work all materials and equipment stored at the site or for which OWNER has paid CONTRACTOR but which are stored elsewhere. CONTRACTOR shall allow OWNER, OWNER's representatives, agents and employees such access to the site as may be necessary to enable OWNER to exercise his rights under this paragraph. All direct and indirect costs of OWNER in exercising such rights shall be charged against CONTRACTOR in an amount verified by ENGINEER, and a Change Order shall be issued incorporating the necessary revisions in the Contract Documents and a reduction in the Contract Price. Such direct and indirect costs shall include, in particular but without limitation, compensation for additional professional services required and all costs of repair and replacement of work of others destroyed or damaged by correction, removal or replacement of CONTRACTOR's defective Work. CONTRACTOR shall not be allowed an extension of the Contract Time because of any delay in performance of the Work attributable to the exercise by OWNER of OWNER's rights hereunder.

ARTICLE 14 - PAYMENTS TO CONTRACTOR AND COMPLETION

Application for Progress Payment:

14.1. At least ten days before each progress payment falls due (but not more often than once a month), CONTRACTOR shall submit to ENGINEER for review an Application for Payment filled out and signed by CONTRACTOR covering the Work completed as of the date of the

Application and accompanied by such supporting documentation as is required by the Contract Documents and also as ENGINEER may reasonably require. If payment is requested on the basis of materials and equipment not incorporated in the Work but delivered and suitably stored at the site or at another location agreed to in writing, the Application for Payment shall also be accompanied by such data, satisfactory to OWNER, as will establish OWNER's title to the material and equipment and protect OWNER's interest therein, including applicable insurance. Each subsequent Application for Payment shall include an affidavit of CONTRACTOR stating that all previous progress payments received on account of the Work have been applied to discharge in full all of CONTRACTOR's obligations reflected in prior Applications for Payment. The amount of retainage with respect to progress payments will be as stipulated in the Form of Agreement, Article 5.

CONTRACTOR's Warranty of Title:

14.2. CONTRACTOR warrants and guarantees that title to all Work, materials and equipment covered by an Application for Payment, whether incorporated in the project or not, will pass to OWNER at the time of payment free and clear of all liens, claims, security interests and encumbrances (hereafter in these General Conditions referred to as "Liens").

Review of Applications for Progress Payment:

14.3. ENGINEER will, within ten days after receipt of each Application for Payment, either indicate in writing a recommendation of payment, or return the Application to CONTRACTOR indicating in writing ENGINEER's reasons for refusing to recommend payment. In the latter case, CONTRACTOR may make the necessary corrections and resubmit the Application. OWNER shall, within ten days of presentation to him of the ENGINEER's recommendation of payment, pay CONTRACTOR the amount recommended.

14.4. ENGINEER may refuse to recommend the whole or any part of any payment if, in his opinion, it would be incorrect to make such representations to OWNER. He may also refuse to recommend any such payment, or, because of subsequently discovered evidence or the results of subsequent inspections or tests, nullify any such payment previously recommended to such extent as may be necessary in ENGINEER's opinion to protect OWNER from loss because:

14.4.1. The Work is defective, or completed Work has been damaged requiring correction or replacement;

14.4.2. Written claims have been made against OWNER or Liens have been filed in connection with the Work;

14.4.3. The Contract Price has been reduced because of Modifications;

14.4.4. OWNER has been required to correct defective Work or complete the Work in accordance with paragraph 13.14;

14.4.5. Of CONTRACTOR's unsatisfactory prosecution of the Work in accordance with the Contract Documents, including failure to clean up;

14.4.6. Of liquidated damages payable by CONTRACTOR; or

14.4.7. CONTRACTOR's failure to make payment to Subcontractors, or for labor, materials or equipment.

Substantial Completion:

14.5. When CONTRACTOR considers the entire Work ready for its intended use CONTRACTOR shall, in writing to ENGINEER, certify that the entire Work is substantially complete and request that ENGINEER issue a certificate of Substantial Completion. Within a reasonable time thereafter, CONTRACTOR and ENGINEER shall make an inspection of the Work to determine the status of completion. If ENGINEER does not consider the Work substantially complete, ENGINEER will notify CONTRACTOR in writing giving his reasons therefor. If ENGINEER considers the Work substantially complete, ENGINEER will prepare a certificate of Substantial Completion which shall fix the date of Substantial Completion. There shall be attached to the certificate a list of items to be completed or corrected before final payment.

14.6. OWNER shall have the right to exclude CONTRACTOR from the Work after the date of Substantial Completion, but OWNER shall allow CONTRACTOR reasonable access to complete or correct items on the list.

Partial Utilization:

14.7. Use by OWNER of completed portions of the Work may be accomplished prior to Substantial Completion of all the Work subject to the following:

14.7.1. OWNER at any time may request CONTRACTOR in writing to permit OWNER to use any part of the Work which OWNER believes to be substantially complete and which may be so used without significant interference with construction of the other parts of the Work. If CONTRACTOR agrees, CONTRACTOR will certify to ENGINEER that said part of the Work is substantially complete and request ENGINEER to issue a certificate of Substantial Completion for that part of the Work. Within a reasonable time thereafter CONTRACTOR and ENGINEER shall make an inspection of that part of the Work to determine its status of completion. If ENGINEER does not consider that part of the Work to be substantially complete, ENGINEER will notify CONTRACTOR in writing giving his reasons therefor. If ENGINEER considers that part of the Work to be substantially complete, ENGINEER will execute and deliver to CONTRACTOR a certificate to that effect, fixing the date of Substantial Completion as to that part of the Work, attaching thereto a list of items to be completed or corrected before final payment. OWNER shall have the right to exclude CONTRACTOR from any part of the Work which ENGINEER has so certified to be substantially complete, but OWNER shall allow CONTRACTOR reasonable access to complete or correct items on the list.

14.7.2. In lieu of the issuance of a certificate of Substantial Completion as to part of the Work, OWNER may take over operation of a facility constituting part of the Work whether or not it is substantially complete if such facility is functionally and separately usable; provided that prior to any such takeover, OWNER and CONTRACTOR have agreed as to the division of responsibilities

between OWNER and CONTRACTOR for security, operation, safety, maintenance, correction period, heat, utilities and insurance with respect to such facility.

14.7.3. No occupancy of part of the Work or taking over of operations of a facility will be accomplished prior to compliance with the requirements of paragraph 5.14 with regard to property insurance.

Final Inspection:

14.8. Upon written notice from CONTRACTOR that the work is complete, ENGINEER will make a final inspection with CONTRACTOR and will notify CONTRACTOR in writing of all particulars in which this inspection reveals that the Work is incomplete or defective. CONTRACTOR shall immediately take such measures as are necessary to remedy such deficiencies.

Final Application for Payment:

14.9. After CONTRACTOR has completed all such corrections to the satisfaction of ENGINEER and delivered all maintenance and operating instructions, schedules, guarantees, Bonds, certificates of inspection, marked-up record documents and other documents - all as required by the Contract Documents, and after ENGINEER has indicated that the Work is acceptable (subject to the provisions of paragraph 14.13), CONTRACTOR may make application for final payment following the procedure for progress payments. The final Application for Payment shall be accompanied by all documentation called for in the Contract Documents and such other data and schedules as ENGINEER may reasonably require, together with complete and legally effective releases or waivers (satisfactory to OWNER) of all Liens arising out of or filed in connection with the Work. In lieu thereof and as approved by OWNER, CONTRACTOR may furnish receipts or releases in full; an affidavit of CONTRACTOR that the releases and receipts include all labor, services, material and equipment for which a Lien could be filed, and that all payrolls, material and equipment bills, and other indebtedness connected with the Work for which OWNER or his property might in any way be responsible, have been paid or otherwise satisfied; and consent of the Surety, if any, to final payment. If any Subcontractor, manufacturer, fabricator, supplier or distributor fails to furnish a release or receipt in full, CONTRACTOR may furnish a Bond or other collateral satisfactory to OWNER to indemnify OWNER against any Lien.

Final Payment and Acceptance:

14.10. If, on the basis of ENGINEER's observation of the Work during construction and final inspection, and ENGINEER's review of the final Application for Payment and accompanying documentation - all as required by the Contract Documents, ENGINEER is satisfied that the Work has been completed and CONTRACTOR has fulfilled all of his obligations under the Contract Documents, ENGINEER will, within ten days after receipt of the final Application for Payment, indicate in writing his recommendation of payment and present the Application for payment. Thereupon ENGINEER will give written notice to CONTRACTOR that the Work is acceptable subject to the provisions of paragraph 14.13. Otherwise, ENGINEER will return the Application to CONTRACTOR, indicating in writing the reasons for refusing to recommend final payment, in which case CONTRACTOR shall make the necessary corrections and resubmit the Application.

If the Application and accompanying documentation are appropriate as to form and substance, OWNER shall, within thirty days after receipt thereof pay CONTRACTOR the amount recommended by ENGINEER.

14.11. If, through no fault of CONTRACTOR, final completion of the Work is significantly delayed and if ENGINEER so confirms, OWNER shall, upon receipt of CONTRACTOR's final Application for Payment and recommendation of ENGINEER, and without terminating the Agreement, make payment of the balance due for that portion of the Work fully completed and accepted. If the remaining balance to be held by OWNER for Work not fully completed or corrected is less than the retainage stipulated in the Agreement, and if Bonds have been furnished as required in paragraph 5.1, the written consent of the Surety to the payment of the balance due for that portion of the Work fully completed and accepted shall be submitted by CONTRACTOR to ENGINEER with the Application for such payment. Such payment shall be made under the terms and conditions governing final payment, except that it shall not constitute a waiver of claims.

CONTRACTOR's Continuing Obligation:

14.12. CONTRACTOR's obligation to perform and complete the Work in accordance with the Contract Documents shall be absolute. Neither recommendation of any progress or final payment by ENGINEER, nor the issuance of a certificate of Substantial Completion, nor any payment by OWNER to CONTRACTOR under the Contract Documents, nor any use or occupancy of the Work or any part thereof by OWNER, nor any act of acceptance by OWNER nor any failure to do so, nor the issuance of a notice of acceptability by ENGINEER pursuant to paragraph 14.10, nor any correction of defective Work by OWNER shall constitute an acceptance of Work not in accordance with the Contract Documents or a release of CONTRACTOR's obligation to perform the Work in accordance with the Contract Documents.

Waiver of Claims:

14.13. The making and acceptance of final payment shall constitute:

14.13.1. A waiver of all claims by OWNER against CONTRACTOR, except claims arising from unsettled or unfilled Liens, from defective Work appearing after final inspection pursuant to paragraph 14.8 or from failure to comply with the Contract Documents or the terms of any special guarantees specified therein; however, it shall not constitute a waiver by OWNER of any rights in respect of CONTRACTOR's continuing obligations under the Contract Documents; and

14.13.2. A waiver of all claims by CONTRACTOR against OWNER other than those previously made in writing and still unsettled or unfilled.

ARTICLE 15 - SUSPENSION OF WORK AND TERMINATION

Owner May Suspend Work:

15.1. OWNER may, at any time and without cause, suspend the Work or any portion thereof for a period of not more than ninety days by notice in writing to CONTRACTOR and Surety which

shall fix the date on which Work shall be resumed. CONTRACTOR shall resume the Work on the date so fixed. CONTRACTOR may be allowed an increase in the Contract Price or an extension of the Contract Time, or both, directly attributable to any suspension of work at OWNER's request if he makes a claim therefor as provided in Articles 11 and 12.

Owner May Terminate:

- 15.2. Upon the occurrence of any one or more of the following events:
 - 15.2.1. If CONTRACTOR is adjudged a bankrupt or insolvent;
 - 15.2.2. If CONTRACTOR makes a general assignment for the benefit of creditors;
 - 15.2.3. If a trustee or receiver is appointed for CONTRACTOR or for any of CONTRACTOR's property;
 - 15.2.4. If CONTRACTOR files a petition to take advantage of any debtor's act, or to reorganize under the bankruptcy or similar laws;
 - 15.2.5. If CONTRACTOR repeatedly fails to supply sufficient skilled workmen or suitable materials or equipment;
 - 15.2.6. If CONTRACTOR repeatedly fails to make prompt payments to Subcontractors or for labor, materials or equipment;
 - 15.2.7. If CONTRACTOR violates any laws, ordinances, rules, regulations or orders of any public body having jurisdiction;
 - 15.2.8. If CONTRACTOR disregards the authority of ENGINEER; or
 - 15.2.9. If CONTRACTOR otherwise violates in any substantial way any provisions of the Contract Documents.

OWNER may after giving CONTRACTOR and his Surety seven (7) days' written notice, terminate the services of CONTRACTOR, exclude CONTRACTOR from the site and take possession of the Work and of all CONTRACTOR's tools, appliances, construction equipment and machinery at the site and demand the Surety to finish the Work by whatever methods he may deem expedient but subject to the approval of OWNER. The Surety shall use the same to the full extent they could be used by CONTRACTOR (without liability to CONTRACTOR for trespass or conversion), incorporate in the Work all materials and equipment stored at the site or for which OWNER has paid CONTRACTOR but which are stored elsewhere, and finish the Work as OWNER may require. In such case CONTRACTOR shall not be entitled to receive any further payment until the Work is finished. If the unpaid balance of the Contract Price exceeds the direct and indirect costs of completing the Work, including compensation for additional professional services, such excess shall be paid to CONTRACTOR. If such costs exceed such unpaid balance, CONTRACTOR and the Surety shall be jointly and severally liable to pay the difference to OWNER. Such costs incurred by OWNER shall be incorporated in a Change Order, but in

finishing the Work OWNER shall not be required to accept the lowest figure for the Work to be performed by the Surety.

15.3. Where CONTRACTOR's services have been so terminated by OWNER, the termination shall not affect any rights of OWNER against CONTRACTOR or the Surety then existing or which may thereafter accrue. Any retention or payment of moneys due CONTRACTOR by OWNER will not release CONTRACTOR from liability.

15.4. Upon seven (7) days' written notice to CONTRACTOR and Surety, OWNER may, without cause and without prejudice to any other right or remedy, elect to abandon the Work and terminate the Agreement. In such case, CONTRACTOR shall be paid for all Work executed, any expense sustained plus reasonable termination expenses.

CONTRACTOR May Stop Work or Terminate:

15.5. If, through no act or fault of CONTRACTOR, the Work is suspended for a period of more than ninety (90) days by OWNER or under an order of court or other public authority, or ENGINEER fails to act on any Application for Payment within thirty (30) days after it is submitted, or OWNER fails for thirty days to pay CONTRACTOR any sum finally determined to be due, the CONTRACTOR may, upon seven (7) days' written notice to OWNER, terminate the Agreement and recover from OWNER payment for all Work executed and any expense sustained plus reasonable termination expenses. In addition and in lieu of terminating the Agreement, if ENGINEER has failed to act on an Application for Payment or OWNER has failed to make any payment as aforesaid, CONTRACTOR may upon seven (7) days' notice to OWNER stop the Work until payment of all amounts then due. The provisions of this paragraph shall not relieve CONTRACTOR of his obligations to carry on the Work in accordance with the progress schedule and without delay during disputes and disagreements with OWNER.

ARTICLE 16 - MISCELLANEOUS

Giving Notice:

16.1. Whenever any provision of the Contract Documents requires the giving of written notice it shall be deemed to have been validly given if delivered in person to the individual or to a member of the firm or to an officer of the corporation for whom it is intended, or if delivered at or sent by registered or certified mail, postage prepaid, to the last business address known to the giver of the notice.

Computation of Time:

16.2. When any period of time is referred to in the Contract Documents by days, it shall be computed to exclude the first and include the last day of such period. If the last day of any such period falls on a Saturday or Sunday or on a day made a legal holiday by the law of the applicable jurisdiction, such day shall be omitted from the computation.

General:

16.3. The duties and obligations imposed by these General Conditions and the rights and remedies available hereunder to the parties hereto, and, in particular but without limitation, the warranties, guarantees and obligations imposed upon CONTRACTOR by paragraphs 6.15, 13.1, 13.11, 13.14, 14.2, and 15.2, and all of the rights and remedies available to OWNER thereunder, shall be in addition to, and not in limitation of, any rights and remedies available to any or all of them which are otherwise imposed or available by law or contractor, by special warranty or guarantee or by other provisions of the Contract Documents, and the provisions of this paragraph shall be as effective as if repeated specifically in the contract Documents in connection with each particular duty, obligation, right and remedy to which they apply. All representations, warranties and guarantees made in the Contract Documents shall survive final payment and termination or completion of this Agreement.

Liquidated Damages:

16.4. OWNER and CONTRACTOR recognize that time is of the essence to complete this Project and that OWNER will suffer financial loss if the Work is not substantially complete within the time specified in Agreement, plus any extensions thereof allowed in accordance with Article 12. They also recognize the delays, expense and difficulties involved in proving in a legal proceeding the actual loss suffered by OWNER if the Work is not substantially complete on time. Accordingly, instead of requiring any such proof, OWNER and CONTRACTOR agree that as liquidated damages for delay (but not as a penalty) CONTRACTOR shall pay OWNER the amount stated in the Contract for each day that expires after the time specified in the Contract for Substantial Completion until the Work is substantially complete. After Substantial Completion, if CONTRACTOR shall neglect, refuse or fail to complete the remaining Work within the time specified in the Contract or any proper extension thereof granted by OWNER, CONTRACTOR shall pay the OWNER an amount equal to all actual expenses incurred by the OWNER as a direct result of the CONTRACTOR'S negligence, refusal, or failure to so complete the remaining Work. In the event the CONTRACTOR is terminated or abandons the Work prior to the scheduled date for final completion, the CONTRACTOR may be liable for both liquidated damages attributable to delay and for excess completion costs.

Reports of Investigations and Tests of Subsurface and Latent Physical Conditions:

16.5. Reports of investigations and tests of subsurface and latent physical conditions at the site or otherwise affecting cost, progress or performance of the work which have been relied upon by ENGINEER in preparing the Drawings and Specifications are as listed in the Supplementary Conditions. OWNER will make such reports available for inspection to any Bidder or copies may be obtained from the ENGINEER by the Bidder at reproduction cost. These reports are not guaranteed as to accuracy or completeness, nor are they part of the Contract Documents.

Performance of Work by CONTRACTOR:

16.6. Contract Assignment. The successful bidder (or bidders) will be required to perform the work as a prime contractor. CONTRACTOR shall not sublet, sell, transfer, assign or otherwise dispose of the contract or any portion thereof, or of his right, title, or interest therein. CONTRACTOR shall perform on the site and with his own organization work equivalent to not

less than fifty (50%) percent of the total dollar value of the work to be performed under this contract except that work designated in the Supplementary Conditions as specialty work may be performed by subcontractors and the cost of any such specialty work so performed by subcontracts may be deducted from the total contract amount before computing the amount of work required to be performed by CONTRACTOR with his own organization.

Limitation of Remedy and Liability:

16.7 Contractor and Owner expressly waive any claim for consequential damages against the other including but not limited to, a waiver of claims for diminished bonding capacity, loss of financing, loss of business reputation, lost profits on other projects or other lost opportunity damage claims.

Contractor expressly agrees that any claim (tort, contract, claim in equity, or otherwise) by Contractor for damages against Owner shall not exceed the total amount of the contract price, less any amounts actually paid to the Contractor by the Owner (or by an insurer of the Owner).

All liability of the City allegedly resulting from, arising out of or connected with this Agreement, or from the performance or breach thereof, shall terminate three years from the termination of this Agreement.

Waiver of Right to Jury Trial:

16.8 THE PARTIES HEREBY KNOWINGLY, VOLUNTARILY AND INTENTIONALLY WAIVE ANY RIGHT WHICH ANY PARTY MAY HAVE TO TRIAL BY JURY IN RESPECT OF ANY PROCEEDING, LITIGATION OR COUNTERCLAIM BASED ON, OR ARISING OUT OF, UNDER OR IN CONNECTION WITH THIS AGREEMENT OR ANY COURSE OF CONDUCT, COURSE OF DEALING, STATEMENTS (WHETHER VERBAL OR WRITTEN) OR ACTIONS OF ANY PARTY. IF THE SUBJECT MATTER OF ANY LAWSUIT IS ONE IN WHICH THE WAIVER OF JURY TRIAL IS PROHIBITED, NO PARTY TO THIS AGREEMENT SHALL PRESENT AS A NON-COMPULSORY COUNTERCLAIM IN ANY SUCH LAWSUIT ANY CLAIM BASED ON, OR ARISING OUT OF, UNDER OR IN CONNECTION WITH THIS AGREEMENT. FURTHERMORE, NO PARTY TO THIS AGREEMENT SHALL SEEK TO CONSOLIDATE ANY SUCH ACTION IN WHICH A JURY TRIAL CANNOT BE WAIVED.

END OF SECTION

SECTION 00800 SUPPLEMENTARY CONDITIONS

The following supplements modify, change, delete from, or add to the General Conditions of the Construction Contract (Section 00700). Where any article of the General Conditions is modified or any paragraph, subparagraph or clause thereof is modified or deleted by these supplements, the unaltered provisions of that article, paragraph, subparagraph or clause shall remain in effect.

ARTICLE 16 - MISCELLANEOUS

Section 16.5 – Reports of Investigations and Test of Subsurface and Latent Physical Conditions

Add the following subparagraph:

- 16.5.1 The list of reports of investigations and tests of subsurface and latent physical conditions as referred to in General Conditions Section 16.5 are as follows:

None

Add the following:

16.7 Minimum Requirements for the provision and maintenance of Payment and Performance Bonds, and Contractor's Insurance

In accordance with Resolution 2021-144 as it presently exists or may hereafter change, or applicable state, federal or local law, whichever is stricter, the following minimum requirements have been established:

A. Payment and Performance Bonds

1. Except as otherwise provided herein, the Contractor shall, prior to beginning performance, deliver to the City, and the City shall record in the public records of Volusia County, Florida, the Contractor's Payment and Performance Bond in an amount equal to the full amount of the Contract.
2. (a) Payment and Performance Bonds shall not be required for any contract except those which are for the construction of a public building, for the prosecution and completion of a public work (as described in Section 180.06, **Florida Statutes**, as amended from time to time) or for repairs upon a public building or public work (as described in Section 180.06, **Florida Statutes**, as amended from time to time).
- (b) With respect to those Contracts for which Payment and Performance Bonds are otherwise required:
 - i. Unless the City Manager, or designee, determines such Bond to be necessary to protect the interests of the City, no Contractor shall be

required to provide a Payment and Performance Bond for any Contract which is for \$25,000.00 or less.

- ii. Upon the request of the contractor, good cause shown by the Contractor, and a determination that the public health, safety and welfare will be sufficiently protected, the City Commission may exempt the contractor from the requirement of providing a Payment and Performance Bond for any Contract which is for more than \$25,000.00 but is less than \$200,000.00.
- 3. The Payment and Performance Bond shall list the Contractor as Principal and be issued by a surety insurer authorized to do business in Florida as a surety and listed as an acceptable surety in the Federal Register.
- 4. The Payment and Performance Bond shall be executed pursuant to Section 255.05, **Florida Statutes**, and be in a form substantially similar to the form set forth in Section 255.05(3), **Florida Statutes**.
- 5. The Payment and Performance Bond shall specifically provide coverage for delay damages due to a default by the Contractor.
- 6. The Payment and Performance Bond shall not make the Contract part of the Bond agreement.
- 7. In lieu of the Payment and Performance Bond, the Contractor may file with the Finance Director of the City, in an amount equal to the full amount of the Contract, cash, a money order, a certified check, a cashier's check, an irrevocable letter of credit, or a security of a type listed in Part II, Chapter 625, **Florida Statutes**.
- 8. In the event the surety on any Payment and Performance Bond furnished by the Contractor is declared bankrupt or becomes insolvent, or its right to do business in the State of Florida is terminated, the Contractor shall, within five (5) working days thereafter, substitute another Payment and Performance Bond and surety acceptable to the City.
- 9. The Contractor is totally and solely responsible for keeping its surety informed as to the Base Contract Price as bid, significant changes in the Project Scope, and the overall progress and completion of the Project for the entire life of the Contract.
- 10. The payment and performance bond requirements stated herein above shall not be applicable to service-related contracts unless otherwise determined by the City Manager in order to protect the health, safety and welfare of the general public.

B. Contractual Provisions Relative to Risk Management

All contracts for any public works to be performed, and service-related contracts, for or on behalf of the City shall include at a minimum, the following, or substantially similar, provisions:

1. Hold Harmless and Indemnity

The Contractor agrees to assume liability for and indemnify, hold harmless, and defend the City, its commissioners, mayor, officers, employees, agents, and attorneys of, from, and against all liability and expense, including reasonable attorney's fees, in connection with any and all claims, demands, damages, actions, causes of action, and suits in equity of whatever kind or nature, including claims for personal injury, property damage, equitable relief, or loss of use, to the extent caused by the negligence, recklessness, or intentionally wrongful conduct of the Contractor, its agents, officers, contractors, subcontractors, employees, or anyone else employed or utilized by the Contractor in the performance of this Contract. The Contractor's liability hereunder shall include all attorney's fees and costs incurred by the City in the enforcement of this provision.

2. Payment on Behalf of City

The Contractor shall pay all costs of the City's legal defense, as may be selected by the City, for all claims described in the Hold Harmless paragraph.

Such payment on behalf of the City shall be in addition to any and all other legal remedies available to the City and shall not be considered to be the City's exclusive remedy.

3. Loss Control/Safety

Precaution shall be exercised at all times by the Contractor for the protection of all persons, including employees and property. The Contractor shall comply with all applicable laws, regulations and ordinances related to safety and health, shall make special efforts to detect hazardous conditions, and shall take prompt action when loss control/safety measures are reasonably necessary.

The City may order work to be stopped if conditions exist that present an immediate danger to persons or property. The Contractor acknowledges that such work stoppage will not shift responsibility for any damages from the Contractor to the City.

4. Service Bond

For Service-related contracts only, the City may require the Contractor to secure a service bond with a minimum \$25,000 coverage limit for the period of the service agreement. The service bond covers dishonest acts of the contractor's employees against the City. A copy of the bond shall be provided to the City when the agreement commences.

Service-related contracts include and are not limited to businesses providing janitorial, pest control, general repair, security, carpet cleaning, locksmith,

temporary employment, painting, moving services or other contracts as determined in the discretion of the Risk Manager as necessary to minimize loss.

C. Contractor's Insurance

1. General

The Contractor, including service-related contractors, shall purchase and maintain for the entire life of the Project, including any and all approved time extensions, until its final acceptance by the City, such insurance as will protect the Contractor from claims under Workers' Compensation, disability benefit laws or other similar employee benefit laws; from claims for damages because of bodily injury, occupational sickness or disease, or death of Contractor's employees; from claims insured by usual or unusual injury liability coverage; from claims or injury to or destruction of tangible property and from claims insured by usual Commercial General Liability coverage. This includes loss of use resulting therefrom, any or all of which may arise out of the Contractor's operations under the Contract Documents, whether such operations be by the Contractor, by any Subcontractor, or by anyone directly or indirectly employed by any of them or for whose acts any of them may be legally liable. The Contractor's deductibles/self-insured retentions shall be disclosed to the City and may be disapproved by the City, and may be reduced or eliminated at the sole discretion of the City. The Contractor is responsible for the amount of any deductible or self-insured retention.

2. Types of Insurance and Limits of Liability

The insurance required herein shall be written for not less than any limits of liability specified and incorporated as part of the Contract Documents or as required by law, whichever is greater, and shall include and not limited to the following:

- (a)** Workers' Compensation Insurance in statutory limits for the State of Florida with Coverage B - Employer's Liability limits of not less than:

\$100,000 Each Accident Bodily Injury by Accident
 \$100,000 Each Employee Bodily Injury by Disease
 \$500,000 Policy Limit Bodily Injury by Disease

Certificate of Exemptions. If the contractor has a State-issued Certificate of Exemption, the contractor may provide a copy in place of the requirement for coverage. However, if the contractor subcontracts or retains any other person or entity to perform under the contract, that person or entity must provide proof of workers' compensation insurance as required by law or provide a Certificate of Exemption.

It is the intent of the City that any individual who either contracts directly with the city or performs any work on behalf of any such contractor be covered by workers' compensation insurance or have a valid exemption from said coverage.

(If applicable to the Project, the policy must include benefits under the United States Longshoremen's and Harbor Workers' Act and the Jones Act coverage--all maritime coverage.)

- (b) Commercial General Liability Insurance shall be written on a coverage form as broad as Insurance Services Office (ISO) Form CG 00 01 11 85, or its successor form, including but not limited to the following coverage (any deviation shall be noted on the Certificates of Insurance):
- a. Premises, Operations, Products and Completed Operations
 - b. Owners' & Contractors' Protective
 - c. Products & Completed Operation
 - d. Explosion, Collapse & Underground Conditions
 - e. Blanket Contractual Liability
 - f. Personal Injury Liability
 - g. Broad Form Property Damage Endorsement, including Completed Operations
 - h. Independent Contractors
 - i. Watercraft--Owned and Non-Owned (if applicable, endorsement must be included in General Liability policy or a separate Protection & Indemnity Policy must be written)
 - j. Pollution Liability (if applicable)
 - k. Asbestos Abatement (if applicable)
 - l. Fire Damage Liability

Certain coverage outlined above may not be required if they do not relate to the Project, as may be determined at the sole discretion of the City.

Commercial General Liability Coverage shall be written on an occurrence basis and the limits shall be no less and not limited to the following amounts:

Limits (not less than)

\$1 Million Each Occurrence
 \$2 Million General Aggregate
 \$1 Million Aggregate Products & Completed Operations

NOTE: Commercial General Liability Coverage must be purchased on either a project basis (separate policy per contract) or an endorsement allocating an aggregate limit per location or specified project.

- (c) Automobile Liability Insurance is required if an Automobile(s) is used in the performance of the contract.

ISO Symbol 1 (Any Auto), or alternatively a combination of Symbol 2 (Owned Autos), Symbol 8 (Hired Autos), and Symbol 9 (Non-Owned Autos), and limits shall be no less than:

\$1 Million	Combined Single Limit for Bodily Injury and Property Damage
-------------	--

(d) Excess Liability

For contracts \$250,000 or greater an Excess Liability Policy of at least but not limited to \$1,000,000 in addition to the scheduled underlying policies for Commercial General Liability, Automobile Liability and Employers' Liability, the Contractor shall also provide an Excess Liability Policy with a maximum self-insured retention not to exceed \$25,0000 per occurrence.

(e) Builder's Risk

Contractor shall purchase Builder's Risk Insurance for any contracts that are deemed to be vertical construction on an All-Risk policy, and shall also include coverage for wind, hail, and named storm. Limits of coverage shall be at least and not limited to the value of the project.

**(f) Professional Liability, Malpractice and/or Errors and Omissions
(N/A for construction contracts)**

The Contractor shall purchase and maintain professional liability, malpractice, or errors or omissions insurance with minimum limits of \$1,000,000 per occurrence. If a claims made form of coverage is provided, the retroactive date of coverage shall be no later than the inception date of claims made coverage, unless the prior policy was extended indefinitely to cover prior acts. Coverage shall be extended beyond the policy year either by a supplemental extended reporting period (ERP) of as great a duration as is available, and with no less coverage and with reinstated aggregate limits, or by requiring that any new policy provides a retroactive date no later than the inception date of claims made coverage.

D. Requirements for Certificates of Insurance

1. With the execution of the Contract Documents, the Contractor, including service-related contractors, shall provide certificates of such insurance acceptable to the City. These certificates and insurance policies shall contain an endorsement that the coverage under the policies will not be canceled, non-renewed or materially changed until at least thirty (30) days' prior written notice of such cancellation, non-renewal or change (except for nonpayment of premium, which shall be ten (10) days) and a copy of the cancellation endorsement signed by an authorized representative of the insurer, be given to the City. The contractor shall be required to replace any expired or canceled policies in like amount and coverage to the satisfaction of the City. The Certificate of Insurance shall be the ACORD FORM

25-S (7/90), or its successor form, and shall be made a part of the Contract Documents.

2. New certificates of insurance shall be provided to the City at least fifteen (15) days prior to coverage renewals.
3. If requested by the City, the contractor shall immediately furnish complete copies of the Contractor's insurance policies, forms and endorsements.
4. For Commercial General Liability coverage the Contractor shall, at the option of the City, provide an indication of the amount of claims payments or reserves chargeable to the aggregate amount of liability coverage. If the Commercial General Liability form of coverage includes an annual aggregate limitation on the amount of insurance provided, a separate project aggregate limit may be required by the City for the given contract.
5. If the Contractor fails to obtain and maintain for the life of the Project the insurance required hereby or to replace any such expired or canceled policy, the City may obtain and maintain such insurance with such company as it deems satisfactory. Any amounts expended by the City in payment of premiums for such insurance shall be deducted by the City from the amount due the Contractor for the work covered by the Contract.

E. Policies of Insurance

1. Except as otherwise provided in this Exhibit, all insurance policies shall be issued by insurers licensed to do business in the State of Florida on an admitted basis or which is an eligible surplus lines insurer in the State of Florida, and any such insuring company is required to have a minimum financial rating of (A-), in the latest edition of "Best's Key Rating Guide", published by A. M. Best Co., Inc., or some similarly nationally recognized rating authority, including Standard and Poors and Demotech.
2. For Workers' Compensation coverage only, self-insurance programs are acceptable with a minimum A- rated reinsurance carrier; written confirmation is required.
3. All policies of insurance or certificates thereof referred to in this Exhibit shall be deposited with the City Clerk.
4. The City shall be named an Additional Insured on General Liability including products and completed operations and Automobile Liability policies of insurance and certificates thereof.

END OF SECTION

LIEN WAIVER

The undersigned does hereby certify that through _____, 2022, the undersigned has performed labor and/or furnished materials for the construction of the _____ located at _____ owned by _____, at a price of \$ _____, and in consideration of the payment to the undersigned of such sum, the receipt of which is hereby acknowledged, the undersigned does hereby release and waive all liens and claims to liens which the undersigned may have as a result of the performance of such labor and/or the furnishing of such materials, and that the undersigned has paid in full for all materials purchased by the undersigned in connection with such project and for all labor furnished by the undersigned in connection with such project. The undersigned further certifies that the last date on which the undersigned furnished such labor and/or materials was _____, 2022.

_____ CONTRACTOR

By _____ DATE: _____

TITLE: _____

THE STATE OF _____

COUNTY OF _____

Before me, the undersigned authority, on this day personally appeared _____, the _____ of _____, a corporation, known to me to be the person and officer whose name is subscribed to the foregoing instrument, and acknowledged to me that he executed the same for the purposes and consideration therein expressed, and as the act and deed of said corporation, and in capacity therein stated.

GIVEN UNDER MY HAND AND SEAL OF OFFICE, this _____ day of _____, 2022.

Notary Public in and for
said County and State

SECTION 01010 SUMMARY OF WORK

PART 1 - GENERAL

1.01 DESCRIPTION OF WORK

Work Covered by Contract Documents:

Work under this Contract is described as: **POLICE STATION
HVAC UPGRADES PROJECT**
Bid Number 2022-21

The Work consists of: replacing the Police Station chilled water pumps, chilled water treatment and filtration, air handler, VAV boxes, thermostats, control systems, all associated piping, valves, dampers and all related components and systems, and providing temporary HVAC equipment as described in the Contract Documents. ALL PERSONS ENTERING THE ORMOND BEACH POLICE STATION PROPERTY MUST BE CJIS CERTIFIED. THIS WILL BE COORDINATED WITH THE POLICE DEPARTMENT PERSONNEL PRIOR TO THE START OF ANY WORK.

The Specification Divisions and Drawings are an integrated part of the Contract Documents and as such will not stand alone if used independently as individual Sections, Divisions or Drawings sheets.

The Specifications and Drawings establish minimum standards of quality for this project. They do not purport to cover all details entering into the design and construction of materials or equipment.

The CONTRACTOR is advised that the equipment arrangements as shown on the drawings may vary with different manufacturers and the CONTRACTOR is responsible at no cost to the OWNER for making the changes necessary to accommodate the specific equipment installed.

Omission of a specific item or component part of a system obviously necessary for the proper functioning of the system shall not relieve the CONTRACTOR of the responsibility of furnishing the item as part of the work at no additional cost to the OWNER.

Contracts:

Construct work under a single, lump sum price contract.

1.02 QUALITY ASSURANCE

Laws and Regulations:

The CONTRACTOR shall give all notices and comply with all laws, ordinances, rules and regulations applicable to the work. If the CONTRACTOR observes that the Specifications or Drawings are at variance therewith, the CONTRACTOR shall give the ENGINEER prompt written notice thereof, and any necessary changes shall be adjusted by an appropriate modification. If the CONTRACTOR performs any work knowing or having reason to know that it is contrary to such

laws, ordinances, rules and regulations, and without such notice to ENGINEER, the CONTRACTOR shall bear all costs arising therefrom; however, it shall not be the CONTRACTOR's primary responsibility to make certain that the Specifications and Drawings are in accordance with such laws, ordinances, rules and regulations.

1.03 JOB CONDITIONS

Taxes:

The CONTRACTOR shall pay all sales, consumer, use and other similar taxes required to be paid by him in accordance with the law of the place of the project.

Permits and Business Tax Receipts:

The CONTRACTOR shall obtain and pay for all construction permits and business tax receipts. The OWNER shall assist the CONTRACTOR, when necessary, in obtaining such permits and business tax receipts. The CONTRACTOR shall provide OWNER with copies of all permits prior to commencing work.

The CONTRACTOR shall pay all charges of utility service companies for connections to the work, and the OWNER shall pay all charges of such companies for capital costs related thereto.

It shall be the responsibility of the CONTRACTOR to verify the existence of all necessary permits and business tax receipts prior to the start of work. The OWNER will obtain permits involving interagency agreements, i.e., State Highway Crossing Permits, Railroad Crossing Permits, and similar permits.

Fees for building permits and impact fees are the responsibility of CONTRACTOR.

The CONTRACTOR and each Subcontractor must be Registered with Volusia County or with the City of Ormond Beach. Requirements for registering a business are as follows:

STATE CERTIFIED CONTRACTORS

1. Register with Volusia County Contractor Licensing (386-248-8158)

OR

2. Provide City with:
 - Copy of local business tax receipt (where your business is located)
 - Copy of State License (if applicable)
 - Certificate of Insurance

For additional information regarding registration, permits or business tax receipts, please call: (386) 676-3233

Labor, Materials and Equipment:

The CONTRACTOR shall provide competent, suitably qualified personnel to survey and lay out the work and perform construction as required by the Contract Documents. The CONTRACTOR shall at all times maintain good discipline and order at the site. Except in connection with the safety or

protection of persons or the work or property at the site or adjacent thereto, and except as otherwise indicated in the Supplementary Conditions, all work at the site shall be performed during regular working hours, and the CONTRACTOR will not permit overtime work or the performance of work on Saturday, Sunday or any legal holiday without the OWNER's written consent given after prior written notice to the ENGINEER.

Unless otherwise shown, the CONTRACTOR shall furnish all materials, equipment, labor transportation, construction equipment and machinery, tools, appliances, fuel, power, light, heat, telephone, water and sanitary facilities and all other facilities and incidentals necessary for the execution, testing, initial operation and completion of the work.

The CONTRACTOR shall be responsible for all materials furnished by him and shall replace at his own expense all such material found to be defective in manufacture or damaged in handling. This shall include the furnishing of all material and labor required for the replacement of installed material discovered defective prior to the final acceptance of the work.

Contractor Use of Premises:

The CONTRACTOR shall confine construction equipment, the storage of materials and equipment and the operations of workmen to areas permitted by law, ordinances, permits or the requirements of the Contract Documents, and shall not unreasonably encumber the premises with construction equipment or other materials or equipment.

The CONTRACTOR shall not enter upon private property for any purpose without first securing the permission of the property owner in writing and furnishing the ENGINEER with a copy of said permission. This requirement will be strictly enforced, particularly with regard to such vacant properties as may be utilized for material storage.

The CONTRACTOR shall conduct his work in such a manner as to avoid damage to adjacent private or public property. Any damage to existing structures or work of any kind, including permanent reference markers or property corner markers, or the interruption of utility service, shall be repaired or restored promptly at no additional expense to the OWNER.

The CONTRACTOR shall preserve and protect all existing vegetation such as trees, shrubs and grass on or adjacent to the site which do not reasonably interfere with the construction, as determined by the ENGINEER. The CONTRACTOR will be responsible for all unauthorized cutting or damaging of trees and shrubs, including damage due to careless operation of equipment, stockpiling of materials or tracking of grass by equipment. The CONTRACTOR will be liable for, or will be required to replace or restore at no additional expense to the OWNER, all vegetation not protected or preserved as required herein that may be destroyed or damaged.

The CONTRACTOR will not be required to move or remove any utilities except as specifically required by the Drawings and Specifications.

During the progress of the work, the CONTRACTOR shall keep the premises free from accumulations of waste materials, rubbish and other debris resulting from work. At the completion of the work, the CONTRACTOR shall remove all waste materials, rubbish and debris from and about the premises as well as all tools, appliances, construction equipment and machinery, and surplus materials, and shall leave the site clean and ready for occupancy by the OWNER. The

CONTRACTOR shall restore to their original condition those portions of the site not designated for alteration by the Contract Documents.

The CONTRACTOR shall not load nor permit any part of any structure to be loaded in any manner that will endanger the structure, nor shall the CONTRACTOR subject any part of the work or adjacent property to stresses or pressures that will endanger it.

Subsurface Reports:

None.

Notification of Construction:

The CONTRACTOR shall notify, in writing, all residents and businesses adjacent to the project work area of pending construction no later than 48 hours prior to commencement of actual construction. Copies of the written Notice shall be provided to the ENGINEER for approval of wording prior to public distribution.

Notification of Street Closure:

The CONTRACTOR is required to obtain permission from the City Engineer prior to initiating street closures.

In the event a street closure is required, the CONTRACTOR shall notify, in writing, all emergency services and agencies, residents and businesses directly effected by any partial or full street closure caused by the construction no later than 48 hours prior to actual closure.

Below is a list of the agencies that are required to be notified in the event of a street closure:

<u>Agency:</u>	<u>Contact phone number:</u>
EVAC Ambulance Service	(386) 252-4911
Ormond Beach City Hall	(386) 677-0311
Ormond Beach Fire Dept. Administration	(386) 676-3255
Ormond Beach Police Dept. Dispatch	(386) 676-3508
Ormond Beach Public Works Department	(386) 676-3220
Ormond Beach Postmaster (US Postal Service)	(386) 676-0693
Volusia County School Board - Transportation	(386) 258-4677
Volusia County VOTRAN	(386) 756-7496

If a **County** or **State Road** is to be closed, add the following agencies to the list:

Volusia County Department of Public Works	(386) 239-6535
Volusia County Emergency Management	(386) 254-1500
Volusia County Fire Services	(386) 254-4657
Florida Highway Patrol Dispatch	(407) 737-2200

If the closure will last longer than 5 days, the CONTRACTOR shall also notify the general public of such closures by placing an advertisement in the "Area" section of the local newspaper no later

than 48 hours prior to the closure. The advertisement shall include information describing the extent of the closure (i.e. between which streets; detour routes, etc.), the date the closure will begin, and estimated date the road will be reopened. Provide a copy of the proposed notification, for approval by the ENGINEER, before placing the advertisement.

The CONTRACTOR shall maintain full compliance with the traffic regulations found in Paragraph 1.06, Section 01500 of this Contract.

Contractor's Hours of Operation:

Except in the event of an emergency, no work shall be done between the hours of 7:00 P.M. and 7:00 A.M., or on Saturdays and Sundays. If the proper and efficient execution of the work requires operations during the night or on week-ends, the written permission of the ENGINEER shall be obtained prior to starting such items of the work.

PART 2 - PRODUCTS

(Not Applicable)

PART 3 - EXECUTION

(Not Applicable)

END OF SECTION

SECTION 01025 MEASUREMENT AND PAYMENT

PART 1 - GENERAL

1.01 DESCRIPTION OF WORK

This section defines the method which will be used to determine the quantities of work performed or materials supplied and establishes the basis upon which payment will be made.

1.02 ESTIMATED QUANTITIES

Where quantities are shown they are approximate and are given only as a basis of calculation upon which the award of the Contract is to be made. OWNER or ENGINEER do not assume any responsibility that the final quantities, nor shall CONTRACTOR claim misunderstanding because of such estimate of quantities. Final payment will be made only for the satisfactorily completed quantity of each item.

1.03 MEASUREMENT STANDARDS

All work completed under the Contract shall be measured according to United States Standard Methods.

1.04 METHOD OF MEASUREMENT

Measurement of Length:

Unless otherwise specified for the particular items involved, all measurements of distance for items to be paid for on the basis of length shall be taken horizontally or vertically.

Measurement of Area:

In the measurement of items paid for on the basis of area of finished work, the lengths and/or widths to be used in the calculations shall be the actual dimensions measured along the surface of the completed work within the neat lines shown or designated. At intersections, the measurement used for length of side area will be measured from the outside edge of the width allowed along the main trench.

1.05 PAYMENT

Lump Sum Items:

Where payment for items is shown to be paid for on a lump sum basis, no separate payment will be made for any item of work required to complete the lump sum item within the limits of work shown or specified.

Unit Price Items:

Where payment for items is shown to be paid for on a unit price basis, separate payment will be made for the items of work described herein and listed on the Bid Form. Any related work not specifically listed, but required for satisfactory completion of the work, shall be considered to be included in the scope of the appropriate listed work items.

1.06 COSTS INCLUDED IN PAYMENT ITEMS

No separate payment will be made for the following items and the cost of such work shall be included in the applicable pay items of work.

- Clearing and grubbing (including disposal of material).
- Trench excavation, including necessary pavement removal and removal of vegetative surfaces.
- Dewatering and disposal of surplus water.
- Structural fill, backfill, and grading.
- Replacement of unpaved roadways, grass and shrubbery plots.
- Cleanup.
- Foundation and borrow materials, except as hereinafter specified.
- Testing and placing system in operation.
- Any material and equipment required to be installed and utilized for tests.
- Pipe, structures, pavement replacement, restoration and/or appurtenances included within the limits of lump sum work, unless otherwise shown.
- Maintaining or detouring of the traffic.
- Appurtenant work as required for a complete and operable system.
- Surface restoration including removal and replacement of trees (under 4-inch diameter), shrubs, and sod disturbed by construction activities.
- Relocation and/or replacement of irrigation systems disturbed by construction.
- Relocation and/or replacement of mail boxes disturbed by construction.
- Furnishing adequate sanitary facilities for workers.
- Adjustment of valve boxes.
- Supporting of existing utilities during construction

Cleanup:

CONTRACTOR's attention is called to the fact that cleanup is considered a part of the work of construction. No payment will be made until cleanup is essentially complete.

At the end of each week of construction, the CONTRACTOR shall perform cleaning of the work site, to the satisfaction of the Owner, before proceeding to the next week's scheduled work.

Work Outside Authorized Limits:

No payment will be made for work constructed outside the authorized limits of work.

1.07 APPLICATIONS FOR PAYMENT

Applications for payment shall be prepared by the CONTRACTOR and submitted to the ENGINEER in accordance with the schedule established by the Conditions of the Contract and the Agreement. The applications for payment shall be submitted in the number and form established by the ENGINEER at the Preconstruction Conference. The form shall be completely

filled out and executed by an authorized representative of the CONTRACTOR. Supporting data such as schedules of stored materials shall be attached to each copy of the application.

1.08 CHANGE ORDER PROCEDURE

As defined in the General Conditions, a Change Order is a written order to the CONTRACTOR signed by the OWNER authorizing an addition, deletion or revision in the Work, or an adjustment in the Contract Price or the Contract Time which is issued after the execution of the Agreement.

The following procedure shall be used in processing Change Orders:

For Additions to the Work:

The OWNER shall issue a written order to the CONTRACTOR directing him to accomplish the additional work. The CONTRACTOR shall review the order and if he feels that the additional work entitles him to additional payment or additional time, he may submit a claim as prescribed in the Conditions of the Contract.

For Deletions From the Work:

The OWNER shall issue a written order to the CONTRACTOR directing him to make the change. If the OWNER feels that the Contract price should be reduced as a result of the change, the OWNER shall make a claim for the reduction as provided in the Conditions of the Contract.

Cost of the changes in the work shall be determined in accordance with the requirements spelled out in the Conditions of the Contract. Modifications to incorporate the changes in cost will be made as the amount of any change is determined.

PART 2 - PRODUCTS

(Not Applicable)

PART 3 - EXECUTION

3.01 BID ITEMS

Bid Item No. 1 Mobilization/Demobilization

Definition. Mobilization shall be the preparatory work and operations in mobilizing for beginning work on the project, including, but not limited to, those operations necessary for the movement of personnel, equipment, supplies and incidentals to the project site, and for the establishment of temporary offices, buildings, safety equipment and first aid supplies, sanitary and other facilities, as required by the Contract Documents and applicable laws and regulations. The cost of bonds, required insurance, permits and any other preconstruction expense necessary for the start of work, excluding the cost of construction materials, shall also be included in this item. Demobilization shall be the work of removing temporary facilities from the site.

Payment. Partial payments for this item will be made in accordance with the following schedule:

<u>Percent of Original Contract Amount Earned</u>	<u>Allowable Percent of the Lump Sum Price for the Item</u>
Contract Approval	25
10	50
25	75
50	100

These payments will be subject to the standard retainage provided in the agreement. Payment of the retainage will be made after successful completion of the work and demobilization.

Bid Item No. 2 General Conditions

Payment for general conditions shall be made at the Contract lump sum price and shall include the CONTRACTOR's overhead costs related specifically to this Contract.

Bid Item No. 3 Indemnification

Payment for indemnification shall be made at the Contract lump sum price and shall be full compensation for providing indemnification in accordance with Article 5, Paragraph 5.4 and Article 6, Paragraph 6.15 and 6.16 of Section 00700 - General Conditions of the Construction Contract.

Bid Item No. 4 Demolition

Payment for demolition shall be made at the Contract lump sum price and shall be full compensation for disconnection and removal of materials and equipment as required in the Contract Documents.

Bid Item No. 5 Furnish and Install Chilled Water Pumps

Payment for furnish and install chilled water pumps shall be made at the Contract lump sum price and shall be full compensation for furnishing, installation, start-up, testing, and commissioning of the chilled water pumps, accessories, and related components as required in the Contract Documents.

Bid Item No. 6 Furnish and Install Chilled Water Treatment and Filtration

Payment for furnish and install chilled water treatment and filtration shall be made at the Contract lump sum price and shall be full compensation for furnishing, installation, start-up, testing, and commissioning of chilled water treatment and filtration, accessories, and related components as required in the Contract Documents.

Bid Item No. 7 **Furnish and Install Air Handler**

Payment for furnish and install air-handler shall be made at the Contract lump sum price and shall be full compensation for furnishing, installation, start-up, testing, and commissioning of the air handler, accessories, and related components as required in the Contract Documents.

Bid Item No. 8 **Furnish and Install Control Systems**

Payment for furnish and install control systems shall be made at the Contract lump sum price and shall be full compensation for furnishing, installation, start-up, testing, and commissioning of the control systems, accessories, and related components as required in the Contract Documents.

Bid Item No. 9 **Furnish and Install Temporary HVAC System**

Payment for furnish and install temporary HVAC system shall be made at the Contract lump sum price and shall be full compensation for furnishing, installation, start-up, testing, and commissioning of the temporary HVAC system, accessories, and related components as required in the Contract Documents.

Bid Item No. 10 **Disconnect and Remove Temporary HVAC System**

Payment for disconnect and remove temporary HVAC system shall be made at the Contract lump sum price and shall be full compensation for disconnection and removal from the site of the temporary HVAC system, accessories, and related components as required in the Contract Documents.

Bid Item No. 11 **Temporary HVAC System Rental Fee (Per Month)**

Payment for temporary HVAC system rental (per month) shall be made at the Contract unit price per month and shall be compensation for rental of the temporary HVAC system, accessories, and related components as required in the Contract Documents.

Bid Item No. 12 **Permit Fees and Allowances**

An allowance is established to reimburse costs associated with fees, inspections, and related expenses. This will be paid at actual cost. Allowance can also be used to fund Owner approved items at actual cost plus 10%. Allowances shall only be used based upon prior, written approval from the Owner and Engineer.

Additive Alternate Bid No. 1 **Remove and Replace VAV Controllers and Thermostats**

Payment for Additive Alternate #1, remove and replace VAV controllers and thermostats, shall be made at the Contract lump sum price and shall be full compensation for furnishing, installation, start-up, testing, and commissioning of ALL 28 VAV controllers and thermostats, wiring, accessories, and related components as required in the Contract Documents.

Additive Alternate Bid No. 2**Remove and Replace VAV Boxes and Thermostats**

Payment for Additive Alternate #2, remove and replace VAV boxes and thermostats, shall be made at the Contract lump sum price and shall be full compensation for furnishing, installation, start-up, testing, and commissioning of ALL 28 VAV boxes and thermostats, wiring, accessories, and related components as required in the Contract Documents.

DUE TO THE FACT THAT THE BUILDING IS OCCUPIED DURING NORMAL BUSINESS HOURS, THE WORK REQUIRED TO COMPLETE ADDITIVE ALTERNATE BID NO. 2, REMOVE AND REPLACE VAV BOXES AND THERMOSTATS, IS REQUIRED TO BE DONE DURING NIGHTTIME HOURS BETWEEN 5:00 PM AND 7:00 AM MONDAY THROUGH FRIDAY. AT THE COMPLETION OF WORK EVERY DAY, THE CONTRACTOR WILL CLEAN AND RETURN THE WORK AREA TO THE SAME CONDITION IT WAS IN PRIOR TO THE START OF WORK.

END OF SECTION

SECTION 01027
APPLICATIONS FOR PAYMENT

PART 1 – GENERAL

1.01 FORMAT AND DATA REQUIRED

- A. Coordinate the Schedule of Values and Applications for Payment with the CONTRACTOR'S Construction Schedule, Submittal Schedule, and List of Subcontracts.
- B. Schedule of Values: Coordinate preparation of the Schedule of Values with preparation of the CONTRACTOR'S Construction Schedule.
- C. Correlate line items in the Schedule of Values with other required administrative schedules and forms, including:
 - 1. CONTRACTOR'S Construction Schedule.
 - 2. Application for Payment forms, including Continuation Sheets.
 - 3. List of subcontractors.
 - 4. List of products.
 - 5. List of principal suppliers and fabricators.
 - 6. Schedule of submittals.
- D. Submit the Schedule of Values at the earliest possible date but no later than 7 days before the date scheduled for submittal of the initial Applications for Payment.
- E. Format and Content: Use the Project Manual table of contents as a guide to establish the format for the Schedule of Values. Provide at least one line item for each Specification Section.
- F. Include the following Project identification:
 - 1. Project name and location.
 - 2. Name of ENGINEER.
 - 3. Project number.
 - 4. CONTRACTOR'S name and address.
 - 5. Date of submittal.
- G. Arrange the Schedule of Values in tabular form with separate columns to indicate the following for each item listed:
 - 1. Related Specification Section or Division.
 - 2. Description of Work.

3. Name of subcontractor.
 4. Change Orders (numbers) that affect value.
 5. Dollar value.
 6. Percentage of Contract Sum to nearest one-hundredth percent, adjusted to total 100 percent.
- H. Provide a breakdown of the Contract Sum in sufficient detail to facilitate evaluation of Applications for Payment. Break subcontract amounts down into several line items. Round amounts to nearest whole dollar; the total shall equal the Contract Sum.
- I. Update and resubmit the Schedule of Values when Change Orders or Construction Change Directives change the Contract Sum.
- J. Applications for Payment shall be consistent with previous applications and payments as certified by the ENGINEER and paid for by the OWNER.
- K. Payment Application Times: Payment dates are indicated in the Agreement. The period covered by each application is the period indicated in the Agreement.
- L. Payment Application Forms: Use AIA Document G702 and Continuation Sheets G703 as the form for Applications for Payment.
- M. Application Preparation: Complete every entry, including notarization and execution by a person authorized to sign on behalf of the CONTRACTOR. The ENGINEER will return incomplete applications without action.
1. Entries shall match data on the Schedule of Values and the Contractor's Construction Schedule. Use updated schedules if revisions were made.
 2. Include amounts of Change Orders and Construction Change Directives issued prior to the last day of the construction period covered by the application.
- N. Transmittal: Submit 3 executed original copies of each Application for Payment to the ENGINEER within 24 hours. One copy shall be complete, including waivers of lien and similar attachments.
1. Transmit each copy with a transmittal listing attachments and recording appropriate information related to the application.
- O. Waivers of Mechanics Lien: With each Application for Payment, submit waivers of lien from every entity who may file a lien arising out of the Contract and related to the Work covered by the previous payment.

1.02 INITIAL APPLICATION FOR PAYMENT

- A. Administrative actions and submittals that must precede or coincide with submittal of the first Application for Payment include the following:
1. List of subcontractors.
 2. List of principal suppliers and fabricators.
 3. Schedule of Values.
 4. CONTRACTOR'S Construction Schedule (preliminary if not final).
 5. Submittal Schedule (preliminary if not final).
 6. List of CONTRACTOR'S staff assignments.
 7. Copies of building permits.
 8. Copies of licenses from governing authorities.
 9. Certificates of insurance and insurance policies.
 10. Performance and payment bonds.

1.03 SUBSTANTIATING DATA FOR PROGRESS PAYMENTS

- A. When the OWNER requires substantiating data, CONTRACTOR shall submit suitable information, with a cover letter identifying:
1. Project.
 2. Application number and date.
 3. Detailed list of enclosures.
 4. For stored products:
 - a. Item number and identification as shown on application.
 - b. Description of specific material.
- B. Submit one (1) copy of data and cover letter for each copy of application.
- C. Submit requisite number of photographs with each application.
- D. List the name and address of all Subcontractors and Suppliers who have performed work or provided supplies or material for each application.
- E. Submit certified payroll sheets for CONTRACTOR'S forces and all Subcontractors for the month preceding the submitted application.
- F. Submit revised monthly progress schedules with each month's Application for Payment, including cash flow projections.
- G. The CONTRACTOR is to maintain an updated set of drawings to be used as record drawings in accordance with the Contract Documents. AS A PREREQUISITE FOR PAYMENT OF MONTHLY PROGRESS PAYMENTS, THE CONTRACTOR IS TO EXHIBIT THE UPDATED RECORD DRAWINGS FOR REVIEW BY THE

OWNER.

1.04 APPLICATION FOR PAYMENT AT SUBSTANTIAL COMPLETION

- A. Following issuance of the Certificate of Substantial Completion, submit an Application for Payment. This application shall reflect Certificates of Partial Substantial Completion issued previously for OWNER occupancy of designated portions of the Work.
- B. Administrative actions and submittals that shall precede or coincide with this application include the following:
 - 1. Occupancy permits.
 - 2. Warranties and maintenance agreements.
 - 3. Test/adjust/balance records.
 - 4. Maintenance instructions.
 - 5. Meter readings.
 - 6. Changeover information related to OWNER'S occupancy.
 - 7. Final cleaning.
 - 8. Application for reduction of retainage and consent of surety.

1.05 FINAL PAYMENT APPLICATION

- A. Administrative actions and submittals that must precede or coincide with submittal of the final Application for Payment include the following:
 - 1. Completion of Project closeout requirements and submittals including As-Built Survey.
 - 2. Completion of items specified for completion after Substantial Completion.
 - 3. Transmittal of Project construction records to the OWNER.
 - 4. Certified property survey.
 - 5. Proof that taxes, fees, and similar obligations were paid.
 - 6. Removal of temporary facilities and services.
 - 7. Change of door locks to OWNER'S access.

PART 2 – PRODUCTS

(Not Applicable)

PART 3 – EXECUTION

(Not Applicable)

END OF SECTION

SECTION 01040 COORDINATION

PART 1 - GENERAL

1.01 PROJECT COORDINATION

A. The Contractor shall provide for the complete coordination of the construction efforts. This shall include, but not necessarily be limited to, coordination of the following:

1. the work of subcontractors
2. the flow of material and equipment from suppliers
3. the interrelated work with public utilities companies
4. the interrelated work with the Owner where tie-ins to existing facilities are required
5. the effort of independent testing agencies.

B. The Contractor will be allowed the widest practicable latitude in establishing his work plan. Contractor shall submit a plan of work to Owner and Engineer.

1.02 CUTTING AND PATCHING

A. The Contractor shall do all cutting, fitting and patching of his work that may be required to make its several parts come together properly and integrate with such other work. The Contractor shall not endanger any work of others by cutting, excavating or otherwise altering their work and will only cut or alter their work with the written consent of the Engineer and the others whose work will be affected.

PART 2 - MATERIALS AND EQUIPMENT

(Not Applicable)

PART 3 - EXECUTION

(Not Applicable)

END OF SECTION

SECTION 01050 FIELD ENGINEERING

PART 1 - GENERAL

1.01 DESCRIPTION OF WORK

The Contractor shall provide and pay for field engineering service required for the project. Such work shall include survey work to establish lines and levels and to locate and lay out site improvements, structures, and controlling lines and levels required for the construction of the work. Also included are such Engineering services as are specified or required to execute the Contractor's construction methods. Engineers and Surveyors shall be licensed professionals under the laws of the state where the project is located.

1.02 GRADES, LINES AND LEVELS

Existing basic horizontal and vertical control points for the project are those designated on the Drawings. The Contractor shall locate and protect control points prior to starting site work and shall preserve all permanent reference points prior to starting site work and shall preserve all permanent reference points during construction. In working near any permanent property corners or reference markers, the Contractor shall use care not to remove or disturb any such markers. In the event that markers must be removed or are disturbed due to the proximity of the construction work, the Contractor shall have them referenced and reset by a Land Surveyor qualified under the laws of the state of the project.

1.03 LAYOUT DATA

The Contractor shall lay out the work at the location and to the lines and grades shown on the Drawings. Survey notes indicating the information and measurements used in establishing locations and grades shall be kept and furnished with the record drawings for the project.

PART 2 - PRODUCTS

(Not Applicable)

PART 3 - EXECUTION

(Not Applicable)

END OF SECTION

01050-1

**SECTION 01065
PERMITS AND FEES**

PART 1 – GENERAL

1.01 DESCRIPTION

- A. Scope of Work: Obtain and pay for all permits and licenses including, but not limited to, all construction and Right-of-Way utilization permits.
- B. Permits by CONTRACTOR: CONTRACTOR will apply for and CONTRACTOR will pay for the following permits:

City of Ormond Beach Building Permit.
- C. Permits by CONTRACTOR: CONTRACTOR will apply for and CONTRACTOR will pay for the following permits:

N/A
- D. Permits by OWNER: The OWNER has applied and paid for the following permits:

N/A
- E. Copies of the permits obtained by the OWNER are attached as an Appendix or will be distributed at the Pre-Construction Conference.

PART 2 – PRODUCTS (NOT USED)

PART 3 – EXECUTION (NOT USED)

END OF SECTION

SECTION 01091 REFERENCE SPECIFICATIONS

PART 1 - GENERAL

1.01 DESCRIPTION

- A. Applicable Publications. Whenever in these Specifications references are made to published specifications, codes, standards, or other requirements, it shall be understood that wherever no date is specified, only the latest specifications, standards, or requirements of the respective issuing agencies which have been published as of the date that the Work is advertised for bids, shall apply; except to the extent that said standards or requirements may be in conflict with applicable laws, ordinances, or governing codes. No requirements set forth herein or shown on the Drawings shall be waived because of any provision of or omission from said standards or requirements.
- B. Assignment of Specialists. In certain instances, specification test requires (or implies) that specific work is to be assigned to specialist or expert entities who must be engaged for the performance of the Work. Such assignments shall be recognized as special requirements over which the Contractor has no choice or option. These requirements shall not be interpreted so as to conflict with the enforcement of building codes and similar regulations governing the Work. They are not intended to interfere with local union jurisdiction settlements and similar conventions. Such assignments are intended to establish which party or entity involved in a specific unit of Work is recognized as "expert" for the indicated construction processes or operations. Nevertheless, the final responsibility for fulfillment of the entire set of Contract requirements remains with the Contractor.

1.02 REFERENCE SPECIFICATIONS, CODES, AND STANDARDS

- A. Without limiting the generality of other requirements of the Specifications, all Work specified herein shall conform to or exceed the requirements of such referenced documents which are not in conflict with the requirements of these Specifications or applicable codes.
- B. References herein to "Building Code" shall mean the Southern Standard Building Code (SSBC) of the Southern Building Code Congress (SBCC). The latest edition of the code as approved and used by the local agency as of the date of award as adopted by the agency having jurisdiction shall apply to the Work herein, including all addenda, modifications, amendments, or other lawful changes thereto.
- C. In case of conflict between codes, reference standards, Drawings, and the other Contract Documents, the most stringent requirements shall govern. All conflicts shall be brought to the attention of the Engineer for clarification and directions prior to ordering or providing any materials or labor. The Contractor shall bid the most stringent requirements.
- D. Applicable Standard Specifications. The Contractor shall construct the Work specified herein in accordance with the requirements of the Contract Documents and

the referenced portions of those referenced codes, standards, and specifications listed.

PART II - PRODUCTS (Not Used)

PART III - EXECUTION (Not Used)

END OF SECTION

01091-2

SECTION 01200 PROJECT MEETINGS

PART 1 - GENERAL

1.01 DESCRIPTION OF WORK

Project meetings shall be scheduled as needed throughout the progress of the work. Those responsible for scheduling the meetings shall prepare the agenda, distribute written notice of each meeting not less than four days in advance of the meeting date, make physical arrangements for the meeting, preside at the meeting, record the minutes (include all significant proceedings and decisions), and reproduce and distribute copies of the minutes to all participants, all parties affected by decisions made, and the Engineer.

Representatives attending the meetings shall be qualified and authorized to act on behalf of the entities they represent.

1.02 PRE CONSTRUCTION CONFERENCE

Before the Contractor starts the work at the site, the Engineer will schedule a preconstruction conference which will be held for review and acceptance of the schedules referred to in Section 01300, to establish procedures for handling shop drawings and other submittals and for processing Applications for Payment, and to establish a working understanding among the parties as to the work.

The date for the start of construction shall be established at this conference.

PART 2 - PRODUCTS (Not Applicable)

PART 3 - EXECUTION (Not Applicable)

END OF SECTION

01200-1

SECTION 01300 SUBMITTALS

PART 1 - GENERAL

1.01 DESCRIPTION OF REQUIREMENTS

The type of submittal requirements specified in this section include the following:

- Progress Schedules and Reports
- Product Data
- Shop Drawings
- Manufacturer's Data
- Miscellaneous

Submittals shall be clear and legible, printed or typed. Submittals received that are not so, shall be returned to be resubmitted when in legible form.

1.02 PROGRESS SCHEDULES AND REPORTS

Within 10 days after the effective date of the Agreement, the Contractor shall submit to the Engineer for review and acceptance an estimated progress schedule indicating the starting and completion dates of the various stages of the work, a preliminary schedule of shop drawing submissions, and a preliminary schedule of values of the work. Include subschedules of related activities which are essential to its progress.

Revised schedules shall be submitted periodically as changes become apparent.

Unless other format or use of a network analysis system is required, schedules shall be prepared in the form of a horizontal bar chart. A separate horizontal bar shall be provided for each trade or operation. The first work day of each week shall be identified on the horizontal time scale. Scale and spacing will be such as to allow space for notations and revisions.

Schedules shall show the complete sequence of construction by activity with dates for the beginning and completion of each major element of construction. Projected percentage of completion for each item as of the first day of each month shall be shown.

Progress Reports:

The Contractor shall prepare and submit a monthly progress report. The report shall indicate the progress at the date of submission of each activity shown on his progress schedule. It shall show changes occurring since previous submissions, activities modified since previous submissions, and revised projections of progress and completion. The submittal shall include a narrative report to define: problem areas, anticipated delays, and the impact on the schedule, and corrective action recommended and its effect.

1.03 PRODUCT DATA (Shop Drawings and Manufacturer's Data)

The Contractor shall prepare and submit to the Engineer a schedule of the shop drawings, product data and samples which are required for the work together with anticipated submittal time. Any drawings which require critical timing for maintaining delivery or construction schedules shall be so noted. Shop drawing submittal schedule shall be coordinated with the requirements of construction progress schedules.

Those submittals required under various sections of the specifications, but not listed on the Contract Submittal List shall be submitted as "RECORD SUBMITTALS" and given to the Engineer along with the Record Drawings as specified in Section 01700 - Contract Closeout.

Product data submitted for substitutions shall be handled as specified in Section 01630 - Substitutions and Product Options.

Definitions:

Work-related submittals of this section are categorized for convenience as follows:

Shop drawings include specially-prepared technical data for this project, including drawings, diagrams, performance curves, data sheets, schedules, templates, patterns, reports, calculations, instructions, measurements and similar information not in standard printed form for general application to several projects.

Product data include standard printed information on materials, products and systems; not specially-prepared for this project, other than the designation of selections from among available choices printed in the information.

Miscellaneous submittals related directly to the work (non-administrative) include warranties, maintenance agreements, workmanship bonds, project photographs, survey data and reports, physical work records, quality testing and certifying reports, copies of industry standard, record drawings, field measurement data, operating and maintenance materials, overrun stock, and similar information, devices and materials applicable to the work and not processed as shop drawings, product data or samples.

1.04 GENERAL SUBMITTAL REQUIREMENTS

After checking and verifying all field measurements, the Contractor shall submit to the Engineer for review and approval, in accordance with the accepted schedule of shop drawing submissions, five copies of all shop drawings, which shall have been checked by and stamped with the approval of the Contractor and identified as the Engineer may require. The data shown on the shop drawings will be complete with respect to dimensions, design criteria, materials of construction and like information to enable the Engineer to review the information as required.

The Contractor shall also submit to the Engineer for review and approval with such promptness as to cause no delay in work, all samples required by the Contract Documents. All samples will have

been checked by and stamped with the approval of the Contractor, identified clearly as to material, manufacturer, and pertinent catalog numbers and the use for which intended. At the time of each submission, the Contractor shall, in writing, call the Engineer's attention to any deviations that the shop drawings or samples may have from the requirements of the Contract Documents.

The Engineer will review and approve with reasonable promptness shop drawings and samples, but the Engineer's review and approval shall be only for conformance with the design concept of the project and for compliance with the information given in the Contract Documents and shall not extend to means, methods, sequences, techniques or procedures of construction or to safety precautions or programs incident to the work. The review and approval of a separate item as such will not indicate approval of the assembly in which the item functions. The Contractor shall make any corrections required by the Engineer and shall return the required number of corrected copies of shop drawings and resubmit new samples for review and approval. The Contractor shall direct specific attention, in writing, to revisions other than the corrections called for by the Engineer on previous submittals. The Contractor's stamp of approval on any shop drawing or sample shall constitute a representation to the Owner and the Engineer that the Contractor has either determined and verified all quantities, dimension, field construction criteria, materials, catalog numbers, and similar data or assumes full responsibility for doing so, and that the Contractor has reviewed or coordinated each shop drawing or sample with the requirements of the work and the Contract Documents.

Where a shop drawing or sample is required by the Specifications, no related work shall be commenced until the submittal has been reviewed and approved by the Engineer.

The Engineer's review and approval of shop drawings or samples shall not relieve the Contractor from responsibility for any deviations from the Contract Documents unless the Contractor has in writing called the Engineer's attention to such deviations at the time of submission and the Engineer has given written concurrence and approval to the specific deviation, nor shall any concurrence or approval by the Engineer relieve the Contractor from responsibility for errors or omissions in the shop drawings.

Systems to be submitted in the shop drawing submittal shall include but not necessarily be limited to:

1. Each item of equipment and/or materials listed in the project equipment and material schedules;

Certifications:

Whenever a standard of quality is established by a reference specification, the Contractor shall submit a certificate by the manufacturer that the material supplied meets the requirements of both the project and reference specification.

Schedule of Values:

At least 10 days prior to submitting the first Application for a progress payment, the Contractor shall submit to the Engineer a schedule of values of the work. This schedule shall be satisfactory in form and substance to the Engineer. The schedule of values shall include quantities and unit prices

aggregating the contract price, and shall subdivide the work into component parts in sufficient detail to serve as the basis for progress payments during construction. Upon acceptance of the schedule of values by the Engineer, it shall be incorporated into a form of Application for Payment acceptable to the Engineer.

Where estimated quantities and unit prices are shown in the Bid Form as the basis of payment, the quantities shown in the Bid Form are approximate and are given only as a basis of calculation upon which the award of the contract is to be made. The Owner or Engineer do not assume any responsibility that the final quantities will remain in accordance with estimated quantities, nor shall the Contractor claim misunderstanding or deception because of such estimate of quantities. Final payment will be made on the basis of the actual completed quantities of each item.

PART 2 - PRODUCTS

(Not Applicable)

PART 3 - EXECUTION

(Not Applicable)

END OF SECTION

SECTION 01301
LOCATION, SCOPE AND SPECIAL REQUIREMENTS

PART 1 - GENERAL

- 1.01** The Contractor shall not have any right in property in any materials taken from any excavation and shall not remove any earth, sand or other material from the lines of the work before the excavation is refilled except upon direction of the Engineer. The provisions of this paragraph shall not be construed as relieving the Contractor of any kin of his obligations to remove and dispose of any of the material excavated, with or without rehandling, at his cost and expense as provided in these specifications.
- 1.02** From investigations, including surveys made at the site, it is assumed that physical conditions are approximately as indicated on the drawings, but the nature of the materials below the surface, the depth to satisfactory foundations, or the stability of beds or banks or quantity of groundwater are not guaranteed.
- 1.03** Where reference is made within these documents to government specifications, or those of well known organizations such as ASTM, ASA, ASME, etc., the latest editions shall be used, any or all references in these documents to earlier stated additions notwithstanding.
- 1.04** The Contractor shall take all necessary precautions to prevent damage to existing City utilities which are to remain in service during any of the construction operations. Should such utilities be damaged by the Contractor, he shall be required to replace, or repair same, to the satisfaction of the Engineer, at no additional cost to the Owner.
- 1.05** Certain information regarding the reputed presence, size, character, and location of existing underground structure, pipes and conduits has been shown on the contract drawings. The location of underground structures shown may be inaccurate and other obstructions than those shown may be encountered. The Contractor distinctly agrees that the Engineer and the Owner are not responsible for the correctness or sufficiency of the information given; that in no event is this information to be considered as a part of the Contract; that he shall have no claim for delay or extra compensation on account of incorrectness of information given; or claim for delay or extra compensation on account of incorrectness of information given; or on account of insufficiency or absence of information regarding obstructions either revealed or not revealed by the drawings; and that he shall have no claim for relief from any obligation or responsibility under this contract, in case the location, size or character of any pipe or other underground structure is encountered that is not shown on the drawings.
- 1.06** The City shall provide reference points as shown on the plans. Contractor shall be responsible for having a land surveyor registered in the State of Florida and approved by the Engineer lay out the work. Shall protect and preserve the established reference points and shall make no changes or relocations without the prior written approval of the Engineer, Contractor shall report to Engineer whenever such reference point is lost or destroyed or required location because of necessary changes in grades or locations. And the Contractor shall be responsible for replacement or relocation of such reference points by

professionally qualified personnel. Registered in the State of Florida and approved by the Engineer.

- 1.07** All dewatering and by pass pumping necessary to accomplish the work of this Contract shall be performed by the Contractor at no extra or additional cost to the Owner. Any permits required shall be the responsibility of the Contractor.
- 1.08** Examination of Contract Documents and Site. Before submitting a bid each Contractor must (a) examine the Contract Documents thoroughly. (b) visit the site to familiarize himself with local conditions that may in any manner affect cost, progress or performance of the work, (c) familiarize himself with federal, state and local laws, ordinances, rules and regulations that may in any manner affect cost, progress or performance of the work, and (d) study and carefully correlate Bidder's observations with the Contract Documents.
- 1.09** The Contractor will be required to maintain the flow of sewage at all times during the construction of the work of this Contract at no extra or additional cost to the Owner.
- 1.10** All unit pricing shall remain valid for the duration of the contract.
- 1.11** Florida Sales Tax on materials, as well as all other customary taxes on construction activities, shall be paid for by the Contractor at no additional expense to the Owner.
- 1.12** No thrust blocking shall be used unless specifically authorized by the Engineer. Restrained joint pipe fittings and joints shall be utilized unless otherwise shown.
- 1.13** Limitations on the Engineer's Responsibilities:
 - A. Neither the Engineer's authority to act under this Paragraph nor any decision made by him in good faith either to exercise or not exercise such authority shall give rise to any duty or responsibility of the Engineer to the Contractor, any Subcontractor, any of their agents or employees or any other person performing any of the work.
 - B. The Engineer will not be responsible for the construction means, methods, techniques, sequences or procedures, or the safety precautions and programs incident thereto, and he will not be responsible for the Contractor's failure to perform the work in accordance with the Contract Documents.
 - C. The Engineer will not be responsible for the acts or omissions of the Contractor, any subcontractors, or any of his or their agents or employees, or any other persons performing any of the work.
- 1.14** A construction trailer is not required for this project. The Contractor shall provide secure material storage for each site.

END OF SECTION

01301-2

SECTION 01340 SHOP DRAWINGS

PART 1 - GENERAL

1.01 REQUIREMENTS INCLUDED

A. The Contractor shall submit to the Engineer for review and approval, such working drawings, shop drawings, test reports and data on materials and equipment, and material samples materials list, certificates and affidavits as are required for the proper control of work, including but not limited to those working drawings, shop drawings, data and samples for materials and equipment specified elsewhere in the Specifications and in the Contract Drawings

B. Within twenty (20) calendar days after the Effective Date of the Agreement, the Contractor shall submit to the Engineer a complete materials list of preliminary data on items for which Shop Drawings are to be submitted. Included in this materials list shall be the names of all proposed manufacturers furnishing specified items. Review of this list by the Engineer shall in no way be expressed or implied relief to the Contractor from submitting complete Shop Drawings and providing material, equipment, etc., fully in accordance with the Specifications. This procedure is required in order to expedite final review of Shop Drawings.

C. The Contractor shall maintain an accurate updated submittal log and will bring this log to each scheduled progress meeting with the Owner and the Engineer. This log shall include the following items:

1. Submittal-Description and Number assigned.
2. Date to Engineer
3. Date returned to Contractor (from Engineer).
4. Status of Submittal (Approved, Approved as Noted, Not Approved/Resubmit).
5. Date of Re-submittal and Return (as applicable).
6. Date material release (for fabrication).
7. Projected date of fabrication.
8. Projected date of delivery to site.
9. Status of O&M manuals submitted.
10. Specification Section.
11. Drawings Sheet Number

- 1.01** From investigations, including surveys made at the site, it is assumed that physical conditions are approximately as indicated on the drawings, but the nature of the materials below the surface, the depth to satisfactory foundations, or the stability of beds or banks or quantity of groundwater are not guaranteed.
- 1.02** Where reference is made within these documents to government specifications, or those of well known organizations such as ASTM, ASA, ASME, etc., the latest editions shall be used, any or all references in these documents to earlier stated additions notwithstanding.
- 1.03** The Contractor shall take all necessary precautions to prevent damage to existing City utilities which are to remain in service during any of the construction operations. Should such utilities be damaged by the Contractor, he shall be required to replace, or repair same, to the satisfaction of the Engineer, at no additional cost to the Owner.
- 1.04** Certain information regarding the reputed presence, size, character, and location of existing underground structure, pipes and conduits has been shown on the contract drawings. The location of underground structures shown may be inaccurate and other obstructions than those shown may be encountered. The Contractor distinctly agrees that the Engineer and the Owner are not responsible for the correctness or sufficiency of the information given; that in no event is this information to be considered as a part of the Contract; that he shall have no claim for delay or extra compensation on account of incorrectness of information given; or claim for delay or extra compensation on account of incorrectness of information given; or on account of insufficiency or absence of information regarding obstructions either revealed or not revealed by the drawings; and that he shall have no claim for relief from any obligation or responsibility under this contract, in case the location, size or character of any pipe or other underground structure is encountered that is not shown on the drawings.
- 1.05** The City shall provide reference points as shown on the plans. Contractor shall be responsible for having a land surveyor registered in the State of Florida and approved by the Engineer lay out the work. Shall protect and preserve the established reference points and shall make no changes or relocations without the prior written approval of the Engineer, Contractor shall report to Engineer whenever such reference point is lost or destroyed or required location because of necessary changes in grades or locations. And the Contractor shall be responsible for replacement or relocation of such reference points by professionally qualified personnel. Registered in the State of Florida and approved by the Engineer.
- 1.06** All dewatering and by pass pumping necessary to accomplish the work of this Contract shall be performed by the Contractor at no extra or additional cost to the Owner. Any permits required shall be the responsibility of the Contractor.
- 1.07** Examination of Contract Documents and Site. Before submitting a bid each Contractor must (a) examine the Contract Documents thoroughly. (b) visit the site to familiarize himself with local conditions that may in any manner affect cost, progress or performance of the work, (c) familiarize himself with federal, state and local laws, ordinances, rules and

regulations that may in any manner affect cost, progress or performance of the work, and (d) study and carefully correlate Bidder's observations with the Contract Documents.

1.08 The Contractor will be required to maintain the flow of sewage at all times during the construction of the work of this Contract at no extra or additional cost to the Owner.

1.09 All unit pricing shall remain valid for the duration of the contract.

1.10 Florida Sales Tax on materials, as well as all other customary taxes on construction activities, shall be paid for by the Contractor at no additional expense to the Owner.

1.11 No thrust blocking shall be used unless specifically authorized by the Engineer. Restrained joint pipe fittings and joints shall be utilized unless otherwise shown.

1.12 Limitations on the Engineer's Responsibilities:

A. Neither the Engineer's authority to act under this Paragraph nor any decision made by him in good faith either to exercise or not exercise such authority shall give rise to any duty or responsibility of the Engineer to the Contractor, any Subcontractor, any of their agents or employees or any other person performing any of the work.

B. The Engineer will not be responsible for the construction means, methods, techniques, sequences or procedures, or the safety precautions and programs incident thereto, and he will not be responsible for the Contractor's failure to perform the work in accordance with the Contract Documents.

C. The Engineer will not be responsible for the acts or omissions of the Contractor, any subcontractors, or any of his or their agents or employees, or any other persons performing any of the work.

1.13 A construction trailer is not required for this project. The Contractor shall provide secure material storage for each site.

END OF SECTION

SECTION 01380
CONSTRUCTION PHOTOGRAPHS

PART 1 - GENERAL

1.01 SCOPE OF WORK

- A. Scope of Work: The Contractor shall employ a competent photographer to take construction record photographs and video recording prior to start of work and periodically during the course of the Work.
- B. Related Requirements Described Elsewhere:
 - 1. Project Requirements: Section 01000
 - 2. Summary of Work: Section 01010
 - 3. Location, Scope and Special Requirements: Section 01300
 - 4. Project Record Documents: Section 01720

1.02 PHOTOGRAPHY REQUIRED

- A. Digital photographs shall be taken in conformance with this Section shall be furnished to the Engineer with each pay request. Failure to comply will result in rejection of pay request.
- B. Digital photographs shall be taken at each of the major stages of construction and as directed by the Engineer.
- C. Digital photographs may be taken by the Contractor's personnel but must be of professional quality as herein specified. Photographs which are deemed unsatisfactory will be rejected and retakes will be required.
- D. Views and Quantities Required:
 - 1. Contractor shall supply Digital pictures on a minimum 4 GB USB Flash Drive. One (1) view of each activity, as directed by the Resident Project Representative, up to a limit of ten activities photographed per month.
 - 2. One (1) Digital picture of five (5) views of overall Project site monthly including any change of condition, any structural changes, relocation, and all conflicts with utilities, as directed by the Resident Project Representative.
- E. Digital pictures shall contain and comply with the following:

1. The Contractor shall maintain all Digital copies of photos for the entire Project and then shall convey the disks to the Owner at the completion of the Project.
2. All disks shall be properly labeled with project name, project number, project start and end dates, Contractor's name, and Owner's name for which work was completed.
3. The photographer shall agree to furnish additional disks to Owner and the Engineer at commercial rates applicable at time of purchase.

1.03 COST OF PHOTOGRAPHY

- A. The Contractor shall pay costs for specified Digital photography and any required prints.

PART 2 - PRODUCTS

2.01 DIGITAL PHOTOGRAPH AND/OR PRINTS

- A. Type of Print (if required):

1. Paper: Single weight, color print paper.
2. Finish: Smooth surface, glossy.

Size: 4 inch x 6 inch for construction photos.

- B. Identify each photograph with the following (each print shall have information listed on back of each photograph and digital pictures shall have coordinating log sheet with information):

1. Name of project
2. Orientation of view
3. Date and time of exposure
4. Name and address of photographer
5. Each photograph shall be numbered in consecutive order.

Note: Digital prints shall be used to clarify as-builts.

PART 3 - EXECUTION

3.01 TECHNIQUE

- A. Factual Presentation.
- B. Correct exposure and focus.

1. High resolution and sharpness (minimum 800 DPI)
2. Maximum depth-of-field
3. Minimum distortion

3.02 VIEWS REQUIRED

- A. Digital photographs shall adequately illustrate condition of construction and state of progress.
 1. At successive periods of photography, take at least one digital photograph from the same overall view as previously photographed.
 2. Consult with the Engineer at each period of digital photography for instructions concerning views required.

3.03 DELIVERY OF PRINTS

- A. Deliver photographs, on USB Flash Drive with coordinating log, to the Engineer as attachment to Application for Payment. (Flash Drive will become property of Engineer and/or client)
- B. Distribution of construction photographs, as soon as processed, is anticipated to be as follows:
 1. Engineer one (1) set.
 2. Project record file one (1) set to be stored by Contractor until the end of the project which shall be delivered with Project Record Documents as specified in Section 01720).
 3. Contractor one (1) set.

PART 4 – CONSTRUCTION VIDEO RECORDING

4.01 SCOPE OF WORK

- A. Furnish all labor, materials and equipment to furnish color audio video recording of the project site as specified herein.
- B. Furnish to the Engineer an original and one copy of a continuous color audio video recording on DVD around the entire project site. The recording shall be taken prior to any construction activity.
- C. The Engineer reserves the right to reject the audio video recording because of poor quality, unintelligible audio or uncontrolled pan or zoom. Any DVD rejected by the Engineer shall be redone at no cost to the Owner. Under no circumstances shall

construction begin until the Engineer has received and accepted the audio video DVD(s).

- D. The recording shall be performed by a qualified, established audio video recording firm, knowledgeable in construction practices which have a minimum of one (1) year experience in the implementation of established inspection procedures.

4.02 COLOR AUDIO VIDEO SURVEY

- A. Complete coverage shall include all surface features located within the project site, easement areas, and adjacent private properties covering the extent of the project site to be utilized by the Contractor and will be supported by appropriate audio description made simultaneously with video coverage. Such coverage shall include, but not be limited to, all existing driveways, sidewalks, curbs, ditches, roadways including viaducts, landscaping, trees, culverts, headwalls, and retaining walls, and buildings located within the area. Video coverage shall extend to the maximum height of all structures within this zone.
- B. All recording shall be done during times of good visibility. No recording shall be done during periods of visible precipitation, or when more than ten percent of the ground area is covered with standing water, unless otherwise authorized by Owner.

4.03 AUDIO AND VIDEO

- A. Contractor shall furnish continuous color, audio-video DVD(s) of professional quality.
- B. Pre and post construction recording should be recorded on a DVD –R disk, 4.7 gigabits, recorded in SP mode (120 mins) or better (HQ,HSP), disk must be finalized with no editing of information and must be properly marked with date, location, contractors name, job site, and name of Videographer. The date and time stamp must be visible at all times on image and disk must be stored in an individual sleeve.
- C. Each DVD shall begin with the Owner's name, Contract name and number, Contractor's name, date and location information such as street name, direction of travel, viewing side, etc.
- D. Information appearing on the DVD must be continuous and run simultaneously by computer generated transparent digital information. No editing or overlaying of information at a later date will be acceptable.
- E. Digital information will be as follows:
 - 1. Upper left corner

- a) Name of Contractor
- b) Day, date and time
- c) Name of project

2. Lower left corner

- a) Route of travel
- b) Viewing side
- c) Direction of travel
- d) Stationing

- F. Time must be accurate and continuously generated.
- G. Engineering station numbers must be continuous, be accurate and correspond to project stationing. The symbols should be the standard engineering symbols (i.e. 16+64).
- H. Written documentation must coincide with the information on the DVD so as to make easy retrieval of location sought for at a later date.
- I. The video system shall have the capability to transfer individual frames of video electronically into hard copy prints or photography negatives.
- J. Audio shall be recorded at the same time as the video recording and shall have the same information as on the viewing screen. Special commentary will be given for unusual conditions of buildings, sidewalks and curbing, foundations, trees and shrubbery, etc.
- K. All DVDs and boxes shall bare labels with the following information:
 - 1. Recording Number
 - 2. Owner's Name
 - 3. Date of Recording
 - 4. Project Name and Number
 - 5. Location and Standing Limit of DVD
- L. Prior to commencement of audio video recording, the contractor shall notify the Engineer in writing when and where the audio video recording will begin. The Engineer may provide a designated representative to accompany and oversee coverage of all recording operations. Audio video recording completed without an Engineer representative present will be unacceptable unless specifically authorized by the Engineer.

END OF SECTION

SECTION 01400 QUALITY CONTROL

PART 1 - GENERAL

1.01 TESTING LABORATORY SERVICES

Arrangements for testing laboratory services will be made by the Owner. Payment for testing to show compliance with specified requirements will be paid for by the Owner. The cost for tests, when materials and workmanship fail to meet specified requirements (failed tests), will be billed directly to the Contractor by the soils testing laboratory, or deducted from monies due the Contractor.

1.02 INSPECTION SERVICES

The authorized representative of all applicable Federal and/or State agencies, including Environmental Protection Agency, Corps of Engineers and Department of Environmental Regulation, shall be permitted to inspect all work, materials, payrolls, records of personnel, invoice of materials, and other relevant data and records. The Owner and his authorized representatives shall be permitted free access and every reasonable facility for the inspection of all work and materials, including the removal or uncovering of such portions of the finished work as may be directed. The Owner and his authorized representative shall also be permitted to inspect payrolls, invoices of materials and other relevant data and records.

1.03 INSPECTION OF WORK AWAY FROM SITE

If work to be done away from the construction site is to be inspected on behalf of the Owner during its fabrication, manufacture or testing or before shipment, the Contractor shall give notice to the Engineer of the time and place where such fabrication, manufacturing, testing or shipping is to be done. Such notice shall be in writing and delivered to the Engineer in ample time so that the necessary arrangements for the inspection can be made.

PART 2 - PRODUCTS

(Not Applicable)

PART 3 - EXECUTION

(Not Applicable)

END OF SECTION

01400-1

SECTION 01500 TEMPORARY FACILITIES AND CONTROLS

PART 1 - GENERAL

1.01 DESCRIPTION OF REQUIREMENTS

This section specifies the minimum requirements for temporary facilities, utilities to be brought to the site, refuse/waste collection and control required to enable the construction of the project to progress adequately. The providing of adequate facilities at every stage of performing the work is the Contractor's sole responsibility, and is not limited by the requirement of this section.

Except as otherwise indicated, the Contractor may, at his option, provide stand-alone utility plants to provide needed services, in lieu of connected services from available public utilities, provided such stand-alone plant facilities comply with governing regulations. Prior to availability of temporary utility services, provide trucked-in/trucked-out containerized or unitized services for startup of construction operations at the site.

Except as otherwise indicated, the costs of providing and using temporary utility services are included in the Contract Sum.

1.02 TEMPORARY FACILITIES

The types of utility services required for general temporary use at the project site include the following (other specific services may be required for specific construction methods or operations):

- Electrical Power Service
- Water Service (potable for certain uses)
- Sanitary
- Storm Sewer or Open Drainage/Run-off Control
- Refuse/Waste Collection

Temporary Electricity:

The Contractor shall make necessary applications and arrangements and pay all fees and charges for electrical energy for power and light necessary for proper completion of the work and during its entire progress up to time of final acceptance by the Owner. The Contractor shall provide and pay for all temporary switches, connections and meters.

Temporary Water:

The Contractor shall make all necessary application and arrangements, and pay all fees and charges for water necessary for the proper completion of the project up to the time of final acceptance. The Contractor shall provide and pay for any temporary piping and connections.

Temporary Sanitary Facilities:

The Contractor shall provide adequate sanitary facilities for the use of those employed on the work. Such facilities shall be made available when the first employees arrive on the site of the work, shall be properly secluded from public observation, and shall be constructed and maintained during the progress of the work in suitable numbers and at such points and in such manner as may be required or approved.

The Contractor shall provide these portable sanitary facilities “on-site” for use by workers. Transporting workers to the nearest “public” sanitary facility will not be considered an acceptable alternative to these requirements.

The Contractor shall maintain the sanitary facilities in a satisfactory and sanitary condition at all times and shall enforce their use. He shall rigorously prohibit the committing of nuisances on the site of the work, on the lands of the Owner, or on adjacent property. The cost of providing these sanitary facilities shall be included in the Contractor’s applicable pay items of work and no separate payment shall be made thereof.

Temporary Refuse/Waste Collection

The Contractor shall provide for adequate refuse/waste collection and disposal. City Ordinance requires that all rental open-top rolloff container units or rental cubic-yard container units must be procured from one of the City’s franchised construction and demolition debris providers. For a list of the City’s current franchised providers, please call Public Works at 386-676-3220, or use this link to the City’s website: <https://www.ormondbeach.org/Archive.aspx?ADID=8623>

It will be the Contractor’s responsibility to make all necessary arrangements for refuse/waste collection and disposal. The cost of providing for such refuse/waste collection and disposal shall be included in the Contractor’s applicable pay items of work and no separate payment shall be made thereof.

Termination and Removal:

At the time the need for temporary utility service or a substantial portion thereof has ended, or when its service has been replaced by use of permanent services, or not later than the time of substantial completion, promptly remove the installation unless requested by the Engineer to retain it for a longer period. Complete and restore work which may have been delayed or affected by the installation and use of the temporary utility, including repairs to construction and grades and restoration and cleaning of exposed surfaces. Replace work damaged beyond acceptable restoration.

1.03 TEMPORARY CONTROLS

Noise Control:

The Contractor shall provide adequate protection against objectionable noise levels caused by the operation of construction equipment.

Dust Control:

The Contractor shall provide for adequate protection against raising objectionable dust clouds caused by moving construction equipment, high winds or any other cause.

Water Control:

The Contractor shall provide for satisfactory disposal of surplus water and shall submit a plan to the Engineer for his review prior to initiation and implementation of the plan. Prior approval shall be obtained from the proper authorities for the use of public or private lands or facilities for such disposal.

Pollution Control:

The Contractor shall provide for adequate protection against polluting any public or private lands, lakes, ponds, rivers, streams, creeks, and other such areas, by the disposal of surplus material in the form of solids, liquids, or gases or from any other cause. The Contractor shall provide for adequate refuse/waste collection and disposal as described in Part 1, paragraph 1.02 of this Section.

The Contractor shall evaluate and assess the impact of any adverse effects on the natural environment which may result from construction operations and shall operate to minimize pollution of air, ground or surface waters vegetation, and afford the neighboring community the maximum protection during and up to completion of the construction project.

The Contractor shall take sufficient precautions to prevent pollution of streams, lakes and reservoirs with fuels, oils, bitumens, calcium chloride or other harmful materials. He shall conduct and schedule his operations so as to avoid or otherwise prevent pollution of siltation of streams, lakes and reservoirs and to avoid interference with movement of migratory fish.

All chemicals used during project construction or furnished for project operation, whether herbicide, pesticide, disinfectant, polymer, reactant or of other classification, must show approval of either EPA or USDA. Use of all such chemicals and disposal of residues shall be in strict conformance with instructions.

Erosion Control:

The Contractor shall not expose, by construction operations, a larger area of erosive land at any one time than the minimum necessary for efficient construction operations, and the duration of exposure of the uncompleted construction to the elements shall be as short as practicable.

Erosion control features shall be constructed concurrently with other work and at the earliest practicable time.

1.04 STORAGE FACILITIES

All products, materials and equipment shall be stored in accordance with the manufacturer's instructions, with seals and labels intact and legible. Products subject to damage by the elements shall be stored in weathertight enclosures. Temperature and humidity shall be maintained within the ranges required by the manufacturer's instructions. Fabricated products shall be stored above the

ground on blocking or skids. Products which are subject to deterioration shall be covered with impervious coatings with adequate ventilation to avoid condensation. Loose granular materials shall be stored in a well-drained area on solid surfaces to prevent mixing with foreign matter. Any products which will come in contact with potable water shall be stored off the ground so as to prevent contamination.

Storage shall be arranged in such a manner to provide easy access for inspection. Periodic inspections shall be made of all stored products to assure that they are maintained under specified conditions, and free from damage or deterioration.

After installation, Contractor shall provide substantial coverings as necessary to installed products to protect from damage from traffic and subsequent construction operations. Coverings shall be removed when no longer needed.

1.05 PRESERVATION OF PROPERTY

Preserve from damage all property along the line of the work, or which is in the vicinity of or in any wise affected by the work, the removal or destruction of which is not called for by the plans. Wherever such property is damaged due to the activities of the Contractor, it shall be immediately restored to its original condition by the Contractor at no cost to the Owner.

In case of failure on the part of the Contractor to restore such property, or make good such damage or injury, the Owner may, after 48 hours notice to the Contractor, proceed to repair, rebuild or otherwise restore such property as may be deemed necessary and the cost thereof will be deducted from any monies due or which may become due the Contractor under this Contract.

The Contractor shall be responsible for the protection of property, in the areas in the vicinity of the project; and for the protection of his equipment, supplies, materials and work, against any damage resulting from the elements, such as flooding, by rainstorm, wind damage, or other elemental cause resulting from the project configuration. The Contractor shall take all precautions against any such damage occurrence, and shall be responsible for damage resulting from same. The Contractor shall provide adequate drainage facilities, tie-downs, or other protection, throughout the Contract period, for the protection of his, the Owner's, and other properties from such damage.

1.06 TRAFFIC REGULATION

Signs, marking barricades and procedures shall conform to the requirements of the Florida Department of Transportation Manual on Traffic Controls and Safe Practices for Street and Highway Construction, Maintenance and Utility Operations.

The Contractor shall maintain one-lane, two-way traffic at all times and maintain customer access to local businesses at all times throughout the course of the work.

The Contractor shall provide and maintain adequate barricades, construction signs, torches, flashers, guards and flagmen as required in pedestrian and vehicular traffic areas. Regulations of local authorities shall be complied with.

The contractor shall provide suitable crossings at street intersections and driveways, and supply such aid as may be required for pedestrians and motorists, including delivery vehicles, to safely negotiate the construction areas.

The Contractor shall carry on the work in a manner that will cause the least interruption in traffic. Closing to through travel of more than two consecutive blocks, including the cross streets intersected will not be permitted without specific authorization from the local authorities. Where traffic must cross open trenches, the Contractor shall provide suitable bridges at street intersections and driveways and provide adequate ingress and egress to dwellings, business facilities, utilities and services. At any time the streets are required to be closed, the Contractor shall notify, in writing, law enforcement agencies, fire departments, and parties operating emergency vehicles before the street is closed and again as soon as it is opened. Access to fire hydrants and other fire extinguishing equipment shall be provided and maintained at all times. Refer to Section 01010 of these Specifications for "Notification of Construction" and "Notification of Street Closure" requirements.

On completion of work, the Contractor shall remove all debris, excess materials, barricades and temporary work leaving walkways and road clear of obstructions.

PART 2 - PRODUCTS

(Not Applicable)

PART 3 - EXECUTION

(Not Applicable)

END OF SECTION

SECTION 01600 MATERIALS AND EQUIPMENT

PART 1 - GENERAL

1.01 DESCRIPTION OF REQUIREMENTS

Materials and equipment furnished by CONTRACTOR shall be new and shall not have been in service at any other installation unless otherwise provided. Materials and equipment shall conform to applicable specifications and standards and comply with the size, make, type and quality specified, or as specifically approved in writing by ENGINEER.

Manufactured and fabricated items shall be designed, fabricated and assembled in accordance with the best engineering and shop practices. Like parts of duplicate units shall be manufactured to standard sizes and gauges to be interchangeable.

Two or more things of the same kind shall be identical, by the same manufacturer.

Materials and equipment shall be suitable for service conditions shown or specified.

Equipment which requires auxiliary devices or equipment in order to operate properly shall have such auxiliary devices or equipment included as a part of its system.

Equipment sizes, capacities and dimensions shown or specified shall be adhered to unless variations are specifically approved in writing.

Materials and equipment shall not be used for any purpose other than that for which it is designed or is specified.

Where existing materials or equipment is specifically shown or specified to be reused in the work, special care shall be used in removal, handling, storage, and reinstallation, to assure proper function in the completed work.

CONTRACTOR shall arrange for transportation, storage and handling of products which require off-site storage, restoration or renovation.

Salvaged Materials. In the absence of special provisions to the contrary, salvaged materials, equipment or supplies are the property of OWNER and shall be cleaned and stored as directed by ENGINEER.

Manufacturer's Instructions. The installation of all work shall comply with manufacturer's written instructions. CONTRACTOR shall obtain and distribute copies of such instructions to parties involved in the installation including two copies to ENGINEER. One complete set of instructions shall be maintained at the job site during installation and until completion. All products and equipment shall be handled, installed, connected, cleaned, conditioned and adjusted in accordance with the manufacturers instructions and specified requirements. Should job

conditions or specified requirements conflict with manufacturers instructions, such conflicts shall be called to ENGINEER'S attention for resolution and revised instructions.

Equipment Guarantee. All mechanical and electrical equipment, together with devices of whatever nature and all components, which are furnished and/or installed by CONTRACTOR shall be guaranteed. The guarantee shall be against manufacturing and/or design inadequacies, materials and workmanship, improper assembly, hidden damage, failure of devices and/or components, excessive leakage or other circumstances which would cause the equipment to fail under normal design and/or specific operating conditions for a period of one year or such longer period as may be shown and/or specified from and after the date of acceptance of the equipment by OWNER. Each piece of equipment, device or component which shall fail within the above specified term shall be replaced with reasonable promptness by CONTRACTOR without cost to OWNER.

Operating Characteristics. Rotating machinery shall be designed and fabricated to provide satisfactory operation without excessive wear and without excessive maintenance during its operating life. Rotating parts shall be statically and dynamically balanced and shall operate without excessive vibration.

Lubrication System. The minimum design criteria for lubrication of moving parts of the equipment shall include one week of continuous operation during which no lubricants shall be added to the system. The system shall also be designed to receive lubricants whether in operation or shut down, and shall not leak or waste lubricants under either condition. The manufacturer's recommendations of grade and quality and a supply of the lubricants so recommended in quantities sufficient to conduct startup and testing operations shall be furnished with the equipment.

Safety Requirements. Screens, guards or cages shall be provided for all exposed, rotating or moving parts in accordance with accepted practices of applicable governmental agencies.

Nameplates. Each major component of equipment shall have the manufacturers name, catalog and/or model number, serial number and applicable performance requirements and characteristics embossed, stamped, or engraved on a stainless steel plate securely attached to the item of equipment.

Anchor Bolts. The manufacturer shall provide stainless steel anchor bolts for each piece of equipment furnished.

1.02 TRANSPORTATION AND HANDLING

Materials and equipment shall be loaded and unloaded by methods affording adequate protection against damage. Every precaution shall be taken to prevent injury to the materials or equipment during transportation and handling. Suitable power equipment will be used and the materials or equipment shall be under control at all times. Under no condition shall the materials or equipment be dropped, bumped or dragged. When a crane is used, a suitable hook or lift sling shall be used. The crane shall be so placed that all lifting is done in a vertical plane. Materials or equipment skid loaded, palletized or handled on skidways shall not be skidded or rolled against materials or equipment already unloaded.

Materials and equipment shall be delivered to the job site by means that will adequately support it and not subject it to undue stresses. Contractor shall promptly inspect the products for damage and defects and conformance with the specification. Materials and equipment damaged or injured in the process of transportation, unloading or handling will be rejected and shall be immediately removed from the site.

1.03 STORAGE AND PROTECTION

All materials and equipment shall be stored in accordance with the manufacturer's instructions, with seals and labels intact and legible. Items subject to damage by the elements shall be stored in weathertight enclosures. Temperature and humidity shall be maintained within the ranges required by the manufacturers instructions. Fabricated items shall be stored above the ground on blocking or skids. Items which are subject to deterioration shall be covered with impervious coatings with adequate ventilation to avoid condensation. Loose granular materials shall be stored in a well-drained area on solid surfaces to prevent mixing with foreign matter. Any items which will come in contact with potable water shall be stored off the ground so as to prevent contamination.

Storage shall be arranged in such a manner to provide easy access for inspection. Periodic inspections shall be made of all stored items to assure that they are maintained under specified conditions, and free from damage or deterioration.

After installation, CONTRACTOR shall provide substantial coverings as necessary to protect installed items from damage, from traffic, and subsequent construction operations. Coverings shall be removed when no longer needed.

PART 2 - MATERIALS AND EQUIPMENT

(Not Applicable)

PART 3 - EXECUTION

(Not Applicable)

END OF SECTION

SECTION 01630
SUBSTITUTIONS AND PRODUCT OPTIONS

PART 1 - GENERAL

1.01 REQUESTS FOR REVIEW

- A. Requests to review substitute items of material and equipment will not be accepted by the Engineer from anyone other than the Contractor. If the Contractor wishes to furnish or use a substitute or equivalent item of material or equipment, the Contractor shall make written application to the Engineer for acceptance, certifying that the proposed substitute will perform adequately the functions called for by the general design, be similar and of equivalent substance to that specified and be suited to the same use and capable of performing the same function as that specified. The application will state whether or not acceptance of the substitute for use in the work will require a change in Drawings or Specifications to adapt the design to the substitute and whether or not incorporation or use of the substitute in connection with the work is subject to payment of any license fee or royalty. All variations of the proposed substitute from that specified shall be identified in the application and available maintenance, repair and replacement service will be indicated. The application will also contain an itemized estimate of all costs that will result directly or indirectly from acceptance of such substitute, including costs of redesign and claims of other contractors affected by the resulting change, all of which shall be considered by the Engineer in evaluating the proposed substitute. The Engineer may require the Contractor to furnish at the Contractor's expense additional data about the proposed substitute. The Engineer will be the sole judge of acceptability, and no substitute will be ordered or installed without the Engineer's prior written acceptance. The Owner may require the Contractor to furnish at the Contractor's expense, a special performance guarantee or other surety with respect to any substitute.

1.02 SUBSTITUTION AFTER EXECUTION OF AGREEMENT

- A. After execution of the Agreement, substitution of materials or equipment supplied by manufacturers or suppliers other than those listed, will be considered only if it is demonstrated by the Contractor that:
1. the material or equipment proposed for substitution is superior in design, construction and/or efficiency to that of the listed manufacturer or supplier;
 2. the material proposed for substitution is in every way equal to that of the listed supplier, and that availability and/or delivery of listed materials within the time frame scheduled cannot be met; or
 3. the material proposed for substitution is in every way equal to that of the listed

supplier and is available at a lower cost. In the event such a substitution is allowed, the Contractor shall accept and execute a Change Order reducing the Contract Price by an amount equal to the cost differential.

1.03 EQUIVALENT MATERIALS AND EQUIPMENT

- A. Whenever materials or equipment are specified or described in the Drawings or Specifications by using the name of a proprietary item or the name of a particular manufacturer, fabricator, supplier or distributor, the naming of the item is intended to establish the type, function, and quality required. Unless the name is followed by words indicating that no substitution is permitted, materials or equipment of other manufacturers, fabricators, suppliers or distributors may be accepted by the Engineer to determine that the material or equipment proposed is equivalent to that named.
- B. It is not the intent of the Contract Documents to function as proprietary specifications. Where a particular manufacturer make and model are cited and specifically required for interchangeability of parts and/or match existing equipment, this has been so stated in the Specifications.
- C. The standard products of manufacturers other than those specified may be considered when it is demonstrated to the ENGINEER that they are equal in quality, composition, durability, usefulness and convenience for the purpose intended. Requests for substitutions will only be considered, provided the following minimum conditions are met:
 - 1. The proposed coating system shall use an equal or greater number of separate coats to achieve the required dry film thickness.
 - 2. The proposed coating system shall use coatings of the same generic type.
 - 3. All requests for substitutions shall have the directions for application and descriptive literature which includes generic type, nonvolatile content by volume and information confirming that the substitution is equal to the specified coating system.
 - 4. The CONTRACTOR shall provide Certified Laboratory Data Sheets showing the results of complete spectrographic and durability tests performed on the proposed substitute. Tests shall be performed by a laboratory which conforms to the provisions of the American Society for Testing and Materials (ASTM E329) and which is a member of the American Council of Independent Laboratories. Costs incurred in the testing program shall be borne by the CONTRACTOR.

5. The cost of all testing and analyzing of the proposed substitute materials that may be required by the ENGINEER, shall be paid by the CONTRACTOR. If the proposed substitution requires changes in the contract work, the CONTRACTOR shall bear all such costs involved and the costs of allied trades affected by the substitution.

PART 2 - PRODUCTS

(Not Applicable)

PART 3 - EXECUTION

(Not Applicable)

END OF SECTION

SECTION 01657 START-UP

PART 1 - GENERAL

1.01 WORK INCLUDED

A. The work may be segmented into several phases of construction in a logical order to meet the project schedule. Portions of the Work may be utilized prior to Substantial Completion of all the Work.

1.02 PRODUCTS (NOT USED)

PART 2 - EXECUTION

2.01 PRELIMINARY MATTERS

A. Start-up Certification: Prior to system start-up, successfully complete all testing required of the individual components of work in the presence of the Engineer or his representative.

B. Demonstrate to the Engineer that all temporary jumpers and/or bypass have been removed and that all components are operating under their own controls as designated.

C. Coordinate start-up activities with equipment suppliers, subcontractors, and the Owner's operating personnel at the site and with the Engineer prior to commencing system start-up. All coordination is the responsibility of the Contractor.

2.02 START-UP

A. Confirm that all equipment is properly energized and that all switches are set to their normal operating condition and that the flow path through the new work is unobstructed.

B. Slowly fill each hydrostatic structure in the process flow stream with clean water.

C. Initiate start-up in accordance with the operation and maintenance manual.

D. Observe the component operation and make adjustments as necessary to optimize the performance of the Work.

E. Coordinate with Owner before performing any adjustments desired or operational problems requiring debugging.

F. Make adjustments as necessary.

2.03 START-UP DEMONSTRATION AND TESTING

- A. After all Work components have been constructed, field tested and started up in accordance with the individual specifications and manufacturer requirements perform the Start-Up Demonstration and Testing in the presence of the Engineer and the Owner. The demonstration shall be held upon completion of all systems at a date to be agreed upon in writing with the Owner.
- B. The start-up testing shall be conducted for seven consecutive days. The Work must operate successfully during the seven day testing period in the manner intended. If the Work does not operate successfully, or if the start-up is interrupted due to other contracts, the problems will be corrected and the test will start over from day one.
- C. During the start-up, operate the Work, instruct designated plant operating personnel in the function and operation of the Work, and cause various operational circumstances to occur. Demonstrate the essential features of the equipment and its relationship to other equipment. Prior to the substantial completion, the Contractor shall submit a detailed schedule of operational circumstances. Coordination of the various contract schedules will be accomplished through the Engineer.
- D. Acceptability of the Work's performance will be based on the Work performing as specified, under these actual and simulated operating conditions as defined in the Contract Documents. The intent of the start-up demonstration and testing is for the Contractor to demonstrate to the Owner and the Engineer that the Work will function as a complete and operable system under normal as well as emergency operating conditions and is ready for acceptance.
- E. Certificate of Completed Demonstration: Submit five (5) copies of Demonstration Certification memo signed by the Contractor, Subcontractor and Owner and insert one copy in each Operation and Maintenance Manual.

EQUIPMENT TRAINING & STARTUP CHECKLIST

PROJECT: _____

OWNER: _____

ENGINEER: _____

CONTRACTOR: _____

DATE: _____

STRUCTURE: _____

EQUIPMENT DESCRIPTION: _____

VENDOR: _____

REPRESENTATIVE: _____ INIT.: _____

of training days required: _____ #received: _____

STARTUP/TRAINING DESCRIPTION: _____

ACCEPTABLE: _____ PARTIALLY ACCEPTABLE: _____ NON-ACCEPTABLE: _____

ATTENDEES:	<u>NAME</u>	<u>AFFILIATION</u>	<u>DATE</u>
	_____	_____	_____
	_____	_____	_____
	_____	_____	_____
	_____	_____	_____
	_____	_____	_____
	_____	_____	_____
	_____	_____	_____
	_____	_____	_____
	_____	_____	_____

END OF SECTION

**SECTION 01670
OPERATING AND MAINTENANCE DATA**

PART 1 - GENERAL

1.01 REQUIREMENTS INCLUDED

A. Scope of Requirements:

1. Compile product data and related information appropriate for Owner's maintenance and operation of products furnished under Contract.
2. Prepare operating and maintenance data as specified in this Section and as referenced in other pertinent sections of the Specifications.
3. Instruct Owner's personnel in maintenance of products and in operation of equipment and systems.

1.02 QUALITY ASSURANCE

A. Preparation of data shall be done by personnel:

1. Trained and experienced in maintenance and operation of described products.
2. Familiar with requirements of this Section.
3. Skilled as a technical writer to the extent required to communicate essential data.
4. Skilled as draftsman competent to prepare required drawings.

1.03 FORMAT OF SUBMITTALS

A. Prepare data in form of an instructional manual for use by Owner's personnel.

B. Format:

1. Size: 8 1/2 inches x 11 inches
2. Paper: 20 pound minimum, white, for typed pages.
3. Text: Manufacturer's printed data, or neatly typewritten.
4. Drawings:
 - a. Provide reinforced punched binder tab, bind in with text.

- b. Reduce larger drawings and fold to size of text pages but not larger than 14 inches x 17 inches.
- 5. Provide fly-leaf for each separate product, or operating equipment.
 - a. Provide typed description of products and major component parts of equipment.
 - b. Provide indexed tabs.
- 6. Cover: Identify each volume with typed or printed title "**OPERATING AND MAINTENANCE INSTRUCTIONS**".
List:
 - a. Title of project
 - b. Identity of separate structure as applicable.
 - c. Identity of general subject matter covered in the manual.
- C. Binders:
 - 1. Commercial quality three-post binders with durable and cleanable plastic covers.
 - 2. Maximum post width: 2 inches.
 - 3. When multiple binders are used, correlate the data into related consistent groupings.

1.04 CONTENT OF MANUAL

- A. Neatly typewritten table of contents for each volume, arranged in systematic order.
 - 1. Contractor, name of responsible principal, address and telephone number.
 - 2. A list of each product required to be included, indexed to content of the volume.
 - 3. List, with each product, name, address and telephone number of:
 - a. Subcontractor or installer
 - b. A list of each product required to be included, indexed to content of the volume.
 - c. Identify area of responsibility of each SubContractor/Installer.

- d. Local source of supply for parts and replacement
- 4. Identify each product by product name and other identifying symbols as set forth in Contract Documents.
- B. Product Data:
 - 1. Include only those sheets which are pertinent to the specified product.
 - 2. Annotate each sheet to:
 - a. Clearly identify specific product or part installed
 - b. Clearly identify data applicable to installation
 - c. Delete references to inapplicable information.
- C. Drawings:
 - 1. Supplement product data with drawings as necessary to clearly illustrate:
 - a. Relations of component parts of equipment and systems
 - b. Control and flow diagrams.
 - 2. Coordinate drawings with information in Project Record Documents to assure correct illustration of completed installation.
 - 3. Do not use Project Record Documents as maintenance drawings.
- D. Written text, as required to supplement product data for the particular installation:
 - 1. Organize in consistent format under separate headings for different procedures.
 - 2. Provide logical sequence of instructions of each procedure.
- E. Copy of each warranty, bond and service contract issued.
 - 1. Provide information sheet for Owner's personnel, give:
 - a. Proper procedures in event of failure
 - b. Instances which might affect validity of warranties or bonds.

1.05 MANUAL FOR EQUIPMENT AND SYSTEMS

- A. Submit four copies of complete manual in final form.
- B. Content, for each unit of equipment and system, as appropriate:
 - 1. Description of unit and component parts.
 - a. Function, normal operating characteristics, and limiting conditions.
 - b. Performance curves, engineering data and tests.
 - c. Complete nomenclature and commercial number of replaceable parts.
 - 2. Operation procedures:
 - a. Start-up, break-in, routine and normal operating instructions.
 - b. Regulation, control, stopping, shut-down and emergency instructions.
 - c. Summer and winter operating instructions.
 - d. Special operating instructions.
 - 3. Maintenance procedures:
 - a. Routine operations
 - b. Guide to "trouble-shooting"
 - c. Disassembly, repair and reassembly
 - d. Alignment, adjusting and checking.
 - 4. Servicing and lubrication required:
 - a. Complete lubrications schedule.
 - b. List of all lubricants required and acceptable products from three manufacturers for each lubricant.
 - 5. Manufacturer's printed operating and maintenance instructions.
 - 6. Description of sequence of operation by control manufacturer.

7. Original manufacturer's parts list, illustrations, assembly drawing and diagrams required for maintenance.
 - a. Predicted life of parts subject to wear.
 - b. Items recommended to be stocked as spare parts.
 8. As installed control diagrams by controls manufacturer.
 9. Each Contractor's coordination drawings.
 10. List of original manufacturer's spare parts, manufacturer's current prices and recommended quantities to be maintained in storage.
 11. Other data as required under pertinent sections of specifications.
- C. Content, for each electric and electronic system, as appropriate:
1. Description of system and component parts.
 - a. Function, normal operating characteristics, and limiting conditions.
 - b. Performance curves, engineering data and tests.
 - c. Complete nomenclature and commercial number of replaceable parts.
 2. Circuit directories and panel boards.
 - a. Electrical service
 - b. Controls
 - c. Communications.
 3. As installed color coded wiring diagrams.
 4. Operating procedures:
 - a. Routine and normal operating instructions
 - b. Sequences required
 - c. Special operating instructions.
 5. Maintenance procedures:

- a. Routine operations
 - b. Guide to "trouble-shooting"
 - c. Disassembly, repair and reassembly
 - d. Adjustment and checking.
- 6. Manufacturer's printed operating and maintenance instructions.
 - 7. List of original manufacturer's spare parts, manufacturer's current prices, and recommended quantities to be maintained in storage.
 - 8. Other data as required under pertinent sections of the Specifications.
- D. Prepare and include additional data when the need for such data becomes apparent during instruction of Owner's personnel.
 - E. Additional requirements for operating and maintenance data: Respective sections of Specifications.

1.06 SUBMITTAL SCHEDULE

- A. Submit two copies of preliminary draft of proposed formats and outlines of contents of Operation and Maintenance Manuals within 90 days after Notice to Proceed.
 - 1. Engineer will review the preliminary draft and return one copy with comments.
- B. Submit two copies of completed data in final form no later than 30 days following Engineer's review of the last shop drawing and/or other submittal specified in Section 01300. One copy will be returned with comments to be incorporated into final copies.
- C. Submit four (4) copies of approved manual in final form directly to the offices of the Owner within 30 calendar days of product shipment to the project site and preferably within 30 days after the reviewed copy is received.
- D. Provide four (4) copies of addenda to the operation and maintenance manuals as applicable and certificates as specified within 30 days after final inspection.

1.07 INSTRUCTION OF OWNER'S PERSONNEL

- A. Prior to demonstration test, fully instruct Owner's designated operating and maintenance personnel in operation, adjustment and maintenance of products, equipment and systems.

- B. Operating and maintenance manual shall constitute the basis of instruction. Review contents of manual with personnel in full detail to explain all aspects of operations and maintenance.
- C. Instructors shall be fully qualified personnel as outlined within the individual equipment specifications. If so specific training specifications are listed with the equipment, the Contractor shall provide the instruction with qualified Contractor personnel.
- D. The instructors shall provide for and prepare lessons scopes and handouts for up to five individual designated by the Owner that outline the items to be covered. Separate sessions for operation and maintenance instruction shall be provided consecutively. Handouts shall be submitted to the Owner with at least one week's notice prior to the training session.

PART 2 - PRODUCTS

(NOT USED)

PART 3 - EXECUTION

(NOT USED)

END OF SECTION

SECTION 01700 CONTRACT CLOSEOUT

PART 1 - GENERAL

1.01 DESCRIPTION OF REQUIREMENTS

Definition:

Closeout is defined to include general requirements near end of Contract Time, in preparation for final acceptance, final payment, normal termination of contract, occupancy by OWNER and similar actions evidencing completion of the work. Specific requirements for individual units of work are specified in sections of Division 2 through 16. Time of closeout is directly related to "Substantial Completion", and therefore may be either a single time period for entire work or a series of time periods for individual parts of the work which have been certified as substantially complete at different dates. That time variation (if any) shall be applicable to other provisions of this section.

1.02 PREREQUISITES TO SUBSTANTIAL COMPLETION

When the CONTRACTOR considers the work to be substantially complete, he shall submit to the ENGINEER: a written notice that the work, or designated portion thereof, is substantially complete; and a list of items to be completed or corrected.

Within a reasonable time after receipt of such notice, the ENGINEER will make an inspection to determine the status of completion.

Should the ENGINEER determine that the work is not substantially complete, the ENGINEER will promptly notify the CONTRACTOR, in writing, giving the reasons. The CONTRACTOR shall remedy the deficiencies in the work and send a second written notice of substantial completion to the ENGINEER. The ENGINEER will reinspect the work.

When the ENGINEER finds that the work is substantially complete, he will prepare and deliver to the OWNER a tentative Certificate of Substantial Completion with a tentative list of items to be completed or corrected before final payment. After consideration of any objections made by the OWNER as provided in Conditions of the Contract, and when the ENGINEER considers the work substantially complete, he will execute and deliver to the OWNER and the CONTRACTOR a definite Certificate of Substantial Completion with a revised tentative list of items to be completed or corrected.

When the CONTRACTOR considers the work complete, he shall submit written certification that the Contract Documents have been reviewed, the work has been inspected for compliance with the Contract Documents, the work has been completed in accordance with the Contract Documents, equipment and systems have been tested in the presence of the OWNER's representative and are operational, and the work is completed and ready for final inspection.

With reasonable promptness after receipt of such certification, the ENGINEER will make an inspection to verify the status of completion. Should the ENGINEER consider that the work is incomplete or defective, he will promptly notify the CONTRACTOR, in writing, listing the incomplete or defective work. The CONTRACTOR shall take immediate steps to remedy the stated deficiencies and send a second written certification to the ENGINEER that the work is complete. The ENGINEER will reinspect the work.

Should the ENGINEER perform reinspections due to failure of the Work to comply with the claims of status of completion made by the CONTRACTOR, the OWNER will compensate the ENGINEER for such additional services and the OWNER will deduct the amount of such compensation from the final payment to the CONTRACTOR.

1.03 CLOSEOUT SUBMITTALS

When the ENGINEER finds that the work is acceptable under the Contract Documents, he shall request the CONTRACTOR to make closeout submittals.

The CONTRACTOR's closeout submittals shall include:

1. Evidence of compliance with requirements of governing authorities.
2. Project Record Documents.
3. Evidence of Payment and Release of Liens.
4. Certificate of Insurance for Products and Completed Operations.
5. Warranties and Bonds.

1.04 ADDITIONAL CLOSEOUT REQUIREMENTS

Project Record Documents:

The CONTRACTOR shall keep one Record copy of all specifications, drawings, addenda, modifications, shop drawings, field test records, and samples at the site in good order and annotated in red to show all changes made during the construction process. These shall be available to the ENGINEER for examination and shall be delivered to the ENGINEER for the OWNER upon completion of the work.

Documents and samples shall be stored in the CONTRACTOR's field office apart from documents used for construction. The CONTRACTOR shall provide files and racks for storage of documents, and a locked cabinet or secure storage space for storage of samples. Documents shall be maintained in a clean, dry, legible condition and in good order.

Record Documents shall not be used for construction purposes.

Each Document shall be labeled "PROJECT RECORD" in neat, large printed letters.

Information shall be recorded by the CONTRACTOR, on a daily basis, concurrently with construction progress. No work shall be concealed until required information is recorded on the CONTRACTOR's Record Drawings.

Drawings shall be legibly marked to record actual construction information on: depths of various elements of foundation in relation to finish first floor datum; horizontal and vertical locations of underground utilities and appurtenances, referenced to permanent surface improvements; location of internal utilities and appurtenances concealed in the construction, referenced to visible and accessible features of the structure; field changes of dimension and detail; changes made by Field Order or by Change Order; and details not on original contract drawings.

Specifications and Addenda shall have each section legibly marked to record: manufacturer, trade name, catalog number, and supplier of each product and item of equipment actually installed; and changes made by Field Order or by Change Order.

At contract closeout Record Documents shall be delivered to the ENGINEER for the OWNER. The submittal shall be accompanied with a transmittal letter in duplicate, containing:

1. Date
2. Project title and number
3. CONTRACTOR's name and address
4. Title and number of each Record Document
5. Signature of CONTRACTOR or his authorized representative

As-Built Survey Requirements:

(Not Applicable)

Operating and Maintenance Data:

The CONTRACTOR shall compile product data and related information appropriate for OWNER's maintenance and operation of products furnished under the Contract.

The submittals shall include but not necessarily be limited to:

Manufacturer's specifications.

Directions and instructions relating to assembly, installation, operation and maintenance.

Parts list with catalog numbers and other data necessary for ordering replacements.

1.05 WARRANTIES AND BONDS

The CONTRACTOR shall compile and submit to the ENGINEER in duplicate, for review and transmittal to the OWNER, warranties, bonds, service and maintenance contracts as specified in the

respective sections of Specifications. Submittal shall be made within ten days after Substantial Completion and prior to final request for payment.

1.06 FINAL STATEMENT OF ACCOUNTING

The CONTRACTOR shall submit a final statement of accounting to the ENGINEER. The statement shall reflect all adjustments to the Contract Sum:

1. The original Contract Sum
2. Additions and deductions resulting from:
 - Previous Change Orders
 - Deductions for uncorrected work
 - Deductions for liquidated damages
 - Deductions for reinspection payments
 - Other adjustments
3. Total Contract Sum, as adjusted
4. Previous payments
5. Sum remaining due

1.07 FINAL CHANGE ORDER

The ENGINEER will prepare a final Change Order, if required, reflecting approved adjustments to the Contract Sum which were not previously made by Change Orders.

1.08 FINAL APPLICATION FOR PAYMENT

The CONTRACTOR shall submit the final Application for Payment in accordance with procedures and requirements stated in the Conditions of the Contract.

PART 2 - PRODUCTS

(Not Applicable)

PART 3 - EXECUTION

(Not Applicable)

END OF SECTION

SECTION 01710 FINAL CLEANING

PART 1 - GENERAL

1.01 DESCRIPTION OF REQUIREMENTS

The CONTRACTOR shall execute cleaning, during progress of the work, and at the completion of the work, as required by General Conditions.

Cleaning and disposal operations shall comply with all applicable codes, ordinances, regulations, and anti-pollution laws.

Refer to Section 01500 - Temporary Facilities and Controls for additional requirements.

PART 2 - MATERIALS

The CONTRACTOR shall:

Use only those materials which will not create hazards to health or property and which will not damage surfaces.

Use only those cleaning materials and methods recommended by manufacturer of the surfaces to be cleaned.

Use cleaning materials only on surfaces recommended by cleaning material manufacturer.

PART 3 - EXECUTION

3.01 CLEANING DURING CONSTRUCTION

The CONTRACTOR shall:

Execute periodic cleaning to keep the work, the site and adjacent properties free from accumulations of waste materials, rubbish and windblown debris, resulting from construction operations.

Provide on-site containers for the collection of waste materials, debris and rubbish. Rental of refuse/waste containers must fully comply with the requirements of Section 01500 - Temporary Facilities and Controls.

Remove waste materials, debris and rubbish from the site at least once a week and dispose of at legal disposal areas away from the site.

Prior to final completion, CONTRACTOR shall conduct an inspection of work areas, to verify that the entire work is clean.

3.02 FINAL CLEANING

The CONTRACTOR shall:

Employ skilled workmen for final cleaning.

Remove grease, mastic, adhesives, dust, dirt, stains, and other foreign materials from sight-exposed surfaces.

Broom clean exterior paved surface; rake clean other surfaces of the grounds.

Except as otherwise indicated or requested by the ENGINEER, remove temporary protection devices and facilities which were installed during the course of the work to protect previously completed work during the remainder of the construction project.

Prior to final completion, CONTRACTOR shall conduct an inspection of work areas, to verify that the entire work is clean.

Where extra materials of value remaining after completion of the associated work have become the OWNER's property, dispose or store at the site, as directed by the ENGINEER.

END OF SECTION

SECTION 01740 WARRANTIES

PART 1 - GENERAL

1.01 DESCRIPTION OF REQUIREMENTS

All work performed under this contract shall be warranted for labor and materials for a minimum period of one year after date of completion and acceptance of the project. Specific warranties are noted in specific sections.

Standard product warranties are preprinted written warranties published by individual manufacturers for particular products and are specifically endorsed by the manufacturer to the Owner.

Special warranties are written warranties required by or incorporated in the Contract Documents, either to extend time limits provided by standard warranties or to provide greater rights for the Owner.

1. Refer to the General Conditions for terms of the Contractor's period for correction of the work.

Disclaimers and Limitations: Manufacturer's disclaimers and limitations on product warranties do not relieve the Contractor of the warranty on the Work that incorporates the products. Manufacturer's disclaimers and limitations on product warranties do not relieve suppliers, manufacturers and subcontractors required to countersign special warranties with the Contractor.

Related Damages and Losses: When correcting failed or damaged warranted construction, remove and replace construction that has been damaged as a result of such failure or must be removed and replaced to provide access for correction of warranted construction.

Reinstatement of Warranty: When work covered by a warranty has failed and been corrected by replacement or rebuilding, reinstate the warranty by written endorsement. The reinstated warranty shall be equal to the original warranty with an equitable adjustment for depreciation.

Replacement Cost: Upon determination that work covered by a warranty has failed, replace or rebuild the work to an acceptable condition complying with the requirements of the Contract Documents. The Contractor is responsible for the cost of replacing or rebuilding defective work regardless of whether the owner has benefited from use of the work through a portion of its anticipated useful service life.

Owner's Recourse: Expressed warranties made to the Owner are in addition to implied warranties and shall not limit the duties, obligations, rights, and remedies otherwise available under the law. Expressed warranty periods shall not be interpreted as limitations on the time in which the Owner can enforce such other duties, obligations, rights or remedies.

1. Rejection of Warranties: The Owner reserves the right to reject warranties and to limit selection to products with warranties not in conflict with requirements of the Contract Documents.
2. Where the Contract Documents require a special warranty, or similar commitment, the Owner reserves the right to refuse to accept the work, until the Contractor presents evidence that entities required to countersign such commitments are willing to do so.

Submit written warranties to the Engineer prior to the date certified for Substantial Completion. If the Engineer's Certificate of Substantial Completion designates a commencement date for warranties other than the date of Substantial Completion, submit written warranties upon request of the Engineer.

END OF SECTION

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SECTION 03 30 00 - CAST-IN-PLACE CONCRETE

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

- A. This Section specifies interior and exterior cast-in-place concrete, mix design, placement procedures, and finishes. Work includes, but is not necessarily limited to:

- 1. Interior and Exterior Concrete:

- a. Foundations, pads, piers, columns, beams.
 - f. Normal weight aggregates.
 - g. Reglets.
 - j. Form liners.

- B. Provide other cast-in-place concrete and related work as shown on the Drawings and specified herein for complete and finished work, except concrete work specifically designed to be provided under the Work of other Sections of these Specifications.

- C. The following is by other Sections, meeting the requirements of this Section (unless indicated otherwise).

- 1. Bases for exterior equipment.
 - 2. Encasement of underground utilities or connections.
 - 3. Specifically excluded items.

1.3 SUBMITTALS

- A. Product data for proprietary materials and items, including reinforcement and forming accessories, admixtures, patching compounds, joint systems, curing compounds, dry-shake finish materials, hardeners, seaters, and other specified items.

1.4 QUALITY ASSURANCE

- A. Codes and Standards: Comply with the current accepted provisions of the following codes, specifications, and standards, except as otherwise shown or specified.

- 1. ACI 117 "Specifications for Tolerances for Concrete Construction and Materials."
 - 2. ACI 211.1 "Standard Practice for Selecting Proportions for Normal, Heavyweight, and Mass Concrete."
 - 3. ACI 301 "Specifications for Structural Concrete."
 - 4. ACI 304R "Guide for Measuring, Mixing, Transporting, and Placing Concrete."
 - 5. ACI 311.4R "Guide for Concrete Inspection."
 - 6. ACI 318, 318R "Building Code Requirements for Reinforced Concrete and Commentary."

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7. Concrete Reinforcing Steel Institute, "Manual of Standard Practice."
8. Comply with building code requirements which are more stringent than the above.
9. ACI 305 - "Hot Weather Concreting."
10. ACI 306 - "Cold Weather Concreting."

1.5 PROJECT CONDITIONS

- A. Trades requiring inserts and sleeves for their work shall furnish same for installation as Work under this Section. Delivery of inserts and sleeves for installation as Work under this Section shall be timed so as not to cause delay in the progress of this Work.
- B. Installation requirements within this Specification Section are not intended to be restrictive and the Contractor is allowed when reviewed with the Architect's field representative to adjust the means and methods used to meet required tolerances.

PART 2 - PRODUCTS

2.1 CONCRETE MATERIALS

- A. Portland Cement: ASTM C 150, Type II. Use one brand of cement throughout Project.
 - B. Normal-Weight Aggregates: ASTM C33 and as specified. Provide aggregates from a single source for exposed concrete.
 1. For exposed exterior surfaces, do not use fine or coarse aggregates that contain substances that cause spalling.
 2. Local aggregates not complying with ASTM C33 that have been shown to produce concrete of adequate strength and durability by special tests or actual service may be used when acceptable to Architect.
 3. Fine Aggregate: Clean, sharp, natural sand free from loam, clay lumps, or other deleterious substances.
 4. Coarse Aggregate: Clean, uncoated, processed aggregate containing no clay, mud, loam, or foreign matter, as follows:
 - a. Crushed stone, processed from natural rock or stone.
 - b. Washed gravel, either natural or crushed. Use of pit or bankrun gravels not permitted.
 - c. Maximum Aggregate Size: Not larger than one-fifth of narrowest dimension between sides of forms, one-third of depth of slabs, nor three-fourths of minimum clear spacing between individual reinforcing bars or bundles of bars.
 5. Aggregate Supply: Provide aggregates from one source of supply to ensure uniformity in color, size, and shape.
 - C. Water: Potable.
- ### 2.2 RELATED MATERIALS
- A. Non-Shrink Grout
 1. Type: Grout for base plates and bearing plates shall be a non-metallic, shrinkage

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- resistant, premixed, non-corrosive, non-staining product containing Portland cement, silica sand, shrinkage compensating agents and fluidity improving compounds.
2. Specifications: Non-shrink grout shall conform to Corps of Engineers Specification for Non-Shrink Grout, CE-CRD-C621.
 3. Compressive Strength: 28-day compressive strength as determined by grout cube tests, shall be as follows:
 - a. 6,000 psi for supporting concrete 3,000 psi and less.
 - b. 8,000 psi for supporting concrete greater than 3,000 psi and less than or equal to 4,000 psi.
 - c. 10,000 psi for supporting concrete greater than 4,000 psi.
 4. Products: Acceptable manufacturers as follows:
 - a. "Supreme , Cormix, Inc.
 - b. "Crystex"; L & M Construction Chemicals, Inc.
 - c. "Masterflow 713"; Master Builders.
 - d. "Five Star Grout"; U.S. Grout Corp.
 - e. "SonogROUT", Sonneborn Construction Chemicals.
 - E "Euco-NS"; Euclid Chemical Company
 - g. "Sure-Grip Grout"; Dayton Superior Corp.
 5. Manufacturers: At the start of grouting operations, the Contractor shall have a manufacturer's representative observe the grouting operation to insure conformance to requirements.

2.3 CONCRETE CURING MATERIALS

- A. Moisture-Retaining Cover: One of the following, complying with ASTM C171, for concrete floors that are to be exposed.
 1. Waterproof paper.
 2. Polyethylene film.
 3. Polyethylene-coated burlap.

2.4 CONCRETE MIXING

- A. Ready-Mixed Concrete: Comply with requirements of ASTM C 94, and as specified.
 1. When air temperature is between 85 deg F (30 deg C) and 95 deg F (32 deg C), reduce mixing and delivery time from 1-1/2 hours to 75 minutes, and when air temperature is above 95 deg F (32 deg C), reduce mixing and delivery time to 60 minutes.
 2. Delete the references for allowing additional water to be added to the batch for material with sufficient slump. Addition of water to the batch will not be permitted.
 3. During hot weather or under conditions contributing to rapid setting of concrete, a shorter mixing time than specified in ASTM C94 may be required.

PART 3 - EXECUTION

3.1 GENERAL

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- A. Coordinate the installation of joint materials, construction joints, vapor retarder/barrier, and other related materials with placement of forms and reinforcing steel.

3.2 PREPARATION

- A. Pre-placement Inspection: Before placing concrete, inspect and complete the formwork installation, reinforcing steel, and items to be embedded or cast-in. Notify other crafts to permit the installation of their work; cooperate with other trades in setting such work, as required.

3.3 INSTALLING EMBEDDED ITEMS

- A. General: Set and build into formwork anchorage devices and other embedded items required for other work that is attached to or supported by cast-in-place concrete. Use setting drawings, diagrams, instructions, and directions provided by suppliers of items to be attached.
- B. Install dovetail anchor slots in concrete structures.
- C. Forms for Slabs: Set edge forms, bulkheads, and intermediate screed strips for slabs to achieve required elevations and contours in finished surfaces. Provide and secure units to support screed strips using strike-off templates or compacting-type screeds.

3.4 PREPARING FORM SURFACES

- A. General: Coat contact surfaces of forms with an approved, non-residual, low-VOC, form-coating compound before placing reinforcement.
- B. Do not allow excess form-coating material to accumulate in forms or come into contact with in-place concrete surfaces against which fresh concrete will be placed. Apply according to manufacturer's instructions.
 - 1. Coat steel forms with a non-staining, rust-preventative material. Rust-stained steel formwork is not acceptable.

3.5 CONCRETE PLACEMENT

- A. Inspection: Before placing concrete, inspect and complete formwork installation, reinforcing steel, and items to be embedded or cast in. Notify other trades to permit installation of their work.
- B. General: Comply with ACI 304, "Guide for Measuring, Mixing, Transporting, and Placing Concrete," and as specified.
- C. Deposit concrete continuously or in layers of such thickness that no new concrete will be placed on concrete that has hardened sufficiently to cause seams or planes of weakness. If a section cannot be placed continuously, provide construction joints as specified. Deposit concrete to avoid segregation at its final location.
- D. Hot-Weather Placement: When hot weather conditions exist that would impair quality and strength of concrete, place concrete complying with ACI 305 and as specified.
 - 1. Cool ingredients before mixing to maintain concrete temperature at time of placement to below 95 deg F. (35 deg C). Mixing water may be chilled or chopped ice may be used to

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control temperature, provided water equivalent of ice is calculated to total amount of mixing water. Using liquid nitrogen to cool concrete is Contractor's option.

2. Fog spray forms, reinforcing steel, and subgrade just before placing concrete. Keep subgrade moisture uniform without puddles or dry areas.

3.6 MONOLITHIC SLAB FINISHES

- A. General Information (Slabs on Grade): The requirements indicated are based upon the latest FF/FL method. Bids for this work shall reflect these requirements and enforcement thereof can be expected.
- B. Float Finish - Not Critical Floor Tolerance: Apply float finish to monolithic slab surfaces that are to receive trowel finish and other thick finishes as hereinafter specified, and slab surfaces which are to be covered with waterproofing membrane or sand-bed terrazzo, and as otherwise shown on Drawings or in Schedules.
- C. Non-slip Broom Finish: Apply non-slip broom finish to exterior concrete with fiber bristle broom, perpendicular to main traffic route. Coordinate required final finish with the Architect before application.

3.7 MISCELLANEOUS CONCRETE ITEMS

- A. Filling In: Fill in holes and openings left in concrete structures for passage of work by other trades, unless otherwise shown or directed, after work of other trades is in place. Mix, place, and cure concrete as specified to blend with in-place construction. Provide other miscellaneous concrete filling shown or required to complete Work.
- B. Equipment Bases and Foundations: Provide machine and equipment bases and foundations. Set anchor bolts for machines and equipment to template at correct elevations, complying with diagrams or templates of manufacturer furnishing machines and equipment.
- C. Grout base plates as indicated, using specified non-metallic, non-shrink grout.

3.8 CONCRETE CURING AND PROTECTION

- A. General: Protect freshly placed concrete from premature drying and excessive cold or hot temperatures. In hot, dry, and windy weather protect concrete from rapid moisture loss before and during finishing operations with an evaporation-control material. Apply according to manufacturer's instructions after screeding and bull floating, but before power floating and trawling.
- B. Start initial curing as soon as free water has disappeared from concrete surface after placing and finishing. Weather permitting; keep continuously moist for not less than 72 hours.
- C. Curing Methods: Cure concrete by curing compound, by moist curing, by moisture-retaining cover curing, or by combining these methods, as specified.
- D. Provide moisture curing by the following methods:
 1. Keep concrete surface continuously wet by covering with water.
 2. Use continuous water-fog spray.

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3. Cover concrete surface with specified absorptive cover, thoroughly saturate cover with water, and keep continuously wet. Place absorptive cover to provide coverage of concrete surfaces and edges, with a 4-inch lap over adjacent absorptive covers.
- E. Provide moisture-retaining cover curing as follows: Cover concrete surfaces with moisture-retaining cover for curing concrete, placed in widest practicable width with sides and ends lapped at least 3 inches and sealed by waterproof tape or adhesive. Immediately repair any holes or tears during curing period using cover material and waterproof tape.
- F. Apply curing compound on exposed interior slabs and on exterior slabs, walks, and curbs as follows:
 1. Apply curing compound to concrete slabs as soon as final finishing operations are complete (within 2 hours and after surface water sheen has disappeared). Apply uniformly in continuous operation by power spray or roller according to manufacturer's directions. Re-coat areas subjected to heavy rainfall within 3 hours after initial application. Maintain continuity of coating and repair damage during curing period.
 2. Use membrane curing compounds that will not affect surfaces to be covered with finish materials applied directly to concrete.
- G. Curing Formed Surfaces: Cure formed concrete surfaces, including underside of beams, supported slabs, and other similar surfaces, by moist curing with forms in place for the full curing period or until forms are removed. If forms are removed, continue curing by methods specified above, as applicable.
- H. Curing Unformed Surfaces: Cure unformed surfaces, including slabs, floor topping, and other flat surfaces, by applying the appropriate curing method.
 1. Final cure concrete surfaces to receive finish flooring with a moisture-retaining cover, unless otherwise directed.

3.9 REMOVING FORMS

- A. General: Formwork not supporting weight of concrete, such as sides of beams, walls, columns, and similar parts of the work, may be removed after cumulatively curing at not less than 50 deg F for 24 hours after placing concrete, provided concrete is sufficiently hard to not be damaged by form-removal operations, and provided curing and protection operations are maintained.
- B. Formwork supporting weight of concrete, such as beam soffits, joists, slabs, and other structural elements, may not be removed in less than 14 days or until concrete has attained at least 75 percent of design minimum compressive strength at 28 days. Determine potential compressive strength of in-place concrete by testing field-cured specimens representative of concrete location or members.
- C. Form-facing material may be removed 24 hours after placement only if shores and other vertical supports have been arranged to permit removal of form-facing material without loosening or disturbing shores and supports.

3.10 CONCRETE SURFACE REPAIRS

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- A. Patching Defective Areas: Repair and patch defective areas with cement mortar immediately after removing forms, when acceptable to Architect.
- B. Mix dry-pack mortar, consisting of one part portland cement to 2-1/2 parts fine aggregate passing a No. 16 mesh sieve, using only enough water as required for handling and placing.
 - 1. Cut out honeycombs, rock pockets, voids over 1/4 inch in any dimension, and holes left by tie rods and bolts down to solid concrete but in no case to a depth less than 1 inch. Make edges of cuts perpendicular to the concrete surface. Thoroughly clean, dampen with water, and brush-coat the area to be patched with bonding agent. Place patching mortar before bonding agent has dried.
 - 2. For surfaces exposed to view, blend white portland cement and standard portland cement so that, when dry, patching mortar will match surrounding color. Provide test areas at inconspicuous locations to verify mixture and color match before proceeding with patching. Compact mortar in place and strike-off slightly higher than surrounding surface.
- C. Repair isolated random cracks and single holes 1 inch or less in diameter by dry-pack method. Groove top of cracks and cut out holes to sound concrete and clean of dust, dirt, and loose particles. Dampen cleaned concrete surfaces and apply bonding compound. Place dry-pack before bonding agent has dried. Compact dry-pack mixture in place and finish to match adjacent concrete. Keep patched area continuously moist for at least 72 hours.
- D. Perform structural repairs with prior approval of Architect for method and procedure, using specified epoxy adhesive and mortar.
- E. Repair methods not specified above may be used, subject to acceptance of Architect.

END OF SECTION 03 30 00

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SECTION 21 13 13 - WET-PIPE SPRINKLER SYSTEMS

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

- A. Section Includes:
 - 1. Pipes, fittings, and specialties.
 - 2. Fire-protection valves.
 - 3. Sprinklers.
 - 4. Alarm devices.
 - 5. Pressure gages.

1.3 DEFINITIONS

- A. Standard-Pressure Sprinkler Piping: Wet-pipe sprinkler system piping designed to operate at working pressure of 175 psig (1200 kPa) maximum.

1.4 SYSTEM DESCRIPTIONS

- A. Wet-Pipe Sprinkler System: Automatic sprinklers are attached to piping containing water and that is connected to water supply through alarm valve. Water discharges immediately from sprinklers when they are opened. Sprinklers open when heat melts fusible link or destroys frangible device. Hose connections are included if indicated.

1.5 PERFORMANCE REQUIREMENTS

- A. Standard-Pressure Piping System Component: Listed for 175-psig (1200-kPa) minimum working pressure.
- B. Delegated Design: Design sprinkler system(s), including comprehensive engineering analysis by a qualified professional engineer, using performance requirements and design criteria indicated.
- C. Sprinkler system design shall be approved by authorities having jurisdiction.

1.6 SUBMITTALS

- A. Product Data: For each type of product indicated. Include rated capacities, operating characteristics, electrical characteristics, and furnished specialties and accessories.

- B. Shop Drawings: For wet-pipe sprinkler systems. Include plans, elevations, sections, details, and attachments to other work.
 - 1. Wiring Diagrams: For power, signal, and control wiring.
- C. Qualification Data: For qualified Installer.
- D. Welding certificates.
- E. Fire-hydrant flow test report.
- F. Field Test Reports and Certificates: Indicate and interpret test results for compliance with performance requirements and as described in NFPA 13. Include "Contractor's Material and Test Certificate for Aboveground Piping."
- G. Field quality-control reports.
- H. Operation and Maintenance Data: For sprinkler specialties to include in emergency, operation, and maintenance manuals.

1.7 QUALITY ASSURANCE

- A. Installer Qualifications:
 - 1. Installer's responsibilities include designing, fabricating, and installing sprinkler systems and providing professional engineering services needed to assume engineering responsibility. Base calculations on results of fire-hydrant flow test.
 - a. Engineering Responsibility: Preparation of working plans, calculations, and field test reports by a qualified professional engineer.
- B. Welding Qualifications: Qualify procedures and operators according to ASME Boiler and Pressure Vessel Code.
- C. Electrical Components, Devices, and Accessories: Listed and labeled as defined in NFPA 70, by a qualified testing agency, and marked for intended location and application.

1.8 COORDINATION

- A. Coordinate layout and installation of sprinklers with other construction that penetrates ceilings, including light fixtures, HVAC equipment, and partition assemblies.

PART 2 - PRODUCTS

2.1 PIPING MATERIALS

- A. Comply with requirements in "Piping Schedule" Article for applications of pipe, tube, and fitting materials, and for joining methods for specific services, service locations, and pipe sizes.

2.2 STEEL PIPE AND FITTINGS

- A. Standard Weight, Black-Steel Pipe: ASTM A 53/A 53M, Type E, Grade B. Pipe ends may be factory or field formed to match joining method.

- B. Schedule 10, Black-Steel Pipe: ASTM A 135 or ASTM A 795/A 795M, Schedule 10 in NPS 5 (DN 125) and smaller; and NFPA 13-specified wall thickness in NPS 6 to NPS 10 (DN 150 to DN 250), plain end.
- C. Galvanized, Steel Couplings: ASTM A 865, threaded.
- D. Galvanized, Gray-Iron Threaded Fittings: ASME B16.4, Class 125, standard pattern.
- E. Malleable- or Ductile-Iron Unions: UL 860.
- F. Steel Flanges and Flanged Fittings: ASME B16.5, Class 150.
- G. Steel Welding Fittings: ASTM A 234/A 234M and ASME B16.9.
- H. Grooved-Joint, Steel-Pipe Appurtenances:
 - 1. Manufacturers: Subject to compliance with requirements:
 - a. Anvil International, Inc.
 - b. National Fittings, Inc.
 - c. Shurjoint Piping Products.
 - d. Tyco Fire & Building Products LP.
 - e. Victaulic Company.
 - 2. Pressure Rating: 175 psig (1200 kPa) minimum.
 - 3. Galvanized, Grooved-End Fittings for Steel Piping: ASTM A 47/A 47M, malleable-iron casting or ASTM A 536, ductile-iron casting; with dimensions matching steel pipe.
 - 4. Grooved-End-Pipe Couplings for Steel Piping: AWWA C606 and UL 213, rigid pattern, unless otherwise indicated, for steel-pipe dimensions. Include ferrous housing sections, EPDM-rubber gasket, and bolts and nuts.

2.3 PIPING JOINING MATERIALS

- A. Pipe-Flange Gasket Materials: AWWA C110, rubber, flat face, 1/8 inch (3.2 mm) thick.
 - 1. Class 125, Cast-Iron Flanges and Class 150, Bronze Flat-Face Flanges: Full-face gaskets.
 - 2. Class 250, Cast-Iron Flanges and Class 300, Steel Raised-Face Flanges: Ring-type gaskets.
- B. Metal, Pipe-Flange Bolts and Nuts: ASME B18.2.1, carbon steel unless otherwise indicated.
- C. Brazing Filler Metals: AWS A5.8/A5.8M, BCuP Series, copper-phosphorus alloys for general-duty brazing unless otherwise indicated.
- D. Welding Filler Metals: Comply with AWS D10.12M/D10.12 for welding materials appropriate for wall thickness and chemical analysis of steel pipe being welded.

2.4 LISTED FIRE-PROTECTION VALVES

- A. General Requirements:
 - 1. Valves shall be UL listed or FM approved.
 - 2. Minimum Pressure Rating for Standard-Pressure Piping: 175 psig (1200 kPa).
- B. Bronze Butterfly Valves:
 - 1. Manufacturers: Subject to compliance with requirements:
 - a. Reliable Automatic Sprinkler Co., Inc.

- b. Tyco Fire & Building Products LP.
- c. Victaulic Company.
- d. Viking Corporation.
- 2. Standard: UL 1091.
- 3. Pressure Rating: 175 psig (1200 kPa).
- 4. Body Material: Bronze.
- 5. End Connections: Threaded.

C. Check Valves:

- 1. Manufacturers: Subject to compliance with requirements:
 - a. Reliable Automatic Sprinkler Co., Inc.
 - b. Tyco Fire & Building Products LP.
 - c. Victaulic Company.
 - d. Viking Corporation.
- 2. Standard: UL 312.
- 3. Pressure Rating: 300 psig (2070 kPa).
- 4. Type: Swing check.
- 5. Body Material: Cast iron.
- 6. End Connections: Flanged or grooved.

D. Bronze OS&Y Gate Valves:

- 1. Manufacturers: Subject to compliance with requirements:
 - a. Reliable Automatic Sprinkler Co., Inc.
 - b. Tyco Fire & Building Products LP.
 - c. Victaulic Company.
 - d. Viking Corporation.
- 2. Standard: UL 262.
- 3. Pressure Rating: 175 psig (1200 kPa).
- 4. Body Material: Bronze.
- 5. End Connections: Threaded.

2.5 TRIM AND DRAIN VALVES

A. General Requirements:

- 1. Standard: UL's "Fire Protection Equipment Directory" listing or "Approval Guide," published by FM Global, listing.
- 2. Pressure Rating: 175 psig (1200 kPa) minimum.

B. Ball Valves:

- 1. Manufacturers: Subject to compliance with requirements:
 - a. Milwaukee Valve Company.
 - b. Potter Roemer.
 - c. Tyco Fire & Building Products LP.
 - d. Victaulic Company.

2.6 SPRINKLERS

A. Manufacturers: Subject to compliance with requirements:

- 1. Reliable Automatic Sprinkler Co., Inc.
- 2. Tyco Fire & Building Products LP.
- 3. Victaulic Company.
- 4. Viking Corporation.

- B. General Requirements:
 - 1. Standard: UL's "Fire Protection Equipment Directory" listing or "Approval Guide," published by FM Global, listing.
 - 2. Pressure Rating for Residential Sprinklers: 175 psig (1200 kPa) maximum.
 - 3. Pressure Rating for Automatic Sprinklers: 175 psig (1200 kPa) minimum.
- C. Sprinkler Finishes:
 - 1. Chrome plated.
 - 2. Bronze.
 - 3. Painted.
- D. Special Coatings:
 - 1. Wax.
 - 2. Lead.
 - 3. Corrosion-resistant paint.
- E. Sprinkler Escutcheons: Materials, types, and finishes for the following sprinkler mounting applications. Escutcheons for concealed, flush, and recessed-type sprinklers are specified with sprinklers.
 - 1. Ceiling Mounting: Chrome-plated steel, one piece, flat.
 - 2. Sidewall Mounting: Chrome-plated steel, one piece, flat.
- F. Sprinkler Guards:
 - 1. Manufacturers: Subject to compliance with requirements:
 - a. Reliable Automatic Sprinkler Co., Inc.
 - b. Tyco Fire & Building Products LP.
 - c. Victaulic Company.
 - d. Viking Corporation.
 - 2. Standard: UL 199.
 - 3. Type: Wire cage with fastening device for attaching to sprinkler.

2.7 ALARM DEVICES

- A. Alarm-device types shall match piping and equipment connections.
- B. Water-Flow Indicators:
 - 1. Manufacturers: Subject to compliance with requirements:
 - a. Potter Electric Signal Company.
 - b. System Sensor; a Honeywell company.
 - c. Viking Corporation.
 - 2. Standard: UL 346.
 - 3. Water-Flow Detector: Electrically supervised.
 - 4. Components: Two single-pole, double-throw circuit switches for isolated alarm and auxiliary contacts, 7 A, 125-V ac and 0.25 A, 24-V dc; complete with factory-set, field-adjustable retard element to prevent false signals and tamperproof cover that sends signal if removed.
 - 5. Type: Paddle operated.
 - 6. Pressure Rating: 250 psig (1725 kPa).
 - 7. Design Installation: Horizontal or vertical.
- C. Valve Supervisory Switches:
 - 1. Manufacturers: Subject to compliance with requirements:
 - a. Kennedy Valve; a division of McWane, Inc.
 - b. Potter Electric Signal Company.

- c. System Sensor; a Honeywell company.
- 2. Standard: UL 346.
- 3. Type: Electrically supervised.
- 4. Components: Single-pole, double-throw switch with normally closed contacts.
- 5. Design: Signals that controlled valve is in other than fully open position.

2.8 PRESSURE GAGES

- A. Manufacturers: Subject to compliance with requirements:
 - 1. AMETEK; U.S. Gauge Division.
 - 2. Ashcroft, Inc.
 - 3. Brecco Corporation.
- B. Standard: UL 393.
- C. Dial Size: 3-1/2- to 4-1/2-inch (90- to 115-mm) diameter.
- D. Pressure Gage Range: 0 to 250 psig (0 to 1725 kPa) minimum.
- E. Water System Piping Gage: Include "WATER" or "AIR/WATER" label on dial face.
- F. Air System Piping Gage: Include "AIR" or "AIR/WATER" label on dial face.

2.9 GROUT

- A. Standard: ASTM C 1107, Grade B, post-hardening and volume adjusting, dry, hydraulic-cement grout.
- B. Characteristics: Non-shrink, and recommended for interior and exterior applications.
- C. Design Mix: 5000-psi (34-MPa), 28-day compressive strength.
- D. Packaging: Premixed and factory packaged.

PART 3 - EXECUTION

3.1 PREPARATION

- A. Perform fire-hydrant flow test according to NFPA 13 and NFPA 291. Use results for system design calculations required in "Quality Assurance" Article.
- B. Report test results promptly and in writing.

3.2 SERVICE-ENTRANCE PIPING

- A. Connect sprinkler piping to water-service piping for service entrance to building. Comply with requirements for exterior piping in Division 21 Section "Facility Fire-Suppression Water-Service Piping."

- B. Install shutoff valve, backflow preventer, pressure gage, drain, and other accessories indicated at connection to water-service piping. Comply with requirements for backflow preventers in Division 21 Section "Facility Fire-Suppression Water-Service Piping."
- C. Install shutoff valve, check valve, pressure gage, and drain at connection to water service.

3.3 PIPING INSTALLATION

- A. Locations and Arrangements: Drawing plans, schematics, and diagrams indicate general location and arrangement of piping. Install piping as indicated, as far as practical.
 - 1. Deviations from approved working plans for piping require written approval from authorities having jurisdiction. File written approval with Architect before deviating from approved working plans.
- B. Piping Standard: Comply with requirements for installation of sprinkler piping in NFPA 13.
- C. Use listed fittings to make changes in direction, branch takeoffs from mains, and reductions in pipe sizes.
- D. Install unions adjacent to each valve in pipes NPS 2 (DN 50) and smaller.
- E. Install flanges, flange adapters, or couplings for grooved-end piping on valves, apparatus, and equipment having NPS 2-1/2 (DN 65) and larger end connections.
- F. Install "Inspector's Test Connections" in sprinkler system piping, complete with shutoff valve, and sized and located according to NFPA 13.
- G. Install sprinkler piping with drains for complete system drainage.
- H. Install sprinkler control valves, test assemblies, and drain risers adjacent to standpipes when sprinkler piping is connected to standpipes.
- I. Install automatic (ball drip) drain valve at each check valve for fire-department connection, to drain piping between fire-department connection and check valve. Install drain piping to and spill over floor drain or to outside building.
- J. Install alarm devices in piping systems.
- K. Install hangers and supports for sprinkler system piping according to NFPA 13. Comply with requirements for hanger materials in NFPA 13.
- L. Install pressure gages on riser or feed main, at each sprinkler test connection, and at top of each standpipe. Include pressure gages with connection not less than NPS 1/4 (DN 8) and with soft metal seated globe valve, arranged for draining pipe between gage and valve. Install gages to permit removal, and install where they will not be subject to freezing.
- M. Pressurize and check pre-action sprinkler system piping and air-pressure maintenance devices.
- N. Fill sprinkler system piping with water.

3.4 JOINT CONSTRUCTION

- A. Install couplings, flanges, flanged fittings, unions, nipples, and transition and special fittings that have finish and pressure ratings same as or higher than system's pressure rating for aboveground applications unless otherwise indicated.
- B. Install unions adjacent to each valve in pipes NPS 2 (DN 50) and smaller.
- C. Install flanges, flange adapters, or couplings for grooved-end piping on valves, apparatus, and equipment having NPS 2-1/2 (DN 65) and larger end connections.
- D. Ream ends of pipes and tubes and remove burrs. Bevel plain ends of steel pipe.
- E. Remove scale, slag, dirt, and debris from inside and outside of pipes, tubes, and fittings before assembly.
- F. Flanged Joints: Select appropriate gasket material in size, type, and thickness suitable for water service. Join flanges with gasket and bolts according to ASME B31.9.
- G. Threaded Joints: Thread pipe with tapered pipe threads according to ASME B1.20.1. Cut threads full and clean using sharp dies. Ream threaded pipe ends to remove burrs and restore full ID. Join pipe fittings and valves as follows:
 - 1. Apply appropriate tape or thread compound to external pipe threads.
 - 2. Damaged Threads: Do not use pipe or pipe fittings with threads that are corroded or damaged.
- H. Welded Joints: Construct joints according to AWS D10.12M/D10.12, using qualified processes and welding operators according to "Quality Assurance" Article.
 - 1. Shop weld pipe joints where welded piping is indicated. Do not use welded joints for galvanized-steel pipe.
- I. Steel-Piping, Roll-Grooved Joints: Roll rounded-edge groove in end of pipe according to AWWA C606. Assemble coupling with housing, gasket, lubricant, and bolts. Join steel pipe and grooved-end fittings according to AWWA C606 for steel-pipe grooved joints.
- J. Dissimilar-Material Piping Joints: Make joints using adapters compatible with materials of both piping systems.

3.5 VALVE AND SPECIALTIES INSTALLATION

- A. Install listed fire-protection valves, trim and drain valves, specialty valves and trim, controls, and specialties according to NFPA 13 and authorities having jurisdiction.
- B. Install listed fire-protection shutoff valves supervised open, located to control sources of water supply except from fire-department connections. Install permanent identification signs indicating portion of system controlled by each valve.
- C. Install check valve in each water-supply connection. Install backflow preventers instead of check valves in potable-water-supply sources.
- D. Specialty Valves:
 - 1. General Requirements: Install in vertical position for proper direction of flow, in main supply to system.
 - 2. Alarm Valves: Include bypass check valve and retarding chamber drain-line connection.

3.6 SPRINKLER INSTALLATION

- A. Install sprinklers in suspended ceilings in center of acoustical ceiling panels.
- B. Install dry-type sprinklers with water supply from heated space. Do not install pendent or sidewall, wet-type sprinklers in areas subject to freezing.

3.7 IDENTIFICATION

- A. Install labeling and pipe markers on equipment and piping according to requirements in NFPA 13.
- B. Identify system components, wiring, cabling, and terminals. Comply with requirements for identification specified in Division 26 Section "Identification for Electrical Systems."

3.8 FIELD QUALITY CONTROL

- A. Perform tests and inspections.
- B. Tests and Inspections:
 - 1. Leak Test: After installation, charge systems and test for leaks. Repair leaks and retest until no leaks exist.
 - 2. Test and adjust controls and safeties. Replace damaged and malfunctioning controls and equipment.
 - 3. Flush, test, and inspect sprinkler systems according to NFPA 13, "Systems Acceptance" Chapter.
 - 4. Energize circuits to electrical equipment and devices.
 - 5. Coordinate with fire-alarm tests. Operate as required.
 - 6. Verify that equipment hose threads are same as local fire-department equipment.
- C. Sprinkler piping system will be considered defective if it does not pass tests and inspections.
- D. Prepare test and inspection reports.

3.9 PIPING SCHEDULE

- A. Sprinkler specialty fittings may be used, downstream of control valves, instead of specified fittings.
- B. Standard-pressure, wet-pipe sprinkler system, NPS 2 (DN 50) and smaller, shall be one of the following:
 - 1. Standard-weight, black-steel pipe with threaded ends; uncoated, gray-iron threaded fittings; and threaded joints.
 - 2. Standard-weight, black-steel pipe with roll-grooved ends; uncoated, grooved-end fittings for steel piping; grooved-end-pipe couplings for steel piping; and grooved joints.
 - 3. Standard-weight, black-steel pipe with plain ends; steel welding fittings; and welded joints.
- C. Standard-pressure, wet-pipe sprinkler system, NPS 2-1/2 to NPS 4 (DN 65 to DN 100), shall be one of the following:
 - 1. Standard-weight, black-steel pipe with threaded ends; uncoated, gray-iron threaded fittings; and threaded joints.

2. Standard-weight, black-steel pipe with roll-grooved ends; uncoated, grooved-end fittings for steel piping; grooved-end-pipe couplings for steel piping; and grooved joints.
 3. Standard-weight, black-steel pipe with plain ends; steel welding fittings; and welded joints.
 4. Schedule 10, black-steel pipe with roll-grooved ends; uncoated, grooved-end fittings for steel piping; grooved-end-pipe couplings for steel piping; and grooved joints.
- D. Standard-pressure, wet-pipe sprinkler system, NPS 5 (DN 125) and larger, shall be one of the following:
1. Standard-weight, black-steel pipe with roll-grooved ends; uncoated, grooved-end fittings for steel piping; grooved-end-pipe couplings for steel piping; and grooved joints.
 2. Standard-weight, black-steel pipe with plain ends; steel welding fittings; and welded joints.

3.10 SPRINKLER SCHEDULE

- A. Use sprinkler types in subparagraphs below for the following applications:
1. Rooms without Ceilings: Upright sprinklers.
 2. Rooms with Suspended Ceilings: Recessed sprinklers or Concealed sprinklers.
 3. Wall Mounting: Sidewall sprinklers.
- B. Provide sprinkler types in subparagraphs below with finishes indicated.
1. Concealed Sprinklers: Rough brass, with factory-painted white cover plate.
 2. Recessed Sprinklers: Bright chrome, with bright chrome escutcheon.
 3. Residential Sprinklers: Dull chrome.
 4. Upright and Sidewall Sprinklers: Chrome plated in finished spaces exposed to view; rough bronze in unfinished spaces not exposed to view; wax coated where exposed to acids, chemicals, or other corrosive fumes.

END OF SECTION 21 13 13

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SECTION 23 05 00 - COMMON WORK RESULTS FOR MECHANICAL

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

- A. Section Includes:
 - 1. Mechanical equipment coordination and installation.
 - 2. Common mechanical installation requirements.
 - 3. Commissioning requirements.

1.3 GENERAL REQUIREMENTS

- A. Carefully examine General Conditions, other specification sections, and other drawings (in addition to DIVISION 23), in order to be fully acquainted with their effect on mechanical work. Additions to the contract cost will not be allowed due to failure to inspect existing conditions.
- B. Do all work in compliance with 2020 7th Edition Florida Building Code, and the Codes adopted therein, and 2020 7th Edition Florida Fire Prevention Code. Obtain and pay any and all required permits, inspections, certificates of inspections and approval, and the like, and deliver such certificates to the Architect/Engineer.
- C. Cooperate and coordinate with all other trades. Perform work in such manner and at such times as not to delay work of other trades. Complete all work as soon as the condition of the structure and installations of equipment will permit. Patch, in a satisfactory manner and by the proper craft, any work damaged by mechanical workmen.
- D. Furnish, perform, or otherwise provide all labor (including, but not limited to, all planning, purchasing, transporting, rigging, hoisting, storing, installing, testing, chasing, channeling, cutting, trenching, excavating and backfilling), coordination, field verification, equipment installation, support, and safety, supplies, and materials necessary for the correct installation of complete and functional mechanical systems (as described or implied by these specifications and the applicable drawings).

1.4 DRAWINGS:

- A. Indicate only diagrammatically the extent, general character, and approximate location of work. Where work is indicated, but with minor details omitted, furnish and install it complete and so as to perform its intended functions.

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- B. DIVISION 23 work called for under any section of the project specifications, shall be considered as included in this work unless specifically excluded by inclusion in some other branch of the work. This shall include roughing-in for connections and equipment as called for or inferred. This shall include connection and ductwork required for all fans, hoods, dryers, diffusers etc as required for a functional installation, whether shown on the drawings or not. Check all drawings and specifications for the project and shall be responsible for the installation of all DIVISION 23 work.
- C. Take finish dimensions at the job site in preference to scaled dimensions. Do not scale drawings where specific details and dimensions for DIVISION 23 work are not shown on the drawings, take measurements and make layouts as required for the proper installation of the work and coordination with all drawings and coordination with all other work on the project. In case of any discrepancies between the drawings and the specifications that have not been clarified by addendum prior to bidding, it shall be assumed by the signing of the contract that the higher cost (if any difference in costs) is included in the contract price, and perform the work in accordance with the drawings or with the specifications, as determined and approved by the Architect/ Engineer, and no additional costs shall be allowed to the base contract price.
- D. Carefully check the drawings and specifications of all trades and divisions before installing any of the work. Contractor shall in all cases consider the work of all other trades, and shall coordinate his work with them so that the best arrangements of all equipment, piping, conduit, ducts, rough-in, etc., can be obtained. The avoidance of any beams, joist or bracing that is an obstruction to ductwork, shall be included in the bid. This includes the reroute of ductwork or dimension revisions required to obtain the intended function of the ductwork. Bring all obstructions to the attention of the A/E during the shop drawing preparation and prior to fabrication of any ductwork. No cost will be paid by the owner for these modifications that can be identified by reviewing all sets of drawings prior to bid.
- E. All equipment and controllers shall have a minimum fault current withstand rating equal to the overcurrent protective device from which it is fed.
- F. All equipment attached to the exterior of the building structure shall carry the Florida Product Approval rating to withstand hurricane force winds in local area. If no product approval rating is standard, the contractor shall get the new approval or have the structural integrity certified by a Florida Registered Structural Engineer to comply with the requirements at no additional cost to the Owner.
- G. Provide appropriately rated fire dampers or fire/smoke dampers as required by code at penetrations of fire rated or smoke rated walls by all duct work including but not limited to air supply, return, exhaust and ventilation ducts. These shall be provided at no additional cost whether shown on the drawings or not.
- H. Carefully examine the route for installation and delivery of all equipment. Contractor shall disassemble and reassemble all items required to deliver and install each piece of equipment or provide for the removal and reinstallation of the impeding item. Provide all field support from manufacturer if required to maintain UL listing, warranty or other manufacturer requirements for the installation of the equipment. Notify the AE prior to bid if there are any issues with this requirement being met.

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- I. Provide condensate drain lines for all AHU's and FCU's whether shown on drawings or not. Take condensate to the nearest of hub drain, floor drain or exterior dry well if in a concealed area.
- J. Coordinate mechanical equipment voltage requirements with electrical drawings. Notify the A/E of any discrepancies prior to bid. Make all revisions required to coordinate with no additional cost to the owner.
- K. Obtain manufacturer's data on all equipment, the dimensions of which may affect mechanical work. Use this data to coordinate proper service characteristics, entry locations, etc., and to ensure minimum clearances are maintained.

1.5 QUALIFICATIONS OF CONTRACTOR:

- A. DIVISION 23 Contractor shall have had experience of at least the same size and scope as this project, on at least two other projects within the last five years in order to be qualified to bid this project.
- B. Contractor performing any part of this scope of work shall be a Florida State Certified Mechanical Contractor (Type CMC)
- C. Provide field superintendent who has had a minimum of four (4) years previous successful experience on projects of comparable size and complexity. Superintendent shall be on the site at all times during construction.

1.6 SITE VISIT/CONDITIONS

- A. Visit the site of this contract and thoroughly familiarize with all existing field conditions and the proposed work as described or implied by the contract documents. During the course of his site visit, verify every aspect of the proposed work and the existing field conditions in the areas of construction which might affect his work. No compensation or reimbursement for additional expenses incurred due to failure or neglect to make a thorough investigation of the contract documents and the existing site conditions will be permitted.
- B. Install all equipment so that all Code required and Manufacturer recommended servicing clearances are maintained. Coordinate the proper arrangement and installation of all equipment within any designated space. If it is determined that a departure from the Contract Documents is necessary, submit to the A/E, for approval, detailed drawings of the proposed changes with written reasons for the changes. No changes shall be implemented without the approval of the engineer.
- C. Submission of a proposal will be construed as evidence that such examination has been made and later claims for labor, equipment or materials required because of difficulties encountered will not be recognized.
- D. Existing conditions and utilities indicated are taken from existing construction documents, surveys, and field investigations. Unforeseen conditions probably exist and existing conditions shown on drawings may differ from the actual existing installation with the result being that new work may not be field located exactly as shown on the drawings. Field verify dimensions

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of all site conditions prior to bidding and include any deviations in the contract. Notify A/E if deviations are found.

- E. All existing mechanical is not shown. Become familiar with all existing conditions prior to bidding, and include in the bid the removal of all mechanical equipment, duct, controls wiring, control devices, and control conduits, etc. that is not being reused, back to its originating point.
- F. Locate all existing utilities and protect them from damage. Pay for repair or replacement of utilities or other property damaged by operations in conjunction with the completion of this work.
- G. Work is in connection with existing buildings which must remain in operation while work is being performed. Work shall be in accord with the schedule required by the Contract. Schedule work for a minimum shut down to Owner. Notify Owner 72 hours in advance of any shut-down of existing systems. Perform work during non-operating hours unless otherwise accepted by Owner. Protect existing buildings and equipment during construction.

1.7 COMMISSIONING RESPONSIBILITIES

- A. Attend commissioning meetings scheduled by the CM.
- B. Schedule work so that required mechanical installations are completed, and system verification checks and functional performance test can be carried out on schedule.
- C. Inspect, check and confirm in writing the proper installation and performance of all mechanical services as required by the system verification and functional performance testing requirements of mechanical equipment in the commissioning specifications.
- D. Provide qualified personnel to assist and operate mechanical system during system verification checks and functional performance testing of HVAC systems as required by the commissioning specifications.
- E. Provide instruction and demonstrations for the Owner's designated operating staff in accordance with the requirements of the commissioning specifications.

PART 2 - PRODUCTS

2.1 NOT USED

PART 3 - EXECUTION

3.1 COMMON REQUIREMENTS FOR MECHANICAL INSTALLATION

- A. Measure indicated mounting heights to bottom of unit for suspended items and to center of unit for wall-mounting items.

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- B. Headroom Maintenance: If mounting heights or other location criteria are not indicated, arrange and install components and equipment to provide maximum possible headroom consistent with these requirements.
- C. Equipment: Install to facilitate service, maintenance, and repair or replacement of components of both mechanical equipment and other nearby installations. Connect in such a way as to facilitate future disconnecting with minimum interference with other items in the vicinity.
- D. Right of Way: Give to piping systems installed at a required slope.
- E. All work shall be executed in a workmanship manner and shall present a neat mechanical appearance upon completion.
- F. Care shall be exercised that all items are plumb, straight, level.
- G. Care shall be exercised so that Code clearance is allowed for all panels, controls. etc., requiring it. Do not allow other trades to infringe on this clearance.
- H. The electrical circuits, components and controls for all equipment are selected and sized based on the equipment specified. If substitutions are proposed, furnish all materials and data required to prove equivalence. No additional charges shall be allowed if additional materials, labor, connections or equipment are needed for substituted products. Any modifications to the electrical design and installation or other trades will also need to be made at no additional cost to the Owner to accommodate the proposed substitutions. Comply with division 1 "substitutions" if allowable.
- I. HVAC environmental control of the project area shall be the responsibility of the contractor for the duration of the work. Where the work area affects other parts of the facility, the contractor shall be responsible for coordinating to maintain environmental services to the other parts of the facility.
- J. The work shall not be considered substantially complete until HVAC system controls are complete, functioning, and tested, and HVAC system testing and balancing are complete.

3.2 CONCRETE PADS

- A. Furnish and install reinforced concrete housekeeping pads for all ground mounted AHU's, Pumps, Condensers, ice tanks, chillers, cooling towers and other free-standing equipment. Unless otherwise noted, pads shall be four (4) inches high and shall exceed dimensions of equipment being set on them, including future sections, by three (3) inches each side, except when equipment is flush against a wall where the side against the wall shall be flush with the equipment.

3.3 DEMOLITION

- A. Unless otherwise specified, all equipment and materials shall remain the property of the Owner. Owner shall have first rights to all demolished items if they decide it is usable. This selected property of Owner shall be delivered to a location where directed by Owner within 15 miles of

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site and all other items shall be removed from the job site and legally disposed of by the Contractor.

- B. Seal all penetrations through walls left vacant due to the removal of mechanical equipment, piping, and ductwork.

END OF SECTION 230500

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SECTION 23 05 10 - BASIC MECHANICAL MATERIALS AND METHODS

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 1 Specification Sections, apply to this Section.

1.2 SUMMARY

- A. This Section includes the following:
 - 1. Piping materials and installation instructions common to most piping systems.
 - 2. Transition fittings.
 - 3. Dielectric fittings.
 - 4. Mechanical sleeve seals.
 - 5. Sleeves.
 - 6. Escutcheons.
 - 7. Grout.
 - 8. Mechanical demolition.
 - 9. Equipment installation requirements common to equipment sections.
 - 10. Painting and finishing.
 - 11. Concrete bases.
 - 12. Supports and anchorages.

1.3 DEFINITIONS

- A. Finished Spaces: Spaces other than mechanical and electrical equipment rooms, furred spaces, pipe and duct shafts, unheated spaces immediately below roof, spaces above ceilings, unexcavated spaces, crawlspaces, and tunnels.
- B. Exposed, Interior Installations: Exposed to view indoors. Examples include finished occupied spaces and mechanical equipment rooms.
- C. Exposed, Exterior Installations: Exposed to view outdoors or subject to outdoor ambient temperatures and weather conditions. Examples include rooftop locations.
- D. Concealed, Interior Installations: Concealed from view and protected from physical contact by building occupants. Examples include above ceilings and in duct shafts.
- E. Concealed, Exterior Installations: Concealed from view and protected from weather conditions and physical contact by building occupants but subject to outdoor ambient temperatures. Examples include installations within unheated shelters.
- F. The following are industry abbreviations for plastic materials:
 - 1. ABS: Acrylonitrile-butadiene-styrene plastic.
 - 2. CPVC: Chlorinated polyvinyl chloride plastic.
 - 3. PE: Polyethylene plastic.

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4. PVC: Polyvinyl chloride plastic.

G. The following are industry abbreviations for rubber materials:

1. EPDM: Ethylene-propylene-diene terpolymer rubber.
2. NBR: Acrylonitrile-butadiene rubber.

1.4 SUBMITTALS

A. Product Data: For the following:

1. Transition fittings.
2. Dielectric fittings.
3. Mechanical sleeve seals.
4. Escutcheons.

B. Welding certificates.

1.5 QUALITY ASSURANCE

A. Steel Support Welding: Qualify processes and operators according to AWS D1.1, "Structural Welding Code--Steel."

B. Steel Pipe Welding: Qualify processes and operators according to ASME Boiler and Pressure Vessel Code: Section IX, "Welding and Brazing Qualifications."

1. Comply with provisions in ASME B31 Series, "Code for Pressure Piping."
2. Certify that each welder has passed AWS qualification tests for welding processes involved and that certification is current.

C. Electrical Characteristics for Mechanical Equipment: Equipment of higher electrical characteristics may be furnished provided such proposed equipment is approved in writing and connecting electrical services, circuit breakers, and conduit sizes are appropriately modified. If minimum energy ratings or efficiencies are specified, equipment shall comply with requirements.

1.6 DELIVERY, STORAGE, AND HANDLING

A. Deliver pipes and tubes with factory-applied end caps. Maintain end caps through shipping, storage, and handling to prevent pipe end damage and to prevent entrance of dirt, debris, and moisture.

B. Store plastic pipes protected from direct sunlight. Support to prevent sagging and bending.

1.7 COORDINATION

A. Arrange for pipe spaces, chases, slots, and openings in building structure during progress of construction, to allow for mechanical installations.

B. Coordinate installation of required supporting devices and set sleeves in poured-in-place concrete and other structural components as they are constructed.

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- C. Coordinate requirements for access panels and doors for mechanical items requiring access that are concealed behind finished surfaces. Access panels and doors are specified in Division 8 Section "Access Doors and Frames."

PART 2 - PRODUCTS

2.1 MANUFACTURERS

- A. In other Part 2 articles where subparagraph titles below introduce lists, the following requirements apply for product selection:
 - 1. Available Manufacturers: Subject to compliance with requirements, manufacturers offering products that may be incorporated into the Work include, but are not limited to, the manufacturers specified.
 - 2. Manufacturers: Subject to compliance with requirements, provide products by the manufacturers specified.

2.2 PIPE, TUBE, AND FITTINGS

- A. Refer to individual Division 23 piping Sections for pipe, tube, and fitting materials and joining methods.
- B. Pipe Threads: ASME B1.20.1 for factory-threaded pipe and pipe fittings.

2.3 JOINING MATERIALS

- A. Refer to individual Division 23 piping Sections for special joining materials not listed below.
- B. Pipe-Flange Gasket Materials: Suitable for chemical and thermal conditions of piping system contents.
 - 1. ASME B16.21, nonmetallic, flat, asbestos-free, 1/8-inch (3.2-mm) maximum thickness unless thickness or specific material is indicated.
 - a. Full-Face Type: For flat-face, Class 125, cast-iron and cast-bronze flanges.
 - b. Narrow-Face Type: For raised-face, Class 250, cast-iron and steel flanges.
 - 2. AWWA C110, rubber, flat face, 1/8 inch (3.2 mm) thick, unless otherwise indicated; and full-face or ring type, unless otherwise indicated.
- C. Flange Bolts and Nuts: ASME B18.2.1, carbon steel, unless otherwise indicated.
- D. Plastic, Pipe-Flange Gasket, Bolts, and Nuts: Type and material recommended by piping system manufacturer, unless otherwise indicated.
- E. Solder Filler Metals: ASTM B 32, lead-free alloys. Include water-flushable flux according to ASTM B 813.
- F. Brazing Filler Metals: AWS A5.8, BCuP Series, copper-phosphorus alloys for general-duty brazing, unless otherwise indicated; and AWS A5.8, BAg1, silver alloy for refrigerant piping, unless otherwise indicated.

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- G. Welding Filler Metals: Comply with AWS D10.12 for welding materials appropriate for wall thickness and chemical analysis of steel pipe being welded.
- H. Solvent Cements for Joining Plastic Piping:
 - 1. CPVC Piping: ASTM F 493.
 - 2. PVC Piping: ASTM D 2564. Include primer according to ASTM F 656.
 - 3. PVC to ABS Piping Transition: ASTM D 3138.

2.4 TRANSITION FITTINGS

- A. AWWA Transition Couplings: Same size as, and with pressure rating at least equal to and with ends compatible with, piping to be joined.
 - 1. Manufacturers:
 - a. Cascade Waterworks Mfg. Co.
 - b. Dresser Industries, Inc.; DMD Div.
 - c. Ford Meter Box Company, Incorporated (The); Pipe Products Div.
 - d. JCM Industries.
 - e. Smith-Blair, Inc.
 - f. Viking Johnson.
 - 2. Underground Piping NPS 1-1/2 (DN 40) and Smaller: Manufactured fitting or coupling.
 - 3. Underground Piping NPS 2 (DN 50) and Larger: AWWA C219, metal sleeve-type coupling.
 - 4. Aboveground Pressure Piping: Pipe fitting.
- B. Plastic-to-Metal Transition Fittings: CPVC and PVC one-piece fitting with manufacturer's Schedule 80 equivalent dimensions; one end with threaded brass insert, and one solvent-cement-joint end.
 - 1. Manufacturers:
 - a. Eslon Thermoplastics.
- C. Plastic-to-Metal Transition Adaptors: One-piece fitting with manufacturer's SDR 11 equivalent dimensions; one end with threaded brass insert, and one solvent-cement-joint end.
 - 1. Manufacturers:
 - a. Thompson Plastics, Inc.
- D. Plastic-to-Metal Transition Unions: MSS SP-107, CPVC and PVC four-part union. Include brass end, solvent-cement-joint end, rubber O-ring, and union nut.
 - 1. Manufacturers:
 - a. NIBCO INC.
 - b. NIBCO, Inc.; Chemtrol Div.
- E. Flexible Transition Couplings for Underground Non-pressure Drainage Piping: ASTM C 1173 with elastomeric sleeve, ends same size as piping to be joined, and corrosion-resistant metal band on each end.
 - 1. Manufacturers:
 - a. Cascade Waterworks Mfg. Co.
 - b. Fernco, Inc.
 - c. Mission Rubber Company.
 - d. Plastic Oddities, Inc.

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2.5 DIELECTRIC FITTINGS

- A. Description: Combination fitting of copper alloy and ferrous materials with threaded, solder-joint, plain, or weld-neck end connections that match piping system materials.
- B. Insulating Material: Suitable for system fluid, pressure, and temperature.
- C. Dielectric Unions: Factory-fabricated, union assembly, for 250-psig (1725-kPa) minimum working pressure at 180 deg F (82 deg C).
 - 1. Manufacturers:
 - a. Capitol Manufacturing Co.
 - b. Central Plastics Company.
 - c. Eclipse, Inc.
 - d. Epco Sales, Inc.
 - e. Hart Industries, International, Inc.
 - f. Watts Industries, Inc.; Water Products Div.
 - g. Zurn Industries, Inc.; Wilkins Div.
- D. Dielectric Flanges: Factory-fabricated, companion-flange assembly, for 150- or 300-psig (1035- or 2070-kPa) minimum working pressure as required to suit system pressures.
 - 1. Manufacturers:
 - a. Capitol Manufacturing Co.
 - b. Central Plastics Company.
 - c. Epco Sales, Inc.
 - d. Watts Industries, Inc.; Water Products Div.
- E. Dielectric-Flange Kits: Companion-flange assembly for field assembly. Include flanges, full-face- or ring-type neoprene or phenolic gasket, phenolic or polyethylene bolt sleeves, phenolic washers, and steel backing washers.
 - 1. Manufacturers:
 - a. Advance Products & Systems, Inc.
 - b. Calpico, Inc.
 - c. Central Plastics Company.
 - d. Pipeline Seal and Insulator, Inc.
 - 2. Separate companion flanges and steel bolts and nuts shall have 150- or 300-psig (1035- or 2070-kPa) minimum working pressure where required to suit system pressures.
- F. Dielectric Couplings: Galvanized-steel coupling with inert and noncorrosive, thermoplastic lining; threaded ends; and 300-psig (2070-kPa) minimum working pressure at 225 deg F (107 deg C).
 - 1. Manufacturers:
 - a. Calpico, Inc.
 - b. Lochinvar Corp.
- G. Dielectric Nipples: Electroplated steel nipple with inert and noncorrosive, thermoplastic lining; plain, threaded, or grooved ends; and 300-psig (2070-kPa) minimum working pressure at 225 deg F (107 deg C).
 - 1. Manufacturers:
 - a. Perfection Corp.
 - b. Precision Plumbing Products, Inc.
 - c. Sioux Chief Manufacturing Co., Inc.

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- d. Victaulic Co. of America.

2.6 MECHANICAL SLEEVE SEALS

- A. Description: Modular sealing element unit, designed for field assembly, to fill annular space between pipe and sleeve.
1. Manufacturers:
 - a. Advance Products & Systems, Inc.
 - b. Calpico, Inc.
 - c. Metraflex Co.
 - d. Pipeline Seal and Insulator, Inc.
 2. Sealing Elements: EPDM interlocking links shaped to fit surface of pipe. Include type and number required for pipe material and size of pipe.
 3. Pressure Plates: Plastic. Include two for each sealing element.
 4. Connecting Bolts and Nuts: Carbon steel with corrosion-resistant coating of length required to secure pressure plates to sealing elements. Include one for each sealing element.

2.7 SLEEVES

- A. Galvanized-Steel Sheet: 0.0239-inch (0.6-mm) minimum thickness; round tube closed with welded longitudinal joint.
- B. Steel Pipe: ASTM A 53, Type E, Grade B, Schedule 40, galvanized, plain ends.
- C. Cast Iron: Cast or fabricated "wall pipe" equivalent to ductile-iron pressure pipe, with plain ends and integral waterstop, unless otherwise indicated.
- D. Stack Sleeve Fittings: Manufactured, cast-iron sleeve with integral clamping flange. Include clamping ring and bolts and nuts for membrane flashing.
1. Underdeck Clamp: Clamping ring with set screws.
- E. Molded PVC: Permanent, with nailing flange for attaching to wooden forms.
- F. PVC Pipe: ASTM D 1785, Schedule 40.
- G. Molded PE: Reusable, PE, tapered-cup shaped, and smooth-outer surface with nailing flange for attaching to wooden forms.

2.8 ESCUTCHEONS

- A. Description: Manufactured wall and ceiling escutcheons and floor plates, with an ID to closely fit around pipe, tube, and insulation of insulated piping and an OD that completely covers opening.
- B. One-Piece, Deep-Pattern Type: Deep-drawn, box-shaped brass with polished chrome-plated finish.
- C. One-Piece, Cast-Brass Type: With set screw.

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1. Finish: Rough brass.
- D. Split-Casting, Cast-Brass Type: With concealed hinge and set screw.
 1. Finish: Polished chrome-plated and rough brass.
- E. Split-Casting, Floor-Plate Type: Cast brass with concealed hinge and set screw.

2.9 GROUT

- A. Description: ASTM C 1107, Grade B, non-shrink and nonmetallic, dry hydraulic-cement grout.
 1. Characteristics: Post-hardening, volume-adjusting, non-staining, noncorrosive, nongaseous, and recommended for interior and exterior applications.
 2. Design Mix: 5000-psi (34.5-MPa), 28-day compressive strength.
 3. Packaging: Premixed and factory packaged.

PART 3 - EXECUTION

3.1 PIPING SYSTEMS - COMMON REQUIREMENTS

- A. Install piping according to the following requirements and Division 23 Sections specifying piping systems.
- B. Drawing plans, schematics, and diagrams indicate general location and arrangement of piping systems. Indicated locations and arrangements were used to size pipe and calculate friction loss, expansion, pump sizing, and other design considerations. Install piping as indicated unless deviations to layout are approved on Coordination Drawings.
- C. Install piping in concealed locations, unless otherwise indicated and except in equipment rooms and service areas.
- D. Install piping indicated to be exposed and piping in equipment rooms and service areas at right angles or parallel to building walls. Diagonal runs are prohibited unless specifically indicated otherwise.
- E. Install piping above accessible ceilings to allow sufficient space for ceiling panel removal.
- F. Install piping to permit valve servicing.
- G. Install piping at indicated slopes.
- H. Install piping free of sags and bends.
- I. Install fittings for changes in direction and branch connections.
- J. Install piping to allow application of insulation.
- K. Select system components with pressure rating equal to or greater than system operating pressure.

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- L. Install escutcheons for penetrations of walls, ceilings, and floors according to the following:
 - 1. New Piping:
 - a. Piping with Fitting or Sleeve Protruding from Wall: One-piece, deep-pattern type.
 - b. Chrome-Plated Piping: One-piece, cast-brass type with polished chrome-plated finish.
 - c. Insulated Piping: One-piece, stamped-steel type with spring clips.
 - d. Bare Piping at Wall and Floor Penetrations in Finished Spaces: One-piece, cast-brass type with polished chrome-plated finish.
 - e. Bare Piping at Ceiling Penetrations in Finished Spaces: One-piece, cast-brass type with polished chrome-plated finish.
 - f. Bare Piping in Unfinished Service Spaces: One-piece, cast-brass type with rough-brass finish.
 - g. Bare Piping in Equipment Rooms: One-piece, cast-brass type.
 - h. Bare Piping at Floor Penetrations in Equipment Rooms: One-piece, floor-plate type.

- M. Install sleeves for pipes passing through concrete and masonry walls, gypsum-board partitions, and concrete floor and roof slabs.
 - 1. Cut sleeves to length for mounting flush with both surfaces.
 - a. Exception: Extend sleeves installed in floors of mechanical equipment areas or other wet areas 2 inches (50 mm) above finished floor level. Extend cast-iron sleeve fittings below floor slab as required to secure clamping ring if ring is specified.
 - 2. Install sleeves in new walls and slabs as new walls and slabs are constructed.
 - 3. Install sleeves that are large enough to provide 1/4-inch (6.4-mm) annular clear space between sleeve and pipe or pipe insulation. Use the following sleeve materials:
 - a. Steel Pipe Sleeves: For pipes smaller than NPS 6 (DN 150).
 - b. Steel Sheet Sleeves: For pipes NPS 6 (DN 150) and larger, penetrating gypsum-board partitions.
 - c. Stack Sleeve Fittings: For pipes penetrating floors with membrane waterproofing. Secure flashing between clamping flanges. Install section of cast-iron soil pipe to extend sleeve to 2 inches (50 mm) above finished floor level. Refer to Division 7 Section "Sheet Metal Flashing and Trim" for flashing.
 - 1) Seal space outside of sleeve fittings with grout.
 - 4. Except for underground wall penetrations, seal annular space between sleeve and pipe or pipe insulation, using joint sealants appropriate for size, depth, and location of joint. Refer to Division 7 Section "Joint Sealants" for materials and installation.

- N. Aboveground, Exterior-Wall Pipe Penetrations: Seal penetrations using sleeves and mechanical sleeve seals. Select sleeve size to allow for 1-inch (25-mm) annular clear space between pipe and sleeve for installing mechanical sleeve seals.
 - 1. Install steel pipe for sleeves smaller than 6 inches (150 mm) in diameter.
 - 2. Install cast-iron "wall pipes" for sleeves 6 inches (150 mm) and larger in diameter.
 - 3. Mechanical Sleeve Seal Installation: Select type and number of sealing elements required for pipe material and size. Position pipe in center of sleeve. Assemble mechanical sleeve seals and install in annular space between pipe and sleeve. Tighten bolts against pressure plates that cause sealing elements to expand and make watertight seal.

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- O. Underground, Exterior-Wall Pipe Penetrations: Install cast-iron "wall pipes" for sleeves. Seal pipe penetrations using mechanical sleeve seals. Select sleeve size to allow for 1-inch (25-mm) annular clear space between pipe and sleeve for installing mechanical sleeve seals.
 - 1. Mechanical Sleeve Seal Installation: Select type and number of sealing elements required for pipe material and size. Position pipe in center of sleeve. Assemble mechanical sleeve seals and install in annular space between pipe and sleeve. Tighten bolts against pressure plates that cause sealing elements to expand and make watertight seal.
- P. Fire-Barrier Penetrations: Maintain indicated fire rating of walls, partitions, ceilings, and floors at pipe penetrations. Refer to Division 7 Section "Firestopping" for materials and installation.
- Q. Verify final equipment locations for roughing-in.
- R. Refer to equipment specifications in other Sections of these Specifications for roughing-in requirements.

3.2 PIPING JOINT CONSTRUCTION

- A. Join pipe and fittings according to the following requirements and Division 23 Sections specifying piping systems.
- B. Ream ends of pipes and tubes and remove burrs. Bevel plain ends of steel pipe.
- C. Remove scale, slag, dirt, and debris from inside and outside of pipe and fittings before assembly.
- D. Soldered Joints: Apply ASTM B 813, water-flushable flux, unless otherwise indicated, to tube end. Construct joints according to ASTM B 828 or CDA's "Copper Tube Handbook," using lead-free solder alloy complying with ASTM B 32.
- E. Brazed Joints: Construct joints according to AWS's "Brazing Handbook," "Pipe and Tube" Chapter, using copper-phosphorus brazing filler metal complying with AWS A5.8.
- F. Threaded Joints: Thread pipe with tapered pipe threads according to ASME B1.20.1. Cut threads full and clean using sharp dies. Ream threaded pipe ends to remove burrs and restore full ID. Join pipe fittings and valves as follows:
 - 1. Apply appropriate tape or thread compound to external pipe threads unless dry seal threading is specified.
 - 2. Damaged Threads: Do not use pipe or pipe fittings with threads that are corroded or damaged. Do not use pipe sections that have cracked or open welds.
- G. Welded Joints: Construct joints according to AWS D10.12, using qualified processes and welding operators according to Part 1 "Quality Assurance" Article.
- H. Flanged Joints: Select appropriate gasket material, size, type, and thickness for service application. Install gasket concentrically positioned. Use suitable lubricants on bolt threads.
- I. Plastic Piping Solvent-Cement Joints: Clean and dry joining surfaces. Join pipe and fittings according to the following:

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1. Comply with ASTM F 402 for safe-handling practice of cleaners, primers, and solvent cements.
2. CPVC Piping: Join according to ASTM D 2846/D 2846M Appendix.
3. PVC Pressure Piping: Join schedule number ASTM D 1785, PVC pipe and PVC socket fittings according to ASTM D 2672. Join other-than-schedule-number PVC pipe and socket fittings according to ASTM D 2855.
4. PVC Non-pressure Piping: Join according to ASTM D 2855.

J. Plastic Pressure Piping Gasketed Joints: Join according to ASTM D 3139.

K. Plastic Non-pressure Piping Gasketed Joints: Join according to ASTM D 3212.

3.3 PIPING CONNECTIONS

- A. Make connections according to the following, unless otherwise indicated:
1. Install unions, in piping NPS 2 (DN 50) and smaller, adjacent to each valve and at final connection to each piece of equipment.
 2. Install flanges, in piping NPS 2-1/2 (DN 65) and larger, adjacent to flanged valves and at final connection to each piece of equipment.
 3. Dry Piping Systems: Install dielectric unions and flanges to connect piping materials of dissimilar metals.
 4. Wet Piping Systems: Install dielectric coupling and nipple fittings to connect piping materials of dissimilar metals.

3.4 EQUIPMENT INSTALLATION - COMMON REQUIREMENTS

- A. Install equipment to allow maximum possible headroom unless specific mounting heights are not indicated.
- B. Install equipment level and plumb, parallel and perpendicular to other building systems and components in exposed interior spaces, unless otherwise indicated.
- C. Install mechanical equipment to facilitate service, maintenance, and repair or replacement of components. Connect equipment for ease of disconnecting, with minimum interference to other installations. Extend grease fittings to accessible locations.
- D. Install equipment to allow right of way for piping installed at required slope.

3.5 PAINTING

- A. Damage and Touchup: Repair marred and damaged factory-painted finishes with materials and procedures to match original factory finish.

3.6 CONCRETE BASES

- A. Concrete Bases: Anchor equipment to concrete base according to equipment manufacturer's written instructions and according to seismic codes at Project.

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1. Construct concrete bases of dimensions indicated, but not less than 4 inches (100 mm) larger in both directions than supported unit.
2. Install dowel rods to connect concrete base to concrete floor. Unless otherwise indicated, install dowel rods on 18-inch (450-mm) centers around the full perimeter of the base.
3. Install epoxy-coated anchor bolts for supported equipment that extend through concrete base, and anchor into structural concrete floor.
4. Place and secure anchorage devices. Use supported equipment manufacturer's setting drawings, templates, diagrams, instructions, and directions furnished with items to be embedded.
5. Install anchor bolts to elevations required for proper attachment to supported equipment.
6. Install anchor bolts according to anchor-bolt manufacturer's written instructions.
7. Use 3000-psi (20.7-MPa), 28-day compressive-strength concrete and reinforcement as specified in Division 3 Section "Cast-in-Place Concrete."

3.7 ERECTION OF METAL SUPPORTS AND ANCHORAGES

- A. Refer to Division 5 Section "Metal Fabrications" for structural steel.
- B. Cut, fit, and place miscellaneous metal supports accurately in location, alignment, and elevation to support and anchor mechanical materials and equipment.
- C. Field Welding: Comply with AWS D1.1.

3.8 ERECTION OF WOOD SUPPORTS AND ANCHORAGES

- A. Cut, fit, and place wood grounds, nailers, blocking, and anchorages to support, and anchor mechanical materials and equipment.
- B. Select fastener sizes that will not penetrate members if opposite side will be exposed to view or will receive finish materials. Tighten connections between members. Install fasteners without splitting wood members.
- C. Attach to substrates as required to support applied loads.

3.9 GROUTING

- A. Mix and install grout for mechanical equipment base bearing surfaces, pump and other equipment base plates, and anchors.
- B. Clean surfaces that will come into contact with grout.
- C. Provide forms as required for placement of grout.
- D. Avoid air entrapment during placement of grout.
- E. Place grout, completely filling equipment bases.
- F. Place grout on concrete bases and provide smooth bearing surface for equipment.

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- G. Place grout around anchors.
- H. Cure placed grout.

END OF SECTION 230510

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SECTION 23 05 13 - COMMON MOTOR REQUIREMENTS FOR HVAC EQUIPMENT

PART 1 - GENERAL

1.1 SUMMARY

- A. Section includes general requirements for single-phase and polyphase, general-purpose, horizontal, small and medium, squirrel-cage induction motors for use on AC power systems up to 600 V and installed at equipment manufacturer's factory or shipped separately by equipment manufacturer for field installation.

1.2 COORDINATION

- A. Coordinate features of motors, installed units, and accessory devices to be compatible with the following:
 - 1. Motor controllers.
 - 2. Torque, speed, and horsepower requirements of the load.
 - 3. Ratings and characteristics of supply circuit and required control sequence.
 - 4. Ambient and environmental conditions of installation location.

PART 2 - PRODUCTS

2.1 GENERAL MOTOR REQUIREMENTS

- A. Comply with requirements in this Section except when stricter requirements are specified in HVAC equipment schedules or Sections.
- B. Comply with NEMA MG 1 unless otherwise indicated.

2.2 MOTOR CHARACTERISTICS

- A. Duty: Continuous duty at ambient temperature of 40 deg C and at altitude of 3300 feet above sea level.
- B. Capacity and Torque Characteristics: Sufficient to start, accelerate, and operate connected loads at designated speeds, at installed altitude and environment, with indicated operating sequence, and without exceeding nameplate ratings or considering service factor.

2.3 POLYPHASE MOTORS

- A. Description: NEMA MG 1, Design B, medium induction motor.
- B. Efficiency: Energy efficient, as defined in NEMA MG 1.
- C. Service Factor: 1.15.

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- D. Multispeed Motors: Variable torque.
 - 1. For motors with 2:1 speed ratio, consequent pole, single winding.
 - 2. For motors with other than 2:1 speed ratio, separate winding for each speed.
- E. Rotor: Random-wound, squirrel cage.
- F. Bearings: Regreasable, shielded, antifriction ball bearings suitable for radial and thrust loading.
- G. Temperature Rise: Match insulation rating.
- H. Insulation: Class F.
- I. Code Letter Designation:
 - 1. Motors 15 HP and Larger: NEMA starting Code F or Code G.
 - 2. Motors Smaller than 15 HP: Manufacturer's standard starting characteristic.
- J. Enclosure Material: Cast iron for motor frame sizes 324T and larger; rolled steel for motor frame sizes smaller than 324T.

2.4 POLYPHASE MOTORS WITH ADDITIONAL REQUIREMENTS

- A. Motors Used with Variable Frequency Controllers: Ratings, characteristics, and features coordinated with and approved by controller manufacturer.
 - 1. Windings: Copper magnet wire with moisture-resistant insulation varnish, designed and tested to resist transient spikes, high frequencies, and short time rise pulses produced by pulse-width modulated inverters.
 - 2. Energy- and Premium-Efficient Motors: Class B temperature rise; Class F insulation.
 - 3. Inverter-Duty Motors: Class F temperature rise; Class H insulation.
 - 4. Thermal Protection: Comply with NEMA MG 1 requirements for thermally protected motors.
 - 5. Provide VFD driven motors with shaft grounding.

2.5 SINGLE-PHASE MOTORS

- A. Motors larger than 1/20 hp shall be one of the following, to suit starting torque and requirements of specific motor application:
 - 1. Permanent-split capacitor.
- B. Multispeed Motors: Variable-torque, permanent-split-capacitor type.
- C. Bearings: Pre-lubricated, antifriction ball bearings or sleeve bearings suitable for radial and thrust loading.
- D. Motors 1/20 HP and Smaller: Shaded-pole type.
- E. Thermal Protection: Internal protection to automatically open power supply circuit to motor when winding temperature exceeds a safe value calibrated to temperature rating of motor insulation. Thermal-protection device shall automatically reset when motor temperature returns to normal range.

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PART 3 - EXECUTION (Not Applicable)

END OF SECTION 230513

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SECTION 23 05 19 - METERS AND GAGES

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including Project Conditions and other Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

- A. Section Includes:
1. Thermometers.
 2. Pressure gages.
 3. Pressure and temperature test plugs.

PART 2 - PRODUCTS

2.1 THERMOMETERS

- A. Thermometers shall be 9-inch scale, red organic liquid (non-mercury) thermometers with cast aluminum case and clear glass window, and shall read degrees Fahrenheit. Thermometers shall be adjustable locking angle type, with 6-inch stem and 2-1/2-inch brass extension neck separable socket. Scale range shall be selected to provide mid-scale reading at normal temperatures, with 2°F scale divisions.
- B. Manufacturers:
1. Terrice Adjustable Angle

2.2 PRESSURE GAGES

- A. Provide pressure gauges for suction and discharge pressure measurement at pumps and as indicated on the drawings. A single gauge shall be provided for each pump, and shall be piped with gauge cocks to measure suction and discharge pressure as shown on the standard piping details.
- B. Pressure gauges shall have 4-1/2-inch diameter stainless steel cases, no back flange, and removable stainless slip ring. Gauge dial shall be white coated with black figures, gradations, and micro adjustable. Gauges shall be capable of reading to approximately twice the working pressure. Accuracy: 1 percent.
- C. Provide pressure gauges with the following accessories:
1. Valves: 1/2" brass or stainless-steel ball type (gauge cocks not permitted).
 2. Syphons: 1/2" coil of brass tubing with threaded ends.
 3. Snubbers: ASME B40.5, 1/2" brass bushing with corrosion-resistant, porous-metal disc of material suitable for system fluid and working pressure.

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- D. Manufacturers:
 - 1. Trerice 500X Series

2.3 PRESSURE AND TEMPERATURE TEST PLUGS

- A. Provide pressure and temperature test plugs as shown on the drawings and specified herein.
- B. Test plugs shall be a 1/4-inch MPT fitting to receive either a temperature or pressure probe with a 1/8-inch OD. Fitting shall be solid brass with two valve cores of Nordel (maximum 275°F), fitted with a color coded and marked cap with gasket and shall be rated at 1,000 psig. Fittings shall be Peterson Equipment Company, Incorporated, Pete's Plug, or approved equal.
- C. Manufacturers:
 - 1. Trerice D3572
- D. Provide two test kits with pressure gauge and thermometer. Pressure gauges shall have 0-50 psi dial range, and shall have adaptor with 1/8-inch probe of 304 stainless steel and union nut for use with pressure and temperature test plug. Thermometers shall have 0° to 220°F range. Test kits shall be Peterson Equipment Company, Incorporated, Series 1500 Test Kit, or approved equal.

PART 3 - EXECUTION

3.1 THERMOMETERS

- A. Install thermometers in oversize pipe tee and nipple.
- B. Thermometers shall be installed such that they are easily read from a normal observation point.

3.2 PRESSURE GAUGES

- A. Gauges shall be installed such that they are easily read from the normal observation point.
- B. Install ball-valve and snubber fitting in piping for each pressure gauge for fluids (except steam).
- C. Install ball-valve and syphon fitting in piping for each pressure gauge for steam.

3.3 PRESSURE AND TEMPERATURE TEST PLUGS

- A. Provide pressure and temperature test plugs where indicated on the drawings and one pair at every main to riser connection point. For this project, provide a minimum of two pair of pressure and temperature test plugs and main to riser connection points.

3.4 ADJUSTING

- A. Calibrate meters according to manufacturer's written instructions, after installation.

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- B. Adjust faces of meters and gages to proper angle for best visibility.
- C. Start-Up Checks: Perform the following checks during start-up and as specified in manufacturer's instructions:
 - 1. Clean windows of meters and gages and factory-finished surfaces. Replace cracked and broken windows, and repair scratched and marred surfaces with manufacturer's touch-up paint. For meters and gages requiring temporary manual connection of read-out device such as pressure taps on a flow measuring device, ensure threads are clean and that connection can be made easily.
 - 2. Meters and gages requiring manual connection of readout device shall be installed with adequate access to allow connection of device with normal tools.

END OF SECTION 230519

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SECTION 23 05 23 - VALVES

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 1 Specification Sections, apply to this Section.

1.2 SUMMARY

- A. This Section includes the following general-duty valves:
 - 1. Copper-alloy ball valves.
 - 2. Ferrous-alloy ball valves.
 - 3. Ferrous-alloy butterfly valves.
 - 4. High-pressure butterfly valves.
 - 5. Bronze check valves.
 - 6. Bronze gate valves.

1.3 DEFINITIONS

- A. The following are standard abbreviations for valves:
 - 1. CWP: Cold working pressure.
 - 2. EPDM: Ethylene-propylene-diene terpolymer rubber.
 - 3. PTFE: Polytetrafluoroethylene plastic.
 - 4. SWP: Steam working pressure.
 - 5. TFE: Tetrafluoroethylene plastic.

1.4 SUBMITTALS

- A. Product Data: For each type of valve indicated. Include body, seating, and trim materials; valve design; pressure and temperature classifications; end connections; arrangement; dimensions; and required clearances. Include list indicating valve and its application. Include rated capacities; shipping, installed, and operating weights; furnished specialties; and accessories.

1.5 QUALITY ASSURANCE

- A. ASME Compliance: ASME B31.9 for building services piping valves.
 - 1. Exceptions: Domestic hot- and cold-water piping valves unless referenced.
- B. ASME Compliance for Ferrous Valves: ASME B16.10 and ASME B16.34 for dimension and design criteria.
- C. NSF Compliance: NSF 61 for valve materials for potable-water service.

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1.6 DELIVERY, STORAGE, AND HANDLING

- A. Prepare valves for shipping as follows:
 - 1. Protect internal parts against rust and corrosion.
 - 2. Protect threads, flange faces, grooves, and weld ends.
 - 3. Set angle, gate, and globe valves closed to prevent rattling.
 - 4. Set ball and plug valves open to minimize exposure of functional surfaces.
 - 5. Set butterfly valves closed or slightly open.
 - 6. Block check valves in either closed or open position.
- B. Use the following precautions during storage:
 - 1. Maintain valve end protection.
 - 2. Store valves indoors and maintain at higher than ambient dew-point temperature. If outdoor storage is necessary, store valves off the ground in watertight enclosures.
- C. Use sling to handle large valves; rig sling to avoid damage to exposed parts. Do not use handwheels or stems as lifting or rigging points.

PART 2 - PRODUCTS

2.1 MANUFACTURERS

- A. Manufacturers: Subject to compliance with requirements, provide products by one of the following:
 - 1. Manufacturers: Subject to compliance with requirements, provide products by one of the following:
 - a. American Valve, Inc.
 - b. Apollo Valves; a part of Aalberts Integrated Piping Systems.
 - c. Crane Fluid Systems; Crane Co.
 - d. Hammond Valve.
 - e. Jenkins Valves; a Crane Co. brand.
 - f. Red-White Valve Corp.
 - g. WATTS; A Watts Water Technologies Company.

2.2 VALVES, GENERAL

- A. Refer to Part 3 "Valve Applications" Article for applications of valves.
- B. Bronze Valves: NPS 2 and smaller with threaded ends, unless otherwise indicated.
- C. Ferrous Valves: NPS 2-1/2 and larger with flanged ends, unless otherwise indicated.
- D. Valve Pressure and Temperature Ratings: Not less than indicated and as required for system pressures and temperatures.
- E. Valve Sizes: Same as upstream pipe, unless otherwise indicated.

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- F. Valve Actuators:
 - 1. Gear Drive: For quarter-turn valves NPS 8 and larger.
 - 2. Handwheel: For valves other than quarter-turn types.
 - 3. Lever Handle: For quarter-turn valves NPS 6 and smaller, except plug valves.
- G. Valves in Insulated Piping: With 2-inch stem extensions and the following features:
 - 1. Ball Valves: With extended operating handle of non-thermal-conductive material, and protective sleeve that allows operation of valve without breaking the vapor seal or disturbing insulation.
 - 2. Butterfly Valves: With extended neck.
- H. Valve Flanges: ASME B16.1 for cast-iron valves, ASME B16.5 for steel valves, and ASME B16.24 for bronze valves.
- I. Valve-End Connections:
 - 1. Flanged: With flanges according to ASME B16.1 for iron valves.
 - 2. Solder Joint: With sockets according to ASME B16.18.
 - 3. Threaded: With threads according to ASME B1.20.1.
- J. Valve Bypass and Drain Connections: MSS SP-45.

2.3 COPPER-ALLOY BALL VALVES

- A. Copper-Alloy Ball Valves, General: MSS SP-110.
- B. Two-Piece, Copper-Alloy Ball Valves: Brass or bronze body with full or regular-port, chrome-plated bronze ball; PTFE or TFE seats; and 600-psig minimum CWP rating and blowout-proof stem.

2.4 FERROUS-ALLOY BALL VALVES

- A. Ferrous-Alloy Ball Valves, General: MSS SP-72, with flanged ends.
- B. Ferrous-Alloy Ball Valves: Class 150, full or regular port.

2.5 FERROUS-ALLOY BUTTERFLY VALVES

- A. Ferrous-Alloy Butterfly Valves, General: MSS SP-67, Type I, for tight shutoff, with disc and lining suitable for potable water, unless otherwise indicated.
- B. Flanged, 200-psig CWP Rating, Ferrous-Alloy Butterfly Valves: Flanged-end type with one- or two-piece stem.

2.6 BRONZE CHECK VALVES

- A. Bronze Check Valves, General: MSS SP-80.

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- B. Type 2, Class 125, Bronze, Horizontal Lift Check Valves: Bronze body with nonmetallic disc and bronze seat.
- C. Type 2, Class 125, Bronze, Vertical Lift Check Valves: Bronze body with nonmetallic disc and bronze seat.

2.7 BRONZE GATE VALVES

- A. Bronze Gate Valves, General: MSS SP-80, with ferrous-alloy handwheel.
- B. Type 1, Class 125, Bronze Gate Valves: Bronze body with non-rising stem and bronze solid wedge and union-ring bonnet.

PART 3 - EXECUTION

3.1 EXAMINATION

- A. Examine piping system for compliance with requirements for installation tolerances and other conditions affecting performance.
 - 1. Proceed with installation only after unsatisfactory conditions have been corrected.
- B. Examine valve interior for cleanliness, freedom from foreign matter, and corrosion. Remove special packing materials, such as blocks, used to prevent disc movement during shipping and handling.
- C. Operate valves in positions from fully open to fully closed. Examine guides and seats made accessible by such operations.
- D. Examine threads on valve and mating pipe for form and cleanliness.
- E. Examine mating flange faces for conditions that might cause leakage. Check bolting for proper size, length, and material. Verify that gasket is of proper size, that its material composition is suitable for service, and that it is free from defects and damage.
- F. Do not attempt to repair defective valves; replace with new valves.

3.2 VALVE APPLICATIONS

- A. Refer to piping Sections for specific valve applications. If valve applications are not indicated, use the following:
 - 1. Shutoff Service: Ball or butterfly valves.
 - 2. Throttling Valve: Pressure Independent Control Valves
- B. If valves with specified SWP classes or CWP ratings are not available, the same types of valves with higher SWP class or CWP ratings may be substituted.
- C. Chilled-Water Piping: Use the following types of valves:

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1. Ball Valves, NPS 2 and Smaller: Two-piece, 600-psig CWP rating, copper alloy or bronze body.
 2. Butterfly Valves, NPS 2-1/2 to NPS 12: Flanged, 200-psig shall be full lugged ductile iron 200 psig body with a 304 stainless steel disc, EPDM seat, extended neck and shall meet ANSI Class 125/150 flange standards. Disc-to-stem connection shall utilize an internal spline. The shaft shall be supported at four locations by RPTFE bushings. A coated disc shell is not acceptable
- D. Select valves with the following end connections:
1. For Copper Tubing, NPS 2 and Smaller: Solder-joint or threaded ends, except provide valves with threaded ends for heating hot water, steam, and steam condensate services.
 2. For Steel Piping, NPS 2-1/2 to NPS 4: Flanged or threaded ends.
 3. For Steel Piping, NPS 5 and Larger: Flanged ends.
- E. Install chainwheels on operators for butterfly valves NPS 4 and larger and more than 96 inches above floor. Extend chains to 60 inches above finished floor.

3.3 VALVE INSTALLATION

- A. Piping installation requirements are specified in other Division 23 Sections. Drawings indicate general arrangement of piping, fittings, and specialties.
- B. Install valves with unions or flanges at each piece of equipment arranged to allow service, maintenance, and equipment removal without system shutdown.
- C. Locate valves for easy access and provide separate support where necessary.
- D. Install valves in horizontal piping with stem at or above center of pipe.
- E. Install valves in position to allow full stem movement.

3.4 JOINT CONSTRUCTION

- A. Soldered Joints: Use ASTM B 813, water-flushable, lead-free flux; ASTM B 32, lead-free-alloy solder; and ASTM B 828 procedure, unless otherwise indicated.

3.5 ADJUSTING

- A. Adjust or replace valve packing after piping systems have been tested and put into service but before final adjusting and balancing. Replace valves if persistent leaking occurs.

END OF SECTION 230523

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SECTION 23 05 48 – VIBRATION CONTROLS FOR HVAC PIPING AND EQUIPMENT

PART 1 - GENERAL

1.1 SUMMARY

- A. This Section includes the following:
 - 1. Isolation pads.
 - 2. Isolation mounts.
 - 3. Freestanding and restrained spring isolators.
 - 4. Spring hangers.
 - 5. Inertia, vibration isolation equipment bases.

1.2 DEFINITIONS

- A. IBC: International Building Code.
- B. ICC-ES: ICC-Evaluation Service.
- C. OSHPD: Office of Statewide Health Planning and Development for the State of California.

1.3 PERFORMANCE REQUIREMENTS

- A. Wind-Restraint Loading:
 - 1. Basic Wind Speed: 120 MPH.
 - 2. Building Classification Category: III.
 - 3. Minimum 10 lb/sq. ft. (48.8 kg/sq. m) multiplied by the maximum area of the HVAC component projected on a vertical plane that is normal to the wind direction, and 45 degrees either side of normal.

1.4 SUBMITTALS

- A. Product Data: For the following:
 - 1. Include rated load, rated deflection, and overload capacity for each vibration isolation device.
 - 2. Interlocking Snubbers: Include ratings for horizontal, vertical, and combined loads.
- B. Delegated-Design Submittal: For vibration isolation and seismic-restraint details indicated to comply with performance requirements and design criteria, including analysis data signed and sealed by the qualified professional engineer responsible for their preparation.
 - 1. Design Calculations: Calculate static and dynamic loading due to equipment weight and operation, wind forces required to select vibration isolators, wind restraints, and for designing vibration isolation bases.
 - a. Coordinate design calculations with wind load calculations required for equipment mounted outdoors. Comply with requirements in other Division 22 Sections for equipment mounted outdoors.

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2. Vibration Isolation Base Details: Detail overall dimensions, including anchorages and attachments to structure and to supported equipment. Include auxiliary motor slides and rails, base weights, equipment static loads, power transmission, component misalignment, and cantilever loads.
- C. Qualification Data: For professional engineer.

1.5 QUALITY ASSURANCE

- A. Welding: Qualify procedures and personnel according to AWS D1.1/D1.1M, "Structural Welding Code - Steel."

PART 2 - PRODUCTS

2.1 VIBRATION ISOLATORS

- A. Available Manufacturers: Subject to compliance with requirements, manufacturers offering products that may be incorporated into the Work include, but are not limited to, the following:
 1. Ace Mounting Company Inc.
 2. Kinetics Noise Control.
 3. Mason Industries.
- B. Pads: Arranged in single or multiple layers of sufficient stiffness for uniform loading over pad area, molded with a nonslip pattern and galvanized-steel baseplates, and factory cut to sizes that match requirements of supported equipment.
 1. Resilient Material: Oil- and water-resistant neoprene.
- C. Mounts: Double-deflection type, with molded, oil-resistant rubber, hermetically sealed compressed fiberglass, or neoprene isolator elements with factory-drilled, encapsulated top plate for bolting to equipment and with baseplate for bolting to structure. Color-code or otherwise identify to indicate capacity range.
 1. Materials: Cast-ductile-iron or welded steel housing containing two separate and opposing, oil-resistant rubber or neoprene elements that prevent central threaded element and attachment hardware from contacting the housing during normal operation.
 2. Neoprene: Shock-absorbing materials compounded according to the standard for bridge-bearing neoprene as defined by AASHTO.
- D. Spring Isolators: Freestanding, laterally stable, open-spring isolators.
 1. Outside Spring Diameter: Not less than 80 percent of the compressed height of the spring at rated load.
 2. Minimum Additional Travel: 50 percent of the required deflection at rated load.
 3. Lateral Stiffness: More than 80 percent of rated vertical stiffness.
 4. Overload Capacity: Support 200 percent of rated load, fully compressed, without deformation or failure.
 5. Baseplates: Factory drilled for bolting to structure and bonded to 1/4-inch- (6-mm-) thick, rubber isolator pad attached to baseplate underside. Baseplates shall limit floor load to 500 psig (3447 kPa).

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6. Top Plate and Adjustment Bolt: Threaded top plate with adjustment bolt and cap screw to fasten and level equipment.
- E. Restrained Spring Isolators: Freestanding, steel, open-spring isolators with seismic or limit-stop restraint.
1. Housing: Steel with resilient vertical-limit stops to prevent spring extension due to weight being removed; factory-drilled baseplate bonded to 1/4-inch- (6-mm-) thick, neoprene or rubber isolator pad attached to baseplate underside; and adjustable equipment mounting and leveling bolt that acts as blocking during installation.
 2. Restraint: Seismic or limit stop as required for equipment and authorities having jurisdiction.
 3. Outside Spring Diameter: Not less than 80 percent of the compressed height of the spring at rated load.
 4. Minimum Additional Travel: 50 percent of the required deflection at rated load.
 5. Lateral Stiffness: More than 80 percent of rated vertical stiffness.
 6. Overload Capacity: Support 200 percent of rated load, fully compressed, without deformation or failure.
- F. Spring Hangers: Combination coil-spring and elastomeric-insert hanger with spring and insert in compression.
1. Frame: Steel, fabricated for connection to threaded hanger rods and to allow for a maximum of 30 degrees of angular hanger-rod misalignment without binding or reducing isolation efficiency.
 2. Outside Spring Diameter: Not less than 80 percent of the compressed height of the spring at rated load.
 3. Minimum Additional Travel: 50 percent of the required deflection at rated load.
 4. Lateral Stiffness: More than 80 percent of rated vertical stiffness.
 5. Overload Capacity: Support 200 percent of rated load, fully compressed, without deformation or failure.
 6. Elastomeric Element: Molded, oil-resistant rubber or neoprene. Steel-washer-reinforced cup to support spring and bushing projecting through bottom of frame.
 7. Self-centering hanger rod cap to ensure concentricity between hanger rod and support spring coil.

2.2 VIBRATION ISOLATION EQUIPMENT BASES

- A. Available Manufacturers: Subject to compliance with requirements, manufacturers offering products that may be incorporated into the Work include, but are not limited to, the following:
1. Kinetics Noise Control.
 2. Mason Industries.
- B. Inertia Base: Factory-fabricated, welded, structural-steel bases and rails ready for placement of cast-in-place concrete.
1. Design Requirements: Lowest possible mounting height with not less than 1-inch (25-mm) clearance above the floor. Include equipment anchor bolts and auxiliary motor slide bases or rails.
 - a. Include supports for suction and discharge elbows for pumps.
 2. Structural Steel: Steel shapes, plates, and bars complying with ASTM A 36/A 36M. Bases shall have shape to accommodate supported equipment.

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3. Support Brackets: Factory-welded steel brackets on frame for outrigger isolation mountings and to provide for anchor bolts and equipment support.
4. Fabrication: Fabricate steel templates to hold equipment anchor-bolt sleeves and anchors in place during placement of concrete. Obtain anchor-bolt templates from supported equipment manufacturer.

2.3 FACTORY FINISHES

- A. Finish: Manufacturer's standard paint applied to factory-assembled and -tested equipment before shipping.
 1. Powder coating on springs and housings.
 2. All hardware shall be galvanized. Hot-dip galvanize metal components for exterior use.
 3. Baked enamel or powder coat for metal components on isolators for interior use.
 4. Color-code or otherwise mark vibration isolation control devices to indicate capacity range.

PART 3 - EXECUTION

3.1 EXAMINATION

- A. Examine areas and equipment to receive vibration isolation and wind-control devices for compliance with requirements for installation tolerances and other conditions affecting performance.
- B. Examine roughing-in of reinforcement and cast-in-place anchors to verify actual locations before installation.
- C. Proceed with installation only after unsatisfactory conditions have been corrected.

3.2 VIBRATION-CONTROL AND SEISMIC-RESTRAINT DEVICE INSTALLATION

- A. Comply with requirements in Division 07 Section "Roof Accessories" for installation of roof curbs, equipment supports, and roof penetrations.
- B. Equipment Restraints:
 1. Install resilient bolt isolation washers on equipment anchor bolts where clearance between anchor and adjacent surface exceeds 0.125 inch (3.2 mm).
- C. Attachment to Structure: If specific attachment is not indicated, anchor bracing to structure at flanges of beams, at upper truss chords of bar joists, or at concrete members.

3.3 ADJUSTING

- A. Adjust isolators after piping system is at operating weight.

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- B. Adjust limit stops on restrained spring isolators to mount equipment at normal operating height. After equipment installation is complete, adjust limit stops so they are out of contact during normal operation.
- C. Adjust active height of spring isolators.
- D. Adjust restraints to permit free movement of equipment within normal mode of operation.

END OF SECTION 230548

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SECTION 23 05 53 – IDENTIFICATION FOR HVAC PIPING AND EQUIPMENT

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

- A. Section Includes:
 - 1. Equipment labels.
 - 2. Pipe labels.
 - 3. Duct labels.
 - 4. Valve tags.

1.3 ACTION SUBMITTALS

- A. Product Data: For each type of product indicated.
- B. Equipment Label Schedule: Include a listing of all equipment to be labeled with the proposed content for each label.
- C. Valve numbering scheme.
- D. Valve Schedules: For each piping system to include in maintenance manuals.

1.4 COORDINATION

- A. Coordinate installation of identifying devices with completion of covering and painting of surfaces where devices are to be applied.
- B. Coordinate installation of identifying devices with locations of access panels and doors.
- C. Install identifying devices before installing acoustical ceilings and similar concealment.

PART 2 - PRODUCTS

2.1 EQUIPMENT LABELS

- A. Plastic Labels for Equipment:

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1. Material and Thickness: Multilayer, multicolor, plastic labels for mechanical engraving, 1/16 inch thick, and having predrilled holes for attachment hardware.
 2. Letter Color: White.
 3. Background Color: Black.
 4. Maximum Temperature: Able to withstand temperatures up to 160 deg F.
 5. Minimum Label Size: Length and width vary for required label content, but not less than 2-1/2 by 3/4 inch.
 6. Minimum Letter Size: 1/4 inch for name of units if viewing distance is less than 24 inches, 1/2 inch for viewing distances up to 72 inches, and proportionately larger lettering for greater viewing distances. Include secondary lettering two-thirds to three-fourths the size of principal lettering.
 7. Fasteners: Stainless-steel rivets or self-tapping screws.
 8. Adhesive: Contact-type permanent adhesive, compatible with label and with substrate.
- B. Label Content: Include equipment's Drawing designation or unique equipment number, Drawing numbers where equipment is indicated (plans, details, and schedules).
- C. Equipment Label Schedule: For each item of equipment to be labeled, on 8-1/2-by-11-inch bond paper. Tabulate equipment identification number and identify Drawing numbers where equipment is indicated (plans, details, and schedules), plus the Specification Section number and title where equipment is specified. Equipment schedule shall be included in operation and maintenance data.

2.2 PIPE LABELS

- A. General Requirements for Manufactured Pipe Labels: Preprinted, color-coded, with lettering indicating service, and showing flow direction.
- B. Pretensioned Pipe Labels: Precoiled, semirigid plastic formed to cover full circumference of pipe and to attach to pipe without fasteners or adhesive.
- C. Pipe Label Contents: Include identification of piping service using same designations or abbreviations as used on Drawings, pipe size, and an arrow indicating flow direction.
1. Flow-Direction Arrows: Integral with piping system service lettering to accommodate both directions, or as separate unit on each pipe label to indicate flow direction.
 2. Lettering Size: At least 1-1/2 inches.

2.3 DUCT LABELS

- A. Material and Thickness: Multilayer, multicolor, plastic labels for mechanical engraving, 1/16 inch thick, and having predrilled holes for attachment hardware.
- B. Letter Color: White.
- C. Background Color: Per section 3.4.
- D. Maximum Temperature: Able to withstand temperatures up to 160 deg F.

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- E. Minimum Label Size: Length and width vary for required label content, but not less than 4 by 2-4 inch.
- F. Adhesive: Contact-type permanent adhesive, compatible with label and with substrate.
- G. Duct Label Contents: Include identification of duct service using same designations or abbreviations as used on Drawings, duct size, and an arrow indicating flow direction.
 - 1. Flow-Direction Arrows: Integral with duct system service lettering to accommodate both directions, or as separate unit on each duct label to indicate flow direction.
 - 2. Lettering Size: At least 1-1/2 inches.

2.4 VALVE TAGS

- A. Valve Tags: Stamped or engraved with 1/4-inch letters for piping system abbreviation and 1/2-inch numbers.
 - 1. Tag Material: Brass, 0.032-inch or anodized aluminum, 0.032-inch minimum thickness, and having predrilled or stamped holes for attachment hardware.
 - 2. Fasteners: Brass wire-link or beaded chain; or S-hook.
- B. Valve Schedules and Diagram: For each piping system, on 8-1/2-by-11-inch bond paper. Tabulate valve number, piping system, system abbreviation (as shown on valve tag), location of valve (room or space), normal-operating position (open, closed, or modulating), and variations for identification. Provide diagram of all valves in system on 11-by-17-inch bond paper. Mark valves for emergency shutoff and similar special uses.
 - 1. Valve-tag schedule shall be included in operation and maintenance data.

PART 3 - EXECUTION

3.1 PREPARATION

- A. Clean piping and equipment surfaces of substances that could impair bond of identification devices, including dirt, oil, grease, release agents, and incompatible primers, paints, and encapsulants.

3.2 EQUIPMENT LABEL INSTALLATION

- A. Install or permanently fasten labels on each major item of mechanical equipment.
- B. Locate equipment labels where accessible and visible.
- C. When equipment is located above the ceiling install label on the ceiling grid T-bar below the equipment and on equipment.

3.3 PIPE LABEL INSTALLATION

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- A. Piping Color-Coding: Painting of piping is specified in Division 09.
- B. Locate pipe labels where piping is exposed or above accessible ceilings in finished spaces; machine rooms; accessible maintenance spaces such as shafts, tunnels, and plenums; and exterior exposed locations as follows:
 - 1. Near each valve and control device.
 - 2. Near each branch connection, excluding short takeoffs for fixtures and terminal units. Where flow pattern is not obvious, mark each pipe at branch.
 - 3. Near penetrations through walls, floors, ceilings, and inaccessible enclosures.
 - 4. At access doors, manholes, and similar access points that permit view of concealed piping.
 - 5. Near major equipment items and other points of origination and termination.
 - 6. Spaced at maximum intervals of 50 feet along each run. Reduce intervals to 25 feet in areas of congested piping and equipment.
 - 7. On piping above removable acoustical ceilings. Omit intermediately spaced labels.
- C. Pipe Label Color Schedule:
 - 1. Chilled-Water Piping:
 - a. Background Color: Green.
 - b. Letter Color: White.
 - 2. Condenser-Water Piping:
 - a. Background Color: Blue.
 - b. Letter Color: White.
 - 3. Refrigerant Piping:
 - a. Background Color: Black.
 - b. Letter Color: White.
 - 4. Gas Piping.
 - a. Background Color: Yellow.
 - b. Letter Color: Black.

3.4 DUCT LABEL INSTALLATION

- A. Install duct labels with permanent adhesive on air ducts in the following color codes:
 - 1. Blue: For cold-air supply ducts.
 - 2. Yellow: For hot-air supply ducts.
 - 3. Green: For exhaust-, outside-, relief-, return-, and mixed-air ducts.
 - 4. ASME A13.1 Colors and Designs: For hazardous material exhaust.
- B. Locate labels near points where ducts enter into concealed spaces and at maximum intervals of 50 feet in each space where ducts are exposed or concealed by removable ceiling system.

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3.5 VALVE-TAG INSTALLATION

- A. Install tags on valves and control devices in piping systems, except check valves; valves within factory-fabricated equipment units; shutoff valves; faucets; convenience and lawn-watering hose connections; and HVAC terminal devices and similar roughing-in connections of end-use fixtures and units. List tagged valves in a valve schedule.
- B. Valve-Tag Application Schedule: Tag valves according to size, shape, and color scheme and with captions similar to those indicated in the following subparagraphs:
 - 1. Valve-Tag Size and Shape:
 - a. Chilled Water: 1-1/2 inches, round.
 - b. Condenser Water: 1-1/2 inches, round.
 - c. Gas: 1-1/2 inches, round.
 - 2. Valve-Tag Color:
 - a. Chilled Water: Natural.
 - b. Condenser Water: Natural.
 - c. Gas: Yellow.
 - 3. Letter Color:
 - a. Chilled Water: Black.
 - b. Condenser Water: Black.
 - c. Gas: Black.

END OF SECTION 230553

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SECTION 23 05 93 – TESTING, ADJUSTING, AND BALANCING

PART 1 - GENERAL

1.1 SUMMARY

- A. This Section includes TAB to produce design objectives for the following:
 - 1. Air Systems:
 - a. Constant-volume air systems.
 - b. Variable-air-volume systems.
 - 2. Hydronic Piping Systems:
 - a. Variable-flow systems.
 - 3. HVAC equipment quantitative-performance settings.
 - 4. Kitchen hood airflow balancing.
 - 5. Vibration measuring.
 - 6. Indoor-air quality measuring.
 - 7. Verifying that automatic control devices are functioning properly.
 - 8. Reporting results of activities and procedures specified in this Section.

1.2 DEFINITIONS

- A. Adjust: To regulate fluid flow rate and air patterns at the terminal equipment, such as to reduce fan speed or adjust a damper.
- B. Balance: To proportion flows within the distribution system, including submains, branches, and terminals, according to indicated quantities.
- C. Barrier or Boundary: Construction, either vertical or horizontal, such as walls, floors, and ceilings that are designed and constructed to restrict the movement of airflow, smoke, odors, and other pollutants.
- D. Draft: A current of air, when referring to localized effect caused by one or more factors of high air velocity, low ambient temperature, or direction of airflow, whereby more heat is withdrawn from a person's skin than is normally dissipated.
- E. Procedure: An approach to and execution of a sequence of work operations to yield repeatable results.
- F. Report Forms: Test data sheets for recording test data in logical order.
- G. Static Head: The pressure due to the weight of the fluid above the point of measurement. In a closed system, static head is equal on both sides of the pump.
- H. Suction Head: The height of fluid surface above the centerline of the pump on the suction side.
- I. System Effect: A phenomenon that can create undesired or unpredicted conditions that cause reduced capacities in all or part of a system.

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- J. System Effect Factors: Allowances used to calculate a reduction of the performance ratings of a fan when installed under conditions different from those presented when the fan was performance tested.
- K. TAB: Testing, adjusting, and balancing.
- L. Terminal: A point where the controlled medium, such as fluid or energy, enters or leaves the distribution system.
- M. Test: A procedure to determine quantitative performance of systems or equipment.
- N. Testing, Adjusting, and Balancing (TAB) Firm: The entity responsible for performing and reporting TAB procedures.

1.3 SUBMITTALS

- A. Qualification Data: Within 30 days from Contractor's Notice to Proceed, submit 2 copies of evidence that TAB firm and this Project's TAB team members meet the qualifications specified in "Quality Assurance" Article.
- B. Contract Documents Examination Report: Within 45 days from Contractor's Notice to Proceed, submit **6** copies of the Contract Documents review report as specified in Part 3.
- C. Strategies and Procedures Plan: Within 60 days from Contractor's Notice to Proceed, submit 2 copies of TAB strategies and step-by-step procedures as specified in Part 3 "Preparation" Article. Include a complete set of report forms intended for use on this Project.
- D. Certified TAB Reports: Submit two copies of reports prepared, as specified in this Section, on approved forms certified by TAB firm.
- E. Sample Report Forms: Submit two sets of sample TAB report forms.
- F. Warranties specified in this Section.

1.4 QUALITY ASSURANCE

- A. TAB Firm Qualifications: Engage a TAB firm certified by either AABC or NEBB.
- B. Certification of TAB Reports: Certify TAB field data reports. This certification includes the following:
 - 1. Review field data reports to validate accuracy of data and to prepare certified TAB reports.
 - 2. Certify that TAB team complied with approved TAB plan and the procedures specified and referenced in this Specification.
- C. TAB Report Forms: Use standard forms from AABC's "National Standards for Testing and Balancing Heating, Ventilating, and Air Conditioning Systems."
- D. Instrumentation Type, Quantity, and Accuracy: As described in AABC's "National Standards for Testing and Balancing Heating, Ventilating, and Air Conditioning Systems."

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- E. Instrumentation Calibration: Calibrate instruments at least every six months or more frequently if required by instrument manufacturer.
 - 1. Keep an updated record of instrument calibration that indicates date of calibration and the name of party performing instrument calibration.

1.5 PROJECT CONDITIONS

- A. Owner Occupancy: Owner will not occupy the building during entire TAB period. T&B reports shall be finalized and approved prior to owner occupancy.
- B. T&B firm shall be independent from the mechanical contractor.

1.6 COORDINATION

- A. Coordinate the efforts of factory-authorized service representatives for systems and equipment, HVAC controls installers, and other mechanics to operate HVAC systems and equipment to support and assist TAB activities.
- B. Notice: Provide seven days' advance notice for each test. Include scheduled test dates and times.
- C. Perform TAB after leakage and pressure tests on air and water distribution systems have been satisfactorily completed.

1.7 WARRANTY

- A. National Project Performance Guarantee: Provide a guarantee on AABC's "National Standards for Testing and Balancing Heating, Ventilating, and Air Conditioning Systems", or NEBB's Quality Assurance Program, forms stating that AABC, or NEBB, forms stating that AABC will assist in completing requirements of the Contract Documents if TAB firm fails to comply with the Contract Documents. Guarantee includes the following provisions:
 - 1. The certified TAB firm has tested and balanced systems according to the Contract Documents.
 - 2. Systems are balanced to optimum performance capabilities within design and installation limits.

PART 2 - PRODUCTS (Not Applicable)

PART 3 - EXECUTION

3.1 EXAMINATION

- A. Examine the Contract Documents to become familiar with Project requirements and to discover conditions in systems' designs that may preclude proper TAB of systems and equipment.
 - 1. Contract Documents are defined in the General and Supplementary Conditions of Contract.

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2. Verify that balancing devices, such as test ports, gage cocks, thermometer wells, flow-control devices, balancing valves and fittings, and manual volume dampers, are required by the Contract Documents. Verify that quantities and locations of these balancing devices are accessible and appropriate for effective balancing and for efficient system and equipment operation.
- B. Examine approved submittal data of HVAC systems and equipment.
 - C. Examine Project Record Documents described in Division 1 Section "Project Record Documents."
 - D. Examine design data, including HVAC system descriptions, statements of design assumptions for environmental conditions and systems' output, and statements of philosophies and assumptions about HVAC system and equipment controls.
 - E. Examine equipment performance data including fan and pump curves. Relate performance data to Project conditions and requirements, including system effects that can create undesired or unpredicted conditions that cause reduced capacities in all or part of a system. Calculate system effect factors to reduce performance ratings of HVAC equipment when installed under conditions different from those presented when the equipment was performance tested at the factory. To calculate system effects for air systems, use tables and charts found in AMCA 201, "Fans and Systems," Sections 7 through 10; or in SMACNA's "HVAC Systems--Duct Design," Sections 5 and 6. Compare this data with the design data and installed conditions.
 - F. Examine system and equipment installations to verify that they are complete and that testing, cleaning, adjusting, and commissioning specified in individual Sections have been performed.
 - G. Examine system and equipment test reports.
 - H. Examine HVAC system and equipment installations to verify that indicated balancing devices, such as test ports, gage cocks, thermometer wells, flow-control devices, balancing valves and fittings, and manual volume dampers, are properly installed, and that their locations are accessible and appropriate for effective balancing and for efficient system and equipment operation.
 - I. Examine systems for functional deficiencies that cannot be corrected by adjusting and balancing.
 - J. Examine HVAC equipment to ensure that clean filters have been installed, bearings are greased, belts are aligned and tight, and equipment with functioning controls is ready for operation.
 - K. Examine terminal units, such as variable-air-volume boxes, to verify that they are accessible and their controls are connected and functioning.
 - L. Examine plenum ceilings used for supply air to verify that they are airtight. Verify that pipe penetrations and other holes are sealed.
 - M. Examine strainers for clean screens and proper perforations.
 - N. Examine three-way valves for proper installation for their intended function of diverting or mixing fluid flows.

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- O. Examine system pumps to ensure absence of entrained air in the suction piping.
- P. Examine equipment for installation and for properly operating safety interlocks and controls.
- Q. Examine automatic temperature system components to verify the following:
 - 1. Dampers, valves, and other controlled devices are operated by the intended controller.
 - 2. Dampers and valves are in the position indicated by the controller.
 - 3. Integrity of valves and dampers for free and full operation and for tightness of fully closed and fully open positions. This includes dampers in multizone units, mixing boxes, and variable-air-volume terminals.
 - 4. Automatic modulating and shutoff valves, including two-way valves and three-way mixing and diverting valves, are properly connected.
 - 5. Thermostats and humidistats are located to avoid adverse effects of sunlight, drafts, and cold walls.
 - 6. Sensors are located to sense only the intended conditions.
 - 7. Sequence of operation for control modes is according to the Contract Documents.
 - 8. Controller set points are set at indicated values.
 - 9. Interlocked systems are operating.
 - 10. Changeover from heating to cooling mode occurs according to indicated values.
- R. Report deficiencies discovered before and during performance of TAB procedures. Observe and record system reactions to changes in conditions. Record default set points if different from indicated values.

3.2 PREPARATION

- A. Prepare a TAB plan that includes strategies and step-by-step procedures.
- B. Complete system readiness checks and prepare system readiness reports. Verify the following:
 - 1. Permanent electrical power wiring is complete.
 - 2. Hydronic systems are filled, clean, and free of air.
 - 3. Automatic temperature-control systems are operational.
 - 4. Equipment and duct access doors are securely closed.
 - 5. Balance, smoke, and fire dampers are open.
 - 6. Isolating and balancing valves are open and control valves are operational.
 - 7. Ceilings are installed in critical areas where air-pattern adjustments are required and access to balancing devices is provided.
 - 8. Windows and doors can be closed so indicated conditions for system operations can be met.

3.3 GENERAL PROCEDURES FOR TESTING AND BALANCING

- A. Perform testing and balancing procedures on each system according to the procedures contained in AABC's "National Standards for Testing and Balancing Heating, Ventilating, and Air Conditioning Systems" or NEBB's "Procedural Standards for Testing Adjusting and Balancing of Environmental Systems" and this Section.
- B. Cut insulation, ducts, pipes, and equipment cabinets for installation of test probes to the minimum extent necessary to allow adequate performance of procedures. After testing and

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balancing, close probe holes and patch insulation with new materials identical to those removed. Restore vapor barrier and finish according to insulation Specifications for this Project.

- C. Mark equipment and balancing device settings with paint or other suitable, permanent identification material, including damper-control positions, valve position indicators, fan-speed-control levers, and similar controls and devices, to show final settings.
- D. Take and report testing and balancing measurements in inch-pound (IP) units.

3.4 GENERAL PROCEDURES FOR BALANCING AIR SYSTEMS

- A. Prepare test reports for both fans and outlets. Obtain manufacturer's outlet factors and recommended testing procedures. Crosscheck the summation of required outlet volumes with required fan volumes.
- B. Prepare schematic diagrams of systems' "as-built" duct layouts.
- C. For variable-air-volume systems, develop a plan to simulate diversity.
- D. Determine the best locations in main and branch ducts for accurate duct airflow measurements.
- E. Check airflow patterns from the outside-air louvers and dampers and the return- and exhaust-air dampers, through the supply-fan discharge and mixing dampers.
- F. Locate start-stop and disconnect switches, electrical interlocks, and motor starters.
- G. Verify that motor starters are equipped with properly sized thermal protection.
- H. Check dampers for proper position to achieve desired airflow path.
- I. Check for airflow blockages.
- J. Check condensate drains for proper connections and functioning.
- K. Check for proper sealing of air-handling unit components.
- L. Check for proper sealing of air duct system.

3.5 PROCEDURES FOR CONSTANT-VOLUME AIR SYSTEMS

- A. Adjust fans to deliver total indicated airflows within the maximum allowable fan speed listed by fan manufacturer.
 - 1. Measure fan static pressures to determine actual static pressure as follows:
 - a. Measure outlet static pressure as far downstream from the fan as practicable and upstream from restrictions in ducts such as elbows and transitions.
 - b. Measure static pressure directly at the fan outlet or through the flexible connection.
 - c. Measure inlet static pressure of single-inlet fans in the inlet duct as near the fan as possible, upstream from flexible connection and downstream from duct restrictions.

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- d. Measure inlet static pressure of double-inlet fans through the wall of the plenum that houses the fan.
 2. Measure static pressure across each component that makes up an air-handling unit, rooftop unit, and other air-handling and -treating equipment.
 - a. Simulate dirty filter operation and record the point at which maintenance personnel must change filters.
 3. Measure static pressures entering and leaving other devices such as sound traps, heat recovery equipment, and air washers, under final balanced conditions.
 4. Compare design data with installed conditions to determine variations in design static pressures versus actual static pressures. Compare actual system effect factors with calculated system effect factors to identify where variations occur. Recommend corrective action to align design and actual conditions.
 5. Obtain approval from Architect for adjustment of fan speed higher or lower than indicated speed. Make required adjustments to pulley sizes, motor sizes, and electrical connections to accommodate fan-speed changes.
 6. Do not make fan-speed adjustments that result in motor overload. Consult equipment manufacturers about fan-speed safety factors. Modulate dampers and measure fan-motor amperage to ensure that no overload will occur. Measure amperage in full cooling, full heating, economizer, and any other operating modes to determine the maximum required brake horsepower.
- B. Adjust volume dampers for main duct, submain ducts, and major branch ducts to indicated airflows within specified tolerances.
 1. Measure static pressure at a point downstream from the balancing damper and adjust volume dampers until the proper static pressure is achieved.
 - a. Where sufficient space in submain and branch ducts is unavailable for Pitot-tube traverse measurements, measure airflow at terminal outlets and inlets and calculate the total airflow for that zone.
 2. Remeasure each submain and branch duct after all have been adjusted. Continue to adjust submain and branch ducts to indicated airflows within specified tolerances.
- C. Measure terminal outlets and inlets without making adjustments.
 1. Measure terminal outlets using a direct-reading hood or outlet manufacturer's written instructions and calculating factors.
- D. Adjust terminal outlets and inlets for each space to indicated airflows within specified tolerances of indicated values. Make adjustments using volume dampers rather than extractors and the dampers at air terminals.
 1. Adjust each outlet in same room or space to within specified tolerances of indicated quantities without generating noise levels above the limitations prescribed by the Contract Documents.
 2. Adjust patterns of adjustable outlets for proper distribution without drafts.

3.6 PROCEDURES FOR VARIABLE-AIR-VOLUME SYSTEMS

- A. Compensating for Diversity: When the total airflow of all terminal units is more than the indicated airflow of the fan, place a selected number of terminal units at a maximum set-point airflow condition until the total airflow of the terminal units equals the indicated airflow of the fan. Select the reduced airflow terminal units so they are distributed evenly among the branch ducts.

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- B. Pressure-Independent, Variable-Air-Volume Systems: After the fan systems have been adjusted, adjust the variable-air-volume systems as follows:
1. Set outside-air dampers at minimum, and return- and exhaust-air dampers at a position that simulates full-cooling load.
 2. Select the terminal unit that is most critical to the supply-fan airflow and static pressure. Measure static pressure. Adjust system static pressure so the entering static pressure for the critical terminal unit is not less than the sum of terminal-unit manufacturer's recommended minimum inlet static pressure plus the static pressure needed to overcome terminal-unit discharge system losses.
 3. Measure total system airflow. Adjust to within indicated airflow.
 4. Set terminal units at maximum airflow and adjust controller or regulator to deliver the designed maximum airflow. Use terminal-unit manufacturer's written instructions to make this adjustment. When total airflow is correct, balance the air outlets downstream from terminal units as described for constant-volume air systems.
 5. Set terminal units at minimum airflow and adjust controller or regulator to deliver the designed minimum airflow. Check air outlets for a proportional reduction in airflow as described for constant-volume air systems.
 - a. If air outlets are out of balance at minimum airflow, report the condition but leave outlets balanced for maximum airflow.
 6. Remeasure the return airflow to the fan while operating at maximum return airflow and minimum outside airflow. Adjust the fan and balance the return-air ducts and inlets as described for constant-volume air systems.
 7. Measure static pressure at the most critical terminal unit and adjust the static-pressure controller at the main supply-air sensing station to ensure that adequate static pressure is maintained at the most critical unit.
 8. Record the final fan performance data.
- C. Pressure-Dependent, Variable-Air-Volume Systems without Diversity: After the fan systems have been adjusted, adjust the variable-air-volume systems as follows:
1. Balance systems similar to constant-volume air systems.
 2. Set terminal units and supply fan at full-airflow condition.
 3. Adjust inlet dampers of each terminal unit to indicated airflow and verify operation of the static-pressure controller. When total airflow is correct, balance the air outlets downstream from terminal units as described for constant-volume air systems.
 4. Readjust fan airflow for final maximum readings.
 5. Measure operating static pressure at the sensor that controls the supply fan, if one is installed, and verify operation of the static-pressure controller.
 6. Set supply fan at minimum airflow if minimum airflow is indicated. Measure static pressure to verify that it is being maintained by the controller.
 7. Set terminal units at minimum airflow and adjust controller or regulator to deliver the designed minimum airflow. Check air outlets for a proportional reduction in airflow as described for constant-volume air systems.
 - a. If air outlets are out of balance at minimum airflow, report the condition but leave the outlets balanced for maximum airflow.
 8. Measure the return airflow to the fan while operating at maximum return airflow and minimum outside airflow. Adjust the fan and balance the return-air ducts and inlets as described for constant-volume air systems.
- D. Pressure-Dependent, Variable-Air-Volume Systems with Diversity: After the fan systems have been adjusted, adjust the variable-air-volume systems as follows:

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1. Set system at maximum indicated airflow by setting the required number of terminal units at minimum airflow. Select the reduced airflow terminal units so they are distributed evenly among the branch ducts.
2. Adjust supply fan to maximum indicated airflow with the variable-airflow controller set at maximum airflow.
3. Set terminal units at full-airflow condition.
4. Adjust terminal units starting at the supply-fan end of the system and continuing progressively to the end of the system. Adjust inlet dampers of each terminal unit to indicated airflow. When total airflow is correct, balance the air outlets downstream from terminal units as described for constant-volume air systems.
5. Adjust terminal units for minimum airflow.
6. Measure static pressure at the sensor.
7. Measure the return airflow to the fan while operating at maximum return airflow and minimum outside airflow. Adjust the fan and balance the return-air ducts and inlets as described for constant-volume air systems.

3.7 GENERAL PROCEDURES FOR HYDRONIC SYSTEMS

- A. Prepare test reports with pertinent design data and number in sequence starting at pump to end of system. Check the sum of branch-circuit flows against approved pump flow rate. Correct variations that exceed plus or minus 5 percent.
- B. Prepare hydronic systems for testing and balancing according to the following, in addition to the general preparation procedures specified above:
 1. Open all manual valves for maximum flow.
 2. Check expansion tank liquid level.
 3. Check makeup-water-station pressure gage for adequate pressure for highest vent.
 4. Check flow-control valves for specified sequence of operation and set at indicated flow.
 5. Set differential-pressure control valves at the specified differential pressure. Do not set at fully closed position when pump is positive-displacement type unless several terminal valves are kept open.
 6. Set system controls so automatic valves are wide open to heat exchangers.
 7. Check pump-motor load. If motor is overloaded, throttle main flow-balancing device so motor nameplate rating is not exceeded.
 8. Check air vents for a forceful liquid flow exiting from vents when manually operated.

3.8 PROCEDURES FOR HYDRONIC SYSTEMS

- A. Measure water flow at pumps. Use the following procedures, except for positive-displacement pumps:
 1. Verify impeller size by operating the pump with the discharge valve closed. Read pressure differential across the pump. Convert pressure to head and correct for differences in gage heights. Note the point on manufacturer's pump curve at zero flow and verify that the pump has the intended impeller size.
 2. Check system resistance. With all valves open, read pressure differential across the pump and mark pump manufacturer's head-capacity curve. Adjust pump discharge valve until indicated water flow is achieved.
 3. Verify pump-motor brake horsepower. Calculate the intended brake horsepower for the system based on pump manufacturer's performance data. Compare calculated brake

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- horsepower with nameplate data on the pump motor. Report conditions where actual amperage exceeds motor nameplate amperage.
- 4. Report flow rates that are not within plus or minus 5 percent of design.
- B. Set calibrated balancing valves, if installed, at calculated presettings.
- C. Measure flow at all stations and adjust, where necessary, to obtain first balance.
 - 1. System components that have Cv rating or an accurately cataloged flow-pressure-drop relationship may be used as a flow-indicating device.
- D. Measure flow at main balancing station and set main balancing device to achieve flow that is 5 percent greater than indicated flow.
- E. Adjust balancing stations to within specified tolerances of indicated flow rate as follows:
 - 1. Determine the balancing station with the highest percentage over indicated flow.
 - 2. Adjust each station in turn, beginning with the station with the highest percentage over indicated flow and proceeding to the station with the lowest percentage over indicated flow.
 - 3. Record settings and mark balancing devices.
- F. Measure pump flow rate and make final measurements of pump amperage, voltage, rpm, pump heads, and systems' pressures and temperatures including outdoor-air temperature.
- G. Measure the differential-pressure control valve settings existing at the conclusions of balancing.

3.9 PROCEDURES FOR VARIABLE-FLOW HYDRONIC SYSTEMS

- A. Balance systems with automatic two- and three-way control valves by setting systems at maximum flow through heat-exchange terminals and proceed as specified above for hydronic systems.

3.10 PROCEDURES FOR MOTORS

- A. Motors, 1/2 HP and Larger: Test at final balanced conditions and record the following data:
 - 1. Manufacturer, model, and serial numbers.
 - 2. Motor horsepower rating.
 - 3. Motor rpm.
 - 4. Efficiency rating.
 - 5. Nameplate and measured voltage, each phase.
 - 6. Nameplate and measured amperage, each phase.
 - 7. Starter thermal-protection-element rating.
- B. Motors Driven by Variable-Frequency Controllers: Test for proper operation at speeds varying from minimum to maximum. Test the manual bypass for the controller to prove proper operation. Record observations, including controller manufacturer, model and serial numbers, and nameplate data.

3.11 PROCEDURES FOR CHILLERS

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- A. Balance water flow through each evaporator to within specified tolerances of indicated flow with all pumps operating. With only one chiller operating in a multiple chiller installation, do not exceed the flow for the maximum tube velocity recommended by the chiller manufacturer. Measure and record the following data with each chiller operating at design conditions:
 - 1. Evaporator-water entering and leaving temperatures, pressure drop, and water flow.
 - 2. .
 - 3. Evaporator and condenser refrigerant temperatures and pressures, using instruments furnished by chiller manufacturer.
 - 4. Power factor if factory-installed instrumentation is furnished for measuring kilowatt.
 - 5. Kilowatt input if factory-installed instrumentation is furnished for measuring kilowatt.
 - 6. Capacity: Calculate in tons of cooling.
 - 7. If air-cooled chillers, verify condenser-fan rotation and record fan and motor data including number of fans and entering- and leaving-air temperatures.

3.12 PROCEDURES FOR CONDENSING UNITS

- A. Verify proper rotation of fans.
- B. Measure entering- and leaving-air temperatures.
- C. Record compressor data.

3.13 PROCEDURES FOR TEMPERATURE MEASUREMENTS

- A. During TAB, report the need for adjustment in temperature regulation within the automatic temperature-control system.
- B. Measure indoor wet- and dry-bulb temperatures every other hour for a period of two successive eight-hour days, in each separately controlled zone, to prove correctness of final temperature settings. Measure when the building or zone is occupied.
- C. Measure outside-air, wet- and dry-bulb temperatures.

3.14 PROCEDURES FOR COMMERCIAL KITCHEN HOODS

- A. Measure, adjust, and record the airflow of each kitchen hood. For kitchen hoods designed with integral makeup air, measure and adjust the exhaust and makeup airflow. Measure airflow by duct Pitot-tube traverse. If a duct Pitot-tube traverse is not possible, provide an explanation in the report of the reason(s) why and also the reason why the method used was chosen.
 - 1. Install welded test ports in the sides of the exhaust duct for the duct Pitot-tube traverse. Install each test port with a threaded cap that is liquid tight.
- B. After balancing is complete, do the following:
 - 1. Measure and record the static pressure at the hood exhaust-duct connection.
 - 2. Measure and record the hood face velocity. Make measurements at multiple points across the face of the hood. Perform measurements at a maximum of 12 inches (300 mm) between points and between any point and the perimeter. Calculate the average of

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- the measurements recorded. Verify that the hood average face velocity complies with the Contract Documents and governing codes.
- 3. Check the hood for capture and containment of smoke using a smoke emitting device. Observe the smoke pattern. Make adjustments to room airflow patterns to achieve optimum results.
- C. Visually inspect the hood exhaust duct throughout its entire length in compliance with authorities having jurisdiction. Begin at the hood connection and end at the point it discharges outdoors. Report findings.
 - 1. Check duct slopes as required.
 - 2. Verify that duct access is installed as required.
 - 3. Verify that point of termination is as required.
 - 4. Verify that duct air velocity is within the range required.
 - 5. Verify that duct is within a fire-rated enclosure.
- D. Report deficiencies.

3.15 PROCEDURES FOR VIBRATION MEASUREMENTS

- A. Use a vibration meter meeting the following criteria:
 - 1. Solid-state circuitry with a piezoelectric accelerometer.
 - 2. Velocity range of 0.1 to 10 inches per second (2.5 to 254 mm/s).
 - 3. Displacement range of 1 to 100 mils (0.0254 to 2.54 mm).
 - 4. Frequency range of at least 0 to 1000 Hz.
 - 5. Capable of filtering unwanted frequencies.
- B. Calibrate the vibration meter before each day of testing.
 - 1. Use a calibrator provided with the vibration meter.
 - 2. Follow vibration meter and calibrator manufacturer's calibration procedures.
- C. Perform vibration measurements when other building and outdoor vibration sources are at a minimum level and will not influence measurements of equipment being tested.
 - 1. Turn off equipment in the building that might interfere with testing.
 - 2. Clear the space of people.
- D. Perform vibration measurements after air and water balancing and equipment testing is complete.
- E. Clean equipment surfaces in contact with the vibration transducer.
- F. Position the vibration transducer according to manufacturer's written instructions and to avoid interference with the operation of the equipment being tested.
- G. Measure and record vibration on rotating equipment over 3 hp (2.2 kW).
- H. Measure and record equipment vibration, bearing vibration, equipment base vibration, and building structure vibration. Record velocity and displacement readings in the horizontal, vertical, and axial planes.
 - 1. Pumps:
 - a. Pump Bearing: Drive end and opposite end.

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- b. Motor Bearing: Drive end and opposite end.
 - c. Pump Base: Top and side.
 - d. Building: Floor.
 - e. Piping: To and from the pump after flexible connections.
- 2. Fans and HVAC Equipment with Fans:
 - a. Fan Bearing: Drive end and opposite end.
 - b. Motor Bearing: Drive end and opposite end.
 - c. Equipment Casing: Top and side.
 - d. Equipment Base: Top and side.
 - e. Building: Floor.
 - f. Ductwork: To and from equipment after flexible connections.
 - g. Piping: To and from equipment after flexible connections.
- 3. Chillers and HVAC Equipment with Compressors:
 - a. Compressor Bearing: Drive end and opposite end.
 - b. Motor Bearing: Drive end and opposite end.
 - c. Equipment Casing: Top and side.
 - d. Equipment Base: Top and side.
 - e. Building: Floor.
 - f. Piping: To and from equipment after flexible connections.
- I. For equipment with vibration isolation, take floor measurements with the vibration isolation blocked solid to the floor and with the vibration isolation floating. Calculate and report the differences.
- J. Inspect, measure, and record vibration isolation.
 - 1. Verify that vibration isolation is installed in the required locations.
 - 2. Verify that installation is level and plumb.
 - 3. Verify that isolators are properly anchored.
 - 4. For spring isolators, measure the compressed spring height, the spring OD, and the travel-to-solid distance.
 - 5. Measure the operating clearance between each inertia base and the floor or concrete base below. Verify that there is unobstructed clearance between the bottom of the inertia base and the floor.

3.16 TEMPERATURE-CONTROL VERIFICATION

- A. Verify that controllers are calibrated and commissioned.
- B. Check transmitter and controller locations and note conditions that would adversely affect control functions.
- C. Record controller settings and note variances between set points and actual measurements.
- D. Check the operation of limiting controllers (i.e., high- and low-temperature controllers).
- E. Check free travel and proper operation of control devices such as damper and valve operators.
- F. Check the sequence of operation of control devices. Note air pressures and device positions and correlate with airflow and water flow measurements. Note the speed of response to input changes.

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- G. Check the interaction of electrically operated switch transducers.
- H. Check the interaction of interlock and lockout systems.
- I. Check main control supply-air pressure and observe compressor and dryer operations.
- J. Record voltages of power supply and controller output. Determine whether the system operates on a grounded or nongrounded power supply.
- K. Note operation of electric actuators using spring return for proper fail-safe operations.

3.17 SPACE PRESSURIZATION VERIFICATION

- A. Contractor shall verify differential pressure readings across 100% of exterior doors to ensure the building is not over pressurized or negative. Contractor shall provide the readings in the final test and balance report.
- B. Contractor shall note in the final test and balance report if there are any issues regarding doors unable to close due to pressurization issue.

3.18 TOLERANCES

- A. Set HVAC system airflow and water flow rates within the following tolerances:
 - 1. Supply, Return, and Exhaust Fans and Equipment with Fans: Plus or minus 10 percent.
 - 2. Air Outlets and Inlets: Plus or minus 10 percent.
 - 3. Heating-Water Flow Rate: Plus or minus 10 percent.
 - 4. Cooling-Water Flow Rate: Plus or minus 10 percent.

3.19 REPORTING

- A. Initial Construction-Phase Report: Based on examination of the Contract Documents as specified in "Examination" Article, prepare a report on the adequacy of design for systems' balancing devices. Recommend changes and additions to systems' balancing devices to facilitate proper performance measuring and balancing. Recommend changes and additions to HVAC systems and general construction to allow access for performance measuring and balancing devices.
- B. Status Reports: As Work progresses, prepare reports to describe completed procedures, procedures in progress, and scheduled procedures. Include a list of deficiencies and problems found in systems being tested and balanced. Prepare a separate report for each system and each building floor for systems serving multiple floors.

3.20 FINAL REPORT

- A. General: Typewritten, or computer printout in letter-quality font, on standard bond paper, in three-ring binder, tabulated and divided into sections by tested and balanced systems.

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- B. Include a certification sheet in front of binder signed and sealed by the certified testing and balancing engineer.
 - 1. Include a list of instruments used for procedures, along with proof of calibration.
- C. Final Report Contents: In addition to certified field report data, include the following:
 - 1. Pump curves.
 - 2. Fan curves.
 - 3. Manufacturers' test data.
 - 4. Field test reports prepared by system and equipment installers.
 - 5. Other information relative to equipment performance, but do not include Shop Drawings and Product Data.
- D. General Report Data: In addition to form titles and entries, include the following data in the final report, as applicable:
 - 1. Title page.
 - 2. Name and address of TAB firm.
 - 3. Project name.
 - 4. Project location.
 - 5. Architect's name and address.
 - 6. Engineer's name and address.
 - 7. Contractor's name and address.
 - 8. Report date.
 - 9. Signature of TAB firm who certifies the report.
 - 10. Table of Contents with the total number of pages defined for each section of the report. Number each page in the report.
 - 11. Summary of contents including the following:
 - a. Indicated versus final performance.
 - b. Notable characteristics of systems.
 - c. Description of system operation sequence if it varies from the Contract Documents.
 - 12. Nomenclature sheets for each item of equipment.
 - 13. Data for terminal units, including manufacturer, type size, and fittings.
 - 14. Notes to explain why certain final data in the body of reports varies from indicated values.
 - 15. Test conditions for fans and pump performance forms including the following:
 - a. Settings for outside-, return-, and exhaust-air dampers.
 - b. Conditions of filters.
 - c. Cooling coil, wet- and dry-bulb conditions.
 - d. Face and bypass damper settings at coils.
 - e. Fan drive settings including settings and percentage of maximum pitch diameter.
 - f. Inlet vane settings for variable-air-volume systems.
 - g. Settings for supply-air, static-pressure controller.
 - h. Other system operating conditions that affect performance.
- E. System Diagrams: Include schematic layouts of air and hydronic distribution systems. Present each system with single-line diagram and include the following:
 - 1. Quantities of outside, supply, return, and exhaust airflows.
 - 2. Water and steam flow rates.
 - 3. Duct, outlet, and inlet sizes.
 - 4. Pipe and valve sizes and locations.
 - 5. Terminal units.

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6. Balancing stations.
 7. Position of balancing devices.
- F. Air-Handling Unit Test Reports: For air-handling units with coils, include the following:
1. Unit Data: Include the following:
 - a. Unit identification.
 - b. Location.
 - c. Make and type.
 - d. Model number and unit size.
 - e. Manufacturer's serial number.
 - f. Unit arrangement and class.
 - g. Discharge arrangement.
 - h. Sheave make, size in inches (mm), and bore.
 - i. Sheave dimensions, center-to-center, and amount of adjustments in inches (mm).
 - j. Number of belts, make, and size.
 - k. Number of filters, type, and size.
 2. Motor Data:
 - a. Make and frame type and size.
 - b. Horsepower and rpm.
 - c. Volts, phase, and hertz.
 - d. Full-load amperage and service factor.
 - e. Sheave make, size in inches (mm), and bore.
 - f. Sheave dimensions, center-to-center, and amount of adjustments in inches (mm).
 3. Test Data (Indicated and Actual Values):
 - a. Total airflow rate in cfm (L/s).
 - b. Total system static pressure in inches wg (Pa).
 - c. Fan rpm.
 - d. Discharge static pressure in inches wg (Pa).
 - e. Filter static-pressure differential in inches wg (Pa).
 - f. Preheat coil static-pressure differential in inches wg (Pa).
 - g. Cooling coil static-pressure differential in inches wg (Pa).
 - h. Heating coil static-pressure differential in inches wg (Pa).
 - i. Outside airflow in cfm (L/s).
 - j. Return airflow in cfm (L/s).
 - k. Outside-air damper position.
 - l. Return-air damper position.
 - m. Vortex damper position.
- G. Apparatus-Coil Test Reports:
1. Coil Data:
 - a. System identification.
 - b. Location.
 - c. Coil type.
 - d. Number of rows.
 - e. Fin spacing in fins per inch (mm) o.c.
 - f. Make and model number.
 - g. Face area in sq. ft. (sq. m).
 - h. Tube size in NPS (DN).
 - i. Tube and fin materials.
 - j. Circuiting arrangement.
 2. Test Data (Indicated and Actual Values):

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- a. Airflow rate in cfm (L/s).
 - b. Average face velocity in fpm (m/s).
 - c. Air pressure drop in inches wg (Pa).
 - d. Outside-air, wet- and dry-bulb temperatures in deg F (deg C).
 - e. Return-air, wet- and dry-bulb temperatures in deg F (deg C).
 - f. Entering-air, wet- and dry-bulb temperatures in deg F (deg C).
 - g. Leaving-air, wet- and dry-bulb temperatures in deg F (deg C).
 - h. Water flow rate in gpm (L/s).
 - i. Water pressure differential in feet of head or psig (kPa).
 - j. Entering-water temperature in deg F (deg C).
 - k. Leaving-water temperature in deg F (deg C).
 - l. Refrigerant expansion valve and refrigerant types.
 - m. Refrigerant suction pressure in psig (kPa).
 - n. Refrigerant suction temperature in deg F (deg C).
 - o. Inlet steam pressure in psig (kPa).

- H. Electric-Coil Test Reports: For electric furnaces, duct coils, and electric coils installed in central-station air-handling units, include the following:
 1. Unit Data:
 - a. System identification.
 - b. Location.
 - c. Coil identification.
 - d. Capacity in Btuh (kW).
 - e. Number of stages.
 - f. Connected volts, phase, and hertz.
 - g. Rated amperage.
 - h. Airflow rate in cfm (L/s).
 - i. Face area in sq. ft. (sq. m).
 - j. Minimum face velocity in fpm (m/s).
 2. Test Data (Indicated and Actual Values):
 - a. Heat output in Btuh (kW).
 - b. Airflow rate in cfm (L/s).
 - c. Air velocity in fpm (m/s).
 - d. Entering-air temperature in deg F (deg C).
 - e. Leaving-air temperature in deg F (deg C).
 - f. Voltage at each connection.
 - g. Amperage for each phase.

- I. Fan Test Reports: For supply, return, and exhaust fans, include the following:
 1. Fan Data:
 - a. System identification.
 - b. Location.
 - c. Make and type.
 - d. Model number and size.
 - e. Manufacturer's serial number.
 - f. Arrangement and class.
 - g. Sheave make, size in inches (mm), and bore.
 - h. Sheave dimensions, center-to-center, and amount of adjustments in inches (mm).
 2. Motor Data:
 - a. Make and frame type and size.
 - b. Horsepower and rpm.

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- c. Volts, phase, and hertz.
 - d. Full-load amperage and service factor.
 - e. Sheave make, size in inches (mm), and bore.
 - f. Sheave dimensions, center-to-center, and amount of adjustments in inches (mm).
 - g. Number of belts, make, and size.
- 3. Test Data (Indicated and Actual Values):
 - a. Total airflow rate in cfm (L/s).
 - b. Total system static pressure in inches wg (Pa).
 - c. Fan rpm.
 - d. Discharge static pressure in inches wg (Pa).
 - e. Suction static pressure in inches wg (Pa).
- J. Round, Flat-Oval, and Rectangular Duct Traverse Reports: Include a diagram with a grid representing the duct cross-section and record the following:
 - 1. Report Data:
 - a. System and air-handling unit number.
 - b. Location and zone.
 - c. Traverse air temperature in deg F (deg C).
 - d. Duct static pressure in inches wg (Pa).
 - e. Duct size in inches (mm).
 - f. Duct area in sq. ft. (sq. m).
 - g. Indicated airflow rate in cfm (L/s).
 - h. Indicated velocity in fpm (m/s).
 - i. Actual airflow rate in cfm (L/s).
 - j. Actual average velocity in fpm (m/s).
 - k. Barometric pressure in psig (Pa).
- K. Air-Terminal-Device Reports:
 - 1. Unit Data:
 - a. System and air-handling unit identification.
 - b. Location and zone.
 - c. Test apparatus used.
 - d. Area served.
 - e. Air-terminal-device make.
 - f. Air-terminal-device number from system diagram.
 - g. Air-terminal-device type and model number.
 - h. Air-terminal-device size.
 - i. Air-terminal-device effective area in sq. ft. (sq. m).
 - 2. Test Data (Indicated and Actual Values):
 - a. Airflow rate in cfm (L/s).
 - b. Air velocity in fpm (m/s).
 - c. Preliminary airflow rate as needed in cfm (L/s).
 - d. Preliminary velocity as needed in fpm (m/s).
 - e. Final airflow rate in cfm (L/s).
 - f. Final velocity in fpm (m/s).
 - g. Space temperature in deg F (deg C).
- L. Packaged Chiller Reports:
 - 1. Unit Data:
 - a. Unit identification.
 - b. Make and model number.

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- c. Manufacturer's serial number.
 - d. Refrigerant type and capacity in gal. (L).
 - e. Starter type and size.
 - f. Starter thermal protection size.
 - g. Compressor make and model number.
 - h. Compressor manufacturer's serial number.
 2. Air-Cooled Condenser Test Data (Indicated and Actual Values):
 - a. Refrigerant pressure in psig (kPa).
 - b. Refrigerant temperature in deg F (deg C).
 - c. Entering- and leaving-air temperature in deg F (deg C).
 3. Evaporator Test Reports (Indicated and Actual Values):
 - a. Refrigerant pressure in psig (kPa).
 - b. Refrigerant temperature in deg F (deg C).
 - c. Entering-water temperature in deg F (deg C).
 - d. Leaving-water temperature in deg F (deg C).
 - e. Entering-water pressure in feet of head or psig (kPa).
 - f. Water pressure differential in feet of head or psig (kPa).
 4. Compressor Test Data (Indicated and Actual Values):
 - a. Suction pressure in psig (kPa).
 - b. Suction temperature in deg F (deg C).
 - c. Discharge pressure in psig (kPa).
 - d. Discharge temperature in deg F (deg C).
 - e. Oil pressure in psig (kPa).
 - f. Oil temperature in deg F (deg C).
 - g. Voltage at each connection.
 - h. Amperage for each phase.
 - i. Kilowatt input.
 - j. Crankcase heater kilowatt.
 - k. Chilled-water control set point in deg F (deg C).
 - l. Condenser-water control set point in deg F (deg C).
 - m. Refrigerant low-pressure-cutoff set point in psig (kPa).
 - n. Refrigerant high-pressure-cutoff set point in psig (kPa).
 5. Refrigerant Test Data (Indicated and Actual Values):
 - a. Oil level.
 - b. Refrigerant level.
 - c. Relief valve setting in psig (kPa).
 - d. Unloader set points in psig (kPa).
 - e. Percentage of cylinders unloaded.
 - f. Bearing temperatures in deg F (deg C).
 - g. Vane position.
 - h. Low-temperature-cutoff set point in deg F (deg C).
- M. Pump Test Reports: Calculate impeller size by plotting the shutoff head on pump curves and include the following:
1. Unit Data:
 - a. Unit identification.
 - b. Location.
 - c. Service.
 - d. Make and size.
 - e. Model and serial numbers.
 - f. Water flow rate in gpm (L/s).

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- g. Water pressure differential in feet of head or psig (kPa).
- h. Required net positive suction head in feet of head or psig (kPa).
- i. Pump rpm.
- j. Impeller diameter in inches (mm).
- k. Motor make and frame size.
- l. Motor horsepower and rpm.
- m. Voltage at each connection.
- n. Amperage for each phase.
- o. Full-load amperage and service factor.
- p. Seal type.
- 2. Test Data (Indicated and Actual Values):
 - a. Static head in feet of head or psig (kPa).
 - b. Pump shutoff pressure in feet of head or psig (kPa).
 - c. Actual impeller size in inches (mm).
 - d. Full-open flow rate in gpm (L/s).
 - e. Full-open pressure in feet of head or psig (kPa).
 - f. Final discharge pressure in feet of head or psig (kPa).
 - g. Final suction pressure in feet of head or psig (kPa).
 - h. Final total pressure in feet of head or psig (kPa).
 - i. Final water flow rate in gpm (L/s).
 - j. Voltage at each connection.
 - k. Amperage for each phase.
- N. Vibration Measurement Reports:
 - 1. Date and time of test.
 - 2. Vibration meter manufacturer, model number, and serial number.
 - 3. Equipment designation, location, equipment, speed, motor speed, and motor horsepower.
 - 4. Diagram of equipment showing the vibration measurement locations.
 - 5. Measurement readings for each measurement location.
 - 6. Calculate isolator efficiency using measurements taken.
 - 7. Description of predominant vibration source.
- O. Indoor-Air Quality Measurement Reports for Each HVAC System:
 - 1. HVAC system designation.
 - 2. Date and time of test.
 - 3. Outdoor temperature, relative humidity, wind speed, and wind direction at start of test.
 - 4. Room number or similar description for each location.
 - 5. Measurements at each location.
 - 6. Observed deficiencies.
- P. Instrument Calibration Reports:
 - 1. Report Data:
 - a. Instrument type and make.
 - b. Serial number.
 - c. Application.
 - d. Dates of use.
 - e. Dates of calibration.

3.21 INSPECTIONS

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- A. Initial Inspection:
 - 1. After testing and balancing are complete, operate each system and randomly check measurements to verify that the system is operating according to the final test and balance readings documented in the Final Report.
 - 2. Randomly check the following for each system:
 - a. Measure airflow of at least 10 percent of air outlets.
 - b. Measure water flow of at least 5 percent of terminals.
 - c. Measure room temperature at each thermostat/temperature sensor. Compare the reading to the set point.
 - d. Measure sound levels at two locations.
 - e. Measure space pressure of at least 10 percent of locations.
 - f. Verify that balancing devices are marked with final balance position.
 - g. Note deviations to the Contract Documents in the Final Report.
- B. Final Inspection:
 - 1. After initial inspection is complete and evidence by random checks verifies that testing and balancing are complete and accurately documented in the final report, request that a final inspection be made by Architect.
 - 2. TAB firm test and balance engineer shall conduct the inspection in the presence of Owner.
 - 3. Architect shall randomly select measurements documented in the final report to be rechecked. The rechecking shall be limited to either 10 percent of the total measurements recorded, or the extent of measurements that can be accomplished in a normal 8-hour business day.
 - 4. If the rechecks yield measurements that differ from the measurements documented in the final report by more than the tolerances allowed, the measurements shall be noted as "FAILED."
 - 5. If the number of "FAILED" measurements is greater than 10 percent of the total measurements checked during the final inspection, the testing and balancing shall be considered incomplete and shall be rejected.
 - 6. TAB firm shall recheck all measurements and make adjustments. Revise the final report and balancing device settings to include all changes and resubmit the final report.
 - 7. Request a second final inspection. If the second final inspection also fails, Owner shall contract the services of another TAB firm to complete the testing and balancing in accordance with the Contract Documents and deduct the cost of the services from the final payment.

3.22 ADDITIONAL TESTS

- A. Within 90 days of completing TAB, perform additional testing and balancing to verify that balanced conditions are being maintained throughout and to correct unusual conditions.
- B. Provide a minimum of 1 man-day of time for Cx verification of readings indicated in the final report.
- C. Seasonal Periods: If initial TAB procedures were not performed during near-peak summer and winter conditions, perform additional testing, inspecting, and adjusting during near-peak summer and winter conditions.

END OF SECTION 230593

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SECTION 23 07 13 - DUCT INSULATION

PART 1 - GENERAL

1.1 SUMMARY

A. Section Includes:

1. Adhesives and Coatings
2. Duct Insulation Materials:
 - a. Acoustic Duct Lining.
 - b. Rigid Insulation Board.
 - c. Flexible Glass Fiber Blanket.
 - d. Fireproofing Insulation Wrap
3. Duct Lagging.

PART 2 - PRODUCTS

2.1 GENERAL DUCT INSULATION REQUIREMENTS

- A. Unless specifically noted otherwise, insulation shall have composite fire and smoke hazard ratings (including insulation, jacket or facing, and adhesives), as tested by ASTM E84, NFPA 255 or UL 723 procedures, not exceeding a flame spread rating of 25 and smoke developed rating of 50.
- B. Asbestos shall not be used in the manufacture of insulation products.
- C. Testing of ductwork shall be complete before insulation on the exterior of the duct starts.

2.2 ADHESIVES AND COATINGS

A. Manufacturers:

1. Childers
2. Foster
3. Carlisle

	Childers
Vapor Barrier Adhesive	CP-85
Vapor Barrier Coating	CP-30
Lagging Adhesive	CP-52
Insulation Adhesive	CP-85
Glass Cloth Adhesive	CP-85
Weatherproofing Mastic	CP-10/11
Calcium Silicate Adhesive	CP-97

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2.3 DUCTWORK INSULATION SCHEDULE

- A. All ductwork insulation thickness shall be no less than the guidelines outlined within ASHRAE 90.1.

Duct System	Insulation Type	Minimum Insulation Thickness	Notes
Supply - Concealed	I-3	2 inches	
Supply - Exposed	I-2	2 inches	
Supply - Outdoors	I-2	2 inches	
Return - Concealed	I-3	1-1/2 inches	
Return - Exposed	I-2	1 inch	
Return - Outdoors	I-2	2 inches	
Outside Air - Concealed	I-3	2 inches	
Outside Air - Exposed	I-2	2 inches	
Outside Air - Outdoors	I-2	2 inches	
Sound Attenuators	I-2	1 inch	
Field Fabricated Plenums, Casings	I-2	2 inches	
Mixed Air - Concealed	I-3	2 inches	
Mixed Air - Exposed	I-2	2 inches	
Mixed Air - Outdoors	I-2	2 inches	
Transfer	I-1	1 inch	
Fire Wrapped Duct	I-4	Required thickness to achieve rating (assume 2-hours minimum)	

2.4 TYPE I-1 INSULATION

- A. Acoustic duct lining shall consist of 1 inch thick glass fiber blanket of 1-1/2 pound per cubic foot density. The airstream surface shall be protected against erosion with reinforced coating or mat-facing. Insulation edges shall be treated with a factory-applied coating to prevent surface flaring. Duct dimensions given on the drawings for lined ductwork are inside clear dimensions. Sheet metal sizes must be increased to allow for the thickness of the insulation.
- B. The liner shall meet the Life Safety Standards as established by NFPA 90A and 90B, FHC 25/50 and Limited Combustibility. The airstream surface shall be treated with an EPA-registered, anti-microbial agent so it will not support microbial growth as tested in accordance with ASTM G21 and G22. The duct lining should be rated for air velocities up to 6000 fpm and air temperatures up to 250°F.
- C. Acoustic duct lining shall have a maximum thermal conductivity (K) of .25 Btu-in./hr.-ft.²-°F at 75°F mean temperature, and an NRC not less than 0.70 as tested per ASTM C 423 using Type "A" mounting.
- D. Acoustic duct lining shall be installed in strict accordance with SMACNA Duct Construction Standards and NAIMA Duct Liner installation Standards. The liner shall be adhered to the sheet metal with full coverage of an approved adhesive conforming to ASTM C 916. All cut

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edges shall be field coated with a factory supplied edge treatment. Seams are to be neatly butted and fitted without gaps. Duct liner shall be additionally secured with mechanical fasteners spaced per the manufacturers' recommendations. Metal nosing shall be provided over transversely oriented liner edges facing the airstream at fan discharges, access doors, and any other exposed edge conditions.

E. Manufacturers:

1. Knauf Duct Liner EM
2. Manville Linacoustic RC
3. Certainteed ToughGard R.

2.5 TYPE I-2 INSULATION

A. Insulation shall be rigid insulation board, minimum density 6 pounds/cubic foot with factory applied foil-reinforced kraft vapor barrier jacket. Jacket shall be flame retardant. For round ductwork, provide sectional moulded type to 20 inches diameter, above 20 inches and for oval ductwork, rigid insulation board accurately scored to provide tight fit.

B. Secure to duct with pins and speed washers. Pins shall be of sufficient length to prevent dimpling of the insulation. Areas subject to sagging including, but not limited to, undersides of ductwork shall be coated with insulation adhesive and secured in place with pins and washers as described above. Pins shall be 12 inches on center and 3 inches from edge. Provide additional pins and washers as required to prevent sagging.

C. Lap ductwork at edges. Joints shall be sealed with 5 inch wide vapor barrier foil adhered with insulation adhesive or pressure sensitive foil tape. Seal vapor barrier openings, tears, punctures, etc., with tape or mastic to provide a vapor tight system.

D. Manufacturers:

1. Owens-Corning Fiberglas 705
2. Knauf Insulation Board
3. Manville 800 Series
4. Certainteed IB Board.

E. For ductwork exposed to weather, provide weatherproof finish. Installation of weatherproof finish shall be per manufacturer's recommendations.

1. Manufacturers:

- a. Polyguard Products, Inc. - Alumaguard 60
- b. MFM Building Products Corp. - Flex Clad 400
- c. Ventureclad 1577 CW.

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2.6 TYPE I-3 INSULATION

- A. Insulation shall be flexible glass fiber blanket, minimum 3/4 pound per cubic foot density with factory applied reinforced foil/kraft vapor barrier jacket. Jacket shall be flame retardant.
- B. For ducts 24 inches in width or greater, secure to duct with pins and speed washers spaced on 12 inch centers.
- C. Seams shall be stapled with outward clinching staples at 6 inches on center. Additionally, seams shall be sealed with 4 inch wide vapor barrier foil adhered with insulation adhesive or pressure sensitive foil tape. Seal vapor barrier openings, tears, punctures, etc., with tape or mastic to provide a vapor tight system.
- D. Manufacturers:
 - 1. Owens-Corning Fiberglas Type 75
 - 2. Knauf Duct Wrap
 - 3. Manville Microlite
 - 4. Certainteed Universal Blanket.

2.7 TYPE I-4 INSULATION

- A. Insulation shall be high temperature, light weight, flexible fireproofing wrap material completely encapsulated in a poly aluminum foil fiberglass reinforced scrim covering to protect against the absorption of grease or water.
- B. For ducts 24 inches width and greater, secure to duct with pins and speed washers spaced on 12 inch centers.
- C. Cut the insulation to a length sufficient to wrap around the duct and provide a minimum 3 inch perimeter overlap. Cut the adjacent piece of FyreWarp long enough to wrap around the duct circumference plus a 3 inch longitudinal overlap on to the previously installed piece. Seal all cut edges and joints with aluminum foil tape.
- D. To temporarily secure the insulation, use 1 inch wide filament tape. Install the tape 1-1/2 inches from the blanket edge and approximately 10-1/2 inches on center. Utilize stainless steel banding to permanently attach the material to the duct, placing the banding in the same locations as the tape. Tighten banding to firmly hold the wrap system in place, but not so tight as to cut or damage the blanket.
- E. Install exhaust duct insulation in accordance with manufacturer's recommendations.
- F. Manufacturers:
 - 1. Unifrax-FyreWrap 2.0
 - 2. Thermal Ceramics Firemaster Fastwrap.
- G. For ductwork exposed to weather, provide weatherproof finish. Installation of weatherproof finish shall be per manufacturer's recommendations.
 - 1. Manufacturers:

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- a. Polyguard Products, Inc. - Alumaguard 60
- b. MFM Building Products Corp. - Flex Clad 400
- c. Ventureclad 1577 CW.

2.8 EXTENT OF INSULATION

A. Insulate the following:

- 1. Supply ductwork
- 2. Return ductwork 50 feet from return fan or air handling unit
- 3. Outside air ductwork
- 4. Ductwork exposed to weather except double wall ductwork.
- 5. Return ductwork in equipment rooms, shafts, above ceiling spaces which are below roofs, crawl spaces, and spaces without heating or air conditioning.
- 6. Outside air plenums
- 7. Mixed air ductwork
- 8. Supply side sound attenuators
- 9. Transfer air ducts

2.9 DUCT LAGGING

- A. Duct lagging shall be limp barrier material, reinforced with a fiberglass screen, and loaded with barium sulphate.
- B. Lagging shall have acoustical rating of STC-27.
- C. Manufacturers:
 - 1. Kinetics Noise Control Model KNM-100 RB.

PART 3 - EXECUTION

3.1 GENERAL INSTALLATION REQUIREMENTS

- A. Insulation shall be applied on clean, dry ductwork.
- B. Install insulation with least number of joints practical.
- C. Repair damaged insulation facings by applying same facing material over damaged areas. Extend patches at least 4 inches beyond damaged areas. Adhere, staple, and seal patches similar to butt joints.
- D. Ensure the integrity of vapor barrier around all cold surfaces.
- E. Provide insulation over all duct support channels, rods, etc. at a thickness to match the scheduled thickness of the associated ductwork.
- F. Provide insulation continuously through roof penetrations. Install insulation for outdoor applications tightly joined to indoor insulation ends. Seal joint with joint sealant.
- G. Install insulation continuously through sleeves and openings in penetrations that are not fire rated.

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- H. Insulation shall stop at electric duct heaters. Ends of insulation shall be sealed and lapped with vapor barrier.
- I. For penetrations through fire-rated assemblies in systems utilizing acoustic duct lining, terminate lining at fire damper sleeves and externally insulate damper sleeve beyond to match adjacent duct lining. Overlap damper sleeve and duct lining at least 2 inches.
- J. Apply insulation in accordance with manufacturer's recommendations.
- K. Apply lagging in accordance with manufacturer's recommendations
- L. Insulated ductwork located outdoors shall be protected by stainless steel jacket.

3.2 FIRE-RATED INSULATION INSTALLATION REQUIREMENTS

- A. Where fire-rated insulation system is indicated, secure system to ducts and duct hangers and supports to maintain a continuous fire rating.
- B. Insulate duct access panels and doors to achieve same fire rating as duct.
- C. Install firestopping at penetrations through fire-rated assemblies.

END OF SECTION 23 07 13

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SECTION 23 07 19 HVAC PIPING INSULATION

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

- A. Section includes insulating the following HVAC piping systems:
 - 1. Condensate drain piping, indoors.
 - 2. Chilled-water and brine piping, indoors and outdoors.
 - 3. Refrigerant piping, indoors and outdoors.

1.3 SUBMITTALS

- A. Product Data: For each type of product indicated. Include thermal conductivity, water-vapor permeance thickness, and jackets (both factory and field applied if any).
- B. Qualification Data: For qualified Installer.

1.4 QUALITY ASSURANCE

- A. Installer Qualifications: Skilled mechanics who have successfully completed an apprenticeship program or another craft training program certified by the Department of Labor, Bureau of Apprenticeship and Training.
- B. Surface-Burning Characteristics: For insulation and related materials, as determined by testing identical products according to ASTM E 84, by a testing and inspecting agency acceptable to authorities having jurisdiction. Factory label insulation and jacket materials and adhesive, mastic, tapes, and cement material containers, with appropriate markings of applicable testing agency.
 - 1. Insulation Installed Indoors: Flame-spread index of 25 or less, and smoke-developed index of 50 or less.
 - 2. Insulation Installed Outdoors: Flame-spread index of 75 or less, and smoke-developed index of 150 or less.

1.5 DELIVERY, STORAGE, AND HANDLING

- A. Packaging: Insulation material containers shall be marked by manufacturer with appropriate ASTM standard designation, type and grade, and maximum use temperature.

1.6 COORDINATION

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- A. Coordinate sizes and locations of supports, hangers, and insulation shields specified in Division 23 Section "Hangers and Supports for HVAC Piping and Equipment."
- B. Coordinate clearance requirements with piping Installer for piping insulation application. Before preparing piping Shop Drawings, establish and maintain clearance requirements for installation of insulation and field-applied jackets and finishes and for space required for maintenance.

1.7 SCHEDULING

- A. Schedule insulation application after pressure testing systems and, where required, after installing and testing heat tracing. Insulation application may begin on segments that have satisfactory test results.
- B. Complete installation and concealment of plastic materials as rapidly as possible in each area of construction.

PART 2 - PRODUCTS

2.1 INSULATION MATERIALS

- A. Comply with requirements in "Piping Insulation Schedule, General," "Indoor Piping Insulation Schedule," "Outdoor, Aboveground Piping Insulation Schedule," and "Outdoor, Underground Piping Insulation Schedule" articles for where insulating materials shall be applied.
- B. Products shall not contain asbestos, lead, mercury, or mercury compounds.
- C. Products that come in contact with stainless steel shall have a leachable chloride content of less than 50 ppm when tested according to ASTM C 871.
- D. Insulation materials for use on austenitic stainless steel shall be qualified as acceptable according to ASTM C 795.
- E. Foam insulation materials shall not use CFC or HCFC blowing agents in the manufacturing process.
- F. Cellular Glass: Inorganic, incombustible, foamed or cellulated glass with annealed, rigid, hermetically sealed cells. Factory-applied jacket requirements are specified in "Factory-Applied Jackets" Article.
 - 1. Products: Subject to compliance with requirements, available products that may be incorporated into the Work include, but are not limited to, the following:
 - a. Pittsburgh Corning Corporation; Foamglas.
 - b.
 - 2. Block Insulation: ASTM C 552, Type I.
 - 3. Special-Shaped Insulation: ASTM C 552, Type III.
 - 4. Board Insulation: ASTM C 552, Type IV.
 - 5. Preformed Pipe Insulation with Factory-Applied ASJ: Comply with ASTM C 552, Type II, Class 2.

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6. Factory fabricate shapes according to ASTM C 450 and ASTM C 585.

- G. Flexible Elastomeric Insulation: Closed-cell, sponge- or expanded-rubber materials. Comply with ASTM C 534, Type I for tubular materials.
 - 1. Products: Subject to compliance with requirements, available products that may be incorporated into the Work include, but are not limited to, the following:
 - a. Aeroflex USA, Inc.; Aerocel.
 - b. Armacell LLC; AP Armaflex.
 - c. K-Flex USA; Insul-Lock, Insul-Tube, and K-FLEX LS.
 - d.

2.2 ADHESIVES

- A. Materials shall be compatible with insulation materials, jackets, and substrates and for bonding insulation to itself and to surfaces to be insulated unless otherwise indicated.
- B. Cellular-Glass Adhesive: Two-component, thermosetting urethane adhesive containing no flammable solvents, with a service temperature range of minus 100 to plus 200 deg F (minus 73 to plus 93 deg C).
 - 1. Products: Subject to compliance with requirements, available products that may be incorporated into the Work include, but are not limited to, the following:
 - a. Foster Brand, Specialty Construction Brands, Inc., a business of H. B. Fuller Company; 81-84.
 - b.
- C. Flexible Elastomeric Adhesive: Comply with MIL-A-24179A, Type II, Class I.
 - 1. Products: Subject to compliance with requirements, available products that may be incorporated into the Work include, but are not limited to, the following:
 - a. Aeroflex USA, Inc.; Aeroseal.
 - b. Armacell LLC; Armaflex 520 Adhesive.
 - c. Foster Brand, Specialty Construction Brands, Inc., a business of H. B. Fuller Company; 85-75.
 - d. K-Flex USA; R-373 Contact Adhesive.
 - e.
- D. PVC Jacket Adhesive: Compatible with PVC jacket.
 - 1. Products: Subject to compliance with requirements, available products that may be incorporated into the Work include, but are not limited to, the following:
 - a. Dow Corning Corporation; 739, Dow Silicone.
 - b. Johns Manville; Zeston Perma-Weld, CEEL-TITE Solvent Welding Adhesive.
 - c. P.I.C. Plastics, Inc.; Welding Adhesive.
 - d. Speedline Corporation; Polyco VP Adhesive.
 - e.

2.3 MASTICS

- A. Materials shall be compatible with insulation materials, jackets, and substrates; comply with MIL-PRF-19565C, Type II.

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1. For indoor applications, use mastics that have a VOC content of 50 g/L or less when calculated according to 40 CFR 59, Subpart D (EPA Method 24).
- B. Vapor-Barrier Mastic: Water based; suitable for indoor use on below-ambient services.
1. Products: Subject to compliance with requirements, available products that may be incorporated into the Work include, but are not limited to, the following:
 - a. Foster Brand, Specialty Construction Brands, Inc., a business of H. B. Fuller Company; 30-80/30-90.
 - b. Vimasco Corporation; 749.
 - c.
 2. Water-Vapor Permeance: ASTM E 96/E 96M, Procedure B, 0.013 perm (0.009 metric perm) at 43-mil (1.09-mm) dry film thickness.
 3. Service Temperature Range: Minus 20 to plus 180 deg F (Minus 29 to plus 82 deg C).
 4. Solids Content: ASTM D 1644, 58 percent by volume and 70 percent by weight.
 5. Color: White.
- C. Vapor-Barrier Mastic: Solvent based; suitable for outdoor use on below-ambient services.
1. Products: Subject to compliance with requirements, available products that may be incorporated into the Work include, but are not limited to, the following:
 - a. Childers Brand, Specialty Construction Brands, Inc., a business of H. B. Fuller Company; Encacel.
 - b. Eagle Bridges - Marathon Industries; 570.
 - c. Foster Brand, Specialty Construction Brands, Inc., a business of H. B. Fuller Company; 60-95/60-96.
 - d.
 2. Water-Vapor Permeance: ASTM F 1249, 0.05 perm (0.033 metric perm) at 30-mil (0.8-mm) dry film thickness.
 3. Service Temperature Range: Minus 50 to plus 220 deg F (Minus 46 to plus 104 deg C).
 4. Solids Content: ASTM D 1644, 33 percent by volume and 46 percent by weight.
 5. Color: White.

2.4 LAGGING ADHESIVES

- A. Description: Comply with MIL-A-3316C, Class I, Grade A and shall be compatible with insulation materials, jackets, and substrates.
1. For indoor applications, use lagging adhesives that have a VOC content of 50 g/L or less when calculated according to 40 CFR 59, Subpart D (EPA Method 24).
 2. Products: Subject to compliance with requirements, available products that may be incorporated into the Work include, but are not limited to, the following:
 - a. Childers Brand, Specialty Construction Brands, Inc., a business of H. B. Fuller Company; CP-50 AHV2.
 - b. Foster Brand, Specialty Construction Brands, Inc., a business of H. B. Fuller Company; 30-36.
 - c. Vimasco Corporation; 713 and 714.
 - d.
 3. Fire-resistant, water-based lagging adhesive and coating for use indoors to adhere fire-resistant lagging cloths over pipe insulation.
 4. Service Temperature Range: 0 to plus 180 deg F (Minus 18 to plus 82 deg C).
 5. Color: White.

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2.5 SEALANTS

A. Joint Sealants:

1. Joint Sealants for Cellular-Glass Products: Subject to compliance with requirements, available products that may be incorporated into the Work include, but are not limited to, the following:
 - a. Childers Brand, Specialty Construction Brands, Inc., a business of H. B. Fuller Company; CP-76.
 - b. Eagle Bridges - Marathon Industries; 405.
 - c. Foster Brand, Specialty Construction Brands, Inc., a business of H. B. Fuller Company; 30-45.
 - d. Mon-Eco Industries, Inc.; 44-05.
 - e. Pittsburgh Corning Corporation; Pittseal 444.
 - f.
2. Materials shall be compatible with insulation materials, jackets, and substrates.
3. Permanently flexible, elastomeric sealant.
4. Service Temperature Range: Minus 100 to plus 300 deg F (Minus 73 to plus 149 deg C).
5. Color: White or gray.

B. FSK and Metal Jacket Flashing Sealants:

1. Products: Subject to compliance with requirements, available products that may be incorporated into the Work include, but are not limited to, the following:
 - a. Childers Brand, Specialty Construction Brands, Inc., a business of H. B. Fuller Company; CP-76.
 - b. Eagle Bridges - Marathon Industries; 405.
 - c. Foster Brand, Specialty Construction Brands, Inc., a business of H. B. Fuller Company; 95-44.
 - d. Mon-Eco Industries, Inc.; 44-05.
 - e.
2. Materials shall be compatible with insulation materials, jackets, and substrates.
3. Fire- and water-resistant, flexible, elastomeric sealant.
4. Service Temperature Range: Minus 40 to plus 250 deg F (Minus 40 to plus 121 deg C).
5. Color: Aluminum.

C. ASJ Flashing Sealants, and Vinyl, PVDC, and PVC Jacket Flashing Sealants:

1. Products: Subject to compliance with requirements, available products that may be incorporated into the Work include, but are not limited to, the following:
 - a. Childers Brand, Specialty Construction Brands, Inc., a business of H. B. Fuller Company; CP-76.
 - b.
2. Materials shall be compatible with insulation materials, jackets, and substrates.
3. Fire- and water-resistant, flexible, elastomeric sealant.
4. Service Temperature Range: Minus 40 to plus 250 deg F (Minus 40 to plus 121 deg C).
5. Color: White.

2.6 FACTORY-APPLIED JACKETS

- A. Insulation system schedules indicate factory-applied jackets on various applications. When factory-applied jackets are indicated, comply with the following:

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1. ASJ: White, kraft-paper, fiberglass-reinforced scrim with aluminum-foil backing; complying with ASTM C 1136, Type I.

2.7 FIELD-APPLIED FABRIC-REINFORCING MESH

- A. Woven Glass-Fiber Fabric: Approximately 2 oz./sq. yd. (68 g/sq. m) with a thread count of 10 strands by 10 strands/sq. in. (4 strands by 4 strands/sq. mm) for covering pipe and pipe fittings.
 1. Products: Subject to compliance with requirements, available products that may be incorporated into the Work include, but are not limited to, the following:
 - a. Childers Brand, Specialty Construction Brands, Inc., a business of H. B. Fuller Company; Chil-Glas Number 10.
 - b.

2.8 FIELD-APPLIED CLOTHS

- A. Woven Glass-Fiber Fabric: Comply with MIL-C-20079H, Type I, plain weave, and presized a minimum of 8 oz./sq. yd. (271 g/sq. m).
 1. Products: Subject to compliance with requirements, available products that may be incorporated into the Work include, but are not limited to, the following:
 - a. Alpha Associates, Inc.; Alpha-Maritex 84215 and 84217/9485RW, Luben 59.
 - b.

2.9 FIELD-APPLIED JACKETS

- A. Field-applied jackets shall comply with ASTM C 921, Type I, unless otherwise indicated.
- B. PVC Jacket: High-impact-resistant, UV-resistant PVC complying with ASTM D 1784, Class 16354-C; thickness as scheduled; roll stock ready for shop or field cutting and forming. Thickness is indicated in field-applied jacket schedules.
 1. Products: Subject to compliance with requirements, available products that may be incorporated into the Work include, but are not limited to, the following:
 - a. Johns Manville; Zeston.
 - b. P.I.C. Plastics, Inc.; FG Series.
 - c. Proto Corporation; LoSmoke.
 - d. Speedline Corporation; SmokeSafe.
 2. Adhesive: As recommended by jacket material manufacturer.
 3. Color: White.
 4. Factory-fabricated fitting covers to match jacket if available; otherwise, field fabricate.
 - a. Shapes: 45- and 90-degree, short- and long-radius elbows, tees, valves, flanges, unions, reducers, end caps, soil-pipe hubs, traps, mechanical joints, and P-trap and supply covers for lavatories.
- C. Metal Jacket:
 1. Products: Subject to compliance with requirements, available products that may be incorporated into the Work include, but are not limited to, the following:
 - a. Childers Brand, Specialty Construction Brands, Inc., a business of H. B. Fuller Company; Metal Jacketing Systems.
 - b. ITW Insulation Systems; Aluminum and Stainless Steel Jacketing.

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- c. RPR Products, Inc.; Insul-Mate.
- d.
- 2. Aluminum Jacket: Comply with ASTM B 209 (ASTM B 209M), Alloy 3003, 3005, 3105, or 5005, Temper H-14.
 - a. Sheet and roll stock ready for shop or field sizing.
 - b. Finish and thickness are indicated in field-applied jacket schedules.
 - c. Moisture Barrier for Outdoor Applications: 3-mil- (0.075-mm-) thick, heat-bonded polyethylene and kraft paper.
 - d. Factory-Fabricated Fitting Covers:
 - 1) Same material, finish, and thickness as jacket.
 - 2) Preformed 2-piece or gore, 45- and 90-degree, short- and long-radius elbows.
 - 3) Tee covers.
 - 4) Flange and union covers.
 - 5) End caps.
 - 6) Beveled collars.
 - 7) Valve covers.
 - 8) Field fabricate fitting covers only if factory-fabricated fitting covers are not available.

2.10 TAPES

- A. ASJ Tape: White vapor-retarder tape matching factory-applied jacket with acrylic adhesive, complying with ASTM C 1136.
 - 1. Products: Subject to compliance with requirements, available products that may be incorporated into the Work include, but are not limited to, the following:
 - a. ABI, Ideal Tape Division; 428 AWF ASJ.
 - b. Avery Dennison Corporation, Specialty Tapes Division; Fasson 0836.
 - c. Compac Corporation; 104 and 105.
 - d. Venture Tape; 1540 CW Plus, 1542 CW Plus, and 1542 CW Plus/SQ.
 - e.
 - 2. Width: 3 inches (75 mm).
 - 3. Thickness: 11.5 mils (0.29 mm).
 - 4. Adhesion: 90 ounces force/inch (1.0 N/mm) in width.
 - 5. Elongation: 2 percent.
 - 6. Tensile Strength: 40 lbf/inch (7.2 N/mm) in width.
 - 7. ASJ Tape Disks and Squares: Precut disks or squares of ASJ tape.
- B. PVC Tape: White vapor-retarder tape matching field-applied PVC jacket with acrylic adhesive; suitable for indoor and outdoor applications.
 - 1. Products: Subject to compliance with requirements, available products that may be incorporated into the Work include, but are not limited to, the following:
 - a. ABI, Ideal Tape Division; 370 White PVC tape.
 - b. Compac Corporation; 130.
 - c. Venture Tape; 1506 CW NS.
 - d.
 - 2. Width: 2 inches (50 mm).
 - 3. Thickness: 6 mils (0.15 mm).
 - 4. Adhesion: 64 ounces force/inch (0.7 N/mm) in width.
 - 5. Elongation: 500 percent.

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6. Tensile Strength: 18 lbf/inch (3.3 N/mm) in width.

2.11 SECUREMENTS

A. Bands:

1. Products: Subject to compliance with requirements, available products that may be incorporated into the Work include, but are not limited to, the following:
 - a. ITW Insulation Systems; Gerrard Strapping and Seals.
 - b. RPR Products, Inc.; Insul-Mate Strapping, Seals, and Springs.
 - c.
2. Aluminum: ASTM B 209 (ASTM B 209M), Alloy 3003, 3005, 3105, or 5005; Temper H-14, 0.020 inch (0.51 mm) thick, 1/2 inch (13 mm) wide with wing seal or closed seal.
3. Springs: Twin spring set constructed of stainless steel with ends flat and slotted to accept metal bands. Spring size determined by manufacturer for application.

PART 3 - EXECUTION

3.1 EXAMINATION

- A. Examine substrates and conditions for compliance with requirements for installation tolerances and other conditions affecting performance of insulation application.
 1. Verify that systems to be insulated have been tested and are free of defects.
 2. Verify that surfaces to be insulated are clean and dry.
 3. Proceed with installation only after unsatisfactory conditions have been corrected.

3.2 PREPARATION

- A.
- B. Surface Preparation: Clean and prepare surfaces to be insulated. Before insulating, for outdoor pipe apply a corrosion coating to insulated surfaces as follows:
 1. Carbon Steel: Coat carbon steel operating at a service temperature between 32 and 300 deg F (0 and 149 deg C) with an epoxy coating. Consult coating manufacturer for appropriate coating materials and application methods for operating temperature range.
- C. Mix insulating cements with clean potable water; if insulating cements are to be in contact with stainless-steel surfaces, use demineralized water.

3.3 GENERAL INSTALLATION REQUIREMENTS

- A. Install insulation materials, accessories, and finishes with smooth, straight, and even surfaces; free of voids throughout the length of piping including fittings, valves, and specialties.
- B. Install insulation materials, forms, vapor barriers or retarders, jackets, and thicknesses required for each item of pipe system as specified in insulation system schedules.

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- C. Install accessories compatible with insulation materials and suitable for the service. Install accessories that do not corrode, soften, or otherwise attack insulation or jacket in either wet or dry state.
- D. Install all chilled water piping insulation prior to chiller start-up to avoid bare-pipe sweating into partially installed insulation.
- E. Install insulation with longitudinal seams at top and bottom of horizontal runs.
- F. Install multiple layers of insulation with longitudinal and end seams staggered.
- G. Do not weld brackets, clips, or other attachment devices to piping, fittings, and specialties.
- H. Keep insulation materials dry during application and finishing.
- I. Install insulation with tight longitudinal seams and end joints. Bond seams and joints with adhesive recommended by insulation material manufacturer.
- J. Install insulation with least number of joints practical.
- K. Where vapor barrier is indicated, seal joints, seams, and penetrations in insulation at hangers, supports, anchors, and other projections with vapor-barrier mastic.
 - 1. Install insulation continuously through hangers and around anchor attachments.
 - 2. For insulation application where vapor barriers are indicated, extend insulation on anchor legs from point of attachment to supported item to point of attachment to structure. Taper and seal ends at attachment to structure with vapor-barrier mastic.
 - 3. Install insert materials and install insulation to tightly join the insert. Seal insulation to insulation inserts with adhesive or sealing compound recommended by insulation material manufacturer.
 - 4. Cover inserts with jacket material matching adjacent pipe insulation. Install shields over jacket, arranged to protect jacket from tear or puncture by hanger, support, and shield.
- L. Apply adhesives, mastics, and sealants at manufacturer's recommended coverage rate and wet and dry film thicknesses.
- M. Install insulation with factory-applied jackets as follows:
 - 1. Draw jacket tight and smooth.
 - 2. Cover circumferential joints with 3-inch- (75-mm-) wide strips, of same material as insulation jacket. Secure strips with adhesive and outward clinching staples along both edges of strip, spaced 4 inches (100 mm) o.c.
 - 3. Overlap jacket longitudinal seams at least 1-1/2 inches (38 mm). Install insulation with longitudinal seams at bottom of pipe. Clean and dry surface to receive self-sealing lap. Staple laps with outward clinching staples along edge at 2 inches (50 mm) o.c.
 - a. For below-ambient services, apply vapor-barrier mastic over staples.
 - 4. Cover joints and seams with tape, according to insulation material manufacturer's written instructions, to maintain vapor seal.
 - 5. Where vapor barriers are indicated, apply vapor-barrier mastic on seams and joints and at ends adjacent to pipe flanges and fittings.
- N. Cut insulation in a manner to avoid compressing insulation more than 75 percent of its nominal thickness.

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- O. Finish installation with systems at operating conditions. Repair joint separations and cracking due to thermal movement.
- P. Repair damaged insulation facings by applying same facing material over damaged areas. Extend patches at least 4 inches (100 mm) beyond damaged areas. Adhere, staple, and seal patches similar to butt joints.
- Q. For above-ambient services, do not install insulation to the following:
 - 1. Vibration-control devices.
 - 2. Testing agency labels and stamps.
 - 3. Nameplates and data plates.
 - 4. Manholes.
 - 5. Handholes.
 - 6. Cleanouts.

3.4 PENETRATIONS

- A. Insulation Installation at Roof Penetrations: Install insulation continuously through roof penetrations.
 - 1. Seal penetrations with flashing sealant.
 - 2. For applications requiring only indoor insulation, terminate insulation above roof surface and seal with joint sealant. For applications requiring indoor and outdoor insulation, install insulation for outdoor applications tightly joined to indoor insulation ends. Seal joint with joint sealant.
 - 3. Extend jacket of outdoor insulation outside roof flashing at least 2 inches (50 mm) below top of roof flashing.
 - 4. Seal jacket to roof flashing with flashing sealant.
- B. Insulation Installation at Underground Exterior Wall Penetrations: Terminate insulation flush with sleeve seal. Seal terminations with flashing sealant.
- C. Insulation Installation at Aboveground Exterior Wall Penetrations: Install insulation continuously through wall penetrations.
 - 1. Seal penetrations with flashing sealant.
 - 2. For applications requiring only indoor insulation, terminate insulation inside wall surface and seal with joint sealant. For applications requiring indoor and outdoor insulation, install insulation for outdoor applications tightly joined to indoor insulation ends. Seal joint with joint sealant.
 - 3. Extend jacket of outdoor insulation outside wall flashing and overlap wall flashing at least 2 inches (50 mm).
 - 4. Seal jacket to wall flashing with flashing sealant.
- D. Insulation Installation at Interior Wall and Partition Penetrations (That Are Not Fire Rated): Install insulation continuously through walls and partitions.
- E. Insulation Installation at Fire-Rated Wall and Partition Penetrations: Install insulation continuously through penetrations of fire-rated walls and partitions.
 - 1. Comply with requirements in Division 07 Section "Penetration Firestopping" for firestopping and fire-resistive joint sealers.

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- F. Insulation Installation at Floor Penetrations:
 - 1. Pipe: Install insulation continuously through floor penetrations.
 - 2. Seal penetrations through fire-rated assemblies. Comply with requirements in Division 07 Section "Penetration Firestopping."

3.5 GENERAL PIPE INSULATION INSTALLATION

- A. Requirements in this article generally apply to all insulation materials except where more specific requirements are specified in various pipe insulation material installation articles.
- B. Insulation Installation on Fittings, Valves, Strainers, Flanges, and Unions:
 - 1. Install insulation over fittings, valves, strainers, flanges, unions, and other specialties with continuous thermal and vapor-retarder integrity unless otherwise indicated.
 - 2. Insulate pipe elbows using preformed fitting insulation or mitered fittings made from same material and density as adjacent pipe insulation. Each piece shall be butted tightly against adjoining piece and bonded with adhesive. Fill joints, seams, voids, and irregular surfaces with insulating cement finished to a smooth, hard, and uniform contour that is uniform with adjoining pipe insulation.
 - 3. Insulate tee fittings with preformed fitting insulation or sectional pipe insulation of same material and thickness as used for adjacent pipe. Cut sectional pipe insulation to fit. Butt each section closely to the next and hold in place with tie wire. Bond pieces with adhesive.
 - 4. Insulate valves using preformed fitting insulation or sectional pipe insulation of same material, density, and thickness as used for adjacent pipe. Overlap adjoining pipe insulation by not less than two times the thickness of pipe insulation, or one pipe diameter, whichever is thicker. For valves, insulate up to and including the bonnets, valve stuffing-box studs, bolts, and nuts. Fill joints, seams, and irregular surfaces with insulating cement.
 - 5. Insulate strainers using preformed fitting insulation or sectional pipe insulation of same material, density, and thickness as used for adjacent pipe. Overlap adjoining pipe insulation by not less than two times the thickness of pipe insulation, or one pipe diameter, whichever is thicker. Fill joints, seams, and irregular surfaces with insulating cement. Insulate strainers so strainer basket flange or plug can be easily removed and replaced without damaging the insulation and jacket. Provide a removable reusable insulation cover. For below-ambient services, provide a design that maintains vapor barrier.
 - 6. Insulate flanges and unions using a section of oversized preformed pipe insulation. Overlap adjoining pipe insulation by not less than two times the thickness of pipe insulation, or one pipe diameter, whichever is thicker.
 - 7. Cover segmented insulated surfaces with a layer of finishing cement and coat with a mastic. Install vapor-barrier mastic for below-ambient services and a breather mastic for above-ambient services. Reinforce the mastic with fabric-reinforcing mesh. Trowel the mastic to a smooth and well-shaped contour.
 - 8. For services not specified to receive a field-applied jacket except for flexible elastomeric and polyolefin, install fitted PVC cover over elbows, tees, strainers, valves, flanges, and unions. Terminate ends with PVC end caps. Tape PVC covers to adjoining insulation facing using PVC tape.
 - 9. Stencil or label the outside insulation jacket of each union with the word "union." Match size and color of pipe labels.

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- C. Insulate instrument connections for thermometers, pressure gages, pressure temperature taps, test connections, flow meters, sensors, switches, and transmitters on insulated pipes. Shape insulation at these connections by tapering it to and around the connection with insulating cement and finish with finishing cement, mastic, and flashing sealant.
- D. Install removable insulation covers at locations indicated. Installation shall conform to the following:
 - 1. Make removable flange and union insulation from sectional pipe insulation of same thickness as that on adjoining pipe. Install same insulation jacket as adjoining pipe insulation.
 - 2. When flange and union covers are made from sectional pipe insulation, extend insulation from flanges or union long at least two times the insulation thickness over adjacent pipe insulation on each side of flange or union. Secure flange cover in place with stainless-steel or aluminum bands. Select band material compatible with insulation and jacket.
 - 3. Construct removable valve insulation covers in same manner as for flanges, except divide the two-part section on the vertical center line of valve body.
 - 4. When covers are made from block insulation, make two halves, each consisting of mitered blocks wired to stainless-steel fabric. Secure this wire frame, with its attached insulation, to flanges with tie wire. Extend insulation at least 2 inches (50 mm) over adjacent pipe insulation on each side of valve. Fill space between flange or union cover and pipe insulation with insulating cement. Finish cover assembly with insulating cement applied in two coats. After first coat is dry, apply and trowel second coat to a smooth finish.
 - 5. Unless a PVC jacket is indicated in field-applied jacket schedules, finish exposed surfaces with a metal jacket.

3.6 INSTALLATION OF CELLULAR-GLASS INSULATION

- A. Insulation Installation on Straight Pipes and Tubes:
 - 1. Secure each layer of insulation to pipe with wire or bands and tighten bands without deforming insulation materials.
 - 2. Where vapor barriers are indicated, seal longitudinal seams, end joints, and protrusions with vapor-barrier mastic and joint sealant.
 - 3. For insulation with factory-applied jackets on above-ambient services, secure laps with outward-clinched staples at 6 inches (150 mm) o.c.
 - 4. For insulation with factory-applied jackets on below-ambient services, do not staple longitudinal tabs. Instead, secure tabs with additional adhesive as recommended by insulation material manufacturer and seal with vapor-barrier mastic and flashing sealant.
- B. Insulation Installation on Pipe Flanges:
 - 1. Install preformed pipe insulation to outer diameter of pipe flange.
 - 2. Make width of insulation section same as overall width of flange and bolts, plus twice the thickness of pipe insulation.
 - 3. Fill voids between inner circumference of flange insulation and outer circumference of adjacent straight pipe segments with cut sections of cellular-glass block insulation of same thickness as pipe insulation.
 - 4. Install jacket material with manufacturer's recommended adhesive, overlap seams at least 1 inch (25 mm), and seal joints with flashing sealant.
- C. Insulation Installation on Pipe Fittings and Elbows:

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1. Install preformed sections of same material as straight segments of pipe insulation when available. Secure according to manufacturer's written instructions.
 2. When preformed sections of insulation are not available, install mitered sections of cellular-glass insulation. Secure insulation materials with wire or bands.
- D. Insulation Installation on Valves and Pipe Specialties:
1. Install preformed sections of cellular-glass insulation to valve body.
 2. Arrange insulation to permit access to packing and to allow valve operation without disturbing insulation.
 3. Install insulation to flanges as specified for flange insulation application.

3.7 INSTALLATION OF FLEXIBLE ELASTOMERIC INSULATION

- A. Seal longitudinal seams and end joints with manufacturer's recommended adhesive to eliminate openings in insulation that allow passage of air to surface being insulated.
- B. Insulation Installation on Pipe Flanges:
1. Install pipe insulation to outer diameter of pipe flange.
 2. Make width of insulation section same as overall width of flange and bolts, plus twice the thickness of pipe insulation.
 3. Fill voids between inner circumference of flange insulation and outer circumference of adjacent straight pipe segments with cut sections of sheet insulation of same thickness as pipe insulation.
 4. Secure insulation to flanges and seal seams with manufacturer's recommended adhesive to eliminate openings in insulation that allow passage of air to surface being insulated.
- C. Insulation Installation on Pipe Fittings and Elbows:
1. Install mitered sections of pipe insulation.
 2. Secure insulation materials and seal seams with manufacturer's recommended adhesive to eliminate openings in insulation that allow passage of air to surface being insulated.
- D. Insulation Installation on Valves and Pipe Specialties:
1. Install preformed valve covers manufactured of same material as pipe insulation when available.
 2. When preformed valve covers are not available, install cut sections of pipe and sheet insulation to valve body. Arrange insulation to permit access to packing and to allow valve operation without disturbing insulation.
 3. Install insulation to flanges as specified for flange insulation application.
 4. Secure insulation to valves and specialties and seal seams with manufacturer's recommended adhesive to eliminate openings in insulation that allow passage of air to surface being insulated.

3.8 FIELD-APPLIED JACKET INSTALLATION

- A. Where PVC jackets are indicated, install with 1-inch (25-mm) overlap at longitudinal seams and end joints; for horizontal applications. Seal with manufacturer's recommended adhesive.
1. Apply two continuous beads of adhesive to seams and joints, one bead under lap and the finish bead along seam and joint edge.

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- B. Where metal jackets are indicated, install with 2-inch (50-mm) overlap at longitudinal seams and end joints. Overlap longitudinal seams arranged to shed water. Seal end joints with weatherproof sealant recommended by insulation manufacturer. Secure jacket with stainless-steel bands 12 inches (300 mm) o.c. and at end joints.

3.9 FINISHES

- A. Flexible Elastomeric Thermal Insulation: After adhesive has fully cured, apply two coats of insulation manufacturer's recommended UV protective coating for exterior installation.
- B. Do not field paint aluminum or stainless-steel jackets.

3.10 PIPING INSULATION SCHEDULE, GENERAL

- A. Acceptable preformed pipe and tubular insulation materials and thicknesses are identified for each piping system and pipe size range. If more than one material is listed for a piping system, selection from materials listed is Contractor's option.
- B. Items Not Insulated: Unless otherwise indicated, do not install insulation on the following:
 - 1. Drainage piping located in crawl spaces.
 - 2. Underground piping.
 - 3. Chrome-plated pipes and fittings unless there is a potential for personnel injury.

3.11 INDOOR PIPING INSULATION SCHEDULE

- A. Condensate and Equipment Drain Water below 60 Deg F (16 Deg C):
 - 1. All Pipe Sizes: Insulation shall be the following:
 - a. Flexible Elastomeric: 3/4 inch (19 mm) thick.
 - b.
- B. Chilled Water and Brine, above 40 Deg F (5 Deg C):
 - 1. NPS 12 (DN 300) and Smaller: Insulation shall be the following:
 - a. Cellular Glass: 1-1/2 inches (38 mm) thick.
- C. Refrigerant Suction and Hot-Gas Piping:
 - 1. All Pipe Sizes: Insulation shall be the following:
 - a. Flexible Elastomeric: 1 inch (25 mm) thick.
- D. Refrigerant Suction and Hot-Gas Flexible Tubing:
 - 1. All Pipe Sizes: Insulation shall be the following:
 - a. Flexible Elastomeric: 1 inch (25 mm) thick.
- E. Refrigerant Liquid Lines below 60 Deg F
 - 1. All Pipe Sizes: Insulation shall be the following:
 - a. Flexible Elastomeric: 1/2 inch thick

3.12 OUTDOOR, ABOVEGROUND PIPING INSULATION SCHEDULE

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- A. Chilled Water and Brine:
 - 1. All Pipe Sizes: Insulation shall be the following:
 - a. Cellular Glass: 3 inches (75 mm) thick.
- B. Refrigerant Suction and Hot-Gas Piping:
 - 1. All Pipe Sizes: Insulation shall be the following:
 - a. Flexible Elastomeric: 2 inches (50 mm) thick.
- C. Refrigerant Suction and Hot-Gas Flexible Tubing:
 - 1. All Pipe Sizes: Insulation shall be the following:
 - a. Flexible Elastomeric: 2 inches (50 mm) thick.

3.13 INDOOR, FIELD-APPLIED JACKET SCHEDULE

- A. Install jacket over insulation material. For insulation with factory-applied jacket, install the field-applied jacket over the factory-applied jacket.
- B. If more than one material is listed, selection from materials listed is Contractor's option.
- C. Piping, Concealed:
 - 1. None.
- D. Piping, Exposed:
 - 1. PVC: 20 mils (0.5 mm) thick. All above 7' AFF
 - 2. Aluminum Jacketing: All piping 7' AFF and below plus in all mechanical and equipment rooms.

3.14 OUTDOOR, FIELD-APPLIED JACKET SCHEDULE

- A. Install jacket over insulation material. For insulation with factory-applied jacket, install the field-applied jacket over the factory-applied jacket.
- B. If more than one material is listed, selection from materials listed is Contractor's option.
- C. Piping, Concealed:
 - 1. None.
- D. Piping, Exposed:
 - 1. Aluminum, Corrugated with Z-Shaped Locking Seam: 0.020 inch (0.51 mm) thick.

END OF SECTION 23 07 19

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SECTION 23 09 00 – INSTRUMENTATION AND CONTROLS FOR HVAC

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

- A. This Section includes open protocol DDC control equipment for HVAC systems and components, including control components for terminal heating and cooling units not supplied with factory-wired controls, lighting in new and existing facilities, generators, freezer, coolers and make-up water meter.

1.3 DEFINITIONS

- A. DDC: Direct digital control.
- B. I/O: Input/output.
- C. BACnet: ASHRAE Standard 135/2004 open protocol standards
- D. MS/TP: Master slave/token passing. BACnet standard for 485 communications
- E. PC: Personal computer.
- F. PID: Proportional plus integral plus derivative.
- G. LonWorks: A control network technology platform for designing and implementing interoperable control devices and networks.

1.4 SYSTEM PERFORMANCE

- A. Comply with the following performance requirements:
 - 1. Graphic Display: Display graphic with minimum 20 dynamic points with current data within 10 seconds.
 - 2. Graphic Refresh: Update graphic with minimum 20 dynamic points with current data within 8 seconds.
 - 3. Object Command: Reaction time of less than two seconds between operator command of a binary object and device reaction.
 - 4. Object Scan: Transmit change of state and change of analog values to control units or workstation within six seconds.

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5. Alarm Response Time: Annunciate alarm at workstation within 45 seconds. Multiple workstations must receive alarms within five seconds of each other.
6. Program Execution Frequency: Run capability of applications as often as five seconds, but selected consistent with mechanical process under control.
7. Performance: Programmable controllers shall execute DDC PID control loops, and scan and update process values and outputs at least once per second.
8. Reporting Accuracy and Stability of Control: Report values and maintain measured variables within tolerances as follows:
 - a. Water Temperature: Plus-or-minus 1 deg F.
 - b. Water Flow: Plus-or-minus 5 percent of full scale.
 - c. Water Pressure: Plus-or-minus 2 percent of full scale.
 - d. Space Temperature: Plus-or-minus 0.35 deg F.
 - e. Ducted Air Temperature: Plus-or-minus 0.35 deg F.
 - f. Outside Air Temperature: Plus-or-minus 0.35 deg F.
 - g. Dew Point Temperature: Plus-or-minus 0.35 deg F.
 - h. Temperature Differential: Plus-or-minus 0.25 deg F.
 - i. Relative Humidity: Plus-or-minus 2 percent.
 - j. Airflow (Measuring Stations): Plus-or-minus 5 percent of full scale.
 - k. Airflow (Terminal): Plus-or-minus 10 percent of full scale.
 - l. Air Pressure (Ducts): Plus-or-minus 0.1-inch wg.
 - m. Carbon Dioxide: Plus-or-minus 50 ppm.
 - n. Electrical: Plus-or-minus 5 percent of reading.

1.5 SUBMITTALS

- A. Product Data: Include manufacturer's technical literature for each control device. Indicate dimensions, capacities, performance characteristics, electrical characteristics, finishes for materials, and installation and startup instructions for each type of product indicated.
 1. DDC System Hardware: Bill of materials of equipment indicating quantity, manufacturer, and model number. Include technical data for operator workstation equipment, interface equipment, control units, transducers/transmitters, sensors, actuators, valves, relays/switches, control panels, and operator interface equipment.
 2. Control System Software: Include technical data for operating system software, operator interface, color graphics, and other third-party applications.
 3. Controlled Systems: Instrumentation list with element name, type of device, manufacturer, model number, and product data. Include written description of sequence of operation including schematic diagram.
- B. Shop Drawings: Detail equipment assemblies and indicate dimensions, weights, loads, required clearances, method of field assembly, components, and location and size of each field connection.
 1. Bill of materials of equipment indicating quantity, manufacturer, and model number.
 2. Schematic flow diagrams showing fans, pumps, coils, dampers, valves, and control devices.
 3. Wiring Diagrams: Power, signal, and control wiring.
 4. Details of control panel faces, including controls, instruments, and labeling.
 5. Written description of sequence of operation.

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6. Schedule of dampers including size, leakage, and flow characteristics.
 7. Schedule of valves including flow characteristics.
 8. DDC System Hardware:
 - a. Wiring diagrams for control units with termination numbers.
 - b. Schematic diagrams and floor plans for field sensors and control hardware.
 - c. Schematic diagrams for control, communication, and power wiring, showing trunk data conductors and wiring between operator workstation and control unit locations.
 9. Control System Software: List of color graphics indicating monitored systems, data (connected and calculated) point addresses, output schedule, and operator notations.
 10. Controlled Systems:
 - a. Schematic diagrams of each controlled system with control points labeled and control elements graphically shown, with wiring.
 - b. Scaled drawings showing mounting, routing, and wiring of elements including bases and special construction.
 - c. Written description of sequence of operation including schematic diagram.
 - d. Points list.
- C. Data Communications Protocol Certificates: Certify that each proposed DDC system component complies with ASHRAE 135 and that system is Open Protocol.
- D. Software and Firmware Operational Documentation: Include the following:
1. Software operating and upgrade manuals.
 2. Program Software Backup: On a magnetic media or compact disc, complete with data files.
 3. Device address list.
 4. Printout of software application and graphic screens.
 5. Software license required by and installed for DDC workstations and control systems.
- E. Software Upgrade Kit: For Owner to use in modifying software to suit future systems revisions or monitoring and control revisions.
- F. Operation and Maintenance Data: For HVAC instrumentation and control system to include in emergency, operation, and maintenance manuals. In addition to items specified in Division 01 Section "Operation and Maintenance Data," include the following:
1. Maintenance instructions and lists of spare parts for each type of control device and compressed-air station.
 2. Interconnection wiring diagrams with identified and numbered system components and devices.
 3. Keyboard illustrations and step-by-step procedures indexed for each operator function.
 4. Inspection period, cleaning methods, cleaning materials recommended, and calibration tolerances.
 5. Calibration records and list of set points.

1.6 QUALITY ASSURANCE

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- A. Installer Qualifications: Automatic control system manufacturer's authorized representative who is trained and approved for installation of system components required for this Project.
- B. Electrical Components, Devices, and Accessories: Listed and labeled as defined in NFPA 70, Article 100, by a testing agency acceptable to authorities having jurisdiction, and marked for intended use.
- C. Comply with ASHRAE 135 (BACnet) for DDC system components.

1.7 DELIVERY, STORAGE, AND HANDLING

- A. Factory-Mounted Components: Where control devices specified in this Section are indicated to be factory mounted on equipment, arrange for shipping of control devices to equipment manufacturer.
- B. System Software: Update to latest version of software at Project completion.

1.8 COORDINATION

- A. Coordinate location of thermostats, humidistats, and other exposed control sensors with plans and room details before installation.
- B. Coordinate supply of conditioned electrical branch circuits for control units and operator workstation.
- C. Coordinate equipment with Division 26 Section "Motor-Control Centers" to achieve compatibility with motor starters and annunciation devices.

PART 2 - PRODUCTS

2.1 MANUFACTURERS

- A. In other Part 2 articles where titles below introduce lists, the following requirements apply to product selection:
 - 1. Manufacturers: Subject to compliance with requirements, provide products by one of the manufacturers specified.

2.2 CONTROL SYSTEM

- A. Manufacturers:
 - 1. Automated Logic
 - 2. Carrier
 - 3. KMC (Basis of Design)

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- B. Control system shall consist of sensors, indicators, actuators, final control elements, interface equipment, other apparatus, accessories, and software connected to distributed controllers operating in multiuser, multitasking environment on token-passing network and programmed to control mechanical systems. An operator workstation permits interface with the network via dynamic color graphics with each mechanical system, building floor plan, and control device depicted by point-and-click graphics.

2.3 DDC EQUIPMENT

- A. Control Units: Modular, comprising processor board with programmable, nonvolatile, random-access memory; local operator access and display panel; integral interface equipment; and backup power source.
 - 1. Units monitor or control each I/O point; process information; execute commands from other control units, devices, and operator stations; and download from or upload to operator workstation.
 - 2. Stand-alone mode control functions operate regardless of network status. Functions include the following:
 - a. Global communications.
 - b. Discrete/digital, analog, and pulse I/O.
 - c. Monitoring, controlling, or addressing data points.
 - d. Software applications, scheduling, and alarm processing.
 - e. Testing and developing control algorithms without disrupting field hardware and controlled environment.
 - 3. Standard Application Programs:
 - a. Electric Control Programs: Demand limiting, duty cycling, automatic time scheduling, start/stop time optimization, night setback/setup, on-off control with differential sequencing, staggered start, anti-short cycling, PID control, DDC with fine tuning, and trend logging.
 - b. HVAC Control Programs: Optimal run time, supply-air reset, and enthalpy switchover.
 - c. Chiller Control Programs: Control function of condenser-water reset, chilled-water reset, and equipment sequencing.
 - d. Programming Application Features: Include trend point; alarm processing and messaging; weekly, monthly, and annual scheduling; energy calculations; run-time totalization; and security access.
 - e. Remote communications.
 - f. Maintenance management.
 - g. Units of Measure: Inch-pound.
 - 4. Local operator interface provides for download from or upload to operator workstation or diagnostic terminal unit.
 - 5. ASHRAE 135 – BACnet Compliance: Control units shall use ASHRAE 135 protocol and communicate using ISO 8802-3 (Ethernet) datalink/physical layer protocol.
- B. Local Control Units: Modular, comprising processor board with electronically programmable, nonvolatile, read-only memory; and backup power source.

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1. Units monitor or control each I/O point, process information, and download from or upload to operator workstation or diagnostic terminal unit.
 2. Stand-alone mode control functions operate regardless of network status. Functions include the following:
 - a. Global communications.
 - b. Discrete/digital, analog, and pulse I/O.
 - c. Monitoring, controlling, or addressing data points.
 3. Local operator interface provides for download from or upload to operator workstation or diagnostic terminal unit.
 4. ASHRAE 135 – BACnet Compliance: Control units shall use ASHRAE 135 protocol and communicate using ISO 8802-3 (Ethernet) datalink/physical layer protocol.
- C. I/O Interface: Hardwired inputs and outputs may tie into system through controllers. Protect points so that shorting will cause no damage to controllers.
1. Binary Inputs: Allow monitoring of on-off signals without external power.
 2. Pulse Accumulation Inputs: Accept up to 10 pulses per second.
 3. Analog Inputs: Allow monitoring of low-voltage (0- to 10-V dc), current (4 to 20 mA), or resistance signals.
 4. Binary Outputs: Provide on-off or pulsed low-voltage signal, selectable for normally open or normally closed operation with three-position (on-off-auto) override switches and status lights.
 5. Analog Outputs: Provide modulating signal, either low voltage (0- to 10-V dc) or current (4 to 20 mA) with status lights, two-position (auto-manual) switch, and manually adjustable potentiometer.
 6. Tri-State Outputs: Provide two coordinated binary outputs for control of three-point, floating-type electronic actuators.
 7. Universal I/Os: Provide software selectable binary or analog outputs.
- D. Power Supplies: Transformers with Class 2 current-limiting type or overcurrent protection; limit connected loads to 80 percent of rated capacity. DC power supply shall match output current and voltage requirements and be full-wave rectifier type with the following:
1. Output ripple of 5.0 mV maximum peak to peak.
 2. Combined 1 percent line and load regulation with 100-mic.sec. response time for 50 percent load changes.
 3. Built-in overvoltage and overcurrent protection and be able to withstand 150 percent overload for at least 3 seconds without failure.
- E. Power Line Filtering: Internal or external transient voltage and surge suppression for workstations or controllers with the following:
1. Minimum dielectric strength of 1000 V.
 2. Maximum response time of 10 nanoseconds.
 3. Minimum transverse-mode noise attenuation of 65 dB.
 4. Minimum common-mode noise attenuation of 150 dB at 40 to 100 Hz.

2.4 SYSTEM SOFTWARE

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A. General:

1. Contractor shall provide all software required for efficient operation of all functions required by this specification. Software shall be modular in design for flexibility in expansion or revision of the system. Software shall, as a minimum, include:
 - a. Complete database entry.
 - b. Configuration of all application programs to provide the sequence of operation indicated.
 - c. Complete graphics package, including graphics floor plans and individual graphics, for each system.
 - d. Alarm limits and alarm messages for all critical and non-critical alarms.
 - e. Configuration of all reports and point summaries indicated.
2. System software shall be complete such that each control loop shall function as specified in the Sequence of Operation.
3. Building control system manufacturer shall be required to write the software program and test the operation of every control loop. A letter certifying that the system is ready for inspection shall be submitted to the engineer prior to the controllers being shipped to the field. The Engineer may at his option visit the contractor's office and witness proper operation of each control loop prior to shipping from the contractor's point of fabrication. The control contractor shall provide a means of simulating every input to the system as a requirement for debugging the software. Prior to shipping of the microprocessor controller, the debugged software shall be transmitted to the owner for approval.
4. After all field connections have been made and control power is available in the control panel, the owner shall be notified and the control system shall be energized. Any required reloading of the software shall be performed and start-up of the mechanical system and building control system shall commence.
5. Building control contractor shall be responsible for all necessary revisions to the software as required to provide a complete and workable system consistent with the letter and intent of the specification. All control performance criteria are specified in the Sequence of Operations section of the specification.
6. After the system has operated properly for 90 days following start-up of the final component of the heating and air conditioning systems, an as-built copy of the software shall be transmitted to the owner for permanent record purposes. Any software upgrading or enhancements to improve the system operation or as required for proper operation of the system during the first year of operation is the responsibility of the building control system contractor. Any changes to the software shall be immediately transmitted to the Owner.
7. The Building Network Controller shall incorporate the GUI (Graphical User Interface) via a standard web browser. Use of hardware keys or special licenses requirements to access the system with a browser is unacceptable. The building controller will serve up the web pages on a standalone per building application for the intent that if the WAN is not working, an operator can access the system on site via the building internal network using an IP. A server computer will be located at the energy management office to supervise the remote panels and alarm if the communication is lost as well as any control function alarm. This server computer will also be the area of trending archives.
8. Software required to provide the initial operation routines shall not consume more than 70% of the programmable capability of the controller.
9. Software shall be provided in these five categories:

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- a. System executive software.
 - b. Software for user control over system configuration at the Central Site location, and by Maintenance Personnel in the field.
 - c. Facility monitoring functions.
 - d. Direct digital control.
 - e. Application software.
10. Each category of software shall consist of interactive software modules. Each module shall have an associated priority level and shall execute as determined by the program controller as defined in the real time operating system.
 11. Building operator shall be able to communicate and direct all control functions through the use of a 2-button "mouse" operator interface to monitor and control all functions and sequences within the system.
 12. Central site shall allow receipt of alarms and messages while in a functional mode other than energy management; i.e. incoming alarms shall be displayed while the operator is in a word processing, spreadsheet or other operating mode. The system must automatically switch from a non- energy management mode, respond to an alarm, and return to the exact position left in the previous functional mode.
 13. Central site must be able to generate standard ASCII file formats to allow use with third-party software (**Microsoft Excel**) to generate and store owner-designed reports.

B. Systems Software:

1. Central site shall display graphically, in up to 64 different colors, the following system information:
 - a. Floor plan maps shall show heating and cooling zones throughout the buildings in a range of colors which provide a visual display of temperature relative to their respective setpoints. The colors shall be updated dynamically as zones' comfort condition change. Locations of space sensors shall also be shown for each zone. Setpoint adjustment and color band displays shall be provided as specified.
 - b. Lighting floor plan maps shall show the status of each individual lighting circuit. When the lights are "on", the area served shall respond in a pre-selected color. When the lights are "off", the area served shall appear gray.
 - c. Mechanical system graphics shall show the type of mechanical system components serving any zone through the use of a pictorial representation of components. It shall also provide a current status of all I/O points being controlled and applicable to each piece of equipment including analog readouts in appropriate engineering units at appropriate locations on the graphic representation.
 - d. The following information shall be selected from a "pop- up" menu available on various graphics:
 - 1) Alarms.
 - 2) Messages.
 - 3) Module Status.
 - 4) Programming Parameters.
 - 5) Quit.
 - 6) Schedules.
 - 7) Schedule Graphs.
 - 8) Schedule Groups.
 - 9) Setpoints.

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- 10) Trends.
 - 11) Utilities.
- e. Programming, scheduling and set-point changes shall be accessible for modification on each menu for the associated equipment. Operator shall be able to automatically download changes from the central site to the appropriate program for the equipment being controlled. Operator shall be able to upload information from the field modules to the central site.
- 2. Input Format:
 - a. Allowable operators, as defined under user access, shall be able to control system functions by their inputs at an appropriate user terminal. Primary operator interface shall be via two button mouse.
- 3. Verification of Operator Input:
 - a. System shall acknowledge all inputs as functions or commands to be performed. System's handling of operator inputs, such as requests to start a motor, output a log, change a time program, acknowledge an alarm, or do any of the other commands described in this specification, shall be in a similar format.
- 4. Operator Commands:
 - a. All operator commands shall be in graphics data base and menu driven. After the operator selects the desired object item or menu, the system shall display either the status of selected object item or the allowable options available. Upon entry of a command to the point or points desired as described above, the system shall, before performing any command requested and any entered data. System shall include error monitoring software for user's input error.
- 5. Output Format:
 - a. The system shall operate on a System Format basis, regardless of the manner or hardware configuration in which the data is acquired. A "system" shall consist of a logical grouping of data points, related to a piece of mechanical equipment, an energy distribution system, or an architectural area. For example, in some cases, it may be desired to display, as a single system, a space temperature with its associated air handling unit, and in other cases to display all space temperatures on a floor or in a building. The DDC shall allow such determinations to be made without regard to the physical hardware locations of a point or group of points. Likewise, the system shall accommodate future changes of system grouping and operations without field hardware changes.
 - b. All displays and logs shall contain a header line indicating date, day-of-week, and time.
 - c. All output displays or logs of a point or group of points shall contain, as a minimum, the following information:
 - 1) Graphic presentation of the System.
 - 2) User name of point.
 - 3) Point descriptor.

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- 4) Current value/status.
 - 5) Associated engineering units.
 - 6) Alarm description.
- d. User names, point descriptors, and engineering units shall be operator definable on a per point basis.
- 6. Set points:
 - a. System shall utilize a contiguous band of colors each corresponding to actual zone temperatures relative to the desired heating and cooling setpoints. The ideal temperature shall be shown as a green color band. This color band corresponds to the dead band between the onset of mechanical heating or cooling. Temperatures warmer than ideal shall be shown in orange.
 - b. Temperatures cooler than ideal shall be blue. All alarm colors shall be in red.
 - c. System shall be capable of utilizing the mouse operator interface device to change individual zone temperature setpoints. The change shall be accomplished by pointing to a graphic temperature bar and by depressing a button, moving the mouse cursor to an increased or decreased temperature set-point within that zone. System shall also be capable of utilizing the mouse interface device or a conventional keyboard to change a numeric temperature set-point value instead of utilizing the graphic temperature bar. Floor plan graphic shall then be able to change colors on a zone-by-zone basis to reflect the actual temperature in each zone relative to the changed desired heating or cooling set-point.
 - d. System shall be capable of globally changing all setpoints. The global change capability shall be accessed via a "pop up menu" called by depressing a button on the mouse.
- 7. Graphic Structure and Hardware:
 - a. The intent of the graphics is to ensure the operator is always aware of his position within the system as well as how to logically progress through the graphical hierarchy to select any desired graphic or other source of information. The GUI will be served as a web page and access from any computer without any special software or hardware keys. The building network controller will hold the graphics for standalone operation. A computer on site will not be acceptable to serve the graphics. The sever computer will have the ability to access the system for engineering from the owner, alarming archives and alarms, remote monitoring of the health of the communications to the field devices and to archive the trend collection data from the building controllers. The web pages will follow a minimum Graphical layout shall be as follows:
 - (1) Main greeting page will have links for all building monitored for quick access.
 - (2) Once a building is selected a picture of the building will be displayed along with a menu of all systems controlled from this section. There will also be links for the floor plans.
 - (3) Once the floor plan has been chosen, the selected graphic page will display the architectural floor plan. This plan will have temperature readings and Setpoints of all VAV's within this floor. There will also be links or button depicting the location and equipment number that is serving that area. This link will hyper-

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link into the graphic of the AHU. The temperature and setpoint reading will hyperlink to the selected VAV graphic for further review. If the floor has too many VAV data readings to display for an easy reading the floor plan may be broken into sections so that the view is easily readable.

- (4) Graphical VAV – The VAV box will be a graphical representation of a VAV box. The data shown on the box will be as follows:
 - i. Box Flow
 - ii. Box Flow Trend hyperlink
 - iii. Box Flow Setpoint
 - iv. Box Flow Trend hyperlink
 - v. Box Flow Min Setpoint
 - vi. Box Flow Max Setpoint
 - vii. Box Flow Reheat Min Setpoint (if applicable)
 - viii. Reheat Stage Commands (if applicable)
 - ix. Supply Air Temperature (with reheat)
 - x. Room Setpoint
 - xi. Room Setpoint Trend hyperlink
 - xii. Room Temperature
 - xiii. Room Temperature Trend hyperlink
 - xiv. Room Humidity (If applicable)
 - xv. Room Humidity Trend hyperlink
 - xvi. Room Humidity Setpoint (if applicable)
 - xvii. Room Humidity Setpoint Trend hyperlink
 - xviii. All points above to show a different status color if overridden
- (5) Graphical AHU – The AHU will be a graphical representation of the physical air handling unit specified. The data will be located on the AHU as physically located on the unit. The data on the AHU will be as follows:
 - i. Schedule for Unit hyperlink – link to the scheduling editor
 - ii. Schedule for Ventilation hyperlink – link to the scheduling editor.
 - iii. Occupied/Unoccupied status for each schedule
 - iv. Fan command
 - v. Fan status
 - vi. Fan speed
 - vii. Fan VFD alarm
 - viii. Temperature sensors as specified in the control sequence of operation and trending points
 - ix. All setpoints as specified in the sequence of operation
 1. Example – VAV AHU will have a supply air temperature and setpoint
 - x. Supply air static and trend hyperlink
 - xi. Supply air static Setpoint and trend hyperlink
 - xii. Return air damper position
 - xiii. Outside air damper position
 - xiv. Outside air flow and trend hyperlink
 - xv. Outside air flow setpoint and trend hyperlink

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- xvi. Outside air heater command
 - xvii. Outside air heater setpoint
 - xviii. Any misc points needed from a sequence of operation
 - xix. All points above to show a different status color if overridden
 - (6) Graphical Chiller plant – The plant will be a graphical representation of the physical chiller plant as specified and installed. The data will be located on the graphical screen as physically installed in the plant.
 - i. All Chiller interface data
 - ii. Enable/Disable of Chillers and isolation valves
 - iii. Primary pump command and status
 - iv. Secondary Pump command, status, speed, and general alarm from the VFD.
 - v. Flow meters
 - vi. Temperature sensors
 - (7) Misc. Points and graphical screens
 - b. Graphical representation of text on these screens – The text blocks will have an opposing color for easier reading
 - c. Graphical representation of the trends – each point to be trended will have a icon next to the point being trended. This icon will hyperlink to the trending chart builder for the individual trend screen. A trend icon on the main building screen will be a trend chart builder. This trend builder will allow to select multiple trends from a list, pick whether recent trending data or archived (in the server), date range, etc. Then after selection the trend chart builder will compile the data and build the trend for viewing or exporting to a spread sheet. This all happens with a standard web browser.
 - d. A text block for an overridable point shall be highlighted when a mouse is scrolled over an object. When the text block and or pint is overridden the graphical point will turn to a different color. This allows for easy viewing of which points are overridden on a graphic screen.
- 1)
8. User Access Restriction. Operator sign-on shall require an assignable password. Passwords shall have six (6) levels of system access **or user defined**:
- a. Level 1 - Trainee: The level shall allow readout of data only. System shall display all operation data base.
 - b. Level 2 - Maintenance 1: This level shall allow all of Level 1 functions plus the changing of all schedules.
 - c. Level 3 - Maintenance 2: This level shall allow performance of Level 2 functions plus the changing of all set points.
 - d. Level 4 - Supervisor: This level shall allow performance of Level 3 functions plus the changing of all system parameters.
 - e. Level 5 - System Programmer: This level shall allow performance of Level 4 functions plus the modifying the system configuration.
 - f. Level 6 - System Manager: This level shall allow performance of Level 5 functions plus the changing of passwords.

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9. Power Failure/Automatic Restart:

- a. Power failures shall cause the system to go into an orderly shutdown with no loss of program memory.
- b. Upon resumption of power, the system shall automatically restart and printout the time and date of the power failure and restoration at the Central Site. "Restart" program shall automatically restart affected field equipment. Operator shall be able to define an automatic power up time delay for each piece of equipment under control.
- c. User Control Over System Configuration:
 - 1) Database Creation and Modification. All changes shall be done utilizing standard procedures and be capable of being done while the system is on-line and operational. The system shall allow changes to be made through the portable operator terminal and from the central site. To aid the user, instructive prompting software shall be provided.
 - 2) System shall permit the operator, with proper password, to perform as a minimum the following:
 - a) Add and delete points.
 - b) Modify point parameters.
 - c) Create and modify control sequences.
 - d) Reconfigure application programs.
 - e) Add and/or modify graphics.
 - 3) All data points within the database shall be completely accessible as independent or dependent variables for custom programming, calculation, interlocking, or manipulation.
 - 4) Graphics Software:
 - a) Graphics software shall permit the easy construction of infinitely variable shapes and sizes through the use of the mouse pointing device.
 - b) A selection of 64 colors and various fill textures, line types and text styles shall all be accessible through the use of the mouse interface. The software shall resemble many of the computer aided design programs currently available and allow graphics to be easily moved, edited, added or deleted.
 - c) Graphics software shall be fully implemented and operational to accomplish the following:
 1. Create a new graphic picture.
 2. Modify a portion of a graphic picture.
 3. Delete a graphic picture, or any portion thereof.
 4. Call up a graphic picture.
 5. Cancel the display of a graphic picture.
 6. Assign conditions which automatically initiate the display.
 7. Overlay alphanumeric and graphics.
 8. Save the graphic picture.
 9. Display latest process data fully integrated with the graphic display

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d. Facility Management Functions:

1) Trend Logging:

- a) System shall be able to trend and display either numerically or graphically any analog or digital points in the system.
- b) System shall be able to simultaneously graphically display any two trended points within a module function block or any point in the module versus the outside air temperature, enthalpy or relative humidity.
- c) Each field module shall be capable of storing the most recent 60 samples for each single trend point or the most recent 30 samples for each of two trended points from one module function block.
- d) Each module shall be capable of automatically uploading on a daily basis all accumulated trend data to the central site for permanent storage on hard disk.

2) Run Time:

- a) System shall provide run time information for all digital output and input points on command from the operator. Maximum run time limits shall be operator definable and shall be capable of automatically issuing a **visual** when the run time maximum is exceeded. Operator shall be able to reset the run time accumulator.
- b) Run time hours and start time date shall be retained in non-volatile module memory.
- c) Each module shall be capable of automatically uploading all accumulated data to the central site for permanent storage on hard disk.

3) Alarm Conditions and Maintenance Messages:

- a) Central site shall allow receipt of alarms and messages while in a functional mode other than energy management. i.e., Incoming alarms shall be displayed **and generate an audible alarm** while the operator is utilizing another mode such as word processing and allow the operator to automatically return to word processing after the alarm is received.
- b) System shall distinguish between alarms and messages with alarms having a higher priority.
- c) System shall be capable of calling up to three different remote locations to deliver an alarm or message **through E-Mail, E-Page or alphanumeric page**. Operator shall determine if alarms or messages are to be based on temperature limit, status or off-normal reporting.
- d) System shall be capable of printing maintenance messages when run time accumulation maximum limits are exceeded.
- e) Text for operator alarm and messages shall be operator definable. System shall be capable of storing at least 100 messages each of any length. Generic messages used for multiple points throughout the system shall only count as one message. In the event the central site is

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powered down, alarms shall be stored in the modules until the central site is restored.

- f) Central site shall be capable of transferring all alarms to hard disk for storage.

4) Reports and Archiving:

- a) Field modules shall be capable of calling the central site during off peak phone rate hours to automatically upload all current and accumulated data. This shall be delivered to the central site for printing and/or permanent storage on hard disk. The system shall further be capable of transferring hard disk information onto a CD or USB external drive for remote site storage.
- b) System shall be capable of reporting and archiving the following information as a minimum:
 - 1. Outside air temperature history and degree day history.
 - 2. Electric demand and usage history.
 - 3. All trended points.
 - 4. Active six-month rolling trends, not requiring activation by OWNER O&M.
 - 5. All alarms and messages.
 - 6. Equipment runtime information.
- c) The system shall also provide the following additional reports for which archiving is not applicable:
 - 1. All points summary.
 - 2. Building operating schedules.
 - 3. Printout of any graphic screen.
- d) System shall be capable of providing all points summaries on a hierarchical basis. e.g., only the points associated with a particular graphic shall be selectable and printed. For example, if the operator is viewing an air handling unit (AHU), he may request an all points summary at this level and receive only the points associated with the AHU. If the building is being viewed and an all points summary selected, all building points will be listed. Similarly, the system shall print building operating schedules pertinent to the graphic level being viewed. e.g., if a zone or tenant zone group is being viewed on the graphic display, then the system shall be capable of printing the building operating schedules for the zone or tenant zone group. If the entire building graphic is being viewed, the system shall be capable of printing schedules at the building level. All systems reports shall be capable to being viewed at the operators' terminal and printed at the operator's discretion.

e. Direct Digital Control Software:

- 1) System shall continuously perform DDC functions at the local DDC controller in a stand-alone mode. The operator shall be able to design and modify the control loops to meet the requirements of the system being operated. Operators shall use system provided displays for tuning of PID

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loops. These displays shall include the past three input variable values, the set point for the loop as well as the sample interval and the results of the proportional, integral and derivative effects of the final output.

- 2) Each Controller shall perform the following functions:
 - a) Identify and report alarm conditions.
 - b) Execute DDC algorithms.
 - c) Execute all application programs indicated on the I/O Summary table.
 - d) Trend and store data.
 - 3) In the event of a Controller failure, all points under its control shall be commanded to the failure mode.
 - 4) All DDC software shall reside in the respective DDC Controller.
- f. Application Software:
- 1) Application software shall be as required to produce the sequence of operation specified.

2.5 ELECTRONIC SENSORS

- A. Description: Vibration and corrosion resistant; for wall, immersion, or duct mounting as required.
- B. Temperature Sensors: 10K resistor style.
 1. Accuracy: Plus-or-minus 0.35 deg F at calibration point.
 2. Wire: Twisted, shielded-pair cable.
 3. Insertion Elements in Ducts: Single point, 8 inches long; use where not affected by temperature stratification or where ducts are smaller than 9 sq. ft..
 4. Averaging Elements in Ducts: 36 inches long, flexible; use where prone to temperature stratification or where ducts are larger than 10 sq. ft..
 5. Insertion Elements for Liquids: Brass or stainless-steel socket with minimum insertion length of 2-1/2 inches.
 6. Room Sensor Cover Construction: Manufacturer's standard covers.
 - a. Set-Point Adjustment: Exposed but disable.
 - b. Set-Point Indication: Exposed.
 - c. Thermometer: Digital temperature display.
 - d. Color: Beige
 - e. Orientation: Vertical.
 - f. Occupancy Override: Exposed only for office and classrooms.
 7. Outside-Air Sensors: Watertight inlet fitting, shielded from direct sunlight.
- C. Humidity Sensors: Bulk polymer sensor element.
 1. Accuracy: 2 percent full range with linear output.
 2. Room Sensor Range: 0 to 100 percent relative humidity.
 3. Room Sensor Cover Construction: Manufacturer's standard covers.

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- a. Set-Point Adjustment: Concealed.
 - b. Set-Point Indication: Exposed.
 - c. Humidity: Digital humidity display
 - d. Color: Beige.
 - e. Orientation: Vertical.
- 4. Calibration: Single point.
- D. Pressure Transmitters/Transducers:
 - 1. Static-Pressure Transmitter: Nondirectional sensor with suitable range for expected input, and temperature compensated.
 - a. Accuracy: 2 percent of full scale with repeatability of 0.5 percent.
 - b. Output: 4 to 20 mA.
 - c. Building Static-Pressure Range: 0- to 0.25-inch wg.
 - d. Duct Static-Pressure Range: 0- to 5-inch wg.
 - 2. Water Pressure Transducers: Stainless-steel diaphragm construction, suitable for service; minimum 150-psig operating pressure; linear output 4 to 20 mA.
 - 3. Water Differential-Pressure Transducers: Stainless-steel diaphragm construction, suitable for service; minimum 150-psig operating pressure and tested to 300-psig; linear output 4 to 20 mA.
 - 4. Differential-Pressure Switch (Air or Water): Snap acting, with pilot-duty rating and with suitable scale range and differential.
 - 5. Pressure Transmitters: Direct acting for gas, liquid, or steam service; range suitable for system; linear output 4 to 20 mA.
- E. Room sensor accessories include the following:
 - 1. Guards: Metal wire, tamperproof for sensors located in gymnasiums, locker room, corridors, cafeteria, media center and multipurpose rooms.

2.6 STATUS SENSORS

- A. Status Inputs for Fans: Differential-pressure switch with pilot-duty rating and with adjustable range of 0- to 5-inch wg.
- B. Status Inputs for Pumps: Differential-pressure switch with pilot-duty rating and with adjustable pressure-differential range of 8 to 60 psig, piped across pump.
- C. Current Switches: Self-powered, solid-state with adjustable trip current, selected to match current and system output requirements.
- D. Electronic Valve/Damper Position Indicator: Visual scale indicating percent of travel and 2- to 10-V dc, feedback signal.
- E. Water-Flow Switches: Bellows-actuated mercury or snap-acting type with pilot-duty rating, stainless-steel or bronze paddle, with appropriate range and differential adjustment, in NEMA 250, Type 1 enclosure.

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2.7 FLOW MEASURING STATIONS

A. Duct Airflow Station: Thermal Dispersion Technology.

1. Manufacturers:
 - a. Ebtron.
 - b. Tekair.
2. Each measuring device shall consist of one or more multi-point measuring probes and single microprocessor-base transmitter. Each transmitter shall have an LCD display capable of displaying airflow and temperature. Airflow shall be field configurable to display as a velocity or volumetric rate. Each transmitter shall operate at 24V.
3. Each sensing point shall independently determine the airflow rate and temperature, which shall be equally weighted and average by the transmitter prior to the output. Devices, which average multiple non-linear sensing points signals, are not acceptable. Pitot tubes arrays are not acceptable.
4. The operation air flow range shall be 0 – 5,000 FPM.
5. The operation temperature range for the measuring probes shall be -20°F to 160°F.
6. Accuracy: Each independent airflow sensor shall have a laboratory accuracy of $\pm 2\%$ and each independent temperature sensor shall have a laboratory accuracy of $\pm 0.15^\circ\text{F}$.
7. The transmitter shall be capable of communicating with the host controls using the following interface options:
 - a. Linear analog output signal: Field selectable, fuse protected and isolated, 0-10VDC and 4-20mA (4-wire).

B. Pipe Flow Metter: Electromagnetic Flow Meter.

1. Manufacturer:
 - a. Onicon.
2. Accuracy: $\pm 1.0\%$ of reading at calibration velocity.
3. Sensing Method: Electromagnetic sensing (no moving parts).
4. Pipe Size Range: 3" through 72".
5. Supply Voltage: 24 V AC/DC at 250 mA.
6. Liquid Temperature Range: 15°F to 250°F peak.
7. Operating Pressure: 400 psi.

2.8 ENERGY METER

A. BTU Meter.

1. Manufacturer:
 - a. Onicon
2. Accuracy: Differential temperature accuracy $\pm 0.15^\circ\text{F}$.

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3. Memory: Non-volatile EEPROM memory retains all parameters and totalized values in the event of power loss.
4. Flow meter: Flow meter by Onicon. Flow meter shall meet the requirements of section 2.7.C on these specifications.
5. Temperature sensors: Solid state sensors.
6. Temperature Range: 32°F to 200°F.
7. Display: Alpha-numeric LCD display total energy, total flow, energy rate, flow rate, supply temperature and return temperature.
8. Output Signal: BACnet.

2.9 THERMOSTATS

- A. Line-Voltage, On-Off Thermostats: Bimetal-actuated, open contact or bellows-actuated, enclosed, snap-switch or equivalent solid-state type, with heat anticipator; listed for electrical rating of 125% of service equipment; with exposed set-point adjustment, 55 to 85 deg F set-point range, and 2 deg F maximum differential.

2.10 ACTUATORS

- A. Electric Motors: Size to operate with sufficient reserve power to provide smooth modulating action or two-position action.
 1. Comply with requirements in Division 23 Section "Common Motor Requirements for HVAC Equipment."
 2. Permanent Split-Capacitor or Shaded-Pole Type: Gear trains completely oil immersed and sealed. Equip spring-return motors with integral spiral-spring mechanism in housings designed for easy removal for service or adjustment of limit switches, auxiliary switches, or feedback potentiometer.
 3. Non-spring-Return Motors for Valves Larger Than NPS 2-1/2: Size for running torque of 150 in. x lbf and breakaway torque of 300 in. x lbf.
 4. Spring-Return Motors for Valves Larger Than NPS 2-1/2: Size for running and breakaway torque of 150 in. x lbf.
 5. Non-spring-Return Motors for Dampers Larger Than 25 Sq. Ft.: Size for running torque of 150 in. x lbf and breakaway torque of 300 in. x lbf.
 6. Spring-Return Motors for Dampers Larger Than 25 Sq. Ft.: Size for running and breakaway torque of 150 in. x lbf.
- B. Electronic Actuators: Direct-coupled type designed for minimum 60,000 full-stroke cycles at rated torque.
 1. Manufacturers:
 - a. Belimo
 2. Valves: Size for torque required for valve close off at maximum pump differential pressure.
 3. Dampers: Size for running torque calculated as follows:
 - a. Parallel-Blade Damper with Edge Seals: 7 inch-lb/sq. ft. of damper.

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- b. Opposed-Blade Damper with Edge Seals: 5 inch-lb/sq. ft. of damper.
 - c. Parallel-Blade Damper without Edge Seals: 4 inch-lb/sq. ft. of damper.
 - d. Opposed-Blade Damper without Edge Seals: 3 inch-lb/sq. ft. of damper.
 - e. Dampers with 2- to 3-Inch wg of Pressure Drop or Face Velocities of 1000 to 2500 fpm: Increase running torque by 1.5.
 - f. Dampers with 3- to 4-Inch wg of Pressure Drop or Face Velocities of 2500 to 3000 fpm: Increase running torque by 2.0.
- 4. Coupling: V-bolt and V-shaped, toothed cradle.
 - 5. Overload Protection: Electronic overload or digital rotation-sensing circuitry.
 - 6. Fail-Safe Operation: Mechanical, spring-return mechanism. Provide external, manual gear release on non-spring-return actuators.
 - 7. Power Requirements (Two-Position Spring Return): 24-V ac.
 - 8. Power Requirements (Modulating): Maximum 10 VA at 24-V ac or 8 W at 24-V dc.
 - 9. Proportional Signal: 2- to 10-V dc or 4 to 20 mA, and 2- to 10-V dc position feedback signal.
 - 10. Temperature Rating: Minus 22 to plus 122 deg F.
 - 11. Temperature Rating (Smoke Dampers): Minus 22 to plus 250 deg F.
 - 12. Run Time: 12 seconds open, 5 seconds closed.

2.11 CONTROL VALVES

- A. Manufacturers:
 - 1. Belimo.
- B. Control Valves: Refer to 23 09 23.11.
- C. Terminal Unit Control Valves: Refer to 23 09 23.11.

2.12 DAMPERS

- A. Dampers: AMCA-rated, parallel-blade for return air damper and opposed blade for outside air and relief air design; 0.108-inch-thick minimum, galvanized-steel or 0.125-inch-thick minimum, extruded-aluminum frames with holes for duct mounting; damper blades shall not be less than 0.064-inch-thick galvanized steel with maximum blade width of 8 inches and length of 48 inches.
 - 1. Secure blades to 1/2-inch-diameter, zinc-plated axles using zinc-plated hardware, with oil-impregnated sintered bronze blade bearings, blade-linkage hardware of zinc-plated steel and brass, ends sealed against spring-stainless-steel blade bearings, and thrust bearings at each end of every blade.
 - 2. Operating Temperature Range: From minus 40 to plus 200 deg F.
 - 3. Edge Seals, Standard Pressure Applications: Closed-cell neoprene.
 - 4. Edge Seals, Low-Leakage Applications: Use replaceable rubber blade seals and spring-loaded stainless-steel side seals, rated for leakage at less than 10 cfm per sq. ft. of damper area, at differential pressure of 4-inch wg when damper is held by torque of 50 in. x lbf; when tested according to AMCA 500D.

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2.13 CONTROL CABLE

- A. Electronic and fiber-optic cables for control wiring are specified in Division 27 Section "Data Communications Integrations."

PART 3 - EXECUTION

3.1 EXAMINATION

- A. Verify that power supply is available to control units and operator workstation.

3.2 INSTALLATION

- A. Install software in control units and operator workstation(s). Implement all features of programs to specified requirements and as appropriate to sequence of operation.
- B. Connect and configure equipment and software to achieve sequence of operation specified.
- C. Verify location of thermostats, humidistats, and other exposed control sensors with Drawings and room details before installation. Install devices 48 inches above the floor.
 - 1. Install averaging elements in ducts and plenums in crossing or zigzag pattern.
- D. Install automatic dampers according to Division 23 Section "Air Duct Accessories."
- E. Install damper motors on outside of duct in warm areas, not in locations exposed to outdoor temperatures.
- F. Install labels and nameplates to identify control components according to Division 23 Section "Identification for HVAC Piping and Equipment."
- G. Install hydronic instrument wells, valves, and other accessories according to Division 23 Section "Hydronic Piping."
- H. Install duct volume-control dampers according to Division 23 Sections specifying air ducts.
- I. Install electronic and fiber-optic cables according to Division 27 Section "Communications Horizontal Cabling."

3.3 ELECTRICAL WIRING AND CONNECTION INSTALLATION

- A. Install raceways, boxes, and cabinets according to Division 26 Section "Raceway and Boxes for Electrical Systems."
- B. Install building wire and cable according to Division 26 Section "Low-Voltage Electrical Power Conductors and Cables."

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- C. Install signal and communication cable according to Division 27 Section "Communications Horizontal Cabling."
 - 1. Conceal cable, except in mechanical rooms and areas where other conduit and piping are exposed.
 - 2. Install exposed cable in raceway.
 - 3. Install concealed cable in raceway.
 - 4. Bundle and harness multiconductor instrument cable in place of single cables where several cables follow a common path.
 - 5. Fasten flexible conductors, bridging cabinets and doors, along hinge side; protect against abrasion. Tie and support conductors.
 - 6. Number-code or color-code conductors for future identification and service of control system, except local individual room control cables.
 - 7. Install wire and cable with sufficient slack and flexible connections to allow for vibration of piping and equipment.
- D. Connect manual-reset limit controls independent of manual-control switch positions. Automatic duct heater resets may be connected in interlock circuit of power controllers.
- E. Connect hand-off-auto selector switches to override automatic interlock controls when switch is in hand position.

3.4 FIELD QUALITY CONTROL

- A. Manufacturer's Field Service: Engage a factory-authorized service representative to inspect, test, and adjust field-assembled components and equipment installation, including connections, and to assist in field testing. Report results in writing.
- B. Perform the following field tests and inspections and prepare test reports:
 - 1. Operational Test: After electrical circuitry has been energized, start units to confirm proper unit operation. Remove and replace malfunctioning units and retest.
 - 2. Test and adjust controls and safeties.
 - 3. Test calibration of electronic controllers by disconnecting input sensors and stimulating operation with compatible signal generator.
 - 4. Test each point through its full operating range to verify that safety and operating control set points are as required.
 - 5. Test each control loop to verify stable mode of operation and compliance with sequence of operation. Adjust PID actions.
 - 6. Test each system for compliance with sequence of operation.
 - 7. Test software and hardware interlocks.
- C. DDC Verification:
 - 1. Verify that instruments are installed before calibration, testing, and loop or leak checks.
 - 2. Check instruments for proper location and accessibility.
 - 3. Check instrument installation for direction of flow, elevation, orientation, insertion depth, and other applicable considerations.
 - 4. Check instrument tubing for proper fittings, slope, material, and support.
 - 5. Check installation of air supply for each instrument.

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6. Check flow instruments. Inspect tag number and line and bore size, and verify that inlet side is identified and that meters are installed correctly.
7. Check pressure instruments, piping slope, installation of valve manifold, and self-contained pressure regulators.
8. Check temperature instruments and material and length of sensing elements.
9. Check control valves. Verify that they are in correct direction.
10. Check DDC system as follows:
 - a. Verify that DDC controller power supply is from emergency power supply, if applicable.
 - b. Verify that wires at control panels are tagged with their service designation and approved tagging system.
 - c. Verify that spare I/O capacity has been provided.
 - d. Verify that DDC controllers are protected from power supply surges.

D. Replace damaged or malfunctioning controls and equipment and repeat testing procedures.

3.5 ADJUSTING

A. Calibrating and Adjusting:

1. Calibrate instruments.
2. Make three-point calibration test for both linearity and accuracy for each analog instrument.
3. Calibrate equipment and procedures using manufacturer's written recommendations and instruction manuals. Use test equipment with accuracy at least double that of instrument being calibrated.
4. Control System Inputs and Outputs:
 - a. Check analog inputs at 0, 50, and 100 percent of span.
 - b. Check analog outputs using milliampere meter at 0, 50, and 100 percent output.
 - c. Check digital inputs using jumper wire.
 - d. Check digital outputs using ohmmeter to test for contact making or breaking.
 - e. Check resistance temperature inputs at 0, 50, and 100 percent of span using a precision-resistant source.
5. Flow:
 - a. Set differential pressure flow transmitters for 0 and 100 percent values with 3-point calibration accomplished at 50, 90, and 100 percent of span.
 - b. Manually operate flow switches to verify that they make or break contact.
6. Pressure:
 - a. Calibrate pressure transmitters at 0, 50, and 100 percent of span.
 - b. Calibrate pressure switches to make or break contacts, with adjustable differential set at minimum.
7. Temperature:

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- a. Calibrate resistance temperature transmitters at 0, 50, and 100 percent of span using a precision-resistance source.
 - b. Calibrate temperature switches to make or break contacts.
 8. Stroke and adjust control valves and dampers without positioners, following the manufacturer's recommended procedure, so that valve or damper is 100 percent open and closed.
 9. Stroke and adjust control valves and dampers with positioners, following manufacturer's recommended procedure, so that valve and damper is 0, 50, and 100 percent closed.
 10. Provide diagnostic and test instruments for calibration and adjustment of system.
 11. Provide written description of procedures and equipment for calibrating each type of instrument. Submit procedures review and approval before initiating startup procedures.
- B. Adjust initial temperature and humidity set points.
- C. Occupancy Adjustments: When requested within 12 months of date of Substantial Completion, provide on-site assistance in adjusting system to suit actual occupied conditions. Provide up to three visits to Project during other than normal occupancy hours for this purpose.

3.6 DEMONSTRATION AND SUPPORT

- A. Engage a factory-authorized service representative to train Owner's maintenance personnel to adjust, operate, and maintain HVAC instrumentation and controls. Refer to Division 01 Section "Demonstration and Training."
- B. Engage a factory-authorized service representative to perform commissioning functional performance tests through the BAS operator's workstation for CxA witnessing. Provide a minimum of 40 man-hours.

END OF SECTION 230900

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SECTION 230923.11 - CONTROL VALVES

PART 1 - GENERAL

1.1 SUMMARY

- A. Section includes control valves and actuators for DDC systems.
- B. Related Requirements:
 - 1. Section 230900 "Direct-Digital Control System for HVAC" control equipment and software, relays, electrical power devices, uninterruptible power supply units, wire, and cable.

1.2 ACTION SUBMITTALS

- A. Product Data: For each type of product.
- B. Shop Drawings:
 - 1. Include diagrams for power, signal, and control wiring.
 - 2. Include diagrams for pneumatic signal and main air tubing.

1.3 CLOSEOUT SUBMITTALS

- A. Operation and maintenance data.

PART 2 - PRODUCTS

2.1 PERFORMANCE REQUIREMENTS

- A. Electrical Components, Devices, and Accessories: Listed and labeled as defined in NFPA 70, by a qualified testing agency, and marked for intended location and application.
- B. ASME Compliance: Fabricate and label products to comply with ASME Boiler and Pressure Vessel Code where required by authorities having jurisdiction.
- C. Ground Fault: Products shall not fail due to ground fault condition when suitably grounded.
- D. Determine control valve sizes and flow coefficients by ISA 75.01.01.
- E. Control valve characteristics and rangeability shall comply with ISA 75.11.01.
- F. Selection Criteria:

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1. Control valves shall be suitable for operation at following conditions:
 - a. Chilled Water: <100 PSIG, 40°F to 85°F>.
2. Fail positions unless otherwise indicated:
 - a. Chilled Water: Last position.
3. Minimum Cv shall be calculated at 80 percent of design flow, with a coincident pressure differential equal to the system design pump head.
4. In water systems, select modulating control valves at terminal equipment for a design Cv based on a pressure drop of 5 psig at design flow unless otherwise indicated.

2.2 BALL-STYLE CONTROL VALVES

A. Ball Valves with Two Ports and Characterized Disk:

1. Pressure Rating for NPS 1 and Smaller: Nominal 600 WOG.
2. Pressure Rating for NPS 1-1/2 through NPS 2: Nominal 400 WOG.
3. Close-off Pressure: 200 psig.
4. Process Temperature Range: Zero to 212 deg F.
5. Body and Tail Piece: Cast bronze ASTM B61, ASTM B62, ASTM B584, or forged brass with nickel plating.
6. End Connections: Threaded (NPT) ends.
7. Ball: Chrome-plated brass or bronze or 300 series stainless steel.
8. Stem and Stem Extension:
 - a. Material to match ball.
 - b. Blowout-proof design.
 - c. Sleeve or other approved means to allow valve to be opened and closed without damaging the insulation or the vapor barrier seal.
9. Ball Seats: Reinforced PTFE.
10. Stem Seal: Reinforced PTFE packing ring with a threaded packing ring follower to retain the packing ring under design pressure with the linkage removed. Alternative means, such as EPDM O-rings, are acceptable if an equivalent cycle endurance can be demonstrated by testing.
11. Flow Characteristics for A-Port: Equal percentage.
12. Flow Characteristics for B-Port: Modified for constant common port flow.

2.3 ELECTRIC AND ELECTRONIC CONTROL VALVE ACTUATORS

- A. Actuators for Hydronic Control Valves: Capable of closing valve against system pump shutoff head.
- B. Position indicator and graduated scale on each actuator.
- C. Type: Motor operated, with or without gears, electric and electronic.

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- D. Voltage: 24-V ac.
- E. Deliver torque required for continuous uniform movement of controlled device from limit to limit when operated at rated voltage.
- F. Function properly within a range of 85 to 120 percent of nameplate voltage.
- G. Construction:
 - 1. For Actuators Less Than 100 W: Fiber or reinforced nylon gears with steel shaft, copper alloy or nylon bearings, and pressed steel enclosures.
 - 2. For Actuators from 100 to 400 W: Gears ground steel, oil immersed, shaft hardened steel running in bronze, copper alloy or ball bearings. Operator and gear trains shall be totally enclosed in dustproof cast-iron, cast-steel or cast-aluminum housing.
 - 3. For Actuators Larger Than 400 W: Totally enclosed reversible induction motors with auxiliary hand crank and permanently lubricated bearings.
- H. Field Adjustment:
 - 1. Spring Return Actuators: Easily switchable from fail open to fail closed in the field without replacement.
 - 2. Gear Type Actuators: External manual adjustment mechanism to allow manual positioning when the actuator is not powered.
- I. Two-Position Actuators: Single direction, spring return or reversing type.
- J. Modulating Actuators:
 - 1. Operation: Capable of stopping at all points across full range, and starting in either direction from any point in range.
 - 2. Control Input Signal:
 - a. Three Point, Tristate, or Floating Point: Clockwise and counter-clockwise inputs. One input drives actuator to open position and other input drives actuator to close position. No signal of either input remains in last position.
 - b. Proportional: Actuator drives proportional to input signal and modulates throughout its angle of rotation. Suitable for zero- to 10- or 2- to 10-V dc and 4- to 20-mA signals.
 - c. Pulse Width Modulation (PWM): Actuator drives to a specified position according to pulse duration (length) of signal from a dry contact closure, triac sink, or source controller.
 - d. Programmable Multi-Function:
 - 1) Control Input, Position Feedback, and Running Time: Factory or field programmable.
 - 2) Diagnostic: Feedback of hunting or oscillation, mechanical overload, mechanical travel, and mechanical load limit.
 - 3) Service Data: Include, at a minimum, number of hours powered and number of hours in motion.

- K. Position Feedback:

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1. Equip modulating actuators with a position feedback through current or voltage signal for remote monitoring.
 2. Provide a position indicator and graduated scale on each actuator indicating open and closed travel limits.
- L. Fail-Safe:
1. Where indicated, provide actuator to fail to an end position.
 2. Internal spring return mechanism to drive controlled device to an end position (open or close) on loss of power.
 3. Batteries, capacitors, and other non-mechanical forms of fail-safe operation are acceptable only where uniquely indicated.
- M. Integral Overload Protection:
1. Provide against overload throughout the entire operating range in both directions.
 2. Electronic overload, digital rotation sensing circuitry, mechanical end switches, or magnetic clutches are acceptable methods of protection.
- N. Valve Attachment:
1. Unless otherwise required for valve interface, provide an actuator designed to be directly coupled to valve shaft without the need for connecting linkages.
 2. Attach actuator to valve drive shaft in a way that ensures maximum transfer of power and torque without slippage.
 3. Bolt and set screw method of attachment is acceptable only if provided with at least two points of attachment.
- O. Temperature and Humidity:
1. Temperature: Suitable for operating temperature range encountered by application with minimum operating temperature range of plus 20 to plus 120 deg F.
 2. Humidity: Suitable for humidity range encountered by application; minimum operating range shall be from 5 to 95 percent relative humidity, non-condensing.
- P. Enclosure:
1. Suitable for ambient conditions encountered by application.
 2. NEMA 250, Type 2 for indoor and protected applications.
 3. NEMA 250, Type 4 or Type 4X for outdoor and unprotected applications.
 4. Provide actuator enclosure with heater and control where required by application.
- Q. Stroke Time:
1. Operate valve from fully closed to fully open within 60 seconds.
 2. Operate valve from fully open to fully closed within 60 seconds.
 3. Move valve to failed position within 30 seconds.
 4. Select operating speed to be compatible with equipment and system operation.
- R. Sound:

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1. Spring Return: 62 dBA.
2. Non-Spring Return: 45 dBA.

PART 3 - EXECUTION

3.1 CONTROL VALVE APPLICATIONS

A. Control Valves:

1. Three Way, Controlled by Temperature: Ball valves with two ports and characterized disk.

3.2 INSTALLATION, GENERAL

- A. Furnish and install products required to satisfy most stringent requirements indicated.
- B. Install products level, plumb, parallel, and perpendicular with building construction.
- C. Properly support instruments, tubing, piping, wiring, and conduits to comply with requirements indicated.
- D. Provide ceiling, floor, roof, and wall openings and sleeves required by installation. Before proceeding with drilling, punching, or cutting, check location first for concealed products that could potentially be damaged. Patch, flash, grout, seal, and refinish openings to match adjacent condition.
- E. Firestop penetrations made in fire-rated assemblies and seal penetrations made in acoustically rated assemblies.
- F. Fastening Hardware:
 1. Stillson wrenches, pliers, and other tools that will cause injury to or mar surfaces of rods, nuts, and other parts are prohibited for assembling and tightening nuts.
 2. Tighten bolts and nuts firmly and uniformly. Do not overstress threads by excessive force or by oversized wrenches.
 3. Lubricate threads of bolts, nuts, and screws with graphite and oil before assembly.
- G. Install products in locations that are accessible and that will permit calibration and maintenance from floor, equipment platforms, or catwalks. Where ladders are required for Owner's access, confirm unrestricted ladder placement is possible under occupied condition.

3.3 ELECTRIC POWER

- A. Furnish and install electrical power to products requiring electrical connections.
- B. Furnish and install circuit breakers. Comply with requirements in Section 262816 "Enclosed Switches and Circuit Breakers."

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- C. Furnish and install power wiring. Comply with requirements in Section 260519 "Low-Voltage Electrical Power Conductors and Cables."
- D. Furnish and install raceways. Comply with requirements in Section 260533 "Raceways and Boxes for Electrical Systems."

3.4 CONTROL VALVES

- A. Install pipe reducers for valves smaller than line size. Position reducers as close to valve as possible but at distance to avoid interference and impact to performance. Install with manufacturer-recommended clearance.
- B. Install flanges or unions to allow drop-in and -out valve installation.
- C. Install pressure temperature taps in piping upstream and downstream of each control valve larger than NPS 2.
- D. Valve Orientation:
 - 1. Where possible, install globe and ball valves installed in horizontal piping with stems upright and not more than 15 degrees off of vertical, not inverted.
 - 2. Install valves in a position to allow full stem movement.
- E. Clearance:
 - 1. Locate valves for easy access and provide separate support of valves that cannot be handled by service personnel without hoisting mechanism.
 - 2. Install valves with at least 12 inches of clear space around valve and between valves and adjacent surfaces.
- F. Threaded Valves:
 - 1. Note internal length of threads in valve ends, and proximity of valve internal seat or wall, to determine how far pipe should be threaded into valve.
 - 2. Align threads at point of assembly.
 - 3. Apply thread compound to external pipe threads, except where dry seal threading is specified.
 - 4. Assemble joint, wrench tight. Apply wrench on valve end as pipe is being threaded.
- G. Flanged Valves:
 - 1. Align flange surfaces parallel.
 - 2. Assemble joints by sequencing bolt tightening to make initial contact of flanges and gaskets as flat and parallel as possible. Use suitable lubricants on bolt threads. Tighten bolts gradually and uniformly with a torque wrench.
- H. Connect electrical devices and components to electrical grounding system. Comply with requirements in Section 260526 "Grounding and Bonding for Electrical Systems."
- I. Identify system components, wiring, cabling, and terminals. Each piece of wire, cable, and tubing shall have the same designation at each end for operators to determine continuity at

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points of connection. Comply with requirements for identification specified in Section 260553 "Identification for Electrical Systems."

- J. Install engraved phenolic nameplate with valve identification on valve.

3.5 CHECKOUT PROCEDURES

A. Control Valve Checkout:

1. Check installed products before continuity tests, leak tests, and calibration.
2. Check valves for proper location and accessibility.
3. Check valves for proper installation for direction of flow, elevation, orientation, insertion depth, or other applicable considerations that will impact performance.
4. Verify that control valves are installed correctly for flow direction.
5. Verify that valve body attachment is properly secured and sealed.
6. Verify that valve actuator and linkage attachment are secure.
7. Verify that actuator wiring is complete, enclosed, and connected to correct power source.
8. Verify that valve ball, disc, and plug travel are unobstructed.
9. After piping systems have been tested and put into service, but before insulating and balancing, inspect each valve for leaks. Adjust or replace packing to stop leaks. Replace the valve if leaks persist.

3.6 ADJUSTMENT, CALIBRATION, AND TESTING

- A. Stroke and adjust control valves following manufacturer's recommended procedure, from 100 percent open to 100 percent closed back to 100 percent open.
- B. Stroke control valves with pilot positioners. Adjust valve and positioner following manufacturer's recommended procedure, so valve is 100 percent closed, 50 percent closed, and 100 percent open at proper air pressures.
- C. Check and document open and close cycle times for applications with a cycle time of less than 30 seconds.
- D. For control valves equipped with positive position indication, check feedback signal at multiple positions to confirm proper position indication.

END OF SECTION 230923.11

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SECTION 23 21 13 - HYDRONIC PIPING

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

- A. This Section includes pipe and fitting materials, joining methods, special-duty valves, and specialties for the following:
 - 1. Chilled-water piping.
 - 2. Makeup-water piping.
 - 3. Condensate-drain piping.
 - 4. Air-vent piping.

1.3 DEFINITIONS

- A. PTFE: Polytetrafluoroethylene.

1.4 PERFORMANCE REQUIREMENTS

- A. Hydronic piping components and installation shall be capable of withstanding the following minimum working pressure and temperature:
 - 1. Chilled-Water Piping: 125 psig at 200 deg F.
 - 2. Condenser-Water Piping: 125 psig at 150 deg F.
 - 3. Glycol Cooling-Water Piping: 125 psig at 150 deg F.
 - 4. Makeup-Water Piping: 80 psig at 150 deg F.
 - 5. Condensate-Drain Piping: 150 deg F.
 - 6. Air-Vent Piping: 200 deg F.

1.5 SUBMITTALS

- A. Product Data: For each type of the following:
 - 1. Valves. Include flow and pressure drop curves based on manufacturer's testing for calibrated-orifice balancing valves and automatic flow-control valves.
 - 2. Air control devices.
 - 3. Chemical treatment.
 - 4. Hydronic specialties.
- B. Welding certificates.
- C. Field quality-control test reports.

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- D. Operation and Maintenance Data: For air control devices, hydronic specialties, and special-duty valves to include in emergency, operation, and maintenance manuals.
- E. Water Analysis: Submit a copy of the water analysis to illustrate water quality available at Project site.

1.6 QUALITY ASSURANCE

- A. Steel Support Welding: Qualify processes and operators according to AWS D1.1/D1.1M, "Structural Welding Code - Steel."
- B. Welding: Qualify processes and operators according to ASME Boiler and Pressure Vessel Code: Section IX.
 - 1. Comply with provisions in ASME B31 Series, "Code for Pressure Piping."
 - 2. Certify that each welder has passed AWS qualification tests for welding processes involved and that certification is current.
- C. ASME Compliance: Comply with ASME B31.9, "Building Services Piping," for materials, products, and installation. Safety valves and pressure vessels shall bear the appropriate ASME label. Fabricate and stamp air separators and expansion tanks to comply with ASME Boiler and Pressure Vessel Code: Section VIII, Division 01.

1.7 EXTRA MATERIALS

- A. Water-Treatment Chemicals: Furnish enough chemicals for initial system startup and for preventive maintenance for one year from date of Substantial Completion.
- B. Differential Pressure Meter: For each type of balancing valve and automatic flow control valve, include flowmeter, probes, hoses, flow charts, and carrying case.

PART 2 - PRODUCTS

2.1 COPPER TUBE AND FITTINGS

- A. Drawn-Temper Copper Tubing: ASTM B 88, Type L.
- B. Annealed-Temper Copper Tubing: ASTM B 88, Type K.
- C. Copper, Mechanically Formed Tee Option: For forming T-branch on copper water tube.
- D. Wrought-Copper Unions: ASME B16.22.

2.2 STEEL PIPE AND FITTINGS

- A. Steel Pipe: ASTM A 53/A 53M, black steel with plain ends; type, grade, and wall thickness as indicated in Part 3 "Piping Applications" Article.

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- B. Wrought-Steel Fittings: ASTM A 234/A 234M, wall thickness to match adjoining pipe.
- C. Wrought Cast- and Forged-Steel Flanges and Flanged Fittings: ASME B16.5, including bolts, nuts, and gaskets of the following material group, end connections, and facings:
 - 1. Material Group: 1.1.
 - 2. End Connections: Butt welding.
 - 3. Facings: Raised face.
- D. Steel Pipe Nipples: ASTM A 733, made of same materials and wall thicknesses as pipe in which they are installed.
- E. Mechanical joints are not acceptable, all piping shall be welded except for pump and chiller connections

2.3 JOINING MATERIALS

- A. Pipe-Flange Gasket Materials: Suitable for chemical and thermal conditions of piping system contents.
 - 1. ASME B16.21, nonmetallic, flat, asbestos free, 1/8-inch maximum thickness unless thickness or specific material is indicated.
- B. Flange Bolts and Nuts: ASME B18.2.1, carbon steel, unless otherwise indicated.
- C. Solder Filler Metals: ASTM B 32, lead-free alloys. Include water-flushable flux according to ASTM B 813.
- D. Brazing Filler Metals: AWS A5.8, BCuP Series, copper-phosphorus alloys for joining copper with copper; or BA9-1, silver alloy for joining copper with bronze or steel.
- E. Welding Filler Metals: Comply with AWS D10.12/D10.12M for welding materials appropriate for wall thickness and chemical analysis of steel pipe being welded.
- F. Gasket Material: Thickness, material, and type suitable for fluid to be handled and working temperatures and pressures.
- G. Mechanical joints are not acceptable, all piping shall be welded except for pump and chiller connections

2.4 DIELECTRIC FITTINGS

- A. General Requirements: Assembly of copper alloy and ferrous materials with separating nonconductive insulating material. Include end connections compatible with pipes to be joined.
- B. Dielectric Unions:
 - 1. Manufacturers: Subject to compliance with requirements, available manufacturers offering products that may be incorporated into the Work include, but are not limited to, the following:
 - a. Capitol Manufacturing Company.
 - b. Central Plastics Company.

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- c. Hart Industries International, Inc.
 - d. Jomar International Ltd.
 - e. Matco-Norca, Inc.
 - f. McDonald, A. Y. Mfg. Co.
 - g. Watts Regulator Co.; a division of Watts Water Technologies, Inc.
 - h. Wilkins; a Zurn company.
 - 2. Description:
 - a. Standard: ASSE 1079.
 - b. Pressure Rating: 125 psig minimum at 180 deg F.
 - c. End Connections: Solder-joint copper alloy and threaded ferrous.
- C. Dielectric Flanges:
- 1. Manufacturers: Subject to compliance with requirements, available manufacturers offering products that may be incorporated into the Work include, but are not limited to, the following:
 - a. Capitol Manufacturing Company.
 - b. Central Plastics Company.
 - c. Matco-Norca, Inc.
 - d. Watts Regulator Co.; a division of Watts Water Technologies, Inc.
 - e. Wilkins; a Zurn company.
 - 2. Description:
 - a. Standard: ASSE 1079.
 - b. Factory-fabricated, bolted, companion-flange assembly.
 - c. Pressure Rating: 125 psig minimum at 180 deg F.
 - d. End Connections: Solder-joint copper alloy and threaded ferrous; threaded solder-joint copper alloy and threaded ferrous.

2.5 VALVES

- A. Gate, Globe, Check, Ball, and Butterfly Valves: Comply with requirements specified in Division 23 Section "General-Duty Valves for HVAC Piping."
- B. Automatic Temperature-Control Valves, Actuators, and Sensors: Comply with requirements specified in Division 23 Section "Instrumentation and Control for HVAC."
- C. Bronze, Calibrated-Orifice, Balancing Valves:
 - 1. Available Manufacturers: Subject to compliance with requirements, manufacturers offering products that may be incorporated into the Work include, but are not limited to, the following:
 - a. Armstrong Pumps, Inc.
 - b. Bell & Gossett Domestic Pump; a division of ITT Industries.
 - c. Flow Design Inc.
 - d. Gerand Engineering Co.
 - e. Griswold Controls.
 - f. Taco.
 - 2. Body: Bronze, ball or plug type with calibrated orifice or venturi.
 - 3. Ball: Brass or stainless steel.
 - 4. Plug: Resin.
 - 5. Seat: PTFE.
 - 6. End Connections: Threaded or socket.

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7. Pressure Gage Connections: Integral seals for portable differential pressure meter.
8. Handle Style: Lever, with memory stop to retain set position.
9. CWP Rating: Minimum 125 psig.
10. Maximum Operating Temperature: 250 deg F.

D. Cast-Iron or Steel, Calibrated-Orifice, Balancing Valves:

1. Available Manufacturers: Subject to compliance with requirements, manufacturers offering products that may be incorporated into the Work include, but are not limited to, the following:
 - a. Armstrong Pumps, Inc.
 - b. Bell & Gossett Domestic Pump; a division of ITT Industries.
 - c. Flow Design Inc.
 - d. Gerand Engineering Co.
 - e. Griswold Controls.
 - f. Taco.
 - g. Tour & Andersson; available through Victaulic Company.
2. Body: Cast-iron or steel body, ball, plug, or globe pattern with calibrated orifice or venturi.
3. Ball: Brass or stainless steel.
4. Stem Seals: EPDM O-rings.
5. Disc: Glass and carbon-filled PTFE.
6. Seat: PTFE.
7. End Connections: Flanged or grooved.
8. Pressure Gage Connections: Integral seals for portable differential pressure meter.
9. Handle Style: Lever, with memory stop to retain set position.
10. CWP Rating: Minimum 125 psig.
11. Maximum Operating Temperature: 250 deg F.

E. Automatic Flow-Control Valves:

1. Manufacturers: Subject to compliance with requirements, provide products by one of the following:
 - a. Flow Design Inc.
 - b. Griswold Controls.
 - c. Nexus Valve, Inc.
 - d. Victaulic Company.
2. Body: Brass or ferrous metal.
3. Piston and Spring Assembly: Stainless steel, tamper proof, self-cleaning, and removable.
4. Combination Assemblies: Include bronze or brass-alloy ball valve.
5. Identification Tag: Marked with zone identification, valve number, and flow rate.
6. Size: Same as pipe in which installed.
7. Performance: Maintain constant flow, plus or minus 5 percent over system pressure fluctuations.
8. Minimum CWP Rating: 175 psig.
9. Maximum Operating Temperature: 200 deg F.
10. Based on Victaulic 76-Series or Flow Design, Inc. AutoFlow Model YR or WS.

2.6 AIR CONTROL DEVICES

- A. Available Manufacturers: Subject to compliance with requirements, manufacturers offering products that may be incorporated into the Work include, but are not limited to, the following:

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1. Amtrol, Inc.
 2. Armstrong Pumps, Inc.
 3. Bell & Gossett Domestic Pump; a division of ITT Industries.
 4. Taco.
- B. Automatic Air Vents:
1. Body: Bronze or cast iron.
 2. Internal Parts: Nonferrous.
 3. Operator: Noncorrosive metal float.
 4. Inlet Connection: NPS 1/2.
 5. Discharge Connection: NPS 1/4.
 6. CWP Rating: 150 psig.
 7. Maximum Operating Temperature: 240 deg F.
- C. Diaphragm-Type Expansion Tanks:
1. Tank: Welded steel, rated for 125-psig working pressure and 375 deg F maximum operating temperature. Factory test with taps fabricated and supports installed and labeled according to ASME Boiler and Pressure Vessel Code: Section VIII, Division 1.
 2. Diaphragm: Securely sealed into tank to separate air charge from system water to maintain required expansion capacity.
 3. Air-Charge Fittings: Schrader valve, stainless steel with EPDM seats.
- D. In-Line Air Separators:
1. Tank: One-piece cast iron with an integral weir constructed to decelerate system flow to maximize air separation.
 2. Maximum Working Pressure: Up to 175 psig.
 3. Maximum Operating Temperature: Up to 300 deg F.

PART 3 - EXECUTION

3.1 PIPING APPLICATIONS

- A. Chilled-water piping, aboveground, NPS 2 and smaller, shall be the following:
1. Type L, drawn-temper copper tubing, wrought-copper fittings, and soldered joints.
- B. Chilled-water piping, aboveground, NPS 2-1/2 and larger, connection for pumps and chillers only:
1. Schedule 40 steel pipe, grove joints and connections.
- C. Makeup-water piping installed aboveground shall be the following:
1. Type L, drawn-temper copper tubing, wrought-copper fittings, and soldered joints.
- D. Condensate-Drain Piping: Type M, drawn-temper copper tubing, wrought-copper fittings, and soldered joints.
- E. Air-Vent Piping:
1. Inlet: Same as service where installed with metal-to-plastic transition fittings for plastic piping systems according to the piping manufacturer's written instructions.
 2. Outlet: Type K, annealed-temper copper tubing with soldered or flared joints.

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3.2 VALVE APPLICATIONS

- A. Install shutoff-duty valves at each branch connection to supply mains, and at supply connection to each piece of equipment.
- B. Install calibrated-orifice, balancing valves in the return pipe of each heating or cooling terminal.
- C. Install pressure-reducing valves at makeup-water connection to regulate system fill pressure.

3.3 PIPING INSTALLATIONS

- A. Drawing plans, schematics, and diagrams indicate general location and arrangement of piping systems. Indicate piping locations and arrangements if such were used to size pipe and calculate friction loss, expansion, pump sizing, and other design considerations. Install piping as indicated unless deviations to layout are approved on Coordination Drawings.
- B. Install piping in concealed locations, unless otherwise indicated and except in equipment rooms and service areas.
- C. Install piping indicated to be exposed and piping in equipment rooms and service areas at right angles or parallel to building walls. Diagonal runs are prohibited unless specifically indicated otherwise.
- D. Install piping above accessible ceilings to allow sufficient space for ceiling panel removal.
- E. Install piping to permit valve servicing.
- F. Install piping at indicated slopes.
- G. Install piping free of sags and bends.
- H. Install fittings for changes in direction and branch connections.
- I. Install piping to allow application of insulation.
- J. Select system components with pressure rating equal to or greater than system operating pressure.
- K. Install groups of pipes parallel to each other, spaced to permit applying insulation and servicing of valves.
- L. Install drains, consisting of a tee fitting, **NPS 3/4** ball valve, and short NPS 3/4 threaded nipple with cap, at low points in piping system mains and elsewhere as required for system drainage.
- M. Install piping at a uniform grade of 0.2 percent upward in direction of flow.
- N. Reduce pipe sizes using eccentric reducer fitting installed with level side up.
- O. Install branch connections to mains using mechanically formed tee fittings in main pipe, with the branch connected to the bottom of the main pipe. For up-feed risers, connect the branch to the top of the main pipe.

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- P. Install valves according to Division 23 Section "General-Duty Valves for HVAC Piping."
- Q. Install unions in piping, NPS 2 and smaller, adjacent to valves, at final connections of equipment, and elsewhere as indicated.
- R. Install flanges in piping, NPS 2-1/2 and larger, at final connections of equipment and elsewhere as indicated.
- S. Install strainers on inlet side of each control valve, pressure-reducing valve, solenoid valve, in-line pump, and elsewhere as indicated. Install NPS 3/4 nipple and ball valve in blowdown connection of strainers NPS 2 and larger. Match size of strainer blowoff connection for strainers smaller than NPS 2.
- T. Identify piping as specified in Division 23 Section "Identification for HVAC Piping and Equipment."
- U. Install sleeves for piping penetrations of walls, ceilings, and floors. Comply with requirements for sleeves specified in Division 23 Section "Sleeves and Sleeve Seals for HVAC Piping."
- V. Install sleeve seals for piping penetrations of concrete walls and slabs. Comply with requirements for sleeve seals specified in Division 23 Section "Sleeves and Sleeve Seals for HVAC Piping."
- W. Install escutcheons for piping penetrations of walls, ceilings, and floors. Comply with requirements for escutcheons specified in Division 23 Section "Escutcheons for HVAC Piping."

3.4 HANGERS AND SUPPORTS

- A. Hanger, support, and anchor devices are specified in Division 23 Section "Hangers and Supports for HVAC Piping and Equipment."

3.5 PIPE JOINT CONSTRUCTION

- A. Join pipe and fittings according to the following requirements and Division 23 Sections specifying piping systems.
- B. Ream ends of pipes and tubes and remove burrs. Bevel plain ends of steel pipe.
- C. Remove scale, slag, dirt, and debris from inside and outside of pipe and fittings before assembly.
- D. Soldered Joints: Apply ASTM B 813, water-flushable flux, unless otherwise indicated, to tube end. Construct joints according to ASTM B 828 or CDA's "Copper Tube Handbook," using lead-free solder alloy complying with ASTM B 32.
- E. Brazed Joints: Construct joints according to AWS's "Brazing Handbook," "Pipe and Tube" Chapter, using copper-phosphorus brazing filler metal complying with AWS A5.8.

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- F. Welded Joints: Construct joints according to AWS D10.12/D10.12M, using qualified processes and welding operators according to Part 1 "Quality Assurance" Article.
- G. Flanged Joints: Select appropriate gasket material, size, type, and thickness for service application. Install gasket concentrically positioned. Use suitable lubricants on bolt threads.

3.6 TERMINAL EQUIPMENT CONNECTIONS

- A. Sizes for supply and return piping connections shall be the same as or larger than equipment connections.
- B. Install control valves in accessible locations close to connected equipment.
- C. Install ports for pressure gages and thermometers at coil inlet and outlet connections according to Division 23 Section "Meters and Gages for HVAC Piping."
- D. Install connections in a manner to facilitate service, maintenance, and repair or replacement of components of mechanical equipment, associated control valves, strainers and other nearby installations. Connect in such a way as to facilitate future disconnecting with minimum interference with other items in the vicinity.

3.7 FIELD QUALITY CONTROL

- A. Perform the following tests on hydronic piping:
 1. Use ambient temperature water as a testing medium unless there is risk of damage due to freezing. Another liquid that is safe for workers and compatible with piping may be used.
 2. While filling system, use vents installed at high points of system to release air. Use drains installed at low points for complete draining of test liquid.
 3. Isolate expansion tanks and determine that hydronic system is full of water.
 4. Subject piping system to hydrostatic test pressure that is not less than 100 psig. Test pressure shall not exceed maximum pressure for any vessel, pump, valve, or other component in system under test. Verify that stress due to pressure at bottom of vertical runs does not exceed 90 percent of specified minimum yield strength or 1.7 times "SE" value in Appendix A in ASME B31.9, "Building Services Piping."
 5. After hydrostatic test pressure has been applied for at least 15 minutes, examine piping, joints, and connections for leakage. Eliminate leaks by tightening, repairing, or replacing components, and repeat hydrostatic test until there are no leaks.
 6. Prepare written report of testing.
- B. Perform the following before operating the system:
 1. Open manual valves fully.
 2. Inspect pumps for proper rotation.
 3. Set makeup pressure-reducing valves for required system pressure.
 4. Inspect air vents at high points of system and determine if all are installed and operating freely (automatic type), or bleed air completely (manual type).
 5. Set temperature controls so all coils are calling for full flow.
 6. Inspect and set operating temperatures of hydronic equipment, such as boilers, chillers, cooling towers, to specified values.

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7. Verify lubrication of motors and bearings.

END OF SECTION 232113

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SECTION 23 21 23 - HYDRONIC PUMPS

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

- A. This Section includes the following:
 - 1. End Suction Base mounted pumps.

1.3 DEFINITIONS

- A. Buna-N: Nitrile rubber.
- B. EPT: Ethylene propylene terpolymer.

1.4 SUBMITTALS

- A. Product Data: Include certified performance curves and rated capacities, operating characteristics, furnished specialties, final impeller dimensions, and accessories for each type of product indicated. Indicate pump's operating point on curves.
- B. Shop Drawings: Show pump layout and connections. Include setting drawings with templates for installing foundation and anchor bolts and other anchorages.
 - 1. Wiring Diagrams: Power, signal, and control wiring.
- C. Operation and Maintenance Data: For pumps to include in emergency, operation, and maintenance manuals.

1.5 QUALITY ASSURANCE

- A. Source Limitations: Obtain hydronic pumps through one source from a single manufacturer.
- B. Product Options: Drawings indicate size, profiles, and dimensional requirements of hydronic pumps and are based on the specific system indicated. Refer to Division 01 Section "Product Requirements."
- C. Electrical Components, Devices, and Accessories: Listed and labeled as defined in NFPA 70, Article 100, by a testing agency acceptable to authorities having jurisdiction, and marked for intended use.
- D. UL Compliance: Comply with UL 778 for motor-operated water pumps.

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1.6 DELIVERY, STORAGE, AND HANDLING

- A. Manufacturer's Preparation for Shipping: Clean flanges and exposed machined metal surfaces and treat with anticorrosion compound after assembly and testing. Protect flanges, pipe openings, and nozzles with wooden flange covers or with screwed-in plugs.
- B. Store pumps in dry location.
- C. Retain protective covers for flanges and protective coatings during storage.
- D. Protect bearings and couplings against damage from sand, grit, and other foreign matter.
- E. Comply with pump manufacturer's written rigging instructions.

1.7 COORDINATION

- A. Coordinate size and location of concrete bases. Cast anchor-bolt inserts into bases. Concrete, reinforcement, and formwork requirements are specified in Division 03.

1.8 EXTRA MATERIALS

- A. Furnish extra materials described below that match products installed and that are packaged with protective covering for storage and identified with labels describing contents.
 - 1. Mechanical Seals: One mechanical seal(s) for each pump.

PART 2 - PRODUCTS

2.1 MANUFACTURERS

- A. In other Part 2 articles where titles below introduce lists, the following requirements apply to product selection:
 - 1. Available Manufacturers: Subject to compliance with requirements, manufacturers offering products that may be incorporated into the Work include, but are not limited to, manufacturers specified.

2.2 END-SUCTION BASE MOUNTED CENTRIFUGAL PUMPS

- A. Available Manufacturers:
 - 1. Taco, Inc.
 - 2.
- B. Description: Factory-assembled and -tested, centrifugal, overhung-impeller, close-coupled, in-line pump as defined in HI 1.1-1.2 and HI 1.3; designed for installation with pump and motor shafts mounted horizontally or vertically.
- C. Pump Construction:
 - 1. Casing: Radially split, cast iron, with replaceable bronze wear rings, drain plug at bottom and air vent at top of volute, threaded gage tappings at inlet and outlet, and threaded companion-flange connections. Pump casing shall be constructed of ASTM A48 class 30

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cast iron. The pump casing/volute shall be rated for 250 psi working pressure for all jobs. The pump flanges shall be matched to suit the working pressure of the piping components on the job, with either ANSI Class 125 flanges or ANSI class 250 flanges. The pump casing shall be drilled and tapped for gauge ports on both the suction and discharge connections and for a drain port at the bottom of the casing.

2. Impeller: ASTM B 584, cast bronze; statically and dynamically balanced, keyed to shaft, and secured with a locking cap screw. Trim impeller to match specified performance. The impeller shall be ASTM B584-836/875 bronze or ASTM A351/A351M-08 stainless steel and hydraulically balanced. The impeller shall be dynamically balanced to ANSI Grade G6.3 and shall be fitted to the shaft with a key. The impeller shall be cast by the hydraulically efficient lost foam technique to ensure repeatability of high quality.
3. Pump Shaft: Steel, with copper-alloy shaft sleeve.
4. Mechanical Seal: Carbon rotating ring against a ceramic seat held by a stainless-steel spring, and EPT bellows and gasket. Not required on End Suction Pumps, only on Split Case Pumps.
5. Pump Bearings: Permanently lubricated ball bearings.
6. Motor: Single speed, with permanently lubricated ball bearings, unless otherwise indicated; rigidly mounted to pump casing with integral pump support. Comply with requirements in Division 23 Section "Common Motor Requirements for HVAC Equipment."

2.3 PUMP SPECIALTY FITTINGS

- A. Suction Diffuser: Angle pattern, 175-psig pressure rating, Ductile-iron body and end cap, pump-inlet fitting; with bronze startup and bronze or stainless-steel permanent strainers; Cast ductile iron straightening vanes; drain plug; and factory-fabricated support.

2.4 EQUIPMENT SUPPORT ISOLATORS

- A. Floor Neoprene: Neoprene isolators shall be neoprene-in-shear type with steel reinforced top and base. All metal surfaces shall be covered with neoprene. The top and bottom surfaces shall be ribbed. Bolt holes shall be provided in the base and the top shall have a threaded fastener. The mounts shall include leveling bolts that may be rigidly connected to the equipment.
- B. Double Neoprene Pad: Neoprene pad isolators shall be formed by two layers of 5/16 inch thick ribbed or waffled neoprene, separated by a stainless steel or aluminum plate. These layers shall be permanently adhered together. Neoprene shall be forty to fifty durometer. The pads shall be sized so that they will be loaded between forty and fifty psi.

PART 3 - EXECUTION

3.1 APPLICATION

- A. Unless otherwise shown or specified, all floor-mounted major equipment items shall be set on four-inch-high housekeeping type concrete pads. All equipment having moving parts shall be vibration isolated from the building structure. Electrical connections to vibration isolated equipment shall be flexible.

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- B. Vibration isolation devices shall be installed for all pumps as recommended by the manufacturer at the vibration products, and in accordance with recognized industry standards.

3.2 EXAMINATION

- A. Examine equipment foundations and anchor-bolt locations for compliance with requirements for installation tolerances and other conditions affecting performance of work.
- B. Examine roughing-in for piping systems to verify actual locations of piping connections before pump installation.
- C. Examine foundations and inertia bases for suitable conditions where pumps are to be installed.
- D. Proceed with installation only after unsatisfactory conditions have been corrected.

3.3 PUMP INSTALLATION

- A. Comply with HI 1.4.
- B. Location of all vibration isolation equipment shall be selected for ease of inspection and adjustment as well as for proper operation. Installation of vibration isolation equipment shall be in accordance with the manufacturer's written instructions.
- C. Install pumps with access for periodic maintenance including removal of motors, impellers, couplings, and accessories.
- D. Independently support pumps and piping so weight of piping is not supported by pumps and weight of pumps is not supported by piping.
- E. Unless otherwise indicated, there is to be a minimum operating clearance of 1-1/2 inches between structural steel frames and the concrete housekeeping pad beneath the equipment.
- F. No equipment unit shall bear directly on vibration isolators unless its own frame is suitably rigid to span between isolators and such direct support is approved by the equipment manufacturer. In the case that a base frame is required for the unit because of the equipment manufacturer's requirements and is not specifically called for on the equipment schedule, a base frame recommended by the equipment manufacturer shall be provided at no additional expense.
- G. All vibration isolators shall be aligned squarely above or below mounting points of the supported equipment. Hanger rods for vibration isolated support shall be connected to structural beams or joists, not from the floor slab between beams and joist. Provide intermediate support members as necessary.

3.4 CONNECTIONS

- A. Piping installation requirements are specified in other Division 23 Sections. Drawings indicate general arrangement of piping, fittings, and specialties.
- B. Install piping adjacent to machine to allow service and maintenance.
- C. Connect piping to pumps. Install valves that are same size as piping connected to pumps.

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- D. Install suction and discharge pipe sizes equal to or greater than diameter of pump nozzles.
- E. Install suction diffuser and shutoff valve on suction side of pumps.
- F. Install pressure gages on pump suction and discharge, at integral pressure-gage tapping, or install single gage with multiple input selector valve.
- G. Installed spherical rubber flexible connector at the inlet and outlet of pump.
- H. Ground equipment according to Division 26 Section "Grounding and Bonding for Electrical Systems."
- I. Connect wiring according to Division 26 Section "Low-Voltage Electrical Power Conductors and Cables."

3.5 STARTUP SERVICE

- A. Engage a factory-authorized service representative to perform startup service.
 - 1. Complete installation and startup checks according to manufacturer's written instructions.
 - 2. Check piping connections for tightness.
 - 3. Clean strainers on suction piping.
 - 4. Perform the following startup checks for each pump before starting:
 - a. Verify bearing lubrication.
 - b. Verify that pump is free to rotate by hand and that pump for handling hot liquid is free to rotate with pump hot and cold. If pump is bound or drags, do not operate until cause of trouble is determined and corrected.
 - c. Verify that pump is rotating in the correct direction.
 - 5. Prime pump by opening suction valves and closing drains, and prepare pump for operation.
 - 6. Start motor.
 - 7. Open discharge valve slowly.

3.6 DEMONSTRATION

- A. Engage a factory-authorized service representative to train Owner's maintenance personnel to adjust, operate, and maintain hydronic pumps. Refer to Division 01 Section "Demonstration and Training."

END OF SECTION 23 21 23

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SECTION 23 25 00 – HVAC WATER TREATMENT

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

- A. This Section includes the following HVAC water-treatment systems:

1. Bypass chemical-feed equipment and controls.
2. HVAC water-treatment chemicals.

1.3 DEFINITIONS

- A. Low Voltage: As defined in NFPA 70 for circuits and equipment operating at less than 50 V or for remote-control, signaling power-limited circuits.
- B. TDS: Total dissolved solids.

1.4 PERFORMANCE REQUIREMENTS

- A. Water quality for HVAC systems shall minimize corrosion, scale buildup, and biological growth for optimum efficiency of HVAC equipment without creating a hazard to operating personnel or the environment.
- B. Base HVAC water treatment on quality of water available at Project site, HVAC system equipment material characteristics and functional performance characteristics, operating personnel capabilities, and requirements and guidelines of authorities having jurisdiction.
- C. Closed hydronic systems, including chilled water, shall have the following water qualities:
 1. pH: Maintain a value within 9.0 to 10.5.
 2. "P" Alkalinity: Maintain a value within 100 to 500 ppm.
 3. Boron: Maintain a value within 100 to 200 ppm.
 4. Chemical Oxygen Demand: Maintain a maximum value of 100 ppm.
 5. Soluble Copper: Maintain a maximum value of 0.20 ppm.
 6. TDS: Maintain a maximum value of 10 ppm.
 7. Ammonia: Maintain a maximum value of 20 ppm.
 8. Free Caustic Alkalinity: Maintain a maximum value of 20 ppm.
 9. Microbiological Limits:
 - a. Total Aerobic Plate Count: Maintain a maximum value of 1000 organisms/ml.

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- b. Total Anaerobic Plate Count: Maintain a maximum value of 100 organisms/ml.
- c. Nitrate Reducers: Maintain a maximum value of 100 organisms/ml.
- d. Sulfate Reducers: Maintain a maximum value of 0 organisms/ml.
- e. Iron Bacteria: Maintain a maximum value of 0 organisms/ml.

1.5 SUBMITTALS

- A. Product Data: Include rated capacities, operating characteristics, furnished specialties, and accessories for the following products:
 - 1. Bypass feeders.
 - 2. Chemical material safety data sheets.
- B. Field quality-control test reports.
- C. Contractor shall submit a flushing plan to be reviewed by the Owner's representative and the Engineer
- D. Operation and Maintenance Data: For sensors, injection pumps, and controllers to include in emergency, operation, and maintenance manuals.
- E. Other Informational Submittals:
 - 1. Water-Treatment Program: Written sequence of operation on an annual basis for the application equipment required to achieve water quality defined in the "Performance Requirements" Article above.
 - 2. Water Analysis: Illustrate water quality available at Project site.
 - 3. Passivation Confirmation Report: Verify passivation of galvanized-steel surfaces, and confirm this observation in a letter to Architect.

1.6 QUALITY ASSURANCE

- A. HVAC Water-Treatment Service Provider Qualifications: An experienced HVAC water-treatment service provider capable of analyzing water qualities, installing water-treatment equipment, and applying water treatment as specified in this Section.
 - 1. Experience: All bidding companies must be engaged primarily in the business of commercial or industrial cooling tower/boiler water treatment chemicals and services. The bidder must have operated in Florida under the same name, as Water Treatment Service Company, for a period of not less than five (5) years.
 - 2. References: Bidding companies may be requested to present as references ten (10) Florida commercial installations for which they have been the primary supplier of water treatment chemicals and consulting services for a period of five (5) years, using chemical water treatment programs similar to those specified herein.
 - 3. Insurance: Bidding companies must have in force product liability insurance of an aggregate amount not less than five million dollars (\$5,000,000), with an insurance company licensed to do business in the state of Florida. A copy of this policy will be made available by the successful bidder prior to the bid award.

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4. Representatives: Bidding companies must have a full-time service representative with the following qualifications:
 - a. Not less than a Bachelor of Science degree and five (5) years experience as a full-time water treatment service representative.
 - b. Residence within one hundred (100) miles of the job site (able to effectively answer calls on short notice).
 - c. Ability to be on call at all times to respond to problems requiring on-site presence. The bidding company shall provide a list of Florida field Representatives and their locations.
5. Laboratory Facilities: Bidding companies must have on-site a fully staffed modern laboratory facility with:
 - a. Computerized equipment for corrosion analysis, Atomic Absorption (AA) measurement, High Performance Liquid Chromatography (HPLC), Ion Chromatography (IC), and Spectrophotometer analysis.
 - b. Graduate Chemist (PH.D.) who can provide analysis of water and deposit samples.
 - c. The capability for a twenty-four (24) hour analysis turn-around time for corrosion and scale problem solving. These facilities will be available to the customer, should a problem occur that requires extraordinary efforts.
- B. Electrical Components, Devices, and Accessories: Listed and labeled as defined in NFPA 70, Article 100, by a testing agency acceptable to authorities having jurisdiction, and marked for intended use.

1.7 MAINTENANCE SERVICE

- A. Scope of Maintenance Service: Provide chemicals and service program to maintain water conditions required above to inhibit corrosion, scale formation, and biological growth for cooling, chilled-water piping and equipment. Services and chemicals shall be provided for a period of one year from date of Substantial Completion, and shall include the following:
 1. Initial water analysis and HVAC water-treatment recommendations.
 2. Startup assistance for Contractor to flush the systems, clean with detergents, and initially fill systems with required chemical treatment prior to operation.
 3. Periodic field service and consultation. Minimum 2
 4. Customer report charts and log sheets.
 5. Laboratory technical analysis.
 6. Analyses and reports of all chemical items concerning safety and compliance with government regulations.

PART 2 - PRODUCTS

2.1 MANUAL CHEMICAL-FEED EQUIPMENT

- A. Bypass Feeders: Steel, with corrosion-resistant exterior coating, minimum 3-1/2-inch (89-mm) fill opening in the top, and NPS 3/4 (DN 20) bottom inlet and top side outlet. Quarter turn or threaded fill cap with gasket seal and diaphragm to lock the top on the feeder when exposed to system pressure in the vessel.

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1. Capacity: 5 gal. (19 L).
2. Minimum Working Pressure: 125 psig (860 kPa).

2.2 STAINLESS-STEEL PIPES AND FITTINGS

- A. Stainless-Steel Tubing: Comply with ASTM A 269, Type 316.
- B. Stainless-Steel Fittings: Complying with ASTM A 815/A 815M, Type 316, Grade WP-S.
- C. Two-Piece, Full-Port, Stainless-Steel Ball Valves: ASTM A 351, Type 316 stainless-steel body; ASTM A 276, Type 316 stainless-steel stem and vented ball, carbon-filled TFE seats, threaded body design with adjustable stem packing, threaded ends, and 250-psig (1725-kPa) SWP and 600-psig (4140-kPa) CWP ratings.
- D. Three-Piece, Full-Port, Stainless-Steel Ball Valves: ASTM A 351, Type 316 stainless-steel body; ASTM A 276, Type 316 stainless-steel stem and vented ball, threaded body design with adjustable stem packing, threaded ends, and 150-psig (1035-kPa) SWP and 600-psig (4140-kPa) CWP rating.

2.3 CHEMICALS

- A. Chemicals shall be as recommended by water-treatment system manufacturer that are compatible with piping system components and connected equipment, and that can attain water quality specified in Part 1 "Performance Requirements" Article.

PART 3 - EXECUTION

3.1 WATER ANALYSIS

- A. Perform an analysis of supply water to determine quality of water available at Project site.

3.2 INSTALLATION

- A. Bypass Feeders: Install in closed hydronic systems, including chilled water, and equipped with the following:
 1. Install bypass feeder in a bypass circuit around circulating pumps. Hydronic flushing shall bypass all HVAC equipment. Do not perform flushing through coils, chiller, and associated HVAC equipment.
 2. Install test-coupon assembly in bypass circuit around circulating pumps, unless otherwise indicated on Drawings.
 3. Install a gate or full-port ball isolation valves on inlet, outlet, and drain below feeder inlet.
 4. Install a swing check on inlet after the isolation valve.

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- B. The following steps, for cleaning water piping systems, are based on using sodium nitrite, azole, and sodium hydroxide as the closed system corrosion inhibitors and are intended to be indicative of the care to be taken. Prior to cleaning the system, the contractor submit a “pipe system cleaning plan” including cleaning sequence not less stringent than the following. Selection of the chemicals to be used shall be in consultation with the treatment provider.
1. Perform initial flush with fresh water to remove sediment and suspended solids. Provide temporary bypass for coils and associated control valves for initial flush. Remove bypass for following flush sequences.
 2. Once the initial flush is complete and the water is clear, add the alkaline cleaner and circulate for 24 hours. Commence “feed and bleed” to flush out the system. All wyes and system strainers will be verified as clean during this detergent flush. All control valves will be manually or automatically opened to ensure flow through all equipment during cleaning and flush. Describe the procedure used to accomplish this in the water treatment records.
 3. Refill system with fresh water, and circulate for 4 hours. Discard this rinse water and refill the system with clean water. When the pH of the system water matches the pH of the make-up water, and the system water is clear, add corrosion inhibitor immediately in sufficient quantity to provide solution prescribed by water treatment specialist (typically, 800-1200 PPM for sodium nitrite). Ensure that total iron in the closed loops, including dissolved and non-dissolved iron is less than 1 PPM. If total iron exceeds 1 PPM, continue flushing until this value drops below 1 PPM. Failure to maintain system water as clear and total iron below 1 PPM will subject the mechanical contractor to repeating this flushing and treatment process at the direction of the owner. After the initial manual addition of closed loop corrosion inhibitor, the mechanical contractor will run the system to circulate the system water continuously for 96 hours. Take water treatment samples and record results to ensure inhibitor concentration is maintained at prescribed level.
 4. OCPS maintenance and operations representative or Commissioning Agent, as well as owner’s Construction representative, shall attest in writing to the detergent flush, rinse, and initial addition of nitrite.
 5. Contractor shall ensure that inhibitor levels are maintained at all times in all closed loops. This is subject to random verification and back-charges to mechanical contractor for required services to immediately correct, as well as penalties for any system corrosion allowed to establish in the loops. Contractor shall ensure that total iron levels will be maintained below 1 PPM at all times in all closed water loops, including chilled water, hydronic, 2-pipe systems and water side heat pump systems.
 6. Contractor shall certify, by field test, that closed loops have adequate inhibitor (800 PPM minimum for nitrite). OCPS operations & maintenance representative or Commissioning Agent must be present and attest to proper conditions met as a component of substantial completion acceptance. OCPS operations & maintenance may bring their own representative to test and verify water chemistry and proper system conditions.
 7. Contractor shall maintain records of dates of initial detergent flush, system rinse, and initial inhibitor type and amount added to the system. In addition, water treatment contractor shall provide monthly reports to the Engineer of Record and OCPS, including one copy to the area maintenance manager, attesting to proper conditions in closed loops for the project. Contractor shall maintain logs of monthly or more frequent readings of make-up water meters. Contractor shall ensure retesting of inhibitor levels within three days of significant water use or loss in closed loops. Contractor shall maintain records of retesting required by water loss from closed loops.

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- C. Contractor will certify, by field test, that closed loops have adequate nitrite. OCPS Operations & Maintenance Representative must be present and attest to proper conditions met as a component of substantial completion acceptance. OCPS Operations & Maintenance may bring their own representative to test and verify water chemistry and proper system conditions.
- D. Condenser Cleaning: Any water-cooled condenser, which becomes fouled before substantial completion must be cleaned chemically at the expense of the water treatment company and mechanical contractor for the project.
- E. Each piping system is to be provided with the specified hardware.
- F. All products shall be installed or services performed in strict accordance with the manufactures written installation/procedure instructions.
- G. After the system is flushed, pre-cleaned and chemically stabilized the Contractor shall:
 - 1. Turn the test kits over to the owner.
 - 2. Instruct the owner in proper maintenance procedures.
 - 3. Fulfill all obligations for the specified period of one (1) full year from the date of start up including four (4) service calls during the cooling season and two (2) service calls during the heating season.
- H. Where the owner provides the chemicals for treatment, notify the owner well in advance of the cleaning process and when completed advise in writing that it is recommended that the chemicals be charged immediately to prevent damage to the system.

3.3 CONNECTIONS

- A. Piping installation requirements are specified in other Division 23 Sections. Drawings indicate general arrangement of piping, fittings, and specialties.
- B. Install piping adjacent to equipment to allow service and maintenance.
- C. Make piping connections between HVAC water-treatment equipment and dissimilar-metal piping with dielectric fittings. Dielectric fittings are specified in Division 23 Section "Common Work Results for HVAC."
- D. Install shutoff valves on HVAC water-treatment equipment inlet and outlet. Metal general-duty valves are specified in Division 23 Section "General-Duty Valves for HVAC Piping."
- E. Refer to Division 22 Section "Domestic Water Piping Specialties" for backflow preventers required in makeup water connections to potable-water systems.
- F. Confirm applicable electrical requirements in Division 26 Sections for connecting electrical equipment.
- G. Ground equipment according to Division 26 Section "Grounding and Bonding for Electrical Systems."
- H. Connect wiring according to Division 26 Section "Low-Voltage Electrical Power Conductors and Cables."

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3.4 FIELD QUALITY CONTROL

- A. Manufacturer's Field Service: Engage a factory-authorized service representative to inspect, test, and adjust components, assemblies, and equipment installations, including connections. Report results in writing.
- B. Perform tests and inspections and prepare test reports.
- C. Tests and Inspections:
 - 1. Inspect field-assembled components and equipment installation, including piping and electrical connections.
 - 2. Inspect piping and equipment to determine that systems and equipment have been cleaned, flushed, and filled with water, and are fully operational before introducing chemicals for water-treatment system.
 - 3. Place HVAC water-treatment system into operation and calibrate controls during the preliminary phase of HVAC systems' startup procedures.
 - 4. Do not enclose, cover, or put piping into operation until it is tested and satisfactory test results are achieved.
 - 5. Test for leaks and defects. If testing is performed in segments, submit separate report for each test, complete with diagram of portion of piping tested.
 - 6. Leave uncovered and unconcealed new, altered, extended, and replaced water piping until it has been tested and approved. Expose work that has been covered or concealed before it has been tested and approved.
 - 7. Cap and subject piping to static water pressure of 50 psig (345 kPa) above operating pressure, without exceeding pressure rating of piping system materials. Isolate test source and allow test pressure to stand for four hours. Leaks and loss in test pressure constitute defects.
 - 8. Repair leaks and defects with new materials and retest piping until no leaks exist.
- D. Remove and replace malfunctioning units and retest as specified above.
- E. Comply with ASTM D 3370 and with the following standards:
 - 1. Silica: ASTM D 859.
 - 2. Acidity and Alkalinity: ASTM D 1067.
 - 3. Iron: ASTM D 1068.
 - 4. Water Hardness: ASTM D 1126.

3.5 DEMONSTRATION

- A. Engage a factory-authorized service representative to train Owner's maintenance personnel to adjust, operate, and maintain HVAC water-treatment systems and equipment. Refer to Division 01 Section "Demonstration and Training."
- B. Training: Provide a "how-to-use" self-contained breathing apparatus video that details exact operating procedures of equipment.

END OF SECTION 232500

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SECTION 23 31 13 – METAL DUCTS

PART 1 - GENERAL

1.1 SUMMARY

A. Section Includes:

1. Single-wall rectangular ducts and fittings.
2. Double-wall rectangular ducts and fittings.
3. Sheet metal materials.
4. Sealants and gaskets.
5. Hangers and supports.

1.2 PERFORMANCE REQUIREMENTS

- A. Delegated Duct Design: Duct construction, including sheet metal thicknesses, seam and joint construction, reinforcements, and hangers and supports, shall comply with SMACNA's "HVAC Duct Construction Standards - Metal and Flexible" and performance requirements and design criteria indicated in "Duct Schedule" Article.
- B. Structural Performance: Duct hangers and supports shall withstand the effects of gravity loads and stresses within limits and under conditions described in SMACNA's "HVAC Duct Construction Standards - Metal and Flexible"
- C. Airstream Surfaces: Surfaces in contact with the airstream shall comply with requirements in ASHRAE 62.1.

1.3 ACTION SUBMITTALS

A. Product Data: For each type of the following products:

1. Sealants and gaskets.

B. Shop Drawings:

1. Fabrication, assembly, and installation, including plans, elevations, sections, components, and attachments to other work.
2. Factory- and shop-fabricated ducts and fittings.
3. Duct layout indicating sizes, configuration, liner material, and static-pressure classes.
4. Elevation of top of ducts.
5. Dimensions of main duct runs from building grid lines.
6. Fittings.
7. Reinforcement and spacing.
8. Seam and joint construction.
9. Penetrations through fire-rated and other partitions.
10. Equipment installation based on equipment being used on Project.

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11. Locations for duct accessories, including dampers, turning vanes, and access doors and panels.
12. Hangers and supports, including methods for duct and building attachment and vibration isolation.

C. Delegated-Design Submittal:

1. Sheet metal thicknesses.
2. Joint and seam construction and sealing.
3. Reinforcement details and spacing.
4. Materials, fabrication, assembly, and spacing of hangers and supports.
5. Design Calculations: Calculations for selecting hangers and supports.

1.4 INFORMATIONAL SUBMITTALS

A. Coordination Drawings: Plans, drawn to scale, on which the following items are shown and coordinated with each other, using input from installers of the items involved:

1. Duct installation in congested spaces, indicating coordination with general construction, building components, and other building services. Indicate proposed changes to duct layout.
2. Suspended ceiling components.
3. Structural members to which duct will be attached.
4. Size and location of initial access modules for acoustical tile.
5. Penetrations of smoke barriers and fire-rated construction.
6. Items penetrating finished ceiling including the following:
 - a. Lighting fixtures.
 - b. Air outlets and inlets.
 - c. Sprinklers.
 - d. Access panels.
 - e. Perimeter moldings.

B. Field quality-control reports.

1.5 QUALITY ASSURANCE

A. Welding Qualifications: Qualify procedures and personnel according to AWS D1.1/D1.1M, "Structural Welding Code - Steel," for hangers and supports. AWS D9.1M/D9.1, "Sheet Metal Welding Code," for duct joint and seam welding.

B. Welding Qualifications: Qualify procedures and personnel according to the following:

1. AWS D1.1/D1.1M, "Structural Welding Code - Steel," for hangers and supports.
2. AWS D9.1M/D9.1, "Sheet Metal Welding Code," for duct joint and seam welding.

C. ASHRAE Compliance: Applicable requirements in ASHRAE 62.1, Section 5 - "Systems and Equipment" and Section 7 - "Construction and System Start-up."

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- D. ASHRAE/IESNA Compliance: Applicable requirements in ASHRAE/IESNA 90.1, Section 6.4.4 - "HVAC System Construction and Insulation."

PART 2 - PRODUCTS

2.1 SINGLE-WALL RECTANGULAR DUCTS AND FITTINGS

- A. General Fabrication Requirements: Comply with SMACNA's "HVAC Duct Construction Standards - Metal and Flexible" based on indicated static-pressure class unless otherwise indicated.
- B. Transverse Joints: Select joint types and fabricate according to SMACNA's "HVAC Duct Construction Standards - Metal and Flexible," Figure 2-1, "Rectangular Duct/Transverse Joints," for static-pressure class, applicable sealing requirements, materials involved, duct-support intervals, and other provisions in SMACNA's "HVAC Duct Construction Standards - Metal and Flexible."
- C. Longitudinal Seams: Select seam types and fabricate according to SMACNA's "HVAC Duct Construction Standards - Metal and Flexible," Figure 2-2, "Rectangular Duct/Longitudinal Seams," for static-pressure class, applicable sealing requirements, materials involved, duct-support intervals, and other provisions in SMACNA's "HVAC Duct Construction Standards - Metal and Flexible."
- D. Elbows, Transitions, Offsets, Branch Connections, and Other Duct Construction: Select types and fabricate according to SMACNA's "HVAC Duct Construction Standards - Metal and Flexible," Chapter 4, "Fittings and Other Construction," for static-pressure class, applicable sealing requirements, materials involved, duct-support intervals, and other provisions in SMACNA's "HVAC Duct Construction Standards - Metal and Flexible."

2.2 DOUBLE-WALL RECTANGULAR DUCTS AND FITTINGS

- A. Rectangular Ducts: Fabricate ducts with indicated dimensions for the inner duct.
- B. Outer Duct: Comply with SMACNA's "HVAC Duct Construction Standards - Metal and Flexible" based on indicated static-pressure class unless otherwise indicated.
- C. Transverse Joints: Select joint types and fabricate according to SMACNA's "HVAC Duct Construction Standards - Metal and Flexible," Figure 2-1, "Rectangular Duct/Transverse Joints," for static-pressure class, applicable sealing requirements, materials involved, duct-support intervals, and other provisions in SMACNA's "HVAC Duct Construction Standards - Metal and Flexible."
- D. Longitudinal Seams: Select seam types and fabricate according to SMACNA's "HVAC Duct Construction Standards - Metal and Flexible," Figure 2-2, "Rectangular Duct/Longitudinal Seams," for static-pressure class, applicable sealing requirements, materials involved, duct-support intervals, and other provisions in SMACNA's "HVAC Duct Construction Standards - Metal and Flexible."

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- E. Interstitial Insulation: Fibrous-glass liner complying with ASTM C 1071, NFPA 90A, or NFPA 90B; and with NAIMA AH124, "Fibrous Glass Duct Liner Standard."
 - 1. Maximum Thermal Conductivity: at 75 deg F mean temperature.
 - 2. Install spacers that position the inner duct at uniform distance from outer duct without compressing insulation.
 - 3. Coat insulation with antimicrobial coating.
 - 4. Cover insulation with polyester film complying with UL 181, Class 1.
- F. Inner Duct: Minimum 0.028-inch perforated galvanized sheet steel having 3/32-inch- diameter perforations, with overall open area of 23 percent.
- G. Formed-on Transverse Joints (Flanges): Select joint types and fabricate according to SMACNA's "HVAC Duct Construction Standards - Metal and Flexible," Figure 2-1, "Rectangular Duct/Traverse Joints," for static-pressure class, applicable sealing requirements, materials involved, duct-support intervals, and other provisions in SMACNA's "HVAC Duct Construction Standards - Metal and Flexible."
- H. Longitudinal Seams: Select seam types and fabricate according to SMACNA's "HVAC Duct Construction Standards - Metal and Flexible," Figure 2-2, "Rectangular Duct/Longitudinal Seams," for static-pressure class, applicable sealing requirements, materials involved, duct-support intervals, and other provisions in SMACNA's "HVAC Duct Construction Standards - Metal and Flexible."

2.3 SHEET METAL MATERIALS

- A. General Material Requirements: Comply with SMACNA's "HVAC Duct Construction Standards - Metal and Flexible" for acceptable materials, material thicknesses, and duct construction methods unless otherwise indicated. Sheet metal materials shall be free of pitting, seam marks, roller marks, stains, discolorations, and other imperfections.
- B. Galvanized Sheet Steel: Comply with ASTM A 653/A 653M.
 - 1. Galvanized Coating Designation: G90.
 - 2. Finishes for Surfaces Exposed to View: Mill phosphatized.
- C. Carbon-Steel Sheets: Comply with ASTM A 1008/A 1008M, with oiled, matte finish for exposed ducts.
- D. Stainless-Steel Sheets: Comply with ASTM A 480/A 480M, Type 304 or 316, as indicated in the "Duct Schedule" Article; cold rolled, annealed, sheet. Exposed surface finish shall be No. 2B, No. 2D, No. 3, or No. 4 as indicated in the "Duct Schedule" Article.
- E. Reinforcement Shapes and Plates: ASTM A 36/A 36M, steel plates, shapes, and bars; black and galvanized.
 - 1. Where black- and galvanized-steel shapes and plates are used to reinforce aluminum ducts, isolate the different metals with butyl rubber, neoprene, or EPDM gasket materials.

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- F. Tie Rods: Galvanized steel, 1/4-inch minimum diameter for lengths 36 inches or less; 3/8-inch minimum diameter for lengths longer than 36 inches.

2.4 SEALANT AND GASKETS

- A. General Sealant and Gasket Requirements: Surface-burning characteristics for sealants and gaskets shall be a maximum flame-spread index of 25 and a maximum smoke-developed index of 50 when tested according to UL 723; certified by an NRTL.
- B. Water-Based Joint and Seam Sealant:
1. Application Method: Brush on.
 2. Solids Content: Minimum 65 percent.
 3. Shore A Hardness: Minimum 20.
 4. Water resistant.
 5. Mold and mildew resistant.
 6. VOC: Maximum 75 g/L (less water).
 7. Maximum Static-Pressure Class: 10-inch wg , positive and negative.
 8. Service: Indoor or outdoor.
 9. Substrate: Compatible with galvanized sheet steel (both PVC coated and bare), stainless steel, or aluminum sheets.
- C. Flanged Joint Sealant: Comply with ASTM C 920.
1. General: Single-component, acid-curing, silicone, elastomeric.
 2. Type: S.
 3. Grade: NS.
 4. Class: 25.
 5. Use: O.
 6. For indoor applications, sealant shall have a VOC content of 250 g/L or less when calculated according to 40 CFR 59, Subpart D (EPA Method 24).
- D. Flange Gaskets: Butyl rubber, neoprene, or EPDM polymer with polyisobutylene plasticizer.

2.5 HANGERS AND SUPPORTS

- A. Hanger Rods for Non-corrosive Environments: Cadmium-plated steel rods and nuts.
- B. Hanger Rods for Corrosive Environments: Electrogalvanized, all-thread rods or galvanized rods with threads painted with zinc-chromate primer after installation.
- C. Strap and Rod Sizes: Comply with SMACNA's "HVAC Duct Construction Standards - Metal and Flexible," Table 5-1, "Rectangular Duct Hangers Minimum Size," and Table 5-2, "Minimum Hanger Sizes for Round Duct."
- D. Duct Attachments: Sheet metal screws, blind rivets, or self-tapping metal screws; compatible with duct materials.
- E. Trapeze and Riser Supports:

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1. Supports for Galvanized-Steel Ducts: Galvanized-steel shapes and plates.
2. Supports for Stainless-Steel Ducts: Stainless-steel shapes and plates.
3. Supports for Aluminum Ducts: Aluminum or galvanized steel coated with zinc chromate.

PART 3 - EXECUTION

3.1 DUCT INSTALLATION

- A. Drawing plans, schematics, and diagrams indicate general location and arrangement of duct system. Indicated duct locations, configurations, and arrangements were used to size ducts and calculate friction loss for air-handling equipment sizing and for other design considerations. Install duct systems as indicated unless deviations to layout are approved on Shop Drawings and Coordination Drawings.
- B. Install ducts according to SMACNA's "HVAC Duct Construction Standards - Metal and Flexible" unless otherwise indicated.
- C. Install round and flat-oval ducts in maximum practical lengths.
- D. Install ducts with fewest possible joints.
- E. Install factory- or shop-fabricated fittings for changes in direction, size, and shape and for branch connections.
- F. Unless otherwise indicated, install ducts vertically and horizontally, and parallel and perpendicular to building lines.
- G. Install ducts close to walls, overhead construction, columns, and other structural and permanent enclosure elements of building.
- H. Install ducts with a clearance of 1 inch, plus allowance for insulation thickness.
- I. Route ducts to avoid passing through transformer vaults and electrical equipment rooms and enclosures.
- J. Where ducts pass through non-fire-rated interior partitions and exterior walls and are exposed to view, cover the opening between the partition and duct or duct insulation with sheet metal flanges of same metal thickness as the duct. Overlap openings on four sides by at least 1-1/2 inches.
- K. Protect duct interiors from moisture, construction debris and dust, and other foreign materials.

3.2 INSTALLATION OF EXPOSED DUCTWORK

- A. Protect ducts exposed in finished spaces from being dented, scratched, or damaged.
- B. Trim duct sealants flush with metal. Create a smooth and uniform exposed bead. Do not use two-part tape sealing system.

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- C. Grind welds to provide smooth surface free of burrs, sharp edges, and weld splatter. When welding stainless steel with a No. 3 or 4 finish, grind the welds flush, polish the exposed welds, and treat the welds to remove discoloration caused by welding.
- D. Maintain consistency, symmetry, and uniformity in the arrangement and fabrication of fittings, hangers and supports, duct accessories, and air outlets.
- E. Repair or replace damaged sections and finished work that does not comply with these requirements.

3.3 DUCT SEALING

- A. Seal ducts for duct static-pressure, seal classes, and leakage classes specified in "Duct Schedule" Article according to SMACNA's "HVAC Duct Construction Standards - Metal and Flexible."

3.4 HANGER AND SUPPORT INSTALLATION

- A. Comply with SMACNA's "HVAC Duct Construction Standards - Metal and Flexible," Chapter 5, "Hangers and Supports."
- B. Building Attachments: Concrete inserts, powder-actuated fasteners, or structural-steel fasteners appropriate for construction materials to which hangers are being attached.
 - 1. Where practical, install concrete inserts before placing concrete.
 - 2. Install powder-actuated concrete fasteners after concrete is placed and completely cured.
 - 3. Use powder-actuated concrete fasteners for standard-weight aggregate concretes or for slabs more than 4 inches thick.
 - 4. Do not use powder-actuated concrete fasteners for lightweight-aggregate concretes or for slabs less than 4 inches thick.
- C. Hanger Spacing: Comply with SMACNA's "HVAC Duct Construction Standards - Metal and Flexible," Table 5-1, "Rectangular Duct Hangers Minimum Size" for maximum hanger spacing; install hangers and supports within 24 inches of each elbow and within 48 inches of each branch intersection.
- D. Hangers Exposed to View: Threaded rod and angle or channel supports.
- E. Support vertical ducts with steel angles or channel secured to the sides of the duct with welds, bolts, sheet metal screws, or blind rivets; support at each floor and at maximum intervals of 16 feet.
- F. Install upper attachments to structures. Select and size upper attachments with pull-out, tension, and shear capacities appropriate for supported loads and building materials where used.

3.5 CONNECTIONS

- A. Make connections to equipment with flexible connectors complying with Division 23 Section "Air Duct Accessories."

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- B. Comply with SMACNA's "HVAC Duct Construction Standards - Metal and Flexible" for branch, outlet and inlet, and terminal unit connections.

3.6 PAINTING

- A. Paint interior of metal ducts that are visible through registers and grilles and that do not have duct liner. Apply one coat of flat, black, latex paint over a compatible galvanized-steel primer. Paint materials and application requirements are specified in Division 09 painting Sections.

3.7 FIELD QUALITY CONTROL

- A. Perform tests and inspections.
- B. Leakage Tests:
 - 1. Comply with SMACNA's "HVAC Air Duct Leakage Test Manual." Submit a test report for each test.
 - 2. Test the following systems:
 - a. Supply Ducts with a Pressure Class of 3-Inch wg or Higher: Test representative duct sections totaling no less than 100 percent of total installed duct area for each designated pressure class.
 - 3. Disassemble, reassemble, and seal segments of systems to accommodate leakage testing and for compliance with test requirements.
 - 4. Test for leaks before applying external insulation.
 - 5. Conduct tests at static pressures equal to maximum design pressure of system or section being tested. If static-pressure classes are not indicated, test system at maximum system design pressure. Do not pressurize systems above maximum design operating pressure.
 - 6. Give seven days' advance notice for testing.
- C. Duct system will be considered defective if it does not pass tests and inspections.
- D. Prepare test and inspection reports.

3.8 START UP

- A. Air Balance: Comply with requirements in Division 23 Section "Testing, Adjusting, and Balancing for HVAC."

3.9 DUCT SCHEDULE

- A. Supply Ducts:
 - 1. Ducts Connected to Variable-Air-Volume Air-Handling Units:
 - a. Pressure Class: Positive 3-inch wg.
 - b. Minimum SMACNA Seal Class: A.

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- c. SMACNA Leakage Class for Rectangular: 6.
- d. SMACNA Leakage Class for Round and Flat Oval: 3.

B. Return Ducts:

- 1. Ducts Connected to Air-Handling Units:
 - a. Pressure Class: Positive or negative 2-inch wg.
 - b. Minimum SMACNA Seal Class: B.
 - c. SMACNA Leakage Class for Rectangular: 12.
 - d. SMACNA Leakage Class for Round and Flat Oval: 6.

C. Exhaust Ducts:

- 1. Ducts Connected to Fans Exhausting (ASHRAE 62.1, Class 1 and 2) Air:
 - a. Pressure Class: Negative 1-inch wg.
 - b. Minimum SMACNA Seal Class: C if negative pressure, and A if positive pressure.
 - c. SMACNA Leakage Class for Rectangular: 12.
 - d. SMACNA Leakage Class for Round and Flat Oval: 6.

D. Outdoor-Air (Not Filtered, Heated, or Cooled) Ducts:

- 1. Ducts Connected to Air-Handling Units:
 - a. Pressure Class: Positive or negative 2-inch wg.
 - b. Minimum SMACNA Seal Class: B.
 - c. SMACNA Leakage Class for Rectangular: 12.
 - d. SMACNA Leakage Class for Round and Flat Oval: 6.

E. Intermediate Reinforcement:

- 1. Galvanized-Steel Ducts: Galvanized steel.
- 2. Stainless-Steel Ducts:
 - a. Exposed to Airstream: Match duct material.
 - b. Not Exposed to Airstream: Match duct material.

F. Double-Wall Duct Interstitial Insulation:

- 1. Supply Air Ducts: 1 inch- thick.
- 2. Return Air Ducts: 1 inch -thick.
- 3. Exhaust Air Ducts: 1 inch- thick.

G. Elbow Configuration:

- 1. Rectangular Duct: Comply with SMACNA's "HVAC Duct Construction Standards - Metal and Flexible," Figure 4-2, "Rectangular Elbows."
 - a. Velocity 1000 fpm or Lower:

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- 1) Radius Type RE 1 with minimum 0.5 radius-to-diameter ratio.
 - 2) Mitered Type RE 4 without vanes.
- b. Velocity 1000 to 1500 fpm:
 - 1) Radius Type RE 1 with minimum 1.0 radius-to-diameter ratio.
- c. Velocity 1500 fpm or Higher:
 - 1) Radius Type RE 1 with minimum 1.5 radius-to-diameter ratio.
2. Rectangular Duct: Comply with SMACNA's "HVAC Duct Construction Standards - Metal and Flexible," Figure 4-2, "Rectangular Elbows."
 - a. Radius Type RE 1 with minimum 1.5 radius-to-diameter ratio.

END OF SECTION 233113

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SECTION 23 31 14 – ELECTRIC RESISTANCE DUCT HEATERS

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

- A. Section Includes:
 - 1. Electric duct heaters complete with controls.

1.3 ACTION SUBMITTALS

- A. Product Data: For each type of product.
 - 1. Include rated capacities, operating characteristics, furnished specialties, and accessories.
- B. Shop Drawings:
 - 1. Include details of equipment assemblies. Indicate dimensions, weights, loads, required clearances, method of field assembly, components, and location and size of each field connection.
 - 2. Include diagrams for power, signal, and control wiring.

1.4 CLOSEOUT SUBMITTALS

- A. Operation and Maintenance Data: For each duct heater to include in emergency, operation, and maintenance manuals:

1.5 QUALITY ASSURANCE

- A. ASHRAE Compliance: Applicable requirements in ASHRAE 62.1, Section 5 - "Systems and Equipment" and Section 7 - "Construction and Startup."
- B. ASHRAE/IES 90.1 Compliance: Applicable requirements in ASHRAE/IES 90.1, Section 6 - "Heating, Ventilating, and Air-Conditioning."
- C. Comply with NFPA 70.

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PART 2 - PRODUCTS

2.1 MANUFACTURERS

- D. Available Manufacturers: Subject to compliance with requirements, manufacturers offering products that may be incorporated in the Work include, but are not limited to, the following:
1. Electric Heaters, Inc.
 2. Brasch NUF, Inc.
 3. REDDI-I Heat
 4. Indeeco, Inc.
 5. Warren Technologies

2.2 DUCT HEATERS

- E. Duct heaters shall be open coil heaters. Voltage, size, wattage, number of steps and control voltage shall be as scheduled on the drawings. Three-phase heaters shall be furnished with balanced three-phase steps. Heaters shall be UL listed for zero clearance and shall meet all applicable requirements of the 2008 National Electric Code.
- F. Heaters shall be of the slip-in type for duct mounting.
- G. Elements shall be constructed of 80% nickel and 20% chromium; steps shall be arranged to prevent stratification when operating at less than full capacity. The maximum watts per square inch of wire surface shall be 50.
- H. Coil terminals shall be of stainless steel, terminal insulators and bracket bushings shall be constructed of ceramic and securely positioned. Terminals shall be machine crimped to coil.
- I. Frame shall be constructed of sufficiently heavy gauge galvanized steel to assure structural rigidity and have vertical galvanized steel supports with
- J. stiffening ribs and gussets spaced no more than 4" apart, spot welded to the casing.
- K. Terminal box shall be provided with solid cover in order to minimize dust infiltration and shall be hinged. Heater terminal box must be totally enclosed and must be without perforated or expanded sheet metal covers. Terminal box shall be insulated.
- L. Recessed terminal box to be provided when coils are installed in ducts with internal obstruction greater than 1" to assure that heating elements and safety controls are in the airstream.
- M. Direction of Airflow: Heaters shall be interchangeable for mounting in a horizontal or vertical duct and air-flow may be through the heater in either direction.
- N. Safety Devices: A disc-type automatic reset thermal cutout shall be furnished for primary overtemperature protection. For secondary protection, a sufficient number of heat limiters in the power lines shall be de-energize elements if the primary cutout fails. All safety devices shall be serviceable through the terminal box without removing the heating coil from the duct.

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- O. Built-in components shall include disconnecting break magnetic contactors, door mounted pilot light, transformer with primary fusing, pressure-type airflow switch set at .07" WC, all as required by UL, interlocking integral fused disconnect switch with branch circuit fuses per NEC and a single terminal block to accept the number, type and size of conductors as required. SCR variable controls for large electric heating coils as required. Other requirements shall include all devices and wiring shown and noted in the duct heater schedule and indicated on the wiring diagram.

PART 3 - EXECUTION

3.1 INSTALLATION

- P. Install systems as required and as recommended by the coil supplier.
- Q. The coil shall be mounted in the duct in accordance with the requirements of SMACNA Ducted Electric Heat Guide.
- R. The coil shall occupy entire cross-sectional area of duct.
- S. Install and suspend coil and terminal box so the connecting duct work does not support coil weight in any way.
- T. Provide duct access doors at entering air side of heaters to allow for inspection with adequate clearances as defined by the manufacturer and NEC.

END OF SECTION 233114

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SECTION 23 33 00 – DUCT ACCESSORIES

PART 1 - GENERAL

1.1 SUMMARY

- A. This Section includes the following:
1. Flexible connectors.
 2. Duct accessory hardware.
 3. Flange Connectors
 4. Duct Mounted Access Door

1.2 SUBMITTALS

- A. Product Data: For the following:
1. Flange Connector
 2. Duct Mounted Access Door

1.3 QUALITY ASSURANCE

- A. NFPA Compliance: Comply with the following NFPA standards:
1. NFPA 90A, "Installation of Air Conditioning and Ventilating Systems."
 2. NFPA 90B, "Installation of Warm Air Heating and Air Conditioning Systems."

PART 2 - PRODUCTS

2.1 SHEET METAL MATERIALS

- A. Galvanized, Sheet Steel: Lock-forming quality; ASTM A 653, G90 coating designation; mill-phosphatized finish for surfaces of ducts exposed to view.
- B. Carbon-Steel Sheets: ASTM A 366/A 366M, cold-rolled sheets, commercial quality, with oiled, exposed matte finish.
- C. Reinforcement Shapes and Plates: Galvanized steel reinforcement where installed on galvanized, sheet metal ducts; compatible materials for aluminum and stainless-steel ducts.
- D. Tie Rods: Galvanized steel, 1/4-inch minimum diameter for 36-inch length or less; 3/8-inch minimum diameter for lengths longer than 36 inches.

2.2 FLEXIBLE CONNECTORS

- A. General: Flame-retarded or noncombustible fabrics, coatings, and adhesives complying with UL 181, Class 1.

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- B. Standard Metal-Edged Connectors: Factory fabricated with a strip of fabric 3-1/2 inches wide attached to two strips of 2-3/4-inch wide, 0.028-inch thick, galvanized, sheet steel or 0.032-inch aluminum sheets. Select metal compatible with connected ducts.
- C. Conventional, Indoor System Flexible Connector Fabric: Glass fabric double coated with polychloroprene.
 - 1. Minimum Weight: 26 oz./sq. yd.
 - 2. Tensile Strength: 480 lbf/inch in the warp, and 360 lbf/inch in the filling.
- D. Conventional, Outdoor System Flexible Connector Fabric: Glass fabric double coated with a synthetic-rubber, weatherproof coating resistant to the sun's ultraviolet rays and ozone environment.
 - 1. Minimum Weight: 26 oz./sq. yd.
 - 2. Tensile Strength: 530 lbf/inch in the warp, and 440 lbf/inch in the filling.

2.3 ACCESSORY HARDWARE

- A. Instrument Test Holes: Cast iron or cast aluminum to suit duct material, including screw cap and gasket. Size to allow insertion of pitot tube and other testing instruments, and length to suit duct insulation thickness.
- B. Adhesives: High strength, quick setting, neoprene based, waterproof, and resistant to gasoline and grease.

2.4 FLANGE CONNECTORS

- A. Manufacturers: Subject to compliance with requirements, available manufacturers offering products that may be incorporated into the Work include, but are not limited to, the following:
 - 1. Ductmate Industries, Inc.
 - 2. Nexus PDQ; Division of Shilco Holdings Inc.
 - 3. Ward Industries, Inc.; a division of Hart & Cooley, Inc.
- B. Description: Add-on or roll-formed, factory-fabricated, slide-on transverse flange connectors, gaskets, and components.
- C. Material: Galvanized steel.
- D. Gage and Shape: Match connecting ductwork.

2.5 DUCT-MOUNTED ACCESS DOORS

- A. Manufacturers: Subject to compliance with requirements, available manufacturers offering products that may be incorporated into the Work include, but are not limited to, the following:
 - 1. American Warming and Ventilating; a division of Mestek, Inc.
 - 2. Cesco Products; a division of Mestek, Inc.
 - 3. Ductmate Industries, Inc.
 - 4. Elgen Manufacturing.
 - 5. Flexmaster U.S.A., Inc.

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6. Greenheck Fan Corporation.
 7. McGill AirFlow LLC.
 8. Nailor Industries Inc.
 9. Pottorff.
 10. Ventfabrics, Inc.
 11. Ward Industries, Inc.; a division of Hart & Cooley, Inc.
- B. Duct-Mounted Access Doors: Fabricate access panels according to SMACNA's "HVAC Duct Construction Standards - Metal and Flexible"; Figures 7-2, "Duct Access Doors and Panels," and 7-3, "Access Doors - Round Duct."
1. Door:
 - a. Double wall, rectangular.
 - b. Galvanized sheet metal with insulation fill and thickness as indicated for duct pressure class.
 - c. Vision panel.
 - d. Hinges and Latches: 1-by-1-inchbutt or piano hinge and cam latches.
 - e. Fabricate doors airtight and suitable for duct pressure class.
 2. Frame: Galvanized sheet steel, with bend-over tabs and foam gaskets.
 3. Number of Hinges and Locks:
 - a. Access Doors Less Than 12 Inches Square: No hinges and two sash locks.
 - b. Access Doors up to 18 Inches Square: Continuous hinges and two sash locks.
 - c. Access Doors up to 24 by 48 Inches: Continuous hinges and two compression latches with outside and inside handles.
 - d. Access Doors Larger Than 24 by 48 Inches: Continuous hinges and two compression latches with outside and inside handles.

PART 3 - EXECUTION

3.1 INSTALLATION

- A. Install duct accessories according to applicable details shown in SMACNA's "HVAC Duct Construction Standards--Metal and Flexible" for metal ducts and NAIMA's "Fibrous Glass Duct Construction Standards" for fibrous-glass ducts.
- B. Provide test holes at fan inlet and outlet and elsewhere as indicated.
- C. Install duct access doors on sides of ducts to allow for inspecting, adjusting, and maintaining accessories and equipment at the following locations:
 1. On both sides of duct electric heater.
 2. Upstream from duct filters.
 3. Downstream from manual volume dampers, control dampers, backdraft dampers, and equipment.
 4. Adjacent to and close enough to fire or smoke dampers, to reset or reinstall fusible links. Access doors for access to fire or smoke dampers having fusible links shall be pressure relief access doors and shall be outward operation for access doors installed upstream from dampers and inward operation for access doors installed downstream from dampers.
 5. At each change in direction and at maximum 50-foot spacing.
 6. Control devices requiring inspection.
 7. Elsewhere as indicated.

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- D. Access Door Sizes:
 - 1. One-Hand or Inspection Access: 8 by 5 inches.
 - 2. Two-Hand Access: 12 by 6 inches.
 - 3. Head and Hand Access: 18 by 10 inches.
 - 4. Head and Shoulders Access: 21 by 14 inches.
 - 5. Body Access: 25 by 14 inches.
 - 6. Body plus Ladder Access: 25 by 17 inches.
- E. Install flexible connectors to connect ducts to equipment.
- F. Label access doors according to Division 23 Section "Mechanical Identification."
- G. Ductwork flexible connectors are not required for internally isolated equipment.

3.2 FIELD QUALITY CONTROL

- A. Tests and Inspections:
 - 1. Inspect locations of access doors and verify that purpose of access door can be performed.

END OF SECTION 233300

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SECTION 23 44 00 – AIR PURIFICATION SYSTEMS

PART 1 - GENERAL

1.1 DESCRIPTION OF WORK

- A. This section describes the design, performance and installation of an air purification system intended for use as part of another manufacturer's air handling unit or mounted on the duct as shown on the plans, details and equipment schedules.

1.2 REFERENCED CODES & STANDARDS

- A. The following codes and standards are referenced throughout. The edition to be used is that currently enforced by the authority having jurisdiction (AHJ) or in absence of such direction that referenced by the current enforceable IBC code or as indicated by the contract documents, except where specifically referenced by this section of the specifications.
 - 1. ASHRAE Standards 62 & 52
 - 2. National Electric Code NFPA 70
 - 3. UL 867 including ozone chamber test required as of December 21, 2007
 - 4. The ionization equipment and power supply shall be UL and CE listed.

1.3 RELATED WORK

- A. Testing, Adjusting and Balancing
- B. Facility Access and Protection
- C. Ductwork
- D. Filters
- E. Water and Refrigerant Piping
- F. Electrical Wiring
- G. Control Wiring

1.4 QUALITY ASSURANCE

- A. Basis of design is Global Plasma Solutions. Plasma Air and American Ion shall be considered equal subject to meeting all specifications herein. All other manufacturers requesting prior

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approval must submit product drawings, specifications and test results specified in section 2.2 at least four weeks prior to bid date.

- B. The Air Purification System shall be a product of an established manufacturer within the USA and shall be made of 100% USA sourced raw materials and components.
- C. A qualified representative from the manufacturer shall be available to inspect the installation of the air purification system to ensure installation in accordance with manufacturer's recommendation.
- D. Technologies that do not address gas disassociation such as UV Lights, Powered Particulate Filters and/or polarized media filters shall not be considered. Uni-polar ion generators shall not be acceptable. "Plasma" particulate filters shall not be acceptable.
- E. Projects designed using ASHRAE Standard 62, IAQ Procedure shall require the manufacturer to provide Indoor Air Quality calculations using the formulas within ASHRAE Standard 62.1-2007 to validate acceptable indoor air quality at the quantity of outside air scheduled with the technology submitted. The manufacturer shall provide independent test data on a previous installation performed within the last two years and in a similar application, that proves compliance to ASHRAE 62 and the accuracy of the calculations
- F. The Air Purification Technology shall have been tested by UL or Intertek/ETL to prove conformance to UL 867-2007 including the ozone chamber testing and peak ozone test for electronic devices. Manufacturers that achieved UL 867 prior to December 21, 2007 and have not been tested in accordance with the newest UL 867 standard with the ozone amendment shall not be acceptable. All manufacturers shall submit their independent UL 867 test data with ozone results to the engineer during the submittal process. All manufacturers shall submit a copy with their quotation. Contractors shall not accept any proposal without the proper ozone testing documentation.
- G. The maximum allowable ozone concentration per the UL 867-2007 chamber test shall be 0.007 PPM. The maximum peak ozone concentration per the UL 867-2007 peak test as measured 2 inches away from the electronic air cleaner's output shall be no more than 0.0042 PPM. Manufacturers with ozone output exceeding these ozone values shall not be acceptable.

1.5 SUBMITTALS

- A. Product Data: Submit manufacturer's technical product data for ion generators including:
 - 1. Schedule of plasma generators indicating unit designation, number of each type required for each unit/application.
 - 2. Data sheet for each type of plasma generator, plasma detector and accessory furnished; indicating construction, sizes, and mounting details.
 - 3. Performance data for each type of plasma device furnished.
 - 4. Indoor Air Quality calculations using the formulas within ASHRAE Standard 62.1-2007 to validate acceptable indoor air quality at the quantity of outside air Scheduled (when projects are designed with outside air reduction).
 - 5. Product drawings detailing all physical, electrical and control requirements.
 - 6. Copy of UL 867 independent ozone test.

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- B. Operating & Maintenance Data: Submit O&M data and recommended spare parts lists.

1.6 PRODUCT DELIVERY, STORAGE AND HANDLING

- A. Deliver in factory fabricated shipping containers. Identify on outside of container type of product and location to be installed. Avoid crushing or bending.
- B. Store in original cartons and protect from weather and construction work traffic.
- C. Store indoors and in accordance with the manufacturers' recommendation for storage.

1.7 WARRANTY

- A. Equipment shall be warranted by the manufacturer against defects in material and workmanship for a period of eighteen months after shipment or twelve months from owner acceptance, whichever occurs first. Labor to replace equipment under warranty shall be provided by the installing contractor.

PART 2 - PRODUCTS

2.1 GENERAL

- A. The air purification system(s) shall be of the size, type, arrangement and capacity indicated and required by the unit furnished and shall be of the manufacturer specified.
- B. Manufacturers:
 - 1. Global Plasma Solutions (basis of design)
 - 2. American Ion
 - 3. Plasma Air
- C. All other Suppliers of comparable products requesting prior approval shall:
 - 1. Submit for prior approval four weeks in advance.
 - 2. In addition, manufacturers submitting for prior approval for Bi-Polar Ionization must as part of the prior approval request provide their ASHRAE 62.1-2007 calculations that prove conformance to the ASHRAE Standard with the reduction of outside air to the scheduled values. A letter on the manufacturer's letterhead requesting prior approval must accompany the request for prior approval stating their calculations are ASHRAE compliant. A third-party validation study performed on a previous installation of the same application shall also be included.
 - 3. Submit independent test data from ETL or UL showing ozone levels produced during the UL 867 ozone chamber test. Manufacturers without this test data shall not be acceptable.
 - 4. Submit pathogen testing per section 2.2.
 - 5. Submit at least two other end user references in the same application with contact phone number, email, equipment used and application for the equipment at that facility.

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Manufacturers not having the above references in similar applications using the same equipment models as proposed on the current project shall not be acceptable.

2.2 BI-POLAR IONIZATION DESIGN & PERFORMANCE CRITERIA

- A. Each piece of air handling equipment, so designated on the plans, details, equipment schedules and/or specifications shall contain a Plasma Generator with Bi-polar Ionization output as described here within.
- B. The Bi-polar Ionization system shall be capable of:
 1. Effectively killing microorganisms downstream of the bi-polar ionization equipment (mold, bacteria, virus, etc.).
 2. Controlling gas phase contaminants generated from human occupants, building structure, furnishings and outside air contaminants.
 3. Capable of reducing static space charges.
 4. Effectively reducing space particle counts.
 5. When mounted to the air entering side of a cooling coil, keep the cooling coil free from pathogen and mold growth.
 6. All manufacturers shall provide documentation by an independent NELEC accredited laboratory that proves the product has minimum kill rates for the following pathogens given the allotted time and in a space condition:
 - a. MRSA - >96% in 30 minutes or less
 - b. E.coli - > 99% in 15 minutes or less
 - c. TB - > 69% in 60 minutes or less
 - d. diff - >86% in 30 minutes or less
 7. Manufacturers not providing the equivalent space kill rates shall not be acceptable. All manufactures requesting prior approval shall provide to the engineer independent test data from a NELEC accredited independent lab confirming kill rates and time meeting the minimum requirements stated in section 2.2 B, points 6A, 6B and 6C. Products tested only on Petri dishes to prove kill rates shall not be acceptable. Products being sold under different trade names than those tested shall not be acceptable.
- C. The bi-polar ionization system shall operate in a manner such that equal amounts of positive and negative ions are produced. Uni-polar ion devices shall not be acceptable.
 1. Air exchange rates may vary through the full operating range of a constant Volume or VAV system. The quantity of air exchange shall not be increased due to requirements of the air purification system.
 2. Velocity Profile: The air purification device shall not have maximum velocity profile.
- D. Humidity: Plasma Generators shall not require preheat protection when the relative humidity of the entering air exceeds 85%. Relative humidity from 0 - 100%, condensing, shall not cause damage, deterioration or dangerous conditions within the air purification system. Air purification system shall be capable of wash down duty.
- E. Equipment Requirements:

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1. Electrode Specifications (Bi-polar Ionization):

- a. Each Plasma Generator with Bi-polar Ionization output shall include the required number of electrodes and power generators sized to the air handling equipment capacity. A minimum of sixteen 316 medical grade stainless steel ion needles per foot of coil face width shall be provided. The entire cooling coil shall width shall have equal distribution of ionization across the face. The plasma electrode shall require no more than one inch in the direction of airflow for mounting. All hardware required for mounting shall be provided by the air handler unit manufacturer. Bi-polar ionization tubes manufactured of glass and steel mesh shall not be acceptable due to replacement requirements, maintenance, and performance output reduction over time, ozone production and corrosion. Plasma generators with recessed needles shall not be acceptable.
- b. Electrodes shall be energized when the main unit disconnect is turned on and the fan is operating.

F. Air Handler Mounted Units:

1. Where so indicated on the plans and/or schedules Plasma Generator(s) shall be supplied and installed. The mechanical contractor shall mount the Plasma Generator and wire it to the remote mount power supply using the high voltage cables provided by the air purification manufacturer. An 115VAC or 230VAC circuit shall be provided to the ion generator power supply panel. Each ion generator shall be designed with an aluminum casing, integral grounding connection and high voltage quick connector.

G. Ionization Requirements:

1. Plasma Generators with Bi-polar ionization output shall be capable of controlling gas phase contaminants and shall be provided for all equipment listed above.
 - a. The Bi-polar ionization system shall consist of Bi-Polar Plasma Generator and power supply. The Bi-polar system shall be installed where indicated on the plans or specified to be installed. The device shall be capable of being powered by 115VAC or 230VAC without the use of an external transformer. Ionization systems requiring isolation transformers shall not be acceptable.
 - b. Ionization Output: The ionization output shall be controlled such that an equal number of positive and negative ions are produced. Imbalanced levels shall not be acceptable.
 - c. Ionization output from each electrode shall be a minimum of 20 million ions/cc when tested at 2" from the ionization generator.
2. Ozone Generation:
 - a. The operation of the electrodes or Bi-polar ionization units shall conform to UL 867-2007 with respect to ozone generation.

H. Electrical Requirements:

1. Wiring, conduit and junction boxes shall be installed within housing plenums in accordance with NEC NFPA 70. Plasma Generator shall accept an electrical service of

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115 VAC or 230VAC, 1 phase, 50/60 Hz. The contractor shall coordinate electrical requirements with air purification manufacturer during submittals.

I. Control Requirements:

1. All Plasma Generators shall have internal short circuit protection, overload protection, and automatic fault reset.
2. The ionization system shall be provided with a stand-alone, independent ion sensor designed for duct mounting to monitor the ion output and report to the BAS system that the ion device is working properly. Ion systems provided without an independent ion sensor, shall not be permitted. The control voltage to power the ion sensor shall be 12VDC, 24VDC or 24VAC and draw no more than 150mA of current. The sensor shall provide at minimum, dry contact status to the BAS and optionally a BACnet interface as specified on the control drawings.
3. The installing contractor shall mount and wire the Plasma device within the air handling unit specified or as shown on the plans. The contractor shall follow all manufacturer IOM instructions during installation.
- 4.

2.2 PLASMA DETECTOR DESIGN & PERFORMANCE CRITERIA

- A. Each piece of air handling equipment, so designated on the plans, details, equipment schedules and/or specifications shall contain a Plasma Detector with integral BAS contacts.
- B. The Plasma Detector sensor shall be designed to these minimum standards:
 1. Ability to detect both positive and negative ion levels from 1,000 ions/cc to 20 million ions/cc minimum. Detection limit shall be field adjustable based on sensor mounting location and manufacturer being sensed.
 2. Plasma detector shall have integral dry alarm contacts for connection to the BAS to prove the ion system is operating properly and the ion system output is above the minimum preset threshold from the sensor manufacturer. The alarm shall activate when either positive or negative ion output drops below the preset setpoint. Cold plasma systems only providing indication the input power is applied or output power is present shall not be acceptable. The independent cold plasma detector shall be capable of working with any air purification manufacturer's system.
 3. Cold plasma detector shall have an input voltage of 24VAC to 260VAC and draw no more than 150mA current.
 4. Cold plasma detector shall be capable of duct mounting or integral air stream mounting.
 5. Housing shall be constructed of fire retardant ABS plastic.
 6. Temperature and humidity shall have no effect on the cold plasma detector output accuracy.
 7. The alarm output shall be provided with NO, NC and C terminals for ease of integration to the BAS. The contacts shall be rated for up to 5 amps at 230VAC or up to 24VDC at 2 amps.
 8. A BACnet control interface shall be provided by the cold plasma detector manufacturer.

PART 3 - EXECUTION

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3.1 GENERAL

- A. The Contractor shall be responsible for maintaining all air systems until the owner accepts the building (Owner Acceptance).

3.2 ASSEMBLY & ERECTION: PLASMA GENERATOR WITH BI-POLAR IONIZATION & COLD PLASMA DETECTOR

- A. All equipment shall be assembled and installed in a workman like manner to the satisfaction of the owner, architect, and engineer.
- B. Any material damaged by handling, water or moisture shall be replaced, by the mechanical contractor, at no cost to the owner.
- C. All equipment shall be protected from dust and damage on a daily basis throughout construction.

3.3 TESTING

- A. Provide the manufacturers recommended electrical tests.

3.4 COMMISSIONING & TRAINING

- A. A manufacturer's authorized representative shall provide start-up supervision and training of owner's personnel in the proper operation and maintenance of all equipment.

END OF SECTION 234400

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SECTION 23 73 13 – MODULAR INDOOR CENTRAL STATION AIR-HANDLING UNITS

PART 1 - GENERAL

1.1 SUMMARY

- A. Section Includes:
1. Variable-air-volume, single-zone air-handling units.

1.2 PERFORMANCE REQUIREMENTS

- A. Structural Performance: Casing panels shall be self-supporting and capable of withstanding 133 percent of internal static pressures indicated, without panel joints exceeding a deflection of $L/200$ where "L" is the unsupported span length within completed casings
- B. Air leakage shall be determined at 1.50 times maximum casing static pressure up to 8 inches w.g. Specified air leakage shall be accomplished without the use of caulk. Total estimated air leakage shall be reported for each unit in CFM, as a percentage of supply air, and as an ASHRAE 111 Leakage Class.
- C. Casing performance - Casing air leakage shall not exceed leak class 6 (CL = 6) per ASHRAE 111 at specified casing pressure, where maximum casing leakage (cfm/100 ft² of casing surface area) = CL X P^{0.65}.
- D. Unit casing (wall/floor/pressure bulkhead roof panels and doors) shall be able to withstand up to 1.5 times design static pressure up to +8" w.g. in all positive pressure sections and -8" w.g. in all negative pressure sections, whichever is less, and shall not exceed 0.0042" per inch of panel span (L/240).
- E. Under 52°F supply air temperature and design conditions on the exterior of the unit of 80°F dry bulb and 71°F wet bulb, condensation shall not form on the casing exterior. The AHU manufacturer shall provide tested casing thermal performance for the scheduled supply air temperature plotted on a psychometric chart. The design condition on the exterior of the unit shall also be plotted on the chart. If tested casing thermal data is not available, AHU manufacturer shall provide, in writing to the Engineer and Owner, a guarantee against condensation forming on the unit exterior at the stated design conditions above. The guarantee shall note that the AHU manufacturer will cover all expenses associated with modifying units in the field should external condensate form on them. In lieu of AHU manufacturer providing a written guarantee, the installing contractor must provide additional external insulation on AHU to prevent condensation.

1.3 ACTION SUBMITTALS

- A. Product Data: For each air-handling unit indicated.
1. Unit dimensions and weight.
 2. Cabinet material, metal thickness, finishes, insulation, and accessories.
 3. Fans:

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- a. Certified fan-performance curves with system operating conditions indicated.
- b. Certified fan-sound power ratings.
- c. Fan construction and accessories.
- d. Motor ratings, electrical characteristics, and motor accessories.
- 4. Certified coil-performance ratings with system operating conditions indicated.
- 5. Dampers, including housings, linkages, and operators.
- 6. Filters with performance characteristics.

1.4 INFORMATIONAL SUBMITTALS

- A. Coordination Drawings: Floor plans and other details, drawn to scale, on which the following items are shown and coordinated with each other, using input from installers of the items involved:
 - 1. Mechanical-room layout and relationships between components and adjacent structural and mechanical elements.
 - 2. Support location, type, and weight.
 - 3. Field measurements.
- B. Field quality-control reports.

1.5 CLOSEOUT SUBMITTALS

- A. Operation and Maintenance Data: For air-handling units to include in emergency, operation, and maintenance manuals.

1.6 MATERIALS MAINTENANCE SUBMITTALS

- A. Furnish extra materials that match products installed and that are packaged with protective covering for storage and identified with labels describing contents.
 - 1. Filters: One set(s) for each air-handling unit.

1.7 QUALITY ASSURANCE

- A. Electrical Components, Devices, and Accessories: Listed and labeled as defined in NFPA 70, by a qualified testing agency, and marked for intended location and application.
- B. NFPA Compliance: Comply with NFPA 90A for design, fabrication, and installation of air-handling units and components.
- C. ARI Certification: Air-handling units and their components shall be factory tested according to ARI 430, "Central-Station Air-Handling Units," and shall be listed and labeled by ARI.
- D. ASHRAE/IESNA 90.1 Compliance: Applicable requirements in ASHRAE/IESNA 90.1, Section 6 - "Heating, Ventilating, and Air-Conditioning."
- E. Comply with NFPA 70.

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1.8 COORDINATION

- A. Coordinate sizes and locations of concrete bases with actual equipment provided.
- B. Coordinate sizes and locations of structural-steel support members, if any, with actual equipment provided.

1.9 WARRANTY

- A. Special Warranty: Provide manufacturer's warranty for the entire unit covering both parts and labor.
 - 1. Warranty period of 5 years from shipment of equipment.

PART 2 - PRODUCTS

2.1 MANUFACTURERS

- A. Manufacturers: Subject to compliance with requirements, provide products by one of the following:
- B.
 - 1. Carrier
 - 2. Trane; American Standard Inc
 - 3. York

2.2 UNIT CASINGS

- A. General Fabrication Requirements for Casings:
 - 1. Forming: Formed and reinforced double-wall insulated panels, fabricated to allow removal for access to internal parts and components, with joints between sections sealed.
 - a. Outside Casing: Galvanized steel, 0.0635 inch (1.61 mm) thick.
 - b. Inside Casing: Stainless steel, 0.0276 inch (0.7 mm). Entire interior shall be stainless steel.
- B. Casing Insulation and Adhesive:
 - 1. Materials: Injectable foam insulation with a minimum R-13 value.
 - 2. Location and Application: Encased between outside and inside casing.
- C. Inspection and Access Panels and Access Doors:
 - 1. Panel and Door Fabrication: Formed and reinforced, double-wall and insulated panels of same materials and thicknesses as casing.
 - 2. Inspection and Access Panels:
 - a. Fasteners: Two or more camlock type for panel lift-out operation. Arrangement shall allow panels to be opened against air-pressure differential.
 - b. Gasket: Neoprene, applied around entire perimeters of panel frames.
 - c. Size: Large enough to allow inspection and maintenance of air-handling unit's internal components.
 - 3. Access Doors:

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- a. Hinges: A minimum of two ball-bearing hinges or stainless-steel piano hinge and two wedge-lever-type latches, operable from inside and outside. Arrange doors to be opened against air-pressure differential.
 - b. Gasket: Neoprene, applied around entire perimeters of panel frames.
 - c. Size: At least 18 inches (450 mm) wide by full height of unit casing up to a maximum height of 60 inches (1500 mm).
- 4. Locations and Applications:
 - a. Fan Section: Inspection and access panels Doors.
 - b. Access Section: Doors.
 - c. Coil Section: Inspection and access panel.
 - d. Damper Section: Doors.
 - e. Filter Section: Doors large enough to allow periodic removal and installation of filters.
 - f. Mixing Section: Doors.
 - g. Humidifier Section: Doors.
- D. Condensate Drain Pans:
 - 1. Fabricated with one percent slope in at least two planes to collect condensate from cooling coils (including coil piping connections, coil headers, and return bends) and from humidifiers and to direct water toward drain connection.
 - a. Depth: A minimum of 2 inches (50 mm) deep.
 - 2. Formed sections.
 - 3. Double-wall, stainless-steel sheet with space between walls filled with foam insulation and moisture-tight seal.
 - 4. Drain Connection: Located at lowest point of pan and sized to prevent overflow. Terminate with threaded nipple on both ends of pan.
 - a. Minimum Connection Size: NPS 1 (DN 25).
 - 5. Pan-Top Surface Coating: Asphaltic waterproofing compound.
 - 6. Units with stacked coils shall have an intermediate drain pan to collect condensate from top coil.
- E. Air-Handling-Unit Mounting Frame: 6" height formed galvanized-steel channel or structural channel supports, designed for low deflection, welded with integral lifting lugs.

2.3 FAN, DRIVE, AND MOTOR SECTION

- A. Fan and Drive Assemblies: Statically and dynamically balanced and designed for continuous operation at maximum-rated fan speed and motor horsepower.
 - 1. Shafts: Designed for continuous operation at maximum-rated fan speed and motor horsepower, and with field-adjustable alignment.
 - a. Turned, ground, and polished hot-rolled steel with keyway. Ship with a protective coating of lubricating oil.
 - b. Designed to operate at no more than 70 percent of first critical speed at top of fan's speed range.
- B. Centrifugal Fan Housings: Formed- and reinforced-steel panels to form curved scroll housings with shaped cutoff and spun-metal inlet bell.
 - 1. Bracing: Steel angle or channel supports for mounting and supporting fan scroll, wheel, motor, and accessories.
 - 2. Horizontal-Flanged, Split Housing: Bolted construction.

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3. Housing for Supply Fan: Attach housing to fan-section casing with metal-edged flexible duct connector.
4. Flexible Connector: Factory fabricated with a fabric strip 3-1/2 inches (89 mm) wide attached to 2 strips of 2-3/4-inch- (70-mm-) wide, 0.028-inch- (0.7-mm-) thick, galvanized-steel sheet or 0.032-inch- (0.8-mm-) thick aluminum sheets; select metal compatible with casing.
 - a. Flexible Connector Fabric: Glass fabric, double coated with neoprene. Fabrics, coatings, and adhesives shall comply with UL 181, Class 1.
 - 1) Fabric Minimum Weight: 26 oz./sq. yd. (880 g/sq. m).
 - 2) Fabric Tensile Strength: 480 lbf/inch (84 N/mm) in the warp and 360 lbf/inch (63 N/mm) in the filling.
 - 3) Fabric Service Temperature: Minus 40 to plus 200 deg F (Minus 40 to plus 93 deg C).
- C. Plenum Fan Housings: Steel frame and panel; fabricated without fan scroll and volute housing.
- D. Backward-Inclined, Centrifugal Fan Wheels: Single-width-single-inlet and double-width-double-inlet construction with curved inlet flange, backplate, backward-inclined blades welded or riveted to flange and backplate; cast-iron or cast-steel hub riveted to backplate and fastened to shaft with set screws.
- E. Forward-Curved, Centrifugal Fan Wheels: Inlet flange, backplate, and shallow blades with inlet and tip curved forward in direction of airflow and mechanically fastened to flange and backplate; cast-steel hub swaged to backplate and fastened to shaft with set screws.
- F. Airfoil, Centrifugal Fan Wheels: Smooth-curved inlet flange, backplate, and hollow die-formed airfoil-shaped blades continuously welded at tip flange and backplate; cast-iron or cast-steel hub riveted to backplate and fastened to shaft with set screws.
- G. Fan Shaft Bearings:
 1. Pre-lubricated and Sealed, Ball Bearings: Self-aligning, pillow-block type with ABMA L-10 life at 80,000 hours.
- H. Drives: Factory mounted direct drive fans.
- I. Internal Vibration Isolation: Fans shall be factory mounted with manufacturer's standard restrained vibration isolation mounting devices having a minimum static deflection of 2 inch.
- J. Motor: Comply with NEMA designation, temperature rating, service factor, enclosure type, and efficiency requirements for motors specified in Division 23 Section "Common Motor Requirements for HVAC Equipment."
 1. Enclosure Type: Open Drip Proof, fan cooled.
 2. NEMA Premium (TM) efficient motors as defined in NEMA MG 1.
 3. Motor Sizes: Minimum size as indicated. If not indicated, large enough so driven load will not require motor to operate in service factor range above 1.0.
 4. Controllers, Electrical Devices, and Wiring: Comply with requirements for electrical devices and connections specified in Division 26 Sections.

2.4 COIL SECTION

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- A. General Requirements for Coil Section:
 - 1. Comply with ARI 410.
 - 2. Fabricate coil section to allow removal and replacement of coil for maintenance and to allow in-place access for service and maintenance of coil(s).
 - 3. Coils shall not act as structural component of unit.
 - 4. Coil casing shall be stainless steel

2.5 DAMPERS

- A. General Requirements for Dampers: Leakage rate, according to AMCA 500, "Laboratory Methods for Testing Dampers for Rating," shall not exceed 2 percent of air quantity at 2000-fpm (10-m/s) face velocity through damper and 4-inch wg (1000-Pa) pressure differential.
- B. Damper Operators: Comply with requirements in Division 23 Section "Instrumentation and Control for HVAC."
- C. Outdoor- and Return-Air Dampers: Low-leakage, double-skin, airfoil-blade, extruded-aluminum dampers with compressible jamb seals and extruded-vinyl blade edge seals in parallel-blade arrangement with cadmium-plated steel operating rods rotating in stainless-steel sleeve, sintered bronze or nylon bearings mounted in a single galvanized-steel frame, and with operating rods connected with a common linkage. Leakage rate shall not exceed 4 cfm/sq. ft. at 1-inch wg (250 Pa) and 9 cfm/sq. ft. (0.4 L/s per sq. m) at 4-inch wg (1.0 MPa).
- D. Combination Filter and Mixing Section:
 - 1. Cabinet support members shall hold 2-inch- (50-mm-) thick, pleated, flat, permanent or throwaway filters.

PART 3 - EXECUTION

3.1 EXAMINATION

- A. Examine areas and conditions, with Installer present, for compliance with requirements for installation tolerances and other conditions affecting performance of the Work.
- B. Examine casing insulation materials and filter media before air-handling unit installation. Reject insulation materials and filter media that are wet, moisture damaged, or mold damaged.
- C. Examine roughing-in for steam, hydronic, and condensate drainage piping systems and electrical services to verify actual locations of connections before installation.
- D. Proceed with installation only after unsatisfactory conditions have been corrected.

3.2 INSTALLATION

- A. Equipment Mounting: Install air-handling units on concrete bases using elastomeric mounts. Secure units to anchor bolts installed in concrete bases. Comply with requirements for concrete bases specified in Division 03 Section "Cast-in-Place Concrete." Comply with requirements for vibration

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isolation devices specified in Division 23 Section "Vibration and Seismic Controls for HVAC Piping and Equipment."

1. Install galvanized-steel plate to equally distribute weight over elastomeric pad.
2. Install anchor bolts to elevations required for proper attachment to supported equipment.

- B. Arrange installation of units to provide minimum 3 feet access space around air-handling units for service and maintenance.
- C. Do not operate fan system until filters (temporary or permanent) are in place. Replace temporary filters used during construction and testing, with new, clean filters.

3.3 CONNECTIONS

- A. Comply with requirements for piping specified in other Division 23 Sections. Drawings indicate general arrangement of piping, fittings, and specialties.
- B. Install piping adjacent to air-handling unit to allow service and maintenance.
- C. Connect piping to air-handling units mounted on vibration isolators with flexible connectors.
- D. Chilled-Water Piping: Comply with applicable requirements in Division 23 Section "Hydronic Piping." Install shutoff valve and union or flange at each coil supply connection. Install balancing valve and union or flange at each coil return connection.
- E. Connect duct to air-handling units with flexible connections. Comply with requirements in Division 23 Section "Air Duct Accessories."

3.4 FIELD QUALITY CONTROL

- A. Manufacturer's Field Service: Engage a factory-authorized service representative to inspect, test, and adjust components, assemblies, and equipment installations, including connections.
- B. Tests and Inspections:
 1. Leak Test: After installation, fill water and steam coils with water, and test coils and connections for leaks.
 2. Fan Operational Test: After electrical circuitry has been energized, start units to confirm proper motor rotation and unit operation.
 3. Test and adjust controls and safeties. Replace damaged and malfunctioning controls and equipment.
- C. Air-handling unit or components will be considered defective if unit or components do not pass tests and inspections.
- D. Prepare test and inspection reports.

3.5 STARTUP SERVICE

- A. Engage a factory-authorized service representative to perform startup service.
 1. Complete installation and startup checks according to manufacturer's written instructions.

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2. Verify that shipping, blocking, and bracing are removed.
3. Verify that unit is secure on mountings and supporting devices and that connections to piping, ducts, and electrical systems are complete. Verify that proper thermal-overload protection is installed in motors, controllers, and switches.
4. Verify proper motor rotation direction, free fan wheel rotation, and smooth bearing operations. Reconnect fan drive system, align belts, and install belt guards.
5. Verify that bearings, pulleys, belts, and other moving parts are lubricated with factory-recommended lubricants.
6. Comb coil fins for parallel orientation.
7. Verify that proper thermal-overload protection is installed for electric coils.
8. Install new, clean filters.
9. Verify that manual and automatic volume control and fire and smoke dampers in connected duct systems are in fully open position.

B. Starting procedures for air-handling units include the following:

1. Energize motor; verify proper operation of motor, drive system, and fan wheel. Adjust fan to indicated rpm. Replace fan and motor pulleys as required to achieve design conditions.
2. Measure and record motor electrical values for voltage and amperage.
3. Manually operate dampers from fully closed to fully open position and record fan performance.

3.6 ADJUSTING

- A. Adjust damper linkages for proper damper operation.
- B. Comply with requirements in Division 23 Section "Testing, Adjusting, and Balancing for HVAC" for air-handling system testing, adjusting, and balancing.

3.7 CLEANING

- A. After completing system installation and testing, adjusting, and balancing air-handling unit and air-distribution systems and after completing startup service, clean air-handling units internally to remove foreign material and construction dirt and dust. Clean fan wheels, cabinets, dampers, coils, and filter housings, and install new, clean filters.

3.8 DEMONSTRATION

- A. Engage a factory-authorized service representative to train Owner's maintenance personnel to adjust, operate, and maintain air-handling units.

END OF SECTION 237313

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SECTION 26 05 00 – COMMON WORK RESULTS FOR ELECTRICAL

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

- A. Section Includes:
 - 1. Electrical equipment coordination and installation.
 - 2. Sleeves for raceways and cables.
 - 3. Sleeve seals.
 - 4. Grout.
 - 5. Common electrical installation requirements.
 - 6. Commissioning requirements.

1.3 DEFINITIONS

- A. EPDM: Ethylene-propylene-diene terpolymer rubber.
- B. NBR: Acrylonitrile-butadiene rubber.

1.4 GENERAL REQUIREMENTS

- A. Carefully examine General Conditions, other specification sections, and other drawings (in addition to DIVISION 26), in order to be fully acquainted with their effect on electrical work. Additions to the contract cost will not be allowed due to failure to inspect existing conditions.
- B. Do all work in compliance with 6th Edition Florida Building Code 2017, and the Codes adopted therein, including NFPA 70 (2014 NEC), 6th Edition Florida Fire Prevention Code and the regulations of the local power utility, cable television and telephone companies. Obtain and pay for any and all required permits, inspections, certificates of inspections and approval, and the like, and deliver such certificates to the Architect/Engineer.
- C. Cooperate and coordinate with all other trades. Perform work in such manner and at such times as not to delay work of other trades. Complete all work as soon as the condition of the structure and installations of equipment will permit. Patch, in a satisfactory manner and by the proper craft, any work damaged by electrical workmen.
- D. Furnish, perform, or otherwise provide all labor (including, but not limited to, all planning, purchasing, transporting, rigging, hoisting, storing, installing, testing, chasing, channeling, cutting, trenching, excavating and backfilling), coordination, field verification, equipment installation, support, and safety, supplies, and materials necessary for the correct installation of

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complete and functional electrical systems (as described or implied by these specifications and the applicable drawings).

- E. Coordinate and verify power and telephone company service requirements prior to bid. Bid to include all work required.
- F. Circuiting and connection of all items using electric power shall be included under this division of the specifications, including necessary wire, conduit, circuit protection, disconnects and accessories. Secure rough-in drawings and connection information for equipment involved to determine the exact requirements. See all divisions of drawings or specifications for electrically operated equipment. If the connection of an item is not shown on the electrical drawings and it is unclear how to provide for the circuiting and connection, notify the engineer of record in writing prior to bidding project. Submission of a bid indicates that the bidder has included these requirements as part of the scope of work.

1.5 DRAWINGS:

- A. Indicate only diagrammatically the extent, general character, and approximate location of work. Where work is indicated, but with minor details omitted, furnish and install it complete and so as to perform its intended functions.
- B. DIVISION 26 work called for under any section of the project specifications, shall be considered as included in this work unless specifically excluded by inclusion in some other branch of the work. This shall include roughing-in for connections and equipment as called for or inferred. Check all drawings and specifications for the project and shall be responsible for the installation of all DIVISION 26 work.
- C. Take finish dimensions at the job site in preference to scale dimensions. Do not scale drawings where specific details and dimensions for DIVISION 26 work are not shown on the drawings, take measurements and make layouts as required for the proper installation of the work and coordination with all drawings and coordination with all other work on the project. In case of any discrepancies between the drawings and the specifications that have not been clarified by addendum prior to bidding, it shall be assumed by the signing of the contract that the higher cost (if any difference in costs) is included in the contract price, and perform the work in accordance with the drawings or with the specifications, as determined and approved by the Architect/ Engineer, and no additional costs shall be allowed to the base contract price.
- D. Carefully check the drawings and specifications of all trades and divisions before installing any of his work. He shall in all cases consider the work of all other trades, and shall coordinate his work with them so that the best arrangements of all equipment, piping, conduit, ducts, rough-in, etc., can be obtained.
- E. Review the specific equipment (such as mechanical, plumbing, kitchen, FFE, etc) minimum circuit ampacity and maximum over current protection requirements of equipment provided by others to confirm it is properly coordinated with the devices being purchased. Notify the AE team immediately upon discovery of discrepancies. This shall be done at the submittal stage prior to purchasing over current protection or installation of conduit, wire, disconnects, breakers, etc. No cost will be allowed for changes to coordinate.

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- F. Provide an external disconnect means for all mechanical equipment, electrical equipment, kitchen equipment and appliances whether shown on drawings or not. Disconnect shall be suitable for the location in which it is intended to be utilized.
- G. Locations designated for outlets, switches, equipment, etc., are approximate and shall be verified by instruction in these specifications and/or notes on the drawings. Where instructions or notes are insufficient to convey the intent of the design, consult the Architect/Engineer prior to installation.
- H. Obtain manufacturer's data on all equipment, the dimensions of which may affect electrical work. Use this data to coordinate proper service characteristics, entry locations, etc., and to ensure minimum clearances are maintained.

1.6 QUALIFICATIONS OF CONTRACTOR:

- A. DIVISION 26 Contractor shall have had experience of at least the same size and scope as this project, on at least two other projects within the last five years in order to be qualified to bid this project.
- B. Contractor performing any part of this scope of work shall be a State Certified (Type E.C. License) electrical contractor
- C. Provide field superintendent who has had a minimum of four (4) years previous successful experience on projects of comparable size and complexity. Superintendent shall be on the site at all times during construction and must have an active Journeyman's Electrical License. There shall be no less than 1 journeyman for every 3 apprentice/laborer (non-Journeyman) on site.

1.7 SITE VISIT/CONDITIONS

- A. Visit the site of this contract and thoroughly familiarize with all existing field conditions and the proposed work as described or implied by the contract documents. During the course of his site visit, verify every aspect of the proposed work and the existing field conditions in the areas of construction which might affect his work. No compensation or reimbursement for additional expenses incurred due to failure or neglect to make a thorough investigation of the contract documents and the existing site conditions will be permitted.
- B. Install all equipment so that all Code required and Manufacturer recommended servicing clearances are maintained. Coordinate the proper arrangement and installation of all equipment within any designated space. If it is determined that a departure from the Contract Documents is necessary, submit to the A/E, for approval, detailed drawings of the proposed changes with written reasons for the changes. No changes shall be implemented without the issuance of the required drawings, clarifications, and/or change orders.
- C. Submission of a proposal will be construed as evidence that such examination has been made and later claims for labor, equipment or materials required because of difficulties encountered will not be recognized.
- D. Existing conditions and utilities indicated are taken from existing construction documents, surveys, and field investigations. Unforeseen conditions probably exist and existing conditions

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shown on drawings may differ from the actual existing installation with the result being that new work may not be field located exactly as shown on the drawings. Field verify dimensions of all site utilities, conduit routing, boxes, etc., prior to bidding and include any deviations in the contract. Notify A/E if deviations are found.

- E. All existing electrical is not shown. Become familiar with all existing conditions prior to bidding, and include in the bid the removal of all electrical equipment, wire, conduit, devices, fixtures, etc. that is not being reused, back to its originating point.
- F. Locate all existing utilities and protect them from damage. Pay for repair or replacement of utilities or other property damaged by operations in conjunction with the completion of this work.
- G. Investigate site thoroughly and reroute all conduit and wiring in area of construction in order to maintain continuity of existing circuitry. Existing conduits indicated in Contract Documents indicate approximate locations. Verify and coordinate existing site conduits and pipes prior to any excavation on site. Bids shall include hand digging and all required rerouting in areas of existing conduits or pipes.
- H. Work is in connection with existing buildings which must remain in operation while work is being performed. Work shall be in accord with the schedule required by the Contract. Schedule work for a minimum outage to Owner. Notify Owner 72 hours in advance of any shut-down of existing systems. Perform work during non-operational hours unless otherwise accepted by Owner. Protect existing buildings and equipment during construction.

1.8 COMMISSIONING RESPONSIBILITIES

- A. Attend commissioning meetings scheduled by the CM.
- B. Schedule work so that required electrical installations are completed, and system verification checks and functional performance test can be carried out on schedule.
- C. Inspect, check and confirm in writing the proper installation and performance of all electrical services as required by the system verification and functional performance testing requirements of electrical equipment in the commissioning specifications.
- D. Provide qualified personnel to assist and operate electrical system during system verification checks and functional performance testing of HVAC systems as required by the commissioning specifications.
- E. Provide instruction and demonstrations for the Owner's designated operating staff in accordance with the requirements of the commissioning specifications.

1.9 TEMPORARY POWER:

- A. Provide temporary power distribution for the connection of all single phase 120V 20A tools, OSHA work lighting, and testing as required for performance of the project. Provide OSHA required work lighting and task lighting for the project.

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- B. Coordinate requirements with the local Utility Company for availability of adequate power. Include all cost associated with any Utility Company charges for connection or upgrades in this bid price.
- C. If power to any of the existing facilities will be interrupted, coordinate the outage with the Owner at least 72 hours in advance. All power outages will occur outside operational hours as determined by the Owner.
- D. Provide temporary power to any buildings, parking lot lighting, canopy lighting, lift stations, etc that will have power removed during the course of construction temporarily. Additionally, if any new buildings, parking lots, lift stations, etc will need power until the permanent power becomes available, provide temporary power until the permanent power is available.
- E. Provide temporary lighting for all areas that will require lighting for Owner's use as well as construction use during the course of construction. Temporary lighting must comply with all FBC requirements as though it was being installed for permanent use. This includes but is not limited to any temporary canopies, parking lots, walkways or roads. If you are unsure of how to connect or provide this lighting, notify the engineer of record in writing prior to bidding project. Submission of a bid indicates that the bidder has included these requirements as part of the scope of work.

PART 2 - PRODUCTS

2.1 NOT USED

PART 3 - EXECUTION

3.1 COMMON REQUIREMENTS FOR ELECTRICAL INSTALLATION

- A. Engineer shall have no responsibility for job site safety and the Contractor shall have full and sole authority for all safety programs and precautions in connection with the Work. Nothing herein shall be interpreted to confer upon the Engineer any duty regarding safety or the prevention of accidents at the jobsite.
- B. Comply with NECA 1.
- C. Measure indicated mounting heights to bottom of unit for suspended items and to center of unit for wall-mounting items.
- D. Headroom Maintenance: If mounting heights or other location criteria are not indicated, arrange and install components and equipment to provide maximum possible headroom consistent with these requirements.
- E. Equipment: Install to facilitate service, maintenance, and repair or replacement of components of both electrical equipment and other nearby installations. Connect in such a way as to facilitate future disconnecting with minimum interference with other items in the vicinity.
- F. Right of Way: Give to piping systems installed at a required slope.

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- G. All work shall be executed in a workmanship manner and shall present a neat mechanical appearance upon completion.
- H. Care shall be exercised that all items are plumb, straight, level.
- I. Care shall be exercised so that Code clearance is allowed for all panels, controls, etc., requiring it. Do not allow other trades to infringe on this clearance.
- J. Balance load as equally as practicable on all feeders, circuits and panel buses.
- K. The electrical circuits, components and controls for all equipment are selected and sized based on the equipment specified. If substitutions are proposed, furnish all materials and data required to prove equivalence. No additional charges shall be allowed if additional materials, labor, connections or equipment are needed for substituted products.

3.2 SLEEVE INSTALLATION FOR ELECTRICAL PENETRATIONS

- A. Electrical penetrations occur when raceways, cables, wireways, cable trays, or busways penetrate concrete slabs, concrete or masonry walls, or fire-rated floor and wall assemblies.
- B. Concrete Slabs and Walls: Install sleeves for penetrations unless core-drilled holes or formed openings are used. Install sleeves during erection of slabs and walls.
- C. Coordinate with roofing scope of work for the installation of electrical items which pierce roof. Roof penetrations shall not void warranty. Pitch pockets are not acceptable.
- D. Where work pierces waterproofing, it shall maintain the integrity of the waterproofing. Coordinate roofing materials which pierce roof for compatibility with membrane or other roof types.
- E. Use pipe sleeves unless penetration arrangement requires rectangular sleeved opening.
- F. Fire-Rated Assemblies: Install sleeves for penetrations of fire-rated floor and wall assemblies unless openings compatible with firestop system used are fabricated during construction of floor or wall.
- G. Cut sleeves to length for mounting flush with both surfaces of walls.
- H. Extend sleeves installed in floors **2 inches** above finished floor level.
- I. Size pipe sleeves to provide **1/4-inch** annular clear space between sleeve and raceway or cable, unless indicated otherwise.
- J. Seal space outside of sleeves with grout for penetrations of concrete and masonry
- K. Interior Penetrations of Non-Fire-Rated Walls and Floors: Seal annular space between sleeve and raceway or cable, using joint sealant appropriate for size, depth, and location of joint. Comply with requirements in Division 07 Section "Joint Sealants."
- L. Fire-Rated-Assembly Penetrations: Firestop penetrations of walls, partitions, ceilings, and floors under Division 07 Section "Firestopping."

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- M. Roof-Penetration Sleeves: Seal penetration of individual raceways and cables with flexible boot-type flashing units applied in coordination with roofing work. The use of pitch pockets is not acceptable.

3.3 CONCRETE PADS

- A. Furnish and install reinforced concrete housekeeping pads for transformers, switchgear, motor control centers, and other free-standing equipment. Unless otherwise noted, pads shall be four (4) inches high and shall exceed dimensions of equipment being set on them, including future sections, by three (3) inches each side, except when equipment is flush against a wall where the side against the wall shall be flush with the equipment.
- B. Provide concrete pad for exterior pad mount transformers as required by power company.
- C. Provide concrete pad for exterior generators as recommended by generator manufacturer and structural engineer (8" minimum).

3.4 DEMOLITION

- A. Unless otherwise specified, all equipment and materials shall remain the property of the Owner. Owner shall have first rights to all demolished items if they decide it is usable. This selected property of Owner shall be delivered to a location where directed by Owner within 15 miles of site and all other items shall be removed from the job site and legally disposed of by the Contractor.
- B. Cut no structural members without written approval from the structural engineer of record and Owner.

3.5 MISCELLANEOUS CIRCUITS REQUIRED

- A. Provide 120 volt, 20 amp circuit to fire protection system panel and bell (whether shown on drawings or not). Connect to spare 20 amp, 1 pole circuit breaker in nearest 120 volt panel. Notify Engineer of Record of required circuit so that final circuit information may be provided to the contractor. Re-label circuit breaker accordingly. Provide locking device on breaker. Coordinate location with civil engineer (and drawings/specifications) or fire protection engineer (and drawings/specifications) prior to bid and provide all electrical. Coordinate final location and electrical requirements with panel installer after bid and provide all electrical. Nearest panel to be nearest emergency panel, when building has emergency generator system.
- B. Provide 120 volt, 20 amp circuit to intercom system panel (whether shown on drawings or not). Connect to spare 20 amp, 1 pole circuit breaker in nearest 120 volt panel. Notify Engineer of Record of required circuit so that final circuit information may be added to the drawings. Re-label circuit breaker accordingly. Provide locking device on breaker. Coordinate location with intercom system engineer (and drawings/specifications) prior to bid and provide all electrical. Coordinate final location and electrical requirements with panel installer after bid and provide all electrical. Nearest panel to be nearest emergency panel, when building has emergency generator system.

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- C. Provide 120-volt, 20-amp circuit to all fire alarm panels, remote panels, etc (whether shown on drawings or not). Connect to spare 20 amp, 1 pole circuit breaker in nearest 120-volt panel. Notify Engineer of Record of required circuit so that final circuit information may be added to the drawings. Re-label circuit breaker accordingly. Provide locking device on breaker. Coordinate location with fire alarm system engineer (and drawings/specifications) prior to bid and provide all electrical. Coordinate final location and electrical requirements with panel installer after bid and provide all electrical. Nearest panel to be nearest emergency panel, when building has emergency generator system.
- D. Provide 120-volt, 20-amp circuit to fire and smoke dampers (whether shown on drawings or not). Connect to spare 20 amp, 1 pole circuit breaker in nearest 120-volt panel. Notify Engineer (whether shown on drawings or not) Provide locking device on breaker. Coordinate location with fire protection engineer (and drawings/specifications) prior to bid and provide all electrical. Coordinate final location and electrical requirements with damper installer after bid and provide all electrical. Nearest panel to be nearest emergency panel, when building has emergency generator system.
- E. Provide 120-volt, 20-amp circuit to building control panels for HVAC system (whether shown on drawings or not). Connect to spare 20 amp, 1 pole circuit breaker in nearest 120-volt panel. Notify Engineer of Record of required circuit so that final circuit information may be added to the drawings. Re-label circuit breaker accordingly. Coordinate location with drawings or specifications prior to bid and provide all electrical.
- F. Provide circuitry for interactive flat panel display system to coordinate the Presentation Stations and flat panel display system to be on the same circuit or circuit phase (whether shown as such on drawings or not). Notify Engineer of Record of required circuit so that final circuit information may be coordinated on the drawings if not indicated correctly. Re-label circuit breakers accordingly.
- G. Provide 120-volt, 20- amp circuits and receptacles for digital message boards in Kitchens. Verify exact locations with Food Nutritional Services (whether shown on drawings or not). Notify Engineer of Record of required circuit so that final circuit information may be added to the drawings. Re-label circuit breakers accordingly.
- H. Provide 120-volt, 20-amp circuit to door hardware power supplies (whether shown on drawings or not). Connect to spare 20 amp, 1 pole circuit breaker in nearest 120-volt panel. Notify Engineer (if not shown on drawings) Coordinate location with door hardware requirements prior to bid and provide all electrical.

END OF SECTION 26 05 00

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SECTION 26 05 01 – INVESTIGATION OF EXISTING ELECTRICAL SYSTEMS

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including Contractual conditions and Division 1 Specification sections apply to this section.

1.2 SUMMARY

- A. This section includes the requirements for investigation and reporting on conditions of existing electrical systems.

1.3 DESCRIPTION

- A. Test the essential features of existing electrical power, lighting and systems.
- B. Each system shall be tested once only, and after completion of testing, results given to the Owner. Point out any non-operational function noticed during testing.
- C. Document the existing conditions and operation of the existing electrical systems prior to any work.
- D. Contractor shall be responsible for all non-working systems and their components unless non-working status is verified prior to work on system.

1.4 COORDINATION

- A. The testing shall be held at a date to be agreed upon in writing by the Owner.

PART 2 - PRODUCTS (not applicable)

PART 3 - EXECUTION

3.1 PERFORMANCE VERIFICATION

- A. The contractor shall investigate all existing systems prior to the beginning any work on site. Test the functionality of each system and report only those items that are non-functional to the Owner.
- B. Demonstrate to the Owner the non-functional items to verify the issue. Owner will at its option correct the deficiency immediately or defer to correct until the construction is completed. Provide a written report to clarify the items and the Owners decisions on correction,

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- C. Each system shall be retested after completion of renovation to ensure proper operation.
- D. At the completion of construction, the Owner will expect all power, lighting and systems to function for their intended purpose whether new or existing. The contractor will remain responsible for this unless noted otherwise during the initial investigation and documented and demonstrated as such.

3.2 MEMO OF INVESTIGATION (TESTING)

- A. Submit Existing Facilities Investigation Memo and advise Owner of all deficiencies in system(s) prior to Work. All systems will be assumed to be fully operational if Memo is not received by Owner prior to work on system.

END OF SECTION 26 05 01

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SECTION 26 05 19 – LOW-VOLTAGE CONDUCTORS AND CABLES

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

- A. This Section includes the following:
 - 1. Building wires and cables rated 600 V and less.
 - 2. Connectors, splices, and terminations rated 600 V and less.
 - 3. Sleeves and sleeve seals for cables.
 - 4. Metal Clad cable, Type MC
- B. Related Sections include the following:
 - 1. Division 27 Section "Data Communications Integration" for cabling used for voice and data circuits.

1.3 DEFINITIONS

- A. EPDM: Ethylene-propylene-diene terpolymer rubber.
- B. NBR: Acrylonitrile-butadiene rubber.

1.4 SUBMITTALS

- A. Product Data: For each type of product indicated. Provide type and UL listing of each type of conductor, cable, connector and termination to be utilized for the DIVISION 26 scope of work.
- B. Field quality-control test reports.

1.5 QUALITY ASSURANCE

- A. Listing and Labeling: Provide wires and cables specified in this Section that are listed and labeled as defined in NFPA 70, Article 100.
- B. Comply with NFPA 70.

1.6 COORDINATION

- A. Coordinate layout and installation of cables with other installations.

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- B. Revise locations and elevations from those indicated, as required to suit field conditions and as approved by Architect.

PART 2 - PRODUCTS

2.1 CONDUCTORS AND CABLES

- A. Manufacturers: Subject to compliance with requirements, provide products by one of the following:
1. Alcan Products Corporation; Alcan Cable Division.
 2. American Insulated Wire Corp.; a Leviton Company.
 3. General Cable Corporation.
 4. Senator Wire & Cable Company.
 5. Southwire Company.
- B. BUILDING WIRES AND CABLES
1. CONDUCTOR INSULATION
 - a. Comply with NEMA WC 70 for Types THHN-THWN
 - b. Service Entrance: Type THHN-THWN CU or XHHW-2 Al, single conductors in raceway.
 - c. Feeders Concealed in Ceilings, Walls, Partitions, and Crawlspace: Type THHN-THWN, single conductors in raceway.
 - d. Feeders Concealed in Concrete, below Slabs-on-Grade, and Underground: Type THHN-THWN, single conductors in raceway.
 - e. Feeders Installed below Raised Flooring: Type THHN-THWN, single conductors in raceway.
 - f. Exposed Branch Circuits, Including in Crawlspace: Type THHN-THWN, single conductors in raceway.
 - g. Branch Circuits Concealed in Ceilings, Walls, and Partitions: Type THHN-THWN, single conductors in raceway or Metal-clad cable, Type MC (MC may only be utilized in certain specific installations as described elsewhere in this section).
 - h. Branch Circuits Concealed in Concrete, below Slabs-on-Grade, and Underground: Type THHN-THWN, single conductors in raceway. Minimum #12.
 - i. Branch Circuits Installed below Raised Flooring: Type THHN-THWN, single conductors in raceway. Minimum #12.
 - j. Cord Drops and Portable Appliance Connections: Type SO, hard service cord with stainless-steel, wire-mesh, strain relief device at terminations to suit application.
 - k. Class 1 Control Circuits: Type THHN-THWN, in raceway.
 - l. Class 2 Control Circuits: Type THHN-THWN, in raceway.
 2. Conductor Material:
 - a. Copper Conductors: Comply with NEMA WC 70.
 - b. All #10 and smaller conductors shall be solid CU. No stranded conductors are permitted for #10 and smaller.
 - c. Aluminum conductors may be used for 1/0 and larger panel board feeders if identified as aluminum on the electrical feeder schedule. Aluminum conductors shall be compact stranded aluminum alloy with XHHW-2 insulation, made of an AA-8000 series electrical grade aluminum alloy conductor material.

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2.2 CONNECTORS AND SPLICES

- A. Manufacturers: Subject to compliance with requirements, provide products by one of the following:
 - 1. AFC Cable Systems, Inc.
 - 2. AMP Incorporated
 - 3. Anderson
 - 4. O-Z/Gedney; EGS Electrical Group LLC.
 - 5. 3M; Electrical Products Division.
 - 6. Burndy
- B. Description: Factory-fabricated connectors and splices of size, ampacity rating, material, type, and class for application and service indicated.
- C. Aluminum connections shall be made with compression type wire barrels factory prefilled with oxide inhibiting compound. Set screw connectors are not acceptable.

2.3 FLEXIBLE METAL CLAD CABLE

- A. Comply with:
 - 1. NFPA 70
 - 2. ANSI/UL 4/UL 83/UL 1479
 - 3. Fed. Specification J-C-30B
- B. Cable material:
 - 1. Jacket material:
 - a. Galvanized Steel or aluminum, interlocked.
 - 2. Conductor covering: Paper wrap.
 - 3. Conductor Material:
 - a. Copper, Solid, THHN
 - b. Minimum #12 gauge
 - c. Maximum #10 gauge
 - d. 90 degree C, 600 volt.
 - e. Full size insulated grounding conductor, green.
 - f. Conductor color coding to match system voltage. Comply with Division 26 Section "Identification".
- C. Fittings:
 - 1. ANSI/NEMA FB 1
 - 2. ANSI/UL 514B
 - 3. Zinc plated Malleable iron, or steel.
 - a. Direct flexible conduit bearing set screw type not acceptable.
 - b. Install insulated bushings or equivalent protection (i.e. Anti-short) between core conductors and outer jacket.

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PART 3 - EXECUTION

3.1 INSTALLATION OF CONDUCTORS AND CABLES IN RACEWAY

- A. No cables shall be installed in raceways until the raceway system is complete from end to end.
- B. Examine raceways and building finishes to confirm compliance with contract requirements for installation tolerances and other conditions affecting installation of wires and cables. Do not proceed with installation until area is ready and any unsatisfactory conditions have been corrected.
- C. Verify that interior of building has been protected from weather.
- D. Use manufacturer-approved pulling compound or lubricant where necessary; compound used must not deteriorate conductor or insulation. Do not exceed manufacturer's recommended maximum pulling tensions and sidewall pressure values.
- E. Use pulling means, including fish tape, cable, rope, and basket-weave wire/cable grips, that will not damage cables or raceway.
- F. Identify and color-code conductors and cables according to Division 26 Section "Identification for Electrical Systems."
- G. All branch circuit wire shall be sized for a maximum voltage drop of 3%. The contractor shall size all cables to comply with this requirement. Below are some guidelines that may be followed to achieve the correct voltage drop in lieu of providing custom calculations for each case.
 - 1. Use conductor not smaller than #12 AWG for all 120V 20A branch circuits less than 60' in length from the source breaker to any device.
 - 2. All 120V branch circuit conductors where the length is 61' to 120' from the source breaker to any device shall utilize #10 minimum throughout the circuit, unless otherwise noted.
 - 3. All 120V branch circuit conductors where the length is 121' to 240' from the source breaker to any device shall utilize # 8 minimum throughout the circuit, unless otherwise noted.
 - 4. All 120V branch circuit conductors where the length is greater than 241' from the source breaker to any device shall utilize # 6 minimum throughout the circuit, unless otherwise noted.
 - 5. Use conductor not smaller than #12 AWG for all 277V 20A branch circuits less than 140' in length from the source breaker to any device.
 - 6. All 277V branch circuit conductors where the length is 141' to 220' from the source breaker to any device shall utilize #10 minimum throughout the circuit, unless otherwise noted.
 - 7. All 277V branch circuit conductors where the length is 221' to 340' from the source breaker to any device shall utilize # 8 minimum throughout the circuit, unless otherwise noted.
 - 8. All 277V 20A branch circuit conductors where the length is greater than 341' from the source breaker to any device shall utilize # 6 minimum throughout the circuit, unless otherwise noted.

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- H. Provide a dedicated neutral conductor for all dimmer circuits from the load back to the dimmer module or switch.
- I. Provide a dedicated neutral conductor for all computer receptacle circuits from the load back to the branch circuit panel board.
- J. Neatly train and lace wiring inside boxes, equipment, and panelboards.
- K. Conductor sizes indicated on circuit homeruns or in schedules shall be installed over the entire length of the circuit unless noted otherwise on the drawings or in these specifications.
- L. Before installing raceways and pulling wire to any mechanical equipment, verify electrical characteristics with final submittal on equipment to assure proper number and AWG of conductors. (As for multiple speed motors, different motor starter arrangements, etc.).
- M. Coordinate all wire sizes with lug sizes on equipment, devices, etc. Provide/install lugs as required to match wire size.

3.2 INSTALLATION REQUIREMENTS FOR METAL CLAD CABLES

- A. Metal Clad Cables may be used only as specified, where permitted by NEC, and if approved by the Local Inspecting Authority having Jurisdiction.
- B. MC Cable shall not be run to the panel board or electrical room. All final runs to the panelboard shall be in conduit to a point at least 10' outside the electrical room. No more than 6 current carrying conductors shall be run in any conduit to a junction box outside the electrical room. No junction box shall contain more than 6 current carrying conductors. Wireways are not permitted for the termination of MC cables.
- C. MC cable shall not be used for any other building system wiring (except power and lighting).
- D. MC cables shall not be used for switch legs.
- E. MC cables shall not be used for feeder circuits or for systems.
- F. Utilize the same sizing requirements for 20A branch circuit conductors as listed for conductors in raceways.
- G. Connectors and supporting components shall be UL Listed for such use. Tie wire is not acceptable for supporting MC cable.
- H. Cut cables with UL listed tools intended for such use. Ream smooth and free of sharp and abrasive areas. Install bushing between conductors and outer jacket. The use of slide cutters or dikes to cut cables is not acceptable.
- I. Maintain minimum 1/2 inch separation between each cable and support per NEC. The practice of bundling cables is not acceptable.
- J. Install cables minimum of 1'-0" from communications cables.
- K. Attachment of cables to ceiling system is prohibited.

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- L. Attachment of cables to, on, or from mechanical (HVAC) equipment, supports, etc., is not permitted.
- M. Install cables parallel and perpendicular to building structure.
- N. Zigzagging cables through building elements, as method of support is not acceptable.
- O. Cable with outer metal sheath damaged by construction elements and/or improper installation shall be replaced at no additional cost to owner.

3.3 CONNECTIONS

- A. Where oversized conductors are called for (due to voltage drop, etc.) provide/install lugs as required to match conductors, or provide/install splice box, and splice to reduce conductor size to match lug size.
- B. Tighten electrical connectors and terminals according to manufacturer's published torque-tightening values. If manufacturer's torque values are not indicated, use those specified in UL 486A and UL 486B.
- C. All aluminum connections shall be made with approved compression connectors before being connected to lugs. Conductors shall be cleaned with a wire brush immediately prior to connecting.
- D. Make splices and taps that are compatible with conductor material and that possess equivalent or better mechanical strength and insulation ratings than unspliced conductors.
- E. Wiring at Outlets: Install conductor at each outlet, with at least 6 inches of slack.
- F. Power and lighting conductors shall be continuous and unspliced where located within conduit. Splices shall occur within troughs, wireways, outlet boxes, or equipment enclosures where sufficient additional room is provided for all splices. No splices shall be made in in-ground pull boxes (without written acceptance of engineer).
- G. Splices in lighting and power outlet boxes, wireway, and troughs shall be kept to a minimum, pull conductors through to equipment, terminal cabinets, and devices.
- H. No splices shall be made in junction box, and outlet boxes (wire No. 8 and larger) without written acceptance of Engineer.
- I. Tighten electrical connectors and terminals according to manufacturer's published torque-tightening values. If manufacturer's torque values are not indicated, use those specified in UL 486A and UL 486B. A calibrated torque wrench shall be used for all bolt tightening.
- J. All interior power and lighting taps and splices in No. 8 or smaller shall be fastened together by means of "spring type" connectors. All taps and splices in wire larger than No. 8 shall be made with compression type connectors and taped to provide insulation equal to wire. Utilize weatherproof connectors for all splices in exterior boxes.

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- K. No splices or wire taps are permitted in electrical equipment such as distribution boards, panelboards, transformers, starters, disconnects, etc. without prior approval from Owner.
- L. No splices are permitted in exterior below grade handhole or pull boxes.

3.4 FIELD QUALITY CONTROL

- A. After feeders are in place, but before being connected to devices and equipment, test for shorts, opens, and for intentional and unintentional grounds.
- B. Cables 600 volts or less in size #1/0 and larger shall be meggered using an industry approved “megger” with 1000 V internal generating voltage. Readings shall be recorded and submitted to the Engineer for acceptance prior to energizing same. If values are less than recommended NETA values notify Engineer. Submit five copies of tabulated megger test values for all cables.
- C. Cables 250 volts or less in size #1/0 and larger shall be meggered using an industry approved “megger” with 500 V internal generating voltage. Readings shall be recorded and submitted to the Engineer, for acceptance prior to energizing same. Submit five copies of tabulated megger test values for all cables.
- D. Perform Insulation resistance test and turns ratio test. Submit five copies to engineer at substantial completion.
- E. Remove and replace malfunctioning units and retest as specified above.

END OF SECTION 26 05 19

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SECTION 26 05 26 – GROUNDING AND BONDING FOR ELECTRICAL SYSTEMS

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

- A. This Section includes methods and materials for grounding systems, equipment and common ground bonding with lightning protection system.

1.3 SUBMITTALS

- A. Product Data: For each type of product indicated.

Retain paragraph and subparagraphs below to require that Contractor provide drawings to locate significant grounding features. Division 01 Sections "Project Record Documents" and "Operation and Maintenance Data" require submittals to be included in those documents for use by maintenance forces throughout the life of the Project.

Coordinate paragraph below with qualification requirements in Division 01 Section "Quality Requirements" and as supplemented in "Quality Assurance" Article.

Retain paragraph below if Contractor is responsible for field quality-control testing.

- B. Field quality-control test reports.

Retain paragraph and subparagraphs below if Section specifies test wells, separately derived systems, or ground ring or other grounding for sensitive electronic equipment.

1.4 QUALITY ASSURANCE

If an independent testing agency is required, see Division 01 Section "Quality Requirements" for general testing and inspecting agency qualification requirements. If additional control is needed, use first paragraph below to specify 29 CFR 1910.7 or other more specific criteria (e.g., NETA). 29 CFR 1910.7 defines a nationally recognized testing laboratory as it applies to testing and inspecting for safety, and it lists, labels, or accepts equipment and materials that meet certain OSHA criteria.

Retain first paragraph and subparagraph below if Contractor selects testing agency.

- A. Comply with UL 467 for grounding and bonding materials and equipment.
- B. Test all ground rod locations as described to confirm quality standard intent is attained.

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PART 2 - PRODUCTS

2.1 CONDUCTORS

Retain first paragraph below to require one of the two preferred conductor materials permitted by NFPA 70; or delete to allow Contractor to select any material that complies with Code. See "Product Characteristics" Article in the Evaluations for discussion on alternative materials.

- A. Insulated Conductors: Copper wire or cable insulated for 600 V unless otherwise required by applicable Code or authorities having jurisdiction.
- B. Bare Copper Conductors:
 - 1. Solid Conductors: ASTM B 3.
 - 2. Stranded Conductors: ASTM B 8.
 - 3. Tinned Conductors: ASTM B 33.

Sizes and types of conductors in four subparagraphs below are typical examples. 28-kcmil bonding cable in first subparagraph below is slightly larger than No. 6 AWG.

- 4. Bonding Cable: 28 kcmil, 14 strands of No. 17 AWG conductor, 1/4 inch in diameter.
- 5. Bonding Conductor: No. 4 or No. 6 AWG, stranded conductor.
- 6. Bonding Jumper: Copper tape, braided conductors, terminated with copper ferrules; 1-5/8 inches wide and 1/16 inch thick.

Retain first paragraph and subparagraphs below if Project includes overhead-line work.

- C. Grounding Bus: Rectangular bars of annealed copper, 1/4 by 4 inches in cross section, unless otherwise indicated; with insulators.

2.2 CONNECTORS

- A. Listed and labeled by a nationally recognized testing laboratory acceptable to authorities having jurisdiction for applications in which used, and for specific types, sizes, and combinations of conductors and other items connected.
- B. Bolted Connectors for Conductors and Pipes: Copper or copper alloy, bolted pressure-type, with at least two bolts.
 - 1. Pipe Connectors: Clamp type, sized for pipe.
- C. Welded Connectors: Exothermic-welding kits of types recommended by kit manufacturer for materials being joined and installation conditions.
- D. Lugs: Compression of substantial construction, cast copper or cast bronze, with "ground" (micro-flat) surfaces, compression type, two-hole tongue, equal to Burndy or equal by T&B or OZ Gedney. Lightweight and "competitive" devices shall be rejected.
- E. Grounding and Bonding Bushings: Malleable iron, Thomas and Betts (T&B), or equal.
- F. Grounding Screw and Pigtail: Raco No. 983 or equal.

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- G. Building Structural Steel, Existing: Thompson 701 Series heavy duty bronze "C" clamp with two-bolt vise-grip cable clamp or equal.

2.3 GROUNDING ELECTRODES

NFPA 70 allows alternative types of grounding electrodes including ground rods, ground rings, metal underground water pipes, metal building frames, Ufer grounds, and pipe and plate electrodes. Retain Part 3 "Applications" and "Installation" articles to specify where these items are required and coordinate with Drawings.

Copper-clad steel ground rods are most common grounding electrode. See Evaluations for discussion on alternative materials. Sectional rods are used when electrodes longer than 10 feet (3 m) are required.

- A. Ground Rods: Copper-clad steel, sectional type; 5/8-inch diameter by 10 feet long.

2.4 GROUNDING WELL COMPONENTS

- A. All Areas:
 1. Well: Minimum 12 inch long by 12 inch wide by 18 inches deep with open bottom.
 2. Well Cover: Traffic rated for use with "GROUND" embossed on cover.
 3. Material: Composolite.
 4. Manufacturer: Quazite.
 5. Increase depth, diameter or size as required to provide proper access at installed location.

2.5 GROUNDING BARS/GROUND BUS (INCLUDING 'SYSTEMS' GROUND BUS/BARS AND GROUND BUS BARS)

- A. Ground bars shall be copper of the size and description as shown on the drawings. If not sized on drawings, bus bar shall be minimum 1/4" x 4" bus grade copper, spaced from wall on insulating 2" polyester molded insulator standoff/supports, and be 12" or greater minimum overall length, allowing 2" length per lug connected thereto. Increase overall length as required to facilitate all lugs required while maintaining 2" spacing. Size of bus bar used in main electrical room shall be similar except minimum of 4" high and 24" long.
- B. Provide bolt-tapping lug with two hex head mounting bolts for each terminating ground conductor, sized to match conductors. Mount on bus bar at 2 inches on center spacing. Lugs to be manufactured by Burndy or T&B.
- C. Standoff supports to be 2" polyester as manufactured by Glastic #2015-4C.

Retain paragraph and subparagraphs below if allowed by authorities having jurisdiction to enhance grounding performance. See Evaluations.

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PART 3 - EXECUTION

3.1 GROUNDING ELECTRODES

- A. All connections shall be exothermic welded unless otherwise noted herein. All connections above grade and in accessible locations may be by exothermic welding or by braising or clamping with devices UL listed as suitable for use except in locations where exothermic welding is specifically specified in these specifications or called for on drawings.
- B. Each rod shall be die stamped with identification of manufacturer and rod length.
- C. Install rod electrodes at locations indicated and/or as called for in these specifications.
- D. Ground Resistance:
 - 1. Main Electrical Service (to each building) and Generator Locations:
 - a. Grounding resistance measured at each main service electrode system and at each generator electrode system shall not exceed 5 ohms.
 - 2. Other Locations:
 - a. Resistance to ground of all non-current carrying metal parts shall not exceed 5 ohms measured at motors, panels, busses, cabinets, equipment racks, light poles, transformers, and other equipment.
 - 3. Lightning Protection system ground locations shall not exceed 5 ohms for the Franklin system measured at ground electrode.
 - 4. Resistance called for above shall be maximum resistance of each ground electrode prior to connection to grounding electrode conductor. Where ground electrode system being measured consists of two (2) or more ground rod electrodes then the resistance specified above shall be the maximum resistance with two (2) or more rods connected together but not connected to the grounding electrode conductor.
- E. Install additional rod electrodes as required to achieve specified resistance to ground (specified ground resistance is for each ground rod location prior to connection to ground electrode conductor). Depending on soil condition, etc. of ground rod locations it has been found that the ground rod lengths required to achieve the specified resistance may range from the minimum specified length to up to 80 feet or more in length.
- F. Verify that final backfill and compaction has been completed before driving rod electrodes.
- G. Install ground rods not less than 1 foot below grade level and not less than 2 feet from structure foundation.

3.2 EQUIPMENT GROUNDING CONDUCTOR

- A. Provide separate, insulated conductor within each feeder and branch circuit raceway. Terminate each end on suitable lug, bus, or bushing.
- B. Provide green insulated ground wire for all grounding type receptacles and for equipment of all voltages. In addition to grounding strap connection to metallic outlet boxes, a supplemental grounding wire and screw equal to Raco No. 983 shall be provided to connect receptacle ground terminal to the box.

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- C. All plug strips and metallic surface raceway shall contain a green insulation ground conductor from supply panel ground bus connected to grounding screw on each receptacle in strip and to strip channel. Conductor shall be continuous.
- D. All motors, all heating coil assemblies, and all building equipment requiring flexible connections shall have a green grounding conductor properly connected to the frames and extending continuously inside conduit with circuit conductors to the supply source bus with accepted connectors regardless of conduit size or type. This shall include food service equipment, laundry equipment, and all other "Equipment By Owner" to which an electric conduit is provided under this Division.

3.3 MAIN ELECTRICAL SERVICE

- A. Existing Buildings:
 - 1. Verify that each building's electrical service is properly grounded as required by the NEC.
 - 2. Provide and install electrical service grounding at each building as called for herein for all existing services that do not comply with the grounding specified above.
 - 3. Supplement existing electrical service grounding at each building as required to comply with all requirements in these specifications.
 - 4. If exterior ground rod electrode does not exist at each building's main electrical service, provide and install these ground rods as called for main electrical service, exterior of building. Connect all counterpoise conductors required elsewhere thereto.
- B. Ground electrodes shall be provided for the main service in sufficient number and configuration to secure resistance specified.
- C. Bond to all of the following when available on site:
 - 1. Ground Rods
 - 2. Metal Water Pipe (Interior and Exterior to Building)
 - 3. Building Metal Frame, Structural Steel and/or Reinforced Structural Concrete
 - 4. All Piping Entering or Leaving All Buildings (Including Chilled Water Piping)
 - 5. Encasing Electrodes
 - 6. Ground Ring
 - 7. Site Distribution Counterpoise Ground System
 - 8. Lightning Protection System
- D. A main ground, bare copper conductor, sized per applicable table in NEC, but in no case less than #2/0, shall be run in conduit from the main switchgear of each building to the building steel in respective building. This ground conductor shall also be run individually from the main switchgear and be bonded to the main water service ahead of any union in pipe and must be metal pipe of length as acceptable by authorities having jurisdiction. Provide properly sized bonding shunt around water meter and/or dielectric unions in the water pipe. Also required is the same size ground wire to ground rod electrode as called for below:
 - 1. Three 30 ft. ground rods in a delta configuration at no less than 30 ft. spacing driven to a minimum depth of 30 ft. plus 1 below grade.
 - 2. Bond ground rod electrodes together with a bare copper ground conductor that matches size required by applicable table in NEC 250, but in no case less than #2/0.
 - 3. Provide additional rod electrodes as required to achieve specified ground resistance.

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- E. Ground/bond neutral per NEC.
- F. Bond grounding electrodes to site counterpoise grounding system and lightning protection system where provided.
- G. Provide and install ground bus bar on wall near main service disconnect/switchboard. Connect to ground bar in disconnect/switchboard bonded to switchboard/disconnect enclosure/neutral with copper grounding conductor sized per applicable table in NEC.

3.4 TRANSFORMER GROUNDING

- A. Ground all transformers and enclosures of 120/208V and 277/480V "separately derived systems" as specified herein.
 - 1. Ground per NEC 250 and these specifications.
 - 2. Bond neutral to transformer frame/enclosure and the equipment grounding conductors of the derived system with copper ground conductor sized per applicable table in NEC.
 - 3. Connect transformer neutral/ground to grounding electrode per NEC with grounding electrode conductor sized per applicable table in NEC.
 - 4. In addition to connection to grounding electrode conductor called for above (i.e. per NEC) provide, install and connect supplemental grounding electrode as follows:
 - a. Where grounding required per NEC is to building steel/structure, supplement this grounding with connection to nearest available effectively grounded metal water pipe.
 - b. Where grounding connection required per NEC is to grounded metal water pipe, supplement this grounding with connection to other electrodes specified in NEC.
 - c. Where supplemental grounding electrodes required above is a ground rod electrode, provide, install and connect two or more 30 ft. ground rod electrodes at no less than 30 ft. spacing, driven vertical to a minimum depth of 30 ft. plus 1 below grade.
 - 5. Where neither building steel nor water pipe grounding electrodes are available (i.e. exterior locations with no available water pipe electrode) provide two (2) ground connections: each to two (2) or more 30 ft. ground rod electrodes at no less than 30 ft. spacing, driven vertical to a minimum depth of 30 ft. plus 1 below grade.
 - 6. Where transformer is mounted exterior to building one (1) of the two (2) ground electrodes required shall be ground rod electrode as called for in 5. above. This ground rod electrode shall also be connected to counterpoise system (wherever counterpoise system is available).
 - 7. Ground to water system service pipe as required by NEC.
- B. Provide additional ground electrodes as required to achieve specified ground resistance.
- C. Where two or more ground electrodes are used at any one required ground location, they shall be bonded together with a copper ground conductor, sized to meet applicable table in NEC, but in no case less than #2/0.
- D. Provide and install ground bus bar on wall near transformer (or in associated electrical room for exterior mounted transformers). Connect to ground lug in transformer bonded to transformer enclosure/neutral with copper ground conductor sized per applicable table in NEC.

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3.5 GENERATOR GROUNDING

- A. Separately derived systems (i.e. systems where generator neutral is not solidly interconnected to service supplied system neutral such as 4 pole switched neutral transfer switch systems).
 1. Ground per NEC and these specifications.
 2. Bond neutral to transformer frame/enclosure and the equipment grounding conductors of the derived system with copper ground conductor sized per applicable table in NEC.
 3. Connect generator neutral/ground to grounding electrodes per NEC with grounding electrode conductor sized per applicable table in NEC.
 4. In addition to connection to grounding electrode conductor called for above (i.e. per NEC) provide, install and connect supplemental grounding electrode as follows:
 - a. Where grounding required per NEC is to building steel/structure, supplement this grounding with connection to nearest available effectively grounded metal water pipe.
 - b. Where grounding connection required per NEC is to grounded metal water pipe, supplement this grounding with connection with connection to other electrodes specified in NEC.
 - c. Where supplemental grounding electrodes required above is a ground rod electrode, provide, install and connect two or mote 30 ft. ground rod electrodes at no less than 30 ft. spacing, driven vertical to a minimum depth of 30 ft. plus 1 below grade.
 5. Where neither building steel nor water pipe grounding electrodes are available (i.e. exterior locations with no available water pipe electrode) provide two (2) ground connections: each to two (2) or more 30 ft. ground rod electrodes at no less than 30 ft. spacing, driven vertical to a minimum depth of 30 ft. plus 1 below grade.
 6. Where generator is mounted exterior to building one (1) of the two (2) ground electrodes required shall be ground rod electrode as called for in 5. above. This ground rod electrode shall also be connected to counterpoise system.
- B. Non separately derived systems (i.e. systems where generator neutral is solidly interconnected to service supplied system neutral such as 3 pole non-switched neutral transfer switch systems).
 1. Do not bond neutral to transformer frame/enclosure or the equipment grounding conductors of the derived system.
 2. Connect generator frame/enclosures ground to grounding electrode per NEC with grounding electrode conductor sized per applicable table in NEC.
 3. In addition to connection to grounding electrode conductor called for above (i.e. per NEC) provide, install and connect supplemental grounding electrode as follows:
 - a. Where grounding required per NEC is to building steel/structure, supplement this grounding with connection to nearest available effectively grounded metal water pipe.
 - b. Where grounding connection required per NEC is to grounded metal water pipe, supplement this grounding with connection to other electrodes specified in NEC.
 - c. Where supplemental grounding electrodes required above is a ground rod electrode, provide, install and connect two or more 30 ft. ground rod electrodes at no less than 30 ft. spacing, driven vertical to a minimum depth of 30 ft. plus 1 below grade.
 4. Where neither building steel nor water pipe grounding electrodes are available (i.e. exterior locations with no available water pipe electrode) provide two (2) ground connections: each to two (2) or more 30 ft. ground rod electrodes at no less than 30 ft. spacing, driven vertical to a minimum depth of 30 ft. plus 1 below grade.

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5. Where generator is mounted exterior to building one (1) of the two (2) ground electrodes required shall be ground rod electrode as called for in 5. above. This ground rod electrode shall also be connected to counterpoise system.
- C. Provide additional ground electrodes as required to achieve specified ground resistance.
- D. Where two or more ground electrodes are used at any one required ground location, they shall be bonded together with a copper ground conductor, sized to meet applicable table in NEC, but in no case less than #2/0.

3.6 LIGHTNING PROTECTION SYSTEMS

- A. Ground per applicable section on lightning protection system, NFPA 780, and as specified herein. The most stringent requirements shall govern.
- B. Bond lightning protection system grounds to electrical service system ground, all piping entering or leaving all buildings, and counterpoise system ground where provided.
- C. Lightning protection ground rods shall be 20' in length and should not be driven deeper. If additional rods are required to achieve the required resistance to ground, they should be added in parallel with the first at one rod length separation.

3.7 EXTERIOR GRADE (OR FREE-STANDING ABOVE GROUND) MOUNTED EQUIPMENT

- A. General:
 1. All equipment (including chillers, pumps, disconnects, starters, control panels, panels, etc) mounted exterior to building shall have their enclosures grounded directly to a grounding electrode at the equipment location in addition to the building equipment ground connection.
 2. Bond each equipment enclosure, metal rack support, mounting channels, etc. to ground electrode system at each rack with an insulated copper ground conductor sized to match the grounding electrode conductor required by applicable table in NEC based on equipment feeder size, but in no case shall conductor be smaller than #6 copper or larger than #2 copper. This connection is in addition to grounding electrode connections required for services.
- B. Main electrical service rack mounted equipment.
 1. Ground per "MAIN ELECTRICAL SERVICE".
 2. Bond all metal parts as noted above.
- C. Electrical sub service rack mounted equipment.
 1. Ground per "MAIN ELECTRICAL SERVICE", except do not bond neutral to ground.
 2. Bond all metal parts as noted above.
- D. Electrical equipment connection rack mounted equipment.
 1. Bond all metal parts as noted above.
- E. Grounding electrodes (ground electrodes system) shall be:
 1. Located at each rack location.

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2. For service equipment: Ground electrode required per "MAIN ELECTRICAL SERVICE".
3. For equipment connection equipment: Two or more 30 ft. ground rods at no less than 30 ft. spacing, driven vertical to a minimum depth of 1 ft below grade. Bond the two or more ground rods together with a size to meet applicable table in NEC, but no less than a #2 copper ground conductor. Provide additional rod electrodes as required to achieve specified ground resistance.

3.8 LIGHTING FIXTURES

- A. All new and removed/reinstalled fixtures in building interior, and exterior fixtures shall be provided with green grounding conductor, solidly connected to unit. Individual fixture grounds shall be with lug to fixture body, generally located at point of electrical connection to the fixture unit.
- B. All suspended fixtures and those supplied through flexible metallic conduit shall have green ground conductor from outlet box to fixture. Cord connected fixtures shall contain a separate green ground conductor.
- C. Pole Light Fixtures:
 1. Metal Pole Light Fixtures:
 - a. Freestanding pole mounted lighting fixtures shall each have a Class I or Class II lightning protection main copper down conductor connected to grounding electrodes at base of pole.
 - b. Conductor shall be bonded to metal pole via UL Listed ground clamp suitable for use. Locate ground lug opposite to handhole (or adjacent if visible through handhole).
 2. Concrete or Non-Metallic Pole:
 - a. Freestanding pole mounted lighting fixtures shall each have a Class I or Class II lightning protection main copper down conductor connected to grounding electrodes at base of pole.
 - b. Conductor shall be extended from grounding electrode to top of pole and terminate at the top of pole in a Class I or Class II copper lightning protection air terminal.
 - c. Each metal part of light fixture assembly, bracket, ballast cabinet, disconnect, transformer, etc. that is mounted to pole shall be bonded to down conductor.
 3. Fixtures located on elevated roadway ramps shall be specially provided with a connection to lightning counterpoise grounding system, properly installed.
 4. Grounding electrode(s) at each pole shall be connected (bonded) to site distribution counterpoise system.
 5. Grounding Electrodes:
 - a. Two or more 10 ft. ground rods at no less than 10 ft. spacing shall be driven vertically to a minimum depth of 10 ft. plus 1 below grade.
 - b. Bond the two or more ground rod electrodes together with a Class I or Class II lightning protection main copper conductor.
 - c. Provide additional rod electrodes as required to achieve specified ground resistance.
 - d. The two (2) or more grounding rod electrodes shall be installed at each light pole.
 6. Installation shall exceed minimum requirements of NFPA 780.

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3.9 PULLBOX, MANHOLE, HANDHOLE GROUNDING.

- A. One 30 ft. ground rod electrode shall be driven vertically to a minimum depth of 30 ft. plus 1 ft. below grade in each manhole, handhole or pullbox (in ground).
- B. Bond to counterpoise system (whenever counterpoise system is provided.)
- C. Bond grounding electrode to all exposed metal parts of manhole, handhole, and pullbox (including metal cover) with #6 copper ground conductor. Connect to ground rod electrode with exothermic weld. Connect to metal cover with exothermic weld. Connect to other metal parts with exothermic weld or UL accepted grounding clamp. Provide 3 ft. or more slack ground cable on cover connection as required to facilitate removal of cover.

3.10 GROUND RING

- A. Provide complete underground building perimeter ground ring system, completely encircling each building.
- B. Conductor shall be minimum of Class II lightning protection copper conductor (bare).
- C. Install at not less than 2-1/2 feet depth into earth.
- D. Install ground rods 20 ft. long every 150 feet section of ground ring conductor.
- E. Bond ground ring to building steel every 150 feet of building perimeter, bond to any and all electrical and piping systems that cross the ground ring system, bond to lightning protection down conductors and to any lightning or other earth grounding electrodes that may be present on the premises.
- F. Bond to building service and counterpoise ground systems.

3.11 MISCELLANEOUS GROUNDING CONNECTIONS

- A. Provide bonding to meet regulatory requirements.
- B. Required connections to building steel shall be with UL accepted non-reversible crimp type ground lugs exothermically welded to bus bar that is either exothermically welded to steel or bolted to steel in locations where weld will not affect the structural properties of the steel. Required connections to existing building structural steel purlins/I beams shall be with heavy duty bronze "C" clamp with two bolt vise-grip cable clamp.
- C. Grounding conductors shall: be so installed as to permit shortest and most direct path from equipment to ground; be installed in conduit; be bonded to conduit at both ends when conduit is metal; have connections accessible for inspection; and made with accepted solderless connectors brazed (or bolted) to the equipment or to be grounded; in NO case be a current carrying conductor; have a green jacket unless it is bare copper; be run in conduit with power and branch circuit conductors. The main grounding electrode conductor shall be exothermically welded to ground rods, water pipe, and building steel.

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- D. All surfaces to which grounding connections are made shall be thoroughly cleaned to maximum conductive condition immediately before connections are made thereto. Metal rustproofing shall be removed at grounding contact surfaces, for 0 ohms by digital Vm. Exposed bare metal at the termination point shall be painted.
 - E. All ground connections that are buried or in otherwise inaccessible locations, shall be welded exothermically. The weld shall provide a connection which shall not corrode or loosen and which shall be equal or larger in size than the conductors joined together. The connection shall have the same current carrying capacity as the largest conductor.
 - F. Install ground bushings on all metal conduits entering enclosures where the continuity of grounding is broken between the conduit and enclosure (i.e. metal conduit stub-up into a motor control center enclosure or at ground bus bar). Provide an appropriately sized bond jumper from the ground bushing to the respective equipment ground bus or ground bus bar.
 - G. Install ground bushings on all metal conduits where the continuity of grounding is broken between the conduit and the electrical distribution system (i.e. metal conduit stub-up from wall outlet box to ceiling space. Provide an appropriately sized bond jumper from the ground bushing to the respective equipment ground bus or ground bus bar.
 - H. Each feeder metallic conduit shall be bonded at all discontinuities, including at switchboards and all sub-distribution and branch circuit panels with conductors in accordance with applicable table in NEC 250 for parallel return with respective interior grounding conductor.
 - I. Grounding provisions shall include double locknuts on all heavy-wall conduits.
 - J. Bond all metal parts of pole light fixtures to ground rod at base.
 - K. Install grounding bus in all existing panelboards of remodeled areas, for connection of new grounding conductors, connected to an accepted ground point.
 - L. Bond together reinforcing steel and metal accessories in pool and fountain structures.
 - M. Where reinforced concrete is utilized for building grounding system, proper reinforced bonding shall be provided to secure low resistance to earth with "thermite" type devices, and #10AWG wire ties shall be provided to not less than ten (10) full length rebars which contact the connected rebar .
- 3.12 GROUNDING BAR/GROUND BUS (INCLUDING 'SYSTEMS' GROUND BUS/BAR ON GROUND BUS/BAR) INSTALLATION
- A. Where indicated on the drawings, provide and install grounding bar/ground bus (bus bar). These bus installations are intended to provide a low-impedance "earthing" path for surge voltages, which are electrically "clamped" and shunted to earth by variable-impedance surge protective devices. Metal sheaths of underground cables are also to be grounded thereto at points of building entrance.
 - B. Mount bolt tapping lugs with hex head bolts to bus bar at 2" o.c. spacing, one for each ground conductor.

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- C. Mount bus bar to wall using 2" polyester molded insulator stand-off.
- D. Extend a #2/0 (minimum size) or larger THWN insulated copper ground conductor (if larger size is called for on drawings or required by N.E.C. for service ground, etc.) in PVC conduit to accepted service ground installation or ground bus/bar in main service equipment enclosure.
- E. Extend #6 insulated copper ground wire from respective bus/bar to each 'local' ground bus/bar in each cabinet for Section 27 systems.
- F. 'SYSTEMS' grounding bus/bar must be connected with #2/0 insulated copper conductor to grounding electrodes system as defined in NEC "Article 800.

3.13 COMMUNICATIONS SYSTEMS

- A. Provide and install all grounding as required by NEC Article 800 and where available on project: Articles 810 (Radio and Television Equipment); 820 (Community Antenna Television and Radio Distribution Systems); and 830 (Network-Powered Broadband Communications Systems).
- B. Provide and install grounding electrode at point of entry of communication cables and bond to service entrance grounding electrodes per NEC 800. Install ground bus bar at point of entry of communications cable and connect electrode to ground bus. Connect communications cable metal sheath and surge protection devices to ground bar.

3.14 TESTING AND REPORTS

- A. Ground resistance measurements shall be made on each system utilized in the project. The ground resistance measurements shall include building structural steel, driven grounding system, water pipe grounding system and other accepted systems as may be applicable. Ground resistance measurements shall be made in normally dry weather, not less than 24 hours after rainfall, and with the ground under test isolated from other grounds and equipment. Resistances measured shall not exceed specified limits.
- B. Test existing building ground electrode system to confirm compliance with these specifications (5 ohm to ground). Notify the engineer in writing if the existing ground electrode does not comply with the requirements.
- C. Upon completion of testing, the testing conditions and results shall be certified and submitted to the Architect/Engineer.

END OF SECTION 260526

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SECTION 26 05 29 – HANGERS AND SUPPORTS

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

- A. This Section includes the following:
 - 1. Hangers and supports for electrical equipment and systems.
 - 2. Construction requirements for concrete bases.

1.3 DEFINITIONS

- A. EMT: Electrical metallic tubing.
- B. IMC: Intermediate metal conduit.
- C. RMC: Rigid metal conduit.

1.4 PERFORMANCE REQUIREMENTS

- A. Design supports for multiple raceways capable of supporting combined weight of supported systems and its contents.
- B. Design equipment supports capable of supporting combined operating weight of supported equipment and connected systems and components.
- C. Rated Strength: Adequate in tension, shear, and pullout force to resist maximum loads calculated or imposed for this Project, with a minimum structural safety factor of five times the applied force.
- D. Furnish products listed and classified by Underwriters Laboratories, Inc. as suitable for purpose specified and shown.

1.5 SUBMITTALS

- A. Product Data: For the following:
 - 1. Unistrut
 - 2. Straps
 - 3. Clamps
 - 4. Rods

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5. Hangers
6. Anchors
7. Attachment Devices

- B. Shop Drawings: Show fabrication and installation details and include calculations for the following:
1. Trapeze hangers. Include Product Data for components.
 2. Steel slotted channel systems. Include Product Data for components.
 3. Nonmetallic slotted channel systems. Include Product Data for components.
 4. Equipment supports.

1.6 QUALITY ASSURANCE

- A. Comply with NFPA 70.

1.7 COORDINATION

- A. Coordinate size and location of concrete bases. Cast anchor-bolt inserts into bases. Concrete, reinforcement, and formwork requirements are specified in Division 03.
- B. Coordinate installation of roof curbs, equipment supports, and roof penetrations. These items are specified in Division 07 Section "Roof Accessories."

PART 2 - PRODUCTS

2.1 SUPPORT, ANCHORAGE, AND ATTACHMENT COMPONENTS

- A. Steel Slotted Support Systems: Comply with MFMA-4, factory-fabricated components for field assembly.
1. Manufacturers: Subject to compliance with requirements, provide products by one of the following:
 - a. Cooper B-Line, Inc.; a division of Cooper Industries.
 - b. ERICO International Corporation.
 - c. Thomas & Betts Corporation.
 - d. Unistrut; Tyco International, Ltd.
 - e. Wesanco, Inc.
 2. Metallic Coatings: Exterior of the building utilize stainless steel or hot-dip galvanized after fabrication and applied according to MFMA-4. Interior utilize electro-galvanized steel products.
 3. Nonmetallic Coatings: Manufacturer's standard PVC, polyurethane, or polyester coating applied according to MFMA-4.
 4. Channel Dimensions: Selected for applicable load criteria.
- B. Nonmetallic Slotted Support Systems: Structural-grade, factory-formed, glass-fiber-resin channels and angles with 9/16-inch diameter holes at a maximum of 8 inches o.c., in at least 1 surface.

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1. Available Manufacturers: Subject to compliance with requirements, manufacturers offering products that may be incorporated into the Work include, but are not limited to, the following:
 - a. Cooper B-Line, Inc.; a division of Cooper Industries.
 - b. Fabco Plastics Wholesale Limited.
 - c. T & B/Carlon
 - d. Seasafe, Inc.
 2. Fittings and Accessories: Products of channel and angle manufacturer and designed for use with those items.
 3. Fitting and Accessory Materials: Same as channels and angles, except metal items may be stainless steel.
 4. Rated Strength: Selected to suit applicable load criteria.
- C. Raceway and Cable Supports: As described in NECA 1 and NECA 101.
- D. Conduit and Cable Support Devices: Steel and malleable-iron hangers, clamps, and associated fittings, designed for types and sizes of raceway or cable to be supported.
- E. Support for Conductors in Vertical Conduit: Factory-fabricated assembly consisting of threaded body and insulating wedging plug or plugs for non-armored electrical conductors or cables in riser conduits. Plugs shall have number, size, and shape of conductor gripping pieces as required to suit individual conductors or cables supported. Body shall be malleable iron.
- F. Structural Steel for Fabricated Supports and Restraints: ASTM A 36/A 36M, steel plates, shapes, and bars; black and galvanized.
- G. Mounting, Anchoring, and Attachment Components: Items for fastening electrical items or their supports to building surfaces include the following:
1. Powder-Actuated Fasteners: Threaded-steel stud, for use in hardened portland cement concrete, steel, or wood, with tension, shear, and pullout capacities appropriate for supported loads and building materials where used.
 - a. Available Manufacturers: Subject to compliance with requirements, manufacturers offering products that may be incorporated into the Work include, but are not limited to, the following:
 - 1) Hilti Inc.
 - 2) ITW Ramset/Red Head; a division of Illinois Tool Works, Inc.
 - 3) MKT Fastening, LLC.
 - 4) Simpson Strong-Tie Co., Inc.; Masterset Fastening Systems Unit.
 2. Mechanical-Expansion Anchors: Insert-wedge-type, zinc-coated steel, for use in hardened portland cement concrete with tension, shear, and pullout capacities appropriate for supported loads and building materials in which used.
 - a. Available Manufacturers: Subject to compliance with requirements, manufacturers offering products that may be incorporated into the Work include, but are not limited to, the following:
 - 1) Cooper B-Line, Inc.; a division of Cooper Industries.
 - 2) Empire Tool and Manufacturing Co., Inc.
 - 3) Hilti Inc.
 - 4) ITW Ramset/Red Head; a division of Illinois Tool Works, Inc.
 - 5) MKT Fastening, LLC.
 3. Concrete Inserts: Steel or malleable-iron, slotted support system units similar to MSS Type 18; complying with MFMA-4 or MSS SP-58.

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4. Clamps for Attachment to Steel Structural Elements: MSS SP-58, type suitable for attached structural element.
5. Through Bolts: Structural type, hex head, and high strength. Comply with ASTM A 325.
6. Toggle Bolts: All-steel springhead type.
7. Hanger Rods: Threaded steel.

2.2 FABRICATED METAL EQUIPMENT SUPPORT ASSEMBLIES

- A. Description: Welded or bolted, structural-steel shapes, shop or field fabricated to fit dimensions of supported equipment.
- B. Materials: Comply with requirements in Division 05 Section "Metal Fabrications" for steel shapes and plates.

PART 3 - EXECUTION

3.1 APPLICATION

- A. Comply with NECA 1 and NECA 101 for application of hangers and supports for electrical equipment and systems except if requirements in this Section are stricter.
- B. Maximum Support Spacing and Minimum Hanger Rod Size for Raceway: Space supports for EMT, IMC, and RMC as required by NFPA 70. Minimum rod size shall be 1/4 inch (6 mm) in diameter.
- C. Multiple Raceways or Cables: Install trapeze-type supports fabricated with steel slotted support system, sized so capacity can be increased by at least 25percent in future without exceeding specified design load limits.

3.2 SUPPORT INSTALLATION

- A. Comply with NECA 1 and NECA 101 for installation requirements except as specified in this Article.
- B. Raceway Support Methods: In addition to methods described in NECA 1, EMT, IMC, and RMC may be supported by openings through structure members, as permitted in NFPA 70.
- C. Strength of Support Assemblies: Where not indicated, select sizes of components so strength will be adequate to carry present and future static loads within specified loading limits. Minimum static design load used for strength determination shall be weight of supported components plus 200 lb (90 kg).
- D. Mounting and Anchorage of Surface-Mounted Equipment and Components: Anchor and fasten electrical items and their supports to building structural elements by the following methods unless otherwise indicated by code:
 1. To Wood: Fasten with lag screws or through bolts.
 2. To New Concrete: Bolt to concrete inserts.

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3. To Masonry: Approved toggle-type bolts on hollow masonry units and expansion anchor fasteners on solid masonry units.
 4. To Existing Concrete: Expansion anchor fasteners.
 5. Instead of expansion anchors, powder-actuated driven threaded studs provided with lock washers and nuts may be used in existing standard-weight concrete 4 inches (100 mm) thick or greater. Do not use for anchorage to lightweight-aggregate concrete or for slabs less than 4 inches (100 mm) thick.
 6. To Steel: Welded threaded studs complying with AWS D1.1/D1.1M, with lock washers and nuts, beam clamps (MSS Type 19, 21, 23, 25, or 27) complying with MSS SP-69 or spring-tension clamps.
 7. To Light Steel: Sheet metal screws.
 8. Items Mounted on Hollow Walls and Nonstructural Building Surfaces: Mount cabinets, panelboards, disconnect switches, control enclosures, pull and junction boxes, transformers, and other devices on slotted-channel racks attached to substrate by means that meet seismic-restraint strength and anchorage requirements.
- E. Drill holes for expansion anchors in concrete at locations and to depths that avoid reinforcing bars.
 - F. Do not support conduit or raceway with wire, metal banding material, or perforated pipe straps. Remove wire used for temporary supports
 - G. Do not attach conduit or raceway to ceiling support wires.
 - H. Conduits or raceways shall not be supported from ceiling grid supports, plumbing pipes, duct systems, heating or air conditioning pipes, or other building systems.
 - I. Non-bolted conduit clamps, spring type conduit clamps, and tie wire are not acceptable for supports. All conduits must be supported with bolted hangers listed for the specific installed application.

3.3 INSTALLATION OF FABRICATED METAL SUPPORTS

- A. Comply with installation requirements in Division 05 Section "Metal Fabrications" for site-fabricated metal supports.
- B. Cut, fit, and place miscellaneous metal supports accurately in location, alignment, and elevation to support and anchor electrical materials and equipment.

3.4 CONCRETE BASES

- A. Construct concrete bases of dimensions indicated but not less than 4 inches (100 mm) larger in both directions than supported unit, and so anchors will be a minimum of 10 bolt diameters from edge of the base.
- B. Use 3000-psi (20.7-MPa), 28-day compressive-strength concrete. Concrete materials, reinforcement, and placement requirements are specified in Division 03 Section "Cast-in-Place Concrete."

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- C. Anchor equipment to concrete base.
 - 1. Place and secure anchorage devices. Use supported equipment manufacturer's setting drawings, templates, diagrams, instructions, and directions furnished with items to be embedded.
 - 2. Install anchor bolts to elevations required for proper attachment to supported equipment.
 - 3. Install anchor bolts according to anchor-bolt manufacturer's written instructions.

END OF SECTION 26 05 29

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SECTION 26 05 33 – RACEWAYS AND BOXES FOR ELECTRICAL SYSTEMS

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

- A. This Section includes raceways, fittings, boxes, enclosures, and cabinets for electrical wiring.
- B. Related Sections include the following:
 - 1. Division 26 Section "Underground Ducts and Raceways for Electrical Systems" for exterior ductbanks, manholes, and underground utility construction.

1.3 DEFINITIONS

- A. EMT: Electrical metallic tubing.
- B. ENT: Electrical nonmetallic tubing.
- C. EPDM: Ethylene-propylene-diene terpolymer rubber.
- D. FMC: Flexible metal conduit.
- E. LFMC: Liquid-tight flexible metal conduit.
- F. LFNC: Liquid-tight flexible nonmetallic conduit.
- G. NBR: Acrylonitrile-butadiene rubber.
- H. RNC: Rigid nonmetallic conduit.

1.4 SUBMITTALS

- A. Product Data: For surface raceways, wireways and fittings, floor boxes, hinged-cover enclosures, and cabinets.
- B. Shop Drawings: For the following raceway components. Include plans, elevations, sections, details, and attachments to other work.
 - 1. Custom enclosures and cabinets.
 - 2. For handholes and boxes for underground wiring, including the following:
 - a. Duct entry provisions, including locations and duct sizes.
 - b. Frame and cover design.

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- c. Grounding details.
 - d. Dimensioned locations of cable rack inserts, and pulling-in and lifting irons.
 - e. Joint details.
- C. Coordination Drawings: Conduit routing plans, drawn to scale, on which the following items are shown and coordinated with each other, based on input from installers of the items involved:
 - 1. Structural members in the paths of conduit groups with common supports.
 - 2. HVAC and plumbing items and architectural features in the paths of conduit groups with common supports.

1.5 REFERENCES

- A. ANSI C80.1 - Rigid Steel Conduit - Zinc Coated
- B. ANSI C80.3 - Electrical Metallic Tubing - Zinc Coated
- C. ANSI C80.5 - Aluminum Rigid Conduit (ARC)
- D. ANSI/NEMA FB 1 - Fittings, Cast Metal Boxes, and Conduit Bodies for Conduit, Electrical Metallic Tubing and Cable
- E. ANSI/NEMA OS 1 - Sheet-steel Outlet Boxes, Device Boxes, Covers, and Box Supports.
- F. NEMA 250 - Enclosures for Electrical Equipment (1000 Volts Maximum).
- G. ANSI/NFPA 70 - National Electrical Code
- H. NECA Standard Practices for Good Workmanship in Electrical Contracting
- I. NEMA RN 1 - Polyvinyl Chloride (PVC) Externally Coated Galvanized Rigid Steel Conduit.
- J. NEMA TC 2 - Electrical Polyvinyl Chloride (PVC) Conduit (EPC 40, EPC 80)
- K. NEMA TC 3 - Polyvinyl Chloride (PVC) Fittings for Use with Rigid PVC Conduit and Tubing

1.6 QUALITY ASSURANCE

- A. Electrical Components, Devices, and Accessories: Listed and labeled as defined in NFPA 70, Article 100, by a testing agency acceptable to authorities having jurisdiction, and marked for intended use.
- B. Comply with NFPA 70.

PART 2 - PRODUCTS

2.1 METAL CONDUIT AND TUBING

- A. Minimum Trade Size

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1. All Conduit (except switch legs) - 3/4" c.
2. Switch legs - 1/2" c.

B. RIGID METALLIC CONDUIT

1. Comply with:
 - a. ANSI C80.1
 - b. UL Spec - No. 6
 - c. NEC 344
2. Conduit material:
 - a. Zinc coated or hot dipped galvanized steel.
3. Fittings:
 - a. Threaded.
 - b. Insulated bushings shall be used on all rigid steel conduits terminating in panels, boxes, wire gutters, or cabinets, and shall be impact resistant plastic molded in an irregular shape at the top to provide smooth insulating surface at top and inner edge. Material in these bushings must not melt or support flame.
 - c. Zinc plated or hot dipped galvanized malleable iron or steel.
4. Conduit Bodies:
 - a. Comply with ANSI/NEMA FB 1.
 - b. Threaded hubs.
 - c. Zinc plated or hot-dipped galvanized malleable iron.

C. RIGID ALUMINUM CONDUIT

1. Comply with:
 - a. ANSI C80.5
 - b. UL 6
 - c. NEC 344
2. Conduit material: Aluminum.
3. Fittings:
 - a. Threaded.
 - b. Aluminum.
 - c. Insulated bushings on terminations.
4. Conduit bodies:
 - a. Comply with ANSI/NEMA FB 1.
 - b. Threaded hubs.
 - c. Aluminum.

D. PVC-Coated Steel Conduit: PVC-coated rigid steel conduit.

1. Comply with:
 - a. UL 6
 - b. ANSI C80.1
 - c. NEC. 344
 - d. NEMA RN1
2. Conduit material: Hot-dipped galvanized rigid steel with external PVC coating, 20 mil. thick.
3. Fittings:
 - a. Threaded.
 - b. Insulated bushings on terminations.
 - c. Zinc plated or hot-dipped galvanized malleable iron or steel with external PVC coating, 20 mil. thick.
4. Conduit bodies:

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- a. Comply with:
 - b. ANSI/NEMA FB 1
 - c. Threaded hubs
 - d. Zinc plated or hot-dipped galvanized malleable iron with external PVC coating 20 mil thick.

- E. EMT: ANSI C80.3.
 - 1. Comply with:
 - a. UL 797
 - b. ANSI C80.3
 - c. NEC 358
 - d. ANSI/UL 797
 - 2. Conduit material: Galvanized steel tubing.
 - 3. Fittings:
 - a. ANSI/NEMA FB 1
 - b. Set screw, Die Cast for Interior Dry locations
 - c. Compression, Steel for all damp locations

- F. FMC: Zinc-coated steel or aluminum.
 - 1. Comply with:
 - a. NEC 348
 - b. ANSI/UL 1
 - 2. Conduit material: Steel or aluminum, interlocked.
 - 3. Fittings:
 - a. ANSI/NEMA FB 1
 - b. ANSI/UL 514B
 - c. Die Cast
 - d. Threaded rigid conduit to flexible conduit coupling.
 - e. Direct flexible conduit bearing set screw type not acceptable.

- G. LFMC: Flexible steel conduit with PVC jacket.
 - 1. Comply with:
 - a. NEC 350
 - b. ANSI/UL 360
 - 2. Conduit material:
 - a. Flexible hot-dipped galvanized steel core, interlocked.
 - b. Continuous copper ground built into core up to 1-1/4" size.
 - c. Extruded polyvinyl gray jacket.
 - 3. Fittings:
 - a. Threaded for rigid conduit connections.
 - b. Accepted for hazardous locations where so installed.
 - c. Provide sealing washer in wet/damp locations.
 - d. Compression type.
 - e. ANSI/NEMA FB 1.
 - f. ANSI/UL 5148.
 - g. Zinc plated malleable iron or steel.

2.2 NONMETALLIC CONDUIT AND TUBING

- A. Minimum Trade Size – 3/4"

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- B. RNC: NEMA TC 2, Schedule-40-PVC, unless otherwise indicated.
 - 1. Comply with:
 - a. NEMA TC-2
 - b. UL 651
 - c. NEC 352
 - 2. Conduit material:
 - a. Shall be high impact PVC - tensile strength 55 PSI, flexural strength 11000 PSI.
 - 3. Fittings:
 - a. Comply with: NEMA TC-3 and UL 514.

2.3 EXPANSION FITTINGS

- A. Expansion fittings shall be:
 - 1. UL Listed, hot dipped galvanized inside and outside providing a 4" expansion chamber - when used with rigid conduit and electrical metallic conduit, or:
 - 2. Be polyvinyl chloride and shall meet the requirements of and as specified elsewhere for non-metallic conduit and shall provide a 6" expansion chamber.
 - 3. Hot dipped galvanized expansion fitting shall be provided with an external braided grounding and bonding jumper with accepted clamps, UL Listed for the application.
 - 4. Expansion fitting, UL Listed for the application and in compliance with the National Electrical Code without the necessity of an external bonding jumper may be considered. Submit fitting with manufacturer's data and UL Listing for acceptance prior to installation.

2.4 METAL WIREWAYS

- A. Available Manufacturers: Subject to compliance with requirements, manufacturers offering products that may be incorporated into the Work include, but are not limited to, the following:
 - 1. Cooper B-Line, Inc.
 - 2. Hoffman.
 - 3. Square D; Schneider Electric.
- B. Description: Sheet metal sized and shaped as indicated, NEMA 250, Type 1, unless otherwise indicated.
- C. Fittings and Accessories: Include couplings, offsets, elbows, expansion joints, adapters, hold-down straps, end caps, and other fittings to match and mate with wireways as required for complete system.
- D. Wireway Covers: Hinged type.
- E. Finish: Manufacturer's standard enamel finish.

2.5 SURFACE RACEWAYS

- A. Surface Metal Raceways: Galvanized steel with snap-on covers. Manufacturer's standard enamel finish in color selected by Architect.

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1. Available Manufacturers: Subject to compliance with requirements, manufacturers offering products that may be incorporated into the Work include, but are not limited to, the following:
 - a. Thomas & Betts Corporation.
 - b. Walker Systems, Inc.; Wiremold Company (The).
 - c. Wiremold Company (The); Electrical Sales Division.
 - d. Mono-Systems, Inc.

2.6 BOXES, ENCLOSURES, AND CABINETS

- A. Available Manufacturers: Subject to compliance with requirements, manufacturers offering products that may be incorporated into the Work include, but are not limited to, the following:
 1. Cooper Crouse-Hinds; Div. of Cooper Industries, Inc.
 2. EGS/Appleton Electric.
 3. Erickson Electrical Equipment Company.
 4. Hoffman.
 5. Hubbell Incorporated; Killark Electric Manufacturing Co. Division.
 6. O-Z/Gedney; a unit of General Signal.
 7. RACO; a Hubbell Company.
 8. Robroy Industries, Inc.; Enclosure Division.
 9. Scott Fetzer Co.; Adalet Division.
 10. Spring City Electrical Manufacturing Company.
 11. Thomas & Betts Corporation.
 12. Walker Systems, Inc.; Wiremold Company (The).
 13. Woodhead, Daniel Company; Woodhead Industries, Inc. Subsidiary.
- B. Sheet Metal Outlet and Device Boxes: NEMA OS 1.
 1. Luminaire and Equipment Supporting Boxes: Rated for weight of equipment supported; include 1/2 inch (13 mm) male fixture studs where required.
 2. Concrete Ceiling Boxes: Concrete type.
 3. Interior flush outlet boxes shall be one piece drawn galvanized steel constructed with stamped knockouts in back and sides, and threaded holes with screws for securing box cover plates or wiring devices.
 4. Ceiling outlet boxes shall be 4" octagonal or 4" square X 1 1/2" deep or larger as required for number and size of conductors and arrangement, size and number of conduits terminating at them.
 5. Switch, wall receptacle, telephone and other recessed wall outlet boxes in drywall shall be a minimum of 4" square X 1 1/2" deep. For recessing in exposed masonry, provide one piece drawn 4" square x 1 1/2" deep wall boxes with appropriate 4" square cut tile wall covers. For recessing in furred-out block walls, provide 4" square box with required extension for block depth and required extension for drywall depth.
 6. Boxes shall be of such form and dimensions as to be adapted to the specific use and location, type of device or fixtures to be used, and number and size of conductors and arrangement, size and number of conduits connecting thereto.
 7. Handy boxes shall not be used for any purpose.
 8. Where a box is used as the sole support for a ceiling paddle fan, the box must be listed for this purpose and the weight of the fan.
- C. Cast-Metal Outlet and Device Boxes: NEMA FB 1, Type FD, with gasketed cover.

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1. Interior surface outlet boxes and conduit bodies installed from 0" AFF to 90" AFF (including fire alarm device backbox) shall be the heavy cast aluminum or iron with external threaded hubs for power devices and threaded parts for low voltage devices. Trim rings shall also be of one-piece construction.
2. Weatherproof outlet boxes shall be constructed of corrosion-resistant cast iron suited to each application and having threaded conduit hubs, cast metal faceplate with spring-hinged waterproof cap suitable configured, gasket, and corrosion-proof fasteners.
3. Freestanding malleable iron cast boxes are to be type FSY (with flange). Cast aluminum/zinc boxes are not acceptable (Bell Boxes).

D. Floor Boxes:

1. For all slab on grade areas except wet locations and wooden floors: Cast iron or steel with epoxy paint, fully adjustable before and after the concrete pour. The cover shall provide protection from water, dirt and debris. The cover will be flanged die cast aluminum with brushed aluminum finish that will accept carpet or tile cutouts to match flooring. The box shall be capable of adapting to most power and communications needs. Provide all activations, barriers and brackets required for the particular installation. Design Selection is Wiremold RFB 4 (based on required outlets) or equal.
2. Wood Floors: Cast iron or steel fully adjustable, rectangular, multi-gang box. The cover shall provide protection from water, dirt and debris. The cover will be brass flip lids with appropriate multi gang ring to set flush with wood flooring. The box shall be capable of adapting to most power and communications needs.
3. Poke-Thru's for all floor boxes in elevated slabs: Flush style round poke thru with combination power (2 duplex) and data (6 Cat6 outlets). Poke-thru shall be UL scrub water exclusion for tile and carpeted floors. Poke-thru shall maintain UL fire rating for up to 2 hour rated floors. Poke thru shall meet FBC and ADA accessibility guidelines.

E. Sheet Metal Pull and Junction Boxes: NEMA OS 1.

1. Pull and junction boxes (not in-ground type) larger than 25 square inches shall be hinged cover type with flush latches operated with screwdriver.
2. Large Pull Boxes: Boxes larger than 400 cubic inches in volume or 20 inches in any dimension:
 - a. Use continuous hinged enclosures with locking handle.
3. Exterior, damp location and wet location pull and junction boxes shall be NEMA 4X stainless steel.

F. Cabinets (Control and Systems):

1. NEMA 250, Type 1, galvanized-steel box with removable interior panel and removable front, finished inside and out with manufacturer's standard enamel.
2. Hinged door in front cover with flush latch and concealed hinge.
3. Metal barriers to separate wiring of different systems and voltage.
4. Accessory feet where required for freestanding equipment.

2.7 HANDHOLES AND BOXES FOR EXTERIOR UNDERGROUND WIRING

A. Description: Concrete ring with NEMA 6P box inside (All Areas)

1. Color of Frame and Cover: Gray.
2. Configuration: Concrete ring shall be designed for flush burial and have open bottom, unless otherwise indicated.

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3. Cover: Weatherproof, secured by tamper-resistant locking devices and having structural traffic load rating consistent with enclosure.
4. Cover Finish: Nonskid finish shall have a minimum coefficient of friction of 0.50.
5. Cover Legend: Molded lettering, "ELECTRIC.", "TELEPHONE." or as indicated for each service.
6. NEMA 6P box rated for direct burial enclosure shall be located inside the concrete ring for termination of conduits.
7. Handholes 36 inches wide by 36 inches long and larger shall have inserts for cable racks and pulling-in irons installed before concrete is poured.

PART 3 - EXECUTION

3.1 RACEWAY LOCATION INSTALLATION REQUIREMENTS

A. Underground Installations:

1. Use rigid non-metallic conduit (PVC) only unless local authority having jurisdiction or applicable codes/utility requirements, etc. require rigid steel conduit.
2. All conduits or elbows entering, or leaving the ground shall be rigid steel conduit coated with asphaltic paint.
3. All underground raceways shall be installed in accordance with the NEC except that the minimum cover for any conduit outside the building slab shall be two feet. Included under this Section shall be the responsibility for verifying finished lines in areas where raceways will be installed underground before the grading is complete.
4. Where rigid metallic conduit is installed underground as noted above it shall be coated with waterproofing black mastic before installation, and all joints shall be re-coated after installation.
5. Utilize rigid steel 90° elbows at each riser and at each change in direction. Elbows shall be coated with black mastic or PVC coating. Bond all metal elbows per NEC.
6. All underground service lateral raceways shall be protected as required by the NEC including requirements for installation of warning tape.

B. In Slab Above or on Grade:

1. Use coated rigid steel conduit or rigid non-metallic conduit.
2. Coating of metallic conduit to be black asphaltic or PVC.

C. Penetration of Slab:

1. Exposed Location subject to damage:
 - a. Where penetrating a floor in an exposed location subject to damage from underground or in slab, a black mastic coated or PVC coated galvanized rigid steel conduit shall be used.
2. Interior Location not subject to damage:
 - a. Where penetrating a floor in a location concealed in block wall and acceptable by applicable codes, rigid non-metallic conduit may be used up to first outlet box, provided outlet box is at a maximum height of 40" above finished floor.
 - b. Where penetrating a floor in location other than that above, transition to metallic conduit at the floor.

D. Outdoor Location:

1. Above Grade:

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- a. Where penetrating the finished grade, black mastic coated or PVC coated galvanized rigid steel conduit shall be used.
 - b. In general, all exterior conduit runs shall be rigid steel conduit and threaded connectors as specified elsewhere.
 - c. Electrical metallic tubing (thin wall) is permitted under roof, overhangs, etc. provided it is not subjected to physical damage and is not in direct contact or directly subject to exterior elements including sunlight.
- 2. Metal Canopies:
 - a. Conduit runs except for canopy lighting raceways are not to be run on (top or bottom) of metal canopies roof systems. All new conduit shown on or at these areas is to be run underground. Clamp back spacers shall be used on all canopies to prevent galvanic action from dissimilar metals. Conduits installed exposed from Building structure to Metal Canopies will not be permitted.
- 3. Roofs:
 - a. Conduit is not to be installed on roofs, without written authorization by A/E and the Owner for specific conditions.
 - b. When accepted by written authorization conduit shall comply with the following:
 - 1) Be PVC coated rigid galvanized metal conduit.
 - 2) All fittings, etc. are to be PVC coated.
 - 3) Conduit shall be supported above roof at least 6 inches using accepted conduit supporting devices. Refer to applicable sections of specifications on roofing, etc.
 - 4) Supports to be fastened to roof using roofing adhesive or means compatible with roofing. Confirm the method used will not void the roofing warranty. The use of pitch pockets is not acceptable.
- E. Interior Dry Locations:
 - 1. Concealed: Use rigid galvanized steel conduit and electrical metallic tubing. Rigid non-metallic conduit may be used inside block walls up to first outlet to a maximum of 40" A.F.F. except where prohibited by the NEC (places of assembly, etc.).
 - 2. Exposed: Use rigid galvanized steel or electrical metallic tubing. EMT may only be used where not subject to damage, which is interpreted by this specification to be above 90" AFF.
 - 3. Concealed or exposed flexible conduit:
 - a. Concealed flexible steel conduit or seal tight flexible steel conduit in lengths not longer than six (6) feet in length with a ground conductor installed in the conduit or an equipment ground conductor firmly attached to the terminating fitting at the extreme end of the flex. Exposed flexible steel conduit or seal tight flexible steel conduit shall not exceed two (2) feet in length, unless written authorization by A/E for specific conditions is granted.
- F. Interior Wet and Damp Locations:
 - 1. Use rigid galvanized steel conduit.
- G. Concrete Columns or Poured in-place Concrete Wall Locations:
 - 1. Use rigid non-metallic conduit. Penetration shall be by accepted metal raceway (i.e. metal conduit as required elsewhere in these specifications).

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3.2 RACEWAY INSTALLATION

- A. Comply with NECA 1 for installation requirements applicable to products specified in Part 2 except where requirements on Drawings or in this Article are stricter.
- B. All bending, cutting, and reaming shall be completed with tools specifically designed for the specific use.
- C. Expansion fittings shall be installed in the following cases:
 - 1. In each conduit run wherever it crosses an expansion joint in the concrete structure; on one side of joint with its sliding sleeve end flush with joint, and with a length of bonding jumper in expansion equal to at least three times the normal width of joints.
 - 2. In each conduit run which mechanically attached to separate structures to relieve strain caused by shift on one structure in relation to the other.
 - 3. In straight conduit run above ground which is more than one hundred feet long and interval between expansion fittings in such runs shall not be greater than 100 feet.
- D. Connections to motors or other vibrating equipment shall be made with flexible conduit in dry locations and liquid tight flexible metal conduit in damp or wet locations.
- E. Make connections to all equipment in accordance with equipment manufacturers recommendations.
- F. Arrange conduit to maintain headroom and present neat appearance.
- G. Provide rigid steel long radius 90-degree sweeps (bend radius of 10 times the conduit trade size diameter) for all changes in direction (vertical and horizontal) for utility conduits. Comply with all installation requirements of the utility to utilize the conduits.
- H. Utility conduits shall be buried a minimum of 36" deep to the top of the conduit.
- I. Route conduit installed above accessible ceilings or exposed to view parallel or perpendicular to walls. Do not run from point to point.
- J. Do not cross conduits in slab.
- K. Use conduit hubs to fasten conduit to sheet metal boxes in damp and wet locations and to cast boxes.
- L. Keep raceways at least 6 inches (150 mm) away from parallel runs of flues and steam or hot-water pipes. Install horizontal raceway runs above water and steam piping.
- M. Complete raceway installation before starting conductor installation.
- N. Support raceways as specified in Division 26 Section "Hangers and Supports for Electrical Systems."
- O. Arrange stub-ups so curved portions of bends are not visible above the finished slab.

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- P. Install no more than equivalent of three 90-degree bends between boxes. Use conduit bodies to make sharp changes in direction, as around beams. Use factory elbows for bends in metal conduit larger than 2-inch (50 mm) size.
- Q. Provide continuous fiber polyline 1000 lb. minimum tensile strength pull string in each empty conduit except sleeves and nipples. This includes all raceways which do not have conductors furnished under this Division of the specifications. Pull cord must be fastened to prevent accidental removal.
- R. Use suitable caps to protect installed conduit against entrance of dirt and moisture.
- S. Rigid steel box connections shall be made with double locknuts and bushings.
- T. Spare conduit stubs shall be capped and location and use marked with concrete marker set flush with finish grade. Marker shall be 6" round x 6" deep with appropriate symbol embedded into top to indicate use. Also, tag conduits in panels where originating.
- U. Spare conduit stubs shall be capped with a UL listed and accepted cap or plug for the specific intended use and identified with ink markers as to source and labeled "Spare."
- V. Conceal conduit and EMT within finished walls, ceilings, and floors, unless otherwise indicated.
- W. Threaded Conduit Joints, Exposed to Wet, Damp, Corrosive, or Outdoor Conditions: Apply listed compound to threads of raceway and fittings before making up joints. Follow compound manufacturer's written instructions.
- X. Raceway Terminations at Locations Subject to Moisture or Vibration: Use insulating bushings to protect conductors, including conductors smaller than No. 4 AWG.
- Y. Install pull wires in empty raceways. Use polypropylene or monofilament plastic line with not less than 200-lb (90-kg) tensile strength. Leave at least 12 inches (300 mm) of slack at each end of pull wire.
- Z. Install raceway sealing fittings at suitable, approved, and accessible locations and fill them with listed sealing compound. For concealed raceways, install each fitting in a flush steel box with a blank cover plate having a finish similar to that of adjacent plates or surfaces. Install raceway sealing fittings at the following points:
 - 1. Where conduits pass from warm to cold locations, such as boundaries of refrigerated spaces.
 - 2. Where otherwise required by NFPA 70.
- AA. Recessed Boxes in Masonry Walls: Saw-cut opening for box in center of cell of masonry block, and install box flush with surface of wall.
- BB. All raceway runs in masonry shall be installed at the same time as the masonry so that no face cutting is required, except to accommodate boxes.
- CC. Raceways shall not be routed through stairwells, elevator shafts, elevator machine rooms or fire pump rooms unless the conduit is for use within that space.

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- DD. Raceways installed in hazardous locations shall be installed in accordance with the appropriate provisions of NEC chapter 5 for that location. Confirm the appropriate space rating with life safety plans.
- EE. All raceway runs, whether terminated in boxes or not, shall be capped during the course of construction and until wires are pulled in, and covers are in place. No conductors shall be pulled into raceways until construction work which might damage the raceways has been completed.
- FF. Electrical raceways shall be supported independently of all other systems and supports, and shall in every case avoid proximity to other systems which might cause confusion with such systems or might provide a chance of electrolytic actions, contact with live parts or excessive induced heat.
- GG. Excavate trench bottom to provide firm and uniform support for conduit installed underground. Prepare trench bottom as specified in Division 31 Section "Earth Moving" for pipe less than 6 inches (150 mm) in nominal diameter. Install backfill as specified in Division 31 Section "Earth Moving."
- HH. After installing underground conduit, backfill and compact. Start at tie-in point, and work toward end of conduit run, leaving conduit at end of run free to move with expansion and contraction as temperature changes during this process. Firmly hand tamp backfill around conduit to provide maximum supporting strength. After placing controlled backfill to within 12 inches (300 mm) of finished grade, make final conduit connection at end of run and complete backfilling with normal compaction as specified in Division 31 Section "Earth Moving."

3.3 BOX INSTALLATION

- A. Set metal floor boxes level and flush with finished floor surface.
- B. Set nonmetallic floor boxes level. Trim after installation to fit flush with finished floor surface.
- C. Install electrical boxes as shown on drawings, and as required for splices, taps, wire pulling, equipment connections and compliance with regulatory requirements.
- D. Install electrical boxes to maintain headroom and to present neat mechanical appearance.
- E. Inaccessible Ceiling Areas: Install outlet and junction boxes no more than 6 inches (150 mm) from ceiling access panel or from removable recessed luminaire.
- F. Install boxes to preserve fire resistance rating of partitions and other elements.
- G. Align adjacent wall-mounted outlet boxes for switches, thermostats, and similar devices with each other.
- H. Outlets for 120V clocks shall be recessed so that the clock will hang flush with the finished surface of the wall.
- I. Use flush mounting outlet boxes in finished areas.

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- J. Do not install flush mounting boxes back-to-back in walls; provide minimum 6-inch (150 mm) separation. Provide minimum 24 inches (600 mm) separation in acoustic and fire rated walls.
- K. Secure flush mounting box to interior wall and partition studs. Accurately position to allow for surface finish thickness.
- L. Use stamped steel bridges to fasten flush mounting outlet box between studs.
- M. Install flush mounting box without damaging wall insulation or reducing its effectiveness.
- N. Support all outlet boxes from structure with minimum of one (1) 3/8" all-thread rod hangers. Boxes larger than 25 square inches shall be supported with two (2) all-thread rod hangers, minimum.
- O. Do not fasten boxes to ceiling support wires.
- P. Use multi-gang box where more than one device is mounted together. Do not use sectional box.
- Q. Boxes in exterior walls shall be flush mounted. Use cast outlet box in exterior locations and wet locations where flush mounting is not possible.
- R. Install outlets in the locations shown on the drawings; however, the Owner shall have the right to make, prior to rough-in, slight changes in locations to reflect room furniture layouts.
- S. Coordinate work with all divisions so that each electrical box is the type suitable for the wall or ceiling construction provided and suitable fireproofing is inbuilt into fire rated walls.
- T. All boxes shall be installed in a flush rigid manner with box lines at perpendicular and parallel angles to finished surfaces. Boxes shall be supported by appropriate hardware selected for the type of surface from which the box shall be supported. For example, provide metal screws for metal, wood screws for wood, and expansion devices for masonry or concrete.
- U. For locations exposed to weather or moisture (interior or exterior), provide weatherproof boxes and accessories.
- V. As a minimum, provide pull boxes in all raceways over 150 feet long. The pull box shall be located near the midpoint of the raceway length.
- W. Provide knockout closures to cap unused knockout holes where blanks have been removed, and plugs for unused threaded hubs.
- X. Provide conduit locknuts and bushings of the type and size to suit each respective use and installation.
- Y. Boxes and conduit bodies shall be located so that all electrical wiring is accessible.
- Z. Avoid using round boxes where conduit must enter box through side of box, which would result in a difficult and insecure connection with a locknut or bushing on the rounded surface.
- AA. All flush outlets shall be mounted so that covers and plates will finish flush with finished surfaces without the use of shims, mats or other devices not submitted or accepted for the purpose. Add-a-Depth rings or switch box extension rings are not acceptable. Plates shall not

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support wiring devices. Gang switches with common plate where two or more are indicated in the same location. Wall-mounted devices of different systems (switches, thermostats, etc.) shall be coordinated for symmetry when located near each other on the same wall. Outlets on each side of walls shall have separate boxes. Through-wall type boxes shall not be permitted. Back-to-back mounting shall not be permitted. Trim rings shall be extended to within 1/8" of finish wall surface.

- BB. Outlet boxes mounted in metal stud walls, are to be supported to studs with two (2) screws inside of outlet box to a horizontal stud brace between vertical studs or one side of outlet box supported to stud with opposite side mounted to section of stud or device to prevent movement of outlet box after wall finished.
- CC. All outlet boxes that do not receive devices in this contract are to have blank plates installed matching wiring device plates.
- DD. Height of wall outlets to bottom above finished floors shall be as follows, unless specifically noted otherwise, or unless otherwise required by applicable codes including ADA. Verify with the Architectural plans and shop drawings for installing.
 - 1. Switches 4'-0" AFF to top
 - 2. Receptacles 1'-4" AFF to bottom
 - 3. Lighting Panels 6'-6" AFF to centerline of highest breaker/fuse
 - 4. Phone outlets 1'-4" AFF to bottom
 - 5. Intercom Call-in 4'-0" AFF to top
 - 6. Fire Alarm Pull Stations 4'-0" AFF to top
 - 7. Fire Alarm Strobe Lights Lens is not less than 80" AFF and not more than 96" AFF
 - 8. Fire Alarm Audible Only Not less than 90" and not less than 6" below ceiling.
- EE. Bottoms of outlets above counter tops or base cabinets shall be minimum 2" above counter top or backsplash, whichever is highest. Outlets may be raised so that bottom rests on top of concrete block course, but all outlets above counters in same area shall be at same height. It is the responsibility of this Division to secure cabinet drawings and coordinate outlet locations in relation to all cabinets as shown on Architectural plans, prior to rough-in, regardless of height shown on Division 26 drawings.
- FF. Height of wall-mounted fixtures shall be as shown on the drawings or as required by Architectural plans and conditions. Fixture outlet boxes shall be equipped with fixture studs when supporting fixtures.
- GG. Locate special purpose outlets as indicated on the drawings for the equipment served. Location and type of outlets shall be coordinated with appropriate trades involved. The securing of complete information for proper electrical roughing-in shall be included as work required under this section of specifications. Provide plug for each outlet.
- HH. Electrical outlet boxes may be installed in vertical fire resistive assemblies classified as fire/smoke and smoke partitions without affecting the fire classification, provided such openings occur on one side only within a 24" wall space and that openings do not exceed 16 sq. inches. All clearances between such outlet boxes and the gypsum board must be completely filled with joint compound.
- II. Fire-Barrier Penetrations: Firestop penetrations under division 07 Section "Firestopping".

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3.4 INSTALLATION OF UNDERGROUND HANDHOLES AND BOXES

- A. Install handholes and boxes level and plumb and with orientation and depth coordinated with connecting conduits to minimize bends and deflections required for proper entrances.
- B. Unless otherwise indicated, support units on a level bed of crushed stone or gravel, graded from 1/2-inch (12.5-mm) sieve to No. 4 (4.75-mm) sieve and compacted to same density as adjacent undisturbed earth.
- C. Elevation: In all areas, set so cover surface will be flush with finished grade.
- D. Do not install in walkways.

3.5 INSTALLATION OF WIREWAYS

- A. Do not install wireways as a substitute for proper coordination and layout of conduit stub ups to panels. Prior authorization from the engineer is required prior to installation of any wireways.
- B. Do not make splices in wireways. All wires must be pulled through without splice or termination.
- C. Install wireway to maintain headroom and to present neat mechanical appearance.
- D. Support wireway independently of conduit.
- E. Wireway shall be located so that all electrical wiring is accessible.

END OF SECTION 26 05 33

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SECTION 26 05 53 – IDENTIFICATION FOR ELECTRICAL SYSTEMS

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

- A. This Section includes the following:
 - 1. Identification for raceway and metal-clad cable.
 - 2. Identification for conductors and communication and control cable.
 - 3. Underground-line warning tape.
 - 4. Warning labels and signs.
 - 5. Instruction signs.
 - 6. Equipment identification labels.
 - 7. Miscellaneous identification products.

1.3 SUBMITTALS

- A. Product Data: For each electrical identification product indicated.
- B. Identification Schedule: An index of nomenclature of electrical equipment and system components used in identification signs and labels.
- C. Samples: For each type of label and sign to illustrate size, colors, lettering style, mounting provisions, and graphic features of identification products.

1.4 QUALITY ASSURANCE

- A. Comply with ANSI A13.1 and ANSI C2.
- B. Comply with NFPA 70.
- C. Comply with 29 CFR 1910.145.

1.5 COORDINATION

- A. Coordinate identification names, abbreviations, colors, and other features with requirements in the Contract Documents, Shop Drawings, manufacturer's wiring diagrams, and the Operation and Maintenance Manual, and with those required by codes, standards, and 29 CFR 1910.145. Use consistent designations throughout Project.

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- B. Coordinate installation of identifying devices with completion of covering and painting of surfaces where devices are to be applied.
- C. Coordinate installation of identifying devices with location of access panels and doors.
- D. Install identifying devices before installing acoustical ceilings and similar concealment.

PART 2 - PRODUCTS

2.1 RACEWAY, BOX, AND METAL-CLAD CABLE IDENTIFICATION MATERIALS

- A. Snap-Around, Color-Coding Bands: Slit, pretensioned, flexible, solid-colored acrylic sleeves, 2 inches (50 mm) long, with diameter sized to suit diameter of raceway or cable it identifies and to stay in place by gripping action.
- B. Primed and Painted band 4" in length.

2.2 CONDUCTOR AND COMMUNICATION- AND CONTROL-CABLE IDENTIFICATION MATERIALS

- A. Color-Coding Conductor Tape: Colored, self-adhesive vinyl tape not less than 3 mils (0.08 mm) thick by 1 to 2 inches (25 to 50 mm) wide.
- B. Marker Tapes: Vinyl or vinyl-cloth, self-adhesive wraparound type, with circuit identification legend machine printed by thermal transfer or equivalent process.

2.3 UNDERGROUND-LINE WARNING TAPE

- A. Description: Permanent, bright-colored, continuous-printed, polyethylene tape.
 - 1. Not less than 6 inches (150 mm) wide by 4 mils (0.102 mm) thick.
 - 2. Compounded for permanent direct-burial service.
 - 3. Embedded continuous metallic strip or core.
 - 4. Printed legend shall indicate type of underground line.

2.4 WARNING LABELS AND SIGNS

- A. Comply with NFPA 70 and 29 CFR 1910.145.
- B. Baked-Enamel Warning Signs: Preprinted aluminum signs, punched or drilled for fasteners, with colors, legend, and size required for application. 1/4-inch (6.4-mm) grommets in corners for mounting. Nominal size, 7 by 10 inches (180 by 250 mm).
- C. Metal-Backed, Butyrate Warning Signs: Weather-resistant, nonfading, preprinted, cellulose-acetate butyrate signs with 0.0396-inch (1-mm) galvanized-steel backing; and with colors, legend, and size required for application. 1/4-inch (6.4-mm) grommets in corners for mounting. Nominal size, 10 by 14 inches (250 by 360 mm).

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- D. Warning label and sign shall include, but are not limited to, the following legends:
 - 1. Multiple Power Source Warning: "DANGER - ELECTRICAL SHOCK HAZARD - EQUIPMENT HAS MULTIPLE POWER SOURCES."
 - 2. Workspace Clearance Warning: "WARNING - OSHA REGULATION - AREA IN FRONT OF ELECTRICAL EQUIPMENT MUST BE KEPT CLEAR FOR 36 INCHES (915 MM)."

2.5 INSTRUCTION SIGNS

- A. Engraved, laminated acrylic or melamine plastic, minimum 1/16 inch (1.6 mm) thick for signs up to 20 sq. in. (129 sq. cm) and 1/8 inch (3.2 mm) thick for larger sizes.
 - 1. Engraved legend with black letters on white face.
 - 2. Punched or drilled for mechanical fasteners.
 - 3. Framed with mitered acrylic molding and arranged for attachment at applicable equipment.

2.6 EQUIPMENT IDENTIFICATION LABELS

- A. Safety Signs: Comply with 29 CFR, 1910.145.
- B. Nameplates shall be laminated phenolic plastic, chamfer edges, punched or drilled for rivets.
 - 1. For 120/208 Volt System:
 - a. Black front and back with white core, with lettering etched through the outer covering. White engraved letters on black background.
 - 2. For 277/480 Volt System:
 - a. Orange front and back with white core with lettering etched through the outer covering. White engraved letters on orange background.
 - 3. For Emergency System:
 - a. Red front and back with white core with lettering etched through the outer covering. White engraved letters on red background.

2.7 MISCELLANEOUS IDENTIFICATION PRODUCTS

- A. Cable Ties: Fungus-inert, self-extinguishing, 1-piece, self-locking, Type 6/6 nylon cable ties.
 - 1. Minimum Width: 3/16 inch (5 mm).
 - 2. Tensile Strength: 50 lb (22.6 kg), minimum.
 - 3. Temperature Range: Minus 40 to plus 185 deg F (Minus 40 to plus 85 deg C).
 - 4. Color: Black, except where used for color-coding.
- B. Paint: Paint materials and application requirements are specified in Division 09 painting Sections.
- C. Fasteners for Labels and Signs: Self-tapping, stainless-steel screws or stainless-steel machine screws with nuts and flat and lock washers.

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PART 3 - EXECUTION

3.1 INSTALLATION

- A. Identification Materials and Devices: Install at locations for most convenient viewing without interference with operation and maintenance of equipment.
- B. Lettering, Colors, and Graphics: Coordinate names, abbreviations, colors, and other designations with corresponding designations in the Contract Documents or with those required by codes and standards. Use consistent designations throughout Project.
- C. Sequence of Work: If identification is applied to surfaces that require finish, install identification after completing finish work.
- D. Self-Adhesive Identification Products: Clean surfaces before applying.
- E. Install painted identification according to manufacturer's written instructions and as follows:
 - 1. Clean surfaces of dust, loose material, and oily films before painting.
 - 2. Prime surfaces using type of primer specified for surface.
 - 3. Apply one intermediate and one finish coat of enamel.
- F. Caution Labels for Indoor Boxes and Enclosures for Power and Lighting: Install pressure-sensitive, self-adhesive labels identifying system voltage with black letters on orange background. Install on exterior of door or cover.
- G. Circuit Identification Labels on Boxes: Install labels externally.
 - 1. Exposed Boxes: Pressure-sensitive, self-adhesive plastic label on cover.
 - 2. Concealed Boxes: Plasticized card-stock tags.
 - 3. Labeling Legend: Permanent, waterproof listing of panel and circuit number or equivalent.
- H. Paths of Underground Electrical Lines: During trench backfilling, for exterior underground power, control, signal, and communication lines, install continuous underground line marker located directly above line at 6 to 8 inches below finished grade. Where width of multiple lines installed in a common trench or concrete envelope does not exceed 16 inches overall, use a single line marker. Install line marker for underground wiring, both direct-buried cables and cables in raceway.
- I. Secondary Service, Feeder, and Branch-Circuit Conductors: Color-code throughout the secondary electrical system.
 - 1. Color-code 208/120-V system as follows:
 - a. Phase A: Black.
 - b. Phase B: Red.
 - c. Phase C: Blue.
 - d. Neutral: White.
 - e. Ground: Green.
 - f. Switchlegs (load side of contactor or relay is not considered a switchleg): Purple
 - 2. Color-code 480/277-V system as follows:
 - a. Phase A: Brown
 - b. Phase B: Orange

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- c. Phase C: Yellow
 - d. Neutral: White with a colored stripe or gray.
 - e. Ground: Green.
 - f. Switchleg(load side of contactor or relay is not considered a switchleg): Pink
- 3. Factory apply color the entire length of conductors, except the following field-applied, color-coding methods may be used instead of factory-coded wire for sizes larger than No. 6 AWG:
 - a. Colored, pressure-sensitive plastic tape in half-lapped turns for a distance of 6 inches from terminal points and in boxes where splices or taps are made. Apply last two turns of tape with no tension to prevent possible unwinding. Use 1-inch-wide tape in colors specified. Adjust tape bands to avoid obscuring cable identification markings.
- J. Power-Circuit Identification: Metal tags or aluminum, wraparound marker bands for cables, feeders, and power circuits in vaults, pull and junction boxes, manholes, and switchboard rooms.
 - 1. Legend: 1/4-inch steel letter and number stamping or embossing with legend corresponding to indicated circuit designations.
 - 2. Tag Fasteners: Nylon cable ties.
 - 3. Band Fasteners: Integral ears.
- K. Apply identification to conductors as follows:
 - 1. Conductors to Be Extended in the Future: Indicate source and circuit numbers.
 - 2. Multiple Power or Lighting Circuits in the Same Enclosure: Identify each conductor with source, voltage, circuit number, and phase. Use color-coding to identify circuits' voltage and phase.
 - 3. Multiple Control and Communication Circuits in the Same Enclosure: Identify each conductor by its system and circuit designation. Use a consistent system of tags, color-coding, or cable marking tape.
- L. Apply warning, caution, and instruction signs as follows:
 - 1. Warnings, Cautions, and Instructions: Install to ensure safe operation and maintenance of electrical systems and of items to which they connect. Install engraved plastic-laminated instruction signs with approved legend where instructions are needed for system or equipment operation. Install metal-backed butyrate signs for outdoor items.
 - 2. Emergency Operation: Install engraved laminated signs with white legend on red background with minimum 3/8-inch-high lettering for emergency instructions on power transfer, load shedding, and other emergency operations.
- M. Equipment Requiring Workspace Clearance According to NFPA 70: Unless otherwise indicated, apply to door or cover of equipment but not on flush panelboards and similar equipment in finished spaces.
- N. Instruction Signs:
 - 1. Operating Instructions: Install instruction signs to facilitate proper operation and maintenance of electrical systems and items to which they connect. Install instruction signs with approved legend where instructions are needed for system or equipment operation.
 - 2. Emergency Operating Instructions: Install instruction signs with white legend on a red background with minimum 3/8-inch- (10-mm-) high letters for emergency instructions at equipment used for power transfer.

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- O. Equipment Identification Labels: On each unit of equipment, install unique designation label that is consistent with wiring diagrams, schedules, and Operation and Maintenance Manual. Apply labels to disconnect switches and protection equipment, central or master units, control panels, control stations, terminal cabinets, and racks of each system. Systems include power, lighting, control, communication, signal, monitoring, and alarm systems unless equipment is provided with its own identification. Install label with pop rivets.
1. Labeling Instructions:
 - a. Engraved, laminated acrylic or melamine label. Unless otherwise indicated, provide a single line of text with 1/2-inch- (13-mm-) high letters on 1-1/2-inch- (38-mm-) high label; where 2 lines of text are required, use labels 2 inches (50 mm) high.
 - b. Elevated Components: Increase sizes of labels and letters to those appropriate for viewing from the floor.
 2. Equipment to Be Labeled: Include as a minimum the equipment identification (first line 1/2"): voltage rating and amperage rating (second line 3/8"): where it is fed from (third line 3/8"). (Example: Panel CP1 (Line 1), 208/120V 3ph, 4w, 225A (line 2), fed from swbd MDP-1 (Line 3))
 - a. Panelboards, electrical cabinets, and enclosures.
 - b. Access doors and panels for concealed electrical items.
 - c. Electrical switchgear and switchboards.
 - d. Transformers.
 - e. Electrical substations.
 - f. Emergency system boxes and enclosures.
 - g. Motor-control centers.
 - h. Disconnect switches.
 - i. Enclosed circuit breakers.
 - j. Motor starters.
 - k. Push-button stations.
 - l. Power transfer equipment.
 - m. Contactors.
 - n. Remote-controlled switches, dimmer modules, and control devices.
 - o. Emergency Relay locations on grid below relay location
 - p. Battery inverter units.
 - q. Battery racks.
 - r. Power-generating units.
 - s. Voice and data cable terminal equipment.
 - t. Master clock and program equipment.
 - u. Intercommunication and call system master and staff stations.
 - v. Television/audio components, racks, and controls.
 - w. Fire-alarm control panel and annunciators.
 - x. Security and intrusion-detection control stations, control panels, terminal cabinets, and racks.
 - y. Monitoring and control equipment.
 - z. Uninterruptible power supply equipment.
 - aa. Terminals, racks, and patch panels for voice and data communication and for signal and control functions.

3.2 SWITCHGEAR BREAKERS

- A. Provide labels for each breaker to identify the load served.

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3.3 CONDUIT/JUNCTION BOX COLOR CODE

- A. All conduit system junction boxes (except those subject to view in public areas) shall be color coded as listed below:
- B. Color Code for Junction Boxes
- | | |
|----------------------------------|--------------|
| 1. System Emergency 277/480 volt | Orange/Brown |
| 2. System Emergency 120/208 volt | Orange/Black |
| 3. Fire Alarm | |
| 4. Normal Power 277/480 volt | Brown |
| 5. Normal Power 120/208 volt | Black |
| 6. Fiber Optics | |
| 7. Sound System | |
| 8. Clock | |
| 9. Intercom | |
| 10. Computer/Data | |
| 11. TV | |
| 12. Security/CCTV | |
| 13. Ground | |
| 14. Telephone | |
- C. Conduits (not subject to public view) longer than 20 feet shall be painted with above color paint band 20 ft. on center. Paint band shall be 4" in length, applied around the entire conduit. Where conduits are parallel and on conduit racking, the paint bands shall be evenly aligned. Paint shall be neatly applied and uniform. Paint boxes and raceways prior to installation or tape conduits and surrounding surfaces to avoid overspray. Paint overspray shall be removed.
- D. All new and existing junction boxes/cover plates for power, lighting and systems (except those installed in public areas) shall adequately describe it's associated panel and circuit reference number(s) within, (i.e. ELRW-2, 4, 6) or systems within (i.e. fire alarm, intercom. Etc.). Identification shall be by means of black permanent marker. (Paint ½ cover plate with appropriate color as noted in 2.3 above, and mark other ½ with associated panel/circuit or system description as described).

END OF SECTION 26 05 53

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SECTION 26 08 16 – DEMONSTRATION OF COMPLETED ELECTRICAL SYSTEMS

PART 1 - GENERAL

1.1 PERFORMANCE REQUIREMENTS

A. Purpose:

1. This section includes the requirements for demonstration of completed electrical systems; requirements of this section are in addition to any other related section.

B. Demonstrate to the Owner the essential features of the following electrical systems:

1. Communications Systems
 - a. All systems included in DC Sections 27 and 28.
2. Electrical Entrance Equipment
 - a. Circuit Breakers
 - b. Fuse and fuse holders
 - c. Meters (where applicable)
3. Miscellaneous Electrical Equipment
 - a. Kitchen exhaust hood shut down
 - b. Electrical systems controls and equipment
 - c. Electrical power equipment
 - d. Motor control devices
 - e. Relays
 - f. Special transformers
 - g. Starting devices
 - h. Surge suppression equipment
4. Lighting Fixtures (including relamping and replacing lenses)
 - a. Exit and safety fixtures
 - b. Fixtures, indoor and outdoor
5. Distribution Equipment
 - a. Lighting and appliance panelboards
 - b. Distribution panels
 - c. Switchboards
6. Stand-by Electrical Equipment
 - a. Batteries
 - b. Battery chargers
 - c. Controls and alarms

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- d. Emergency generators, transfer switches

7. Wiring Devices

- a. Low-voltage controls
- b. Switches: regular, time
- c. Upon completion of testing, each system is to be demonstrated only once.
- d. The demonstration is to be held upon completion of all systems at a date to be agreed upon in writing by the Owner or his representative.
- e. The demonstration is to be scheduled and performed by this Contractor in the presence of the Owner, and the manufacturer's representative.

1.2 DEMONSTRATION

- A. Demonstrate the function and location (in the structure) of each system, and indicate its relationship to the riser diagrams and drawings.
- B. Demonstrate by "start-stop operation" how to work the controls, how to reset protective devices, how to replace fuses, and what to do in case of emergency.

1.3 COORDINATION / EXHIBITS

- A. Specification Items:
 - a. Exhibit 1 – Check Out Memo Form

END OF SECTION 26 08 16

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SECTION 26 27 26 – WIRING DEVICES

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

- A. This Section includes the following:
 - 1. Receptacles, receptacles with integral GFCI, and associated device plates.
 - 2. Twist-locking receptacles.
 - 3. Isolated-ground receptacles.
 - 4. Snap switches and wall-box dimmers.
 - 5. Solid-state fan speed controls.
 - 6. Pendant cord-connector devices.
 - 7. Cord and plug sets.
 - 8. Floor service outlets, poke-through assemblies, service poles, and multioutlet assemblies.
- B. Related Sections include the following:
 - 1. Division 27 Section "Communications Horizontal Cabling" for workstation outlets.

1.3 DEFINITIONS

- A. EMI: Electromagnetic interference.
- B. GFCI: Ground-fault circuit interrupter.
- C. Pigtail: Short lead used to connect a device to a branch-circuit conductor.
- D. RFI: Radio-frequency interference.
- E. TVSS: Transient voltage surge suppressor.
- F. UTP: Unshielded twisted pair.

1.4 SUBMITTALS

- A. Product Data: For each type of product indicated.
- B. Operation and Maintenance Data: For wiring devices to include in all manufacturers' packing label warnings and instruction manuals that include labeling conditions.

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1.5 QUALITY ASSURANCE

- A. Source Limitations: Obtain each type of wiring device and associated wall plate through one source from a single manufacturer. Insofar as they are available, obtain all wiring devices and associated wall plates from a single manufacturer and one source.
- B. Electrical Components, Devices, and Accessories: Listed and labeled as defined in NFPA 70, Article 100, by a testing agency acceptable to authorities having jurisdiction, and marked for intended use.
- C. Comply with NFPA 70.
- D. Comply with NEMA WD 1.

1.6 COORDINATION

- A. Receptacles for Owner-Furnished Equipment: Match plug configurations.
 - 1. Cord and Plug Sets: Match equipment requirements.

1.7 ALLOWANCES

- A. Provide for twenty additional receptacles as directed in field. Allowance includes purchase, delivery and installation of box, receptacle cover plate, wire and 100 feet of conduit for each receptacle.

PART 2 - PRODUCTS

2.1 MANUFACTURERS

- A. Manufacturers' Names: Shortened versions (shown in parentheses) of the following manufacturers' names are used in other Part 2 articles:
 - 1. Hubbell Incorporated; Wiring Device-Kellems (Hubbell).
 - 2. Leviton Mfg. Company Inc. (Leviton).
 - 3. Pass & Seymour/Legrand; Wiring Devices & Accessories (Pass & Seymour).

2.2 STRAIGHT BLADE RECEPTACLES

- A. Convenience Receptacles, 125 V, 20 A: Comply with NEMA WD 1, NEMA WD 6 configuration 5-20R, and UL 498.
 - 1. Products: Subject to compliance with requirements, provide one of the following for standard convenience outlets:
 - a. Hubbell; HBL5361 (single), HBL5352 (duplex).
 - b. Leviton; 5351 (single), 5352 (duplex).
 - c. Pass & Seymour; 5361 (single), 5352 (duplex).
 - 2.

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3. Black Computer Power Duplex Receptacle:
 - a. Pass & Seymour Model PS5352-Black
 - b. Hubbell Model HBL5362-Black
 - c. Leviton Model 5362-Black
- B. Convenience Controlled Duplex Receptacles, 125 V, 20 A: Comply with NEMA WD 1, NEMA WD 6 configuration 5-20R, and UL 498.
 1. Products: Subject to compliance with requirements, provide one of the following for standard convenience outlets:
 - a. Hubbell; BR20C1I (Split wired), BR20C2I (Both controlled).
 - b. Leviton; TBR20-S1I (Split wired), TBR20-S2I (Both controlled).
 - c. Pass & Seymour; 5362CHI (Split wired), 5362CDI (Both controlled).

2.3 GFCI RECEPTACLES

- A. General Description: Straight blade, feed-through type. Comply with NEMA WD 1, NEMA WD 6, UL 498, and UL 943, Class A, and trip button to indicate when device is tripped. Face will not have power if reverse wired. Visual indication for device has lost capability to provide protection.
- B. Outdoor locations provide weather resistant GFCI convenience receptacles, 125V, 20A - Black
 1. Products: Subject to compliance with requirements, provide one of the following:
 - a. Hubbell #GFR5362WR
 - b. Pass & Seymour; 2095DSWRBK.
 - c. Leviton #W7899-E
- C. Duplex GFCI Convenience Receptacles, 125 V, 20 A:
 1. Products: Subject to compliance with requirements, provide one of the following:
 - a. Hubbell #GFR5362
 - b. Pass & Seymour; 2095.
 - c. Leviton #6898

2.4 HAZARDOUS (CLASSIFIED) LOCATION RECEPTACLES

- A. Wiring Devices for Hazardous (Classified) Locations: Comply with NEMA FB 11 and UL 1010.
 1. Manufacturers: Subject to compliance with requirements, provide products by one of the following:
 - a. Cooper Crouse-Hinds.
 - b. EGS/Appleton Electric.
 - c. Killark; a division of Hubbell Inc.

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2.5 TWIST-LOCKING RECEPTACLES

- A. Single Convenience Receptacles, 125 V, 20 A: Comply with NEMA WD 1, NEMA WD 6 configuration L5-20R, and UL 498.
 - 1. Products: Subject to compliance with requirements, provide one of the following:
 - a. Hubbell; HBL2310.
 - b. Leviton; 2310.
 - c. Pass & Seymour; L520-R.

2.6 PENDANT CORD-CONNECTOR DEVICES

- A. Description: Matching, locking-type plug and receptacle body connector; NEMA WD 6 configurations L5-20P and L5-20R, heavy-duty grade.
 - 1. Body: Nylon with screw-open cable-gripping jaws and provision for attaching external cable grip.
 - 2. External Cable Grip: Woven wire-mesh type made of high-strength galvanized-steel wire strand, matched to cable diameter, and with attachment provision designed for corresponding connector.

2.7 CORD AND PLUG SETS

- A. Description: Match voltage and current ratings and number of conductors to requirements of equipment being connected.
 - 1. Cord: Rubber-insulated, stranded-copper conductors, with Type SOW-A jacket; with green-insulated grounding conductor and equipment-rating ampacity plus a minimum of 30 percent.
 - 2. Plug: Nylon body and integral cable-clamping jaws. Match cord and receptacle type for connection.

2.8 SNAP SWITCHES

- A. Comply with NEMA WD 1 and UL 20.
- B. Snap switches for general use shall be maintained contact types, and shall be single-pole, double-pole, three-way, or four-way as required for the specific switching arrangements shown on the drawings. They shall be quiet tumbler operation types, having silver alloy contacts, and meeting all NEMA performance standards.
- C. Switches, 120/277 V, 20 A:
 - 1. Products: Subject to compliance with requirements, provide one of the following:
 - a. Hubbell; HBL1221 (single pole), HBL1222 (two pole), HBL1223 (three way), HBL1224 (four way).
 - b. Leviton; 1221 (single pole), 1222 (two pole), 1223 (three way), 1224 (four way).
 - c. Pass & Seymour; PS20AC1 (single pole), PS20AC2 (two pole), PS20AC3 (three way), PS20AC4 (four way).

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- D. Pilot Light Switches, 20 A:
 - 1. Products: Subject to compliance with requirements, provide one of the following:
 - a. Hubbell; HPL1221PL for 120 V and 277 V.
 - b. Leviton; 1221-PLR for 120 V, 1221-7PLR for 277 V.
 - c. Pass & Seymour; PS20AC1RPL for 120 V.
 - 2. Description: Single pole, with neon-lighted handle, illuminated when switch is "off." Provide red handle for switches connected to emergency power.
- E. Key-Operated Switches, 120/277 V, 20 A:
 - 1. Products: Subject to compliance with requirements, provide one of the following:
 - a. Hubbell; HBL1221L.
 - b. Leviton; 1221L.
 - c. Pass & Seymour; PS20AC1-L.
 - 2. Description: Single pole, with factory-supplied key in lieu of switch handle. All key operated switches shall be keyed alike.
- F. Single-Pole, Double-Throw, Momentary Contact, Center-Off Switches, 120/277 V, 20 A; for use with mechanically held lighting contactors.
 - 1. Products: Subject to compliance with requirements, provide one of the following:
 - a. Hubbell; HBL1557.
 - b. Leviton; 1257.
 - c. Pass & Seymour; 1251.
- G. Key-Operated, Single-Pole, Double-Throw, Momentary Contact, Center-Off Switches, 120/277 V, 20 A; for use with mechanically held lighting contactors, with factory-supplied key in lieu of switch handle. All keyed switches shall be keyed alike.
 - 1. Products: Subject to compliance with requirements, provide one of the following:
 - a. Hubbell; HBL1557L.
 - b. Leviton; 1257L.
 - c. Pass & Seymour; 1251L.

2.9 WALL-BOX DIMMERS

- A. Dimmer Switches: Modular, full-wave, solid-state units with integral, quiet on-off switches, with audible frequency and EMI/RFI suppression filters.
- B. Control: Continuously adjustable toggle switch; with single-pole or three-way switching. Comply with UL 1472.
- C. Incandescent Lamp Dimmers: 120 V; control shall follow square-law dimming curve. On-off switch positions shall bypass dimmer module.
 - 1. 600 W; dimmers shall require no derating when ganged with other devices.
- D. Fluorescent Lamp Dimmer Switches: Modular; compatible with dimmer ballasts; trim potentiometer to adjust low-end dimming; dimmer-ballast combination capable of consistent dimming with low end not greater than 20 percent of full brightness.

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2.10 FAN SPEED CONTROLS

- A. Modular, 120-V, full-wave, solid-state units with integral, quiet on-off switches and audible frequency and EMI/RFI filters. Comply with UL 1917.
 - 1. Continuously adjustable toggle switch, 5 A.
 - 2. Three-speed adjustable slider, 1.5 A.

2.11 WALL PLATES

- A. Single and combination types to match corresponding wiring devices.
 - 1. Plate-Securing Screws: Metal with head color to match plate finish.
 - 2. All wiring devices shall be provided with standard size one-piece cover plates of suitable configuration for the number and type of devices to be covered.
 - 3. Metallic cover plates shall be used in interior spaces, except as noted below, and shall be fabricated of corrosion-resistant #302 stainless steel, having a nominal thickness of .04", and a brushed finish. Screws securing the plates shall have flush (when installed) heads with finish to match plates. Metallic cover plates shall meet all requirements of the National Electrical Code and Federal Specifications.
 - 4. Cover plates for switches located in corrosive atmospheres (where vaporproof is not indicated) shall be equal to Hubbell #17CM81/#17CM82/#17CM83/#17CM84 one piece neoprene with matching Preswitch.
 - 5. Cover plate engraving, where required, shall be accomplished by cover plate manufacturer in accordance with instructions given on the drawings. Metallic plates shall be engraved with black fill. Red plates shall be engraved with white fill.
 - 6. Material for Unfinished Spaces: Galvanized steel.
- B. Wet-Location, Weatherproof Cover Plates: NEMA 250, complying with type 3R weather-resistant, die-cast aluminum with lockable "in use" cover. Cover plates for exterior receptacles shall be gasketed covers with hinge allowing plug and cord to be plugged in and activated with cover closed.

2.12 MULTIOUTLET ASSEMBLIES

- A. Manufacturers: Subject to compliance with requirements, provide products by one of the following:
 - 1. Hubbell Incorporated; Wiring Device-Kellems.
 - 2. Wiremold Company (The).
 - 3. Mono-systems, Inc.
- B. Components of Assemblies: Products from a single manufacturer designed for use as a complete, matching assembly of raceways and receptacles.
- C. Raceway Material: Metal, with manufacturer's standard finish.
- D. Wire: No. 12 AWG.

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2.13 SERVICE POLES

- A. Description: Factory-assembled and -wired units to extend power and voice and data communication from distribution wiring concealed in ceiling to devices or outlets in pole near floor.
1. Poles: Nominal 2.5-inch- (65-mm-) square cross section, with height adequate to extend from floor to at least 6 inches (150 mm) above ceiling, and with separate channels for power wiring and voice and data communication cabling.
 2. Mounting: Ceiling trim flange with concealed bracing arranged for positive connection to ceiling supports; with pole foot and carpet pad attachment.
 3. Finishes: Manufacturer's standard painted finish and trim combination.
 4. Wiring: Sized for minimum of five No. 12 AWG power and ground conductors and a minimum of four, 4-pair, Category 3 or 5 voice and data communication cables.
 5. Power Receptacles: Two duplex, 20-A, heavy-duty, NEMA WD 6 configuration 5-20R units.
 6. Voice and Data Communication Outlets: Four RJ-45 Category 6 jacks.

2.14 FINISHES

- A. Color: Wiring device catalog numbers in Section Text do not designate device color.
1. Wiring Devices Connected to Normal Power System: Gray, unless otherwise indicated or required by NFPA 70 or device listing.
 2. Receptacle devices for computer power shall be black color.
 3. Wiring Devices Connected to Emergency Power System: Red.
 4. Modify any given catalog numbers as required to procure devices and plates of the proper color.

2.15 TAMPER PROOF RECEPTACLES

- A. All nonlocking 125V, 15 and 20A receptacles in elementary schools shall be listed tamper-resistant. Modify all part numbers to incorporate this requirement.

PART 3 - EXECUTION

3.1 INSTALLATION

- A. Coordination with Other Trades:
1. Take steps to ensure that devices and their boxes are protected. Do not place wall finish materials over device boxes and do not cut holes for boxes with routers that are guided by riding against outside of the boxes.
 2. Keep outlet boxes free of plaster, drywall joint compound, mortar, cement, concrete, dust, paint, and other material that may contaminate the raceway system, conductors, and cables.
 3. Install device boxes in brick or block walls so that the cover plate does not cross a joint unless the joint is troweled flush with the face of the wall.

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4. Install wiring devices after all wall preparation, including painting, is complete.
- B. Install products in accordance with manufacturer's instructions.
- C. Install devices plumb and level.
- D. Install switches with OFF position down.
- E. Provide device cover plates for every device installed. Cover plates shall be installed so that they appear straight with no gaps between plate edges and the wall. Maintain vertical and horizontal to within 1/16 of an inch
- F. Wiring devices shall not be installed in exposed masonry until cleaning of masonry with acids has been completed.
- G. All receptacles and switches shall be grounded by means of a ground wire from device ground screw to outlet box screw and branch circuit ground conductor. Strap alone will not constitute an acceptable ground.
- H. All devices shall be installed so that only one wire is connected to each terminal.
- I. Connect wiring devices by wrapping conductor around screw terminal.
- J. Install galvanized steel plates on outlet boxes and junction boxes in unfinished areas, above accessible ceilings, and on surface mounted outlets.
- K. Install local room area wall switches at door locations on the lock side of the door, approximately four inches from the jamb. Where locations shown on the drawings are in question, provide written request for information to A/E prior to rough-in.
- L. Conductors:
 1. Do not strip insulation from conductors until just before they are spliced or terminated on devices.
 2. Strip insulation evenly around the conductor using tools designed for the purpose. Avoid scoring or nicking of solid wire or cutting strands from stranded wire.
 3. The length of free conductors at outlets for devices shall meet provisions of NFPA 70, Article 300, without pigtails.
- M. Device Installation:
 1. Replace all devices that have been in temporary use during construction or that show signs that they were installed before building finishing operations were complete.
 2. Keep each wiring device in its package or otherwise protected until it is time to connect conductors.
 3. Do not remove surface protection, such as plastic film and smudge covers, until the last possible moment.
 4. Connect devices to branch circuits using pigtails that are not less than 6 inches (152 mm) in length.

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5. When there is a choice, use side wiring with binding-head screw terminals. Wrap solid conductor tightly clockwise, 2/3 to 3/4 of the way around terminal screw.
 6. Use a torque screwdriver when a torque is recommended or required by the manufacturer.
 7. When conductors larger than No. 12 AWG are installed on 15- or 20-A circuits, splice No. 12 AWG pigtails for device connections.
 8. Tighten unused terminal screws on the device.
 9. When mounting into metal boxes, remove the fiber or plastic washers used to hold device mounting screws in yokes, allowing metal-to-metal contact.
- N. Device Plates: Do not use oversized or extra-deep plates. Repair wall finishes and remount outlet boxes when standard device plates do not fit flush or do not cover rough wall opening.
- O. Dimmers:
1. Install dimmers within terms of their listing.
 2. Verify that dimmers used for fan speed control are listed for that application.
 3. Install unshared neutral conductors on line and load side of dimmers according to manufacturers' device listing conditions in the written instructions.
- P. Arrangement of Devices: Unless otherwise indicated, mount flush, with long dimension vertical and with grounding terminal of receptacles on bottom. Group adjacent switches or receptacles under multi-gang wall plates. Provide proper NEC barriers in boxes which serve devices for both the Normal and Emergency Systems.
- Q. Adjust locations of floor service outlets and service poles to suit arrangement of partitions and furnishings.

3.2 CONNECTIONS

- A. Connect wiring device grounding terminal to outlet box with bonding jumper.
- B. Connect wiring device grounding terminal to branch-circuit equipment grounding conductor.
- C. Tighten electrical connectors and terminals according to manufacturers published torque-tightening values. If manufacturers torque values are not indicated, use those specified in UL 486A and UL 486B.

3.3 NEUTRAL CONDUCTOR CONNECTIONS

- A. At each receptacle "in" and "out" phase and neutral conductors shall have an additional conductor for connection to device. The practice of "looping" conductors through receptacle boxes shall not be acceptable. (IE: The device shall not be used to complete the circuit. Pigtails shall be used from the device)

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3.4 IDENTIFICATION

- A. Comply with Division 26 Section "Identification for Electrical Systems."
 - 1. Receptacles and Switches: Identify panelboard and circuit number from which served. Use permanent marker to identify on the back of plates or tags within outlet boxes.
- B. Time or Occupancy controlled receptacles shall have engraved plate at top "Occupancy Sensor controlled Receptacle" or "Time Controlled Receptacle" as appropriate for each outlet. See drawing details for additional information. The receptacle shall also be permanently marked as required by NEC 406.3 (E).

3.5 FIELD QUALITY CONTROL

- A. Inspect each wiring device for defects.
- B. Operate each wall switch with circuit energized and verify proper operation.
- C. Verify that each receptacle device is energized.
- D. Test each receptacle device for proper polarity.
- E. Test each GFCI receptacle device for proper operation.

3.6 ADJUSTING

- A. Adjust devices and wall plates to be flush and level.

END OF SECTION 26 27 26

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SECTION 26 28 13 - FUSES

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

- A. This Section includes the following:
 - 1. Cartridge fuses rated 600 V and less for use in switches, controllers and motor-control centers.

1.3 SUBMITTALS

- A. Product Data: Include the following for each fuse type indicated:
 - 1. Dimensions and manufacturer's technical data on features, performance, electrical characteristics, and ratings.
 - 2. Let-through current curves for fuses with current-limiting characteristics.
 - 3. Time-current curves, coordination charts and tables, and related data.
 - 4. Fuse size for elevator feeders and elevator disconnect switches.

1.4 QUALITY ASSURANCE

- A. Source Limitations: Obtain fuses from a single manufacturer.
- B. Electrical Components, Devices, and Accessories: Listed and labeled as defined in NFPA 70, Article 100, by a testing agency acceptable to authorities having jurisdiction, and marked for intended use.
- C. Comply with NEMA FU 1.
- D. Comply with NFPA 70.

1.5 PROJECT CONDITIONS

- A. Where ambient temperature to which fuses are directly exposed is less than 40 deg F (5 deg C) or more than 100 deg F (38 deg C), apply manufacturer's ambient temperature adjustment factors to fuse ratings.

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1.6 COORDINATION

- A. Coordinate fuse ratings with utilization equipment nameplate limitations of maximum fuse size.

1.7 EXTRA MATERIALS

- A. Furnish extra materials that match products installed and that are packaged with protective covering for storage and identified with labels describing contents.
 - 1. Fuses: Three (3) of each type installed. Install in spare Fuse Cabinet

PART 2 - PRODUCTS

2.1 MANUFACTURERS

- A. Manufacturers: Subject to compliance with requirements, provide products by one of the following:
 - 1. Cooper Bussman, Inc.
 - 2. Eagle Electric Mfg. Co., Inc.; Cooper Industries, Inc.
 - 3. Mersen
 - 4. Tracor, Inc.; Littlefuse, Inc. Subsidiary.

2.2 CARTRIDGE FUSES

- A. Characteristics: NEMA FU 1, nonrenewable cartridge fuse; class and current rating indicated; voltage rating consistent with circuit voltage.

2.3 SPARE-FUSE CABINET (Provide one in mechanical room closest to the CEP on the first floor)

- A. Characteristics: Wall-mounted steel unit with full-length, recessed piano-hinged door and key-coded cam lock and pull.
 - 1. Size: Adequate for storage of spare fuses specified with 25 percent spare capacity minimum.
 - 2. Finish: Gray, baked enamel.
 - 3. Identification: "SPARE FUSES" in 1-1/2-inch- (38-mm-) high letters on exterior of door.
 - 4. Fuse Pullers: Provide one for each size of fuse, where applicable and available, from fuse manufacturer.

PART 3 - EXECUTION

3.1 EXAMINATION

- A. Examine utilization equipment nameplates and installation instructions. Install fuses of sizes and with characteristics appropriate for each piece of equipment.

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- B. Evaluate ambient temperatures to determine if fuse rating adjustment factors must be applied to fuse ratings.
- C. Proceed with installation only after unsatisfactory conditions have been corrected.

3.2 FUSE APPLICATIONS

- A. Service Entrance: Class RK1, time delay.
- B. Feeders: Class RK5, time delay.
- C. Motor Branch Circuits: Class RK5, time delay.
- D. Other Branch Circuits: Class RK5, time delay.

3.3 INSTALLATION

- A. Install fuses in fusible devices. Arrange fuses so rating information is readable without removing fuse.

3.4 IDENTIFICATION

- A. Install labels indicating fuse replacement information on inside door of each fused switch.

END OF SECTION 26 28 13

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SECTION 26 28 16 – ENCLOSED SWITCHES AND CIRCUIT BREAKERS

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

- A. This Section includes the following individually mounted, enclosed switches and circuit breakers:
 - 1. Fusible switches.
 - 2. Non-fusible switches.
 - 3. Bolted-pressure contact switches.
 - 4. High-pressure, butt-type contact switches.
 - 5. Molded-case circuit breakers.
 - 6. Molded-case switches.
 - 7. Enclosures.

1.3 DEFINITIONS

- A. GD: General duty.
- B. GFCI: Ground-fault circuit interrupter.
- C. HD: Heavy duty.
- D. RMS: Root mean square.
- E. SPDT: Single pole, double throw.

1.4 REFERENCES

- A. UL 98 Enclosed and Dead Front Switches
- B. NEMA KS1 Enclosed Switches
- C. NEMA 250 Enclosures for Electrical Equipment
- D. NFPA 70 National Electric Code

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1.5 SUBMITTALS

- A. Product Data: For each type of enclosed switch, circuit breaker, accessory, and component indicated. Include dimensioned elevations, sections, weights, and manufacturers' technical data on features, performance, electrical characteristics, ratings, and finishes.
 - 1. Enclosure types and details for types other than NEMA 250, Type 1.
 - 2. Current and voltage ratings.
 - 3. Short-circuit current rating.
 - 4. UL listing for series rating of installed devices.
 - 5. Features, characteristics, ratings, and factory settings of individual overcurrent protective devices and auxiliary components.
- B. Shop Drawings: Diagram power, signal, and control wiring.
 - 1. Coordination Drawings: Show room layout and relationships between components to show submitted product fits within the space as indicated on the contract drawings. Identify any areas of concern and notify the EOR for clarification prior to submittal of gear. Show relationship of supports, clearances and other foreign systems (such as structural, architectural, mechanical, plumbing, fire protection, etc) within the space to confirm all fits as required.
- C. Operation and Maintenance Data: For enclosed switches and circuit breakers to include in operation, and maintenance manuals. In addition to items specified in Division 01 Section "Operation and Maintenance Data," include the following:
 - 1. Manufacturer's written instructions for testing and adjusting enclosed switches and circuit breakers.
 - 2. Time-current curves, including selectable ranges for each type of circuit breaker.

1.6 QUALITY ASSURANCE

- A. Electrical Components, Devices, and Accessories: Listed and labeled as defined in NFPA 70, Article 100, by a testing agency acceptable to authorities having jurisdiction, and marked for intended use.
- B. Comply with NFPA 70.
- C. Product Selection for Restricted Space: Drawings indicate maximum dimensions for enclosed switches and circuit breakers, including clearances between enclosures, and adjacent surfaces and other items. Comply with indicated maximum dimensions.

1.7 PROJECT CONDITIONS

- A. Environmental Limitations: Rate equipment for continuous operation under the following conditions, unless otherwise indicated:
 - 1. Ambient Temperature: Not less than minus 22 deg F (minus 30 deg C) and not exceeding 104 deg F (40 deg C).
 - 2. Altitude: Not exceeding 6600 feet (2010 m).

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1.8 COORDINATION

- A. Coordinate layout and installation of switches, circuit breakers, and components with other construction, including conduit, piping, equipment, and adjacent surfaces. Maintain required workspace clearances and required clearances for equipment access doors and panels.

PART 2 - PRODUCTS

2.1 MANUFACTURERS

- A. In other Part 2 articles where titles below introduce lists, the following requirements apply to product selection:
 - 1. Manufacturers: Subject to compliance with requirements, provide products by one of the manufacturers specified.

2.2 RATING

- A. The size, number of poles, and fusing for each switch shall be as denoted on the drawings. As a minimum, no less than one pole for each ungrounded conductor shall be provided. Switches shall be rated 250 VAC or 600 VAC as required by the circuit to which it is connected.
- B. Switches serving motors with more than one set of windings shall have the number of poles necessary to disconnect all conductors to all windings in a single switch. Switches serving motor loads shall be horsepower rated of sufficient size to handle the load.
- C. Switches shall be rated for the available fault current at that location. Provide enclosed circuit breakers if required to meet the available fault current. If the available fault current is unknown, assume that the available fault current is to be equal to the upstream panel fault current.

2.3 SERVICE ENTRANCE EQUIPMENT

- A. Switches used as service entrance equipment shall be listed and labeled by U.L. for use as service equipment.

2.4 FUSIBLE AND NONFUSIBLE SWITCHES

- A. Manufacturers:
 - 1. Eaton Corporation; Cutler-Hammer Products.
 - 2. General Electric Co.; Electrical Distribution & Control Division.
 - 3. Siemens Energy & Automation, Inc.
 - 4. Square D/Group Schneider.
- B. Fusible Switch, 1200 A and Smaller: NEMA KS 1, Type HD, with clips or bolt pads to accommodate specified fuses, lockable handle with capability to accept two padlocks, and interlocked with cover in closed position.

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- C. Non-fusible Switch, 1200 A and Smaller: NEMA KS 1, Type HD, lockable handle with capability to accept two padlocks, and interlocked with cover in closed position.
- D. Accessories:
 - 1. Equipment Ground Kit: Internally mounted and labeled for copper and aluminum ground conductors.
 - 2. Neutral Kit: Internally mounted; insulated, capable of being grounded, and bonded; and labeled for copper and aluminum neutral conductors.
 - 3. Auxiliary Contact Kit: Auxiliary set of contacts arranged to open before switch blades open. Provide for all disconnects or circuit breakers installed between a VFD and a motor whether shown on drawings or not.

2.5 MOLDED-CASE CIRCUIT BREAKERS AND SWITCHES

- A. Manufacturers:
 - 1. Eaton Corporation; Cutler-Hammer Products.
 - 2. General Electric Co.; Electrical Distribution & Control Division.
 - 3. Siemens Energy & Automation, Inc.
 - 4. Square D/Group Schneider.
- B. Molded-Case Circuit Breaker: NEMA AB 1, with interrupting capacity to meet available fault currents.
 - 1. Thermal-Magnetic Circuit Breakers: Inverse time-current element for low-level overloads and instantaneous magnetic trip element for short circuits. Adjustable magnetic trip setting for circuit-breaker frame sizes 250 A and larger.
 - 2. Adjustable Instantaneous-Trip Circuit Breakers: Magnetic trip element with front-mounted, field-adjustable trip setting.
 - 3. Electronic Trip-Unit Circuit Breakers: All breakers 400A and larger. RMS sensing; field-replaceable rating plug; with the following field-adjustable settings:
 - a. Instantaneous trip.
 - b. Long- and short-time pickup levels.
 - c. Long- and short-time time adjustments.
 - d. Ground-fault pickup level, time delay, and I^2t response.
 - 4. Current-Limiting Circuit Breakers: Frame sizes 400 A and smaller and let-through ratings less than NEMA FU 1, RK-5.
 - 5. GFCI Circuit Breakers: Single- and two-pole configurations with 5-mA trip sensitivity.
- C. Molded-Case Circuit-Breaker Features and Accessories:
 - 1. Standard frame sizes, trip ratings, and number of poles.
 - 2. Lugs: Mechanical style suitable for number, size, trip ratings, and conductor material.
 - 3. Application Listing: Type SWD for switching fluorescent lighting loads; Type HACR for heating, air-conditioning, and refrigerating equipment.
 - 4. Ground-Fault Protection: Integrally mounted relay and trip unit with adjustable pickup and time-delay settings, push-to-test feature, and ground-fault indicator.
 - 5. Shunt Trip: 120-V trip coil energized from separate circuit, set to trip at 55 percent of rated voltage.
 - 6. Undervoltage Trip: Set to operate at 35 to 75 percent of rated voltage with field-adjustable 0.1- to 0.6-second time delay.
 - 7. Auxiliary Switch: One SPDT switch with "a" and "b" contacts; "a" contacts mimic circuit-breaker contacts, "b" contacts operate in reverse of circuit-breaker contacts.

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8. Key Interlock Kit: Externally mounted to prohibit circuit-breaker operation; key shall be removable only when circuit breaker is in off position.
9. Zone-Selective Interlocking: Integral with electronic trip unit; for interlocking ground-fault protection function.

2.6 ENCLOSURES

- A. NEMA AB 1 and NEMA KS 1 to meet environmental conditions of installed location.
 1. Outdoor Locations: NEMA 250, Type 3R.
 2. Kitchen Areas: NEMA 250, Type 4X, stainless steel.
 3. Other Wet or Damp Indoor Locations: NEMA 250, Type 4.
 4. Hazardous Areas Indicated on Drawings: NEMA 250, Type 7C.

PART 3 - EXECUTION

3.1 EXAMINATION

- A. Examine elements and surfaces to receive enclosed switches and circuit breakers for compliance with installation tolerances and other conditions affecting performance.
- B. Proceed with installation only after unsatisfactory conditions have been corrected.

3.2 INSTALLATION

- A. Comply with applicable portions of NECA 1, NEMA PB 1.1, and NEMA PB 2.1 for installation of enclosed switches and circuit breakers.
- B. All switches shall be firmly anchored to walls and supporting structures (where used) using appropriate installation. Switches shall be installed with the turning axis of their handles approximately 5'-0" above finished floor unless otherwise indicated. Provide rigid steel (galvanized for exterior use) mounting stands, brackets, plates, hardware, and accessories for a complete installation
- C. Switches shall be mounted in accessible locations chosen where the passageway to the switch is not likely to become obstructed. Where a switch serves as the disconnecting means for a load, the switch shall be located as close as practical to the load with the switch handle within sight of the load.
- D. Provide and install lugs on disconnect switch as required to accept conductors called for on drawings.
- E. Disconnect switches shall not be mounted on equipment, unless specifically noted or required and meet all applicable codes, etc. If switches are noted or required to be mounted on equipment, they shall have vibrator clips on fuses and be connected to conduit system with liquid tight flexible conduit.

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- F. Coordinate all requirements for controls between variable speed drive units and its respective motor with drive specification, manufacturer, provider and installer. Provide auxiliary contacts, relays, etc. as required.
- G. Provide e-stop wiring between VFD and disconnect aux contact to shut down VFD if the disconnecting means is opened.
- H. Temporary Lifting Provisions: Remove temporary lifting eyes, channels, and brackets and temporary blocking of moving parts from enclosures and components.

3.3 IDENTIFICATION

- A. Identify field-installed conductors, interconnecting wiring, and components; provide warning signs as specified in Division 26 Section "Identification for Electrical Systems."
- B. Enclosure Nameplates: Label each enclosure with engraved metal or laminated-plastic nameplate as specified in Division 26 Section "Identification for Electrical Systems."

3.4 CONNECTIONS

- A. Install equipment grounding connections for switches with ground continuity to main electrical ground bus.
- B. Install power wiring. Install wiring between switches and control and indication devices.
- C. Tighten electrical connectors and terminals according to manufacturer's published torque-tightening values. If manufacturer's torque values are not indicated, use those specified in UL 486A and UL 486B.

3.5 FIELD QUALITY CONTROL

- A. Prepare for acceptance testing as follows:
 - 1. Inspect mechanical and electrical connections.
 - 2. Verify switch and relay type and labeling verification.
 - 3. Verify rating of installed fuses.
 - 4. Inspect proper installation of type, size, quantity, and arrangement of mounting or anchorage devices complying with manufacturer's certification.
- B. Perform the following field tests and inspections and prepare test reports:
 - 1. Perform each visual and mechanical inspection stated in NETA ATS, Section 7.5 for switches and Section 7.6 for molded-case circuit breakers.
 - 2. Correct malfunctioning units on-site, where possible, and retest to demonstrate compliance; otherwise, replace with new units and retest.
 - 3. Infrared Scanning:
 - a. Initial Infrared Scanning: After Substantial Completion, but not more than 60 days after Final Acceptance, perform an infrared scan of each enclosed switch and circuit breaker. Open or remove doors or panels so connections are accessible to portable scanner.

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- b. Instruments, Equipment and Reports:
 - 1) Use an infrared scanning device designed to measure temperature or to detect significant deviations from normal values. Provide calibration record for device.
 - 2) Prepare a certified report that identifies enclosed switches and circuit breakers included and describes scanning results. Include notation of deficiencies detected, remedial action taken, and observations after remedial action.

3.6 ADJUSTING

- A. Set field-adjustable switches and circuit-breaker trip ranges.

3.7 CLEANING

- A. On completion of installation, vacuum dirt and debris from interiors; do not use compressed air to assist in cleaning.
- B. Inspect exposed surfaces and repair damaged finishes.

END OF SECTION 26 28 16

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SECTION 26 29 23 – VARIABLE FREQUENCY CONTROLLERS

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

- A. This Section includes solid-state, PWM, VFCs for speed control of three-phase, squirrel-cage induction motors.
- B. Related Sections include the following:
 - 1. Division 26 Section "Surge Protection Devices" for low-voltage power, control, and communication surge suppressors.

1.3 DEFINITIONS

- A. BMS: Building management system.
- B. IGBT: Integrated gate bipolar transistor.
- C. LAN: Local area network.
- D. PID: Control action, proportional plus integral plus derivative.
- E. PWM: Pulse-width modulated.
- F. VFC: Variable frequency controller.

1.4 SUBMITTALS

- A. Product Data: For each type of VFC. Include dimensions, mounting arrangements, location for conduit entries, shipping and operating weights, and manufacturer's technical data on features, performance, electrical ratings, characteristics, and finishes.
- B. Shop Drawings: For each VFC.
 - 1. Include dimensioned plans, elevations, sections, and details, including required clearances and service space around equipment. Show tabulations of installed devices, equipment features, and ratings. Include the following:
 - a. Each installed unit's type and details.
 - b. Nameplate legends.
 - c. Short-circuit current rating of integrated unit.

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- d. Listed and labeled for series rating of overcurrent protective devices in combination controllers by an NRTL acceptable to authorities having jurisdiction.
 - e. Features, characteristics, ratings, and factory settings of each motor-control center unit.
- 2. Wiring Diagrams: Power, signal, and control wiring for VFCs. Provide schematic wiring diagram for each type of VFC.
- C. Coordination Drawings: Floor plans, drawn to scale, showing dimensioned layout, required working clearances, and required area above and around VFCs where pipe and ducts are prohibited. Show VFC layout and relationships between electrical components and adjacent structural and mechanical elements. Show support locations, type of support, and weight on each support. Indicate field measurements.
- D. Operation and Maintenance Data: For VFCs, all installed devices, and components to include in emergency, operation, and maintenance manuals. In addition to items specified in Division 01 Section "Operation and Maintenance Data," include the following:
 - 1. Routine maintenance requirements for VFCs and all installed components.
 - 2. Manufacturer's written instructions for testing and adjusting overcurrent protective devices.
- E. Load-Current and Overload-Relay Heater List: Compile after motors have been installed and arrange to demonstrate that selection of heaters suits actual motor nameplate full-load currents.
- F. Load-Current and List of Settings of Adjustable Overload Relays: Compile after motors have been installed and arrange to demonstrate that dip switch settings for motor running overload protection suit actual motor to be protected.

1.5 QUALITY ASSURANCE

- A. Source Limitations: Obtain VFCs of a single type through one source from a single manufacturer.
- B. Electrical Components, Devices, and Accessories: Listed and labeled as defined in NFPA 70, Article 100, by a testing agency acceptable to authorities having jurisdiction, and marked for intended use.
- C. Comply with NFPA 70.
- D. Product Selection for Restricted Space: Drawings indicate maximum dimensions for VFCs, minimum clearances between VFCs, and adjacent surfaces and other items. Comply with indicated maximum dimensions and clearances.

1.6 DELIVERY, STORAGE, AND HANDLING

- A. Deliver VFCs in shipping splits of lengths that can be moved past obstructions in delivery path as indicated.
- B. Store VFCs indoors in clean, dry space with uniform temperature to prevent condensation. Protect VFCs from exposure to dirt, fumes, water, corrosive substances, and physical damage.

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- C. If stored in areas subject to weather, cover VFCs to protect them from weather, dirt, dust, corrosive substances, and physical damage. Remove loose packing and flammable materials from inside controllers; install electric heating of sufficient wattage to prevent condensation.

1.7 PROJECT CONDITIONS

- A. Environmental Limitations: Rate equipment for continuous operation, capable of driving full load without derating, under the following conditions, unless otherwise indicated:
 - 1. Ambient Temperature: 0 to 40 deg C.
 - 2. Humidity: Less than 90 percent (noncondensing).
 - 3. Altitude: Not exceeding 3300 feet (1005 m).
- B. Product Selection for Restricted Space: Drawings indicate maximum dimensions for VFCs, including clearances between VFCs, and adjacent surfaces and other items. Comply with indicated maximum dimensions.

1.8 COORDINATION

- A. Coordinate layout and installation of VFCs with other construction including conduit, piping, equipment, and adjacent surfaces. Maintain required workspace clearances and required clearances for equipment access doors and panels.
- B. Coordinate size and location of concrete bases. Cast anchor-bolt inserts into bases. Concrete, reinforcement, and formwork requirements are specified in Division 03 Section "Cast-in-Place Concrete."
- C. Coordinate installation of roof curbs, equipment supports, and roof penetrations. These items are specified in Division 07 Section "Roof Accessories."
- D. Coordinate features of VFCs, installed units, and accessory devices with pilot devices and control circuits to which they connect.
- E. Coordinate features, accessories, and functions of each VFC and each installed unit with ratings and characteristics of supply circuit, motor, required control sequence, and duty cycle of motor and load.

PART 2 - PRODUCTS

2.1 MANUFACTURERS

- A. Manufacturers: Subject to compliance with requirements, provide products by one of the following:
 - 1. ABB Power Distribution, Inc.; ABB Control, Inc. Subsidiary.
 - 2. Eaton Corporation; Cutler-Hammer Products.
 - 3. General Electric Company; GE Industrial Systems.
 - 4. Rockwell Automation; Allen-Bradley Co.; Industrial Control Group.
 - 5. Siemens Energy and Automation; Industrial Products Division.
 - 6. Square D.

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7. Emerson Electric
8. Toshiba International Corporation.
9. Trane

2.2 GENERAL

- A. Short Circuit Withstand Rating: All variable frequency controllers shall have a short circuit withstand rating identical or higher than the upstream panel or switchgear that it is connected. Rating shall be permanently marked on the VFC.

2.3 VARIABLE FREQUENCY CONTROLLERS

- A. Description: NEMA ICS 2, IGBT, PWM, VFC; listed and labeled as a complete unit and arranged to provide variable speed of an NEMA MG 1, Design B, 3-phase induction motor by adjusting output voltage and frequency.
- B. Design and Rating: Match load type such as fans, blowers, and pumps; and type of connection used between motor and load such as direct or through a power-transmission connection.
- C. Unit Operating Requirements:
 1. Input ac voltage tolerance of 208 V, plus or minus 5 percent and 380 to 500 V, plus or minus 10 percent.
 2. Input frequency tolerance of 50/60 Hz, plus or minus 6 percent.
 3. Minimum Efficiency: 96 percent at 60 Hz, full load.
 4. Minimum Displacement Primary-Side Power Factor: 96 percent.
 5. Overload Capability: 1.1 times the base load current for 60 seconds; 2.0 times the base load current for 3 seconds.
 6. Starting Torque: 100 percent of rated torque or as indicated.
 7. Speed Regulation: Plus-or-minus 1 percent.
- D. Isolated control interface to allow controller to follow control signal over an 11:1 speed range.
 1. Electrical Signal: 4 to 20 mA at 24 V.
- E. Internal Adjustability Capabilities:
 1. Minimum Speed: 5 to 25 percent of maximum rpm.
 2. Maximum Speed: 80 to 100 percent of maximum rpm.
 3. Acceleration: 2 to a minimum of 22 seconds.
 4. Deceleration: 2 to a minimum of 22 seconds.
 5. Current Limit: 50 to a minimum of 110 percent of maximum rating.
- F. Self-Protection and Reliability Features:
 1. Input transient protection by means of surge suppressors.
 2. Under- and overvoltage trips; inverter overtemperature, overload, and overcurrent trips.
 3. Motor Overload Relay: Adjustable and capable of NEMA ICS 2, Class 20 performance.
 4. Notch filter to prevent operation of the controller-motor-load combination at a natural frequency of the combination.
 5. Instantaneous line-to-line and line-to-ground overcurrent trips.
 6. Loss-of-phase protection.
 7. Reverse-phase protection.

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8. Short-circuit protection.
 9. Motor overtemperature fault.
- G. Memory: Controller shall permanently maintain all input data including but not limited to motor data, trip parameters, time/date, fault log, etc. Battery may be used for time date ride thru of power outage for a minimum of 72hours.
- H. Multiple-Motor Capability: Controller suitable for service to multiple motors and having a separate overload relay and protection for each controlled motor. Overload relay shall shut off controller and motors served by it when overload relay is tripped.
- I. Automatic Reset/Restart: Attempts three restarts after controller fault or on return of power after an interruption and before shutting down for manual reset or fault correction. Bidirectional autospeed search shall be capable of starting into rotating loads spinning in either direction and returning motor to set speed in proper direction, without damage to controller, motor, or load.
- J. Torque Boost: Automatically varies starting and continuous torque to at least 1.5 times the minimum torque to ensure high-starting torque and increased torque at slow speeds.
- K. Motor Temperature Compensation at Slow Speeds: Adjustable current fall-back based on output frequency for temperature protection of self-cooled, fan-ventilated motors at slow speeds.
- L. Status Lights: Door-mounted LED indicators shall indicate the following conditions:
1. Power on.
 2. Run.
 3. Overvoltage.
 4. Line fault.
 5. Overcurrent.
 6. External fault.
- M. Panel-Mounted Operator Station: Start-stop and auto-manual selector switches with manual speed control potentiometer and elapsed time meter.
- N. Indicating Devices: Meters or digital readout devices and selector switch, mounted flush in controller door and connected to indicate the following controller parameters:
1. Output frequency (Hz).
 2. Motor speed (rpm).
 3. Motor status (running, stop, fault).
 4. Motor current (amperes).
 5. Motor torque (percent).
 6. Fault or alarming status (code).
 7. PID feedback signal (percent).
 8. DC-link voltage (VDC).
 9. Set-point frequency (Hz).
 10. Motor output voltage (V).
- O. Control Signal Interface:
1. Electric Input Signal Interface: A minimum of 2 analog inputs (0 to 10 V or 0/4-20 mA) and 6 programmable digital inputs.

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2. Remote Signal Inputs: Capability to accept any of the following speed-setting input signals from the BMS or other control systems:
 - a. 0 to 10-V dc.
 - b. 0-20 or 4-20 mA.
 - c. Potentiometer using up/down digital inputs.
 - d. Fixed frequencies using digital inputs.
 - e. RS485.
 - f. Keypad display for local hand operation.
 3. Output Signal Interface:
 - a. A minimum of 1 analog output signal (0/4-20 mA), which can be programmed to any of the following:
 - 1) Output frequency (Hz).
 - 2) Output current (load).
 - 3) DC-link voltage (VDC).
 - 4) Motor torque (percent).
 - 5) Motor speed (rpm).
 - 6) Set-point frequency (Hz).
 4. Remote Indication Interface: A minimum of 2 dry circuit relay outputs (120-V ac, 1 A) for remote indication of the following:
 - a. Motor running.
 - b. Set-point speed reached.
 - c. Fault and warning indication (overtemperature or overcurrent).
 - d. PID high- or low-speed limits reached.
- P. Line Reactor: Provide drive with UL listed 5% input line reactor to help prevent drive component damage, reduce nuisance tripping caused by utility capacitor switching and provide harmonic mitigation. Reactor shall be TCI KDR high Z or equal.
- Q. Communications: Provide an RS485 interface allowing VFC to be used with an external system within a multidrop LAN configuration. Interface shall allow all parameter settings of VFC to be programmed via BMS control. Provide capability for VFC to retain these settings within the nonvolatile memory.
- R. Manual Bypass: Magnetic contactor arranged to safely transfer motor between controller output and bypass controller circuit when motor is at zero speed. Controller-off-bypass selector switch sets mode, and indicator lights give indication of mode selected. Unit shall be capable of stable operation (starting, stopping, and running), with motor completely disconnected from controller (no load).
- S. Bypass Controller: NEMA ICS 2, full-voltage, non-reversing enclosed controller with across-the-line starting capability in manual-bypass mode. Provide motor overload protection under both modes of operation with control logic that allows common start-stop capability in either mode.
- T. Integral Disconnecting Means: NEMA AB 1, instantaneous-trip circuit breaker with lockable handle.
- U. Isolating Switch: Non-load-break switch arranged to isolate VFC and permit safe troubleshooting and testing, both energized and de-energized, while motor is operating in bypass mode.

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- V. Remote Indicating Circuit Terminals: Mode selection, controller status, and controller fault.

2.4 ENCLOSURES

- A. Description: Flush- or surface-mounting cabinets as indicated. NEMA 250, Type 1, unless otherwise indicated to comply with environmental conditions at installed location.
1. Outdoor Locations: NEMA 250, Type 4X.
 2. Kitchen Areas: NEMA 250, Type 4X, stainless steel.
 3. Other Wet or Damp Indoor Locations: NEMA 250, Type 4x.
 4. Hazardous Areas Indicated on Drawings: NEMA 250, Type 7C.

2.5 ACCESSORIES

- A. Devices shall be factory installed in controller enclosure, unless otherwise indicated.
- B. Push-Button Stations, Pilot Lights, and Selector Switches: NEMA ICS 2, heavy-duty type.
- C. Stop and Lockout Push-Button Station: Momentary-break, push-button station with a factory-applied hasp arranged so padlock can be used to lock push button in depressed position with control circuit open.
- D. Control Relays: Auxiliary and adjustable time-delay relays.
- E. Standard Displays:
1. Output frequency (Hz).
 2. Set-point frequency (Hz).
 3. Motor current (amperes).
 4. DC-link voltage (VDC).
 5. Motor torque (percent).
 6. Motor speed (rpm).
 7. Motor output voltage (V).
- F. Historical Logging Information and Displays:
1. Real-time clock with current time and date.
 2. Running log of total power versus time.
 3. Total run time.
 4. Fault log, maintaining last four faults with time and date stamp for each.
- G. Current-Sensing, Phase-Failure Relays for Bypass Controller: Solid-state sensing circuit with isolated output contacts for hard-wired connection; arranged to operate on phase failure, phase reversal, current unbalance of from 30 to 40 percent, or loss of supply voltage; with adjustable response delay.

2.6 FACTORY FINISHES

- A. Finish: Manufacturer's standard paint applied to factory-assembled and -tested VFCs before shipping.

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PART 3 - EXECUTION

3.1 EXAMINATION

- A. Examine areas, surfaces, and substrates to receive VFCs for compliance with requirements, installation tolerances, and other conditions affecting performance.
- B. Examine roughing-in for conduit systems to verify actual locations of conduit connections before VFC installation.
- C. Proceed with installation only after unsatisfactory conditions have been corrected.

3.2 APPLICATIONS

- A. Select features of each VFC to coordinate with ratings and characteristics of supply circuit and motor; required control sequence; and duty cycle of motor, controller, and load.
- B. Select horsepower rating of controllers to suit motor controlled.

3.3 INSTALLATION

- A. Anchor each VFC assembly to steel-channel sills arranged and sized according to manufacturer's written instructions. Attach by bolting. Level and grout sills flush with mounting surface.
- B. Install VFCs larger than 9 cubic feet on concrete bases.
- C. Comply with mounting and anchoring requirements specified in Division 26 Section "Hangers and Supports for Electrical Systems."

3.4 CONCRETE BASES

- A. Coordinate size and location of concrete bases. Verify structural requirements with structural engineer.
- B. Concrete base is specified in Division 26 Section "Common Work Results for Electrical," and concrete materials and installation requirements are specified in Division 03.

3.5 IDENTIFICATION

- A. Identify VFCs, components, and control wiring according to Division 26 Section "Identification for Electrical Systems."
- B. Operating Instructions: Frame printed operating instructions for VFCs, including control sequences and emergency procedures. Fabricate frame of finished metal, and cover instructions with clear acrylic plastic. Mount on front of VFC units.

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3.6 CONTROL WIRING INSTALLATION

- A. Install wiring between VFCs and remote devices according to Division 26 Section "Low-Voltage Electrical Power Conductors and Cables."
- B. Bundle, train, and support wiring in enclosures.
- C. Connect hand-off-automatic switch and other automatic-control devices where applicable.
 - 1. Connect selector switches to bypass only manual- and automatic-control devices that have no safety functions when switch is in hand position.

3.7 CONNECTIONS

- A. Conduit installation requirements are specified in other Division 26 Sections. Drawings indicate general arrangement of conduit, fittings, and specialties.
- B. Ground equipment according to Division 26 "Grounding and Bonding for Electrical Systems."

3.8 FIELD QUALITY CONTROL

- A. Manufacturer's Field Service: Engage a factory-authorized service representative to perform the following:
 - 1. Inspect controllers, wiring, components, connections, and equipment installation. Test and adjust controllers, components, and equipment.
 - 2. Assist in field testing of equipment including pretesting and adjusting of solid-state controllers.
 - 3. Report results in writing.
- B. Perform the following field tests and inspections and prepare test reports:
 - 1. Perform each visual and mechanical inspection, except optional tests, stated in NETA ATS.
 - 2. Correct malfunctioning units on-site, where possible, and retest to demonstrate compliance; otherwise, replace with new units and retest.

3.9 ADJUSTING

- A. Set field-adjustable switches and circuit-breaker trip ranges.

3.10 DEMONSTRATION

- A. Engage a factory-authorized service representative to train Owner's maintenance personnel to adjust, operate, and maintain variable frequency controllers. Refer to Division 01 Section "Demonstration and Training."

END OF SECTION 26 29 23

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SECTION 27 26 26 - DATA COMMUNICATIONS INTEGRATION

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. General: Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 1 Specification sections, apply to work of this section.
- B. Orange County Information Technology Standards following this specification section.
- C. STANDARDS
 - 1. TIA/EIA-568-B.1 "Commercial Building Telecommunications Cabling Standard", CSA T529.
 - 2. TIA/EIA-568-B.2-1 "Transmission Performance Specifications for 4-pair 100Ohm Category 6 Cabling".
 - 3. TIA/EIA-569 "Commercial Building Standard for Telecommunications Pathways and Spaces", CSA T530.
 - 4. TIA/EIA-606 "Administration Standard for Telecommunications Infrastructure of Commercial Buildings", CSA T528.
 - 5. TIA/EIA-607 "Commercial Building Grounding/Bonding Requirements".
 - 6. TSB-67 "Transmission Performance Specification for Field Testing of Unshielded Twisted Pair Cabling Systems".
 - 7. TIA/EIA TSB-72 "Centralized Optical Fiber Cabling Guidelines".
 - 8. *TIA/EIA PN-3398 TSB-75 "Additional Horizontal Cabling Practices for Open Offices".
 - 9. ANSI/NFPA 70 National Electrical Code, CSA C22.1.
 - 10. BICSI Telecommunications Distribution Methods Manuals
 - 11. BICSI Telecommunications Installation Manuals
 - 12. County Codes and Regulations.
 - 13. Underwriters Laboratories (UL)
 - 14. FCC -Federal Communications Commission
 - 15. ADA Requirements
 - 16. Occupational Safety and Health Regulations (OSHA)
 - 17. National Fire Protection Association (NFPA)
 - 18. Florida Statutes and Administrative Rules
 - 19. Cabling System Certified Cabling Catalog

1.2 DESCRIPTION

- A. Support analog and digital voice applications, data, local area networks (LAN), video and low voltage devices for building controls and management on a common cabling platform. The applications that shall be supported include, but are not limited to:
 - 1. Direct Digital Control (DDC) Building Automation System (BAS) Central Site.

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- B. General: The system shall utilize a network of unshielded twisted pair cables (UTP) and fiber optic cables (FO) for horizontal cabling, Backbone cabling, Riser cabling, tie cabling, and patch cords. Cables and terminations shall be provided and located as shown and in the quantities indicated on the drawings. FO Cables shall terminate on rack-mounted Fiber Distribution Centers (FDC's), UTP cables shall terminate on rack-mounted modular patch panels and work area outlets located as shown on the drawings. All cables and terminations shall be identified at all locations according to the EIA/TIA 606 standard. All cables shall be terminated in an alphanumeric sequence at all termination locations.
- C. Warranty: Cabling systems shall be required to be covered under a manufacturer's warranty program for both LINK and Channel configurations. Including cable, jacks, patch panels, patch cords and include cabling specifically approved for the LINK and Channel configuration as specified in the connectivity manufacturer's warranty. The patch cords and workstation cords shall be manufactured by the same manufacturer as the jacks and patch panels. The patch cords shall be 100% factory tested for compliance to the Category 6 standard.
- D. All terminations shall comply with, and be tested to the EIA/TIA 568B.2-1 Category 6 requirements at a minimum, and providing at least a 25-year warranty.
 - 1. It should be anticipated by all installers that all horizontal cable supporting data applications must meet at a minimum the Category 6 performance requirements as listed by EIA/TIA standards for the link and channel. (Field testing for LINK only, 100% factory patch cord testing required)
- E. Work Included: Provide wiring, terminations and patch bays between these designated demarcation points and outlet locations designated on the plans shall be considered part of the contract.

1.3 SUBMITTALS

- A. General: Submittals required prior to commencement of work shall include manufacturers cut sheets for all proposed equipment including, but not limited to, the following:
 - 1. All wire and cable.
 - 2. All connectors and required tooling.
 - 3. All termination system components for each cable type.
 - 4. All cable suspension j-hooks, cable fasteners, CAT 6 cable suspension components.
- B. Adherence to Specifications: Manufacturers and/or products are listed in order of preference. Single manufacturer names means that no other manufacturers' product is accepted without written approval from the Owner and the Engineer. These manufacturers represent major components and are not intended to be comprehensive. Shop drawings and/or samples for all products not listed must be submitted to ICTS for approval. Also, an explanation in detail giving the reason(s) why and how the proposed items will meet the specifications and will not be considered an exception, and submit adequate information to support this claim. ICTS reserves the right to be the sole judge of what is equal or equivalent. These changes, if approved by the OWNER and the ENGINEER, must be issued in a WRITTEN ADDENDUM not later than seven (7) days prior to bid-opening date.

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1.4 SPECIAL REQUIREMENTS FOR CABLE ROUTING AND INSTALLATION

- A. General: Cable routing and Installation practices shall be in accordance with BICSI's Telecommunications Distribution Methods Manual (TDMM) and Telecommunications Installation Manual.
- B. Plenum Spaces and cable routing: The majority of PDW wiring in this building will be installed above ceilings. All communications cabling used throughout this project shall comply with the requirements as outlined in the National Electric Code (NEC) article 800. All cabling shall bare the CMR, MPR OR OFNR (RISER) and or appropriate markings for ducted "air return" applications and for cable run in conduit. Cable shall bare CMP, MPP or OFNP (plenum) markings for all non-ducted return air applications or as required by local and/or State code requirements. Verify with local and State code enforcement officers where plenum and non-plenum cables are required. All cable shall bare the appropriate markings for the environment in which they are installed.
- C. Conduit will provide a pathway for all cables concealed within walls, run in exposed ceiling spaces, run in inaccessible ceiling spaces (Drop ceilings above 11' in height are also considered inaccessible), run exterior of the building, or subject to physical damage.
- D. Cable Pathway: In suspended ceiling and raised floor areas where duct, cable trays, or conduits are not available, bundle in bundles of 40 or less, horizontal wiring with cable ties snug, but not deforming the cable geometry. Cable ties in plenum areas shall be plenum rated. The cable bundling shall be supported via "CLIC" fasteners in Telecommunications closets and non-plenum areas and Category 6 compliant J-hooks or basket tray in ceiling spaces. Provide a minimum of two hangers at any corners or 90 degree turns. Attachment shall be to the building structure and framework at a maximum of five (5) foot intervals. Ceiling suspension wire or independent tie wire shall not be allowed in any space for cable support. Where cable is run above the ceiling in areas without walls, all thread rod shall be used (minimum 1/4", however sized to support the intended weight) with the appropriate CAT 6 hanger for cross-room support. Support rods shall be level and plumb after cable installation. Adhere to the manufacturers' requirements for bending radius and pulling tension of all cables.
- E. Protection: Sealing of openings through rated fire and smoke walls, existing or created for cable pass through shall be provided under division 7 section "Firestopping". Create openings as are necessary for cable passage between locations as shown on the drawings or required. Any openings created for this work and left unused shall also be sealed under Division 7 section "Firestopping".
- F. Damage: The contractor shall be responsible for any damage to any surfaces or work disrupted as a result of his work. Repair of surfaces including painting and ceiling tile replacement shall be included as part of this contract.
- G. Avoiding EMI: To avoid EMI, all pathways shall provide clearances of at least 4 feet (1.2 meters) from motors or transformers; 1 foot (12 inches) from conduit and cables used for electrical-power distribution; and 1 foot (12 inches) from fluorescent lighting. Pathways shall cross perpendicular to fluorescent lighting and electrical power cables and conduits.

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1.5 WARRANTY REQUIREMENTS

- A. Cabling system warranties are to be supplied by the manufacturer of the connectivity, (jacks, patch panels and patch cords). A Warranty from the cable manufacturer or the contractor shall not be accepted.

PART 2 - PRODUCTS

2.1 CATEGORY 6 DATA AND VOICE HORIZONTAL CABLE

- A. General: Data pairs shall be extended between the outlet location and its associated IDF. The cable shall consist of 4 pair 23 gauge, solid copper conductors, Certified to the Category 6 standards. ETL or UL Verified for EIA/TIA electrical performance Comply with FCC Part 68. Cables shall be terminated on each of the 8-position modular jacks provided at each outlet. Voice jacks shall also utilize this cable type. Only virgin materials shall be used.
- B. General: Cable selection shall be Panduit. The following distributors are acceptable:
1. Graybar
 2. Anixter
 3. CDW
- C. Cabling shall meet an end-to-end channel performance and shall be shown to have been tested with the proposed component manufacturer's products and warranted as a complete permanent link and channel solution.
- D. Cable Insulation and Jacket: Cable jacket shall comply with Article 800 NEC for the environment in which the cable will be installed. All cables shall bear the U.L. and NEC, CMR or MPR markings. (All cable shall be RISER rated unless otherwise specified or required by code.) All PLENUM cables shall bear the UL and National Electrical Code, CMP or MPP markings. Cables utilizing 2x2, 3x1, or other combinations of construction shall not be acceptable.
- E. Horizontal Cables drops from IDF or MDF to specified outlets locations are to be without splices.
- F. Properties: Electrical Characteristics for horizontal cable tested on 100 m length shall be as follows:

	TIA/EIA CAT 6
Frequency	250MHz
Characteristic Impedance	100Ω ±15%
NEXT (db) Minimum	41.3dB
PSNEXT (dB) Minimum	39.3dB
ELFEXT Minimum	19.8dB
PSELFEXT	16.8dB

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Minimum	
ACR Minimum	8.5dB
PSACR Minimum	6.5dB
Return Loss Minimum	17.3dB
Delay Skew (ns) Maximum	45ns

- G. Horizontal Cable Specified: In addition to meeting listed requirements cable is also required to meet a 25 year or greater total PDW warranty. The cable selected must be one of those approved for use in a warranted system from the connectivity manufacturer.
- H. Labels: Labeling for copper tie cabling shall be by Room, Outlet, and Jack position number (similar to plate labeling) at the IDF end. Cable shall be identified with IDF # at the outlet box end. Permanent machine type printed (1/8" min letters) vinyl or nylon cloth labels shall be considered acceptable the purpose. Identification shall include be provided at both ends of the cable (in junction box at jack and at IDF patch). Labels shall be by Brady or equal.

2.2 CABLE SUPPORT SYSTEM

- A. General – Horizontal cables shall be suspended by pre-manufactured CAT 6 rated J-hooks and by "CLIC" fasteners with cable inserts in closets where J-hooks, ladder tray or rack management is not available. All supports shall be permanently attached to the structure using drop rod suspension, beam clamps, or wall mount to the structural metal or wooden members. The J-hooks shall feature a wide base loop with smooth curves to eliminate snag potential and cable deformation. All cables shall utilize wire basket style cable tray, in accordance with 26 05 36, when running cables down the corridors. J-hooks should only be utilized when running within individual room spaces and should not be utilized for long runs back to the IDF/MDF.
- B. Cable ties used in plenum areas are to be plenum rated.
- C. J-hooks shall be in accordance with NEC, EIA/TIA requirements for structured cabling systems. All cable supports shall be U.L. listed.
- D. Design selection: Erico Caddy, J-Hook, HILTI Inc. J-hangers, CLIC" 32, 40, 50 with insert, or approved equal.

2.3 COPPER TIE CABLING

- A. General: Copper tie cabling (12pair or 25pair) shall be provided between IDF's and MDF if indicated on the contract drawings. All voice grade wire and cable place underground shall be solid twisted pair, multi-conductor, ASP-filled core cable. Cable jacket shall be aluminum steel polyethylene (ASP). Conductors shall be dual insulated with foam skin and plastic, and surrounded by filling compound. The cable shall be resistant to mechanical damage, lightning damage or damage from wildlife.

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- B. The multi-pair copper cables shall meet the following specifications:
1. Gauge: 24 AWG
 2. DC Resistance: $27.3\Omega/1000\text{ ft}$ ($8.96\Omega/100\text{m}$), maximum
 3. Mutual Capacitance (at 1khz)
 4. Impedance: 100Ω (25 pair)
 5. Buried/Underground Cable Attenuation (db/1,000 ft [305m]): at 1.0 MHz: 6.4 (25 pair), maximum
 6. Aerial Cable Attenuation (db/1,000 ft [305m]): at 1.0 MHz: 6.7 (25 pair), maximum.
- C. Design Selection;
1. Outside Plant: Mohawk Wire and Cable (OSP, Below grade): REA PE-89 AL Filled or equal by General
 2. Inside Plant: Riser rated feeder cables: Mohawk Wire and Cable
- D. Labels: Labeling for copper tie cabling shall be by IDF number. Permanent machine type printed (1/8" min letters) vinyl or nylon cloth labels shall be considered acceptable the purpose. Labels shall also be provided at any exposed cable location 20' on center and at all IDF'S locations. Identification shall include "to" and "from" information. Labels shall be by Brady or equal.

2.4 FIBER OPTIC CABLING

- A. General: Multi-mode and/or single mode fiber optic cabling shall be provided between IDF'S and MDF if designated on the contract drawings. Multimode and or singlemode selection depends on future Gigabit requirements and distance constraints. Cables placed below grade shall be certified by the manufacturer for that environment. The following tables are for planning the type of fibers to be selected for a specific run maintains a viable path for future Gigabit transmission speeds. These characteristics shall be used as a standard for type selection criteria.

1. Table 1: (850 nm) Operating Distance

Fiber Type	Modal Bandwidth @ 850 nm	Distance
50 μm	700 MHz-km/1GBPS Ethernet	1000 m
50 μm	700 MHz-km/10GBPS Ethernet	300 m

2. Table 2: (1300 nm) Operating Distance

Fiber Type	Modal Bandwidth @ 1300 nm	Distance
50 μm	500 MHz-km/1 GBPS Ethernet	600 m
50 μm SM	500 MHz-km/10 GBPS Ethernet	300 m

- B.
- C. Multimode Cable Construction (50 Micron):

1. Number of fibers: 12 minimum, or higher as shown on the drawings.
2. Core/Cladding: 50 micron/125 micron.
3. Fiber type: 10G/300 fiber
4. Buffering: 900 micron

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5. Attenuation: ≤ 1.5 decibels/kilometer at 850 nanometers, ≤ 1.25 dB decibels/kilometer at 1300 nanometers.
 6. Minimum laser bandwidth: 2000 megahertz/kilometer at 850 nanometers, 500 megahertz/kilometer at 1300 nanometers.
 7. Sheath construction: Non-metallic
- D. Composite cables are approved with compliance of above specifications where applicable.
- E. If loose tube 250 micron outside plant cable is installed it is required that all terminations utilize a Fan-out Kit: All kits shall be installed per manufacturer's guidelines to provide fiber protection at each termination point. Kits shall be equal to Sincor SKF-P.
- F. Labels: Labeling for fiber cabling shall be by IDF number, plus the color suffix designating which fiber is terminated. Die cut acetate labels or Kroy labels shall be considered acceptable the purpose. Labels shall also be provided at any exposed cable location 20' on center and at all IDF'S locations. Identification shall include to and from information.

PART 3 - EXECUTION

3.1 CAT 6 CABLE INSTALLATION

- A. Installation of Category 6 UTP cable shall be in accordance with EIA/TIA guidelines for Category 6. Replace Cable installation and terminations that do not comply.
1. The maximum pulling tension shall not exceed 25 pounds to avoid stretching the conductors.
 2. The minimum bending radius of the cable shall not be less than 4x the diameter of the Category 6 cabling.
 3. The cable shall be installed without kinks or twists and the application of cable ties shall not deform the cable bundle. Cables are to be loose enough to be rotated easily by hand.
 4. Strip back only as much cable jacket as is required to terminate the cable and the amount of untwisting in a pair as a result of the termination shall not exceed 0.5 in.

3.2 SERVICE SLACK

- A. All cable runs shall contain service slack prior to the termination point. Provide 12-inch service slack in the ceiling above each outlet. Service slack at IDF shall consist of a 10 foot slack section all station cables located and placed neatly in the cable ladder above the equipment rack.

3.3 SUPPORT AND ROUTING OF CABLES

- A. Horizontal cables used in this system are to be installed within ceiling spaces. Cables shall be routed through these spaces at right angles to electrical power circuits and supported only from the structure. Tie cables shall be extended between MDF to IDF'S utilizing conduit runs as shown on the drawing
- B. Use of ceiling tiles, grid or hanger wires for support of PDW cables shall be prohibited.

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- C. Install a complete set of supporting J-hooks and other supporting hardware for this system as part of the PDW contract. All supporting hardware shall be submitted to the engineer for approval prior to installation. Hardware shall also be utilized by other systems work. Comply with basic layout indicated on drawing details for cable placement.
- D. Do not exceed 80% of the J-hook or cable tray capacity.

3.4 FIRE AND SMOKE PARTITION PENETRATIONS

- A. Openings in sleeves and conduits used for the PDW system cables and those that remain (empty) spare shall be sealed under Division 7 section "Firestopping".

3.5 TESTING OF WIRING ACCURACY

- A. General: Test wiring setting tester for a channel configuration which includes the patch cord, patch panel, UTP Cable, work-area jack and work-area cord.
- B. Testing Equipment: Tester shall be as manufactured by Agilent Technologies, Fluke, Microtest or Ideal. Tester shall be 100% Level III compliant with TIA/EIA 568B.2-1 specifications for testing of CAT 6 cabling. No tester will be approved without meeting these requirements.
- C. Testing guidelines: Each jack in each outlet shall be tested at a minimum to Category 6 compliance. The test shall be done in a LINK configuration to verify the integrity of all conductors and the correctness of the termination sequence. The Contractor and Manufacturer shall provide a minimum 25 year application assurance Warranty for the LINK and CHANNEL.
- D. Testing shall be performed between the outlets and the patch panel at the equipment rack, prior to testing UTP runs the tester shall be calibrated per manufacturer's guidelines. The correct cable NVP shall be entered into the tester to assure proper length and attenuation readings.
- E. Verify that this testing method is acceptable to the manufacturer that will be providing the LINK AND CHANNEL warranty for this project.
 - 1. 250 MHz sweep tests, Wire map, Attenuation, NEXT, PSNEXT, ELFEXT, PSELFEXT, ACR, PSACR, Return Loss, Delay, Delay Skew, and the installed length for Category 6 cables.
 - 2. Cables not complying with ANSI/TIA/EIA-568-B.1 and B.2-1 Category 6 tests shall be identified to the engineer for corrective action which may include replacement at no additional expense to the Owner.
 - 3. Documentation of cable testing shall be required. Provide the results of all Category 6 cable tests in electronic format as well as two (2) hardbound copies in 3-ring binders. Provide IBM format text files on CD/electronic media. Provide a separate text file for each building in the project. Each test page shall be separated by standard page break (one test per page).

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3.6 TESTING OF FIBER OPTIC CABLE

- A. General: Each strand in fiber optic cables shall be tested for correctness of termination, overall transmission loss, and defects using an approved Optical Time Domain Reflectometer (OTDR) and a power meter. The Engineer shall be present during all tests. Notify the engineer one week prior to testing.
- B. Testing Equipment: Tester shall be as manufactured by Agilent Technologies, Fluke, Microtest, Noyes or Ideal.
- C. Testing shall be I.A.W. TIA/EIA-526-14 method B. System loss measurements (both calculated and measured) shall be provided in both directions (1310 and 1550 nanometers for singlemode) for each strand. Per IEEE 802.3z, maximum fiber strand attenuation shall not exceed 2.38 dB @ 850 nm with a modal bandwidth of 160 Mhz-km and 2.35 dB @ 1310 nm with a modal bandwidth of 500 Mhz-km. Test as follows:
 - 1. Measure and record normalized fiber loss at operating wavelength in dB/km.
 - 2. Detect and record point faults or discontinuities.
 - 3. Measure and record overall length of cable.
- D. Certification report shall be provided listing both the calculated and measure loss for each fiber optic circuit and submitted with the test results as called for above. Provide test results in IBM text format on CD/electronic media as well as (2) hardbound copies in 3-ring binders. Documentation of testing shall include:
 - 1. Wavelength, fiber type, fiber manufacturer and cable model number, cable manufacturers' attenuation specifications, cable manufacturers' bandwidth specifications, Measurement direction, Test equipment and serial numbers (with date of last calibration), date of each test, reference setup, Name of technician(s) performing testing.
 - 2. OTDR trace(s) shall be submitted with request for substantial completion.

END OF SECTION 272626



CITY OF ORMOND BEACH

City Manager • 22 S. Beach Street • Ormond Beach • Florida • 32174 • (386) 676-3200 • Fax (386) 676-3384

CITY MANAGER MEMORANDUM

To: The Honorable Mayor Partington and City Commissioners

Through: Joyce A. Shanahan, City Manager

From: Alex Schumann, City Engineer

Date: May 3, 2022

Subject: Intent to Bid - CDBG - S. Washington Street West Side Sidewalk Improvements

Commission Goal: Governance - Other

Introduction

This disposition item provides public notice of the City's intent to advertise for competitive bidding for the Community Development Block Grant (CDBG) South Washington Street West Side Sidewalk Improvements.

Background

On February 1, 2022, with the approval of Resolution 2022-21, the City Commission approved the Subrecipient Agreement with Volusia County for CDBG FY 21-22 funding which included the South Washington Street West Sidewalk Improvements as a Department of Housing and Urban Development (HUD) approved eligible activity.

Discussion

The South Washington Street West Side Sidewalk Improvements work consists of removing and installing a new 4' concrete sidewalk in strict accordance with the American with Disabilities Act (ADA) requirements on the west side of Washington Street from Division Avenue to Live Oak Avenue per the approved plans, specifications, and Invitation to Bid number 2022-06. The project also has two (2) alternates from Live Oak Avenue to Midway Avenue, and from Midway Avenue to Tomoka Avenue which may be included.

Budget Impact

Funding for this project will be derived from CDBG funds in the amount of \$151,165 and are included in Fund 301-Capital Improvements Fund.

Citizen Impact

The construction of this new sidewalk will require minimal disruption to the residence and general public while the project is being completed. Upon completion, it will provide a safer, more attractive, and ADA compliant walking route within this neighborhood.

Recommendation

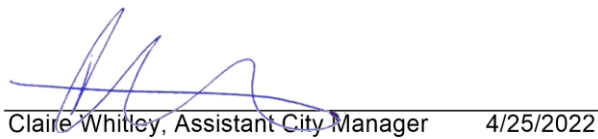
The City intends to publicly advertise the CDBG South Washington Street West Side Sidewalk Improvements for competitive bidding unless otherwise directed by the City Commission.

Attachments:

- WASHINGTON_STREET_PROJECT_MANUAL_03-22-22 (PDF)
- S_WASHINGTON_SIDEWALK_PLANSET_FINAL_03-15-22 (PDF)

REVIEWED BY:


Kelly McGuire, Finance Director 4/8/2022


Claire Whitley, Assistant City Manager 4/25/2022

APPROVED BY:


Joyce A. Shanahan, City Manager 4/27/2022

CDBG – South Washington Street West Side Sidewalk Improvements

Bid No. 2022-06



City of Ormond Beach

Project Manual

PREPARED BY:

ENGINEERING DIVISION OF PUBLIC WORKS

22 South Beach Street
Ormond Beach, Florida 32174

**CDBG South Washington Street West Side Sidewalk Improvements
Ormond Beach, Florida**

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Ormond Beach, Florida**

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SECTION 00030
ADVERTISEMENT FOR BIDS

Sealed bids for furnishing all labor, materials and equipment necessary for constructing the **CDBG South Washington Street West Side Sidewalk Improvements, Bid No. 2022-06** for the City of Ormond Beach, Florida, will be received at the Office of the Purchasing Coordinator, City Hall, Ormond Beach, Florida, until **June 9, 2022 at 2:00 p.m.**, at which time bids will be opened and publicly read aloud in the Training Room located in the breezeway between City Hall and the Public Library. Bids received after the above time and date will be returned unopened.

The work consists of removing and installing a new 4' concrete sidewalk in strict accordance with the American Disabilities Act (ADA) requirements on the west side of Washington Street from Division Avenue to Live Oak Avenue per the approved plans, specifications and Invitation to Bid. The project also has two (2) alternates from Live Oak Avenue to Midway Avenue & from Midway Avenue to Tomoka Avenue which may be included. All work done on the sidewalk improvements project must adhere to the **Highway Wage Determination**, FL 20220191, see **Attachment "A"** in the project manual. The work is shown on the Drawings and specified in the Project Manual.

The project Drawings, Specifications and related Bidding documents are available on-line at **www.demandstar.com**, or by calling DemandStar at (206) 940-0305. If you have difficulty obtaining these documents, please contact the City's purchasing office at (386) 676-3223.

A **pre-bid conference** to discuss the details and requirements of the contract will be held on **May 26, 2022 at 2:00 p.m.**, in the Training Room at City Hall. All prospective bidders are strongly encouraged to attend. The deadline for submitting questions is **June 2, 2022 at 5:00 p.m.**

This is a federally assisted project and is subject to Federal Labor Standards which include, the Davis-Bacon Act (payment of prevailing wage rates) and the Copeland Act (anti-kickback of wages & submission of weekly certified payroll reports), as well as other provisions including 24 CFR 85.36 (bonding requirements), and Section 3 & M/WBE. Laborers and mechanics employed by primary contractors and sub-contractors performing construction work on this project shall be paid wages at rates not less than the prevailing rates as determined by the Secretary of Labor in accordance with the Davis-Bacon Act. The prime contractor is responsible for the enforcement of wage compliance and support documentation for the duration of the project and may be held liable for wage restitution. The applicable information regarding the laws and regulations stated above are included in the bid packet.

END OF SECTION

SECTION 00100 INSTRUCTION TO BIDDERS

00101. Defined Terms

Terms used in these Instructions to Bidders are defined in the General Conditions of the Construction Contract and have the meanings assigned to them in the General Conditions. The term "Successful Bidder" means the lowest, qualified, responsible Bidder to whom OWNER (on the basis of OWNER's evaluation as hereinafter provided) makes an award.

The OWNER for this project is:

The City of Ormond Beach
22 South Beach Street
Ormond Beach, Florida 32174

The ENGINEER for this project is:

Alex Schumann, P.E.
City Engineer
City of Ormond Beach

00102. Copies of Bidding Documents

2.1 The City uses the services of DemandStar (www.demandstar.com) to advertise/distribute its bids and RFP's via the internet.

2.2 Complete sets of the Bidding Documents may be obtained from the issuing office designated in the Advertisement for Bids.

2.3 Complete sets of Bidding Documents shall be used in preparing Bids; neither OWNER nor ENGINEER assume any responsibility for errors or misinterpretations resulting from the use of incomplete sets of Bidding Documents.

2.4 OWNER and ENGINEER in making copies of Bidding Documents available, on the above terms, do so only for the purpose of obtaining Bids on the Work and do not confer a license or grant for any other use.

00102.1 COMPLIANCE WITH FLORIDA PUBLIC RECORDS LAW

Contractor expressly agrees that it shall comply with the public records law provided in Florida Statutes, Chapter 119, and specifically to:

(a) Keep and maintain public records required by the City to perform the contracted service.

(b) Upon request from the City Clerk, provide the City with a copy of the requested records or allow the records to be inspected or copied within a reasonable time at a cost that does not exceed the cost provided in Chapter 119, Florida Statutes, or as otherwise provided by law.

(c) Ensure that public records that are exempt or confidential and exempt from public records disclosure requirements are not disclosed except as authorized by law for the duration of the contract term and following completion of the contract if the contractor does not transfer the records to the City.

(d) Upon completion of the contract, transfer at no cost, to the City all public records in possession of the contractor or keep and maintain public records required by the City to perform the service. If the contractor transfers all public records to the City upon completion of the contract, the contractor shall destroy any duplicate public records that are exempt or confidential and exempt from public records disclosure requirements. If the contractor keeps and maintains public records upon the completion of the contract, the contractor shall meet all applicable requirements for retaining public records. All records stored electronically must be provided to the City, upon request from the City Clerk, in a format that is compatible with the information technology systems of the City.

(e) Failure of the Contractor to comply with Public Records Law as provided by Florida Statutes, Chapter 119, shall subject the Contractor to penalties under Chapter 119.10 and subject this Agreement to termination for cause by the City.

IF THE CONTRACTOR HAS QUESTIONS REGARDING THE APPLICATION OF CHAPTER 119, FLORIDA STATUTES, TO THE CONTRACTOR'S DUTY TO PROVIDE PUBLIC RECORDS RELATING TO THIS CONTRACT, CONTACT THE CUSTODIAN OF PUBLIC RECORDS AT:

**CITY CLERK
22 SOUTH BEACH STREET
ORMOND BEACH, FLORIDA 32174 (386) 676-3331
CITYCLERK@ORMONDBEACH.ORG**

Ref: Fla. Stat. §119.0701(2016)

00102.2 Public Records/Non-Confidentiality of Bids

The City of Ormond Beach cannot and does not warrant the confidentiality of any information submitted in response to this bid solicitation. Florida law provides that municipal records shall at all times be open for personal inspection by any person, Section 119, F.S., the Public Records Act. Information and materials received by the City of Ormond Beach in connection with responsive bids

shall be deemed to be public records subject to public inspection upon award, recommendation of award, or 30 days after bid opening, whichever occurs first.

00103. Qualifications of Bidders

To demonstrate qualifications to perform the Work, each Bidder must be prepared to submit, within seven days after the OWNER's request, written evidence of his ability to perform the work, such as financial data, previous experience, and evidence of authority to conduct business in the jurisdiction where the Project is located. Each Bid must contain evidence of Bidder's qualification to do business in the state where the Project is located or covenant to obtain such qualification prior to award of the contract.

00104. Public Entity Crimes:

A person or affiliate who has been placed on the convicted vendor list following a conviction for a public entity crime may not submit a Proposal on a contract to provide any goods or services to a public entity, may not submit a Proposal on a contract with a public entity for the construction or repair of a public building or public work, may not submit Proposals on leases or real property to a public entity, may not be awarded or perform work as a contractor, supplier, subcontractor, or consultant under a contract with any public entity, and may not transact business with any public entity in excess of the threshold amount provided in Section 287.017, for CATEGORY TWO for a period of 36 months from the date of being placed on the convicted vendor list.

4.1 Discrimination Pursuant to Section 287.134(2)(a), Florida Statutes, an entity or affiliate who has been placed on the discriminatory vendor list may not submit a bid on a contract to provide any goods or services to a public entity, may not submit a bid on a contract with a public entity for the construction or repair of a public building or public work, may not submit bids on leases of real property to a public entity, may not be awarded or perform work as a contractor, supplier, subcontractor, or consultant under a contract with any public entity, and may not transact business with any public entity.

00105. Examination of Contract Documents and Site

5.1 Before submitting a Bid, each Bidder must (a) examine the Contract Documents thoroughly, (b) visit the site to familiarize himself with local conditions that may in any manner affect cost, progress or performance of the Work, (c) familiarize himself with federal, state and local laws, ordinances, rules and regulations that may in any manner affect cost, progress or performance of the Work; and (d) study and carefully correlate Bidder's observations with the Contract Documents.

5.2 Reference is made to the Supplementary Conditions for the identification of those reports of investigations and tests for subsurface and latent physical conditions at the site or otherwise affecting cost, progress or performance of the Work which have been relied upon by ENGINEER in preparing the Drawings and Specifications. OWNER will make such reports available for inspection to any Bidder or copies may be obtained from the ENGINEER by the Bidder at reproduction cost. These reports are not guaranteed as to accuracy or completeness, nor are they part of the Contract

Documents. Before submitting his Bid each Bidder will, at his own expense, make such additional investigations and tests as the Bidder may deem necessary to determine his Bid for performance of the Work in accordance with the time, price and other terms and conditions of the Contract Documents.

5.3 On request OWNER will provide each Bidder access to the site to conduct such investigations and tests as each Bidder deems necessary for submission of his Bid. Bidders making such investigations shall return site to original condition and shall pay for any damages resulting therefrom.

5.4 The lands upon which the Work is to be performed, rights-of-way for access thereto and other lands designated for use by CONTRACTOR in performing the Work are identified in the Supplementary Conditions, General Requirements, or Drawings.

5.5 The submission of a Bid will constitute an incontrovertible representation by the Bidder that he has complied with every requirement of this Article 4 and that the Contract Documents are sufficient in Scope and detail to indicate and convey understanding of all terms and conditions for performance of the Work.

00106. Clarification/Correction of Proposal

The City of Ormond Beach reserves the right to allow for the clarification of questionable entries and for the correction of obvious mistakes.

00107. Interpretations

All questions about the meaning or intent of the Contract Documents shall be submitted in writing to the Purchasing Coordinator via email to Rob.Hart@ormondbeach.org. Replies will be issued by Addenda mailed or delivered to all parties recorded by ENGINEER as having received the Bidding Documents. Only questions answered by formal written Addenda will be binding. Oral and other interpretations or clarifications will be without legal effect.

00108. Minority Policies

The City of Ormond Beach, Florida, encourages the full participation of Disadvantaged and Women Business Enterprises (D&WBE) in the provision of goods and services.

00109. Bid Security

9.1 Bids shall be accompanied by a Bid Security. The Security shall be made payable to OWNER, in the amount of five percent (5%) of the total bid, and in the form of a certified or cashier's check or a Bid Bond issued by a Surety meeting the requirements of paragraph 5.1 of the General Conditions. The Bid Security shall be irrevocable after the time and date set for the opening of bids, and for a period of ninety (90) days thereafter.

9.2 The Bid Security of the Successful Bidder will be retained until such Bidder has executed the Agreement and furnished the required Contract Security, whereupon it will be returned; if the successful Bidder fails to execute and deliver the Agreement and furnish the required Contract Security within fifteen (15) days of the Notice of Award, OWNER may annul the Notice of Award and the Bid Security of that Bidder will be forfeited. The Bid Security of any Bidder whom OWNER believes to have a reasonable chance of receiving the award may be retained by OWNER until the seventh day after the "effective date of the Agreement" or the first day after the expiration of the period that Bids are specified to remain open in the Advertisement for Bids. Bid Security of other Bidders will be returned within seven (7) days of the Bid opening.

00110. Contract Time

The number of days within which, or the date by which, the Work is to be completed (the Contract Time) is set forth in the Bid Form and will be included in the Agreement.

00111. Liquidated Damages

Provisions for liquidated damages, if any, are set forth in the Bid Form and Agreement.

00112. Subcontractors

12.1 If the Supplementary Conditions, Bid Form and/or Specifications require the identity of certain subcontractors to be submitted to the OWNER with the bid, the bidder will list in his bid all subcontractors proposed for those portions of the work for which such identification is so required. When requested, an experience statement, pertinent information as to similar projects satisfactorily completed and other evidence of qualifications for each listed subcontractor shall be submitted within seven (7) days after the bid. If the OWNER after due investigation has reasonable objection to any proposed subcontractor, OWNER may before giving the Notice of Award request the apparent low bidder to submit an acceptable substitute without an increase in his bid price. If the apparent Successful Bidder declines to make any such substitution, the contract shall not be awarded to such Bidder, but his declining to make any such substitution will not constitute grounds for sacrificing his Bid Security. Any Subcontractor so listed and to whom OWNER does not make written objection prior to the giving of the Notice of Award will be deemed acceptable to OWNER.

12.2 In contracts where the Contract Price is on the basis of Cost-of-the-Work Plus a Fee, the apparent Successful Bidder, prior to the Notice of Award, shall identify in writing to OWNER those portions of the Work that such Bidder proposes to subcontract and after the Notice of Award may only subcontract other portions of the Work with OWNER's written consent.

00113. Material and Equipment List (Manufacturers)

If the Supplementary Conditions, Bid Form and/or Specifications require the identity of certain material and equipment manufacturers be submitted to the OWNER with the bid, the bidder will list in his bid all material and equipment manufacturers proposed for those portions of the work for which such identification is so required. Such list shall be supplemented by product descriptions for each listed material and equipment item. Supplemental information will be submitted with the bid

unless it has been prefiled with the ENGINEER. In this latter case, the bid shall state that the information has been prefiled. Equipment manufacturers/suppliers must agree to OWNER'S terms of purchase. In no event will OWNER accept terms of sale that limit OWNER'S ability to reasonably recover in the event of equipment failure/defect such as, but not limited to; mandatory arbitration clauses, venue of court proceedings and applicable law outside of Volusia County, Florida, or damage limitations that preclude recovery for failed or defective equipment that would be less than full compensation for OWNER's loss. If the OWNER after due investigation has reasonable objection to any proposed material or equipment item, OWNER may before giving the Notice of Award request the apparent low bidder to submit an acceptable substitute without an increase in his bid price. If the apparent Successful Bidder declines to make any such substitution, the contract may not be awarded to such Bidder, but his declining to make any such substitution will not constitute grounds for sacrificing his Bid Security. Any material or equipment manufacturer so listed and to whom OWNER does not make written objection prior to the giving of the Notice of Award will be deemed acceptable to OWNER. This acceptance of a material or equipment manufacturer does not relieve the CONTRACTOR from the responsibility of submitting shop drawings in accordance with Section 01300 before incorporating said material and/or equipment into the Work.

00114. Material and Equipment Substitutions

Excluding items called for in the bidders Equipment and Subcontractors List in the Bid, Section 00300, whenever it is indicated on the Drawings or specified in the Specifications that a substitute or "or equivalent" item of material or equipment may be furnished or used by CONTRACTOR if acceptable to ENGINEER, application for such acceptance will not be considered by ENGINEER until after the "effective date of the Agreement". The procedure for submittal of any such application by CONTRACTOR and consideration by ENGINEER is set forth in Section 01630 - Substitutions and Product Options.

00115. Bid Form

15.1 Bids shall be submitted on standard forms which are furnished in this Project Manual.

15.2 Bid Forms must be completed in ink or by typewriter. All blank spaces must be filled. Where indicated on the Bid Form, the Bid price of each item on the form must be stated in words and numerals; in case of a conflict, words will take precedence.

15.3 The estimate of the various quantities of work applicable to unit price items as shown on the Bid Form is approximate and is intended solely to provide the basis of comparison upon which the award of contract is made. Final payment will be made on the basis of the actual completed quantities of each item.

15.4 Bids by corporations must be executed in the corporate name by the president or a vice president (or other corporate officer accompanied by evidence of authority to sign) and the corporate seal must be affixed and attested by the secretary or an assistant secretary. The corporate address and state of incorporation shall be shown below the signature.

15.5 Bids by partnerships must be executed in the partnership name and signed by a partner, whose title must appear under the signature and the official address of the partnership must be shown below the signature.

15.6 Bids by a Joint Venture must be executed by all individuals, Partners, or Corporations interested in the Joint Venture in the same manner that bids by these separate entities are required to be executed.

15.7 All names must be typed or printed below the signature.

15.8 The Bid shall contain an acknowledgment of receipt of all Addenda (the numbers of which shall be filled in on the Bid Form).

15.9 The address to which communications regarding the Bid are to be directed must be shown.

15.10 Only one bid from any individual, firm, partnership or corporation under the same or different names, will be considered. Should it appear to the OWNER that any Bidder is interested in more than one bid, all bids in which such Bidder is interested will be rejected.

00116. Submission of Bids

Bids shall be submitted at the time and place indicated in the Advertisement for Bids and shall be included in an opaque sealed envelope, marked with the Bid Number, Project Title, and Bidder's Name and Address, accompanied by the Bid Security and other required documents. Include one (1) original bid form and (1) electronic file (thumb/flash drive or CD). If the Bid is sent through the mail or other delivery system, the sealed Bid shall be sent in a separate envelope with the notation "BID ENCLOSED" as well as the Bid Number, Project Title, and Bid Opening Date clearly displayed on the shipping envelope/package.

Submit bids to:

City of Ormond Beach
Purchasing Coordinator
22 South Beach Street
Ormond Beach, FL 32174

00117. Modification and Withdrawal of Bids

Bids may be modified or withdrawn by an appropriate document duly executed (in the manner that a Bid must be executed) and delivered to the place where Bids are to be submitted at any time prior to the opening of Bids.

00118. Opening of Bids

Bids will be opened publicly and read aloud and an abstract of the amounts of the base Bids and major alternates (if any) will be made available after the opening of Bids.

00119. Bids to Remain Open

All Bids shall remain open for ninety (90) days after the day of the Bid opening, but OWNER may, in his sole discretion, release any Bid and return the Bid Security prior to that date.

00120. Award of Contract

20.1 OWNER reserves the right to reject any and all Bids, to waive any and all informalities and to negotiate contract terms with the Successful Bidder, and the right to disregard all nonconforming, nonresponsive or conditional Bids. Discrepancies between words and figures will be resolved in favor of words. Discrepancies between the indicated product of quantities and unit prices and the correct product thereof will be resolved in favor of the correct product. Discrepancies between the indicated sum of any column of figures and the correct sum thereof will be resolved in favor of the correct sum.

20.2 In evaluating Bids, OWNER shall consider the qualifications of the Bidders, whether or not the Bids comply with the prescribed requirements, and alternates and unit prices if requested in the Bid forms. It is OWNER's intent to accept alternates (if any are accepted) in the order in which they are listed in the Bid form but OWNER may accept them in any order or combination.

20.3 OWNER may consider the qualifications and experience of Subcontractors and other persons and organizations (including those who are to furnish the principal items or material or equipment) proposed for those portions of the Work as to which the identity of Subcontractors and other persons and organizations must be submitted as provided in the Supplementary Conditions. Operating costs, maintenance considerations, performance data and guarantees of materials and equipment may also be considered by OWNER.

20.4 Irregular bids may be rejected. Irregular bids are defined as those containing serious omissions, unauthorized alternative bids, incomplete bids or unbalanced bids. Failure to provide all of the information required to accompany the bid will be considered to be a serious omission.

20.5 OWNER may conduct such investigations as he deems necessary to assist in the evaluation of any Bid.

20.6 OWNER reserves the right to reject the Bid of any Bidder who does not pass any such evaluation to OWNER's satisfaction.

20.7 If the contract is to be awarded it will be awarded to the lowest responsible Bidder whose evaluation by OWNER indicates that the award will be in the best interests of the Project. The low bid will be based on the total cost of the Base Bid and, when applicable, any Additive or Deductive Alternates that are to be included in the Contract, as decided by the OWNER.

20.8 If the contract is to be awarded, OWNER will give the Successful Bidder a Notice of Award within the number of days after the day of the Bid opening specified in the Advertisement for Bids to remain open.

00121. Performance and Other Bonds

Paragraph 5.1 of the General Conditions and the Supplementary Conditions set forth OWNER's requirements as to performance and other Bonds. When the Successful Bidder delivers the executed Agreement to OWNER it shall be accompanied by the required Contract Security.

00122. Signing of Agreement

When OWNER gives a Notice of Award to the Successful Bidder, it will be accompanied by at least five (5) unsigned counterparts of the Agreement and all other Contract Documents. Within ten (10) days thereafter CONTRACTOR shall sign all and deliver at least five (5) counterparts of the Agreement to OWNER with other Contract Documents attached. Within ten (10) days thereafter OWNER will deliver fully signed counterparts to CONTRACTOR.

00123. Special Requirements

23.1 Financing. Funds will be available for payment of estimate draws as they become due.

23.2 Prohibited Interests. No official of the OWNER who is authorized in such capacity, and on behalf of the OWNER to negotiate, make, accept or approve, or to take part in negotiating, making, accepting, or approving any architectural, engineering, inspection, construction or material supply contract or any subcontract in connection with the construction of the project shall become directly or indirectly interested, personally, in this Contract or in any part thereof. No officer, employee, architect, attorney, engineer, or inspector of or for the OWNER who is authorized in such capacity and on behalf of the OWNER to exercise legislative, executive, supervisory, or other similar functions in connection with the construction of the project, shall become directly or indirectly interested personally, in this Contract or in any part thereof, any material supply contract, subcontract, insurance contract, or any other contract pertaining to the project.

23.3 Performance of Work by CONTRACTOR:

Contract Assignment. The successful Bidder (or Bidders) will be required to perform the work as a prime contractor.

The CONTRACTOR shall not sublet, sell, transfer, assign or otherwise dispose of the contract or any portion thereof, or of his right, title or interest therein, without written consent of the OWNER.

This is a federally assisted project and is subject to the Fair Labor Standards Act, which include Davis-Bacon (Certified Payroll), 24 CFR 85.36 (bonding requirements), Section 3 & M/WBE and related acts. Laborers and mechanics employed by general contractors and subcontractors performing construction work on this project shall be paid wages at rates not less than the prevailing rates as determined by the Secretary of Labor in accordance with the Davis-Bacon Act. The prime contractor is responsible for the enforcement of wage compliance and support documentation for the duration of the project and may be held liable for wage restitution. The applicable information regarding the laws and regulations stated above are included in the bid packet.

END OF INSTRUCTION TO BIDDERS

SECTION 00300
BID

CONTRACTORS NAME _____ LICENSE NO. _____

**PROJECT IDENTIFICATION: CDBG – SOUTH WASHINGTON STREET WEST SIDE
SIDEWALK IMPROVEMENTS**

CONTRACT IDENTIFICATION AND NUMBER:

Bid No. 2022-06

THIS BID IS SUBMITTED TO:

(Name and Address of Owner)

City of Ormond Beach
22 South Beach Street
Ormond Beach, Florida 32174

1. The undersigned BIDDER proposes and agrees, if this Bid is accepted, to enter into an Agreement with OWNER in the form included in the Contract Documents to complete all Work as specified or indicated in the Contract Documents for the Contract Price and within the Contract Time indicated in this Bid and in accordance with the Contract Documents.

2. BIDDER certifies that he has investigated the requirements to do business in the jurisdiction where the project is located, and that he is either qualified to do business or will obtain such prequalification prior to award of the contract.

3. BIDDER accepts all of the terms and conditions of the Instructions to Bidders (Section 00100) including, without limitation, those dealing with the disposition of Bid Security, Public Entity Crimes, and Minority Policies. This Bid will remain open for 90 days after the day of Bid opening. BIDDER will sign the Agreement and submit the Contract security and other documents required by the Contract Documents within ten (10) days after the date of OWNER'S Notice of Award.

4. In submitting this Bid, BIDDER represents, as more fully set forth in the Agreement, that:

(a) BIDDER has examined copies of all the Contract Documents and of the following addenda:

<u>Date</u>	<u>Number</u>
_____	_____
_____	_____
_____	_____
_____	_____

(receipt of all of which is hereby acknowledged) and also copies of the Advertisement to Bid and the Instructions to Bidders;

BID (Cont'd.)
CDBG – SOUTH WASHINGTON STREET WEST SIDE SIDEWALK IMPROVEMENTS
ORMOND BEACH, FLORIDA

(b) BIDDER has examined the site and locality where the Work is to be performed, the legal requirements (federal, state and local laws, ordinances, rules and regulations) and the conditions affecting cost, progress or performance of the Work and has made such independent investigations as BIDDER deems necessary.

(c) This Bid is genuine and not made in the interest of or on behalf of any undisclosed person, firm or corporation and is not submitted in conformity with any agreement or rules of any group, association, organization or corporation; BIDDER has not directly or indirectly induced or solicited any other Bidder to submit a false or sham Bid; BIDDER has not solicited or induced any person, firm or a corporation to refrain from bidding; and BIDDER has not sought by collusion to obtain for himself any advantage over any other Bidder or over OWNER; and

5. BIDDER will complete the Work for the following price(s):

BID SCHEDULE

<u>Item No.</u>	<u>Description</u>	<u>Unit</u>	<u>Total Estimated Price</u>
1.	Demolition of Division Avenue to Live Oak Existing 4' Sidewalk & Driveway Aprons *Approximately 8,081 SF* Includes Removal and Disposal	LS	\$ _____
2.	Install Division Avenue to Live Oak 4' ADA Compliant Sidewalk at 4" depth *Approximately 6,340 SF* Includes – Layout, Excavation, Compacted Base, 4" - 2,500 PSI Concrete Complete Restoration (including Bahia sod)	LS	\$ _____
3.	Install Division Avenue to Live Oak 1 Right of Way Driveway Aprons at 6" depth *Approximately 2,813 SF* Includes – Layout, Excavation, Compacted Base, 6" - 3,000 PSI Concrete Complete Restoration (including Bahia sod)	LS	\$ _____
4.	Install Ten (10) ADA Detectable Warning Mats (FDOT Approved) from Division Avenue to Live Oak	LS	\$ _____
TOTAL BASE BID			\$ _____ (Figures)

(Words)

00300-2

BID (Cont'd.)
CDBG – SOUTH WASHINGTON STREET WEST SIDE SIDEWALK IMPROVEMENTS
ORMOND BEACH, FLORIDA

*** Bidder is responsible to verify all takeoffs as this is a lump sum bid. Bid in accordance with the plans, scope and specifications.**

BID ALTERNATE 1:

- | | | |
|--|----|----------|
| 1. Demolition of Live Oak
to Midway Avenue Existing 4' Sidewalk
Approximately 1,024 SF
Includes Removal and Disposal | LS | \$ _____ |
| 2. Install Live Oak to Midway
Avenue 4' ADA Compliant Sidewalk at 4" depth
Approximately 1,011 SF
Includes – Layout, Excavation, Compacted
Base, 4" - 2,500 PSI Concrete, Relocate Stop Sign
Complete Restoration (including Bahia sod) | LS | \$ _____ |
| 3. Install Two (2) ADA Detectable Warning
Mats (FDOT Approved) from Live Oak
to Midway Avenue | LS | \$ _____ |

TOTAL BID ALTERNATE 1 \$ _____
(Figures)

(Words)

*** Bidder is responsible to verify all takeoffs as this is a lump sum bid. Bid in accordance with the plans, scope and specifications.**

BID ALTERNATE 2:

- | | | |
|---|----|----------|
| 1. Demolition of Midway Avenue
to Tomoka Avenue Existing 4' Sidewalk & Driveway Aprons
Approximately 1,224 SF
Includes Removal and Disposal | LS | \$ _____ |
| 2. Install Midway Avenue to
Tomoka Avenue 4' ADA Compliant Sidewalk at 4" depth
Approximately 838 SF
Includes – Layout, Excavation, Compacted
Base, 4" - 2,500 PSI Concrete
Complete Restoration (including Bahia sod) | LS | \$ _____ |
| 3. Install Midway Avenue to
Tomoka Avenue Right of Way Driveway Aprons at 6" depth
Approximately 350 SF
Includes – Layout, Excavation, Compacted
Base, 6" - 3,000 PSI Concrete | LS | \$ _____ |

00300-3

BID (Cont'd.)
CDBG – SOUTH WASHINGTON STREET WEST SIDE SIDEWALK IMPROVEMENTS
ORMOND BEACH, FLORIDA

Complete Restoration (including Bahia sod)

4. Install Two (2) ADA Detectable Warning Mats (FDOT Approved) from Midway Avenue to Tomoka Avenue \$ _____

TOTAL BID ALTERNATE 2 \$ _____
 (Figures)

(Words)

*** Bidder is responsible to verify all takeoffs as this is a lump sum bid. Bid in accordance with the plans, scope and specifications.**

GRAND TOTAL FOR BASE BID & BID ALTERNATE 1: \$ _____

GRAND TOTAL FOR BASE BID & BID ALTERNATE 2: \$ _____

GRAND TOTAL FOR BASE BID & BID ALTERNATES 1 & 2: \$ _____

Scope of Work

The work is generally described as installing ADA compliant 4' concrete sidewalk including, excavation, compacted base material, 4" - 2,500 PSI concrete for sidewalks & 6" – 3,000 PSI concrete for driveway aprons, ADA detectable warning mats as shown on the Drawings and described within this Project Manual. All excavated material must be removed from the project sites. The City will also be responsible to handle all associated material testing for this project. Contractor is responsible to layout/ stake all proposed improvements for City approval **prior** to construction. **Note: Proposed cross-slopes can't exceed 2%, and running slopes must be less than 5%. All new concrete will be flush with; or feathered into existing grade as to not create tripping hazards.**

This is a federally assisted project and is subject to Federal Labor Standards which include, the Davis-Bacon Act (payment of prevailing wage rates) and the Copeland Act (anti-kickback of wages & submission of weekly certified payroll reports), as well as other provisions including 24 CFR 85.36 (bonding requirements), and Section 3 & M/WBE. Laborers and mechanics employed by primary contractors and sub-contractors performing construction work on this project shall be paid wages at rates not less than the prevailing rates as determined by the Secretary of Labor in accordance with the Davis-Bacon Act. The prime contractor is responsible for the enforcement of wage compliance and support documentation for the duration of the project and may be held liable for wage restitution. The applicable information regarding the laws and regulations stated above are included in the bid packet.

BID (Cont'd.)
CDBG – SOUTH WASHINGTON STREET WEST SIDE SIDEWALK IMPROVEMENTS
ORMOND BEACH, FLORIDA

BIDDER acknowledges that the quantities are not guaranteed and final payment will be based on actual quantities determined as provided in the Contract Documents.

BIDDER agrees that the Work will be substantially completed within **90** calendar days after the date when the Contract Time commences to run, and completed within **120** calendar days after the date when the Contract Time commences to run.

BIDDER recognizes that time is of the essence to complete this Project and that OWNER will suffer financial loss if the Work is not substantially complete within the time specified above, plus any extensions thereof allowed in accordance with Article 12 of the General Conditions. The BIDDER also recognize the delays, expense and difficulties involved in proving, in a legal or arbitration proceeding, the actual loss suffered by OWNER if the Work is not substantially complete on time. Accordingly, instead of requiring any such proof, OWNER has determined and BIDDER agrees to accept that as liquidated damages for delay (but not as a penalty) CONTRACTOR shall pay OWNER **Three Hundred Dollars (\$300.00)** for each calendar day that expires after the time specified above for substantial completion until the Work is substantially complete. After substantial completion, if CONTRACTOR shall neglect, refuse or fail to complete the remaining Work within the time specified above for completion and readiness for final payment or any proper extension thereof granted by OWNER, CONTRACTOR shall pay the OWNER an amount equal to all actual expenses incurred by the OWNER as a direct result of the CONTRACTOR'S negligence, refusal, or failure to so complete the remaining work. In the event the CONTRACTOR is terminated or abandons the work prior to the scheduled date for final completion, the CONTRACTOR may be liable for both liquidated damages attributable to delay and for excess completion costs.

6. The following documents are attached to and made a condition of this Bid:

- (a) Required Bid Security in the form of
 - (1) a certified check drawn in favor of the City of Ormond Beach in the amount of 5 percent of the total bid; or
 - (2) a Bid Bond in the amount of 5 percent of the total bid.
- (b) Equipment, Material, and Subcontractors List
- (c) All information required by the Trench Safety Act (Part VI, Chapter 553, Florida Statutes).
- (d) Drug Free Workplace Certificate
- (e) Conflict, Non-Conflict of Interest, Litigation Statement
- (f) Verification of Employment Status Using E-Verify System
- (g) **CDBG Requirements and Supplemental Conditions**

BID (Cont'd.)
CDBG – SOUTH WASHINGTON STREET WEST SIDE SIDEWALK IMPROVEMENTS
ORMOND BEACH, FLORIDA

7. Communications to the BIDDER concerning this Bid shall be addressed to:

Mailing Address: _____
 Street Address: _____
 City, State, Zip Code: _____
 Email: _____
 Telephone No.: _____ Fax No.: _____

8. The terms used in this Bid which are defined in the General Conditions of the Construction Contract included as part of the Contract DOCUMENTS have the meanings assigned to them in the General Conditions.

SUBMITTED on _____, 20 ____.

If BIDDER is:

An Individual

By _____
 (Individual's Name - Signature)

_____ (SEAL)
 (Individual's Name - Typed or Printed)

doing business as _____

Business address: _____

Phone No.: _____

Fax No.: _____

BID (Cont'd.)
CDBG – SOUTH WASHINGTON STREET WEST SIDE SIDEWALK IMPROVEMENTS
ORMOND BEACH, FLORIDA

If BIDDER is:

A Partnership

By _____ (SEAL)
(Firm Name)

(General Partner - Signature)

(General Partner - Typed or Printed)

Business Address: _____

Phone No.: _____

Fax No.: _____

BID (Cont'd.)
CDBG – SOUTH WASHINGTON STREET WEST SIDE SIDEWALK IMPROVEMENTS
ORMOND BEACH, FLORIDA

If BIDDER is:

A Corporation

By _____
(Corporation Name)

(State of Incorporation)

By _____
(Name of Person Authorized to Sign - Signature)

(Name of Person Authorized to Sign - Typed or Printed)

(Title)

(Corporate Seal)

Attest _____

Business address: _____

Phone No.: _____

Fax No.: _____

BID (Cont'd.)
CDBG – SOUTH WASHINGTON STREET WEST SIDE SIDEWALK IMPROVEMENTS
ORMOND BEACH, FLORIDA

If BIDDER is:

A Joint Venture

By _____
(Name - Signature)

(Name - Typed or Printed)

Address: _____

Phone No.: _____

Fax No.: _____

By _____
(Name - Signature)

(Name - Typed or Printed)

Address: _____

Phone No.: _____

Fax No.: _____

(Each joint venturer must sign. The manner of signing for each individual, partnership and corporation that is a party to the joint venture should be in the manner indicated above.)

BID (Cont'd.)
CDBG – SOUTH WASHINGTON STREET WEST SIDE SIDEWALK IMPROVEMENTS
ORMOND BEACH, FLORIDA

EQUIPMENT AND SUBCONTRACTORS LIST

List the names of the manufacturers whose product is proposed for use. No more than one manufacturer's name shall be inserted for each item of material and/or equipment listed. Failure to list materials and equipment supplier may result in the Bid being rejected as incomplete and nonresponsive. If any Subcontractors are proposed to be used for any portions of the Work, the names, addresses, phone numbers and work classifications of each such Subcontractor must be listed. The failure to list all Subcontractors proposed for the work may result in the Bid being rejected as incomplete and nonresponsive. If more than one manufacturer or subcontractor is listed, selection will be made by the OWNER. If none is listed, those listed as the "Basis for Design" will be used.

Materials and Equipment:

<u>Item</u>	<u>Supplier</u>
Form Boards _____	_____
Limerock Base (as needed) _____	_____
2,500 PSI Concrete _____	_____
3,000 PSI Concrete _____	_____
ADA Mats (FDOT Approved) _____	_____
Bahia Sod _____	_____

The City of Ormond Beach reserves the right to require any bidder to submit such evidence of qualifications as it may deem necessary and may consider evidence available concerning the financial and other qualifications and abilities of a Contractor. Failure to provide all required information may result in the proposal being **rejected** as nonresponsive. The minimum qualifications for this project are as follows:

1. The contractor must have a minimum ten (5) years experience installing projects of a similar scope in nature with verifiable references in the following areas:

Contractor References

Municipal Projects

Project Name / City and State

Contact Information

1. _____
2. _____
3. _____

BID (Cont'd.)
CDBG – SOUTH WASHINGTON STREET WEST SIDE SIDEWALK IMPROVEMENTS
ORMOND BEACH, FLORIDA

Concrete Sidewalks and/or Parking

Project Name / City and State

Contact Information

1. _____
2. _____
3. _____

Projects Exceeding \$75K as Prime Contractor

Project Name / City and State

Contact Information

1. _____
2. _____
3. _____

Subcontractors:

Work Classification: _____

Name: _____

Address: _____

Phone Number: _____ Fax Number: _____

Work Classification: _____

Name: _____

Address: _____

Phone Number: _____ Fax Number: _____

Work Classification: _____

Name: _____

Address: _____

Phone Number: _____ Fax Number: _____

BID (Cont'd.)
CDBG – SOUTH WASHINGTON STREET WEST SIDE SIDEWALK IMPROVEMENTS
ORMOND BEACH, FLORIDA

Work Classification: _____

Name: _____

Address: _____

Phone Number: _____ Fax Number: _____

Work Classification: _____

Name: _____

Address: _____

Phone Number: _____ Fax Number: _____

Work Classification: _____

Name: _____

Address: _____

Phone Number: _____ Fax Number: _____

BID (Cont'd.)
CDBG – SOUTH WASHINGTON STREET WEST SIDE SIDEWALK IMPROVEMENTS
ORMOND BEACH, FLORIDA

TRENCH SAFETY STANDARDS

If this project includes trench excavation in excess of five (5) feet in depth, the following trench safety standards will be in effect during the period of construction of the project:

The Occupational Safety and Health Administration's excavation safety standards, 29 C.F.R.s. 1926.650 Subpart P, and any regulation promulgated there under are hereby incorporated as the standard for this project.

The Bidder hereby certifies that the Contractor performing the trench excavation will comply with the applicable trench safety standards.

The Bidder further certifies that the cost (which is included in his unit cost) of compliance with applicable trench safety standards is:

	<u>Estimated Quantity</u>	<u>Units</u>	<u>Unit Price</u>	<u>Total Estimated Price</u>
<u>ITEM</u>				
1. Trench Excavation	_____	L.F.	_____	_____
2. Sheeting/Shoring	_____	S.F.	_____	_____

 Name (signature)

 Date

 Name (typed or printed)

 Title

BID (Cont'd.)
CDBG – SOUTH WASHINGTON STREET WEST SIDE SIDEWALK IMPROVEMENTS
ORMOND BEACH, FLORIDA

DRUG-FREE WORKPLACE CERTIFICATION

Identical Or “Tie” Bids: Preference shall be given to businesses with drug-free workplace programs. Whenever two or more proposals which are equal in respect to price, quality, and service are received by the State or by any political subdivision for the procurement of commodities or contractual services, a bid received from a business that certifies that it has implemented a drug-free workplace program shall be given preference in the award process. Established procedures for processing tie bids will be followed if none of the tied vendors have a drug-free workplace program. In order to have a drug-free workplace program, a business shall:

- 1) Publish a statement notifying employees that the unlawful manufacture, distribution, dispensing, possession, or use of a controlled substance is prohibited in the workplace and specifying the actions that will be taken against employees for violations of such prohibition.
- 2) Inform employees about the dangers of drug abuse in the workplace, the business’s policy of maintaining a drug-free workplace, any available drug counseling, rehabilitation, and employee assistance programs, and the penalties that may be imposed upon employees for drug abuse violation.
- 3) Give each employee that engages in providing the commodities or contractual services that are under bid a copy of the statement specified in subsection (1).
- 4) In the statement specified in subsection (1), notify the employees that, as a condition of working on the commodities or contractual services that are under bid, the employee will abide by the terms of the statement and will notify the employer of any conviction of, or plea of guilty or nolo contendere to, any violation of Chapter 893 or of any controlled substance law of the United States or any state, for a violation occurring in the workplace no later than five (5) calendar days after such conviction.
- 5) Impose sanctions on, or require the satisfactory participation in a drug abuse assistance or rehabilitation program if such is available in the employee’s community, by any employee who is so convicted.
- 6) Make a good faith effort to continue to maintain a drug-free workplace through implementation of this section.

 Name (signature)

 Date

 Name (typed or printed)

 Title

BID (Cont'd.)
CDBG – SOUTH WASHINGTON STREET WEST SIDE SIDEWALK IMPROVEMENTS
ORMOND BEACH, FLORIDA

CONFLICT, NON-CONFLICT OF INTEREST STATEMENT
LITIGATION STATEMENT

1.

- [] To the best of our knowledge, the undersigned firm has no potential conflicts of interest due to any other clients or contracts for this project.
- [] The undersigned firm, by attachment to this form, submits information which may be a potential conflict of interest due to other clients or contracts for this project.

2.

- [] The undersigned firm has had no litigation on any project in the last five (5) years.
- [] The undersigned firm, by attachment to this form, submits a summary and disposition of individual cases of litigation during the past five (5) years.

COMPANY NAME

AUTHORIZED SIGNATURE

NAME (PRINT OR TYPE)

TITLE

DATE

BID (Cont'd.)
CDBG – SOUTH WASHINGTON STREET WEST SIDE SIDEWALK IMPROVEMENTS
ORMOND BEACH, FLORIDA

VERIFICATION OF EMPLOYMENT STATUS USING E-VERIFY SYSTEM

1. Undersigned firm warrants it **IS** currently registered with the U.S. Department of Homeland Security's E-Verify system, **and** is compliant with the requirements of Sections 448.09 and 448.095, *Florida Statutes*.
2. Undersigned firm warrants it **has not** had any contracts terminated as a result of violations of Sections 448.09 or 448.095, *Florida Statutes*, that prohibit it from contracting with a public agency.
3. Undersigned firm warrants that if it enters into an agreement with a subcontractor, an express provision shall be included in all of its subcontracts requiring subcontractors, who perform work or provide services pursuant to the contract, to use the E-Verify system to verify employment eligibility of all new employees hired by the subcontractor during the contract term.
4. Undersigned firm understands that any subcontractor must provide the contractor with an affidavit stating that the subcontractor does not employ, contract with, or subcontract with an unauthorized alien, and the contractor understands it shall maintain any such affidavits for the duration of the contract, and the contract with the subcontractor must be immediately terminated if the City has a good faith belief that the subcontractor knowingly violated Section 448.09 (1), *Florida Statutes*.
5. Undersigned firm understands that in the event the City has a good faith belief that the contractor has knowingly violated Section 448.09 (1), *Florida Statutes*, the City shall terminate the contract, and the contractor may not be awarded a public contract for a period of at least one (1) year after the date of termination. The contractor may be held liable for any additional costs incurred by the City as a result of termination of the contract.

 COMPANY NAME

 AUTHORIZED SIGNATURE

 NAME (PRINT OR TYPE)

 TITLE

 DATE

END OF BID

00300-16

SECTION 00410
BID BOND

KNOW ALL MEN BY THESE PRESENTS, that we _____

(hereinafter called *Principal*) and

(hereinafter called the *Surety*) a corporation chartered and existing under the Laws of the State _____ of with its principal offices in the County of _____ and authorized to do business in the State of Florida, in the full and just sum of _____ Dollars (\$ _____) good and lawful money of the United States of America, to be paid upon demand of the _____, Florida, to which payment well and truly to be made we bind ourselves, our heirs, executors, administrators, and assigns, jointly and severally and firmly by these presents,

WHEREAS, the Principal is about to submit, or has submitted to the City of Ormond Beach, Florida, a bid for work to be done on the **CDBG South Washington Street West Side Sidewalk Improvements, Bid No. 2022-06** in, and for the City and

WHEREAS, the Principal desires to file this bond in accordance with law, in lieu of a certified or cashier's check otherwise required to accompany this Bid.

NOW, THEREFORE: the conditions of this obligation are such that if the Bid be accepted the Principal shall within ten (10) days after the receipt of notification of the acceptance thereof execute a contract in accordance with the Bid and upon the terms, conditions and unit or lump sum prices set forth therein, in the form and manner required by the Owner, and execute a sufficient and satisfactory Contract Bond payable to the Owner, in an amount not less than the total contract price, as indicated by the approximate quantities shown in the Bid, in form and with security satisfactory to the said City, then this obligation to be void; otherwise to be and remain in full force and virtue in law; and the Surety shall upon the failure of the Principal to comply with any or all of the foregoing requirements within the time specified above, immediately pay to the aforesaid City upon demand the amount hereof in good and lawful money of the United States of America, not as a penalty, but as liquidated damages.

IN TESTIMONY WHEREOF, the Principal and Surety have caused these presents to be duly signed and sealed this _____ day _____, 20____.

(Principal)

By: _____

ATTEST:

(Surety)

By: _____

(SEAL)

END OF SECTION
00410 - 1

SECTION 00500 FORM OF AGREEMENT

THIS AGREEMENT is by and between City of Ormond Beach, a Municipal Corporation in the State of Florida (hereinafter called OWNER) and

(hereinafter called CONTRACTOR)

The bid for this contract was approved by the City Commission on _____, 2022.

Article 1. WORK

CONTRACTOR shall complete all Work as specified or indicated in the Contract Documents. The Work is generally described as follows:

The work consists of removing and installing a new 4' concrete sidewalk in strict accordance with the American Disabilities Act (ADA) requirements on the west side of Washington Street from Division Avenue to Live Oak Avenue per the approved plans, specifications and Invitation to Bid. The project also has two (2) alternates from Live Oak Avenue to Midway Avenue & from Midway Avenue to Tomoka Avenue which may be included.

The Project for which the Work under the Contract Documents may be the whole or only a part is generally described as follows:

CDBG South Washington Street West Side Sidewalk Improvements Bid No. 2022-06

Article 2. ENGINEER

The Project has been designed by City Engineer, 22 South Beach Street, Ormond Beach, FL 32174, who is hereinafter called ENGINEER and who will assume all duties and responsibilities and will have the rights and authority assigned to ENGINEER in the Contract Documents in connection with completion of the Work in accordance with the Contract Documents.

Article 3. CONTRACT TIME

3.1 The Work will be substantially completed within **90** calendar days after the date when the Contract Time commences to run as provided in paragraph 2.3 of the General Conditions, and completed and ready for final payment in accordance with paragraph 14.10 of the General Conditions within **120** calendar days after the date when the Contract Time commences to run.

3.2 Liquidated Damages. OWNER and CONTRACTOR recognize that time is of the essence of this Agreement and that OWNER will suffer financial loss if the Work is not substantially complete within the time specified in paragraph 3.1 above, plus any extensions thereof allowed in accordance with Article 12 of the General Conditions. They also recognize the delays, expense and difficulties involved in proving in a legal or arbitration proceeding the actual loss suffered by OWNER if the Work is not substantially complete on time. Accordingly, instead of requiring any such proof, OWNER and CONTRACTOR agree that as liquidated damages for delay (but not as a penalty) CONTRACTOR shall pay OWNER **Three Dollars**

(\$300.00) for each calendar day that expires after the time specified in paragraph 3.1 for Substantial Completion until the Work is substantially complete. After Substantial Completion, if CONTRACTOR shall neglect, refuse or fail to complete the remaining Work within the time specified in paragraph 3.1 for completion and readiness for final payment or any proper extension thereof granted by OWNER, CONTRACTOR shall pay the OWNER an amount equal to all actual expenses incurred by the OWNER as a direct result of the CONTRACTOR'S negligence, refusal, or failure to so complete the remaining work. In the event the Contractor is terminated or abandons the Work prior to the scheduled date for final completion, the Contractor may be liable for both liquidated damages attributable to delay and for excess completion costs.

Article 4. CONTRACT PRICE

OWNER shall pay CONTRACTOR for completion of the Work, in accordance with the Contract Documents, an amount in current funds equal to the Lump Sum TOTAL BID of \$_____, as listed in the Bid Form. Payment shall be for the actual completed work, as specified in the Measurement and Payment section of the project Manual and in accordance with Article 14 of the General Conditions.

Article 5. PAYMENT PROCEDURES

CONTRACTOR shall submit Applications for Payment in accordance with Article 14 of the General Conditions. Applications for Payment will be processed by ENGINEER as provided in the General Conditions.

5.1 Progress Payments. OWNER shall make progress payments on account of the Contract Price on the basis of CONTRACTOR'S Applications for Payment as recommended by ENGINEER, on or about the 15th day of each month during construction as provided below, provided Applications for Payment are timely delivered pursuant to Article 14.1 of the General Conditions. All progress payments will be on the basis of the progress of the Work measured by the schedule of values provided for in paragraph 14.1 of the General Conditions.

5.1.1 When applicable, all progress payments shall be in an amount equal to:

Ninety-Five percent (95%) of the Work completed.

Ninety-Five percent (95%) of materials and equipment not incorporated in the Work but delivered and suitably stored, less in each case the aggregate of payments previously made and less such amounts as ENGINEER shall determine in accordance with paragraph 14.4 of the General Conditions.

5.2 Final Payment. Upon final completion and acceptance of the Work in accordance with paragraph 14.10 of the General Conditions, OWNER shall pay the remainder of the Contract Price as recommended by ENGINEER as provided in said paragraph 14.10.

Article 6. CONTRACTOR'S REPRESENTATIONS

In order to induce OWNER to enter into this Agreement CONTRACTOR makes the following representations:

6.1 CONTRACTOR has familiarized himself with the nature and extent of the Contract Documents, Work, locality, and with all local conditions and federal, state and local laws, ordinances, rules and regulations that in any manner may affect cost, progress or performance of the Work.

6.2 CONTRACTOR has studied carefully all reports of investigations and tests of subsurface and latent physical conditions at the site or otherwise affecting cost, progress or performance of the Work which were relied upon by ENGINEER in the preparation of the Drawings and Specifications and which have been identified in the Supplementary Conditions.

6.3 CONTRACTOR has made or caused to be made examinations, investigations and tests and studies of such reports and related data in addition to those referred to in paragraph 6.2 as he deems necessary for the performance of the Work at the Contract Price, within the Contract Time and in accordance with the other terms and conditions of the Contract Documents, and no additional examinations, investigations, tests, reports or similar data are or will be required by CONTRACTOR for such purposes.

6.4 CONTRACTOR has correlated the results of all such observations, examinations, investigations, tests, reports and data with the terms and conditions of the Contract Documents.

6.5 CONTRACTOR has given ENGINEER written notice of all conflicts, errors or discrepancies that he has discovered in the Contract Documents and the written resolution thereof by ENGINEER is acceptable to CONTRACTOR.

Article 7. CONTRACT DOCUMENTS

The Contract Documents which comprise the entire agreement between OWNER and CONTRACTOR are attached to this Agreement, made a part hereof and consists of the following:

7.1 This Agreement (pages 1 to 5 , inclusive).

7.2 Exhibits to this Agreement (pages ____ to ____ , inclusive).

7.3 Performance and other Bonds, identified as exhibits 00610 AND 00615 and consisting of 4 pages.

7.4 Notice of Award.

7.5 General Conditions (pages 1 to 35 , inclusive).

7.6 Supplementary Conditions (pages 1 to 7 , inclusive).

7.7 Specifications bearing the title:

CDBG South Washington Street West Side Sidewalk Improvements

and consisting of 16 divisions, as listed in table of contents thereof.

7.8 Drawings, consisting of **16** sheets numbered 1 through 16 inclusive and bearing the following general title:

CDBG South Washington Street West Side Sidewalk Improvements

7.9 Addenda numbers to , inclusive.

7.10 CONTRACTOR'S Bid (pages 1 to 18 , inclusive) marked exhibit (Attach Bid Form only in special circumstances).

7.11 Documentation submitted by CONTRACTOR prior to Notice of Award (pages to , inclusive).

7.12 Any Modification, including Change Orders, duly delivered after execution of Agreement.

There are no Contract Documents other than those listed above in this Article 7. The Contract Documents may only be altered, amended or repealed by a Modification (as defined in Section 1 of the General Conditions).

Article 8. MISCELLANEOUS

8.1 Terms used in this Agreement which are defined in Article 1 of the General Conditions shall have the meanings indicated in the General Conditions.

8.2 No assignment by a party hereto of any rights under or interests in the Contract Documents will be binding on another party hereto without the written consent of the party sought to be bound; and specifically but without limitation, moneys that may become due and moneys that are due may not be assigned without such consent (except to the extent that the effect of this restriction may be limited by law), and unless specifically stated to the contrary in any written consent to an assignment no assignment will release or discharge the assignor from any duty or responsibility under the Contract Documents.

8.3 OWNER and CONTRACTOR each binds himself, his partners, successors, assigns and legal representatives to the other party hereto, his partners, successors, assigns and legal representatives in respect to all covenants, agreements and obligations contained in the Contract Documents.

IN WITNESS WHEREOF, the parties hereto have signed this Agreement. One counterpart each has been delivered to OWNER and CONTRACTOR, and to ENGINEER as applicable. All portions of the Contract Documents have been signed by OWNER and CONTRACTOR or identified by ENGINEER on their behalf.

This Agreement will be effective on _____, 2022

OWNER City of Ormond Beach

CONTRACTOR _____

By _____

Bill Partington
Mayor

By _____

(Title)

[CITY SEAL]

[SEAL]

Attest _____

Joyce A. Shanahan
City Manager

Attest _____

(Title)

Address for giving notices:

City of Ormond Beach

PO Box 277

Ormond Beach, FL 32175-0277

Address for giving notices:

License No. _____

Registered Agent for service process:

(Name)

(Title)

END OF AGREEMENT

**SECTION 00610
PERFORMANCE BOND**

KNOW ALL MEN BY THESE PRESENTS: that

(Name of Contractor)

(Address of Contractor)

a(n) _____, hereinafter called Principal, and
(Corporation, Partnership or Individual)

(Name of Surety)

(Address of Surety)

hereinafter called Surety, are held and firmly bound unto

(Name of Owner)

(Address of Owner)

hereinafter called OWNER, in the penal sum of _____

_____ Dollars, (\$ _____) in lawful money of the United States, for the payment of which sum will and truly to be made, we bind ourselves, successors, and assigns, jointly and severally, firmly by these presents.

THE CONDITION OF THIS OBLIGATION is such that whereas, the Principal entered into a certain contract with OWNER, dated ____ day of _____, 20____, for the construction of:

**CDBG South Washington Street West Side Sidewalk Improvements
Bid No. 2022-06**

NOW, THEREFORE, if the Principal shall well, truly and faithfully perform its duties, all the undertakings, covenants, terms, conditions, and agreements of said contract during the original term thereof, and any extensions thereof which may be granted by the OWNER, with or without notice to the Surety and during the one-year guaranty period, and if he shall satisfy all claims and demands incurred under such contract, and shall fully indemnify and save harmless the OWNER from all costs and damages which it may suffer by reason of failure to do so, and shall reimburse and repay the OWNER all outlay and expense which the OWNER may incur in making good any default, then this obligation shall be void; otherwise to remain in full force and effect.

PROVIDED, FURTHER, that the said Surety, for value received hereby stipulates and agrees that no change, extension of time, alteration or addition to the terms of the contract or to WORK to be performed thereunder or the SPECIFICATIONS accompanying the same shall in any wise affect its obligation on this BOND, and it does hereby waive notice of any such change, extension of time, alteration or addition to the terms of the contract or to the WORK or to the SPECIFICATIONS. The Surety agrees that modifications and changes to the terms and conditions of the Contract that increase the total amount to be paid the Principal shall automatically increase the obligation of the Surety on this bond and notice to Surety is not required for such increased obligation.

PROVIDED, FURTHER, that no final settlement between the OWNER and the CONTRACTOR shall abridge the right of any beneficiary hereunder, whose claim may be unsatisfied.

IN WITNESS WHEREOF, this instrument is executed in _____ counterparts, each one of which shall be
 deemed an original, this _____ day of _____, 20_____.
 (number)

ATTEST:

Principal

By _____ (s)

(Principal) Secretary

(SEAL)

(Witness to Principal)

(Address)

(Address)

(Surety)

ATTEST:

(Surety) Secretary

(SEAL)

Witness to Surety

Attorney-In-Fact

(Address)

(Address)

NOTE: Date of BOND must not be prior to date of Contract. If CONTRACTOR is Partnership, all partners should execute BOND. All BONDS signed by an agent must be accompanied by a certified copy of the authority to act.

IMPORTANT: Surety companies executing BONDS must appear on the Treasury Department's most current list (Circular 570 as amended) and be authorized to transact business in the state where the PROJECT is located.

END OF SECTION

**SECTION 00615
PAYMENT BOND**

KNOW ALL MEN BY THESE PRESENTS: that

(Name of Contractor)

(Address of Contractor)

a(n) _____, hereinafter called Principal, and
(Corporation, Partnership or Individual)

(Name of Surety)

(Address of Surety)

hereinafter called Surety, are held and firmly bound unto

(Name of Owner)

(Address of Owner)

hereinafter called OWNER, in the penal sum of _____

_____ Dollars, (\$ _____) in lawful money of the United States, for the payment of which sum will and truly to be made, we bind ourselves, successors, and assigns, jointly and severally, firmly by these presents.

THE CONDITION OF THIS OBLIGATION is such that whereas, the Principal entered into a certain contract with OWNER, dated ____ day of _____, 20____, for the construction of:

**CDBG South Washington Street West Side Sidewalk Improvements
Bid No. 2022-06**

NOW, THEREFORE, if the Principal shall promptly make payment to all persons, firms, SUBCONTRACTORS, and corporations furnishing materials for or performing labor in the prosecution of the WORK provided for in such contract, and any authorized extension or modification thereof, including all amounts due for materials, lubricants, oil, gasoline, coal and coke, repairs on machinery, equipment and tools, consumed or used in connection with the construction of such WORK, and all insurance premiums on said WORK, and for all labor, performed in such WORK whether by SUBCONTRACTOR or otherwise, then this obligation shall be void; otherwise to remain in full force and effect.

PROVIDED, FURTHER, that the said Surety, for value received hereby stipulates and agrees that no change, extension of time, alteration or addition to the terms of the contract or to WORK to be performed thereunder or the SPECIFICATIONS accompanying the same shall in any wise affect its obligation on this BOND, and it does hereby waive notice of any such change, extension of time, alteration or addition to the terms of the contract or to the WORK or to the SPECIFICATIONS. The Surety agrees that modifications and changes to the terms and conditions of the Contract that increase the total amount to be paid the Principal shall automatically increase the obligation of the Surety on this bond and notice to Surety is not required for such increased obligation.

PROVIDED, FURTHER, that no final settlement between the OWNER and the CONTRACTOR shall abridge the right of any beneficiary hereunder, whose claim may be unsatisfied.

IN WITNESS WHEREOF, this instrument is executed in _____ counterparts, each one of which shall be
(number)
deemed an original, this _____ day of _____, 20_____.

ATTEST:

Principal

By _____ (s)

(Principal) Secretary

(SEAL)

(Witness to Principal)

(Address)

(Address)

(Surety)

ATTEST:

(Surety) Secretary

(SEAL)

Witness to Surety

Attorney-In-Fact

(Address)

(Address)

NOTE: Date of BOND must not be prior to date of Contract. If CONTRACTOR is Partnership, all partners should execute BOND. All BONDS signed by an agent must be accompanied by a certified copy of the authority to act.

IMPORTANT: Surety companies executing BONDS must appear on the Treasury Department's most current list (Circular 570 as amended) and be authorized to transact business in the state where the PROJECT is located.

END OF SECTION

OPINION OF ATTORNEY

This is to certify that I have examined the attached Contract Documents, and that I am of the opinion that such documents conform to the Laws of the State of Florida, and that the execution of the Contract is in due and proper form, and that the foregoing agreements constitute valid and binding obligations on such parties.

Attorney for Owner

This the _____ day of _____, 2022.

END OF SECTION

SECTION 00700 GENERAL CONDITIONS OF THE CONSTRUCTION CONTRACT

ARTICLE 1 - DEFINITIONS

Whenever used in these General Conditions or in the other Contract Documents, the following terms have the meanings indicated which are applicable to both the singular and plural thereof.

1.01. Addenda - Written or graphic instruments issued prior to the opening of Bids which clarify, correct or change the bidding documents of the Contract Documents.

1.02. Agreement - The written agreement between OWNER and CONTRACTOR covering the Work to be performed; other Contract Documents are attached to the Agreement and made a part thereof as provided therein.

1.03. Application for Payment - The form accepted by ENGINEER which is to be used by CONTRACTOR in requesting progress or final payment and which is to include such supporting documentation as required by the Contract Documents.

1.04. Approve - The word approve is defined to mean review of the material, equipment or methods for general compliance with the design concepts and with the information given in the Contract Documents. It does not imply a responsibility on the part of the ENGINEER to verify in every detail conformance with the Drawings and Specifications.

1.05. Bid - The offer or proposal of the Bidder submitted on the prescribed form setting forth the prices for the Work to be performed.

1.06. Bonds - Bid, Performance and Payment Bonds and other instruments of security.

1.07. Change Order - A written order to CONTRACTOR signed by OWNER authorizing an addition, deletion or revision in the Work, or an adjustment in the Contract Price or the Contract Time issued after the effective date of the Agreement.

1.08. Contract - The Agreement.

1.09. Contract Documents - The Agreement, Addenda (which pertain to the Contract Documents), CONTRACTOR's Bid (including documentation accompanying the bid and any post-Bid documentation submitted prior to the Notice of Award) when attached as an exhibit to the Agreement, Notice of Award, the Bonds, these General Conditions, the Supplementary Conditions, the Specifications and the Drawings as the same are more specifically identified in the Agreement, any other exhibits identified in the Agreement, together with all Modifications issued after the execution of the Agreement.

1.10. Contract Price - The Contract Price constitutes the total compensation (subject to authorized adjustments) payable by OWNER to CONTRACTOR for performing the Work.

1.11. Contract Time - The number of days (computed as provided in paragraph 16.2) or the

date stated in the Agreement for the completion of the Work.

1.12. CONTRACTOR - The person, firm or corporation with whom OWNER has entered into the Agreement.

1.13. Day - A calendar day of twenty-four hours measured from midnight to the next midnight.

1.14. Defective - Work that is unsatisfactory, faulty or deficient, or does not conform to the Contract Documents or does not meet the requirements of any inspection, test or approval referred to in the Contract Documents, or has been damaged prior to ENGINEER's recommendation of final payment.

1.15. Drawings - The drawings, which will be identified in the Agreement, which show the character and scope of the Work to be performed and which have been prepared or approved by ENGINEER and are referred to in the Contract Documents.

1.16. Effective Date of the Agreement - The date indicated in the Agreement on which it becomes effective, but if no such date is indicated it means the date on which the Agreement is signed and delivered by the last of the two parties to sign and deliver.

1.17. ENGINEER - The City Engineer of the City of Ormond Beach, Florida, or the designee of such Engineer.

1.18. Engineering Order - A written request issued by ENGINEER to CONTRACTOR requesting a cost for certain modifications to the Work. An Engineering Order is not an authorization to perform the modifications.

1.19. Field Order - A written order issued by ENGINEER which clarifies or interprets the Contract Documents or orders minor changes in the Work in accordance with paragraph 10.2, but which does not involve a change in the Contract Price or the Contract Time.

1.20. Furnish - The words "furnish", "furnish and install", "install", and "provide" or words with similar meaning shall be interpreted, unless otherwise specifically stated, to mean "furnish and install complete in place and ready for service".

1.21. General Requirements - Sections of Division 1 of the Specifications.

1.22. Inspection - The term "Inspection" and the act of inspecting as used in these Contract Documents is defined to mean examination of construction to ensure that it conforms to the design concept expressed in the Drawings and Specifications. These terms shall not be construed to mean supervision, superintending and/or overseeing.

1.23. Modification - (a) A written amendment of the Contract Documents signed by both parties, (b) a Change Order, or (c) a Field Order. A modification may only be issued after the effective date of the Agreement and must be in writing to be effective.

- 1.24. Notice of Award - The written notice by OWNER to the apparent successful Bidder stating that upon compliance by the apparent successful Bidder with the conditions precedent enumerated therein, within the time specified, OWNER will sign and deliver the Agreement.
- 1.25. Notice to Proceed - A written notice given by OWNER to CONTRACTOR (with a copy to ENGINEER) fixing the date on which the Contract Time will commence to run and on which CONTRACTOR shall start to perform his obligation under the Contract Documents.
- 1.26. OWNER - The City of Ormond Beach, Florida.
- 1.27. Product - Materials, systems, and equipment provided by the CONTRACTOR.
- 1.28. Project - The total construction of which the Work to be provided under the Contract Documents may be the whole, or a part as indicated elsewhere in the Contract Documents.
- 1.29. Project Manual - The term "Project Manual" includes Bidding Requirements, Conditions of the Contract, Specifications, and Drawings.
- 1.30. Project Representative - The authorized representative of ENGINEER who is assigned to the site or any part thereof.
- 1.31. Shop Drawings - All drawings, diagrams, illustrations, schedules and other data which are specifically prepared by CONTRACTOR, a Subcontractor, manufacturer, fabricator, supplier or distributor to illustrate some portion of the Work and all illustrations, brochures, standard schedules, performance charts, instructions, diagrams and other information prepared by a manufacturer, fabricator, supplier or distributor and submitted by CONTRACTOR to illustrate material or equipment for some portion of the Work.
- 1.32. Specifications - Those portions of the Contract Documents consisting of written technical descriptions of materials, equipment, construction systems, standards and workmanship as applied to the Work and certain administrative details applicable thereto.
- 1.33. Subcontractor - An individual, firm or corporation having a contract with CONTRACTOR or with any other Subcontractor for the performance of a part of the Work at the site.
- 1.34. Substantial Completion - The point reached when the Work (or a specified part thereof), in the opinion of ENGINEER as evidenced by his final certificate of Substantial Completion, is sufficiently complete, in accordance with the Contract Documents, so that the Work (or specified part) can be utilized for the purposes for which it was intended; or if there be no such certificate issued, when final payment is due in accordance with paragraph 14.10. The terms "substantially complete" and "substantially completed" as applied to any Work refer to Substantial Completion thereof.
- 1.35. Surety - Any person, firm or corporation which is bound with CONTRACTOR and which engages to be responsible for CONTRACTOR and his acceptable performance of the Work by a Performance or Payment Bond, or by a Public Construction Bond.

1.36. Work - The entire completed construction or the various separately identifiable parts thereof required to be furnished under the Contract Documents. Work is the result of performing services, furnishing labor and furnishing and incorporating materials and equipment into the construction, all as required by the Contract Documents.

ARTICLE 2 - PRELIMINARY MATTERS

Delivery of Bonds:

2.1. When CONTRACTOR delivers the executed Agreements to OWNER, CONTRACTOR shall also deliver to OWNER such Bonds as CONTRACTOR may be required to furnish in accordance with paragraph 5.1.

Copies of Documents:

2.2. OWNER shall furnish to CONTRACTOR, at OWNER's expense, up to three copies of the Contract Documents. Additional copies will be furnished, upon request, at the cost of reproduction.

Commencement of Contract Time; Notice to Proceed:

2.3. The Contract Time will commence on the day indicated in the Notice to Proceed.

Starting the Project:

2.4. CONTRACTOR shall start to perform the work on the date when the Contract Time commences to run, but no work shall be done at the site prior to the date on which the Contract Time commences to run, and no work shall be done at the site before the Payment and Performance Bond is executed, delivered to the OWNER, and recorded in the public records of Volusia County, Florida.

Before Starting Construction:

2.5. Before undertaking each part of the Work, CONTRACTOR shall carefully study and compare the Contract Documents and check and verify pertinent figures shown thereon and all applicable field measurements. CONTRACTOR shall promptly report in writing to ENGINEER any conflict, error or discrepancy which CONTRACTOR may discover; however, CONTRACTOR shall not be liable to OWNER for failure to report any conflict, error or discrepancy in the Drawings or Specifications, unless CONTRACTOR had actual knowledge thereof or should reasonably have known thereof. No verbal agreement or conversation with any officer, agent or employee of OWNER, either before or after the execution of this Contract, shall affect or modify any of the terms or obligations herein contained.

2.6. Before any Work at the site is started, CONTRACTOR shall deliver to OWNER certificates (and other evidence of insurance requested by OWNER) which CONTRACTOR is

required to purchase and maintain in accordance with paragraphs 5.3, 5.4, 5.6 and 5.7.

2.7. CONTRACTOR shall not allow any on-site Subcontractor to commence work on his subcontract until insurance required of the Subcontractor has been obtained and approved by the CONTRACTOR. Failure to obtain this insurance will be the sole responsibility of the CONTRACTOR.

ARTICLE 3 - CONTRACT DOCUMENTS; INTENT AND REUSE

3.1. The Contract Documents comprise the entire Agreement between OWNER and CONTRACTOR concerning the Work. They may be altered only by a Modification.

3.2. The Contract Documents are complementary; a requirement contained in one is applicable to all. If, during the performance of the Work, CONTRACTOR finds a conflict, error or discrepancy in the Contract Documents, he shall report it to ENGINEER in writing at once and before proceeding with the Work affected thereby; however, CONTRACTOR shall not be liable to OWNER for failure to report any conflict, error or discrepancy in the Specifications or Drawings unless CONTRACTOR had actual knowledge thereof or should reasonably have known thereof. The various Contract Documents shall be given precedence, in case of conflict, error or discrepancy, as follows: Modifications, Agreement, Addenda, Supplementary Conditions, General Conditions, Drawings and Specifications. In a series of Modifications or Addenda the latest will govern.

3.3. It is the intent of the Specifications and Drawings to describe a complete project (or part thereof) to be constructed in accordance with the Contract Documents. Any Work that may reasonably be inferred from the Specifications or Drawings as being required to produce the intended results shall be supplied whether or not it is specifically called for. When words which have well-known technical or trade meaning are used to describe Work, materials or equipment such words shall be interpreted in accordance with such meaning. Reference to standard specifications, manuals or codes of any technical society, organization or association, or to the code of any governmental authority, whether such reference be specific or by implication, shall mean the latest standard specification, manual or code in effect at the time of opening of Bids (or, on the effective date of the Agreement if there were no Bids), except as may be otherwise specifically stated. However, no provision of any referenced standard specification, manual or code (whether or not specifically incorporated by reference in the Contract Documents) shall change the duties and responsibilities of OWNER, CONTRACTOR or ENGINEER, or any of their agents or employees from those set forth in the Contract Documents. Clarifications and interpretations of the Contract Documents shall be issued by ENGINEER as provided for in paragraph 9.2.

3.4. The Contract Documents will be governed by the law of the State of Florida, and venue for any action brought thereunder shall lie solely and exclusively in the Circuit Court in and for Volusia County, Florida.

Reuse of Documents:

3.5. Neither CONTRACTOR nor any Subcontractor, manufacturer, fabricator, supplier or distributor shall have or acquire any title to or ownership rights in any of the Drawings, Specifications or other documents (or copies of any thereof) prepared by or bearing the seal of ENGINEER; and they shall not reuse any of them on extensions of the Project or any other project without written consent of OWNER and ENGINEER and specific written verification or adaptation by ENGINEER.

ARTICLE 4 - AVAILABILITY OF LANDS; PHYSICAL CONDITIONS; REFERENCE POINTS

4.1. OWNER shall furnish, as indicated in the Contract Documents, the lands upon which the Work is to be performed, rights-of-way for access thereto, and such other lands which are designated for the use of CONTRACTOR. Easements for permanent structures or permanent changes in existing facilities will be obtained and paid for by OWNER, unless otherwise provided in the Contract Documents. If CONTRACTOR believes that any delay in OWNER's furnishing these lands or easements entitles him to an extension of the Contract Time, CONTRACTOR may make a claim therefor as provided in Article 12. CONTRACTOR shall provide for all additional lands and access thereto that may be required for temporary construction facilities or storage of materials and equipment.

Physical Conditions - Investigations and Reports:

4.2. Reference is made to the Supplementary Conditions for identification of those reports of investigations and tests of subsurface and latent physical conditions at the site or otherwise affecting cost, progress or performance of the Work which have been relied upon by ENGINEER in preparation of the Drawings and Specifications. Such reports are not guaranteed as to accuracy or completeness and are not part of the Contract Documents.

Unforeseen Physical Conditions:

4.3. CONTRACTOR shall promptly, after becoming aware of and before further disturbing conditions affected thereby or performing any work in connection therewith, notify ENGINEER in writing of any subsurface or latent physical conditions at the site or in an existing structure differing materially from those indicated or referred to in the Contract Documents. CONTRACTOR, upon discovering and notifying OWNER of such subsurface or latent conditions, shall not perform work in the affected area until authorized to do so by OWNER. ENGINEER will promptly review those conditions and determine if further investigation or tests are necessary. If so determined by the ENGINEER, OWNER shall promptly obtain the necessary additional investigations and tests and furnish copies to CONTRACTOR. If ENGINEER finds that the results of such investigations or tests indicate that there are subsurface or latent physical conditions which differ materially from those intended in the Contract Documents, and which could not reasonably have been anticipated by CONTRACTOR, a Change Order authorizing CONTRACTOR to perform the additional work may be issued incorporating the necessary revisions.

Reference Points:

4.4. OWNER shall provide engineering surveys for construction to establish reference points which in his judgment are necessary to enable CONTRACTOR to proceed with the Work. CONTRACTOR shall be responsible for laying out the Work (unless otherwise specified in the General Requirements), shall protect and preserve the established reference points and shall make no changes or relocations without the prior written approval of OWNER. CONTRACTOR shall report to ENGINEER whenever any reference point is lost or destroyed or requires relocation because of necessary changes in grades or locations, and shall be responsible for replacement or relocation of such reference points by professionally qualified personnel.

ARTICLE 5 - BONDS AND INSURANCE

Performance and Other Bonds:

5.1. CONTRACTOR shall furnish Performance and Payment Bonds, each in an amount at least equal to the Contract Price as security for the faithful performance and payment of all CONTRACTOR's obligations under the Contract Documents. The City will record the bonds in the public records at the CONTRACTOR's expense. These Bonds shall remain in effect at least until one (1) year after the date of final payment, except as otherwise provided by law. All bonds shall be deemed to contain all of the Conditions of Section 255.05, Florida Statutes, even if such language is not directly contained within the bond. CONTRACTOR shall also furnish such other Bonds as are required by the Supplementary Conditions. All Bonds shall be in the forms prescribed by the bidding documents or Supplementary Conditions and be executed by such Sureties as (i) are licensed to conduct business in the State of Florida, and (ii) are named in the current list of "Companies Holding Certificates of Authority as Acceptable Sureties on Federal Bonds and as Acceptable Reinsuring Companies" as published in Circular 570 (amended) by the Audit Staff Bureau of Accounts, U.S. Treasury Department. All Bonds signed by an agent must be accompanied by a certified copy of the authority to act.

5.2. If the Surety on any Bond furnished by CONTRACTOR is declared bankrupt or becomes insolvent or its right to do business is terminated in the State of Florida or it ceases to meet the requirements of clauses (i) and (ii) of paragraph 5.1, CONTRACTOR shall within five (5) days after notice thereof, substitute another Bond and Surety, both of which shall meet the requirements of clauses (i) and (ii) of paragraph 5.1.

CONTRACTOR's Liability Insurance:

5.3. CONTRACTOR and on-site Subcontractors shall purchase and maintain such Commercial General Liability and other insurance as will provide protection from claims set forth below which may arise out of or result from CONTRACTOR's performance of the Work and CONTRACTOR's other obligations under the Contract Documents, whether such performance is by CONTRACTOR, by any Subcontractor, by anyone directly or indirectly employed by any of them, or by anyone for whose acts any of them may be liable;

5.3.1. Claims under workers' compensation, disability benefits and other similar employee benefit acts;

5.3.2. Claims for damages because of bodily injury, occupational sickness or disease, or death of CONTRACTOR's employees;

5.3.3. Claims for damages because of bodily injury, sickness or disease, or death of any person other than CONTRACTOR's employees.

5.3.4. Claims for damages insured by personal injury liability coverage which are sustained (i) by any person as a result of an offense directly or indirectly related to the employment of such person by CONTRACTOR, or (ii) by any other person for any other reason.

5.3.5. Claims for damages, other than to the Work itself, because of injury to or destruction of tangible property, including loss of use resulting therefrom; and

5.3.6. Claims for damages because of bodily injury or death of any person or property damage arising out of the ownership, maintenance or use of any motor vehicle.

The insurance required by this paragraph 5.3 shall include the specific coverages and be written for not less than the limits of liability and coverages provided in the **Supplementary Conditions**, or required by law, whichever is greater. The Commercial General Liability insurance shall include completed operations insurance. All such insurance shall contain a provision that the coverage afforded will not be canceled, materially changed or renewal refused until at least **sixty** (60) days prior written notice of such cancellation, non-renewal or change (except for nonpayment of premium, which shall be fifteen (15) days) has been given to OWNER. All such insurance shall remain in effect until final payment and at all times thereafter when CONTRACTOR may be correcting, removing or replacing defective Work in accordance with paragraph 13.12. In addition, CONTRACTOR shall maintain such completed operations insurance for at least two years after final payment and furnish OWNER with evidence of continuation of such insurance at final payment and one year thereafter.

Contractual Liability Insurance:

5.4. The Commercial General Liability insurance required by paragraph 5.3 will include contractual liability insurance applicable to CONTRACTOR's obligations under paragraphs 6.15 and 6.16. The OWNER shall be named as "Additionally Insured" under the CONTRACTOR's Commercial General Liability insurance policy.

Owner's Liability Insurance:

5.5. OWNER may, at its option, purchase and maintain its own liability insurance and, at its option, may purchase and maintain such insurance as will protect OWNER against claims which may arise from operations under the Contract Documents.

Property Insurance:

5.6. CONTRACTOR shall purchase and maintain property insurance upon the Work at the site to the full insurable value thereof (subject to such deductible amounts as may be provided in the Supplementary Conditions or required by law). This insurance shall include the interests of

OWNER, CONTRACTOR, and Subcontractors in the Work, shall insure against the perils of fire and extended coverage and shall include "all risk" insurance for physical loss and damage including theft, vandalism and malicious mischief, collapse and water damage, and such other perils as may be provided in the Supplementary Conditions, and shall include damages, losses and expenses arising out of or resulting from any insured loss or incurred in the repair or replacement of any insured property (including fees and charges of engineers, architects, attorneys and other professionals). If not covered under the "all risk" insurance or otherwise provided in the Supplementary Conditions, CONTRACTOR shall purchase and maintain similar property insurance on portions of the Work stored on and off the site or in transit when such portions of the Work are to be included in the Application for Payment. The policies of insurance required to be purchased and maintained by CONTRACTOR in accordance with paragraphs 5.6 and 5.7 shall contain provisions that the coverage afforded will not be canceled or materially changed until at least **sixty** (60) days prior written notice has been given to OWNER.

5.7. CONTRACTOR shall purchase and maintain such boiler and machinery insurance as may be required by the Supplementary Conditions or by law. This insurance shall include the interests of OWNER, CONTRACTOR and Subcontractors in the Work.

5.8. OWNER shall not be responsible for purchasing and maintaining any property insurance to protect the interests of CONTRACTOR or Subcontractors in the Work to the extent of any deductible amounts that are provided in the Supplementary Conditions. If CONTRACTOR wishes property insurance coverage within the limits of such amounts, CONTRACTOR may purchase and maintain it at his own expense.

5.9. If CONTRACTOR requests in writing that other special insurance be included in the property insurance policy, OWNER shall, if possible, include such insurance, and the cost thereof shall be charged to CONTRACTOR by appropriate Change Order. Prior to commencement of the Work at the site, OWNER shall in writing advise CONTRACTOR whether or not such other insurance has been procured by OWNER.

Waiver of Rights:

5.10. OWNER and CONTRACTOR waive all rights against each other and the Subcontractors and their agents and employees and separate contractors (if any) and their subcontractors' agents and employees, for damages caused by fire or other perils to the extent covered by insurance provided under paragraphs 5.6 and 5.7, inclusive, or any other property insurance applicable to the Work, except such rights as they may have to the proceeds of such insurance held by OWNER as trustee. OWNER shall require similar written waivers from each separate contractor, and CONTRACTOR shall require similar written waivers from each Subcontractor (in accordance with paragraph 6.8 as applicable); each such waiver will be in favor of all other parties enumerated in this paragraph 5.10.

Receipt and Application of Proceeds:

5.11. Any insured loss under the policies of insurance required by paragraphs 5.6 and 5.7 shall be adjusted with CONTRACTOR and made payable to CONTRACTOR as trustee for the insured, as their interests may appear, subject to the requirements of paragraph 5.12. CONTRACTOR shall

deposit in a separate account any money so received, and shall distribute it in accordance with such agreement as the parties in interest may reach. If no other special agreement is reached the damaged Work shall be repaired or replaced, the moneys so received applied on account thereof and the Work and the cost thereof covered by an appropriate Change Order.

5.12. CONTRACTOR as trustee shall have power to adjust and settle any loss with the insurers unless one of the parties in interest shall object in writing within fifteen days after the occurrence of loss to CONTRACTOR's exercise of this power. If such objection be made, CONTRACTOR as trustee shall make settlement with the insurers in accordance with such agreement as the parties in interest may reach. If required in writing by any party in interest, CONTRACTOR as trustee shall upon the occurrence of an insured loss, give bond for the proper performance of his duties.

Acceptance of Bonds and Insurance:

5.13. If OWNER has any objection to the coverage afforded by or other provisions of the Bonds or Insurance required to be purchased and maintained by CONTRACTOR in accordance with Article 5 on the basis of non-conformance with the Contract Documents, OWNER shall so notify CONTRACTOR in writing within ten days after receipt of the certificates (or other evidence requested) required by paragraph 2.6. CONTRACTOR shall provide to OWNER such additional information in respect of insurance provided as OWNER may reasonably request. If CONTRACTOR does not purchase or maintain all of the Bonds and Insurance required of CONTRACTOR by the Contract Documents, CONTRACTOR shall notify OWNER in writing of such failure to purchase prior to the start of the Work, or such failure to maintain prior to any change in the required coverage. Without prejudice to any other right or remedy, OWNER may elect to obtain equivalent Bonds or Insurance to protect OWNER's interests at the expense of CONTRACTOR, and a Change Order shall be issued to adjust the Contract Price accordingly.

Partial Utilization - Property Insurance:

5.14. If OWNER finds it necessary to occupy or use a portion or portions of the Work prior to Substantial Completion of all the Work, such use or occupancy may be accomplished in accordance with paragraph 14.7; provided that no such use or occupancy shall commence before the insurers providing the property insurance have acknowledged notice thereof and in writing effected the changes in coverage necessitated thereby. The insurers providing the property insurance shall consent by endorsement on the policy or policies that the property insurance shall not be canceled or lapse on account of any such partial use of occupancy.

ARTICLE 6 - CONTRACTOR'S RESPONSIBILITIES

Supervision and Superintendence:

6.1. CONTRACTOR shall supervise and direct the Work competently and efficiently, devoting such attention thereto and applying such skills and expertise as may be necessary to perform the Work in accordance with the Contract Documents. CONTRACTOR shall be solely responsible for the means, methods, techniques, sequences and procedures of construction.

CONTRACTOR shall be responsible to see that the finished Work complies accurately with the Contract Documents.

6.2. CONTRACTOR shall keep on the Work at all times during its progress a competent resident superintendent, who shall not be replaced without written notice to OWNER except under extraordinary circumstances. The superintendent will be CONTRACTOR's representative at the site and shall have authority to act on behalf of CONTRACTOR. All communications given to the superintendent shall be as binding as if given to CONTRACTOR.

Materials and Equipment:

6.3. All materials and equipment installed in the Work shall be of good quality and new, except as otherwise provided in the Contract Documents. If required by ENGINEER, CONTRACTOR shall furnish satisfactory evidence (including reports of required tests) as to the kind and quality of materials and equipment.

Equipment manufacturers/suppliers must agree to OWNER'S terms of purchase. In no event will OWNER accept terms of sale that limit OWNER'S ability to reasonably recover in the event of equipment failure/defect such as, but not limited to; mandatory arbitration clauses, venue of court proceedings and applicable law outside of Volusia County, Florida, or damage limitations that preclude recovery for failed or defective equipment that would be less than full compensation for OWNER's loss.

6.4. All materials and equipment shall be applied, installed, connected, erected, used, cleaned and conditioned in accordance with the instructions of the applicable manufacturer, fabricator, supplier or distributor, except as otherwise provided in the Contract Documents.

Concerning Subcontractors:

6.5. CONTRACTOR shall not employ any Subcontractor or other person or organization (including those who are to furnish the principal items of materials or equipment), whether initially or as a substitute, to which OWNER may have any reasonable objection. CONTRACTOR shall submit with his Bid in writing the names, mailing addresses, and work classifications of all Subcontractors proposed for the Work. The failure to list all Subcontractors proposed for the Work may result in the Bid being rejected as incomplete and nonresponsive. A Subcontractor or other person or organization identified in writing to OWNER by CONTRACTOR prior to the Notice of Award and not objected to in writing by OWNER prior to the Notice of Award will be deemed acceptable to OWNER. Acceptance of any Subcontractor, other person or organization of OWNER shall not constitute a waiver of any right of OWNER to reject defective Work. If OWNER after due investigation has reasonable objection to any Subcontractor, other person or organization proposed by CONTRACTOR after the Notice of Award because the qualifications and experience of the Subcontractor, other person or organization indicate that he cannot perform or provide work, materials or equipment which will perform the specified functions, CONTRACTOR shall submit an acceptable substitute and the Contract Price shall be increased or decreased by the difference in cost occasioned by such substitution, and an appropriate Change Order may be issued. CONTRACTOR shall not be required to employ any Subcontractor, other person or organization to which CONTRACTOR has any reasonable objection. Whether

objections are reasonable shall be determined as specified in paragraph 9.8.

6.6. CONTRACTOR shall be fully responsible for all acts and omissions of his Subcontractors and of persons and organizations directly or indirectly employed by them and of persons and organizations for whose acts any of them may be liable to the same extent that CONTRACTOR is responsible for the acts and omissions of persons directly employed by CONTRACTOR. Nothing in the Contract Documents shall create any contractual relationship between OWNER and any Subcontractor or other person or organization having a direct contact with CONTRACTOR, nor shall it create any obligation on the part of OWNER to pay or to see to the payment of any moneys due any Subcontractor or other person or organization, except as may otherwise be required by law. OWNER may furnish to any Subcontractor or other person or organization, to the extent practicable, evidence of amounts paid to CONTRACTOR on account of specific Work done.

6.7. The divisions and sections of the Specifications and the identifications of any Drawings shall not control CONTRACTOR in dividing the Work among Subcontractors or delineating the Work to be performed by any specific trade.

6.8. All Work performed for CONTRACTOR by a Subcontractor will be pursuant to an appropriate agreement between CONTRACTOR and the Subcontractor which specifically binds the Subcontractor to the applicable terms and conditions of the Contract Documents for the benefit of OWNER and contains waiver provisions as required by paragraph 5.10. CONTRACTOR shall pay each Subcontractor an appropriate share of any insurance proceeds received by CONTRACTOR on account of losses under policies issued pursuant to paragraphs 5.6 through 5.8.

6.9. Neither the OWNER nor the ENGINEER will undertake to settle any differences between CONTRACTOR and his Subcontractors or between Subcontractors.

Patent Fees and Royalties:

6.10. CONTRACTOR shall pay all license fees and royalties and assume all costs incident to the use in the performance of the Work or the incorporation in the Work of any invention, design, process, product or device which is the subject of patent rights or copyrights held by others. If a particular invention, design, process, product or device is specified in the Contract Documents for use in the performance of the Work and if to the actual knowledge of OWNER its use is subject to patent rights or copyrights calling for the payment of any license fee or royalty to others, the existence of such rights shall be disclosed by OWNER in the Contract Documents. CONTRACTOR shall **indemnify** and **hold harmless** OWNER and anyone directly or indirectly employed by either of them from and against all claims, damages, losses and expenses (including attorneys' fees) arising out of any infringement of patent rights or copyrights incident to the use in the performance of the Work or resulting from the incorporation in the Work of any invention, design, process, product or device not specified in the Contract Documents, and shall defend all such claims in connection with any alleged infringement of such rights. OWNER will promptly notify CONTRACTOR of any such allegation of infringement of such rights.

Safety and Protection:

6.11. Precaution shall be exercised at all times by the CONTRACTOR for the protection of all persons, including employees, and property. The CONTRACTOR shall comply with all laws, regulations or ordinances related to safety and health, shall make special effort to detect hazardous conditions, and shall take prompt action where loss control/safety measures are reasonably expected. The OWNER may order work to be stopped if conditions exist that present on immediate danger to persons or property. The CONTRACTOR acknowledges that such stoppage will not shift responsibility for any damages from the CONTRACTOR to the OWNER.

6.12. CONTRACTOR be responsible for initiating, maintaining and supervising all safety precautions and programs in connection with the Work. CONTRACTOR shall take all necessary precautions for the safety of, and shall provide the necessary protection to prevent damage, injury or loss to:

6.12.1. All employees on the Work and other persons who may be affected thereby.

6.12.2. All the Work and all materials or equipment to be incorporated therein, whether in storage on or off the site, and

6.12.3. Other property at the site or adjacent thereto, including trees, shrubs, lawns, walks, pavements, roadways, structures and utilities not designated for removal, relocation or replacement in the course of construction.

CONTRACTOR shall comply with all applicable laws, ordinances, rules, regulations and orders of any public body having jurisdiction for the safety of persons or property or to protect them from damage, injury or loss; and shall erect and maintain all necessary safeguards for such safety and protection. CONTRACTOR shall notify owners of adjacent property and utilities when prosecution of the Work may affect them. All damage, injury or loss to any property referred to in paragraph 6.12.2 or 6.12.3 caused, directly or indirectly, in whole or in part, by CONTRACTOR, any Subcontractor or anyone directly or indirectly employed by any of them or anyone for whose acts any of them may be liable, shall be remedied by CONTRACTOR. CONTRACTOR's duties and responsibilities for the safety and protection of the Work shall continue until such time as all the Work is completed and ENGINEER has issued a notice to OWNER and CONTRACTOR in accordance with paragraph 14.12 that the Work is acceptable.

6.13. CONTRACTOR shall designate a responsible member of his organization at the site whose duty shall be the prevention of accidents. This person shall be CONTRACTOR's superintendent unless otherwise designated in writing by CONTRACTOR to OWNER.

Emergencies:

6.14. In emergencies affecting the safety or protection of persons or the Work or property at the site or adjacent thereto, CONTRACTOR, without special instruction or authorization from OWNER, is obligated to act to prevent threatened damage, injury or loss. CONTRACTOR shall give OWNER prompt written notice of any significant changes in the Work or deviations from the Contract Documents caused thereby.

Indemnification/Hold Harmless:

6.15 The parties recognize that the CONTRACTOR is an independent contractor. The CONTRACTOR agrees to assume liability for and indemnify, hold harmless, and defend the CITY, its commissioners, mayor, officers, employees, agents, and attorneys of, from, and against all liability and expense, including reasonable attorney's fees, in connection with any and all claims, demands, damages, actions, causes of action, and suits in equity of whatever kind or nature, including claims for personal injury, property damage, equitable relief, or loss of use, to the extent caused by the negligence, recklessness, or intentionally wrongful conduct of the CONTRACTOR, its agents, officers, contractors, subcontractors, employees, or anyone else utilized by the CONTRACTOR in the performance of this Agreement. The CONTRACTOR's liability hereunder shall include all attorney's fees and costs incurred by the CITY in the enforcement of this indemnification provision. This includes claims made by the employees of the CONTRACTOR against the CITY and the CONTRACTOR hereby waives its entitlement, if any, to immunity under Section 440.11, Florida Statutes. Such obligations contained in this provision shall survive termination of this Agreement and shall not be limited by the amount of any insurance required to be obtained or maintained under this Agreement.

In the event of any claim arising out of the paragraph above, the CITY will elect, in its sole discretion, that either:

- 1) The CONTRACTOR assume control of the defense of any claim asserted by a third party against the CITY and, in connection with such defense, shall appoint lead counsel, in each case at the CONTRACTOR's expense. The CITY shall have the right, at its option, to participate in the defense of any third party claim, without relieving CONTRACTOR of any of its obligations hereunder. If the CONTRACTOR assumes control of the defense of any third party claim in accordance with this paragraph, the CONTRACTOR shall obtain the prior written consent of the CITY before entering into any settlement of such claim. If the CONTRACTOR assumes control of the defense and the CONTRACTOR has failed or is failing to prosecute or defend vigorously the third party claim, the CITY may assume the control of the defense as provided by sub (2); or
- 2) The CITY will assume control of the defense of any third party claim, but CONTRACTOR shall pay the fees of counsel retained by the CITY and all expenses, including experts' fees.

Each party shall cooperate, and cause its agents to cooperate, in the defense or prosecution of any third party claim and shall furnish or cause to be furnished such records and information, and attend such conferences, discovery proceedings, hearings, trials, or appeals, as may be reasonably requested in connection therewith. It is further the specific intent and agreement of said parties that all the Contract Documents on this Project are hereby amended to include the foregoing indemnification. CONTRACTOR expressly agrees that it will not claim, and waives any claim, that this indemnification violates Section 725.06, Florida Statutes or is unenforceable pursuant to Section 725.06, Florida Statutes.

Nothing contained in the foregoing indemnification shall be construed as a waiver of any immunity or limitation of liability the CITY may have under the doctrine of sovereign immunity or Section 768.28, Florida Statutes.

Precaution shall be exercised at all times by the CONTRACTOR for the protection of all persons, including employees and property. The CONTRACTOR shall comply with all applicable laws, regulation and ordinances related to safety and health, shall make special efforts to detect hazardous conditions, and shall take prompt action with loss control/safety measures as are reasonably necessary. The CITY may order work to be stopped if conditions exist that present an immediate danger to persons or property. The CONTRACTOR acknowledges that such work stoppage will not shift responsibility for any damages from the CONTRACTOR to the CITY.

Payment on Behalf of OWNER:

6.16. The CONTRACTOR agrees to pay on behalf of the OWNER, and to pay the cost of the OWNER's legal defense, as may be selected by the OWNER, for all claims described in 6.15 Indemnification/Hold Harmless. Such payment on behalf of the OWNER shall be in addition to any and all other legal remedies available to the OWNER and shall not be considered to be the OWNER's exclusive remedy.

ARTICLE 7 - WORK BY OTHERS

7.1. OWNER may perform additional work related to the Project by itself, or have additional work performed by utility service companies, or let other direct contracts therefor which shall contain General Conditions similar to these. CONTRACTOR shall afford the utility service companies and the other contractors who are parties to such direct contracts (or OWNER, if OWNER is performing the additional work with OWNER's employees) reasonable opportunity for the introduction and storage of materials and equipment and the execution of work, and shall properly connect and coordinate his Work with theirs.

7.2. If any part of CONTRACTOR's Work depends for proper execution or results upon the work of any such other contractor or utility service company (or OWNER), CONTRACTOR shall inspect and promptly report to ENGINEER in writing any patent or apparent defects or deficiencies in such work that render it unsuitable for such proper execution and results. CONTRACTOR's failure so to report shall constitute an acceptance of the work as fit and proper for integration with CONTRACTOR's Work except for latent or non-apparent defects and deficiencies in the other work.

7.3. If the performance of additional work by other contractors or utility service companies or OWNER was not noted in the Contract Documents, written notice thereof shall be given to CONTRACTOR prior to starting any such additional work. If CONTRACTOR believes that the performance of such additional work by OWNER or others involves additional expense to CONTRACTOR or requires an extension of the Contract Time, CONTRACTOR may make a claim therefor as provided in Articles 11 and 12.

7.4. Should any other contractor having, or who shall hereafter have, a contract with

OWNER for the performance of work upon the site of the Work to be performed hereunder sustain any damage through any act or omission of CONTRACTOR hereunder or through any act or omission of any Sub-contractor of CONTRACTOR, CONTRACTOR agrees to reimburse such other contractor for all such damages and to indemnify, defend and hold OWNER harmless from all such claims.

ARTICLE 8 - OWNER'S RESPONSIBILITIES

- 8.1. OWNER shall issue all communications to CONTRACTOR through ENGINEER.
- 8.2. OWNER shall furnish the data required of OWNER under the Contract Documents promptly and shall make payments to CONTRACTOR promptly after they are due as provided in paragraphs 14.3 and 14.10.
- 8.3. OWNER's duties with respect to providing lands and easements and providing engineering surveys to establish reference points are set forth in paragraphs 4.1 and 4.4. Paragraph 4.2 refers to OWNER's identifying and making available to CONTRACTOR copies of reports of investigations and tests of subsurface and latent physical conditions at the site or otherwise affecting performance of the Work which have been relied upon by ENGINEER in preparing the Drawings and Specifications.
- 8.4. OWNER's responsibilities with respect to the purchase and maintenance of liability insurance are set forth in paragraph 5.5.
- 8.5. In connection with OWNER's rights to request changes in the Work in accordance with Article 10, OWNER (especially in certain instances as provided in paragraph 10.4) may execute Change Orders.
- 8.6. OWNER's responsibility with respect to certain inspections, tests and approvals is set forth in paragraph 13.4.
- 8.7. The provisions relative to the OWNER's right to stop Work or suspend Work are set forth in paragraphs 6.11, 13.10 and 15.1.

ARTICLE 9 - ENGINEER'S STATUS DURING CONSTRUCTION

- 9.1. ENGINEER will be OWNER's representative during the construction period. The authority of ENGINEER shall, under no circumstances, relieve CONTRACTOR from CONTRACTOR's responsibilities to perform the Work in accordance with this Contract.

Clarifications and Interpretations:

- 9.2. ENGINEER will issue with reasonable promptness such written clarifications or interpretations of the Contract Documents (in the form of Drawings or otherwise) as ENGINEER may determine necessary, which shall be consistent with or reasonably inferable from the overall

intent of the Contract Documents. If CONTRACTOR believes that a written clarification or interpretation justifies an increase in the Contract Price or Contract Time, CONTRACTOR may make a claim therefor as provided in Article 11 or Article 12.

Rejecting Defective Work:

9.3. ENGINEER will have authority to disapprove or reject WORK which is defective, and will also have authority to require special inspection or testing of the Work as provided in paragraph 13.9, whether or not the Work is fabricated, installed or completed.

Change Orders and Payments:

9.4. In connection with ENGINEER's responsibilities as to Change Orders, see Articles 10, 11 and 12.

9.5 In connection with ENGINEER's responsibilities as to Applications for Payment, etc., see Article 14.

Project Representation:

9.6. ENGINEER may designate a Project Representative to assist ENGINEER in inspecting the performance of the Work. The duties, responsibilities and limitations of authority of any such Project Representative and assistants will be as provided in paragraphs 9.6.1 through 9.6.3.

9.6.1. General: Project Representative is ENGINEER's Agent. He shall have the authority to do anything which the ENGINEER could do. His dealings in matters pertaining to the on-site work will in general be only with OWNER, ENGINEER and CONTRACTOR. His dealings with subcontractors will only be through or with the full knowledge of CONTRACTOR or his superintendent.

9.6.2. Duties and Responsibilities: Project Representative shall:

9.6.2.1. Schedules: Review the progress schedule, schedule of Shop Drawing submissions, schedule of values and other schedules prepared by CONTRACTOR and consult with ENGINEER concerning their acceptability.

9.6.2.2. Conferences: Attend preconstruction conferences.

9.6.2.3. Liaison: Serve as ENGINEER's liaison with CONTRACTOR, working principally through CONTRACTOR's superintendent, and assist him in understanding the intent of the Contract Documents. Assist in obtaining from OWNER additional details or information, when required at the job site for proper execution of the Work.

9.6.2.4. Shop Drawings and Samples: Receive and record date of receipt of Shop Drawings and samples which have been furnished by CONTRACTOR. Review the Shop Drawings for conformance with the information given in the Contract Documents. Provide office review and approval of Shop Drawings (as that term is defined in Article 1) and samples, the results of tests

and inspections and other data which any contractor is required to submit, but only for conformance with the design concept of the project and compliance with the information given in the Contract Documents; determine the acceptability of substitute materials and equipment proposed by CONTRACTOR(S); and receive and review (for general content as required by the Specifications) maintenance and operating instructions, schedules, guarantees, bonds and certificates of inspection which are to be assembled by CONTRACTOR(S) in accordance with the Contract Documents.

9.6.2.5. Review of Work, Rejection of Defective Work, Inspections and Tests: Conduct on-site inspections of the Work in progress to assist ENGINEER in determining that the Project is proceeding in accordance with the Contract Documents and that completed Work will conform to the Contract Documents. Report to ENGINEER whenever he believes that any Work is unsatisfactory, faulty or defective or does not conform to the Contract Documents, or has been damaged, or does not meet the requirements of any inspections, tests or approvals required to be made; and advise ENGINEER when he believes Work should be corrected or rejected or should be uncovered for observation, or requires special testing or inspection. Verify that tests, equipment and systems start-ups and operating and maintenance instructions are conducted as required by the Contract Documents and in the presence of the required personnel, and that CONTRACTOR maintains adequate records thereof; observe, record and report appropriate details relative to the test procedures and start-ups.

9.6.2.6. Modifications: Consider and evaluate CONTRACTOR's suggestions for modifications in Drawings or Specifications and report them to ENGINEER with recommendations. Prepare change orders as required; he may, as OWNER's representative, require special inspection or testing of the work; he shall act as interpreter of the requirements of the Contract Documents, judge of the performance thereunder by the parties thereto, and transmitter of clarification and interpretation of the Contract Documents. Process contract change orders to reflect final measured contract quantities and to reflect changes in the contract Drawings and Specifications.

9.6.2.7. Payment Requisitions: Based on his on-site observations and on his review of CONTRACTOR(S) applications for payment and the accompanying data and schedules, determine the amounts owed the CONTRACTOR(S). The ENGINEER will then approve in writing payments to CONTRACTOR(S) in such amounts; such approvals of payment will constitute a presentation to OWNER, based on such observations and review, that the Work has progressed to the point indicated and that, to the best of his knowledge, information and belief, the quality of the Work is in accordance with the Contract Documents (subject to an evaluation of the Work as a functioning Project upon Substantial Completion, to the results of any subsequent tests called for in the Contract Documents, and to any qualifications stated in his approval).

9.6.2.8. Guarantees, Certificates, Maintenance and Operation Manuals: During the course of the Work verify that guarantees, certificates, maintenance and operation manuals and other data required to be assembled and furnished by CONTRACTOR are applicable to the items actually installed; and deliver this data to ENGINEER for his review prior to final acceptance of the Project.

9.6.2.9. Completion: Before ENGINEER issues a Certificate of Substantial Completion, submit to CONTRACTOR a list of observed items requiring correction. Conduct final inspection in the company of CONTRACTOR and prepare a final list of items to be corrected. Verify that all items

on final list have been corrected and make recommendations to ENGINEER concerning acceptance.

9.6.3. Limitations of Authority: The Project Representative; shall not undertake any of the responsibilities of CONTRACTOR, subcontractors or CONTRACTOR's superintendent; shall not expedite Work for CONTRACTOR; shall not advise on or issue directions as to safety precautions and programs in connection with the Work; and shall not assist CONTRACTOR in maintaining up-to-date copies of Record Drawings.

Decisions on Disagreements:

9.7. ENGINEER will be the initial interpreter of the requirements of the Contract Documents and judge of the acceptability of the Work thereunder. Claims, disputes and other matters relating to the acceptability of the Work or the interpretation of the requirements of the Contract Documents pertaining to the execution and progress of the Work shall be referred initially to ENGINEER in writing with a request for a formal decision in accordance with this paragraph, which ENGINEER will render in writing within a reasonable time. Written notice of each such claim, dispute and other matter shall be delivered by the claimant to ENGINEER and the other party to the Agreement within fifteen days of the occurrence of the event giving rise thereto, and written supporting data will be submitted to ENGINEER and the other party within forty-five days of such occurrence unless ENGINEER allows an additional period of time to ascertain more accurate data. Failure to give the required notice constitutes a waiver of the claim.

9.8. The rendering of a decision by ENGINEER pursuant to paragraph 9.7 with respect to any such claim, dispute or other matter (except any which have been waived by the making or acceptance of final payment as provided in paragraph 14.13) will be a condition precedent to any exercise by OWNER or CONTRACTOR of such rights or remedies as either may otherwise have under the Contract Documents or at law in respect of any such claim, dispute or other matter. If the Owner agrees to pay all or part of a claim for which notice was not timely made, such agreement shall not be deemed a waiver of the right to enforce notice requirements in connection with any other claim.

Limitations on ENGINEER's Responsibilities:

9.9. Neither ENGINEER's authority to act under this Article 9 or elsewhere in the Contract Documents nor any decision made by ENGINEER in good faith either to exercise or not exercise such authority shall give rise to any duty or responsibility of ENGINEER to CONTRACTOR, any Subcontractor, any manufacturer, fabricator, supplier or distributor, or any of their agents or employees or any other person performing any of the Work.

9.10. Whenever in the Contract Documents the terms "as ordered", "as directed", "as required", "as allowed" or terms of like effect or import are used, or the adjective "reasonable", "suitable", "acceptable", "proper" or "satisfactory" or adjectives of like effect or import are used, to describe requirements, decision, review or judgment of ENGINEER as to the Work, it is intended that such requirement, direction, review or judgment will be solely to evaluate the Work for compliance with the Contract Documents (unless there is a specific statement indicating otherwise). The use of any such term or adjective never indicates that ENGINEER shall have

authority to supervise or direct performance of the Work or authority to undertake responsibility contrary to the provisions of paragraphs 9.11 or 9.12.

9.11. ENGINEER will not be responsible for CONTRACTOR's means, methods, techniques, sequences or procedures of construction, or the safety precautions and programs incident thereto, and ENGINEER will not be responsible for CONTRACTOR's failure to perform the Work in accordance with the Contract Documents.

9.12. ENGINEER will not be responsible for the acts or omissions of CONTRACTOR or of any Subcontractors, or of the agents or employees of any CONTRACTOR or Subcontractor, or of any other persons at the site or otherwise performing any of the Work.

ARTICLE 10 - CHANGES IN THE WORK

10.1. Without invalidating the Agreement, OWNER may, at any time or from time to time, order additions, deletions or revisions in the Work; these will be authorized by Change Orders. Upon receipt of a Change Order, CONTRACTOR shall proceed with the Work involved. All such Work shall be executed under the applicable conditions of the Contract Documents. If any Change Order causes an increase or decrease in the Contract Price or an extension or shortening of the Contract Time, an equitable adjustment will be made as provided in Article 11 or Article 12 on the basis of a claim made by either party.

10.2. ENGINEER may authorize minor changes in the Work not involving an adjustment in the Contract Price or the Contract Time, which are consistent with the overall intent of the Contract Documents. These may be accomplished by a Field Order and shall be binding on OWNER, and also on CONTRACTOR who shall perform the change promptly. If CONTRACTOR believes that a Field Order justifies an increase in the Contract Price or Contract Time, CONTRACTOR may make a claim therefor as provided in Article 11 or Article 12.

10.3. Additional Work performed without authorization of a Change Order will not entitle CONTRACTOR to an increase in the Contract Price or an extension of the Contract Time, except in the case of an emergency as provided in paragraph 6.14 and except as provided in paragraphs 10.2 and 13.9.

10.4. OWNER may execute appropriate Change Orders covering changes in the Work which are required by OWNER, or required because of unforeseen physical conditions or emergencies, or because of uncovering Work found not to be defective or as provided in paragraph 11.9, or because of any other claim of CONTRACTOR for a change in the Contract Time or the Contract Price which is recommended by ENGINEER.

10.5. If notice of any change affecting the general scope of the Work or change in the Contract Price is required by the provisions of any Bond to be given to the Surety, it will be CONTRACTOR's responsibility to so notify the Surety, and the amount of each applicable Bond shall be adjusted accordingly. CONTRACTOR shall furnish proof of such adjustment to OWNER.

ARTICLE 11 - CHANGE OF CONTRACT PRICE

11.1. The Contract Price constitutes the total compensation (subject to authorized adjustments) payable by OWNER to CONTRACTOR for performing the Work. All duties, responsibilities and obligations assigned to or undertaken by CONTRACTOR shall be at his expense without change in the Contract Price.

11.2. The Contract Price may only be changed by a Change Order. Any claim for an increase in the Contract Price shall be based on written notice delivered to ENGINEER within fifteen days of the occurrence of the event giving rise to the claim. Notice of the amount of the claim with supporting data shall be delivered within forty-five days of such occurrence unless ENGINEER allows an additional period of time to ascertain accurate cost data.

11.3. The value of any Work covered by a Change Order or of any claim for an increase or decrease in the Contract Price shall be determined in one of the following ways:

11.3.1. Where the Work involved is covered by unit prices contained in the Contract Documents, by application of unit prices to the quantities of the items involved (subject to the provisions of paragraph 11.9).

11.3.2. By mutual acceptance of a lump sum.

11.3.3. On the basis of the Cost of the Work (determined as provided in paragraphs 11.4 and 11.5) plus a Contractor's Fee for overhead and profit (determined as provided in paragraph 11.6).

Cost of the Work:

11.4. The term Cost of the Work means the sum of all costs necessarily incurred and paid by CONTRACTOR in the proper performance of the Work. Except as otherwise may be agreed to in writing by OWNER, such costs shall be in amounts no higher than those prevailing in the locality of the Project, shall include only the following items and shall not include any of the costs itemized in paragraph 11.5:

11.4.1. Payroll costs for employees in the direct employ of CONTRACTOR in the performance of the Work under schedules of job classifications agreed upon in advance by OWNER and CONTRACTOR. Payroll costs for employees not employed full time on the Work shall be apportioned on the basis for their time spent on the Work. Payroll cost shall include, but not be limited to, salaries and wages plus the cost of fringe benefits which shall include social security contributions, unemployment, excise and payroll taxes, workers' compensation, health and retirement benefits, sick leave, vacation and holiday pay applicable thereto. Such employees shall include superintendents and foremen at the site.

11.4.2. Cost of all materials and equipment furnished and incorporated in the Work, including costs of transportation and storage thereof, and manufacturers' field services required in connection therewith. All cash discounts shall accrue to CONTRACTOR unless OWNER deposits funds with CONTRACTOR with which to make payments, in which case the cash discounts shall accrue to OWNER. All trade discounts, rebates and refunds, and all returns from sale of surplus materials

and equipment shall accrue to OWNER and CONTRACTOR shall make provisions so that they may be obtained.

11.4.3. Payments made by CONTRACTOR to the Subcontractors for Work performed by Subcontractors. CONTRACTOR shall obtain competitive bids from Subcontractors acceptable to CONTRACTOR and shall deliver such bids to OWNER who will then determine which bids will be accepted. If a subcontract provides that the Subcontractor is to be paid on the basis of Cost of the Work Plus a Fee, the Subcontractor's Cost of the Work shall be determined in the same manner as CONTRACTOR's Cost of the Work. All subcontracts shall be subject to the other provisions of the Contract Documents insofar as applicable.

11.4.4. Costs of special consultants (including, but not limited to, engineers, architects, testing laboratories, surveyors, lawyers and accountants) employed for services specifically related to the Work. Any such special consultants covered by the Consultants' Competitive Negotiations Act (Section 287.055, Florida Statutes), shall be selected in accordance with such Act.

11.4.5. Supplemental costs including the following:

11.4.5.1. The proportion of necessary transportation, travel and subsistence expenses of CONTRACTOR's employees incurred in discharge of duties connected with the Work.

11.4.5.2. Cost, including transportation and maintenance, of all materials, supplies, equipment, machinery, appliances, office and temporary facilities at the site and hand tools not owned by the workmen, which are consumed in the performance of the Work, and cost less market value of such items used but not consumed which remain the property of CONTRACTOR.

11.4.5.3. Rentals of all construction equipment and machinery and the parts thereof whether rented from CONTRACTOR or others in accordance with rental agreements approved by OWNER, and the costs of transportation, loading, unloading, installation, dismantling and removal thereof - all in accordance with terms of said rental agreements. The rental of any such equipment, machinery or parts shall cease when the use thereof is no longer necessary for the Work.

11.4.5.4. Sales, use or similar taxes related to the Work, and for which CONTRACTOR is liable, imposed by any government authority.

11.4.5.5. Deposits lost for causes other than CONTRACTOR's negligence, royalty payments and fees for permits and licenses.

11.4.5.6. Losses and damages (and related expenses), not compensated by insurance or otherwise, to the Work or otherwise sustained by CONTRACTOR in connection with the execution of the Work, provided they have resulted from causes other than the negligence of CONTRACTOR, any Subcontractor, or anyone directly or indirectly employed by any of them or for whose acts any of them may be liable. Such losses shall include settlements made with the written consent and approval of OWNER. No such losses, damages and expenses shall be included in the Cost of the Work for the purpose of determining Contractor's Fee. If, however, any such loss or damage requires construction and CONTRACTOR is placed in charge thereof, CONTRACTOR shall be paid for services a fee proportionate to that stated in paragraph 11.6.2.

11.4.5.7. The cost of utilities, fuel and sanitary facilities at the site.

11.4.5.8. Minor expenses such as telegrams, long distance telephone calls, telephone service at the site, expressage and similar petty cash items in connection with the Work.

11.4.5.9. Cost of premiums for additional Bonds and insurance required because of changes in the Work.

11.5. The term Cost of the Work shall not include any of the following:

11.5.1. Payroll costs and other compensation of CONTRACTOR's officers, executives, principals (of partnership and estimators, lawyers, auditors, accountants, purchasing and contracting agents, expeditors, timekeepers, clerks and other personnel employed by CONTRACTOR whether at the site or in his principal or a branch office for general administration of the Work and not specifically included in the agreed upon schedule of job classifications referred to in subparagraph 11.4.1. - all of which are to be considered administrative costs covered by the Contractor's Fee.

11.5.2. Expenses of CONTRACTOR's principal and branch offices other than CONTRACTOR's office at the site.

11.5.3. Any part of CONTRACTOR's capital expenses, including interest on CONTRACTOR's capital employed for the Work and charges against CONTRACTOR for delinquent payments.

11.5.4. Cost of premiums for all Bonds and for all insurance whether or not CONTRACTOR is required by the Contract Documents to purchase and maintain the same (except for additional Bonds and insurance required because of changes in the Work).

11.5.5. Costs, including damages, due to the negligence of intentional acts of CONTRACTOR, any Subcontractor, or anyone directly or indirectly employed by any of them or for whose acts any of them may be liable, including but not limited to, the correction of defective Work, disposal of materials or equipment wrongly supplied and making good any damage to property.

11.5.6. Other overhead or general expense costs of any kind and the costs of any item not specifically and expressly included in paragraph 11.4.

Contractor's Fee:

11.6. The Contractor's Fee allowed to CONTRACTOR for overhead and profit shall be determined as follows:

11.6.1. A mutually acceptable fixed fee; or if none can be agreed upon,

11.6.2. A fee based on the following percentages of the various portions of the Cost of the Work;

11.6.2.1. For costs incurred under paragraphs 11.4.1. and 11.4.2., the Contractor's Fee shall be ten percent,

11.6.2.2. For costs incurred under paragraph 11.4.3., the Contractor's Fee shall be five percent; and if a subcontract is on the basis of Cost of the Work Plus a Fee, the maximum allowable to the Subcontractor as a fee for overhead and profit shall be ten percent, and

11.6.2.3. No fee shall be payable on the basis of costs itemized under paragraphs 11.4.4., 11.4.5. and 11.5.

11.7. The amount of credit to be allowed by CONTRACTOR to OWNER for any such change which results in a net decrease in costs, will be the amount of the actual net decrease. When both additions and credits are involved in any one change, the combined overhead and profit shall be figured on the basis of the net increase, if any.

Adjustment of Unit Prices:

11.8. Whenever the cost of any Work is to be determined pursuant to paragraphs 11.4. and 11.5., CONTRACTOR will submit in form acceptable to ENGINEER an itemized cost breakdown together with supporting data.

11.9. Where the quantity of Work with respect to any item that is covered by a unit price differs materially and significantly from the quantity of such Work indicated in the Contract Documents, an appropriate Change Order may be issued on recommendation of ENGINEER to adjust the unit price.

ARTICLE 12 - CHANGE OF THE CONTRACT TIME

12.1. The Contract Time may only be changed by a written Change Order. Any claim for an extension in the Contract Time shall be based on written notice delivered to ENGINEER within fifteen days of the occurrence of the event giving rise to the claim. Notice of the extent of the claim with supporting data shall be delivered within forty-five days of such occurrence unless ENGINEER allows an additional period of time to ascertain more accurate data. All claims for adjustment in the Contract Time shall be determined by ENGINEER if OWNER and CONTRACTOR cannot otherwise agree. Any change in the Contract Time resulting from any such claim shall be incorporated in a written Change Order.

12.2. The Contract Time will be extended in an amount equal to time lost due to delays beyond the control of CONTRACTOR if a claim is made therefor as provided in paragraph 12.1. Such delays shall include, but not be limited to, acts or neglect by OWNER or others performing additional Work as contemplated by Article 7, or fires, floods, labor disputes, epidemics, abnormal weather conditions, or acts of God.

12.3. All time limits stated in the Contract Documents are of the essence of the Agreement. The CONTRACTOR shall not be entitled to any claim for damages on account of hindrances or delays from any cause whatsoever, but if occasioned by an act of God, or by any act or omission

on the part of the Owner, such act, hindrance or delay may entitle the CONTRACTOR to an extension of time in which to complete the work which shall be determined by the ENGINEER, provided that the CONTRACTOR will give notice in writing of the cause of such act, hindrance or delay within ten (10) days after its occurrence.

ARTICLE 13 - WARRANTY AND GUARANTEE; TESTS AND INSPECTIONS; CORRECTION, REMOVAL OR ACCEPTANCE OF DEFECTIVE WORK

Warranty and Guarantee:

13.1. CONTRACTOR warrants and guarantees to OWNER that all Work will be in accordance with the Contract Documents and will not be defective. Prompt notice of all defects shall be given to CONTRACTOR. All defective Work, whether or not in place, may be rejected, corrected or accepted as provided in this Article 13.

Access to Work:

13.2. ENGINEER and ENGINEER's representatives, other representatives of OWNER, testing agencies and governmental agencies with jurisdictional interests will have access to the Work at reasonable times for their observation, inspection and testing. CONTRACTOR shall provide proper and safe conditions for such access.

Tests and Inspections:

13.3. CONTRACTOR shall give ENGINEER timely notice of readiness of the Work for all required inspections, tests or approvals.

13.4. If any law, ordinance, rule, regulation, code, or order of any public body having jurisdiction requires any Work (or part thereof) to specifically be inspected, tested or approved, CONTRACTOR shall assume full responsibility therefor, pay all costs in connection therewith and furnish ENGINEER the required certificates of inspection, testing or approval. CONTRACTOR shall also be responsible for and shall pay all costs in connection with any inspection or testing required in connection with OWNER's acceptance of a manufacturer, fabricator, supplier, or distributor of materials or equipment proposed to be incorporated in the Work, or of materials or equipment submitted for approval prior to CONTRACTOR's purchase thereof for incorporation in the Work. The cost of all other inspections, tests and approvals required by the Contract Documents shall be paid by OWNER (unless otherwise specified).

13.5. All inspections, tests or approvals other than those required by law, ordinance, rule, regulation, code or order of any public body having jurisdiction shall be performed by organizations acceptable to OWNER and CONTRACTOR.

13.6. If any Work that is to be inspected, tested or approved is covered without written concurrence of ENGINEER, it must, if requested by ENGINEER, be uncovered for observation. Such uncovering shall be at CONTRACTOR's expense unless CONTRACTOR has given ENGINEER timely notice of CONTRACTOR's intention to cover such Work and ENGINEER

has not acted with reasonable promptness in response to such notice.

13.7. Neither observations by ENGINEER, nor inspections, tests or approvals by others shall relieve CONTRACTOR from his obligations to perform the Work in accordance with the Contract Documents, and in all events in no less than a workmanlike manner.

Uncovering Work:

13.8. If any Work is covered contrary to the written request of ENGINEER, it must, if requested by ENGINEER, be uncovered for ENGINEER's observation and replaced at CONTRACTOR's expense.

13.9. If ENGINEER considers it necessary or advisable that covered Work be observed by ENGINEER or inspected or tested by others, CONTRACTOR, at ENGINEER's request, shall uncover, expose or otherwise make available for observation, inspection or testing as ENGINEER may require, that portion of the Work in question, furnishing all necessary labor, material and equipment. If it is found that such Work is defective, CONTRACTOR shall bear all the expenses of such uncovering, exposure, observation, inspection and testing and of satisfactory reconstruction, including compensation for additional professional services, and an appropriate deductive Change Order shall be issued. If, however, such Work is not found to be defective, CONTRACTOR shall be allowed an increase in the Contract Price or an extension of the Contract Time, or both, directly attributable to such uncovering, exposure, observation, inspection, testing and reconstruction if he makes a claim therefor as provided in Articles 11 and 12.

Owner May Stop the Work:

13.10. If the Work is defective, or CONTRACTOR fails to supply sufficient skilled workmen or suitable materials or equipment, OWNER may order CONTRACTOR to stop the Work, or any portion thereof, until the cause of such order has been eliminated; however, this right of OWNER to stop the Work shall not give rise to any duty on the part of OWNER to exercise this right for the benefit of CONTRACTOR or any other party.

Correction or Removal of Defective Work:

13.11. If required by ENGINEER, CONTRACTOR shall promptly, without cost to OWNER and as specified by ENGINEER, either correct any defective Work, whether or not fabricated, installed or completed, or, if the Work has been rejected by ENGINEER, remove it from the site and replace it with nondefective Work.

One Year Correction Period:

13.12. If within one year after the date of Substantial Completion or such longer period of time as may be prescribed by law or by the terms of any applicable special guarantee required by the Contract Documents, any Work is found to be defective, CONTRACTOR shall promptly, without cost to OWNER and in accordance with OWNER's written instructions, either correct such defective Work, or, if it has been rejected by OWNER, remove it from the site and replace it with nondefective Work. If CONTRACTOR does not promptly comply with the terms of such

instructions, or in an emergency where delay would cause serious risk of loss or damage, OWNER may have the defective Work corrected or the rejected Work removed and replaced, and all direct and indirect costs of such removal and replacement, including compensation for additional professional services, shall be paid by CONTRACTOR.

Acceptance of Defective Work:

13.13. If, instead of requiring correction or removal and replacement of defective Work, OWNER prefers to accept it, OWNER may do so. In such case, if acceptance occurs prior to ENGINEER's recommendation of final payment, a Change Order shall be issued incorporating the necessary revisions in the Contract Documents, including appropriate reduction in the Contract Price; or, if the acceptance occurs after such recommendation, an appropriate amount shall be paid by CONTRACTOR to OWNER.

OWNER May Correct Defective Work:

13.14. If CONTRACTOR fails, within a reasonable time after written notice of ENGINEER to proceed, to correct and to correct defective Work or to remove and replace rejected Work as required by ENGINEER in accordance with paragraph 13.11., or if CONTRACTOR fails to perform the Work in accordance with the Contract Documents (including any requirements of the progress schedule), OWNER may, after seven days' written notice to CONTRACTOR, correct and remedy any such deficiency. In exercising his rights under this paragraph OWNER shall proceed expeditiously. To the extent necessary to complete corrective and remedial action, OWNER may exclude CONTRACTOR from all or part of the site, take possession of all or part of the Work, and suspend CONTRACTOR's services related thereto, take possession of CONTRACTOR's tools, appliances, construction equipment and machinery at the site and incorporate in the Work all materials and equipment stored at the site or for which OWNER has paid CONTRACTOR but which are stored elsewhere. CONTRACTOR shall allow OWNER, OWNER's representatives, agents and employees such access to the site as may be necessary to enable OWNER to exercise his rights under this paragraph. All direct and indirect costs of OWNER in exercising such rights shall be charged against CONTRACTOR in an amount verified by ENGINEER, and a Change Order shall be issued incorporating the necessary revisions in the Contract Documents and a reduction in the Contract Price. Such direct and indirect costs shall include, in particular but without limitation, compensation for additional professional services required and all costs of repair and replacement of work of others destroyed or damaged by correction, removal or replacement of CONTRACTOR's defective Work. CONTRACTOR shall not be allowed an extension of the Contract Time because of any delay in performance of the Work attributable to the exercise by OWNER of OWNER's rights hereunder.

ARTICLE 14 - PAYMENTS TO CONTRACTOR AND COMPLETION

Application for Progress Payment:

14.1. At least ten days before each progress payment falls due (but not more often than once a month), CONTRACTOR shall submit to ENGINEER for review an Application for Payment filled out and signed by CONTRACTOR covering the Work completed as of the date of the

Application and accompanied by such supporting documentation as is required by the Contract Documents and also as ENGINEER may reasonably require. If payment is requested on the basis of materials and equipment not incorporated in the Work but delivered and suitably stored at the site or at another location agreed to in writing, the Application for Payment shall also be accompanied by such data, satisfactory to OWNER, as will establish OWNER's title to the material and equipment and protect OWNER's interest therein, including applicable insurance. Each subsequent Application for Payment shall include an affidavit of CONTRACTOR stating that all previous progress payments received on account of the Work have been applied to discharge in full all of CONTRACTOR's obligations reflected in prior Applications for Payment. The amount of retainage with respect to progress payments will be as stipulated in the Form of Agreement, Article 5.

CONTRACTOR's Warranty of Title:

14.2. CONTRACTOR warrants and guarantees that title to all Work, materials and equipment covered by an Application for Payment, whether incorporated in the project or not, will pass to OWNER at the time of payment free and clear of all liens, claims, security interests and encumbrances (hereafter in these General Conditions referred to as "Liens").

Review of Applications for Progress Payment:

14.3. ENGINEER will, within ten days after receipt of each Application for Payment, either indicate in writing a recommendation of payment, or return the Application to CONTRACTOR indicating in writing ENGINEER's reasons for refusing to recommend payment. In the latter case, CONTRACTOR may make the necessary corrections and resubmit the Application. OWNER shall, within ten days of presentation to him of the ENGINEER's recommendation of payment, pay CONTRACTOR the amount recommended.

14.4. ENGINEER may refuse to recommend the whole or any part of any payment if, in his opinion, it would be incorrect to make such representations to OWNER. He may also refuse to recommend any such payment, or, because of subsequently discovered evidence or the results of subsequent inspections or tests, nullify any such payment previously recommended to such extent as may be necessary in ENGINEER's opinion to protect OWNER from loss because:

14.4.1. The Work is defective, or completed Work has been damaged requiring correction or replacement;

14.4.2. Written claims have been made against OWNER or Liens have been filed in connection with the Work;

14.4.3. The Contract Price has been reduced because of Modifications;

14.4.4. OWNER has been required to correct defective Work or complete the Work in accordance with paragraph 13.14;

14.4.5. Of CONTRACTOR's unsatisfactory prosecution of the Work in accordance with the Contract Documents, including failure to clean up;

14.4.6. Of liquidated damages payable by CONTRACTOR; or

14.4.7. CONTRACTOR's failure to make payment to Subcontractors, or for labor, materials or equipment.

Substantial Completion:

14.5. When CONTRACTOR considers the entire Work ready for its intended use CONTRACTOR shall, in writing to ENGINEER, certify that the entire Work is substantially complete and request that ENGINEER issue a certificate of Substantial Completion. Within a reasonable time thereafter, CONTRACTOR and ENGINEER shall make an inspection of the Work to determine the status of completion. If ENGINEER does not consider the Work substantially complete, ENGINEER will notify CONTRACTOR in writing giving his reasons therefor. If ENGINEER considers the Work substantially complete, ENGINEER will prepare a certificate of Substantial Completion which shall fix the date of Substantial Completion. There shall be attached to the certificate a list of items to be completed or corrected before final payment.

14.6. OWNER shall have the right to exclude CONTRACTOR from the Work after the date of Substantial Completion, but OWNER shall allow CONTRACTOR reasonable access to complete or correct items on the list.

Partial Utilization:

14.7. Use by OWNER of completed portions of the Work may be accomplished prior to Substantial Completion of all the Work subject to the following:

14.7.1. OWNER at any time may request CONTRACTOR in writing to permit OWNER to use any part of the Work which OWNER believes to be substantially complete and which may be so used without significant interference with construction of the other parts of the Work. If CONTRACTOR agrees, CONTRACTOR will certify to ENGINEER that said part of the Work is substantially complete and request ENGINEER to issue a certificate of Substantial Completion for that part of the Work. Within a reasonable time thereafter CONTRACTOR and ENGINEER shall make an inspection of that part of the Work to determine its status of completion. If ENGINEER does not consider that part of the Work to be substantially complete, ENGINEER will notify CONTRACTOR in writing giving his reasons therefor. If ENGINEER considers that part of the Work to be substantially complete, ENGINEER will execute and deliver to CONTRACTOR a certificate to that effect, fixing the date of Substantial Completion as to that part of the Work, attaching thereto a list of items to be completed or corrected before final payment. OWNER shall have the right to exclude CONTRACTOR from any part of the Work which ENGINEER has so certified to be substantially complete, but OWNER shall allow CONTRACTOR reasonable access to complete or correct items on the list.

14.7.2. In lieu of the issuance of a certificate of Substantial Completion as to part of the Work, OWNER may take over operation of a facility constituting part of the Work whether or not it is substantially complete if such facility is functionally and separately usable; provided that prior to any such takeover, OWNER and CONTRACTOR have agreed as to the division of responsibilities

between OWNER and CONTRACTOR for security, operation, safety, maintenance, correction period, heat, utilities and insurance with respect to such facility.

14.7.3. No occupancy of part of the Work or taking over of operations of a facility will be accomplished prior to compliance with the requirements of paragraph 5.14 with regard to property insurance.

Final Inspection:

14.8. Upon written notice from CONTRACTOR that the work is complete, ENGINEER will make a final inspection with CONTRACTOR and will notify CONTRACTOR in writing of all particulars in which this inspection reveals that the Work is incomplete or defective. CONTRACTOR shall immediately take such measures as are necessary to remedy such deficiencies.

Final Application for Payment:

14.9. After CONTRACTOR has completed all such corrections to the satisfaction of ENGINEER and delivered all maintenance and operating instructions, schedules, guarantees, Bonds, certificates of inspection, marked-up record documents and other documents - all as required by the Contract Documents, and after ENGINEER has indicated that the Work is acceptable (subject to the provisions of paragraph 14.13), CONTRACTOR may make application for final payment following the procedure for progress payments. The final Application for Payment shall be accompanied by all documentation called for in the Contract Documents and such other data and schedules as ENGINEER may reasonably require, together with complete and legally effective releases or waivers (satisfactory to OWNER) of all Liens arising out of or filed in connection with the Work. In lieu thereof and as approved by OWNER, CONTRACTOR may furnish receipts or releases in full; an affidavit of CONTRACTOR that the releases and receipts include all labor, services, material and equipment for which a Lien could be filed, and that all payrolls, material and equipment bills, and other indebtedness connected with the Work for which OWNER or his property might in any way be responsible, have been paid or otherwise satisfied; and consent of the Surety, if any, to final payment. If any Subcontractor, manufacturer, fabricator, supplier or distributor fails to furnish a release or receipt in full, CONTRACTOR may furnish a Bond or other collateral satisfactory to OWNER to indemnify OWNER against any Lien.

Final Payment and Acceptance:

14.10. If, on the basis of ENGINEER's observation of the Work during construction and final inspection, and ENGINEER's review of the final Application for Payment and accompanying documentation - all as required by the Contract Documents, ENGINEER is satisfied that the Work has been completed and CONTRACTOR has fulfilled all of his obligations under the Contract Documents, ENGINEER will, within ten days after receipt of the final Application for Payment, indicate in writing his recommendation of payment and present the Application for payment. Thereupon ENGINEER will give written notice to CONTRACTOR that the Work is acceptable subject to the provisions of paragraph 14.13. Otherwise, ENGINEER will return the Application to CONTRACTOR, indicating in writing the reasons for refusing to recommend final payment, in which case CONTRACTOR shall make the necessary corrections and resubmit the Application.

If the Application and accompanying documentation are appropriate as to form and substance, OWNER shall, within thirty days after receipt thereof pay CONTRACTOR the amount recommended by ENGINEER.

14.11. If, through no fault of CONTRACTOR, final completion of the Work is significantly delayed and if ENGINEER so confirms, OWNER shall, upon receipt of CONTRACTOR's final Application for Payment and recommendation of ENGINEER, and without terminating the Agreement, make payment of the balance due for that portion of the Work fully completed and accepted. If the remaining balance to be held by OWNER for Work not fully completed or corrected is less than the retainage stipulated in the Agreement, and if Bonds have been furnished as required in paragraph 5.1, the written consent of the Surety to the payment of the balance due for that portion of the Work fully completed and accepted shall be submitted by CONTRACTOR to ENGINEER with the Application for such payment. Such payment shall be made under the terms and conditions governing final payment, except that it shall not constitute a waiver of claims.

CONTRACTOR's Continuing Obligation:

14.12. CONTRACTOR's obligation to perform and complete the Work in accordance with the Contract Documents shall be absolute. Neither recommendation of any progress or final payment by ENGINEER, nor the issuance of a certificate of Substantial Completion, nor any payment by OWNER to CONTRACTOR under the Contract Documents, nor any use or occupancy of the Work or any part thereof by OWNER, nor any act of acceptance by OWNER nor any failure to do so, nor the issuance of a notice of acceptability by ENGINEER pursuant to paragraph 14.10, nor any correction of defective Work by OWNER shall constitute an acceptance of Work not in accordance with the Contract Documents or a release of CONTRACTOR's obligation to perform the Work in accordance with the Contract Documents.

Waiver of Claims:

14.13. The making and acceptance of final payment shall constitute:

14.13.1. A waiver of all claims by OWNER against CONTRACTOR, except claims arising from unsettled or unfilled Liens, from defective Work appearing after final inspection pursuant to paragraph 14.8 or from failure to comply with the Contract Documents or the terms of any special guarantees specified therein; however, it shall not constitute a waiver by OWNER of any rights in respect of CONTRACTOR's continuing obligations under the Contract Documents; and

14.13.2. A waiver of all claims by CONTRACTOR against OWNER other than those previously made in writing and still unsettled or unfilled.

ARTICLE 15 - SUSPENSION OF WORK AND TERMINATION

Owner May Suspend Work:

15.1. OWNER may, at any time and without cause, suspend the Work or any portion thereof for a period of not more than ninety days by notice in writing to CONTRACTOR and Surety which

shall fix the date on which Work shall be resumed. CONTRACTOR shall resume the Work on the date so fixed. CONTRACTOR may be allowed an increase in the Contract Price or an extension of the Contract Time, or both, directly attributable to any suspension of work at OWNER's request if he makes a claim therefor as provided in Articles 11 and 12.

Owner May Terminate:

- 15.2. Upon the occurrence of any one or more of the following events:
 - 15.2.1. If CONTRACTOR is adjudged a bankrupt or insolvent;
 - 15.2.2. If CONTRACTOR makes a general assignment for the benefit of creditors;
 - 15.2.3. If a trustee or receiver is appointed for CONTRACTOR or for any of CONTRACTOR's property;
 - 15.2.4. If CONTRACTOR files a petition to take advantage of any debtor's act, or to reorganize under the bankruptcy or similar laws;
 - 15.2.5. If CONTRACTOR repeatedly fails to supply sufficient skilled workmen or suitable materials or equipment;
 - 15.2.6. If CONTRACTOR repeatedly fails to make prompt payments to Subcontractors or for labor, materials or equipment;
 - 15.2.7. If CONTRACTOR violates any laws, ordinances, rules, regulations or orders of any public body having jurisdiction;
 - 15.2.8. If CONTRACTOR disregards the authority of ENGINEER; or
 - 15.2.9. If CONTRACTOR otherwise violates in any substantial way any provisions of the Contract Documents.

OWNER may after giving CONTRACTOR and his Surety seven (7) days' written notice, terminate the services of CONTRACTOR, exclude CONTRACTOR from the site and take possession of the Work and of all CONTRACTOR's tools, appliances, construction equipment and machinery at the site and demand the Surety to finish the Work by whatever methods he may deem expedient but subject to the approval of OWNER. The Surety shall use the same to the full extent they could be used by CONTRACTOR (without liability to CONTRACTOR for trespass or conversion), incorporate in the Work all materials and equipment stored at the site or for which OWNER has paid CONTRACTOR but which are stored elsewhere, and finish the Work as OWNER may require. In such case CONTRACTOR shall not be entitled to receive any further payment until the Work is finished. If the unpaid balance of the Contract Price exceeds the direct and indirect costs of completing the Work, including compensation for additional professional services, such excess shall be paid to CONTRACTOR. If such costs exceed such unpaid balance, CONTRACTOR and the Surety shall be jointly and severally liable to pay the difference to OWNER. Such costs incurred by OWNER shall be incorporated in a Change Order, but in

finishing the Work OWNER shall not be required to accept the lowest figure for the Work to be performed by the Surety.

15.3. Where CONTRACTOR's services have been so terminated by OWNER, the termination shall not affect any rights of OWNER against CONTRACTOR or the Surety then existing or which may thereafter accrue. Any retention or payment of moneys due CONTRACTOR by OWNER will not release CONTRACTOR from liability.

15.4. Upon seven (7) days' written notice to CONTRACTOR and Surety, OWNER may, without cause and without prejudice to any other right or remedy, elect to abandon the Work and terminate the Agreement. In such case, CONTRACTOR shall be paid for all Work executed, any expense sustained plus reasonable termination expenses.

CONTRACTOR May Stop Work or Terminate:

15.5. If, through no act or fault of CONTRACTOR, the Work is suspended for a period of more than ninety (90) days by OWNER or under an order of court or other public authority, or ENGINEER fails to act on any Application for Payment within thirty (30) days after it is submitted, or OWNER fails for thirty days to pay CONTRACTOR any sum finally determined to be due, the CONTRACTOR may, upon seven (7) days' written notice to OWNER, terminate the Agreement and recover from OWNER payment for all Work executed and any expense sustained plus reasonable termination expenses. In addition and in lieu of terminating the Agreement, if ENGINEER has failed to act on an Application for Payment or OWNER has failed to make any payment as aforesaid, CONTRACTOR may upon seven (7) days' notice to OWNER stop the Work until payment of all amounts then due. The provisions of this paragraph shall not relieve CONTRACTOR of his obligations to carry on the Work in accordance with the progress schedule and without delay during disputes and disagreements with OWNER.

ARTICLE 16 - MISCELLANEOUS

Giving Notice:

16.1. Whenever any provision of the Contract Documents requires the giving of written notice it shall be deemed to have been validly given if delivered in person to the individual or to a member of the firm or to an officer of the corporation for whom it is intended, or if delivered at or sent by registered or certified mail, postage prepaid, to the last business address known to the giver of the notice.

Computation of Time:

16.2. When any period of time is referred to in the Contract Documents by days, it shall be computed to exclude the first and include the last day of such period. If the last day of any such period falls on a Saturday or Sunday or on a day made a legal holiday by the law of the applicable jurisdiction, such day shall be omitted from the computation.

General:

16.3. The duties and obligations imposed by these General Conditions and the rights and remedies available hereunder to the parties hereto, and, in particular but without limitation, the warranties, guarantees and obligations imposed upon CONTRACTOR by paragraphs 6.15, 13.1, 13.11, 13.14, 14.2, and 15.2, and all of the rights and remedies available to OWNER thereunder, shall be in addition to, and not in limitation of, any rights and remedies available to any or all of them which are otherwise imposed or available by law or contractor, by special warranty or guarantee or by other provisions of the Contract Documents, and the provisions of this paragraph shall be as effective as if repeated specifically in the contract Documents in connection with each particular duty, obligation, right and remedy to which they apply. All representations, warranties and guarantees made in the Contract Documents shall survive final payment and termination or completion of this Agreement.

Liquidated Damages:

16.4. OWNER and CONTRACTOR recognize that time is of the essence to complete this Project and that OWNER will suffer financial loss if the Work is not substantially complete within the time specified in Agreement, plus any extensions thereof allowed in accordance with Article 12. They also recognize the delays, expense and difficulties involved in proving in a legal proceeding the actual loss suffered by OWNER if the Work is not substantially complete on time. Accordingly, instead of requiring any such proof, OWNER and CONTRACTOR agree that as liquidated damages for delay (but not as a penalty) CONTRACTOR shall pay OWNER the amount stated in the Contract for each day that expires after the time specified in the Contract for Substantial Completion until the Work is substantially complete. After Substantial Completion, if CONTRACTOR shall neglect, refuse or fail to complete the remaining Work within the time specified in the Contract or any proper extension thereof granted by OWNER, CONTRACTOR shall pay the OWNER an amount equal to all actual expenses incurred by the OWNER as a direct result of the CONTRACTOR'S negligence, refusal, or failure to so complete the remaining Work. In the event the CONTRACTOR is terminated or abandons the Work prior to the scheduled date for final completion, the CONTRACTOR may be liable for both liquidated damages attributable to delay and for excess completion costs.

Reports of Investigations and Tests of Subsurface and Latent Physical Conditions:

16.5. Reports of investigations and tests of subsurface and latent physical conditions at the site or otherwise affecting cost, progress or performance of the work which have been relied upon by ENGINEER in preparing the Drawings and Specifications are as listed in the Supplementary Conditions. OWNER will make such reports available for inspection to any Bidder or copies may be obtained from the ENGINEER by the Bidder at reproduction cost. These reports are not guaranteed as to accuracy or completeness, nor are they part of the Contract Documents.

Performance of Work by CONTRACTOR:

16.6. Contract Assignment. The successful bidder (or bidders) will be required to perform the work as a prime contractor. CONTRACTOR shall not sublet, sell, transfer, assign or otherwise dispose of the contract or any portion thereof, or of his right, title, or interest therein. CONTRACTOR shall perform on the site and with his own organization work equivalent to not

less than fifty (50%) percent of the total dollar value of the work to be performed under this contract except that work designated in the Supplementary Conditions as specialty work may be performed by subcontractors and the cost of any such specialty work so performed by subcontracts may be deducted from the total contract amount before computing the amount of work required to be performed by CONTRACTOR with his own organization.

Limitation of Remedy and Liability:

16.7 Contractor and Owner expressly waive any claim for consequential damages against the other including but not limited to, a waiver of claims for diminished bonding capacity, loss of financing, loss of business reputation, lost profits on other projects or other lost opportunity damage claims.

Contractor expressly agrees that any claim (tort, contract, claim in equity, or otherwise) by Contractor for damages against Owner shall not exceed the total amount of the contract price, less any amounts actually paid to the Contractor by the Owner (or by an insurer of the Owner).

All liability of the City allegedly resulting from, arising out of or connected with this Agreement, or from the performance or breach thereof, shall terminate three years from the termination of this Agreement.

Waiver of Right to Jury Trial:

16.8 THE PARTIES HEREBY KNOWINGLY, VOLUNTARILY AND INTENTIONALLY WAIVE ANY RIGHT WHICH ANY PARTY MAY HAVE TO TRIAL BY JURY IN RESPECT OF ANY PROCEEDING, LITIGATION OR COUNTERCLAIM BASED ON, OR ARISING OUT OF, UNDER OR IN CONNECTION WITH THIS AGREEMENT OR ANY COURSE OF CONDUCT, COURSE OF DEALING, STATEMENTS (WHETHER VERBAL OR WRITTEN) OR ACTIONS OF ANY PARTY. IF THE SUBJECT MATTER OF ANY LAWSUIT IS ONE IN WHICH THE WAIVER OF JURY TRIAL IS PROHIBITED, NO PARTY TO THIS AGREEMENT SHALL PRESENT AS A NON-COMPULSORY COUNTERCLAIM IN ANY SUCH LAWSUIT ANY CLAIM BASED ON, OR ARISING OUT OF, UNDER OR IN CONNECTION WITH THIS AGREEMENT. FURTHERMORE, NO PARTY TO THIS AGREEMENT SHALL SEEK TO CONSOLIDATE ANY SUCH ACTION IN WHICH A JURY TRIAL CANNOT BE WAIVED.

END OF SECTION

SECTION 00800 SUPPLEMENTARY CONDITIONS

The following supplements modify, change, delete from, or add to the General Conditions of the Construction Contract (Section 00700). Where any article of the General Conditions is modified or any paragraph, subparagraph or clause thereof is modified or deleted by these supplements, the unaltered provisions of that article, paragraph, subparagraph or clause shall remain in effect.

ARTICLE 16 - MISCELLANEOUS

Section 16.5 – Reports of Investigations and Test of Subsurface and Latent Physical Conditions

Add the following subparagraph:

- 16.5.1 The list of reports of investigations and tests of subsurface and latent physical conditions as referred to in General Conditions Section 16.5 are as follows:

None

Add the following:

- 16.7 Minimum Requirements for the provision and maintenance of Payment and Performance Bonds, and Contractor's Insurance

In accordance with Resolution 2021-144 as it presently exists or may hereafter change, or applicable state, federal or local law, whichever is stricter, the following minimum requirements have been established:

A. **Payment and Performance Bonds**

1. Except as otherwise provided herein, the Contractor shall, prior to beginning performance, deliver to the City, and the City shall record in the public records of Volusia County, Florida, the Contractor's Payment and Performance Bond in an amount equal to the full amount of the Contract.
2. (a) Payment and Performance Bonds shall not be required for any contract except those which are for the construction of a public building, for the prosecution and completion of a public work (as described in Section 180.06, **Florida Statutes**, as amended from time to time) or for repairs upon a public building or public work (as described in Section 180.06, **Florida Statutes**, as amended from time to time).
- (b) With respect to those Contracts for which Payment and Performance Bonds are otherwise required:
 - i. Unless the City Manager, or designee, determines such Bond to be necessary to protect the interests of the City, no Contractor shall be

required to provide a Payment and Performance Bond for any Contract which is for \$25,000.00 or less.

- ii. Upon the request of the contractor, good cause shown by the Contractor, and a determination that the public health, safety and welfare will be sufficiently protected, the City Commission may exempt the contractor from the requirement of providing a Payment and Performance Bond for any Contract which is for more than \$25,000.00 but is less than \$200,000.00.
- 3. The Payment and Performance Bond shall list the Contractor as Principal and be issued by a surety insurer authorized to do business in Florida as a surety and listed as an acceptable surety in the Federal Register.
- 4. The Payment and Performance Bond shall be executed pursuant to Section 255.05, **Florida Statutes**, and be in a form substantially similar to the form set forth in Section 255.05(3), **Florida Statutes**.
- 5. The Payment and Performance Bond shall specifically provide coverage for delay damages due to a default by the Contractor.
- 6. The Payment and Performance Bond shall not make the Contract part of the Bond agreement.
- 7. In lieu of the Payment and Performance Bond, the Contractor may file with the Finance Director of the City, in an amount equal to the full amount of the Contract, cash, a money order, a certified check, a cashier's check, an irrevocable letter of credit, or a security of a type listed in Part II, Chapter 625, **Florida Statutes**.
- 8. In the event the surety on any Payment and Performance Bond furnished by the Contractor is declared bankrupt or becomes insolvent, or its right to do business in the State of Florida is terminated, the Contractor shall, within five (5) working days thereafter, substitute another Payment and Performance Bond and surety acceptable to the City.
- 9. The Contractor is totally and solely responsible for keeping its surety informed as to the Base Contract Price as bid, significant changes in the Project Scope, and the overall progress and completion of the Project for the entire life of the Contract.
- 10. The payment and performance bond requirements stated herein above shall not be applicable to service-related contracts unless otherwise determined by the City Manager in order to protect the health, safety and welfare of the general public.

B. Contractual Provisions Relative to Risk Management

All contracts for any public works to be performed, and service-related contracts, for or on behalf of the City shall include at a minimum, the following, or substantially similar, provisions:

1. Hold Harmless and Indemnity

The Contractor agrees to assume liability for and indemnify, hold harmless, and defend the City, its commissioners, mayor, officers, employees, agents, and attorneys of, from, and against all liability and expense, including reasonable attorney's fees, in connection with any and all claims, demands, damages, actions, causes of action, and suits in equity of whatever kind or nature, including claims for personal injury, property damage, equitable relief, or loss of use, to the extent caused by the negligence, recklessness, or intentionally wrongful conduct of the Contractor, its agents, officers, contractors, subcontractors, employees, or anyone else employed or utilized by the Contractor in the performance of this Contract. The Contractor's liability hereunder shall include all attorney's fees and costs incurred by the City in the enforcement of this provision.

2. Payment on Behalf of City

The Contractor shall pay all costs of the City's legal defense, as may be selected by the City, for all claims described in the Hold Harmless paragraph.

Such payment on behalf of the City shall be in addition to any and all other legal remedies available to the City and shall not be considered to be the City's exclusive remedy.

3. Loss Control/Safety

Precaution shall be exercised at all times by the Contractor for the protection of all persons, including employees and property. The Contractor shall comply with all applicable laws, regulations and ordinances related to safety and health, shall make special efforts to detect hazardous conditions, and shall take prompt action when loss control/safety measures are reasonably necessary.

The City may order work to be stopped if conditions exist that present an immediate danger to persons or property. The Contractor acknowledges that such work stoppage will not shift responsibility for any damages from the Contractor to the City.

4. Service Bond

For Service-related contracts only, the City may require the Contractor to secure a service bond with a minimum \$25,000 coverage limit for the period of the service agreement. The service bond covers dishonest acts of the contractor's employees against the City. A copy of the bond shall be provided to the City when the agreement commences.

Service-related contracts include and are not limited to businesses providing janitorial, pest control, general repair, security, carpet cleaning, locksmith,

temporary employment, painting, moving services or other contracts as determined in the discretion of the Risk Manager as necessary to minimize loss.

C. Contractor's Insurance

1. General

The Contractor, including service-related contractors, shall purchase and maintain for the entire life of the Project, including any and all approved time extensions, until its final acceptance by the City, such insurance as will protect the Contractor from claims under Workers' Compensation, disability benefit laws or other similar employee benefit laws; from claims for damages because of bodily injury, occupational sickness or disease, or death of Contractor's employees; from claims insured by usual or unusual injury liability coverage; from claims or injury to or destruction of tangible property and from claims insured by usual Commercial General Liability coverage. This includes loss of use resulting therefrom, any or all of which may arise out of the Contractor's operations under the Contract Documents, whether such operations be by the Contractor, by any Subcontractor, or by anyone directly or indirectly employed by any of them or for whose acts any of them may be legally liable. The Contractor's deductibles/self-insured retentions shall be disclosed to the City and may be disapproved by the City, and may be reduced or eliminated at the sole discretion of the City. The Contractor is responsible for the amount of any deductible or self-insured retention.

2. Types of Insurance and Limits of Liability

The insurance required herein shall be written for not less than any limits of liability specified and incorporated as part of the Contract Documents or as required by law, whichever is greater, and shall include and not limited to the following:

- (a)** Workers' Compensation Insurance in statutory limits for the State of Florida with Coverage B - Employer's Liability limits of not less than:

\$100,000 Each Accident Bodily Injury by Accident
 \$100,000 Each Employee Bodily Injury by Disease
 \$500,000 Policy Limit Bodily Injury by Disease

Certificate of Exemptions. If the contractor has a State-issued Certificate of Exemption, the contractor may provide a copy in place of the requirement for coverage. However, if the contractor subcontracts or retains any other person or entity to perform under the contract, that person or entity must provide proof of workers' compensation insurance as required by law or provide a Certificate of Exemption.

It is the intent of the City that any individual who either contracts directly with the city or performs any work on behalf of any such contractor be covered by workers' compensation insurance or have a valid exemption from said coverage.

(If applicable to the Project, the policy must include benefits under the United States Longshoremen's and Harbor Workers' Act and the Jones Act coverage--all maritime coverage.)

- (b) Commercial General Liability Insurance shall be written on a coverage form as broad as Insurance Services Office (ISO) Form CG 00 01 11 85, or its successor form, including but not limited to the following coverage (any deviation shall be noted on the Certificates of Insurance):
- a. Premises, Operations, Products and Completed Operations
 - b. Owners' & Contractors' Protective
 - c. Products & Completed Operation
 - d. Explosion, Collapse & Underground Conditions
 - e. Blanket Contractual Liability
 - f. Personal Injury Liability
 - g. Broad Form Property Damage Endorsement, including Completed Operations
 - h. Independent Contractors
 - i. Watercraft--Owned and Non-Owned (if applicable, endorsement must be included in General Liability policy or a separate Protection & Indemnity Policy must be written)
 - j. Pollution Liability (if applicable)
 - k. Asbestos Abatement (if applicable)
 - l. Fire Damage Liability

Certain coverage outlined above may not be required if they do not relate to the Project, as may be determined at the sole discretion of the City.

Commercial General Liability Coverage shall be written on an occurrence basis and the limits shall be no less and not limited to the following amounts:

Limits (not less than)

\$1 Million Each Occurrence

\$2 Million General Aggregate

\$1 Million Aggregate Products & Completed Operations

NOTE: Commercial General Liability Coverage must be purchased on either a project basis (separate policy per contract) or an endorsement allocating an aggregate limit per location or specified project.

- (c) Automobile Liability Insurance is required if an Automobile(s) is used in the performance of the contract.

ISO Symbol 1 (Any Auto), or alternatively a combination of Symbol 2 (Owned Autos), Symbol 8 (Hired Autos), and Symbol 9 (Non-Owned Autos), and limits shall be no less than:

\$1 Million	Combined Single Limit for Bodily Injury and Property Damage
-------------	--

(d) Excess Liability

For contracts \$250,000 or greater an Excess Liability Policy of at least but not limited to \$1,000,000 in addition to the scheduled underlying policies for Commercial General Liability, Automobile Liability and Employers' Liability, the Contractor shall also provide an Excess Liability Policy with a maximum self-insured retention not to exceed \$25,0000 per occurrence.

(e) Builder's Risk

Contractor shall purchase Builder's Risk Insurance for any contracts that are deemed to be vertical construction on an All-Risk policy, and shall also include coverage for wind, hail, and named storm. Limits of coverage shall be at least and not limited to the value of the project.

**(f) Professional Liability, Malpractice and/or Errors and Omissions
(N/A for construction contracts)**

The Contractor shall purchase and maintain professional liability, malpractice, or errors or omissions insurance with minimum limits of \$1,000,000 per occurrence. If a claims made form of coverage is provided, the retroactive date of coverage shall be no later than the inception date of claims made coverage, unless the prior policy was extended indefinitely to cover prior acts. Coverage shall be extended beyond the policy year either by a supplemental extended reporting period (ERP) of as great a duration as is available, and with no less coverage and with reinstated aggregate limits, or by requiring that any new policy provides a retroactive date no later than the inception date of claims made coverage.

D. Requirements for Certificates of Insurance

1. With the execution of the Contract Documents, the Contractor, including service-related contractors, shall provide certificates of such insurance acceptable to the City. These certificates and insurance policies shall contain an endorsement that the coverage under the policies will not be canceled, non-renewed or materially changed until at least thirty (30) days' prior written notice of such cancellation, non-renewal or change (except for nonpayment of premium, which shall be ten (10) days) and a copy of the cancellation endorsement signed by an authorized representative of the insurer, be given to the City. The contractor shall be required to replace any expired or canceled policies in like amount and coverage to the satisfaction of the City. The Certificate of Insurance shall be the ACORD FORM

25-S (7/90), or its successor form, and shall be made a part of the Contract Documents.

2. New certificates of insurance shall be provided to the City at least fifteen (15) days prior to coverage renewals.
3. If requested by the City, the contractor shall immediately furnish complete copies of the Contractor's insurance policies, forms and endorsements.
4. For Commercial General Liability coverage the Contractor shall, at the option of the City, provide an indication of the amount of claims payments or reserves chargeable to the aggregate amount of liability coverage. If the Commercial General Liability form of coverage includes an annual aggregate limitation on the amount of insurance provided, a separate project aggregate limit may be required by the City for the given contract.
5. If the Contractor fails to obtain and maintain for the life of the Project the insurance required hereby or to replace any such expired or canceled policy, the City may obtain and maintain such insurance with such company as it deems satisfactory. Any amounts expended by the City in payment of premiums for such insurance shall be deducted by the City from the amount due the Contractor for the work covered by the Contract.

E. Policies of Insurance

1. Except as otherwise provided in this Exhibit, all insurance policies shall be issued by insurers licensed to do business in the State of Florida on an admitted basis or which is an eligible surplus lines insurer in the State of Florida, and any such insuring company is required to have a minimum financial rating of (A-), in the latest edition of "Best's Key Rating Guide", published by A. M. Best Co., Inc., or some similarly nationally recognized rating authority, including Standard and Poors and Demotech.
2. For Workers' Compensation coverage only, self-insurance programs are acceptable with a minimum A- rated reinsurance carrier; written confirmation is required.
3. All policies of insurance or certificates thereof referred to in this Exhibit shall be deposited with the City Clerk.
4. The City shall be named an Additional Insured on General Liability including products and completed operations and Automobile Liability policies of insurance and certificates thereof.

END OF SECTION

LIEN WAIVER

The undersigned does hereby certify that through _____, 2022, the undersigned has performed labor and/or furnished materials for the construction of the _____ located at _____ owned by _____, at a price of \$ _____, and in consideration of the payment to the undersigned of such sum, the receipt of which is hereby acknowledged, the undersigned does hereby release and waive all liens and claims to liens which the undersigned may have as a result of the performance of such labor and/or the furnishing of such materials, and that the undersigned has paid in full for all materials purchased by the undersigned in connection with such project and for all labor furnished by the undersigned in connection with such project. The undersigned further certifies that the last date on which the undersigned furnished such labor and/or materials was _____, 2022.

CONTRACTOR

By _____ DATE: _____

TITLE: _____

THE STATE OF _____

COUNTY OF _____

Before me, the undersigned authority, on this day personally appeared _____, the _____ of _____, a corporation, known to me to be the person and officer whose name is subscribed to the foregoing instrument, and acknowledged to me that he executed the same for the purposes and consideration therein expressed, and as the act and deed of said corporation, and in capacity therein stated.

GIVEN UNDER MY HAND AND SEAL OF OFFICE, this _____ day of _____, 2022.

Notary Public in and for
said County and State

SECTION 01010 SUMMARY OF WORK

PART 1 - GENERAL

1.01 DESCRIPTION OF WORK

Work Covered by Contract Documents:

Work under this Contract is described as: **CDBG South Washington Street West Side Sidewalk Improvements, Bid No. 2022-06**

The work consists of removing and installing a new 4' concrete sidewalk in strict accordance with the American Disabilities Act (ADA) requirements on the west side of Washington Street from Division Avenue to Live Oak Avenue per the approved plans, specifications and Invitation to Bid. The project also has two (2) alternates from Live Oak Avenue to Midway Avenue & from Midway Avenue to Tomoka Avenue which may be included. All work done on the sidewalk improvements project must adhere to the **Highway Wage Determination**, FL 20220191, see **Attachment "A"** in the project manual. The work is shown on the Drawings and specified in the Project Manual.

The Specification Divisions and Drawings are an integrated part of the Contract Documents and as such will not stand alone if used independently as individual Sections, Divisions or Drawings sheets.

The Specifications and Drawings establish minimum standards of quality for this project. They do not purport to cover all details entering into the design and construction of materials or equipment.

The CONTRACTOR is advised that the equipment arrangements as shown on the drawings may vary with different manufacturers and the CONTRACTOR is responsible at no cost to the OWNER for making the changes necessary to accommodate the specific equipment installed.

Omission of a specific item or component part of a system obviously necessary for the proper functioning of the system shall not relieve the CONTRACTOR of the responsibility of furnishing the item as part of the work at no additional cost to the OWNER.

Contracts:

Construct work under a single, lump sum price contract.

1.02 QUALITY ASSURANCE

Laws and Regulations:

The CONTRACTOR shall give all notices and comply with all laws, ordinances, rules and regulations applicable to the work. If the CONTRACTOR observes that the Specifications or Drawings are at variance therewith, the CONTRACTOR shall give the ENGINEER prompt written notice thereof, and any necessary changes shall be adjusted by an appropriate modification. If the CONTRACTOR performs any work knowing or having reason to know that it is contrary to such laws, ordinances, rules and regulations, and without such notice to ENGINEER, the

CONTRACTOR shall bear all costs arising therefrom; however, it shall not be the CONTRACTOR's primary responsibility to make certain that the Specifications and Drawings are in accordance with such laws, ordinances, rules and regulations.

1.03 JOB CONDITIONS

Taxes:

The CONTRACTOR shall pay all sales, consumer, use and other similar taxes required to be paid by him in accordance with the law of the place of the project.

Permits and Business Tax Receipts:

The CONTRACTOR shall obtain and pay for all construction permits and business tax receipts. The OWNER shall assist the CONTRACTOR, when necessary, in obtaining such permits and business tax receipts. The CONTRACTOR shall provide OWNER with copies of all permits prior to commencing work.

The CONTRACTOR shall pay all charges of utility service companies for connections to the work, and the OWNER shall pay all charges of such companies for capital costs related thereto.

It shall be the responsibility of the CONTRACTOR to verify the existence of all necessary permits and business tax receipts prior to the start of work. The OWNER will obtain permits involving interagency agreements, i.e., State Highway Crossing Permits, Railroad Crossing Permits, and similar permits.

Fees for building permits and impact fees are the responsibility of CONTRACTOR.

The CONTRACTOR and each Subcontractor must be Registered with Volusia County or with the City of Ormond Beach. Requirements for registering a business are as follows:

STATE CERTIFIED CONTRACTORS

1. Register with Volusia County Contractor Licensing (386-248-8158)

OR

2. Provide City with:
 - Copy of local business tax receipt (where your business is located)
 - Copy of State License (if applicable)
 - Certificate of Insurance

For additional information regarding registration, permits or business tax receipts, please call: (386) 676-3233

Labor, Materials and Equipment:

The CONTRACTOR shall provide competent, suitably qualified personnel to survey and lay out the work and perform construction as required by the Contract Documents. The CONTRACTOR shall at all times maintain good discipline and order at the site. Except in connection with the safety or protection of persons or the work or property at the site or adjacent thereto, and except as otherwise

indicated in the Supplementary Conditions, all work at the site shall be performed during regular working hours, and the CONTRACTOR will not permit overtime work or the performance of work on Saturday, Sunday or any legal holiday without the OWNER's written consent given after prior written notice to the ENGINEER.

Unless otherwise shown, the CONTRACTOR shall furnish all materials, equipment, labor transportation, construction equipment and machinery, tools, appliances, fuel, power, light, heat, telephone, water and sanitary facilities and all other facilities and incidentals necessary for the execution, testing, initial operation and completion of the work.

The CONTRACTOR shall be responsible for all materials furnished by him and shall replace at his own expense all such material found to be defective in manufacture or damaged in handling. This shall include the furnishing of all material and labor required for the replacement of installed material discovered defective prior to the final acceptance of the work.

Contractor Use of Premises:

The CONTRACTOR shall confine construction equipment, the storage of materials and equipment and the operations of workmen to areas permitted by law, ordinances, permits or the requirements of the Contract Documents, and shall not unreasonably encumber the premises with construction equipment or other materials or equipment.

The CONTRACTOR shall not enter upon private property for any purpose without first securing the permission of the property owner in writing and furnishing the ENGINEER with a copy of said permission. This requirement will be strictly enforced, particularly with regard to such vacant properties as may be utilized for material storage.

The CONTRACTOR shall conduct his work in such a manner as to avoid damage to adjacent private or public property. Any damage to existing structures or work of any kind, including permanent reference markers or property corner markers, or the interruption of utility service, shall be repaired or restored promptly at no additional expense to the OWNER.

The CONTRACTOR shall preserve and protect all existing vegetation such as trees, shrubs and grass on or adjacent to the site which do not reasonably interfere with the construction, as determined by the ENGINEER. The CONTRACTOR will be responsible for all unauthorized cutting or damaging of trees and shrubs, including damage due to careless operation of equipment, stockpiling of materials or tracking of grass by equipment. The CONTRACTOR will be liable for, or will be required to replace or restore at no additional expense to the OWNER, all vegetation not protected or preserved as required herein that may be destroyed or damaged.

The CONTRACTOR will not be required to move or remove any utilities except as specifically required by the Drawings and Specifications.

During the progress of the work, the CONTRACTOR shall keep the premises free from accumulations of waste materials, rubbish and other debris resulting from work. At the completion of the work, the CONTRACTOR shall remove all waste materials, rubbish and debris from and about the premises as well as all tools, appliances, construction equipment and machinery, and surplus materials, and shall leave the site clean and ready for occupancy by the OWNER. The CONTRACTOR shall restore to their original condition those portions of the site not designated for alteration by the Contract Documents.

The CONTRACTOR shall not load nor permit any part of any structure to be loaded in any manner that will endanger the structure, nor shall the CONTRACTOR subject any part of the work or adjacent property to stresses or pressures that will endanger it.

Subsurface Reports:

None

Notification of Construction:

The CONTRACTOR shall notify, in writing, all residents and businesses adjacent to the project work area of pending construction no later than 48 hours prior to commencement of actual construction. Copies of the written Notice shall be provided to the ENGINEER for approval of wording prior to public distribution.

Notification of Street Closure: N/A

The CONTRACTOR is required to obtain permission from the City Engineer prior to initiating street closures.

In the event a street closure is required, the CONTRACTOR shall notify, in writing, all emergency services and agencies, residents and businesses directly effected by any partial or full street closure caused by the construction no later than 48 hours prior to actual closure.

Below is a list of the agencies that are required to be notified in the event of a street closure:

<u>Agency:</u>	<u>Contact phone number:</u>
EVAC Ambulance Service	(386) 252-4911
Ormond Beach City Hall	(386) 677-0311
Ormond Beach Fire Dept. Administration	(386) 676-3255
Ormond Beach Police Dept. Dispatch	(386) 676-3508
Ormond Beach Public Works Department	(386) 676-3220
Ormond Beach Postmaster (US Postal Service)	(386) 676-0693
Volusia County School Board - Transportation	(386) 258-4677
Volusia County VOTRAN	(386) 756-7496

If a **County** or **State Road** is to be closed, add the following agencies to the list:

Volusia County Department of Public Works	(386) 239-6535
Volusia County Emergency Management	(386) 254-1500
Volusia County Fire Services	(386) 254-4657
Florida Highway Patrol Dispatch	(407) 737-2200

If the closure will last longer than 5 days, the CONTRACTOR shall also notify the general public of such closures by placing an advertisement in the "Area" section of the local newspaper no later than 48 hours prior to the closure. The advertisement shall include information describing the extent of the closure (i.e. between which streets; detour routes, etc.), the date the closure will begin,

and estimated date the road will be reopened. Provide a copy of the proposed notification, for approval by the ENGINEER, before placing the advertisement.

The CONTRACTOR shall maintain full compliance with the traffic regulations found in Paragraph 1.06, Section 01500 of this Contract.

Contractor's Hours of Operation:

Except in the event of an emergency, no work shall be done between the hours of 7:00 P.M. and 7:00 A.M., or on Saturdays and Sundays. If the proper and efficient execution of the work requires operations during the night or on week-ends, the written permission of the ENGINEER shall be obtained prior to starting such items of the work.

PART 2 - PRODUCTS

(Not Applicable)

PART 3 - EXECUTION

(Not Applicable)

END OF SECTION

SECTION 01025 MEASUREMENT AND PAYMENT

PART 1 - GENERAL

1.01 DESCRIPTION OF WORK

This section defines the method which will be used to determine the quantities of work performed or materials supplied and establishes the basis upon which payment will be made.

1.02 ESTIMATED QUANTITIES

Where quantities are shown they are approximate and are given only as a basis of calculation upon which the award of the Contract is to be made. OWNER or ENGINEER do not assume any responsibility that the final quantities, nor shall CONTRACTOR claim misunderstanding because of such estimate of quantities. Final payment will be made only for the satisfactorily completed quantity of each item.

1.03 MEASUREMENT STANDARDS

All work completed under the Contract shall be measured according to United States Standard Methods.

1.04 METHOD OF MEASUREMENT

Measurement of Length:

Unless otherwise specified for the particular items involved, all measurements of distance for items to be paid for on the basis of length shall be taken horizontally or vertically.

Measurement of Area:

In the measurement of items paid for on the basis of area of finished work, the lengths and/or widths to be used in the calculations shall be the actual dimensions measured along the surface of the completed work within the neat lines shown or designated. At intersections, the measurement used for length of side area will be measured from the outside edge of the width allowed along the main trench.

1.05 PAYMENT

Lump Sum Items:

Where payment for items is shown to be paid for on a lump sum basis, no separate payment will be made for any item of work required to complete the lump sum item within the limits of work shown or specified.

Unit Price Items:

Where payment for items is shown to be paid for on a unit price basis, separate payment will be made for the items of work described herein and listed on the Bid Form. Any related work not specifically listed, but required for satisfactory completion of the work, shall be considered to be included in the scope of the appropriate listed work items.

1.06 COSTS INCLUDED IN PAYMENT ITEMS

No separate payment will be made for the following items and the cost of such work shall be included in the applicable pay items of work.

- Clearing and grubbing (including disposal of material).
- Trench excavation, including necessary pavement removal and removal of vegetative surfaces.
- Dewatering and disposal of surplus water.
- Structural fill, backfill, and grading.
- Replacement of unpaved roadways, grass and shrubbery plots.
- Cleanup.
- Foundation and borrow materials, except as hereinafter specified.
- Testing and placing system in operation.
- Any material and equipment required to be installed and utilized for tests.
- Pipe, structures, pavement replacement, restoration and/or appurtenances included within the limits of lump sum work, unless otherwise shown.
- Maintaining or detouring of the traffic.
- Appurtenant work as required for a complete and operable system.
- Surface restoration including removal and replacement of trees (under 4-inch diameter), shrubs, and sod disturbed by construction activities.
- Relocation and/or replacement of irrigation systems disturbed by construction.
- Relocation and/or replacement of mail boxes disturbed by construction.
- Furnishing adequate sanitary facilities for workers.
- Adjustment of valve boxes.
- Supporting of existing utilities during construction

Cleanup:

CONTRACTOR's attention is called to the fact that cleanup is considered a part of the work of construction. No payment will be made until cleanup is essentially complete.

At the end of each week of construction, the CONTRACTOR shall perform cleaning of the work site, to the satisfaction of the Owner, before proceeding to the next week's scheduled work.

Work Outside Authorized Limits:

No payment will be made for work constructed outside the authorized limits of work.

1.07 APPLICATIONS FOR PAYMENT

Applications for payment shall be prepared by the CONTRACTOR and submitted to the ENGINEER in accordance with the schedule established by the Conditions of the Contract and the Agreement. The applications for payment shall be submitted in the number and form established by the ENGINEER at the Preconstruction Conference. The form shall be completely filled out and executed by an authorized representative of the CONTRACTOR. Supporting data such as schedules of stored materials shall be attached to each copy of the application.

1.08 CHANGE ORDER PROCEDURE

As defined in the General Conditions, a Change Order is a written order to the CONTRACTOR signed by the OWNER authorizing an addition, deletion or revision in the Work, or an adjustment in the Contract Price or the Contract Time which is issued after the execution of the Agreement.

The following procedure shall be used in processing Change Orders:

For Additions to the Work:

The OWNER shall issue a written order to the CONTRACTOR directing him to accomplish the additional work. The CONTRACTOR shall review the order and if he feels that the additional work entitles him to additional payment or additional time, he may submit a claim as prescribed in the Conditions of the Contract.

For Deletions From the Work:

The OWNER shall issue a written order to the CONTRACTOR directing him to make the change. If the OWNER feels that the Contract price should be reduced as a result of the change, the OWNER shall make a claim for the reduction as provided in the Conditions of the Contract.

Cost of the changes in the work shall be determined in accordance with the requirements spelled out in the Conditions of the Contract. Modifications to incorporate the changes in cost will be made as the amount of any change is determined.

PART 2 - PRODUCTS

(Not Applicable)

PART 3 - EXECUTION

3.01 BID ITEMS FOR CDBG South Washington Street West Side Sidewalk Improvements

Bid Item No. 1 Demolition of Division Avenue to Live Oak Existing 4' Sidewalk & Driveway Aprons

Payment for removing existing 4' wide concrete sidewalk and driveway aprons shall be made at the Contract lump sum price and shall be full compensation for all labor and equipment necessary to do the work. Payment shall be full compensation for removal and disposal as

specified on the drawings and project manual.

Bid Item No. 2 Install Division Avenue to Live Oak 4' ADA Compliant Sidewalk at 4" depth

Payment for constructing 4' ADA compliant sidewalk at 4" inch depth at 2,500 PSI shall be made at the Contract lump sum price in place and accepted and shall be full compensation for all labor, material and equipment necessary to do the work. Payment shall be full compensation for excavation, disposal, grading, compaction, form work, site restoration, concrete and finishing as specified on the drawings and project manual.

Bid Item No. 3 Install Division Avenue to Live Oak Right of Way Driveway Aprons at 6" depth

Payment for constructing right of way driveway aprons at 6" inch depth at 3,000 PSI shall be made at the Contract lump sum price in place and accepted and shall be full compensation for all labor, material and equipment necessary to do the work. Payment shall be full compensation for excavation, disposal, grading, compaction, form work, site restoration, concrete and finishing as specified on the drawings and project manual.

Bid Item No. 4 Install ADA Detectable Warning Mats from Division Avenue to Live Oak

Payment for installing ADA detectable warning mats, FDOT approved shall be made at the Contract unit price per each detectable mat in place and accepted and shall be full compensation for all labor, material and equipment necessary to do the work. Payment shall be full compensation for all labor, material and equipment necessary to do the work.

Bid Alternate 1

Bid Item No. 1 Demolition of Live Oak to Midway Avenue Existing 4' Sidewalk

Payment for removing existing 4' wide concrete sidewalk shall be made at the Contract lump sum price and shall be full compensation for all labor and equipment necessary to do the work. Payment shall be full compensation for removal and disposal as specified on the drawings and project manual.

Bid Item No. 2 Install Live Oak to Midway Avenue 4' ADA Compliant Sidewalk at 4" depth

Payment for constructing 4' ADA compliant sidewalk at 4" inch depth at 2,500 PSI shall be made at the Contract lump sum price in place and accepted and shall be full compensation for all labor, material and equipment necessary to do the work. Payment shall be full compensation for excavation, disposal, grading, compaction, form work, site restoration, concrete and finishing as specified on the drawings and project manual.

Bid Item No. 3 Install ADA Detectable Warning Mats from Live Oak to Midway Avenue

Payment for installing ADA detectable warning mats, FDOT approved shall be made at the Contract unit price per each detectable mat in place and accepted and shall be full compensation for all labor, material and equipment necessary to do the work. Payment shall be full compensation for all labor, material and equipment necessary to do the work.

Bid Alternate 2**Bid Item No. 1 Demolition of Midway Avenue to Tomoka Avenue Existing 4' Sidewalk & Driveway Aprons**

Payment for removing existing 4' wide concrete sidewalk and driveway aprons shall be made at the Contract lump sum price and shall be full compensation for all labor and equipment necessary to do the work. Payment shall be full compensation for removal and disposal as specified on the drawings and project manual.

Bid Item No. 2 Install Midway Avenue to Tomoka Avenue 4' ADA Compliant Sidewalk at 4" depth

Payment for constructing 4' ADA compliant sidewalk at 4" inch depth at 2,500 PSI shall be made at the Contract lump sum price in place and accepted and shall be full compensation for all labor, material and equipment necessary to do the work. Payment shall be full compensation for excavation, disposal, grading, compaction, form work, site restoration, concrete and finishing as specified on the drawings and project manual.

Bid Item No. 3 Install Midway Avenue to Tomoka Avenue Right of Way Driveway Aprons at 6" depth

Payment for constructing right of way driveway aprons at 6" inch depth at 3,000 PSI shall be made at the Contract lump sum price in place and accepted and shall be full compensation for all labor, material and equipment necessary to do the work. Payment shall be full compensation for excavation, disposal, grading, compaction, form work, site restoration, concrete and finishing as specified on the drawings and project manual.

Bid Item No. 4 Install ADA Detectable Warning Mats from Midway Avenue to Tomoka Avenue

Payment for installing ADA detectable warning mats, FDOT approved shall be made at the Contract unit price per each detectable mat in place and accepted and shall be full compensation for all labor, material and equipment necessary to do the work. Payment shall be full compensation for all labor, material and equipment necessary to do the work.

END OF SECTION

SECTION 01040 COORDINATION

PART 1 - GENERAL

1.01 PROJECT COORDINATION

A. The Contractor shall provide for the complete coordination of the construction efforts. This shall include, but not necessarily be limited to, coordination of the following:

1. the work of subcontractors
2. the flow of material and equipment from suppliers
3. the interrelated work with public utilities companies
4. the interrelated work with the Owner where tie-ins to existing facilities are required
5. the effort of independent testing agencies.

B. The Contractor will be allowed the widest practicable latitude in establishing his work plan. Contractor shall submit a plan of work to Owner and Engineer.

1.02 CUTTING AND PATCHING

A. The Contractor shall do all cutting, fitting and patching of his work that may be required to make its several parts come together properly and integrate with such other work. The Contractor shall not endanger any work of others by cutting, excavating or otherwise altering their work and will only cut or alter their work with the written consent of the Engineer and the others whose work will be affected.

PART 2 - MATERIALS AND EQUIPMENT

(Not Applicable)

PART 3 - EXECUTION

(Not Applicable)

END OF SECTION

SECTION 01050 FIELD ENGINEERING

PART 1 - GENERAL

1.01 DESCRIPTION OF WORK

The Contractor shall provide and pay for field engineering service required for the project. Such work shall include survey work to establish lines and levels and to locate and lay out site improvements, structures, and controlling lines and levels required for the construction of the work. Also included are such Engineering services as are specified or required to execute the Contractor's construction methods. Engineers and Surveyors shall be licensed professionals under the laws of the state where the project is located.

1.02 GRADES, LINES AND LEVELS

Existing basic horizontal and vertical control points for the project are those designated on the Drawings. The Contractor shall locate and protect control points prior to starting site work and shall preserve all permanent reference points prior to starting site work and shall preserve all permanent reference points during construction. In working near any permanent property corners or reference markers, the Contractor shall use care not to remove or disturb any such markers. In the event that markers must be removed or are disturbed due to the proximity of the construction work, the Contractor shall have them referenced and reset by a Land Surveyor qualified under the laws of the state of the project.

1.03 LAYOUT DATA

The Contractor shall lay out the work at the location and to the lines and grades shown on the Drawings. Survey notes indicating the information and measurements used in establishing locations and grades shall be kept and furnished with the record drawings for the project.

PART 2 - PRODUCTS

(Not Applicable)

PART 3 - EXECUTION

(Not Applicable)

END OF SECTION

01050-1

SECTION 01200 PROJECT MEETINGS

PART 1 - GENERAL

1.01 DESCRIPTION OF WORK

Project meetings shall be scheduled as needed throughout the progress of the work. Those responsible for scheduling the meetings shall prepare the agenda, distribute written notice of each meeting not less than four days in advance of the meeting date, make physical arrangements for the meeting, preside at the meeting, record the minutes (include all significant proceedings and decisions), and reproduce and distribute copies of the minutes to all participants, all parties affected by decisions made, and the Engineer.

Representatives attending the meetings shall be qualified and authorized to act on behalf of the entities they represent.

1.02 PRE CONSTRUCTION CONFERENCE

Before the Contractor starts the work at the site, the Engineer will schedule a preconstruction conference which will be held for review and acceptance of the schedules referred to in Section 01300, to establish procedures for handling shop drawings and other submittals and for processing Applications for Payment, and to establish a working understanding among the parties as to the work.

The date for the start of construction shall be established at this conference.

PART 2 - PRODUCTS

(Not Applicable)

PART 3 - EXECUTION

(Not Applicable)

END OF SECTION

01200-1

SECTION 01300 SUBMITTALS

PART 1 - GENERAL

1.01 DESCRIPTION OF REQUIREMENTS

The type of submittal requirements specified in this section include the following:

- Progress Schedules and Reports
- Product Data
- Shop Drawings
- Manufacturer's Data
- Miscellaneous

Submittals shall be clear and legible, printed or typed. Submittals received that are not so, shall be returned to be resubmitted when in legible form.

1.02 PROGRESS SCHEDULES AND REPORTS

Within 10 days after the effective date of the Agreement, the Contractor shall submit to the Engineer for review and acceptance an estimated progress schedule indicating the starting and completion dates of the various stages of the work, a preliminary schedule of shop drawing submissions, and a preliminary schedule of values of the work. Include subschedules of related activities which are essential to its progress.

Revised schedules shall be submitted periodically as changes become apparent.

Unless other format or use of a network analysis system is required, schedules shall be prepared in the form of a horizontal bar chart. A separate horizontal bar shall be provided for each trade or operation. The first work day of each week shall be identified on the horizontal time scale. Scale and spacing will be such as to allow space for notations and revisions.

Schedules shall show the complete sequence of construction by activity with dates for the beginning and completion of each major element of construction. Projected percentage of completion for each item as of the first day of each month shall be shown.

Progress Reports:

The Contractor shall prepare and submit a monthly progress report. The report shall indicate the progress at the date of submission of each activity shown on his progress schedule. It shall show changes occurring since previous submissions, activities modified since previous submissions, and revised projections of progress and completion. The submittal shall include a narrative report to define: problem areas, anticipated delays, and the impact on the schedule, and corrective action recommended and its effect.

1.03 PRODUCT DATA (Shop Drawings and Manufacturer's Data)

The Contractor shall prepare and submit to the Engineer a schedule of the shop drawings, product data and samples which are required for the work together with anticipated submittal time. Any drawings which require critical timing for maintaining delivery or construction schedules shall be so noted. Shop drawing submittal schedule shall be coordinated with the requirements of construction progress schedules.

Those submittals required under various sections of the specifications, but not listed on the Contract Submittal List shall be submitted as "RECORD SUBMITTALS" and given to the Engineer along with the Record Drawings as specified in Section 01700 - Contract Closeout.

Product data submitted for substitutions shall be handled as specified in Section 01630 - Substitutions and Product Options.

Definitions:

Work-related submittals of this section are categorized for convenience as follows:

Shop drawings include specially-prepared technical data for this project, including drawings, diagrams, performance curves, data sheets, schedules, templates, patterns, reports, calculations, instructions, measurements and similar information not in standard printed form for general application to several projects.

Product data include standard printed information on materials, products and systems; not specially-prepared for this project, other than the designation of selections from among available choices printed in the information.

Miscellaneous submittals related directly to the work (non-administrative) include warranties, maintenance agreements, workmanship bonds, project photographs, survey data and reports, physical work records, quality testing and certifying reports, copies of industry standard, record drawings, field measurement data, operating and maintenance materials, overrun stock, and similar information, devices and materials applicable to the work and not processed as shop drawings, product data or samples.

1.04 GENERAL SUBMITTAL REQUIREMENTS

After checking and verifying all field measurements, the Contractor shall submit to the Engineer for review and approval, in accordance with the accepted schedule of shop drawing submissions, five copies of all shop drawings, which shall have been checked by and stamped with the approval of the Contractor and identified as the Engineer may require. The data shown on the shop drawings will be complete with respect to dimensions, design criteria, materials of construction and like information to enable the Engineer to review the information as required.

The Contractor shall also submit to the Engineer for review and approval with such promptness as to cause no delay in work, all samples required by the Contract Documents. All samples will have

been checked by and stamped with the approval of the Contractor, identified clearly as to material, manufacturer, and pertinent catalog numbers and the use for which intended. At the time of each submission, the Contractor shall, in writing, call the Engineer's attention to any deviations that the shop drawings or samples may have from the requirements of the Contract Documents.

The Engineer will review and approve with reasonable promptness shop drawings and samples, but the Engineer's review and approval shall be only for conformance with the design concept of the project and for compliance with the information given in the Contract Documents and shall not extend to means, methods, sequences, techniques or procedures of construction or to safety precautions or programs incident to the work. The review and approval of a separate item as such will not indicate approval of the assembly in which the item functions. The Contractor shall make any corrections required by the Engineer and shall return the required number of corrected copies of shop drawings and resubmit new samples for review and approval. The Contractor shall direct specific attention, in writing, to revisions other than the corrections called for by the Engineer on previous submittals. The Contractor's stamp of approval on any shop drawing or sample shall constitute a representation to the Owner and the Engineer that the Contractor has either determined and verified all quantities, dimension, field construction criteria, materials, catalog numbers, and similar data or assumes full responsibility for doing so, and that the Contractor has reviewed or coordinated each shop drawing or sample with the requirements of the work and the Contract Documents.

Where a shop drawing or sample is required by the Specifications, no related work shall be commenced until the submittal has been reviewed and approved by the Engineer.

The Engineer's review and approval of shop drawings or samples shall not relieve the Contractor from responsibility for any deviations from the Contract Documents unless the Contractor has in writing called the Engineer's attention to such deviations at the time of submission and the Engineer has given written concurrence and approval to the specific deviation, nor shall any concurrence or approval by the Engineer relieve the Contractor from responsibility for errors or omissions in the shop drawings.

Systems to be submitted in the shop drawing submittal shall include but not necessarily be limited to:

1. Each item of equipment and/or materials listed in the project equipment and material schedules;

Certifications:

Whenever a standard of quality is established by a reference specification, the Contractor shall submit a certificate by the manufacturer that the material supplied meets the requirements of both the project and reference specification.

Schedule of Values:

At least 10 days prior to submitting the first Application for a progress payment, the Contractor shall submit to the Engineer a schedule of values of the work. This schedule shall be satisfactory in form and substance to the Engineer. The schedule of values shall include quantities and unit prices aggregating the contract price, and shall subdivide the work into component parts in sufficient detail to serve as the basis for progress payments during construction. Upon acceptance of the schedule of values by the Engineer, it shall be incorporated into a form of Application for Payment acceptable to the Engineer.

Where estimated quantities and unit prices are shown in the Bid Form as the basis of payment, the quantities shown in the Bid Form are approximate and are given only as a basis of calculation upon which the award of the contract is to be made. The Owner or Engineer do not assume any responsibility that the final quantities will remain in accordance with estimated quantities, nor shall the Contractor claim misunderstanding or deception because of such estimate of quantities. Final payment will be made on the basis of the actual completed quantities of each item.

PART 2 - PRODUCTS

(Not Applicable)

PART 3 - EXECUTION

(Not Applicable)

END OF SECTION

SECTION 01400 QUALITY CONTROL

PART 1 - GENERAL

1.01 TESTING LABORATORY SERVICES

Arrangements for testing laboratory services will be made by the Owner. Payment for testing to show compliance with specified requirements will be paid for by the Owner. The cost for tests, when materials and workmanship fail to meet specified requirements (failed tests), will be billed directly to the Contractor by the soils testing laboratory, or deducted from monies due the Contractor.

1.02 INSPECTION SERVICES

The authorized representative of all applicable Federal and/or State agencies, including Environmental Protection Agency, Corps of Engineers and Department of Environmental Regulation, shall be permitted to inspect all work, materials, payrolls, records of personnel, invoice of materials, and other relevant data and records. The Owner and his authorized representatives shall be permitted free access and every reasonable facility for the inspection of all work and materials, including the removal or uncovering of such portions of the finished work as may be directed. The Owner and his authorized representative shall also be permitted to inspect payrolls, invoices of materials and other relevant data and records.

1.03 INSPECTION OF WORK AWAY FROM SITE

If work to be done away from the construction site is to be inspected on behalf of the Owner during its fabrication, manufacture or testing or before shipment, the Contractor shall give notice to the Engineer of the time and place where such fabrication, manufacturing, testing or shipping is to be done. Such notice shall be in writing and delivered to the Engineer in ample time so that the necessary arrangements for the inspection can be made.

PART 2 - PRODUCTS

(Not Applicable)

PART 3 - EXECUTION

(Not Applicable)

END OF SECTION

01400-1

SECTION 01500 TEMPORARY FACILITIES AND CONTROLS

PART 1 - GENERAL

1.01 DESCRIPTION OF REQUIREMENTS

This section specifies the minimum requirements for temporary facilities, utilities to be brought to the site, refuse/waste collection and control required to enable the construction of the project to progress adequately. The providing of adequate facilities at every stage of performing the work is the Contractor's sole responsibility, and is not limited by the requirement of this section.

Except as otherwise indicated, the Contractor may, at his option, provide stand-alone utility plants to provide needed services, in lieu of connected services from available public utilities, provided such stand-alone plant facilities comply with governing regulations. Prior to availability of temporary utility services, provide trucked-in/trucked-out containerized or unitized services for startup of construction operations at the site.

Except as otherwise indicated, the costs of providing and using temporary utility services are included in the Contract Sum.

1.02 TEMPORARY FACILITIES

The types of utility services required for general temporary use at the project site include the following (other specific services may be required for specific construction methods or operations):

- Electrical Power Service
- Water Service (potable for certain uses)
- Sanitary
- Storm Sewer or Open Drainage/Run-off Control
- Refuse/Waste Collection

Temporary Electricity:

The Contractor shall make necessary applications and arrangements and pay all fees and charges for electrical energy for power and light necessary for proper completion of the work and during its entire progress up to time of final acceptance by the Owner. The Contractor shall provide and pay for all temporary switches, connections and meters.

Temporary Water:

The Contractor shall make all necessary application and arrangements, and pay all fees and charges for water necessary for the proper completion of the project up to the time of final acceptance. The Contractor shall provide and pay for any temporary piping and connections.

Temporary Sanitary Facilities:

The Contractor shall provide adequate sanitary facilities for the use of those employed on the work. Such facilities shall be made available when the first employees arrive on the site of the work, shall be properly secluded from public observation, and shall be constructed and maintained during the progress of the work in suitable numbers and at such points and in such manner as may be required or approved.

The Contractor shall provide these portable sanitary facilities “on-site” for use by workers. Transporting workers to the nearest “public” sanitary facility will not be considered an acceptable alternative to these requirements.

The Contractor shall maintain the sanitary facilities in a satisfactory and sanitary condition at all times and shall enforce their use. He shall rigorously prohibit the committing of nuisances on the site of the work, on the lands of the Owner, or on adjacent property. The cost of providing these sanitary facilities shall be included in the Contractor’s applicable pay items of work and no separate payment shall be made thereof.

Temporary Refuse/Waste Collection

The Contractor shall provide for adequate refuse/waste collection and disposal. City Ordinance requires that all rental open-top rolloff container units or rental cubic-yard container units must be procured from one of the City’s franchised construction and demolition debris providers. For a list of the City’s current franchised providers, please call Public Works at 386-676-3220, or use this link to the City’s website: <https://www.ormondbeach.org/Archive.aspx?ADID=8623>

It will be the Contractor’s responsibility to make all necessary arrangements for refuse/waste collection and disposal. The cost of providing for such refuse/waste collection and disposal shall be included in the Contractor’s applicable pay items of work and no separate payment shall be made thereof.

Termination and Removal:

At the time the need for temporary utility service or a substantial portion thereof has ended, or when its service has been replaced by use of permanent services, or not later than the time of substantial completion, promptly remove the installation unless requested by the Engineer to retain it for a longer period. Complete and restore work which may have been delayed or affected by the installation and use of the temporary utility, including repairs to construction and grades and restoration and cleaning of exposed surfaces. Replace work damaged beyond acceptable restoration.

1.03 TEMPORARY CONTROLS

Noise Control:

The Contractor shall provide adequate protection against objectionable noise levels caused by the operation of construction equipment.

Dust Control:

The Contractor shall provide for adequate protection against raising objectionable dust clouds caused by moving construction equipment, high winds or any other cause.

Water Control:

The Contractor shall provide for satisfactory disposal of surplus water and shall submit a plan to the Engineer for his review prior to initiation and implementation of the plan. Prior approval shall be obtained from the proper authorities for the use of public or private lands or facilities for such disposal.

Pollution Control:

The Contractor shall provide for adequate protection against polluting any public or private lands, lakes, ponds, rivers, streams, creeks, and other such areas, by the disposal of surplus material in the form of solids, liquids, or gases or from any other cause. The Contractor shall provide for adequate refuse/waste collection and disposal as described in Part 1, paragraph 1.02 of this Section.

The Contractor shall evaluate and assess the impact of any adverse effects on the natural environment which may result from construction operations and shall operate to minimize pollution of air, ground or surface waters vegetation, and afford the neighboring community the maximum protection during and up to completion of the construction project.

The Contractor shall take sufficient precautions to prevent pollution of streams, lakes and reservoirs with fuels, oils, bitumens, calcium chloride or other harmful materials. He shall conduct and schedule his operations so as to avoid or otherwise prevent pollution of siltation of streams, lakes and reservoirs and to avoid interference with movement of migratory fish.

All chemicals used during project construction or furnished for project operation, whether herbicide, pesticide, disinfectant, polymer, reactant or of other classification, must show approval of either EPA or USDA. Use of all such chemicals and disposal of residues shall be in strict conformance with instructions.

Erosion Control:

The Contractor shall not expose, by construction operations, a larger area of erosive land at any one time than the minimum necessary for efficient construction operations, and the duration of exposure of the uncompleted construction to the elements shall be as short as practicable.

Erosion control features shall be constructed concurrently with other work and at the earliest practicable time.

1.04 STORAGE FACILITIES

All products, materials and equipment shall be stored in accordance with the manufacturer's instructions, with seals and labels intact and legible. Products subject to damage by the elements shall be stored in weathertight enclosures. Temperature and humidity shall be maintained within the ranges required by the manufacturer's instructions. Fabricated products shall be stored above the

ground on blocking or skids. Products which are subject to deterioration shall be covered with impervious coatings with adequate ventilation to avoid condensation. Loose granular materials shall be stored in a well-drained area on solid surfaces to prevent mixing with foreign matter. Any products which will come in contact with potable water shall be stored off the ground so as to prevent contamination.

Storage shall be arranged in such a manner to provide easy access for inspection. Periodic inspections shall be made of all stored products to assure that they are maintained under specified conditions, and free from damage or deterioration.

After installation, Contractor shall provide substantial coverings as necessary to installed products to protect from damage from traffic and subsequent construction operations. Coverings shall be removed when no longer needed.

1.05 PRESERVATION OF PROPERTY

Preserve from damage all property along the line of the work, or which is in the vicinity of or in any wise affected by the work, the removal or destruction of which is not called for by the plans. Wherever such property is damaged due to the activities of the Contractor, it shall be immediately restored to its original condition by the Contractor at no cost to the Owner.

In case of failure on the part of the Contractor to restore such property, or make good such damage or injury, the Owner may, after 48 hours notice to the Contractor, proceed to repair, rebuild or otherwise restore such property as may be deemed necessary and the cost thereof will be deducted from any monies due or which may become due the Contractor under this Contract.

The Contractor shall be responsible for the protection of property, in the areas in the vicinity of the project; and for the protection of his equipment, supplies, materials and work, against any damage resulting from the elements, such as flooding, by rainstorm, wind damage, or other elemental cause resulting from the project configuration. The Contractor shall take all precautions against any such damage occurrence, and shall be responsible for damage resulting from same. The Contractor shall provide adequate drainage facilities, tie-downs, or other protection, throughout the Contract period, for the protection of his, the Owner's, and other properties from such damage.

1.06 TRAFFIC REGULATION

Signs, marking barricades and procedures shall conform to the requirements of the Florida Department of Transportation Manual on Traffic Controls and Safe Practices for Street and Highway Construction, Maintenance and Utility Operations.

The Contractor shall maintain one-lane, two-way traffic at all times and maintain customer access to local businesses at all times throughout the course of the work.

The Contractor shall provide and maintain adequate barricades, construction signs, torches, flashers, guards and flagmen as required in pedestrian and vehicular traffic areas. Regulations of local authorities shall be complied with.

The contractor shall provide suitable crossings at street intersections and driveways, and supply such aid as may be required for pedestrians and motorists, including delivery vehicles, to safely negotiate the construction areas.

The Contractor shall carry on the work in a manner that will cause the least interruption in traffic. Closing to through travel of more than two consecutive blocks, including the cross streets intersected will not be permitted without specific authorization from the local authorities. Where traffic must cross open trenches, the Contractor shall provide suitable bridges at street intersections and driveways and provide adequate ingress and egress to dwellings, business facilities, utilities and services. At any time the streets are required to be closed, the Contractor shall notify, in writing, law enforcement agencies, fire departments, and parties operating emergency vehicles before the street is closed and again as soon as it is opened. Access to fire hydrants and other fire extinguishing equipment shall be provided and maintained at all times. Refer to Section 01010 of these Specifications for "Notification of Construction" and "Notification of Street Closure" requirements.

On completion of work, the Contractor shall remove all debris, excess materials, barricades and temporary work leaving walkways and road clear of obstructions.

PART 2 - PRODUCTS

(Not Applicable)

PART 3 - EXECUTION

(Not Applicable)

END OF SECTION

SECTION 01600 MATERIALS AND EQUIPMENT

PART 1 - GENERAL

1.01 DESCRIPTION OF REQUIREMENTS

Materials and equipment furnished by CONTRACTOR shall be new and shall not have been in service at any other installation unless otherwise provided. Materials and equipment shall conform to applicable specifications and standards and comply with the size, make, type and quality specified, or as specifically approved in writing by ENGINEER.

Manufactured and fabricated items shall be designed, fabricated and assembled in accordance with the best engineering and shop practices. Like parts of duplicate units shall be manufactured to standard sizes and gauges to be interchangeable.

Two or more things of the same kind shall be identical, by the same manufacturer.

Materials and equipment shall be suitable for service conditions shown or specified.

Equipment which requires auxiliary devices or equipment in order to operate properly shall have such auxiliary devices or equipment included as a part of its system.

Equipment sizes, capacities and dimensions shown or specified shall be adhered to unless variations are specifically approved in writing.

Materials and equipment shall not be used for any purpose other than that for which it is designed or is specified.

Where existing materials or equipment is specifically shown or specified to be reused in the work, special care shall be used in removal, handling, storage, and reinstallation, to assure proper function in the completed work.

CONTRACTOR shall arrange for transportation, storage and handling of products which require off-site storage, restoration or renovation.

Salvaged Materials. In the absence of special provisions to the contrary, salvaged materials, equipment or supplies are the property of OWNER and shall be cleaned and stored as directed by ENGINEER.

Manufacturer's Instructions. The installation of all work shall comply with manufacturer's written instructions. CONTRACTOR shall obtain and distribute copies of such instructions to parties involved in the installation including two copies to ENGINEER. One complete set of instructions shall be maintained at the job site during installation and until completion. All products and equipment shall be handled, installed, connected, cleaned, conditioned and adjusted in accordance with the manufacturers instructions and specified requirements. Should job

conditions or specified requirements conflict with manufacturers instructions, such conflicts shall be called to ENGINEER'S attention for resolution and revised instructions.

Equipment Guarantee. All mechanical and electrical equipment, together with devices of whatever nature and all components, which are furnished and/or installed by CONTRACTOR shall be guaranteed. The guarantee shall be against manufacturing and/or design inadequacies, materials and workmanship, improper assembly, hidden damage, failure of devices and/or components, excessive leakage or other circumstances which would cause the equipment to fail under normal design and/or specific operating conditions for a period of one year or such longer period as may be shown and/or specified from and after the date of acceptance of the equipment by OWNER. Each piece of equipment, device or component which shall fail within the above specified term shall be replaced with reasonable promptness by CONTRACTOR without cost to OWNER.

Operating Characteristics. Rotating machinery shall be designed and fabricated to provide satisfactory operation without excessive wear and without excessive maintenance during its operating life. Rotating parts shall be statically and dynamically balanced and shall operate without excessive vibration.

Lubrication System. The minimum design criteria for lubrication of moving parts of the equipment shall include one week of continuous operation during which no lubricants shall be added to the system. The system shall also be designed to receive lubricants whether in operation or shut down, and shall not leak or waste lubricants under either condition. The manufacturer's recommendations of grade and quality and a supply of the lubricants so recommended in quantities sufficient to conduct startup and testing operations shall be furnished with the equipment.

Safety Requirements. Screens, guards or cages shall be provided for all exposed, rotating or moving parts in accordance with accepted practices of applicable governmental agencies.

Nameplates. Each major component of equipment shall have the manufacturers name, catalog and/or model number, serial number and applicable performance requirements and characteristics embossed, stamped, or engraved on a stainless steel plate securely attached to the item of equipment.

Anchor Bolts. The manufacturer shall provide stainless steel anchor bolts for each piece of equipment furnished.

1.02 TRANSPORTATION AND HANDLING

Materials and equipment shall be loaded and unloaded by methods affording adequate protection against damage. Every precaution shall be taken to prevent injury to the materials or equipment during transportation and handling. Suitable power equipment will be used and the materials or equipment shall be under control at all times. Under no condition shall the materials or equipment be dropped, bumped or dragged. When a crane is used, a suitable hook or lift sling shall be used. The crane shall be so placed that all lifting is done in a vertical plane. Materials or equipment skid loaded, palletized or handled on skidways shall not be skidded or rolled against materials or equipment already unloaded.

Materials and equipment shall be delivered to the job site by means that will adequately support it and not subject it to undue stresses. Contractor shall promptly inspect the products for damage and defects and conformance with the specification. Materials and equipment damaged or injured in the process of transportation, unloading or handling will be rejected and shall be immediately removed from the site.

1.03 STORAGE AND PROTECTION

All materials and equipment shall be stored in accordance with the manufacturer's instructions, with seals and labels intact and legible. Items subject to damage by the elements shall be stored in weathertight enclosures. Temperature and humidity shall be maintained within the ranges required by the manufacturers instructions. Fabricated items shall be stored above the ground on blocking or skids. Items which are subject to deterioration shall be covered with impervious coatings with adequate ventilation to avoid condensation. Loose granular materials shall be stored in a well-drained area on solid surfaces to prevent mixing with foreign matter. Any items which will come in contact with potable water shall be stored off the ground so as to prevent contamination.

Storage shall be arranged in such a manner to provide easy access for inspection. Periodic inspections shall be made of all stored items to assure that they are maintained under specified conditions, and free from damage or deterioration.

After installation, CONTRACTOR shall provide substantial coverings as necessary to protect installed items from damage, from traffic, and subsequent construction operations. Coverings shall be removed when no longer needed.

PART 2 - MATERIALS AND EQUIPMENT

(Not Applicable)

PART 3 - EXECUTION

(Not Applicable)

END OF SECTION

**SECTION 01630
SUBSTITUTIONS AND PRODUCT OPTIONS**

PART 1 - GENERAL

1.01 REQUESTS FOR REVIEW

- A. Requests to review substitute items of material and equipment will not be accepted by the Engineer from anyone other than the Contractor. If the Contractor wishes to furnish or use a substitute or equivalent item of material or equipment, the Contractor shall make written application to the Engineer for acceptance, certifying that the proposed substitute will perform adequately the functions called for by the general design, be similar and of equivalent substance to that specified and be suited to the same use and capable of performing the same function as that specified. The application will state whether or not acceptance of the substitute for use in the work will require a change in Drawings or Specifications to adapt the design to the substitute and whether or not incorporation or use of the substitute in connection with the work is subject to payment of any license fee or royalty. All variations of the proposed substitute from that specified shall be identified in the application and available maintenance, repair and replacement service will be indicated. The application will also contain an itemized estimate of all costs that will result directly or indirectly from acceptance of such substitute, including costs of redesign and claims of other contractors affected by the resulting change, all of which shall be considered by the Engineer in evaluating the proposed substitute. The Engineer may require the Contractor to furnish at the Contractor's expense additional data about the proposed substitute. The Engineer will be the sole judge of acceptability, and no substitute will be ordered or installed without the Engineer's prior written acceptance. The Owner may require the Contractor to furnish at the Contractor's expense, a special performance guarantee or other surety with respect to any substitute.

1.02 SUBSTITUTION AFTER EXECUTION OF AGREEMENT

- A. After execution of the Agreement, substitution of materials or equipment supplied by manufacturers or suppliers other than those listed, will be considered only if it is demonstrated by the Contractor that:
1. the material or equipment proposed for substitution is superior in design, construction and/or efficiency to that of the listed manufacturer or supplier;
 2. the material proposed for substitution is in every way equal to that of the listed supplier, and that availability and/or delivery of listed materials within the time frame scheduled cannot be met; or
 3. the material proposed for substitution is in every way equal to that of the listed

supplier and is available at a lower cost. In the event such a substitution is allowed, the Contractor shall accept and execute a Change Order reducing the Contract Price by an amount equal to the cost differential.

1.03 EQUIVALENT MATERIALS AND EQUIPMENT

- A. Whenever materials or equipment are specified or described in the Drawings or Specifications by using the name of a proprietary item or the name of a particular manufacturer, fabricator, supplier or distributor, the naming of the item is intended to establish the type, function, and quality required. Unless the name is followed by words indicating that no substitution is permitted, materials or equipment of other manufacturers, fabricators, suppliers or distributors may be accepted by the Engineer to determine that the material or equipment proposed is equivalent to that named.
- B. It is not the intent of the Contract Documents to function as proprietary specifications. Where a particular manufacturer make and model are cited and specifically required for interchangeability of parts and/or match existing equipment, this has been so stated in the Specifications.
- C. The standard products of manufacturers other than those specified may be considered when it is demonstrated to the ENGINEER that they are equal in quality, composition, durability, usefulness and convenience for the purpose intended. Requests for substitutions will only be considered, provided the following minimum conditions are met:
 - 1. The proposed coating system shall use an equal or greater number of separate coats to achieve the required dry film thickness.
 - 2. The proposed coating system shall use coatings of the same generic type.
 - 3. All requests for substitutions shall have the directions for application and descriptive literature which includes generic type, nonvolatile content by volume and information confirming that the substitution is equal to the specified coating system.
 - 4. The CONTRACTOR shall provide Certified Laboratory Data Sheets showing the results of complete spectrographic and durability tests performed on the proposed substitute. Tests shall be performed by a laboratory which conforms to the provisions of the American Society for Testing and Materials (ASTM E329) and which is a member of the American Council of Independent Laboratories. Costs incurred in the testing program shall be borne by the CONTRACTOR.

5. The cost of all testing and analyzing of the proposed substitute materials that may be required by the ENGINEER, shall be paid by the CONTRACTOR. If the proposed substitution requires changes in the contract work, the CONTRACTOR shall bear all such costs involved and the costs of allied trades affected by the substitution.

PART 2 - PRODUCTS

(Not Applicable)

PART 3 - EXECUTION

(Not Applicable)

END OF SECTION

SECTION 01700 CONTRACT CLOSEOUT

PART 1 - GENERAL

1.01 DESCRIPTION OF REQUIREMENTS

Definition:

Closeout is defined to include general requirements near end of Contract Time, in preparation for final acceptance, final payment, normal termination of contract, occupancy by OWNER and similar actions evidencing completion of the work. Specific requirements for individual units of work are specified in sections of Division 2 through 16. Time of closeout is directly related to "Substantial Completion", and therefore may be either a single time period for entire work or a series of time periods for individual parts of the work which have been certified as substantially complete at different dates. That time variation (if any) shall be applicable to other provisions of this section.

1.02 PREREQUISITES TO SUBSTANTIAL COMPLETION

When the CONTRACTOR considers the work to be substantially complete, he shall submit to the ENGINEER: a written notice that the work, or designated portion thereof, is substantially complete; and a list of items to be completed or corrected.

Within a reasonable time after receipt of such notice, the ENGINEER will make an inspection to determine the status of completion.

Should the ENGINEER determine that the work is not substantially complete, the ENGINEER will promptly notify the CONTRACTOR, in writing, giving the reasons. The CONTRACTOR shall remedy the deficiencies in the work and send a second written notice of substantial completion to the ENGINEER. The ENGINEER will reinspect the work.

When the ENGINEER finds that the work is substantially complete, he will prepare and deliver to the OWNER a tentative Certificate of Substantial Completion with a tentative list of items to be completed or corrected before final payment. After consideration of any objections made by the OWNER as provided in Conditions of the Contract, and when the ENGINEER considers the work substantially complete, the ENGINEER will execute and deliver to the OWNER and the CONTRACTOR a definite Certificate of Substantial Completion with a revised tentative list of items to be completed or corrected.

When the CONTRACTOR considers the work complete, he shall submit written certification that the Contract Documents have been reviewed, the work has been inspected for compliance with the Contract Documents, the work has been completed in accordance with the Contract Documents, equipment and systems have been tested in the presence of the OWNER's representative and are operational, and the work is completed and ready for final inspection.

With reasonable promptness after receipt of such certification, the ENGINEER will make an inspection to verify the status of completion. Should the ENGINEER consider that the work is

incomplete or defective, he will promptly notify the CONTRACTOR, in writing, listing the incomplete or defective work. The CONTRACTOR shall take immediate steps to remedy the stated deficiencies and send a second written certification to the ENGINEER that the work is complete. The ENGINEER will reinspect the work.

Should the ENGINEER perform reinspections due to failure of the Work to comply with the claims of status of completion made by the CONTRACTOR, the OWNER will compensate the ENGINEER for such additional services, and the OWNER will deduct the amount of such compensation from the final payment to the CONTRACTOR.

1.03 CLOSEOUT SUBMITTALS

When the ENGINEER finds that the work is acceptable under the Contract Documents, he shall request the CONTRACTOR to make closeout submittals.

The CONTRACTOR's closeout submittals shall include:

1. Evidence of compliance with requirements of governing authorities.
2. Project Record Documents.
3. Evidence of Payment and Release of Liens.
4. Certificate of Insurance for Products and Completed Operations.
5. Warranties and Bonds.

1.04 ADDITIONAL CLOSEOUT REQUIREMENTS

Project Record Documents:

The CONTRACTOR shall keep one Record copy of all specifications, drawings, addenda, modifications, shop drawings, field test records, and samples at the site in good order and annotated in red to show all changes made during the construction process. These shall be available to the ENGINEER for examination and shall be delivered to the ENGINEER for the OWNER upon completion of the work.

Documents and samples shall be stored in the CONTRACTOR's field office apart from documents used for construction. The CONTRACTOR shall provide files and racks for storage of documents, and a locked cabinet or secure storage space for storage of samples. Documents shall be maintained in a clean, dry, legible condition and in good order.

Record Documents shall not be used for construction purposes.

Each Document shall be labeled "PROJECT RECORD" in neat, large printed letters.

Information shall be recorded by the CONTRACTOR, on a daily basis, concurrently with construction progress. No work shall be concealed until required information is recorded on the CONTRACTOR's Record Drawings.

Drawings shall be legibly marked to record actual construction information on: depths of various elements of foundation in relation to finish first floor datum; horizontal and vertical locations of underground utilities and appurtenances, referenced to permanent surface improvements; location of internal utilities and appurtenances concealed in the construction, referenced to visible and accessible features of the structure; field changes of dimension and detail; changes made by Field Order or by Change Order; and details not on original contract drawings.

Specifications and Addenda shall have each section legibly marked to record: manufacturer, trade name, catalog number, and supplier of each product and item of equipment actually installed; and changes made by Field Order or by Change Order.

At contract closeout Record Documents shall be delivered to the ENGINEER for the OWNER. The submittal shall be accompanied with a transmittal letter in duplicate, containing:

1. Date
2. Project title and number
3. CONTRACTOR's name and address
4. Title and number of each Record Document
5. Signature of CONTRACTOR or his authorized representative

As-Built Survey Requirements: (Not Applicable)

The CONTRACTOR shall provide the ENGINEER with an as-built survey as follows:

1. After completion of the construction, the as-built configuration (both horizontally and vertically) of all the facilities shall be determined and a complete set of as-built drawings prepared.
2. The survey drawing shall be prepared in AutoCAD (R12 or later version) format showing all the as-built improvements and elevations where proposed work is shown on the construction drawings. The CONTRACTOR shall submit three (3) sets of check prints to the ENGINEER for approval prior to the request for final inspection. After the check prints are approved, the CONTRACTOR shall submit one final set of reproducible mylars, four sets of certified prints and a copy of the AutoCAD drawings on diskette.

The as-built survey shall be performed and certified by a registered Florida Land Surveyor meeting the Florida minimum technical standards for surveys and the Surveyor shall provide to the ENGINEER a copy of the Surveyor's professional liability insurance coverage in the amount of one million dollars (\$1,000,000.00). The survey shall be certified to the OWNER.

Operating and Maintenance Data:

The CONTRACTOR shall compile product data and related information appropriate for OWNER's maintenance and operation of products furnished under the Contract.

The submittals shall include but not necessarily be limited to:

Manufacturer's specifications.

Directions and instructions relating to assembly, installation, operation and maintenance.

Parts list with catalog numbers and other data necessary for ordering replacements.

1.05 WARRANTIES AND BONDS

The CONTRACTOR shall compile and submit to the ENGINEER in duplicate, for review and transmittal to the OWNER, warranties, bonds, service and maintenance contracts as specified in the respective sections of Specifications. Submittal shall be made within ten days after Substantial Completion and prior to final request for payment.

1.06 FINAL STATEMENT OF ACCOUNTING

The CONTRACTOR shall submit a final statement of accounting to the ENGINEER. The statement shall reflect all adjustments to the Contract Sum:

1. The original Contract Sum
2. Additions and deductions resulting from:
 - Previous Change Orders
 - Deductions for uncorrected work
 - Deductions for liquidated damages
 - Deductions for reinspection payments
 - Other adjustments
3. Total Contract Sum, as adjusted
4. Previous payments
5. Sum remaining due

1.07 FINAL CHANGE ORDER

The ENGINEER will prepare a final Change Order, if required, reflecting approved adjustments to the Contract Sum which were not previously made by Change Orders.

1.08 FINAL APPLICATION FOR PAYMENT

The CONTRACTOR shall submit the final Application for Payment in accordance with procedures and requirements stated in the Conditions of the Contract.

PART 2 - PRODUCTS

(Not Applicable)

PART 3 - EXECUTION

(Not Applicable)

END OF SECTION

SECTION 01710 FINAL CLEANING

PART 1 - GENERAL

1.01 DESCRIPTION OF REQUIREMENTS

The CONTRACTOR shall execute cleaning, during progress of the work, and at the completion of the work, as required by General Conditions.

Cleaning and disposal operations shall comply with all applicable codes, ordinances, regulations, and anti-pollution laws.

Refer to Section 01500 - Temporary Facilities And Controls for additional requirements.

PART 2 - MATERIALS

The CONTRACTOR shall:

Use only those materials which will not create hazards to health or property and which will not damage surfaces.

Use only those cleaning materials and methods recommended by manufacturer of the surfaces to be cleaned.

Use cleaning materials only on surfaces recommended by cleaning material manufacturer.

PART 3 - EXECUTION

3.01 CLEANING DURING CONSTRUCTION

The CONTRACTOR shall:

Execute periodic cleaning to keep the work, the site and adjacent properties free from accumulations of waste materials, rubbish and windblown debris, resulting from construction operations.

Provide on-site containers for the collection of waste materials, debris and rubbish. Rental of refuse/waste containers must fully comply with the requirements of Section 01500 - Temporary Facilities And Controls.

Remove waste materials, debris and rubbish from the site at least once a week and dispose of at legal disposal areas away from the site.

Prior to final completion, CONTRACTOR shall conduct an inspection of work areas, to verify that the entire work is clean.

3.02 FINAL CLEANING

The CONTRACTOR shall:

Employ skilled workmen for final cleaning.

Remove grease, mastic, adhesives, dust, dirt, stains, and other foreign materials from sight-exposed surfaces.

Broom clean exterior paved surface; rake clean other surfaces of the grounds.

Except as otherwise indicated or requested by the ENGINEER, remove temporary protection devices and facilities which were installed during the course of the work to protect previously completed work during the remainder of the construction project.

Prior to final completion, CONTRACTOR shall conduct an inspection of work areas, to verify that the entire work is clean.

Where extra materials of value remaining after completion of the associated work have become the OWNER's property, dispose or store at the site, as directed by the ENGINEER.

END OF SECTION

SECTION 02050 DEMOLITION

PART 1 - GENERAL

1.01 DESCRIPTION OF WORK

A. The work includes, but is not limited to, demolition and removal of the top slabs for lift station valve vaults and wet wells, removal of concrete pavement, removal of pumps, piping, electrical controls, wiring and lighting within grassed and landscaped dedicated easements as shown on the drawings.

1.02 QUALITY ASSURANCE

A. Accomplish all demolition work so there is no injury to any persons and no damage to adjacent structures or property. All demolition methods shall be in full compliance with municipal, county, state, and federal ordinances. Demolition work shall comply with the requirements of the Occupational Safety and Health Administration (OSHA).

B. The Contractor shall comply with all municipal, county, state, and federal ordinances regarding the disposal of rubble, scrap metal, and refuse.

C. Demolition procedures shall provide for safe conduct of the work, protection of property which is to remain undisturbed, and coordination with other work in progress.

1.03 JOB CONDITIONS

A. General:

1. It shall be the responsibility of the Contractor to visit the site and inspect the nature and condition of the items to be removed and salvaged before submitting his bid.

B. Dust Control:

1. Control the amount of dust resulting from demolition to prevent the spread of dust to occupied portions of buildings and to avoid creation of a nuisance in the surrounding area. Do not use water when it will result in, or create, hazardous or objectionable conditions such as flooding and pollution.

C. Protection of Existing Work:

1. Protect existing work. Work damaged by the Contractor shall be repaired to match existing work.

1.04 PERMITS AND NOTICES

A. Permits and Licenses: Contractor shall obtain all necessary permits and licenses for

performing the work and shall furnish a copy of same to the Engineer prior to commencing the work. The contractor shall comply with the requirements of the permits.

- B. Notices: Contractor shall issue written notices of planned demolition to Owner, Engineer and businesses or local residents located in the vicinity of the project site. Notices shall be received at least 48 hours in advance of the planned demolition activity.
- C. Utility Services: Contractor shall notify utility companies or local authorities furnishing gas, sewer, water, electrical or telephone to remove any equipment owned by them in structures to be demolished and to remove, disconnect, cap or plug their services to facilitate demolition.

1.05 TRAFFIC AND ACCESS

- A. Conduct demolition and modification operation, and removal of piping and debris to ensure minimum interference with roads, streets and sidewalks both onsite and off site and to ensure minimum interference with occupied or used facilities.
- B. Contractor shall at all times maintain safe and convenient access to the existing site.
- C. Do not close or obstruct streets or walks without permission from the Owner and Engineer. Provide alternate traffic routes around closed or obstructed access ways.

1.06 UTILITIES

- A. Existing utilities to remain in service and protected against damage during demolition operations. This may include the installation/construction of bypass piping where necessary.
- B. Do not interrupt existing utilities serving occupied or used facilities, except when authorized by the Owner and Engineer. Provide temporary services during interruption to existing utilities as required by the Owner.
- C. The Contractor shall cooperate with the Owner to shut off utilities serving the existing facilities as required by demolition operations. If service must be cut off to existing customers, the Owner must have at least three (3) days notice to make necessary preparations.
- D. The Contractor shall be solely responsible for making all necessary arrangements and for performing any necessary work involved in connection with the discontinuance or interruption of all public and private utilities or services under this jurisdiction of utility companies.

1.07 POLLUTION CONTROL

- A. For pollution control, use water sprinkling, temporary enclosures and other suitable methods as necessary to limit the amount of dust and dirt rising and scattering in the air to the lowest level of air pollution practical for the conditions or work. Comply with the governing regulations.

- B. Clean structures and improvements of all dust, dirt and debris caused by demolition operations as directed by the Engineer. Return areas to conditions existing prior to the start of work.

1.08 QUALITY CONTROL

- A. Protect all existing materials and equipment to be salvaged or reused from damage.
- B. Cap or plug all lines to be abandoned.
- C. Leave all exposed ends of all pipe covered and safe.

PART 2 - PRODUCTS

NONE

PART 3 - EXECUTION

3.01 DISPOSAL

- A. Equipment, piping, and materials which are designated to remain the property of the Owner shall be moved to a location designated by the Owner.
- B. All removed materials not specifically designated to remain the property of the Owner shall become the property of the Contractor and shall be removed from the site and disposed of in a lawful manner.
- C. Do not allow debris and rubbish to accumulate on the site. Remove debris and rubbish from the site.

3.02 CLEAN-UP

- A. Clean-up in areas where other work is to be done following demolition shall be as specified in the applicable Sections.
- B. Clean-up the job site in areas where no other work is to be done under this Contract following demolition. Remove all debris and rubbish, temporary facilities, and equipment. Level surface irregularities to eliminate depressions. Leave the work in a neat and presentable condition.

END OF SECTION

SECTION 02200 EARTHWORK

PART 1 - GENERAL

1.01 DESCRIPTION OF WORK

A. The extent of earthwork is shown on the drawings.

B. Related Work Specified Elsewhere:

Section 02222 - Trenching, Backfilling and Compacting.

1.02 QUALITY ASSURANCE

A. Codes and Standards:

1. Perform earthwork in compliance with applicable requirements of governing authorities having jurisdiction.

B. Testing and Inspection Service:

1. The Owner will engage a testing and inspection service, to include testing soil materials proposed for use in the work and field facilities for quality control testing during earthwork operations.

2. Soil survey for satisfactory soil materials and samples of soil materials shall be furnished to the testing service by the Contractor.

3. All test reports must be signed by a licensed engineer.

1.03 JOB CONDITIONS

A. Existing Utilities:

1. Locate existing underground utilities in the areas of work before starting earthwork operations. Where utilities are to remain in place, provide adequate means of protection during earthwork operations.

2. Should uncharted, or incorrectly charted, piping or other utilities be encountered during excavation, consult the utility owner immediately for directions. Cooperate with the Owner and public and private utility companies in keeping their respective services and facilities in operation. Repair damaged utilities to the satisfaction of the utility owner.

3. Do not interrupt existing utilities serving facilities occupied and used by the Owner or others, except when permitted in writing by the Engineer and then only after acceptable

temporary utility services have been provided.

4. Demolish and completely remove from the site underground utilities indicated to be removed. Coordinate with local utility companies for shut-off of services if lines are active.

B. Use of Explosives:

1. The use of explosives is not permitted.

C. Temporary Protection:

1. Barricade open excavations made as a part of earthwork operations and post with warning lights. Operate warning lights as recommended by authorities having jurisdiction.

2. Protect structures, utilities, sidewalks, pavements, and other facilities from damages caused by settlement, lateral movement, undermining, washout, and other hazards created by earthwork operations.

PART 2 - PRODUCTS

2. 01 SOIL MATERIALS

A. Backfill and Fill Materials:

1. Soil materials for use as backfill and fill shall be free of rock or gravel larger than 2-inches in any dimension, debris, waste, vegetable, and other deleterious matter.

2. Use excavated or borrows material that has been sampled, tested and certified as satisfactory soil material.

B. Subbase Material:

1. Properly graded mixture of natural and crushed gravel, crushed stone, crushed slag, natural or processed sand that will readily compact to the required density.

2. Use material complying with AASHTO M147, Grade A, unless otherwise indicated or acceptable to the Engineer.

PART 3 - EXECUTION

3. 01 INSPECTION

A. Examine the areas and conditions under which earthwork is to be performed and notify the Engineer in writing of conditions detrimental to the proper and timely completion of the work. Do not proceed with the work until unsatisfactory conditions have been corrected in an acceptable manner.

3.02 EXCAVATION

A. Excavation consists of the removal and disposal of materials encountered when establishing the required grade elevations.

1. Where it is necessary to cut roots projecting into an excavation or to trim branches for equipment clearance, all severed root ends or cuts to branches over 1/2-inch diameter shall be treated with an asphalt base pruning paint. Backfill over exposed roots as soon as possible.

B. Excavation Classifications:

1. The following classifications of excavation will be made when unanticipated rock excavation is encountered in the work. Do not perform such work until material to be excavated has been cross-sectioned and classified by the Engineer. Such excavation will be paid for under the appropriate bid item in the Bid Proposal.

a. Earth excavation includes the removal and disposal of pavements and other obstructions visible on the ground surface, underground structures and utilities indicated to be demolished and removed, material of any classification indicated in data on subsurface conditions, and all other materials encountered that are not classified as rock excavation or unauthorized excavation.

b. Rock excavation consists of the removal and disposal of materials encountered that cannot be excavated with a 3/4 cubic yard capacity power shovel without drilling and blasting, or continuous use of a ripper or other special equipment, except such materials that are classified as earth excavation. Typical of materials classified as rock are boulders 1/2 cu. yd. or more in volume, solid rock, rock in ledges, and rock-hard cementitious aggregate deposits.

c. Intermittent drilling that may be performed to increase production and is not necessary to permit excavation of the material encountered will be classified as earth excavation.

C. Rock shall be removed to the following limits:

1. Two feet outside of concrete work for which forms are required, except footings. One foot outside the perimeters of footings.

2. In pipe trenches, a minimum of 4-inches below invert elevation of pipe and 2-feet wider than the inside diameter of pipe, but not less than 3-foot minimum trench width.

3. Neat outside dimensions of concrete work where no forms are required.

4. Under slabs on grade, 6-inches below bottoms of concrete slab.

D. Unauthorized excavation consists of removal of materials beyond indicated elevations without the specific direction of the Engineer. Replace unauthorized excavation by backfilling and compacting as specified for authorized excavations of the same classification, unless otherwise directed by the Engineer.

E. Additional Excavation:

1. When excavation has reached required subgrade elevations, notify the Engineer who will make an inspection of conditions.

2. If unsuitable materials are encountered at the required subgrade elevations, carry excavations deeper and replace the excavated material as directed by the Engineer.

3. Removal of unsuitable material and its replacement as directed will be paid for under the appropriate bid item in the Bid Proposal.

F. Dewatering:

1. Prevent surface water and subsurface or groundwater from flowing into excavations, and flooding the project site and surrounding area.

2. Do not allow water to accumulate in excavations. Remove water from excavations to prevent softening of foundation bottoms, undercutting footings, and soil changes detrimental to the stability of subgrades and foundations. Provide and maintain pumps, well points, sumps, suction and discharge lines, and other dewatering system components necessary to convey the water away from the site.

3. Convey water removed from excavations and rainwater to collecting or run-off areas. Do not use trench excavations for site utilities as temporary drainage ditches.

4. Contractor shall be required to obtain any demolition permits as may be required due to dewatering volume requirements set by local and state agencies.

G. Material Storage:

1. Stockpile excavated materials classified as satisfactory soil material where directed, until required for fill. Place, grade, and shape stockpiles for proper drainage.

2. Dispose of excess unsatisfactory soil material, trash and debris, as specified.

3.03 BACKFILL AND FILL

A. Ground Surface Preparation:

1. Remove vegetation, debris, unsatisfactory soil materials, obstructions, and deleterious materials from ground surface prior to placement of fills. Plow, strip, or break-up sloped

surfaces steeper than one vertical to four horizontal so that fill material will bond with existing surface.

2. When the existing ground surface has a density less than that specified under "Compaction" for the particular area classification, break-up the ground surface, pulverize, moisture-condition to the optimum moisture content, and compact to the required depth and percentage of maximum density.

B. Placement and Compaction:

1. Place backfill and fill materials in layers not more than 8-inches in loose depth for material compacted by heavy compaction equipment, and not more than 4-inches loose depth for material compacted by hand-operated equipment.

2. Before compaction, moisten or aerate each layer as necessary to provide the optimum moisture content of the soil material. Compact each layer to the required percentage of maximum dry density or relative dry density for each area classification. Do not place backfill or fill material on surfaces that are muddy, frozen, or contain frost or ice.

a. Backfill excavations as promptly as the work permits, but not until completion of inspection, testing, approval, and recording location of underground utilities, as required.

3.04 COMPACTION

A. General:

1. Control soil compaction during construction, providing the minimum percentage of density specified for each area classification.

2. Percentage of Maximum Density Requirement:

a. Lawn Areas: Compact each layer of backfill or fill material at 85% maximum density (optimum moisture).

b. Walkways: Compact top 6-inches of subgrade and each layer of backfill or fill material at 95% maximum density (optimum moisture).

B. Moisture Control:

1. Where the subgrade or layer of soil materials must be moisture conditioned before compaction, uniformly apply water to the surface of subgrade, or layer of soil material, to prevent free water appearing on the surface during or subsequent to compaction operations. Remove and replace, or scarify and air dry, soil material that is too wet to permit compaction to specified density.

2. Soil material that has been removed because it is too wet to permit compaction may be stockpiled or spread and allowed to dry. Assist drying by disking, harrowing or pulverizing, until the moisture content is reduced to a satisfactory value.

3.05 FIELD QUALITY CONTROL

A. Quality Control Testing During Construction:

1. Testing service must inspect and approve subgrades and fill layers before further construction work is performed thereon.

2. Secure representative samples of the fill material and determine the Standard Density and required moisture content to be maintained by the Moisture-Density Relation Test ASTM D-1557.

3. Make in-place soil density tests during compaction operations in accordance with ASTM D-1556.

4. If, in the opinion of the Engineer, based on reports of the testing service and inspection, the subgrade or fills which have been placed are below the specified density, additional compaction and testing will be required until satisfactory results are obtained.

a. The results of density tests of soil-in-place will be considered satisfactory if the average of any four consecutive density tests which may be selected are in each instance equal to or greater than the specified density, and if not more than one density test out of five has a value more than 2% below the required density.

3.06 MAINTENANCE

A. Reconditioning Compacted Areas:

1. Where completed compacted areas are disturbed by subsequent construction operations or adverse weather, scarify the surface, re-shape, and compact to the required density prior to further construction.

3.07 DISPOSAL OF EXCESS AND WASTE MATERIALS

A. Removal from Owner's Property:

1. Remove waste materials, including excavated material classified as unsatisfactory soil material, trash and debris, and dispose of it off the Owner's property in a lawful manner.

END OF SECTION

SECTION 02210 SITE GRADING

PART 1 - GENERAL

1.01 DESCRIPTION OF WORK

- A. Uniformly grade areas within the limits of site grading under this section, including adjacent transition areas. Smooth finished within specified tolerances, compact with uniform levels or slope between points where elevations area shown, or between such points and existing grades.
- B. The degree of finish required for general site grading will be that ordinarily obtainable from either blade-grader or scraper operations.
- C. Fine grading of finished areas around structures shall be graded smooth and hand raked to meet the elevations and contours shown on the drawings. Lumber, earth, clods, rocks and other undesirable materials shall be removed from the site.

PART 2 – PRODUCTS (Not Applicable)

PART 3 – EXECUTION

3.01 DITCHES (Not Applicable)

- A. Finish ditches and swales to ensure proper flow and drainage. Conduct final rolling operations to produce a hard, uniform and smooth cross-section.

3.02 LAWN OR UNPAVED AREAS

- A. Finish areas to receive topsoil to within not more than 0.10 feet above or below the required sub-grade elevations, compacted as specified, and free from irregular surface changes.

3.03 WALKS

- A. Shape the surface of areas under walks to line, grade and cross-section, with the finish surface not more than 0.00-feet above or 0.10-feet below the required sub-grade elevation, compacted as specified, and graded to prevent ponding of water after rains.

3.04 PROTECTION OF GRADED AREAS

- A. Protect newly graded areas from traffic and erosion. Keep free of trash and debris.
- B. Repair and reestablish grades in settled, eroded, and rutted areas to the specified tolerances.

END OF SECTION

SECTION 02801 RESTORATION OF SURFACE IMPROVEMENTS

PART 1 - GENERAL

1.01 DESCRIPTION OF WORK

The work includes the restoration of driveways, lawn areas, trees and plants, roadways, sprinkler systems, walks and any other existing improvement affected by the proposed work.

This section includes furnishing equipment, labor and materials, and performing all necessary and incidental operations to perform the required work.

1.02 QUALITY ASSURANCE

Standards. Florida Grades and Standards for Nursery Plants, Part 1:

Irrigation Contractor Qualifications. Irrigation Competency Card is required for contractor or sub-contractor doing any irrigation repair, including relocation of heads, lines or valves, or any new irrigation work.

PART 2 - MATERIALS AND EQUIPMENT

2.01 SOD

Sod used for restoration shall match the existing sod in the area. St. Augustine sod shall be replaced with St. Augustine Floratam. In areas without irrigation, Argentina Bahia sod shall be used, unless otherwise directed by the Engineer/Landscape Architect.

Sod shall have well matted roots.

The sod shall be sufficiently thick to secure a dense stand of live grass, with a minimum thickness of two-inches. The sod shall be live, fresh and uninjured at the time of planting. It shall be planted as soon as possible after being dug and shall be shaded and kept moist from the time it is dug until it is planted.

The sod shall be commercial size rectangles measuring 12-inches by 24-inches or larger, except where 6-inch strip sodding is called for on the drawings.

Sod shall be planted as soon as possible after being harvested and shall be shaded and kept moist from the time of harvesting until it is planted.

The source of the sod may be inspected and approved by the Engineer/Architect prior to construction.

2.02 PLANTS

Existing damaged plants shall be replaced by plants of equal type, quality and size whenever possible. All new plants shall be sound, healthy, vigorous and free from defects, decay, disfiguring, bark abrasions, plant diseases, insect pests, their eggs or larvae. The new plants shall be approved by the Engineer/Landscape Architect before placing.

Existing plants may be removed, preserved, and replaced at the Contractors option, in which case, the plants shall be handled and maintained by approved nursery staff.

Plants shall be watered and cared for until new growth appears. Dead and dying plants shall be immediately replaced.

Plants used shall be in accordance with the standards for Florida No. 1 or better, as given in the current "Grades and Standards for Nursery Plants," State of Florida, Department of Agriculture, or their equal as approved by the Engineer/Landscape Architect.

Plants shall conform to the sizes indicated by the Owner.

2.03 MULCH

Mulch for all planter areas shall be shredded cypress or eucalyptus, clean, bright and free from weeds, moss, sticks, and other debris.

2.04 WATER

The water used in the performance of this Contract shall be of drinking water quality, clean and free from injurious amounts of oil, acid, alkali, organic matter, or any substance which might be harmful to plant growth or obnoxious to traffic.

2.05 PLANTING MIXTURE

The planting mixture, when required, shall consist of a thorough mixture of 40% peat and 60% sand. The peat shall be Florihome peat or equivalent and the sand shall be clean and free from debris of any kind.

2.06 FERTILIZER

Fertilizer shall be granular 8-8-8, or equivalent.

Commercial fertilizers shall comply with the State fertilizer laws.

Fertilizer may, at the discretion of the Engineer/Architect, upon satisfactory evidence of its feasibility from the manufacturer, be applied in liquid form.

2.07 ASPHALTIC CONCRETE

Asphaltic concrete for surface and base course applications shall be Type S-9.5 as specified in the Florida Department of Transportation's Standard Specifications for Road and Bridge Construction and shall be in accordance with the project specifications and plans.

2.08 PORTLAND CEMENT CONCRETE

Portland cement concrete used in the performance of this Contract shall have a compressive strength of 3000 psi at 28 days and shall conform to the requirements of Section 03300.

PART 3 - EXECUTION

3.01 LANDSCAPING RESTORATION

All grass areas disturbed by construction shall be restored with the same type of sod as was existing prior to disturbance.

Lawn Areas. Any lawn area affected by the required work shall be restored to a condition equal or better than the conditions existing before the commencement of work.

Balled Plants. Plants where required shall be adequately balled with firm natural balls of soil, sized as set forth in "Grades and Standards". Balls shall be firmly wrapped with burlap or equally approved strong cloth. No balled plant will be planted if the ball is cracked or broken before or during the process of planting.

Option. Plants may be furnished as container grown instead of balled if all other requirements are met.

Preparation of Plant Pits. All plant pits shall be circular in outline and have vertical sides. Tree pits shall be two feet wider than the width of the ball and one foot deeper than the depth of the ball. Shrubs that are either B&B or in 3 gallon and under containers shall have pits that are one foot wider than the width of the plant ball and 6-inches deeper than the depth of the ball.

Setting Plants. All plants except as otherwise specified, shall be centered in pits. Deep planting shall be avoided and unless otherwise specified, plants shall be set at such a level that after settlement they will bear the same relation to the required grade as they have to the natural grade before being transplanted.

Balled and burlapped plants and palms shall be placed on 6-inches to 12-inches of tamped planting mixture and adjusted so as to be at the proper level. The rope and burlap shall be cut away and the burlap folded down to the bottom of the pit. Very large B&B plants shall remain wrapped until fully backfilled and then just the upper portion of the burlap shall be removed. Backfill of planting mix shall be placed halfway up the pit and then water tamped. After this water has drained away, backfill around the edge of the pit to form a saucer and fill area three times with water.

Water. Water to be used initially during plant installation shall be furnished by the Contractor. The existing irrigation system, where damaged, shall be promptly repaired after the installation of the plants.

Sod Placement. The provisions for the preparation of the area to be sodded shall include scarifying and loosening the soil and application of fertilizer. Sodding shall not be performed when weather and soil conditions are, in the Engineer's opinion, unsuitable for proper results.

The sod shall be placed on the prepared surface with edges in close contact, and shall be firmly and smoothly embedded by light tamping with appropriate tools.

Where sodding is used in drainage ditches or ponds, the setting of the pieces shall be staggered, such as to avoid a continuous seam along the line of flow. Along the edges of such staggered areas, the offsets of individual strips shall not exceed 6-inches.

In order to prevent erosion caused by vertical edges at the outer limits, the outer pieces of sod shall be tamped so as to produce a featheredge effect.

On areas where the sod may slide, due to height and slopes, it shall be pegged, with pegs driven through the sod blocks into firm soil and at intervals as shown on the drawings or as directed by the Engineer/Architect.

Any pieces of sod which, after placing, show appearance of extreme dryness shall be removed from the work.

The sod shall be kept in a moist condition after planting and for the duration of the Contract.

Maintenance. Contractor shall maintain the planted areas in a satisfactory condition until final acceptance of the project. Such maintenance shall include mowing, edging, weed control, watering, filling, leveling and repairing of any washed or eroded areas as may be necessary.

3.02 PAVEMENT REPLACEMENT

Asphalt pavement shall be removed by saw cutting on a straight line with edges as vertical as possible. Concrete pavement or asphalt surfaced concrete shall be removed by cutting with a concrete saw in as straight a line and vertically as possible.

Prior to replacing concrete or asphalt pavement replacement, a limerock base shall be laid. The base for concrete pavement shall be six (6) inches of compacted thickness, and that for asphalt pavement shall be twelve (12) inches of compacted thickness for City roadways. The base course for each shall be compacted in two equal layers to a minimum of 98% of the maximum density as determined by AASHTO, Method T-180. The Owner will have tests made by an independent testing laboratory to verify compaction results.

Non-asphalt pavement replacement shall be replaced of like material and thickness. Asphalt or built-up asphalt pavement replacement shall be replaced with like material or concrete as directed by the Engineer/Architect. Where asphalt or built-up asphalt pavement is replaced by concrete,

the concrete shall have a minimum of six (6) inches in thickness and be reinforced with 6 by 6 No. 6 gage welded wire fabric. Where the pavement replacement is of like material, it shall be replaced in thickness equal to or better than that existing at the time of removal.

Unless the base is sealed or other temporary paving applied over driveway areas to be repaved, pavement shall be replaced not later than three weeks after completion of backfill.

3.03 CURB REMOVAL AND REPLACEMENT

Curb removal and replacement required in the construction of this work shall be done by the Contractor. Reasonable care shall be exercised in removing the curb, and the Contractor shall either stockpile or dispose of this material as directed by the Engineer/Architect. Curb shall be replaced of like material in a manner and condition equal to or better than that existing at the time of removal.

3.04 TESTS

The Contractor shall furnish facilities for making all density tests and make such restorations as may be necessary due to test operations. All density tests on backfill or base replacement will be made by a commercial testing laboratory employed by the Owner and at such locations as may be recommended by the Engineer/Architect. If the densities as determined by the specified tests fall below the required minimums, the Contractor shall pay for all retests.

END OF SECTION

**SECTION 02822
SODDING (RESTORATION ONLY)**

PART I - GENERAL

1.01 SCOPE OF WORK:

- A. Provide all labor, materials, equipment and incidentals required to prepare lawn bed and install sodding in accordance with the drawings and as specified.

1.02 WORK SPECIFIED ELSEWHERE:

- A. Section 02441 - Landscape Irrigation System
- B. Section 02800 - Landscape Planting

1.03 SUBMITTALS:

- A. Submit representative sod samples for approval by Landscape Architect.
- B. Submit certifications for sod supplier.

1.04 QUALITY ASSURANCE:

- A. Sod shall be grown by a certified Florida State Plant Board approved SOD FARM.

PART II - PRODUCTS

2.01 SOD:

- A. Sod shall be St. Augustine ‘Floritam’, with compacted growth and good root development. Provide for areas as shown on plans.
- B. Sod shall be certified to meet Florida State Plant Board specifications, absolutely true to varietal type, and free from weeds or other objectionable vegetation, fungus, insects and disease of any kind.
- C. Before being cut and lifted the sod shall have been mowed (3) times with final mowing not more than a week before cutting into uniform dimensions.

2.02 SOIL CONDITIONERS:**A. Fertilizer:**

1. Fertilizer shall be complete fertilizer, the elements of which are derived from organic sources. Fertilizer shall be a standard product complying with State and Federal fertilizer laws.
2. Percentages of nitrogen, phosphorus and potash shall be based on laboratory tests on soils outlined in Paragraph 1.03(I) of Section 02800 -Landscaping Planting and approved by the Landscape Architect. For purpose of bidding, assume 8% nitrogen, 8% phosphorus and 8% potash by weight. At least 50% of the total nitrogen shall contain no less than 3% water-insoluble nitrogen.
3. Fertilizer shall be delivered to the site, mixed as specified, in the original unopened standard size bags showing weight, analysis and name of manufacturer. Containers shall bear the manufacturer's guaranteed statement of analysis, or a manufacturers certificate of compliance covering analysis shall be furnished to the Landscape Architect. Store fertilizer in a waterproof place and in such a manner that it will be kept dry and its effectiveness will not be impaired.

- B.** Superphosphate shall be composed of finely ground phosphate rock as commonly used for agricultural purposes containing not less than 20% available phosphoric acid.

PART III - EXECUTION**3.01 LAWN BED PREPARATION:**

- A.** Areas to be sodded shall be cleared of all rough grass, weeds, and debris and the ground brought to an even grade as approved.
- B.** The soil shall then be thoroughly tilled to a minimum 8 inch depth.
- C.** Superphosphate at a rate for bidding purposes of 5 pounds per 1000 square foot and complete fertilizer at a rate for bidding purposes of 16 pounds per 1000 square foot shall be evenly distributed over entire area and cross-disked in to a depth of 4-6 inches.
- D.** The areas shall then be brought to proper grade, free of sticks, stones, or other foreign matter over 1-inch in diameter or dimension. The surface shall conform to

finish grade, less the thickness of sod, free of water retaining depressions, the soil friable and of uniformly firm texture.

3.02 SOD HANDLING AND INSTALLATION

- A. During delivery, prior to planting, and during the planting of the lawn areas, the sod panels shall at all times be protected from excessive drying and unnecessary exposure of the roots to the sun. All sod shall be stacked during construction and planting so as not to be damaged by sweating or excessive heat and moisture. No sod shall remain stacked for periods longer than five days of original field preparation. Any sod left stacked for longer than five days shall be rejected, removed from site and replaced by the Contractor at no additional expense to the Owner.
- B. After completion of soil conditioning as specified above, sod panels shall be laid tightly together so as to make a solid sodded lawn area. On mounds and other slopes the sod panels shall be staggered to prevent water channelization, with the short dimension of the sod laid perpendicular to the slope. Immediately following sod laying the lawn areas shall be rolled with a lawn roller customarily used for such purposes, and then thoroughly watered.
- C. Bring the sod edge in a neat, clean manner even with the edge of all paving and shrub areas. Top dressing with approved, clean, weed free, sand may be required at no additional cost to the Owner if deemed necessary by the Landscape Architect.

3.03 MAINTENANCE:

- A. The Contractor shall produce a dense, well established lawn. The Contractor shall be responsible for the repair and resodding of all eroded or bare spots until project acceptance. Repair sodding shall be accomplished as in the original work except that fertilizing may be omitted.
- B. Sufficient watering shall be done by the Contractor until final acceptance to maintain adequate moisture for optimum development of the lawn areas. Sodded areas shall receive no less than 1.5 inches of water per week or as directed by Landscape Architect.
- C. Mow sodded lawn area as soon as sod is rooted sufficiently to permit mowing. Mowing shall be the Contractor's responsibility until final acceptance is given. All mowing shall be done in accordance with standard horticulture practices.
- D. Do not permit new lawn areas to grow in excess of 4" high for bahia and 4" high for St. Augustine during maintenance period.

- E. After an established stand of grass has been accepted by the Owner or his representative, the Owner assumes all responsibility for maintenance; however, it is the contractor's responsibility to instruct the Owner in proper maintenance procedures.

3.04 REPAIRS TO LAWN AREAS DISTURBED BY CONTRACTOR OPERATIONS

- A. Lawn areas planted under this Contract and lawn areas outside the designated areas damaged by Contractor's operations shall be repaired at once by proper sod bed preparations, fertilizing and resodding, in accordance with these specifications.

3.05 ACCEPTANCE:

- A. For the purpose of establishing an "Acceptance" standard, the following criteria is to be used:
- B. Sod shall be healthy, well-rooted, even colored, viable, free of weeds, open joints and bare spots.

3.06 GUARANTEE AND REPLACEMENT:

- A. All sod shall be guaranteed for a period of three (3) months after the date of acceptance by the Owner. All sod areas shall be full, without bare spots, healthy, and even colored.

END OF SECTION

SECTION 03300 CONCRETE

PART 1 - GENERAL

1.01 DESCRIPTION OF WORK

A. Work consists of the forming, mixing, placing and curing concrete for use in small structures, sidewalk, and curb replacement.

1.02 QUALITY ASSURANCE

A. Concrete may be standard design and product of commercial ready-mix or transit-mix supplier conforming to the following requirements:

<u>Class</u>	<u>Cement Content per cubic yard</u>	<u>Minimum 28-day Strength (lb. per sq. in.)</u>
Structural	6.25 bags or 600 pounds	4000
Non-Structural	5.75 bags or 560 pounds	3000

B. Job mixes of small quantities shall conform to the same requirements.

1.03 SUBMITTALS

A. Compressive strength tests, when required by the Engineer, shall be made by breaking standard 6-inch diameter by 12-inch high test specimens prepared, cured and broken in accordance with the ASTM C31 and C39. Three specimen test cylinders shall be taken from each concrete pour of three cubic yards. One additional test cylinder shall be taken for quantities up to one truck load. Test specimens shall be taken in the presence of the Engineer. One cylinder from each pour shall be broken at seven days, the remainder at twenty-eight days. Additional test cylinders may be ordered for determining the characteristics of a new design mix or changes in equipment or methods, and under adverse weather or curing conditions.

B. Slump test shall be made in accordance with ASTM C143, and shall be made whenever directed by the Engineer.

C. Responsibility for Tests and Reports:

1. The Contractor shall supply all cylinder molds, slump cones, tools and labor for preparing specimens, and shall provide clean, moist sand or burlap for curing. Cylinders shall be shipped to the testing laboratory until the third day following preparation, and shall be protected from accidental damage at all times.

2. The test cylinders shall be tested in a recognized commercial testing laboratory.

1.04 DELIVERY AND STORAGE

A. Ready-mixed concrete delivered shall be accompanied by delivery tickets showing the following:

Date and time leaving plant
Type of cement and weight
Quantity of water and time added
Additive (if any).

B. Bulk or bagged cement or bagged concrete mix shall be stored off the ground in a sheltered area.

PART 2 - PRODUCTS

2.01 CEMENT

A. Portland cement shall conform to the latest revision of Federal and/or ASTM Specifications enumerated below:

1. For general concrete construction, ASTM C150, Type I.
2. Type II (meeting ASTM C150) cement shall be used in all areas where the concrete will be subjected to a hydrogen sulfide environment (i.e., direct contact with groundwater).

2.02 AGGREGATES

A. Fine Aggregate:

1. Fine aggregate shall be clean, hard, strong, durable, uncoated particles of natural sand.
2. The fine aggregate shall be reasonably well graded from coarse to fine.

B. Coarse Aggregate:

1. Coarse aggregate shall be washed and consist of hard, tough, durable components, free from adherent coatings, salt, alkali, vegetable matter, and shall not contain an excessive number of soft, friable, thin or elongated particles. Coarse aggregate shall be properly graded from fine to coarse to produce concrete of the desired strength, density, and workability.

2. Where the cover over reinforcing is two inches or more, the maximum size of aggregate shall be 1-1/2 inches. Where the cover over reinforcing is less than two inches, the maximum size of aggregate shall be 3/4-inch. The maximum size of aggregate shall not exceed one-fifth of the narrowest dimension between forms nor three-fourths of the minimum clear spacing between reinforcing bars.

2.03 BAGGED CONCRETE MIX

A. For very small amounts of concrete a premixed sand, gravel and cement in 40 lb. (1/3 cu. ft.) or 80 lb. (2/3 cu. ft.) bags may be used. The Engineer must give approval for its use.

2.04 ADMIXTURES

A. The design mix may be based upon the use of such admixtures as the designer may select to improve the workability, plasticity or rate of curing of the concrete.

2.05 MIXING WATER

A. The water used in mixing concrete shall be fresh, clean and free from injurious amounts of oil, acid, alkali, or organic matter.

B. Water from any source other than a municipal water supply shall be shown by test to comply with Florida State Department of Transportation requirements for mixing water.

2.06 STEEL BAR AND WIRE FABRIC REINFORCEMENT

A. The reinforcing shall be fabricated to the proper shapes and dimensions. Before placing, all reinforcements shall be thoroughly cleaned of rust, mill scale and/or coatings.

B. Reinforcing bars shall conform to the requirements of ASTM A615, Grade 60 including hoops and stirrups.

C. Reinforcing steel shall be detailed, fabricated and placed according to the methods and standards recommended in the "Manual of Standard Practice for Detailing Reinforced Concrete Structures" of the American Concrete Institute.

D. Splices in reinforcing mats shall be staggered. Horizontal mats shall be supported on metal chairs with all sills or pads below subgrade. Spacers shall be provided for wall and column steel and shall be removed as the concrete is placed.

E. Wire fabric, unless otherwise shown or specified, shall be 6-inches by 6-inches by W1.4 x W1.4 woven or electrically welded wire fabric conforming to the requirements of ASTM A185.

PART 3 - EXECUTION

3.01 FORMS

A. Material:

1. Forms shall be of wood, metal, or other approved materials, shall be built true to line and grade, mortar-tight, adequately braced and supported, and sufficiently rigid to prevent

displacement or sagging. Metal forms shall be of a type and manufacture acceptable to the Engineer. Plywood, fiberboard, or absorptive type form linings may be used where appropriate.

2. Form work shall be constructed conforming to ACI 347 Chapter 2. Joints of sectional forms shall be located in a modular manner with as few fillers as possible. Voids in plywood and joints between form modules used for concrete exposed to view or hydraulic action shall be filled with silicone sealant and shall be tool smooth. Profile items such reglets and anchors shall be securely fastened with flush mechanical fasteners.

3. Pours shall not be scheduled until all erection and bracing of form work has been completed.

3.02 CONCRETE PLACING

A. Concrete shall not be placed until forms and reinforcing have been inspected.

B. Concrete shall be placed with the aid of mechanical vibrating equipment supplemented by hand forking or spading. Vibration shall be transmitted directly to the concrete and not through the forms. The duration of vibration at any location in the forms shall be held to the minimum necessary to produce through consolidation.

C. Concrete shall be compacted and worked in an approved manner into all corners and angles of the forms and around reinforcement and embedded fixtures in such a manner as to prevent segregation of the coarse aggregate.

D. Before depositing new concrete on or against concrete which has set, the existing surfaces shall be cleaned of all laitance, foreign matter and loose particles, and slushed with a neat cement grout. Grout for horizontal construction joints shall be of cement and fine aggregate in the same proportions as in the concrete to be placed, and shall be from 1/2- to 1-inch thickness.

E. The concrete shall be placed by suitable equipment as nearly as possible to its final location and without any segregation of the aggregate. Free vertical drop shall not exceed three feet.

3.03 CONCRETE CURING

A. Water for curing shall be clear and entirely free from any elements which might cause staining or discoloration.

B. Concrete shall be kept wet by covering with water, water saturated covering, or by alternate methods which will keep all surfaces continuously wet, for a period of seven days.

C. Where wood forms are left in place during curing, they shall be kept wet at all times.

3.04 WEATHER PROTECTION

A. No concrete shall be mixed or placed when the air temperature in the shade and away

from artificial heat is as low as 40 degrees F., and falling. Concrete may be mixed and placed when the air temperature in the shade and away from artificial heat is 35 degrees Fahrenheit, and rising.

B. Fresh concrete shall be protected from rain, flowing water and mechanical injury.

3.05 CONCRETE FINISHING

A. Slabs, Walks and Pavements shall be brought to a true and even finish by power or hand-floating. The surface shall be floated to a true, smooth finish. Troweling shall be the minimum to obtain a smooth, dense surface and shall not be done until the mortar has hardened sufficiently to prevent excess fine material from being worked to the surface. All walk and pavement surfaces, shall, immediately after troweling, be lightly broomed. The brooming shall be sufficient to mark the surface without appreciably disturbing the troweled finish.

END OF SECTION

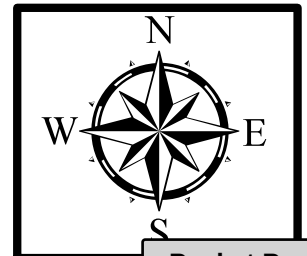
Location Map





**FUTURE CDBG
SOUTH WASHINGTON STREET
SIDEWALKS**

Prepared By: The City of Ormond Beach
G.I.S. Department - April 13, 2021



CDBG Requirements



Part of the Advertisement/RFP for any CDBG Project

This is a federally assisted project and is subject to Federal Labor Standards which include, the Davis-Bacon Act (payment of prevailing wage rates) and the Copeland Act (anti-kickback of wages & submission of weekly certified payroll reports), as well as other provisions including 24 CFR 85.36 (bonding requirements), and Section 3 & M/WBE. Laborers and mechanics employed by primary contractors and sub-contractors performing construction work on this project shall be paid wages at rates not less than the prevailing rates as determined by the Secretary of Labor in accordance with the Davis-Bacon Act. The prime contractor is responsible for the enforcement of wage compliance and support documentation for the duration of the project and may be held liable for wage restitution. The applicable information regarding the laws and regulations stated above are included in the bid packet.

SUPPLEMENTAL CONDITIONS FOR FEDERALLY ASSISTED PROJECTS

The supplemental conditions contained in this section are intended to cooperate with, to supplement, and to modify the general conditions and other specifications. In case of disagreement with any other section of this contract, the Supplemental Conditions shall govern. This contract is funded in whole or in part with federal funds made available from the U.S. Department of Housing and Urban Development (HUD). The contractor and all of its subcontractors shall comply with these federal provisions. The contractor shall include these supplemental conditions in all subcontracts.

1. Davis-Bacon Act
2. Copeland "Anti-Kick Back" Act
3. Federal Labor Standards
4. Environmental Compliance
5. Lead Based Paint Requirements
6. Historic Preservation
7. Energy Efficiency
8. Flood Disaster Protection
9. Special Equal Opportunity Provisions
10. Section 3
11. Conflict of Interest
12. Utilization of Minority and Women-owned Businesses
13. Fair Housing Laws
14. Drug Free Workplace
15. Debarred Contractors
16. Lobbying
17. Access to Records
18. Records Retention

Attachment I - Federal Labor Standards Provisions

Attachment II - Section 3 Clause

1. Davis- Bacon Act- 29 CFR Parts 1,3,5,6 and 7

The contractor agrees to comply with the requirements of the Davis-Bacon Act, which requires the payment of prevailing wage rates (which are determined by the U.S. Department of Labor) to all laborers and mechanics on federally funded construction projects in excess of \$2,000. A Davis-Bacon wage decision (or wage determination) is a listing of various construction work classifications and the minimum wage rates (and fringe benefits, where prevailing) that workers who perform work in those classifications must be paid.

2. Copeland "Anti-Kickback" Act- 18 USC 874 and 40 USC 276c; 29 CFR Part 3

The contractor and subcontractor(s) shall comply with the requirements of the Copeland "Anti-Kickback" Act as supplemented in the U.S. Department of Labor regulations 29 CFR Part 3. The Copeland Act makes it a federal crime for anyone to require any laborer or mechanic (employed on a federally assisted project) to kickback (i.e. give up or pay back) any part of their wages. The Copeland Act requires every contractor and subcontractor to submit weekly payroll reports (certified payroll) and regulates permissible payroll deductions.

3. Federal Labor Standards

The project or program to which the construction work covered by this contract pertains is a federally assisted project and the Federal Labor Standards Provisions are included in this contract pursuant to the provisions applicable to such Federal assistance. See Attachment 1 for a complete copy of these labor standards.

4. Environmental Compliance- Section 306 of the Clean Air Act, Section 508 of the Clean Water Act and EPA Regulations- 42 U.S.C. 1857(h)

The contractor shall comply with the requirements of the Federal Clean Air Act and the Federal Water Pollution Control Act, as amended. Requirements for compliance with these regulations apply to contracts and subcontracts in amounts in excess of \$100,000. all applicable standards, orders, or requirements issued under (), (33 U.S.C. 1368), Executive Order 11738, and U.S. Environmental Protection Agency regulations (40 C.F.R. Part 15).

5. Lead- Based Paint Requirements- 24 CFR Part 35

All housing that is assisted by the contractor through this project with federal funds is subject to the lead-based paint requirements, found at 24 CFR Part 35. These rules apply to properties that were constructed prior to 1978, and require:

- Certain disclosures (in the form of notices) to occupants and applicants about any known or potential lead-based paint hazards
- Testing, assessing, and stabilization or reduction of lead-based paint hazards in accordance with established procedures, based on activity type and level of Federal assistance (for rehabilitation)
- Use of safe work practices
- Certain provisions included in all contracts and subcontracts related to lead-based paint
- Ongoing maintenance to monitor controls put in place to limit the hazards associated with the presence of lead-based paint.

6. Historic Preservation- 16 USC 470; 36 CFR Part 800

The contractor's performance may be subject to the Historic Preservation requirements set forth in the National Historic Preservation Act of 1966, as amended (16 U.S.C. 470) and the procedures set forth in 36 CFR Part 800, Advisory Council on Historic Preservation Procedures for Protection of Historic Properties.

7. Energy Efficiency

The contractor shall comply with any mandatory standards and policies relating to energy efficiency, which are contained in the state energy conservation plan issued in compliance with the Energy Policy and Conservation Act (Public Law 94-163).

8. Flood Disaster Protection- 42 USC 4001

The contractor's performance may be subject to the Flood Disaster Protection Act of 1973 which requires that activities located in an area identified by the Federal Emergency Management Agency (FEMA) as having special flood hazards, flood insurance under the National Flood Insurance Program must be obtained and maintained as a condition of financial assistance for acquisition or construction purposes (including housing rehabilitation.)

9. Special Equal Opportunity Provisions

A. Activities and Contracts Not Subject to Executive Order 11246, as Amended

(Applicable to Federally assisted construction contracts and related subcontracts \$10,000 and under.)

During the performance of this contract, the Contractor agrees as follows:

- i. The Contractor shall not discriminate against any employee or applicant for employment because of race, color, religion, sex, or national origin. The Contractor shall take affirmative action to ensure that applicants for employment are employed, and that employees are treated during employment, without regard to their race, color, religion, sex, or national origin. Such action shall include, but not be limited to, the following: employment, upgrading, demotion, or transfer; recruitment or recruitment advertising; layoff or termination; rates of pay or other forms of compensation; and selection for training, including apprenticeship.
- ii. The Contractor shall post in conspicuous places, available to employees and applicants for employment, notices to be provided by Contracting Officer seeking forth the provisions of this nondiscrimination clause. The Contractor shall state that all qualified applicants be considered without regard to race, color, religion, sex or national origin.
- iii. Contractors shall incorporate foregoing requirements in all subcontracts.

B. Executive Order 11246 (contracts/subcontracts above \$10,000)

During the performance of this contract, the contractor agrees as follows:

- i. Section 202 Equal Opportunity Clause
 - a. The Contractor will not discriminate against any employee or applicant for employment because of race, color, religion, sex, or national origin. The Contractor will take affirmative action to ensure that applicants are employed, and that employees are

treated during employment, without regard to their race, color, religion, sex, or national origin. Such action shall include, but not be limited to, the following: employment, upgrading, demotion, or transfer; recruitment, or recruitment advertising; layoff or termination, rates of pay or other forms of compensation; and selection for training, including apprenticeship. The Contractor agrees to post in a conspicuous place, available to employees and applicants for employment, notices to be provided setting forth the provisions of this nondiscrimination clause.

- b. The Contractor will, in all solicitations or advertisements for employees placed by or on behalf of the Contractor, state that all qualified applicants will receive consideration without regard to race, color, religion, sex, or national origin.
- c. The Contractor will send to each labor union or representative of workers with which he has a collective bargaining agreement or other contract or understanding a notice to be provided by the Contract Compliance Officer advising the said labor union or workers representatives of the Contractors commitment under this section, and shall post copies of the notice in conspicuous places available to employees and applicants for employment.
- d. The Contractor will comply with all provisions of Executive Order 11246 of September 24, 1965, and of the Rules, Regulations, and Relevant Orders of the Secretary of Labor.
- e. The Contractor will furnish all information and reports required by Executive Order 11246 of September 24, 1965, and by rules, regulations, and orders of the Secretary of Labor, or pursuant thereto, and will permit access to his books, records, and accounts by the Department and the Secretary of Labor for purposes of investigation to ascertain compliance with such rules, regulations, and others.

C. Certification of Non-segregated Facilities- E.O. 11246; 41 CFR Part 60-1.8

By the submission of this bid, the bidder, offeror, applicant or subcontractor certifies that he/she does not maintain or provide for his/her employees any segregated facility at any of his/her establishments, and that he/she does not permit employees to perform their services at any location, under his/her control, where segregated facilities are maintained. He/She certifies further that he/she will not maintain or provide for employees any segregated facilities at any of his/her establishments, and he/she will not permit employees to perform their services at any location under his/her control where segregated facilities are maintained. The bidder, offeror, applicant or subcontractor agrees that a breach of this certification is violation of the Equal Opportunity Clause of this contract. As used in this certification, the term segregated facilities means any waiting rooms, work eating areas, time clocks, locker rooms, and other storage or dressing areas, transportation and housing facilities provided for employees

which are in fact segregated on the basis of race, color, religion, or otherwise. He/She further agrees that (except where he/she has obtained identical certifications from proposed subcontractors prior to the award of subcontractors have submitted identical certifications for specific time periods).

D. Equal Employment Opportunity- Title VII of the Civil Rights Act of 1964 E.O. 11246

Under Title VI of the Civil Rights Act of 1964, no person shall, on the grounds of race, color, or national origin, be excluded from participation in, be denied the benefits of, or be subjected to discrimination under any program or activity receiving Federal financial assistance.

E. Americans with Disabilities Act of 1990- E.O. 11250; 42 U.S.C 12131; 24 CFR Part 35

The contractor shall not exclude on the basis of handicap persons from participation in, be denied the benefits of, or be subjected to discrimination under any program or activity receiving Federal financial assistance.

F. Section 109 of the Housing and Community Development Act of 1974

No person in the United States shall on the grounds of race, color, national original, or sex is excluded from participation in, be denied the benefits of, or be subjected to discrimination under any program or activity funded in whole or in part with funds made available under this title.

G. Section 504 of the Rehabilitation Act of 1973- 29 USC 794, 24 CFR Parts 8 and 9

- i. The Contractor will not discriminate against any employee or applicant for employment because of physical or mental handicap in regard to any position for which the employee or applicant for employment is qualified. The Contractor agrees to take affirmative action to employ, advance in employment and otherwise treat qualified handicapped individuals without discrimination based upon their physical or mental handicap in all employment practices such as the following: employment, upgrading, demotion or transfer, recruitment, advertising, layoff or termination, rates of pay or other forms of compensation, and selection for training, including apprenticeship.
- ii. The Contractor agrees to comply with the rules, regulations and relevant orders of the Secretary of Labor issued pursuant to the Act.
- iii. In the event of the Contractors noncompliance with the requirements of this clause, actions for noncompliance may be taken in accordance with the rules, regulations, and relevant orders of the Secretary of Labor issued pursuant to the Act.
- iv. The Contractor agrees to post in conspicuous places, available to employees and applicants for employment, notices in a form to be

prescribed by the Director, provided by or through the contracting officer. Such notices shall state the Contractors obligation under the law to take affirmative action to employ and advance in employment qualified handicapped employees and applicants for employment, and the rights of applicants and employees.

- v. The Contractor will notify each labor union or representative of workers with which it has a collective bargaining agreement or their contract understanding, that the contractor is bound by the terms of Section 503 of the Rehabilitation Act of 1973, and is committed to take affirmative action to employ and advance in employment physically and mentally handicapped individuals.
- vi. The Contractor will include the provisions of this clause in every subcontract or purchase order of \$2,500 or more unless exempted by rules, regulations, or orders of the Secretary issued pursuant to Section 503 of the Act, so that such provisions will be binding upon each subcontractor or vendor. The Contractor will take such action with respect to any subcontract or purchase order as the Director of the Office of Federal Contract Compliance Programs may direct to enforce such provisions, including action for noncompliance.

H. Age Discrimination Act of 1975- 42 U.S.C. 6101, et seq; 24 CFR Part 146

The contractor shall comply with the Age Discrimination Act of 1975, which provides that no person, on the basis of age be excluded from participation in, be denied the benefits of, or be subjected to discrimination under, any program, or activity receiving Federal Financial assistance.

I. NSP 3 Vicinity Hiring and Contracting Preference-

A contractor that is awarded a project involving the use of NSP3 funds, as provided by the Dodd-Frank "Wall Street Reform and Consumer Protection Act" of January 5, 2010, sec 1497 (a)(8), is required to take actions to hire employees who reside in the vicinity of NSP3-funded projects, and provide contracting opportunities to small businesses that are owned and operated by residents in this vicinity.

10. Section 3- 24 CFR Part 75

The contractor shall comply with the purposes of the Section 3 of the Housing and Urban Development Act of 1968 (12 U.S.C. 1701U) (Section 3) and ensure that employment and other economic opportunities generated by HUD funded programs, to the greatest extent feasible, and consistent with Federal, State, and local laws and regulations, be directed to low- and very-low income persons, particularly those who are recipients of government assistance for housing, and to business concerns which provide economic opportunities to low and very low-income persons. Sub-recipients, contractors and subcontractors for a Section 3 project must meet the requirements of § 75.19, regardless of whether Section 3 language is included in related agreements or contracts.

11. Conflict Of Interest- 24 CFR Part 85.36 and 24 CFR Part 570.611

No officer or employee of the local jurisdiction or its designees or agents, no member of the governing body, and no other public official of the locality who exercises any function or responsibility with respect to this contract, during his/her tenure or for one year thereafter, shall have any interest, direct or indirect, in any contract or subcontract, or the proceeds thereof, for work to be performed. Further, the Contractor shall cause to be incorporated in all subcontracts the language set forth in this paragraph prohibiting conflict of interest.

12. Utilization Of Minority And Women Firms (M/WBE)- 24 CFR Part 85 (e)

The contractor shall take affirmative steps to assure that M/WBE firms are utilized when possible as suppliers and/or subcontractors, as applicable.

Prior to contract award, the contractor shall document efforts to utilize M/WBE firms, including identifying what firms were solicited as suppliers and/or subcontractors, as applicable. Information regarding certified M/WBE firms can be obtained from:

- State of Florida at 904-487-4698 (all goods and services)
- State of Florida at 904-921-7370 (construction services, particularly highway)
- Minority Business Development Center in most major cities
- Local government M/WBE programs in many large counties and cities

13. Fair Housing Laws

The contractor shall comply with the Fair Housing Act, and related laws that prohibit discrimination on the basis of race, color, national origin, religion, sex, familial status and handicap in the provision of housing, including rental, purchase, advertising, financing, insurance and multi-family housing on the basis of race, color, national origin, religion, sex, familial status and handicap. The requirements of the Fair Housing Act (42 U.S.C. 3601-20) and implementing regulations at 24 CFR part 100; Executive Order 11063, as amended by Executive Order 12259 (3 CFR, 1958-1063 Comp., p. 652 and 3 CFR, 1980 Comp., p. 307) (Equal Opportunity in Housing) and implementing regulations at 24 CFR part 107; and title VI of the Civil Rights Act of 1964 (42 U.S.C. 2000d) (Nondiscrimination in Federally Assisted Programs) and implementing regulations issued at 24 CFR part 1 shall apply to any housing related contract awarded hereunder.

14. Drug Free Workplace- 41 USC 701, 24 CFR Part 21

The Contractor shall comply with the requirements of the Drug-Free Workplace Act of 1988. The Contractor certifies to comply with the drug-free workplace requirements in accordance with the Act, and with U.S. Department of Housing and Urban Development regulations.

15. Debarred Contractors

This project is subject to requirements prohibiting use of federal funds to directly or indirectly employ, award contracts to, or otherwise engage the services of any contractor, subcontractor or subrecipient during any period of federal debarment, suspension, or placement of ineligibility status. The County is required to check the eligibility status of all contractors, subcontractors, and subrecipients against the federal publication that lists debarred and ineligible contractors. This list can be found on the The System for Award Management (SAM) at <https://www.sam.gov>

16. Lobbying

The Contractor certifies, to the best of his or her knowledge and belief, that:

- A. No federally appropriated funds have been paid or will be paid, by or on behalf of the Contractor, to any person for influencing or attempting to influence an officer or employee of any agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with the awarding of any federal loan, the entering into of any cooperative agreement, or the extension, continuation, renewal, amendment, or modification of any federal contract, grant, loan or cooperative agreement.
- B. If any funds other than federally appropriated funds have been paid or will be paid to any person for influencing or attempting to influence an officer or employee of any agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with this federal contract, grant, loan, or cooperative agreement, the undersigned shall complete and submit Standard Form-LLL, "Disclosure Form to Report Lobbying," in accordance with its instructions.
- C. The Contractor shall require that the language of this certification be included in the award documents for all sub-awards at all tiers including subcontracts, sub-grants, and contracts under grants, loans, and cooperative agreements.
- D. This certification is a material representation of fact upon which reliance was placed when this contract was made or entered into. Agreement to this certification is a prerequisite for making or entering into this contract imposed by Section 1352, title 31, U.S. Code. Any person or agency that makes an expenditure prohibited by this section is subject to a civil penalty from \$10,000 up to \$100,000 for each failure. This penalty also applies to any person or agency that fails to submit or amend the disclosure form (LLL), when required. Failure to submit the required certification may result in payment under this contract being delayed or denied.

17. Access to Records- 24 CFR Part 85.42 (e) & (f)

The contractor shall give access to all records, pertinent books, documents, papers or other records related to this contract to the awarding agency, the County of Volusia, the U.S. Department of Housing and Urban Development, the Comptroller General of the United States, and any of their duly authorized representatives for the purpose of making audit, examination, excerpts, and transcriptions as needed.

18. Records Retention- 24 CFR Part 85.42 (a)-(d)

The contractor shall comply with the CDBG records retention regulations. Financial, program, supporting, and other records pertinent to this contract and the grant program shall be maintained for five years after the local government makes final payment and all other pending matters are closed.

Attachment I

FEDERAL LABOR STANDARDS PROVISIONS

U.S. Department of Housing
And Urban DevelopmentHUD-4010
(7/03)**Applicability**

The project or program to which the construction work covered by this contract pertains is being assisted by the United States of America and the following Federal Labor Standards Provisions are included in this contract pursuant to the provisions applicable to such Federal assistance.

A. 1. (i) Minimum Wages. All laborers and mechanics employed or working upon the site of the work (or under the United States Housing Act of 1937 or under the Housing Act of 1949 in the construction or development of the project), will be paid unconditionally and not less often than once a week, and without subsequent deduction or rebate on account (except such payroll deductions as are permitted by regulations issued by the Secretary of Labor under the Copeland Act (29 CFR Part 3), the full amount of wages and bona fide fringe benefits (or cash equivalents thereof) due at the time of payment computed at rates not less than those contained in the wage determination of the Secretary of Labor which is attached hereto and made part hereof, regardless of any contractual relationship which may be alleged to exist between the contractor and such laborers and mechanics. Contributions made or costs reasonably anticipated for bona fide fringe benefits under section 1(b)(2) of the Davis-Bacon Act on behalf of laborers or mechanics are considered wages paid to such laborers or mechanics, subject to the provisions of 29 CFR-5.5(a)(1)(iv); also regular contributions made or costs incurred for more than a weekly period (but not less often than quarterly) under plans, funds, or programs, which cover the particular weekly period, are deemed to be constructively made or incurred during such weekly period.

Such laborers and mechanics shall be paid the appropriate wage rate and fringe benefits on the wage determination for the classification of work actually performed, without regard to skill, except as provided in 29 CFR Part 5.5(a)(1)(ii) and the Davis-Bacon poster (WH-1321) shall be posted at all times by the contractor and its sub-contractors at the site of the work in a prominent and accessible place where it can be easily seen by the workers.

(ii) (a) Any class of laborers or mechanics which is not listed in the wage determination and which is to be employed under the contract shall be classified in conformance with the wage determination. HUD shall approve an additional classification and wage rate and fringe benefits therefore only when the following criteria have been met:

- (1)** The work to be performed by the classification requested is not performed by a classification in the wage determination; and
 - (2)** The classification is utilized in the area by the construction industry; and
 - (3)** The proposed wage rate, including any bona fide fringe benefits, bears a reasonable relationship to the wage rates contained in the wage determination.
- (b)** If the contractor and the laborers and mechanics employed in the classification (if known, or their representatives, and HUD or its designee agree on the classification and wage rate (including the amount designated for fringe benefits where appropriate), a report of the action taken shall be sent to HUD or its designee to the Administrator of the Wage and Hour Division, Employment Standards Administration, U.S. Department of Labor, Washington, D.C. 20210. The Administrator, or an authorized representative, will approve, modify, or disapprove every additional classification action within 30 days of receipt and so advise HUD or its designee or will notify HUD or its designee within the 30-day period that additional time is necessary. (approved by the Office of Management and Budget under OMB control number 1215-0140.)
- (c)** In the event the contractor, the laborers or mechanics to be employed in the classification or their representatives, and HUD or its designee do not agree on the proposed classification and wage rate (including the amount designated for fringe benefits, where appropriate). HUD or its

designee shall refer the questions, including the views of all interested parties and the recommendation of HUD or its designee, to the Administrator for determination. The Administrator, or an authorized representative, will issue a determination within 30 days of receipt and so advise HUD or its designee or will notify HUD or its designee with the 30-day period that additional time is necessary. (Approved by the Office of Management and Budget under OMB Control Number 1215-0140.)

- (d) The wage rate (including fringe benefits where appropriate) determined pursuant to subparagraphs (1) (b) or (c) of this paragraph, shall be paid to all workers performing work in the classification under this contract from the first day on which work is performed in the classification.

(iii) Whenever the minimum wage rate prescribed in the contract for a class of laborers or mechanics includes a fringe benefit which is not expressed as an hourly rate, the contractor shall either pay the benefit as stated in the wage determination or shall pay another bona fide fringe benefit or an hourly cash equivalent thereof.

(iv) If the contractor does not make payments to a trustee or other third person, the contractor may consider as part of the wages of any laborer or mechanic the amount of any costs reasonably anticipated in providing bona fide fringe benefits under a plan or program, provided that the Secretary of Labor has found, upon the written request of the contractor, that the applicable standards of the Davis-Bacon Act have been met. The Secretary of Labor may require the contractor to set aside in a separate account assets for the meeting of obligations under the plan or program. (Approved by the Office of Management and Budget under OMB Control Number 1215-0140.)

2. Withholding. HUD or its designee shall upon its own action or upon written request of an authorized representative of the Department of Labor withhold or cause to be withheld from the contractor under this contract or any other Federally contract with the same prime contractor, or any other Federally assisted contract subject to Davis Bacon prevailing wage requirements, which is held by the same prime contractor so much of the accrued payments or advances as may be considered necessary to pay laborers and mechanics, including apprentices, trainees and helpers employed by the contractor or any subcontractor the full amount of wages required by the contract. In the event of failure to pay any laborer or mechanic, including any apprentice, trainee or helper, employed or working on the site of the work (or under the United States Housing Act of 1937 or under the Housing Act of 1949 in the construction or development of the project), all or part of the wages required by the contract, HUD or its designee may, after written notice to the contractor, sponsor, applicant, or owner, take such action as may be necessary to cause the suspension of any further payment, advance, or guarantee of funds until such violation have ceased. HUD or its designee may, after written notice to the contractor, disburse such amounts withheld for and on account of the contractor or subcontractor to the respective employees to whom they are due. The Comptroller General shall make such disbursements in the case of direct Davis-Bacon Act contracts.

3. (i) Payroll and basic records. Payroll and basic records related thereto shall be maintained by the contractor during the course of the work preserved for a period of three years thereafter for all laborers and mechanics working at the site of the work (or under the United States Housing Act of 1937 or under the Housing Act of 1949, in the construction or development of the project). Such records shall contain the name, address, and social security number of each such worker, his or her correct classification, hourly rates of wages paid (including rates of contributions or costs anticipated for bona fide fringe benefits or cash equivalents thereof of the types described in Section 1(b) (2) (B) of the Davis bacon Act), daily and weekly number of hours worked, deductions made and actual wages paid. Whenever the Secretary of Labor has found under 29 CFR 5.5 (a)(1)(iv) that the wages of any laborer or mechanic include the amount of any costs reasonably anticipated in providing benefits under a plan or program described in Section 1(b)(2)(B) of the Davis-Bacon Act, the contractor shall maintain records which show that the commitment to provide such benefits is enforceable, that the plan or program is financially responsible, and that the plan or program has been communicated in writing to the laborers or mechanics affected, and records which show the costs anticipated or the actual cost incurred in providing such benefits. Contractors employing apprentices or trainees under approved programs shall maintain written evidence of the registration of apprenticeship programs and certification of trainee programs, the registration of the apprentices and trainees, and the ratios and wage rates prescribed in the applicable programs (Approved by the Office of Management and Budget under OMB Control Numbers 1215-0140 and 1215-0017.)

(ii) (a) The contractor shall submit weekly for each week in which any contract work is performed a copy of all payrolls to HUD or its designee if the agency is a party to the contract, but if the agency is not such a party, the contractor will submit the payrolls to the applicant sponsor, or owner, as the case may be, for transmission to HUD or its designee. The payrolls submitted shall set out accurately and completely, all of the information required to be maintained under 29 CFR Part 5.5(a) (3) (i). This information may be submitted in any form desired. Optional Form WH-347 is available for this purpose and may be purchased from the Superintendent of Documents (Federal Stock Number 029-005-00014-1), U.S. Government Printing Office, Washington D.C. 20402. The prime contractor is responsible for the submission of copies of payrolls by all subcontractors. (Approved by the Office of Management and Budget under OMB Control Number 1215-0149.)

(b) Each payroll submitted shall be accompanied by a "Statement of Compliance," signed by the contractor or subcontractor or his or her agent who pays or supervises the payment of the persons employed under the contract and shall certify the following:

(1) That the payroll for the payroll period contains the information required to be maintained under 29 CFR Part 5.5 (a) (3) (i) and that such information is correct and complete:

(2) That each laborer or mechanic (including each helper, apprentice, and trainee) employed on the contract during the payroll period has been fully paid the full weekly wages earned, without rebate, either directly or indirectly, and that no deductions have been made either directly or indirectly from the full wages earned, other than the permissible deductions as set forth in 29 CFR Part 3;

(3) That each laborer or mechanic has been paid not less than the applicable wage rates and fringe benefits or cash equivalents for the classification of work performed, as specified in the applicable wage determination incorporated into the contract.

(c) The weekly submission of a properly executed certification set forth on the reverse side of WH-347 shall satisfy the requirement of submission of the: "Statement of Compliance" required by paragraph A.3. (ii)(b) of this section

(d) The falsification of any of the above certifications may subject the contractor or subcontractor to civil or criminal prosecution under Section 1001 of Title 18 and Section 231 of Title 31 of the United States Code.

(iii) The contractor or subcontractor shall make the records required under paragraph A.3.(i) of this section available for inspection, copying, or transcription by authorized representatives of HUD or its designee or the Department of Labor, and shall permit such representatives to interview employees during working hours on the job. If the contractor or subcontractor fails to submit the required records or to make them available, HUD or its designee may, after written notice to the contractor, sponsor, applicant, or owner, take such action as may be necessary to cause the suspension of any further payment advance, or guarantee of funds. Furthermore, failure to submit the required records upon request or to make such records available shall be grounds for debarment action pursuant to 29 CFR 5.12.

4. Apprentices and Trainees.

(i) Apprentices. Apprentices will be permitted to work at less than the predetermined rate for the work they perform when they are employed pursuant to and individually registered in a bona fide apprenticeship program registered with the U.S. Department of Labor, Employment and Training Administration, Bureau of Apprenticeship and Training, or with a State Apprenticeship Agency recognized by the Bureau, or if a person is employed in his or her first 90 days of probationary employment as an apprentice in such an apprenticeship program, who is not individually registered in the program, but who has been certified by the Bureau of Apprenticeship and Training or a State Apprenticeship Agency (where appropriate) to be eligible for probationary employment as an apprentice. The allowable ratio of apprentices to journeyman on the job site in any craft classification shall not be greater than the ratio permitted to the contractor as to the entire work force under the registered program. Any worker listed on a payroll at an apprentice wage rate, which is not registered or otherwise employed as stated above, shall be paid not less than the applicable wage rate on the wage determination for the classification of work actually performed. In addition, any apprentice performing work on the job site in excess of the ratio permitted under the registered program shall be paid not less than the applicable wage rate on the wage determination for the work actually performed. Where a contractor is

performing construction on a project in a locality other than that in which its program is registered, the ratios and wage rates (expressed in percentages of the journeyman's hourly rate) specified in the contractor's or subcontractors registered program shall be observed. Every apprentice must be paid at not less than the rate specified in the registered program for the apprentice's level of progress, expressed as a percentage of the journeymen hourly rate specified in the applicable wage determination. Apprentices shall be paid fringe benefits in accordance with the provisions of the apprenticeship program. If the apprenticeship program does not specify fringe benefits, apprentices must be paid the full amount of fringe benefits listed on the wage determination for the applicable classification. If the Administrator determines that a different practice prevails for the applicable apprentice classification, fringes shall be paid in accordance with that determination. In the event the Bureau of Apprenticeship and Training, or a State Apprenticeship Agency recognized by the Bureau, withdraws approval of an apprenticeship program, the contractor will no longer be permitted to utilize apprentices at less than the applicable predetermined rate for the work performed until an acceptable program is approved.

(ii) Trainees. Except as provided in 29 CFR 5.16, trainees will not be permitted to work at less than the predetermined rate for the work performed unless they are employed pursuant to and individually registered in a program which has received prior approval, evidenced by formal certification by the U.S. Department of Labor, Employment and Training. The ratio of trainees to journeymen on the job site shall not be greater than permitted under the plan approved by the Employment and Training Administration. Every trainee must be paid not less than the rate specified in the approved program for the trainee's level of progress, expressed as a percentage of the journeyman hourly rate specified in the applicable wage determination. Trainees shall be paid fringe benefits in accordance with the provisions of the training program. If the trainee program does not mention fringe benefits, trainees shall be paid the full amount of fringe benefits listed in the wage determination unless the Administrator of the Wage and Hour Division determines that there is an apprenticeship program associated with the corresponding journeyman wage rate on the wage determination which provides for less than full fringe benefits for apprentices. Any employee listed on the payroll at a trainee rate that is not registered and participating in a training plan approved by the Employment and Training Administration shall be paid not less than the applicable wage rate on the wage determination for the work actually performed. In addition, any trainee performing work on the job site in excess of the ratio permitted under the registered program shall be paid not less than the applicable wage rate on the wage determination for the work actually performed. In the event the Employment and Training Administration withdraws approval of a training program, the contractor will no longer be permitted to utilize trainees at less than the applicable predetermined rate for the work performed until an acceptable program is approved.

(iii) Equal employment opportunity. The utilization of apprentices, trainees and journeymen under this part shall be in conformity with the equal employment opportunity requirements of Executive Order 11246, as amended and 29 CFR Part 30.

5. Compliance with Copeland Act requirements. The contractor shall comply with the requirements of 29 CFR Part 3 which are incorporated by reference in this contract.

6. Subcontracts. The contractor or subcontractor will insert in any subcontracts the clauses contained in 29 CFR 5.5(a)(1) through (10) and such other clauses as HUD or its designee may by appropriate instructions require, and also a clause requiring the subcontractors to include these clauses in any lower tier subcontracts. The prime contractor shall be responsible for the compliance by any subcontractor or lower tier subcontractor with all the contract clauses in 29 CFR Part 5.5.

7. Contract termination; debarment. A breach of the contract clauses in 29 CFR 5.5 may be grounds for termination of the contract and for debarment as a contractor and a subcontractor as provided in 29 CFR 5.12.

8. Compliance with Davis-Bacon and Related Act requirements. All rulings and interpretations of the Davis-Bacon and related Acts contained in 29 CFR Parts 1, 3, and 5 are herein incorporated by reference in this contract.

9. Disputes concerning labor standards. Disputes arising out of the labor standards provisions of this contract shall not be subject to the general disputes clause of this contract. Such disputes shall be resolved in accordance with the procedures of the Department of Labor set forth in 29 CFR Parts 5, 6, and 7. Disputes within the meaning of this clause include disputes between the contractor (or any of its

subcontractors) and HUD or its designee, the U.S. Department of Labor, or the employees or their representatives.

10. (i) Certification of Eligibility. By entering into this contract the contractor certifies that neither it (nor he or she) nor any person or firm who has an interest in the contractor's firm is a person or firm ineligible to be awarded Government contracts by virtue of Section 3(a) of the Davis-Bacon Act or 29 CFR 5.12(a) (1) or to be awarded HUD contracts or participate in HUD programs pursuant to 24 CFR Part 24.

(ii) No part of this contract shall be subcontracted to any person or firm ineligible for award of a Government contract by virtue of Section 3(a) of the Davis-Bacon Act or 29 CFR 5.12(a)(1) or to be awarded HUD contracts or participate in HUD programs pursuant to 24 CFR Part 24.

(iii) The penalty for making false statements is prescribed in the U.S. Criminal Code, 18 U.S.C 1001. Additionally, U.S. Criminal Code, Section 1 01 0, Title 18, U.S.C., "Federal Housing Administration transactions", provides in part: "Whoever, for the purpose of ... influencing in any way the action of such Administration....makes, utters or publishes any statement knowing the same to be false shall be fined not more than \$5,000 or imprisoned not more than two years, or both."

11. Complaints, Proceedings, or Testimony by Employees. No laborer or mechanic to whom the wage, salary, or other labor standards provisions of this Contract are applicable shall be discharged or in any manner discriminated against by the Contractor or any subcontractor because such employee has filed any complaint or instituted or caused to be instituted any proceeding or has testified or is about to testify in any proceeding under or related to the labor standards applicable under this Contract to his employer.

B. Contract Work Hours and Safety Standards Act. As used in this paragraph, the terms "laborers" and "mechanic" include watchmen and guards.

(1) Overtime requirements. No contractor or subcontractor contracting for any part of the contract work which may require or involve the employment of laborers or mechanics shall require or permit any such laborer or mechanic in any workweek in which he or she is employed on such work to work in excess of eight hours in any calendar day or in excess of forty hours in such workweek unless such laborer or mechanic receives compensation at a rate not less than one and one-half times the basis rate of pay for all hours worked in excess of eight hours in any calendar day or in excess of forty hours in such workweek, whichever is greater.

(2) Violation; liability for unpaid wages; liquidated damages. In the event of any violation of the clause set forth in subparagraph (1) of this paragraph, the contractor and any subcontractor responsible therefore shall be liable for the unpaid wages. In addition, such contractor and subcontractor shall be liable to the United States (in the case of work done under contract for the District of Columbia or a territory, to such District or to such territory), for liquidated damages. Such liquidated damages shall be computed with respect to each individual laborer or mechanic, including watchmen and guards, employed in violation of the clause set forth on subparagraph (1) of this paragraph, in the sum of \$10 for each calendar day on which such individual was required or permitted to work in excess of eight hours or in excess of the standard workweek of forty hours without payment of the overtime wages required by the clause set forth in sub paragraph (1) of this paragraph.

(3) Withholding for unpaid wages and liquidated damages. HUD or its designee shall upon its own action or upon written request of an authorized representative of the Department of Labor withhold or cause to be withheld, from any moneys payable on account of work performed by the contractor or subcontractor under any such contract, or any other Federal contract with the same prime contract, or any other federally-assisted contract subject to the Contract Work Hours and Safety Standards Act which is held by the same prime contractor such sums as may be determined to be necessary to satisfy any liabilities of such contractor or subcontractor for unpaid wages and liquidated damages as provided in the clause set forth in subparagraph (2) of this paragraph.

(4) Subcontracts. The contractor or subcontractor shall insert in any subcontracts the clauses set forth in subparagraph (1) through (4) of this paragraph and also a clause requiring the subcontracts to include these clauses in any lower tier subcontracts, The prime contractor shall be responsible for compliance by any

Labor Standards Provisions (Con't)

subcontractor or lower tier subcontractor with the clauses set forth in subparagraphs (1) through (4) of this paragraph.

C. Health and Safety

(1) No laborer or mechanic shall be required to work in surroundings or under working conditions, which are unsanitary, hazardous, or dangerous to his health and safety as determined under construction safety and health standards promulgated by the Secretary of Labor, by regulation.

(2) The Contractor shall comply with all regulations issued by the Secretary of Labor pursuant to Title 29 Part 1926 (formerly part 1518) and failure to comply may result in imposition of sanctions pursuant to the Contract Work Hours and Safety Standards Act (Public Law 91-54, 83 Stat 96).

(3) The Contractor shall include the provisions of this Article in every subcontract so that such provisions will be binding on each subcontractor. The Contractor shall take such action with respect to any subcontract as the Secretary of Housing and Urban Development or the Secretary of Labor shall direct as a means of enforcing such provisions.

Wage and Hour Division (WHD)

Instructions For Completing Payroll Form, WH-347

- [WH-347](#) (PDF)
OMB Control No. 1235-0008, Expires 04/30/2021.

General: Form WH-347 has been made available for the convenience of contractors and subcontractors required by their Federal or Federally-aided construction-type contracts and subcontracts to submit weekly payrolls. Properly filled out, this form will satisfy the requirements of Regulations, Parts 3 and 5 (29 C.F.R., Subtitle A), as to payrolls submitted in connection with contracts subject to the Davis-Bacon and related Acts.

While completion of Form WH-347 is optional, it is mandatory for covered contractors and subcontractors performing work on Federally financed or assisted construction contracts to respond to the information collection contained in 29 C.F.R. §§ 3.3, 5.5(a). The Copeland Act (40 U.S.C. § 3145) requires contractors and subcontractors performing work on Federally financed or assisted construction contracts to "furnish weekly a statement with respect to the wages paid each employee during the preceding week." U.S. Department of Labor (DOL) Regulations at 29 C.F.R. § 5.5(a)(3)(ii) require contractors to submit weekly a copy of all payrolls to the Federal agency contracting for or financing the construction project, accompanied by a signed "Statement of Compliance" indicating that the payrolls are correct and complete and that each laborer or mechanic has been paid not less than the proper Davis-Bacon prevailing wage rate for the work performed. DOL and federal contracting agencies receiving this information review the information to determine that employees have received legally required wages and fringe benefits.

Under the Davis-Bacon and related Acts, the contractor is required to pay not less than prevailing wage, including fringe benefits, as predetermined by the Department of Labor. The contractor's obligation to pay fringe benefits may be met either by payment of the fringe benefits to bona fide benefit plans, funds or programs or by making payments to the covered workers (laborers and mechanics) as cash in lieu of fringe benefits.

This payroll provides for the contractor to show on the face of the payroll all monies to each worker, whether as basic rates or as cash in lieu of fringe benefits, and provides for the contractor's representation in the statement of compliance on the payroll (as shown on page 2) that he/she is paying for fringe benefits required by the contract and not paid as cash in lieu of fringe benefits. Detailed instructions concerning the preparation of the payroll follow:

Contractor or Subcontractor: Fill in your firm's name and check appropriate box.

Address: Fill in your firm's address.

Payroll No.: Beginning with the number "1", list the payroll number for the submission.

For Week Ending: List the workweek ending date.

Project and Location: Self-explanatory.

Project or Contract No.: Self-explanatory.

Column 1 - Name and Individual Identifying Number of Worker: Enter each worker's full name and an individual identifying number (e.g., last four digits of worker's social security number) on each weekly payroll submitted.

Column 2 - No. of Withholding Exemptions: This column is merely inserted for the employer's convenience and is not a requirement of Regulations, Part 3 and 5.

Column 3 - Work Classifications: List classification descriptive of work actually performed by each laborer or mechanic. Consult classification and minimum wage schedule set forth in contract specifications. If additional classifications are deemed necessary, see Contracting Officer or Agency representative. An individual may be shown as having worked in more than one classification provided an accurate breakdown of hours worked in each classification is maintained and shown on the submitted payroll by use of separate entries.

Column 4 - Hours worked: List the day and date and straight time and overtime hours worked in the applicable boxes. On all contracts subject to the Contract Work Hours Standard Act, enter hours worked in excess of 40 hours a week as "overtime".

Column 5 - Total: Self-explanatory

Column 6 - Rate of Pay (Including Fringe Benefits): In the "straight time" box for each worker, list the actual hourly rate paid for straight time worked, plus cash paid in lieu of fringe benefits paid. When recording the straight time hourly rate, any cash paid in lieu of fringe benefits may be shown separately from the basic rate. For example, "\$12.25/.40" would reflect a \$12.25 base hourly rate plus \$0.40 for fringe benefits. This is of assistance in correctly computing overtime. See "Fringe Benefits" below. When overtime is worked, show the overtime hourly rate paid plus any cash in lieu of fringe benefits paid in the "overtime" box for each worker; otherwise, you may skip this box. See "Fringe Benefits" below. Payment of not less than time and one-half the basic or regular rate paid is required for overtime under the Contract Work Hours Standard Act of 1962 if the prime contract exceeds \$100,000. In addition to paying no less than the predetermined rate for the classification which an individual works, the contractor must pay amounts predetermined as fringe benefits in the wage decision made part of the contract to approved fringe benefit plans, funds or programs or shall pay as cash in lieu of fringe benefits. See "FRINGE BENEFITS" below.

Column 7 - Gross Amount Earned: Enter gross amount earned on this project. If part of a worker's weekly wage was earned on projects other than the project described on this payroll, enter in column 7 first the amount earned on the Federal or Federally assisted project and then the gross amount earned during the week on all projects, thus "\$163.00/\$420.00" would reflect the earnings of a worker who earned \$163.00 on a Federally assisted construction project during a week in which \$420.00 was earned on all work.

Column 8 - Deductions: Five columns are provided for showing deductions made. If more than five deduction are involved, use the first four columns and show the balance deductions under "Other" column; show actual total under "Total Deductions" column; and in the attachment to the payroll describe the deduction(s) contained in the "Other" column. All deductions must be in accordance with the provisions of the Copeland Act Regulations, 29 C.F.R., Part 3. If an individual worked on other jobs in addition to this project, show actual deductions from his/her weekly gross wage, and indicate that deductions are based on his gross wages.

Column 9 - Net Wages Paid for Week: Self-explanatory.

Totals - Space has been left at the bottom of the columns so that totals may be shown if the contractor so desires.

Statement Required by Regulations, Parts 3 and 5: While the "statement of compliance" need not be notarized, the statement (on page 2 of the payroll form) is subject to the penalties provided by 18 U.S.C. § 1001, namely, a fine, possible imprisonment of not more than 5 years, or both. Accordingly, the party signing this statement should have knowledge of the facts represented as true.

Items 1and 2: Space has been provided between items (1) and (2) of the statement for describing any deductions made. If all deductions made are adequately described in the "Deductions" column above, state

"See Deductions column in this payroll." See "FRINGE BENEFITS" below for instructions concerning filling out paragraph 4 of the statement.

Item 4 FRINGE BENEFITS - Contractors who pay all required fringe benefits: If paying all fringe benefits to approved plans, funds, or programs in amounts not less than were determined in the applicable wage decision of the Secretary of Labor, show the basic cash hourly rate and overtime rate paid to each worker on the face of the payroll and check paragraph 4(a) of the statement on page 2 of the WH-347 payroll form to indicate the payment. Note any exceptions in section 4(c).

Contractors who pay no fringe benefits: If not paying all fringe benefits to approved plans, funds, or programs in amounts of at least those that were determined in the applicable wage decision of the Secretary of Labor, pay any remaining fringe benefit amount to each laborer and mechanic and insert in the "straight time" of the "Rate of Pay" column of the payroll an amount not less than the predetermined rate for each classification plus the amount of fringe benefits determined for each classification in the application wage decision. Inasmuch as it is not necessary to pay time and a half on cash paid in lieu of fringe benefits, the overtime rate shall be not less than the sum of the basic predetermined rate, plus the half time premium on basic or regular rate, plus the required cash in lieu of fringe benefits at the straight time rate. In addition, check paragraph 4(b) of the statement on page 2 the payroll form to indicate the payment of fringe benefits in cash directly to the workers. Note any exceptions in section 4(c).

Use of Section 4(c), Exceptions

Any contractor who is making payment to approved plans, funds, or programs in amounts less than the wage determination requires is obliged to pay the deficiency directly to the covered worker as cash in lieu of fringe benefits. Enter any exceptions to section 4(a) or 4(b) in section 4(c). Enter in the Exception column the craft, and enter in the Explanation column the hourly amount paid each worker as cash in lieu of fringe benefits and the hourly amount paid to plans, funds, or programs as fringe benefits. The contractor must pay an amount not less than the predetermined rate plus cash in lieu of fringe benefits as shown in section 4(c) to each such individual for all hours worked (unless otherwise provided by applicable wage determination) on the Federal or Federally assisted project. Enter the rate paid and amount of cash paid in lieu of fringe benefits per hour in column 6 on the payroll. See paragraph on "Contractors who pay no fringe benefits" for computation of overtime rate.

Public Burden Statement: We estimate that it will take an average of 55 minutes to complete this collection of information, including time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. If you have any comments regarding these estimates or any other aspect of this collection of information, including suggestions for reducing this burden, send to the Administrator, Wage and Hour Division, ESA, U.S. Department of Labor, Room S3502, 200 Constitution Avenue, N.W., Washington, D.C. 20210.

PAYROLL

(For Contractor's Optional Use; See Instructions at www.dol.gov/whd/forms/wh347instr.htm)

Persons are not required to respond to the collection of information unless it displays a currently valid OMB control number.



Rev. Dec. 2008

OMB No.: 1235-0008
Expires: 04/30/2021

NAME OF CONTRACTOR ☐ OR SUBCONTRACTOR ☐				ADDRESS										OMB No.: 1235-0008 Expires: 04/30/2021							
PAYROLL NO.			FOR WEEK ENDING				PROJECT AND LOCATION						PROJECT OR CONTRACT NO.								
(1)	(2)	(3)	OT OR ST	(4) DAY AND DATE								(5)	(6)	(7)	(8) DEDUCTIONS					(9)	
NAME AND INDIVIDUAL IDENTIFYING NUMBER (e.g., LAST FOUR DIGITS OF SOCIAL SECURITY NUMBER) OF WORKER	NO. OF WITHHOLDING EXEMPTIONS	WORK CLASSIFICATION										TOTAL HOURS	RATE OF PAY	GROSS AMOUNT EARNED	FICA	WITH- HOLDING TAX			OTHER	TOTAL DEDUCTIONS	NET WAGES PAID FOR WEEK
				HOURS WORKED EACH DAY																	
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While completion of Form WH-347 is optional, it is mandatory for covered contractors and subcontractors performing work on Federally financed or assisted construction contracts to respond to the information collection contained in 29 C.F.R. §§ 3.3, 5.5(a). The Copeland Act (40 U.S.C. § 3145) contractors and subcontractors performing work on Federally financed or assisted construction contracts to "furnish weekly a statement with respect to the wages paid each employee during the preceding week." U.S. Department of Labor (DOL) regulations at 29 C.F.R. § 5.5(a)(3)(ii) require contractors to submit weekly a copy of all payrolls to the Federal agency contracting for or financing the construction project, accompanied by a signed "Statement of Compliance" indicating that the payrolls are correct and complete and that each laborer or mechanic has been paid not less than the proper Davis-Bacon prevailing wage rate for the work performed. DOL and federal contracting agencies receiving this information review the information to determine that employees have received legally required wages and fringe benefits.

Public Burden Statement

We estimate that it will take an average of 55 minutes to complete this collection, including time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. If you have any comments regarding these estimates or any other aspect of this collection, including suggestions for reducing this burden, send them to the Administrator, Wage and Hour Division, U.S. Department of Labor, Room S3502, 200 Constitution Avenue, N.W. Washington, D.C. 20210

Date _____

I, _____
 (Name of Signatory Party) (Title)

do hereby state:

(1) That I pay or supervise the payment of the persons employed by

_____ on the
 (Contractor or Subcontractor)

_____;
 (Building or Work)

_____ day of _____, _____, and ending the _____ day of _____, _____,

all persons employed on said project have been paid the full weekly wages earned, that no rebates have been or will be made either directly or indirectly to or on behalf of said

_____ from the full
 (Contractor or Subcontractor)

weekly wages earned by any person and that no deductions have been made either directly or indirectly from the full wages earned by any person, other than permissible deductions as defined in Regulations, Part 3 (29 C.F.R. Subtitle A), issued by the Secretary of Labor under the Copeland Act, as amended (48 Stat. 948, 63 Stat. 108, 72 Stat. 967; 76 Stat. 357; 40 U.S.C. § 3145), and described below:

(2) That any payrolls otherwise under this contract required to be submitted for the above period are correct and complete; that the wage rates for laborers or mechanics contained therein are not less than the applicable wage rates contained in any wage determination incorporated into the contract; that the classifications set forth therein for each laborer or mechanic conform with the work he performed.

(3) That any apprentices employed in the above period are duly registered in a bona fide apprenticeship program registered with a State apprenticeship agency recognized by the Bureau of Apprenticeship and Training, United States Department of Labor, or if no such recognized agency exists in a State, are registered with the Bureau of Apprenticeship and Training, United States Department of Labor.

(4) That:

(a) WHERE FRINGE BENEFITS ARE PAID TO APPROVED PLANS, FUNDS, OR PROGRAMS

- ☐ — in addition to the basic hourly wage rates paid to each laborer or mechanic listed in the above referenced payroll, payments of fringe benefits as listed in the contract have been or will be made to appropriate programs for the benefit of such employees, except as noted in section 4(c) below.

(b) WHERE FRINGE BENEFITS ARE PAID IN CASH

- ☐ — Each laborer or mechanic listed in the above referenced payroll has been paid, as indicated on the payroll, an amount not less than the sum of the applicable basic hourly wage rate plus the amount of the required fringe benefits as listed in the contract, except as noted in section 4(c) below.

(c) EXCEPTIONS

EXCEPTION (CRAFT)	EXPLANATION

REMARKS:

NAME AND TITLE

SIGNATURE

THE WILLFUL FALSIFICATION OF ANY OF THE ABOVE STATEMENTS MAY SUBJECT THE CONTRACTOR OR SUBCONTRACTOR TO CIVIL OR CRIMINAL PROSECUTION. SEE SECTION 1001 OF TITLE 18 AND SECTION 231 OF TITLE 31 OF THE UNITED STATES CODE.

ATTACHMENT “A”

**CDBG – Highway Wage
Determination (FL20220191)
Requirements**



Superseded General Decision Number: FL20210191

State: Florida

Construction Type: Highway

County: Volusia County in Florida.

HIGHWAY CONSTRUCTION PROJECTS

Note: Contracts subject to the Davis-Bacon Act are generally required to pay at least the applicable minimum wage rate required under Executive Order 14026 or Executive Order 13658. Please note that these Executive Orders apply to covered contracts entered into by the federal government that are subject to the Davis-Bacon Act itself, but do not apply to contracts subject only to the Davis-Bacon Related Acts, including those set forth at 29 CFR 5.1(a)(2)-(60).

If the contract is entered into on or after January 30, 2022, or the contract is renewed or extended (e.g., an option is exercised) on or after January 30, 2022:	. Executive Order 14026 generally applies to the contract. . The contractor must pay all covered workers at least \$15.00 per hour (or the applicable wage rate listed on this wage determination, if it is higher) for all hours spent performing on the contract in 2022.
If the contract was awarded on or between January 1, 2015 and January 29, 2022, and the contract is not renewed or extended on or after January 30, 2022:	. Executive Order 13658 generally applies to the contract. . The contractor must pay all covered workers at least \$11.25 per hour (or the applicable wage rate listed on this wage determination, if it is higher) for all hours spent performing on that contract in 2022.

The applicable Executive Order minimum wage rate will be adjusted annually. If this contract is covered by one of the Executive Orders and a classification considered necessary for performance of work on the contract does not appear on this wage determination, the contractor must still submit a conformance request.

Additional information on contractor requirements and worker protections under the Executive Orders is available at <https://www.dol.gov/agencies/whd/government-contracts>.

Modification Number	Publication Date
0	01/07/2022
1	02/25/2022

ELEC0915-004 12/01/2021

	Rates	Fringes
ELECTRICIAN.....	\$ 31.69	41%+\$0.35

	Rates	Fringes
CARPENTER.....	\$ 15.68	0.00
CEMENT MASON/CONCRETE FINISHER, Includes Form Work.....	\$ 13.97 **	0.00
HIGHWAY/PARKING LOT STRIPING: Operator (Striping Machine).....	\$ 15.57	0.00
HIGHWAY/PARKING LOT STRIPING: Painter.....	\$ 12.13 **	0.00
IRONWORKER, ORNAMENTAL.....	\$ 13.48 **	0.00
IRONWORKER, REINFORCING.....	\$ 15.38	0.00
IRONWORKER, STRUCTURAL.....	\$ 16.42	0.00
LABORER (Traffic Control Specialist).....	\$ 11.36 **	0.00
LABORER: Asphalt, Includes Raker, Shoveler, Spreader and Distributor.....	\$ 14.05 **	0.00
LABORER: Common or General.....	\$ 10.55 **	0.00
LABORER: Flagger.....	\$ 13.09 **	0.00
LABORER: Grade Checker.....	\$ 14.66 **	0.00
LABORER: Mason Tender - Cement/Concrete.....	\$ 12.58 **	0.00
LABORER: Pipelayer.....	\$ 13.46 **	0.00
OPERATOR: Backhoe/Excavator/Trackhoe.....	\$ 14.96 **	0.00
OPERATOR: Bobcat/Skid Steer/Skid Loader.....	\$ 12.88 **	0.00
OPERATOR: Broom/Sweeper.....	\$ 12.91 **	0.00
OPERATOR: Bulldozer.....	\$ 15.23	0.00
OPERATOR: Concrete Finishing Machine.....	\$ 15.44	0.00
OPERATOR: Crane.....	\$ 22.04	0.00
OPERATOR: Curb Machine.....	\$ 18.45	0.00
OPERATOR: Drill.....	\$ 13.04 **	0.00
OPERATOR: Forklift.....	\$ 10.43 **	0.00
OPERATOR: Gradall.....	\$ 14.71 **	0.00
OPERATOR: Grader/Blade.....	\$ 18.20	0.00
OPERATOR: Loader.....	\$ 14.01 **	0.00
OPERATOR: Mechanic.....	\$ 17.52	0.00
OPERATOR: Milling Machine.....	\$ 15.63	0.00

OPERATOR: Oiler.....	\$ 16.67	0.00
OPERATOR: Paver (Asphalt, Aggregate, and Concrete).....	\$ 14.88 **	0.00
OPERATOR: Piledriver.....	\$ 17.23	0.00
OPERATOR: Post Driver (Guardrail/Fences).....	\$ 15.97	0.00
OPERATOR: Roller.....	\$ 13.01 **	0.00
OPERATOR: Scraper.....	\$ 12.21 **	0.00
OPERATOR: Screed.....	\$ 14.66 **	0.00
OPERATOR: Trencher.....	\$ 14.25 **	0.00
PAINTER: Spray.....	\$ 19.57	0.00
TRAFFIC SIGNALIZATION:		
Traffic Signal Installation.....	\$ 14.25 **	0.00
TRUCK DRIVER: Dump Truck.....	\$ 12.28 **	0.00
TRUCK DRIVER: Flatbed Truck.....	\$ 14.28 **	0.00
TRUCK DRIVER: Lowboy Truck.....	\$ 16.25	0.00
TRUCK DRIVER: Slurry Truck.....	\$ 11.96 **	0.00
TRUCK DRIVER: Water Truck.....	\$ 13.57 **	0.00

WELDERS - Receive rate prescribed for craft performing operation to which welding is incidental.

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** Workers in this classification may be entitled to a higher minimum wage under Executive Order 14026 (\$15.00) or 13658 (\$11.25). Please see the Note at the top of the wage determination for more information.

Note: Executive Order (EO) 13706, Establishing Paid Sick Leave for Federal Contractors applies to all contracts subject to the Davis-Bacon Act for which the contract is awarded (and any solicitation was issued) on or after January 1, 2017. If this contract is covered by the EO, the contractor must provide employees with 1 hour of paid sick leave for every 30 hours they work, up to 56 hours of paid sick leave each year. Employees must be permitted to use paid sick leave for their own illness, injury or other health-related needs, including preventive care; to assist a family member (or person who is like family to the employee) who is ill, injured, or has other health-related needs, including preventive care; or for reasons resulting from, or to assist a family member (or person who is like family to the employee) who is a victim of, domestic violence, sexual assault, or stalking. Additional information on contractor requirements and worker protections under the EO is available at <https://www.dol.gov/agencies/whd/government-contracts>.

Unlisted classifications needed for work not included within the scope of the classifications listed may be added after award only as provided in the labor standards contract clauses (29CFR 5.5 (a) (1) (ii)).

The body of each wage determination lists the classification and wage rates that have been found to be prevailing for the cited type(s) of construction in the area covered by the wage determination. The classifications are listed in alphabetical order of ""identifiers"" that indicate whether the particular rate is a union rate (current union negotiated rate for local), a survey rate (weighted average rate) or a union average rate (weighted union average rate).

Union Rate Identifiers

A four letter classification abbreviation identifier enclosed in dotted lines beginning with characters other than ""SU"" or ""UAVG"" denotes that the union classification and rate were prevailing for that classification in the survey. Example: PLUM0198-005 07/01/2014. PLUM is an abbreviation identifier of the union which prevailed in the survey for this classification, which in this example would be Plumbers. 0198 indicates the local union number or district council number where applicable, i.e., Plumbers Local 0198. The next number, 005 in the example, is an internal number used in processing the wage determination. 07/01/2014 is the effective date of the most current negotiated rate, which in this example is July 1, 2014.

Union prevailing wage rates are updated to reflect all rate changes in the collective bargaining agreement (CBA) governing this classification and rate.

Survey Rate Identifiers

Classifications listed under the ""SU"" identifier indicate that no one rate prevailed for this classification in the survey and the published rate is derived by computing a weighted average rate based on all the rates reported in the survey for that classification. As this weighted average rate includes all rates reported in the survey, it may include both union and non-union rates. Example: SULA2012-007 5/13/2014. SU indicates the rates are survey rates based on a weighted average calculation of rates and are not majority rates. LA indicates the State of Louisiana. 2012 is the year of survey on which these classifications and rates are based. The next number, 007 in the example, is an internal number used in producing the wage determination. 5/13/2014 indicates the survey completion date for the classifications and rates under that identifier.

Survey wage rates are not updated and remain in effect until a new survey is conducted.

Union Average Rate Identifiers

Classification(s) listed under the UAVG identifier indicate that no single majority rate prevailed for those classifications; however, 100% of the data reported for the classifications was union data. EXAMPLE: UAVG-OH-0010 08/29/2014. UAVG indicates that the rate is a weighted union average rate. OH indicates the state. The next number, 0010 in the example, is an internal number used in producing the wage determination. 08/29/2014 indicates the survey completion date for the classifications and rates under that identifier.

A UAVG rate will be updated once a year, usually in January of each year, to reflect a weighted average of the current negotiated/CBA rate of the union locals from which the rate is based.

WAGE DETERMINATION APPEALS PROCESS

1.) Has there been an initial decision in the matter? This can be:

- * an existing published wage determination
- * a survey underlying a wage determination
- * a Wage and Hour Division letter setting forth a position on a wage determination matter
- * a conformance (additional classification and rate) ruling

On survey related matters, initial contact, including requests for summaries of surveys, should be with the Wage and Hour National Office because National Office has responsibility for the Davis-Bacon survey program. If the response from this initial contact is not satisfactory, then the process described in 2.) and 3.) should be followed.

With regard to any other matter not yet ripe for the formal process described here, initial contact should be with the Branch of Construction Wage Determinations. Write to:

Branch of Construction Wage Determinations
Wage and Hour Division
U.S. Department of Labor
200 Constitution Avenue, N.W.
Washington, DC 20210

2.) If the answer to the question in 1.) is yes, then an interested party (those affected by the action) can request review and reconsideration from the Wage and Hour Administrator (See 29 CFR Part 1.8 and 29 CFR Part 7). Write to:

Wage and Hour Administrator
U.S. Department of Labor
200 Constitution Avenue, N.W.
Washington, DC 20210

The request should be accompanied by a full statement of the interested party's position and by any information (wage payment data, project description, area practice material, etc.) that the requestor considers relevant to the issue.

3.) If the decision of the Administrator is not favorable, an interested party may appeal directly to the Administrative Review Board (formerly the Wage Appeals Board). Write to:

Administrative Review Board
U.S. Department of Labor
200 Constitution Avenue, N.W.
Washington, DC 20210

4.) All decisions by the Administrative Review Board are final.

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END OF GENERAL DECISIO"



County of Volusia
Community Assistance
110 W. Rich Avenue
DeLand, FL 32720

Minority & Women Business Reporting Form (MWBE) Information and Instructions for Contractors & Subcontractors

Reporting

This report shall be completed by all contractors and subcontractors for reporting contract and subcontract activities for construction projects as required by the County of Volusia Community Assistance Division. Subcontracts of less than \$10,000 must be reported individually only if such contracts represent a significant portion of the total contracting activity.

- Section 7a:
 - ✓ **Amount of Contract/Subcontract:** Enter the dollar amount rounded to the nearest dollar. If subcontractor ID number is provided in 7f, the dollar figure would be for the subcontract only and not for the prime contract.
- Section 7b:
 - ✓ **Type of Trade:** Enter the numeric code which best indicates each contractor's/subcontractor's service type. If subcontractor ID number is provided in 7f, the type of trade code would be for the subcontractor only and not for the prime contractor.
 - * The "other" category includes supply, professional services, and all other activities except construction and education/training activities
- Section 7c:
 - ✓ **Business Racial/Ethnic/Gender Code:** Enter the numeric code which best indicates the racial/ethnic/gender character of the owner(s) and controller(s) of 51% of the business. When 51% or more is not owned and controlled by any single racial/ethnic/gender category, enter the code which seems most appropriate. If the subcontractor ID number is provided, the code would apply to the subcontractor and not the prime contractor
- Section 7d:
 - ✓ **Women Owned Business:** Enter "yes" or "no" to if each listed agency is women owned
- Section 7e:
 - ✓ **Contractor Identification Number:** Enter the Employer (IRS/FEIN) Number of the Prime Contractor as the unique identifier of the prime recipient of HUD funds. Note that the Employer (IRS) Number must be provided for each contract/subcontract awarded.
- Section 7f:
 - ✓ **Subcontractor Identification Number:** Enter the Employer (IRS/FEIN) Number of the subcontractor as the unique identifier for each subcontract awarded from HUD funds. When the subcontractor ID number is provided, the respective Prime Contractor ID Number must also be provided.
- Section 7g:
 - ✓ **Contractor/Subcontractor Business Name and Address:** Enter this information for each firm receiving contract/subcontract activity only one time on each report for each firm.

County of Volusia Community Assistance Division - Contract and Subcontract - Minority and Women Business Reporting Form

Project Name: _____

Amount of Contract or Subcontract 7a.	Type of Trade Code (See below) 7b.	Contractor or Subcontractor Business Racial/Ethnic (See below) 7c.	Woman Owned Business (Yes or No) 7d.	Prime Contractor Identification Number (IRS/FEIN) 7e.	Subcontractor Identification Number (IRS/FEIN) 7f.	Contractor/Subcontractor Business Name and Address 7g.				
						Business Name	Street	City	State	Zip

Name/Title: _____

Signature: _____

Date: _____

7b: Type of Trade Codes:
CPD

- 1 = New Construction
2 = Education/Training
3 = Other

7c: Racial/
Ethnic Codes

- 1= White Americans
2= Black Americans
3= Native Americans
4= Hispanic American
5= Asian/Pacific American



Section 3 Information

What is Section 3?

Section 3 is a provision of the Housing and Urban Development Act of 1968. The purpose of Section 3 is to ensure that employment and other economic opportunities generated by certain HUD financial assistance shall, to the greatest extent feasible, and consistent with existing Federal, State and local laws and regulations, be directed to low- and very low income persons; particularly those who are recipients of government assistance for housing or residents of the community in which the Federal assistance is provided.

What is a Section 3 Business Concern?

A business concern meeting at least one of the following criteria, documented within the last six-month period:

- Owned and controlled by at least 51% low- or very low-income persons;
- Over 75% of the labor hours performed for the business over the prior three-month period performed by Section 3 workers;
- Owned and controlled by at least 51% current public housing residents or residents currently living in Section-8 assisted housing

What is a Section 3 Worker?

A Section 3 worker is any worker who currently fits, or if hired on or after 11/30/20 fit, one the following categories, as documented:

- A worker whose annual income is at or below the 80% income limit as established by HUD
- A worker employed by a documented Section 3 Business Concern
- A worker that is a YouthBuild participant

What is a Targeted Section 3 Worker?

For Community Development funded projects, a Targeted Section 3 worker is:

- A worker employed by a documented Section 3 Business Concern; or
- A worker who currently fits, or if hired on or after 11/30/20 fit, one the following categories, as documented:
 - A worker living within the service area of the project, as defined at § 75.5; or
 - A worker that is a YouthBuild participant

Are there contract provisions related to Section 3?

Yes; all contracts for Section 3 covered projects must include language applying Section 3 requirements to any subrecipient agreement or contract for a Section 3 project. Sub-recipients, contractors and subcontractors for a Section 3 project must meet the requirements of § 75.19, regardless of whether Section 3 language is included in related agreements or contracts.

What information is required for Section 3 Reporting?

For Community Development funded projects, the following may be required:

- Section 3 Business Concern Certification
- Section 3 Project Workforce form
- Section 3 Certification form, when applicable
- Supporting documents for those claiming status as of Section 3 Business Concerns, Section 3 Worker, and/or Section 3 Targeted Worker
- Any other information requested by Volusia County to ensure Section 3 compliance



County of Volusia
Community Assistance
110 W. Rich Avenue
DeLand, FL 32720



Section 3 Business Concern Certification

This document must be completed and returned from the primary bidder with their bid submission. Bids submitted for certain federally assisted projects that do not include this completed document may be considered non-responsive and not be eligible for award.

This document may be required from all sub-contractors prior to project award as well.

Project Name: _____
 Agency Name: _____
 Contact person: _____ Title: _____
 Address of business: _____
 Telephone number: _____ Fax number: _____
 E-mail address: _____
 Federal Employer Identification Number/SSN: _____

1. Type of business:
 (Check one) ☐ Corporation ☐ Sole Proprietorship ☐ Partnership ☐ Joint Venture

2. Type of Contractor for project: (Check one) ☐ Prime Contractor ☐ Sub-Contractor

3. Check where applicable and provide required documentation*:

- ☐ The business is **NOT** claiming a Section 3 Business Concern status.
- ☐ The business **IS** claiming a Section 3 Business Concern status based on the following:
- ☐ 51% or more of the business is owned and controlled by low- or very low-income persons
2021 AMI → Maximum annual gross income for very low-income individual: \$ 22,900
 Maximum annual gross income for very low-income individual: \$ 36,650
 - ☐ Over 75% of the labor hours performed for the business over the prior three-month period were performed by Section 3 workers
 - ☐ 51% or more of the business is owned and controlled by current public housing residents or residents currently living in Section-8 assisted housing

**To be considered; documentation from within the last six-month period for the criteria selected must be provided.*

I certify to the best of my knowledge that the information contained here within is true and correct.

Print name: _____
 Signature: _____
 Title: _____

Date: _____

NOTE: Volusia County shall maintain this form and supporting documentation a minimum of five years in the project files for review during monitoring. The contractor must retain a copy of the reports in their files for a minimum of five years after completion of the project.



**County of Volusia
Community Assistance
110 W. Rich Avenue
DeLand, FL 32720**



Section 3 Project Workforce

Project Name: _____ Agency Name: _____

This document must be completed by the Prime Contractor and all Sub-Contractors. It must be returned to, and approved by, Community Assistance at least 1 week prior to the pre-construction meeting.

The following is a list of employees may perform physical on-site work on this project. All areas should be completed and the Wage Classification **must** include the title(s) from the project wage decision that is/are best suited to the actions the worker will perform on-site for the project.

If a worker is eligible under a Section 3 Worker or Section 3 Targeted Worker status, please have the Section 3 Certification Form completed and return with this Section 3 Project Workforce form.

Employee Name	ID #	Hire Date	Wage Classification	Phone Number	Residential Address	Claiming Section 3 status?

NOTE: Volusia County shall maintain this form and supporting documentation a minimum of five years in the project files for review during monitoring. The contractor must retain _____ of the _____ in their files for a minimum of five years after completion of the project.



**County of Volusia
Community Assistance
110 W. Rich Avenue
DeLand, FL 32720**



Section 3 Certification

Employer Name: _____

Employee name: _____ ID #: _____

Status being claimed: ☐ Section 3 Worker ☐ Section 3 Targeted Worker

The Section 3 Worker status is being certified in the following manner:

☐ **Self-Certification by employee**

I am self-certifying as a Section 3 Worker because:

☐ My gross annual income from the last calendar year was: \$ _____; my w-2 or paystubs are attached

☐ I am a Public Housing or Section 8 Housing recipient; current documentation showing this is attached

Employee Signature

Date

☐ **Certification by employer**

This employee is certified as a Section 3 Worker because:

☐ Their gross annual income from the last calendar year was: \$ _____; current documentation showing this is attached

☐ They were hired after 11/30/20 and their gross annual income for the first year was: \$ _____; documentation showing this is attached

☐ We are a business concern and they are an employee; see Section 3 Business Concern Certification and supporting documentation

Employer Signature & Title

Date

The Section 3 Targeted Worker status is being certified in the following manner:

☐ **Self-Certification by employee**

I am self-certifying as a Section 3 Worker because I am a YouthBuild participant; documentation supporting my current enrollment is attached.

Employee Signature

Date

☐ **Certification by employer**

This employee is certified as a Section 3 Targeted Worker because:

☐ Their residence is within the project service area as defined at § 75.5; documentation supporting this is attached

☐ We are a business concern and they are an employee; see Section 3 Business Concern Certification and supporting documentation

Employer Signature & Title

Date

NOTE: Volusia County shall maintain this form and supporting documentation a minimum of five years in the project files for review during monitoring. The contractor must retain a copy of the reports in their files for a minimum of five years after completion of project.

24 CFR PART 85.36 Administrative Requirements for Grants and Cooperative Agreements to State, Local and Federally Recognized Indian Tribal Governments

<https://www.hud.gov/sites/documents/24CFR85-36PROC.PDF>

Compliance with the following bonding requirements is mandatory.

Proof of bonding will be verified prior to issuance of the notice to proceed.

(h) Bonding requirements.

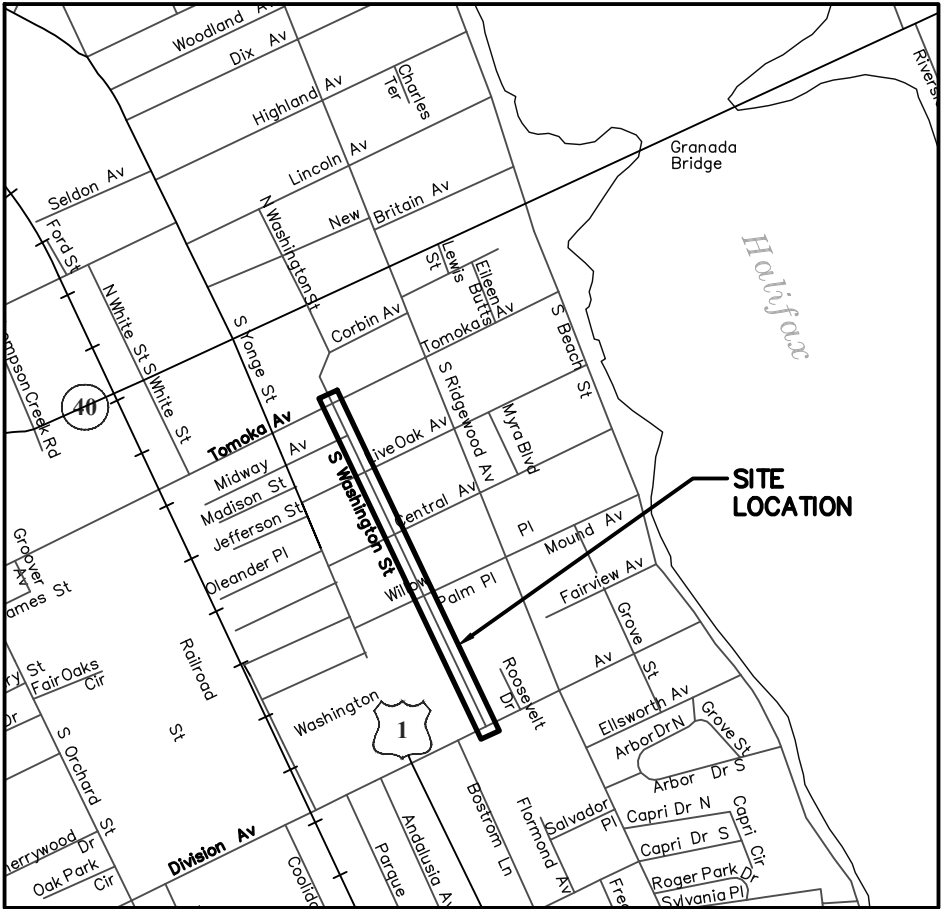
For construction or facility improvement contracts or subcontracts exceeding the simplified acquisition threshold, the awarding agency may accept the bonding policy and requirements of the grantee or sub grantee provided the awarding agency has made a determination that the awarding agency's interest is adequately protected. If such a determination has not been made, the minimum requirements shall be as follows:

- (1) A bid guarantee from each bidder equivalent to five percent of the bid price. The bid guarantee shall consist of a firm commitment such as a bid bond, certified check, or other negotiable instrument accompanying a bid as assurance that the bidder will, upon acceptance of his bid, execute such contractual documents as may be required within the time specified.
- (2) A performance bond on the part of the contractor for 100 percent of the contract price. A performance bond is one executed in connection with a contract to secure fulfillment of all the contractor's obligations under such contract.
- (3) A payment bond on the part of the contractor for 100 percent of the contract price. A payment bond is one executed in connection with a contract to assure payment as required by law of all persons supplying labor and material in the execution of the work provided for in the contract.

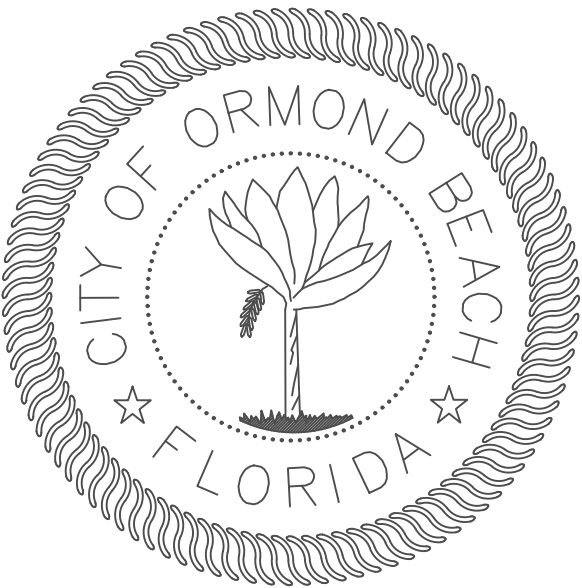
CITY OF ORMOND BEACH

CDBG - S. WASHINGTON ST WEST SIDE SIDEWALK IMPROVEMENTS BID NO.: 2022-06

 - SITE LOCATION



SITE LOCATION MAP



SHEET	DESCRIPTION
1	COVER SHEET & PROJECT LOCATION MAP
2	KEY SHEET
3	QUANTITIES
4	DEMOLITION PLAN
5	DEMOLITION PLAN
6	DEMOLITION PLAN
7	DEMOLITION PLAN
8	DEMOLITION PLAN – ALTERNATES 1 & 2
9	SIDEWALK PLAN
10	SIDEWALK PLAN
11	SIDEWALK PLAN
12	SIDEWALK PLAN
13	SIDEWALK PLAN – ALTERNATES 1 & 2
14	DETAILS: SIDEWALK ADA GRADING DETAIL
15	CONSTRUCTION DETAILS & NOTES
16	CONSTRUCTION DETAILS & NOTES
17	MOT: SIDEWALK CLOSURE FDOT 102-660
18	MOT: SIDEWALK CLOSURE FDOT 102-660

MAYOR

BILL PARTINGTON

COMMISSIONERS

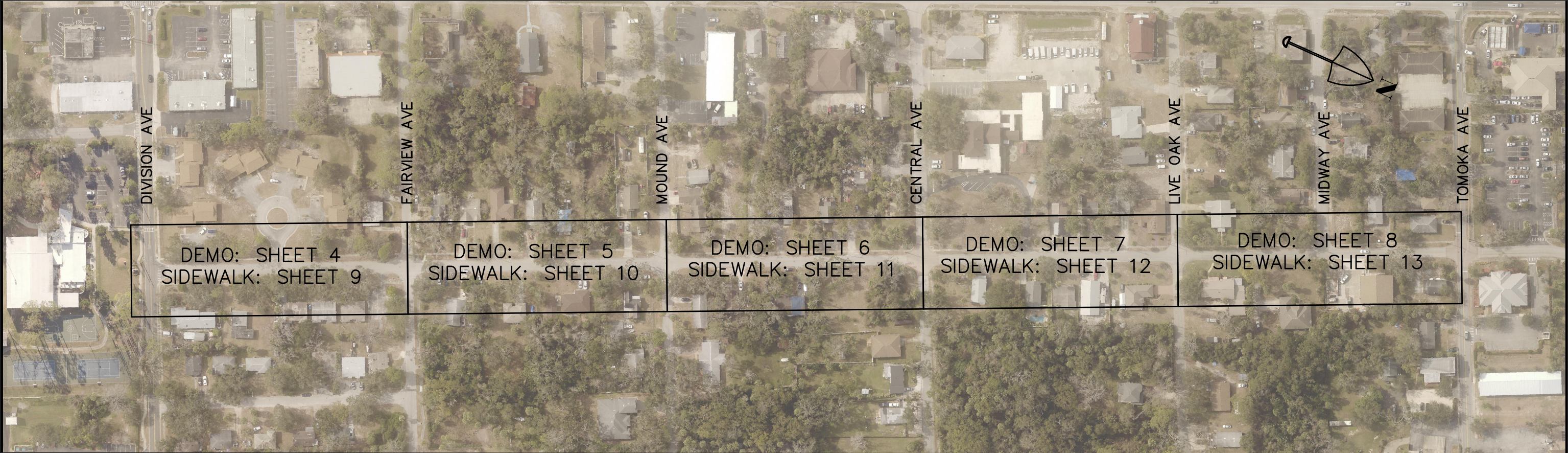
DWIGHT SELBY, ZONE 1
TROY KENT, ZONE 2

SUSAN PERSIS, ZONE 3
ROB LITTLETON, ZONE 4

CITY MANAGER

JOYCE SHANAHAN

DRAWINGS ARE TO SCALE AT 11X17



NO.	DATE	REVISIONS	BY

City of Ormond Beach
Engineering Division

BILL PARTINGTON, MAYOR JOYCE SHANAHAN, CITY MANAGER
ALEX SCHUMANN, P.E. CITY ENGINEER

**CDBG S. WASHINGTON ST
SIDEWALK IMPROVEMENTS**

KEY SHEET

DATE: 3/11/2022	PROJECT NO.: 00-
SCALE: NTS	FILE NAME:
DRAWN BY: MC	SHEET:

DRAWING STATUS
DRAFT
PERMIT
BID
ADDENDA
CONSTRUCTION
RECORD

QUANTITIES

DEMOLITION	BASE BID	ALT 1	ALT 2
PAY ITEMS	QTY.	QTY.	QTY.
DEMO; SIDEWALK 4' & DRIVEWAY APRONS (SQFT)	8,081	1,024	1,224
CONSTRUCTION	BASE BID	ALT 1	ALT 2
PAY ITEMS	QTY.	QTY.	QTY.
RELOCATE STOP SIGN (EA)	—	1	—
SIDEWALK 4', 4" DEPTH (SQFT)	6,340	1,011	838
ADA DETECTABLE WARNING SURFACE (FDOT APPROVED) (EA)	10	2	2
DRIVEWAY APRONS, 6" DEPTH (SQFT)	2,813	—	350

— BIDDER IS RESPONSIBLE TO VERIFY ALL TAKEOFFS AS THIS IS A LUMP SUM BID. BID IN ACCORDANCE WITH THE PLANS, SCOPE AND SPECIFICATIONS.

— THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROTECTING THE FINISHED SLAB FROM ALL DAMAGE AND VANDALISM UNTIL THE CITY ACCEPTS OR APPROVES THE SLAB. ANY SLAB SECTION DAMAGED OR VANDALIZED PRIOR TO ACCEPTANCE OR APPROVAL SHALL BE CUT OUT BETWEEN JOINTS AND REPLACED. REPAIRS ARE NOT ACCEPTABLE.

NO.	DATE	REVISIONS	BY

City of Ormond Beach
Engineering Division

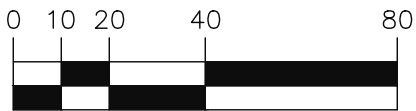
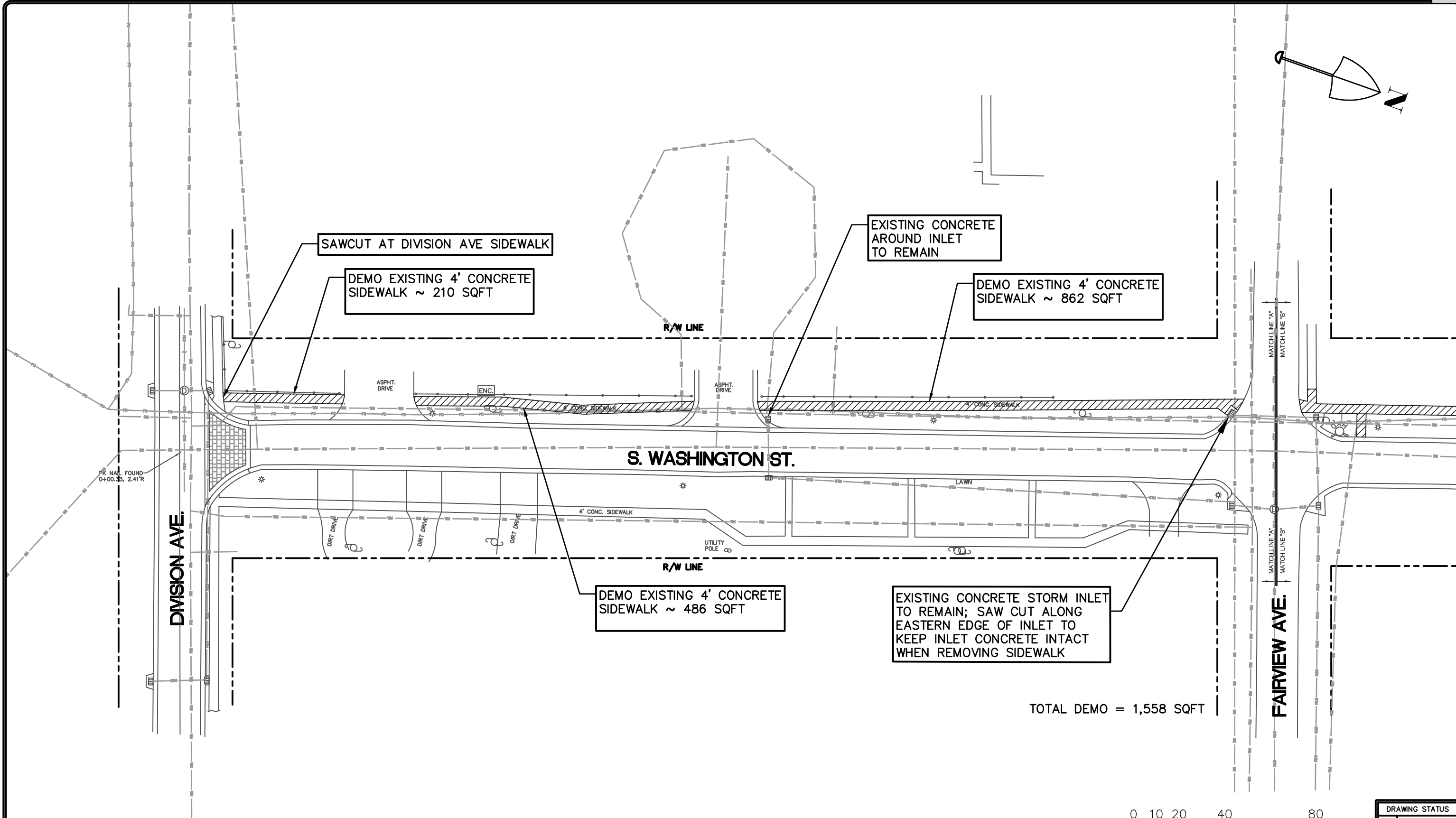
BILL PARTINGTON, MAYOR JOYCE SHANAHAN, CITY MANAGER
ALEX SCHUMANN, P.E. CITY ENGINEER

**CDBG S. WASHINGTON ST
SIDEWALK IMPROVEMENTS**

QUANTITIES

DATE: 3/11/2022	PROJECT NO.: 00—
SCALE:	FILE NAME:
DRAWN BY: MC	SHEET: Packet Pg. 748

DRAWING STATUS
DRAFT
PERMIT
BID
ADDENDA
CONSTRUCTION
RECORD



SCALE: 1" = 40'

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☐	PERMIT
☐	BID
☐	ADDENDA
☐	CONSTRUCTION
☐	RECORD

NO.	DATE	REVISIONS	BY

City of Ormond Beach
Engineering Division

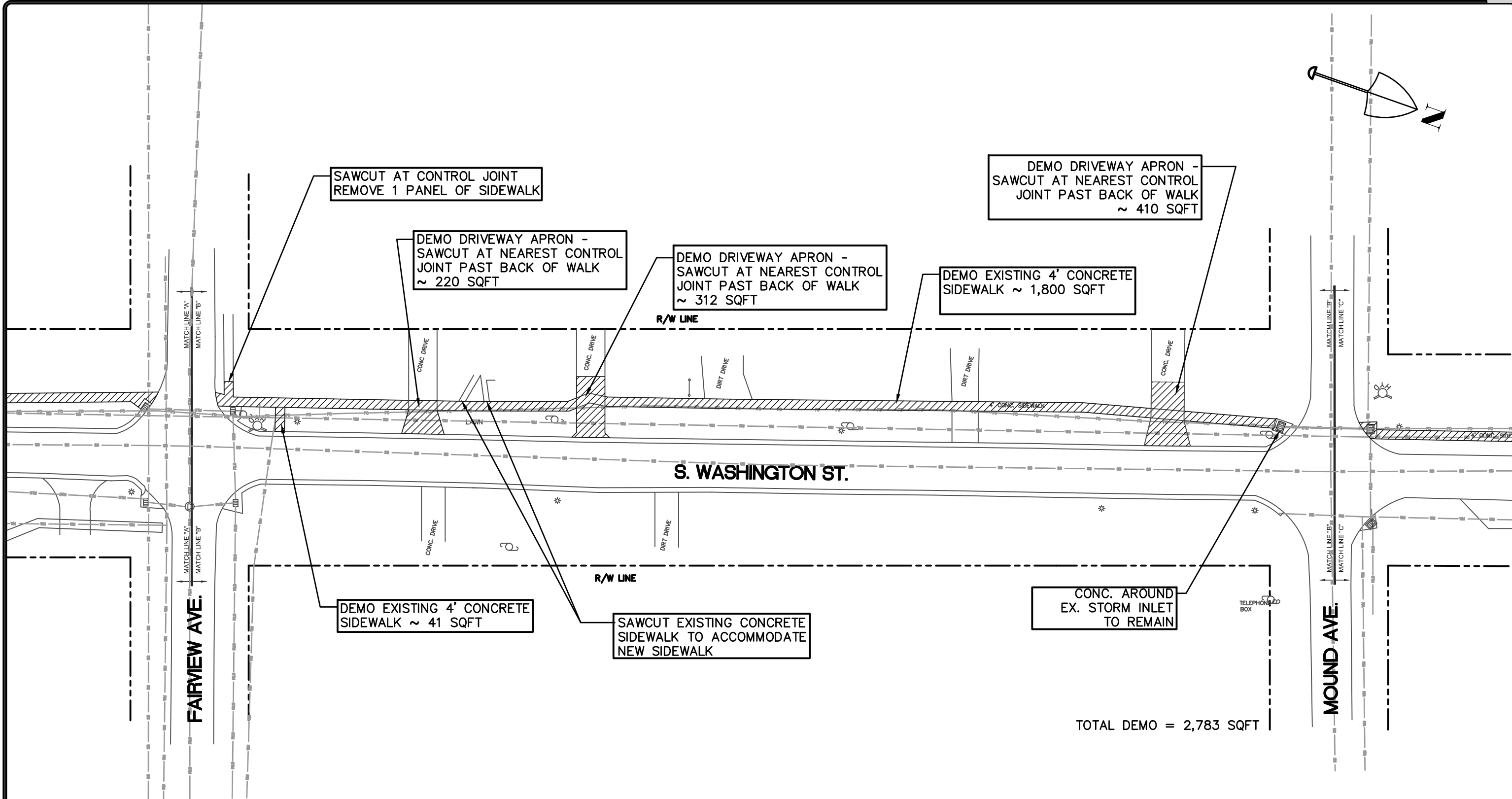
BILL PARTINGTON, MAYOR
JOYCE SHANAHAN, CITY MANAGER

ALEX SCHUMANN, P.E. CITY ENGINEER

**CDBG S. WASHINGTON ST
SIDEWALK IMPROVEMENTS**

DEMOLITION PLAN

DATE: 3/11/2022	PROJECT NO.: 00-
SCALE: 1" = 40'	FILE NAME:
DRAWN BY: MC	SHEET: Packet Pg. 749



TOTAL DEMO = 2,783 SQFT

NO.	DATE	REVISIONS	BY

City of Ormond Beach
Engineering Division

BILL PARTINGTON, MAYOR
JOYCE SHANAHAN, CITY MANAGER

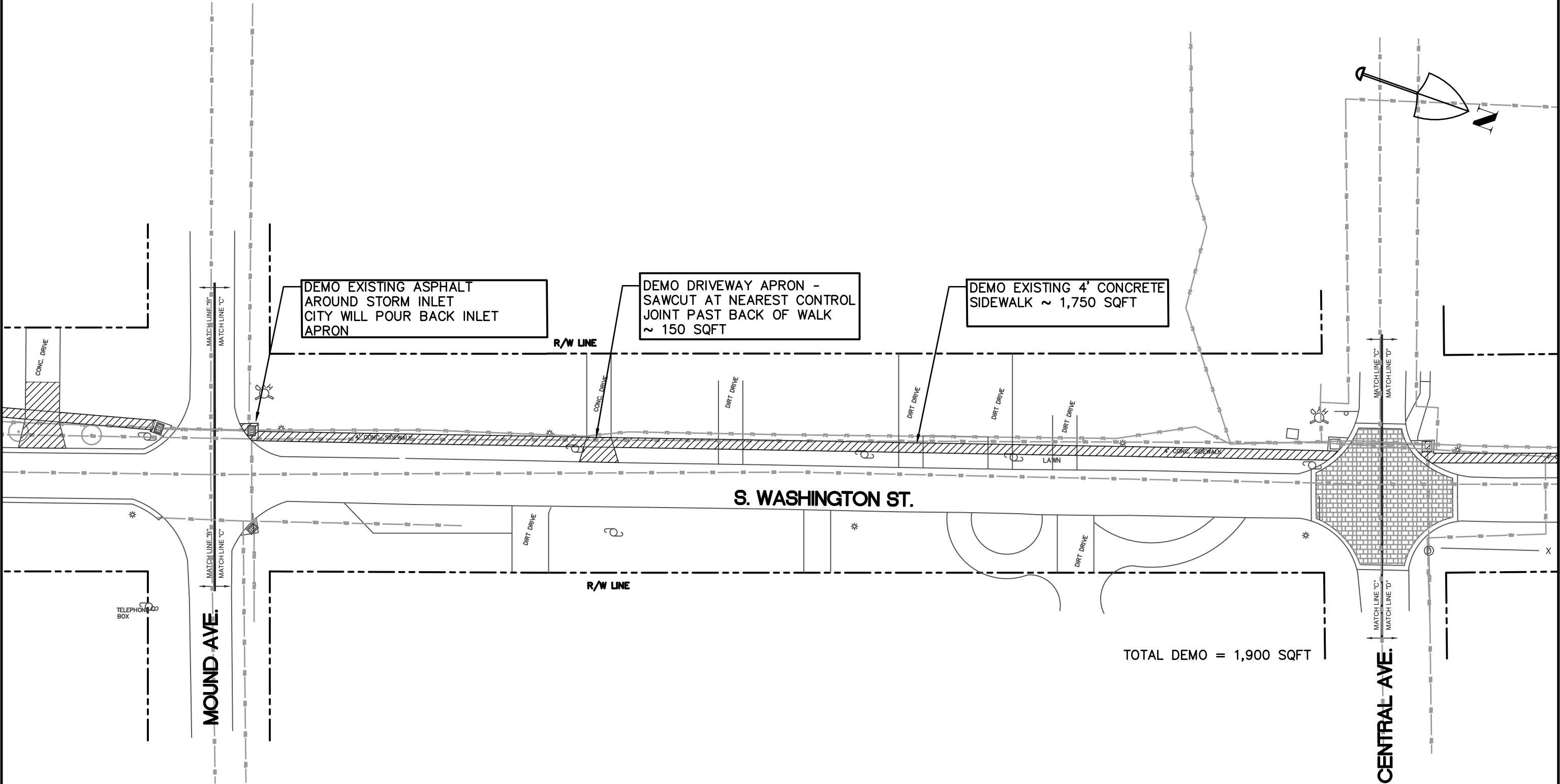
ALEX SCHUMANN, P.E. CITY ENGINEER

**CDBG S. WASHINGTON ST
SIDEWALK IMPROVEMENTS**

DEMOLITION PLAN

DATE: 3/11/2022	PROJECT NO.: 00-
SCALE: 1" = 40'	FILE NAME:
DRAWN BY: MC	SHEET:

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	ADDENDA
	CONSTRUCTION
	RECORD



NO.	DATE	REVISIONS	BY

City of Ormond Beach
Engineering Division

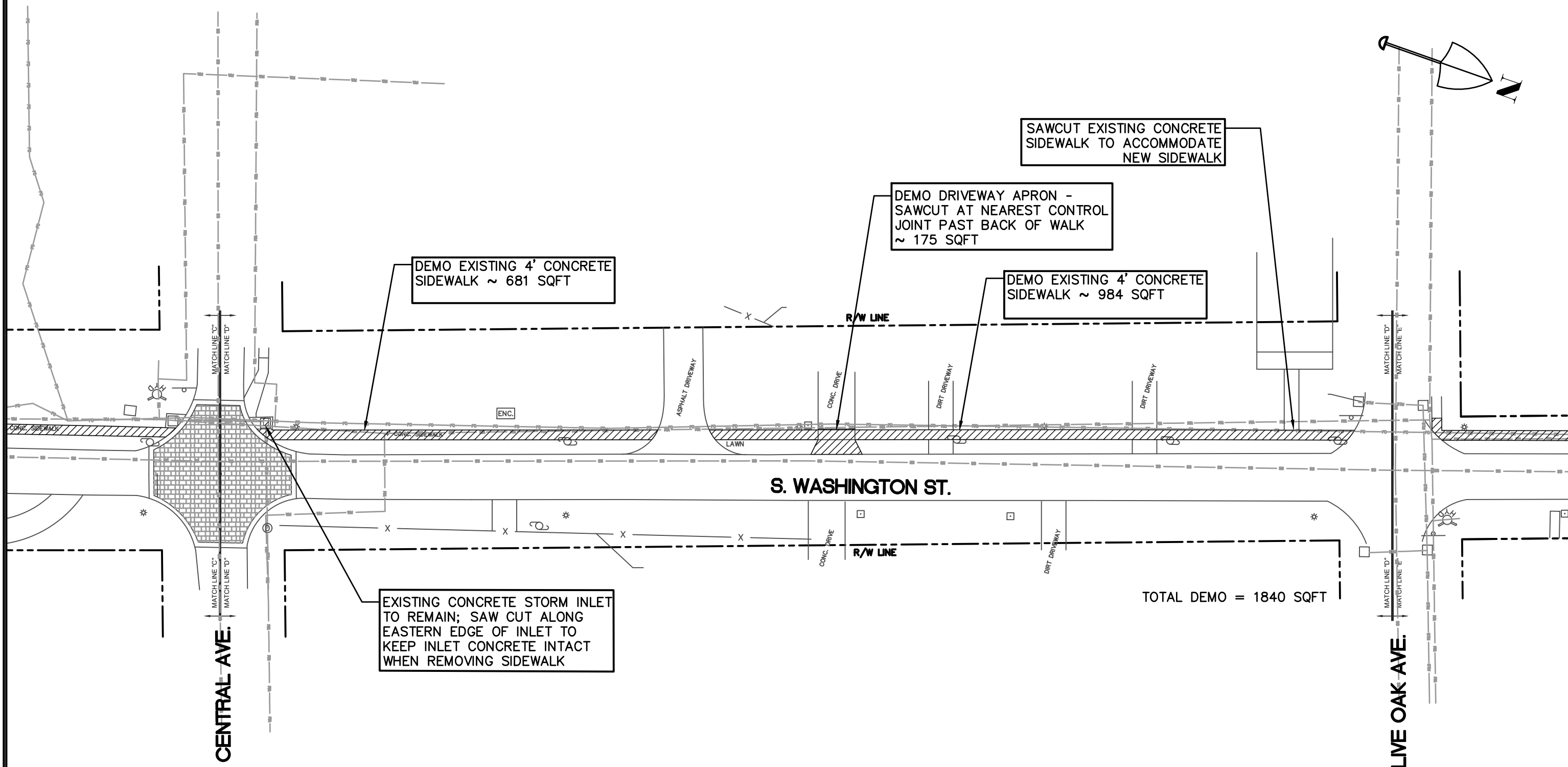
BILL PARTINGTON, MAYOR JOYCE SHANAHAN, CITY MANAGER
ALEX SCHUMANN, P.E. CITY ENGINEER

**CDBG S. WASHINGTON ST
SIDEWALK IMPROVEMENTS**

DEMOLITION PLAN

DATE: 3/11/2022	PROJECT NO.: 00-
SCALE: 1" = 40'	FILE NAME:
DRAWN BY: MC	SHEET:

DRAWING STATUS	
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	ADDENDA
	CONSTRUCTION
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City of Ormond Beach
Engineering Division

BILL PARTINGTON, MAYOR
JOYCE SHANAHAN, CITY MANAGER

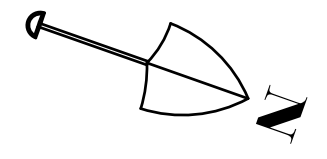
ALEX SCHUMANN, P.E. CITY ENGINEER

**CDBG S. WASHINGTON ST
SIDEWALK IMPROVEMENTS**

DEMOLITION PLAN

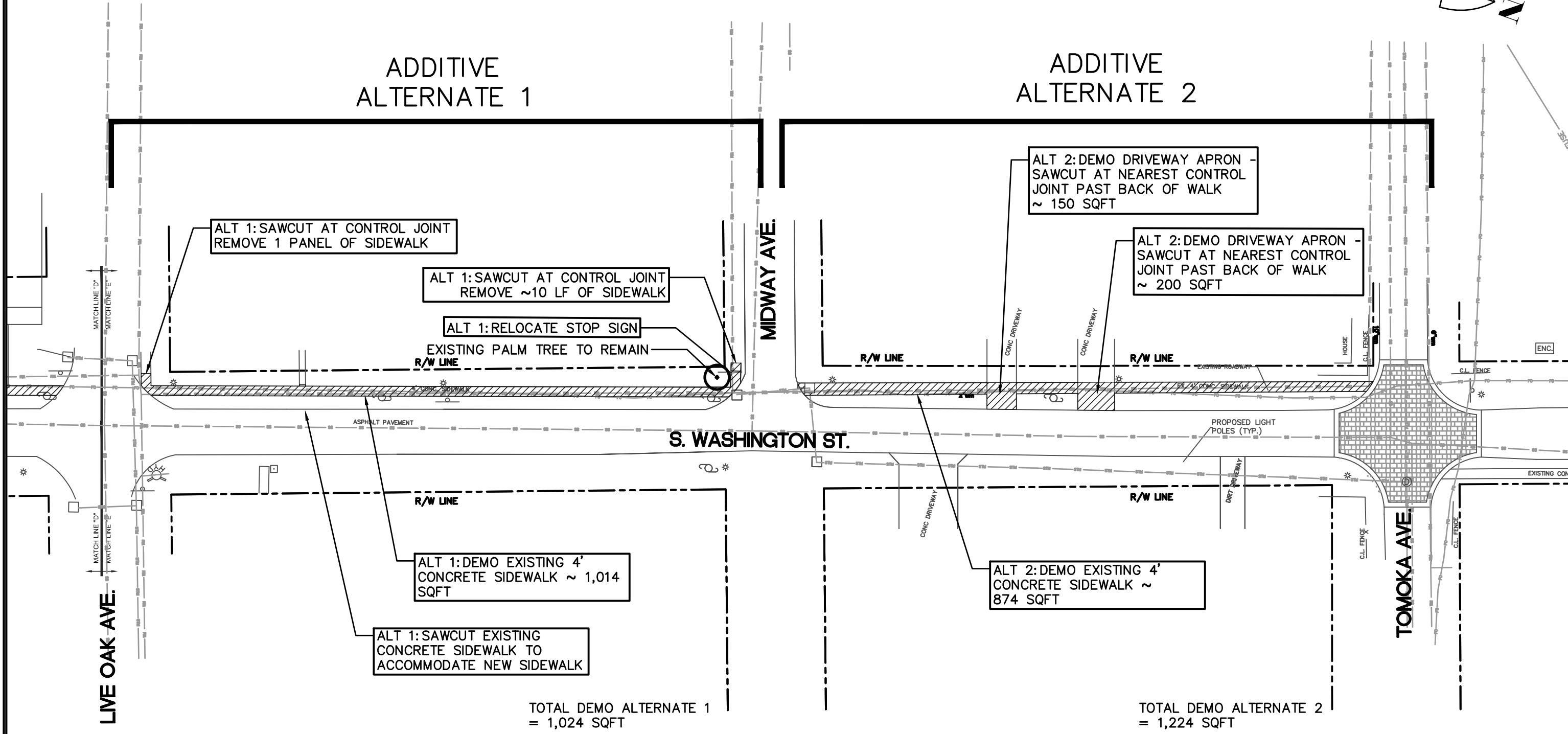
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SCALE:	1" = 40'	FILE NAME:	
DRAWN BY:	MC	SHEET:	

DRAWING STATUS	
	DRAFT
	PERMIT
	BID
	ADDENDA
	CONSTRUCTION
	RECORD



ADDITIVE
ALTERNATE 1

ADDITIVE
ALTERNATE 2



NO.	DATE	REVISIONS	BY

City of Ormond Beach
Engineering Division

BILL PARTINGTON, MAYOR
JOYCE SHANAHAN, CITY MANAGER

ALEX SCHUMANN, P.E. CITY ENGINEER

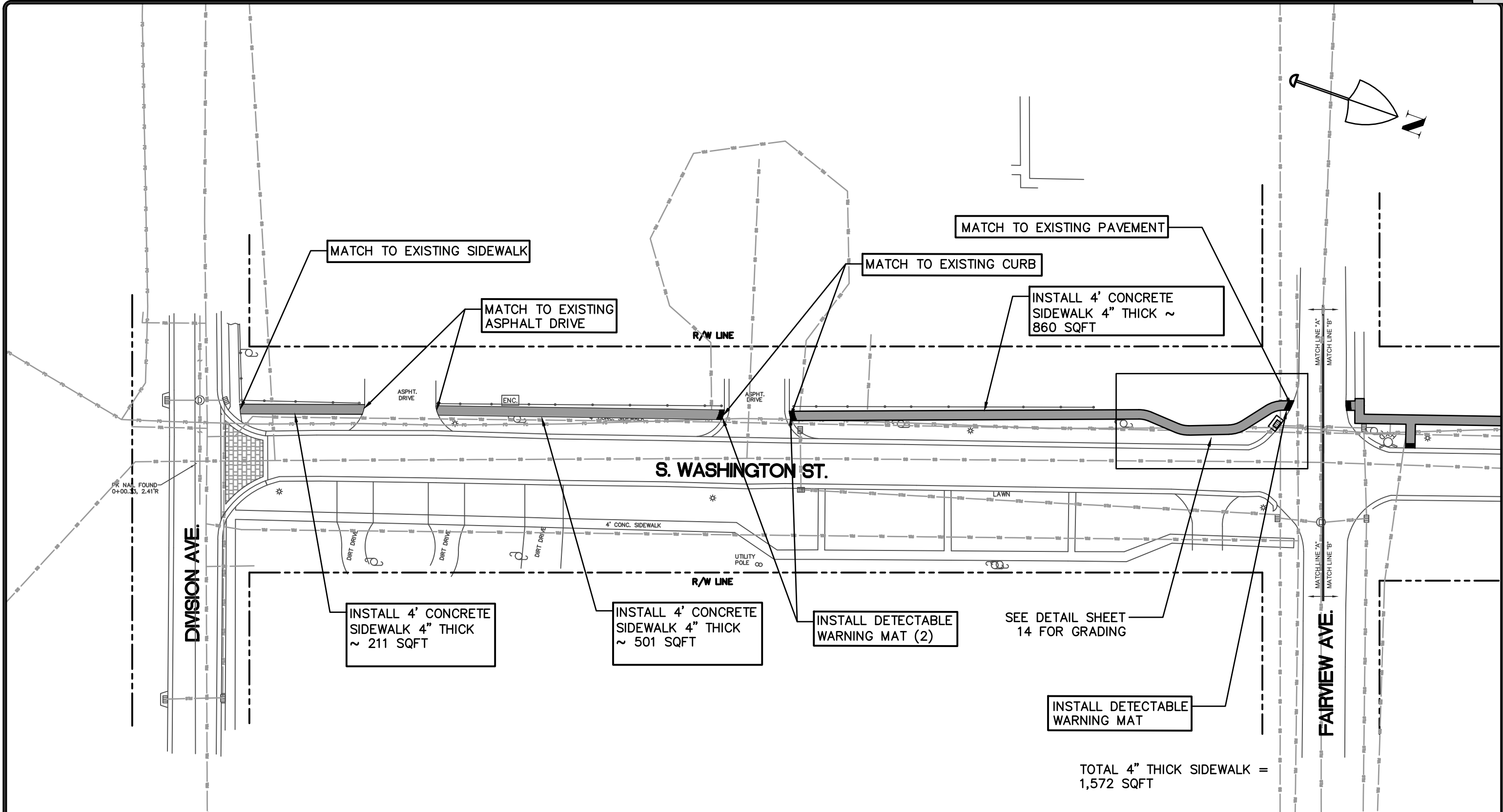
**CDBG S. WASHINGTON ST
SIDEWALK IMPROVEMENTS**

**DEMOLITION PLAN
ADDITIVE ALTERNATES 1 & 2**

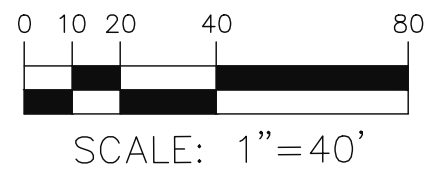
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SCALE: 1" = 40'
DRAWN BY: MC

PROJECT NO.: 00-
FILE NAME:
SHEET:

DRAWING STATUS
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ADDENDA
CONSTRUCTION
RECORD



TOTAL 4" THICK SIDEWALK = 1,572 SQFT



DRAWING STATUS	
☐	DRAFT
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☐	ADDENDA
☐	CONSTRUCTION
☐	RECORD

NO.	DATE	REVISIONS	BY

City of Ormond Beach
Engineering Division

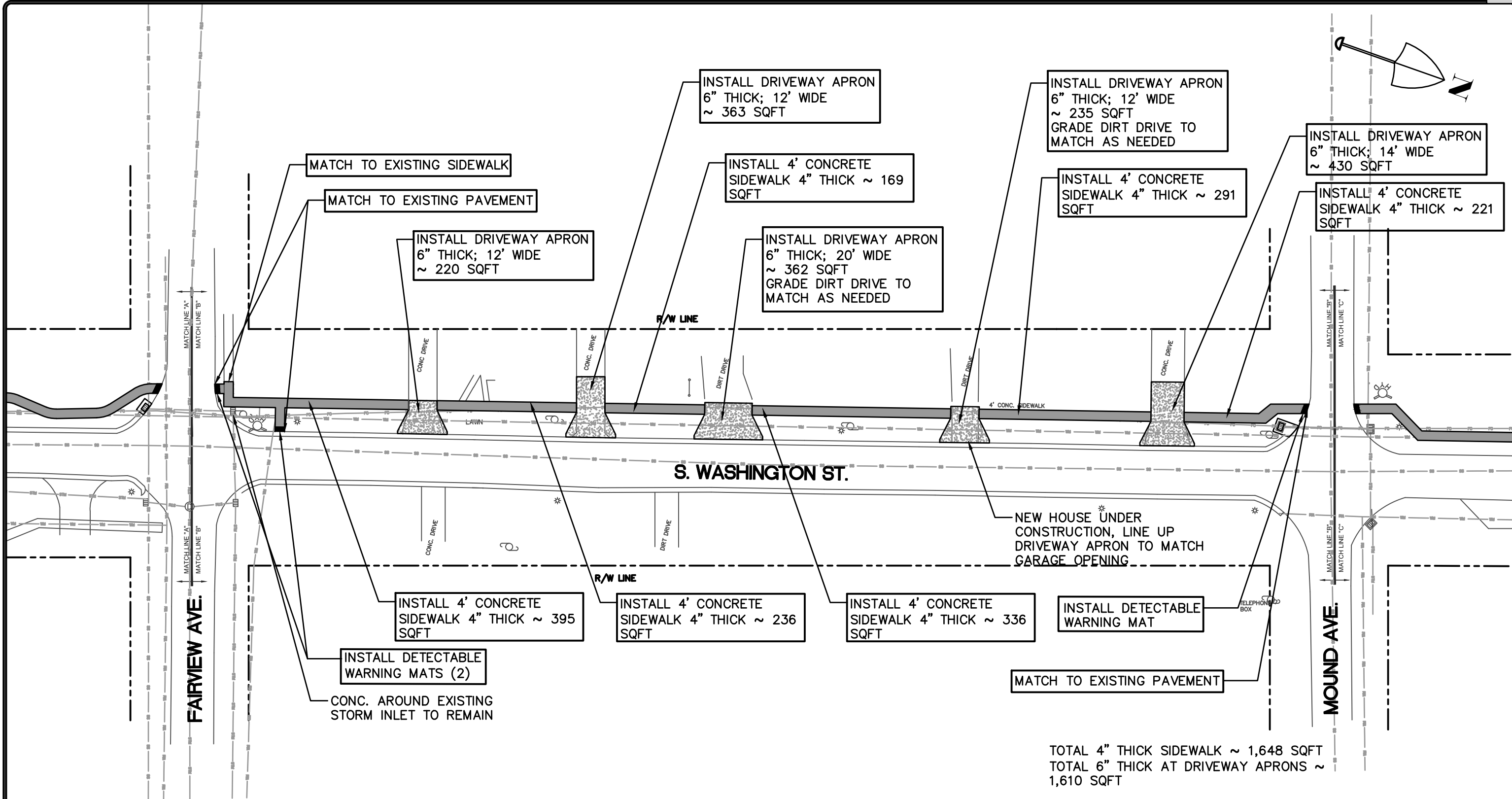
BILL PARTINGTON, MAYOR
JOYCE SHANAHAN, CITY MANAGER

ALEX SCHUMANN, P.E. CITY ENGINEER

**CDBG S. WASHINGTON ST
SIDEWALK IMPROVEMENTS**

SIDEWALK PLAN

DATE: 3/11/2022	PROJECT NO.: 00-
SCALE: 1" = 40'	FILE NAME:
DRAWN BY: MC	SHEET: Packet Pg. 754



NO.	DATE	REVISIONS	BY

City of Ormond Beach
Engineering Division

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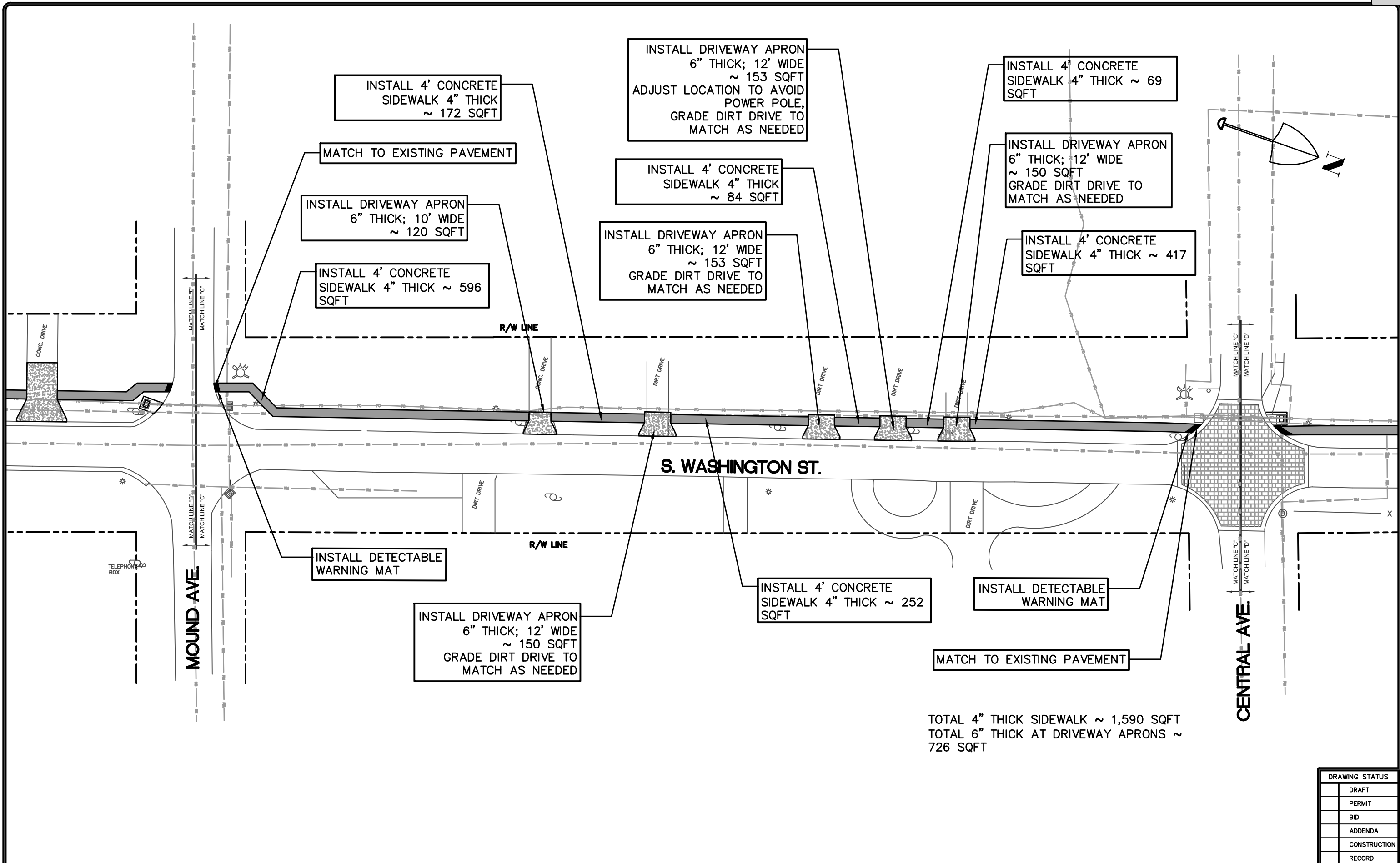
**CDBG S. WASHINGTON ST
SIDEWALK IMPROVEMENTS**

SIDEWALK PLAN

DATE: 3/11/2022
SCALE: 1" = 40'
DRAWN BY: MC

PROJECT NO.: 00-
FILE NAME:
SHEET:

DRAWING STATUS	
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	PERMIT
	BID
	ADDENDA
	CONSTRUCTION
	RECORD



TOTAL 4" THICK SIDEWALK ~ 1,590 SQFT
TOTAL 6" THICK AT DRIVEWAY APRONS ~ 726 SQFT

NO.	DATE	REVISIONS	BY

City of Ormond Beach
Engineering Division

BILL PARTINGTON, MAYOR
JOYCE SHANAHAN, CITY MANAGER

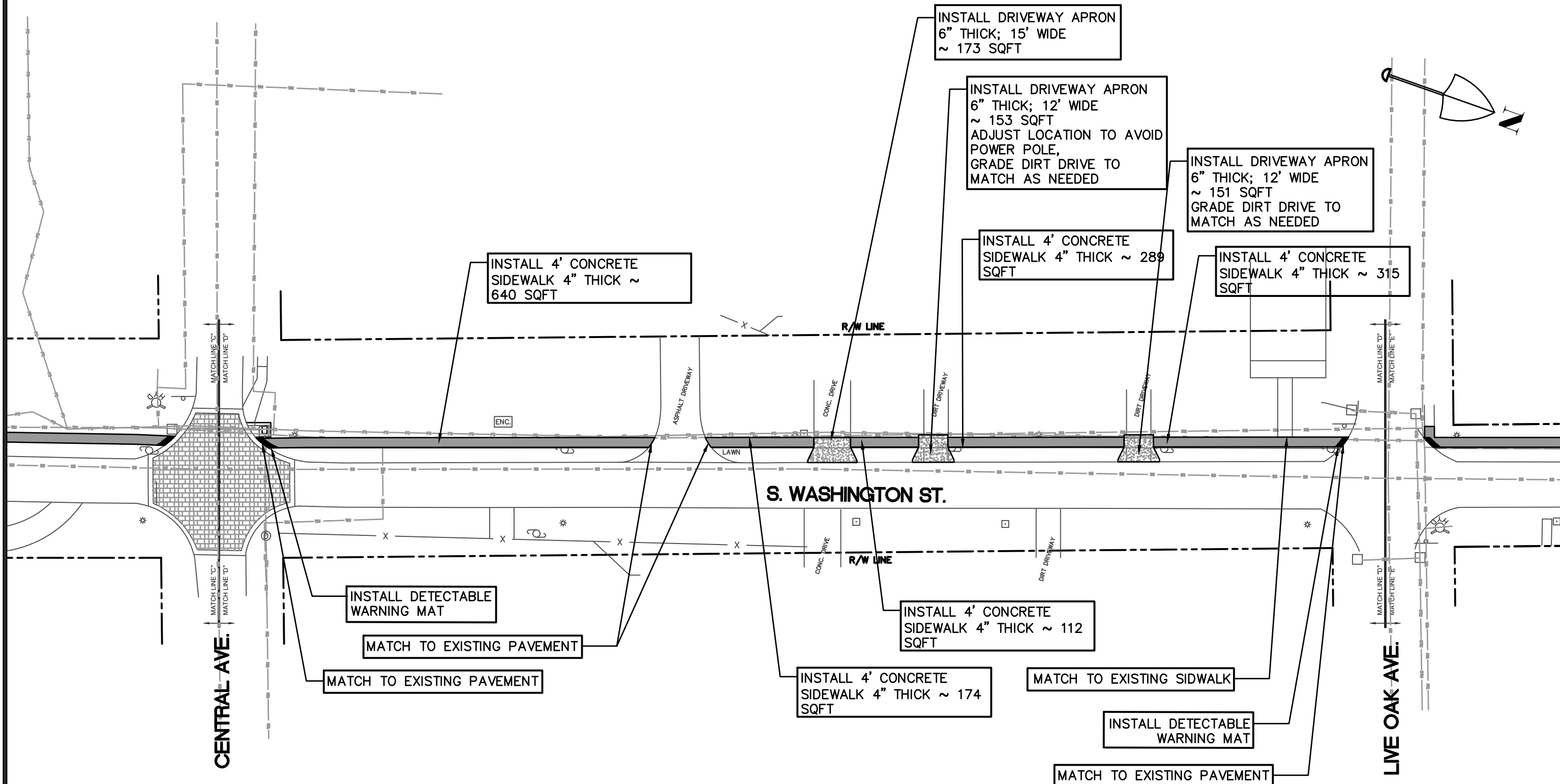
ALEX SCHUMANN, P.E. CITY ENGINEER

**CDBG S. WASHINGTON ST
SIDEWALK IMPROVEMENTS**

SIDEWALK PLAN

DATE:	3/11/2022	PROJECT NO.:	00-
SCALE:	1" = 40'	FILE NAME:	
DRAWN BY:	MC	SHEET:	

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	BID
	ADDENDA
	CONSTRUCTION
	RECORD



TOTAL 4" THICK SIDEWALK ~ 1,530 SQFT
TOTAL 6" THICK AT DRIVEWAY APRONS ~ 477 SQFT

DRAWING STATUS	
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☐	ADDENDA
☐	CONSTRUCTION
☐	RECORD

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City of Ormond Beach
Engineering Division

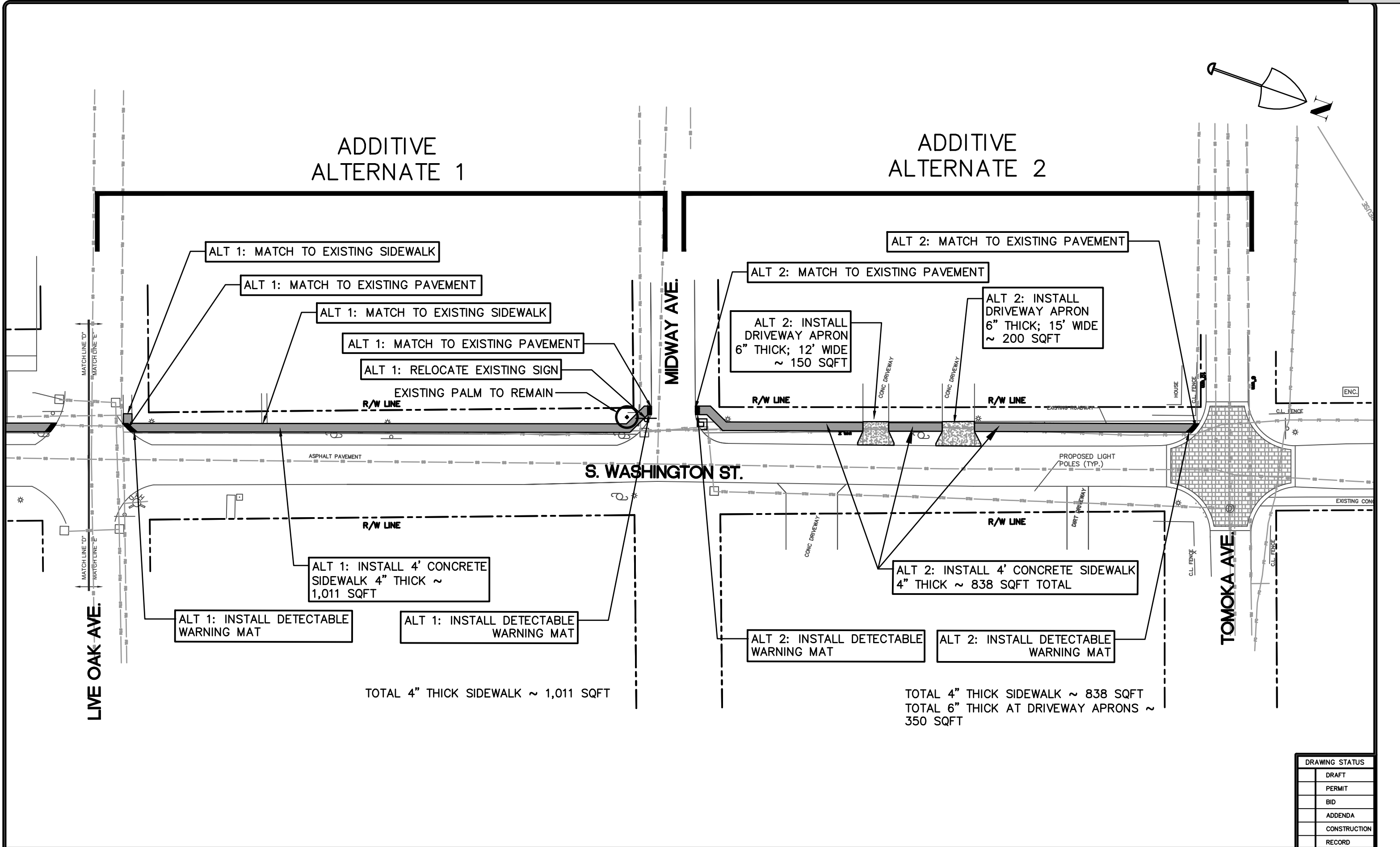
BILL PARTINGTON, MAYOR
JOYCE SHANAHAN, CITY MANAGER

ALEX SCHUMANN, P.E. CITY ENGINEER

**CDBG S. WASHINGTON ST
SIDEWALK IMPROVEMENTS**

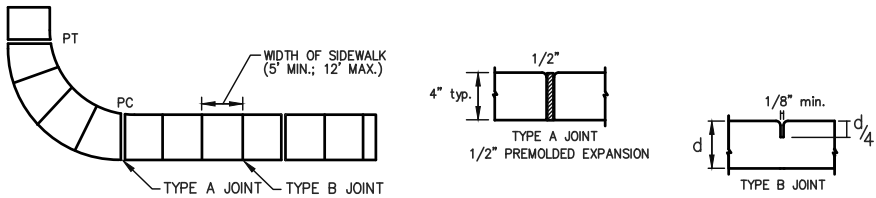
SIDEWALK PLAN

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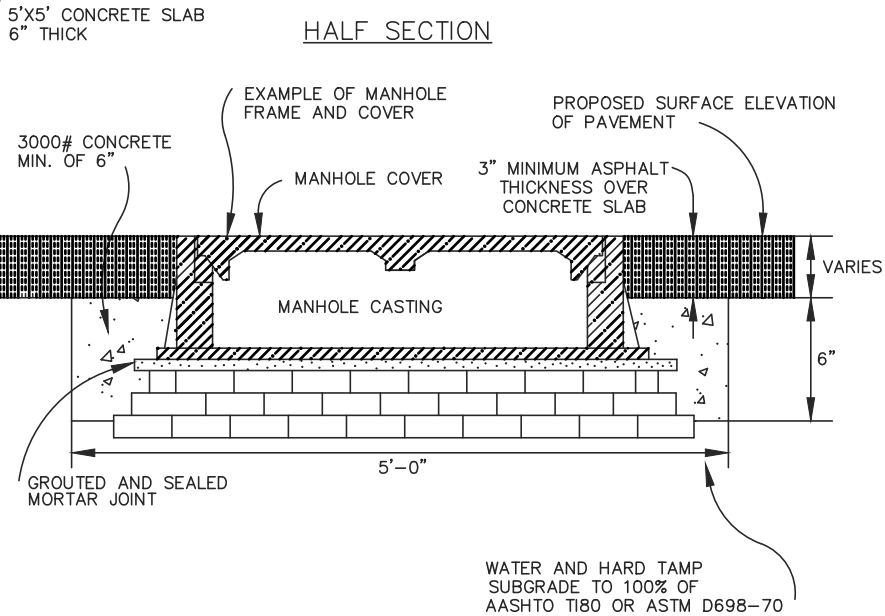
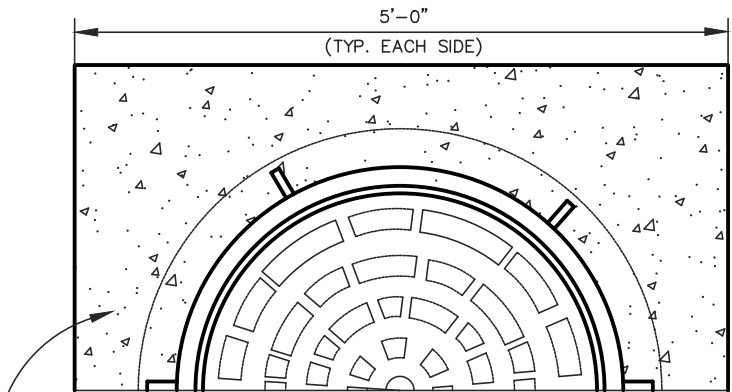


GENERAL NOTES:

- 1. ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE CITY OF ORMOND BEACH'S LAND DEVELOPMENT CODE REQUIREMENTS, AND THE STANDARD CONSTRUCTION DETAILS AND CONSTRUCTION SPECIFICATIONS (SCDCS). AN ENGINEERING PERMIT AND TREE REMOVAL PERMIT IS REQUIRED PRIOR TO STARTING CONSTRUCTION.
- 2. NO LAND SHALL BE CLEARED, EXCAVATED OR FILLED AND NO STRUCTURE SHALL BE ERECTED, REPAIRED OR DEMOLISHED WITHOUT PROPER PERMIT(S) AS REQUIRED BY THE CITY OF ORMOND BEACH.
- 3. NOTIFY THE CITY OF ORMOND BEACH AT COMDEV@ORMONDBEACH.ORG 48 HOURS PRIOR TO THE START OF CONSTRUCTION.
- 4. ANY CONSTRUCTION CHANGES TO APPROVED PLANS SHALL BE SUBMITTED TO THE CITY OF ORMOND BEACH FOR APPROVAL PRIOR TO PERFORMING THE WORK.
- 5. ROAD CONSTRUCTION AND PIPE INSTALLATION COMPACTION AND DENSITY TESTING SHALL CONFORM TO THE CITY OF ORMOND BEACH'S MINIMUM REQUIREMENTS. CERTIFIED COPIES OF TEST REPORTS SHALL BE SUBMITTED TO THE CITY INSPECTOR AND THE CITY'S ENGINEERING DIVISION.
- 6. A PRE-PAVING UTILITY INSPECTION MUST BE REQUESTED AND COMPLETED PRIOR TO THE PAVING OF ALL ROADS, STREETS, AND PARKING AREAS.
- 7. A FINAL INSPECTION, TO BE CONDUCTED BY THE CITY OF ORMOND BEACH, SHALL BE PERFORMED ON ALL CONSTRUCTION. THE DESIGN ENGINEER SHALL NOTIFY THE CITY OF ORMOND BEACH AT COMDEV@ORMONDBEACH.ORG WHEN REQUESTING A FINAL INSPECTION.
- 8. THREE COMPLETE SETS OF AS-BUILT DRAWINGS (5 FOR SUBDIVISIONS) ARE REQUIRED TO BE SUBMITTED TO THE CITY OF ORMOND BEACH PRIOR TO REQUESTING A FINAL INSPECTION. AS-BUILT DRAWINGS MAY BE SUBMITTED IN DIGITAL FORMAT WITH DIGITAL SIGNATURE OF SURVEYOR AND/OR ENGINEER OF RECORD.
- 9. THE CITY HAS A CONTRACTOR FOR ROLL OFF SERVICE. NO OTHER CONTRACTOR SHALL BE PERMITTED TO PROVIDE THIS SERVICE. VERIFY COMPANY UNDER CONTRACT WITH THE CITY.
- 10. CONSTRUCTION SITES THAT DISTURB ONE ACRE OR MORE WILL BE REQUIRED TO SEEK COVERAGE UNDER THE GENERIC PERMIT FOR STORM WATER DISCHARGE FROM LARGE AND SMALL CONSTRUCTION ACTIVITIES. IN ACCORDANCE WITH THIS REQUIREMENT, A STORM WATER POLLUTION PREVENTION PLAN (SWPP) MUST BE SUBMITTED TO THE CITY OF ORMOND BEACH AT COMDEV@ORMONDBEACH.ORG PRIOR TO CONSTRUCTION TO BE IN COMPLIANCE WITH THE PERMIT.
- 11. CONTRACTOR WILL FOLLOW REQUIRED WASTE MANAGEMENT PRACTICES
- 12. SEEDING OR SODDING SHALL BE INITIATED FOR EROSION AND SEDIMENT CONTROL ON DISTURBED AREAS AS SOON AS PRACTICABLE IN PORTIONS OF THE SITE WHERE CONSTRUCTION ACTIVITIES HAVE TEMPORARILY OR PERMANENTLY CEASED.
- 13. ANY FIELD MODIFICATIONS OR DEVIATIONS TO THIS CONSTRUCTION PLAN REQUIRES WRITTEN APPROVAL BY BOTH THE ENGINEER OF RECORD AND THE CITY OF ORMOND BEACH.



- 1. SIDEWALKS, BIKEPATHS, RAMPS, AND DRIVEWAY APRONS SHALL BE CONSTRUCTED OF PLAIN PORTLAND CEMENT CONCRETE WITH A MAXIMUM SLUMP OF 3 INCHES, A MINIMUM DEVELOPED COMPRESSIVE STRENGTH OF 2500 P.S.I. IN 28 DAYS, AND A MINIMUM UNIFORM THICKNESS OF 4 INCHES WHERE INTENDED SOLELY FOR PEDESTRIAN TRAFFIC, AND 6 INCHES THICK WHERE MOTOR VEHICLES ARE LIKELY TO CROSS. SIDEWALKS SHALL BE 5 FOOT WIDE UNLESS OTHERWISE SHOWN ON PLANS.
- 2. SIDEWALKS AND BIKE PATHS SHALL BE PLACED PARALLEL TO, AND ONE FOOT WITHIN THE RIGHT-OF-WAY LINE EXCEPT THAT THE CITY MAY APPROVE DEVIATIONS TO SAVE SPECIMEN TREES PROVIDED THAT THE PAVEMENT REMAINS WITHIN THE RIGHT-OF-WAY, IS NOT DIMINISHED IN WIDTH, AND REMAINS AT LEAST 4 FEET FROM THE EDGE OF THE STREET PAVEMENT, UNLESS OTHERWISE APPROVED BY THE CITY.
- 3. THE TOP OF THE CONCRETE SHALL BE AT AN ELEVATION NO LOWER THAN THE CROWN OF THE ADJACENT ROADWAY, AND NO HIGHER THAN 6 INCHES ABOVE THE CROWN UNLESS APPROVED BY THE CITY TO MAKE A MORE NATURAL TRANSITION WITH THE ADJACENT LAND.
- 4. ALL WALKS SHALL HAVE A CROSS SLOPE OF 1/4 INCH PER FOOT AND SHALL NOT EXCEED A LONGITUDINAL SLOPE OF 1:20, EXCEPT AT DESIGNATED RAMPS THAT SHALL NOT EXCEED 1:12. PROVIDE A TACTILE WARNING SURFACE AT ALL RAMPS PER A.D.A. THE CONTRACTOR SHALL INSURE THAT ALL PROVISIONS OF A.D.A AND FLORIDA ACCESSIBILITY CODE ARE MET.*
- 5. ISOLATION JOINTS (TYPE A JOINTS) SHALL BE PROVIDED BETWEEN EXISTING SLABS OR STRUCTURES AND FRESH CONCRETE, TO SEPARATE PEDESTRIAN SECTIONS FROM SECTIONS WHICH WILL ENCOUNTER VEHICLE TRAFFIC, TO SEPARATE FRESH PLACEMENT FROM CONCRETE WHICH HAS SET FOR MORE THAN 60 MINUTES, AND NO FARTHER APART THAN 100 FEET IN SIDEWALKS AND BIKEPATHS. JOINT MATERIAL SHALL BE SPECIFIED IN FDOT STANDARDS AND SPECIFICATIONS AND SHALL BE RUBBER, PLASTIC OR OTHER APPROVED NON-BIODEGRADABLE ELASTOMERIC MATERIAL. WOOD IS PROHIBITED.
- 6. CONTROL JOINTS (TYPE B JOINTS) SHALL BE TOOLED INTO THE FRESH CONCRETE TO A DEPTH EQUAL TO 1/4 THE SLAB THICKNESS AND SPACED APART A DISTANCE EQUAL TO THE WIDTH OF THE SLAB, AT MINIMUM SPACING OF 5', MAX SPACING OF 12'.
- 7. THE SLAB SURFACE SHALL BE BROOM FINISHED TO BE SLIP RESISTANT, AND SHALL MATCH AS CLOSELY AS POSSIBLE THE FINISH OF THE EXISTING ADJACENT SLABS AND ALL EDGES SHALL BE TOOLED TO ELIMINATE SHARP CORNERS.
- 8. THE BEARING SUBSURFACE SHALL HAVE ALL ORGANIC, LOOSE, AND DELETERIOUS MATTER REMOVED, AND THE REMAINING CLEAN SOIL SHALL BE SMOOTH, SOUND, AND SOLID. ANY FILL MATERIAL SHALL BE COMPACTED WITH A VIBRATORY OR IMPACT COMPACTION MACHINE IN MAXIMUM 12 INCH LIFTS OR COMPACTED WITH A HAND TAMPER IN MAXIMUM 4 INCH LIFTS. THE CITY SHALL REQUIRE A COMPACTION TEST FOR EACH LIFT IF THE TOTAL FILLED SECTION IS MORE THAN 12 INCHES DEEP OR IF THE SUBSURFACE HAS BEEN DISTURBED MORE THAN 12 INCHES DEEP. WHERE SUCH TEST IS REQUIRED, THE RESULTS SHALL SHOW A MINIMUM PROCTOR FIELD DENSITY OF 95 PERCENT.
- 9. ALL CONCRETE WORK IN THE RIGHT-OF-WAY SHALL BE INSPECTED BY THE CITY AFTER THE SUBSOIL IS PREPARED AND THE FORMS ARE SET, BUT BEFORE THE CONCRETE PLACEMENT BEGINS.
- 10. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROTECTING THE FINISHED SLAB FROM ALL DAMAGE AND VANDALISM UNTIL THE CITY ACCEPTS OR APPROVES THE SLAB, AFTER WHICH TIME THE OWNER OF THE ABUTTING LAND SHALL BE RESPONSIBLE FOR THE SLAB IN ACCORDANCE WITH THE CITY CODE. ANY SLAB SECTION DAMAGED OR VANDALIZED PRIOR TO ACCEPTANCE OR APPROVAL SHALL BE CUT OUT BETWEEN JOINTS AND REPLACED. REPAIRS ARE NOT ACCEPTABLE.
- 11. SIDEWALKS LOCATED WITHIN THE RIGHT-OF-WAY SHALL NOT BE TINTED, STAINED, COLORED, OR COATED.
- 12. ALL FORMS SHALL BE REMOVED PRIOR TO ACCEPTANCE OR APPROVAL AND THE DISTURBED GROUND SHALL BE BACKFILLED, REGRADED, AND SODDED SO THAT THE WEAR SURFACE OF THE CONCRETE IS REASONABLY FLUSH WITH THE ADJACENT GRADE.



STANDARD CONSTRUCTION DETAIL
GENERAL CONSTRUCTION NOTES

INDEX

M-2

MAY 2020



STANDARD CONSTRUCTION DETAIL
SIDEWALK, RAMP, AND DRIVEWAY APRON
CONSTRUCTION REQUIREMENTS

NTS

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M-3

MAY 2020



STANDARD CONSTRUCTION DETAIL
MANHOLE ADJUSTMENT DETAILS

NTS

INDEX

S-9C

MAY 2020

NO.	DATE	REVISIONS	BY

City of Ormond Beach
Engineering Division

BILL PARTINGTON, MAYOR
JOYCE SHANAHAN, CITY MANAGER

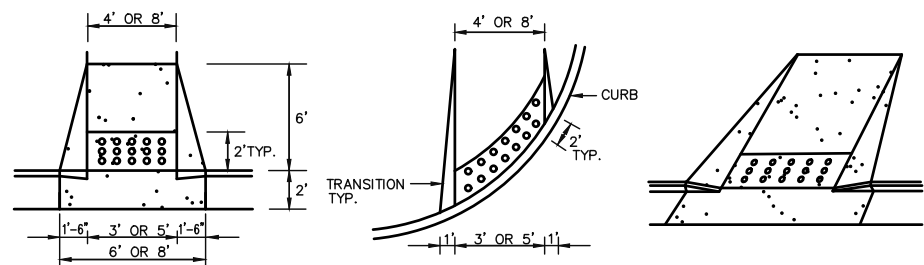
ALEX SCHUMANN, P.E. CITY ENGINEER

**CDBG S. WASHINGTON ST
SIDEWALK IMPROVEMENTS**

CONSTRUCTION DETAILS & NOTES

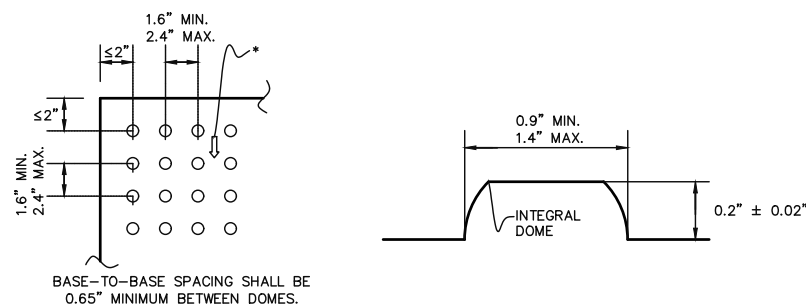
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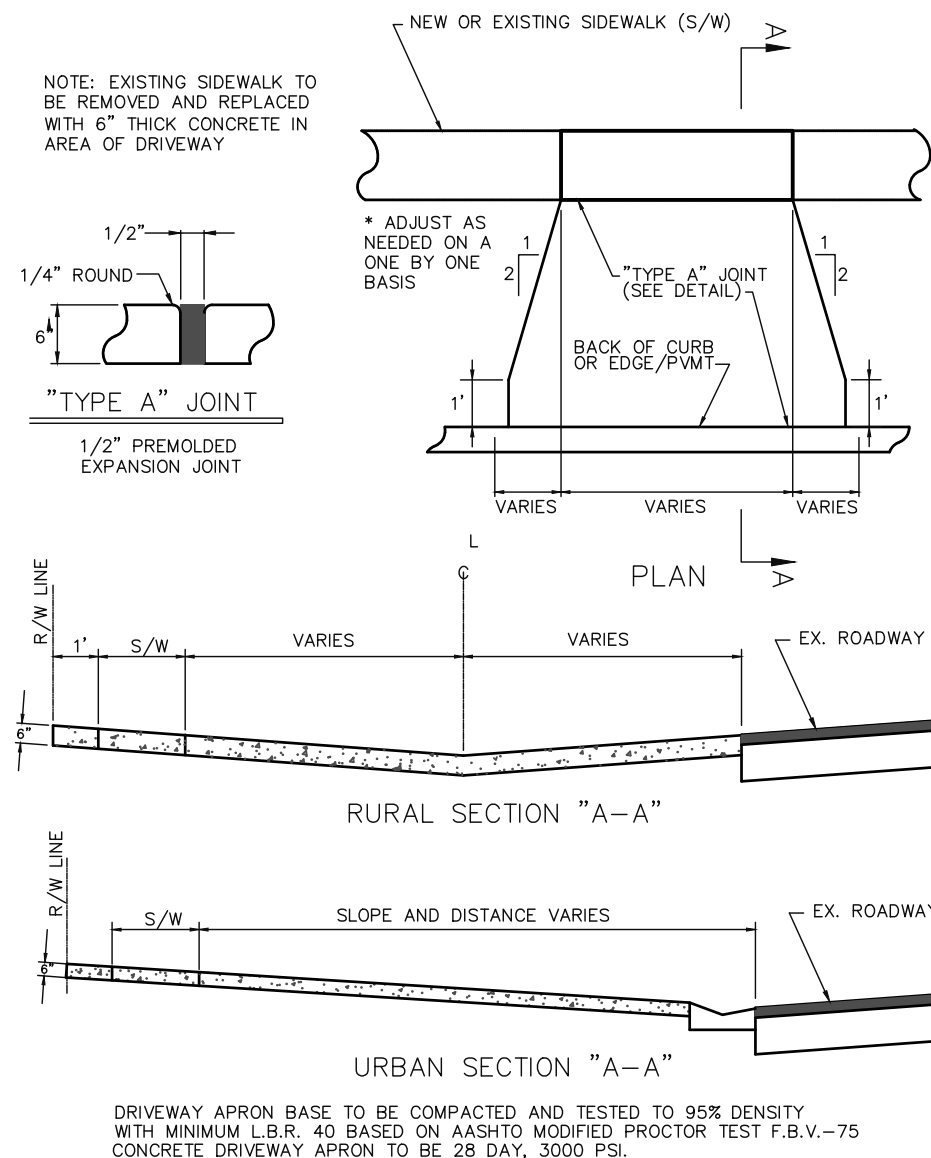
NOTES:

1. RAMP LOCATIONS ARE TO BE COORDINATED WITH AND IN CONFORMANCE WITH CROSSWALK MARKING DETAILS SHOWN IN THE PLANS.
2. CURBED RAMPS SHALL HAVE FLARED SIDES WITH A MAXIMUM SLOPE OF 12:1.
3. RAMPS SHALL HAVE A DETECTABLE WARNING SURFACE AS SHOWN.
4. RAMPS ARE TO BE CONSTRUCTED AT ALL LOCATIONS SHOWN IN THE PLANS EVEN WHEN A SIDEWALK IS NOT CONSTRUCTED CONCURRENTLY.
5. NO CURB TRANSITION IS NEEDED FOR MIAMI CURBS.
6. ALL RAMPS SHALL BE CONSTRUCTED IN ACCORDANCE WITH FDOT INDEX NO. 304 AND HANDICAPPED ACCESSIBILITY REQUIREMENTS IN ACCORDANCE WITH THE AMERICAN DISABILITIES ACT.



NOTES:

* ON RAMPS THAT ARE PERPENDICULAR WITH THE CURB LINE, THE DOME PATTERN SHALL BE IN-LINE WITH THE DIRECTION OF TRAVEL. ON RAMPS INTERSECTING CURBS ON A RADIUS, THE DOME PATTERN SHALL BE IN-LINE WITH THE DIRECTION OF TRAVEL TO THE EXTENT PRACTICAL.



STANDARD CONSTRUCTION DETAIL

SIDEWALK AND BIKE PATH RAMP

NTS

INDEX

M-4

MAY 2020



STANDARD CONSTRUCTION DETAIL

RESIDENTIAL DRIVEWAY APRON DRAWINGS

NTS

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M-7

MAY 2020

DRAWING STATUS	
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	PERMIT
	BID
	ADDENDA
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City of Ormond Beach
Engineering Division

BILL PARTINGTON, MAYOR
 JOYCE SHANAHAN, CITY MANAGER

ALEX SCHUMANN, P.E. CITY ENGINEER

CDBG S. WASHINGTON ST SIDEWALK IMPROVEMENTS

CONSTRUCTION DETAILS & NOTES

DATE:	3/11/2022
SCALE:	
DRAWN BY:	MC

PROJECT NO.:	00-
FILE NAME:	
SHEET:	Pack

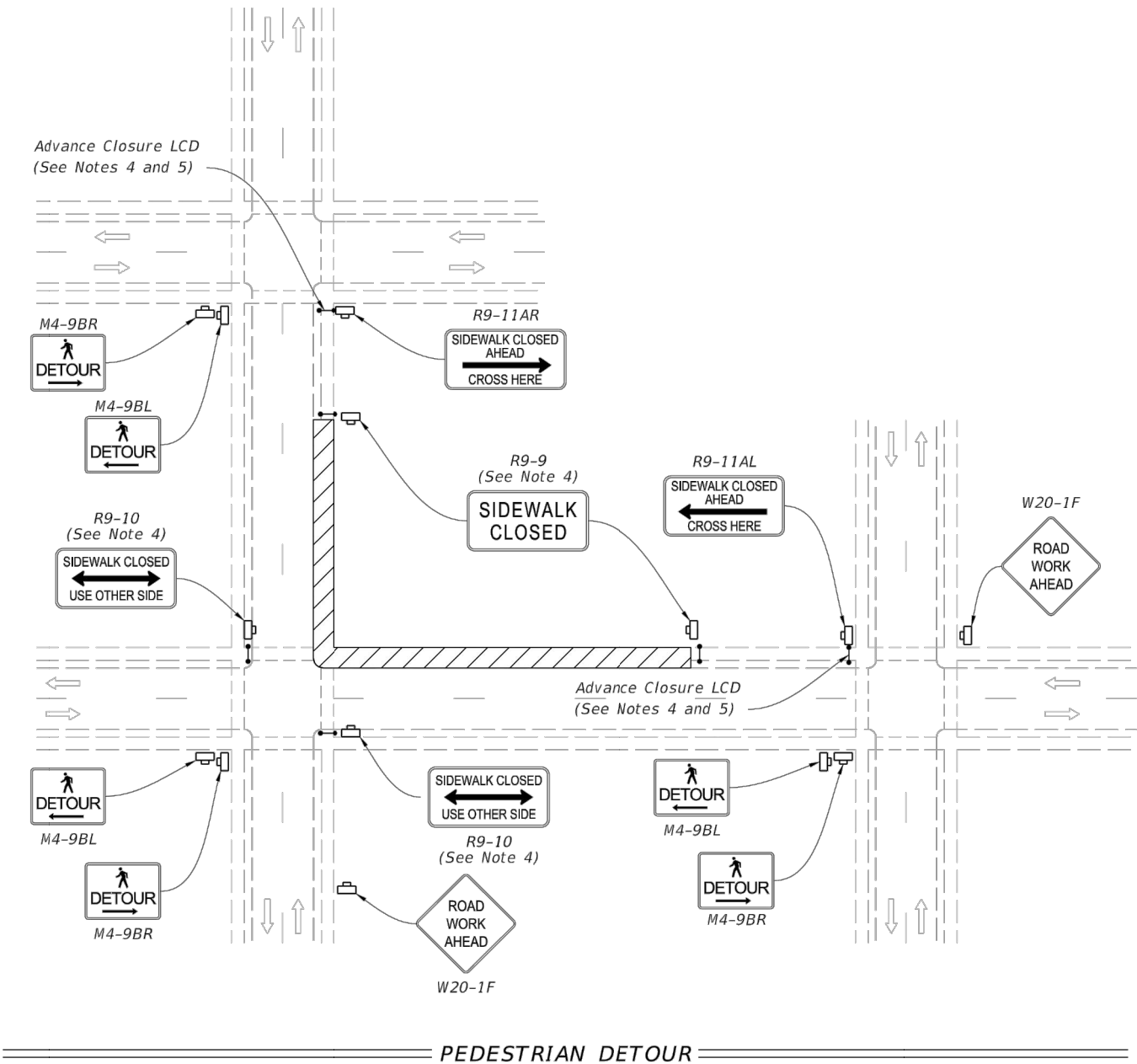
Packet Pg. 761

NOTES:

- 1. Cover or deactivate pedestrian traffic signal display(s) controlling closed crosswalks.
- 2. Place pedestrian LCDs across the full width of the closed sidewalk.
- 3. For post mounted signs located near or adjacent to a sidewalk, maintain a minimum 7" clearance from the bottom of the sign panel to the surface of the sidewalk.
- 4. "Sidewalk Closed" signs (R9-XX) may be mounted on pedestrian LCDs in accordance with the manufacturer's instructions.
- 5. Omit the Advance Closure LCD if it blocks access to other pedestrian facilities (e.g., transit stops, residences, or business entrances).

SYMBOLS:

- Work Area
- Work Zone Sign
- Pedestrian Longitudinal Channelizing Device (LCD)
- Lane Identification and Direction of Traffic



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LAST REVISION		DESCRIPTION:	FDOT	FY 2022-23 STANDARD PLANS	SIDEWALK CLOSURE	INDEX 102-660	SHEET 1 of 2
NO.	DATE						
11/01/20							

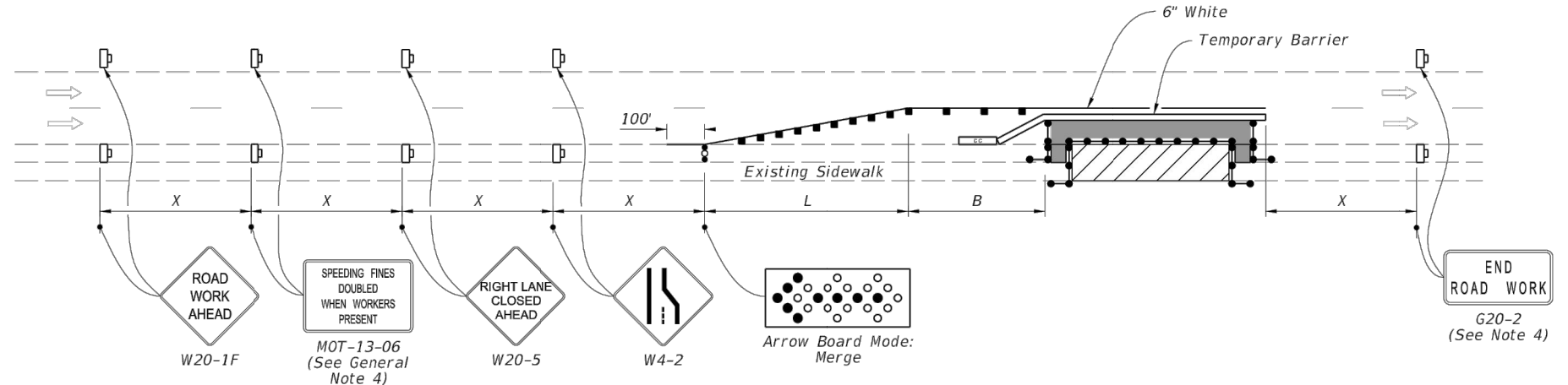
DRAWING STATUS	
	DRAFT
	PERMIT
	BID
	ADDENDA
	CONSTRUCTION
	RECORD

NOTES:

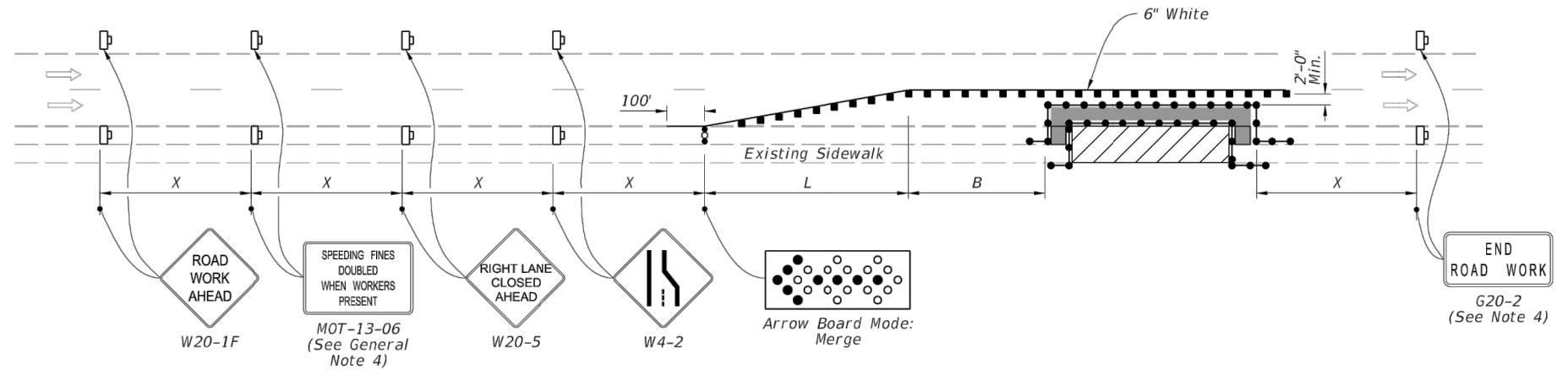
1. L = Taper Length
B = Buffer Length
X = Work Zone Sign Distance
See Index 102-600 for "L", "B", "X", channelizing device spacing values.
2. Provide a 5' wide temporary pedestrian way with a maximum cross-slope of 0.02, except where space restrictions warrant a minimum width of 4'. Provide a 5' x 5' passing space for temporary pedestrian ways less than 5' in width at intervals not to exceed 200'.
3. When temporary pedestrian ways require curb ramps, meet the requirements of Index 522-002. Detectable warnings are not required for curb ramps diverting pedestrian traffic into a closed lane.
4. The "Speeding Fines Doubled When Workers Present" signs (MOT-13-06) and "End Road Work" signs (G20-2), along with associated work zone sign distances, may be omitted when the work operation will be in place for 24 hours or less.
5. Pedestrian Diversion Option 2 may only be used when called for in the Plans or as approved by an Engineer.

SYMBOLS:

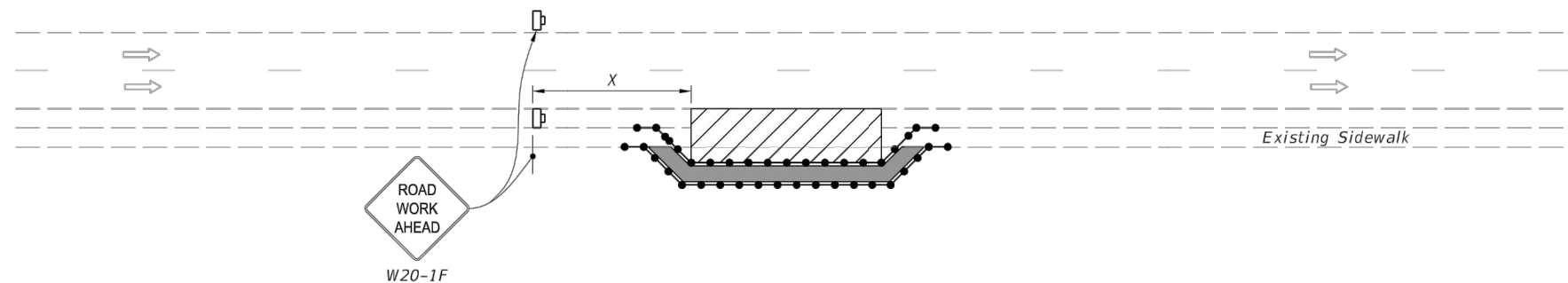
- Work Area
- Temporary Pedestrian Way
- Channelizing Device (See Index 102-600)
- Pedestrian Longitudinal Channelizing Device (LCD)
- Work Zone Sign
- Arrow Board
- Crash Cushion
- Lane Identification and Direction of Traffic



PEDESTRIAN DIVERSION - OPTION 1
(Temporary Barrier Shown, Low Profile Barrier Similar)



PEDESTRIAN DIVERSION - OPTION 2
(Work Zone Speed 35 mph or Less)



PEDESTRIAN SPECIAL DETOUR

LAST REVISION 11/01/21		DESCRIPTION:	FDOT FY 2022-23 STANDARD PLANS		SIDEWALK CLOSURE		INDEX 102-660	SHEET 2 of 2	DRAWING STATUS DRAFT PERMIT BID ADDENDA CONSTRUCTION RECORD		
NO.	DATE	REVISIONS	BY	City of Ormond Beach Engineering Division		CDBG S. WASHINGTON ST SIDEWALK IMPROVEMENTS		MOT		DATE: 3/11/2022 SCALE: DRAWN BY: MC	PROJECT NO.: 00- FILE NAME: SHEET:
				BILL PARTINGTON, MAYOR JOYCE SHANAHAN, CITY MANAGER ALEX SCHUMANN, P.E. CITY ENGINEER						Packet Pg. 763	

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CITY OF ORMOND BEACH

City Manager • 22 S. Beach Street • Ormond Beach • Florida • 32174 • (386) 676-3200 • Fax (386) 676-3384

CITY MANAGER MEMORANDUM

To: The Honorable Mayor Partington and City Commissioners

Through: Joyce A. Shanahan, City Manager

From: Alex Schumann, City Engineer

Date: May 3, 2022

Subject: Transportation Consulting Renewal

Commission Goal: Transportation - Other

Introduction

This is a disposition item notifying the City Commission of staff's intent to automatically renew the agreement with Ghyabi Consulting and Management LLC for transportation consulting services.

Background

In 2019, the City solicited proposals for transportation consulting services through RFP 2019-21. An Agreement was awarded to Ghyabi Consulting and Management, LLC by Resolution No. 2019-100. The agreement had an initial term of one year and provided for five (5) additional one-year terms upon mutual agreement of the parties. The first one-year renewal was approved in 2020 per Resolution No. 2020-49, and the second renewal was approved in 2021 per Resolution 2021-11, which also amended the Agreement for automatic renewals for years three through five.

Discussion

This automatic renewal is the third renewal of the Agreement for the period May 21, 2022 through May 20, 2023, per the City's and Consultant's mutual consent.

Budget Impact

Funding for this agreement is provided by the Fund 308 - Transportation Fund at the contract amount of \$48,000 annually.

Citizen Impact

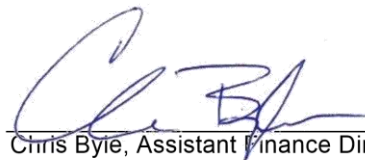
The Agreement for transportation consulting services provides the City with professional expertise to assist in acquiring funding and prioritization of various transportation projects that meet the goals and objectives of Ormond Beach citizens.

Recommendation

Staff intends to allow the contract with Ghyabi Consulting and Management LLC to automatically renew for one year unless otherwise directed by the City Commission.

Attachments:

- Ghyabi Transportation Consulting Agmt (PDF)

REVIEWED BY:
Chris Byie, Assistant Finance Director 4/25/2022
Claire Whitley, Assistant City Manager 4/25/2022**APPROVED BY:**
Joyce A. Shanahan, City Manager 4/27/2022

AMENDMENT AND RENEWAL OF AGREEMENT FOR TRANSPORTATION CONSULTING SERVICES

THIS AMENDMENT AND RENEWAL OF AGREEMENT is made and entered into by and between the **CITY OF ORMOND BEACH**, a Florida municipal corporation, hereinafter referred to as “City”, and **GHYABI CONSULTING MANAGEMENT, LLC**, hereinafter referred to as “Ghyabi”, for the purposes stated herein as follows:

WHEREAS, the City and Ghyabi are parties to a certain Agreement for Transportation Consulting Services effective May 21, 2019 for an initial term of one year, with the option to renew for five (5) additional one-year terms, and

WHEREAS, the parties exercised the first renewal on May 12, 2020 for the period May 21, 2020 to May 20, 2021 and desire to exercise the second one-year renewal provision contained in the Agreement for the period May 21, 2021 to May 20, 2022, and

WHEREAS, the parties additionally desire to amend the subject Agreement to allow for the remaining renewals to be on an automatic basis without the need to execute an amendment document, now therefore;

1. **Paragraph 2. Term**, is hereby amended to read as follows:

This Agreement shall be effective on the date it is fully executed by the parties. The initial term of this Agreement will be for one (1) year and may be renewed for five (5) additional one-year terms upon mutual agreement of the parties. The third, fourth and fifth renewals shall be on an automatic basis without the need to execute an amendment.

2. The initial term of the Agreement set forth in Paragraph 2 is hereby renewed for a one-year period of time, unless otherwise renewed or terminated in accordance with the terms and conditions set forth therein.

3. This Amendment and Renewal of Agreement, including the recitals set forth hereinabove, is made a material part of the aforesaid Agreement previously executed by the parties.

4. All other terms and conditions set forth in the Agreement previously executed by the parties shall remain the same.

IN WITNESS WHEREOF, the parties hereto have caused this Amendment and Renewal of Agreement to be executed by the following duly authorized representatives of the parties on the dates indicated below.

DATED this 20 day of July, 2021.

Witnesses:

CITY OF ORMOND BEACH

Wendy Hantz

Print Name: Wendy Hantz

Taylor Cochert

Print Name: Taylor Cochert

By: Bill Partington

BILL PARTINGTON
Mayor

By: Joyce Shanahan

JOYCE SHANAHAN
City Manager



DATED this 12th day of July, 2021.

Witnesses:

**GHYABI CONSULTING
MANAGEMENT, LLC**

Emily M. Casey

Print Name: Emily Casey

By: Maryam Ghyabi-White

Print Name: Maryam Ghyabi-White

Title: CEO

Scott Parr

Print Name: Scott Parr

Attest: Tennille Lea Heart

Print Name: Tennille Heart

Title: Notary



Tennille Lea Heart
NOTARY PUBLIC
STATE OF FLORIDA
Comm# GG911932
Expires 9/11/2023

RENEWAL OF AGREEMENT FOR TRANSPORTATION CONSULTING SERVICES

WHEREAS, the **CITY OF ORMOND BEACH**, a Florida municipal corporation, hereinafter referred to as "City", and **GHYABI CONSULTING & MANAGEMENT, LLC**, hereinafter referred to as "Contractor", became parties to a certain Agreement for transportation consulting services for an initial term of one year effective on May 21, 2019, and

WHEREAS, a renewal provision contained in the aforesaid agreement provided for five one-year renewal periods, subject to the mutual agreement of the parties, and

WHEREAS, the parties hereby agree to the renew said Agreement for the first renewal period, now therefore

1. This Renewal including the recitals set forth hereinabove, is made a material part of the aforesaid Agreement previously executed by the parties.
2. The initial term set forth in Paragraph 2 of the Agreement is hereby renewed for a one-year period of time; and the Agreement shall remain in effect through May 20, 2021, unless otherwise renewed or terminated in accordance with the terms and conditions set forth therein.
3. All other terms and conditions set forth in the Agreement previously executed by the parties shall remain the same.

IN WITNESS WHEREOF, the parties hereto have caused this Renewal to be executed by the following duly authorized representatives of the parties on the dates indicated below.

DATED this 12 day of May, 2020.

Witnesses:

CITY OF ORMOND BEACH

Wendy Hontz
Print Name: Wendy Hontz

By: Bill Partington
BILL PARTINGTON
Mayor

Angela Gibbs
Print Name: Angela Gibbs

By: Joyce Shananahan
JOYCE SHANAHAN
City Manager

DATED this 27 day of April, 2020.

Witnesses:

**GHYABI CONSULTING &
MANAGEMENT, LLC**

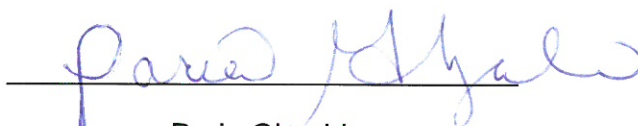


Print Name: Terry White

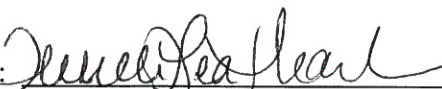
By: 

Print Name: Maryam Ghyabi-White

Title: CEO



Print Name: Paria Ghyabi

Attest: 

Print Name: Tennille Heart

Title: Notary



Tennille Lea Heart
NOTARY PUBLIC
STATE OF FLORIDA
Comm# GG911932
Expires 9/11/2023

AGREEMENT

THIS AGREEMENT is made and entered into by and between the **City of Ormond Beach** (“City”), a Florida municipal corporation, 22 South Beach Street, Ormond Beach, Volusia County, Florida and **Ghyabi Consulting & Management, LLC** (“Contractor”), 1459 N. Highway US1, Suite 3, Ormond Beach, FL 32174 and in consideration of the mutual promises and covenants herein contained, the receipt and sufficiency of which are hereby acknowledged, the parties hereby agree to the following:

1. **Scope of Work.** The Request for Proposals (“City of Ormond Beach Transportation Consultant Services”, RFP No. 2019-21) dated April 24, 2019 attached hereto as Exhibit “A” and the Proposal dated April 25, 2019 attached hereto as Exhibit “B”, are incorporated herein by reference and are a material part of this Agreement. The Contractor shall fully comply with the terms and conditions described in the attached exhibits.
2. **Term.** This Agreement shall be effective on the date it is fully executed by the parties. The initial term of this Agreement will be for one (1) year and may be renewed for five (5) additional one-year terms upon mutual agreement of the parties.
3. **Consideration.** Contractor shall perform the services at the prices set forth in the attached exhibits. Contractor shall prepare and submit invoices to the City at the address set forth in Paragraph 9 of this Agreement. All such invoices shall be paid by the City within thirty (30) days.
4. **Delivery.** Contractor shall complete the project within the time frame set forth on the attached exhibits.
5. **Termination of Agreement.**
 - (a) The City Commission shall have the right to terminate the Agreement in the event the Contractor files any petition or proceeding for bankruptcy relief, or is adjudicated to be bankrupt or insolvent, or fails to pay just debts as they ordinarily become due; or for a material breach of this agreement that remains uncured for at least thirty days after prior written receipt of a notice of violation of same.
 - (b) This Agreement may not be terminated by the Contractor.
6. **Assignment.** The Contractor shall not assign, convey or transfer all or any part of this Agreement, or all or any part of Contractor’s interest herein, or all or any part of any interest in the Contractor, without the prior written consent of the City Commission, which consent shall not be unreasonably withheld.
7. **Complete Agreement.** This Agreement, including the provisions set forth in the exhibits attached hereto and incorporated by reference herein, constitutes the entire and complete

agreement of the parties, and the promises and covenants herein contained shall survive the life of this Agreement.

8. **Amendment to Agreement.** Any amendment, change, or modification of this Agreement must be in writing and fully executed by both parties.
9. **Notices.** All notices which are required by this Agreement shall be provided to the parties at the following addresses, or such other addresses as may be requested in writing by either party:

City of Ormond Beach
Joyce Shanahan, City Manager
(copy to City Attorney)
22 South Beach Street
Ormond Beach, FL 32174

Ghyabi Consulting & Management, LLC
Maryam H. Ghyabi-White, President
1459 N. Highway US1, Suite 3
Ormond Beach, FL 32174

10. **Sovereign Immunity.** The City expressly retains and reserves all rights, privileges, immunities, and benefits of sovereign immunity. This provision shall be construed broadly in favor of the City.
11. **Venue.** The terms and conditions of this Agreement shall be construed and enforced under the laws of the State of Florida. Any action or proceeding, either at law or in equity, regarding this Agreement shall be brought in the circuit court, Seventh Judicial Circuit in and for Volusia County, Florida. Venue in any other jurisdiction or forum, whether it be any other circuit, state or federal venue, is hereby expressly waived.
12. **Waiver of Conditions.** No waiver by the City of any condition or breach of performance by the Contractor shall constitute an irrevocable, continuing, or subsequent waiver by the City of the same condition or breach of performance, or of any other condition or other breach of performance.
13. **Severability.** If any part of this Agreement is declared to be unenforceable or void by a court of competent jurisdiction, the remaining parts of the Agreement shall remain in full force and effect as long as the services to be provided by the Contractor are not materially affected, altered or impaired as a result of said judicial declaration.
14. **Conflicting Provisions.** In the event of any conflict between the provisions of this Agreement and any exhibits, the provision most favorable to the City shall control and shall be given full force and effect.
15. **Indemnification.** The City, its agents, employees, and officials, both elected and appointed, shall be indemnified and held harmless by Contractor from any and all liabilities, claims, and causes of action which may arise out of the willful, negligent, or unlawful acts or omissions of the Contractor or its subcontractors in the performance of this Agreement, unless such claims are a result of the City's sole negligence, as determined by the final decision maker of such claim.

16. **Duty to Defend.** The Contractor shall defend all suits and administrative actions, including all appellate proceedings, brought against the City, its agents, employees, and officials, both elected and appointed and shall pay all attorneys' fees and costs associated with the City's legal defense, as may be selected by the City, arising from all claims and causes of action described in Section 15 above. Such payment on behalf of the City shall be in addition to any and all other legal or equitable remedies available to the City and shall not be considered to be the City's exclusive remedy.
17. **Contractor's Insurance.** The Contractor shall purchase and maintain for the entire life of this Agreement, including any and all approved time extensions, until its final acceptance by the City, such insurance as will protect the Contractor from claims under Workers' Compensation, disability benefit laws or other similar employee benefit laws; from claims for damages because of bodily injury, occupational sickness or disease, or death of Contractor's employees; from claims insured by usual or unusual injury liability coverage; from claims or injury to or destruction of tangible property and from claims insured by usual Commercial General Liability coverage. This includes loss of use resulting therefrom, any or all of which may arise out of the Contractor's operations under this Agreement, whether such operations be by the Contractor, or by any Subcontractor, or by anyone directly or indirectly employed by any of them or for whose acts any of them may be legally liable. The Contractor's deductibles/self-insured retentions shall be disclosed to the City and may be disapproved by the City, and may be reduced or eliminated at the sole discretion of the City. The Contractor is responsible for the amount of any deductible or self-insured retention.
18. **Types of Insurance and Limits of Liability.** The insurance required herein shall be written for not less than the limits of liability specified herein or as required by law, whichever is greater, and shall include the following:

- (a) Workers' Compensation Insurance in statutory limits for the State of Florida with Coverage B - Employer's Liability limits of not less than:

\$100,000. Each Accident Bodily Injury by Accident

\$100,000. Each Employee Bodily Injury by Disease

\$500,000. Policy Limit Bodily Injury by Disease

Certificate of Exemptions. If the contractor has a State-issued Certificate of Exemption, the contractor may provide a copy in place of the requirement for coverage. However, if the contractor subcontracts or retains any other person or entity to perform under the contract, that person or entity must provide proof of workers' compensation insurance as required by law or provide a Certificate of Exemption.

It is the intent of the City that any individual who either contracts directly with the city or performs any work on behalf of any such contractor be covered by workers compensation insurance or have a valid exemption from said coverage.

(If applicable to the Project, the policy must include benefits under the United States Longshoremen's and Harbor Workers' Act and the Jones Act coverage--all maritime coverages.)

- (b) **Commercial General Liability Insurance** shall be written on a coverage form as broad as Insurance Services Office (ISO) Form CG 00 01 11 88, or its successor form, including but not limited to the following coverages (any deviation shall be noted on the Certificates of Insurance), and the CITY OF ORMOND BEACH shall be named as an additional insured:

1. Premises and Operations
2. Owners' & Contractors' Protective
3. Products & Completed Operations
4. Explosion, Collapse & Underground Conditions
5. Blanket Contractual Liability
6. Personal Injury Liability
7. Broad Form Property Damage Endorsement, including Completed Operations
8. Independent Contractors
9. Watercraft--Owned and Non-Owned (if applicable, endorsement must be included in General Liability policy or a separate Protection & Indemnity Policy must be written)
10. Pollution Liability (if applicable)
11. Asbestos Abatement (if applicable)
12. Fire Damage Liability

Certain coverages outlined above may not be required if they do not relate to the Agreement, as may be determined at the sole discretion of the City.

Commercial General Liability Coverage shall be written on an occurrence basis and the limits shall be no less than the following for all tiers of Contractors and Subcontractors:

<u>Contract Value</u>	<u>Limits (not less than)</u>
0 - 25,000	\$300,000 Each Occurrence \$300,000 General Aggregate* \$300,000 Aggregate Products & Completed Operations \$ 25,000 Fire Damage (any one fire)
\$25,001 - \$250,000	\$500,000 Each Occurrence \$1 Million General Aggregate* \$1 Million Aggregate Products & Completed Operations

	\$ 50,000	Fire Damage (any one fire)
\$250,001 - \$3,000,000	\$1 Million Each Occurrence \$1 Million General Aggregate* \$1 Million Aggregate Products & Completed Operations	
	\$ 50,000	Fire Damage (any one fire)
\$3,000,001 & over	20% of the Value of the Contract [Minimum \$1 Million Each Occurrence/\$2 Million General Aggregate]	

* NOTE: Commercial General Liability Coverage must be purchased on either a project basis (separate policy per contract) or an endorsement allocating an aggregate limit per location or specified project.

- (c) **Automobile Liability Insurance** for the operation, use, maintenance, loading or unloading of automobiles - ISO Symbol 1 (Any Auto) or alternatively a combination of Symbol 2 (Owned Autos), Symbol 8 (Hired Autos), and Symbol 9 (Non-Owned Autos). The coverage limits shall be no less than the following for all tiers of Contractors and Subcontractors:

<u>Contract Value</u>	<u>Limits (not less than)</u>
0 - 25,000	\$300,000 Combined Single Limit
\$25,001 - \$250,000	\$500,000 Combined Single Limit
\$250,001 and over	\$1 Million Combined Single Limit

- (d) **Excess Liability**

For Contracts of \$250,000 or more, and in addition to the scheduled underlying policies for Commercial General Liability, Automobile Liability and Employers' Liability, the Contractor shall also provide an Excess Liability Policy with a maximum self-insured retention for occurrences insured in this Excess Policy not to exceed \$25,000 and a minimum limit of \$1 Million.

- (e) **Professional Liability, Malpractice and/or Errors and Omissions**

The Contractor shall purchase and maintain professional liability, malpractice, or errors or omissions insurance with minimum limits of \$1,000,000 per occurrence. If a claims made form of coverage is provided, the retroactive date of coverage shall be no later than the inception date of claims made coverage, unless the prior policy was extended indefinitely to cover prior acts. Coverage shall be extended beyond the policy year either by a supplemental extended reporting period (ERP)

of as great a duration as is available, and with no less coverage and with reinstated aggregate limits, or by requiring that any new policy provide a retroactive date no later than the inception date of claims made coverage.

19. Requirements for Certificates of Insurance.

- (a) With the execution of this Agreement, the Contractor shall provide certificates of such insurance acceptable to the City. These certificates and insurance policies shall contain a provision that the coverage under the policies will not be canceled, non-renewed or materially changed until at least **thirty (30)** days' prior written notice of such cancellation, non-renewal or change [except for nonpayment of premium, which shall be **ten (10)** days] has been given to the City. The Contractor shall be required to replace any expired or canceled policies in like amount and coverage to the satisfaction of the City. The Certificate of Insurance shall be the ACORD FORM 25-S (7/90), or its successor form, and shall be made a part of this Agreement.
- (b) New certificates of insurance shall be provided to the City at least fifteen (15) days prior to coverage renewals.
- (c) If requested by the City, the Contractor shall furnish complete copies of the Contractor's insurance policies, forms and endorsements.
- (d) For Commercial General Liability coverage the Contractor shall, at the option of the City, provide an indication of the amount of claims payments or reserves chargeable to the aggregate amount of liability coverage. If the Commercial General Liability form of coverage includes an annual aggregate limitation on the amount of insurance provided, a separate project aggregate limit may be required by the City for the given contract.
- (e) If the Contractor fails to obtain and maintain for the life of the Agreement the insurance required hereby or to replace any such expired or canceled policy, the City may obtain and maintain such insurance with such company as it deems satisfactory. Any amounts expended by the City in payment of premiums for such insurance shall be deducted by the City from the amount due the Contractor for the work covered by the Agreement.
- (f) **Policies of Insurance**
 - 1. Except as otherwise provided herein, all insurance policies shall be issued by insurers licensed to do business in the State of Florida on an admitted basis or which is an eligible surplus lines insurer in the State of Florida, and any such insuring company is required to have a minimum financial rating of (A-) in the latest edition of "Best's Key Rating Guide", published by A. M. Best Co., Inc., or some similarly nationally recognized rating authority, including Standard and Poors and Demotech.

2. For Workers' Compensation coverage only, self-insurance programs are acceptable with a minimum A- rated reinsurance carriers; written confirmation is required.
 3. All policies of insurance or certificates thereof referred to herein shall be deposited with the City Clerk.
 4. The City shall be named an Additional Insured on General Liability and Automobile Liability policies of insurance and certificates thereof.
20. **Enforcement of Costs.** If any legal action or other proceeding is brought for the enforcement of this Agreement, or because of an alleged dispute, breach, default, or misrepresentation in connection with any provision of this Agreement, the successful or prevailing party or parties shall be entitled to recover reasonable attorneys' fees, court costs, and all expenses even if not taxable court costs (including, without limitation, all such fees, costs and expenses incident to arbitration, appellate, bankruptcy, and post-judgment proceedings), incurred in that action or proceeding or any appeal, in addition to any other relief to which the party or parties may be entitled. Attorneys' fees include legal assistant fees, expert witness fees, investigative fees, administrative costs, and all other charges billed by the attorney for the prevailing party.
 21. **Compliance With Laws.** Contractor shall comply with all applicable federal, state and local laws and regulations.
 22. **Compliance With Florida Public Records Law.** Contractor expressly agrees that it shall comply with the public records law provided in Florida Statutes, Chapter 119, and specifically to:
 - (a) Keep and maintain public records required by the City to perform the contracted service.
 - (b) Upon request from the City Clerk, provide the City with a copy of the requested records or allow the records to be inspected or copied within a reasonable time at a cost that does not exceed the cost provided in Chapter 119, Florida Statutes, or as otherwise provided by law.
 - (c) Ensure that public records that are exempt or confidential and exempt from public records disclosure requirements are not disclosed except as authorized by law for the duration of the contract term and following completion of the contract if the contractor does not transfer the records to the City.
 - (d) Upon completion of the contract, transfer at no cost, to the City all public records in possession of the contractor or keep and maintain public records required by the City to perform the service. If the contractor transfers all public records to the City upon completion of the contract, the contractor shall destroy any duplicate public records that are exempt or confidential and exempt from public records disclosure requirements. If the contractor keeps and maintains public records upon the completion of the contract, the contractor shall meet all applicable requirements for retaining public records. All records stored

electronically must be provided to the City, upon request from the City Clerk, in a format that is compatible with the information technology systems of the City.

(e) Failure of the Contractor to comply with Public Records Law as provided by Florida Statutes, Chapter 119, shall subject the Contractor to penalties under Chapter 119.10 and subject this Agreement to termination for cause by the City.

IF THE CONTRACTOR HAS QUESTIONS REGARDING THE APPLICATION OF CHAPTER 119, FLORIDA STATUTES, TO THE CONTRACTOR'S DUTY TO PROVIDE PUBLIC RECORDS RELATING TO THIS CONTRACT, CONTACT THE CUSTODIAN OF PUBLIC RECORDS AT:

**COLBY J. CILENTO, CITY CLERK
22 SOUTH BEACH STREET
ORMOND BEACH, FLORIDA 32175. (386)676-3297
COLBY.CILENTO@ORMONDBEACH.ORG**

Ref: Fla. Stat. §119.0701(2016)

23. **Limitation of Remedy and Liability.** Contractor and Owner expressly waive any claim for consequential damages against the other including but not limited to, a waiver of claims for diminished bonding capacity, loss of financing, loss of business reputation, lost profits on other projects or other lost opportunity damage claims.

Contractor expressly agrees that any claim (tort, contract, claim in equity, or otherwise) by Contractor for damages against Owner shall not exceed the total amount of the contract price, less any amounts actually paid to the Contractor by the Owner (or by an insurer of the Owner).

All liability of the City allegedly resulting from, arising out of or connected with this Agreement or from the performance or breach thereof, shall terminate three years from the execution of this Agreement.

24. **Waiver of Right to Jury Trial.** THE PARTIES HEREBY KNOWINGLY, VOLUNTARILY AND INTENTIONALLY WAIVE ANY RIGHT WHICH ANY PARTY MAY HAVE TO TRIAL BY JURY IN RESPECT OF ANY PROCEEDING, LITIGATION OR COUNTERCLAIM BASED ON, OR ARISING OUT OF, UNDER OR IN CONNECTION WITH THIS AGREEMENT OR ANY COURSE OF CONDUCT, COURSE OF DEALING, STATEMENTS (WHETHER VERBAL OR WRITTEN) OR ACTIONS OF ANY PARTY. IF THE SUBJECT MATTER OF ANY LAWSUIT IS ONE IN WHICH THE WAIVER OF JURY TRIAL IS PROHIBITED, NO PARTY TO THIS AGREEMENT SHALL PRESENT AS A NON-COMPULSORY COUNTERCLAIM IN ANY SUCH LAWSUIT ANY CLAIM BASED ON, OR ARISING OUT OF, UNDER OR IN CONNECTION WITH THIS AGREEMENT.

FURTHERMORE, NO PARTY TO THIS AGREEMENT SHALL SEEK TO CONSOLIDATE ANY SUCH ACTION IN WHICH A JURY TRIAL CANNOT BE WAIVED.

25. **Effective Date.** This Agreement shall become effective upon the date last signed by the parties hereto.

IN WITNESS WHEREOF, the undersigned parties have caused this Agreement to be signed on the dates indicated hereinbelow.

DATED this 21st day of May, 2019.

Witnesses:

CITY OF ORMOND BEACH

[Signature]
Print Name: Brendy J. Nichols

By: [Signature]
BILL PARTINGTON
Mayor

[Signature]
Print Name: Colby Cuenca

By: [Signature]
JOYCE SHANAHAN
City Manager

DATED this 17th day of May, 2019.

Witnesses:

GHYABI CONSULTING & MANAGEMENT, LLC

[Signature]
Print Name: Sandy A. Buttrum

By: [Signature]
Print Name: Maryam H. Ghyabi-White
Title: CEO/President

[Signature]
Print Name: Pedro L. Vazquez

Attest: [Signature]
Print Name: Derek Dean
Title: President

EXHIBIT "A"



City of Ormond Beach

22 South Beach Street
Ormond Beach, Florida 32174
Telephone (386) 676-3223
Fax (386) 676-3374

REQUEST FOR PROPOSALS

PROPOSER ACKNOWLEDGEMENT FORM

THIS FORM MUST BE COMPLETED AND RETURNED WITH YOUR PROPOSAL

RFP TITLE: City of Ormond Beach Transportation Consultant Services

RFP NUMBER: 2019-21

RFP OPENING DATE & TIME: April 25, 2019 – 2:00 PM

RFP OPENING LOCATION: 2nd Floor Conference Room, City Hall

Submittals Received After the Above Date and Time Will Not Be Accepted.

PROPOSER'S NAME: Ghyabi Consulting & Managment, LLC

PROPOSER'S MAILING ADDRESS: 1459 N Highway US 1, Suite 3

CITY-STATE-ZIP: Ormond Beach, FL 32174

F.E.I.N.: 83-1487227

PHONE NUMBER: 386-341-1802

EMAIL: maryam@ghyabi.com

If returning as a "No Submittal," please state reason (s): N/A

I certify that this Proposal is made without prior understanding, agreement, or connection with any corporation, firm, or person submitting a Proposal for the same materials, services, supplies, or equipment, and is in all respects fair and made without collusion or fraud. I agree to abide by all conditions of the RFP and certify that I am authorized to sign this RFP for the Proposer. In submitting a RFP to the City of Ormond Beach, the Proposer offers and agrees that if the Proposal is accepted, the Proposer will convey, assign, or transfer to the City of Ormond Beach all right, title, and interest in and to all cause, of action it may now or hereafter acquire under the Antitrust laws of the United States and the State of Florida for price fixing relating to the particular commodities or service purchased or acquired by the City of Ormond Beach. At the City's discretion, such assignment will be made and become effective at the time the City renders final payment to the Proposer.

X

AUTHORIZED SIGNATURE (MANUAL)

Maryam H. Ghyabi-White

NAME (TYPED)

President/CEO

TITLE

April 24, 2019

DATED

GENERAL CONDITIONS

PUBLIC ENTITY CRIMES: A person or affiliate who has been placed on the convicted vendor list following a conviction for a public entity crime may not submit a proposal on a contract to provide any goods or services to a public entity, may not submit a proposal on a contract with a public entity for the construction or repair of a public building or public work, may not submit Proposals on leases or real property to a public entity, may not be awarded or perform work as a contractor, supplier, subcontractor, or consultant under a contract with any public entity, and may not transact business with any public entity in excess of the threshold amount provided in Section 287.017, for CATEGORY TWO for a period of 36 months from the date of being placed on the convicted vendor list.

DISCRIMINATION: Pursuant to Section 287.134(2)(a), Florida Statutes, an entity or affiliate who has been placed on the discriminatory vendor list may not submit a bid or proposal on a contract to provide any goods or services to a public entity, may not submit a bid or proposal on a contract with a public entity for the construction or repair of a public building or public work, may not submit bid or proposal on leases of real property to a public entity, may not be awarded or perform work as a contractor, supplier, subcontractor, or consultant under a contract with any public entity, and may not transact business with any public entity.

PUBLIC RECORDS/NON-CONFIDENTIALITY OF BIDS AND/OR PROPOSALS. The City of Ormond Beach cannot and does not warrant the confidentiality of any information submitted in response to this solicitation. Florida law provides that municipal records shall at all times be open for personal inspection by any person, Section 119.01, F.S., The Public Records Law. Information and materials received by the City of Ormond Beach in connection with all Proposers' response shall be deemed to be public records subject to public inspection upon award, recommendation for award, or 10 days after bid opening, whichever occurs first. Section 119.071, F.S.

DISTRIBUTION OF BIDS AND RFP'S: The City uses the services of Onvia DemandStar (www.demandstar.com) to distribute its bids and RFP's on-line on the Internet. If you have received a copy of this RFP from any source other than Onvia DemandStar, please be aware that you may not have received the latest version of the RFP or any related addendums.

SUBMISSION OF PROPOSALS: All Proposals shall be delivered in a sealed envelope. The Request for Proposals (RFP) number, title, and opening date shall be **clearly displayed on the outside of the sealed envelope (and on the outside of any express shipping package)**. The delivery of said proposal to the Purchasing Office on or before the specified opening date and time is solely and strictly the responsibility of the Proposer. Any proposal received by the Purchasing Office after the specified date and time will not be accepted. Proposals must be presented on forms provided by the City. No other forms will be accepted. Telephone, telefax and telegraph Proposals will not be considered. No Proposal may be modified after opening. No Proposal may be withdrawn after opening for a period of ninety (90) days unless otherwise specified.

EXECUTION OF PROPOSAL: Proposals must contain a manual signature of authorized representative in the space(s) provided. Proposals must be typed or printed in ink. Use of erasable ink is not permitted. All corrections made by Proposer to any Proposal entry must be initialed. The company name and Federal Employer Identification Number (F.E.I.N.) number shall appear in the space(s) provided.

RFP OPENING: Submittals shall be opened and the name of the submitters shall be read publicly. No discussion of the Submittals will occur at this time.

PROPOSAL TABULATION: Any proposer wishing to receive a copy of the tabulation is required to enclose a stamped, self-addressed envelope with their proposal response.

CLARIFICATION/CORRECTION OF RFP ENTRY: The City of Ormond Beach reserves the right to allow for the clarification of questionable entries and for the correction of obvious mistakes.

INTERPRETATION: Any questions concerning conditions and specifications shall be directed to the Purchasing Coordinator. Those interpretations which may affect the eventual outcome of this RFP process will be furnished in writing to all prospective proposers. No interpretation shall be considered binding unless provided in writing by the City of Ormond Beach.

MINORITY POLICIES: The City of Ormond Beach, Florida, encourages the full participation of Disadvantaged and Women Business Enterprises (D&WBE) in the provision of goods and services.

LICENSES AND PERMITS: The proposer is responsible for obtaining all necessary permits and licenses to comply with all Federal, State, local laws, rules and regulations required to perform work in accordance with the specifications.

ADDITIONAL TERMS AND CONDITIONS: The City of Ormond Beach reserves the right to reject proposals containing any additional terms or conditions not specifically requested in the original conditions and specifications.

TAXES: The City of Ormond Beach is exempt from Federal Excise Taxes and all sales taxes.

SILENCE OF SPECIFICATIONS: The apparent silence of any specification and any supplemental specifications as to any details or the omission from same of any detailed description concerning any point shall be regarded as meaning that only the best commercial practices are to prevail and that only materials of first quality and correct type, size, and design are to be used. All workmanship is to be first quality. All interpretations of the specifications shall be made upon the basis of this statement.

ASSIGNMENT: Any purchase order or contract issued pursuant to a proposal and the monies which may become due thereunder are not assignable except with the prior written approval of the City Manager or City Commissioner, whichever authorized the purchase or Agreement.

LIABILITY: The Proposer shall hold and save the City of Ormond Beach, its officers, agents, and employees harmless against claims by third parties resulting from the Proposer's or supplier's breach of contract or negligence, including all attorney's fees and costs, and shall pay any and all damages, fees, and costs assessed on behalf of the City. The City expressly reserves all rights, privileges and benefits of sovereign immunity.

PATENTS AND ROYALTIES: The Proposer, without exception, shall indemnify and save harmless the City of Ormond Beach and its employees from liability of any kind, including cost and expenses for or on account of any copyrighted, patented, or unpatented invention, process, or article manufactured or used in the performance of the contract, including its use by the City of Ormond Beach. If the Proposer uses any design, device, or materials covered by letters, patent or copyright, it is mutually agreed and understood without exception that the Submittal prices shall include all royalties or cost arising from the use of such design, device, or materials in any way involved in the work.

NON-APPROPRIATION OF FUNDS: In the event sufficient budget funds are not available for a new fiscal period, the CITY shall notify the VENDOR/CONTRACTOR of such occurrence and the contract shall terminate on the last day of the current fiscal period, without any penalty or expense to the CITY of any kind whatsoever.

OTHER AGENCIES: All Proposer(s) awarded contracts from this proposal or proposal may, permit any municipality or other government agency to participate in the contract under the same prices, terms, and conditions, if agreed to by both parties.

It is understood that at no time will any city, municipality, or other agency be obligated for placing an order for any other city, municipality, or agency; nor will any city, municipality, or agency be obligated for any bills incurred by any other city, municipality, or agency. Further, it is understood that each agency will issue its own purchase orders to the awarded proposer(s).

AWARDS: The CITY reserves the right, in its sole discretion, as the best interest of the CITY may require, to make award(s) by individual item, group of items, all or none, or a combination thereof; on a geographical basis and/or with one or more vendors, contractors, consultants or specialists; or to reject any and all proposals or waive any minor irregularity or technicality in the proposals received.

NOTE: Each proposer should carefully examine this RFP and all Attachments and Exhibits. Each proposer shall judge for itself all conditions and circumstances having relationship to the proposal. Each proposer will be responsible for taking such actions as they deem necessary or prudent prior to submitting a proposal. Failure on the part of any proposer to take such actions shall not constitute grounds for declaration of not understanding the conditions with respect to making its proposal. Each proposer is responsible for reading and understanding this RFP, including, but not limited to, these instructions for submitting a proposal. Proposer's failure or neglect to review any provided provisions of an agreement and the provisions of this RFP will not relieve such proposer of any contractual obligations contained in an agreement or required under the RFP. Proposer shall have no claim for relief based upon a lack of knowledge of the content or legal effect of any such provision.

IF THE CONTRACTOR HAS QUESTIONS REGARDING THE APPLICATION OF CHAPTER 119, FLORIDA STATUTES, TO THE CONTRACTOR'S DUTY TO PROVIDE PUBLIC RECORDS RELATING TO THIS CONTRACT, CONTACT THE CUSTODIAN OF PUBLIC RECORDS AT:

LISA DAHME,
CITY CLERK
22 SOUTH BEACH STREET
ORMOND BEACH, FLORIDA 32175. (386)676-3297
LISA.DAHME@ORMONDBEACH.ORG

Ref: Fla. Stat. §119.0701(2017)

THE CITY OF ORMOND BEACH RESERVES THE RIGHT TO REJECT ANY OR ALL PROPOSALS, AND TO WAIVE INFORMALITIES AS MAY BE DEEMED TO BE IN THE BEST INTEREST OF THE CITY.

THE CITY OF ORMOND BEACH RESERVES THE RIGHT TO REJECT ANY OR ALL PROPOSALS, AND TO WAIVE INFORMALITIES AS MAY BE DEEMED TO BE IN THE BEST INTEREST OF THE CITY.

Request for Proposals for City of Ormond Beach Transportation Consultant Service (City of Ormond Beach RFP No. 2019-21)

The City of Ormond Beach (City) is providing the following scope of work (SOW) to an experienced and qualified law firm, governmental affairs consulting firm, business, individual and/or a combination thereof to provide the City of Ormond Beach with governmental representation with regards to the transportation related priorities of the City of Ormond Beach. The selected applicant shall provide leadership in articulating the Transportation Priorities of the City to the executive and legislative branches of the State of Florida, the Florida Department of Transportation, the River to Sea Transportation Planning Organization (R2C TPO), as well as interaction with other governments and agencies in the planning, coordination, and execution of the Transportation Priorities of the City of Ormond Beach.

The intent of the City is to select one (1) firm to provide the desired professional services

A. QUALIFICATION AND EXPERIENCE

To be eligible to respond to the RFP, the Proposer must demonstrate that they or the principals assigned to this project has successfully performed services described in the Scope of Services of this RFP. Respondents not meeting minimum requirements will not be considered for evaluation by the committee.

1. The selected Proposer should, at a minimum, possess:
 - a) strong working knowledge of legislative, administrative, and regulatory processes at the state level;
 - b) clear understanding of transportation issues, including specific knowledge of the City of Ormond Beach and the state of Florida programs administered by the City and a knowledge of the funding needs and policy issues important to the City;
 - c) history of successful lobbying experience at the state level;
 - d) clear strategy for representing the City at meetings with key legislators and members of the executive branch;
 - e) ability to liaison with members of the House/Senate, the Governor's office, State Agencies specifically, the Florida Department of Transportation, and Transportation Planning Organizations;
 - f) a demonstrated history of working with the Florida Department of Transportation at the State Level and within FDOT District Five;
 - g) an ability to work with the River to Sea Transportation Planning Organization to assist the City of Ormond Beach in establishing priority for its transportation goals;
 - h) expertise to provide legal and legislative research upon request;
 - i) resources to attend legislative and administrative hearings, monitor legislative and administrative developments, and report back to City staff;
 - j) experience in identifying and securing various sources of state funding;
 - k) experience in coordinating communications and meetings with House/Senate and the Administration;
 - l) experience in working with Senate and House committees;
 - m) resources to help facilitate meetings with and communications between committee leadership and senior staff;
 - n) ability to provide timely notice of hearings.
 - o) ability to provide written and verbal reports.

B. SCOPE OF SERVICES AND SPECIAL REQUIREMENTS

The selected consultant shall provide the following Services:

1. Assist the City in identifying and seeking funding opportunities for the City's Gateway Corridor – I-95 and US1 Interchange and Roadway. FDOT is in the process of preparing an Interchange Justification/Modification report that is the City's highest priority, the successful lobbyist will assist the City in ensuring that this project gets on the required lists for future funding considerations.
2. The City's second highest priority is the alternate East West Corridor Hand Ave. This corridor was once on the Long Range Planning List at the River2Sea TPO for future funding but was removed by the County. The successful lobbyist will assist the City in ensuring that this project gets on the required lists for future funding considerations.
3. Assist the City with the River2Sea TPO and assist the City in navigating that process for future funding. Review the legislative policy statements of other governments and lobbying groups for the purpose of identifying issues, which may either positively or negatively affect the City's transportation priorities.
4. Coordinate meetings between the City and Florida Department of Transportation.
5. Work with the City's other lobbyists to coordinate efforts on transportation issues.
6. Monitor, analyze and track transportation related authorizations and appropriation bills and recommend appropriate strategies.
7. Assist the City Commission, City Manager, and staff in the coordination and development of the transportation element of the City's legislative program.
8. Monitor State of Florida legislative committee meetings, agencies hearings and meetings prior to and during the regular and special legislative session(s) at which transportation issues within the City's adopted legislative program are considered.

C. RESPONSIBILITIES OF THE PROPOSER

The successful Proposer shall perform the scope of services as contained in the RFP specifications. This list of services shall not be deemed all-inclusive and may be changed from time to time as authorized by the City Manager.

D. DELIVERABLES

The selected consultant shall provide periodic written reports (at least monthly) summarizing the actions, activities, and summaries of meetings attended in the preceding period. Required reports may include but not necessarily be limited to, personal briefings and information bulletins pertinent to any legislations, rules, or regulations and other federal policies or programs that affect the City and its citizen either directly or indirectly, summaries of meetings attended by the consultant on behalf of the City of Ormond Beach, status of studies underway, and advance notice of legislation being proposed.

E. MANDATORY SUBMITTAL REQUIREMENTS

1. Proposers Experience, Qualifications and Past Performances

- a) Provide a brief introduction narrative letter highlighting the qualifications of the firm including component firm(s), legal nature of organization and number of years in existence and primary markets served.
- b) Describe the Proposer's past performance and experience in governmental representation and consulting specific to transportation priorities. Discuss in detail the extent of the Proposer's transportation experience with regards to FDOT, TPOs, and

other State Agencies, including the use of any sub consultants and their role in any engagement(s) of the Proposer.

- c) Specifically address the areas listed in the Scope of Work
- d) Provide a listing of up to three (3) comparable contracts (similar in the scope of services to those requested herein) which the Proposer has either ongoing or completed within the past three (3) years. Describe those projects performed by government client or similar size private entities. The listing should identify the following:
 - Client
 - Description of work
 - Total dollar value of the contract
 - Dates covering the term of the contract
 - Client contact person, phone number and email
 - Results of the project

2. Key Personnel and Subcontractors Performing Services

- a) Provide an organization chart showing all key personnel, including their titles, to be assigned to this project. The chart must clearly identify the Proposer's employees and those of the subcontractors or sub consultants and shall include the functions to be performed by the key personnel.
- b) Describe the experience, qualifications and other critical information, including relevant experience on previous similar projects, of all key personnel, including those of the subcontractor who will be assigned to the project.
- c) Provide resumes and job and other detailed qualifications on all key personnel who will be assigned to this project.

3. Proposed Approach to Providing the Services and Work Plan

- a) Confirm Proposer's ability to fulfill all elements of the Scope of Work
- b) Describe the Proposer's methodology including specific policies, procedures or techniques to be used in performing the services described in the Scope of Work
- c) Describe the Proposer's approach to the scheduling of work and prioritizing the City's request
- d) Address Proposer's ability and approach to complying with the reporting requirements in the Scope of Work. Describe the proposed report outline (i.e. sections, contents, etc) and attach a sample report (if available)
- e) Provide any information regarding the Proposer's general work plan which the Proposer deems relevant
- f) Identify if the Proposer has taken any exception to the terms of this Solicitation. If so, indicate what alternative is being offered and the cost implications of the exception(s).

4. Proposer's ability to assist in formulating and facilitating the City legislative agenda

- a) Provide information on Proposer's ability to understand, formulate, and facilitate the City of Ormond Beach's legislative priorities.
- b) Describe how Proposer will assist the City officials in understanding the annual state legislative priorities and developing initiatives that will achieve the greatest success in Florida legislature and relevant state agencies.

5. Fee Compensation / Expenses

The proposed fees(s) shall detail all costs: i.e. travel and related incidental out of pocket expenses, lobbying registration, if applicable. Proposer shall not be reimbursed or

otherwise paid for internal word processing, data processing or other services (i.e. local telephone serviced, copied, mail or postage services) that would reasonably be deemed the Proposers overhead expense. Proposers will be reimbursed on a quarterly basis as a flat fee, inclusive of all expenses. Price proposal shall be indicated as follows:

COST TO THE CITY – Overall Contract:

Annual FIRM, FIXED TOTAL COST NOT TO EXCEED \$ _____
(To be paid on a quarterly basis)

EVALUATION / SELECTION PROCESS

Selection Process:

A Selection Committee (The Committee) consisting of City staff will include the Deputy City Engineer, Economic Development Director, and Assistant City Manager.

The Committee's initial evaluation of Proposers shall be on the basis of the specific project needs and the professional services offered by the Proposer as stated in the Qualifying Information submitted, in accordance with those criteria listed below.

Criteria will be scored on a scale of "0" to "25" with the maximum number of points available for each criterion as noted in this section. The total maximum number of points to be scored under this process is 100.

1. Proposer's experience, qualifications and past performance in providing the type of services described in this Solicitation	20
2. Experience and qualifications of key individuals that will be assigned to this project	20
3. Proposer's approach and scope of work to provide the services described in this RFP	15
4. Proposer's understanding of major City issues, including specific knowledge of the City of Ormond Beach and ability to establish, maintain, and enhance working relationships between City elected officials and staff, and the executive and legislative branches of the State of Florida government and relevant state agencies.	20
5. Price Evaluation – Firm Fixed Annual Fee	<u>25</u>
TOTAL POINTS	100

The selection process will be as follows:

- The Committee will evaluate proposals to ensure compliance with the RFP requirements.
- The Committee will meet in accordance with the Florida Sunshine Law, and rank the proposals in accordance with the RFP evaluation criteria.

- As part of the selection process the highest ranked proposal(s) may be required to conduct a presentation before the Selection Committee.
- The Committee will transmit a ranking of the proposals to the City Commission.
- Applicants shall be notified in writing regarding their ranking.
- The City Commission shall review the recommendations of the Committee and upon approval authorize the Staff to negotiate the terms of the contract.
- The Contract Agreement requires approval by the City Commission at a public meeting.

Note: Discussions and/or interviews with qualified proposer(s) will be conducted after the due date. The City reserves the right to accept or reject any and all proposals, either in whole or in part, with or without cause, waive minor irregularities with any proposal, or make an award that is in its best interest subject to City Commission approval.

DEADLINE FOR QUESTIONS

All questions from parties must be submitted by email to Robert Schattie at robert.schattie@ormondbeach.org by Tuesday, April 16, 2019 at 3:00 p.m. This will allow for any changes or clarifications that would affect any proposal to be addressed by addendum. In an effort to provide equal access to information to every Proposer, all answers to questions asked will be provided to all Proposers.

SUBMISSION DEADLINE

On behalf of the City of Ormond Beach, sealed proposals will be received by the City of Ormond Beach Purchasing Department until the date and time set forth below:

Day of Week:	Thursday
Date:	April 25, 2019
Time:	2:00 p.m.

The original proposal, seven (7) copies of the proposal, and an electronic copy in PDF format on compact disc or USB Drive must be received and accepted in the City of Ormond Beach Purchasing Department, 22 South Beach Street, Ormond Beach, Florida, 32174. The delivery of the proposal to the Purchasing Coordinator no later than 2:00 p.m. local time, April 25, 2019 is solely and strictly the responsibility of the Proposer. Proposals received after this time will not be considered. Failure to provide the required number of copies may result in the bid proposal not being considered.

ASSIGNMENT OF WORK

It is the City's intention to solicit responses from interested parties, to evaluate the responses, and to award a contract to one (1) selected Proposer.

CONTRACT TERM

The City anticipates awarding the contract for a one (1) year period with an option of five (5) additional years on a year by year basis.

TERMS AND CONDITIONS

- The City of Ormond Beach reserves the right without prejudice to reject any or all proposals, to request clarification of information submitted, and to request additional information of one or more proposers.
- The City reserves the right to award the contract to the next most qualified firm if the successful firm fails to execute a contract within two weeks after the award of the contract by the City Commission.
- In accordance with federal, State, and local regulations, the firm shall not discriminate under the contract against any person.
- The firm shall not assign or transfer any interest in the contract without prior approval of the City Commission.
- The City reserves the right to terminate the contract at any time.
- Submission of a proposal indicates acceptance by the firm of the conditions contained in this Request for Proposals unless clearly and specifically noted in the proposal submitted and confirmed in the contract between the City of Ormond Beach and the firm selected.
- Submittals should include Conflict, Non-Conflict of Interest Statement/Litigation Statement, and Drug Free Workplace Certificate.

Risk Management and Insurance Requirements

A. Payment and Performance Bonds

1. Except as otherwise provided herein, the Contractor shall, prior to beginning performance, deliver to the City, and the City shall record in the public records of Volusia County, Florida, the Contractor's Payment and Performance Bond in an amount equal to the full amount of the Contract.
2. (a) Payment and Performance Bonds shall not be required for any contract except those which are for the construction of a public building, for the prosecution and completion of a public work (as described in Section 180.06, **Florida Statutes**, as amended from time to time) or for repairs upon a public building or public work (as described in Section 180.06, **Florida Statutes**, as amended from time to time).
- (b) With respect to those Contracts for which Payment and Performance Bonds are otherwise required:
 - i. Unless the City Manager, or his designee, determines such Bond to be necessary to protect the interests of the City, no Contractor shall be required to provide a Payment and Performance Bond for any Contract which is for \$25,000.00 or less.
 - ii. Upon the request of the contractor, good cause shown by the Contractor, and a determination that the public health, safety and welfare will be sufficiently protected, the City Commission may exempt the contractor from the requirement of providing a Payment and Performance Bond for any Contract which is for more than \$25,000.00 but is less than \$200,000.00.
3. The Payment and Performance Bond shall list the Contractor as Principal and be issued by a surety insurer authorized to do business in Florida as a surety and listed as an acceptable surety in the Federal Register.
4. The Payment and Performance Bond shall be executed pursuant to Section 255.05, **Florida Statutes**, and be in a form substantially similar to the form set forth in Section 255.05(3), **Florida Statutes**.
5. The Payment and Performance Bond shall specifically provide coverage for delay damages due to a default by the Contractor.
6. The Payment and Performance Bond shall not make the Contract part of the Bond agreement.
7. In lieu of the Payment and Performance Bond, the Contractor may file with the Finance Director of the City, in an amount equal to the full amount of the Contract, cash, a money order, a certified check, a cashier's check, an irrevocable

letter of credit, or a security of a type listed in Part II, Chapter 625, **Florida Statutes**.

8. In the event the surety on any Payment and Performance Bond furnished by the Contractor is declared bankrupt or becomes insolvent, or its right to do business in the State of Florida is terminated, the Contractor shall, within five (5) working days thereafter, substitute another Payment and Performance Bond and surety acceptable to the City.
9. The Contractor is totally and solely responsible for keeping its surety informed as to the Base Contract Price as bid, significant changes in the Project Scope, and the overall progress and completion of the Project for the entire life of the Contract.
10. The payment and performance bond requirements stated herein above shall not be applicable to service-related contracts unless otherwise determined by the City Manager in order to protect the health, safety and welfare of the general public.

B. Contractual Provisions Relative to Risk Management

All contracts for any public works to be performed, and service-related contracts, for or on behalf of the City shall include the following, or substantially similar, provisions:

1. Hold Harmless

(a) General

The City, its agents, employees, and officials, both elected and appointed, shall be held harmless from and against all claims for bodily injury, sickness, disease, death or personal injury or damage to property or loss of use resulting therefrom, arising out of the agreement, contract or lease unless such claims are a result of the City's sole negligence, as determined by the final arbiter of such claim.

(b) Professional Services Contracts

The City, its agents, employees, and officials, both elected and appointed shall be held harmless from and against all claims for bodily injury, sickness, disease, death or personal injury or damage to property or loss of use resulting therefrom arising out of performance of the agreement or contract, unless such claims are a result of the City's sole negligence, as determined by the final arbiter of such claim.

The City, its agents, employees, and officials, both elected and appointed shall also be held harmless from and against all claims for financial loss with respect to the provision of or failure to provide professional or other services resulting in professional, malpractice, or errors and omissions liability arising out of performance of the agreement or contract, unless such claims are a result of the City's sole negligence, as determined by the final arbiter of such claim.

2. Payment on Behalf of City

The Contractor shall pay all costs of the City's legal defense, as may be selected by the City, for all claims described in the Hold Harmless paragraph.

Such payment on behalf of the City shall be in addition to any and all other legal remedies available to the City and shall not be considered to be the City's exclusive remedy.

3. Loss Control/Safety

Precaution shall be exercised at all times by the Contractor for the protection of all persons, including employees and property. The Contractor shall comply with all applicable laws, regulations and ordinances related to safety and health, shall make special efforts to detect hazardous conditions, and shall take prompt action when loss control/safety measures are reasonably necessary.

The City may order work to be stopped if conditions exist that present an immediate danger to persons or property. The Contractor acknowledges that such work stoppage will not shift responsibility for any damages from the Contractor to the City.

4. Service Bond

For Service-related contracts only, the City may require the Contractor to secure a service bond with a minimum \$25,000 coverage limit for the period of the service agreement. The service bond covers dishonest acts of the contractor's employees against the City. A copy of the bond shall be provided to the City when the agreement commences.

Service-related contracts include and are not limited to businesses providing janitorial, pest control, general repair, security, carpet cleaning, locksmith, temporary employment, painting, moving services or other contracts as determined in the discretion of the Risk Manager as necessary to minimize loss.

C. Contractor's Insurance

1. General

The Contractor, including service-related contractors, shall purchase and maintain for the entire life of the Project, including any and all approved time extensions, until its final acceptance by the City, such insurance as will protect the Contractor from claims under Workers' Compensation, disability benefit laws or other similar employee benefit laws; from claims for damages because of bodily injury, occupational sickness or disease, or death of Contractor's employees; from claims insured by usual or unusual injury liability coverage; from claims or injury to or destruction of tangible property and from claims insured by usual Commercial General Liability coverage. This includes loss of use resulting therefrom, any or all of which may arise out of the Contractor's operations under the Contract Documents, whether such operations be by the Contractor, by any Subcontractor, or by anyone directly or indirectly employed by any of them or for whose acts any of them may be legally liable. The Contractor's deductibles/self-insured

retentions shall be disclosed to the City and may be disapproved by the City, and may be reduced or eliminated at the sole discretion of the City. The Contractor is responsible for the amount of any deductible or self-insured retention.

2. **Types of Insurance and Limits of Liability**

The insurance required herein shall be written for not less than any limits of liability specified and incorporated as part of the Contract Documents or as required by law, whichever is greater, and shall include the following:

- (a) Workers' Compensation Insurance in statutory limits for the State of Florida with Coverage B - Employer's Liability limits of not less than:

\$100,000. Each Accident Bodily Injury by Accident
 \$100,000. Each Employee Bodily Injury by Disease
 \$500,000. Policy Limit Bodily Injury by Disease

Certificate of Exemptions. If the contractor has a State-issued Certificate of Exemption, the contractor may provide a copy in place of the requirement for coverage. However, if the contractor subcontracts or retains any other person or entity to perform under the contract, that person or entity must provide proof of workers' compensation insurance as required by law or provide a Certificate of Exemption.

It is the intent of the City that any individual who either contracts directly with the city or performs any work on behalf of any such contractor be covered by workers compensation insurance or have a valid exemption from said coverage.

(If applicable to the Project, the policy must include benefits under the United States Longshoremen's and Harbor Workers' Act and the Jones Act coverage--all maritime coverage.)

- (b) Commercial General Liability Insurance shall be written on a coverage form as broad as Insurance Services Office (ISO) Form CG 00 01 11 88, or its successor form, including but not limited to the following coverage (any deviation shall be noted on the Certificates of Insurance):

- a. Premises and Operations
- b. Owners' & Contractors' Protective
- c. Products & Completed Operation
- d. Explosion, Collapse & Underground Conditions
- e. Blanket Contractual Liability
- f. Personal Injury Liability
- g. Broad Form Property Damage Endorsement, including Completed Operations
- h. Independent Contractors

- i. Watercraft--Owned and Non-Owned (if applicable, endorsement must be included in General Liability policy or a separate Protection & Indemnity Policy must be written)
- j. Pollution Liability (if applicable)
- k. Asbestos Abatement (if applicable)
- l. Fire Damage Liability

Certain coverage outlined above may not be required if they do not relate to the Project, as may be determined at the sole discretion of the City.

Commercial General Liability Coverage shall be written on an occurrence basis and the limits shall be no less than the following amounts for all tiers of Contractors and Subcontractors:

<u>Contract Value</u>	<u>Limits (not less than)</u>
0 - \$25,000	\$300,000 Each Occurrence \$300,000 General Aggregate* \$300,000 Aggregate Products & Completed Operations \$ 25,000 Fire Damage (any one fire)
\$25,001 - \$250,000	\$500,000 Each Occurrence \$1 Million General Aggregate* \$1 Million Aggregate Products & Completed Operations \$ 50,000 Fire Damage (any one fire)
\$250,001 - \$3,000,000	\$1 Million Each Occurrence \$1 Million General Aggregate* \$1 Million Aggregate Products & Completed Operations \$ 50,000 Fire Damage (any one fire)
\$3,000,001 & over	20% of the Value of the Contract [Minimum \$1 Million Each Occurrence/\$2 Million General Aggregate]

* NOTE: Commercial General Liability Coverage must be purchased on either a project basis (separate policy per contract) or an endorsement allocating an aggregate limit per location or specified project.

- (c) Automobile Liability Insurance for the operation, use, maintenance, loading or unloading of automobiles - ISO Symbol 1 (Any Auto) or alternatively a combination of Symbol 2 (Owned Autos), Symbol 8 (Hired Autos), and Symbol 9 (Non-Owned Autos).

<u>Contract Value</u>	<u>Limits (not less than)</u>
0 - \$25,000	\$300,000 Combined Single Limit
\$25,001 - \$250,000	\$500,000 Combined Single Limit
\$250,001 and over	\$1 Million Combined Single Limit

(d) Excess Liability

For Contracts of \$250,000 or more, and in addition to the scheduled underlying policies for Commercial General Liability, Automobile Liability and Employers' Liability, the Contractor shall also provide an Excess Liability Policy with a maximum self-insured retention for occurrences insured in this Excess Policy not to exceed \$25,000 and a minimum limit of \$1 Million.

(e) Professional Liability, Malpractice and/or Errors and Omissions

The Contractor shall purchase and maintain professional liability, malpractice, or errors or omissions insurance with minimum limits of \$1,000,000 per occurrence. If a claims made form of coverage is provided, the retroactive date of coverage shall be no later than the inception date of claims made coverage, unless the prior policy was extended indefinitely to cover prior acts. Coverage shall be extended beyond the policy year either by a supplemental extended reporting period (ERP) of as great a duration as is available, and with no less coverage and with reinstated aggregate limits, or by requiring that any new policy provides a retroactive date no later than the inception date of claims made coverage.

D. Requirements for Certificates of Insurance

1. With the execution of the Contract Documents, the Contractor, including service-related contractors, shall provide certificates of such insurance acceptable to the City. These certificates and insurance policies shall contain an endorsement that the coverage under the policies will not be canceled, non-renewed or materially changed until at least thirty (30) days' prior written notice of such cancellation, non-renewal or change (except for nonpayment of premium, which shall be ten (10) days) and a copy of the cancellation endorsement signed by an authorized representative of the insurer, be given to the City. The contractor shall be required to replace any expired or canceled policies in like amount and coverage to the satisfaction of the City. The Certificate of Insurance shall be the ACORD FORM 25-S (7/90), or its successor form, and shall be made a part of the Contract Documents.
2. New certificates of insurance shall be provided to the City at least fifteen (15) days prior to coverage renewals.

3. If requested by the City, the contractor shall immediately furnish complete copies of the Contractor's insurance policies, forms and endorsements.
4. For Commercial General Liability coverage the Contractor shall, at the option of the City, provide an indication of the amount of claims payments or reserves chargeable to the aggregate amount of liability coverage. If the Commercial General Liability form of coverage includes an annual aggregate limitation on the amount of insurance provided, a separate project aggregate limit may be required by the City for the given contract.
5. If the Contractor fails to obtain and maintain for the life of the Project the insurance required hereby or to replace any such expired or canceled policy, the City may obtain and maintain such insurance with such company as it deems satisfactory. Any amounts expended by the City in payment of premiums for such insurance shall be deducted by the City from the amount due the Contractor for the work covered by the Contract.

E. Policies of Insurance

1. Except as otherwise provided in this Exhibit, all insurance policies shall be issued by insurers licensed to do business in the State of Florida on an admitted basis or which is an eligible surplus lines insurer in the State of Florida, and any such insuring company is required to have a minimum financial rating of (A-), in the latest edition of "Best's Key Rating Guide", published by A. M. Best Co., Inc., or some similarly nationally recognized rating authority, including Standard and Poors and Demotech.
2. For Workers' Compensation coverage only, self-insurance programs are acceptable with a minimum A- rated reinsurance carriers; written confirmation is required.
3. All policies of insurance or certificates thereof referred to in this Exhibit shall be deposited with the City Clerk.
4. The City shall be named an Additional Insured on General Liability and Automobile Liability policies of insurance and certificates thereof.

**City of Ormond Beach
Request for Proposals (RFP)
City of Ormond Beach Transportation Consultant Services
(RFP No. 2019-21)**

RFP RESPONSE FORM

THIS RESPONSE IS SUBMITTED TO:

Purchasing Coordinator
City of Ormond Beach
22 S. Beach Street
Ormond Beach, Florida 32174

The undersigned SUBMITTER proposes and agrees, if this Submittal is accepted, to enter into a Contract with the CITY that reflects the items of this Request for Proposal (RFP) and to provide all services, as specified or indicated in the RFP Documents, in full accordance with the terms and conditions set forth in therein.

SUBMITTER accepts all of the terms and conditions of the General Conditions. SUBMITTER will sign the Contract) and submit the Contract security (when applicable) and other documents required by the Contract Documents within ten (10) days after the date of CITY's Notice of Award.

In submitting this information, SUBMITTER represents, as more fully set forth in the Agreement, that:

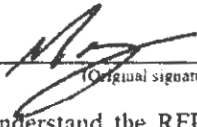
SUBMITTER has examined copies of all the RFP Documents and of the following Addenda:

Addendum Date

Addendum Number

Receipt of all of which is hereby acknowledged.

This Submittal is genuine and not made in the interest of or on behalf of any undisclosed person, firm or corporation and is not submitted in conformity with any agreement or rules of any group, association, organization or corporation; SUBMITTER has not directly or indirectly induced or solicited any other Submitter to submit a false or sham Submittal; SUBMITTER has not solicited or induced any person, firm or a corporation to refrain from bidding; and SUBMITTER has not sought by collusion to obtain for himself any advantage over any other Bidder or over the CITY.

THIS RESPONSE IS SUBMITTED BY:COMPANY NAME: Ghyabi Consulting & Management, LLCVENDOR/CONTRACTOR LICENSE NUMBER: 83-1487227ADDRESS: 1459 N Highway US 1, Suite 3
Ormond Beach, FL 32174PHONE NO.: 386-341-1802 FAX NO.: _____SUBMITTER'S NAME: Maryam H. Ghyabi-White
(Typed or Printed in Ink)TITLE: President/CEOAUTHORIZED SIGNATURE: I,  hereby
(Original signature required in each document)

declare that I have read and fully understand the RFP Documents and, including the General Conditions and the Scope of Work, and that I am duly authorized to sign and submit this Submittal.

The CITY reserves the right to reject any and all Submittals, to waive informalities, and to accept any Submittal or parts thereof as the CITY, in its sole discretion, determines to be in the best interest of the CITY.

PROPOSER: PLEASE ENSURE THAT YOU HAVE SIGNED THE RFP RESPONSE FORM OF THIS REQUEST FOR PROPOSAL. OMISSION OF A SIGNATURE ON THAT PAGE MAY RESULT IN REJECTION OF YOUR PROPOSAL.



Ghyabi Consulting & Management

**Request for Proposals
for
City of Ormond Beach Transportation Consultant Service**

(City of Ormond Beach RFP No. 2019-21)

Authority for Release of Information

I hereby authorize any representative of the City of Ormond Beach bearing this release, or copy thereof, to obtain any information in my files pertaining to credit records, criminal history records, administrative or judicial dispositions concerning the undersigned individual and/or corporations in which the undersigned may be a partner or officer.

I hereby release you, as the custodian of such records both individually and collectively, from any and all liability for damages of whatever kind, which may at any time result to me, my heirs, family or associates because of compliance with this authorization and request to release information.

Signed by:

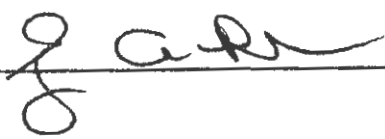


Name Maryam H. Ghyabi-White

President/CEO

Title
Date: April 25, 2019

Witnessed by:



Name Sandy Bultrum

Project Administrator

Title
Date: April 25, 2019

 Ghyabi Consulting & Management

CITY OF ORMOND BEACH, FLORIDA**CONFLICT, NON-CONFLICT OF INTEREST STATEMENT**
LITIGATION STATEMENT

- ☒ To the best of our knowledge, the undersigned firm has no potential conflicts of interest due to any other clients or contracts for this project.
- ☐ The undersigned firm, by attachment to this form, submits information which may be a potential conflict of interest due to other clients or contracts for this project.
- ☒ The undersigned firm has had no litigation on any project in the last five (5) years.
- ☐ The undersigned firm, by attachment to this form, submits a summary and disposition of individual cases of litigation during the past five (5) years.

Ghyabi Consulting & Management, LLC

COMPANY NAME



AUTHORIZED SIGNATURE

Maryam H. Ghyabi-White

NAME (PRINT OR TYPE)

President/CEO

TITLE

April 25, 2019

DATE

CITY OF ORMOND BEACH, FLORIDA

DRUG-FREE WORKPLACE CERTIFICATION

IDENTICAL OR "TIE" SUBMITTALS: Preference shall be given to businesses with drug-free workplace programs. Whenever two or more proposals which are equal in respect to price, quality, and service are received by the State or by any political subdivision for the procurement of commodities or contractual services, a bid received from a business that certifies that it has implemented a drug-free workplace program shall be given preference in the award process. Established procedures for processing tie bids will be followed if none of the tied vendors have a drug-free workplace program. In order to have a drug-free workplace program, a business shall:

- 1) Publish a statement notifying employees that the unlawful manufacture, distribution, dispensing, possession, or use of a controlled substance is prohibited in the workplace and specifying the actions that will be taken against employees for violations of such prohibition.
- 2) Inform employees about the dangers of drug abuse in the workplace, the business's policy of maintaining a drug-free workplace, any available drug counseling, rehabilitation, and employee assistance programs, and the penalties that may be imposed upon employees for drug abuse violation.
- 3) Give each employee that engages in providing the commodities or contractual services that are under bid a copy of the statement specified in subsection (1).
- 4) In the statement specified in subsection (1), notify the employees that, as a condition of working on the commodities or contractual services that are under bid, the employee will abide by the terms of the statement and will notify the employer of any conviction of, or plea of guilty or nolo contendere to, any violation of Chapter 893 or of any controlled substance law of the United States or any state, for a violation occurring in the workplace no later than five (5) calendar days after such conviction.
- 5) Impose sanctions on, or require the satisfactory participation in a drug abuse assistance or rehabilitation program if such is available in the employee's community, by any employee who is so convicted.
- 6) Make a good faith effort to continue to maintain a drug-free workplace through implementation of this section.

Ghyabi Consulting & Management, LLC

Company Name

Authorized Signature
Maryam H. Ghyabi-White

Print Name
President/CEO

Title

Exhibit B



GHYABI CONSULTING & MANAGEMENT, LLC



City of Ormond Beach



Transportation Consultant Services Request for Proposal # 2019-21 April 25, 2019

Presented by:

Ghyabi Consulting & Management, LLC

1459 N Highway US 1, Suite 3

Ormond Beach, FL 32174

Phone: 386-341-1802

maryam@ghyabi.com

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E: Mandatory Submittal Requirements

1. Proposer's Experience, Qualifications and Past Performance

2. Key Personnel and Subcontractors Performing Services

3. Proposed Approach to Providing the Services and Work Plan

4. Proposer's ability in formulating and facilitating the City
legislative agenda

5. Fee Compensation/Expenses

6. Contractor Insurance

7. License and Certification



City of Ormond Beach

22 South Beach Street
Ormond Beach, Florida 32174
Telephone (386) 676-3223
Fax (386) 676-3374

REQUEST FOR PROPOSALS

PROPOSER ACKNOWLEDGEMENT FORM

THIS FORM MUST BE COMPLETED AND RETURNED WITH YOUR PROPOSAL

RFP TITLE: City of Ormond Beach Transportation Consultant Services

RFP NUMBER: **2019-21**

RFP OPENING DATE & TIME: **April 25, 2019 – 2:00 PM**

RFP OPENING LOCATION: **2nd Floor Conference Room, City Hall**

Submittals Received After the Above Date and Time Will Not Be Accepted.

PROPOSER'S NAME: Ghyabi Consulting & Managment, LLC

PROPOSER'S MAILING ADDRESS: 1459 N Highway US 1, Suite 3

CITY-STATE-ZIP: Ormond Beach, FL 32174

F.E.I.N.: 83-1487227

PHONE NUMBER: 386-341-1802

EMAIL: maryam@ghyabi.com

If returning as a "No Submittal," please state reason (s): N/A

I certify that this Proposal is made without prior understanding, agreement, or connection with any corporation, firm, or person submitting a Proposal for the same materials, services, supplies, or equipment, and is in all respects fair and made without collusion or fraud. I agree to abide by all conditions of this RFP and certify that I am authorized to sign this RFP for the Proposer. In submitting a RFP to the City of Ormond Beach, the Proposer offers and agrees that if the Proposal is accepted, the Proposer will convey, assign or transfer to the City of Ormond Beach all rights, title, and interest in and to all causes of action it may now or hereafter acquire under the Antitrust laws of the United States and the State of Florida for price fixing relating to the particular commodities or services purchased or acquired by the City of Ormond Beach. At the City's discretion, such assignment shall be made and become effective at the time the City tenders final payment to the Proposer.

X


AUTHORIZED SIGNATURE (MANUAL)

Maryam H. Ghyabi-White

NAME (TYPED)

President/CEO

TITLE

April 24, 2019

DATED

E1. Proposers Experience, Qualifications and Past Performances



E1 (a,b,c,d)

E-1(a) Provide a brief introduction narrative letter highlighting the qualifications of the firm including component firm(s), legal nature of organization and number of years in existence and primary markets served.

April 25, 2019

Purchasing Office
City of Ormond Beach
22 South Beach Street
Ormond Beach, Florida 32174

Re: City of Ormond Beach Transportation Consultant Services:
RFP 2019-21

Dear Sir or Madam:

We are pleased to submit this letter of interest in response to RFP 2019-21, seeking transportation consulting services for the City of Ormond Beach. Our firm Ghyabi Consulting & Management, LLC, (GCM) is located at 1459 N. Highway US 1, Suite 3, Ormond Beach, Florida 32174.

Ghyabi Consulting & Management is the next generation of Ghyabi & Associates and is Florida duly registered with the State of Florida as a limited liability corporation (LLC). GCM was formed in 2018 and is a Women-Owned Business. GCM has assembled a team of professionals that have been engaged in solving transportation problems throughout the State of Florida since 1995.

Maryam H. Ghyabi-White will be the city's key contact person. Her career in transportation, engineering, and planning spans over 30 years and includes positions with the Florida Department of Transportation (FDOT), and the Volusia County Government. Maryam has

had leadership roles on essential projects throughout Volusia County, Central Florida and the State of Florida, including prioritizing East International Speedway Boulevard's (ISB) planning, design and construction, I-95/US 1, PD&E study, and the planning, design, and the construction of the I-4 bridge over the St. Johns River.

Maryam and GCM team will articulate the transportation priorities of the City of Ormond Beach to the Florida Department of Transportation (FDOT) both at District and State level and the River to Sea Transportation Planning Organization(R2CTPO). GCM will interact with other government agencies in the planning, coordination, and execution of the transportation priorities of the City.

Ghyabi Consulting & Management would be honored to represent the City of Ormond Beach on transportation matters and stand ready to assist the city in achieving its goals. GCM will ensure the City's continued success and growth.

Thank you for your consideration, and we look forward to hearing from you.

Respectfully submitted,

Ghyabi Consulting & Management



Maryam H. Ghyabi-White

President/CEO

E-1(b) Describe the Proposer's past performance and experience in governmental representation and consulting specific to transportation priorities. Discuss in detail the extent of the Proposer's transportation experience with regards to FDOT, TPOs, and other State Agencies, including the use of any sub consultants and their role in any engagement(s) of the Proposer.

Ghyabi Consulting & Management, LLC (GCM) is the next generation of Ghyabi companies that have had a profound impact on Florida Communities including the City of Ormond Beach. The company serves a wide variety of public and private sector clients, whose projects have stimulated vast improvement throughout the region.

Maryam Ghyabi-White has been at the forefront of essential projects throughout Volusia County and the State of Florida. As a transportation leader, she has led efforts to secure funding for construction of the Interstate 4 (I-4) bridge over the St. John's river. The I-4 bridge project was not only an obstacle to travel to Central Florida; it was also a major safety concern. Maryam had to build a coalition of central Florida leaderships from the Florida Department of Transportation, Volusia County, Seminole County, Orange County, Metro Plan Orlando (MPO), and River to Sea Transportation Planning Organization, to expedite the funding. Through these efforts, Maryam and a team of leaders formed MPO Alliance that is still in existence and has been tasked with prioritizing major infrastructure projects throughout Central Florida. Her efforts have been recognized locally, statewide, nationally, and she was named "Woman of the Year" in Central Florida. Maryam served on the St. Johns River Water Management District (SJRWMD) board for eight years and worked closely with the staff to automate the complex permitting process without compromising environmental issues and concerns. These efforts were recognized state-wide, and other Water Management Districts were encouraged to follow the same process.

GCM is a team of professionals committed to providing a day-to-day contact person for each client. Maryam Ghyabi-White will be the appointed person in charge of working with the City of Ormond Beach to overcome transportation challenges facing the City.

For more than 30 years as a leader in planning and engineering fields, Maryam Ghyabi-White has successfully represented local governments in identifying and reviewing complex transportation projects for strategy during study, design, and construction phases. Ms. Ghyabi-White has assisted with identifying sources of funding from both state and federal authorities. She understands the regulations and processes of the government agencies throughout the State of Florida.

Maryam Ghyabi-White will continue to be the appointed professional serving as the key contact for the City and the entire team so that the City will receive the total benefit of the firm's resources.

GCM is committed to meet the needs of the City and plans to subcontract the necessary engineering work to Zev Cohen and Associates, Inc. (ZCA). GCM and ZCA have worked together on a variety of projects over the last several decades. In addition, ZCA has worked with the City of Ormond Beach team for many years. Over the course of this lengthy tenure, GCM and ZCA have been involved firsthand with all aspects of the City's Transportation needs. The firms of GCM and ZCA are both strategically located in Ormond Beach, FL.

Maryam and the firm's leaders have successfully represented hundreds of private and public sector clients before Florida governmental entities on everything from transportation planning and engineering, public involvement, city planning, and urban planning. GCM professionals have guided local and state agencies in navigating complex government processes with extensive knowledge of state and local government requirements, from allocation of resources to final inspection.

Our team's extensive network and on-going participation in local government issues, specifically the allocation of state resources, enables our team to advise local government clients on different sources of funding and the process to secure and implement for much-needed transportation projects.

The team of Ghyabi Consulting & Management has decades of experience enabling the firm to advise on the best strategy to provide a safe and efficient transportation system serving its citizens while moving people and goods.

GCM is also proudly serving as a woman-owned business and holds a State of Florida Woman Business Certification.

E-1(c) Specifically address the areas listed in the Scope of Work

Scope of Work (B1-8)

B-1 Assist the City in identifying and seeking funding opportunities for the City's Gateway Corridor I-95 and US 1 Interchange and Roadway. FDOT is in the process of preparing an Interchange Justification/Modification report that is the City's highest priority, the successful lobbyist will assist the City in ensuring that this project gets on the required lists for future funding considerations.

Ghyabi Consulting & Management, LLC has reviewed the City's scope of work for this opportunity and stands ready to assist with the goals and deliverables described therein.

Maryam H. Ghyabi-White has experienced decades of success in transportation funding. She has a vast amount of knowledge of the I-95 and US 1 existing projects, of which the Florida Department of Transportation–District 5 (FDOT-D5) is currently in the preparation phase of the interchange justification/ modification report. The building of this interchange occurred during the Eisenhower administration, and it is more than 50 years old. This interchange is the gateway to the City of Ormond Beach and Volusia County. The interchange design is constrained due to Right-Of-Way (ROW) buildout around the interchange and the existence of Florida East Coast Railway (FEC).

At present, the FDOT is conducting an on-going Interchange Justification Modification report and currently is proposing a Diverging Diamond Interchange (DDI). The DDI design is aimed at reducing project delivery time, enhancing safety, and protecting the environment. This project currently is a candidate project for FY2025 and has the FDIP [419772-2](#). When the work program opens this year, the schedule will need to be revisited. The FDOT's 5-year work program has set aside \$2.5 million of Planning, Capital, and Environmental study (PD&E) funding.

During the PD&E Study, FDOT will identify feasible build alternatives for the interchange, the roadway improvements, and their social, economic, and environmental effects. A PD&E study will be finalized when the Federal Highway Administration (FHWA), reviews the documentation, and recommendations then provides a Location and Design Concept Acceptance (LDCA).

A PD&E Study is required even if the federal funds are not used. The Study would need to meet state requirements which are similar to the federal requirements in analyzing the effects of the proposed improvements. The state document is called a State Environmental Impact Report (SEIR), or a Non-Major State Action (NMSA), and the document will need to be signed by the FDOT District Secretary.

Once PD&E preferred design alternative is recommended, the project may proceed to the next phase, which is the Design Phase.

There are five steps in transportation planning including the following:

1. **Long Range Planning:** The FDOT and local governments conduct long-range transportation planning on an on-going basis to identify and prioritize individual projects.
2. **Project Development and Environment Study (PD&E):** During this step, design options and their social and environmental effects are examined.
3. **Design:** During design, detailed construction plans are prepared.
4. **Right-Of-Way Acquisition:** This phase entails acquisition of necessary right-of-way, based on the construction plans.
5. **Construction:** The roadway is built during this phase.



B-2 The City's second highest priority is the alternate East West Corridor Hand Ave. This corridor was once on the Long- Range Planning List at the River2Sea TPO for future funding but was removed by the County. The successful lobbyist will assist the City in ensuring that this project gets on the required lists for future funding considerations.

The City of Ormond Beach leaders has identified a 1.65-mile extension of Hand Avenue as one of their transportation priorities to create a safe alternative to Granada Boulevard. GCM will work closely with the River to Sea TPO(R2CTPO), FDOT and Volusia County leaders to bring back Hand Avenue extension to the R2CTPO priority list as a solution to Granada Boulevard to travel East–West within the City of Ormond Beach.

This process will include an analysis of traffic congestion and operation, pedestrian, and bicycle analysis.

B-3. Assist the City with the River2Sea TPO and assist the City in navigating that process for future funding. Review the legislative policy statements of other governments and lobbying groups for the purpose of identifying issues, which may either positively or negatively affect the City's transportation priorities.

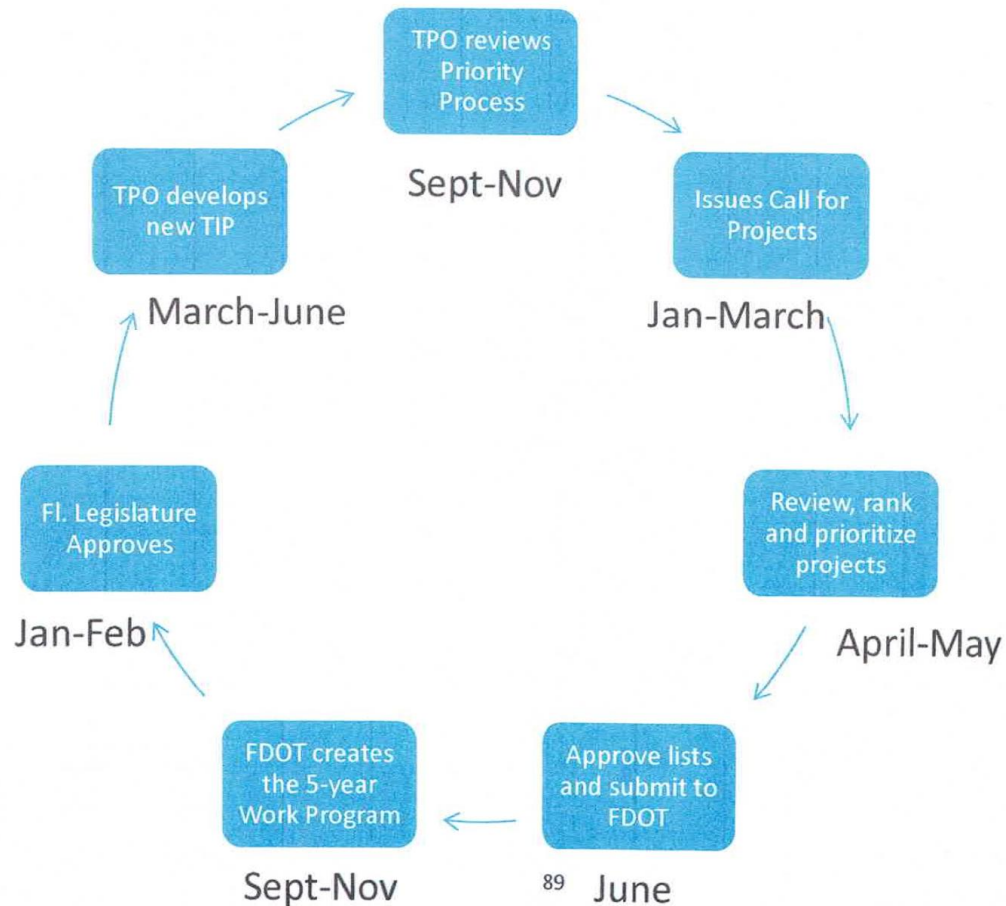
All roadways and transit projects are chosen by the R2CTPO through an established priority process. Every year R2CTPO issues a call for projects to all its members which includes Volusia County, the 16 cities, and Flagler County. After receiving the projects, a committee will evaluate, prioritize, and place them in five different categories including interstate projects, transit projects, roadway improvement projects, traffic operation or bicycle/pedestrian projects.

The process includes three project applications for (1) Traffic operations which include safety and technology, (2) Planning studies, (3) Bicycle and Pedestrian, including sidewalks and trails.

GCM will work with the city's representatives to navigate through R2CTPO process to make sure the City projects have all the necessary requirements to make the list as a priority project preparing and securing future funding.

The following is the R2CTPO Transportation priority process (Source R2CTPO)

R2CTPO Transportation Priority Process



Source: R2CTPO

B-4. Coordinate meetings between the City and Florida Department of Transportation.

GCM will coordinate the necessary meetings between the city and the leadership of FDOT both at District 5 and the Central Office in Tallahassee. GCM will be in constant communication to ensure projects success.

B-5. Work with the City's other lobbyists to coordinate efforts on transportation issues.

In order to coordinate our plan of action, our relationships and contacts with other lobbyists involved in the city, including the current Lobbying firm Metz, Husband, & Daughton, PA, will allow us to focus on transportation efforts. The team GCM has decades of experience working with governmental agencies and has developed a well-known standing and relationships with other governmental agencies, engineering firms, and lobbyist.

B-6. Monitor analyze and track transportation related authorizations and appropriation bills and recommend appropriate strategies.

GCM will work with the City of Ormond Beach to track/monitor/analyze all authorizations and appropriation bills. We will then develop the team and recommend key appropriate strategies to the City of Ormond Beach.

B-7. Assist the City Commission, City Manager, and staff in the coordination and development of the Transportation element of the City's legislative program.

GCM will work diligently with the City Commission, City Manager, and all staff members through coordination and development of the transportation element of the City's legislative program. These issues may include transportation, environmental, and infrastructure improvements. GCM will work with the City of Ormond Beach to make the process seamless.



B-8. Monitor State of Florida legislative committee meetings, agencies hearings and meetings prior to and during the regular and special legislative session(s) at which transportation issues within the City's adopted legislative program are considered.

GCM will stay abreast of all transportation issues affecting the City of Ormond Beach by monitoring the State of Florida legislative committee meetings, agencies hearings, and meetings prior to and during the regular and special legislative session, at which transportation issues within the City's adopted legislative program are considered. Our focus will be on the specific issues within the City's adopted legislative program to make sure that they receive the proper consideration, and we will focus on any others that may arise that will affect the city in some form or fashion.

E-1(d) Provide a listing of up to three (3) comparable contracts (similar in the scope of services to those requested herein) which the Proposer has either ongoing or completed within the past three (3) years. Describe those projects performed by government client or similar size private entities. The listing should identify the following:

- Client
- Description of work
- Total dollar value of the contract
- Dates covering the term of the contract
- Client contact person, phone number and email
- Results of the project



- ***Client:*** Daytona Beach International Airport
- ***Description of work:*** Transportation Assistance
- ***Total dollar value of the contract:*** \$60,000/yr.
- ***Dates covering the term of the contract:*** March 1, 2019 – present
- ***Client contact person, phone number and email:*** Rick Karl, [\(386\)248.8030](tel:3862488030), fkarl@volusia.org
- ***Results of the project:*** Working closely with Airport and Volusia county on multiple projects



- ***Client:*** Ormond Crossings
- ***Description of work:*** Review the 3,000 acres of the Ormond Crossing infrastructure and advise on how the proposed roadway-network can be upgraded. Including the two overpasses with I-95 and FEC
- ***Total dollar value of the contract:*** \$72,000/yr.
- ***Dates covering the term of the contract:*** November 2018 – Present
- ***Client contact person, phone number and email:*** Lisa Ford, (386)527.0553, estrobeck@cfl.rr.com
- ***Results of the project:*** Advises proposed roadway Network – Ormond Crossing acreage infrastructure



- ***Client:*** Zev Cohen (City of Ormond Beach)
- ***Description of work:*** Transportation and Engineering for the City of Ormond Beach, FL – Review Analysis and comment on transportation issues.
- ***Total dollar value of the contract:*** \$43,200/yr.
- ***Dates covering the term of the contract:*** October 2018 – Present
- ***Client contact person, phone number and email:*** Dwight DuRant, P.E. (386)677.2482, ddurant@zevcohen.com
- ***Results of the project:*** Successfully analyze and recommend options and strategies for infrastructure projects including I-95/US 1 Interchange

E-2. Key Personnel and Subcontractors **Performing Services**



E-2(a) Provide an organization chart showing all key personnel, including their titles, to Assigned to this project. The chart must clearly identify the Proposer's employees and those of the subcontractors or sub consultants and shall include the functions to be performed by the key personnel.



Team Leader

***Maryam H. Ghyabi-White – CEO/President
Ghyabi Consulting and Management***

**Patricia Northey
Assistant Project
Manager**

**Charles Faulkner
Quality Control
Officer**

**Pedro Vazquez
Project Finance
Officer**

**Sandy Buttrum
Project
Administrator**

Dwight DuRant, P.E.

Frank O'Keefe, P.E.

Randy Hudak, P.E.

Zev Cohen & Associates (ZCA) Engineering Team

E-2(b) Describe the experience, qualifications and other critical information, including relevant experience on previous similar projects, of all key personnel, including those of the subcontractor who will be assigned to the project.

With over 30 years of experience, Maryam H. Ghyabi-White established Ghyabi & Associates as CEO/President. She guided the company to success, putting it at the forefront of the engineering industry throughout the state of Florida. She has represented local, regional, and state government entities. She has also represented cities, counties, and quasi-governmental authorities, as well as local governments on complex projects such as transportation, environmental, engineering, consulting, management, quality control, and more. Her vast experience allows her to articulate the transportation priorities of the City of Ormond Beach, to the Florida Department of Transportation, the River to Sea Transportation Planning Organization, and other agencies. She has a unique ability to interact with governments and agencies in the planning, coordination, and execution of the transportation priorities of the City.

Maryam is among the most experienced government relations professionals in Florida. She has served as a strategic consultant and general advocate for multiple public entities. Through these experiences, she has developed close relationships with state leadership, influential committee chairs, and their staff.

Maryam has experienced decades of success in transportation funding. Her vast knowledge includes the I-95 and US 1 existing projects, which are in preparation of interchange justification/modification report by FDOT. This interchange was built during the Eisenhower administration and is now more than 50 years old. This interchange, and the gateway to the City of Ormond Beach and Volusia County, is problematic because of the buildout around the interchange and the fact that it is bound by Florida East Coast (FEC).

The on-going (Interchange Modification/Justification Report (IJR/IMR) proposes Diverging Diamond Interchange (DDI). This design is aimed at reducing project delivery time, enhancing safety, and protecting the environment. This project (as of February 19, 2019) is in FDOT's 5-year program for \$2.5 million of planning, design, and environmental study (PD&E). The PD&E is a study phase that provides the interface better planning, and design phase to evaluate different alternatives to transportation needs compatible with the environment.

This process is mandated by the Florida Highway Administration Association (FHWA) and will coordinate with the National Environmental Policy Act (NEPA).

Maryam is a long-term resident of Ormond Beach, where she lives with her husband Terry White.

Pat Northey serves in the role of Assistant Project Manager for Ghyabi Consulting & Management, bringing her vast knowledge, and experience to the company. Pat served as Project Manager of the complex 2-year SunRail study for Ghyabi and Associates.

She has served as the Florida Association of Counties appointee to the FDOT Bicycle and Pedestrian Partnership Council, and the Volusia Transportation Planning Organization (VTPO/R2CTPO) for more than 20 years, which she also chaired for 2 years. Pat was a representative for the District 5 Volusia County Council, and County Council at R2CTPO serving twice in the role of chair.

Pat has a long history of community involvement and service. She was a board member on the River to Sea Loop Alliance, Volusia County District 5 appointee to the Volusia County ECHO programs. She was the founder and chaired “Leadership West Volusia” and was a member of the Volusia League of Women Voters. Patricia is a past President for the Boys & Girls club Volusia-Flagler County, and a Board Member for Habitat for Humanity.

She has received numerous awards and recognitions including 2012 Outstanding Elected Official of the Year; Florida Planning and Zoning Association, League of Women Voters award for Environmental Advocacy, Advocate of the Year, Florida Counties Association, 2012 Hispanic Heritage Month Award, and was named by Coast Magazine as one of the community’s 30 Most Influential People.

Pat and her husband, Edward, have been married since 1969. They have two sons, Ed and Erik.

Pedro Vasquez serves as the Project Finance Manager for GCM. He has extensive experience in financial management systems.

His areas of expertise include Regulatory Compliance, Efficiency Improvements, Budget Control, Cost Reductions, Internal Audits, Forecasting, and Financial Analysis.

Pedro works directly with the President/CEO of GCM on projects utilizing his planning and management skills to keep projects on budget and provide forecast reporting. He has served in the role of Controller, Finance Manager, Senior Auditor, and Financial Advisor, and he will be the assigned budget controller over this project for GCM.

Pedro has 2 beautiful daughters, and a new grandson.

Sandy Buttrum serves as the Project Administrator for GCM. She has more than 30 years of experience as an Administrative Manager. She has worked with a variety of firms in the area of Construction, Mining, Logistics, Transportation, and Public Education.

Sandy's experience extends over a broad-spectrum including Highway/Road construction, and Mining projects throughout Tennessee, South Carolina, Georgia, and Alabama. She has a vast knowledge of logistics and transportation working with BAX Global. Sandy has also worked in higher education at Embry Riddle Aeronautical University and as a Teacher in the public-school sector.

Sandy is married to Ronny Buttrum and has one daughter who attends ERAU and majors in Aerospace Engineering. They reside in Ormond Beach.

Charles (Charlie) Faulkner serves in the role of Quality Control Officer for GCM. Charlie has a reputation for attaining permitting for projects, on a large scale, in the State of Florida. Charlie will serve as Quality Control Officer for this project. His experience in solving difficult environmental issues, helping parties to come together, and move projects forward is well known. Management, company liaison, project and team management, and tactical consulting are some of his many services and areas of expertise. Charles has strong and vast state-wide professional relationships to solve complex issues.

In addition, he handles coordinating and overseeing land sales and acquisitions, DRI's, Comprehensive plan amendments, annexations and more. He has also served as company spokesperson for media/civic organizations.

E-2(c) Provide resumes and job and other detailed qualifications on all key personnel who will be assigned to this project.

SUMMARY

Maryam Ghyabi is the CEO/President of Ghyabi Consulting and Management and serves as an adjunct professor of civil engineering at Embry Riddle University. As the former CEO/President of Ghyabi & Associates, Maryam provided leadership and support to the position of the company at the forefront of the engineering industry. Maryam also oversaw finance, production, procedures and policies, resources and revenues of the company throughout the firm's 25-year history. She was also in charge of the firm's business development and public relations initiatives. Maryam has represented the firm at the global engineering industry level and at the local level, and has represented the firm at legislative sessions and government functions.



Maryam Ghyabi - CEO/President
Ghyabi Consulting and Management

EDUCATION

- Master of Science in Civil Engineering - 1986 - University of Central Florida
- Bachelor of Science in Civil Engineering - 1984 - University of Central Florida
- Intersection and Signalization Design Georgia Institute of Technology
- Traffic Design - Northwestern University

BROADCASTING

- Adjunct Professor - Embry Riddle Aeronautical University
- WCEU Channel 15 Television Services 2001-2002 Underwriters:
'The Women In Your Life' and PBS Series Featured Mentor
- Lecturer - University of Central Florida - 2010 Topic: Transformation

BOARDS

- SunTrust Bank - Board of Trustee
- Volusia County Economic Development - Women in Business Symposium - Chair
- Advanced Technology Center - Board
- Volusia County Expressway Authority Coalition – Chair
- I-4 St. Johns River Bridge Coalition – Chair
- St Johns River Water Management District (SJRWMD) Board of Trustee and Treasurer
- Transportation Outreach Program (TOP) Board – Chair
- Women's Center Board at Daytona State College - Chair
- myregion.org – 2004
- Volusia County Area Responsible Development (VCARD) – Chair
- Central Florida Transportation Commission Task Force
- Floridians for Better Transportation - Chair
- Metropolitan Planning Organization's Technical Coordinating Committee (MPO TTC) Volusia County Representative

AWARDS

- Daytona Beach Chamber of Commerce Chairman's Award - 2018
- VCARD Citizen of the Year -2014
- Faith, Hope & Charity Society: 'Community Service Award' - 2004
- Women in Transportation, Central Florida Chapter: 'Woman of the Year' - 1999
- Letter of Commendation from Governor Jeb Bush
- Letter of Commendation from Tom Feeney, Speaker, House of Representatives
- Volusia County Association for Responsible Development Leadership Award - 2000
- Volusia County proclaimed May 31, 2001 'Maryam Hosseini Ghyabi Day'
- Volusia County MPO: Dedication & Service to Funding of Reconstruction of I-4 St. Johns River Bridge - 1999
- Volusia County Association for Responsible Development Member of the Year - 1997
- Volusia County Expressway Authority Coalition
- Volusia County MPO: Recognition as Chair - 1998
- Floridians for Better Transportation 2008 Chairman Award
- Daytona State College Women's Center - Nov 7, 2008 'Maryam Ghyabi Day'

PATRICIA NORTHEY
Assistant Project Manager

Employment: Ghyabi Consulting & Management an engineering and planning firm. Projects include: The ISB Master Plan; I-95 Widening; the Volusia Transit Corridor study; R2CTPO Bike-Ped Feasibility Study (2015-2018)

Previous Government Service: District 5 representative to the Volusia County Council 2007-2014; Served previously on the County Council from 1993-2004 and twice served as Chair during that time; Served 20 years on the Volusia Transportation Planning Organization; twice chair; Chaired the Central Florida MPO Advisory Council (MPOAC); Served as the Florida Association of Counties appointee to the FDOT Bicycle and Pedestrian Partnership Council; Chaired the Tourist Development Council

Community service: Florida Hospital Fish Board of Trustees; Board Member Habitat for Humanity; Board Member The River to Sea Loop Alliance; Volusia County Council District 5 appointee to the Volusia County ECHO program; Member of the Volusia League of Women Voters; Graduate, Leadership Florida Class XIX; Past President of the Rotary Club of DeBary, Deltona, Orange City; Former Chair, St. Johns River Alliance; Past President Healthy Start Coalition of Volusia Flagler County; Flight Guardian for Volusia Honor Air; Founder and Chaired “Leadership West Volusia”; Past President, Boys & Girls Club Volusia-Flagler Counties; Member, Pastor Parish Relations Committee First United Methodist Church, Chair, Legislative Committee; Volusia County Council of PTA, 1989 - 1990; Den Mom and Refreshment Chair for Cub Scout Pack 565

Awards and Recognitions:

- The Pat Northey 5K Trail (Gemini Springs Park)
- Blaine O'Neal Service Award, Flagler-Volusia Healthy Start Coalition 2014
- 2013 Espiritu Latino Award
- 2012 Hispanic Heritage Month Award
- 2012 Outstanding Elected Official of the Year: Florida Planning and Zoning Association
- The Pat Northey Holly Hill Greenway Trail
- League of Women Voters award for Environmental Advocacy
- Extra Mile Award: The Healthy Start Coalition of Flagler and Volusia Counties
- "Service Above Self" - Rotary International District 6970
- Twice named the "Lloyd Larson Rotarian of the Year" for the Four Townes Rotary Club.
- Paul Harris Fellow, Rotary International
- The Chamber of Commerce of West Volusia "Community Leadership Award"
- Citizen of the Year, Volusia County Association for Responsible Development (VCARD)
- Community Service Award, Daytona Museum of Arts and Sciences
- "Women Who Have Made A Difference in The Health of Their communities Award," Halifax Community Health System

PEDRO VAZQUEZ
Project Finance Officer

Employment: Ghyabi Consulting & Management; Bridge2 Solutions; Law Offices of Vazquez, Vizcarrondo, Alvarez, Angelet, Lee & Gonzalez

Dynamic, results-oriented Controller and Finance Manager with extensive experience including cost accounting, financial analysis, and financial reporting. Proven track record in driving efficiency and productivity through evaluation of financial management systems and implementation of process improvements. An accomplished negotiator with excellent relationship-building skills. Hands-on leader who is effective in directing highly skilled financial and administrative teams to support the achievement of overall corporate goals and objectives.

Community Service:

Spruce Creek high school music program



SANDY BUTTRUM
Project Administrator

Employment: Administrative Manager/Ghyabi Consulting and Management/Ormond Beach, Florida; Administrative Manager/Embry Riddle Aeronautical University/Daytona Beach; Human Resources– City of Ormond Beach/Ormond Beach, FL; Administrative Manager /HR/BAX Global/ Nashville, TN

Community Service:

Embry Riddle Aeronautical University Graduation/Ceremonies volunteer; Young Adult mentoring/tutoring programs; Jesus Church Greeter, Check-in coordinator, Usher, Creative Arts team member, Jesus Church Crew set-up team, Event planner, Media Assistant, Grow Team Leader and coordinator.

Awards and Recognitions:

Teacher of the Month (multiple awards)
The Employee of the Month (multiple awards)
Coaches Award
Jesus Church Volunteer Award (multiple awards)

Education:

Bachelor Interdisciplinary Studies/Western Governors University/Salt Lake City, Utah
Associate in Business Administration/Georgia Perimeter/DeKalb County, GA

Charles Faulkner
Quality Control Officer

Employment: Senior Vice President Palm Coast Holdings, Inc.
Flagler County, FL; Marine Technician Deltona Corporation Miami,
FL

Community Service:

American Water Resources Association
Florida Inland Navigation District – former chair
Volusia/Flagler County Association for Responsible Development
Florida Planning & Zoning Association
Friends of A1-A Scenic and Historic Coastal Byway Board
Former Whitney Lab Trustee
Advisory Committee to the Daytona State College Institute of Marine
and Environmental Studies



M. Dwight DuRant, P.E.
President



Contact Information:

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ddurant@zevcohen.com
(386) 677-2482

Education:

B.S. Civil Engineering, 1983
University of Florida

Registrations:

Professional Engineer
Florida PE 40318

Professional Affiliations:

American Society of Civil
Engineers

Institute of Transportation
Engineers

Ormond Beach Chamber of
Commerce past Board Member

Member of Government Affairs
Committee

Team Volusia Economic
Development Corporation
Chairman of the Board

Volusia County Association for
Responsible Development
(VCARD) Executive Council

Volusia County Metropolitan
Planning Organization (MPO)
Citizen Advisory Board past
Committee Chairman

Daytona Beach Chamber of
Commerce Economic
Development Committee

Community Involvement:

Ormond Beach Youth Baseball
and Softball Association
(OBYBSA) -
Recreational Baseball Teams (9
years)

OBYBSA Competitive Baseball (4
years)

Ormond Beach Youth Football
and Cheer Association (OBYFCA)
- Pop Warner Football (6 years)

Ormond Beach Youth Basketball
- Recreational Teams (4 years)

Member of OBYBSA Board of
Directors

Member of OBYFCA Board of
Directors

Years of Experience:

36

Years with ZCA:

32

As President of Zev Cohen & Associates, Inc. (ZCA), Dwight has acquired a diverse background in site development experience with a sound working knowledge of engineering and design analysis. Dwight began his professional experience in 1983 and has worked continuously on engineering and design projects since that time. Dwight serves both private and public clients throughout the Southeast. His ability to combine engineering design and diligent project management leads to projects under budget completed on time.

Dwight prides himself on providing personal, hands-on services to a wide array of clients. This type of client service has become the foundation of ZCA's philosophy. Under Dwight's leadership, ZCA has become one of the largest civil engineering firms in the area.

Project Experience

Hand Avenue Upgrade and Lake Interconnect, Ormond Beach, Florida

- Role: Principal-In-Charge
- Scope: ZCA provided civil engineering and landscape architecture services to upgrade the Hand Avenue corridor stormwater management system. This system also included a complex lake inter-connect for flood control. This lake inter-connect was developed for use by canoe/kayak enthusiasts who wish to traverse the various lake systems adjacent to Hand Avenue. ZCA also assisted in expanding the boardwalk system which provides clearance for kayakers and still be ADA accessible.

Ormond Beach CRA Master Stormwater Plan, Ormond Beach, Florida

- Role: Principal-In-Charge
- Scope: ZCA developed a Stormwater Master Plan for Downtown Ormond Beach. ZCA is currently developing a drainage master plan for the downtown Community Redevelopment Area to incentivize redevelopment by creating a stormwater bank for the CRA.

Volusia County Orange Camp Road Widening Stormwater Management, DeLand, Florida

- Role: Principal-In-Charge
- Scope: ZCA investigated past design and permitting of surrounding project sites through Volusia County, the City of DeLand, the Florida Department of Transportation (FDOT), and the St. Johns River Water Management District (SJRWMD). ZCA also performed preliminary stormwater management calculations for the purpose of analyzing the existing drainage facilities and existing stormwater management systems within the project site and surrounding areas. Capacities, availabilities, and options for the joint use pond were analyzed and explored. In addition, ZCA determined required treatment and runoff rates/volumes for management and permitting of improved stormwater management facilities.

Yorktowne Boulevard, Port Orange, Florida

- Role: Principal-In-Charge
- Scope: ± One mile of 4-lane urban roadway with turn lanes, designed to FDOT standards as a part of the Volusia County Thoroughfare system. Worked closely with the City of Port Orange and Volusia County to determine alignment and design criteria for this roadway system. Utilities were designed to accommodate existing and future development. The stormwater management system was master planned to accommodate the roadway, as well as areas which will be developed in the future, adjacent to the roadway.

Williamson Boulevard Extension, Port Orange, Florida

- Role: Principal-In-Charge and Quality Control Officer
- Scope: This project was a 1.75 mile design extending Williamson Boulevard southerly from its terminus point at Airport Road in Port Orange to Pioneer Trail in New Smyrna Beach. The project included design and permitting of stormwater improvements along this extension, and the extension of utilities including water, sewer and other franchise utilities.



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Randy M. Hudak, P.E.
Director of Engineering



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Ormond Beach, FL 32174
rhudak@zevcohen.com
(386) 677-2482

Education:
B.S. Civil Engineering, 2001
University of Central Florida

Registrations:
Professional Engineer
Florida PE 65053

Professional Affiliations:
DEP Qualified Stormwater
Management Inspector
#9803

American Society of Civil
Engineers

Volusia County Association
for Responsible Development
(VCARD)

Community Involvement:
Livestrong Foundation
Member

PACE Center for Girls
sponsor

Galloway Group Member

Participation in numerous
endurance events that benefit
charities

Years of Experience:
20

Years with ZCA:
20

As Director of Engineering at Zev Cohen & Associates, Inc. (ZCA) Randy possesses the energy and drive that enables him to be an exceptional project manager. His ability to coordinate and expedite a multitude of tasks results in the delivery of projects that are on time and within budget. Randy has enjoyed the opportunity to manage a wide variety of public and private sector projects that have enabled him to cultivate a strong customer service oriented approach to his project management. This approach coupled with his strong technical foundation provides each client with a unique and tailored approach to their specific project goals.

Project Experience

Turnbull Bay Bridge Replacement, New Smyrna Beach, Florida

- **Role:** Project Engineer
- **Scope:** As a part of the Volusia County/FDOT Turnbull Bay Bridge Replacement ZCA designed and permitted the relocation of an existing reclaimed water main, potable water main and sanitary sewer force main located on and/or adjacent to the bridge through the department of Environmental Protect, Volusia County department of Health and the Water Management District. These utilities were relocated via directional drill crossings under Turnbull Creek prior to demolition of the existing bridge. ZCA also provided coordination of the design, permitting and construction timing of this effort with the utilities owner, the Utilities Commission of New Smyrna Beach, Volusia County and AVCON (the Bridge design firm).

Andy Romano Beachfront Park, Ormond Beach, Florida

- **Role:** Project Engineer
- **Scope:** ZCA was selected by the City of Ormond Beach to design a five acre beachfront park. The park amenities include pavilions, picnic areas, seating, covered playground, splash park, dune restoration and native landscaping, ADA beach access, restroom and vending facilities, beachfront parking, and viewing terraces. ZCA provided a public outreach and a community engagement plan which allowed members of the community to play a role in developing the park that would leave a lasting impression for visitors of ages. ZCA was responsible for Master Planning and designing all elements of the park including: civil site, landscape architectural, environmental, permitting and traffic.

Colony Park Road, New Smyrna Beach, Florida

- **Role:** Project Engineer
- **Scope:** ZCA designed and permitted the current 1,000 linear foot Colony Park Road in conjunction with the adjacent Home Depot Development. ZCA provided civil engineering services for the multiple land roadways, stormwater, water and sewer, and the signalized intersection at S.R. 44. Permits for the project included Volusia County, FDOT, and the City of New Smyrna Beach.

Hand Avenue Collector Road Upgrade, Ormond Beach, Florida

- **Role:** Project Engineer
- **Scope:** 7,177 foot roadway corridor project for the upgrade of an existing two-lane roadway from a rural section to an urban section includes intersection improvements and addition of multiple turn lanes. Roadway design aspects are to improve the roadway with current City and FDOT roadway design standards.

Airport Road Blvd. Extension, Flagler County, Florida

- **Role:** Project Engineer
- **Scope:** The 1.5 mile public right-of-way was permitted in concurrence of the surrounding 228 acre Hunters Ridge subdivision. As the Senior Environmental Scientist, I directed the environmental permitting as well as wetland delineation, meetings with state and federal agencies, protected species survey/ relocation, and mitigation coordination.

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Frank J. O'Keefe, P.E.
Project Engineer



With over nine years of experience, Frank brings his design experience to many of ZCA's projects. Consideration of the clients' needs is paramount as is his commitment to provide an effective and efficient design. Frank's ability to work on multiple aspects of a project is key in ensuring his projects remain within budget and are delivered on time.

Project Experience

Contact Information:

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Ormond Beach, FL 32174
fokeefe@zevcohen.com
(386) 677-2482

Education:

B.S. Civil & Environmental
Engineering, 2005
University of Louisville

M.S. Civil & Environmental
Engineering, 2006
University of Louisville

Registrations:

Professional Engineer
Florida PE 75854

Community Involvement:

Daytona Beach Speed Swim
Club, Volunteer Board

Years of Experience:
15

Years with ZCA:
5

New Smyrna Beach Civic Center (Brannon Center), New Smyrna Beach, Florida

- Role: Project Engineer
- Scope: ZCA was the Civil Engineering Consultant for the RLF Team selected to design and permit the City of New Smyrna Beach's Brannon Center; a new 13,500 sq. ft. building designed to allow for the interaction between the new building, intercostal waterway and City Park. ZCA was responsible for all Civil related components associated with the Conceptual Design, Final Engineering, Permitting and Bidding.

Southwinds Sidewalk and Drainage Improvements, Port Orange, Florida

- Role: Project Engineer
- Scope: The City of Port Orange commissioned ZCA to study and develop options for addressing several drainage and flooding problem areas in the aging Southwinds subdivision. The design and permitting included over 500 feet of roadside swales and culverts.

Beach Street Force Main, Daytona Beach, Florida

- Role: Project Manager
- Scope: ZCA designed and permitted this project, a one mile extension of a 36" force main through an urban corridor, through both the City of Daytona Beach and the Florida Department of Transportation. ZCA also provided construction administration for this utility project.

Tymber Creek Road Extension, Daytona Beach, Florida

- Role: Project Engineer
- Scope: ZCA was the Civil Engineering Consultant for the Tymber Creek Road Extension. This roadway is planned to connect the 3,400 lot Minto Development to LPGA Blvd. In the future there are plans to connect Tymber Creek Road to State Road 40 in Ormond Beach. The total length of Volusia County standard right-of-way roadway is 4,100 LF. ZCA was responsible for all Civil related components associated with Final Engineering and Permitting.

Hawks Preserve – Phase 1 and Phase 2, City of Port Orange, Florida

- Role: Project Engineer
- Scope: ZCA was the Civil Engineering Consultant for the Hawks Preserve Phase 1 and 2 subdivision located in Port Orange, Florida. This subdivision contained nearly 190 lots and had many engineering challenges located on-site. ZCA was responsible for all Civil related components associated with Final Engineering, Bidding, Permitting, and Construction Administration.



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Ghyabi Consulting & Management

E-3. Proposers Approach to Providing the Services and Work Plan



E-3(a) Confirm Proposer's ability to fulfill all elements of the Scope of Work

GCM's team combined years of transportation consulting experience in dealing with all other local governments and agencies from FDOT, FHWA, R2CTPO, FEC, and SJRWMD will allow the team to be a strong advocate for the City of Ormond Beach. Maryam H. Ghyabi-White, team manager and leader, has many years of experience working as a consultant to the City. The team fully understands all elements of the Scope of Work as proposed in this proposal and confirms the capacity and the experience to meet the requirements to the maximum extent.

E-3(b) Describe the Proposer's methodology including specific policies, procedures or techniques to be used in performing the services described in the Scope of Work

The Ghyabi Consulting & Management Team is unique among Transportation Consulting firms because of their experience in all components of transportation and transit fields. The knowledge and experience the firm can offer is a unique resource to our clients. Ghyabi Consulting & Management's aim is to achieve the best possible outcomes in terms of identifying transportation-related issues and priorities consistent with the City of Ormond Beach's goals and objectives as adopted by the City. GCM's strategic plan will be developed through continuous communication with the City. GCM has a reputation for implementing and developing successful strategic strategies at every phase from planning to engineering to identifying funding. The team believes the best practice is to provide clear and comprehensive communication during all phases of each project.

The initial work begins with meetings to discuss each project's goals and objectives. GCM will work with the City to identify challenges and issues unique to the project, and if needed will take the next step to evaluate the financial impact as well. The team will evaluate and offer approaches to address those challenges and to develop realistic timelines and budgets. Throughout the process regular meetings in the office, and if needed at the project site, are conducted to keep ensuring quality control, and to keep projects on schedule and on budget. Throughout the process and as work moves forward to completion, GCM will continue to communicate consistently with the City.



E-3-(c) Describe the Proposer's approach to the scheduling of work and prioritizing the City's request

GCM has a team approach ensuring that all transportation projects are discussed, prioritized and that the needs of the City will be properly identified and addressed. We also understand that the priority of the City of Ormond Beach is to maintain and enhance its thoroughfare network, to provide safe and efficient movement of people and goods, and to serve its residents and businesses. Because of our team's excellent reputation and relationships, we have successfully represented clients before governmental agencies both at local and state levels on all phases of transportation including planning, engineering, and identification of all available funding mechanisms and resources.

The team of Ghyabi Consulting & Management, LLC has relationships with the relevant agencies and policymakers, to advise clients on the best strategy to provide a safe and efficient transportation system serving its citizens.

Maryam H Ghyabi-White, as the team leader on this project, will make sure that the needs of the City will be GCM's top priority. Ms. Ghyabi-White and her team will be in constant communication with the City of Ormond Beach through weekly and monthly reports and will schedule meetings to review project progress. Ghyabi Consulting & Management's intentions and goals will be to provide continuous feedback, produce progress reports and to provide budget and schedule updates as deemed necessary.

E-3(d) Address Proposers ability and approach to complying with the reporting requirements in the Scope of Work. Describe the proposed report outline (i.e. sections, contents, etc.) and attach a sample report (if available)

The GCM team believes in constant and continuous written and oral communication and will provide weekly, and monthly reporting (progress reports) advising the City on the status of each phase of the projects as it relates to its scope of services. GCM will encourage the City leadership to participate in progress meetings to ensure continuous dialogue among the team. During the progress meetings, the additional items that might potentially affect the City like the budget will be discussed and updated. GCM will also keep the City abreast of any agencies policies and programs that might affect the City directly or indirectly and in general will provide updates on all issues as well.

E-3(e) Provide any information regarding the Proposer's general work plan which the Proposer deems relevant

GCM understands the operations of the State/Local government operations, and we are substantially involved in the agencies processes. We have a long track record of success representing our clients in both the private and public sectors. Because of our vast transportation planning, engineering, public involvement, city planning, and urban planning with Florida entities, we can look at projects with a different focus and vision as part of our general work plan. GCM will make recommendations and options that ignite the project to a new level of expertise.

Our team's extensive network and on-going participation in local government issues, specifically the allocation of state resources, enable our team to advise local government clients on different sources of funding and the process to secure and implement for much-needed transportation projects. This experience allows us to increase areas of funding for projects.

With more than 30 years of experience and proud background of serving public entities, we are confident that our firm is the most diverse and unique to serve and represent the City of Ormond Beach.

GCM is proud to be serving as a woman-owned enterprise and holds a State of Florida Woman Business Certification.

E-3(f) Identify if the Proposer has taken any exception to the terms of this Solicitation. If so, indicate what alternative is being offered and the cost implications of the exception(s)

The GCM team proposes no exceptions to the terms of the solicitation. During the representation of the City of Ormond Beach over the course of the last 20 years, we have not experienced any conflict of interest.

**E-4. Proposers ability to assist in
formulating and facilitating the City
legislative agenda**



E4(a) Provide information on Proposer's ability to understand, formulate, and facilitate the City of Ormond Beach's legislative priorities.

As indicated throughout this response, our team has successfully represented numerous cities before the Governor, Cabinet, Legislature, and state agencies on a wide range of issues. We are experienced in the actions needed to ensure the City will be represented in policy, legislative, appropriations and technical matters.

Maryam H. Ghyabi-White has been at the forefront of essential projects throughout Ormond Beach, Volusia County and the State of Florida. She has led the charge as an advocate of improvement in the state through transportation, while at the same time expressing the importance of maintaining the safety and protecting the environment.

As a transportation leader, she has led efforts to secure funding for construction of the Interstate 4 bridge over the St. John's river. The I-4 bridge project was not only an obstacle to travel to Central Florida, it was also a major safety concern. Ms. Ghyabi has built a coalition of leadership from the Florida Department of Transportation (FDOT), Volusia County, Seminole County, Orange County, Metro Plan Orlando (MPO), River to Sea Transportation Plan Orlando (R2CTPO), to expedite the funding, expedite the scheduled funding and design-build. Her efforts have been recognized locally, statewide, and nationally. She was named, "Woman of the Year" in Central Florida.

Located in the City of Ormond Beach, the GCM team is dedicated to the City of Ormond Beach. GCM is committed to providing a day-to-day contact person for each client. Ms. Ghyabi-White has a proven track record of securing funding for projects from Federal, State, and Local entities.

Ms. Ghyabi-White will be the senior representative in charge of the transportation challenges facing the City of Ormond Beach. Ghyabi Consulting & Management will work diligently to ensure that all the needs of the City will be addressed. The culture, and experience of the team at GCM, makes the firm a perfect fit for the complex needs of the City of Ormond Beach.

E-4(b) Describe how Proposer will assist the City officials in understanding the annual state legislative priorities and developing initiatives that will achieve the greatest success in Florida legislature and relevant state agencies

GCM's first act at the City's Transportation Consultant will be to host a meeting with the City staff and elected officials to discuss the goals, priorities, obstacles, and resources. Immediate targets, short-term targets and long-range targets and goals will be developed for the project. This will serve as the program of transportation work for the City of Ormond Beach and the GCM team. The plan will be revised as needed to accommodate unique needs.

GCM will monitor legislative action to ensure a formal strategy on executive priorities and draft talking points to articulate support or opposition to issues. GCM has a proven track record of working with legislation to help our local government clients and to advise them on matters affecting projects. Our team will be in constant communication with the City of Ormond Beach to give frequent reporting on any legislative actions affecting the project.



E-5. Fee Compensation / Expense



5. Fee Compensation / Expenses

The proposed fees(s) shall detail all costs: i.e. travel and related incidental out of pocket expenses, lobbying registration, if applicable. Proposer shall not be reimbursed or otherwise paid for internal word processing, data processing or other services (i.e. local telephone serviced, copied, mail or postage services) that would reasonably be deemed the Proposers overhead expense. Proposers will be reimbursed on a quarterly basis as a flat fee, inclusive of all expenses. Price proposal shall be indicated as follows:

COST TO THE CITY – Overall Contract:

Annual FIRM, FIXED TOTAL COST NOT TO EXCEED

\$ 48,000.00 (To be paid on a quarterly basis) (To be paid in equal quarterly payments)

- Any additional engineering review and assistance will be at an additional \$2,000.00 per month or \$300.00 per hour.
- ZCA will be on hourly rates basis for engineering projects.

6. Contractor's Insurance





GHYACON-01

D2GBLEDSOE

DATE (MM/DD/YYYY)

04/24/2019

CERTIFICATE OF LIABILITY INSURANCE

THIS CERTIFICATE IS ISSUED AS A MATTER OF INFORMATION ONLY AND CONFERS NO RIGHTS UPON THE CERTIFICATE HOLDER. THIS CERTIFICATE DOES NOT AFFIRMATIVELY OR NEGATIVELY AMEND, EXTEND OR ALTER THE COVERAGE AFFORDED BY THE POLICIES BELOW. THIS CERTIFICATE OF INSURANCE DOES NOT CONSTITUTE A CONTRACT BETWEEN THE ISSUING INSURER(S), AUTHORIZED REPRESENTATIVE OR PRODUCER, AND THE CERTIFICATE HOLDER.

IMPORTANT: If the certificate holder is an **ADDITIONAL INSURED**, the policy(ies) must have **ADDITIONAL INSURED** provisions or be endorsed. If **SUBROGATION IS WAIVED**, subject to the terms and conditions of the policy, certain policies may require an endorsement. A statement on this certificate does not confer rights to the certificate holder in lieu of such endorsement(s).

PRODUCER
AssuredPartners, Lake Mary
300 Colonial Center Parkway, Suite 270
Lake Mary, FL 32746

CONTACT NAME: Georgeanne Bledsoe

NAME: Georgeanne E. ...
PHONE: (407) 993-0227

FAX _____

PHONE (A/C, No, Ext): (407) 203-9227 (A/C, No)

INSURER(S) AFFORDING COVERAGE

NAIC #

INSURER A: Burlington Insurance Company

23620

INSURER B:	Associated Industries Insurance Company, Inc.	23140
------------	---	-------

c. 23140

INSURER C: Hiscox Insurance Company Inc

10200

INSURER D :

INSURER E :

INSURER E :

COVERAGES

CERTIFICATE NUMBER:

REVISION NUMBER:

THIS IS TO CERTIFY THAT THE POLICIES OF INSURANCE LISTED BELOW HAVE BEEN ISSUED TO THE INSURED NAMED ABOVE FOR THE POLICY PERIOD INDICATED. NOTWITHSTANDING ANY REQUIREMENT, TERM OR CONDITION OF ANY CONTRACT OR OTHER DOCUMENT WITH RESPECT TO WHICH THIS CERTIFICATE MAY BE ISSUED OR MAY PERTAIN, THE INSURANCE AFFORDED BY THE POLICIES DESCRIBED HEREIN IS SUBJECT TO ALL THE TERMS, EXCLUSIONS AND CONDITIONS OF SUCH POLICIES. LIMITS SHOWN MAY HAVE BEEN REDUCED BY PAID CLAIMS.

EXCLUSIONS AND CONDITIONS OF SUCH POLICIES. LIMITS SHOWN MAY HAVE BEEN REDUCED.											
INSR LTR	TYPE OF INSURANCE		ADDL INSD	SUBR WVD	POLICY NUMBER	POLICY EFF (MM/DD/YYYY)	POLICY EXP (MM/DD/YYYY)	LIMITS			
A	☒	COMMERCIAL GENERAL LIABILITY			272B003004	02/04/2019	02/04/2020	EACH OCCURRENCE	\$ 1,000,000		
	☐	CLAIMS-MADE	☒	OCCUR				DAMAGE TO RENTED PREMISES (Ea occurrence)	\$ 100,000		
	☐							MED EXP (Any one person)	\$ 5,000		
	☐							PERSONAL & ADV INJURY	\$ 1,000,000		
	☐							GENERAL AGGREGATE	\$ 2,000,000		
	☐							PRODUCTS - COMP/OP AGG	\$ 2,000,000		
	☐								\$		
	GEN'L AGGREGATE LIMIT APPLIES PER:										
	☒	POLICY	☐	PRO-JECT				☐	LOC		
	☐	OTHER:									
	AUTOMOBILE LIABILITY							COMBINED SINGLE LIMIT (Ea accident)	\$		
	☐	ANY AUTO OWNED AUTOS ONLY	☐	SCHEDULED AUTOS				BODILY INJURY (Per person)	\$		
	☐	HIRED AUTOS ONLY	☐	NON-OWNED AUTOS ONLY				BODILY INJURY (Per accident)	\$		
	☐							PROPERTY DAMAGE (Per accident)	\$		
	☐								\$		
	☐								\$		
	☐								\$		
	☐								\$		
	☐								\$		
	☐								\$		
	☐	UMBRELLA LIAB	☐	OCCUR				EACH OCCURRENCE	\$		
	☐	EXCESS LIAB	☐	CLAIMS-MADE				AGGREGATE	\$		
	☐	DED	☐	RETENTION \$					\$		
									\$		
									\$		
									\$		
									\$		
									\$		
									\$		
									\$		
B	WORKERS COMPENSATION AND EMPLOYERS' LIABILITY				TWC3793251	04/24/2019	04/24/2020	☒ PER STATUTE	☐ OTH-ER		
	ANY PROPRIETOR/PARTNER/EXECUTIVE OFFICER/MEMBER EXCLUDED? (Mandatory in NH)									E.L. EACH ACCIDENT	\$ 100,000
	If yes, describe under DESCRIPTION OF OPERATIONS below									E.L. DISEASE - EA EMPLOYEE	\$ 100,000
										E.L. DISEASE - POLICY LIMIT	\$ 500,000
C	Professional Liab.				MPL4034980-19	01/23/2019	01/23/2020	Per Claim	1,000,000		

DESCRIPTION OF OPERATIONS / LOCATIONS / VEHICLES (ACORD 101, Additional Remarks Schedule, may be attached if more space is required)	
--	--

CERTIFICATE HOLDER

FOR INFORMATION ONLY
FOR INFORMATION ONLY
FOR INFORMATION ONLY

CANCELLATION

SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF, NOTICE WILL BE DELIVERED IN ACCORDANCE WITH THE POLICY PROVISIONS.

AUTHORIZED REPRESENTATIVE

ACORD 25 (2016/03)

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Ghyabi Consulting & Management

FL INS SPECIALISTS
1025 GREENWOOD #295
LAKE MARY, FL 32746
1-407-805-0200

PROGRESSIVE
COMMERCIAL

Policy number: 06730908-1

Underwritten by:
Progressive Express Ins Company
April 24, 2019
Page 1 of 2

Certificate of Insurance

Certificate Holder

Additional Insured
GHYABI CONSULTING & MANAGEMENT
1459 N. US 1, SUITE 3
ORMOND BEACH, FL 32174

Insured

NYDA, LLC.
1109 OXBRIDGE LN.
ORMOND BEACH, FL 32174

Agent

FL INS SPECIALISTS
1025 GREENWOOD #295
LAKE MARY, FL 32746

This document certifies that insurance policies identified below have been issued by the designated insurer to the insured named above for the period(s) indicated. This Certificate is issued for information purposes only. It confers no rights upon the certificate holder and does not change, alter, modify, or extend the coverages afforded by the policies listed below. The coverages afforded by the policies listed below are subject to all the terms, exclusions, limitations, endorsements, and conditions of these policies.

Policy Effective Date: Apr 9, 2019

Policy Expiration Date: Apr 9, 2020

Insurance coverage(s)

Limits

Bodily Injury/Property Damage

\$300,000 Combined Single Limit

Uninsured Motorist

\$300,000 CSL Non-Stacked

Personal Injury Protection

\$10,000 w/\$0 Ded - Named Insured Only

Description of Location/Vehicles/Special Items

Scheduled autos only

2018 VOLVO XC90 YV4102PK9J1352624

Comprehensive

\$1,000 Ded

Collision

\$1,000 Ded

Rental Reimbursement

\$30 Per Day (\$900 Max)



Ghyabi Consulting & Management

7. License and Certifications



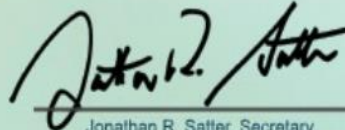
State of Florida

Woman Business Certification

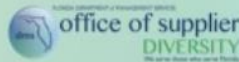
Ghyabi Consulting and Management

Is certified under the provisions of
287 and 295.187, Florida Statutes, for a period from:

03/11/2019 to 03/11/2021



Jonathan R. Satter, Secretary
Florida Department of Management Services



Office of Supplier Diversity • 4050 Esplanade Way, Suite 380 • Tallahassee, FL 32399 • 850-487-0915 • www.dms.myflorida.com/osd



Ghyabi Consulting & Management

19-29243

CITY OF ORMOND BEACH
P.O. Box 277
Ormond Beach, FL 32175-0277
386-676-3233 or btonline@ormondbeach.org

Fee: \$137.50
Valid 2/22/19 - 9/30/19

Classification	Comments/Restrictions	Location / Phone
BUSINESS/PROF. SERVICE		1459 N US 1 HWY SUITE A3 (386) 299-6568

GHYABI CONSULTING AND MANAGEMENT LLC
1459 N US 1 HWY SUITE A3
ORMOND BEACH FL 32174

BUSINESS TAX RECEIPT

Subject to Code of Ordinances Chapter 12 - This receipt must be posted conspicuously in your place of business. Penalty for failure to do so.

2018/2019**Volusia County Business Tax Receipt**

Issued pursuant to F.S. 205 and Volusia County Code of Ordinances Chapter 114-1 by:
Volusia County Revenue Division - 123 W Indiana Ave, Room 103, DeLand, FL 32720 – (386) 736-5938



Account # 201902270002 Expires: September 30, 2019
Business Location: 1459 N US HIGHWAY 1 STE 1

Business Name: GHYABI CONSULTING & MANAGEMENT, L
Owner Name: MARYAM GHYABI
Mailing Address: 1450 N US HIGHWAY 1 STE 3
ORMOND BEACH, FL 32174

REQ'D DOC #s:
BUSINESS TYPE

	CODE	COUNT	TAX
Professional	461	1	\$30.00

- This receipt indicates payment of a tax, which is levied for the privilege of doing the type(s) of business listed above within Volusia County. This receipt is non-regulatory in nature and is not meant to be a certification of the holder's ability to perform the service for which he is registered. This receipt also does not indicate that the business is legal or that it is in compliance with State or local laws and regulations.
- The business must meet all County and/or Municipality planning and zoning requirements or this Business Tax Receipt may be revoked and all taxes paid would be forfeited.
- The information contained on this Business Tax Receipt must be kept up to date. Contact the Volusia County Revenue Division for instructions on making changes to your account.

**THIS PORTION OF THE BUSINESS TAX RECEIPT MUST BE
POSTED CONSPICUOUSLY IN YOUR PLACE OF BUSINESS**

Volusia County Business Tax Receipt

Revenue Division - 123 W Indiana Ave, Room 103, DeLand, FL 32720 – (386) 736-5938

DATE PAID: 02/28/2019
RECEIPT #: WWW-18-0020692
TOTAL TAX: 30.00
PENALTY: 0.00
TOTAL PAID: 30.00



Business Name: GHYABI CONSULTING & MANAGEMENT, LI
Owner Name: MARYAM GHYABI
Mailing Address: 1450 N US HIGHWAY 1 STE 3
ORMOND BEACH, FL 32174

Account # 201902270002 Expires: September 30, 2019
Business Location: 1459 N US HIGHWAY 1 STE 1

PLEASE DETACH THIS PORTION OF THE BUSINESS TAX RECEIPT FOR YOUR RECORDS

**City of Ormond Beach
Request for Proposals (RFP)
City of Ormond Beach Transportation Consultant Services
(RFP No. 2019-21)**

RFP RESPONSE FORM

THIS RESPONSE IS SUBMITTED TO:

Purchasing Coordinator
City of Ormond Beach
22 S. Beach Street
Ormond Beach, Florida 32174

The undersigned SUBMITTER proposes and agrees, if this Submittal is accepted, to enter into a Contract with the CITY that reflects the items of this Request for Proposal (RFP) and to provide all services, as specified or indicated in the RFP Documents, in full accordance with the terms and conditions set forth in therein.

SUBMITTER accepts all of the terms and conditions of the General Conditions. SUBMITTER will sign the Contract and submit the Contract security (when applicable) and other documents required by the Contract Documents within ten (10) days after the date of CITY's Notice of Award.

In submitting this information, SUBMITTER represents, as more fully set forth in the Agreement, that:

SUBMITTER has examined copies of all the RFP Documents and of the following Addenda:

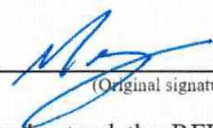
Addendum Date

Addendum Number

Receipt of all of which is hereby acknowledged.

This Submittal is genuine and not made in the interest of or on behalf of any undisclosed person, firm or corporation and is not submitted in conformity with any agreement or rules of any group, association, organization or corporation; SUBMITTER has not directly or indirectly induced or solicited any other Submitter to submit a false or sham Submittal; SUBMITTER has not solicited or induced any person, firm or a corporation to refrain from bidding; and SUBMITTER has not sought by collusion to obtain for himself any advantage over any other Bidder or over the CITY.



THIS RESPONSE IS SUBMITTED BY:COMPANY NAME: Ghyabi Consulting & Management, LLCVENDOR/CONTRACTOR LICENSE NUMBER: 83-1487227ADDRESS: 1459 N Highway US 1, Suite 3
Ormond Beach, FL 32174PHONE NO.: 386-341-1802 FAX NO.: _____SUBMITTER'S NAME: Maryam H. Ghyabi-White
(Typed or Printed in Ink)TITLE: President/CEOAUTHORIZED SIGNATURE: I,  hereby
(Original signature required in each document)

declare that I have read and fully understand the RFP Documents and, including the General Conditions and the Scope of Work, and that I am duly authorized to sign and submit this Submittal.

The CITY reserves the right to reject any and all Submittals, to waive informalities, and to accept any Submittal or parts thereof as the CITY, in its sole discretion, determines to be in the best interest of the CITY.

PROPOSER: PLEASE ENSURE THAT YOU HAVE SIGNED THE RFP RESPONSE FORM OF THIS REQUEST FOR PROPOSAL. OMISSION OF A SIGNATURE ON THAT PAGE MAY RESULT IN REJECTION OF YOUR PROPOSAL.

**Request for Proposals
for
City of Ormond Beach Transportation Consultant Service**

(City of Ormond Beach RFP No. 2019-21)

Authority for Release of Information

I hereby authorize any representative of the City of Ormond Beach bearing this release, or copy thereof, to obtain any information in my files pertaining to credit records, criminal history records, administrative or judicial dispositions concerning the undersigned individual and/or corporations in which the undersigned may be a partner or officer.

I hereby release you, as the custodian of such records both individually and collectively, from any and all liability for damages of whatever kind, which may at any time result to me, my heirs, family or associates because of compliance with this authorization and request to release information.

Signed by:

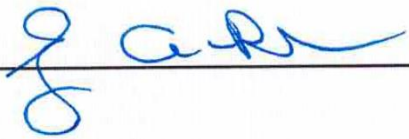


Name Maryam H. Ghyabi-White

President/CEO
Title
Date: April 25, 2019

Witnessed by:

Sandy Buttrum

Name 

Project Administrator
Title
Date: April 25, 2019

CITY OF ORMOND BEACH, FLORIDA**CONFLICT, NON-CONFLICT OF INTEREST STATEMENT**
LITIGATION STATEMENT

- ☒ To the best of our knowledge, the undersigned firm has no potential conflicts of interest due to any other clients or contracts for this project.
- ☐ The undersigned firm, by attachment to this form, submits information which may be a potential conflict of interest due to other clients or contracts for this project.
- ☒ The undersigned firm has had no litigation on any project in the last five (5) years.
- ☐ The undersigned firm, by attachment to this form, submits a summary and disposition of individual cases of litigation during the past five (5) years.

Ghyabi Consulting & Management, LLC

COMPANY NAME


AUTHORIZED SIGNATURE

Maryam H. Ghyabi-White
NAME (PRINT OR TYPE)

President/CEO
TITLE

April 25, 2019
DATE

CITY OF ORMOND BEACH, FLORIDA

DRUG-FREE WORKPLACE CERTIFICATION

IDENTICAL OR "TIE" SUBMITTALS: Preference shall be given to businesses with drug-free workplace programs. Whenever two or more proposals which are equal in respect to price, quality, and service are received by the State or by any political subdivision for the procurement of commodities or contractual services, a bid received from a business that certifies that it has implemented a drug-free workplace program shall be given preference in the award process. Established procedures for processing tie bids will be followed if none of the tied vendors have a drug-free workplace program. In order to have a drug-free workplace program, a business shall:

- 1) Publish a statement notifying employees that the unlawful manufacture, distribution, dispensing, possession, or use of a controlled substance is prohibited in the workplace and specifying the actions that will be taken against employees for violations of such prohibition.
- 2) Inform employees about the dangers of drug abuse in the workplace, the business's policy of maintaining a drug-free workplace, any available drug counseling, rehabilitation, and employee assistance programs, and the penalties that may be imposed upon employees for drug abuse violation.
- 3) Give each employee that engages in providing the commodities or contractual services that are under bid a copy of the statement specified in subsection (1).
- 4) In the statement specified in subsection (1), notify the employees that, as a condition of working on the commodities or contractual services that are under bid, the employee will abide by the terms of the statement and will notify the employer of any conviction of, or plea of guilty or nolo contendere to, any violation of Chapter 893 or of any controlled substance law of the United States or any state, for a violation occurring in the workplace no later than five (5) calendar days after such conviction.
- 5) Impose sanctions on, or require the satisfactory participation in a drug abuse assistance or rehabilitation program if such is available in the employee's community, by any employee who is so convicted.
- 6) Make a good faith effort to continue to maintain a drug-free workplace through implementation of this section.

Ghyabi Consulting & Management, LLC

Company Name

Authorized Signature
Maryam H. Ghyabi-White

Print Name
President/CEO

Title





CITY OF ORMOND BEACH

City Manager • 22 S. Beach Street • Ormond Beach • Florida • 32174 • (386) 676-3200 • Fax (386) 676-3384

CITY MANAGER MEMORANDUM

To: The Honorable Mayor Partington and City Commissioners

Through: Joyce A. Shanahan, City Manager

From: Kevin Gray, Deputy Public Works Director

Date: May 3, 2022

Subject: Intent to Bid - Emergency Lighting for Police Vehicles

Commission Goal: Public Safety - Provide up-to-date equipment for first responders

Introduction

This disposition item provides public notice of the City's intent to issue a bid for Emergency Lighting for Police Vehicles.

Background

On January 4, 2022 the City Commission approved the purchase of seven (7) Ford Police Interceptors (Explorers) by Resolution 2022-03.

In the past, vehicles were ordered with the majority of the options installed at the dealer. While the final product will maintain the same appearance and components, staff will be purchasing these components separately and having them installed by an authorized "outfitter" locally.

Discussion

The Emergency Lighting for Police Vehicles includes lights, siren, prisoner attachments, K9 related items, and other modifications that are non-factory items and installed at a local outfitter.

The invitation to bid and specifications will be placed on Demand Star on May 4, 2022 and due on May 19, 2022.

Budget Impact

Adequate funds for the purchase of Emergency Lighting for Police Vehicles to be installed on Police vehicles are included in the FY 2021-2022 Public Safety Vehicle and Equipment Fund (305).

Citizen Impact

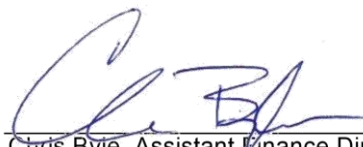
The installation of emergency lighting on Front Line Police vehicles is integral in the overall policing of the City of Ormond Beach.

Recommendation

The City intends to publicly advertise the Emergency Lighting for Police Vehicles for competitive bidding unless otherwise directed by the City Commission.

Attachments:

- BID 2022-20 Emergency Lighting for Police Vehicles (PDF)
- Signed approval form (PDF)

REVIEWED BY:
Chris Byie, Assistant Finance Director 4/25/2022
Claire Whitley, Assistant City Manager 4/25/2022**APPROVED BY:**
Joyce A. Shanahan, City Manager 4/27/2022



City of Ormond Beach

22 South Beach Street
Ormond Beach, Florida 32174
Telephone (386) 676-3223
Fax (386) 676-3330

INVITATION TO BID

BIDDER ACKNOWLEDGEMENT FORM

THIS FORM MUST BE COMPLETED AND RETURNED WITH YOUR BID

BID TITLE: Emergency Lighting for Police Vehicles

BID NUMBER: 2022-20

BID OPENING DATE & TIME: May 19, 2022 at 1:00 PM

BID OPENING LOCATION: City Hall Training Rm, Ormond Beach City Hall 22 S. Beach Street

PRE-BID MEETING DATE & TIME: N/A

PRE-BID MEETING LOCATION: N/A

Bids Received After The Above Date And Time Will Not Be Accepted.

BIDDER'S NAME: _____

BIDDER'S MAILING ADDRESS: _____

CITY-STATE-ZIP: _____

F.E.I.N. or S.S. NUMBER: _____

PHONE NUMBER: _____

EMAIL: _____

If returning as a "No Bid", please state reason (s): _____

I certify that this Bid is made without prior understanding, agreement, or connection with any corporation, firm, or person submitting a Bid for the same materials, supplies, or equipment, and is in all respects fair and made without collusion or fraud. I agree to abide by all conditions of this Bid and certify that I am authorized to sign this Bid for the Bidder. In submitting a Bid to the City of Ormond Beach, the Bidder offers and agrees that if the Bid is accepted, the Bidder will convey, assign or transfer to the City of Ormond Beach all rights, title, and interest in and to all causes of action it may now or hereafter acquire under the Antitrust laws of the United States and the State of Florida for price fixing relating to the particular commodities or services purchased or acquired by the City of Ormond Beach. At the City's discretion, such assignment shall be made and become effective at the time the City tenders final payment to the Bidder.

X _____
AUTHORIZED SIGNATURE (MANUAL)

NAME (TYPED)

TITLE

DATED

GENERAL CONDITIONS

PUBLIC ENTITY CRIMES: A person or affiliate who has been placed on the convicted vendor list following a conviction for a public entity crime may not submit a Bid on a contract to provide any goods or services to a public entity, may not submit a Bid on a contract with a public entity for the construction or repair of a public building or public work, may not submit Bids on leases or real property to a public entity, may not be awarded or perform work as a contractor, supplier, subcontractor, or consultant under a contract with any public entity, and may not transact business with any public entity in excess of the threshold amount provided in Section 287.017, for CATEGORY TWO for a period of 36 months from the date of being placed on the convicted vendor list.

DISCRIMINATION: Pursuant to Section 287.134(2)(a), Florida Statutes, an entity or affiliate who has been placed on the discriminatory vendor list may not submit a bid or proposal on a contract to provide any goods or services to a public entity, may not submit a bid or proposal on a contract with a public entity for the construction or repair of a public building or public work, may not submit bid or proposal on leases of real property to a public entity, may not be awarded or perform work as a contractor, supplier, subcontractor, or consultant under a contract with any public entity, and may not transact business with any public entity.

PUBLIC RECORDS/NON-CONFIDENTIALITY OF BIDS AND/OR PROPOSALS.

The City of Ormond Beach cannot and does not warrant the confidentiality of any information submitted in response to this solicitation. Florida law provides that municipal records shall at all times be open for personal inspection by any person, Section 119.01, F.S., The Public Records Law. Information and materials received by the City of Ormond Beach in connection with all Proposers' response shall be deemed to be public records subject to public inspection upon award, recommendation for award, or 10 days after bid opening, whichever occurs first. Section 119.071, F.S.

NOTIFICATION OF BIDS AND RFP'S: The City uses the services of DemandStar (www.demandstar.com) for notification of its Bids and RFP's on-line on the Internet. If you have received a copy of this Bid/RFP from any source other than DemandStar, please be aware that you may not have received the latest version of the Bid/RFP or any related addendums.

SUBMISSION OF BIDS: All Bids shall be submitted in a sealed envelope. The Invitation to Bid (ITB) number, title, and opening date shall be clearly displayed on the outside of the sealed envelope. The delivery of said Bid to the Purchasing Office on or before the specified opening date and time is solely and strictly the responsibility of the Bidder. Any Bid received by the Purchasing Office after the specified date and time will not be accepted. Bids must be submitted on forms provided by the City. No other forms will be accepted. Telephone, telefax and telegraph Bids will not be considered. No Bid may be modified after opening. **No Bid may be withdrawn after opening for a period of ninety (90) days unless otherwise specified.**

EXECUTION OF BID: Bid must contain a manual signature of authorized representative in the space(s) provided. Bids must be typed or printed in ink. Use of erasable ink is not permitted. All corrections made by Bidder to any Bid entry must be initialed. The company name and Federal Employer Identification Number (F.E.I.D.) or Social Security (S.S.) number shall appear in the space(s) provided.

BID OPENING: Bids shall be opened and the name of the Bidders and the bid amounts shall be read publicly. Bid amounts announced at the bid opening are subject to change due to math errors made by Bidders

BID TABULATION: Any Bidder wishing to receive a copy of the Bid tabulation is required to enclose a stamped, self-addressed envelope with their Bid response. Bid opening tabulations will be posted on DemandStar.com.

CLARIFICATION/CORRECTION OF BID ENTRY: The City of Ormond Beach reserves the right to allow for the clarification of questionable entries and for the correction of obvious mistakes.

INTERPRETATION: Any questions concerning conditions and specifications shall be directed to the Purchasing Coordinator. Those interpretations which may affect the eventual outcome of this Bid will be furnished in writing to all prospective Bidders. No interpretation shall be considered binding unless provided in writing by the City of Ormond Beach.

MINORITY POLICIES: The City of Ormond Beach, Florida, encourages the full participation of Disadvantaged and Women Business Enterprises (D&WBE) in the provision of goods and services.

LICENSES AND PERMITS: The vendor is responsible for obtaining all necessary permits and licenses to comply with all Federal, State, and Local laws, rules and regulations required to perform work in accordance with the specifications.

LOCAL VENDOR PREFERENCE: The City *may* give a local preference in the amount of three percent (3%) of the bid price or \$25,000, whichever is less. The bid price shall include not only the base bid price but all alternatives which are part of the bid and actually purchased or awarded. A Local Vendor Affidavit of Eligibility shall accompany the bid submittal to be considered valid.

PRICING: Firm prices shall be proposed and include FOB DESTINATION, all packing, handling, shipping charges and delivery to any point within the City of Ormond Beach to a secure area or inside delivery. Prices shall be valid for ninety (90) days from date of Bid opening. In the event there is a discrepancy between the unit price and the extended amount, the unit price will prevail.

ADDITIONAL TERMS AND CONDITIONS: The City of Ormond Beach reserves the right to reject Bids containing any additional terms or conditions not specifically requested in the original conditions and specifications.

TAXES: The City of Ormond Beach is exempt from Federal Excise Taxes and all sales taxes.

DISCOUNTS: All discounts EXCEPT THOSE FOR PROMPT PAYMENT shall be considered in determining the lowest net cost for Bid evaluation purposes. If a Bidder offers a discount, it is understood that the discount time will be computed from the date of satisfactory delivery, at the place of acceptance, and receipt of correct invoice, at the office specified, whichever occurs last.

SILENCE OF SPECIFICATIONS: The apparent silence of any specification and any supplemental specifications as to any details or the omission from same of any detailed description concerning any point shall be regarded as meaning that only the best commercial practices are to prevail and that only materials of first quality and correct type, size, and design are to be used. All workmanship is to be first quality. All interpretations of the specifications shall be made upon the basis of this statement.

ASSIGNMENT: Any purchase order or contract issued pursuant to a Bid and the monies which may become due thereunder are not assignable except with the prior written approval of the City Manager or City Commissioner, whichever authorized the purchase.

LIABILITY: The vendor shall hold and save the City of Ormond Beach, its officers, agents, and employees harmless against claims by third parties resulting from the vendor's or supplier's breach of contract or negligence, including all attorney's fees and costs, and shall pay any and all damages, fees, and costs assessed on behalf of the City. The City expressly reserves all rights, privileges and benefits of sovereign immunity.

PATENTS AND ROYALTIES: The Bidder, without exception, shall indemnify and save harmless the City of Ormond Beach and its employees from liability of any kind, including cost and expenses for or on account of any copyrighted, patented, or unpatented invention, process, or article manufactured or used in the performance of the contract, including its use by the City of Ormond Beach. If the Bidder uses any design, device, or materials covered by letters, patent or copyright, it is mutually agreed and understood without exception that the Bid prices shall include all royalties or cost arising from the use of such design, device, or materials in any way involved in the work.

SAFETY WARRANTY: The selling dealer, distributor, supplier, and manufacturer shall be responsible for compliance with all Federal, State and local laws, rules and regulations concerning the equipment and/or service specified and the use thereof, applicable and effective on the date of manufacture including safety and environmental standards as apply to both private industry and governmental agencies.

WARRANTY: The Bidder agrees that, unless otherwise specified, the services furnished under the Bid shall be covered by the most favorable commercial warranty for comparable services, and that the rights and remedies provided herein are in addition to and do not limit any rights afforded to the City of Ormond Beach by other provision of the Bid.

AWARDS: The City reserves the right, in its sole discretion, as the best interest of the City may require, to make award(s) by individual item, group of items, all or none, or a combination thereof; on a geographical basis and/or with one or more vendors or contractors; or to reject any and all Bids or waive any minor irregularity or technicality in the Bids received.

NON-APPROPRIATION OF FUNDS: In the event sufficient budget funds are not available for a new fiscal period, the CITY shall notify the VENDOR/CONTRACTOR of such occurrence and the contract shall terminate on the last day of the current fiscal period, without any penalty or expense to the CITY of any kind whatsoever.

OTHER AGENCIES: All Bidder(s) awarded contracts from this bid or proposal may, permit any municipality or other government agency to participate in the contract under the same prices, terms, and conditions, if agreed to by both parties.

It is understood that at no time will any city, municipality, or other agency be obligated for placing an order for any other city, municipality, or agency: nor will any city, municipality, or agency be obligated for any bills incurred by any other city, municipality, or agency. Further, it is understood that each agency will issue its own purchase orders to the awarded bidder(s).

COMPLIANCE WITH FLORIDA PUBLIC RECORDS LAW:

Contractor expressly agrees that it shall comply with the public records law provided in Florida Statutes, Chapter 119, and specifically to:

- (a) Keep and maintain public records required by the City to perform the contracted service.
- (b) Upon request from the City Clerk, provide the City with a copy of the requested records or allow the records to be inspected or copied within a reasonable time at a cost that does not exceed the cost provided in Chapter 119, Florida Statutes, or as otherwise provided by law.
- (c) Ensure that public records that are exempt or confidential and exempt from public records disclosure requirements are not disclosed except as authorized by law for the duration of the contract term and following completion of the contract if the contractor does not transfer the records to the City.
- (d) Upon completion of the contract, transfer at no cost, to the City all public records in possession of the contractor or keep and maintain public records required by the City to perform the service. If the contractor transfers all public records to the City upon completion of the contract, the contractor shall destroy any duplicate public records that are exempt or confidential and exempt from public records disclosure requirements. If

the contractor keeps and maintains public records upon the completion of the contract, the contractor shall meet all applicable requirements for retaining public records. All records stored electronically must be provided to the City, upon request from the City Clerk, in a format that is compatible with the information technology systems of the City. (e) Failure of the Contractor to comply with Public Records Law as provided by Florida Statutes, Chapter 119, shall subject the Contractor to penalties under Chapter 119.10 and subject this Agreement to termination for cause by the City.

IF THE CONTRACTOR HAS QUESTIONS REGARDING THE APPLICATION OF CHAPTER 119, FLORIDA STATUTES, TO THE CONTRACTOR'S DUTY TO PROVIDE PUBLIC RECORDS RELATING TO THIS CONTRACT, CONTACT THE CUSTODIAN OF PUBLIC RECORDS AT:

**SUSAN C. DAUDERIS, CITY CLERK
22 SOUTH BEACH STREET
ORMOND BEACH, FLORIDA 32175.
(386)676-3297
SUSAN.DAUDERIS@ORMONDBEACH.ORG**

-OR-

www.ormondbeach.org/prr

Ref: Fla. Stat. §119.0701(2016)

THE CITY OF ORMOND BEACH RESERVES THE RIGHT TO REJECT ANY OR ALL BIDS, AND TO WAIVE INFORMALITIES, AS MAY BE DEEMED TO BE IN THE BEST INTEREST OF THE CITY.

DEFINITIONS:

BIDDER - The term used herein refers to any individual, company or other entity submitting a Bid to the CITY in response to an Invitation to Bid (ITB).

CITY/OWNER - The terms CITY or OWNER herein refers to the City of Ormond Beach, Florida, and its duly authorized representatives.

CONTRACT MANAGER - The term refers to the CITY representative(s) who will be acting on the CITY's part to manage all the Contract actions.

FURNISH - The terms "furnish", "furnish and install", "install", and "provide" or words with similar meaning shall be interpreted, unless otherwise specifically stated, to mean "furnish and install, complete in place and ready for service".

PROJECT - The total construction of which the Work to be provided under the Contract Documents may be the whole, or a part as indicated elsewhere in the Contract Documents.

PROJECT MANUAL - The term "Project Manual" includes Bid Requirements, General Conditions, Scope of Work, Specifications, Risk Management requirements and any associated attachments.

SPECIFICATIONS - The term refers to those portions of the Project Manual consisting of written technical descriptions of materials, equipment, construction systems, standards and workmanship as applied to the Work and certain administrative details applicable thereto.

SUPPLIER - The term used herein refers to any individual, company or other entity supplying services pursuant to the terms, conditions, and quotations of a Bid or Proposal.

VENDOR, CONTRACTOR, or VENDOR/CONTRACTOR - The term(s) used herein refers to any individual, company, or other entity that is awarded a contract by the CITY, pursuant to the terms, conditions, and quotations of a bid/proposal.

WORK - The entire, completed job or the various separately identifiable parts thereof, required to be furnished under the Contract Documents. Work is the result of providing goods and/or services, furnishing labor and/or furnishing and incorporating materials and equipment into the construction, as required by the Contract Documents.

NON-APPROPRIATION OF FUNDS: In the event sufficient budget funds are not available for a new fiscal period, the CITY shall notify the VENDOR/CONTRACTOR of such occurrence and the contract shall terminate on the last day of the current fiscal period, without any penalty or expense to the CITY of any kind whatsoever.

City of Ormond Beach
EMERGENCY LIGHTING
Bid No. 2022-20

GENERAL INSTRUCTIONS:

Bid Delivery: Submit one (1) signed and unbound original of the complete Bid packet and one (1) electronic file, with all required attachments, by the closing date and time. Deliver Bids to: Rob Hart, Purchasing Coordinator, Ormond Beach City Hall down stairs in Room 101, 22 South Beach Street, Ormond Beach, Florida 32174. **Make sure the bid number is clearly visible on the outside of the delivery package. Bids delivered after the time and date specified will not be accepted.** For any question regarding bid delivery contact the purchasing office at 386-676-3223.

Technical Questions: Submit all technical questions regarding this Bid to the City's Purchasing Coordinator, Rob Hart, by e-mailing rob.hart@ormondbeach.org. **The deadline for questions is Friday, May 13, 2022 at noon.**

Rejection Rights: The City of Ormond Beach reserves the right, at any time, to modify, waive or otherwise vary the terms and conditions of this Bid including, but not limited to, the deadlines for submission and submission requirements. The City further reserves the right to reject any or all submittals, to cancel or withdraw this Bid at any time and to negotiate with any party prior to or after submittal of Bid.

Cost of Bid Preparation: No reimbursement will be made by the City of Ormond Beach for any costs incurred in the preparation of the Bid, proposal or presentation.

Bids to be in Effect: Each Bid shall state that it is valid for a period of not less than ninety (90) days from date of receipt.

Equipment: Contractor shall own and have in good repair all equipment necessary to perform the described services in particular and the equipment necessary to complete related tasks. The City will not provide any equipment to do this work.

Registration And Risk Management Requirements: Any Vendor delivering a product or Contractor doing work for the City of Ormond Beach, on City property shall be **registered** to do business in the City of Ormond Beach and shall provide **proof of**, abide by and maintain, for the entire life of the Contractual Agreement, including any and all approved time extensions, such **insurance** as is required by City ordinance, which shall be incorporated in and made part of the contract documents. A vendor using a common carrier is exempt from this requirement. This proof of insurance will be required prior to commencement of any **on-site** work. Refer to **Exhibit A** for the City's registration and risk management requirements.

TERM OF AGREEMENT:

The initial term of this Agreement shall be for a period of **three (3) years** and will be automatically renewed for four additional **one (1) year** periods unless either party provides at least ninety (90) days prior written notice to the other party of their intent not to renew the Agreement.

SCOPE OF WORK:**GENERAL**

The City of Ormond Beach invites qualified laboratories to submit Bid for an annual contract for Emergency Lighting for Ford Police Interceptor (Explorer), Ford Police Interceptor (Explorer) K9 and Ford Police Responder F-150. The successful contractor will be required to provide the selected Emergency Lighting within sixty (60) days of award.

AWARD:

The City reserves the right to award any contract(s) to the bidder(s) which it deems to offer the best overall service; therefore, the City is not bound to award any contract(s) based solely on lowest quoted price. The City also reserves the right to negotiate separately with competing bidders as deemed to be in the City's best interest.

COST ADJUSTMENTS:

No later than June 1, of each contract year, the Contractor may petition the City through the Contract Manager for a rate adjustment to reflect the change in the cost of doing business, as measured by fluctuations in the Consumer Price Index (CPI), All Urban Customers, published by the U.S. Department of Labor, Bureau of Labor Statistics, for the preceding July 1-June 30 period. The maximum increase for any annual period shall be four (4%) percent which will only apply to the future year, increases will not be retroactive. The adjusted rate, if approved shall take effect on October 1, of the year in which approved.

TAXES:

The Contractor is responsible for paying any and all taxes associated with this agreement.

OTHER AGENCIES:

Any bidder(s) awarded a contract resulting from this bid is/are given the privilege and is/are required to permit all public and governmental entities in the State of Florida to participate in the contract under the same terms and conditions.

It is understood that at no time will any agency be obligated for placing an order for any other agency. Each agency will only have the authority to obligate itself and will not be held responsible for bills incurred by any other agency. Further, it is understood that each agency will issue its own purchase order(s) or contract to successful bidder(s).

City of Ormond Beach
EMERGENCY LIGHTING
Bid No. 2022-20

BID RESPONSE FORM

THIS BID IS SUBMITTED TO:
 (Name and Address of Owner)

Purchasing Coordinator
 City of Ormond Beach
 22 S. Beach Street
 Ormond Beach, Florida 32174
 Phone: (386) 676-3223

The undersigned BIDDER proposes and agrees, if this Bid is accepted, to enter into an Agreement with the CITY in the form included in the Bid Documents to complete all Work as specified or indicated in the Bid Documents for the Contract Price and within the Contract Time indicated in this Bid and in full accordance with the Bid Documents.

BIDDER certifies that he has investigated the requirements to do business in the jurisdiction where the project is located, and that he is either qualified to do business or will obtain such prequalification prior to award of the contract.

BIDDER accepts all of the terms and conditions of the General Conditions. BIDDER will sign the Agreement (Contract) and submit the Contract security (when applicable) and other documents required by the Contract Documents within ten (10) days after the date of CITY's Notice of Award.

In submitting this Bid, BIDDER represents, as more fully set forth in the Agreement, that:

BIDDER has examined copies of all the Bid Documents and of the following Addenda:

<u>Addendum Date</u>	<u>Addendum Number</u>
_____	_____
_____	_____
_____	_____

Receipt of all of which is hereby acknowledged.

BIDDER has examined the site and locality where the Work is to be performed, when applicable, the legal requirements (federal, state and local laws, ordinances, rules and regulations) and the conditions affecting cost, progress or performance of the Work and has made such independent investigations as BIDDER deems necessary.

BID RESPONSE FORM
(continued)

This Bid is genuine and not made in the interest of or on behalf of any undisclosed person, firm or corporation and is not submitted in conformity with any agreement or rules of any group, association, organization or corporation; BIDDER has not directly or indirectly induced or solicited any other Bidder to submit a false or sham Bid; BIDDER has not solicited or induced any person, firm or a corporation to refrain from bidding; and BIDDER has not sought by collusion to obtain for himself any advantage over any other Bidder or over the CITY.

THIS BID IS SUBMITTED BY:

COMPANY NAME: _____

VENDOR/CONTRACTOR LICENSE NUMBER: _____

ADDRESS: _____

PHONE NO.: _____ EMAIL: _____

SUBMITTER'S NAME: _____
(Typed or Printed in Ink)

TITLE: _____

AUTHORIZED SIGNATURE: I, _____ hereby
(Original Signature)

declare that I have read and fully understand the Invitation to Bid, including the General Conditions, Specifications and Drawings (when applicable) and that I am duly authorized to sign and submit this bid.

The CITY reserves the right to reject any and all bids, to waive informalities, and to accept any bid or parts thereof as the CITY, in its sole discretion, determines to be in the best interest of the CITY.

Item Number / Description:

The use of any manufacturer's name, trade name, brand name, or catalog number in this specification is for the sole purpose of describing and establishing the minimum requirements for levels of quality, standards of performance and design required, and is in no way intended to prohibit the bidding of any other manufacturer's items of equal quality and interoperability. The City's Public Work's Operations Manager or his designee shall be

the sole judge of the quality and interoperability of alternate products proposed and his decision will be final.

Ford Police Interceptor (Explorer)

1. GB2DEDE

WEC 54" LEGACY DUO LIGHTBAR

2. MKEZ105

WEC STRAP KIT 2020+ PIUT

3. CCSRN3

WHELEN REMOTE SIREN & 18-BUTTON CONTROL SYSTEM
REPLACES CCSRN2 CENCOM GOLD SIREN/SWITCH (DISCONTINUED) INCLUDES:
AMP/RELAY MODULE, CONTROL HEAD, MIC, 20' MICROPHONE EXTENSION AND
CABLES
SLIDE
SWITCH
SWITCH 1 OFF
SWITCH 2 RED/BLUE
SWITCH 3 RED/BLUE/WHITE
ALLEY LIGHT BUTTONS - 3 LIGHTBAR CORNER LIGHTS AND WITE TRACER

4. SA315P

Whelen 100W Compact Black Composite 122DB Speaker
MOUNTING BRACKET SOLD SEPERATELY

5. SAK66D

WEC SA315P BKT FORD 2020 PIUT DRIVER SIDE

6. (2) MCRNTJ

WEC MICRON LIGHTHEAD STUD MNT RED/BLUE
MOUNTED IN THE GRILL

7. MBFX20

WEC MIRROR BEAMS 20-21 FORD PIU HOUSING ONLY

8. MBIONVB

WEC MIRROR-BEAM MT ION-V LT BLUE
MOUNTED ON PASSANGER SIDE

9. MBIONVR

WEC MIRROR-BEAM MT ION-V LT RED
MOUNTED ON DRIVERS SIDE

10. LSVBKT50
WEC UNDER MIRROR MOUNT 2020 FORD PIU

11. LINV2R
WEC LINZ V- SERIES LIGHT RED
MOUNTED UNDER THE DRIVER SIDE MIRROR

12. LINV2B
WEC LINZ V-SERIES LIGHT BLUE
MOUNTED UNDER PASSANGER SIDE MRROR

13. (2) I3JC
WEC ION TRIO RED/BLUE/WHITE - WHITE O/R - BLK HSNG
MOUNTED IN GRILL LOW

14. (4) TLI2J
WEC ION T-SERIES LINEAR DUO R/B
(2) - DOWN IN FOG LIGHT AREA AT45 DEG
(2) - ON SIDES OF THE LIC PLATE

15. (2) TIONBKT1
WEC ION T-SERIES UNIVERSAL MOUNTING BRACKET

16. WEC-RPLS50-RB
WEC OUTER EDGE REARPILLAR LC SOLO UTILITY R/B

17. (2) WEC-TCRHT5-RBW
WEC TRACER TRIO 5-LAMP HOUSING, RED/BLUE/WHITE
5 Lamp Housing and TCRL*** TRIOTM Lightheads. "L" Bracket
Mounting (6 Required) or Vehicle Specific Mounting

18. (2) TCRB50
WEC TRACER MTG KIT INTERCEPTOR SUV

19. ARGES1
WEC ARGES 5 DEG REMOTE SPOTLIGHT

20. ARGCH1
WEC ARGES BAIL MT CONTROL HEAD

21. ARG50D
WEC ARGES DRIVER SIDE FENDER MOUNT 2020 UTILITY

22. PK0602ITU20TM

SMC #10VS RP C Horizontal Sliding Window Uncoated Poly

23. PK0316ITU202ND

SMC 12VS CARGO AREA PARTITION, COATED POLY
 "Cargo Area Rear Partition#12VS Stationary WindowCoated
 Polycarbonate*FOR USE WITH: -2nd Row Seat"
 STATE YEAR OF VEHICLE

24. QK0634ITU20

SMC OEM REPLACEMENT SEAT WITH CTR PULL BELTS
 FITS 2020+ FORD PIUT

25. WK0595ITU20

SMC CLEAR POLY WINDOW BARRIER - 2020+ PIUT

26. DK0100ITU20

SMC TPO POLYMER OVER MOLDED DOOR SKIN

27. TK0236ITU20

SMC PIUT CARGO BOX - TOA & BSC - RADIO TRAY OPTIONAL
 TOA TRAY, OPEN TOP WITH ANCHOR POINTS
 BCS BASE SLIDING WITH COMBINATION LOCK VEHICLE - 2020 FORD PIUT

28. TPA9289

SMC CARGO BOX SLIDING RADIO TRAY (TRN)
 RADIO TRAY FOR CARGO BOX WITH NO LOCK
 ALL ELECTRONICS WILL BE MOUNTED ON THE TRAY

29. C-VS-1012-INUT

HAV 22" Angled Low Profile Console
 C-VS-1012-INUT

30. C-PM-124

HAV Brother PocketJet Printer Mount for Ford Interceptor

31. C-CUP2-I

HAV IN-CONSOLE DUAL CUP HOLDER

32. C-LP2-PS2

HAV 2 PLATE W/2-SWITCH C/O'S & 2-12VDC OUTLETS
 C-SW-1 QTY (2)

33. C-USB-2

HAV DUAL 2.4A USB CHARGING MODULE

34. (2) C-SW-1

HAV BLACK ON/OFF ROCKER SWITCH W/RED PILOT LIGHT
1 -- SWITCH FOR FAN 1 - SWITCH FOR

35. C-ARM-105
HAV CONSOLE SIDE MOUNTED FLIP-UP ARMREST (5.25 X 10)
C-ARM-105

36. C-ML-MCB
HAV 12 MAPLIGHT AND L-BRACKET

37. (2) C-MCB
HAV CONSOLE MICROPHONE CLIP BRACKET

38. C-HDM-204
HAV TELESCOPING SIDE MOUNTED POLE ASSY
C-HDM-204 MOUNTS TO SIDE OF CONSOLE BOX

39. C-MD-112
HAV 11' SLIDE, TILT, & SWIVEL LOCKING SWING ARM
REPLACES DISCONTINUED # C-MD-102

40. UT-1001
Hav Universal Rugged Cradle for approximately 11"-14"

41. INSTALL KIT
MISC INSTALLATION SUPPLIES I.E.
LOOM, WIRE, HARDWARE, CONNECTORS, ETC

42. INSTALL
DSS INSTALLATION OF EQUIPMENT
ADDED WATERPROOF FUSE BUSS
ADDED FUSE BLOCK PER CAR
5 YEAR WARRANTY ON ALL DSS INSTALLATION

43. PRICING IS FOR 1 VEH
USING VOLUME PRICING

Ford Police Interceptor (Explorer)K9

1. GB2DEDE
WEC 54" LEGACY DUO LIGHTBAR

2. MKEZ105
WEC STRAP KIT 2020+ PIUT

3. CCSRN3
16 of 36

WHELEN REMOTE SIREN & 18-BUTTON CONTROL SYSTEM
 REPLACES CCSRN2 CENCOM GOLD SIREN/SWITCH (DISCONTINUED) INCLUDES:
 AMP/RELAY MODULE, CONTROL HEAD, MIC, 20' MICROPHONE EXTENSION AND
 CABLES
 SLIDE
 SWITCH
 SWITCH 1 OFF
 SWITCH 2 RED/BLUE
 SWITCH 3 RED/BLUE/WHITE
 ALLEY LIGHT BUTTONS - 3 LIGHTBAR CORNER LIGHTS AND WITE TRACER

4. SA315P

Whelen 100W Compact Black Composite 122DB Speaker
 MOUNTING BRACKET SOLD SEPERATELY

5. SAK66D

WEC SA315P BKT FORD 2020 PIUT DRIVER SIDE

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WEC MICRON LIGHTHEAD STUD MNT RED/BLUE
 MOUNTED IN THE GRILL

7. MBFX20

WEC MIRROR BEAMS 20-21 FORD PIU HOUSING ONLY

8. MBIONVB

WEC MIRROR-BEAM MT ION-V LT BLUE
 MOUNTED ON PASSANGER SIDE

9. MBIONVR

WEC MIRROR-BEAM MT ION-V LT RED
 MOUNTED ON DRIVERS SIDE

10. LSVBKT50

WEC UNDER MIRROR MOUNT 2020 FORD PIU

11. LINV2R

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 MOUNTED UNDER THE DRIVER SIDE MIRROR

12. LINV2B

WEC LINZ V-SERIES LIGHT BLUE
 MOUNTED UNDER PASSANGER SIDE MRROR

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WEC ION TRIO RED/BLUE/WHITE - WHITE O/R - BLK HSNG
MOUNTED IN GRILL LOW

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WEC ION T-SERIES LINEAR DUO R/B
(2) - DOWN IN FOG LIGHT AREA AT45 DEG
(2) - ON SIDES OF THE LIC PLATE

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5 Lamp Housing and TCRL*** TRIOTM Lightheads. "L" Bracket
Mounting (6 Required) or Vehicle Specific Mounting

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19. ARGES1
WEC ARGES 5 DEG REMOTE SPOTLIGHT

20. ARGCH1
WEC ARGES BAIL MT CONTROL HEAD

21. ARG50D
WEC ARGES DRIVER SIDE FENDER MOUNT 2020 UTILITY

22. K9-F28-1
Havis 2020 Ford Utility K9 Transport System – Standard

23. K9-A-301
HAV 10 INCH, 650 CFM FAN FOR K-9 TRANSPORT INSERT

24. HA-2520B
ACE K9 HEAT ALARM PRO
REQUIRED INFO YEAR- 2022 MAKE- FORD MODEL- PIUT

25. AWD-7040
ACEK9 ACE WATCHDOG PRO FOR USE WITH PRO ALARM
AceWatchDogTM for use with Pro Alarm Systems

AceWatchDog Server Service is \$168.00 Per Year
and the First Year is Included with New Unit.

More Info: www.acek9.com/awd.html

All orders for AceWatchDogTM require a completed setup form

26. H-NKLB-P

ACE K9 No K-9 Left Behind

27. HAP-EVS-K

ACE K9 ENGINE STALL SENSOR KIT

28. HA-FKT10-P

ACEK9 10 INCH Fan Kit for Use with PRM

HA-FKT10-P

29. HA-RBM-27

ACE K9 REMOTE PAGER MODULE

30. TK0248ITU20

SMC CARGO BOX DSC & BSC

31. TF0292ITU20

SMC CARGO BOX FREESTANDING KIT-2020+ PIUT

32. TPA9289

SMC CARGO BOX SLIDING RADIO TRAY (TRN)

RADIO TRAY FOR CARGO BOX WITH NO LOCK

33. C-VS-1012-INUT

HAV 22" Angled Low Profile Console

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C-ARM-105

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HAV 12 MAPLIGHT AND L-BRACKET

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REPLACES DISCONTINUED # C-MD-102

44. UT-1001

Hav Universal Rugged Cradle for approximately 11"-14"

45. INSTALL KIT

MISC INSTALLATION SUPPLIES I.E.

LOOM, WIRE, HARDWARE, CONNECTORS, ETC

46. INSTALL

DSS INSTALLATION OF EQUIPMENT

ADDED WATERPROOF FUSE BUSS

ADDED FUSE BLOCK PER CAR

5 YEAR WARRANTY ON ALL DSS INSTALLATION

AND INSTALLATION PARTS

PRICING IS FOR 1 VEH,

USING VOLUME PRICING OTHER K-9 OPTIONS: HA-CMD-P Carbon Monoxide Detector
& Interface Module, HA-SDM-D Smoke Detector & Interface Module

Ford Police Responder F-150

1. W47UFX-D

WEC DUO INNEREDGE XLP 12LT 15 F150 RED/WHITE

2. MISC

WEC ISRW10, RA/BA RTS LIGHT

3. WEC-ISR47

WEC RST HOUSING FOR 2015+ FORD F-150

4. CCSRN3

WHELEN REMOTE SIREN & 18-BUTTON CONTROL SYSTEM
REPLACES CCSRN2 CENCOM GOLD SIREN/SWITCH (DISCONTINUED)
INCLUDES: AMP/RELAY MODULE, CONTROL HEAD, MIC, 20'
MICROPHONE
EXTENSION AND CABLES

5. SA315P

Whelen 100W Compact Black Composite 122DB Speaker

6. SAK57

WEC SA315P MOUNTING BRACKET FOR 2015+ FORD F-150

7. (2) I3JC

WEC ION TRIO RED/BLUE/WHITE - WHITE O/R - BLK HSNG
MOUNTED IN THE GRILL AREA LOW

8. (4) TL12J

WEC ION T-SERIES LINEAR DUO R/B
2 - MOUNTED ON SIDE FENDER UP FRONT
2 - MOUNTED BETWEEN FENDER AND TAILGATE

9. (2) WEC-TCRHT5-RBW

WEC TRACER TRIO 5-LAMP HOUSING, RED/BLUE/WHITE
5 Lamp Housing and TCRL*** TRIOTM Lightheads. "L" Bracket Mounting
(6 Required) or Vehicle Specific Mounting Purchased Separately

10. (2) TCRB47

WEC TRACER MOUNTING KIT FOR F-150 - ONE SIDE

11. (2) PSJ02FCR

WEC STRIP LIGHT PLUS DUO R/B
MOUNTED IN THE REAR WINDOW. BEHIND EACH HEAD REST

12. (2) PSBKT90

WEC STRIP-LITE+ 90 DEG MT KIT

13. (2) WEC-VTX609B

Whelen Omni Vertex Directional 9' Cable-Blue
MOUNTED IN THE BU LIGHTS

14. (2) WEC-VTX609R

Whelen Omni Vertex Directional 9' Cable-Red

MOUNTED IN THE BRAKE LIGHTS

15. ARGES1

WEC ARGES 5 DEG REMOTE SPOTLIGHT

16. ARGCH1

WEC ARGES BAIL MT CONTROL HEAD

17. ARG47D

WEC DRVR FENDER MT 2019 FORD F-150

18. C-VSW-3000-F150-2

HAV 12.5" Wide Flat 30" Vehicle-Specific Console for 2
30" long 12.5" wide vehicle-specific console for 2021 Ford F-150 police
responder, Special Service vehicle (SSV)
Also fits retail versions with column shifter
(with 40-20-40 split front seat, without OEM console)
30" of total equipment mounting space in 9"W section
24.5" of total equipment mounting space in 3.3"W section
Angled console cleanly fits between the bucket seats
and the dash contour for a custom look in your vehicle
Heavy gauge steel, welded construction for Heavy-duty use and durability
Black powder coat finish
faceplates in 30" 9" wide section
equipment in 24.5" 3.3" wide section

19. C-CUP2-I

HAV IN-CONSOLE DUAL CUP HOLDER

20. C-LP2-PS2

HAV 2 PLATE W/2-SWITCH C/O'S & 2-12VDC OUTLETS
C-SW-1 QTY (2)

21. C-USB-2

HAV DUAL 2.4A USB CHARGING MODULE

22. (2) C-SW-1

HAV BLACK ON/OFF ROCKER SWITCH W/RED PILOT LIGHT

23. C-ARM-105

HAV CONSOLE SIDE MOUNTED FLIP-UP ARMREST (5.25 X 10)
C-ARM-105

24. C-ML-MCB

HAV 12 MAPLIGHT AND L-BRACKET

25. (2) C-MCB

HAV CONSOLE MICROPHONE CLIP BRACKET

26. (2) C-MC
HAV CONSOLE MICROPHONE CLIP

27. C-HDM-204
HAV TELESCOPING SIDE MOUNTED POLE ASSY
C-HDM-204
MOUNTS TO SIDE OF CONSOLE BOX

28. C-MD-112
HAV 11' SLIDE, TILT, & SWIVEL LOCKING SWING ARM
REPLACES DISCONTINUED # C-MD-102

29. UT-1001
Hav Universal Rugged Cradle for approximately 11"-14"

30. INSTALL KIT
MISC INSTALLATION SUPPLIES I.E.
LOOM, WIRE, HARDWARE, CONNECTORS, ETC
ADDED WATERPROOF FUSE BUSS
ADDED FUSE BLOCK

31. INSTALL
DSS INSTALLATION OF EQUIPMENT

City of Ormond Beach
EMERGENCY LIGHTING FOR POLICE VEHICLES
Bid No. 2022-20

The BIDDER will complete the Work, as described herein, for the following price(s):

BID SCHEDULE

<u>Item No:</u>	<u>Description:</u>	<u>Quantity:</u>	<u>Unit:</u>	<u>Unit Price:</u>	<u>Total Price:</u>
1.	<u>Complete</u> Emergency Lighting Package Ford Police Interceptor (Explorer)	5	EA	\$_____	\$_____
2.	<u>Complete</u> Emergency Lighting Package Ford Police Interceptor (Explorer)K9	1	EA	\$_____	\$_____
3.	<u>Complete</u> Emergency Lighting Package Ford Police Responder F-150	1	EA	\$_____	\$_____

TOTAL BID FOR CONTRACT \$_____

(Figures)

(Words)

Please include a separate spread sheet itemizing line item unit pricing to be used with potential future purchases of individual items.

City of Ormond Beach
EMERGENCY LIGHTING FOR POLICE VEHICLES
Bid No. 2022-20

VERIFICATION OF EMPLOYMENT STATUS USING E-VERIFY SYSTEM

1. Undersigned firm warrants it **IS** currently registered with the U.S. Department of Homeland Security's E-Verify system, **and** is compliant with the requirements of Sections 448.09 and 448.095, *Florida Statutes*.
2. Undersigned firm warrants it **has not** had any contracts terminated as a result of violations of Sections 448.09 or 448.095, *Florida Statutes*, that prohibit it from contracting with a public agency.
3. Undersigned firm warrants that if it enters into an agreement with a subcontractor, an express provision shall be included in all of its subcontracts requiring subcontractors, who perform work or provide services pursuant to the contract, to use the E-Verify system to verify employment eligibility of all new employees hired by the subcontractor during the contract term.
4. Undersigned firm understands that any subcontractor must provide the contractor with an affidavit stating that the subcontractor does not employ, contract with, or subcontract with an unauthorized alien, and the contractor understands it shall maintain any such affidavits for the duration of the contract, and the contract with the subcontractor must be immediately terminated if the City has a good faith belief that the subcontractor knowingly violated Section 448.09 (1), *Florida Statutes*.
5. Undersigned firm understands that in the event the City has a good faith belief that the contractor has knowingly violated Section 448.09 (1), *Florida Statutes*, the City shall terminate the contract, and the contractor may not be awarded a public contract for a period of at least one (1) year after the date of termination. The contractor may be held liable for any additional costs incurred by the City as a result of termination of the contract.

 COMPANY NAME

 AUTHORIZED SIGNATURE

 NAME

TITLE

DATE

City of Ormond Beach
EMERGENCY LIGHTING FOR POLICE VEHICLES
Bid No. 2022-20

CONFLICT, NON-CONFLICT OF INTEREST STATEMENT
LITIGATION STATEMENT

1.

- [] To the best of our knowledge, the undersigned firm has no potential conflicts of interest due to any other clients or contracts for this project.
- [] The undersigned firm, by attachment to this form, submits information which may be a potential conflict of interest due to other clients or contracts for this project.

2.

- [] The undersigned firm has had no litigation on any project in the last five (5) years.
- [] The undersigned firm, by attachment to this form, submits a summary and disposition of individual cases of litigation during the past five (5) years.

COMPANY NAME_____
AUTHORIZED SIGNATURE_____
NAME (PRINT OR TYPE)_____
TITLE_____
DATE

CITY OF ORMOND BEACH

DRUG-FREE WORKPLACE CERTIFICATION

IDENTICAL OR "TIE" BID: Preference shall be given to businesses with drug-free workplace programs. Whenever two or more Bids which are equal in respect to price, quality, and service are received by the State or by any political subdivision for the procurement of commodities or contractual services, a Bid received from a business that certifies that it has implemented a drug-free workplace program shall be given preference in the award process. Established procedures for processing tie Bids will be followed if none of the tied vendors have a drug-free workplace program. In order to have a drug-free workplace program, a business shall:

Publish a statement notifying employees that the unlawful manufacture, distribution, dispensing, possession, or use of a controlled substance is prohibited in the workplace and specifying the actions that will be taken against employees for violations of such prohibition.

Inform employees about the dangers of drug abuse in the workplace, the business's policy of maintaining a drug-free workplace, any available drug counseling, rehabilitation, and employee assistance programs, and the penalties that may be imposed upon employees for drug abuse violation.

Give each employee that engages in providing the commodities or contractual services that are under proposal a copy of the statement specified in subsection (1).

In the statement specified in subsection (1), notify the employees that, as a condition of working on the commodities or contractual services that are under proposal, the employee will abide by the terms of the statement and will notify the employer of any conviction of, or plea of guilty or nolo contendere to, any violation of Chapter 893 or of any controlled substance law of the United States or any state, for a violation occurring in the workplace no later than five (5) calendar days after such conviction.

Impose sanctions on, or require the satisfactory participation in a drug abuse assistance or rehabilitation program if such is available in the employee's community, by any employee who is so convicted.

Make a good faith effort to continue to maintain a drug-free workplace through implementation of this section.

COMPANY NAME

AUTHORIZED SIGNATURE

NAME (PRINT OR TYPE)

LOCAL VENDOR PREFERENCE

The following is taken from the Code of Ordinances, City of Ormond Beach, Chapter 2, Financial Matters, Division 3, Purchasing, Article IX, Section 2-304:

Except where otherwise provided by federal or state law or other funding source restrictions, purchases of goods and services under the Purchasing Code shall give preference to local businesses as follows:

- (a) Under a competitive bid solicitation, the City *may* give a local preference in the amount of three percent (3%) of the bid price or \$25,000, whichever is less. The bid price shall include not only the base bid price but all alternatives which are part of the bid and actually purchased or awarded.
- (b) A *local business* shall mean a vendor that has a valid occupational license issued by the City of Ormond Beach at least one year prior to bid opening, with a physical business address located within the municipal boundaries of the City of Ormond Beach from which the vendor operates or performs business on a day-to-day basis that is a substantial component of the goods or services being offered and has provided a Local Vendor Affidavit of Eligibility at the time the bid is submitted.
- (c) A *Local Vendor Affidavit of Eligibility* shall accompany the bid submittal to be considered valid and shall include, but not be limited to, the following information:
 - (1) A physical business and location address;
 - (2) A copy of current City of Ormond Beach Local Business Tax Receipt (occupational license) to verify the business location;
 - (3) Proof of payment of business tax and real property tax due to the City of Ormond Beach;
 - (4) A copy of the firm's most recent annual corporation report to the Florida Division of Corporations;
 - (5) Any additional information necessary to verify local status.
- (d) *Exemptions:* Goods or services provided under a cooperative purchasing agreement, contracts for professional services subject to Consultants' Competitive Negotiation Act, purchases or contracts funded in whole or part by a governmental entity that does not allow local preferences, purchases made under another agency's agreements or contracts (piggybacking), purchases under emergency or sole source situations and procurements subject to formal proposals including but not limited to request for proposals (RFP) or continuing contract, and request for quotes (RFQ) versus straight competitive bids.
- (e) This section shall not be deemed to require the granting of a local preference, and nothing herein prohibits the award of a contract to a non-local vendor where such award is in the public interest.



Local Vendor Affidavit of Eligibility

I certify that my company meets all of the following qualifications to be eligible for the local vendor preference:

- a. My company has a physical business address located within the municipal boundaries of the City of Ormond Beach which is used to perform business on a day-to-day basis.
- b. My company holds any business (occupational) or contractor license required by the City of Ormond Beach at least one year prior to bid opening.
- c. Payment of business tax and real property tax due to the City of Ormond Beach is current
- d. My company is in compliance with annual reporting to the Florida Division of Corporations

Company Name: _____

Address: _____

Business or Contractor License Number: _____

Phone Number: _____ Fax Number: _____

Owner's Name: _____ Signature: _____

Sworn to before me this _____ day of _____

Notary Public for the State of _____ My Commission Expires _____

Notary Public Signature: _____ Printed Name: _____

To be approved as a local bidder and receive bid preference on an eligible local project, this affidavit of eligibility, a copy of your local business or contractor license, copy of business tax/real property tax and a copy of the firm's most recent annual corporation report must be submitted with your bonafide BID package. Bid preference is provided at the City's sole discretion.

VENDOR DO NOT COMPLETE BELOW

To be verified and completed by an authorized representative of the City of Ormond Beach's Purchasing Department:

Vendor Certified by: _____ Date: _____

EXHIBIT "A"

A. Payment and Performance Bonds

1. Except as otherwise provided herein, the Contractor shall, prior to beginning performance, deliver to the City, and the City shall record in the public records of Volusia County, Florida, the Contractor's Payment and Performance Bond in an amount equal to the full amount of the Contract.
2.
 - (a) Payment and Performance Bonds shall not be required for any contract except those which are for the construction of a public building, for the prosecution and completion of a public work (as described in Section 180.06, **Florida Statutes**, as amended from time to time) or for repairs upon a public building or public work (as described in Section 180.06, **Florida Statutes**, as amended from time to time).
 - (b) With respect to those Contracts for which Payment and Performance Bonds are otherwise required:
 - i. Unless the City Manager, or designee, determines such Bond to be necessary to protect the interests of the City, no Contractor shall be required to provide a Payment and Performance Bond for any Contract which is for \$25,000.00 or less.
 - ii. Upon the request of the contractor, good cause shown by the Contractor, and a determination that the public health, safety and welfare will be sufficiently protected, the City Commission may exempt the contractor from the requirement of providing a Payment and Performance Bond for any Contract which is for more than \$25,000.00 but is less than \$200,000.00.
3. The Payment and Performance Bond shall list the Contractor as Principal and be issued by a surety insurer authorized to do business in Florida as a surety and listed as an acceptable surety in the Federal Register.
4. The Payment and Performance Bond shall be executed pursuant to Section 255.05, **Florida Statutes**, and be in a form substantially similar to the form set forth in Section 255.05(3), **Florida Statutes**.
5. The Payment and Performance Bond shall specifically provide coverage for delay damages due to a default by the Contractor.
6. The Payment and Performance Bond shall not make the Contract part of the Bond agreement.

7. In lieu of the Payment and Performance Bond, the Contractor may file with the Finance Director of the City, in an amount equal to the full amount of the Contract, cash, a money order, a certified check, a cashier's check, an irrevocable letter of credit, or a security of a type listed in Part II, Chapter 625, **Florida Statutes**.
8. In the event the surety on any Payment and Performance Bond furnished by the Contractor is declared bankrupt or becomes insolvent, or its right to do business in the State of Florida is terminated, the Contractor shall, within five (5) working days thereafter, substitute another Payment and Performance Bond and surety acceptable to the City.
9. The Contractor is totally and solely responsible for keeping its surety informed as to the Base Contract Price as bid, significant changes in the Project Scope, and the overall progress and completion of the Project for the entire life of the Contract.
10. The payment and performance bond requirements stated herein above shall not be applicable to service-related contracts unless otherwise determined by the City Manager in order to protect the health, safety and welfare of the general public.

B. Contractual Provisions Relative to Risk Management

All contracts for any public works to be performed, and service-related contracts, for or on behalf of the City shall include at a minimum, the following, or substantially similar, provisions:

1. Hold Harmless and Indemnity

The Contractor agrees to assume liability for and indemnify, hold harmless, and defend the City, its commissioners, mayor, officers, employees, agents, and attorneys of, from, and against all liability and expense, including reasonable attorney's fees, in connection with any and all claims, demands, damages, actions, causes of action, and suits in equity of whatever kind or nature, including claims for personal injury, property damage, equitable relief, or loss of use, to the extent caused by the negligence, recklessness, or intentionally wrongful conduct of the Contractor, its agents, officers, contractors, subcontractors, employees, or anyone else employed or utilized by the Contractor in the performance of this Contract. The Contractor's liability hereunder shall include all attorney's fees and costs incurred by the City in the enforcement of this provision.

2. Payment on Behalf of City

The Contractor shall pay all costs of the City's legal defense, as may be selected by the City, for all claims described in the Hold Harmless paragraph.

Such payment on behalf of the City shall be in addition to any and all other legal remedies available to the City and shall not be considered to be the City's exclusive remedy.

3. Loss Control/Safety

Precaution shall be exercised at all times by the Contractor for the protection of all persons, including employees and property. The Contractor shall comply with all applicable laws, regulations and ordinances related to safety and health, shall make special efforts to detect hazardous conditions, and shall take prompt action when loss control/safety measures are reasonably necessary.

The City may order work to be stopped if conditions exist that present an immediate danger to persons or property. The Contractor acknowledges that such work stoppage will not shift responsibility for any damages from the Contractor to the City.

4. Service Bond

For Service-related contracts only, the City may require the Contractor to secure a service bond with a minimum \$25,000 coverage limit for the period of the service agreement. The service bond covers dishonest acts of the contractor's employees against the City. A copy of the bond shall be provided to the City when the agreement commences.

Service-related contracts include and are not limited to businesses providing janitorial, pest control, general repair, security, carpet cleaning, locksmith, temporary employment, painting, moving services or other contracts as determined in the discretion of the Risk Manager as necessary to minimize loss.

C. Contractor's Insurance

1. General

The Contractor, including service-related contractors, shall purchase and maintain for the entire life of the Project, including any and all approved time extensions, until its final acceptance by the City, such insurance as will protect the Contractor from claims under Workers' Compensation, disability benefit laws or other similar employee benefit laws; from claims for damages because of bodily injury, occupational sickness or disease, or death of Contractor's employees; from claims insured by usual or unusual injury liability coverage; from claims or injury to or destruction of tangible property and from claims insured by usual Commercial General Liability coverage. This includes loss of use resulting therefrom, any or all of which may arise out of the Contractor's operations under the Contract Documents, whether such operations be by the Contractor, by any Subcontractor, or by anyone directly or indirectly employed by any of them or for whose acts any of them may be legally liable. The Contractor's deductibles/self-insured retentions shall be disclosed to the City and may be disapproved by the City, and may be reduced or eliminated at the sole discretion of the City. The Contractor is responsible for the amount of any deductible or self-insured retention.

2. Types of Insurance and Limits of Liability

The insurance required herein shall be written for not less than any limits of liability specified and incorporated as part of the Contract Documents or as required by law, whichever is greater, and shall include and not limited to the following:

- (a)** Workers' Compensation Insurance in statutory limits for the State of Florida with Coverage B - Employer's Liability limits of not less than:

\$100,000 Each Accident Bodily Injury by Accident
 \$100,000 Each Employee Bodily Injury by Disease
 \$500,000 Policy Limit Bodily Injury by Disease

Certificate of Exemptions. If the contractor has a State-issued Certificate of Exemption, the contractor may provide a copy in place of the requirement for coverage. However, if the contractor subcontracts or retains any other person or entity to perform under the contract, that person or entity must provide proof of workers' compensation insurance as required by law or provide a Certificate of Exemption.

It is the intent of the City that any individual who either contracts directly with the city or performs any work on behalf of any such contractor be covered by workers' compensation insurance or have a valid exemption from said coverage.

(If applicable to the Project, the policy must include benefits under the United States Longshoremen's and Harbor Workers' Act and the Jones Act coverage--all maritime coverage.)

- (b)** Commercial General Liability Insurance shall be written on a coverage form as broad as Insurance Services Office (ISO) Form CG 00 01 11 85, or its successor form, including but not limited to the following coverage (any deviation shall be noted on the Certificates of Insurance):

- a. Premises, Operations, Products and Completed Operations
- b. Owners' & Contractors' Protective
- c. Products & Completed Operation
- d. Explosion, Collapse & Underground Conditions
- e. Blanket Contractual Liability
- f. Personal Injury Liability
- g. Broad Form Property Damage Endorsement, including Completed Operations
- h. Independent Contractors
- i. Watercraft--Owned and Non-Owned (if applicable, endorsement must be included in General Liability policy or a separate Protection & Indemnity Policy must be written)
- j. Pollution Liability (if applicable)
- k. Asbestos Abatement (if applicable)
- l. Fire Damage Liability

Certain coverage outlined above may not be required if they do not relate to the Project, as may be determined at the sole discretion of the City.

Commercial General Liability Coverage shall be written on an occurrence basis and the limits shall be no less and not limited to the following amounts:

Limits (not less than)

\$1 Million Each Occurrence

\$2 Million General Aggregate

\$1 Million Aggregate Products & Completed Operations

NOTE: Commercial General Liability Coverage must be purchased on either a project basis (separate policy per contract) or an endorsement allocating an aggregate limit per location or specified project.

- (c) Automobile Liability Insurance is required if an Automobile(s) is used in the performance of the contract.

ISO Symbol 1 (Any Auto), or alternatively a combination of Symbol 2 (Owned Autos), Symbol 8 (Hired Autos), and Symbol 9 (Non-Owned Autos), and limits shall be no less than:

\$1 Million	Combined Single Limit for Bodily Injury and Property Damage
-------------	--

- (d) Excess Liability

For contracts \$250,000 or greater an Excess Liability Policy of at least but not limited to \$1,000,000 in addition to the scheduled underlying policies for Commercial General Liability, Automobile Liability and Employers' Liability, the Contractor shall also provide an Excess Liability Policy with a maximum self-insured retention not to exceed \$25,000 per occurrence.

- (e) Builder's Risk

Contractor shall purchase Builder's Risk Insurance for any contracts that are deemed to be vertical construction on an All-Risk policy, and shall also include coverage for wind, hail, and named storm. Limits of coverage shall be at least and not limited to the value of the project.

- (f) Professional Liability, Malpractice and/or Errors and Omissions

The Contractor shall purchase and maintain professional liability, malpractice, or errors or omissions insurance with minimum limits of

\$1,000,000 per occurrence. If a claims made form of coverage is provided, the retroactive date of coverage shall be no later than the inception date of claims made coverage, unless the prior policy was extended indefinitely to cover prior acts. Coverage shall be extended beyond the policy year either by a supplemental extended reporting period (ERP) of as great a duration as is available, and with no less coverage and with reinstated aggregate limits, or by requiring that any new policy provides a retroactive date no later than the inception date of claims made coverage.

D. Requirements for Certificates of Insurance

1. With the execution of the Contract Documents, the Contractor, including service-related contractors, shall provide certificates of such insurance acceptable to the City. These certificates and insurance policies shall contain an endorsement that the coverage under the policies will not be canceled, non-renewed or materially changed until at least thirty (30) days' prior written notice of such cancellation, non-renewal or change (except for nonpayment of premium, which shall be ten (10) days) and a copy of the cancellation endorsement signed by an authorized representative of the insurer, be given to the City. The contractor shall be required to replace any expired or canceled policies in like amount and coverage to the satisfaction of the City. The Certificate of Insurance shall be the ACORD FORM 25-S (7/90), or its successor form, and shall be made a part of the Contract Documents.
2. New certificates of insurance shall be provided to the City at least fifteen (15) days prior to coverage renewals.
3. If requested by the City, the contractor shall immediately furnish complete copies of the Contractor's insurance policies, forms and endorsements.
4. For Commercial General Liability coverage the Contractor shall, at the option of the City, provide an indication of the amount of claims payments or reserves chargeable to the aggregate amount of liability coverage. If the Commercial General Liability form of coverage includes an annual aggregate limitation on the amount of insurance provided, a separate project aggregate limit may be required by the City for the given contract.
5. If the Contractor fails to obtain and maintain for the life of the Project the insurance required hereby or to replace any such expired or canceled policy, the City may obtain and maintain such insurance with such company as it deems satisfactory. Any amounts expended by the City in payment of premiums for such insurance shall be deducted by the City from the amount due the Contractor for the work covered by the Contract.

E. Policies of Insurance

1. Except as otherwise provided in this Exhibit, all insurance policies shall be issued by insurers licensed to do business in the State of Florida on an admitted basis or which is an eligible surplus lines insurer in the State of Florida, and any such

insuring company is required to have a minimum financial rating of (A-), in the latest edition of “Best’s Key Rating Guide”, published by A. M. Best Co., Inc., or some similarly nationally recognized rating authority, including Standard and Poors and Demotech.

2. For Workers’ Compensation coverage only, self-insurance programs are acceptable with a minimum A- rated reinsurance carrier; written confirmation is required.
3. All policies of insurance or certificates thereof referred to in this Exhibit shall be deposited with the City Clerk.
4. The City shall be named an Additional Insured on General Liability including products and completed operations and Automobile Liability policies of insurance and certificates thereof.



City of Ormond Beach BID REQUEST/APPROVAL FORM

City Ordinance requires written approval of a bid request prior to issuing an Invitation to Bid.

BID TITLE: Emergency Lighting for Police Vehicles

BID NUMBER: 2022-20

ADOPTED BUDGET: \$ \$110,000.00

ENGINEER'S COST ESTIMATE: \$ 109,225.00

REQUESTED COMMISSION DISPOSITION DATE: May 3, 2022

REQUESTED ADVERTISEMENT DATE: May 4, 2022

REQUESTED BID OPENING DATE: May 19, 2022

REQUESTED PRE-BID MEETING DATE: TBA

COMMENTS: _____

Approved by (Project Manager): 

Date: 4/14/2022

Approved by (Department/Division Head): 

Date: 4/14/2022

Approved by (Finance Director): 

Date: 4/21/2022



CITY OF ORMOND BEACH

City Manager • 22 S. Beach Street • Ormond Beach • Florida • 32174 • (386) 676-3200 • Fax (386) 676-3384

CITY MANAGER MEMORANDUM

To: The Honorable Mayor Partington and City Commissioners

Through: Joyce A. Shanahan, City Manager

From: Steven Spraker, Planning Director

Date: May 3, 2022

Subject: N. US 1 Second Amended Future Land Use Map Amendment-Small Scale

Commission Goal: Governance - Other

Introduction

This is an administrative request to amend the City of Ormond Beach Comprehensive Plan's Future Land Use Map to include the expansion of the Municipal Service Area land uses consistent with the Second Amended Interlocal Service Boundary Agreement (ISBA) between the City of Ormond Beach and Volusia County pursuant to Chapter 171, Part II, Florida Statutes, as amended.

Background

The City Commission adopted the original North US 1 Interlocal Service Boundary Agreement on August 19, 2014 per Ordinance 2014-27. Concurrently, the Volusia County Council adopted the Interlocal Service Boundary Agreement on August 21, 2014 by Volusia County Ordinance 2014-12. The original ISBA established the Municipal Service Area (MSA) and joint planning and service delivery agreement to the North US 1 area.

The first amendment to the North US 1 ISBA was approved to add the land associated with Plantation Oaks Subdivision and the 13 enclaves surrounding the subdivision to the adopted Municipal Service Area. On August 20, 2019, the City Commission adopted the first amendment to the North US 1 ISBA. The Volusia County Council subsequently adopted the agreement on September 17, 2019.

The second amendment to the North US 1 ISBA was approved to add the land associated with the RidgeHaven area and the 8 individually owned parcels not owned by RidgeHaven to the adopted Municipal Service Area. On December 7, 2021, the City Commission adopted the second amendment to the North US 1 ISBA. The Volusia County Council subsequently adopted the agreement on February 15, 2022. During the County Council presentation and discussion, the RidgeHaven representative and City staff committed to establishing a limitation of 298 dwelling units for the entire

RidgeHaven proposed subdivision. The Volusia County staff analysis calculated a range of residential development of 716 to 1,052 dwelling units. The RidgeHaven area includes the 84.26 acres and the 19.19 acres adjacent south. The land use amendment for the 19.19 acres is being processed separately as an applicant-initiated item and a companion to this amendment. The RidgeHaven land area was annexed on March 22, 2022.

Since the ISBA has been adopted, the City must amend the unincorporated property in the MSA from the existing County land uses to the City of Ormond Beach designations. The amendments to the Future Land Use Map are being processed as a small-scale amendment per Florida Statute section 171.204 and section 163.3171 which reads, “An amendment to the future land use map of a comprehensive plan which is consistent with the joint planning agreement must be considered a small-scale amendment”. Until the land use plan amendment process is completed, Volusia County’s comprehensive plan, zoning and land development regulations apply to the expanded properties of the MSA subject to the Second Amended ISBA.

Comprehensive Plan Land Use Map Amendment: The Comprehensive Plan land use map amendment proposes the following actions: Land area owned by RidgeHaven: 84.26 acres from Volusia County “Urban Medium Intensity” (UMI) to City of Ormond Beach “Low Density Residential” (LDR). Proposed condition to limit density offered by the property owner for a maximum gross density not to exceed three (3) units per acre and total units for all lands within the RidgeHaven subdivision including the 19.19-acre land area shall not exceed 298 residential units.

Parcels within individual ownership (not owned by RidgeHaven): 5.73 acres from Volusia County “Urban Medium Intensity” (UMI) to City of Ormond Beach “Medium Density Residential” (MDR). Proposed condition to allow same density as Volusia County with a maximum gross density not to exceed eight (8) units per acre.

The amendment does not provide any specific development approval, but instead a framework of uses, density, and intensity. The Comprehensive Plan land use map amendment from Volusia County land use to City land use designations will result in a reduction of existing Volusia County residential and non-residential entitlements. Any proposed future development for the RidgeHaven subdivision will require a neighborhood meeting and additional public hearings before the Planning Board and City Commission.

Next steps after the Future Land Use amendment approval will include the subdivision plat, neighborhood meeting, right-of-way vacation, zoning map amendment, construction plans, and final platting. All of the dates of these actions are “to be determined”.

Discussion

The Planning Board reviewed the requested Comprehensive Plan amendments on

March 10, 2022, and unanimously recommended approval (7-0). There were members of the public present that expressed concerns regarding the preservation of trees, and not reflecting previous agreements with the County including a 150' wildlife corridor along Pine Run subdivision boundary and certain aesthetics of the community such as landscaping instead of walls but expressed no objections to the Comprehensive Plan amendment request. It was agreed that staff would meet with the citizens to further discuss their concerns.

The Municipal Service Area and the proposed Future Land Use Map amendments were reviewed pursuant to the requirements of Chapter 171, Part II, *Florida Statutes*; the adopted Interlocal Service Boundary Agreement (ISBA), between the City of Ormond Beach and the County of Volusia; and in accordance with the City's Comprehensive Plan. A detailed analysis is included in the attached Staff Report submitted to the Planning Board on March 10, 2022. Based on the limitations, the proposed land uses will decrease the maximum number of residential units by 422. There is also a condition that the RidgeHaven subdivision cannot exceed 298 residential units within this land area of 84.26 and the other RidgeHaven land area of 19.19 acres. The non-residential entitlements are decreased by 1,151,029 square feet. As demonstrated in the Planning Board staff report analysis, all infrastructure impacts will be substantially decreased with the proposed land use amendment.

Budget Impact

There is no City budget impact due to the requested land use amendment.

Citizen Impact

The purpose of the Interlocal Service Boundary Agreement is to allow Ormond Beach to apply its land use and zoning regulations in an effort to redevelop the North U.S. 1 into a gateway corridor to the city and Volusia County. Under the theoretical maximum development scenario from existing County Land Use to City Land Use designations, there will be a decrease in the maximum number of residential units by 422. There is also a condition that the RidgeHaven proposed subdivision cannot exceed 298 residential units within this land area of 84.26 and the other RidgeHaven land area of 19.19 acres. The non-residential entitlements will be decreased by about 1,151,029 square feet. The number of potential trips on North US Highway 1 and water and sewer usage will theoretically be reduced with the proposed City Future Land Use Map changes and policy limitations.

The planning process will require a neighborhood meeting and public hearings on any site development. The land use amendment establishes the framework for future development.

Recommendation

It is recommended that the City Commission approve the proposed Comprehensive

Plan amendments to the Future Land Use Map to implement the terms of the Second Amended N. US 1 Interlocal Service Boundary Agreement. The Planning Board recommended approval with a 7-0 vote.

Attachments:

- 22 -11 N US 1 2nd Amended ISBA - FLUM Amendment (P22-0047G)(PDF)
- Exhibit A Map 1 ISBA and Municipal Boundaries (PDF)
- Exhibit A, Map 2 (PDF)
- Exhibit A, Map 3 (PDF)
- Exhibit B, FLU Map (PDF)
- Exhibit C Sketch and Legal for RidgeHaven 84.26ac (PDF)
- Exhibit D Sketch and Legal RidgeHaven 19.19ac (PDF)
- Exhibit E - EXECUTED 2ND AMENDED ISBA (PDF)
- 03.10.22 ISBA FLUM Amendment PB Report Small Scale pkg (PDF)
- 3.10.22 Partial Planning Board Minutes (PDF)
- March 10, 2022 Planning Board Minutes (TXT)
- 04.19.2022, 2nd ISBA amendment FLU PPT (PPTX)

REVIEWED BY:


Kelly McGuire, Finance Director 4/5/2022


Claire Whitley, Assistant City Manager 4/13/2022

APPROVED BY:


Joyce A. Shanahan, City Manager 4/14/2022

ORDINANCE NO. 2022-11

AN ORDINANCE AMENDING THE FUTURE LAND USE ELEMENT OF THE COMPREHENSIVE PLAN BY AMENDING THE FUTURE LAND USE MAP TO INCORPORATE THE PROVISIONS OF THE SECOND AMENDED NORTH US HIGHWAY 1 INTERLOCAL SERVICE BOUNDARY AGREEMENT BETWEEN THE CITY OF ORMOND BEACH AND THE COUNTY OF VOLUSIA; AUTHORIZING TRANSMITTAL; PROVIDING FOR PUBLIC HEARINGS; PROVIDING FOR CONFLICTING ORDINANCES; AND SETTING FORTH AN EFFECTIVE DATE.

WHEREAS, the City of Ormond Beach adopted an Interlocal Service Boundary Agreement (“ISBA”) with the County of Volusia on August 19, 2014, effective August 28, 2014, (recorded at Book 7026, Pages 878 through 895, of the Public Records of Volusia County, Florida) for the North US Highway 1 area depicted in Exhibit "A" Map 1 attached hereto, and incorporated herein by reference; and

WHEREAS, the City of Ormond Beach adopted an amended Interlocal Service Boundary Agreement (“ISBA”) with the County of Volusia on August 20, 2019, effective October 11, 2019, (recorded at Book 7758, Pages 4680 through 4683 of the Public Records of Volusia County, Florida) for the North US Highway 1 amended area depicted in Exhibit "A" Map 2 attached hereto, and incorporated herein by reference; and

WHEREAS, the City of Ormond Beach adopted a second amended Interlocal Service Boundary Agreement (“ISBA”) with the County of Volusia on December 7, 2021, effective March 30, 2022, (recorded at Book 8228, Pages 1974 through 1978 of the Public Records of Volusia County, Florida) for the North US Highway 1 amended area depicted in Exhibit "A"

Map 3 attached hereto, and incorporated herein by reference (a copy of the Second Amended ISBA is attached hereto and incorporated herein as Exhibit “E”); and

WHEREAS, in accordance with the ISBA and section 171.203(9), *Florida Statutes*, the *Comprehensive Plan’s* Future Land Use Map designation of real property is proposed to be changed (1) for 84.26± acres, known as the RidgeHaven property, from Volusia County “Urban Medium Intensity” (UMI) to City of Ormond Beach “Low Density Residential” (LDR) and (2) for 5.73± acres from Volusia County “Urban Medium Intensity” (UMI) to City of Ormond Beach “Medium Density Residential” (MDR) as depicted in Exhibit “B” Future Land Use Map attached hereto and incorporated herein by reference; and

WHEREAS, the RidgeHaven proposed subdivision is the entire land area as legally described in Exhibit “C” and Exhibit “D” (“Ridgehaven proposed subdivision”), and

WHEREAS, the property owners of the 84.26± acres, known as the RidgeHaven property, have knowingly, voluntarily and with sound mind, and without coercion or exaction by the City consented to subject the 84.26± acres to a density restriction of three (3) units per gross acre, and have consented to the restriction that the total units shall not exceed 298 residential lots for the entire RidgeHaven proposed subdivision, and

WHEREAS, the properties not owned by the RidgeHaven subdivision, totaling 5.73± acres, shall have a maximum gross residential density of eight (8) units per acre, the same density as allowed by the Volusia County land use category, and

WHEREAS, by Ordinance No. 90-36, the City Commission did adopt the City of Ormond Beach *Comprehensive Plan*, as required by the Local Government Comprehensive

Planning and Land Development Regulation Act (Chapter 163, Part II, *Florida Statutes*) which *Comprehensive Plan* has been subsequently amended, and

WHEREAS, on March 10, 2022, the Planning Board serving as the local planning agency, conducted a public meeting with due public notice on the *Comprehensive Plan* amendment, and recommended approval thereof, and

WHEREAS, the requested *Comprehensive Plan* amendment is not located within an area of critical state concern, and

WHEREAS, in accordance with section 171.204(2), *Florida Statutes*, an amendment to the future land use map of a comprehensive plan which is consistent with the joint planning agreement must be considered a small-scale amendment, and

WHEREAS, the requested *Comprehensive Plan* amendment does not involve a text change to the goals, policies, and objectives of the City's *Comprehensive Plan*, but only proposes a land use change to the Future Land Use Map for small scale development activity, and

WHEREAS, the City Commission has duly conducted a public hearing adopting the requested *Comprehensive Plan* amendment, as described in §163.3184(3)(c)(1), (4)(e)(1) and (11), *Florida Statutes*, and

WHEREAS, the City Commission finds that approval of the *Comprehensive Plan* amendment will preserve the internal consistency of the City's *Comprehensive Plan* pursuant to §163.3177, *Florida Statutes*, now therefore,

BE IT ENACTED BY THE PEOPLE OF THE CITY OF ORMOND BEACH, FLORIDA, THAT:

SECTION ONE. The foregoing recitals are incorporated herein by reference as the legislative findings of the Ormond Beach City Commission.

SECTION TWO. The Future Land Use designation of certain real property depicted in Exhibit “B” attached hereto, and as shown on the Future Land Use Map incorporated into the Future Land Use element of Ormond Beach *Comprehensive Plan*, is hereby changed (1) for 84.26± acres, known as the RidgeHaven property, from Volusia County “Urban Medium Intensity” (UMI) to City of Ormond Beach “Low Density Residential” (LDR) and (2) for 5.73± acres from Volusia County “Urban Medium Intensity” (UMI) to City of Ormond Beach “Medium Density Residential” (MDR) as depicted in Exhibit "B" attached hereto and incorporated herein by reference.

SECTION THREE. The RidgeHaven proposed subdivision is the entire land area as legally described in Exhibit “C” and Exhibit “D”.

SECTION FOUR. The Future Land Use Map incorporated into the Future Land Use element of Ormond Beach *Comprehensive Plan* shall be annotated with the following conditions: (1) the 84.26± acres, known as the RidgeHaven property, shall have a density restriction of three (3) units per gross acre within the 84.26± acres, and the total units shall not exceed 298 residential lots for the entire RidgeHaven proposed subdivision and; (2) the properties not owned by the RidgeHaven subdivision totaling 5.73± acres shall have a gross residential density of eight (8) units per acres, the same density as allowed by the Volusia County land use category.

SECTION FIVE. In order to make the City of Ormond Beach *Comprehensive Plan*, as hereby amended, available to the public, a certified copy of the enacting Ordinance, as well as certified copies of the City of Ormond Beach *Comprehensive Plan* and the amendments thereto, shall be located in the Planning Department of the City of Ormond Beach. The Planning Director shall also make copies available to the public for a reasonable reproduction charge.

SECTION SIX. The Planning Director is hereby authorized and directed to transmit copies of the notice and of this adopted Comprehensive Plan amendment to the Volusia County Growth Management Commission in accordance with Section 202.3 of the Charter of Volusia County, Florida; and to the Florida Department of Economic Opportunity, within ten (10) working days of the adoption of this Ordinance, and shall also transmit copies to any other person or entity requesting a copy.

SECTION SEVEN. All Ordinances or parts of Ordinances in conflict herewith are hereby repealed to the extent of such conflict.

SECTION EIGHT. Pursuant to §163.3187(5)(c), *Florida Statutes*, the effective date of this *Comprehensive Plan* amendment shall be 31 days after the adoption of this ordinance (June 3, 2022); provided, however, that if challenged within 30 days after adoption (June 2, 2022), this Comprehensive Plan amendment shall not become effective until the Florida Department of Economic Opportunity or the Administration Commission, if applicable, issues a final order determining that the adopted small scale development amendment is in compliance with the Local Government Comprehensive Planning and Land Development Regulation Act.

PASSED UPON at the first reading of the City Commission, this 19th day of April, 2022.

PASSED UPON at the second and final reading of the City Commission, this 3rd day of May, 2022.

BILL PARTINGTON
Mayor

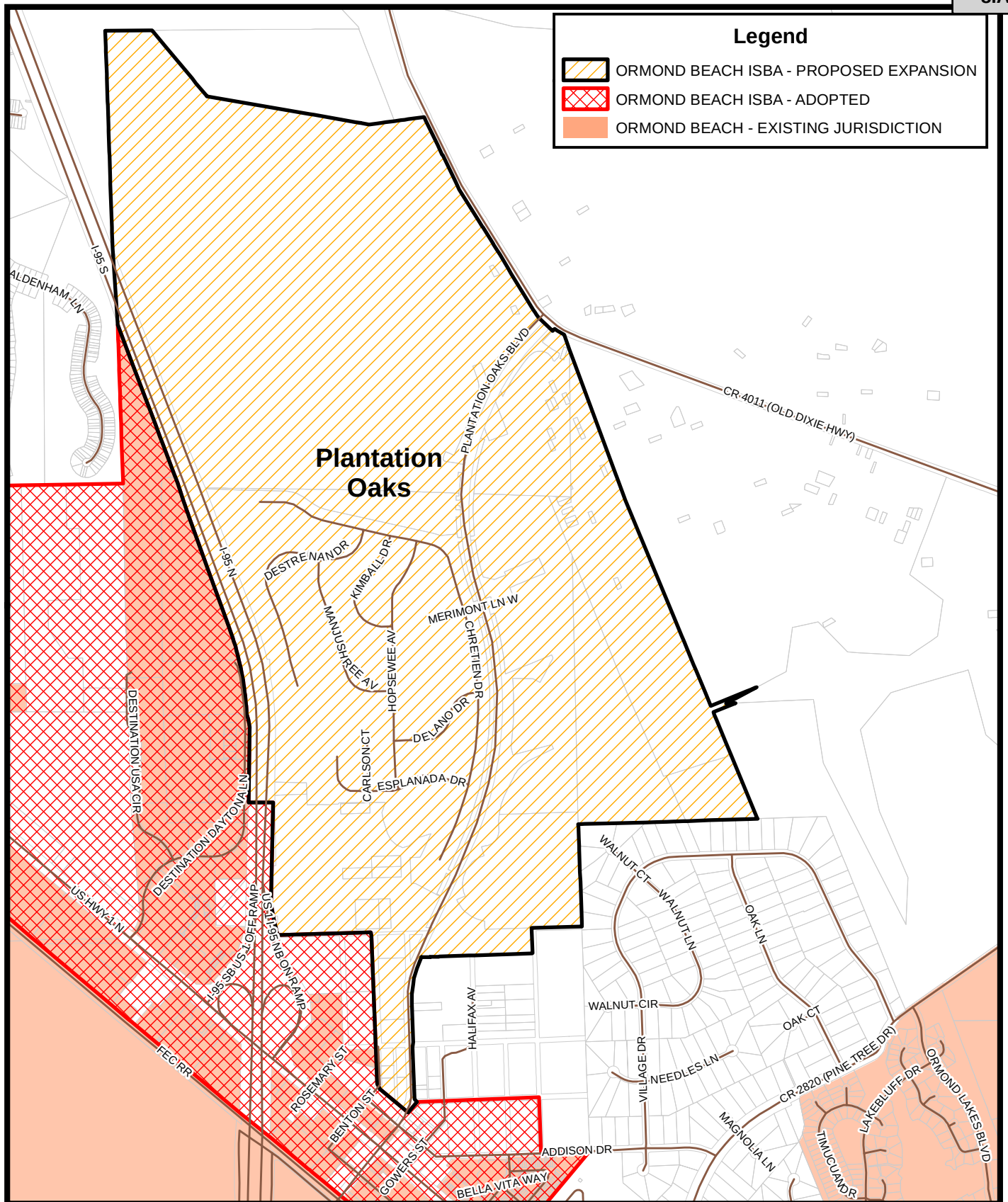
ATTEST:

SUSAN CARROLL DAUDERIS
City Clerk

Exhibit A MAP 1

Interlocal Service Boundary Agreement
and U.S. 1 Municipal Service Area Boundary Map





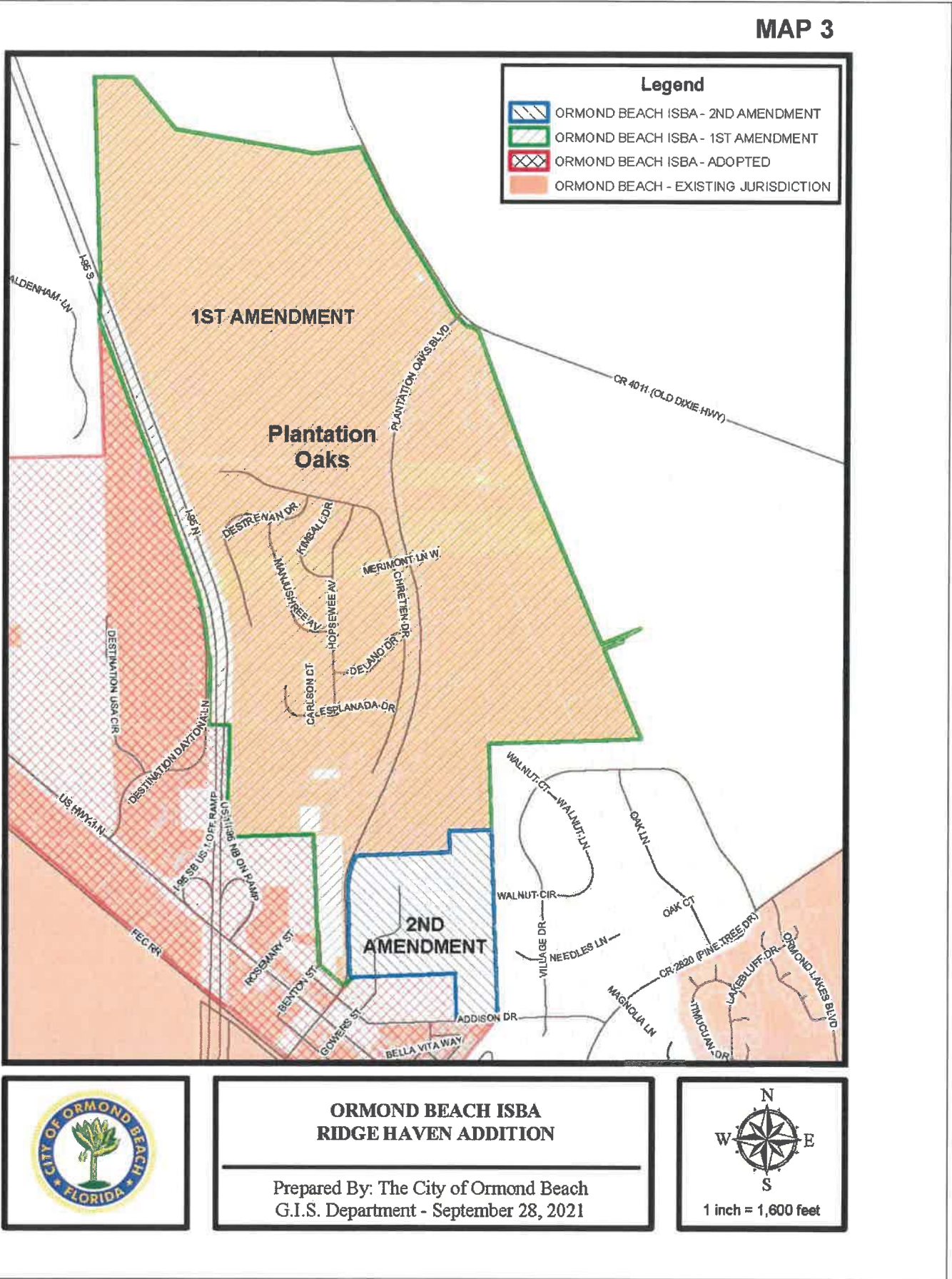
**ORMOND BEACH ISBA
PLANTATION OAKS ADDITION - MAP 2**

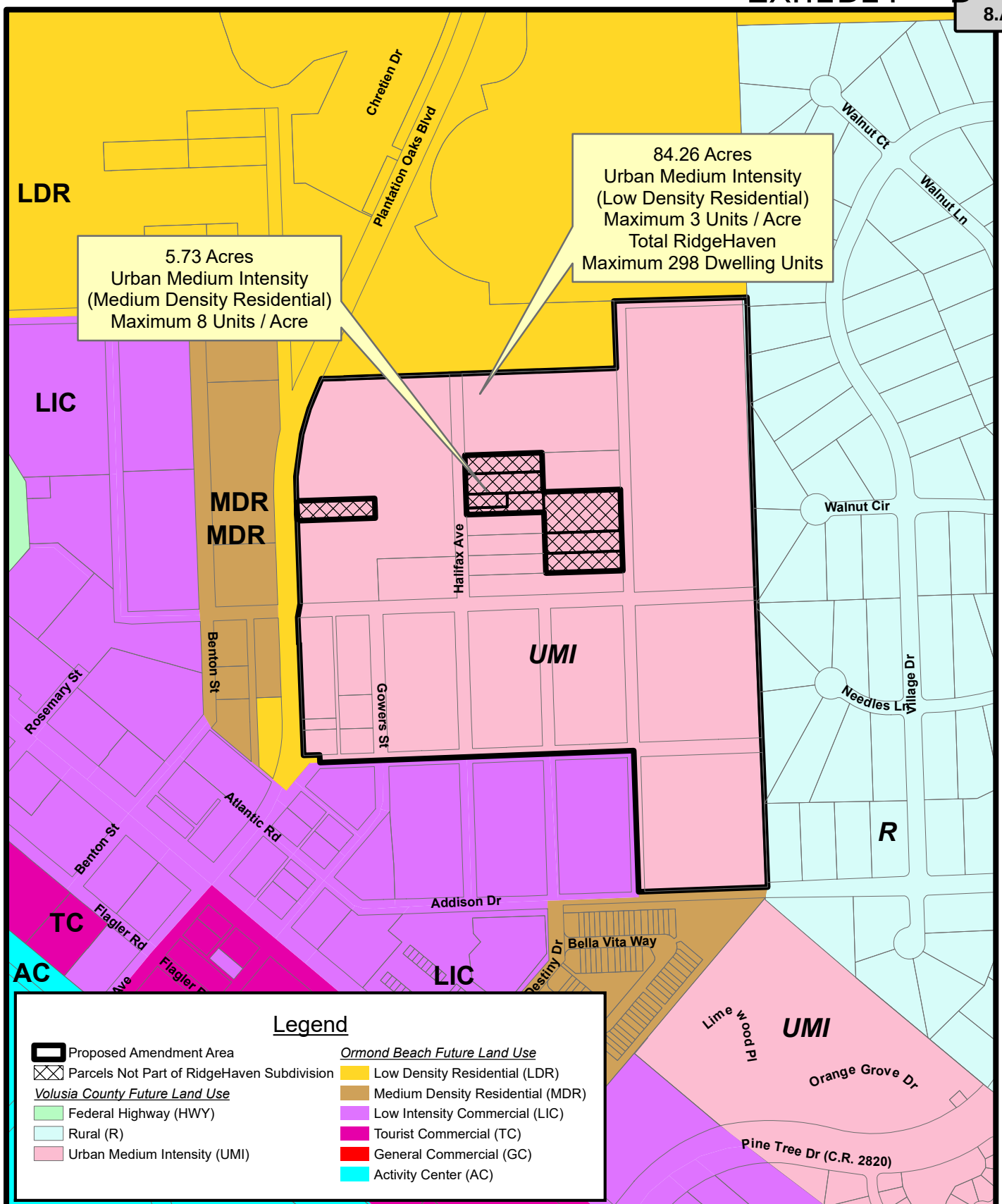
Prepared By: The City of Ormond Beach
G.I.S. Department - June 5, 2019



1 inch = 1,600 feet

EXHIBIT "A" - MAP 3



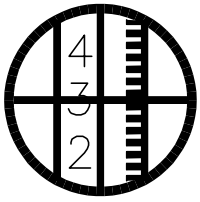


NORTH US 1 (2nd AMENDED) ISBA EXISTING AND PROPOSED FUTURE LAND USE MAP

Prepared By: The City of Ormond Beach
G.I.S. Department - February 18, 2022



N.T.S.



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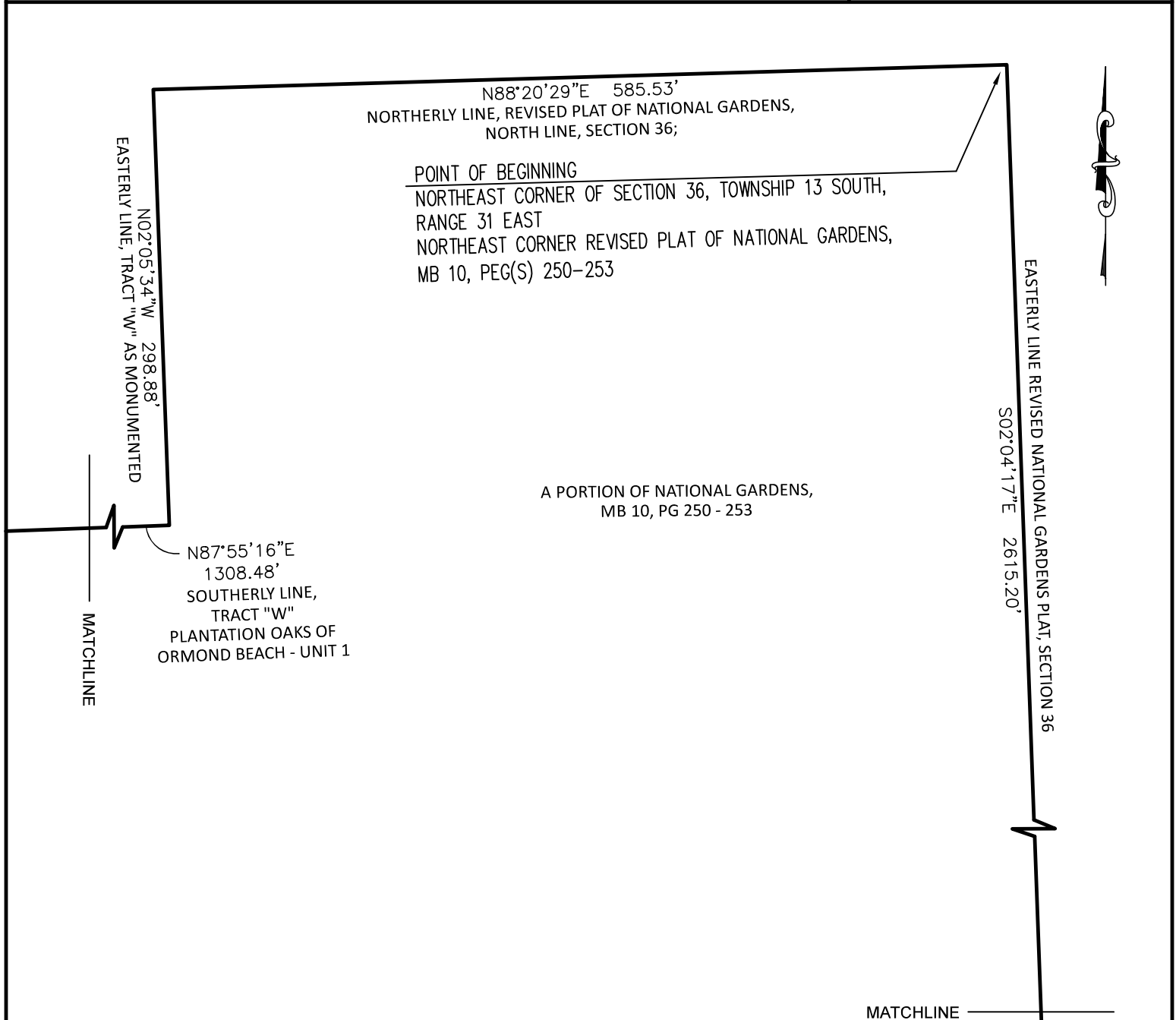
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RECORDING INFORMATION



GRAPHIC SCALE



(IN FEET)

1 inch = 100 ft.

NATIONAL GARDENS
FOR: RIDGE LAND HOLDINGS
ORMOND BEACH ISBA - 2ND AMENDMENT

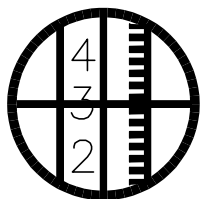
SKETCH OF DESCRIPTION ONLY
THIS IS NOT A BOUNDARY SURVEY

ABBREVIATIONS

W	WETLAND
R/W	RIGHT OF WAY
CL	CENTERLINE
Δ	CENTRAL ANGLE
R	RADIUS
L	ARC LENGTH
CB	CHORD BEARING
CE	CONSERVATION EASEMENT
PRC	POINT OF REVERSE CURVE
N.G.V.D.	NATIONAL GEODETIC VERTICAL DATUM
U.S.C. & G.S.	UNITED STATES COAST AND GEODETIC SURVEY
PNT	POINT OF NON-TANGENCY

LEGEND

●	IRON ROD WITH CAP
○	IRON PIPE
□	CONCRETE MONUMENT
■	PERMANENT REFERENCE MONUMENT
△	PERMANENT CONTROL POINT
(R)	RADIAL LINE
(NR)	NON-RADIAL LINE
○	EXISTING ELEVATION
□	PROPOSED ELEVATION



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TENNANT AVENUE
(60.00 FT. RW)

S88°01'30"W
1390.12'

MATCHLINE

EASTERLY LINE REVISED NATIONAL GARDENS PLAT, SECTION 36

S02°04'17"E 2615.20'

A PORTION OF NATIONAL GARDENS,
MB 10, PG 250 - 253

N02°05'34"W 630.78'

CENTERLINE OF MAJANZAS STREET
(60.00 FT. R/W)

S87°52'25"W 554.54'

NORTHERLY RIGHT OF WAY LINE OF ADDISON DRIVE (60.00 FT. R/W)

GRAPHIC SCALE

0 100 200 300



(IN FEET)

1 inch = 100 ft.

NATIONAL GARDENS
FOR: RIDGE LAND HOLDINGS
ORMOND BEACH ISBA - 2ND AMENDMENT

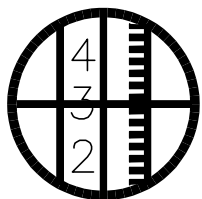
SKETCH OF DESCRIPTION ONLY
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ABBREVIATIONS

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MATCHLINE

MATCHLINE

EASTERLY R/W
PLANTATION OAKS BOULEVARD
(100.00 FT. R/W)
N02°08'46"W 1022.92'

A PORTION OF NATIONAL GARDENS,
MB 10, PG 250 - 253

NORTHERLY R/W
TENNANT AVENUE

CENTERLINE OF TENNANT AVENUE
(60.00 FT. R/W)

S88°01'30"W
79.49'

N01°58'30"W
30.00'

S88°01'30"W 1390.12'

GRAPHIC SCALE

0 100 200 300



(IN FEET)

1 inch = 100 ft.

NATIONAL GARDENS
FOR: RIDGE LAND HOLDINGS
ORMOND BEACH ISBA - 2ND AMENDMENT

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JOB # 22-0231

SHEET 3 OF 9

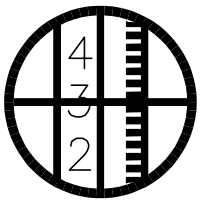
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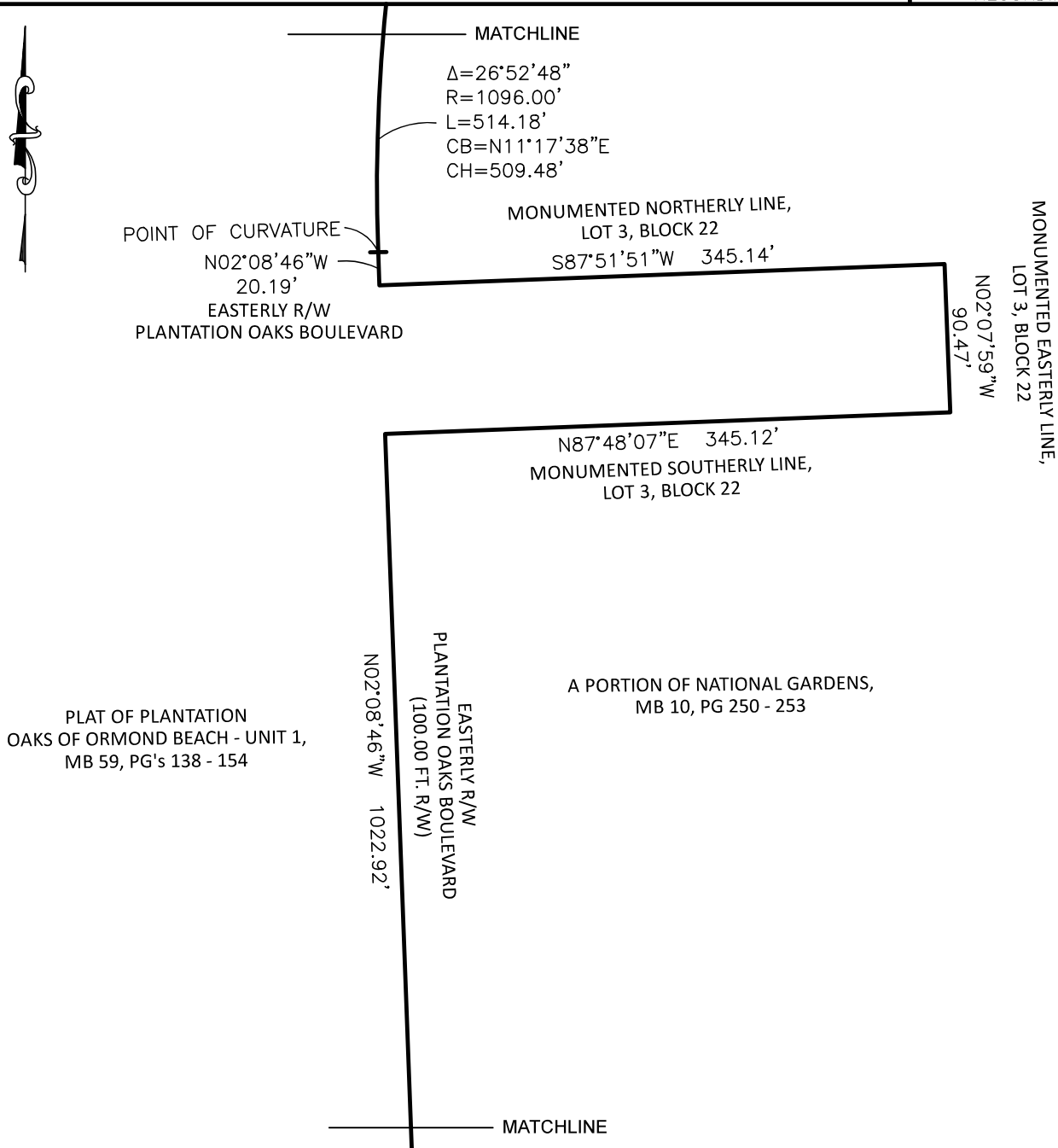
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GRAPHIC SCALE



(IN FEET)

$$1 \text{ inch} = 100 \text{ ft.}$$

NATIONAL GARDENS
FOR: RIDGE LAND HOLDINGS
ORMOND BEACH ISBA - 2ND AMENDMENT

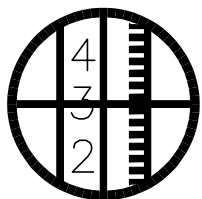
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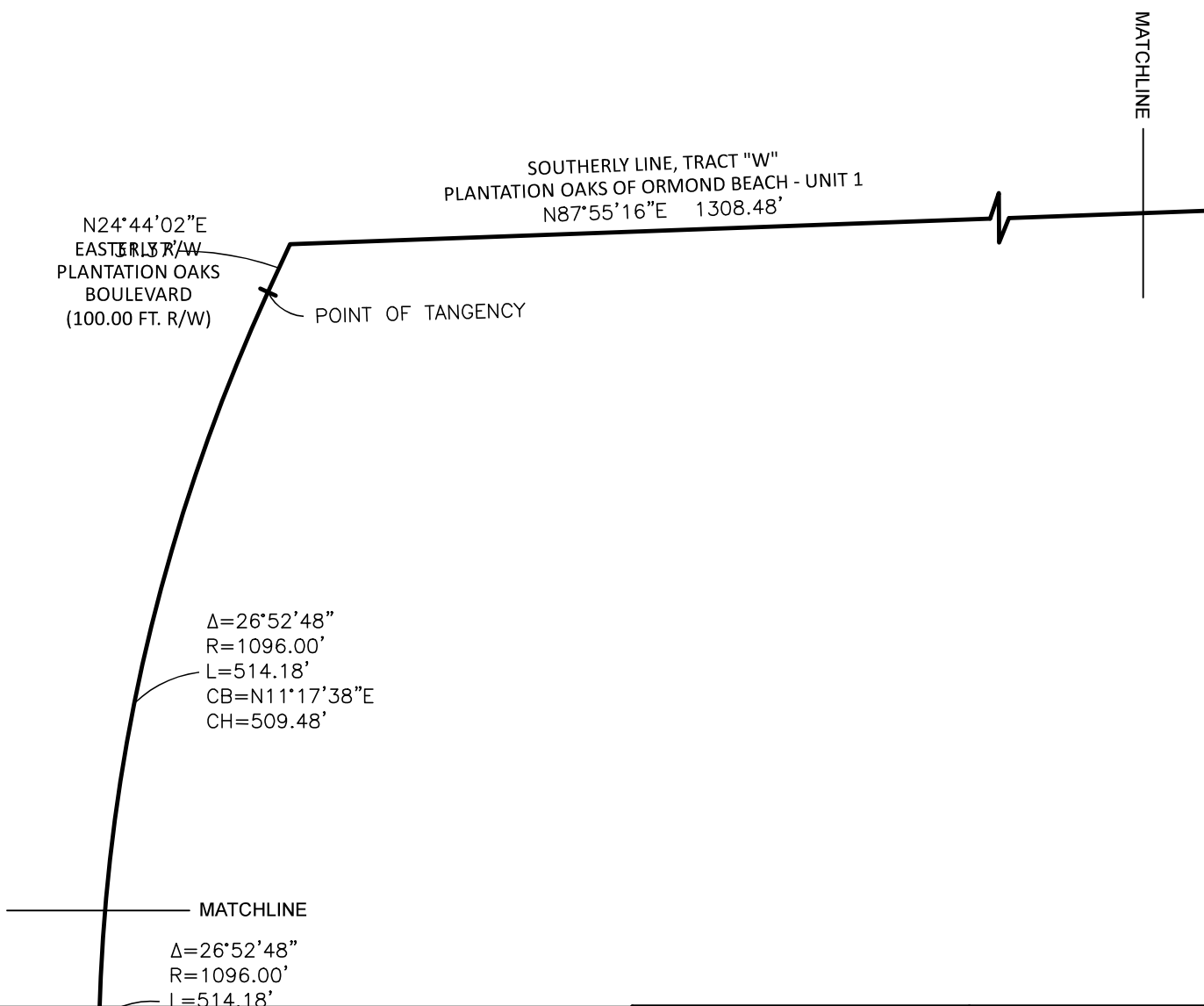
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ORMOND BEACH ISBA - 2ND AMENDMENT

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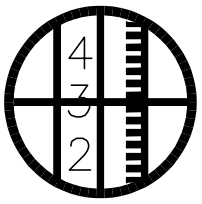
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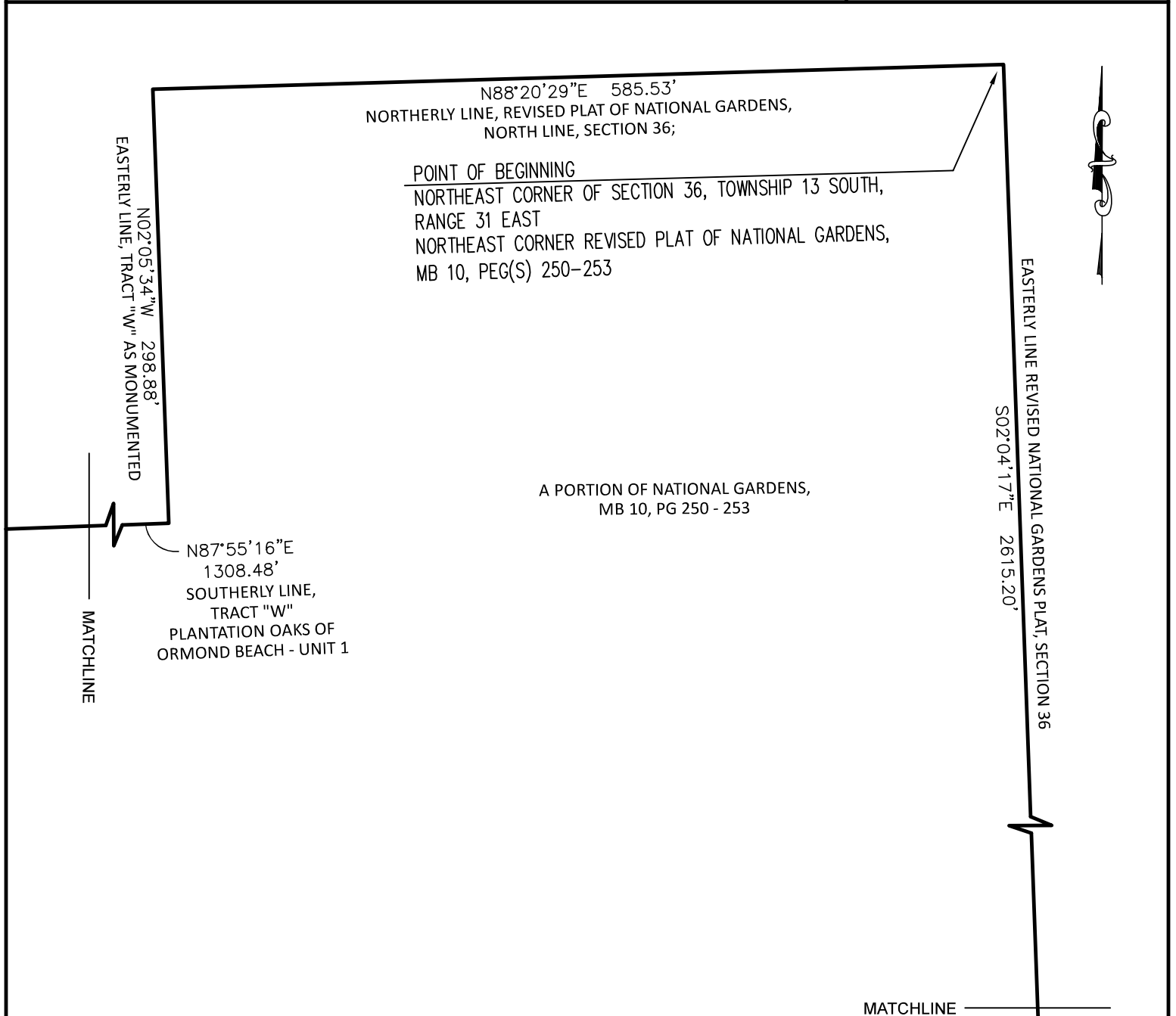
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(IN FEET)

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FOR: RIDGE LAND HOLDINGS
ORMOND BEACH ISBA - 2ND AMENDMENT

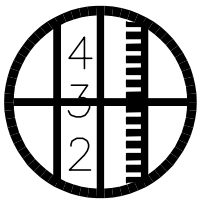
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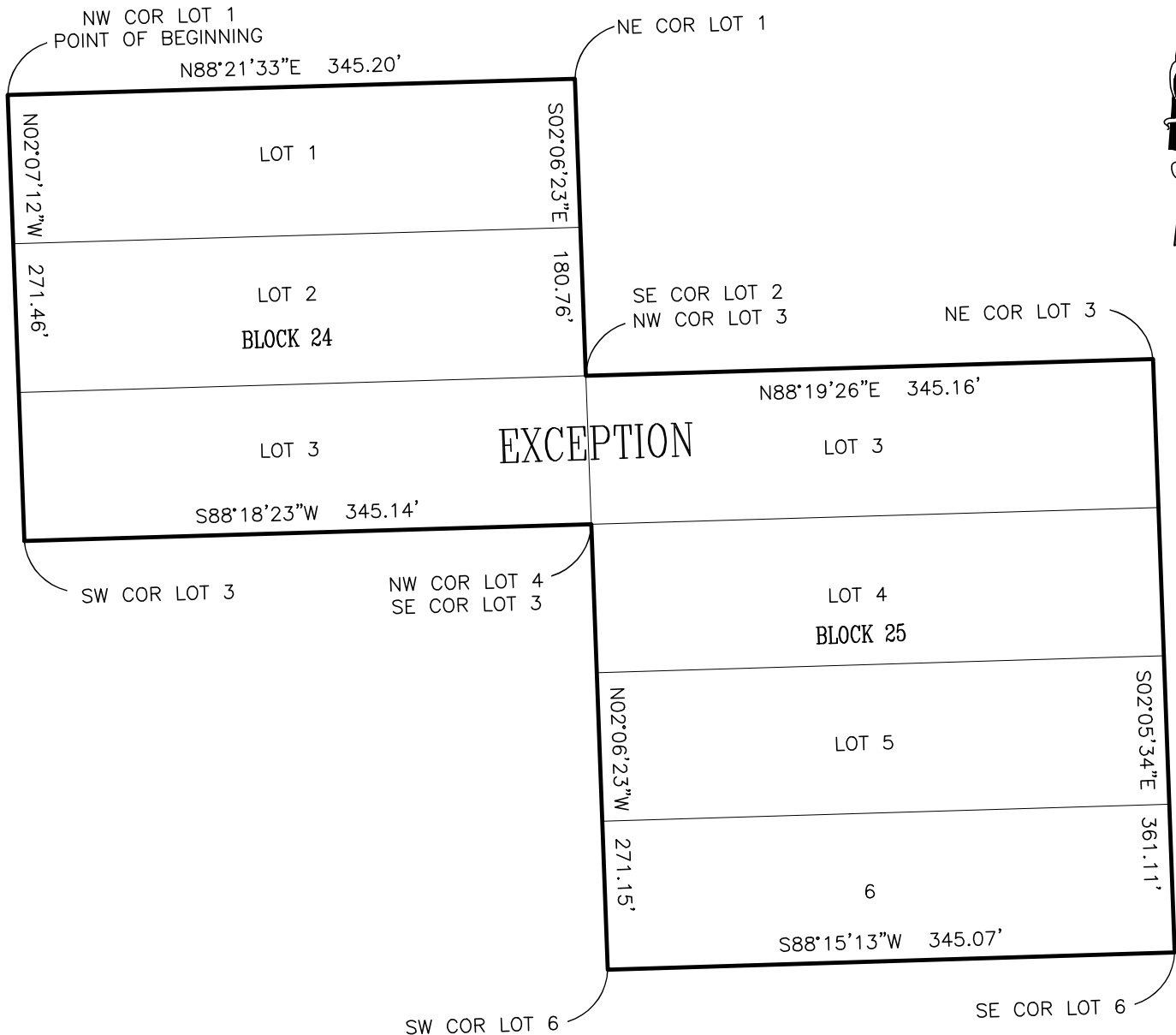
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NATIONAL GARDENS
FOR: RIDGE LAND HOLDINGS

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JOB # 22-0231

SHEET 7 OF 9

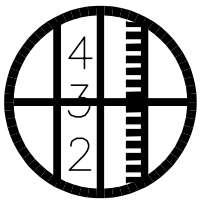
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LEGEND

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□	PROPOSED ELEVATION

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PROFESSIONAL LAND SURVEYORS

LICENSED BUSINESS CERTIFICATION NO. 3019

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Legal Description: (ORMOND BEACH ISBA – 2ND AMENDMENT)

A PORTION OF NATIONAL GARDENS RECORDED IN MAP BOOK 10 PAGES 250 THROUGH 253, LYING SOUTHERLY OF THE NORTH LINE OF SECTION 36, TOWNSHIP 13 EAST, RANGE 31 SOUTH, WESTERLY OF THE EAST LINE OF SAID SECTION 36, NORTH OF ADDISON DRIVE, AND EASTERLY OF PLANTATION OAKS BOULEVARD. DESCRIBED AS FOLLOWS:

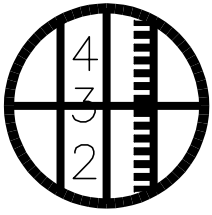
BEGIN AT THE NORTHEAST CORNER OF SAID REVISED PLAT OF NATIONAL GARDENS, BEING ALSO THE NORTHEAST CORNER OF SECTION 36, TOWNSHIP 13 SOUTH, RANGE 31 EAST; THENCE RUN S02°04'17"E ALONG THE EASTERLY LINE OF SAID REVISED PLAT OF NATIONAL GARDENS AND THE EAST LINE OF SAID SECTION 36, A DISTANCE OF 2615.20 FEET TO THE NORTHERLY RIGHT OF WAY LINE OF ADDISON DRIVE, 60.00 FOOT WIDE RIGHT OF WAY PER SAID REVISED PLAT OF NATIONAL GARDENS; THENCE S87°52'25"W ALONG SAID NORTHERLY RIGHT OF WAY LINE, 554.54 FEET TO THE CENTERLINE OF MATANZAS STREET; THENCE ALONG SAID CENTERLINE N02°05'34"W, A DISTANCE OF 630.78 FEET TO THE CENTERLINE OF TENNANT AVE; THENCE ALONG SAID CENTERLINE S88°01'30"W, A DISTANCE OF 1390.12 FEET; THENCE N01°58'30"W, 30.00 FEET TO THE NORTHERLY RIGHT OF WAY LINE OF SAID TENNANT AVENUE; THENCE S88°01'30"W ALONG SAID NORTHERLY RIGHT OF WAY LINE, 79.49 FEET TO THE EASTERLY RIGHT OF WAY LINE OF PLANTATION OAKS BOULEVARD, A 100.00 FOOT RIGHT OF WAY AS SHOWN ON THE PLAT OF PLANTATION OAKS OF ORMOND BEACH – UNIT 1, AS RECORDED IN MAP BOOK 59, PAGES 138 THROUGH 154, INCLUSIVE, SAID PUBLIC RECORDS; THENCE N02°08'46"W ALONG SAID EASTERLY RIGHT OF WAY LINE, 1022.92 FEET TO THE MONUMENTED SOUTHERLY LINE OF LOT 3, BLOCK 22, SAID REVISED PLAT OF NATIONAL GARDENS; THENCE N87°48'07"E ALONG SAID SOUTHERLY LINE, 345.12 FEET TO THE MONUMENTED SOUTHEAST CORNER OF SAID LOT 3; THENCE N02°07'59"W ALONG THE EASTERLY LINE OF SAID LOT 3, A DISTANCE OF 90.47 FEET TO THE MONUMENTED NORTHEAST CORNER OF SAID LOT 3; THENCE S87°51'51"W ALONG THE MONUMENTED NORTHERLY LINE OF SAID LOT 3, A DISTANCE OF 345.14 FEET TO THE EASTERLY RIGHT OF WAY LINE OF SAID PLANTATION OAKS BOULEVARD; THENCE N02°08'46"W ALONG SAID EASTERLY RIGHT OF WAY LINE, 20.19 FEET TO THE BEGINNING OF A TANGENT CURVE, CONCAVE EASTERLY, HAVING A RADIUS OF 1096.00 FEET, A CENTRAL ANGLE OF 26°52'48" AND A CHORD BEARING N11°17'38"E; THENCE NORTHERLY ALONG SAID EASTERLY RIGHT OF WAY LINE AND ALONG THE ARC OF SAID CURVE, 514.18 FEET TO THE POINT OF TANGENCY; THENCE N24°44'02"E ALONG SAID EASTERLY RIGHT OF WAY LINE, 31.37 FEET TO THE SOUTHERLY LINE OF TRACT "W", SAID PLANTATION OAKS OF ORMOND BEACH – UNIT 1; THENCE N87°55'16"E ALONG SAID SOUTHERLY LINE, 1308.48 FEET TO THE EASTERLY LINE OF SAID TRACT "W" AS NOW MONUMENTED; THENCE N02°05'34"W ALONG SAID MONUMENTED EASTERLY LINE, 298.88 FEET TO THE NORTHERLY LINE OF SAID REVISED PLAT OF NATIONAL GARDENS AND THE NORTH LINE OF SAID SECTION 36; THENCE N88°20'29"E ALONG SAID NORTHERLY LINE, 585.53 FEET TO THE POINT OF BEGINNING.

LESS AND EXCEPT:

LOTS 1, 2 AND 3, BLOCK 24 AND LOTS 3, 4, 5 AND 6, BLOCK 25, SAID REVISED PLAT OF NATIONAL GARDENS, MORE PARTICULARLY DESCRIBED AS THE FOLLOWING:

BEGIN AT THE NORTHWEST CORNER OF SAID LOT 1, BLOCK 24; THENCE RUN N88°21'33"E, 345.20 FEET TO THE NORTHEAST CORNER OF SAID LOT 1; THENCE S02°06'23"E, 180.76 FEET TO THE SOUTHEAST CORNER OF SAID LOT 2, BLOCK 24, BEING THE NORTHWEST CORNER OF SAID LOT 3, BLOCK 25; THENCE N88°19'26"E, 345.16 FEET TO THE NORTHEAST CORNER OF SAID LOT 3; THENCE S02°05'34"E, 361.11 FEET TO THE SOUTHEAST CORNER OF SAID LOT 6, BLOCK 25; THENCE S88°15'13"W, 345.07 FEET TO THE SOUTHWEST CORNER OF SAID LOT 6; THENCE N02°06'23"W, 271.15 FEET TO THE NORTHWEST CORNER OF SAID LOT 4, BLOCK 25, BEING THE SOUTHEAST CORNER OF SAID LOT 3, BLOCK 24; THENCE S88°18'23"W, 345.14 FEET TO THE SOUTHWEST CORNER OF SAID LOT 3; THENCE N02°07'12"W, 271.46 FEET TO THE POINT OF BEGINNING.

AREA: 3888705 Sq. Feet, 89.2724 Acres



SLIGER & ASSOCIATES, INC.

PROFESSIONAL LAND SURVEYORS

LICENSED BUSINESS CERTIFICATION NO. 3019

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SURVEYORS NOTES:

1. DIMENSIONS ARE SHOWN IN FEET AND DECIMALS THEREOF.
2. BEARING STRUCTURE BASED ON NAD 83, FLORIDA STATE PLANE, EAST ZONE, U.S. SURVEY FOOT, WITH THE BEARING ON THE EAST LINE OF REVISED PLAT NATIONAL GARDENS, EAST LINE SECTION 36 BEING S02°04'17"E.
3. NOT VALID WITHOUT THE SIGNATURE AND ORIGINAL RAISED SEAL OR AN ELECTRONIC SIGNATURE OF A FLORIDA LICENSED SURVEYOR AND MAPPER.
4. THE SUBJECT PARCEL HAS DIRECT PHYSICAL ACCESS TO PLANTATION OAKS BLVD., A PUBLIC STREET OR HIGHWAY.

REFERENCE: ORMOND BEACH ISBA – 2ND AMENDMENT

THIS PLAT OF SURVEY IS CERTIFIED TO AND PREPARED FOR THE SOLE AND EXCLUSIVE BENEFIT OF THE ENTITIES AND/OR INDIVIDUALS LISTED BELOW, ON THE MOST CURRENT DATE, AND SHALL NOT BE RELIED UPON BY ANY OTHER ENTITY OR INDIVIDUAL WHOMSOEVER.

TYPE OF SURVEY	CERTIFIED TO	SURVEY DATE	JOB NUMBER
BOUNDARY	FLAGLER COUNTY ABSTRACT TITLE	02-10-2022	22-0231
	RIDGE DEVELOPMENT GROUP		

SHEET 9 OF 9

VALID WITH SIGNATURE & EMBOSSED SEAL OR
DIGITAL SIGNATURE OR DIGITAL SEAL ON DIGITAL VERSIONS

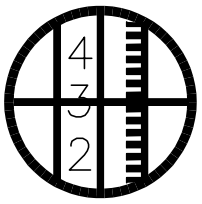
RIDGE DEVELOPMENT GROUP

SKETCH OF DESCRIPTION	DATE	JOB NO.	P.C.	DRW.	CHECKED BY
BOUNDARY SURVEY	02-10-2022	22-0231		TJ	J BARNES
TOPOGRAPHIC SURVEY					
FOUNDATION LOCATED					
FINAL IMPROVEMENTS					
RECERTIFICATION					
PROPOSED HOUSE LOCATION					

I HEREBY CERTIFY THAT THIS PLAT MEETS THE STANDARDS OF PRACTICE SET FORTH BY THE FLORIDA BOARD OF PROFESSIONAL SURVEYORS AND MAPPERS IN CHAPTER 5J-17.05, FLORIDA ADMINISTRATIVE CODE, PURSUANT TO SECTION 472.027, FLORIDA STATUTES.

J.E. ZAPERT, P.L.S. NO. 4046
JEFF W. BARNES P.S.M. NO. 5576
C.O. VAN KLEECK JR. P.S.M. NO. 6149
MICHAEL S. MURPHY

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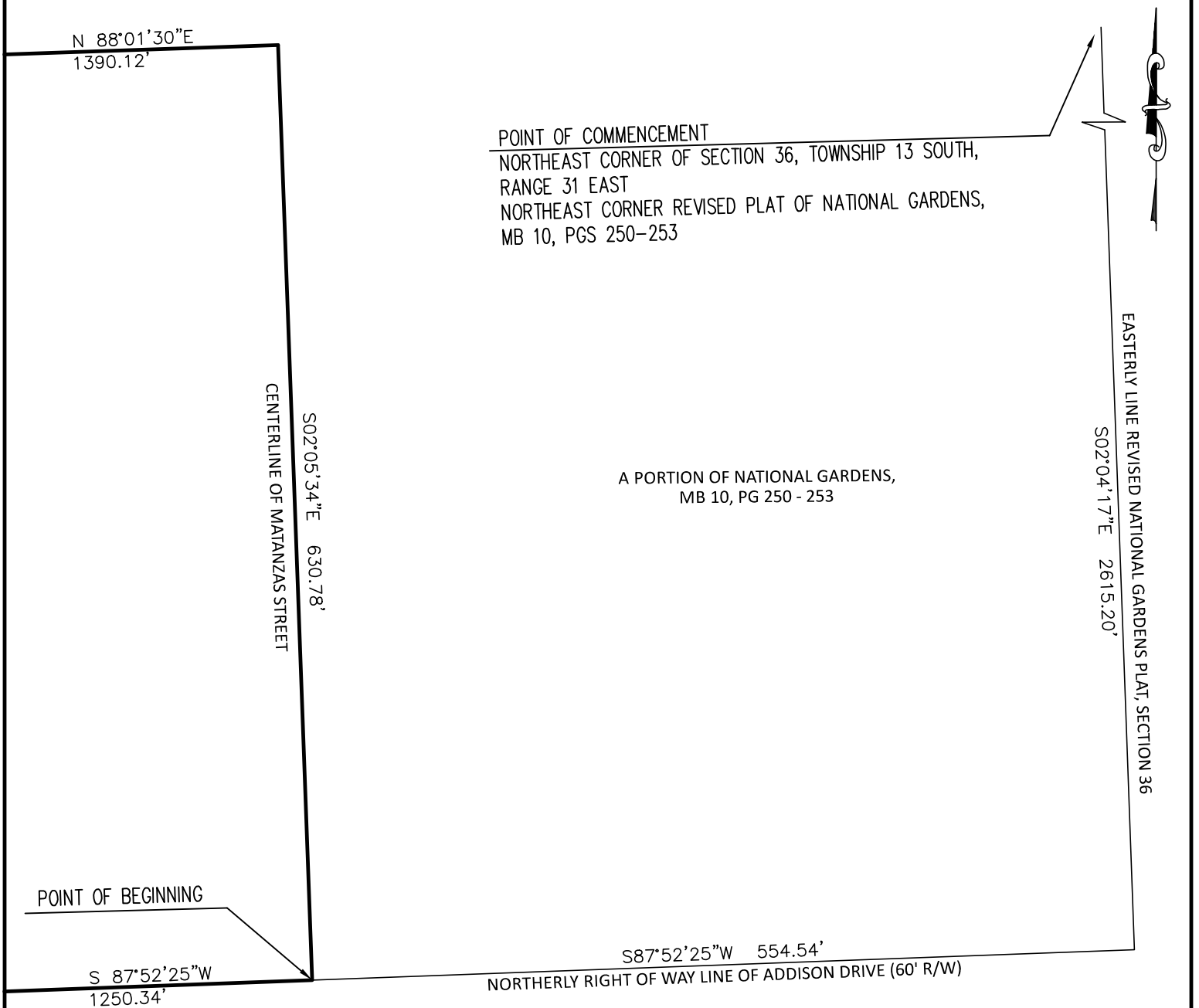
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RECORDING INFORMATION



GRAPHIC SCALE



(IN FEET)
1 inch = 100 ft.

NATIONAL GARDENS:
FOR: RIDGE DEVELOPMENT GROUP
ORMOND BEACH ISBA - ADOPTED

SKETCH OF DESCRIPTION ONLY
THIS IS NOT A BOUNDARY SURVEY

JOB # 22-0231

SHEET 1 OF 5

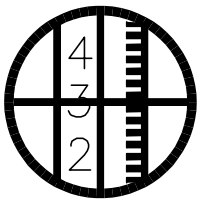
ABBREVIATIONS

W	WETLAND
R/W	RIGHT OF WAY
CL	CENTERLINE
Δ	CENTRAL ANGLE
R	RADIUS
L	ARC LENGTH
CB	CHORD BEARING
CE	CONSERVATION EASEMENT
PRC	POINT OF REVERSE CURVE
N.G.V.D.	NATIONAL GEODETIC VERTICAL DATUM
U.S.C. & G.S.	UNITED STATES COAST AND GEODETIC SURVEY
PNT	POINT OF NON-TANGENCY

LEGEND

●	IRON ROD WITH CAP
○	IRON PIPE
□	CONCRETE MONUMENT
■	PERMANENT REFERENCE MONUMENT
△	PERMANENT CONTROL POINT
(R)	RADIAL LINE
(NR)	NON-RADIAL LINE
○	EXISTING ELEVATION
□	PROPOSED ELEVATION

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RECORDING INFORMATION

N88°01'30"E 1390.12'

CENTERLINE OF TENNANT AVENUE

A PORTION OF NATIONAL GARDENS,
MB 10, PG 250 - 253

835906 Sq. Feet
19.1898 Acres

MATCHLINE

S02°05'34"E 630.78'
CENTERLINE OF MATANZAS STREET

POINT OF BEGINNING

S87°52'25"W 1250.34'

NORTHERLY RIGHT OF WAY LINE OF ADDISON DRIVE (60' R/W)

GRAPHIC SCALE



(IN FEET)

1 inch = 100 ft.

NATIONAL GARDENS
FOR: RIDGE LAND HOLDINGS
ORMOND BEACH ISBA - ADOPTED

SKETCH OF DESCRIPTION ONLY
THIS IS NOT A BOUNDARY SURVEY

JOB # 22-0231

SHEET 2 OF 5

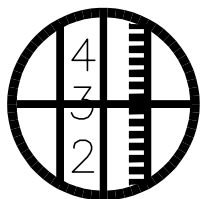
ABBREVIATIONS

W	WETLAND
R/W	RIGHT OF WAY
CL	CENTERLINE
Δ	CENTRAL ANGLE
R	RADIUS
L	ARC LENGTH
CB	CHORD BEARING
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PRC	POINT OF REVERSE CURVE
N.G.V.D.	NATIONAL GEODETIC VERTICAL DATUM
U.S.C. & G.S.	UNITED STATES COAST AND GEODETIC SURVEY
PNT	POINT OF NON-TANGENCY

LEGEND

●	IRON ROD WITH CAP
○	IRON PIPE
□	CONCRETE MONUMENT
■	PERMANENT REFERENCE MONUMENT
△	PERMANENT CONTROL POINT
(R)	RADIAL LINE
(NR)	NON-RADIAL LINE
○	EXISTING ELEVATION
□	PROPOSED ELEVATION

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PROFESSIONAL LAND SURVEYORS

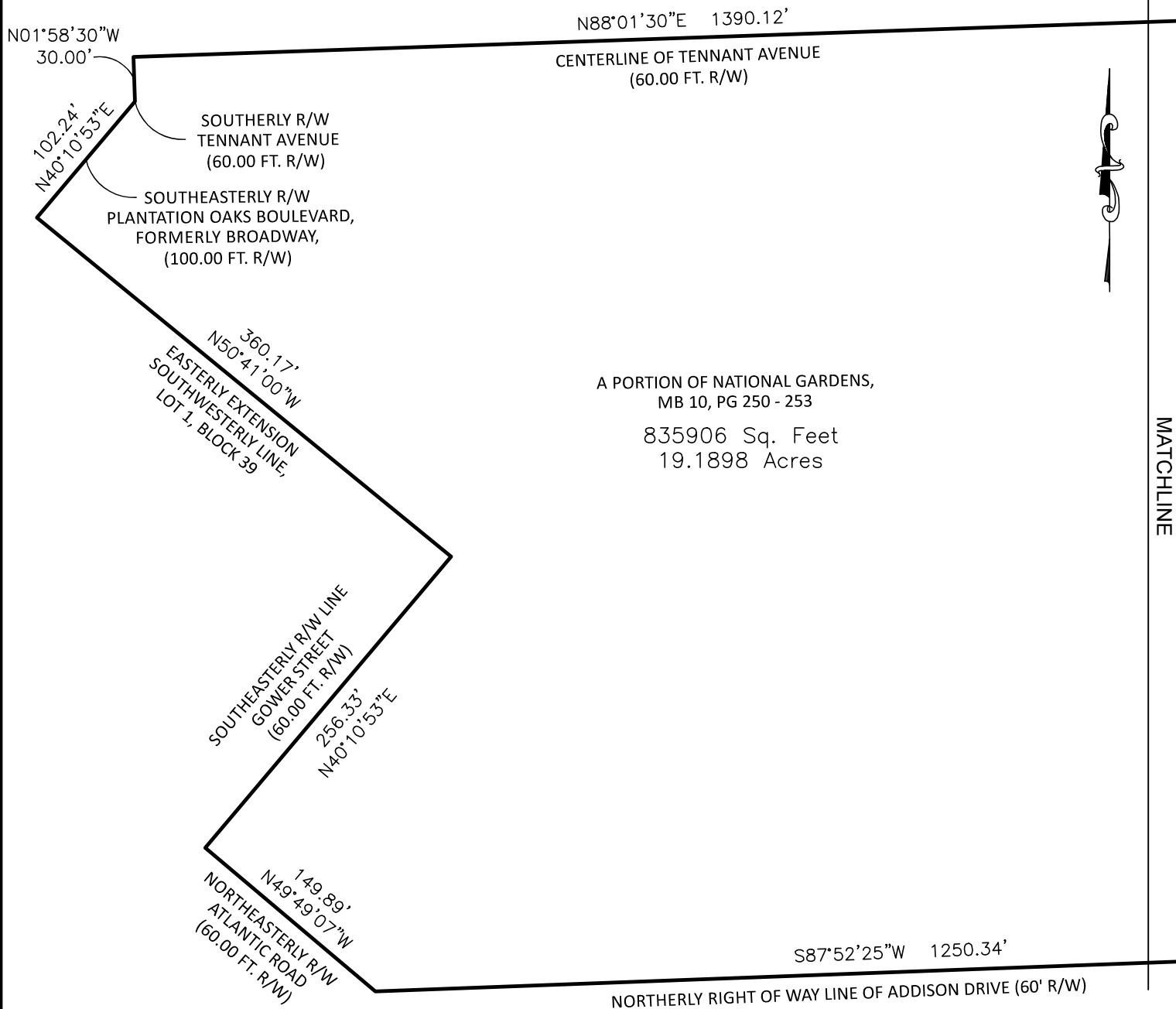
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RECORDING INFORMATION



GRAPHIC SCALE



(IN FEET)

1 inch = 100 ft.

NATIONAL GARDENS
FOR: RIDGE LAND HOLDINGS
ORMOND BEACH ISBA - ADOPTED

SKETCH OF DESCRIPTION ONLY
THIS IS NOT A BOUNDARY SURVEY

JOB # 22-0231

SHEET 3 OF 5

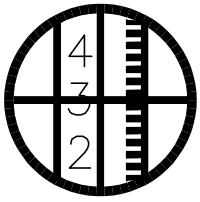
ABBREVIATIONS

W	WETLAND
R/W	RIGHT OF WAY
CL	CENTERLINE
Δ	CENTRAL ANGLE
R	RADIUS
L	ARC LENGTH
CB	CHORD BEARING
CE	CONSERVATION EASEMENT
PRC	POINT OF REVERSE CURVE
N.G.V.D.	NATIONAL GEODETIC VERTICAL DATUM
U.S.C. & G.S.	UNITED STATES COAST AND GEODETIC SURVEY
PNT	POINT OF NON-TANGENCY

LEGEND

●	IRON ROD WITH CAP
○	IRON PIPE
□	CONCRETE MONUMENT
■	PERMANENT REFERENCE MONUMENT
△	PERMANENT CONTROL POINT
(R)	RADIAL LINE
(NR)	NON-RADIAL LINE
○	EXISTING ELEVATION
□	PROPOSED ELEVATION

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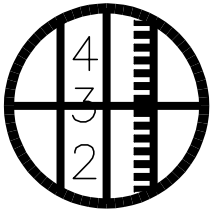
RECORDING INFORMATION

Legal Description: (ORMOND BEACH ISBA – ADOPTED)

A PORTION OF NATIONAL GARDENS RECORDED IN MAP BOOK 10 PAGES 250 THROUGH 253, LYING SOUTHERLY OF THE CENTERLINE OF TENNANT AVENUE, WESTERLY OF THE CENTERLINE OF MATANZAS STREET, NORTHERLY OF ADDISON DRIVE, AND EASTERLY OF PLANTATION OAKS BOULEVARD, LOCATED IN SECTION 36, TOWNSHIP 13 SOUTH, RANGE 31 EAST. VOLUSIA COUNT FLORIDA. DESCRIBED AS FOLLOWS:

COMMENCE AT THE NORTHEAST CORNER OF SAID REVISED PLAT OF NATIONAL GARDENS, BEING ALSO THE NORTHEAST CORNER OF SECTION 36, TOWNSHIP 13 SOUTH, RANGE 31 EAST; THENCE RUN S02°04'17"E ALONG THE EASTERLY LINE OF SAID REVISED PLAT OF NATIONAL GARDENS AND THE EAST LINE OF SAID SECTION 36, A DISTANCE OF 2615.20 FEET TO THE NORTHERLY RIGHT OF WAY LINE OF ADDISON DRIVE, 60.00 FOOT WIDE RIGHT OF WAY PER SAID REVISED PLAT OF NATIONAL GARDENS; THENCE S87°52'25"W ALONG SAID NORTHERLY RIGHT OF WAY LINE, 554.54 FEET TO THE CENTERLINE OF MATANZAS STREET AND THE POINT OF BEGINNING; THENCE CONTINUE ALONG NORTH RIGHT OF WAY S87°52'25"W, A DISTANCE OF 1250.34 FEET TO THE NORTHEASTERLY RIGHT OF WAY LINE OF ATLANTIC ROAD, A 60.00 FOOT WIDE RIGHT OF WAY PER SAID REVISED PLAT OF NATIONAL GARDENS; THENCE N49°49'07"W ALONG SAID NORTHEASTERLY RIGHT OF WAY LINE, 149.89 FEET TO THE SOUTHEASTERLY RIGHT OF WAY LINE OF GOWER STREET, 60.00 FOOT WIDE RIGHT OF WAY PER SAID REVISED PLAT OF NATIONAL GARDENS; THENCE N40°10'53"E ALONG SAID SOUTHEASTERLY RIGHT OF WAY, 256.33 FEET TO THE EASTERLY EXTENSION OF THE SOUTHWESTERLY LINE OF LOT 1, BLOCK 39, SAID REVISED PLAT OF NATIONAL GARDENS; THENCE N50°41'00"W ALONG SAID SOUTHEASTERLY EXTENSION AND ALONG THE SOUTHWESTERLY LINE OF SAID LOT 1, A DISTANCE OF 360.17 FEET TO THE SOUTHEASTERLY RIGHT OF WAY LINE OF PLANTATION OAKS BOULEVARD, FORMERLY BROADWAY, 100.00 FOOT WIDE RIGHT OF WAY PER SAID REVISED PLAT OF NATIONAL GARDENS; THENCE N40°10'53"E ALONG SAID EASTERLY RIGHT OF WAY LINE, 102.24 FEET TO THE SOUTHERLY RIGHT OF WAY LINE OF TENNANT AVENUE, A 60.00 FOOT WIDE RIGHT OF WAY PER SAID REVISED PLAT OF NATIONAL GARDENS; THENCE N01°58'30"W, A DISTANCE OF 30.00 FEET TO THE CENTERLINE OF SAID TENNANT AVENUE; THENCE ALONG SAID CENTERLINE N88°01'30"E, A DISTANCE OF 1390.12' TO THE CENTERLINE OF MATANZAS STREET; THENCE ALONG SAID CENTERLINE S02°05'34"E, A DISTANCE OF 630.78' TO THE POINT OF BEGINNING.

AREA: 835906 Sq. Feet, 19.1898 Acres



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SURVEYORS NOTES:

1. DIMENSIONS ARE SHOWN IN FEET AND DECIMALS THEREOF.
2. BEARING STRUCTURE BASED ON NAD 83, FLORIDA STATE PLANE, EAST ZONE, U.S. SURVEY FOOT, WITH THE BEARING ON THE EAST LINE OF REVISED PLAT NATIONAL GARDENS, EAST LINE SECTION 36 BEING S02°04'17"E.
3. NOT VALID WITHOUT THE SIGNATURE AND ORIGINAL RAISED SEAL OR AN ELECTRONIC SIGNATURE OF A FLORIDA LICENSED SURVEYOR AND MAPPER.
4. THE SUBJECT PARCEL HAS DIRECT PHYSICAL ACCESS TO PLANTATION OAKS BLVD., A PUBLIC STREET OR HIGHWAY.

REFERENCE: ORMOND BEACH ISBA – ADOPTED

THIS PLAT OF SURVEY IS CERTIFIED TO AND PREPARED FOR THE SOLE AND EXCLUSIVE BENEFIT OF THE ENTITIES AND/OR INDIVIDUALS LISTED BELOW, ON THE MOST CURRENT DATE, AND SHALL NOT BE RELIED UPON BY ANY OTHER ENTITY OR INDIVIDUAL WHOMSOEVER.

TYPE OF SURVEY	CERTIFIED TO	SURVEY DATE	JOB NUMBER
BOUNDARY	FLAGLER COUNTY COUNTY FLORIDA	02-10-2022	22-0231
	RIDGE DEVELOPMENT GROUP		

SHEET 5 OF 5

VALID WITH SIGNATURE & EMBOSSED SEAL OR
DIGITAL SIGNATURE OR DIGITAL SEAL ON DIGITAL VERSIONS

RIDGE DEVELOPMENT GROUP

SKETCH OF DESCRIPTION	DATE	JOB NO.	P.C.	DRW.	CHECKED BY
BOUNDARY SURVEY	02-10-2022	22-0231		TJ	J BARNES
TOPOGRAPHIC SURVEY					
FOUNDATION LOCATED					
FINAL IMPROVEMENTS					
RECERTIFICATION					
PROPOSED HOUSE LOCATION					

I HEREBY CERTIFY THAT THIS PLAT MEETS THE STANDARDS OF PRACTICE SET FORTH BY THE FLORIDA BOARD OF PROFESSIONAL SURVEYORS AND MAPPERS IN CHAPTER 5J-17.05, FLORIDA ADMINISTRATIVE CODE, PURSUANT TO SECTION 472.027, FLORIDA STATUTES.

J.E. ZAPERT, P.L.S. NO. 4046
JEFF W. BARNES P.S.M. NO. 5576
C.O. VAN KLEECK JR. P.S.M. NO. 6149
MICHAEL S. MURPHY

EXHIBIT "E"

**SECOND AMENDED
INTERLOCAL SERVICE BOUNDARY AGREEMENT
BETWEEN THE CITY OF ORMOND BEACH AND COUNTY OF VOLUSIA**

This Second Amended Interlocal Service Boundary Agreement ("Second Amended Agreement") is made and entered into this 15th date of March, 2022 by and between the City of Ormond Beach ("City") and County of Volusia ("County"), sometimes herein referred to as "Party" or "Parties" as the context requires.

WHEREAS, the City and County entered into an Interlocal Service Boundary Agreement, inclusive of a Planning and Service Delivery Sub-Agreement, dated August 28, 2014 and recorded in Official Records Book 7026, Pages 876 et. seq., Public Records of Volusia County, Florida ("2014 ISBA"); and

WHEREAS, the 2014 ISBA established a Municipal Service Area ("MSA") and Joint Planning Area ("JPA") as depicted on Map 1 thereto; and

WHEREAS, the City of Ormond Beach and County of Volusia, authorized the First Amended Interlocal Service Boundary Agreement between the City of Ormond Beach and County of Volusia, dated August 20, 2019 and recorded on Official Records Book 7758, Pages 4680, et. seq, of the Public Records of Volusia County, Florida; and

WHEREAS, the City and County desire to amend the 2014 ISBA and the 2019 First Amended Interlocal Service Boundary Agreement for the purpose of expanding the boundaries of the MSA and JPA; and

WHEREAS, the 2014 ISBA authorizes amendments to the agreement based upon the mutual consent of the Parties; and

WHEREAS, this Second Amended Agreement is entered into in accordance with the authority provided by Article VIII of the Florida Constitution, and Chapters 125, 163, 166, 171 and 180 of the Florida Statutes, as well as the 2014 ISBA.

NOW, THEREFORE, in consideration of the mutual covenants set forth in this Second Amended Agreement, the receipt and sufficiency of which are hereby acknowledged, the City and the County agree as follows:

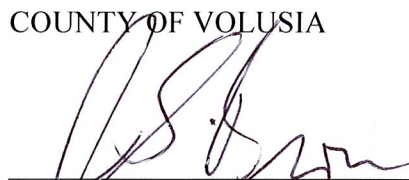
1. The foregoing recitals are incorporated herein and are a material part of this Second Amended Agreement.
2. The MSA and JPA as shown and depicted on Map 1 of the 2014 ISBA and amended with Map 2 of the 2019 First Amended Interlocal Service Boundary Agreement is hereby modified and enlarged to include the area shown and depicted on Map 3 to this Second Amended Agreement.
3. The terms and conditions of the 2014 ISBA as recorded in Official Records Book 7026, Pages 876 et. seq., Public Records of Volusia County, Florida, are hereby restated and incorporated herein and remain in full force and effect. Every reference to Map 1 in the 2014 ISBA and Map 2 of the 2019 First Amended Interlocal Service Boundary Agreement shall be construed to also include the expanded MSA and JPA depicted in Map 3 to this Second Amended Agreement.
4. The governing bodies of the City and County shall approve this Second Amended Agreement by ordinance, consistent with the manner of adoption of the 2014 ISBA.
5. This Second Amended Agreement shall become effective upon being filed and recorded with the Clerk of the Circuit Court of Volusia County, Florida.

IN WITNESS WHEREOF, each of the undersigned has executed this Second Amended Agreement on behalf of the respective party set forth below, pursuant to the authority granted to each of the undersigned in the ordinance by which each party approved and adopted this Second Amended Agreement.

ATTEST:

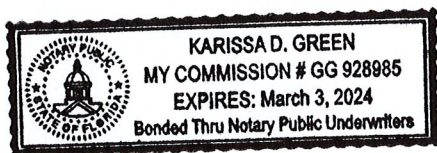

George Recktenwald
County Manager

COUNTY OF VOLUSIA


Jeff Brower Jeffrey S. Brower
County Chair

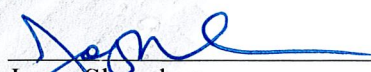
STATE OF FLORIDA
COUNTY OF VOLUSIA

Jeffrey S. The foregoing instrument was acknowledged before me this 15th day of March, 2022, by Jeff Brower and George Recktenwald, as County Chair and County Manager, respectively, on behalf of the County of Volusia, who acknowledge that they are duly authorized to execute the foregoing Agreement on behalf of the County. They are personally known to me.




NOTARY PUBLIC

ATTEST:

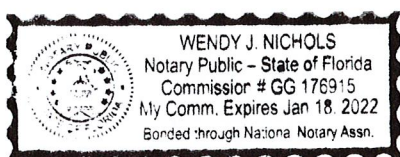

Joyce Shanahan
City Manager

CITY OF ORMOND BEACH


Bill Partington
Mayor

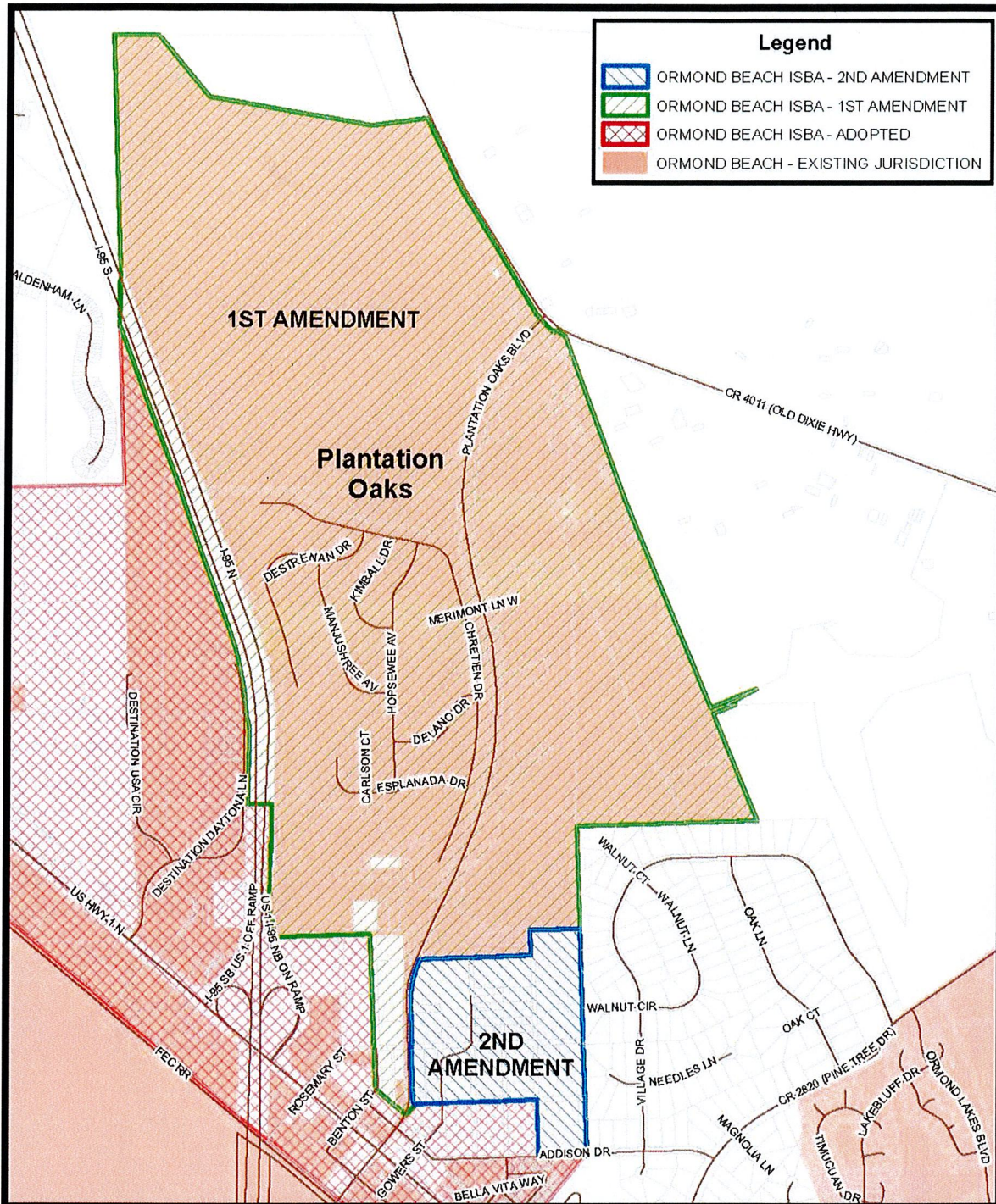
STATE OF FLORIDA
COUNTY OF VOLUSIA

The foregoing instrument was acknowledged before me this 7 day of Dec, 2021, by Bill Partington and Joyce Shanahan, as Mayor and City Manager, respectively, on behalf of the City of Ormond Beach, who acknowledge that they are duly authorized to execute the foregoing Agreement on behalf of the City. They are personally known to me.




NOTARY PUBLIC

MAP 3



**ORMOND BEACH ISBA
RIDGE HAVEN ADDITION**

Prepared By: The City of Ormond Beach
G.I.S. Department - September 28, 2021



1 inch = 1,600 feet

STAFF REPORT

City of Ormond Beach Department of Planning

DATE: March 10, 2022

SUBJECT: Second Amended Interlocal Service Boundary Agreement
Future Land Use Map Amendment (Small Scale)

APPLICANT: City Initiated

NUMBER: LUPA 22-020

PROJECT PLANNER: Becky Weedon, AICP, Senior Planner

INTRODUCTION: This is an administrative request to amend the City of Ormond Beach Comprehensive Plan's Future Land Use Map to include the expansion of the Municipal Service Area land uses consistent with the Second Amended Interlocal Service Boundary Agreement (ISBA) between the City of Ormond Beach and Volusia County pursuant to Chapter 171, Part II, Florida Statutes, as amended. A copy of the Second Amended ISBA is attached as Exhibit A.

BACKGROUND: The City Commission adopted the original North US 1 Interlocal Service Boundary Agreement on August 19, 2014 per Ordinance 2014-27. Concurrently, the Volusia County Council adopted the Interlocal Service Boundary Agreement on August 21, 2014 by Volusia County Ordinance 2014-12. The original ISBA established the Municipal Service Area (MSA) and joint planning and service delivery agreement to the North US 1 area.

The first amendment to the North US 1 ISBA was approved to add the land associated with Plantation Oaks Subdivision and the 13 enclaves surrounding the subdivision to the adopted Municipal Service Area. On August 20, 2019, the City Commission adopted the first amendment to the North US 1 ISBA. The Volusia County Council subsequently adopted the agreement on September 17, 2019.

The second amendment to the North US 1 ISBA was approved to add the land associated with the RidgeHaven Subdivision and the 8 individually owned parcels not owned by RidgeHaven to the adopted Municipal Service Area. On October 14, 2021, the second amendment to the North US 1 ISBA was presented to the Planning Board. The Planning Board unanimously recommended approval. On December 7, 2021, the City Commission adopted the second amendment to the North US 1 ISBA. The Volusia County Council subsequently adopted the agreement on February 15, 2022 with conditions. During the County Council presentation and discussion, the RidgeHaven representative and city staff committed to establishing a limitation of 298 dwelling units for the entire RidgeHaven area. The Volusia County staff analysis calculated a range of residential development of 716 to 1,052 dwelling units. The RidgeHaven area includes

the 84.26 acres to the north of Addison Drive adjacent to Plantation Oaks Boulevard and the 19.19 acres to the south of Addison Drive. The land use amendment for the 19.19 acres is being processed separately as an applicant-initiated item and a companion to this amendment. The RidgeHaven land area is scheduled for annexation on March 1, 2022 (1st reading) and March 22, 2022 (2nd reading).

Since the ISBA has been adopted, the City must amend the unincorporated property in the MSA from the existing County land uses to the City of Ormond Beach designations. The amendments to the Future Land Use Map are being processed as a small-scale amendment per Florida Statute section 171.204 and section 163.3171 which reads, "An amendment to the future land use map of a comprehensive plan which is consistent with the joint planning agreement must be considered a small-scale amendment".

COMPREHENSIVE PLAN FUTURE LAND USE MAP AMENDMENT:

The Comprehensive Plan land use map amendment proposes the following actions:

Land area owned by RidgeHaven: 84.26 acres from Volusia County "Urban Medium Intensity" (UMI) to City of Ormond Beach "Low Density Residential" (LDR). Proposed condition to limit density to a maximum gross density not to exceed three (3) units per acre and total units for all lands within the RidgeHaven subdivision including the 19.19-acre land area shall not exceed 298 residential units.

Parcels within individual ownership (not owned by RidgeHaven): 5.73 acres from Volusia County "Urban Medium Intensity" (UMI) to City of Ormond Beach "Medium Density Residential" (MDR). Proposed condition to allow same density as Volusia County with a maximum gross density not to exceed eight (8) units per acre.

The amendment does not provide any specific development approval, but instead a framework of uses, density, and intensity. The Comprehensive Plan land use map amendment from Volusia County land use to City land use designations will result in a reduction of existing Volusia County residential and non-residential entitlements. Any proposed future development for the RidgeHaven subdivision will require a neighborhood meeting and additional public hearings before the Planning Board and City Commission.

In addition to this 2nd Amended ISBA Future Land Use Amendment, the City is processing two other amendments concurrently: 1) Text amendments to the Comprehensive Plan's Future Land Use and Intergovernmental Coordination Elements as an expedited large-scale amendment and 2) The applicant requested RidgeHaven owned properties of 19.19 acres within the original ISBA. The proposed small-scale land use amendment tentative schedule of the subject property is as follows:

Action/Board	Date
Planning Board	March 10, 2022
City Commission 1 st Reading	April 19, 2022

Action/Board	Date
City Commission 2 nd Reading	May 3, 2022
Transmit to Volusia County Growth Management Commission and adjoining jurisdictions	May 10, 2022
Transmit to Florida Department of Economic Opportunity (DEO)	May 10, 2022

Until the land use plan amendment process is completed, Volusia County's comprehensive plan, zoning and land development regulations apply to the expanded properties of the MSA subject to the Second Amended ISBA.

ANALYSIS:

The proposed administrative amendment seeks to add the RidgeHaven owned parcels and eight (8) individually owned properties to the City Comprehensive Plan and change the land use designations from unincorporated Volusia County to the City of Ormond Beach on the future land use map. Section 171.203 (11) requires that the MSA include the population projections and data and analysis supporting the provision of public facilities for the MSA.

Second amended MSA Population Projections:

Currently, there are approximately 17 unincorporated parcels (9 owned by RidgeHaven and 8 individually owned) that make up the second amended Municipal Service Area boundary. The maximum potential for the 84.26 acres owned by RidgeHaven based on the City Low Density Residential with the condition of no more than three (3) units per acre is 252 units. There are eight (8) parcels individually owned (not owned by RidgeHaven) totaling 5.73 acres. Seven parcels are vacant and one parcel fronting Plantation Oaks Boulevard is developed with a single-family home. The maximum dwelling units per the City Medium Density Residential for the eight individually owned parcels is 46 units. For the analysis of the service provision, the maximum scenario was used. Table 1 below shows the second amended MSA estimated and projected population using the maximum scenario dwelling units of 299 and average persons per household from the U.S. Census Bureau for Ormond Beach of 2.33 (Source: U.S. Census Bureau QuickFacts).

Table 1- Projected MSA Population based on Maximum Scenario	
<u>Year</u>	<u>Total Estimated</u>
2022	0
2032	694

Data and Analysis Supporting the Second Amended Municipal Service Area and Future Land Use Map:

The Second Amended Municipal Service Area and the Future Land Use Map amendments were reviewed pursuant to the requirements of Chapter 171, Part II, Florida Statutes, the adopted Interlocal Service Boundary Agreement (ISBA), between the City of Ormond Beach and the County of Volusia, and in accordance with the City's Comprehensive Plan. Below is the analysis of the criteria of Policy 2.5.2 which includes the provision of public facilities required for the MSA:

1. Whether the future land use amendment is consistent with the Comprehensive Plan Goals, Objectives and Policies.

The Future Land Use Map amendment to include the Second Amended Municipal Service Area land uses proposes to change ± 84.26 acres of unincorporated property in the RidgeHaven Subdivision and ± 5.73 acres outside the RidgeHaven Subdivision from the existing County land uses to the City of Ormond Beach designations to implement the terms of the ISBA. The most similar City land uses were chosen and depicted in Table 2 below for comparison purposes:

Table 2 - Existing County Land Use Designations and Proposed City Land Use Amendments

County Existing Future Land Use Designation	Proposed City Future Land Use
<u>Urban Medium Intensity (UMI)</u> (84.26 acres owned by RidgeHaven) Areas that contain residential development at a range of greater than four (4) to eight (8) dwelling units per acre. The types of housing typically found in areas designated urban medium intensity include single family homes, Urban townhouses and low-rise apartments. The UMI designation is primarily a residential designation but may allow neighborhood business areas (see Shopping Center definition in Chapter 20) and office development that meet the Comprehensive Plan's location criteria. The commercial intensity shall be no more than a fifty percent Floor Area Ratio (0.50 FAR) and shall be limited in a manner to be compatible with the allowable residential density. In order to be considered compatible, the commercial development should reflect similar traffic patterns, traffic generation, building scale, landscaping and open space, and buffers. More intensive commercial use, other than neighborhood business areas, shall be reserved to areas designated for Commercial.	<u>Low Density Residential (LDR)</u> Purpose: To protect and encourage the continued development of typical single-family residential areas and stabilize and protect the character of such neighborhoods. Institutional uses may be permitted in accordance with the maximum floor area ratio. Density: up to 4.3 units per acre Maximum FAR: 0.2
<u>Urban Medium Intensity (UMI)</u> (5.73 acres not owned by RidgeHaven) Areas that contain residential development at a range of greater than four (4) to eight (8) dwelling units per acre. The types of housing typically found in areas designated urban medium intensity include single family homes, Urban townhouses and low-rise apartments. The UMI designation is primarily a residential designation but may allow neighborhood business areas (see Shopping Center definition in Chapter 20) and office development that meet the Comprehensive Plan's location criteria. The	<u>Medium Density Residential (MDR)</u> Purpose: To allow a variety of highly aesthetic dwelling units, encouraging the establishment of recreation areas and open space and discouraging look-alike rows of dwellings. MDR also allows the

Table 2 - Existing County Land Use Designations and Proposed City Land Use Amendments

County Existing Future Land Use Designation	Proposed City Future Land Use
commercial intensity shall be no more than a fifty percent Floor Area Ratio (0.50 FAR) and shall be limited in a manner to be compatible with the allowable residential density. In order to be considered compatible, the commercial development should reflect similar traffic patterns, traffic generation, building scale, landscaping and open space, and buffers. More intensive commercial use, other than neighborhood business areas, shall be reserved to areas designated for Commercial.	development of relatively low-density duplex, townhouse and multi-family projects which emphasize open space and maintain a low profile, thus maximizing the compatibility with single-family areas. Institutional uses may be permitted in accordance with the maximum floor area ratio. Density: Minimum 5-12 units per acre except in the Downtown Community Redevelopment Area where 5 - 15 units shall be allowed. Maximum FAR: 0.3

To ensure consistency between Volusia County unincorporated land use designations and the City's classifications and to prevent additional impacts to state, county, or city facilities and services, the following land use map density limitations are proposed:

Table 3 – Existing Future Land Use and Proposed City Future Land Use with Conditions

Existing Volusia County Land Use	Proposed City Land Use	Land Use Conditions
Urban Medium Intensity (UMI) (84.26 acres)	Low Density Residential (LDR)	Maximum 3 units per acre and no more than 298 dwelling units for entire RidgeHaven owned lands including the 19.19 acres south.
Urban Medium Intensity (UMI) (5.73 acres)	Medium Density Residential (MDR)	None.

Based on the infrastructure analysis provided in Table 5 below, it was determined that the proposed Ormond Beach land uses are the most suitable for existing developments and uses in the MSA. Following are specific Goals, Objectives, and Policies that are applicable to the administrative amendment:

GOAL 1 Future Land Use Element	FUTURE DEVELOPMENT AND REDEVELOPMENT ACTIVITIES SHOULD BE DIRECTED IN APPROPRIATE AREAS AS DEPICTED ON THE FUTURE LAND USE MAP TO MEET THE LAND USE NEEDS OF THE ANTICIPATED POPULATION, IN A MANNER CONSISTENT WITH SOUND PLANNING PRINCIPLES, THE GOALS, OBJECTIVES AND POLICIES CONTAINED HEREIN, AND THE DESIRED COMMUNITY CHARACTER. THE FUTURE LAND USE ELEMENT SHOULD ALLOW LIMITED COMMERCIAL EXPANSION, PROMOTE INDUSTRIAL USE, AND MAINTAIN CURRENT RESIDENTIAL DENSITIES IN THE CORE AREA WHILE ESTABLISHING LOWER DENSITIES IN THE PERIMETER AREAS, FOCUSING REDEVELOPMENT IN THE DOWNTOWN COMMUNITY REDEVELOPMENT AREA, US1, AND SR A1A, AND PROVIDING FOR A CONTINUED HIGH LEVEL OF OPEN SPACE. FUTURE GROWTH SHALL BE TIMED AND LOCATED TO MAXIMIZE EXISTING PUBLIC INFRASTRUCTURE.
OBJECTIVE 1.2. COMMERCIAL LAND USE Future Land Use Element	Ensure that adequate amounts of land are available to meet the commercial land use needs of the community.
OBJECTIVE 2.5. COMPREHENSIVE PLAN AMENDMENTS Future Land Use Element	The City shall review proposed text and Future Land Use Map amendments based upon state requirements, Volusia County regulations, and the Goals, Objectives, and Policies of the City's Comprehensive Plan.
GOAL 5 Annexation Future Land Use Element	THE CITY PROVIDES UTILITY SERVICE BEYOND IT'S MUNICIPAL LIMITS AND SHALL REQUIRE THAT ANY CONNECTION TO THE CITY UTILITY SYSTEM EITHER ANNEX INTO THE CITY OR ENTER INTO AN ANNEXATION AGREEMENT IF NOT CONTIGIOUS FOR UTILITY SERVICE.
OBJECTIVE 5.1. ANNEXATION	Newly annexed areas and new development shall not impose additional tax burdens on City residents or adversely impact City managed natural resources, public facilities and services, including potable water, sanitary sewer, drainage, solid waste, parks and recreation and cultural facilities. Future land uses shall be located consistent with the provision of public facilities and services.
Policy 5.1.1. Future Land Use Element	Properties that are annexed into the City of Ormond Beach shall be assigned a similar land use that existed in Volusia County. Property owners may apply for more intensive land uses, but shall be required to provide the data and analysis to justify the increase in density and/or intensity.

2. Does it meet the criteria established in the City's Comprehensive Plan and the Florida Statute?

The City's Comprehensive Plan and Florida Statutes establish the process, including required advertising for all future land use map amendments. The amendments to the Future Land Use Map are being processed as a small-scale amendment per Florida Statute section 171.204 which reads, "An amendment to the future land use map of a comprehensive plan which is consistent with the joint planning agreement must be considered a small-scale amendment". The amendment includes the data and analysis in this report. Also, two more public hearings will be conducted to receive any additional public comments and shall be reviewed by the Volusia Growth Management Commission and state agencies. Planning staff concludes that the amendment meets or exceeds the criteria established in the Comprehensive Plan and Florida Statute.

3. Whether the land uses are appropriate uses of the land.

Ormond Beach has been identified as the utility provider in the North U.S. 1 corridor since 1992 and has provided the needed utility services for residential and commercial uses in this corridor. The lands that are under consideration are not altering the existing land uses that have existed under Volusia County and therefore remain appropriate uses of land. The Second Amended North US 1 Municipal Service Area was required by Volusia County in order to annex the RidgeHaven Subdivision into the City of Ormond Beach. The proposed Ormond Beach land use designations seek to maintain the entitlements for the properties as established by Volusia County. The uses are appropriate and compatible with uses adjacent to the subject property.

4. Whether there is adequate infrastructure to serve the proposed land use.

The analysis of infrastructure needs for a comprehensive plan amendment is different from a concurrency review for a site plan. Under Florida Statutes, the City is required to analyze the proposed land use change based on the maximum allowable density and intensity under the proposed land use category. The purpose of the land use amendments is based upon the Interlocal Service Boundary Agreement and seek to maintain the entitlements allowed within Volusia County. The assumptions for the maximum scenario analyzed in Table 5 are contained in Table 4 below:

Table 4 – Maximum Scenarios with Land Use Policy Limitations					
Existing County Future Land Use	County Maximum Density	County Maximum Intensity	Proposed City Future Land Use	City Maximum Density with Land Use conditions	City Maximum Intensity with Land Use Conditions
Urban Medium Intensity (UMI) (84.26 acres)	8 DU per acre	0.50 FAR	Low Density Residential (LDR)	Not to exceed 3 units per acre and no more than 298 dwelling units for entire RidgeHaven owned lands including the 19.19 acres south.	0.20 FAR
Urban Medium Intensity (UMI) (5.73 ac)	8 DU per acre	0.50 FAR	Medium Density Residential (MDR)	Not to exceed 8 DU per acre for properties not owned by RidgeHaven.	0.30 FAR

An analysis of the existing and proposed changes with the land use conditions is shown in Table 5 below:

Table 5 – Second Amended ISBA Maximum Scenario Analysis of Existing County FLU and Proposed City FLU with Land Use Conditions								
			Residential			Nonresidential		
Existing FLU (County)	Proposed 2 nd Amended ISBA FLU (City)	Total Estimated Acreage	Existing County Density (DU)	Potential Density w/ Policy Limitations (DU)	Change in Potential Density (DU)	Existing County Intensity (SF)	Potential City Intensity w/ Limitations (SF)	Change in Potential Intensity (SF)
UMI	LDR	84.26	674	252	-421	1,835,183	734,073	-1,101,110
Total for parcels owned by RidgeHaven			674	252	-422	1,835,183	734,073	-1,101,110
UMI	MDR	5.73	46	46	0	124,799	74,880	-49,919
Total for individual parcels not owned by RidgeHaven			46	46	0	124,799	74,880	-49,919
Total for All Parcels			720	298	-422	1,959,982	808,953	-1,151,029

The proposed land uses will decrease the maximum number of residential units by 422. There is also a condition that the RidgeHaven subdivision cannot exceed 298 residential units within this land area of 84.26 and the other RidgeHaven land area of 19.19 acres. The non-residential entitlements are decreased by 1,151,029 square feet.

Transportation: Below is a maximum theoretical land use analysis based on the ITE Trip Generation Rate, 10th Edition for a non-residential and residential maximum scenario. It is important to note that a concurrency analysis occurs with site plan or subdivision development.

TABLE 6 – Transportation Analysis					
Non-Residential					
Land Area	Building Square Footage Maximum (Existing)	Average Daily Trips (Existing) ⁽¹⁾	Building square footage maximum (Proposed)	Average Daily Trips (Proposed) ⁽²⁾	Difference
RidgeHaven parcels	1,835,183	69,278	734,073	5,094	-64,184
Individual parcels	124,799	4,711	74,880	520	-4,191
Total	1,959,982	73,989	808,953	5,614	-68,375
Notes:					
(1) Existing land use allows commercial uses an ITE rate #820, retail, (37.75) used for analysis.					
(2) Proposed land use is residential and does not allow commercial uses. ITE rate #560, Church (6.94) used for analysis.					

TABLE 6 – Transportation Analysis

Residential					
Land Area	Maximum residential units (Existing)	Average Daily Trips (Existing) ⁽³⁾	Maximum residential units (Proposed)	Average Daily Trips (Proposed)	Difference
RidgeHaven parcels	674	6,362	252	2,379	-3,983
Individual parcels	46	434	46	434	0
Total	720	6,796	298	2,813	-3,983
Notes:					
(3) For residential analysis ITE rate #210, Single-Family House, (9.44) used for analysis.					

The table analyzes a non-residential and residential theoretical development based upon the land use entitlements. The existing Volusia County “Urban Medium Intensity” allows retail development at a Floor Area Ratio of 0.5 that would equate to a maximum of 73,989 average daily trips. The proposed land use of “Low Density Residential” and “Medium Density Residential” does not allow retail uses and would allow institutional type of uses such as church in the land uses. The potential average daily trips are reduced by 68,375 trips. The residential scenario also shows a reduction of transportation impacts based upon a reduction of the residential units of 422. The reduction of traffic impacts in the residential scenario would be 3,983 average daily trips. As the property is developed in the future, a concurrency analysis will be required.

Schools: The maximum scenario provides a reduction of approximately 422 dwelling units. Per the School Board of Volusia County Facilities Development Policies Number 613, Section V.B, projects exempt from school capacity and concurrency include subdivisions and/or single-family lots equal to or less than ten (10) residential units.

Water and Sewer: The analysis in Table 7 indicates that the proposed amendments would reduce the overall theoretical maximum water and sewer impacts.

TABLE 7 – Water & Sewer Analysis

Non-Residential								
Land Area	Building square footage maximum: Existing	Water: Existing ⁽¹⁾	Sewer: Existing ⁽²⁾	Building square footage maximum: Proposed	Water: Proposed ⁽¹⁾	Sewer: Proposed ⁽²⁾	Water Difference	Sewer Difference
RidgeHaven parcels	1,835,183	275,277	233,986	734,073	110,111	93,594	-165,166	-140,392
Individual parcels	124,799	18,720	15,912	74,880	11,232	9,547	-7,488	-6,365
Total	1,959,982	293,997	249,898	808,953	121,343	103,141	-172,654	-146,757
Notes:								
(1) Commercial water usage = (SF/100) X 15 gallons of water per day.								
(2) Commercial sewer usage = water gallons per day X 85%.								
Residential								

TABLE 7 – Water & Sewer Analysis

Land Area	Res. Units Maximum: Existing	Water: Existing (1)	Sewer: Existing (2)	Res. Units Maximum: Proposed	Water: Proposed (1)	Sewer: Proposed (2)	Water Difference	Sewer Difference
RidgeHaven parcels	674	172,544	189,394	252	64,512	70,812	-108,032	-118,582
Individual parcels	46	11,776	12,926	46	11,776	12,926	0	0
Total existing	720	184,320	202,320	298	76,288	83,738	-108,032	-118,582
Notes:								
(1) Residential, water = 256 average annual daily volume (2.33 HH X110 gpd)								
(2) Residential, sewer = 281 average annual daily volume								

Similar to the transportation impact analysis, the reduction in the Floor Area Ratio and units per acre allowed results in a decrease in water and sewer infrastructure impacts under a theoretical maximum development scenario. Based on a reduction of allowable building square footage the non-residential scenario decreases the water impact by 172,654 gallons of water per day and 146,757 gallons of sewer per day. The residential analysis also shows a decrease based on the reduction of 422 units.

There are existing water and sewer lines within Plantation Oaks Boulevard and Addison Drive. The city has water and sewer capacity to serve any future development allowed under the proposed land use entitlements.

Stormwater: Any development shall be required to demonstrate compliance to city and state stormwater requirements. The proposed amendment reduces the non-residential and residential entitlements under the land use. Site development shall require submittal to the Ormond Beach Site Plan Review Committee and the St. Johns River Water Management District.

Other Services: City police and fire services have the capacity to serve the land area within the second ISBA area.

5. Whether the proposed map amendment impacts surrounding jurisdictions.

The proposed Future Land Use Map Amendment is to assign similar City land use designations to implement the Second Amended Interlocal Service Boundary Agreement. The proposed amendment will not impact surrounding jurisdictions. The Second Amended Interlocal Service Boundary Agreement has been coordinated with Volusia County and approved by the Volusia County Council.

RECOMMENDATION: It is recommended that the Planning Board recommend **APPROVAL** of the proposed Comprehensive Plan amendments to the Future Land Use Map (FLUM) to implement the terms of the Second Amended Interlocal Service Boundary Agreement.

Attachments: Exhibit A: Adopted Second Amended ISBA Agreement.

Exhibit B: MSA Future Land Use Map with limitations.

ORDINANCE NO. 2021-43

AN ORDINANCE APPROVING AND AUTHORIZING THE EXECUTION OF A SECOND AMENDED INTERLOCAL SERVICE BOUNDARY AGREEMENT BETWEEN THE CITY OF ORMOND BEACH AND COUNTY OF VOLUSIA, FLORIDA, REGARDING THE NORTH U.S. 1 JOINT PLANNING AND MUNICIPAL SERVICE AREA; PROVIDING FOR RECORDATION; AND SETTING FORTH AN EFFECTIVE DATE.

WHEREAS, the City of Ormond Beach and County of Volusia entered into an Interlocal Service Boundary Agreement, inclusive of a Planning and Services Delivery Sub-Agreement, dated August 28, 2014 and recorded on Official Records Book 7026, Pages 876, et. seq, of the Public Records of Volusia County, Florida (“2014 ISBA”), and

WHEREAS, the 2014 ISBA established a Municipal Service Area (“MSA”) and Joint Planning Area (“JPA”) regarding certain lands along the N. U.S. Highway 1 corridor, and

WHEREAS, the City of Ormond Beach and County of Volusia, authorized the First Amended Interlocal Service Boundary Agreement between the City of Ormond Beach and County of Volusia, dated August 20, 2019 and recorded on Official Records Book 7758, Pages 4680, et. seq, of the Public Records of Volusia County, Florida, and

WHEREAS, the City and County desire to amend the 2014 ISBA and the 2019 First Amended Interlocal Service Boundary Agreement for the purpose of expanding the boundaries of the MSA and JPA, and

WHEREAS, the city’s planning board (local planning agency) held an advertised public hearing on October 14, 2021 for the purpose of considering the proposed amendment and recommended approval of the same, and

WHEREAS, city commission concurs with the recommendation of the city's planning board (local planning agency) and further determines that approval of the Second Amended Interlocal Service Boundary Agreement will serve the best interests and welfare of the general public, now therefore,

BE IT ENACTED BY THE PEOPLE OF THE CITY OF ORMOND BEACH, FLORIDA, THAT:

SECTION ONE. The foregoing recitals are incorporated herein by reference as the legislative findings of the city commission of the City of Ormond Beach.

SECTION TWO. The city commission hereby approves the Second Amended Interlocal Service Boundary Agreement, a copy of which is attached hereto and incorporated herein by reference, and authorizes and directs the mayor and city manager to execute the same.

SECTION THREE. The city commission further authorizes and directs the city manager and appropriate city staff members to exercise all necessary and appropriate action consistent with the purpose of the Second Amended Interlocal Service Boundary Agreement.

SECTION FOUR. A copy of this Ordinance and the Second Amended Interlocal Service Boundary Agreement shall be recorded with the clerk of court for Volusia County Circuit Court in accordance with applicable law.

PASSED UPON at the first reading of the City Commission, this 16th day of November, 2021.

PASSED UPON at the second and final reading of the City Commission, this 7th
day of December, 2021.



BILL PARTINGTON

Mayor

ATTEST:



SUSAN CARROLL DAUDERIS

City Clerk

**SECOND AMENDED
INTERLOCAL SERVICE BOUNDARY AGREEMENT
BETWEEN THE CITY OF ORMOND BEACH AND COUNTY OF VOLUSIA**

This Second Amended Interlocal Service Boundary Agreement (“Second Amended Agreement”) is made and entered into this _____ date of _____, 2021 by and between the City of Ormond Beach (“City”) and County of Volusia (“County”), sometimes herein referred to as “Party” or “Parties” as the context requires.

WHEREAS, the City and County entered into an Interlocal Service Boundary Agreement, inclusive of a Planning and Service Delivery Sub-Agreement, dated August 28, 2014 and recorded in Official Records Book 7026, Pages 876 et. seq., Public Records of Volusia County, Florida (“2014 ISBA”); and

WHEREAS, the 2014 ISBA established a Municipal Service Area (“MSA”) and Joint Planning Area (“JPA”) as depicted on Map 1 thereto; and

WHEREAS, the City of Ormond Beach and County of Volusia, authorized the First Amended Interlocal Service Boundary Agreement between the City of Ormond Beach and County of Volusia, dated August 20, 2019 and recorded on Official Records Book 7758, Pages 4680, et. seq, of the Public Records of Volusia County, Florida; and

WHEREAS, the City and County desire to amend the 2014 ISBA and the 2019 First Amended Interlocal Service Boundary Agreement for the purpose of expanding the boundaries of the MSA and JPA; and

WHEREAS, the 2014 ISBA authorizes amendments to the agreement based upon the mutual consent of the Parties; and

WHEREAS, this Second Amended Agreement is entered into in accordance with the authority provided by Article VIII of the Florida Constitution, and Chapters 125, 163, 166, 171 and 180 of the Florida Statutes, as well as the 2014 ISBA.

NOW, THEREFORE, in consideration of the mutual covenants set forth in this Second Amended Agreement, the receipt and sufficiency of which are hereby acknowledged, the City and the County agree as follows:

1. The foregoing recitals are incorporated herein and are a material part of this Second Amended Agreement.
2. The MSA and JPA as shown and depicted on Map 1 of the 2014 ISBA and amended with Map 2 of the 2019 First Amended Interlocal Service Boundary Agreement is hereby modified and enlarged to include the area shown and depicted on Map 3 to this Second Amended Agreement.
3. The terms and conditions of the 2014 ISBA as recorded in Official Records Book 7026, Pages 876 et. seq., Public Records of Volusia County, Florida, are hereby restated and incorporated herein and remain in full force and effect. Every reference to Map 1 in the 2014 ISBA and Map 2 of the 2019 First Amended Interlocal Service Boundary Agreement shall be construed to also include the expanded MSA and JPA depicted in Map 3 to this Second Amended Agreement.
4. The governing bodies of the City and County shall approve this Second Amended Agreement by ordinance, consistent with the manner of adoption of the 2014 ISBA.
5. This Second Amended Agreement shall become effective upon being filed and recorded with the Clerk of the Circuit Court of Volusia County, Florida.

IN WITNESS WHEREOF, each of the undersigned has executed this Second Amended Agreement on behalf of the respective party set forth below, pursuant to the authority granted to each of the undersigned in the ordinance by which each party approved and adopted this Second Amended Agreement.

ATTEST:

COUNTY OF VOLUSIA

George Recktenwald
County Manager

Jeff Brower
County Chair

STATE OF FLORIDA
COUNTY OF VOLUSIA

The foregoing instrument was acknowledged before me this ____ day of _____, 2021, by Jeff Brower and George Recktenwald, as County Chair and County Manager, respectively, on behalf of the County of Volusia, who acknowledge that they are duly authorized to execute the foregoing Agreement on behalf of the County. They are personally known to me.

NOTARY PUBLIC

ATTEST:

CITY OF ORMOND BEACH

Joyce Shanahan
City Manager

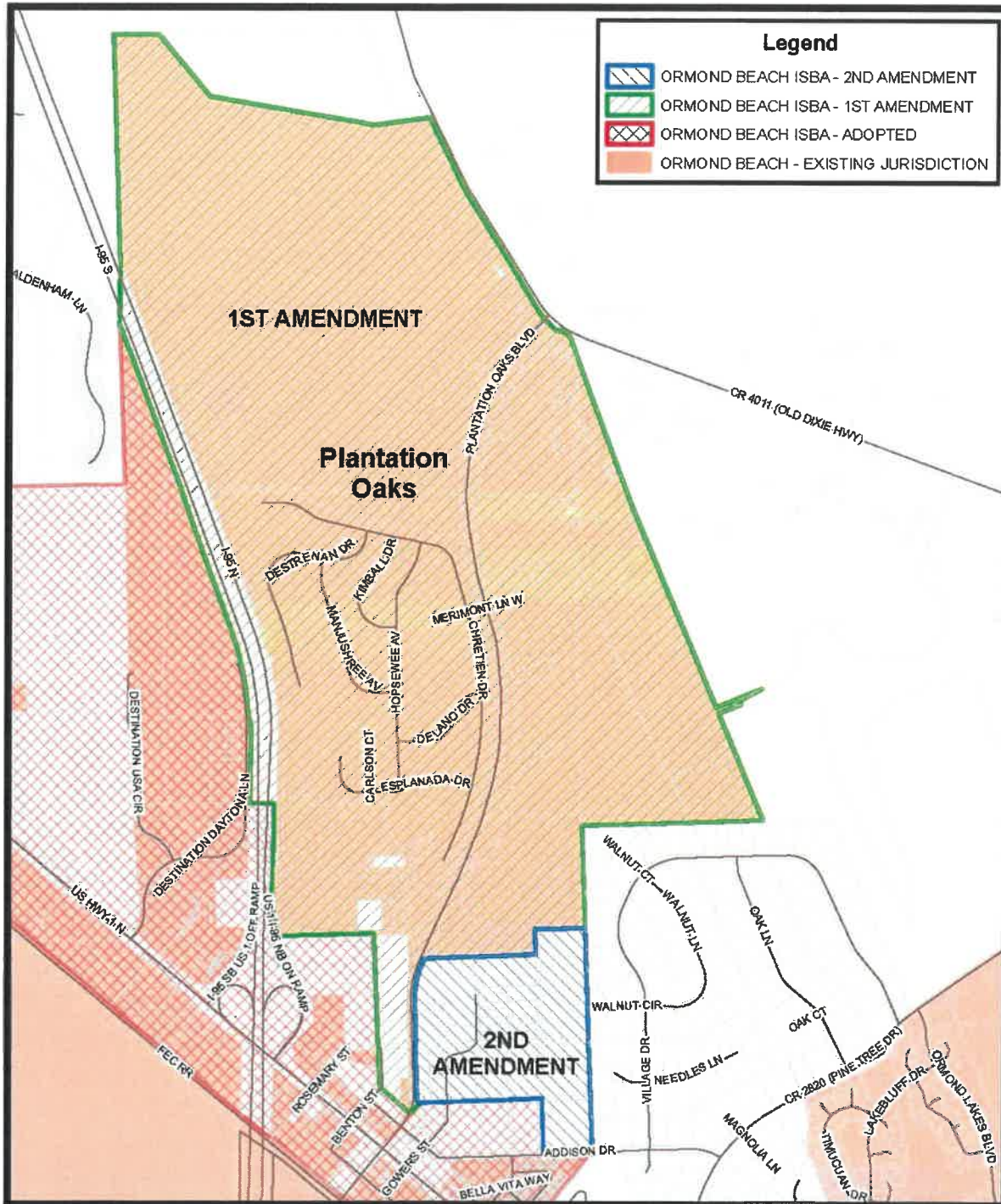
Bill Partington
Mayor

STATE OF FLORIDA
COUNTY OF VOLUSIA

The foregoing instrument was acknowledged before me this ____ day of _____, 2021, by Bill Partington and Joyce Shanahan, as Mayor and City Manager, respectively, on behalf of the City of Ormond Beach, who acknowledge that they are duly authorized to execute the foregoing Agreement on behalf of the City. They are personally known to me.

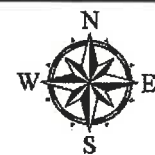
NOTARY PUBLIC

MAP 3



**ORMOND BEACH ISBA
RIDGE HAVEN ADDITION**

Prepared By: The City of Ormond Beach
G.I.S. Department - September 28, 2021



1 inch = 1,600 feet

CERTIFICATE

STATE OF FLORIDA
COUNTY OF VOLUSIA
CITY OF ORMOND BEACH

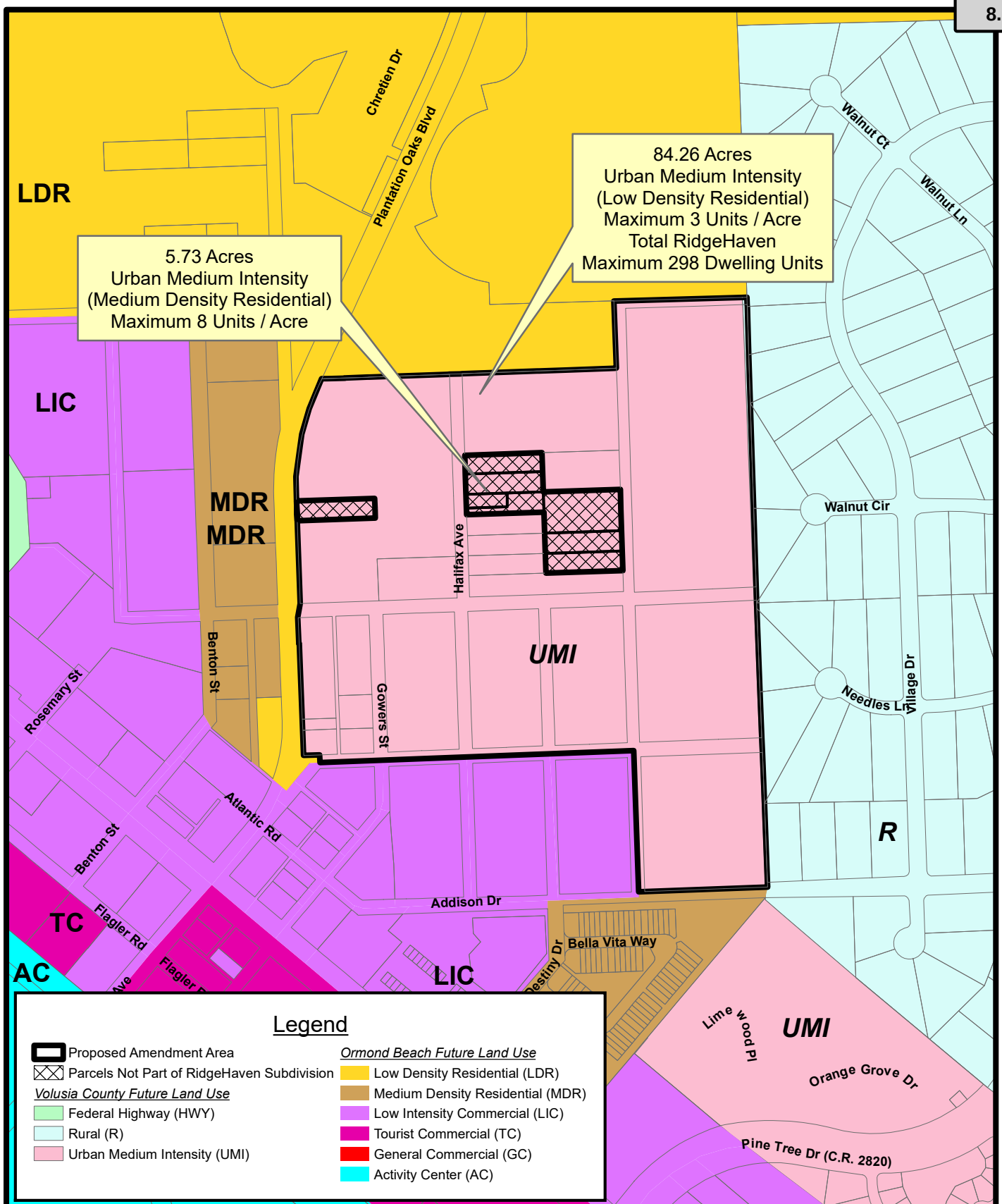
I, Susan Carroll Dauderis, City Clerk of the City of Ormond Beach, Florida, do hereby certify that the foregoing is a true, correct and complete copy of Ordinance No. 2021-43 as the same appears of record at City Hall, City of Ormond Beach, Florida.

Dated this 8th day of December, 2021.

SEAL



Susan Carroll Dauderis
City Clerk
CITY OF ORMOND BEACH, FLORIDA



NORTH US 1 (2nd AMENDED) ISBA EXISTING AND PROPOSED FUTURE LAND USE MAP

Prepared By: The City of Ormond Beach
G.I.S. Department - February 18, 2022



N.T.S.

M I N U T E S
ORMOND BEACH PLANNING BOARD
Regular Meeting

March 10, 2022

6:00 PM

City Commission Chambers
 22 South Beach Street
 Ormond Beach, FL 32174

PURSUANT TO SECTION 286.0105, FLORIDA STATUTES, IF ANY PERSON DECIDES TO APPEAL ANY DECISION MADE BY THE PLANNING BOARD WITH RESPECT TO ANY MATTER CONSIDERED AT THIS PUBLIC MEETING, THAT PERSON WILL NEED A RECORD OF THE PROCEEDINGS AND FOR SUCH PURPOSE, SAID PERSON MAY NEED TO ENSURE THAT A VERBATIM RECORD OF THE PROCEEDING IS MADE, INCLUDING THE TESTIMONY AND EVIDENCE UPON WHICH THE APPEAL IS TO BE BASED.

PERSONS WITH A DISABILITY, SUCH AS A VISION, HEARING OR SPEECH IMPAIRMENT, OR PERSONS NEEDING OTHER TYPES OF ASSISTANCE, AND WHO WISH TO ATTEND CITY COMMISSION MEETINGS OR ANY OTHER BOARD OR COMMITTEE MEETING MAY CONTACT THE CITY CLERK IN WRITING, OR MAY CALL 677-0311 FOR INFORMATION REGARDING AVAILABLE AIDS AND SERVICES.

I. ROLL CALL

Members Present

Harold Briley, Vice Chair
 G.G. Galloway
 Al Jorczak
 Mike Scudiero
 Angeline Shull
 Lori Tolland
 Doug Thomas, Chair

Staff Present

Steven Spraker, Planning Director
 Becky Weedon, Senior Planner
 Robin Gawel, Senior Planner
 Randy Hayes, City Attorney
 Marcella Miller, Recording Technician

II. INVOCATION

Chairman Thomas led the invocation.

III. PLEDGE OF ALLEGIANCE

IV. NOTICE REGARDING ADJOURNMENT

NEW ITEMS WILL NOT BE HEARD BY THE PLANNING BOARD AFTER 9:00 PM UNLESS AUTHORIZED BY A MAJORITY VOTE OF THE BOARD MEMBERS PRESENT. ITEMS WHICH HAVE NOT BEEN HEARD BEFORE 9:00 PM MAY BE CONTINUED TO THE FOLLOWING THURSDAY OR TO THE NEXT REGULAR MEETING, AS DETERMINED BY AFFIRMATIVE VOTE OF THE MAJORITY OF THE BOARD MEMBERS PRESENT (PER PLANNING BOARD RULES OF PROCEDURE, SECTION 2.7).

Now, to the barbecue sign or as I like to call it, “the pig”. It is an original vintage sign approaching nearly one hundred years of age. I bought it from a collector in Los Angeles and its story is that it hung over one of the many barbecue restaurants in Memphis, Tennessee on Beale Street. It wasn’t inexpensive but beauty comes with a price. I believe that if you will allow me to display the sign over The Pumphouse, it will be the beginning of structural art in the downtown. It is not signage per se but instead equivalent to an installation of cows I have seen in downtown Chicago and New York City and Los Angeles, as well as other cities all embracing structural art.

In closing, I hope that you see the beauty in the piece and allow me to install one more amazing piece in the downtown that will catch peoples’, visitors’ and residents’ eyes and make them want to stop and investigate our beautiful downtown.

I’m sorry I couldn’t be here tonight as I am on a business trip to Los Angeles. Thank you for your time and consideration.

Yours truly

Bill Jones

Chairman Thomas opened the public hearing for comments. Hearing none, he turned it over to the Board for discussion.

Mr. Briley reiterated the appreciation of the ability in the Land Development Code (LDC) to have flexibility to allow signage such as proposed in this application.

Mr. Jorczak noted that the signage adds character to the Downtown.

Ms. Tolland motioned to approve SE2022-019(B) – 124 West Granada Boulevard, Special Exception. Ms. Shull seconded it. Vote was called, and the motion was approved (7-0).

C. LUPA 2022-023 – Second Amended Interlocal Service Boundary Agreement (ISBA) Future Land Use Map Amendment (Small Scale)

Ms. Becky Weed, Senior Planner, stated that the request is an administrative request to amend the City of Ormond Beach Comprehensive Plan’s Future Land Use Map to include the expansion of the Municipal Service Area land uses consistent with the Second Amended Interlocal Service Boundary Agreement (ISBA) between the City of Ormond Beach and Volusia County pursuant to Chapter 171, Part II, Florida Statutes, as amended. Ms. Weed explained the amendments:

1. Land area owned by RidgeHaven – 84.26 acres: From existing Volusia County “Urban Medium Intensity” (UMI) to City of Ormond Beach “Low Density Residential” (LSR). The proposed condition to limit density: The maximum gross density shall not exceed three (3) units per acre and total units for all lands within the RidgeHaven subdivision (including the 19.19 acres to the south) shall not exceed 298 residential units.
2. Parcels within individual ownership (not owned by RidgeHaven) – 5.73 acres: From existing Volusia County “Urban Medium Density” (UMI) to City of Ormond Beach “Medium Density Residential” (MDR). Proposed condition to allow same density as Volusia County: The maximum gross density shall not exceed eight units per acre.

Ms. Weedo explained the prior actions of the adoption of the original N. US1 Interlocal Service Boundary Agreement (ISBA); Adoption of the first amended N. US1 ISBA, to expand the joint planning and service area to include the Plantation Oaks subdivision and 13 other privately owned properties; Adoption of the second amended N. US1 ISBA to expand the joint planning and service area to include the RidgeHaven land area and eight other privately owned properties; Adoption of the second amended ISBA by the Volusia County Council on February 15, 2022 with conditions; and City Commission approval of the annexation of the RidgeHaven area at First Reading on March 1, 2022.

Ms. Weedo stated that the amendment to the Future Land Use Map is being processed as a small-scale amendment per Florida Statutes related to joint planning agreements. She added that this amendment is the companion document to the Comprehensive Plan Element amendments next on the agenda and the following applicant initiated small scale future land use map amendment to the 19.19 acres south. Ms. Weedo continued that the City Commission first reading of this amendment is planned to be on April 19th with the second reading on May 3rd and submittal to the DEO and VGMC on May 10th.

Ms. Weedo explained that the land use map limitations are proposed in order to meet the goal of applying similar land use classifications and maintaining existing entitlements. Approximately 84.26 acres are owned by RidgeHaven and there are eight parcels individually owned, totaling approximately 5.73 acres. The policy table proposes different limitations based on whether the parcel is owned by RidgeHaven or one of the eight individually owned parcels. Ms. Weedo added that based on policy limitations, the proposed amendment from County Future Land Use to City Land Use will decrease density by about 422 potential dwelling units on properties owned by RidgeHaven. Intensity will also decrease by over 1.1 million square feet. Using the policy limitations, no major impact from the change from County to City Future Land Use is anticipated.

Ms. Weedo stated that staff determines that the proposed amendment meets the goals, objectives, and policies of the City's comp plan, and the requirements established by Florida Statutes, the proposed uses are appropriate, the amendment provides adequate infrastructure, and will not impact surrounding jurisdictions, especially since the amendment and limitations are in compliance with the adopted Second Amended Interlocal Service Boundary Agreement (ISBA) between Volusia County and the City of Ormond Beach. Ms. Weedo concluded that staff recommends that the Planning Board recommend approval to the City Commission of the proposed Comprehensive Plan amendments to the Future Land Use Map (FLUM) to implement the terms of the Second Amended Interlocal Service Boundary Agreement (ISBA).

Mr. Scudiero asked for clarification on if it lowers the density by over four hundred units. Ms. Weedo answered that the density reduction is based on their entitlements with the Volusia County land use designation.

Mr. Jorczak commended the staff on their work on the proposal and bringing it into the ISBA and the work to reduce the density and number of homes.

Ms. Shull asked for clarification of the medium-density versus low-density. It was clarified that the "Urban Medium Intensity" is going to "Low Density Residential".

Mr. Spraker replied that the RidgeHaven property is going to “Low Density Residential”. The property owner agreed to go to three (3) units per acre for their portion of the ISBA and staff maintained the eight (8) units per acre in the areas outside the RidgeHaven development. The goal with the remaining parcel is to give them the exact density (eight units per acre) that they had in the County without taking entitlements away for the enclaves. Mr. Spraker added that the RidgeHaven project would still have to go through a site plan and a Planned Development.

Mr. Briley asked about the stand-alone parcel on the left through the hatched parcel and what they can develop there at eight units per acre. Mr. Spraker answered a duplex, and that they will still have through permitting to ensure that density would work on the property.

Mr. Glen Storch, PA, Storch Law Firm, stated that the city has been working with their firm and Volusia County to approve the ISBA. He commented that a higher quality product will be delivered with this change, reducing density. He elaborated that 800 units could have been built on the property and now the density can be reduced by 530 units. Mr. Storch noted that two-unit villas can be put on some of the property. The maximum number of units for both sites will be a total of 298. He explained that they purchased every enclave that would sell.

Ms. Tolland asked if the density is being concentrated in the enclaves. Mr. Storch clarified that they do not have control over the enclaves but when annexing in and changing the ISBA, the agreement with the enclaves are that nothing will affect them. Roads will be installed to their locations with it being in their best interest to annex into the city for water and sewer connections.

Mr. Briley asked if the enclaves will be encouraged to follow suit to prevent mixed-use in the area. Mr. Spraker expressed that if the land use allows eight units per acre and the zoning allows multi-family then the enclaves have the right to do what is allowed in land use and zoning regulations. He continued that the size of the property may not lend itself to a multi-family development, although a duplex may be allowed. The enclaves maintain the same rights that they had in Volusia County. The focus is on maintaining whatever entitlements they have. The current stage in the process at hand is for the land use. Mr. Briley concluded that he hopes that in the future when they want to develop, that they are encouraged to stay within the same flavor of the surrounding use.

Attorney Hayes provided the history of the ISBA, reiterating past Volusia County issues on U.S. Highway 1. The ISBA sought to bring the corridor under the city’s jurisdiction which allows the City to take jurisdiction and seek to improve the area. He continued that a benefit to the ISBA is that it provides legal authority for the city to annex properties even though there may be an enclave, otherwise it would not be possible. Attorney Hayes stated that under Florida law, once a property is annexed into a City under the ISBA, there is an obligation to provide a similar same use as to the entitlements it enjoyed in the County. No one is forced to annex under the ISBA.

Audience Comments

Mr. Joseph Valerio, 1213 Northside Drive, commented that he would like the Board to consider preserving the oak trees in new development and not clear-cutting. He continued that he would like the language added to the process.

Mr. Warren Wesley, 22 Needles Lane, expressed his concern with the development with the wildlife and what will happen to them. He added that he received an abutter letter ten days ago and is concerned with why he has not heard of this prior to that as an adjacent land owner to the property.

Ms. Weedo explained that this is a future land use amendment and explained the process that when it comes back for the zoning it will most probably be a Planned Residential Development (PRD). At that time is when the project can provide additional information what will take place with the property.

Mr. David Boswell stated that he is a state licensed contractor, lives in the vicinity of the property and was in the original meetings on the property with the County, and has concerns with what has been omitted that was promised to the County and Pine Run residents. He expressed that he feels it is being downgraded. It was said that there would be a 150' wildlife corridor. Mr. Boswell commented that he has grown up in construction and land surveying and is concerned with the aesthetics of the community and the promised municipalities such as fire departments, schools and grocery stores. He is concerned with Ormond Beach turning out like Holly Hill such as where developers have made promises and then the residents do not have the money to upgrade their sanitary system. Mr. Boswell advised that he knows building will take place but want to stay within the context of what was laid out in County meetings.

He commended the City of Ormond Beach for working with the residents. Mr. Boswell concluded that his mother sold the old gas station property that is now The Pumphouse, to Mr. Bill Jones because they could not get any sign approvals, or parking at the time.

Mr. Glen Storch, PA, Storch Law Firm, responded to Mr. Boswell's comments, explaining that this is a Comprehensive Plan review is to reduce the density for the property and added that regarding the trees, the project is in the design stage and has higher standards than the County. The purchaser of the property is a resident of Ormond Beach and wants to do something that he can be proud of. Mr. Storch advised that 15 percent of the property is set aside for trees as well as four to five acres of wetland preservation.

Ms. Tolland asked for additional information the speaker was referring to with the wildlife corridor aforementioned. Mr. Storch replied in his research he has not seen the information on it in the title or the County Comprehensive Plan, zoning codes or Land Development Code (LDC).

Mr. Briley asked if the matter can be discussed and encouraged when it comes time for the neighborhood meetings. Mr. Spraker replied that Ormond Beach is unique and explained how with the land use amendment, it is a city requirement that everyone within 300 feet of the property is notified via certified mail. Following notification the matter goes to the Site Plan Review Committee (SPRC) and that information is placed on the City website. The next step is the neighborhood meeting.

Mr. Spraker continued that after the first submittal, a neighborhood meeting is coordinated, followed by the Planning Board and City Commission meetings. He reiterated that tonight is only regarding the land use where it is being reduced by 422 units and a million square feet of commercial. The Volusia County analysis showed that the land can support 1,054 units. He offered his business card for any communications or meetings on the matter.

Chairman Thomas commented that people are not aware of how the process works and asked that there be an outline so that it is clearer on the overhead projector.

Mr. Scudiero added that as the process plays out there will be a better visual on it all. Concerns will be taken to hear prior to the Board voting on anything down the line. He commented that anything that reduces density should be a yes.

Mr. Galloway was interested to obtain more information on the wildlife corridor referenced by the speaker.

Mr. Jorczak applauded the property owner's and staff's efforts with reducing the density.

Mr. Briley concurred, "It's a no-brainer".

Ms. Shull motioned to approve LUPA 2022-023 – Second Amended Interlocal Service Boundary Agreement (ISBA) Future Land Use Map Amendment (Small Scale). Ms. Tolland seconded it. Vote was called, and the motion was approved (7-0).

D. CP 2022-024 – Comprehensive Plan Text Amendments Related to the Second Interlocal Service Boundary Agreement (ISBA)

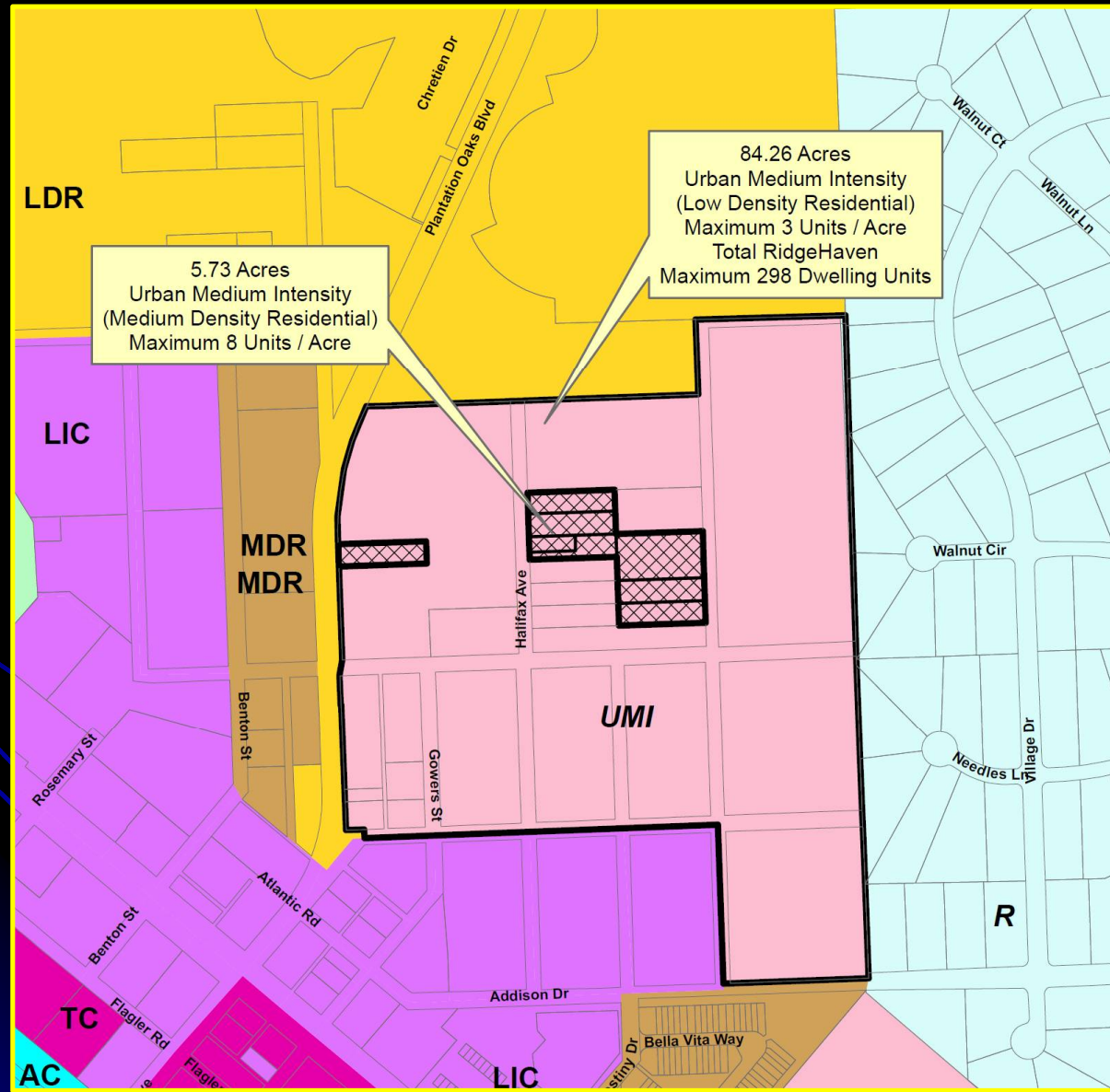
Ms. Becky Weed, Senior Planner, stated that this item is one of the companion documents to the previous Second Amended ISBA Future Land Use Map (FLUM) amendment and is an administrative request to amend the City of Ormond Beach Comprehensive Plan's Future Land Use and Intergovernmental Coordination to update language and references consistent with the Second Amended Interlocal Service Boundary Agreement (ISBA) between the City of Ormond Beach and Volusia County pursuant to Chapter 171, Part II, Florida Statutes, as amended. She added that since the Second Amended ISBA has been adopted, the Comprehensive Plan amendments must be processed to update the policies and objectives consistent with the expanded joint planning and service area. A summary of the proposed amendments were shown overhead and explained.

Ms. Weed noted that the amendments are text amendments to Comprehensive Plan Elements, and the item will be processed as a large scale amendment which requires an expedited State review by the Department of Economic Opportunity (DEO) and a review by the Volusia Growth Management Commission (VGMC). The City Commission first reading of this amendment is planned to be on April 19th with transmittal to DEO and VGMC by April 29th. She continued that second reading is tentatively scheduled on June 7th and submittal of the adopted package to DEO and VGMC by June 17th.

The March 10, 2022 Planning Board Minutes will be uploaded as soon as completed.

2nd ISBA FLUM Amendment

RidgeHaven property and enclaves

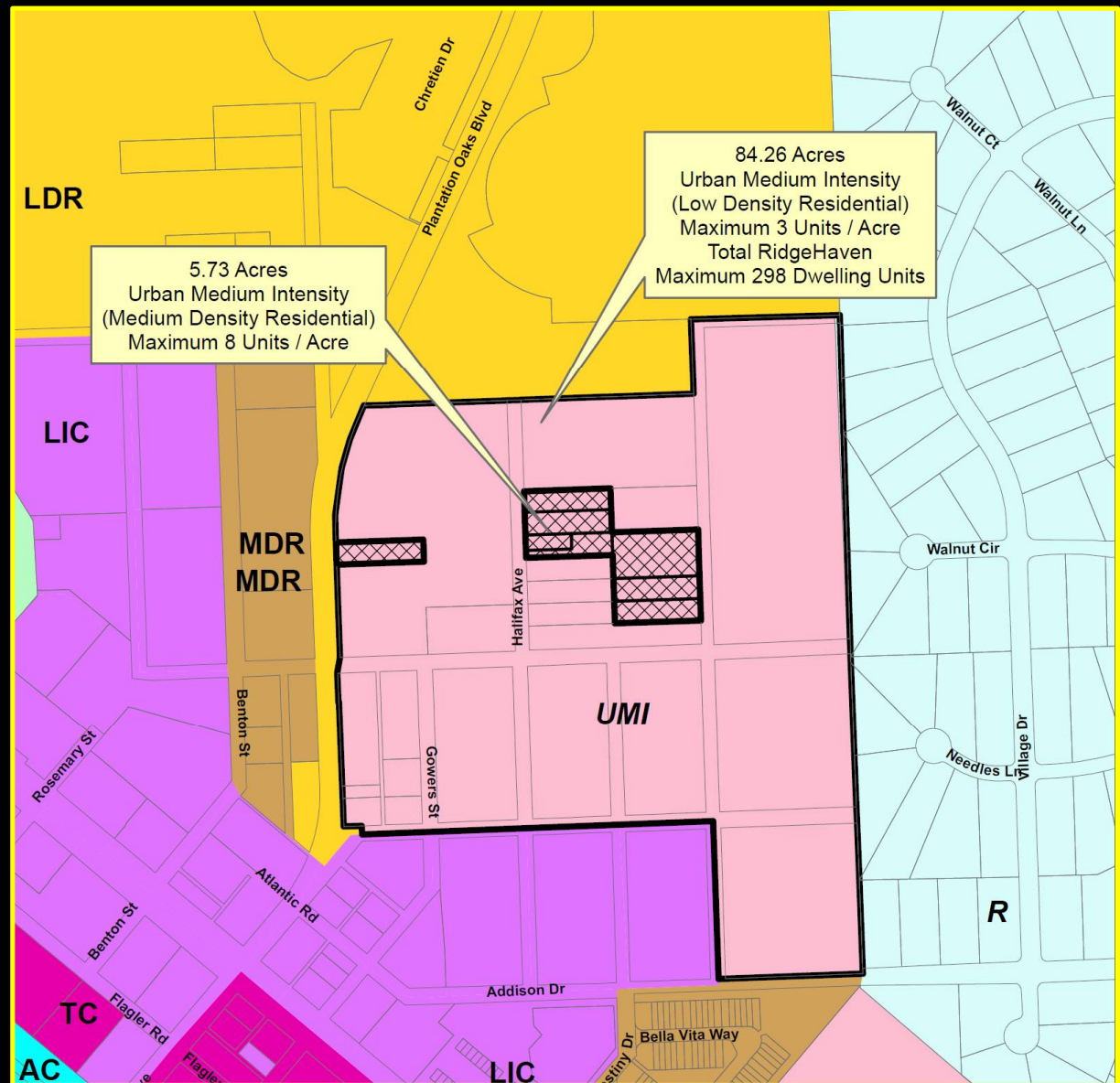


Process

- | IBSA Amendment: 12/7/2021 and Volusia County 02/15/2022
- | Annexation: 03/01/2022 and 03/22/2022
- | Land Use: 03/10/2022 Planning Board and 04/19/2022 & 05/3/2022 City Commission
- | Subdivision Plan: To be determined
- | Neighborhood meeting: To be determined
- | ROW vacation: To be determined
- | Zoning Map Amendment: To be determined
- | Construction plans: To be determined
- | Platting: To be determined

RidgeHaven lands

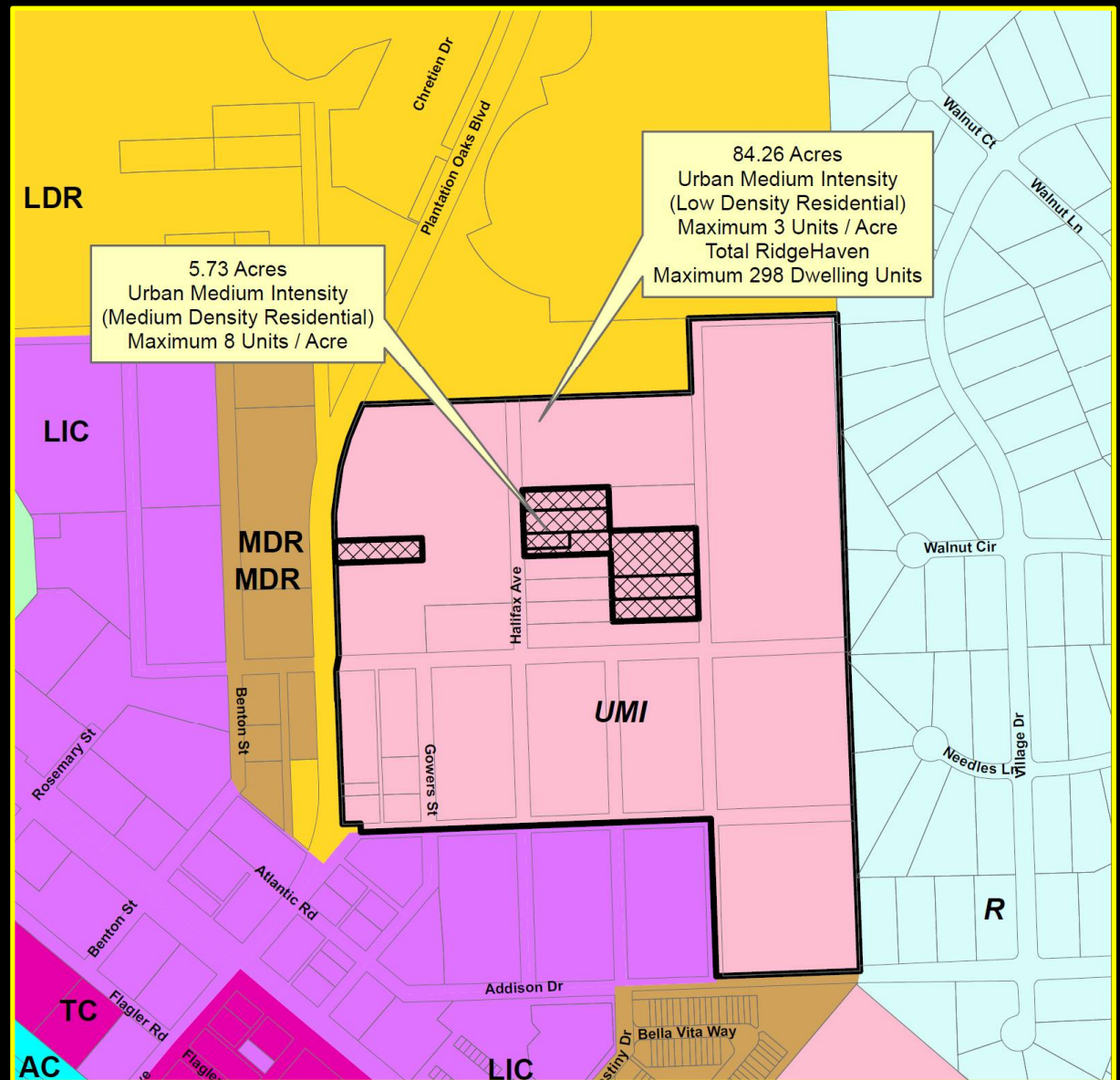
- Ø 84.26 acres
- Ø Property owner initiated reduction to 3 units per acre.
- Ø Decrease of residential units by 422 dwelling unit.
- Ø Decrease of 1.1 million of square feet of non-residential building entitlement.
- Ø Application is only for land use – no site plan proposed.
- Ø All RidgeHaven land area has a 298 unit subdivision maximum.



Enclaves

Ø 5.73 acres

Ø Maintain the same density as existing in Volusia County – 8 units per acre.



Recommendation

Staff Recommendation: Approval

Planning Board Recommendation: Approval (7-0)

Next steps:

- Ø Second reading on 05/03/2022.
- Ø Transmittal to VGMC, abutting cities, and DEO.
- Ø Await applicant's submittal of site plan and zoning information for RidgeHaven lands.
- Ø Administrative rezoning of enclave properties.



CITY OF ORMOND BEACH

City Manager • 22 S. Beach Street • Ormond Beach • Florida • 32174 • (386) 676-3200 • Fax (386) 676-3384

CITY MANAGER MEMORANDUM

To: The Honorable Mayor Partington and City Commissioners

Through: Joyce A. Shanahan, City Manager

From: Steven Spraker, Planning Director

Date: May 3, 2022

Subject: Future Land Use Amendment - RidgeHaven

Commission Goal: Governance - Other

Introduction

This is a request by Corey D. Brown, authorized representative on behalf of Snilloc Family LP Number One and RidgeHaven LLC, property owners, for a Small-Scale Comprehensive Plan Future Land Use Map amendment for a 19.19± acre property located within the original Interlocal Service Boundary Area adopted in 2014. The requested land use map amendment is from City “Low Intensity Commercial” (LIC) to City “Medium Density Residential” (MDR). The maximum gross density shall not exceed 8 units per acre and total units for all lands within the RidgeHaven area (including within the 84.26 acres to the north) shall not exceed 298 residential units. This application is only for the Future Land Use Map change. No site plan is proposed at this time.

Background

The 19.19-acre lands owned by RidgeHaven is within the original Interlocal Service Boundary Agreement (ISBA) area adopted in 2014. The current land use for the 19.19± acre area is “Low Intensity Commercial” and the zoning designation is B-8 (Commercial). The owners are seeking to develop the property as residential along with the 84.26-acre land area to the north within the Second Amended ISBA.

The second amendment to the North US 1 ISBA was approved by the City Commission to add the land associated with the RidgeHaven area (84.26 acres) and the 8 individually owned parcels (5.73 acres) not owned by RidgeHaven to the adopted Municipal Service Area on December 7, 2021. The Volusia County Council subsequently adopted the agreement on February 15, 2022. During the County Council presentation and discussion, the RidgeHaven representative and City staff committed to establishing a limitation of 298 dwelling units for the entire RidgeHaven area. The RidgeHaven area includes the 84.26 acres to the north of Addison Drive adjacent to Plantation Oaks Boulevard and the 19.19 acres to the south of Addison Drive. The land use amendment for the 84.26 acres is being processed separately as a City-initiated item and a companion to this amendment.

Discussion

The applicant seeks a Small-Scale Comprehensive Plan Land Use Map amendment for a 19.19± acre land area from the existing future land use designation of “Low Intensity Commercial” to “Medium Density Residential”. The application proposes a restriction to limit the maximum gross density not to exceed 8 units per acre and total units for all lands within the RidgeHaven area (including within the 84.26 acres to the north) shall not exceed 298 residential units.

A detailed analysis is included in the attached Staff Report submitted to the Planning Board on March 10, 2022. Based on the limitations, there will be no change in the maximum number of residential units of 153 from the proposed land use change. There is also a condition that the RidgeHaven subdivision cannot exceed 298 residential units within this land area of 19.19 and the other RidgeHaven land area of 84.26 acres. The non-residential entitlements are decreased by ±167,183 square feet.

Planning Board

The Planning Board reviewed the requested Comprehensive Plan amendments on March 10, 2022, and unanimously recommended approval (7-0). There were members of the public present but there were no individuals who spoke on the Comprehensive Plan amendment request. A copy of the Planning Board minutes is attached to this City Commission item.

Next steps after the Future Land Use amendment approval will include transmittal to Florida Department of Economic Opportunity, Volusia Growth Management Commission, and abutting local jurisdictions. The applicant plans to submit a site plan and zoning map amendment that would require a neighborhood meeting, Planning Board review and City Commission action.

Budget Impact

There is no City budget impact due to the requested land use amendment.

Citizen Impact

Under the theoretical maximum development scenario from existing City Low Intensity Commercial to City Medium Density Residential Land Use designations, there will be no change in the maximum number of residential units of 153. There is also a condition that the RidgeHaven subdivision cannot exceed 298 residential units within this land area of 19.19 and the other RidgeHaven land area of 84.26 acres. The non-residential entitlements are decreased by 167,183 square feet. The number of potential trips on North US Highway 1 and water and sewer usage will theoretically be reduced with the proposed City Future Land Use Map changes and policy limitations. Staff does not expect a citizen impact with the land use amendment. Any future development will have opportunities for public input.

Recommendation

It is recommended that the City Commission approve of a Future Land Use map

amendment for a 19.19± acre land area from the existing future land use designation of “Low Intensity Commercial” to “Medium Density Residential” with conditions for the RidgeHaven property. The Planning Board recommended approval of the proposed amendment with a 7-0 vote.

Attachments:

- 22-12 Future Land Use Amendment, Ridgehaven (P22-0049G) (PDF)
- Exhibit A Sketch and Legal RidgeHaven 19.19ac (PDF)
- Exhibit B RidgeHaven_FLUM_Amendment (PDF)
- Exhibit C Sketch and Legal for RidgeHaven 84.26ac (PDF)
- 03.10.2022 Planning Board RidgeHaven Staff Report (PDF)
- 3.10.22 Partial Planning Board Minutes (PDF)

REVIEWED BY:


Kelly McGuire, Finance Director 4/5/2022


Claire Whitley, Assistant City Manager 4/13/2022

APPROVED BY:


Joyce A. Shanahan, City Manager 4/14/2022

ORDINANCE NO. 2022-12

AN ORDINANCE AMENDING THE FUTURE LAND USE ELEMENT OF THE COMPREHENSIVE PLAN OF THE CITY OF ORMOND BEACH BY AMENDING THE FUTURE LAND USE MAP FOR REAL PROPERTY TOTALING 19.19± ACRES ASSOCIATED WITH THE RIDGEHAVEN PROPOSED SUBDIVISION FROM “LOW INTENSITY COMMERCIAL” (LIC) TO “MEDIUM DENSITY RESIDENTIAL” (MDR); PROVIDING FOR CONFLICT; AUTHORIZING TRANSMITTAL; AND SETTING FORTH AN EFFECTIVE DATE.

WHEREAS, RidgeHaven LLC, a Florida limited liability company, and Snilloc Family LP Number One, a Florida Limited Partnership (“Property Owners”), are the owners of real property totaling 19.19± acres, which is legally described and depicted in Exhibit “A” attached hereto and incorporated herein (“the Property”); and are also the owners of adjoining property described and depicted in Exhibit “C” attached hereto and incorporated herein, and

WHEREAS, the RidgeHaven proposed subdivision is the entire land area as legally described in both Exhibit “A” and Exhibit “C” (“Ridgehaven proposed subdivision”), and

WHEREAS, Corey D. Brown, Storch Law Firm, authorized representative of the Property Owners, has submitted an application to amend the City of Ormond Beach Comprehensive Land Use Plan (“*Comprehensive Plan*”) by changing the Future Land Use Map designation for the Property described and depicted in Exhibit A, from “Low Intensity Commercial” (LIC) to “Medium Density Residential” (MDR) as depicted on Exhibit “B” attached hereto and incorporated herein, and

WHEREAS, the Property Owners have knowingly, voluntarily and with sound mind, and without coercion or exaction by the City, consented to subject the Property to a density restriction of eight (8) units per gross acre, and have consented to the restriction that the total units shall not exceed 298 residential lots for the entire RidgeHaven proposed subdivision, and

WHEREAS, the City Commission approved Ordinance No. 90-36, as subsequently amended, adopting a *Comprehensive Plan* in accordance with Part II, Chapter 163, *Florida Statutes*, and

WHEREAS, the proposed *Comprehensive Plan* amendment involves a use of fifty (50) acres or less, and

WHEREAS, the proposed *Comprehensive Plan* amendment does not involve a text change to the goals, policies, and objectives of the City's *Comprehensive Plan*, but only proposes a land use change to the Future Land Use Map for small scale development activity, and

WHEREAS, the proposed *Comprehensive Plan* amendment is not located within an area of critical state concern, and

WHEREAS, the Planning Board, as the City's local planning agency, duly held a public hearing with due public notice and recommends approval of the proposed *Comprehensive Plan* Amendment, and

WHEREAS, the City Commission has conducted a public hearing on the proposed *Comprehensive Plan* amendment in accordance with Section 163.3184(11), *Florida Statutes*, and

WHEREAS, the City Commission finds that approval of the proposed *Comprehensive Plan* amendment will preserve the internal consistency of the City's *Comprehensive Plan* in accordance with Section 163.3177, *Florida Statutes*, and

WHEREAS, the proposed *Comprehensive Plan* amendment shall be submitted to the Volusia Growth Management Commission for a streamlined determination of consistency in accordance with Section 202.3 of the Charter of Volusia County, Florida, now therefore,

BE IT ENACTED BY THE PEOPLE OF THE CITY OF ORMOND BEACH, FLORIDA, THAT:

SECTION ONE. The foregoing recitals are incorporated herein by reference as the legislative findings of the Ormond Beach City Commission.

SECTION TWO. The RidgeHaven proposed subdivision is the entire land area as legally described in Exhibit “A” and Exhibit “C”.

SECTION THREE. The Future Land Use designation on the Future Land Use Map of the *Comprehensive Plan* of certain real property consisting of 19.19± acres, as legally described and depicted in Exhibit “A” attached hereto, is hereby changed from “Low Intensity Commercial” (LIC) to “Medium Density Residential” (MDR) as described and depicted in Exhibit "B".

SECTION FOUR. The Future Land Use Map incorporated into the Future Land Use Element of the *Comprehensive Plan* shall be annotated with the conditions that the Property shall have a density restriction of eight (8) units per gross acre within the 19.19± acres, and the total units in the entire RidgeHaven proposed subdivision shall not exceed 298 residential lots.

SECTION FIVE. In order to make the City of Ormond Beach Comprehensive Plan, as hereby amended, available to the public, a certified copy of the enacting Ordinance, as well as certified copies of the City of Ormond Beach Comprehensive Plan and the amendments thereto, shall be located in the Planning Department of the City of Ormond Beach. The Planning Director shall also make copies available to the public for a reasonable reproduction charge.

SECTION SIX. The Planning Director is directed to transmit a copy of this Ordinance, and the public hearing notice, within ten (10) business days of the date of approval hereof, to the Volusia County Growth Management Commission in accordance with section 202.3 of the Charter of Volusia County, Florida; to the Florida Department of Economic Opportunity, and to any other person requesting a copy.

SECTION SEVEN. All Ordinances or parts of Ordinances in conflict herewith are hereby repealed to the extent of such conflict.

SECTION EIGHT. Pursuant to Section 163.3187(5)(c), *Florida Statutes*, the effective date of this *Comprehensive Plan* amendment shall be 31 days after the adoption of this Ordinance (June 3, 2022); provided, however, that if a challenge is timely filed, this *Comprehensive Plan* amendment shall not become effective until the Department of Economic Opportunity or the Administration Commission, if applicable, issues a final order determining that the adopted small scale development amendment is in compliance with the Local Government Comprehensive Planning and Land Development Regulation Act. Pursuant to section 202.3 of the Charter of Volusia County, Florida, this *Comprehensive Plan* amendment will become final upon a certification of consistency from the Volusia Growth Management

Commission.

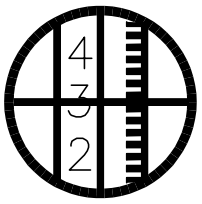
PASSED UPON at the first reading of the City Commission, this 19th day of April, 2022.

PASSED UPON at the second and final reading of the City Commission, this 3rd day of May, 2022.

BILL PARTINGTON
Mayor

ATTEST:

SUSAN CARROLL DAUDERIS
City Clerk



SLIGER & ASSOCIATES, INC.

PROFESSIONAL LAND SURVEYORS

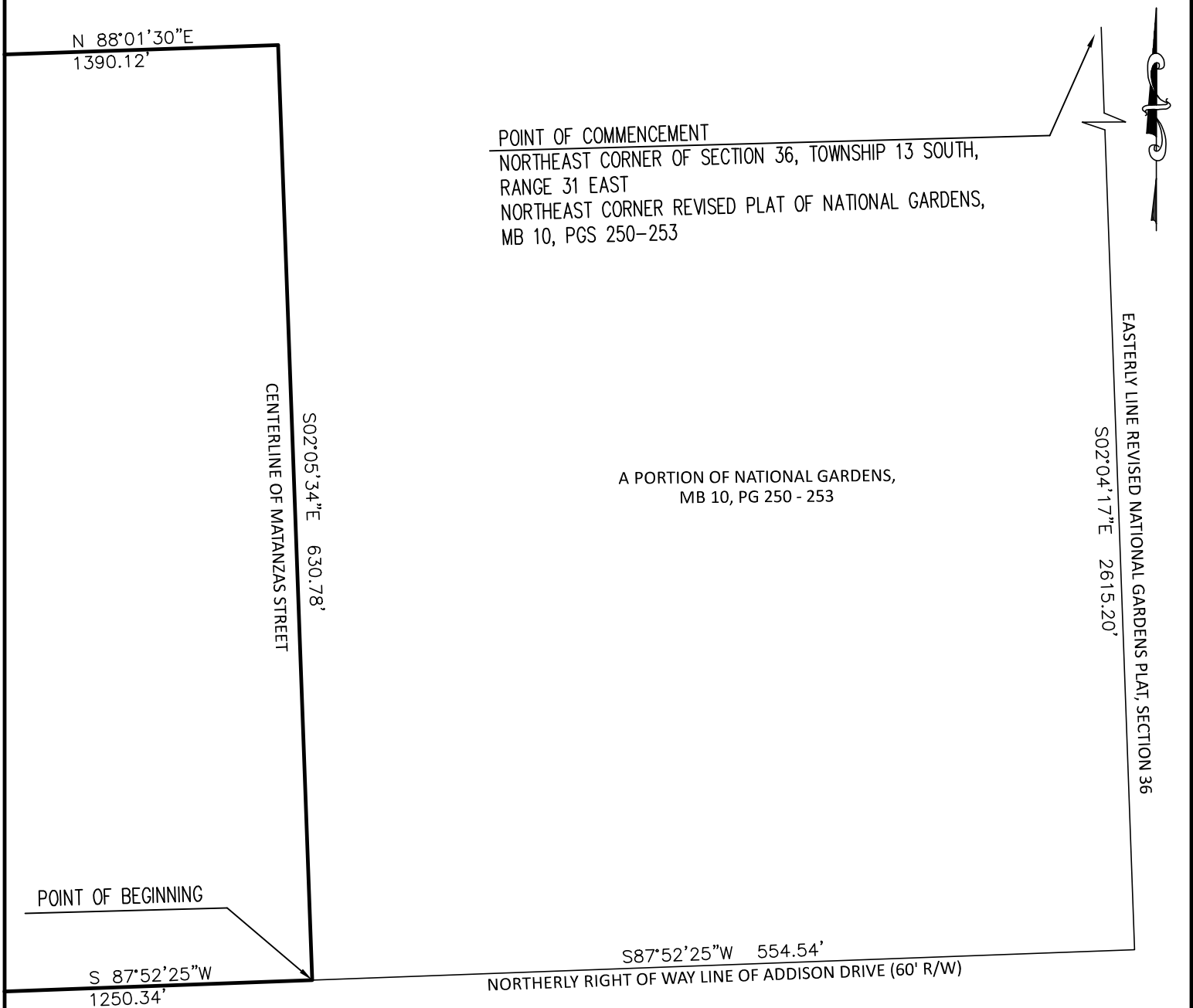
LICENSED BUSINESS CERTIFICATION NO. 3019

3921 NOVA ROAD
PORT ORANGE, FL. 32127
(386) 761-5385

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8.B.b

RECORDING INFORMATION



GRAPHIC SCALE



(IN FEET)
1 inch = 100 ft.

NATIONAL GARDENS:
FOR: RIDGE DEVELOPMENT GROUP
ORMOND BEACH ISBA - ADOPTED

SKETCH OF DESCRIPTION ONLY
THIS IS NOT A BOUNDARY SURVEY

JOB # 22-0231

SHEET 1 OF 5

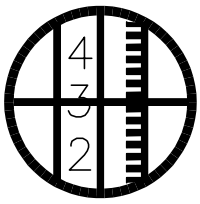
ABBREVIATIONS

W	WETLAND
R/W	RIGHT OF WAY
CL	CENTERLINE
Δ	CENTRAL ANGLE
R	RADIUS
L	ARC LENGTH
CB	CHORD BEARING
CE	CONSERVATION EASEMENT
PRC	POINT OF REVERSE CURVE
N.G.V.D.	NATIONAL GEODETIC VERTICAL DATUM
U.S.C. & G.S.	UNITED STATES COAST AND GEODETIC SURVEY
PNT	POINT OF NON-TANGENCY

LEGEND

●	IRON ROD WITH CAP
○	IRON PIPE
□	CONCRETE MONUMENT
■	PERMANENT REFERENCE MONUMENT
△	PERMANENT CONTROL POINT
(R)	RADIAL LINE
(NR)	NON-RADIAL LINE
○	EXISTING ELEVATION
□	PROPOSED ELEVATION

Packet Pg. 967



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PROFESSIONAL LAND SURVEYORS

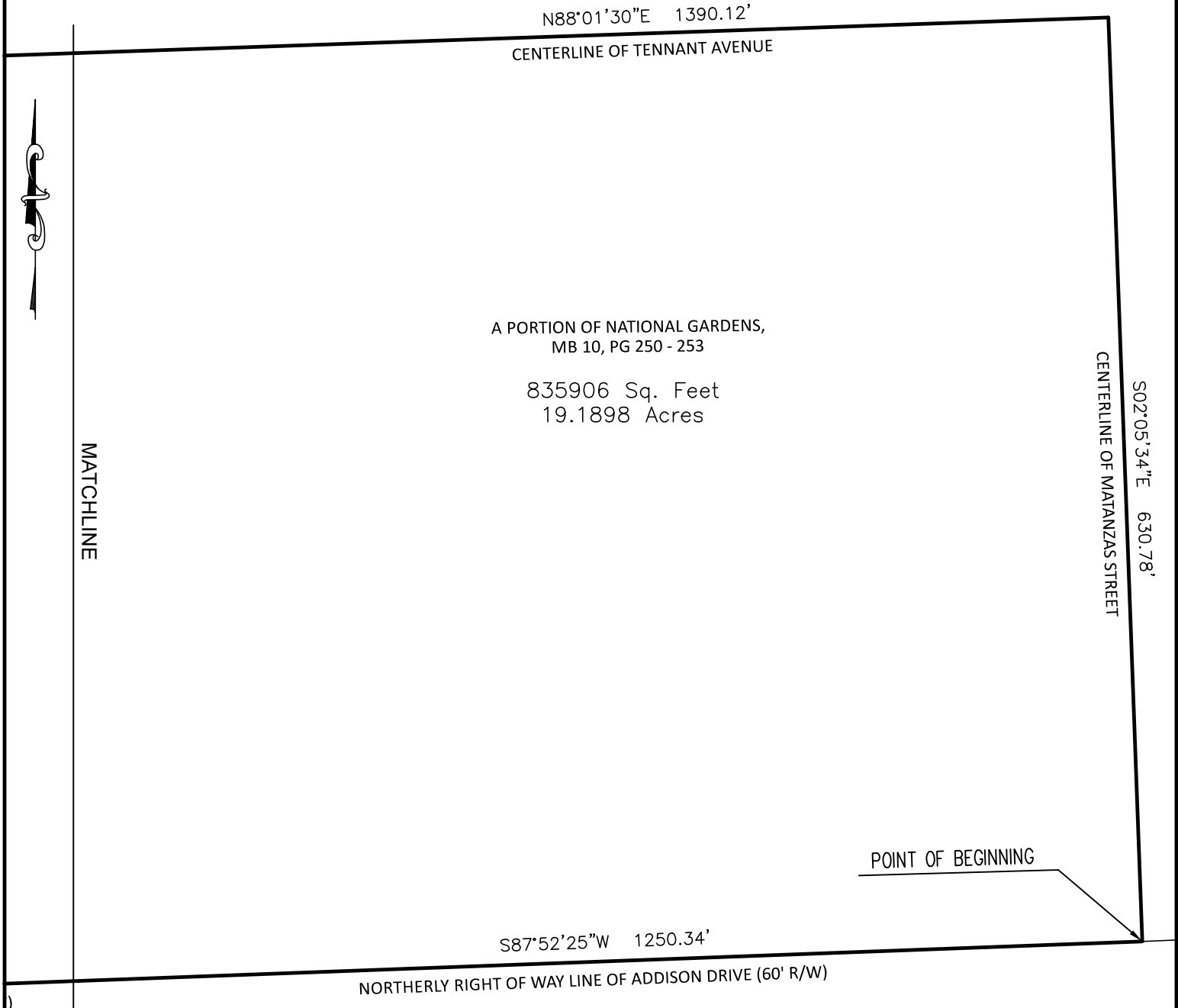
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RECORDING INFORMATION



GRAPHIC SCALE



(IN FEET)

1 inch = 100 ft.

NATIONAL GARDENS
FOR: RIDGE LAND HOLDINGS
ORMOND BEACH ISBA - ADOPTED

SKETCH OF DESCRIPTION ONLY
THIS IS NOT A BOUNDARY SURVEY

JOB # 22-0231

SHEET 2 OF 5

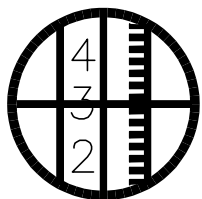
ABBREVIATIONS

W	WETLAND
R/W	RIGHT OF WAY
CL	CENTERLINE
Δ	CENTRAL ANGLE
R	RADIUS
L	ARC LENGTH
CB	CHORD BEARING
CE	CONSERVATION EASEMENT
PRC	POINT OF REVERSE CURVE
N.G.V.D.	NATIONAL GEODETIC VERTICAL DATUM
U.S.C. & G.S.	UNITED STATES COAST AND GEODETIC SURVEY
PNT	POINT OF NON-TANGENCY

LEGEND

●	IRON ROD WITH CAP
○	IRON PIPE
□	CONCRETE MONUMENT
■	PERMANENT REFERENCE MONUMENT
△	PERMANENT CONTROL POINT
(R)	RADIAL LINE
(NR)	NON-RADIAL LINE
○	EXISTING ELEVATION
□	PROPOSED ELEVATION

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PROFESSIONAL LAND SURVEYORS

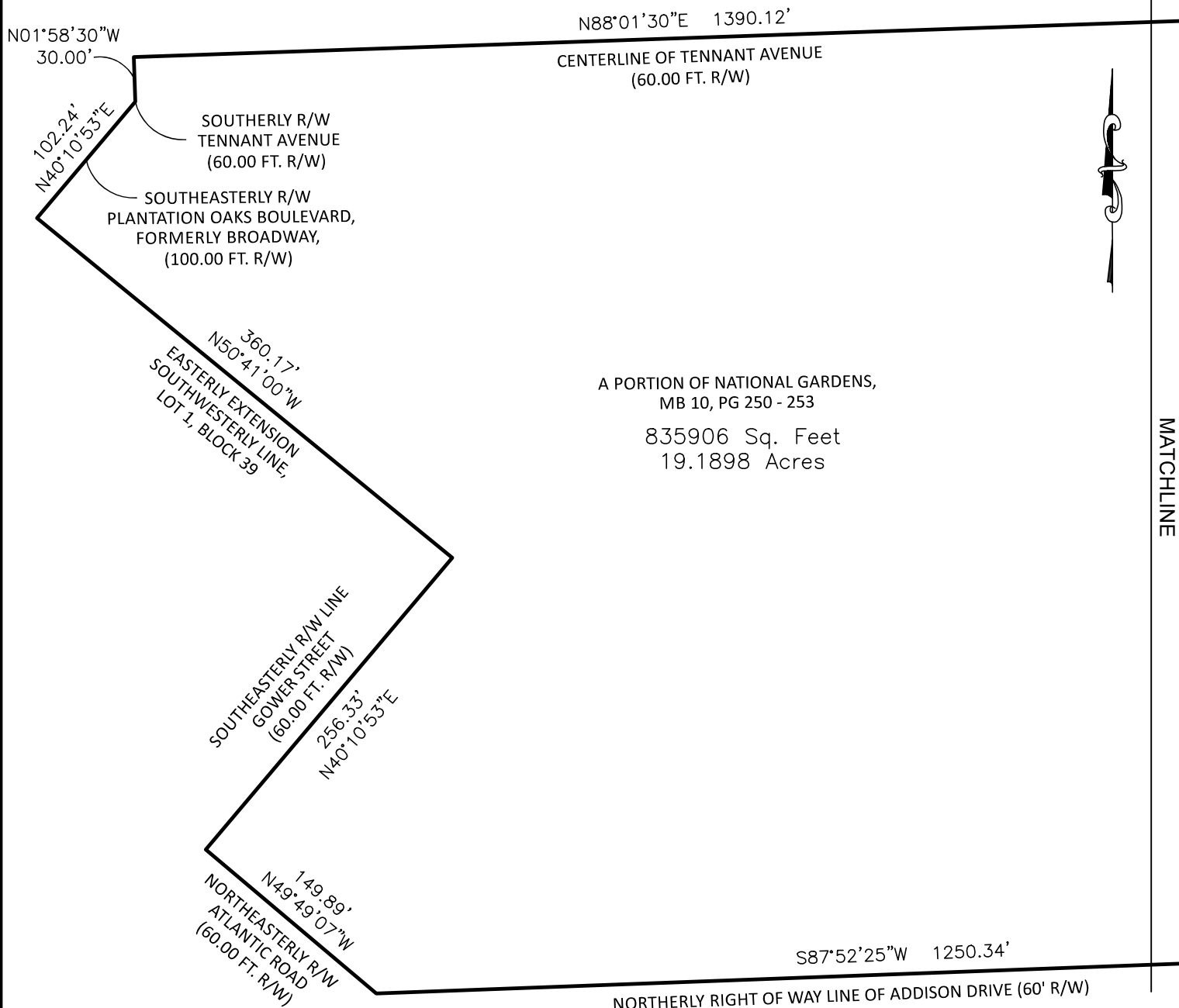
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JOB # 22-0231

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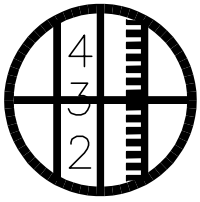
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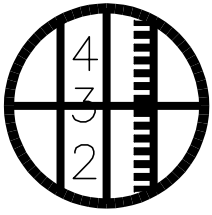
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Legal Description: (ORMOND BEACH ISBA – ADOPTED)

A PORTION OF NATIONAL GARDENS RECORDED IN MAP BOOK 10 PAGES 250 THROUGH 253, LYING SOUTHERLY OF THE CENTERLINE OF TENNANT AVENUE, WESTERLY OF THE CENTERLINE OF MATANZAS STREET, NORTHERLY OF ADDISON DRIVE, AND EASTERLY OF PLANTATION OAKS BOULEVARD, LOCATED IN SECTION 36, TOWNSHIP 13 SOUTH, RANGE 31 EAST. VOLUSIA COUNT FLORIDA. DESCRIBED AS FOLLOWS:

COMMENCE AT THE NORTHEAST CORNER OF SAID REVISED PLAT OF NATIONAL GARDENS, BEING ALSO THE NORTHEAST CORNER OF SECTION 36, TOWNSHIP 13 SOUTH, RANGE 31 EAST; THENCE RUN S02°04'17"E ALONG THE EASTERLY LINE OF SAID REVISED PLAT OF NATIONAL GARDENS AND THE EAST LINE OF SAID SECTION 36, A DISTANCE OF 2615.20 FEET TO THE NORTHERLY RIGHT OF WAY LINE OF ADDISON DRIVE, 60.00 FOOT WIDE RIGHT OF WAY PER SAID REVISED PLAT OF NATIONAL GARDENS; THENCE S87°52'25"W ALONG SAID NORTHERLY RIGHT OF WAY LINE, 554.54 FEET TO THE CENTERLINE OF MATANZAS STREET AND THE POINT OF BEGINNING; THENCE CONTINUE ALONG NORTH RIGHT OF WAY S87°52'25"W, A DISTANCE OF 1250.34 FEET TO THE NORTHEASTERLY RIGHT OF WAY LINE OF ATLANTIC ROAD, A 60.00 FOOT WIDE RIGHT OF WAY PER SAID REVISED PLAT OF NATIONAL GARDENS; THENCE N49°49'07"W ALONG SAID NORTHEASTERLY RIGHT OF WAY LINE, 149.89 FEET TO THE SOUTHEASTERLY RIGHT OF WAY LINE OF GOWER STREET, 60.00 FOOT WIDE RIGHT OF WAY PER SAID REVISED PLAT OF NATIONAL GARDENS; THENCE N40°10'53"E ALONG SAID SOUTHEASTERLY RIGHT OF WAY, 256.33 FEET TO THE EASTERLY EXTENSION OF THE SOUTHWESTERLY LINE OF LOT 1, BLOCK 39, SAID REVISED PLAT OF NATIONAL GARDENS; THENCE N50°41'00"W ALONG SAID SOUTHEASTERLY EXTENSION AND ALONG THE SOUTHWESTERLY LINE OF SAID LOT 1, A DISTANCE OF 360.17 FEET TO THE SOUTHEASTERLY RIGHT OF WAY LINE OF PLANTATION OAKS BOULEVARD, FORMERLY BROADWAY, 100.00 FOOT WIDE RIGHT OF WAY PER SAID REVISED PLAT OF NATIONAL GARDENS; THENCE N40°10'53"E ALONG SAID EASTERLY RIGHT OF WAY LINE, 102.24 FEET TO THE SOUTHERLY RIGHT OF WAY LINE OF TENNANT AVENUE, A 60.00 FOOT WIDE RIGHT OF WAY PER SAID REVISED PLAT OF NATIONAL GARDENS; THENCE N01°58'30"W, A DISTANCE OF 30.00 FEET TO THE CENTERLINE OF SAID TENNANT AVENUE; THENCE ALONG SAID CENTERLINE N88°01'30"E, A DISTANCE OF 1390.12' TO THE CENTERLINE OF MATANZAS STREET; THENCE ALONG SAID CENTERLINE S02°05'34"E, A DISTANCE OF 630.78' TO THE POINT OF BEGINNING.

AREA: 835906 Sq. Feet, 19.1898 Acres



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SURVEYORS NOTES:

1. DIMENSIONS ARE SHOWN IN FEET AND DECIMALS THEREOF.
2. BEARING STRUCTURE BASED ON NAD 83, FLORIDA STATE PLANE, EAST ZONE, U.S. SURVEY FOOT, WITH THE BEARING ON THE EAST LINE OF REVISED PLAT NATIONAL GARDENS, EAST LINE SECTION 36 BEING S02°04'17"E.
3. NOT VALID WITHOUT THE SIGNATURE AND ORIGINAL RAISED SEAL OR AN ELECTRONIC SIGNATURE OF A FLORIDA LICENSED SURVEYOR AND MAPPER.
4. THE SUBJECT PARCEL HAS DIRECT PHYSICAL ACCESS TO PLANTATION OAKS BLVD., A PUBLIC STREET OR HIGHWAY.

REFERENCE: ORMOND BEACH ISBA – ADOPTED

THIS PLAT OF SURVEY IS CERTIFIED TO AND PREPARED FOR THE SOLE AND EXCLUSIVE BENEFIT OF THE ENTITIES AND/OR INDIVIDUALS LISTED BELOW, ON THE MOST CURRENT DATE, AND SHALL NOT BE RELIED UPON BY ANY OTHER ENTITY OR INDIVIDUAL WHOMSOEVER.

TYPE OF SURVEY	CERTIFIED TO	SURVEY DATE	JOB NUMBER
BOUNDARY	FLAGLER COUNTY COUNTY FLORIDA	02-10-2022	22-0231
	RIDGE DEVELOPMENT GROUP		

SHEET 5 OF 5

VALID WITH SIGNATURE & EMBOSSED SEAL OR
DIGITAL SIGNATURE OR DIGITAL SEAL ON DIGITAL VERSIONS

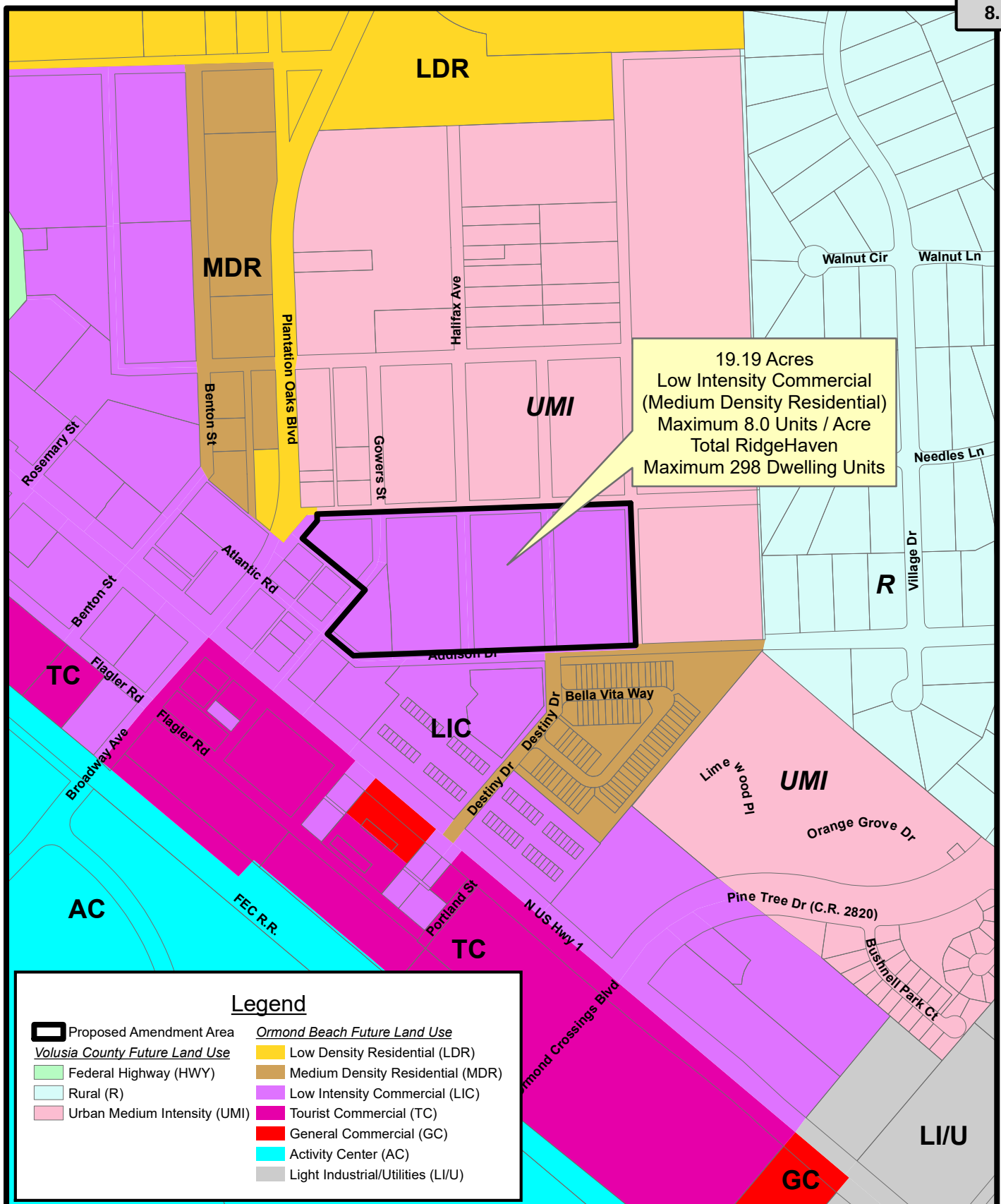
RIDGE DEVELOPMENT GROUP

SKETCH OF DESCRIPTION	DATE	JOB NO.	P.C.	DRW.	CHECKED BY
BOUNDARY SURVEY	02-10-2022	22-0231		TJ	J BARNES
TOPOGRAPHIC SURVEY					
FOUNDATION LOCATED					
FINAL IMPROVEMENTS					
RECERTIFICATION					
PROPOSED HOUSE LOCATION					

I HEREBY CERTIFY THAT THIS PLAT MEETS THE STANDARDS OF PRACTICE SET FORTH BY THE FLORIDA BOARD OF PROFESSIONAL SURVEYORS AND MAPPERS IN CHAPTER 5J-17.05, FLORIDA ADMINISTRATIVE CODE, PURSUANT TO SECTION 472.027, FLORIDA STATUTES.

J.E. ZAPERT, P.L.S. NO. 4046
JEFF W. BARNES P.S.M. NO. 5576
C.O. VAN KLEECK JR. P.S.M. NO. 6149
MICHAEL S. MURPHY

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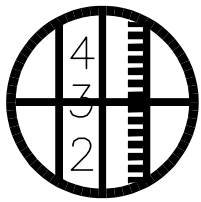


RIDGEHAVEN WITHIN NORTH US 1 ORIGINAL ISBA EXISTING AND PROPOSED FUTURE LAND USE MAP

Prepared By: The City of Ormond Beach
G.I.S. Department - February 18, 2022



NTS



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PROFESSIONAL LAND SURVEYORS

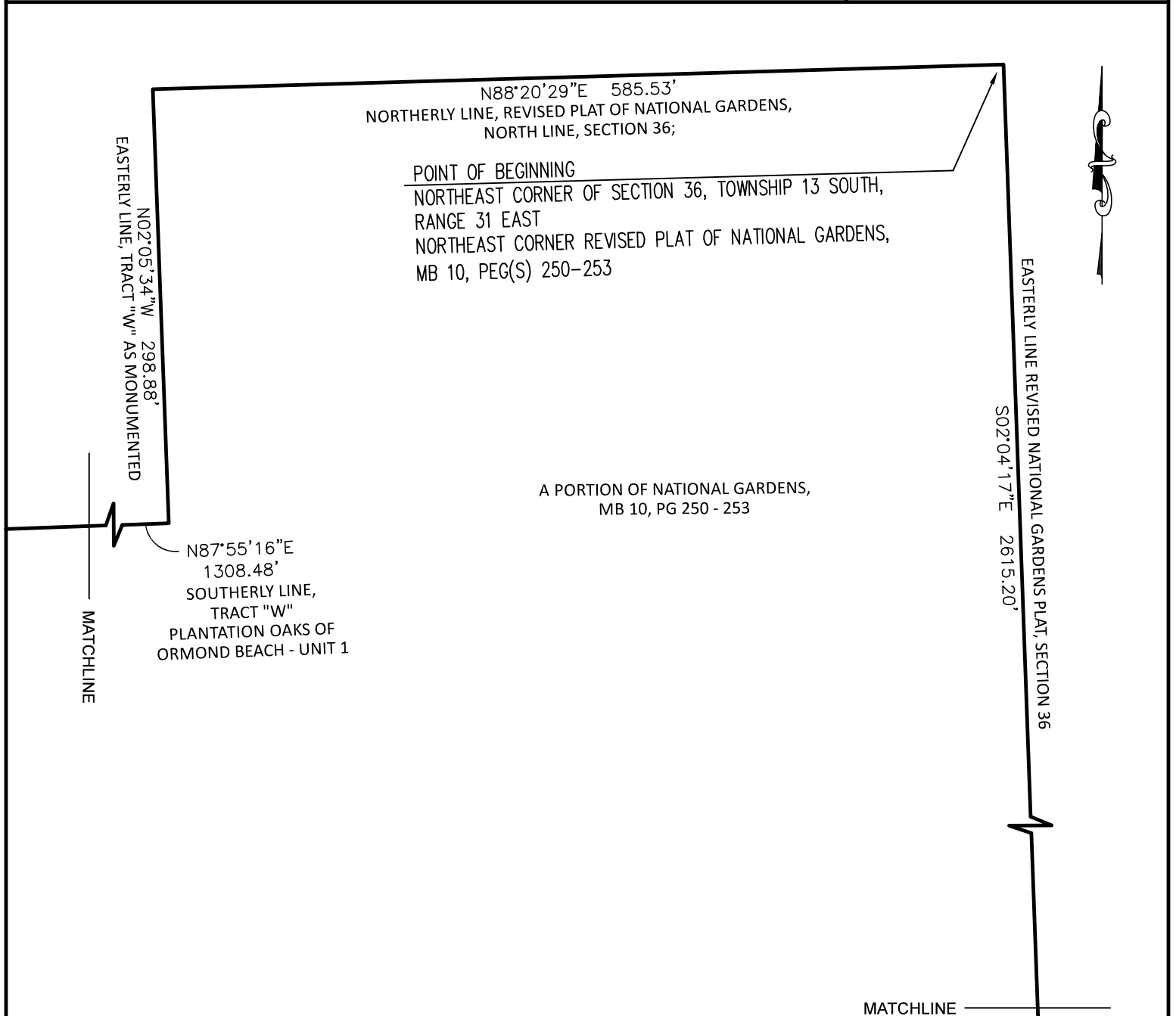
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GRAPHIC SCALE



(IN FEET)

1 inch = 100 ft.

NATIONAL GARDENS
FOR: RIDGE LAND HOLDINGS
ORMOND BEACH ISBA - 2ND AMENDMENT

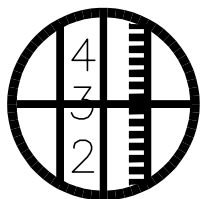
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ABBREVIATIONS

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RECORDING INFORMATION

TENNANT AVENUE
(60.00 FT. RW)

S88°01'30"W
1390.12'

MATCHLINE

EASTERLY LINE REVISED NATIONAL GARDENS PLAT, SECTION 36

S02°04'17"E 2615.20'

A PORTION OF NATIONAL GARDENS,
MB 10, PG 250 - 253

N02°05'34"W 630.78'

CENTERLINE OF MAJANZAS STREET
(60.00 FT. R/W)

S87°52'25"W 554.54'

NORTHERLY RIGHT OF WAY LINE OF ADDISON DRIVE (60.00 FT. R/W)

GRAPHIC SCALE

0 100 200 300



(IN FEET)

1 inch = 100 ft.

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ORMOND BEACH ISBA - 2ND AMENDMENT

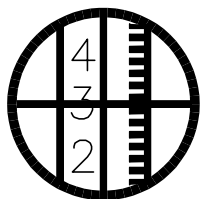
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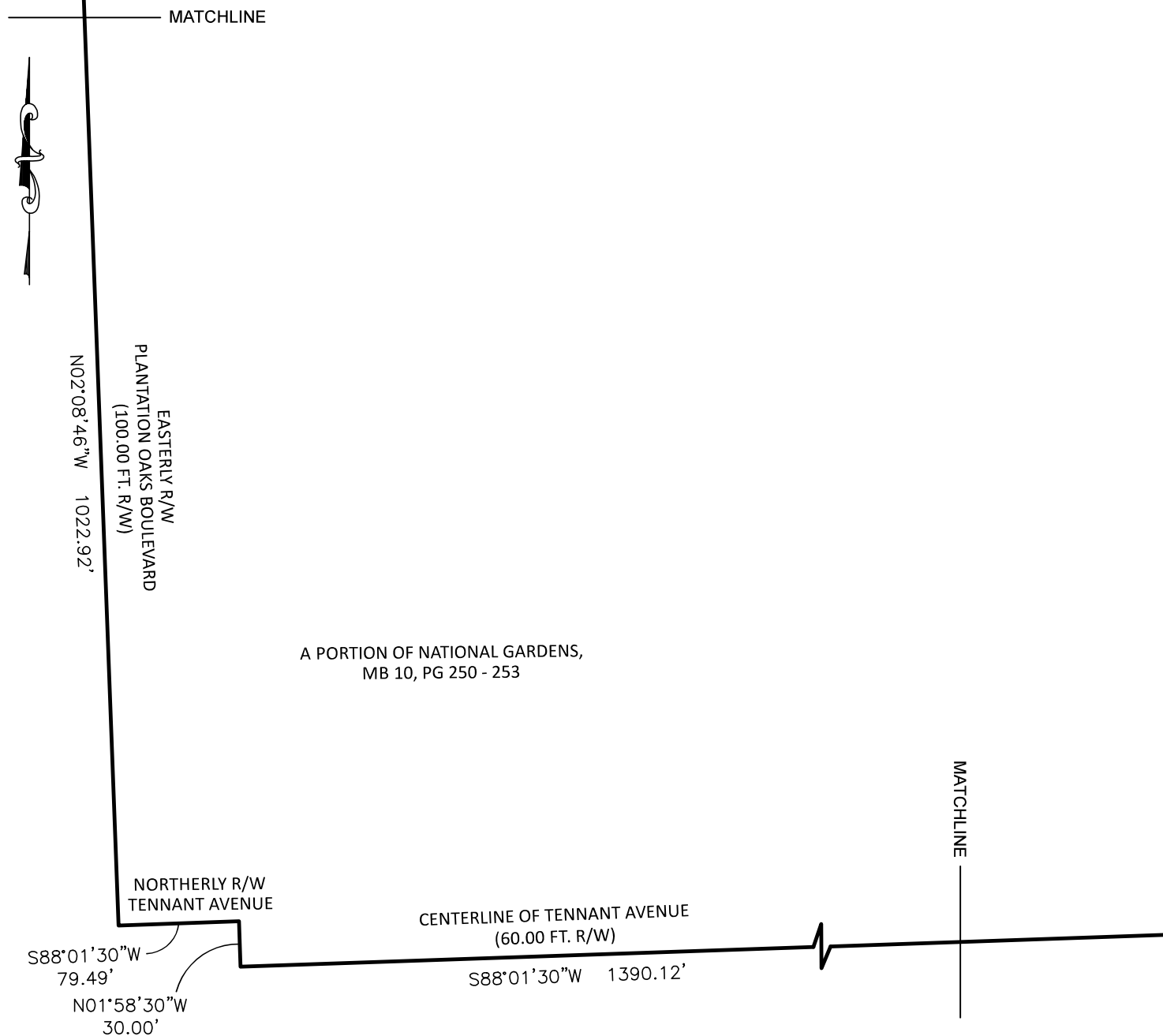
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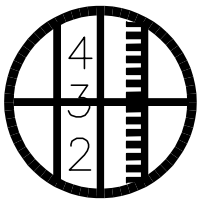
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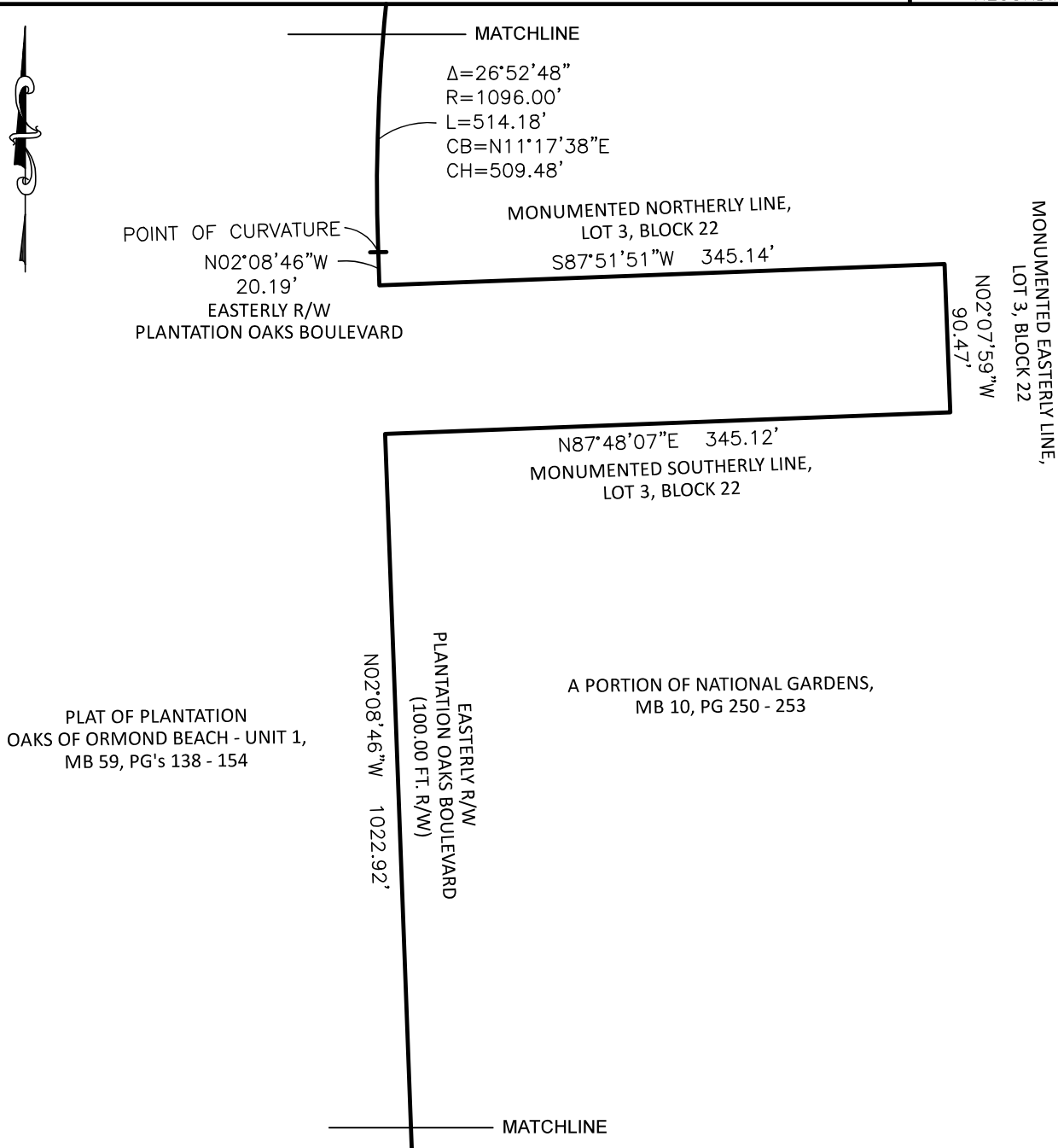
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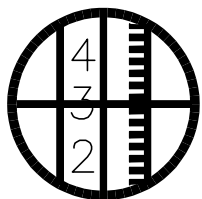
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RECORDING INFORMATION



N24°44'02"E
EAST 100.00 FT. R/W
PLANTATION OAKS
BOULEVARD
(100.00 FT. R/W)

POINT OF TANGENCY

SOUTHERLY LINE, TRACT "W"
PLANTATION OAKS OF ORMOND BEACH - UNIT 1
N87°55'16"E 1308.48'

$\Delta = 26^\circ 52' 48''$
R=1096.00'
L=514.18'
CB=N11°17'38"E
CH=509.48'

MATCHLINE

$\Delta = 26^\circ 52' 48''$
R=1096.00'
L=514.18'

GRAPHIC SCALE



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SHEET 5 OF 9

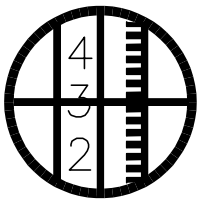
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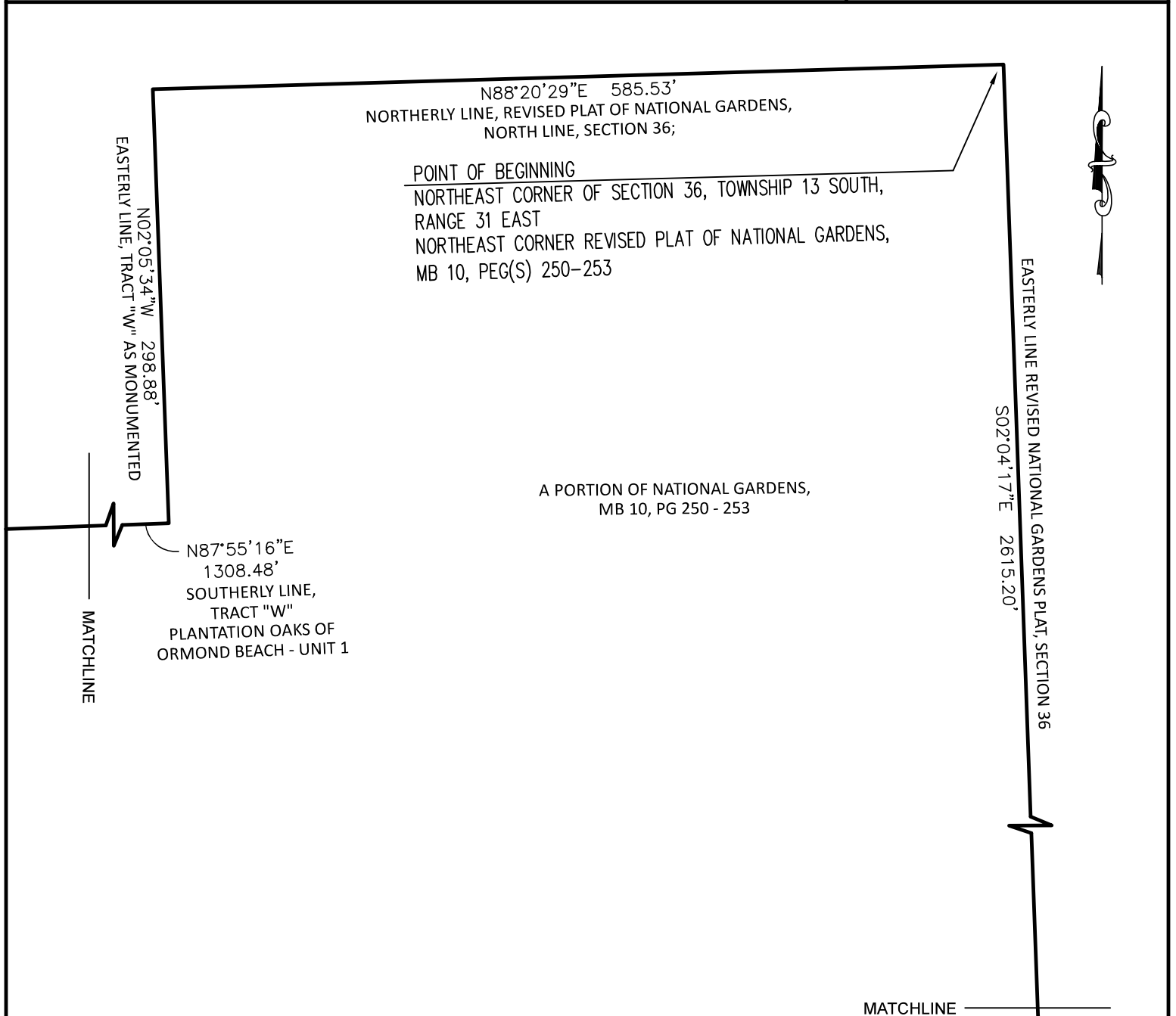
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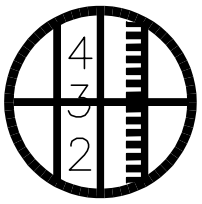
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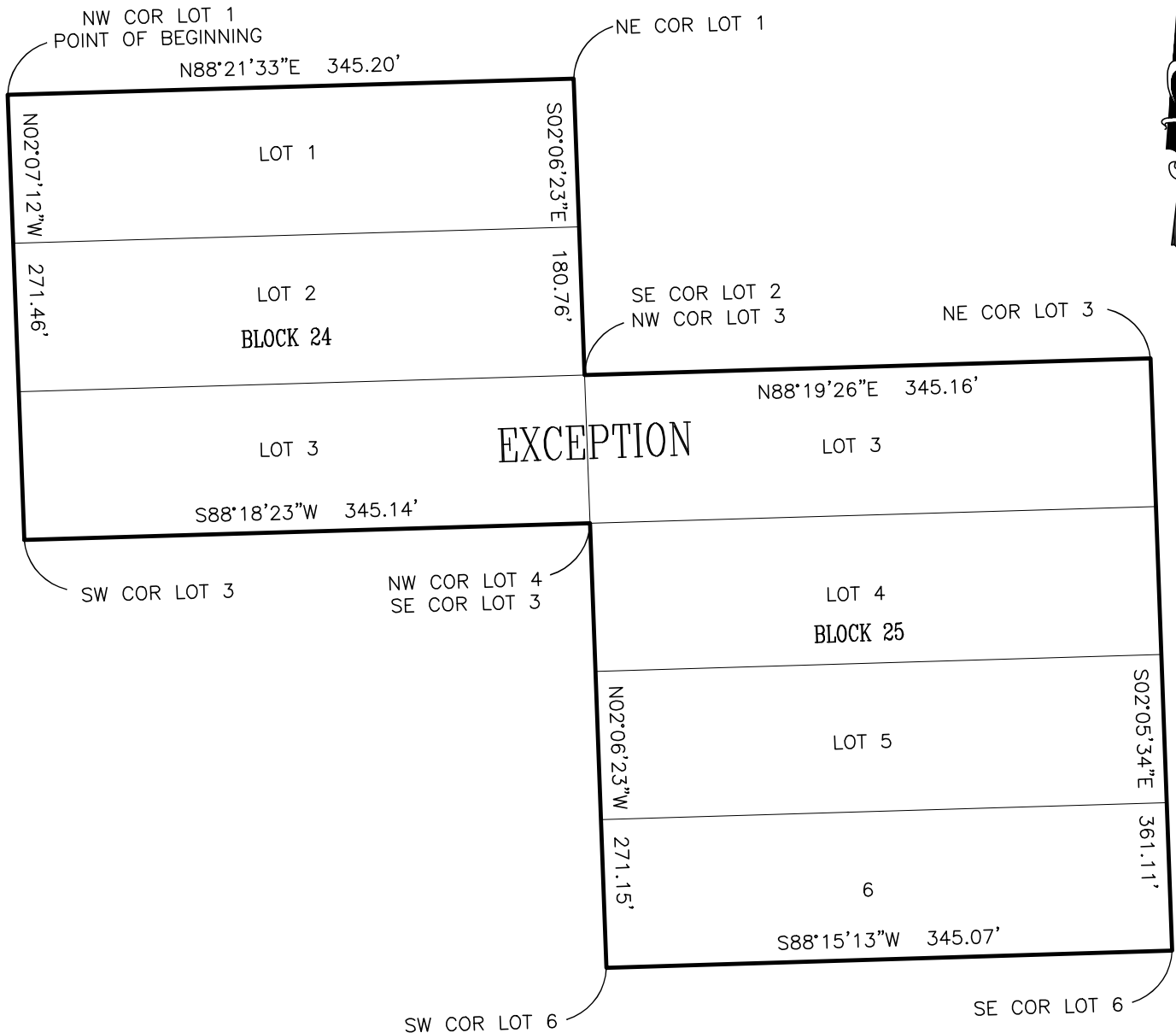
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SHEET 7 OF 9

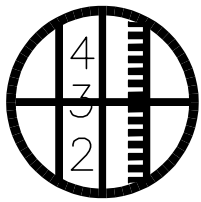
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RECORDING INFORMATION

Legal Description: (ORMOND BEACH ISBA – 2ND AMENDMENT)

A PORTION OF NATIONAL GARDENS RECORDED IN MAP BOOK 10 PAGES 250 THROUGH 253, LYING SOUTHERLY OF THE NORTH LINE OF SECTION 36, TOWNSHIP 13 EAST, RANGE 31 SOUTH, WESTERLY OF THE EAST LINE OF SAID SECTION 36, NORTH OF ADDISON DRIVE, AND EASTERLY OF PLANTATION OAKS BOULEVARD. DESCRIBED AS FOLLOWS:

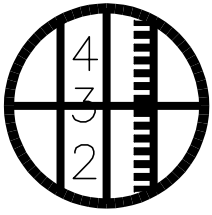
BEGIN AT THE NORTHEAST CORNER OF SAID REVISED PLAT OF NATIONAL GARDENS, BEING ALSO THE NORTHEAST CORNER OF SECTION 36, TOWNSHIP 13 SOUTH, RANGE 31 EAST; THENCE RUN S02°04'17"E ALONG THE EASTERLY LINE OF SAID REVISED PLAT OF NATIONAL GARDENS AND THE EAST LINE OF SAID SECTION 36, A DISTANCE OF 2615.20 FEET TO THE NORTHERLY RIGHT OF WAY LINE OF ADDISON DRIVE, 60.00 FOOT WIDE RIGHT OF WAY PER SAID REVISED PLAT OF NATIONAL GARDENS; THENCE S87°52'25"W ALONG SAID NORTHERLY RIGHT OF WAY LINE, 554.54 FEET TO THE CENTERLINE OF MATANZAS STREET; THENCE ALONG SAID CENTERLINE N02°05'34"W, A DISTANCE OF 630.78 FEET TO THE CENTERLINE OF TENNANT AVE; THENCE ALONG SAID CENTERLINE S88°01'30"W, A DISTANCE OF 1390.12 FEET; THENCE N01°58'30"W, 30.00 FEET TO THE NORTHERLY RIGHT OF WAY LINE OF SAID TENNANT AVENUE; THENCE S88°01'30"W ALONG SAID NORTHERLY RIGHT OF WAY LINE, 79.49 FEET TO THE EASTERLY RIGHT OF WAY LINE OF PLANTATION OAKS BOULEVARD, A 100.00 FOOT RIGHT OF WAY AS SHOWN ON THE PLAT OF PLANTATION OAKS OF ORMOND BEACH – UNIT 1, AS RECORDED IN MAP BOOK 59, PAGES 138 THROUGH 154, INCLUSIVE, SAID PUBLIC RECORDS; THENCE N02°08'46"W ALONG SAID EASTERLY RIGHT OF WAY LINE, 1022.92 FEET TO THE MONUMENTED SOUTHERLY LINE OF LOT 3, BLOCK 22, SAID REVISED PLAT OF NATIONAL GARDENS; THENCE N87°48'07"E ALONG SAID SOUTHERLY LINE, 345.12 FEET TO THE MONUMENTED SOUTHEAST CORNER OF SAID LOT 3; THENCE N02°07'59"W ALONG THE EASTERLY LINE OF SAID LOT 3, A DISTANCE OF 90.47 FEET TO THE MONUMENTED NORTHEAST CORNER OF SAID LOT 3; THENCE S87°51'51"W ALONG THE MONUMENTED NORTHERLY LINE OF SAID LOT 3, A DISTANCE OF 345.14 FEET TO THE EASTERLY RIGHT OF WAY LINE OF SAID PLANTATION OAKS BOULEVARD; THENCE N02°08'46"W ALONG SAID EASTERLY RIGHT OF WAY LINE, 20.19 FEET TO THE BEGINNING OF A TANGENT CURVE, CONCAVE EASTERLY, HAVING A RADIUS OF 1096.00 FEET, A CENTRAL ANGLE OF 26°52'48" AND A CHORD BEARING N11°17'38"E; THENCE NORTHERLY ALONG SAID EASTERLY RIGHT OF WAY LINE AND ALONG THE ARC OF SAID CURVE, 514.18 FEET TO THE POINT OF TANGENCY; THENCE N24°44'02"E ALONG SAID EASTERLY RIGHT OF WAY LINE, 31.37 FEET TO THE SOUTHERLY LINE OF TRACT "W", SAID PLANTATION OAKS OF ORMOND BEACH – UNIT 1; THENCE N87°55'16"E ALONG SAID SOUTHERLY LINE, 1308.48 FEET TO THE EASTERLY LINE OF SAID TRACT "W" AS NOW MONUMENTED; THENCE N02°05'34"W ALONG SAID MONUMENTED EASTERLY LINE, 298.88 FEET TO THE NORTHERLY LINE OF SAID REVISED PLAT OF NATIONAL GARDENS AND THE NORTH LINE OF SAID SECTION 36; THENCE N88°20'29"E ALONG SAID NORTHERLY LINE, 585.53 FEET TO THE POINT OF BEGINNING.

LESS AND EXCEPT:

LOTS 1, 2 AND 3, BLOCK 24 AND LOTS 3, 4, 5 AND 6, BLOCK 25, SAID REVISED PLAT OF NATIONAL GARDENS, MORE PARTICULARLY DESCRIBED AS THE FOLLOWING:

BEGIN AT THE NORTHWEST CORNER OF SAID LOT 1, BLOCK 24; THENCE RUN N88°21'33"E, 345.20 FEET TO THE NORTHEAST CORNER OF SAID LOT 1; THENCE S02°06'23"E, 180.76 FEET TO THE SOUTHEAST CORNER OF SAID LOT 2, BLOCK 24, BEING THE NORTHWEST CORNER OF SAID LOT 3, BLOCK 25; THENCE N88°19'26"E, 345.16 FEET TO THE NORTHEAST CORNER OF SAID LOT 3; THENCE S02°05'34"E, 361.11 FEET TO THE SOUTHEAST CORNER OF SAID LOT 6, BLOCK 25; THENCE S88°15'13"W, 345.07 FEET TO THE SOUTHWEST CORNER OF SAID LOT 6; THENCE N02°06'23"W, 271.15 FEET TO THE NORTHWEST CORNER OF SAID LOT 4, BLOCK 25, BEING THE SOUTHEAST CORNER OF SAID LOT 3, BLOCK 24; THENCE S88°18'23"W, 345.14 FEET TO THE SOUTHWEST CORNER OF SAID LOT 3; THENCE N02°07'12"W, 271.46 FEET TO THE POINT OF BEGINNING.

AREA: 3888705 Sq. Feet, 89.2724 Acres



SLIGER & ASSOCIATES, INC.

PROFESSIONAL LAND SURVEYORS

LICENSED BUSINESS CERTIFICATION NO. 3019

3921 NOVA ROAD

PORT ORANGE, FL. 32127

(386) 761-5385

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www.sligerassociates.com

SURVEYORS NOTES:

1. DIMENSIONS ARE SHOWN IN FEET AND DECIMALS THEREOF.
2. BEARING STRUCTURE BASED ON NAD 83, FLORIDA STATE PLANE, EAST ZONE, U.S. SURVEY FOOT, WITH THE BEARING ON THE EAST LINE OF REVISED PLAT NATIONAL GARDENS, EAST LINE SECTION 36 BEING S02°04'17"E.
3. NOT VALID WITHOUT THE SIGNATURE AND ORIGINAL RAISED SEAL OR AN ELECTRONIC SIGNATURE OF A FLORIDA LICENSED SURVEYOR AND MAPPER.
4. THE SUBJECT PARCEL HAS DIRECT PHYSICAL ACCESS TO PLANTATION OAKS BLVD., A PUBLIC STREET OR HIGHWAY.

REFERENCE: ORMOND BEACH ISBA – 2ND AMENDMENT

THIS PLAT OF SURVEY IS CERTIFIED TO AND PREPARED FOR THE SOLE AND EXCLUSIVE BENEFIT OF THE ENTITIES AND/OR INDIVIDUALS LISTED BELOW, ON THE MOST CURRENT DATE, AND SHALL NOT BE RELIED UPON BY ANY OTHER ENTITY OR INDIVIDUAL WHOMSOEVER.

TYPE OF SURVEY	CERTIFIED TO	SURVEY DATE	JOB NUMBER
BOUNDARY	FLAGLER COUNTY ABSTRACT TITLE	02-10-2022	22-0231
	RIDGE DEVELOPMENT GROUP		

SHEET 9 OF 9

VALID WITH SIGNATURE & EMBOSSED SEAL OR
DIGITAL SIGNATURE OR DIGITAL SEAL ON DIGITAL VERSIONS

RIDGE DEVELOPMENT GROUP

SKETCH OF DESCRIPTION	DATE	JOB NO.	P.C.	DRW.	CHECKED BY
BOUNDARY SURVEY	02-10-2022	22-0231		TJ	J BARNES
TOPOGRAPHIC SURVEY					
FOUNDATION LOCATED					
FINAL IMPROVEMENTS					
RECERTIFICATION					
PROPOSED HOUSE LOCATION					

I HEREBY CERTIFY THAT THIS PLAT MEETS THE STANDARDS OF PRACTICE SET FORTH BY THE FLORIDA BOARD OF PROFESSIONAL SURVEYORS AND MAPPERS IN CHAPTER 5J-17.05, FLORIDA ADMINISTRATIVE CODE, PURSUANT TO SECTION 472.027, FLORIDA STATUTES.

J.E. ZAPERT, P.L.S. NO. 4046
JEFF W. BARNES P.S.M. NO. 5576
C.O. VAN KLEECK JR. P.S.M. NO. 6149
MICHAEL S. MURPHY

Packet Pg. 981

STAFF REPORT

City of Ormond Beach Department of Planning

DATE: March 10, 2022

SUBJECT: RidgeHaven Original ISBA (19.19-acre area), Small Scale Future Land Use Map Amendment

APPLICANT: Snilloc Family LP Number One and RidgeHaven LLC

NUMBER: LUPA 2022-020

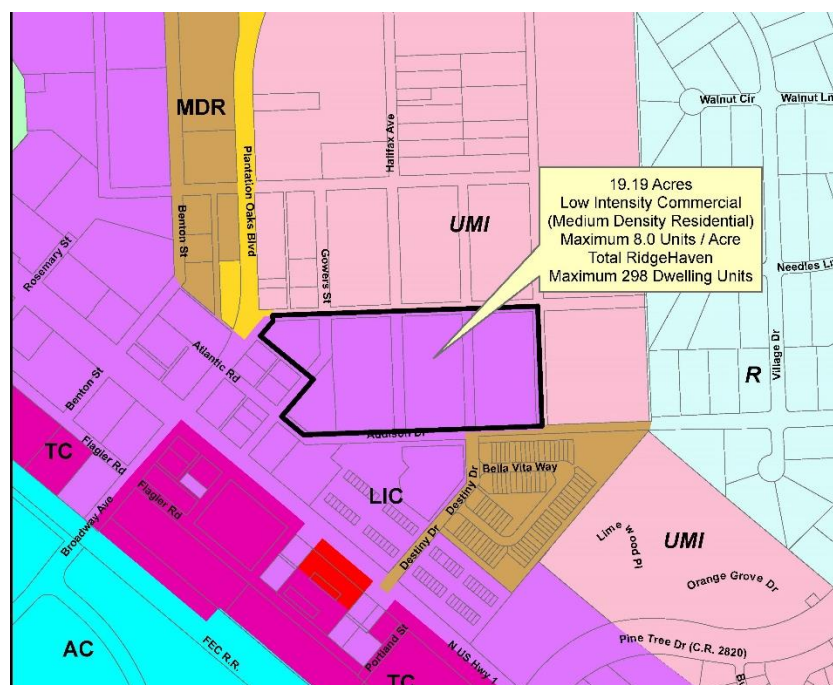
PROJECT PLANNER: Becky Weedo, AICP, CFM, Senior Planner

INTRODUCTION:

This is a request by Corey D. Brown, authorized representative on behalf of Snilloc Family LP Number One and RidgeHaven LLC, property owners, for a Small-Scale Comprehensive Plan Future Land Use Map amendment for a 19.19± acre property located within the original Interlocal Service Boundary Area adopted in 2014. The requested land use map amendment is from City “Low Intensity Commercial” (LIC) to City “Medium Density Residential” (MDR). The maximum gross density shall not exceed 8 units per acre and total units for all lands within the RidgeHaven area (including within the 84.26 acres to the north) shall not exceed 298 residential units.

The subject property is shown below in Exhibit 1:

EXHIBIT 1 – Location Map of the 19.19-acre Future Land Use Amendment Area



BACKGROUND:

The 19.19-acre lands owned by RidgeHaven is within the original Interlocal Service Boundary Agreement (ISBA) area adopted in 2014. The current land use for the 19.19± acre area is “Low Intensity Commercial” and the zoning designation is B-8 (Commercial). The owners would like to consider developing the property as residential along with the 84.26-acre land area to the north within the Second Amended ISBA, which is being processed concurrently.

The second amendment to the North US 1 ISBA was approved to add the land associated with the RidgeHaven area (84.26 acres) and the 8 individually owned parcels (5.73 acres) not owned by RidgeHaven to the adopted Municipal Service Area. On October 14, 2021, the second amendment to the North US 1 ISBA was presented to the Planning Board. The Planning Board unanimously recommended approval.

On December 7, 2021, the City Commission adopted the second amendment to the North US 1 ISBA. The Volusia County Council subsequently adopted the agreement on February 15, 2022. During the County Council presentation and discussion, the RidgeHaven representative and city staff committed to establishing a limitation of 298 dwelling units for the entire RidgeHaven area. The RidgeHaven area includes the 84.26 acres to the north of Addison Drive adjacent to Plantation Oaks Boulevard and the 19.19 acres to the south of Addison Drive. The land use amendment for the 84.26 acres is being processed separately as a city-initiated item and a companion to this amendment. The entire RidgeHaven land area is scheduled for annexation on March 1, 2022 (1st reading) and March 22, 2022 (2nd reading).

Pursuant to Section 163.3187(3) Florida Statutes, prior to July 1, 2021, amendments were processed as “small scale” if: the acreage was 10 or less, limited to Future Land Use Map changes for site specific activities, property was not in an Area of Critical State Concern, and change was consistent with the other comprehensive plan elements. HB 487 was signed into law by Governor DeSantis which increased the acreage limit of amendments classified as small-scale from 10 or less to 50 acres or less. The law became effective on July 1, 2021. For this reason, this 19.19-acre area is being processed as a small-scale amendment less than 50 acres.

The proposed small-scale land use amendment tentative schedule of the subject property is as follows:

Action/Board	Date
Planning Board	March 10, 2022
City Commission 1 st Reading	April 19, 2022
City Commission 2 nd Reading	May 3, 2022
Transmit to Volusia County Growth Management Commission and adjoining jurisdictions	May 10, 2022
Transmit Courtesy Copy to Florida Department of Economic Opportunity (DEO)	May 10, 2022

ANALYSIS:

The applicant seeks a Small-Scale Comprehensive Plan Land Use Map amendment for a 19.19+ acre land area from the existing future land use designation of “Low Intensity Commercial” to “Medium Density Residential” (see Attachment 1). The application proposes a restriction to limit the maximum gross density not to exceed 8 units per acre and total units for all lands within the RidgeHaven area (including within the 84.26 acres to the north) shall not exceed 298 residential units.

The existing “Low Intensity Commercial” land use category states the following:

A multi-use land use category to depict those areas of the city that are now developed, or appropriate to be developed, for retail, office and professional services, residential, and restaurants consistent with the surrounding uses, transportation facilities and natural resource characteristics of such areas. For projects that propose a mixture of residential and non-residential uses, the minimum FAR should be 0.2.

Density: Per Table 4 within the Original ISBA area, maximum of 8 units per acre.

Maximum FAR: Per Table 4 within the Original ISBA area, maximum 0.50 FAR.

The proposed land use of “Medium Density Residential” states the following:

Purpose: To allow a variety of highly aesthetic dwelling units, encouraging the establishment of recreation areas and open space and discouraging look-alike rows of dwellings. MDR also allows the development of relatively low density duplex, townhouse and multi-family projects which emphasize open space and maintain a low profile, thus maximizing the compatibility with single-family areas. Institutional uses may be permitted in accordance with the maximum floor area ratio.

Density: Minimum 5-12 units per acre except in the Downtown Community Redevelopment Area where 5 - 15 units shall be allowed.

Proposed density limitation is maximum of 8 units per acre and total units for all lands within the RidgeHaven area (including within the 84.26 acres to the north) shall not exceed 298 residential units.

Maximum FAR: 0.3 (Institutional Uses).

Policy 2.5.2. of the Future Land Use Element of the Comprehensive Plan provides the criteria listed below to review land use amendments:

1. Whether the future land use amendment is consistent with the Comprehensive Plan Goals, Objectives and Policies.

The proposed FLU amendment is consistent with the Goals, Objectives, and Policies of the Comprehensive Plan, including but not limited to:

Goal 1 of the Future Land Use Element currently states,

FUTURE DEVELOPMENT AND REDEVELOPMENT ACTIVITIES SHOULD BE DIRECTED IN APPROPRIATE AREAS AS DEPICTED ON THE FUTURE LAND USE MAP TO MEET THE LAND USE NEEDS OF THE ANTICIPATED POPULATION, IN A MANNER CONSISTENT WITH SOUND PLANNING PRINCIPLES, THE GOALS, OBJECTIVES AND POLICIES CONTAINED HEREIN, AND THE DESIRED COMMUNITY CHARACTER.

THE FUTURE LAND USE ELEMENT SHOULD ALLOW LIMITED COMMERCIAL EXPANSION, PROMOTE INDUSTRIAL USE, AND MAINTAIN CURRENT RESIDENTIAL DENSITIES IN THE CORE AREA WHILE ESTABLISHING LOWER DENSITIES IN THE PERIMETER AREAS, FOCUSING REDEVELOPMENT IN THE DOWNTOWN COMMUNITY REDEVELOPMENT AREA, US1, AND SR A1A, AND PROVIDING FOR A CONTINUED HIGH LEVEL OF OPEN SPACE. FUTURE GROWTH SHALL BE TIMED AND LOCATED TO MAXIMIZE EXISTING PUBLIC INFRASTRUCTURE.

Other Goals, Objectives and Policies that would be applicable include:

Objective 1.1 Future Land Use Element	Ensure the availability of adequate lands to meet the residential land use needs of the community.
Policy 1.1.9. Future Land Use Element	Medium and high density multi-family residential development shall be encouraged near employment centers with convenient access to public recreational facilities, the thoroughfare system and mass transit routes.

GOAL 5 Annexation Future Land Use Element	THE CITY PROVIDES UTILITY SERVICE BEYOND IT'S MUNICIPAL LIMITS AND SHALL REQUIRE THAT ANY CONNECTION TO THE CITY UTILITY SYSTEM EITHER ANNEX INTO THE CITY OR ENTER INTO AN ANNEXATION AGREEMENT IF NOT CONTIGIOUS FOR UTILITY SERVICE.
GOAL 1 Housing Element	ENSURE THE AVAILABILITY OF SAFE AND ADEQUATE HOUSING UNITS OF DIFFERENT TYPES, SIZES, AND PRICE RANGES TO MEET THE NEEDS OF ALL CURRENT AND FUTURE RESIDENTS.
Objective 1.1. Housing Element	The City shall continue to facilitate the private production of a housing supply, including adequate sites for mobile homes or manufactured housing and low and moderate income housing, which will meet future community needs and offset housing deficiencies as noted in this Element.
Policy 1.1.2 Housing Element	Land use plan amendments which increase density shall occur in areas with few environmental constraints and where adequate public infrastructure and services exist.
Policy 1.21. Housing Element	The general residential development pattern in the City should be in accord with the community's growth strategy for residential densities, as stipulated within the Future Land Use Element.

2. Whether the proposed plan amendment meets the criteria established in the Florida Statutes:

In accordance with Chapter 163.3187(1), Florida Statutes, any local government Comprehensive Plan amendments directly related to proposed small-scale development activities may be approved without regard to statutory limits on the frequency of consideration of amendments to the local Comprehensive Plan. A small-scale development amendment may be adopted only under the following conditions:

a. The proposed amendment involves a use of 50 acres or fewer.

The subject property is 19.19± acres (less than 50 acres).

b. The proposed amendment does not involve a text change to the goals, policies, and objectives of the local government's Comprehensive Plan, but only proposes a land use change to the future land use map for a site-specific small-scale development activity. However, text changes that relate directly to, and are adopted simultaneously with, the small-scale future land use map amendment shall be permissible under this section.

The proposed amendment is solely to the Future Land Use Map and does not propose any text amendments to the City's Comprehensive Plan. The applicant is proposing a condition associated with the Future Land Use Map amendment to

limit the residential units to 8 units per acre with a maximum of 298 units including the land area of 84.26 acres to the north.

- c. The property that is the subject of the proposed amendment is not located within an area of critical state concern, unless the project subject to the proposed amendment involves the construction of affordable housing units meeting the criteria of s. 420.0004(3), and is located within an area of critical state concern designated by s. 380.0552 or by the Administration Commission pursuant to s. 380.05(1).**

This criterion is not applicable as the site location is not located within an area of state critical concern.

3. Whether the land use is an appropriate use of the land.

Ormond Beach has been identified as the utility provider in the North U.S. 1 corridor since 1992 and has provided the needed utility services for residential and commercial uses in this corridor. The lands that are under consideration are not changing the types of land uses that were approved as part of the original Interlocal Service Boundary Agreement (ISBA) and therefore remain appropriate uses of land. The proposed Ormond Beach land use designation seeks to maintain the entitlements for the properties as established by the original Interlocal Service Boundary Agreement (ISBA). The uses are appropriate and compatible with uses adjacent to the subject property.

4. Whether there is adequate infrastructure to serve the proposed land use.

The analysis of infrastructure needs for a comprehensive plan amendment is different from a concurrency review for a site plan. Under Florida Statutes, the City is required to analyze the proposed land use change based on the maximum allowable density and intensity under the proposed land use category. The analysis examines the maximum expected impacts of the current designation versus the requested designation based on a preliminary development scenario. This analysis is not meant to replace or contradict the findings of a Concurrency Management Review. However, the relative differences between designations can provide useful information in the long-range planning process. The assumptions for the maximum scenario analyzed in Table 2 are contained in Table 1 below:

Table 1 – Maximum Scenarios with Land Use Policy Limitations

Existing City ISBA Future Land Use	Original ISBA Maximum Density	Original ISBA Maximum Intensity	Proposed City Future Land Use	City Maximum Density with Land Use conditions	City Maximum Intensity with Land Use Conditions
"Low Intensity Commercial" (19.19 acres)	8 DU per acre	0.50 FAR	Medium Density Residential (MDR)	Not to exceed 8 units per acre and no more than 298 dwelling units for entire RidgeHaven owned lands including the 8.26 acres north.	0.30 FAR

An analysis of the existing and proposed changes with the land use conditions is shown in Table 5 below:

Table 2 – Second Amended ISBA Maximum Scenario Analysis of Existing County FLU and Proposed City FLU with Land Use Conditions								
			Residential			Nonresidential		
Existing City ISBA Future Land Use	Proposed City FLU	Total Estimated Acreage	Existing Original ISBA City Density (DU)	Potential Density w/ Policy Limitations (DU)	Change in Potential Density (DU)	Existing Original ISBA City Intensity (SF)	Potential City Intensity w/ Limitations (SF)	Change in Potential Intensity (SF)
LIC	MDR	19.19	153	153	0	417,958	250,775	-167,183

The existing land use per the original ISBA, allows up to 153 dwelling units with a 0.50 Floor Area Ratio (FAR). The proposed land use category density would remain the same at 153 residential units. There is also a condition that the RidgeHaven area cannot exceed 298 residential units within this land area of 19.19 acres and the other RidgeHaven land area of 84.26 acres. The proposed FAR is 0.30. The non-residential entitlements will decrease by 167,183 square feet. The proposed land use limits any FAR uses to institutional uses, such as a house of worship.

Transportation: Below is a maximum theoretical land use analysis based on the ITE Trip Generation Rate, 10th Edition for a non-residential and residential maximum scenario. It is important to note that a concurrency analysis occurs with site plan or subdivision development.

TABLE 3 – Transportation Analysis

Non-Residential					
Land Area	Building Square Footage Maximum (Existing)	Average Daily Trips (Existing) ⁽¹⁾	Building square footage maximum (Proposed)	Average Daily Trips (Proposed) ⁽²⁾	Difference
Original ISBA RidgeHaven area	417,958	15,778	250,775	1,740	-14,038
Notes: (1) Existing land use allows commercial uses an ITE rate #820, retail, (37.75) used for analysis. (2) Proposed land use is residential and does not allow commercial uses. ITE rate #560, Church (6.94) used for analysis.					
Residential					
Land Area	Maximum residential units (Existing)	Average Daily Trips (Existing) ⁽³⁾	Maximum residential units (Proposed)	Average Daily Trips (Proposed)	Difference
Original ISBA RidgeHaven area	153	1,449	153	1,449	0
Notes: (3) For residential analysis ITE rate #210, Single-Family House, (9.44) used for analysis.					

The table analyzes a non-residential and residential theoretical development based upon the land use entitlements. The existing City Original ISBA “Low Intensity Commercial” allows retail development at a Floor Area Ratio of 0.5 that would equate to a maximum of 15,778 average daily trips. The proposed land use of “Medium Density Residential” does not allow retail uses and would allow institutional type of uses such as Church in the land uses. The potential average daily trips are reduced by 14,038 trips. The traffic impacts in the residential scenario will not change. As the property is developed in the future, a concurrency analysis will be required.

Schools: The maximum scenario provides no change in dwelling unit entitlements. Per the School Board of Volusia County Facilities Development Policies Number 613, Section V.B, projects exempt from school capacity and concurrency include subdivisions and/or single-family lots equal to or less than ten (10) residential units.

Water and Sewer: The analysis in Table 4 indicates that the proposed amendment would reduce the overall theoretical maximum water and sewer impacts.

TABLE 4 – Water & Sewer Analysis

Non-Residential								
Land Area	Building square footage maximum: Existing	Water: Existing (1)	Sewer: Existing (2)	Building square footage maximum: Proposed	Water: Proposed (1)	Sewer: Proposed (2)	Water Difference	Sewer Difference
Original ISBA RidgeHaven parcels	417,958	62,693	53,290	250,775	37,616	31,974	-25,077	-21,316
Notes: (1) Commercial water usage = (SF/100) X 15 gallons of water per day. (2) Commercial sewer usage = water gallons per day X 85%.								
Residential								
Land Area	Res Units maximum: Existing	Water: Existing (1)	Sewer: Existing (2)	Res Units maximum: Proposed	Water: Proposed (1)	Sewer: Proposed (2)	Water Difference	Sewer Difference
Original ISBA RidgeHaven parcels	153	39,168	42,993	153	39,168	42,993	0	0
Notes: (1) Residential, water = 256 average annual daily volume (2.33 HH X110 gpd) (2) Residential, sewer = 281 average annual daily volume								

Similar to the transportation impact analysis, the reduction in the Floor Area Ratio allowed, results in a decrease in water and sewer infrastructure impacts under a theoretical maximum development scenario. Based on a reduction of allowable building square footage, the non-residential scenario decreases the water impact by 25,077 gallons of water per day and 21,316 gallons of sewer per day. There are existing water and sewer lines within Plantation Oaks Boulevard and Addison Drive. The city has water and sewer capacity to serve any future development allowed under the proposed land use entitlements.

Stormwater Management: Any development shall be required to demonstrate compliance to city and state stormwater requirements. The proposed amendment reduces the non-residential under the land use. Site development shall require submittal to the Ormond Beach Site Plan Review Committee and the St. Johns River Water Management District.

Solid Waste: Solid waste provision would be addressed at time of site development.

Other Services: City police and fire services have the capacity to serve the land area within the second ISBA area.

5. Whether the proposed map amendment impacts surrounding jurisdictions.

The proposed amendment is not expected to impact surrounding jurisdictions.

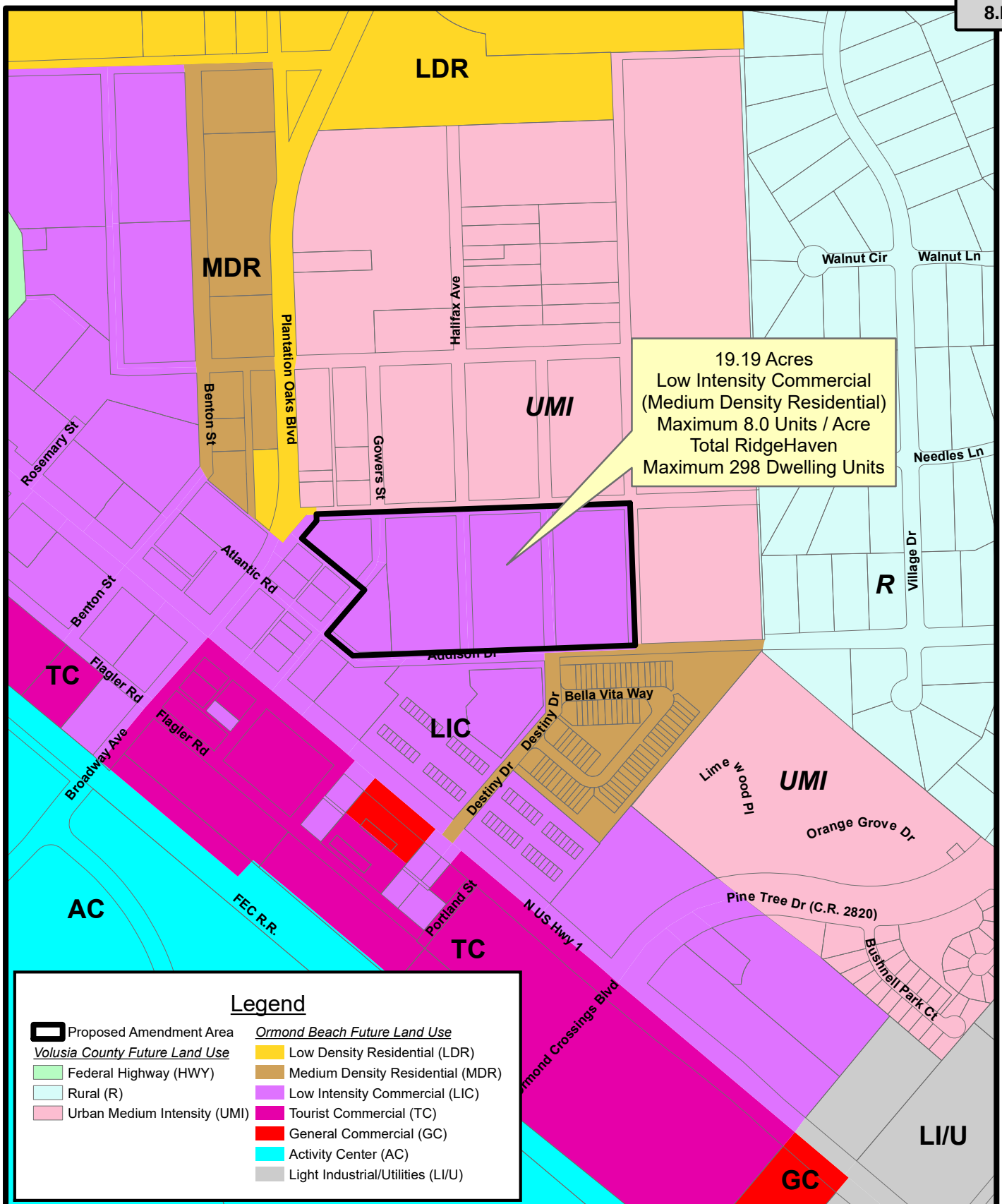
RECOMMENDATION:

Staff recommends that the Planning Board recommend **APPROVAL** of a Future Land Use map amendment for a 19.19± acre land area from the existing future land use designation of “Low Intensity Commercial” to “Medium Density Residential” with conditions for the RidgeHaven property as depicted in Attachment 1.

Attachments:

Attachment 1: Proposed land use map

Attachment 2: Applicant provided information



RIDGEHAVEN WITHIN NORTH US 1 ORIGINAL ISBA EXISTING AND PROPOSED FUTURE LAND USE MAP

Prepared By: The City of Ormond Beach
G.I.S. Department - February 18, 2022



N.T.S.



Updated October 1, 2021

City of Ormond Beach Public Hearing Application

Planning Department

22 South Beach Street, Room 104, Ormond Beach, FL 32174

(386) 676-3238

www.ormondbeach.org

comdev@ormondbeach.org

INSTRUCTIONS

Public hearing applications require City Commission action with many types being reviewed by the Planning Board to provide a recommendation. Some public hearing items require site plan review. Please complete the application and fee worksheet. Assistance is available by e-mailing comdev@ormondbeach.org or calling (386) 676-3238.

PROJECT INFORMATION

Project Type:*	Small-scale Comp. Plan FLU Map Amendment		*Complete fee sheet (page 3)
Project Name:	RidgeHaven		
Project Address:	Vacant Land		
Volusia County parcel number(s):	313601010020; 313601010012; and a portion of 313601010011		
Description:	Comp. Plan Amendment from City Low Intensity Commercial to Medium Density Residential		
Pre-application date:	9-15-21	Pre-application waiver granted:	

PROJECT COORDINATOR

Name:	Corey D. Brown / Storch Law Firm
Address:	420 South Nova Road
City, State, Zip code:	Daytona Beach, FL 32114
Telephone:	386-238-8383
E-mail:	corey@storchlawfirm.com

APPLICANT INFORMATION

Same as project coordinator	☒	Same as property owner	☐
Name:			
Address:			
City, State, Zip code:			
Telephone:			
E-mail:			

PROPERTY OWNER	
Same as project coordinator	☐
Same as property owner	☐
Name:	RIDGEHAVEN LLC
Address:	123 Magnolia Ave
City, State, Zip code:	Daytona Beach, FL 32114
Telephone:	
E-mail:	

VIEW ONLY ACCESS TO PROJECT DOX (Provides viewing access to project)

Name:	Corey Brown	E-mail:	corey@storchlawfirm.com
Name:	Rick Maugeri	E-mail:	Rickm@ridge-development.com
Name:	Dave Janse	E-mail:	Davej@ridge-development.com
Name:	Parker Mynchenberg	E-mail:	pkmynch@gmail.com

CERTIFICATION

By submitting this application, I hereby certify that the information provided is true and correct to the best of my knowledge and that I am aware of the application submittal requirements and the review process for this application. I authorize Ormond Beach staff to access the subject property during typical business hours to review the public hearing application.

Signature: _____

STATE OF FLORIDA

COUNTY OF Volusia

The forgoing instrument was acknowledged before me this 1st day of February, 2023, by Richard C Maugeri as manager (title*) for RidgeHaven LLC (name of corporation*), who () provided _____ as identification, or (i) who is personally known to me.



Notary Public, State of Florida

My Commission Expires:

* If you are executing this document on behalf of a corporation please complete the spaces with your title and the name of your company as indicated.



Updated October 1, 2021

City of Ormond Beach Public Hearing Application Fees

Planning Department

22 South Beach Street, Room 104, Ormond Beach, FL 32174

(386) 676-3238

www.ormondbeach.org

comdev@ormondbeach.org

INSTRUCTIONS

Site plan submittals require the submittal of applications per Ordinance 2021-30, codified in Section 8-10, Application processing fees, of the Code of Ordinances. All applications shall calculate the fees which shall be verified by city staff. **Assistance is available by e-mailing comdev@ormondbeach.org or calling (386) 676-3238.**

PUBLIC HEARING FEES (Ordinance 2021-30 - Section 8-10 of Code of Ordinances)

Check all that apply	SPRC reviews	Fee	Advertising	Total fee
☐	Annexation	No fee	No fee	No fee
☐	Annexation Agreement	No fee	No fee	No fee
☒	Comprehensive Plan, small area amendment	\$2,000	\$1,025	\$3,025
☐	Comprehensive Plan, large-scale amendment	\$2,000	\$2,250	\$4,250
☐	Concurrency, traffic impact analysis	\$3,000 (deposit)	NA	\$3,000
☐	Development of Regional Impact amendment	\$600	\$2,250	\$2,850
☐	Planned Development	\$2,500	\$2,400	\$4,900
☐	Planned Development, major amendment	\$1,000	\$2,400	\$3,400
☐	Regulatory amendment, zoning map, under 10 acres	\$1,500	\$850	\$2,350
☐	Regulatory amendment, zoning map, over 10 acres	\$1,500	\$1,650	\$3,150
☐	Regulatory amendment, LDC amendment	\$1,000	\$700	\$1,700
☐	Regulatory amendment, LDC amendment (zoning districts)	\$1,000	\$1,500	\$2,500
☐	Special Exception	\$850	\$850	\$1,700
☐	Special Exception, CRA	\$400	\$850	\$1,250
☐	Street vacation	\$500	\$1,925	\$2,425
☐	Subdivision, Preliminary plat	\$1,500 plus \$25 per lot	NA	\$1,500 plus \$25 per lot
☐	Subdivision, Final plat	\$1,000 plus \$25 per lot	\$350	\$1,350 plus \$25 per lot
☐	Subdivision, city surveyor review	Actual costs	NA	Actual costs
☐	Subdivision, Recording of plat	Actual costs	NA	Actual costs
☐	Other:			
TOTALS:				



Updated October 1, 2021

City of Ormond Beach Public Hearing Application

Planning Department

22 South Beach Street, Room 104, Ormond Beach, FL 32174

(386) 676-3238

www.ormondbeach.orgcomdev@ormondbeach.org

INSTRUCTIONS

Public hearing applications require City Commission action with many types being reviewed by the Planning Board to provide a recommendation. Some public hearing items require site plan review. Please complete the application and fee worksheet. Assistance is available by e-mailing comdev@ormondbeach.org or calling (386) 676-3238.

PROJECT INFORMATION

Project Type:*	Small-scale Comp. Plan FLU Map Amendment		*Complete fee sheet (page 3)
Project Name:	RidgeHaven		
Project Address:	Vacant Land		
Volusia County parcel number(s):	313601010020; 313601010012 and a portion of 313601010011		
Description:	Comp. Plan Amendment from City Low Intensity Commercial to Low Density Residential		
Pre-application date:	9-15-21	Pre-application waiver granted:	

PROJECT COORDINATOR

Name:	Corey D. Brown / Storch Law Firm
Address:	420 South Nova Road
City, State, Zip code:	Daytona Beach, FL 32114
Telephone:	386-238-8383
E-mail:	corey@storchlawfirm.com

APPLICANT INFORMATION

Same as project coordinator	☒	Same as property owner	☐
Name:			
Address:			
City, State, Zip code:			
Telephone:			
E-mail:			

PROPERTY OWNER	
Same as project coordinator	☐
Same as property owner	☐
Name:	SNILLOC FAMILY LP NUMBER ONE
Address:	2249 Old Dixie Hwy
City, State, Zip code:	Ormond Beach, FL 32174
Telephone:	
E-mail:	

VIEW ONLY ACCESS TO PROJECT DOX (Provides viewing access to project)

Name:	Corey Brown	E-mail:	corey@storchlawfirm.com
Name:	Rick Maugeri	E-mail:	Rickm@ridge-development.com
Name:	Dave Janse	E-mail:	Davej@ridge-development.com
Name:	Parker Mynchenberg	E-mail:	pkmynch@gmail.com

CERTIFICATION

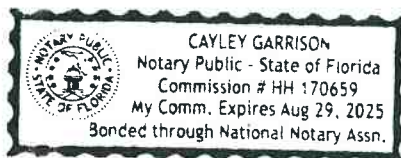
By submitting this application, I hereby certify that the information provided is true and correct to the best of my knowledge and that I am aware of the application submittal requirements and the review process for this application. I authorize Ormond Beach staff to access the subject property during typical business hours to review the public hearing application.

Signature: _____

STATE OF FLORIDA

COUNTY OF Volusia

The forgoing instrument was acknowledged before me this 16 day of February, 2022, by John Collins as General Partner (title*) for SNILLOC FAMILY PARTNERSHIP (name of corporation*), who (☒) provided FL Drivers License as identification, or () who is personally known to me.



Cayley Garrison
Notary Public, State of Florida
My Commission Expires:

* If you are executing this document on behalf of a corporation please complete the spaces with your title and the name of your company as indicated.



Updated October 1, 2021

City of Ormond Beach Public Hearing Application Fees

Planning Department

22 South Beach Street, Room 104, Ormond Beach, FL 32174

(386) 676-3238

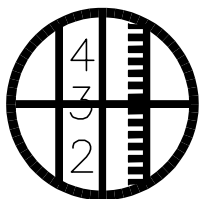
www.ormondbeach.orgcomdev@ormondbeach.org

INSTRUCTIONS

Site plan submittals require the submittal of applications per Ordinance 2021-30, codified in Section 8-10, Application processing fees, of the Code of Ordinances. All applications shall calculate the fees which shall be verified by city staff. **Assistance is available by e-mailing comdev@ormondbeach.org or calling (386) 676-3238.**

PUBLIC HEARING FEES (Ordinance 2021-30 - Section 8-10 of Code of Ordinances)

Check all that apply	SPRC reviews	Fee	Advertising	Total fee
☐	Annexation	No fee	No fee	No fee
☐	Annexation Agreement	No fee	No fee	No fee
☒	Comprehensive Plan, small area amendment	\$2,000	\$1,025	\$3,025
☐	Comprehensive Plan, large-scale amendment	\$2,000	\$2,250	\$4,250
☐	Concurrency, traffic impact analysis	\$3,000 (deposit)	NA	\$3,000
☐	Development of Regional Impact amendment	\$600	\$2,250	\$2,850
☐	Planned Development	\$2,500	\$2,400	\$4,900
☐	Planned Development, major amendment	\$1,000	\$2,400	\$3,400
☐	Regulatory amendment, zoning map, under 10 acres	\$1,500	\$850	\$2,350
☐	Regulatory amendment, zoning map, over 10 acres	\$1,500	\$1,650	\$3,150
☐	Regulatory amendment, LDC amendment	\$1,000	\$700	\$1,700
☐	Regulatory amendment, LDC amendment (zoning districts)	\$1,000	\$1,500	\$2,500
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☐	Subdivision, city surveyor review	Actual costs	NA	Actual costs
☐	Subdivision, Recording of plat	Actual costs	NA	Actual costs
☐	Other:			
TOTALS:				



SLIGER & ASSOCIATES, INC.

PROFESSIONAL LAND SURVEYORS

LICENSED BUSINESS CERTIFICATION NO. 3019

3921 NOVA ROAD
PORT ORANGE, FL. 32127
(386) 761-5385

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8.B.e

RECORDING INFORMATION

N88°01'30"E 1390.12'

CENTERLINE OF TENNANT AVENUE

A PORTION OF NATIONAL GARDENS,
MB 10, PG 250 - 253

835906 Sq. Feet
19.1898 Acres

MATCHLINE

S02°05'34"E 630.78'
CENTERLINE OF MATANZAS STREET

POINT OF BEGINNING

S87°52'25"W 1250.34'

NORTHERLY RIGHT OF WAY LINE OF ADDISON DRIVE (60' R/W)

GRAPHIC SCALE



(IN FEET)

1 inch = 100 ft.

NATIONAL GARDENS
FOR: RIDGE LAND HOLDINGS
ORMOND BEACH ISBA - ADOPTED

SKETCH OF DESCRIPTION ONLY
THIS IS NOT A BOUNDARY SURVEY

JOB # 22-0231

SHEET 2 OF 5

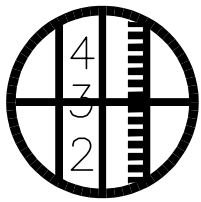
ABBREVIATIONS

W	WETLAND
R/W	RIGHT OF WAY
CL	CENTERLINE
Δ	CENTRAL ANGLE
R	RADIUS
L	ARC LENGTH
CB	CHORD BEARING
CE	CONSERVATION EASEMENT
PRC	POINT OF REVERSE CURVE
N.G.V.D.	NATIONAL GEODETIC VERTICAL DATUM
U.S.C. & G.S.	UNITED STATES COAST AND GEODETIC SURVEY
PNT	POINT OF NON-TANGENCY

LEGEND

●	IRON ROD WITH CAP
○	IRON PIPE
□	CONCRETE MONUMENT
■	PERMANENT REFERENCE MONUMENT
Δ	PERMANENT CONTROL POINT
(R)	RADIAL LINE
(NR)	NON-RADIAL LINE
○	EXISTING ELEVATION
□	PROPOSED ELEVATION

Packet Pg. 1000



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PROFESSIONAL LAND SURVEYORS

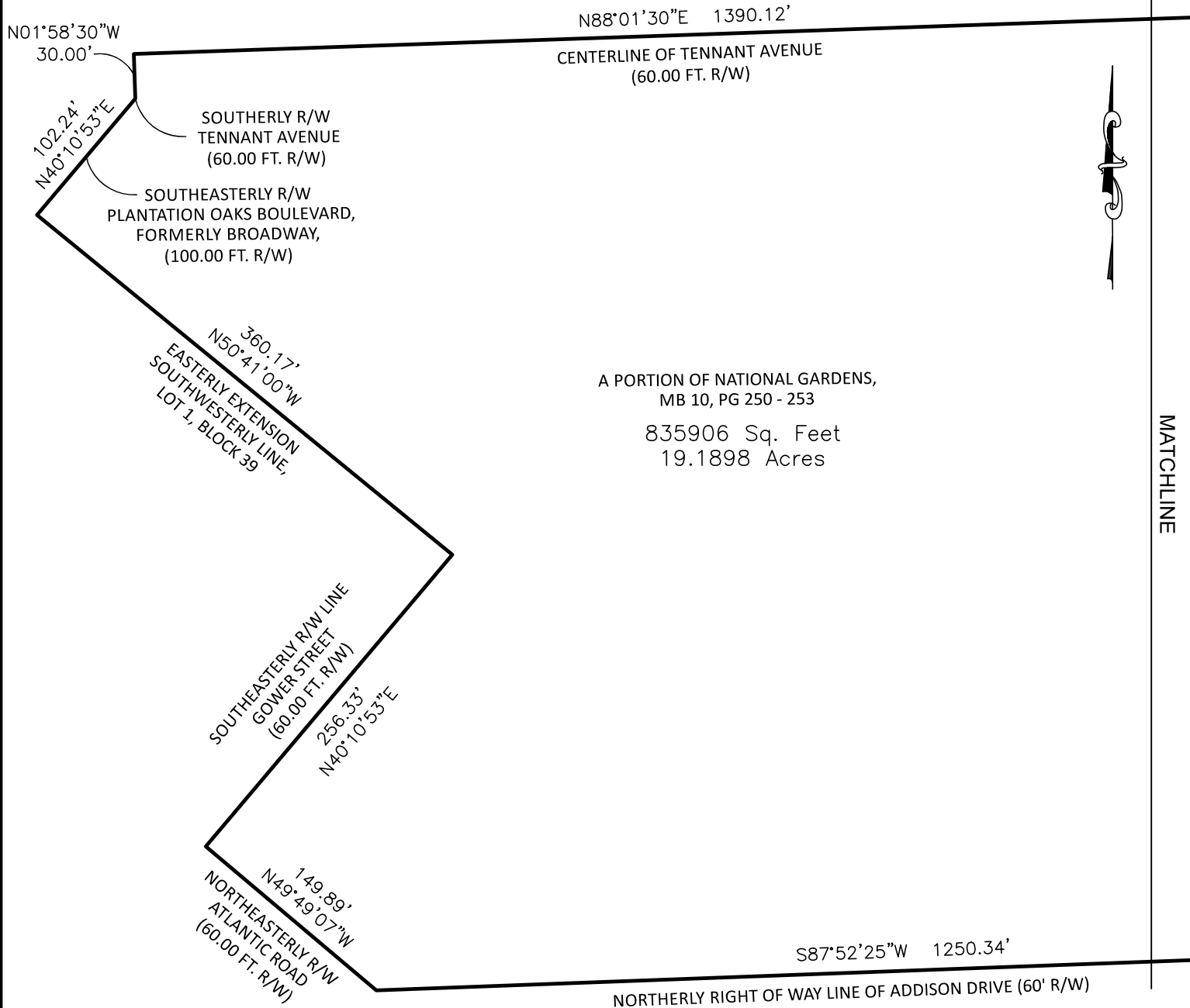
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8.B.e

RECORDING INFORMATION



GRAPHIC SCALE



(IN FEET)

1 inch = 100 ft.

NATIONAL GARDENS
FOR: RIDGE LAND HOLDINGS
ORMOND BEACH ISBA - ADOPTED

SKETCH OF DESCRIPTION ONLY
THIS IS NOT A BOUNDARY SURVEY

JOB # 22-0231

SHEET 3 OF 5

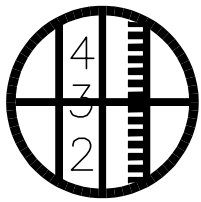
ABBREVIATIONS

W	WETLAND
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(R)	RADIAL LINE
(NR)	NON-RADIAL LINE
○	EXISTING ELEVATION
□	PROPOSED ELEVATION

Packet Pg. 1001



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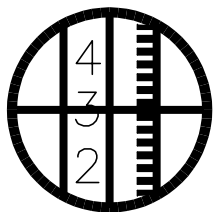
RECORDING INFORMATION

Legal Description: (ORMOND BEACH ISBA – ADOPTED)

A PORTION OF NATIONAL GARDENS RECORDED IN MAP BOOK 10 PAGES 250 THROUGH 253, LYING SOUTHERLY OF THE CENTERLINE OF TENNANT AVENUE, WESTERLY OF THE CENTERLINE OF MATANZAS STREET, NORTHERLY OF ADDISON DRIVE, AND EASTERLY OF PLANTATION OAKS BOULEVARD, LOCATED IN SECTION 36, TOWNSHIP 13 SOUTH, RANGE 31 EAST. VOLUSIA COUNT FLORIDA. DESCRIBED AS FOLLOWS:

COMMENCE AT THE NORTHEAST CORNER OF SAID REVISED PLAT OF NATIONAL GARDENS, BEING ALSO THE NORTHEAST CORNER OF SECTION 36, TOWNSHIP 13 SOUTH, RANGE 31 EAST; THENCE RUN S02°04'17"E ALONG THE EASTERLY LINE OF SAID REVISED PLAT OF NATIONAL GARDENS AND THE EAST LINE OF SAID SECTION 36, A DISTANCE OF 2615.20 FEET TO THE NORTHERLY RIGHT OF WAY LINE OF ADDISON DRIVE, 60.00 FOOT WIDE RIGHT OF WAY PER SAID REVISED PLAT OF NATIONAL GARDENS; THENCE S87°52'25"W ALONG SAID NORTHERLY RIGHT OF WAY LINE, 554.54 FEET TO THE CENTERLINE OF MATANZAS STREET AND THE POINT OF BEGINNING; THENCE CONTINUE ALONG NORTH RIGHT OF WAY S87°52'25"W, A DISTANCE OF 1250.34 FEET TO THE NORTHEASTERLY RIGHT OF WAY LINE OF ATLANTIC ROAD, A 60.00 FOOT WIDE RIGHT OF WAY PER SAID REVISED PLAT OF NATIONAL GARDENS; THENCE N49°49'07"W ALONG SAID NORTHEASTERLY RIGHT OF WAY LINE, 149.89 FEET TO THE SOUTHEASTERLY RIGHT OF WAY LINE OF GOWER STREET, 60.00 FOOT WIDE RIGHT OF WAY PER SAID REVISED PLAT OF NATIONAL GARDENS; THENCE N40°10'53"E ALONG SAID SOUTHEASTERLY RIGHT OF WAY, 256.33 FEET TO THE EASTERLY EXTENSION OF THE SOUTHWESTERLY LINE OF LOT 1, BLOCK 39, SAID REVISED PLAT OF NATIONAL GARDENS; THENCE N50°41'00"W ALONG SAID SOUTHEASTERLY EXTENSION AND ALONG THE SOUTHWESTERLY LINE OF SAID LOT 1, A DISTANCE OF 360.17 FEET TO THE SOUTHEASTERLY RIGHT OF WAY LINE OF PLANTATION OAKS BOULEVARD, FORMERLY BROADWAY, 100.00 FOOT WIDE RIGHT OF WAY PER SAID REVISED PLAT OF NATIONAL GARDENS; THENCE N40°10'53"E ALONG SAID EASTERLY RIGHT OF WAY LINE, 102.24 FEET TO THE SOUTHERLY RIGHT OF WAY LINE OF TENNANT AVENUE, A 60.00 FOOT WIDE RIGHT OF WAY PER SAID REVISED PLAT OF NATIONAL GARDENS; THENCE N01°58'30"W, A DISTANCE OF 30.00 FEET TO THE CENTERLINE OF SAID TENNANT AVENUE; THENCE ALONG SAID CENTERLINE N88°01'30"E, A DISTANCE OF 1390.12' TO THE CENTERLINE OF MATANZAS STREET; THENCE ALONG SAID CENTERLINE S02°05'34"E, A DISTANCE OF 630.78' TO THE POINT OF BEGINNING.

AREA: 835906 Sq. Feet, 19.1898 Acres



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LICENSED BUSINESS CERTIFICATION NO. 3019

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PORT ORANGE, FL. 32127

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SURVEYORS NOTES:

1. DIMENSIONS ARE SHOWN IN FEET AND DECIMALS THEREOF.
2. BEARING STRUCTURE BASED ON NAD 83, FLORIDA STATE PLANE, EAST ZONE, U.S. SURVEY FOOT, WITH THE BEARING ON THE EAST LINE OF REVISED PLAT NATIONAL GARDENS, EAST LINE SECTION 36 BEING S02°04'17"E.
3. NOT VALID WITHOUT THE SIGNATURE AND ORIGINAL RAISED SEAL OR AN ELECTRONIC SIGNATURE OF A FLORIDA LICENSED SURVEYOR AND MAPPER.
4. THE SUBJECT PARCEL HAS DIRECT PHYSICAL ACCESS TO PLANTATION OAKS BLVD., A PUBLIC STREET OR HIGHWAY.

REFERENCE: ORMOND BEACH ISBA – ADOPTED

THIS PLAT OF SURVEY IS CERTIFIED TO AND PREPARED FOR THE SOLE AND EXCLUSIVE BENEFIT OF THE ENTITIES AND/OR INDIVIDUALS LISTED BELOW, ON THE MOST CURRENT DATE, AND SHALL NOT BE RELIED UPON BY ANY OTHER ENTITY OR INDIVIDUAL WHOMSOEVER.

TYPE OF SURVEY	CERTIFIED TO	SURVEY DATE	JOB NUMBER
BOUNDARY	FLAGLER COUNTY COUNTY FLORIDA	02-10-2022	22-0231
	RIDGE DEVELOPMENT GROUP		

SHEET 5 OF 5

VALID WITH SIGNATURE & EMBOSSED SEAL OR
DIGITAL SIGNATURE OR DIGITAL SEAL ON DIGITAL VERSIONS

RIDGE DEVELOPMENT GROUP

SKETCH OF DESCRIPTION	DATE	JOB NO.	P.C.	DRW.	CHECKED BY
BOUNDARY SURVEY	02-10-2022	22-0231		TJ	J BARNES
TOPOGRAPHIC SURVEY					
FOUNDATION LOCATED					
FINAL IMPROVEMENTS					
RECERTIFICATION					
PROPOSED HOUSE LOCATION					

I HEREBY CERTIFY THAT THIS PLAT MEETS THE STANDARDS OF PRACTICE SET FORTH BY THE FLORIDA BOARD OF PROFESSIONAL SURVEYORS AND MAPPERS IN CHAPTER 5J-17.05, FLORIDA ADMINISTRATIVE CODE, PURSUANT TO SECTION 472.027, FLORIDA STATUTES.

J.E. ZAPERT, P.L.S. NO. 4046
JEFF W. BARNES P.S.M. NO. 5576
C.O. VAN KLEECK JR. P.S.M. NO. 6149
MICHAEL S. MURPHY

M I N U T E S
ORMOND BEACH PLANNING BOARD
Regular Meeting

March 10, 2022

6:00 PM

City Commission Chambers
 22 South Beach Street
 Ormond Beach, FL 32174

PURSUANT TO SECTION 286.0105, FLORIDA STATUTES, IF ANY PERSON DECIDES TO APPEAL ANY DECISION MADE BY THE PLANNING BOARD WITH RESPECT TO ANY MATTER CONSIDERED AT THIS PUBLIC MEETING, THAT PERSON WILL NEED A RECORD OF THE PROCEEDINGS AND FOR SUCH PURPOSE, SAID PERSON MAY NEED TO ENSURE THAT A VERBATIM RECORD OF THE PROCEEDING IS MADE, INCLUDING THE TESTIMONY AND EVIDENCE UPON WHICH THE APPEAL IS TO BE BASED.

PERSONS WITH A DISABILITY, SUCH AS A VISION, HEARING OR SPEECH IMPAIRMENT, OR PERSONS NEEDING OTHER TYPES OF ASSISTANCE, AND WHO WISH TO ATTEND CITY COMMISSION MEETINGS OR ANY OTHER BOARD OR COMMITTEE MEETING MAY CONTACT THE CITY CLERK IN WRITING, OR MAY CALL 677-0311 FOR INFORMATION REGARDING AVAILABLE AIDS AND SERVICES.

I. ROLL CALL

Members Present

Harold Briley, Vice Chair
 G.G. Galloway
 Al Jorczak
 Mike Scudiero
 Angeline Shull
 Lori Tolland
 Doug Thomas, Chair

Staff Present

Steven Spraker, Planning Director
 Becky Weedon, Senior Planner
 Robin Gawel, Senior Planner
 Randy Hayes, City Attorney
 Marcella Miller, Recording Technician

II. INVOCATION

Chairman Thomas led the invocation.

III. PLEDGE OF ALLEGIANCE

IV. NOTICE REGARDING ADJOURNMENT

NEW ITEMS WILL NOT BE HEARD BY THE PLANNING BOARD AFTER 9:00 PM UNLESS AUTHORIZED BY A MAJORITY VOTE OF THE BOARD MEMBERS PRESENT. ITEMS WHICH HAVE NOT BEEN HEARD BEFORE 9:00 PM MAY BE CONTINUED TO THE FOLLOWING THURSDAY OR TO THE NEXT REGULAR MEETING, AS DETERMINED BY AFFIRMATIVE VOTE OF THE MAJORITY OF THE BOARD MEMBERS PRESENT (PER PLANNING BOARD RULES OF PROCEDURE, SECTION 2.7).

Ms. Weedo concluded that staff recommends that the Planning Board recommend approval to the proposed Comprehensive Plan amendments to the Future Land Use Element and the intergovernmental coordination element to be consistent with the Second Amended Interlocal Service Boundary Agreement (ISBA).

Mr. Jorczak motioned to approve CP 2022-024 – Comprehensive Plan text amendments related to the second Interlocal Service Boundary Agreement (ISBA). Mr. Briley seconded it. Vote was called, and the motion was approved (7-0).

E. LUPA 2022-020 – RidgeHaven original ISBA Small Scale Comprehensive Plan Land Use Map Amendment (RidgeHaven – 19.19 acres (Small Scale))

Ms. Becky Weedo, Senior Planner, stated that this is a request by Corey D. Brown, authorized representative on behalf of Snilloc Family LP Number One and RidgeHaven LLC, property owners, for a Small-Scale Comprehensive Plan Future Amendment for a 19.19± acre property located within the original Interlocal Service Boundary Agreement (ISBA) adopted in 2015. Ms. Weedo added that the requested land use map amendment is going from City “Low Intensity Commercial” (LIC) to City “Medium Density Residential” (MDR). The maximum gross density shall not exceed eight units per acre and total units for all lands within the RidgeHaven subdivision (including within the 84.26 acres to the north) shall not exceed 298 residential units.

Ms. Weedo explained that the existing land use per the original ISBA, allows up to 153 dwelling units with a 0.50 Floor Area Ratio (FAR) for retail. The proposed land use category density still remains the same at 153 residential units. There is also a condition that the total RidgeHaven area cannot exceed 298 residential units within this land area of 19.19 acres and the other RidgeHaven land area of 84.26 acres. Ms. Weedo continued that the proposed FAR is 0.30. The non-residential entitlements will decrease by 167, 183 square feet. The proposed land use limits any FAR uses to institutional uses, such as a house of worship. She added that the amendment to the Future Land Use Map is also being processed as a small-scale amendment per Chapter 163, Section 3187, Florida Statutes. Effective July 1, 2021, the process for small scale amendments changed the acreage from 10 acres or less to 50 acres or less. Ms. Weedo reiterated that it is a companion document to the Second Amended ISBA small scale amendment to the 84.26 acres north. City Commission first reading of this amendment is planned to be on April 19th with the second reading on May 3rd and submittal to DEO and VGMC on May 10th.

Ms. Weedo explained that staff determined that the proposed amendment meets the goals, objectives, and policies of the City’s Comprehensive Plan, and the requirements established by Florida Statutes, the proposed uses are appropriate, the amendment provides adequate infrastructure; and will not impact surrounding jurisdictions. She concluded that staff recommends that the Planning Board recommend approval to the City Commission of a Future Land Use map amendment for a 19.19± acre land area from the existing future land use designation of “Low-Intensity Commercial” to “Medium-Density Residential” with conditions for the RidgeHaven land area.

Ms. Shull asked for clarification of the request and if it is already included with the prior vote. Ms. Weedo answered that it is part of the entire RidgeHaven area and this

future land use amendment is required to be done separately due to the 19.19 acres being originally in the ISBA. It had a city future land use designation. It was confirmed that it is going to Medium-Density Residential from Low-Intensity Commercial. Ms. Weedo stated that it is going to provide similar density which is limited to the eight dwelling units and the City wishes to be consistent with what was previously approved.

Mr. Spraker explained some of the philosophy with it already being a City commercial land use area. “It is significant that 170,000 square feet of commercial use is being eliminated.” He added that residential has a lower trip generation. Mr. Spraker stated that the theory is that there would be higher density along the roadway and transition to lower-density along the interface of the Village of Pine Run.

Mr. Storch noted that the duplexes are a lower density than apartment complexes. A variety of areas can be put in the project with the total number only being a maximum of 298. Both Comprehensive Plan amendments will contain a line item that specifies that the two parcels can only go to 298 residential units.

Mr. Galloway spoke on property rights and commented that someone is taking a commercial property that is valued today and paying taxes on commercial property and is downsizing to go to a residential property. He continued expressing that if someone is willing to downsize their property and go to a residential zoning, that it is a “win-win”. Mr. Galloway stated that he believes it is better off as residential, commenting “although the neighbors may not like it, the alternative of having something commercial, most would rather have residential.”

Mr. Storch commented that the whole development is going to be a community with amenities, walking trails, park areas, retention areas and lakes. He added that other than staff, his client ‘Rick’, worked very hard on the project to create something special.

Audience Comments

Mr. Warren Wesley, 22 Needles Lane, expressed his relief in hearing that out of the total 103 acres, that only 298 units will be built on it.

Mr. Briley motioned to approve LUPA 2022-020 – RidgeHaven original ISBA Small Scale Comprehensive Plan Land Use Map Amendment, 19.19 acres (small scale). Mr. Scudiero seconded it. Vote was called, and the motion was approved (7-0).

VIII. OTHER BUSINESS

A. Front Yard Waterbody Calculated Setbacks

Ms. Robin Gawel, Senior Planner, explained that this is a discussion item regarding an administrative request to amend front yard and waterfront yard setbacks. The purpose is to introduce the proposed amendment and gain any input from the Planning Board before presenting a Land Development Code (LDC) Amendment. Ms. Gawel continued that the request would amend certain district regulations that currently contain additional front yard and waterfront yard setback requirements.



CITY OF ORMOND BEACH

City Manager • 22 S. Beach Street • Ormond Beach • Florida • 32174 • (386) 676-3200 • Fax (386) 676-3384

CITY MANAGER MEMORANDUM

To: The Honorable Mayor Partington and City Commissioners

Through: Joyce A. Shanahan, City Manager

From: Steven Spraker, Planning Director

Date: May 3, 2022

Subject: N US 1 Second Amended ISBA Comprehensive Plan Text Amendments
Expedited

Commission Goal: Governance - Other

Introduction

This is a City initiated request to amend the City of Ormond Beach Comprehensive Plan's Future Land Use and Intergovernmental Coordination Elements to update language and references consistent with the Second Amended Interlocal Service Boundary Agreement (ISBA) between the City of Ormond Beach and Volusia County pursuant to Chapter 171, Part II, Florida Statutes, as amended. The Comprehensive Plan amendments shall follow the State's Expedited Review Process and is the companion document to the Small-Scale Future Land Use Map amendment. A copy of the Second Amended ISBA is attached as Exhibit D.

Background

The City Commission adopted the original North US 1 Interlocal Service Boundary Agreement on August 19, 2014 per Ordinance No. 2014-27. Concurrently, the Volusia County Council adopted the Interlocal Service Boundary Agreement on August 21, 2014 by Volusia County Ordinance No. 2014-12.

The first amendment to the North US 1 ISBA was approved to add the land associated with Plantation Oaks Subdivision and the 13 enclaves surrounding the subdivision to the adopted Municipal Service Area. On August 20, 2019, the City Commission adopted the first amendment to the North US 1 ISBA. The Volusia County Council subsequently adopted the agreement on September 17, 2019.

The second amendment to the North US 1 ISBA was approved to add the land associated with RidgeHaven land area and the eight enclaves surrounding the subdivision to the adopted Municipal Service Area. On October 14, 2021, the second amendment to the North US 1 ISBA was presented to the Planning Board. The Planning Board unanimously recommended approval. On December 7, 2021, the City

Commission adopted the second amendment to the North US 1 ISBA. The Volusia County Council subsequently adopted the agreement on February 15, 2022.

The proposed amendments to the City of Ormond Beach Comprehensive Plan's Future Land Use and Intergovernmental Coordination Elements are being processed as expedited amendments. The amendments to the Future Land Use Map are being processed simultaneously as a small-scale amendment per Florida Statute section 171.204 and section 163.3171 which states, "*An amendment to the future land use map of a comprehensive plan which is consistent with the joint planning agreement must be considered a small scale amendment*". The ISBA requires the City to amend its Comprehensive Plan within six months of the date that the ISBA was recorded by the Clerk of Circuit Court to incorporate the following revisions:

Future Land Use Element:

- Objective 9.1: Add the recorded Book and Page references to incorporate the land area from the adopted Second Amended Interlocal Service Boundary Agreement;
- Policy 9.1.4: Add Table 6 to include policy density limitations to ensure consistency and impacts on facilities and services; and
- Figure 11: Amend Figure 11, North US 1 Municipal Service Area Map to include the land area from the adopted Second Amended Interlocal Service Boundary Agreement.

Intergovernmental Coordination Element:

- Policy 1.11.6: Add the recorded Book and Page references to incorporate the land area from the adopted Second Amended Interlocal Service Boundary Agreement.
- Policy 1.11.8: Add the recorded Book and Page references to incorporate the land area from the adopted Second Amended Interlocal Service Boundary Agreement.

The relevant pages from each affected element of the Comprehensive Plan have been included as Exhibits B, and C. These Comprehensive Plan Amendments are being processed pursuant to the Expedited State Review process, Section 163.3184(3) and (5), *Florida Statutes*.

Discussion

The Planning Board reviewed the requested Comprehensive Plan amendments on March 10, 2022, and unanimously recommended approval (7-0). There were members of the public present but they had no objections to the Comprehensive Plan text amendment request.

A separate Future Land Use Map amendment to the City Comprehensive Plan consistent with the Interlocal Service Boundary Agreement is being processed as a Small-Scale Amendment pursuant to Section 171.204(2), *Florida Statutes*. The

amendments to the Comprehensive Plan Elements are being processed through the Expedited State Review. In accordance with Chapter 163.3184(3) and (5), *Florida Statutes*, Expedited State Review, proposed text amendments, upon Commission approval on first reading, will be submitted by Ordinance to the Florida Department of Economic Opportunity, State agencies, Volusia County Growth Management Commission, and adjoining jurisdictions for review and comment. All review comments are forwarded directly to the City within 30 days of receipt of the plan amendment at which time the Ordinance is revised accordingly and forwarded to the City Commission.

The Future Land Use Element and Intergovernmental Coordination Element amendments were reviewed pursuant to the requirements of Chapter 171, Part II, Florida Statutes, the adopted Interlocal Service Boundary Agreement (ISBA), between the City of Ormond Beach and the County of Volusia, and in accordance with the City's Comprehensive Plan. Per Policy 2.5.2 of the City's Comprehensive Plan, the amendments were reviewed under the five criteria and found:

- 1) Consistent with the Comprehensive Plan Goals, Objectives and Policies;
- 2) Meets the criteria established in the City's Comprehensive Plan and the Florida Statute;
- 3) Is not applicable with whether the land uses are appropriate uses of the land because this is not a land use map amendment.
- 4) Is not applicable with whether there is adequate infrastructure to serve the proposed land use because this is not a land use map amendment.
- 5) Is not applicable with whether the proposed map amendment impacts surrounding jurisdictions because this is not a land use map amendment.

Budget Impact

There is no City budget impact due to the requested land use amendment.

Citizen Impact

The proposed amendments to the Future Land Use and Intergovernmental Coordination Elements are to implement the terms of the Second Amended North US 1 Interlocal Service Boundary Agreement. The purpose of the Interlocal Service Boundary Agreement was to allow Ormond Beach to apply its land use and zoning regulations in an effort to redevelop the North U.S. 1 into a gateway corridor to the City and Volusia County.

Recommendation

It is recommended that the City Commission approve the proposed Comprehensive Plan amendments to the Future Land Use Element and the Intergovernmental Coordination Element to be consistent with the Second Amended Interlocal Service Boundary Agreement.

Attachments:

- 22-14 N US 1 2nd Amended ISBA - Comp Plan Text Amendments (P22-0046G) (PDF)
- Exhibit A Map 1 (PDF)
- Exhibit A, Map 2 (PDF)
- Exhibit A, Map 3 (PDF)
- Exhibit B - 1a. Future Land Use Element Amendment (PDF)
- Exhibit C - 9. Intergovernmental changes (PDF)
- Exhibit D - EXECUTED 2ND AMENDED ISBA (PDF)
- Figure 11 ISBA 2nd Amendment US1 MSA (PDF)
- 3.10.22 Partial Planning Board Minutes (PDF)
- 3.10.22 PB Staff Report Expedited pkg (PDF)

REVIEWED BY:


 Kelly McGuire, Finance Director 4/5/2022


 Claire Whitley, Assistant City Manager 4/13/2022

APPROVED BY:


 Joyce A. Shanahan, City Manager 4/27/2022

ORDINANCE NO. 2022-14

AN ORDINANCE AMENDING THE FUTURE LAND USE ELEMENT AND THE INTERGOVERNMENTAL COORDINATION ELEMENT OF THE COMPREHENSIVE PLAN BY INCORPORATING THE PROVISIONS OF THE SECOND AMENDED NORTH US HIGHWAY 1 INTERLOCAL SERVICE BOUNDARY AGREEMENT (ISBA) BETWEEN THE CITY OF ORMOND BEACH AND THE COUNTY OF VOLUSIA; PROVIDING FOR TRANSMITTING COPIES OF THE NOTICE AND AMENDMENT TO THE STATE REVIEWING AGENCIES, THE COUNTY OF VOLUSIA, AND ANY OTHER LOCAL GOVERNMENT OR GOVERNMENTAL AGENCY REQUESTING A COPY; PROVIDING FOR PUBLIC HEARINGS; PROVIDING FOR CONFLICTING ORDINANCES; AND SETTING FORTH AN EFFECTIVE DATE.

WHEREAS, the City of Ormond Beach adopted an Interlocal Service Boundary Agreement (“ISBA”) with the County of Volusia on August 19, 2014, effective August 28, 2014, (recorded at Book 7026, Pages 878 through 895, of the Public Records of Volusia County, Florida) for the North US Highway 1 area depicted in Exhibit "A" Map 1 attached hereto, and incorporated herein by reference; and

WHEREAS, the City of Ormond Beach adopted a first amended Interlocal Service Boundary Agreement (“ISBA”) with the County of Volusia on August 20, 2019, effective October 11, 2019, (recorded at Book 7758, Pages 4680 through 4683 of the Public Records of Volusia County, Florida) for the North US Highway 1 amended area depicted in Exhibit "A" Map 2 attached hereto, and incorporated herein by reference; and

WHEREAS, the City of Ormond Beach adopted a second amended Interlocal Service Boundary Agreement (“ISBA”) with the County of Volusia on December 7, 2021,

effective March 30, 2022, (recorded at Book 8228, Pages 1974 through 1978 of the Public Records of Volusia County, Florida) for the North US Highway 1 amended area depicted in Exhibit "A" Map 3 attached hereto, and incorporated herein by reference (a copy of the Second Amended ISBA is attached hereto and incorporated herein as Exhibit "D"), and

WHEREAS, as required by the ISBA and section 171.203(9), *Florida Statutes*, the City revises its Future Land Use Element, and the Interlocal Coordination Element of the City's *Comprehensive Plan*; and

WHEREAS, by Ordinance No. 90-36, the City Commission did adopt the City of Ormond Beach *Comprehensive Plan*, as required by the Local Government Comprehensive Planning and Land Development Regulation Act (Chapter 163, Part II, *Florida Statutes*) which *Comprehensive Plan* has been subsequently amended, and

WHEREAS, on March 10, 2022, the Planning Board serving as the local planning agency, conducted a public meeting with due public notice on the *Comprehensive Plan* amendment, and recommended approval thereof, and

WHEREAS, the City Commission has duly conducted a public hearing authorizing transmittal of the requested *Comprehensive Plan* amendment, as described in §163.3184(3) and (11), *Florida Statutes*, and

WHEREAS, the City Commission has duly conducted a public hearing adopting the requested *Comprehensive Plan* amendment, as described in §163.3184(3)(c)(1), (4)(e)(1) and (11), *Florida Statutes*, and

WHEREAS, the City Commission finds that approval of the *Comprehensive Plan* amendment will preserve the internal consistency of the City's *Comprehensive Plan* pursuant to §163.3177, *Florida Statutes*, now therefore,

BE IT ENACTED BY THE PEOPLE OF THE CITY OF ORMOND BEACH, FLORIDA, THAT:

SECTION ONE. The foregoing recitals are incorporated herein by reference as the legislative findings of the Ormond Beach City Commission.

SECTION TWO. The text of the Future Land Use Element of the City of Ormond Beach *Comprehensive Plan*, is hereby amended to read as depicted in Exhibit "B" attached hereto and incorporated herein by reference (Note: Additions in text are shown by underline; and deletions in text are shown by ~~strikeout~~).

SECTION THREE. The Intergovernmental Coordination Element of the City of Ormond Beach *Comprehensive Plan*, is hereby amended to read as depicted in Exhibit "C" attached hereto and incorporated herein by reference (Note: Additions in text are shown by underline and deletions in text are shown by ~~strikeout~~).

SECTION FOUR. In order to make the City of Ormond Beach *Comprehensive Plan*, as hereby amended, available to the public, a certified copy of the enacting Ordinance, as well as certified copies of the City of Ormond Beach *Comprehensive Plan* and the amendments thereto, shall be located in the Planning Department of the City of Ormond Beach. The Planning Director shall also make copies available to the public for a reasonable reproduction charge.

SECTION FIVE. The Planning Director is hereby authorized and directed to transmit the appropriate number of copies of the notice and amendment within ten (10) days after the first reading of this Ordinance to the Department of Economic Opportunity, the Department of Environmental Protection, the Department of State, the Department of Transportation, the St. Johns River Water Management District, Department of Education and the East Central Florida Regional Planning Council.

SECTION SIX. The Planning Director is hereby authorized and directed to transmit the appropriate number of copies of the *Comprehensive Plan* amendments after the first reading of this Ordinance to the Volusia Growth Management Commission and to any other local government agency in the State of Florida which has filed a written request with the City Commission for such.

SECTION SEVEN. Pursuant to §163.3184(3) and (4), *Florida Statutes*, the second reading of this *Comprehensive Plan* amendment shall not exceed 180 days after the receipt of the Department of Economic Opportunity comments.

SECTION EIGHT. All Ordinances or parts of Ordinances in conflict herewith are hereby repealed to the extent of such conflict.

SECTION NINE. In the event any section or provision of this Ordinance be declared by any court of competent jurisdiction to be unconstitutional or invalid, such declaration shall not be deemed to affect the validity of this Ordinance as a whole or any other section or provision thereof.

SECTION TEN. The effective date of this plan amendment, if the amendment is not timely challenged, shall be 31 days after the state land planning agency notifies the City of Ormond Beach that the plan amendment package is complete. If timely challenged, this amendment shall become effective on the date the state land planning agency or the Administration Commission enters a final order determining this adopted amendment to be in compliance. No development orders, development permits, or land use dependent on this amendment may be issued or commence before it has become effective. If a final order of noncompliance is issued by the Administrative Commission, this amendment may nevertheless be made effective by adoption of a resolution affirming its effective status, a copy of which resolution shall be sent to the state land planning agency.

PASSED UPON at the first reading of the City Commission, this 3rd day of May, 2022.

PASSED UPON at the second and final reading of the City Commission, this ____ day of _____, 2022.

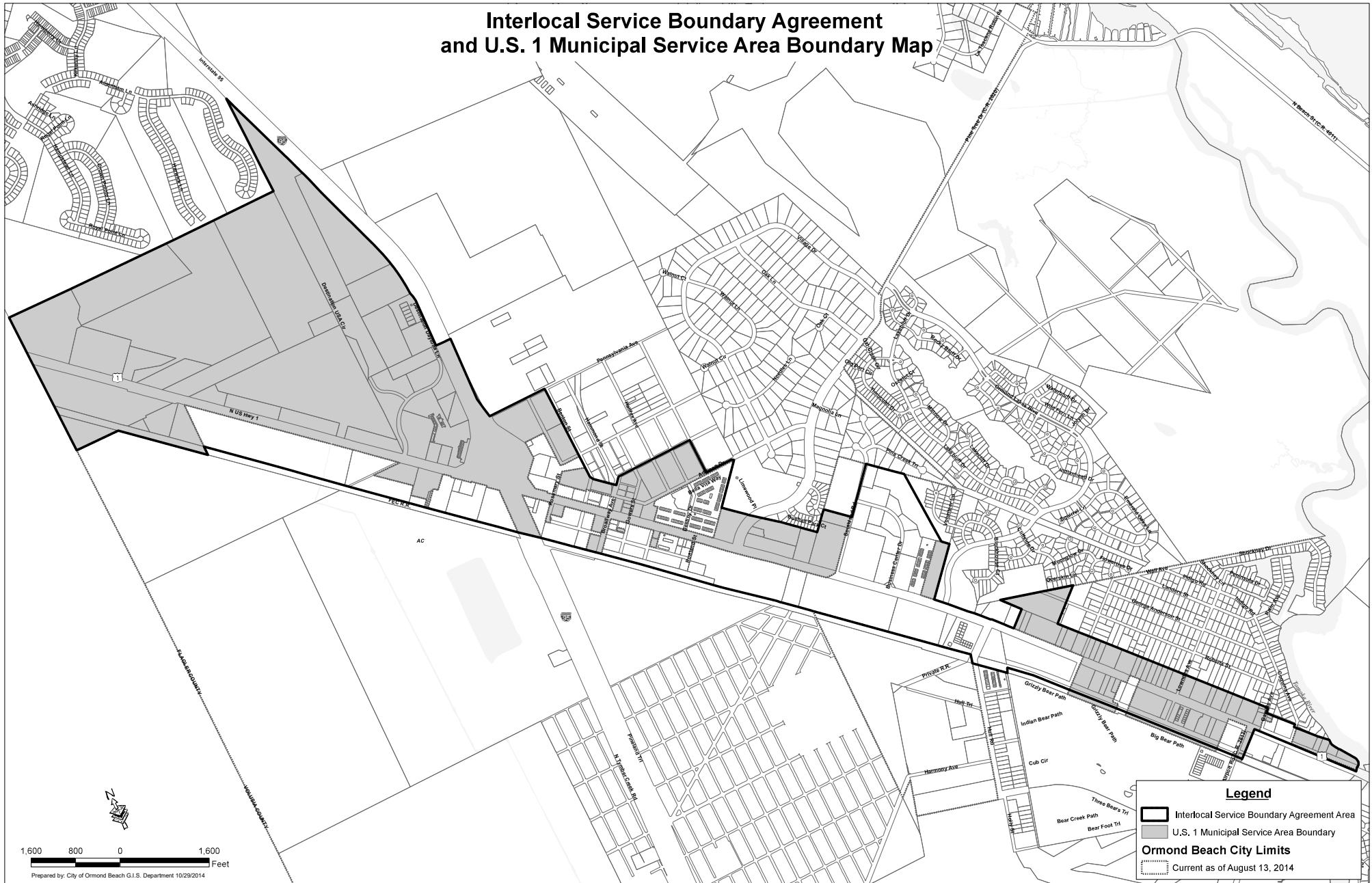
BILL PARTINGTON
Mayor

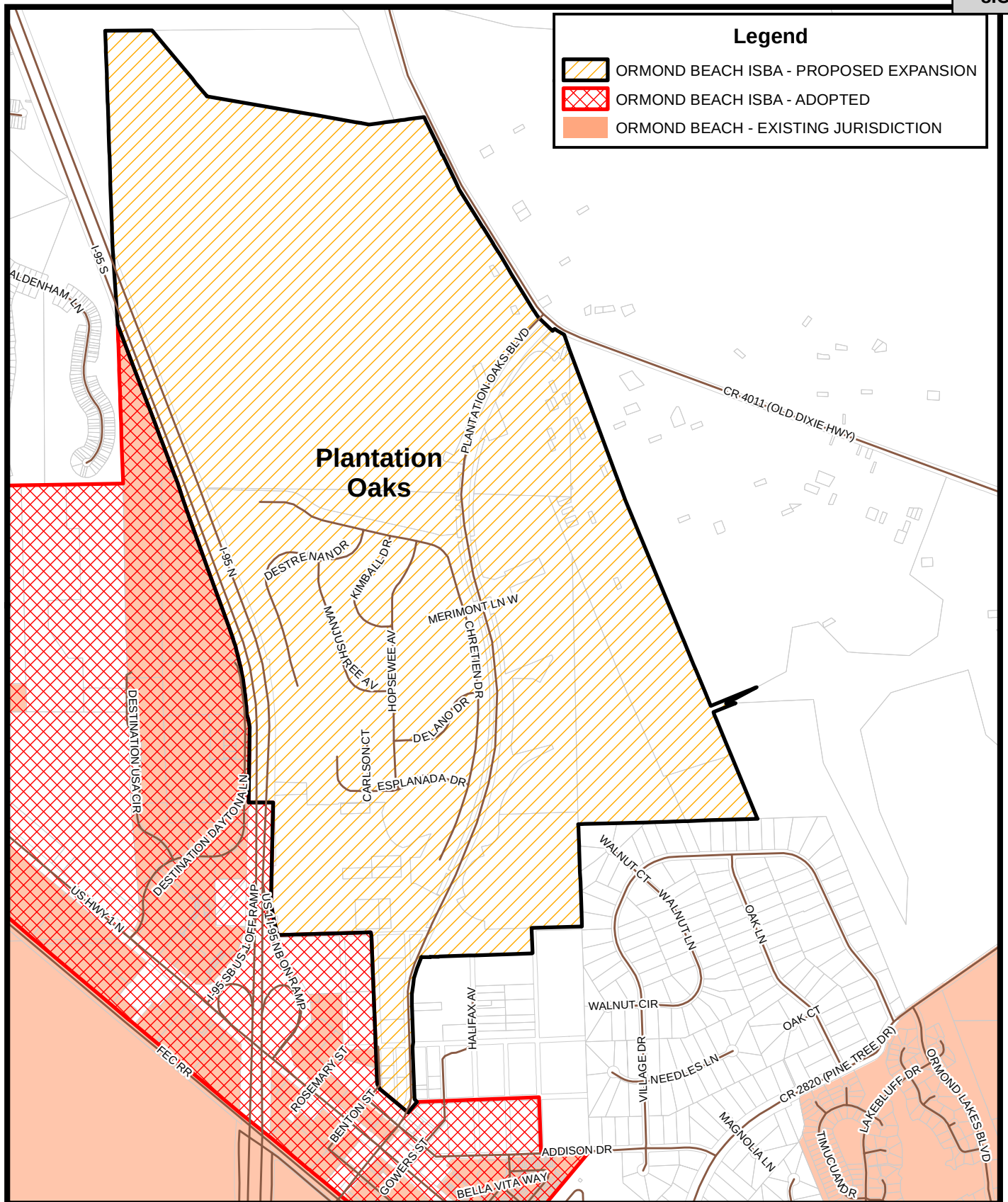
ATTEST:

SUSAN CAROLL DAUDERIS
City Clerk

Exhibit A MAP 1

Interlocal Service Boundary Agreement and U.S. 1 Municipal Service Area Boundary Map





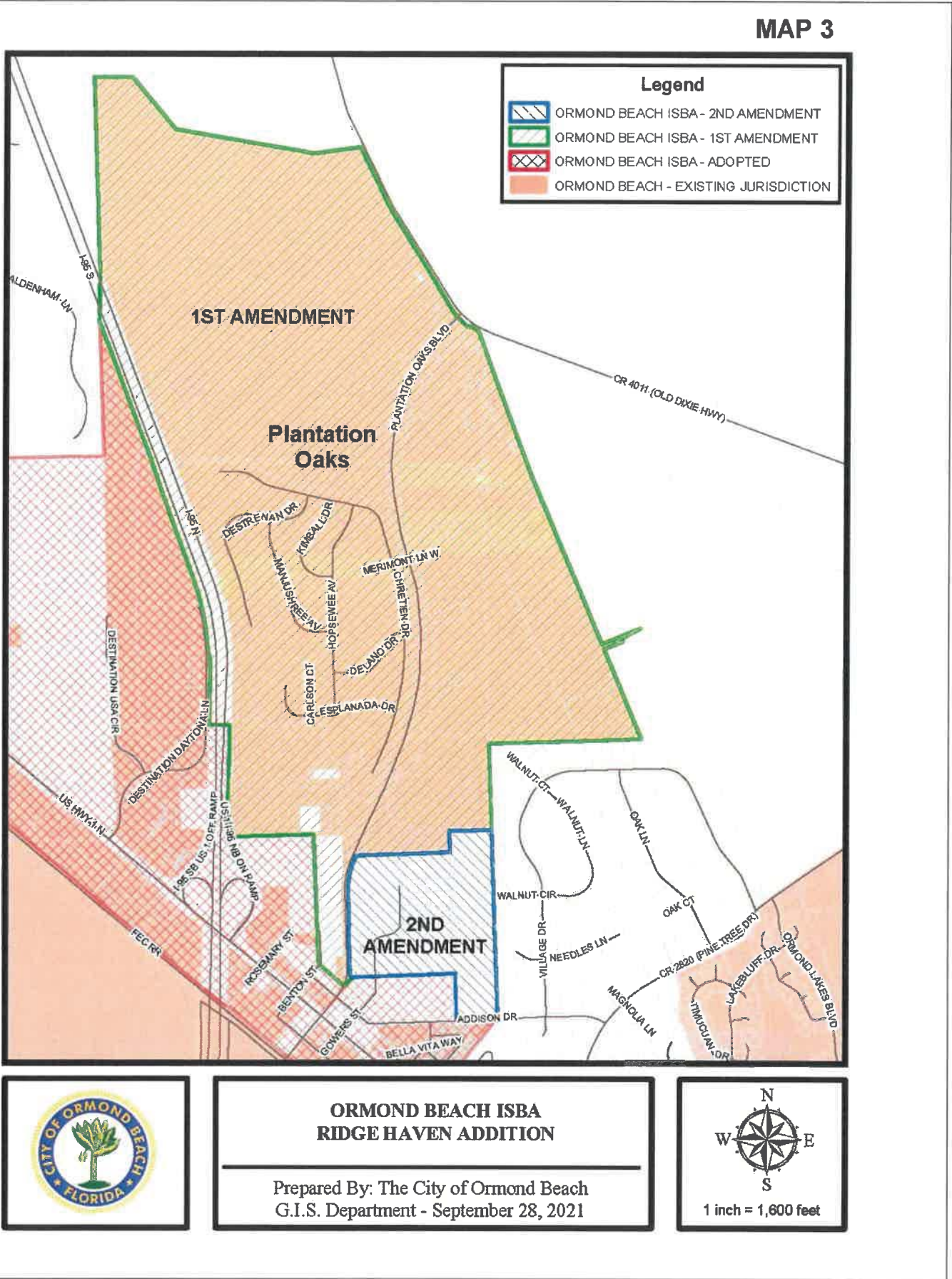
**ORMOND BEACH ISBA
PLANTATION OAKS ADDITION - MAP 2**

Prepared By: The City of Ormond Beach
G.I.S. Department - June 5, 2019



1 inch = 1,600 feet

EXHIBIT "A" - MAP 3



FUTURE LAND USE ELEMENT

ESTABLISHMENT OF FUTURE LAND USE CATEGORIES

TOC - A

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**FUTURE LAND USE ELEMENT
GOALS OBJECTIVES AND POLICIES**

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EXCEPTION AREA MAP

FIGURE 11 – NORTH US 1 MUNICIPAL SERVICE AREA MAP

GOAL 9. NORTH US 1 MUNICIPAL SERVICE AREA (MSA)

TO IMPLEMENT THE PLANNING, DEVELOPMENT AND ADMINISTRATIVE AUTHORITY OF THE INTERLOCAL SERVICE BOUNDARY AGREEMENT (ISBA) BETWEEN THE CITY AND THE COUNTY OF VOLUSIA PURSUANT TO CHAPTER 171, PART II, FLORIDA STATUTES, AS AMENDED.

OBJECTIVE 9.1. NORTH US 1 MSA PLANNING, DEVELOPMENT AND ADMINISTRATIVE AUTHORITY

The City shall have sole and singular authority within the boundaries of the MSA to apply the City's Comprehensive Land Use Plan and Zoning Map categories over unincorporated parcels, to administer the codes and regulations, and provide for the enforcement codes pursuant to the Interlocal Service Boundary Agreement (ISBA) adopted by the City of Ormond Beach Commission and by the Volusia County Council effective and recorded on August 28, 2014, at Book 7026, Pages 878 through 895, of the Public Records of Volusia County, Florida and as amended effective and recorded on October 11, 2019, at Book 7758, Pages 4680 through 4683, of the Public Records of Volusia County, Florida, and as amended effective and recorded on March 30, 2022, at Book 8228, Pages 1974 through 1978, of the Public Records of Volusia County, Florida.

POLICY 9.1.1.

The North US 1 Municipal Service Area (MSA), consistent with its related policies of the Intergovernmental Coordination Element, is hereby established between the City and Volusia County as a means to coordinate planning and delivery of services related to future land use, public facilities and services, and protection of natural resources in advance of annexation.

POLICY 9.1.2

Pursuant to the ISBA, the City may annex noncontiguous parcels and create enclaves within the MSA notwithstanding Policy 5.1.4.

POLICY 9.1.3.

The City shall be authorized to amend the City's zoning map for all unincorporated lands within the MSA after a City land use designation has been adopted.

POLICY 9.1.4.

**FUTURE LAND USE ELEMENT
GOALS OBJECTIVES AND POLICIES**

The City's future land uses on Figure 11 are described under "Goal 1. Land Use Distribution" of the current adopted Comprehensive Plan. For the purposes of the MSA, the City and County future land use categories shall be considered equal with the land use restrictions as described by map annotation in Table 4 and in Table 5 and in Table 6.

**FUTURE LAND USE ELEMENT
GOALS OBJECTIVES AND POLICIES**

**TABLE 4
North US 1 MSA Future Land Use Categories**

Existing Volusia County Land Use	Proposed City Land Use	City Map Annotation
Industrial (I)	Light Industrial/Utilities (LI/U)	Max. FAR shall not exceed 0.60
Agricultural Resource (AR)	Rural Estate/Agricultural (REA)	Density shall not exceed one (1) dwelling unit per 10 acres. Max. FAR shall not exceed 0.10
Mixed Use (MXZ)	Low Intensity Commercial (LIC)	Density shall not exceed 8 dwelling units per acre Maximum FAR shall not exceed 0.50 for Retail or 0.55 for all other Nonresidential uses.
Commercial (C)	Low Intensity Commercial (LIC)	See Annotation above for LIC
Urban Medium Intensity (UMI)	Low Intensity Commercial (LIC)	See Annotation above for LIC
Low Impact Urban (LIU)	Low Intensity Commercial (LIC)	See Annotation above for LIC
Urban Low Intensity (ULI)	Low Intensity Commercial (LIC)	See Annotation above for LIC

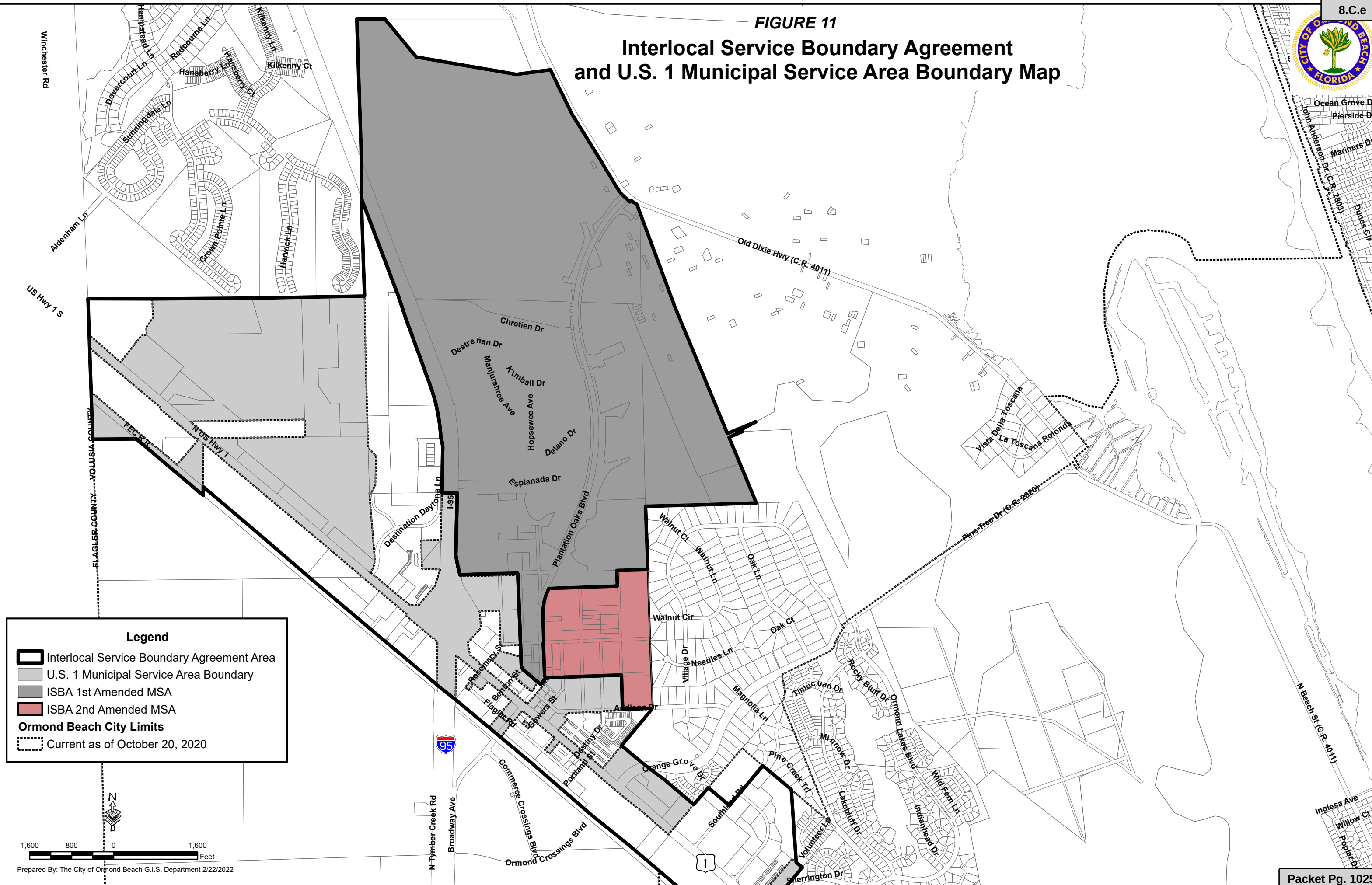
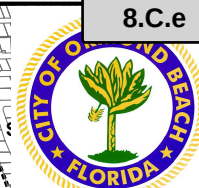
**TABLE 5
First Amended North US 1 MSA Future Land Use Categories**

Note	Existing Volusia County Land Use	Proposed City Land Use	City Map Annotation
A.	Rural (R) (769.62 acres)	Low Density Residential (LDR)	Maximum Dwelling Units shall not exceed 1,947 for Plantation Oaks owned and City LDR Land Use designation.
A.	Rural (R) (1.3 acres)	Low Intensity Commercial (LIC)	
A.	Urban Low Intensity (ULI) (274.39 acres)	Low Density Residential (LDR)	See Annotation above for LDR, Note A.
A.	Urban Medium Intensity (UMI) (9.75 acres)	Low Density Residential (LDR)	See Annotation above for LDR, Note A.
B.	Rural (R) (3.27 acres))	Low Density Residential (LDR)	
B.	Urban Low Intensity (ULI) (1.91 acres)	Low Density Residential (LDR)	
B.	Urban Medium Intensity (UMI) (11.42 acres)	Medium Density Residential (MDR)	Maximum Dwelling Units per acre shall not exceed 8 for properties not owned by Plantation Oaks with City MDR Land Use designation.
Note: A. Properties owned by Plantation Oaks. B. Individual properties not owned by Plantation Oaks.			

**TABLE 6
Second Amended North US 1 MSA Future Land Use Categories**

<u>Existing Volusia County Land Use</u>	<u>Proposed City Land Use</u>	<u>City Density Conditions</u>	<u>City Intensity Conditions</u>
Urban Medium Intensity (UMI)	Low Density Residential (LDR)	Not to exceed 3 units per acre and no more than 298 dwelling units for entire RidgeHaven owned lands including the 19.19 acres to the south.	Not to exceed 0.20 FAR
Urban Medium Intensity (UMI)	Medium Density Residential (MDR)	Not to exceed 8 DU per acre for properties not owned by RidgeHaven.	Not to exceed 0.30 FAR

FIGURE 11
Interlocal Service Boundary Agreement
and U.S. 1 Municipal Service Area Boundary Map



INTERGOVERNMENTAL COORDINATION ELEMENT

GOALS, OBJECTIVES AND POLICIES

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**INTERGOVERNMENTAL COORDINATION ELEMENT
GOALS, OBJECTIVES AND POLICIES**

POLICY 1.9.3.

The City shall continue to provide solid waste collection in cooperation with DEP and Volusia County.

POLICY 1.9.4.

The City and the County shall work in cooperation to implement the hazardous waste management program.

POLICY 1.9.5.

The City shall coordinate and cooperate with adjacent jurisdictions to participate in basin-wide stormwater management studies for the Halifax River and Tomoka River.

POLICY 1.9.6.

The City shall participate in drainage studies for the Halifax River and Tomoka River basins, when available or through direct coordination with affected entities.

OBJECTIVE 1.10. CONFLICT RESOLUTION

Maintain and increase the use of intergovernmental planning agencies for discussion and resolution of multi-jurisdictional issues. This objective shall be achieved through the implementation of the policies associated with this objective.

POLICY 1.10.1.

Continue active membership and support of intergovernmental planning agencies to resolve issues and disputes through mechanisms such as VCOG, MPO, VGMC, ECFRPC and the Florida Growth Management Conflict Resolution Consortium.

POLICY 1.10.2

Support the efforts to plan for the regional management of water resources.

POLICY 1.10.3.

Work with VGMC to ensure coordination of all planning activities mandated by the Comprehensive Plan.

OBJECTIVE 1.11. JOINT PLANNING AREAS

Identify, implement, and coordinate joint planning areas for annexation and service provision.

**INTERGOVERNMENTAL COORDINATION ELEMENT
GOALS, OBJECTIVES AND POLICIES**

POLICY 1.11.1.

The City will continue to coordinate with the Volusia Council of Governments, VGMC, Volusia County, the Cities of Holly Hill and Daytona Beach, and other jurisdictions when annexations occur.

POLICY 1.11.2.

The City will provide a copy of its published or posted notice of annexation, to the Volusia County Council as required by Florida Statutes as amended.

POLICY 1.11.3.

The City will continue to provide potable water and sewer service within its identified service boundary areas.

POLICY 1.11.4.

The City will continue to coordinate procedures through interlocal agreements with Volusia County and other adjoining jurisdictions, as appropriate, on the review of development orders and guaranteed compliance with the City of Ormond Beach Land Development Code for projects requesting City utility services.

POLICY 1.11.5.

The City will promote sound growth management by providing city services to contiguous areas before non-contiguous areas.

POLICY 1.11.6.

The Interlocal Service Boundary Agreement adopted by the City of Ormond Beach Commission by Ordinance No. 2014-27, and the Volusia County Council by Ordinance 2014-12, is hereby adopted within the comprehensive plan by reference, said agreement having been recorded on August 28, 2014, at Book 7026, Pages 878 through 895, of the Public Records of Volusia County, Florida and amended effective and recorded on October 11, 2019, at Book 7758, Pages 4680 through 4683, of the Public Records of Volusia County, Florida, and as amended effective and recorded on March 30, 2022, at Book 8228, Pages 1974 through 1978, of the Public Records of Volusia County, Florida.

POLICY 1.11.7.

A Municipal Service Area (MSA) is hereby established between the City and Volusia County as a means to coordinate planning and delivery of services related to future land use, public facilities and services, and protection of natural resources in advance of annexation.

POLICY 1.11.8.

Pursuant to Chapter 171, Part II, Florida Statutes, Volusia County and the City of Ormond Beach have established an Interlocal Service Boundary Agreement (ISBA) effective and recorded on August 28, 2014, at Book 7026, Pages 878 through 895, of the Public Records of Volusia County, Florida and as amended effective and recorded on October 11, 2019, at Book 7758, Pages 4680 through 4683, of the Public Records of Volusia County, Florida, and as amended

INTERGOVERNMENTAL COORDINATION ELEMENT GOALS, OBJECTIVES AND POLICIES

effective and recorded on March 30, 2022, at Book 8228, Pages 1974 through 1978, of the Public Records of Volusia County, Florida. The agreement allows the City to annex properties within the Joint Planning Area that would not otherwise be eligible for annexation subject to the provisions established in the ISBA.

POLICY 1.11.9.

The City is authorized and empowered, pursuant to section 163.3171(4), Florida Statutes, to amend and apply its comprehensive plan to the lands within the MSA in advance of the annexation of those lands.

OBJECTIVE 1.12. JOINT PROCESSES FOR COLLABORATIVE PLANNING AND DECISION MAKING

Identify and describe joint processes for collaborative planning on population projections, school siting, facilities subject to concurrency, facilities with countywide significance, and problematic land uses.

POLICY 1.12.1.

The City will continue to coordinate with the Volusia County Growth Management Department, the Volusia Council of Governments, the MPO, the University of Florida Bureau of Economic and Business Research, and other agencies in order to develop citywide and countywide population projections that include expected growth shown in the comprehensive plan for the City. In addition, the City will use these mutually agreed upon and coordinated population figures in the comprehensive plan.

POLICY 1.12.2.

City staff will coordinate annually, or more often as needed, with Volusia County staff for the purpose of determining future unincorporated area needs for water and sewer within each respective unincorporated area served by the county.

POLICY 1.12.3.

The City will forward requests for access to County or State maintained roadways to each respective agency for comment concerning their respective plans and policies.

POLICY 1.12.4.

The City will coordinate with service providers that have no regulatory authority over the use of land in the City to develop recommendations that address ways to improve coordination of the City's concurrency management methodologies and systems, and levels-of-service.

POLICY 1.12.5.

The City will enter into an interlocal agreement with Volusia County for joint projects identified in the City's Stormwater Management Plan and the County's Stormwater Management Plan.

EXHIBIT "D"

**SECOND AMENDED
INTERLOCAL SERVICE BOUNDARY AGREEMENT
BETWEEN THE CITY OF ORMOND BEACH AND COUNTY OF VOLUSIA**

This Second Amended Interlocal Service Boundary Agreement ("Second Amended Agreement") is made and entered into this 15th date of March, ~~2021~~ 2022 by and between the City of Ormond Beach ("City") and County of Volusia ("County"), sometimes herein referred to as "Party" or "Parties" as the context requires.

WHEREAS, the City and County entered into an Interlocal Service Boundary Agreement, inclusive of a Planning and Service Delivery Sub-Agreement, dated August 28, 2014 and recorded in Official Records Book 7026, Pages 876 et. seq., Public Records of Volusia County, Florida ("2014 ISBA"); and

WHEREAS, the 2014 ISBA established a Municipal Service Area ("MSA") and Joint Planning Area ("JPA") as depicted on Map 1 thereto; and

WHEREAS, the City of Ormond Beach and County of Volusia, authorized the First Amended Interlocal Service Boundary Agreement between the City of Ormond Beach and County of Volusia, dated August 20, 2019 and recorded on Official Records Book 7758, Pages 4680, et. seq, of the Public Records of Volusia County, Florida; and

WHEREAS, the City and County desire to amend the 2014 ISBA and the 2019 First Amended Interlocal Service Boundary Agreement for the purpose of expanding the boundaries of the MSA and JPA; and

WHEREAS, the 2014 ISBA authorizes amendments to the agreement based upon the mutual consent of the Parties; and

WHEREAS, this Second Amended Agreement is entered into in accordance with the authority provided by Article VIII of the Florida Constitution, and Chapters 125, 163, 166, 171 and 180 of the Florida Statutes, as well as the 2014 ISBA.

NOW, THEREFORE, in consideration of the mutual covenants set forth in this Second Amended Agreement, the receipt and sufficiency of which are hereby acknowledged, the City and the County agree as follows:

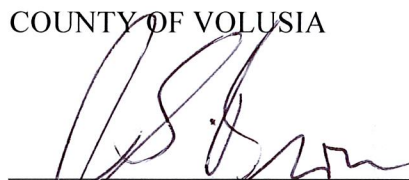
1. The foregoing recitals are incorporated herein and are a material part of this Second Amended Agreement.
2. The MSA and JPA as shown and depicted on Map 1 of the 2014 ISBA and amended with Map 2 of the 2019 First Amended Interlocal Service Boundary Agreement is hereby modified and enlarged to include the area shown and depicted on Map 3 to this Second Amended Agreement.
3. The terms and conditions of the 2014 ISBA as recorded in Official Records Book 7026, Pages 876 et. seq., Public Records of Volusia County, Florida, are hereby restated and incorporated herein and remain in full force and effect. Every reference to Map 1 in the 2014 ISBA and Map 2 of the 2019 First Amended Interlocal Service Boundary Agreement shall be construed to also include the expanded MSA and JPA depicted in Map 3 to this Second Amended Agreement.
4. The governing bodies of the City and County shall approve this Second Amended Agreement by ordinance, consistent with the manner of adoption of the 2014 ISBA.
5. This Second Amended Agreement shall become effective upon being filed and recorded with the Clerk of the Circuit Court of Volusia County, Florida.

IN WITNESS WHEREOF, each of the undersigned has executed this Second Amended Agreement on behalf of the respective party set forth below, pursuant to the authority granted to each of the undersigned in the ordinance by which each party approved and adopted this Second Amended Agreement.

ATTEST:

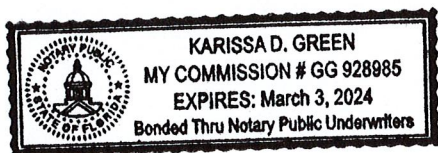

George Recktenwald
County Manager

COUNTY OF VOLUSIA


Jeff Brower Jeffrey S. Brower
County Chair

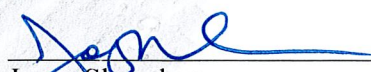
STATE OF FLORIDA
COUNTY OF VOLUSIA

Jeffrey S. The foregoing instrument was acknowledged before me this 15th day of March, 2022, by Jeff Brower and George Recktenwald, as County Chair and County Manager, respectively, on behalf of the County of Volusia, who acknowledge that they are duly authorized to execute the foregoing Agreement on behalf of the County. They are personally known to me.




NOTARY PUBLIC

ATTEST:

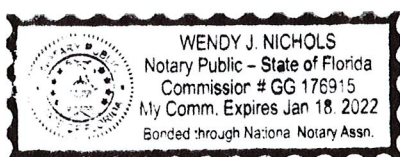

Joyce Shanahan
City Manager

CITY OF ORMOND BEACH


Bill Partington
Mayor

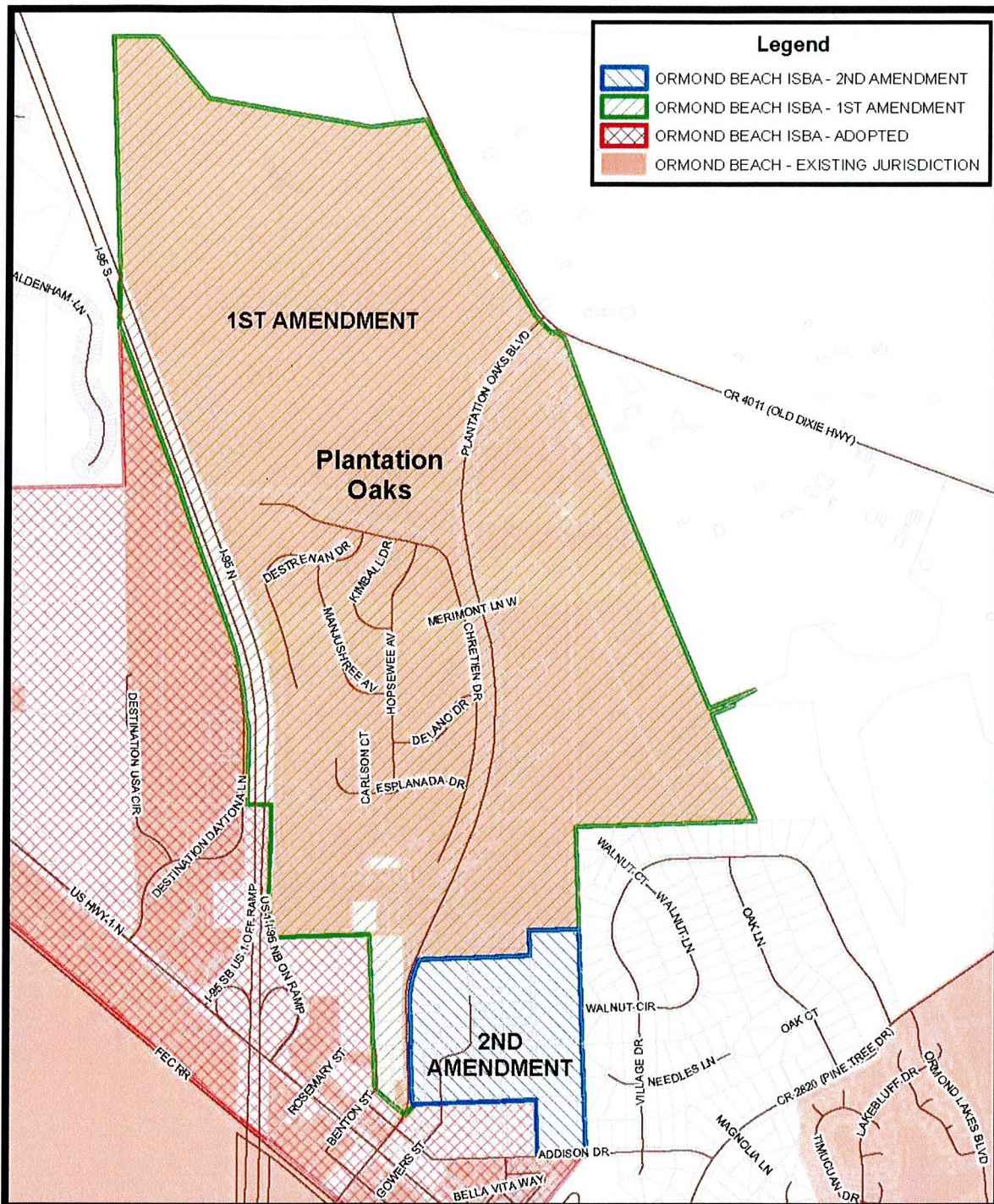
STATE OF FLORIDA
COUNTY OF VOLUSIA

The foregoing instrument was acknowledged before me this 7 day of Dec, 2021, by Bill Partington and Joyce Shanahan, as Mayor and City Manager, respectively, on behalf of the City of Ormond Beach, who acknowledge that they are duly authorized to execute the foregoing Agreement on behalf of the City. They are personally known to me.



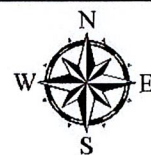

NOTARY PUBLIC

MAP 3



**ORMOND BEACH ISBA
RIDGE HAVEN ADDITION**

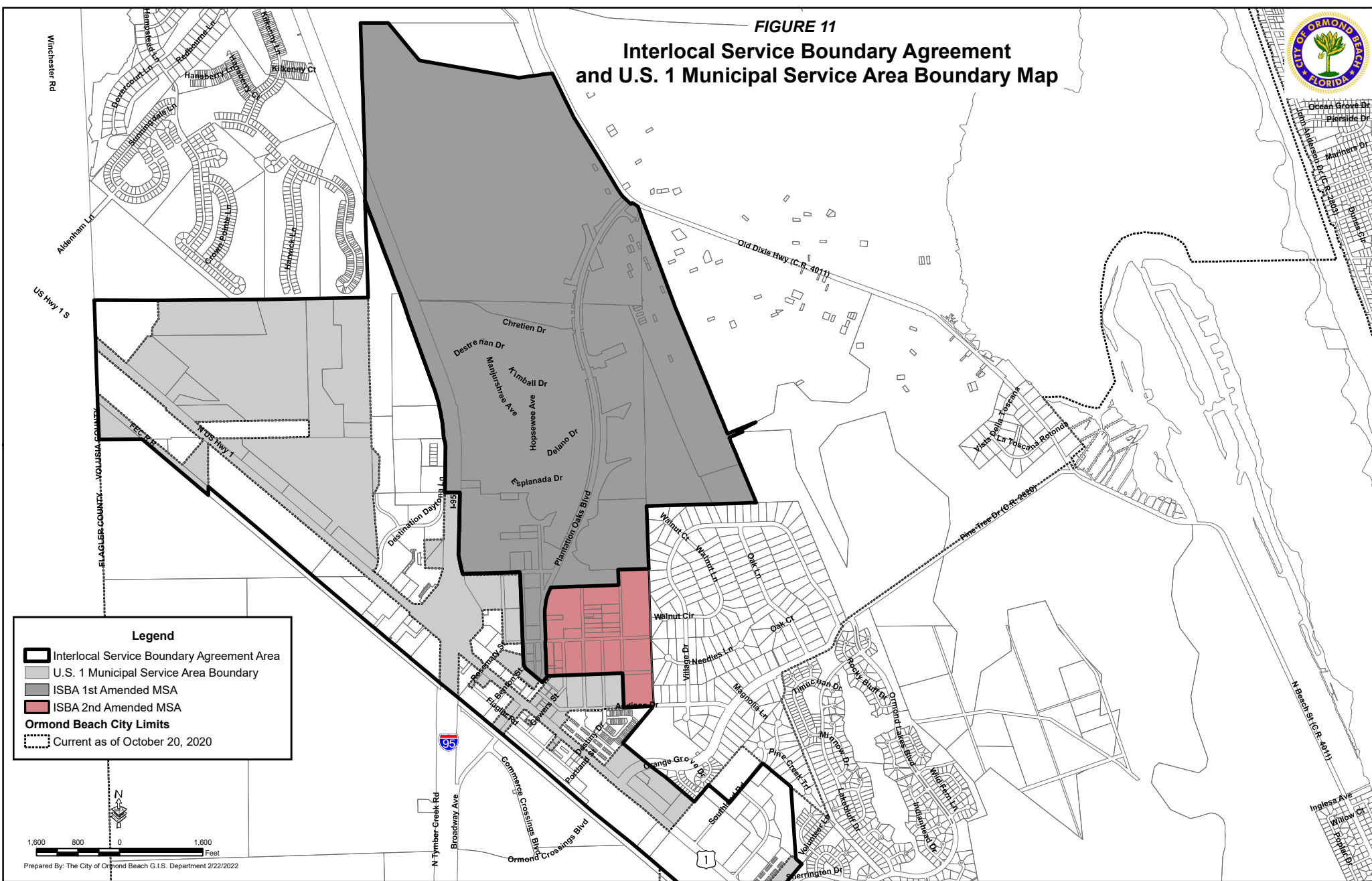
Prepared By: The City of Ormond Beach
G.I.S. Department - September 28, 2021



1 inch = 1,600 feet



FIGURE 11
Interlocal Service Boundary Agreement
and U.S. 1 Municipal Service Area Boundary Map



M I N U T E S
ORMOND BEACH PLANNING BOARD
Regular Meeting

March 10, 2022

6:00 PM

City Commission Chambers
 22 South Beach Street
 Ormond Beach, FL 32174

PURSUANT TO SECTION 286.0105, FLORIDA STATUTES, IF ANY PERSON DECIDES TO APPEAL ANY DECISION MADE BY THE PLANNING BOARD WITH RESPECT TO ANY MATTER CONSIDERED AT THIS PUBLIC MEETING, THAT PERSON WILL NEED A RECORD OF THE PROCEEDINGS AND FOR SUCH PURPOSE, SAID PERSON MAY NEED TO ENSURE THAT A VERBATIM RECORD OF THE PROCEEDING IS MADE, INCLUDING THE TESTIMONY AND EVIDENCE UPON WHICH THE APPEAL IS TO BE BASED.

PERSONS WITH A DISABILITY, SUCH AS A VISION, HEARING OR SPEECH IMPAIRMENT, OR PERSONS NEEDING OTHER TYPES OF ASSISTANCE, AND WHO WISH TO ATTEND CITY COMMISSION MEETINGS OR ANY OTHER BOARD OR COMMITTEE MEETING MAY CONTACT THE CITY CLERK IN WRITING, OR MAY CALL 677-0311 FOR INFORMATION REGARDING AVAILABLE AIDS AND SERVICES.

I. ROLL CALL

Members Present

Harold Briley, Vice Chair
 G.G. Galloway
 Al Jorczak
 Mike Scudiero
 Angeline Shull
 Lori Tolland
 Doug Thomas, Chair

Staff Present

Steven Spraker, Planning Director
 Becky Weedon, Senior Planner
 Robin Gawel, Senior Planner
 Randy Hayes, City Attorney
 Marcella Miller, Recording Technician

II. INVOCATION

Chairman Thomas led the invocation.

III. PLEDGE OF ALLEGIANCE

IV. NOTICE REGARDING ADJOURNMENT

NEW ITEMS WILL NOT BE HEARD BY THE PLANNING BOARD AFTER 9:00 PM UNLESS AUTHORIZED BY A MAJORITY VOTE OF THE BOARD MEMBERS PRESENT. ITEMS WHICH HAVE NOT BEEN HEARD BEFORE 9:00 PM MAY BE CONTINUED TO THE FOLLOWING THURSDAY OR TO THE NEXT REGULAR MEETING, AS DETERMINED BY AFFIRMATIVE VOTE OF THE MAJORITY OF THE BOARD MEMBERS PRESENT (PER PLANNING BOARD RULES OF PROCEDURE, SECTION 2.7).

Mr. Spraker continued that after the first submittal, a neighborhood meeting is coordinated, followed by the Planning Board and City Commission meetings. He reiterated that tonight is only regarding the land use where it is being reduced by 422 units and a million square feet of commercial. The Volusia County analysis showed that the land can support 1,054 units. He offered his business card for any communications or meetings on the matter.

Chairman Thomas commented that people are not aware of how the process works and asked that there be an outline so that it is clearer on the overhead projector.

Mr. Scudiero added that as the process plays out there will be a better visual on it all. Concerns will be taken to hear prior to the Board voting on anything down the line. He commented that anything that reduces density should be a yes.

Mr. Galloway was interested to obtain more information on the wildlife corridor referenced by the speaker.

Mr. Jorczak applauded the property owner's and staff's efforts with reducing the density.

Mr. Briley concurred, "It's a no-brainer".

Ms. Shull motioned to approve LUPA 2022-023 – Second Amended Interlocal Service Boundary Agreement (ISBA) Future Land Use Map Amendment (Small Scale). Ms. Tolland seconded it. Vote was called, and the motion was approved (7-0).

D. CP 2022-024 – Comprehensive Plan Text Amendments Related to the Second Interlocal Service Boundary Agreement (ISBA)

Ms. Becky Weed, Senior Planner, stated that this item is one of the companion documents to the previous Second Amended ISBA Future Land Use Map (FLUM) amendment and is an administrative request to amend the City of Ormond Beach Comprehensive Plan's Future Land Use and Intergovernmental Coordination to update language and references consistent with the Second Amended Interlocal Service Boundary Agreement (ISBA) between the City of Ormond Beach and Volusia County pursuant to Chapter 171, Part II, Florida Statutes, as amended. She added that since the Second Amended ISBA has been adopted, the Comprehensive Plan amendments must be processed to update the policies and objectives consistent with the expanded joint planning and service area. A summary of the proposed amendments were shown overhead and explained.

Ms. Weed noted that the amendments are text amendments to Comprehensive Plan Elements, and the item will be processed as a large scale amendment which requires an expedited State review by the Department of Economic Opportunity (DEO) and a review by the Volusia Growth Management Commission (VGMC). The City Commission first reading of this amendment is planned to be on April 19th with transmittal to DEO and VGMC by April 29th. She continued that second reading is tentatively scheduled on June 7th and submittal of the adopted package to DEO and VGMC by June 17th.

Ms. Weedo concluded that staff recommends that the Planning Board recommend approval to the proposed Comprehensive Plan amendments to the Future Land Use Element and the intergovernmental coordination element to be consistent with the Second Amended Interlocal Service Boundary Agreement (ISBA).

Mr. Jorczak motioned to approve CP 2022-024 – Comprehensive Plan text amendments related to the second Interlocal Service Boundary Agreement (ISBA). Mr. Briley seconded it. Vote was called, and the motion was approved (7-0).

E. LUPA 2022-020 – RidgeHaven original ISBA Small Scale Comprehensive Plan Land Use Map Amendment (RidgeHaven – 19.19 acres (Small Scale))

Ms. Becky Weedo, Senior Planner, stated that this is a request by Corey D. Brown, authorized representative on behalf of Snilloc Family LP Number One and RidgeHaven LLC, property owners, for a Small-Scale Comprehensive Plan Future Amendment for a 19.19± acre property located within the original Interlocal Service Boundary Agreement (ISBA) adopted in 2015. Ms. Weedo added that the requested land use map amendment is going from City “Low Intensity Commercial” (LIC) to City “Medium Density Residential” (MDR). The maximum gross density shall not exceed eight units per acre and total units for all lands within the RidgeHaven subdivision (including within the 84.26 acres to the north) shall not exceed 298 residential units.

Ms. Weedo explained that the existing land use per the original ISBA, allows up to 153 dwelling units with a 0.50 Floor Area Ratio (FAR) for retail. The proposed land use category density still remains the same at 153 residential units. There is also a condition that the total RidgeHaven area cannot exceed 298 residential units within this land area of 19.19 acres and the other RidgeHaven land area of 84.26 acres. Ms. Weedo continued that the proposed FAR is 0.30. The non-residential entitlements will decrease by 167, 183 square feet. The proposed land use limits any FAR uses to institutional uses, such as a house of worship. She added that the amendment to the Future Land Use Map is also being processed as a small-scale amendment per Chapter 163, Section 3187, Florida Statutes. Effective July 1, 2021, the process for small scale amendments changed the acreage from 10 acres or less to 50 acres or less. Ms. Weedo reiterated that it is a companion document to the Second Amended ISBA small scale amendment to the 84.26 acres north. City Commission first reading of this amendment is planned to be on April 19th with the second reading on May 3rd and submittal to DEO and VGMC on May 10th.

Ms. Weedo explained that staff determined that the proposed amendment meets the goals, objectives, and policies of the City’s Comprehensive Plan, and the requirements established by Florida Statutes, the proposed uses are appropriate, the amendment provides adequate infrastructure; and will not impact surrounding jurisdictions. She concluded that staff recommends that the Planning Board recommend approval to the City Commission of a Future Land Use map amendment for a 19.19± acre land area from the existing future land use designation of “Low-Intensity Commercial” to “Medium-Density Residential” with conditions for the RidgeHaven land area.

Ms. Shull asked for clarification of the request and if it is already included with the prior vote. Ms. Weedo answered that it is part of the entire RidgeHaven area and this

STAFF REPORT

City of Ormond Beach Department of Planning

DATE: March 10, 2022

SUBJECT: Second Amended Interlocal Service Boundary Agreement
Comprehensive Plan Amendment

APPLICANT: City Initiated

NUMBER: LUPA 22-023

PROJECT PLANNER: Becky Weedo, AICP, Senior Planner

INTRODUCTION: This is an administrative request to amend the City of Ormond Beach Comprehensive Plan's Future Land Use and Intergovernmental Coordination to update language and references consistent with the Second Amended Interlocal Service Boundary Agreement (ISBA) between the City of Ormond Beach and Volusia County pursuant to Chapter 171, Part II, Florida Statutes, as amended. A copy of the Second Amended ISBA is attached as Exhibit A.

BACKGROUND: The City Commission adopted the original North US 1 Interlocal Service Boundary Agreement on August 19, 2014 per Ordinance 2014-27. Concurrently, the Volusia County Council adopted the Interlocal Service Boundary Agreement on August 21, 2014 by Volusia County Ordinance 2014-12. The original ISBA established the Municipal Service Area (MSA) and joint planning and service delivery agreement to the North US 1 area.

The first amendment to the North US 1 ISBA was approved to add the land associated with Plantation Oaks Subdivision and the 13 enclaves surrounding the subdivision to the adopted Municipal Service Area. On August 20, 2019, the City Commission adopted the first amendment to the North US 1 ISBA. The Volusia County Council subsequently adopted the agreement on September 17, 2019.

The second amendment to the North US 1 ISBA was approved to add the land associated with the RidgeHaven Subdivision and the 8 individually owned parcels not owned by RidgeHaven to the adopted Municipal Service Area. On October 14, 2021, the second amendment to the North US 1 ISBA was presented to the Planning Board. The Planning Board unanimously recommended approval. On December 7, 2021, the City Commission adopted the second amendment to the North US 1 ISBA. The Volusia County Council subsequently adopted the agreement on February 15, 2022 with conditions.

The proposed amendments to the City of Ormond Beach Comprehensive Plan's Future Land Use and Intergovernmental Coordination Elements are being processed as

expedited amendments. The amendments to the Future Land Use Map are being processed simultaneously as a small scale amendment per Florida Statute section 171.204 and section 163.3171 which states, “An amendment to the future land use map of a comprehensive plan which is consistent with the joint planning agreement must be considered a small scale amendment.” The complete data and analysis for the comprehensive plan amendments are contained in the companion Small Scale Future Land Use Map amendment report.

ANALYSIS: Since the second amended ISBA has been adopted, the following comprehensive plan amendments must be processed to update the policies and objectives consistent with the expanded Municipal Service Area. The following table is a summary of the proposed changes to the City’s Comprehensive Plan. The actual changes are included in Exhibit “A”.

	Proposed Change to	Description of Change
1	Future Land Use Element: Objective 9.1	Add the recorded Book and Page references to incorporate the land area from the adopted Second Amended Interlocal Service Boundary Agreement.
2	Future Land Use Element: Policy 9.1.4	Add Table 6 to include policy density limitations to ensure consistency and limit impacts on facilities and services.
3	Future Land Use Element: Figure 11	Amend Figure 11, North US 1 Municipal Service Area Map to include the land area from the adopted Second Amended Interlocal Service Boundary Agreement.
4	Intergovernmental Coordination Element: Policy 1.11.6	Add the recorded Book and Page references to incorporate the land area from the adopted Second Amended Interlocal Service Boundary Agreement.
5	Intergovernmental Coordination Element: Policy 1.11.8	Add the recorded Book and Page references to incorporate the land area from the adopted Second Amended Interlocal Service Boundary Agreement.

The relevant pages from each affected element of the Comprehensive Plan have been included as Exhibit B. These Comprehensive Plan Amendments are being processed pursuant to the Expedited State Review process, Section 163.3184(3) and (5), Florida Statutes. The tentative schedule is as follows:

Action/Board	Date
Planning Board.	March 10, 2022
City Commission 1 st Reading Comprehensive Plan Amendments.	April 19, 2022
Transmit to Florida Department of Economic Opportunity (DEO), State agencies, Volusia County Growth Management Commission, and adjoining jurisdictions.	April 29, 2022
City Commission 2 nd Reading.	June 7, 2022
Send adopted Comprehensive Plan package to DEO.	Within 10 days of City Commission Adoption Date.
Amendment Adoption Date (If no challenge is received by DEO).	31 days after State Land Planning Agency determines package is complete
Amendment Adoption Date (If a challenge is received by DEO).	The date the State or Administration Commission, respectively, issues a final order determining that the adopted amendment is in compliance (No challenge is expected).

Until the land use plan amendment process is completed, Volusia County's comprehensive plan, zoning and land development regulations apply to the amended MSA.

Subsequent actions once the City's Comprehensive Plan Amendments have been approved are:

- Approval of the City's Zoning designations to the MSA with public hearings to the Planning Board and the City Commission;
- Updates to the Land Development Code, Article VII, North U.S. Highway 1 Interlocal Planning and Municipal Service Area.

The Second Amended Municipal Service Area and the Future Land Use Element and Intergovernmental Coordination Element amendments were reviewed pursuant to the requirements of Chapter 171, Part II, Florida Statutes, the adopted Interlocal Service Boundary Agreement (ISBA), between the City of Ormond Beach and the County of Volusia, and in accordance with the City's Comprehensive Plan. Per Policy 2.5.2 of the City's Comprehensive Plan, the following criteria shall be used in reviewing Comprehensive Plan amendments:

1. Are the proposed amendments consistent with the Comprehensive Plan Goals, Objectives and Policies?

Following are specific Goals, Objectives, and Policies that are applicable to the administrative amendments:

OBJECTIVE 1.2. COMMERCIAL LAND USE Future Land Use Element	Ensure that adequate amounts of land are available to meet the commercial land use needs of the community.
OBJECTIVE 2.5. COMPREHENSIVE PLAN AMENDMENTS	The City shall review proposed text and Future Land Use Map amendments based upon state requirements, Volusia County regulations, and the Goals, Objectives, and Policies of the City's Comprehensive Plan.
GOAL 5 Annexation Future Land Use Element	THE CITY PROVIDES UTILITY SERVICE BEYOND IT'S MUNICIPAL LIMITS AND SHALL REQUIRE THAT ANY CONNECTION TO THE CITY UTILITIY SYSTEM EITHER ANNEX INTO THE CITY OR ENTER INTO AN ANNEXATION AGREEMENT IF NOT CONTIGIOUS FOR UTILITY SERVICE.
OBJECTIVE 5.1. ANNEXATION	Newly annexed areas and new development shall not impose additional tax burdens on City residents or adversely impact City managed natural resources, public facilities and services, including potable water, sanitary sewer, drainage, solid waste, parks and recreation and cultural facilities. Future land uses shall be located consistent with the provision of public facilities and services.
Policy 5.1.1. Future Land Use Element	Properties that are annexed into the City of Ormond Beach shall be assigned a similar land use that existed in Volusia County. Property owners may apply for more intensive land uses, but shall be required to provide the data and analysis to justify the increase in density and/or intensity.
Objective 1.11. Intergovernmental Coordination Element	Identify, implement, and coordinate joint planning areas for annexation and service provision.

2. Does it meet the criteria established in the City's Comprehensive Plan and the Florida Statute?

The City's Comprehensive Plan and Florida Statutes establish the process, including required advertising for all future land use map amendments. The amendments to

the Future Land Use and Intergovernmental Coordination Elements are being processed as a State expedited amendment. Also, two more public hearings will be conducted to receive any additional public comments and shall be reviewed by the Volusia Growth Management Commission and state agencies. Planning staff concludes that the amendment meets or exceeds the criteria established in the Comprehensive Plan and Florida Statute.

3. Whether the land uses are appropriate uses of the land.

Not applicable. This is not a land use map amendment.

4. Whether there is adequate infrastructure to serve the proposed land use.

Not applicable. This is not a land use map amendment.

5. Whether the proposed map amendment impacts surrounding jurisdictions.

Not applicable. This is not a land use map amendment.

CONCLUSION:

The proposed text amendments to the Future Land Use and Interlocal Government Coordination Elements add language and provide map updates consistent with the Second Amended Interlocal Service Boundary Agreement. The amendments are not expected to have any negative impacts on surrounding jurisdictions. A complete data and analysis for the Future Land Use Map amendments are contained in the companion Small Scale Future Land Use Map amendment report.

RECOMMENDATION: It is recommended that the Planning Board recommend **APPROVAL** of the proposed Comprehensive Plan amendments to the Future Land Use Element and the Intergovernmental Coordination Element to be consistent with the Second Amended Interlocal Service Boundary Agreement.

Attachments: Exhibit A: Adopted ISBA Agreement

Exhibit B: Relevant pages of the Future Land Use and Intergovernmental Coordination Elements.

ORDINANCE NO. 2021-43

AN ORDINANCE APPROVING AND AUTHORIZING THE EXECUTION OF A SECOND AMENDED INTERLOCAL SERVICE BOUNDARY AGREEMENT BETWEEN THE CITY OF ORMOND BEACH AND COUNTY OF VOLUSIA, FLORIDA, REGARDING THE NORTH U.S. 1 JOINT PLANNING AND MUNICIPAL SERVICE AREA; PROVIDING FOR RECORDATION; AND SETTING FORTH AN EFFECTIVE DATE.

WHEREAS, the City of Ormond Beach and County of Volusia entered into an Interlocal Service Boundary Agreement, inclusive of a Planning and Services Delivery Sub-Agreement, dated August 28, 2014 and recorded on Official Records Book 7026, Pages 876, et. seq, of the Public Records of Volusia County, Florida (“2014 ISBA”), and

WHEREAS, the 2014 ISBA established a Municipal Service Area (“MSA”) and Joint Planning Area (“JPA”) regarding certain lands along the N. U.S. Highway 1 corridor, and

WHEREAS, the City of Ormond Beach and County of Volusia, authorized the First Amended Interlocal Service Boundary Agreement between the City of Ormond Beach and County of Volusia, dated August 20, 2019 and recorded on Official Records Book 7758, Pages 4680, et. seq, of the Public Records of Volusia County, Florida, and

WHEREAS, the City and County desire to amend the 2014 ISBA and the 2019 First Amended Interlocal Service Boundary Agreement for the purpose of expanding the boundaries of the MSA and JPA, and

WHEREAS, the city’s planning board (local planning agency) held an advertised public hearing on October 14, 2021 for the purpose of considering the proposed amendment and recommended approval of the same, and

WHEREAS, city commission concurs with the recommendation of the city's planning board (local planning agency) and further determines that approval of the Second Amended Interlocal Service Boundary Agreement will serve the best interests and welfare of the general public, now therefore,

BE IT ENACTED BY THE PEOPLE OF THE CITY OF ORMOND BEACH, FLORIDA, THAT:

SECTION ONE. The foregoing recitals are incorporated herein by reference as the legislative findings of the city commission of the City of Ormond Beach.

SECTION TWO. The city commission hereby approves the Second Amended Interlocal Service Boundary Agreement, a copy of which is attached hereto and incorporated herein by reference, and authorizes and directs the mayor and city manager to execute the same.

SECTION THREE. The city commission further authorizes and directs the city manager and appropriate city staff members to exercise all necessary and appropriate action consistent with the purpose of the Second Amended Interlocal Service Boundary Agreement.

SECTION FOUR. A copy of this Ordinance and the Second Amended Interlocal Service Boundary Agreement shall be recorded with the clerk of court for Volusia County Circuit Court in accordance with applicable law.

PASSED UPON at the first reading of the City Commission, this 16th day of November, 2021.

PASSED UPON at the second and final reading of the City Commission, this 7th
day of December, 2021.



BILL PARTINGTON
Mayor

ATTEST:



SUSAN CARROLL DAUDERIS
City Clerk

**SECOND AMENDED
INTERLOCAL SERVICE BOUNDARY AGREEMENT
BETWEEN THE CITY OF ORMOND BEACH AND COUNTY OF VOLUSIA**

This Second Amended Interlocal Service Boundary Agreement (“Second Amended Agreement”) is made and entered into this _____ date of _____, 2021 by and between the City of Ormond Beach (“City”) and County of Volusia (“County”), sometimes herein referred to as “Party” or “Parties” as the context requires.

WHEREAS, the City and County entered into an Interlocal Service Boundary Agreement, inclusive of a Planning and Service Delivery Sub-Agreement, dated August 28, 2014 and recorded in Official Records Book 7026, Pages 876 et. seq., Public Records of Volusia County, Florida (“2014 ISBA”); and

WHEREAS, the 2014 ISBA established a Municipal Service Area (“MSA”) and Joint Planning Area (“JPA”) as depicted on Map 1 thereto; and

WHEREAS, the City of Ormond Beach and County of Volusia, authorized the First Amended Interlocal Service Boundary Agreement between the City of Ormond Beach and County of Volusia, dated August 20, 2019 and recorded on Official Records Book 7758, Pages 4680, et. seq, of the Public Records of Volusia County, Florida; and

WHEREAS, the City and County desire to amend the 2014 ISBA and the 2019 First Amended Interlocal Service Boundary Agreement for the purpose of expanding the boundaries of the MSA and JPA; and

WHEREAS, the 2014 ISBA authorizes amendments to the agreement based upon the mutual consent of the Parties; and

WHEREAS, this Second Amended Agreement is entered into in accordance with the authority provided by Article VIII of the Florida Constitution, and Chapters 125, 163, 166, 171 and 180 of the Florida Statutes, as well as the 2014 ISBA.

NOW, THEREFORE, in consideration of the mutual covenants set forth in this Second Amended Agreement, the receipt and sufficiency of which are hereby acknowledged, the City and the County agree as follows:

1. The foregoing recitals are incorporated herein and are a material part of this Second Amended Agreement.
2. The MSA and JPA as shown and depicted on Map 1 of the 2014 ISBA and amended with Map 2 of the 2019 First Amended Interlocal Service Boundary Agreement is hereby modified and enlarged to include the area shown and depicted on Map 3 to this Second Amended Agreement.
3. The terms and conditions of the 2014 ISBA as recorded in Official Records Book 7026, Pages 876 et. seq., Public Records of Volusia County, Florida, are hereby restated and incorporated herein and remain in full force and effect. Every reference to Map 1 in the 2014 ISBA and Map 2 of the 2019 First Amended Interlocal Service Boundary Agreement shall be construed to also include the expanded MSA and JPA depicted in Map 3 to this Second Amended Agreement.
4. The governing bodies of the City and County shall approve this Second Amended Agreement by ordinance, consistent with the manner of adoption of the 2014 ISBA.
5. This Second Amended Agreement shall become effective upon being filed and recorded with the Clerk of the Circuit Court of Volusia County, Florida.

IN WITNESS WHEREOF, each of the undersigned has executed this Second Amended Agreement on behalf of the respective party set forth below, pursuant to the authority granted to each of the undersigned in the ordinance by which each party approved and adopted this Second Amended Agreement.

ATTEST:

COUNTY OF VOLUSIA

George Recktenwald
County Manager

Jeff Brower
County Chair

STATE OF FLORIDA
COUNTY OF VOLUSIA

The foregoing instrument was acknowledged before me this ____ day of _____, 2021, by Jeff Brower and George Recktenwald, as County Chair and County Manager, respectively, on behalf of the County of Volusia, who acknowledge that they are duly authorized to execute the foregoing Agreement on behalf of the County. They are personally known to me.

NOTARY PUBLIC

ATTEST:

CITY OF ORMOND BEACH

Joyce Shanahan
City Manager

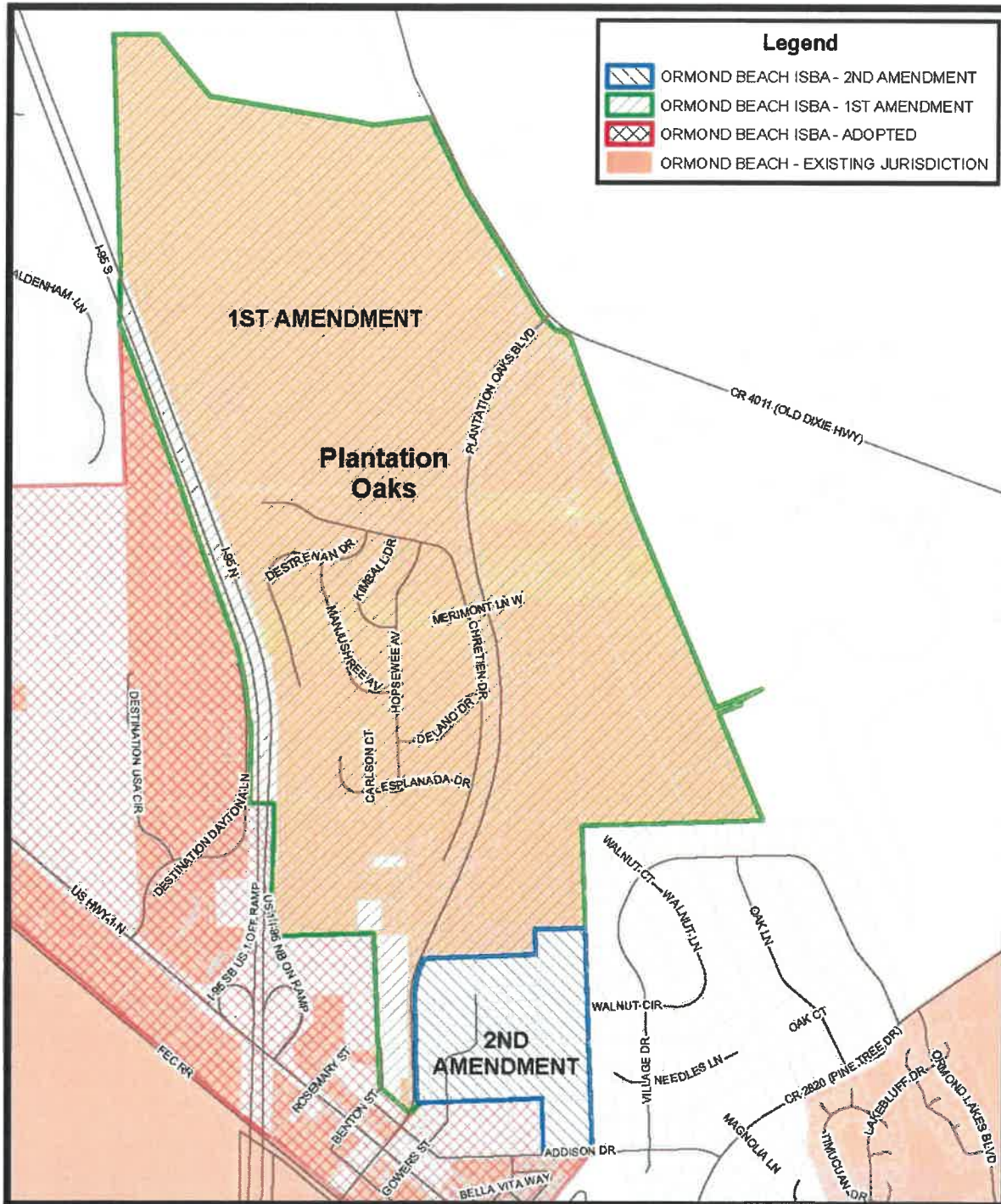
Bill Partington
Mayor

STATE OF FLORIDA
COUNTY OF VOLUSIA

The foregoing instrument was acknowledged before me this ____ day of ____, 2021, by Bill Partington and Joyce Shanahan, as Mayor and City Manager, respectively, on behalf of the City of Ormond Beach, who acknowledge that they are duly authorized to execute the foregoing Agreement on behalf of the City. They are personally known to me.

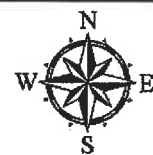
NOTARY PUBLIC

MAP 3



**ORMOND BEACH ISBA
RIDGE HAVEN ADDITION**

Prepared By: The City of Ormond Beach
G.I.S. Department - September 28, 2021



1 inch = 1,600 feet

CERTIFICATE

STATE OF FLORIDA
COUNTY OF VOLUSIA
CITY OF ORMOND BEACH

I, Susan Carroll Dauderis, City Clerk of the City of Ormond Beach, Florida, do hereby certify that the foregoing is a true, correct and complete copy of Ordinance No. 2021-43 as the same appears of record at City Hall, City of Ormond Beach, Florida.

Dated this 8th day of December, 2021.

SEAL



Susan Carroll Dauderis
City Clerk
CITY OF ORMOND BEACH, FLORIDA

FUTURE LAND USE ELEMENT	
ESTABLISHMENT OF FUTURE LAND USE CATEGORIES	

TOC - A

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**FUTURE LAND USE ELEMENT
GOALS OBJECTIVES AND POLICIES**

FIGURE 10 – ORMOND CROSSINGS TRANSPORTATION CONCURRENCY
EXCEPTION AREA MAP

FIGURE 11 – NORTH US 1 MUNICIPAL SERVICE AREA MAP

GOAL 9. NORTH US 1 MUNICIPAL SERVICE AREA (MSA)

TO IMPLEMENT THE PLANNING, DEVELOPMENT AND ADMINISTRATIVE AUTHORITY OF THE INTERLOCAL SERVICE BOUNDARY AGREEMENT (ISBA) BETWEEN THE CITY AND THE COUNTY OF VOLUSIA PURSUANT TO CHAPTER 171, PART II, FLORIDA STATUTES, AS AMENDED.

OBJECTIVE 9.1. NORTH US 1 MSA PLANNING, DEVELOPMENT AND ADMINISTRATIVE AUTHORITY

The City shall have sole and singular authority within the boundaries of the MSA to apply the City's Comprehensive Land Use Plan and Zoning Map categories over unincorporated parcels, to administer the codes and regulations, and provide for the enforcement codes pursuant to the Interlocal Service Boundary Agreement (ISBA) adopted by the City of Ormond Beach Commission and by the Volusia County Council effective and recorded on August 28, 2014, at Book 7026, Pages 878 through 895, of the Public Records of Volusia County, Florida and as amended effective and recorded on October 11, 2019, at Book 7758, Pages 4680 through 4683, of the Public Records of Volusia County, Florida, and as amended effective and recorded on 2022, at Book , Pages through , of the Public Records of Volusia County, Florida.

POLICY 9.1.1.

The North US 1 Municipal Service Area (MSA), consistent with its related policies of the Intergovernmental Coordination Element, is hereby established between the City and Volusia County as a means to coordinate planning and delivery of services related to future land use, public facilities and services, and protection of natural resources in advance of annexation.

POLICY 9.1.2

Pursuant to the ISBA, the City may annex noncontiguous parcels and create enclaves within the MSA notwithstanding Policy 5.1.4.

POLICY 9.1.3.

The City shall be authorized to amend the City's zoning map for all unincorporated lands within the MSA after a City land use designation has been adopted.

POLICY 9.1.4.

**FUTURE LAND USE ELEMENT
GOALS OBJECTIVES AND POLICIES**

The City's future land uses on Figure 11 are described under "Goal 1. Land Use Distribution" of the current adopted Comprehensive Plan. For the purposes of the MSA, the City and County future land use categories shall be considered equal with the land use restrictions as described by map annotation in Table 4 and in Table 5 and in Table 6.

**FUTURE LAND USE ELEMENT
GOALS OBJECTIVES AND POLICIES**

**TABLE 4
North US 1 MSA Future Land Use Categories**

Existing Volusia County Land Use	Proposed City Land Use	City Map Annotation
Industrial (I)	Light Industrial/Utilities (LI/U)	Max. FAR shall not exceed 0.60
Agricultural Resource (AR)	Rural Estate/Agricultural (REA)	Density shall not exceed one (1) dwelling unit per 10 acres. Max. FAR shall not exceed 0.10
Mixed Use (MXZ)	Low Intensity Commercial (LIC)	Density shall not exceed 8 dwelling units per acre Maximum FAR shall not exceed 0.50 for Retail or 0.55 for all other Nonresidential uses.
Commercial (C)	Low Intensity Commercial (LIC)	See Annotation above for LIC
Urban Medium Intensity (UMI)	Low Intensity Commercial (LIC)	See Annotation above for LIC
Low Impact Urban (LIU)	Low Intensity Commercial (LIC)	See Annotation above for LIC
Urban Low Intensity (ULI)	Low Intensity Commercial (LIC)	See Annotation above for LIC

**TABLE 5
First Amended North US 1 MSA Future Land Use Categories**

Note	Existing Volusia County Land Use	Proposed City Land Use	City Map Annotation
A.	Rural (R) (769.62 acres)	Low Density Residential (LDR)	Maximum Dwelling Units shall not exceed 1,947 for Plantation Oaks owned and City LDR Land Use designation.
A.	Rural (R) (1.3 acres)	Low Intensity Commercial (LIC)	
A.	Urban Low Intensity (ULI) (274.39 acres)	Low Density Residential (LDR)	See Annotation above for LDR, Note A.
A.	Urban Medium Intensity (UMI) (9.75 acres)	Low Density Residential (LDR)	See Annotation above for LDR, Note A.
B.	Rural (R) (3.27 acres))	Low Density Residential (LDR)	
B.	Urban Low Intensity (ULI) (1.91 acres)	Low Density Residential (LDR)	
B.	Urban Medium Intensity (UMI) (11.42 acres)	Medium Density Residential (MDR)	Maximum Dwelling Units per acre shall not exceed 8 for properties not owned by Plantation Oaks with City MDR Land Use designation.
Note: A. Properties owned by Plantation Oaks. B. Individual properties not owned by Plantation Oaks.			

**TABLE 6
Second Amended North US 1 MSA Future Land Use Categories**

<u>Existing Volusia County Land Use</u>	<u>Proposed City Land Use</u>	<u>City Density Conditions</u>	<u>City Intensity Conditions</u>
Urban Medium Intensity (UMI)	Low Density Residential (LDR)	Not to exceed 3 units per acre and no more than 298 dwelling units for entire RidgeHaven owned lands including the 19.19 acres to the south.	Not to exceed 0.20 FAR
Urban Medium Intensity (UMI)	Medium Density Residential (MDR)	Not to exceed 8 DU per acre for properties not owned by RidgeHaven.	Not to exceed 0.30 FAR

INTERGOVERNMENTAL COORDINATION ELEMENT

GOALS, OBJECTIVES AND POLICIES
--

GOAL 1.	COORDINATION	1
OBJECTIVE 1.1.	CAPITAL IMPROVEMENTS	1
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**INTERGOVERNMENTAL COORDINATION ELEMENT
GOALS, OBJECTIVES AND POLICIES**

POLICY 1.9.3.

The City shall continue to provide solid waste collection in cooperation with DEP and Volusia County.

POLICY 1.9.4.

The City and the County shall work in cooperation to implement the hazardous waste management program.

POLICY 1.9.5.

The City shall coordinate and cooperate with adjacent jurisdictions to participate in basin-wide stormwater management studies for the Halifax River and Tomoka River.

POLICY 1.9.6.

The City shall participate in drainage studies for the Halifax River and Tomoka River basins, when available or through direct coordination with affected entities.

OBJECTIVE 1.10. CONFLICT RESOLUTION

Maintain and increase the use of intergovernmental planning agencies for discussion and resolution of multi-jurisdictional issues. This objective shall be achieved through the implementation of the policies associated with this objective.

POLICY 1.10.1.

Continue active membership and support of intergovernmental planning agencies to resolve issues and disputes through mechanisms such as VCOG, MPO, VGMC, ECFRPC and the Florida Growth Management Conflict Resolution Consortium.

POLICY 1.10.2

Support the efforts to plan for the regional management of water resources.

POLICY 1.10.3.

Work with VGMC to ensure coordination of all planning activities mandated by the Comprehensive Plan.

OBJECTIVE 1.11. JOINT PLANNING AREAS

Identify, implement, and coordinate joint planning areas for annexation and service provision.

INTERGOVERNMENTAL COORDINATION ELEMENT GOALS, OBJECTIVES AND POLICIES

POLICY 1.11.1.

The City will continue to coordinate with the Volusia Council of Governments, VGMC, Volusia County, the Cities of Holly Hill and Daytona Beach, and other jurisdictions when annexations occur.

POLICY 1.11.2.

The City will provide a copy of its published or posted notice of annexation, to the Volusia County Council as required by Florida Statutes as amended.

POLICY 1.11.3.

The City will continue to provide potable water and sewer service within its identified service boundary areas.

POLICY 1.11.4.

The City will continue to coordinate procedures through interlocal agreements with Volusia County and other adjoining jurisdictions, as appropriate, on the review of development orders and guaranteed compliance with the City of Ormond Beach Land Development Code for projects requesting City utility services.

POLICY 1.11.5.

The City will promote sound growth management by providing city services to contiguous areas before non-contiguous areas.

POLICY 1.11.6.

The Interlocal Service Boundary Agreement adopted by the City of Ormond Beach Commission by Ordinance No. 2014-27, and the Volusia County Council by Ordinance 2014-12, is hereby adopted within the comprehensive plan by reference, said agreement having been recorded on August 28, 2014, at Book 7026, Pages 878 through 895, of the Public Records of Volusia County, Florida and amended effective and recorded on October 11, 2019, at Book 7758, Pages 4680 through 4683, of the Public Records of Volusia County, Florida; and as amended on , 2022 at Book , Pages through , of the Public Records of Volusia County, Florida.

POLICY 1.11.7.

A Municipal Service Area (MSA) is hereby established between the City and Volusia County as a means to coordinate planning and delivery of services related to future land use, public facilities and services, and protection of natural resources in advance of annexation.

POLICY 1.11.8.

Pursuant to Chapter 171, Part II, Florida Statutes, Volusia County and the City of Ormond Beach have established an Interlocal Service Boundary Agreement (ISBA) effective and recorded on August 28, 2014, at Book 7026, Pages 878 through 895, of the Public Records of Volusia County, Florida and as amended effective and recorded on October 11, 2019, at Book 7758,

INTERGOVERNMENTAL COORDINATION ELEMENT GOALS, OBJECTIVES AND POLICIES

Pages 4680 through 4683, of the Public Records of Volusia County, Florida; and as amended on , 2022 at Book , Pages through , of the Public Records of Volusia County, Florida. The agreement allows the City to annex properties within the Joint Planning Area that would not otherwise be eligible for annexation subject to the provisions established in the ISBA.

POLICY 1.11.9.

The City is authorized and empowered, pursuant to section 163.3171(4), Florida Statutes, to amend and apply its comprehensive plan to the lands within the MSA in advance of the annexation of those lands.

OBJECTIVE 1.12. JOINT PROCESSES FOR COLLABORATIVE PLANNING AND DECISION MAKING

Identify and describe joint processes for collaborative planning on population projections, school siting, facilities subject to concurrency, facilities with countywide significance, and problematic land uses.

POLICY 1.12.1.

The City will continue to coordinate with the Volusia County Growth Management Department, the Volusia Council of Governments, the MPO, the University of Florida Bureau of Economic and Business Research, and other agencies in order to develop citywide and countywide population projections that include expected growth shown in the comprehensive plan for the City. In addition, the City will use these mutually agreed upon and coordinated population figures in the comprehensive plan.

POLICY 1.12.2.

City staff will coordinate annually, or more often as needed, with Volusia County staff for the purpose of determining future unincorporated area needs for water and sewer within each respective unincorporated area served by the county.

POLICY 1.12.3.

The City will forward requests for access to County or State maintained roadways to each respective agency for comment concerning their respective plans and policies.

POLICY 1.12.4.

The City will coordinate with service providers that have no regulatory authority over the use of land in the City to develop recommendations that address ways to improve coordination of the City's concurrency management methodologies and systems, and levels-of-service.

POLICY 1.12.5.

The City will enter into an interlocal agreement with Volusia County for joint projects identified in the City's Stormwater Management Plan and the County's Stormwater Management Plan.



CITY OF ORMOND BEACH

City Manager • 22 S. Beach Street • Ormond Beach • Florida • 32174 • (386) 676-3200 • Fax (386) 676-3384

CITY MANAGER MEMORANDUM

To: The Honorable Mayor Partington and City Commissioners

Through: Joyce A. Shanahan, City Manager

From: Steven Spraker, Planning Director

Date: May 3, 2022

Subject: 100 West Granada Boulevard, Building Signage Special Exception

Commission Goal: Community Development - Other

***Introduction**

This is a request submitted by HEJAHA, LLC, for a Special Exception for building signage at 100 West Granada Boulevard. The property at 100 West Granada Boulevard is being redeveloped for an ice cream parlor. Section 3-48(B) of the Land Development Code allows alternative business premise signage through a Special Exception. The Special Exception seeks to allow a 25 square foot sign that is not attached to the building and would be located on a pole located between two building walls. The subject property is located at 100 West Granada Boulevard and is zoned as B-4 (Central Business) and is within the Downtown Overlay District.

Background

The subject property is designated as "General Commercial" on the City's Future Land Use Map (FLUM), and is classified as B-4 (Central Business) on the City's Official Zoning Map. The property is within the Downtown Overlay District. The property at 100 West Granada Boulevard has been vacant since the mid-2000's with the last use being a convenience store. The property was formerly used as a gas station. The building located at 100 West Granada Boulevard was originally designated for demolition as part of the Pumphouse BBQ Restaurant project approved by Special Exception, via Resolution No. 2018-133 on September 19, 2018. The 2018 Special Exception and concept have expired. The property owner purchased the former dry cleaner building at 124 West Granada Boulevard and was issued permits to construct the barbecue restaurant where the former dry cleaner store was located. On September 18, 2019, the City Commission, also acting as the Community Redevelopment Agency, authorized the execution of a building improvement grant agreement, Resolution 2019-163, between the City and HEJAHA, LLC in the amount of \$50,000 for the property at 100 West Granada Boulevard for building renovations and improvements. Construction started in 2019 and is now concluding. The property owner has identified that the end use would be an ice cream store.

The property at 100 West Granada Boulevard is included in the overall parcel that includes the building at 124 West Granada Boulevard. The property owner has applied for a Special Exception related to building signage for each building. Staff has separated the application into two separate actions as neither application depends on the other.

Discussion

The project coordinator for the property met with City staff and detailed the uniqueness of the redeveloped building that has two walls that extends beyond the primary wall structure. These walls would block any signage placed on the primary wall frontage. The property owner desires to install a 25 square foot sign that is not attached to the building and would be located on a pole between two building walls.

The Land Development Code defines a wall sign as: “any sign affixed, other than by paint, to the wall of any building or structure, and including seawalls and retaining walls, provided such sign shall not project more than twelve inches (12”) from such building.” Because the sign is not affixed to a wall, it cannot be defined as a wall sign. No other signage in the LDC describes the signage proposed.

Section 3-48(B) of the Land Development Code allows alternative business premise signage through a Special Exception. Section 3-48(E) of the Land Development Code establishes the maximum square footage and number of wall signs. The property at 100 West Granada Boulevard is allowed two (2) wall signs for a total of 58.50 square feet or one sign of 39 square feet. The proposed sign is 25 square feet.

Planning Board review: The Planning Board reviewed and unanimously (7-0) approved the Special Exception for the building signage on March 10, 2022. Planning Board members acknowledged the uniqueness of the building and appreciate the significant renovations that have occurred at 100 West Granada Boulevard. Planning Board members appreciated the flexibility of the Land Development Code to allow the ability to approve alternative building signage. There was one individual who spoke in support of the project and expressed appreciate for the property owner renovating and improvements within the Downtown area. The Planning Board minutes are attached as part of the City Commission packet.

Budget Impact

There is no budget impact as the result of the Special Exception for alternative building signage.

Citizen Impact

Staff does not anticipate any citizen impact for the Special Exception for alternative building signage. The renovations of the blighted building, separate of the wall signage

request, has a positive impact for the Downtown area and the Granada Boulevard corridor.

Recommendation

It is recommended that the City Commission approve the application to allow a 25 square foot sign that is not attached to the building and would be located on a pole located between two building walls. The Planning Board recommended approval of the application with a 7-0 vote.

Attachments:

- 22-62 100 W Granada Blvd Signage SE (P22-0038G) (PDF)
- 100 W Granada Boulevard - Special Exception Development Order (PDF)
- 100 WGB, Exhibit A legal description (PDF)
- Exhibit B, 100 WGB (PDF)
- 03.10.2022, 100 West Granada Boulevard, Signage Special Exception (PDF)
- 100 West Granada Boulevard, Draft Planning Board minutes (PDF)
- 04.19.2022, 100WGB Special Exception NJ ad, CC - to run 04.08.2022 (DOCX)

REVIEWED BY:


Kelly McGuire, Finance Director 3/28/2022


Claire Whitley, Assistant City Manager 4/13/2022

APPROVED BY:


Joyce A. Shanahan, City Manager 4/27/2022

RESOLUTION NO. 2022-62

A RESOLUTION AUTHORIZING THE EXECUTION AND ISSUANCE OF A DEVELOPMENT ORDER FOR A SPECIAL EXCEPTION REGARDING THE PROPOSED "NEIGHBORHOOD SCOOP" ICE CREAM SHOP LOCATED AT 100 WEST GRANADA BOULEVARD, WITHIN THE B-4 (CENTRAL BUSINESS) ZONING DISTRICT, WITHIN THE DOWNTOWN OVERLAY DISTRICT; TO ALLOW ALTERNATIVE BUILDING SIGNAGE TOTALING APPROXIMATELY 25 SQUARE FEET; ESTABLISHING CONDITIONS AND EXPIRATION DATE OF APPROVAL; AND SETTING FORTH AN EFFECTIVE DATE.

WHEREAS, HEJAHA, LLC, a Florida limited liability company, (the "Applicant"), has applied for the issuance of a Development Order for a Special Exception to allow alternative building signage of 25+ square feet at the proposed "Neighborhood Scoop" ice cream shop, located at 100 West Granada Boulevard, within the B-4 (Central Business) zoning district, and

WHEREAS Section 3-48(B) of the Land Development Code allows alternative business premise signage (wall signage) through a Special Exception; and

WHEREAS, the said application is in compliance with all applicable provisions of the City of Ormond Beach *Land Development Code* ("the *Land Development Code*") and the general laws of Florida, and

WHEREAS the Planning Board held a public hearing on March 10, 2022, regarding this matter as required by Chapter 1, Article II, Section 1-15D(2), of the *Land Development Code*, and

WHEREAS, the City Commission has duly held a public hearing on the application and has considered the testimony and evidence presented, and

WHEREAS, the City Commission has considered the following:

- (1) The report and recommendations of the Planning Board;
- (2) The comments of governmental agencies, utility corporations and individuals, as received, and
- (3) The testimony provided at public hearings.

WHEREAS, based upon all of the foregoing and in consideration thereof, the City Commission finds that:

- (1) The proposed use conforms to the standards and requirements of the *Land Development Code* and will not create undue crowding beyond the conditions normally permitted in the B-4, Central Business, zoning district, or adversely affect the public health, safety, welfare or quality of life;
- (2) The proposed use is consistent with the *Comprehensive Plan*;
- (3) The proposed use will not adversely impact environmentally sensitive lands or natural resources, including but not limited to waterbodies, wetlands, xeric communities, wildlife habitats, endangered or threatened plants and animal species or species of special concern, wellfields, and individual wells;
- (4) The proposed use will not substantially or permanently depreciate the value of surrounding property; create a nuisance; or deprive adjoining properties of adequate light and air; create excessive noise, odor, glare, or visual impacts on the neighborhood and adjoining properties;
- (5) There are adequate public facilities to serve the development, including but not limited to roads, sidewalks, bike paths, potable water, wastewater treatment, drainage, fire and police safety, parks and recreation facilities, schools, and playgrounds, as proposed ;

- (6) Ingress and egress to the property and traffic patterns are designed to protect and promote motorized vehicle and pedestrian/bicycle safety and convenience, allow for desirable traffic flow and control, and provide adequate access in case of fire or catastrophe, as proposed;
- (7) The proposed use is functional in the use of space and aesthetically acceptable;
- (8) The proposed use provides for the safety of occupants and visitors;
- (9) The proposed use of materials and architectural features will not adversely impact the neighborhood and aesthetics of the area; and

now therefore,

BE IT RESOLVED BY THE CITY COMMISSION OF THE CITY OF ORMOND BEACH, FLORIDA, THAT:

SECTION ONE. The above recitals are true and correct and are incorporated by reference.

SECTION TWO. The Mayor and the City Manager are hereby authorized and directed to execute and issue a Development Order for a Special Exception to allow alternative building signage of 25± square feet at the proposed “Neighborhood Scoop” ice cream shop, located at 100 West Granada Boulevard, within the B-4 (Central Business) zoning district, on the real property described in the Special Exception Development Order, a copy of which is attached hereto and incorporated by reference.

SECTION THREE. A certified copy of this Resolution and the executed original Special Exception Development Order shall be recorded in the public records of Volusia County, Florida.

SECTION FOUR. This Resolution shall take effect immediately upon its adoption.

APPROVED AND AUTHENTICATED this 3rd day of May, 2022.

BILL PARTINGTON
Mayor

ATTEST:

SUSAN CARROLL DAUDERIS
City Clerk

**BEFORE THE
CITY COMMISSION
OF THE
CITY OF ORMOND BEACH**

IN RE: **Application of:** HEJAHA, LLC, a Florida limited liability company
 Application No. 2022-19(A)
 Project Name: “Neighborhood Scoop” building signage
 Property Address: 100 West Granada Boulevard
 Parcel ID No.: 4215-09-03-0050

**SPECIAL EXCEPTION
DEVELOPMENT ORDER**

This matter having come on for public hearing before the City Commission of the City of Ormond Beach, Florida, on May 3, 2022, and the City Commission having considered those items as required by Section 1-18 of the *Land Development Code*, and having heard testimony and evidence from all affected persons, the City Commission hereby finds that:

1. The proposed use conforms to the standards and requirements of the *Land Development Code* and will not create undue crowding beyond the conditions normally permitted in the B-4, Central Business, zoning district, or adversely affect the public health, safety, welfare or quality of life;
2. The proposed use is consistent with the *Comprehensive Plan*;
3. The proposed use will not adversely impact environmentally sensitive lands or natural resources, including but not limited to waterbodies, wetlands, xeric communities, wildlife habitats, endangered or threatened plants and animal species or species of special concern, wellfields, and individual wells;
4. The proposed use will not substantially or permanently depreciate the value of surrounding property; create a nuisance; or deprive adjoining properties of adequate light and air; create excessive noise, odor, glare, or visual impacts on the neighborhood and adjoining properties;
5. There are adequate public facilities to serve the development, including but not limited to roads, sidewalks, bike paths, potable water, wastewater treatment, drainage, fire and police safety, parks and recreation facilities, schools, and playgrounds, as proposed ;

6. Ingress and egress to the property and traffic patterns are designed to protect and promote motorized vehicle and pedestrian/bicycle safety and convenience, allow for desirable traffic flow and control, and provide adequate access in case of fire or catastrophe, as proposed ;

7. The proposed use is functional in the use of space and aesthetically acceptable;

8. The proposed use provides for the safety of occupants and visitors; and

9. The proposed use of materials and architectural features will not adversely impact the neighborhood and aesthetics of the area.

Thereupon and in consideration thereof, the City Commission hereby orders

that:

A. The application of HEJAHHA, LLC a Florida limited liability company, (the "Applicant"), for a Special Exception to allow alternative building signage of 25± square feet at the proposed "Neighborhood Scoop" ice cream shop, located at 100 West Granada Boulevard, within the B-4 (Central Business) zoning district, on that real property described on Exhibit "A" attached hereto and incorporated by reference, is hereby granted, subject to the following conditions:

1. All applicable provisions of the *Land Development Code* shall be complied with at all times, such provisions being incorporated herein by reference and hereby specifically made a part of this Special Exception;

2. A sign permit shall be required for the proposed alternative building signage.

B. The alternative business premise signage (building signage) shall be consistent with the conditions listed in Paragraph A hereof, and the sign plan displayed in Exhibit "B" attached hereto may be amended, if necessary, in order to achieve such consistency. Nothing in this Development Order shall prevent additional building signage (such as a second building sign or window signage) in conformance with the regulations of the Land Development Code.

C. No material change shall be made to the final plans for this Special Exception without further review by the Planning Board and approval by the City Commission in accordance with the procedures for the approval of this Special Exception Development Order.

D. In the event a Neighborhood Improvement Officer subsequently determines there to be any violation of this Special Exception, such Officer shall promptly present such determination to Special Magistrate for hearing.

E. If this Special Exception is abandoned for a period of six (6) months, a zoning approval for alternative business premise signage, subject to Special Exception requirements, shall not be issued until the Site Plan review Committee determines that all of the conditions of Chapter I, Article II, Section 1-14(3)(c) of the *Land Development Code* have been met.

F. In the event a signage permit has not been issued within twenty-four (24) months, which date shall be May 3, 2024, then this Development Order shall automatically become void and shall have no further legal effect per Chapter 1, Article II, Section 1-14(3), of the *Land Development Code*. If a signage permit is issued on or before May 3, 2024, the project shall be vested.

G. This Special Exception Development Order shall be recorded in the public records of Volusia County, Florida, at the expense of HEJAHHA, LLC, a Florida limited liability company, and shall be binding upon HEJAHHA, LLC, a Florida limited liability company, and its successors and assigns, and shall run with the real property described in Exhibit "A" attached hereto and incorporated herein by reference. (Parcel ID No.: 4215-09-03-0050)

ORDERED this 3rd day of May, 2022.

By:

BILL PARTINGTON
 Mayor

(CITY SEAL)

Attest:

JOYCE A. SHANAHAN
 City Manager

EXHIBIT "A"**LEGAL DESCRIPTION**

15-14-32 LOTS 5 & 8 ALHAMBRA BLOCK PLAT OF GRANADA PB 1 PG 6
 MB 12 PG 194 PB 1 PG 59 MB 17 PG 17 PB 1 PG 123 MB 17 PG 40 LESS ROAD
 R/O/W PER OR 7640 PG 33 PER OR 7622 PGS 327 THRU 332

LOCATION MAP

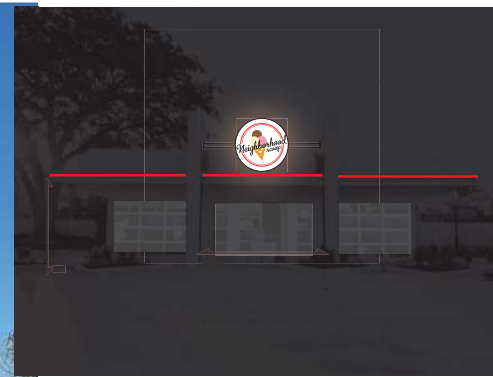
PARCEL ID:	4215-09-03-0050
OWNER:	HEJAH, LLC, A FLORIDA LIMITED LIABILITY COMPANY
APPLICANT:	HEJAH, LLC, A FLORIDA LIMITED LIABILITY COMPANY
SPECIAL EXCEPTION ADDRESS:	100 WEST GRANADA BOULEVARD, ORMOND BEACH, FL 32174



48' storefront

60"

162"



6"

REAR FACING R,G,B LEDs

SUB FRAME BRACING

SQUARE TUBE MOUNTING
SPANNER WITH PLATES**FASTENER SCHEDULE**

	LAG SCREW FOR USE ON WOOD, U.L.F.'S OR CONCRETE. *U.L.F.'S, REQUIRES WOOD BACKER, CONCRETE REQUIRES SHELDS. MIN. EMBEDMENT: 2"
	RED HEAD L.D.E. FOR USE ON CONCRETE, CONCRETE BLOCK OR BRICK. MIN. EMBEDMENT: 2"
	POST-IT SLEEVE ANCHOR FOR USE ON CONCRETE, MASONRY OR BRICK. MIN. EMBEDMENT: 2"
	THREADED ROD FOR USE ON ALL WALL SYSTEMS. *U.L.F.'S, REQUIRES WEARING PLATES, WOOD BACKER OR UNDERLIFT.
	TOGGLE BOLT FOR USE ON HOLLOW WALLS AND J.F.N. CONSTRUCTION.

Customer approval

Date / /



Daytona Office:
821 Fentress Ct.
Daytona Beach, FL 32117
386-238-1711
Web. www.selightingsolutions.com

THIS IS AN ORIGINAL DOCUMENT CREATED FOR YOU BY AND REMAINS THE PROPERTY OF: SOUTHEASTERN LIGHTING SOLUTIONS. IT IS FOR THE SOLE USE OF THE CUSTOMER AND SOUTHEASTERN LIGHTING SOLUTIONS TO COMMUNICATE PROPOSED IMPROVEMENTS TO THE PROJECT PROPERTY LISTED IN THE DESCRIPTION. IT IS NOT TO BE SHARED, COPIED, USED OR REPRODUCED FOR ANY OTHER PURPOSE OTHER THAN THE COMMUNICATIONS BETWEEN THE CUSTOMER AND SOUTHEASTERN LIGHTING SOLUTIONS.

DRAWING NUMBER:	REVISIONS:	DATE:
122468	00	1/13/2022

CUSTOMER:

NEIGHBORHOOD SCOOP

LOCATION ADDRESS:

PROJECT INFORMATION:

50% DEPOSIT REQUIRED ON MANUFACTURING JOBS
WITH BALANCE UPON COMPLETION

DRAWING : N.T.S.

PAGE: 1 OF 1

STAFF REPORT

City of Ormond Beach Department of Planning

DATE: February 28, 2022

SUBJECT: 100 West Granada Boulevard, building signage Special Exception

APPLICANT: HEJAHA, LLC, Property Owner

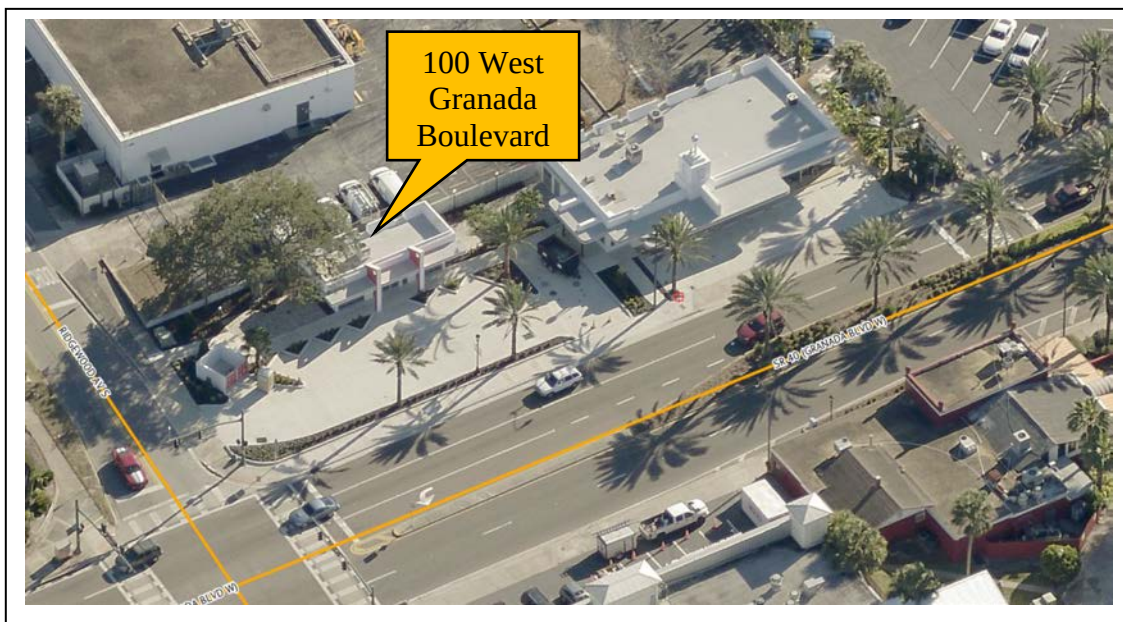
NUMBER: SE 2022-019(A)

PROJECT PLANNER: Steven Spraker, AICP, Planning Director

INTRODUCTION: This is a request submitted by HEJAHA, LLC, for a Special Exception for building signage at 100 West Granada Boulevard. The property at 100 West Granada Boulevard is being redeveloped for an ice cream parlor. Section 3-48(B) of the Land Development Code allows alternative business premise signage through a Special Exception. The Special Exception seeks to allow a 25 square foot sign that is not attached to the building and would be located on a pole located between two building walls. The subject property is located at 100 West Granada Boulevard and is zoned as B-4 (Central Business) and is within the Downtown Overlay District.

BACKGROUND: The subject property is designated as "General Commercial" on the City's Future Land Use Map (FLUM), and is classified as B-4 (Central Business) on the City's Official Zoning Map. The property is within the Downtown Overlay District. The property is shown in the aerial in Exhibit 1 and surrounding uses on Exhibit 2.

Exhibit 1: Site Aerial:



Source: <https://explorer.pictometry.com/index.php>

Exhibit 2: Surrounding Uses with Land Use and Zoning Designations:

	Land Uses	Land Use Designation	Zoning Classification
North	Hull's Seafood	"General Commercial"	B-4 (Central Business)
South	ATT facility	"General Commercial"	B-4 (Central Business)
East	Ormond Elementary parking lot	"Open Space/Conservation"	B-4 (Central Business)
West	Commercial uses	"General Commercial"	B-4 (Central Business)

The property at 100 West Granada Boulevard has been vacant since the mid 2000's with the last use being a convenience store. The property was formerly used as a gas station. The building located at 100 West Granada Boulevard was originally designated for demolition as part of the Pumphouse BBQ Restaurant project approved by Special Exception, via Resolution No. 2018-133, on September 19, 2018. The 2018 Special Exception and concept have expired. The property owner purchased the former dry cleaner building at 124 West Granada Boulevard and was issued permits to construct the barbecue restaurant where the former dry cleaner store was located. On September 18, 2019, the City Commission, also acting as the Community Redevelopment Agency, authorized the execution of a building improvement grant agreement, Resolution 2019-163, between the City and HEJAHA, LLC in the amount of \$50,000 for the property at 100 West Granada Boulevard for building renovations and improvements.

Construction started in 2019 and is now coming to a conclusion. The property owner has identified that the end use would be an ice cream store. Exhibit 3 shows the building as it has been renovated.

Exhibit 3: Building at 100 West Granada Boulevard:

PROJECT DESCRIPTION: The renovations to the former gas station are nearly complete. The project coordinator for the property met with city staff and detailed the uniqueness of the redeveloped building that has two walls that extends beyond the primary wall structure. These walls would block any signage placed on the primary wall frontage. The property owner desires to install a 25 square foot sign that is not attached to the building and would be located on a pole located between two building walls. A rendering of the sign is shown in Exhibit 4 below.

Exhibit 4: Proposed Neighborhood Scoop signage – 25 square feet:



ANALYSIS: The property at 100 West Granada Boulevard is included in the overall parcel that also includes the building at 124 West Granada Boulevard. The property owner has applied for a Special Exception related to building signage for each building. Staff has separated the application into two separate actions as neither application depends on the other. Each Special Exception should be reviewed independently using the Special Exception and Development Order criteria discussed in this report.

The Land Development Code defines a wall sign as: “any sign affixed, other than by paint, to the wall of any building or structure, and including seawalls and retaining walls, provided such sign shall not project more than twelve inches (12”) from such building.” Because the sign is not affixed to a wall, it cannot be defined as a wall sign. No other signage in the LDC describes the signage proposed.

Section 3-48(B) of the Land Development Code allows alternative business premise signage through a Special Exception. Section 3-48(E) of the Land Development Code establishes the maximum square footage and number of wall signs. The property at 100 West Granada Boulevard is allowed two (2) wall signs for a total of 58.50 square feet or one sign of 39 square feet. The proposed sign is 25 square feet.

Section 2-25(A) of the Land Development Code provides the purpose of the B-4 (Central Business) zoning district as,

“The purpose of the B-4, Central Business Zoning District is to provide for a wide range of uses and facilities in a manner offering optimum design flexibility. Where dimensional or landscape standards cannot be met due to the prevalence of nonconforming lots in this zoning district or at an applicant's option, these requirements may be waived through a city commission monitored process aimed at producing development having design compatibility, meeting required parking to the maximum extent feasible, and achieving a high level of aesthetic appeal through a combination of innovative architecture, landscaping and hardscape materials. It is intended that permitted uses meeting applicable lot and building requirements be approved administratively, and those requiring special approval by the city commission be approved through the special exception process. Chapter 2, article VI, provides design regulations applicable to the Downtown Overlay District.”

A Special Exception requires the review/recommendation by the Planning Board and a final decision by the City Commission. The Special Exception requires review of the criteria of the following Land Development Code Sections:

1. Section 2-56: General criteria and Special Exception review criteria (applies to all Special Exception requests);
2. Section 1-15.E: Planned Developments and Special Exceptions (Planning Board criteria for all Special Exceptions); and
3. Section 1-18.E: Criteria for Issuance of Development Order (City Commission criteria for all Special Exceptions).

Section 2-56: Special Exception Criteria

Section 2-56 of the Land Development Code outlines the general criteria for all Special Exception approvals:

- A. *Off-street parking, loading and service areas shall be provided and located such that there is no adverse impact on adjoining properties, beyond that generally experienced in the district.***

The Special Exception for building signage would not have an impact to the overall provision of parking.

- B. *Required yards, screening or buffering, and landscaping shall be consistent with the district in general, the specific needs of the abutting land uses, Chapter 3, Article 1, and other applicable provisions of this Code.***

The Special Exception for building signage would not have an impact on buffering or landscaping.

- C. *Size, location, or number of conditional or Special Exceptions in an area shall be limited so as to maintain the overall character of the district in which said conditional or Special Exceptions are located.***

The Special Exception for building signage would not impact the overall character of the Downtown District of the Downtown area. Section 3-48(B) of the Land Development Code is a mechanism to allow alternative wall signage through a Special Exception process. The allowance of the wall signage plan will enhance the visual impact of the building as well as the Granada Corridor.

- D. *Hours of operation may be limited and the City may require additional information on structural design and site arrangement, to assure the compatibility of the development with existing and proposed uses in the surrounding area.***

The requested Special Exception for building signage would not require any hours of operation restrictions and the site is located along a commercial corridor.

- E. *The Special Exception shall not generate hazardous waste or require use of hazardous materials in its operation without use of City-approved mitigative techniques.***

This Special Exception for building signage request will not generate hazardous waste.

- F. *All development proposed as a Special Exception within or adjacent to a historic district shall be reviewed based on applicable criteria stated herein for residential, commercial or mixed use development and shall also comply with appearance and design guidelines for historic structures.***

The building is not historic and the project seeks to redevelop/repurpose the building to a functional use instead of a vacant building.

G. Outdoor lighting shall have no spillover onto adjacent property or rights-of-way beyond the building site property line, and the lumens shall not exceed two (2) foot-candles at the property line.

The Special Exception for the requested building signage would not impact outdoor lighting.

Section 1-15.E: Planning Board Criteria and Section 1-18.E: City Commission Criteria

Sections 1-15.E. and 1-18.E of the Land Development Code establish the Planning Board and City Commission Development Order criteria. The Land Development Code states that the following criteria shall be considered:

- 1. The proposed development conforms to the standards and requirements of this Code and will not create undue crowding beyond the conditions normally permitted in the zoning district, or adversely affect the public health, safety, welfare or quality of life.**

The Land Development Code allows alternative building signage based on the issuance of a Special Exception. The proposed building signage is based upon the unique building design and will not create undue crowding beyond the conditions normally permitted in the zoning district, or adversely affect the public health, safety, welfare or quality of life.

- 2. The proposed development is consistent with the Comprehensive Plan.**

The site has a Future Land Use designation of "General Commercial", which is consistent with the proposed use. The Special Exception building signage plan is consistent with the Comprehensive Plan and the 2019 Downtown Master Plan Update.

- 3. The proposed development will not adversely impact environmentally sensitive lands or natural resources, including but not limited to waterbodies, wetlands, xeric communities, wildlife habitats, endangered or threatened plants and animal species or species of special concern, wellfields, and individual wells.**

The proposed Special Exception application is for building signage and will not adversely impact environmentally sensitive lands or natural resources, and is an existing developed site.

- 4. The proposed use will not substantially or permanently depreciate the value of surrounding property; create a nuisance; or deprive adjoining properties of adequate light and air; create excessive noise, odor, glare, or visual impacts on the neighborhood and adjoining properties.**

The proposed Special Exception application for building signage will not depreciate the value of surrounding properties based on the location abutting roadways. The redevelopment of the former blighted building is a positive for the Downtown Overlay District.

5. **There are adequate public facilities to serve the development, including but not limited to roads, sidewalks, bike paths, potable water, wastewater treatment, drainage, fire and police safety, parks and recreation facilities, schools, and playgrounds.**

Public facilities currently serve the site and there would be no impact to the existing infrastructure.

6. **Ingress and egress to the property and traffic patterns are designed to protect and promote motorized vehicle and pedestrian/bicycle safety and convenience, allow for desirable traffic flow and control, and provide adequate access in case of fire or catastrophe. This finding shall be based on a traffic report where available, prepared by a qualified traffic consultant, engineer or planner which details the anticipated or projected effect of the project on adjacent roads and the impact on public safety.**

The Special Exception for building signage would not impact traffic patterns or adjacent roadways.

7. **The proposed development is functional in the use of space and aesthetically acceptable.**

The Special Exception for building signage is aesthetically acceptable. The building renovation has created a visually interesting building rather than a vacant convenience store.

8. **The proposed development provides for the safety of occupants and visitors.**

The Special Exception for building signage would not impact the safe movement on the site for occupants and visitors.

9. **The proposed use of materials and architectural features will not adversely impact the neighborhood and aesthetics of the area.**

The Special Exception for wall signage would not impact the neighborhood or impact the aesthetics. The proposed building and site improvements provide character and charm for Downtown Ormond Beach. The Special Exception seeks to enhance generate more visibility and impact as part of the Granada corridor.

10. **The testimony provided at public hearings.**

This application has not been reviewed in a public forum and no testimony has been provided.

RECOMMENDATION: It is expected that the application will be reviewed by the City Commission on April 19, 2022. It is recommended that the Planning Board **APPROVE** the application to allow a 25 square foot sign that is not attached to the building and would be located on a pole located between two building walls.

Attachments:

Attachment 1: Site map and pictures

Attachment 2: Applicant provided information and signage exhibit

ATTACHMENT 1

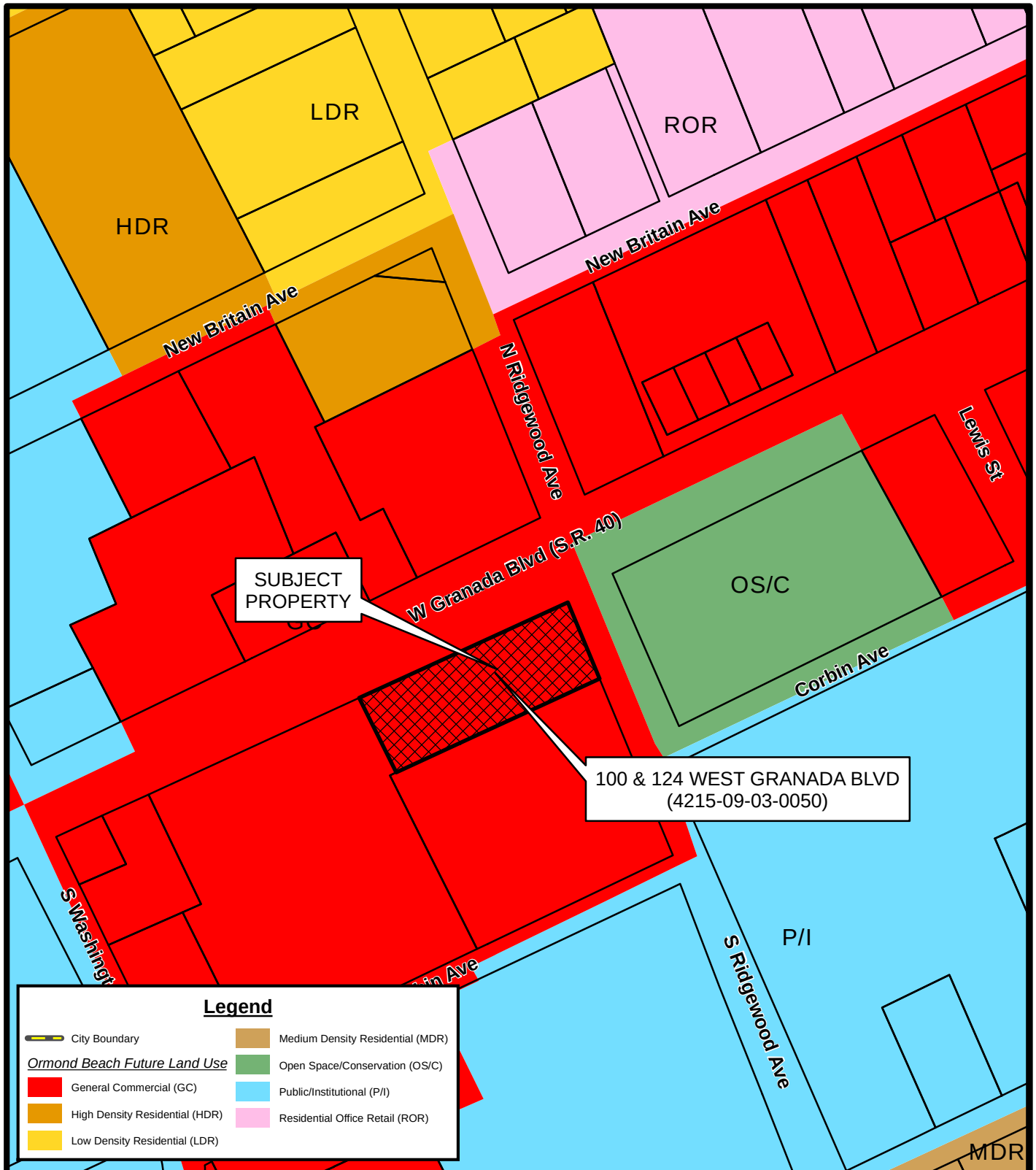
Site map and pictures



AERIAL MAP
100 & 124 WEST GRANADA BLVD
(4215-09-03-0050)

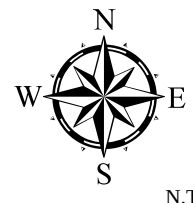
Prepared By: The City of Ormond Beach
 G.I.S. Department - February 7, 2022

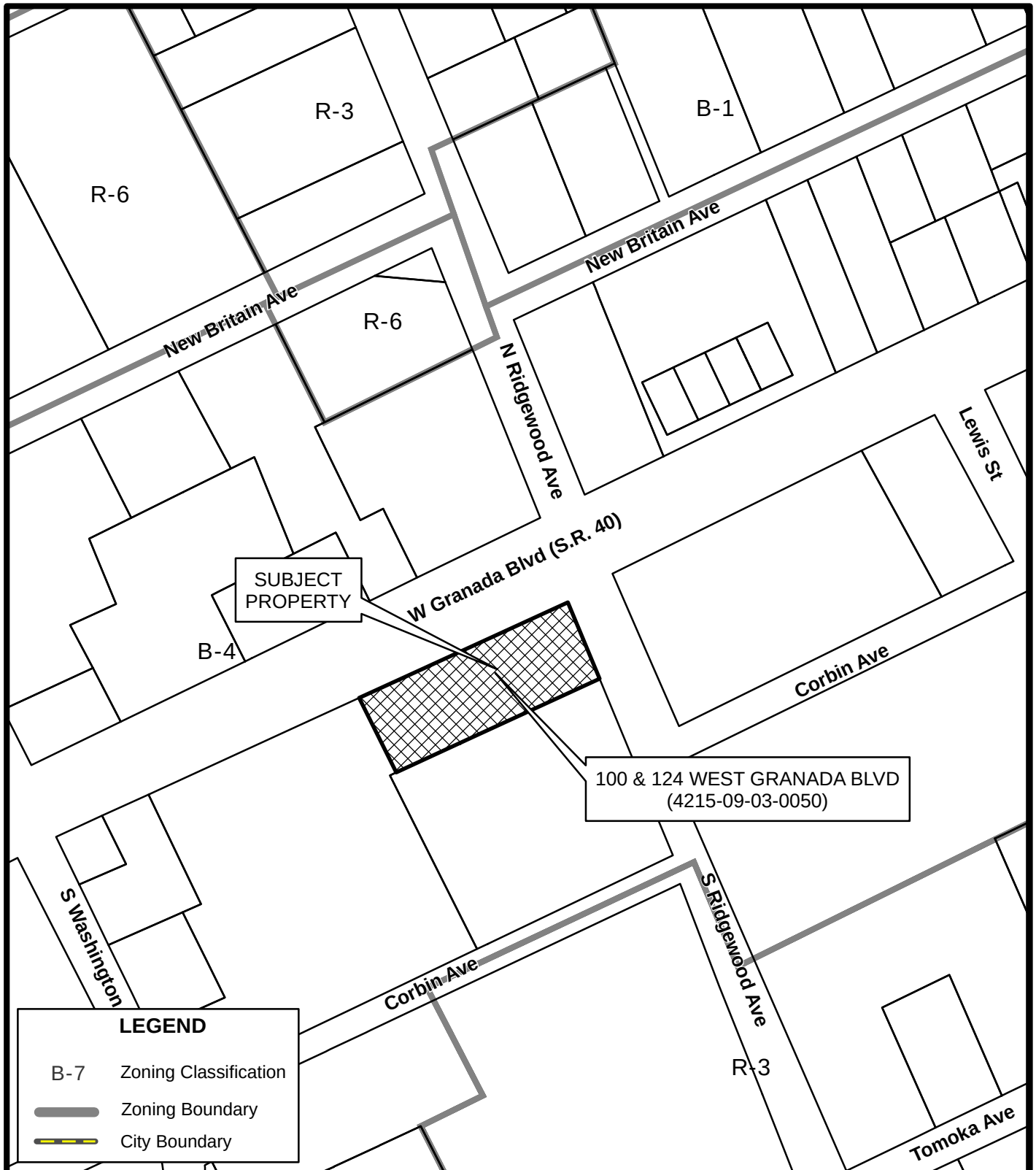




FUTURE LAND USE MAP
100 & 124 WEST GRANADA BLVD
(4215-09-03-0050)

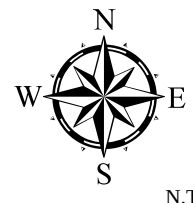
Prepared By: The City of Ormond Beach
 G.I.S. Department - February 7, 2022

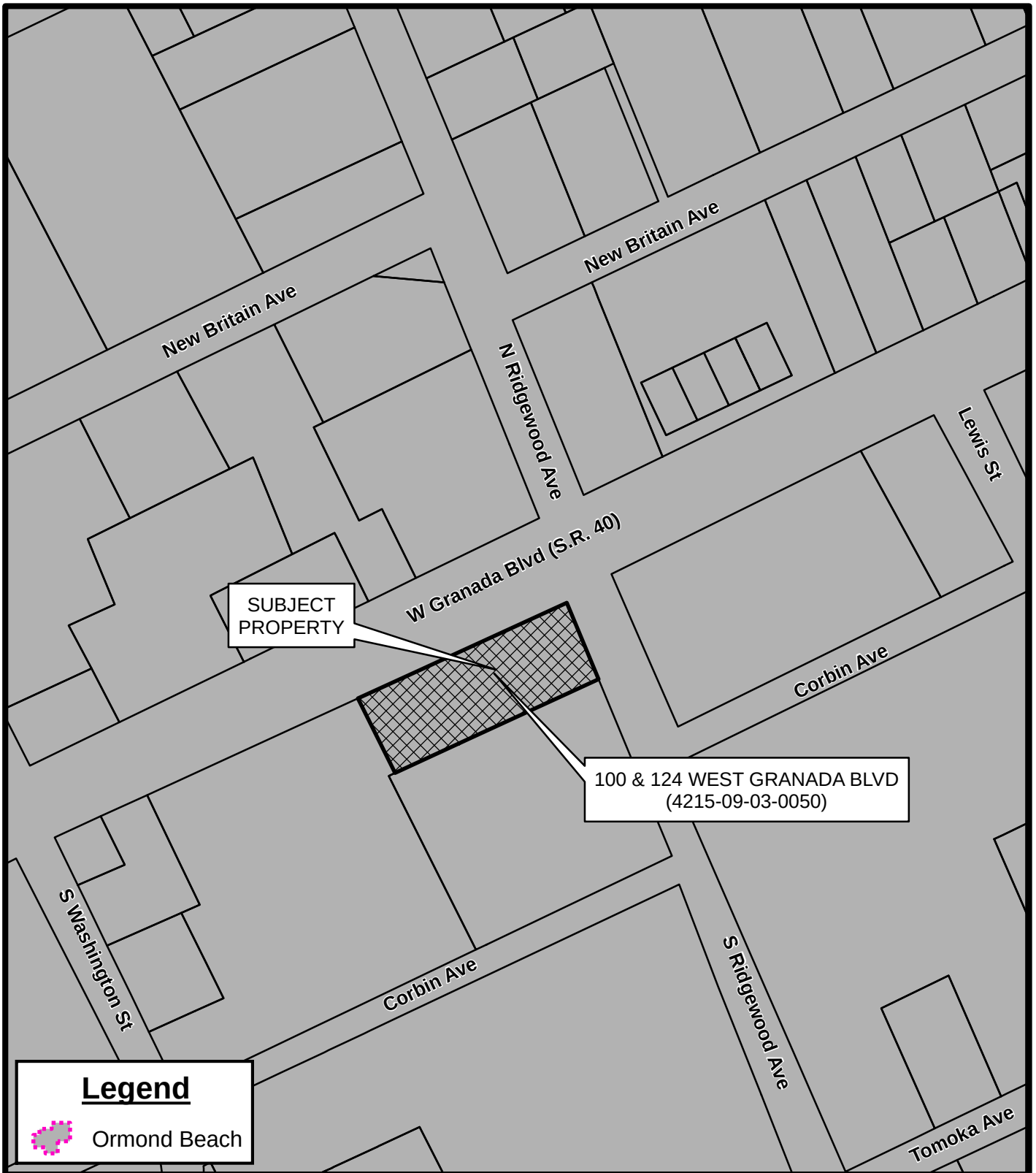




ZONING MAP
100 & 124 WEST GRANADA BLVD
(4215-09-03-0050)

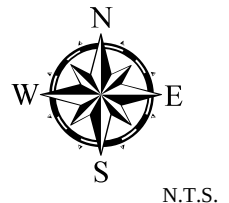
Prepared By: The City of Ormond Beach
 G.I.S. Department - February 7, 2022





LOCATION MAP
100 & 124 WEST GRANADA BLVD
(4215-09-03-0050)

Prepared By: The City of Ormond Beach
 G.I.S. Department - February 7, 2022





100 West
Granada
Boulevard

124 West
Granada
Boulevard

100 West Granada Boulevard



100 West Granada Boulevard



100 West Granada Boulevard



ATTACHMENT 2

Applicant provided
information and signage
exhibit

Summary

This is a Request for a Special Exception brought by Hejaha, LLC, owner of the real property located at 124 West Granada Boulevard, Ormond Beach, Fl 32174.

Located on this property are two separate buildings, 100 and 124 West Granada Boulevard. Currently on 100 West Granada Blvd., a building is in its' final stage of construction which shall become the Neighborhood Scoop, a long awaited ice cream parlor. At 124 W. Granada also currently in its' final stages of construction is the soon to be Pumphouse which will be a most delicious bar b que restaurant. Both establishments are owned by local residents who have a desire to invest in Ormond Beach's downtown. You have an opportunity to help them succeed.

These two buildings with their individual unique architectural style have been designed by Bill Jones who has almost singlehandedly been credited with the restoration of Ormond Beach's downtown which has become the most vibrant center for dining and entertainment, a true destination.

Hejaha is asking for a sign for each building which does not conform to the City's code and hence requires a special exception. True to form these signs are unique and will add to the visual and cultural vibrancy of the downtown's evolving character.

Due to the unique architectural style of the ice cream parlor the sign that has been created (copy attached) compliments the building and adds an additional element of architectural design along with visibility to beckon one and all.

The sign for the bar b que restaurant is an antique Pig, over 100 years old, purchased by Mr. Jones from a bar b que restaurant on the West Coast. This Pig is truly a one of a kind as are many of his ideas, and will add an element of whimsy as well as becoming a landmark in the Downtown.

In keeping with the goals of Ormond Main Street these unique attributes help create a sense of place and draw locals and tourists to our Downtown. In these most uncertain financial times the Planning Board as citizens empowered with decision making should broaden horizons and should facilitate and applaud those who invest in our town.

Hejaha respectfully requests that you review the documents and grant these special exceptions in furtherance of the vibrancy of Ormond Beach.

Respectfully,
Dorian Burt
Project Coordinator Hejaha, LLC



Daytona Office:
821 Fentress Ct.
Daytona Beach, FL 32117
386-238-1711
Web. www.selightingsolutions.com

THIS IS AN ORIGINAL DOCUMENT CREATED FOR YOU BY AND REMAINS THE PROPERTY OF: SOUTHEASTERN LIGHTING SOLUTIONS. IT IS FOR THE SOLE USE OF THE CUSTOMER AND SOUTHEASTERN LIGHTING SOLUTIONS TO COMMUNICATE PROPOSED IMPROVEMENTS TO THE PROJECT PROPERTY LISTED IN THE DESCRIPTION. IT IS NOT TO BE SHARED, COPIED, USED OR REPRODUCED FOR ANY OTHER PURPOSE OTHER THAN THE COMMUNICATIONS BETWEEN THE CUSTOMER AND SOUTHEASTERN LIGHTING SOLUTIONS.

DRAWING NUMBER:	REVISIONS:	DATE:
122468	00	1/13/2022

CUSTOMER:

NEIGHBORHOOD SCOOP

LOCATION ADDRESS:

PROJECT INFORMATION:

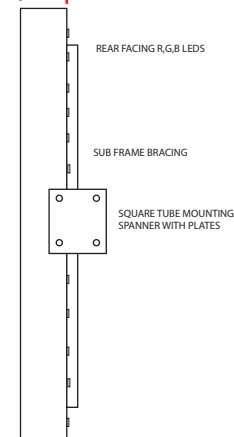
48' storefront

60"

6"



162"



FASTENER SCHEDULE	
	LAG SCREW FOR USE ON WOOD, ELFS OR CONCRETE. *ELFS: REQUIRES WOOD BACKER, CONCRETE REQUIRES SHIELDS. MIN. EMBEDMENT: 2.5"
	WEDGE HEAD BOLT FOR USE ON CONCRETE, CONCRETE BLOCK OR BRICK. MIN. EMBEDMENT: 2.5"
	WEDGE HEAD ANCHOR FOR USE ON CONCRETE, MASONRY OR BRICK. MIN. EMBEDMENT: 2"
	THREADED ROD FOR USE ON ALL WALL SYSTEMS. *ELFS: REQUIRES BEARING PLATES, WOOD BACKER OR UNISTRUT.
	TOGGLE BOLT FOR USE ON HOLLOW WALLS AND ELFS CONSTRUCTION.

Customer approval

Date / /

50% DEPOSIT REQUIRED ON MANUFACTURING JOBS WITH BALANCE UPON COMPLETION

DRAWING : N.T.S.

PAGE: 1 OF 1

Draft Planning Board minutes

March 10, 2022

100 West Granada Boulevard, Special Exception

A. SE2022-019(A) – 100 West Granada Boulevard, Special Exception

Mr. Steven Spraker, Planning Director, explained the request submitted by HEJAHHA, LLC, for a Special Exception for building signage at 100 West Granada Boulevard. Mr. Spraker detailed that the buildings at 100 and 124 West Granada Boulevard are located on one tax parcel. The property is being redeveloped from a former gas station into an ice cream parlor. Mr. Spraker stated that there are two walls that hinder the ability to install wall signage at 100 West Granada Boulevard. He continued that the Special Exception seeks to allow a 25 square foot sign that is not attached to the building and would be located on a pole located between two building walls. Mr. Spraker stated that the Land Development Code does not recognize the type of sign proposed but does allow the Special Exception process for alternative building signage. Mr. Spraker concluded that staff is recommending approval of the application.

Ms. Shull inquired what would occur if the businesses were to be changed. Mr. Spraker stated that the Special Exception would run with the property and a new business could perform a face change to the sign. Mr. Briley clarified that the next business would need to be established in less than six (6) months.

Ms. Dorian Burt, 203 Pine Cone Trail, stated that those are not two walls, but instead architectural embellishments.

Mr. Jorczak asked if the sign can be lighted. Mr. Spraker stated that he believed that the sign would be a lighted sign.

Ms. Tolland stated that as she was driving to the meeting tonight, she noted the Hull's Seafood signage. She continued that she believed that the proposed signage would complement the existing signage in the corridor.

Mr. Briley noted and appreciated the ability in the Land Development Code to have flexibility to allow signage such as proposed in this application.

Mr. Scudiero stated as someone who attended Ormond Beach Elementary and watched this building deteriorate, it is hard to believe that this is the same building. He stated he is looking forward to the opening. Chairmen Thomas concurred that it was a well-done renovation.

Mr. Galloway stated that he wished that city staff had the ability to approve these variations instead of requiring a Special Exception.

Mr. Scudiero motioned to approve SE2022-19(A) – 100 West Granada Boulevard, Special Exception. Mr. Briley seconded it. Vote was called, and the motion was approved (7-0).

Chairman Thomas recognized Ms. Doreen Hackett who desired to speak on this item.

Doreen Hackett, 39 Mound Avenue stated that she lives close to this site and owns a commercial property on East Granada Boulevard. Ms. Hackett states that she has watched the transformation of Granada Boulevard from Beach Street to U.S 1. Ms. Hackett stated that she does not know Mr. Jones, but she attended tonight to thank Mr. Jones would encourage the Board to grant his requests.

DRAFT

LEGAL AD

**CITY OF ORMOND BEACH
NOTICE OF PUBLIC HEARING
SPECIAL EXCEPTION**

NOTICE IS HEREBY GIVEN that the City Commission of the City of Ormond Beach, Florida, will hold a Public Hearing at **7:00 PM on Tuesday, May 3, 2022** in the City Commission Chambers, City Hall, 22 South Beach Street, Ormond Beach, Florida, to consider an application submitted by HEJAHA, LLC, for a Special Exception for building signage at 100 West Granada Boulevard. The property at 100 West Granada Boulevard is being redeveloped for an ice cream parlor. Section 3-48(B) of the Land Development Code allows alternative business premise signage through a Special Exception. The Special Exception seeks to allow a 25 square foot sign that is not attached to the building and would be located on a pole located between two building walls. The subject property is located at 100 West Granada Boulevard and is zoned as B-4 (Central Business) and is within the Downtown Overlay District.

The building is located at 100 West Granada Boulevard, Volusia County parcel number 4215-09-03-0050: 15-14-32 LOTS 5 & 8 ALHAMBRA BLOCK PLAT OF GRANADA PB 1 PG 6 MB 12 PG 194 PB 1 PG 59 MB 17 PG 17 PB 1 PG 123 MB 17 PG 40 LESS ROAD R/O/W PER OR 7640 PG 33 PER OR 7622 PGS 327 THRU 332.

ALL PARTIES ARE INVITED to appear and submit oral or written objections or comments. The failure of a person to appear during said hearing and comment on or object to the amendment, either in person or in writing, may preclude the ability of such person to contest the Special Exception at a later date. Copies of the request are available for inspection by the public in the Department of Planning, Ormond Beach City Hall, 22 South Beach Street, Room 104, Ormond Beach, Florida.

PERSONS WITH A DISABILITY, SUCH AS A VISION, HEARING OR SPEECH IMPAIRMENT, OR PERSONS NEEDING OTHER TYPES OF ASSISTANCE, AND WHO WISH TO ATTEND THIS MEETING MAY CONTACT THE CITY CLERK IN WRITING, OR MAY CALL (386) 676-3228 FOR INFORMATION REGARDING AVAILABLE AIDS AND SERVICES.

PURSUANT TO SECTION 286.0105, FLORIDA STATUTES, IF ANY PERSON DECIDES TO APPEAL ANY DECISION MADE BY A CITY BOARD WITH RESPECT TO ANY MATTER CONSIDERED AT THESE PUBLIC MEETINGS, SUCH PERSON WILL NEED A RECORD OF THE PROCEEDINGS AND FOR SUCH PURPOSE, SUCH PERSON MAY NEED TO ENSURE THAT A VERBATIM RECORD OF THE PROCEEDING IS MADE, INCLUDING THE TESTIMONY AND EVIDENCE UPON WHICH THE APPEAL IS TO BE BASED.

CITY CLERK
CITY OF ORMOND BEACH

INSTRUCTIONS TO PUBLISHER:

THIS LEGAL AD to appear one time only in the Daytona Beach News Journal on Friday,
April 22, 2022.

Please send notarized Proof of Publication to: City of Ormond Beach
P.O. Box 277
Ormond Beach, FL 32175-0277



CITY OF ORMOND BEACH

City Manager • 22 S. Beach Street • Ormond Beach • Florida • 32174 • (386) 676-3200 • Fax (386) 676-3384

CITY MANAGER MEMORANDUM

To: The Honorable Mayor Partington and City Commissioners

Through: Joyce A. Shanahan, City Manager

From: Steven Spraker, Planning Director

Date: May 3, 2022

Subject: 124 West Granada Boulevard, Building Signage Special Exception

Commission Goal: Community Development - Other

Introduction

This is a request submitted by HEJAHA, LLC, for a Special Exception for wall signage at 124 West Granada Boulevard. The property at 124 West Granada Boulevard is being redeveloped for a BBQ restaurant. Section 3-48(B) of the Land Development Code allows alternative business premise signage through a Special Exception. The Special Exception seeks to allow a projecting sign of approximately 30.33 square feet on the building. The subject property is located at 124 West Granada Boulevard and is zoned as B-4 (Central Business) and is within the Downtown Overlay District.

Background

The subject property is designated as "General Commercial" on the City's Future Land Use Map (FLUM), and is classified as B-4 (Central Business) on the City's Official Zoning Map. The property is within the Downtown Overlay District. The property owner purchased the former dry cleaner building at 124 West Granada Boulevard and was issued permits to construct the barbecue restaurant where the former dry cleaner store was located. Construction started in 2019 and is now concluding. The property owner has identified that the end user would be the Pumphouse BBQ restaurant.

The property at 124 West Granada Boulevard is included in the overall parcel that also includes the building at 100 West Granada Boulevard. Each building has applied for a Special Exception related to building signage. Staff has separated the application into two separate actions as neither application depends on the other. Each Special Exception should be reviewed independently using the Special Exception and Development Order criteria discussed in this report.

Discussion

The project coordinator for the property met with city staff and detailed the uniqueness

of the redeveloped building and the desire to allow a projecting sign along the “L” shaped portion of the building. The Special Exception seeks to allow a projecting sign of approximately 30.33 square feet on the building.

The Land Development Code defines a projecting sign as: “means any sign attached to or designed as an integral part of a building or structure that extends in whole or in part more than twelve inches (12”) beyond the surface of the portion of the building to which it is attached or designed.” Projecting signs are limited to 12 square feet. Section 3-48(B) of the Land Development Code allows alternative business premise signage through a Special Exception. Section 3-48(E) of the Land Development Code establishes the maximum square footage and number of wall signs. The property at 124 West Granada Boulevard is allowed two (2) wall signs for a total of 78 square feet. The proposed sign is 30.33 square feet. In staff’s review, a key component has been to focus on the content neutral aspects of the signage, such as the Land Development Code allows projecting signs that are 12 square feet and the proposed sign is 30.33 square feet. The project is allowed wall signage of 52 square feet or one sign or 78 square feet for two signs. The content of the sign is not an aspect of the sign that staff has reviewed, only the square footage.

Planning Board review: The Planning Board reviewed and unanimously (7-0) approved the Special Exception for the building signage on March 10, 2022. Planning Board members acknowledged the uniqueness of the building and appreciate the significant renovations that have occurred at 124 West Granada Boulevard. Planning Board members stated that the sign was unique, whimsical, and provided interest for the Downtown area. There were no individuals who spoke for or against the project. The Planning Board minutes are attached as part of the City Commission packet.

Budget Impact

There is no budget impact as the result of the Special Exception for alternative building signage.

Citizen Impact

Staff does not anticipate any citizen impact for the Special Exception for alternative building signage. The renovations of the blighted building, separate of the building signage request, has a positive impact for the Downtown area and the Granada Boulevard corridor.

Recommendation

It is recommended that the City Commission approve the application to allow a 30.33 square foot projecting sign at 124 West Granada Boulevard. The Planning Board recommended approval of the application with a 7-0 vote.

Attachments:

- 22-63 124 W Granada Blvd Signage SE (P22-0045G) (PDF)
- 124 W Granada Boulevard - Special Exception Development Order (PDF)
- 124 WGB, Exhibit A legal description (PDF)
- Exhibit B, 124 WGB (PDF)
- 03.10.2022, 124 West Granada Boulevard, Signage Special Exception (PDF)
- 124 West Granada Boulevard, Draft Planning Board minutes (PDF)

REVIEWED BY:
Kelly McGuire, Finance Director 3/28/2022
Claire Whitley, Assistant City Manager 4/13/2022**APPROVED BY:**
Joyce A. Shanahan, City Manager 4/27/2022

RESOLUTION NO. 2022-63

A RESOLUTION AUTHORIZING THE EXECUTION AND ISSUANCE OF A DEVELOPMENT ORDER FOR A SPECIAL EXCEPTION REGARDING THE PROPOSED "PUMPHOUSE" RESTAURANT LOCATED AT 124 WEST GRANADA BOULEVARD, WITHIN THE B-4 (CENTRAL BUSINESS) ZONING DISTRICT, WITHIN THE DOWNTOWN OVERLAY DISTRICT; TO ALLOW ALTERNATIVE BUILDING SIGNAGE TOTALING APPROXIMATELY 30.33 SQUARE FEET; ESTABLISHING CONDITIONS AND EXPIRATION DATE OF APPROVAL; AND SETTING FORTH AN EFFECTIVE DATE.

WHEREAS, HEJAHHA, LLC, a Florida limited liability company, (the "Applicant"), has applied for the issuance of a Development Order for a Special Exception to allow alternative building signage of 30.33± square feet at the proposed "Pumphouse" restaurant, located at 124 West Granada Boulevard, within the B-4 (Central Business) zoning district, and

WHEREAS Section 3-48(B) of the Land Development Code allows alternative business premise signage (wall signage) through a Special Exception; and

WHEREAS, the said application is in compliance with all applicable provisions of the City of Ormond Beach *Land Development Code* ("the *Land Development Code*") and the general laws of Florida, and

WHEREAS the Planning Board held a public hearing on March 10, 2022, regarding this matter as required by Chapter 1, Article II, Section 1-15D(2), of the *Land Development Code*, and

WHEREAS, the City Commission has duly held a public hearing on the application and has considered the testimony and evidence presented, and

WHEREAS, the City Commission has considered the following:

- (1) The report and recommendations of the Planning Board;
- (2) The comments of governmental agencies, utility corporations and individuals, as received, and
- (3) The testimony provided at public hearings.

WHEREAS, based upon all of the foregoing and in consideration thereof, the City Commission finds that:

- (1) The proposed use conforms to the standards and requirements of the *Land Development Code* and will not create undue crowding beyond the conditions normally permitted in the B-4, Central Business, zoning district, or adversely affect the public health, safety, welfare or quality of life;
- (2) The proposed use is consistent with the *Comprehensive Plan*;
- (3) The proposed use will not adversely impact environmentally sensitive lands or natural resources, including but not limited to waterbodies, wetlands, xeric communities, wildlife habitats, endangered or threatened plants and animal species or species of special concern, wellfields, and individual wells;
- (4) The proposed use will not substantially or permanently depreciate the value of surrounding property; create a nuisance; or deprive adjoining properties of adequate light and air; create excessive noise, odor, glare, or visual impacts on the neighborhood and adjoining properties;
- (5) There are adequate public facilities to serve the development, including but not limited to roads, sidewalks, bike paths, potable water, wastewater treatment, drainage, fire and police safety, parks and recreation facilities, schools, and playgrounds, as proposed;
- (6) Ingress and egress to the property and traffic patterns are designed to protect and promote motorized vehicle and pedestrian/bicycle safety and convenience, allow for desirable traffic flow and control,

and provide adequate access in case of fire or catastrophe, as proposed;

- (7) The proposed use is functional in the use of space and aesthetically acceptable;
- (8) The proposed use provides for the safety of occupants and visitors;
- (9) The proposed use of materials and architectural features will not adversely impact the neighborhood and aesthetics of the area; and

now therefore,

BE IT RESOLVED BY THE CITY COMMISSION OF THE CITY OF ORMOND BEACH, FLORIDA, THAT:

SECTION ONE. The above recitals are true and correct and are incorporated by reference.

SECTION TWO. The Mayor and the City Manager are hereby authorized and directed to execute and issue a Development Order for a Special Exception to allow alternative building signage of 30.33± square feet at the proposed “Pumphouse” restaurant, located at 124 West Granada Boulevard, within the B-4 (Central Business) zoning district, on the real property described in the Special Exception Development Order, a copy of which is attached hereto and incorporated by reference.

SECTION THREE. A certified copy of this Resolution and the executed original Special Exception Development Order shall be recorded in the public records of Volusia County, Florida.

SECTION FOUR. This Resolution shall take effect immediately upon its adoption.

APPROVED AND AUTHENTICATED this 3rd day of May, 2022.

BILL PARTINGTON
Mayor

ATTEST:

SUSAN CARROLL DAUDERIS
City Clerk

**BEFORE THE
CITY COMMISSION
OF THE
CITY OF ORMOND BEACH**

IN RE: **Application of:** HEJAHA, LLC, a Florida limited liability company
 Application No. 2022-19(B)
 Project Name: “Pumphouse restaurant” building signage
 Property Address: 124 West Granada Boulevard
 Parcel ID No.: 4215-09-03-0050

**SPECIAL EXCEPTION
DEVELOPMENT ORDER**

This matter having come on for public hearing before the City Commission of the City of Ormond Beach, Florida, on May 3, 2022, and the City Commission having considered those items as required by Section 1-18 of the *Land Development Code*, and having heard testimony and evidence from all affected persons, the City Commission hereby finds that:

1. The proposed use conforms to the standards and requirements of the *Land Development Code* and will not create undue crowding beyond the conditions normally permitted in the B-4, Central Business, zoning district, or adversely affect the public health, safety, welfare or quality of life;
2. The proposed use is consistent with the *Comprehensive Plan*;
3. The proposed use will not adversely impact environmentally sensitive lands or natural resources, including but not limited to waterbodies, wetlands, xeric communities, wildlife habitats, endangered or threatened plants and animal species or species of special concern, wellfields, and individual wells;
4. The proposed use will not substantially or permanently depreciate the value of surrounding property; create a nuisance; or deprive adjoining properties of adequate light and air; create excessive noise, odor, glare, or visual impacts on the neighborhood and adjoining properties;
5. There are adequate public facilities to serve the development, including but not limited to roads, sidewalks, bike paths, potable water, wastewater treatment, drainage, fire and police safety, parks and recreation facilities, schools, and playgrounds, as proposed ;

6. Ingress and egress to the property and traffic patterns are designed to protect and promote motorized vehicle and pedestrian/bicycle safety and convenience, allow for desirable traffic flow and control, and provide adequate access in case of fire or catastrophe, as proposed ;

7. The proposed use is functional in the use of space and aesthetically acceptable;

8. The proposed use provides for the safety of occupants and visitors; and

9. The proposed use of materials and architectural features will not adversely impact the neighborhood and aesthetics of the area.

Thereupon and in consideration thereof, the City Commission hereby orders

that:

A. The application of HEJAHHA, LLC a Florida limited liability company, (the "Applicant"), for a Special Exception to allow alternative building signage of 30.33± square feet at the proposed "Pumphouse" restaurant located at 124 West Granada Boulevard, within the B-4 (Central Business) zoning district, on that real property described on Exhibit "A" attached hereto and incorporated by reference, is hereby granted, subject to the following conditions:

1. All applicable provisions of the *Land Development Code* shall be complied with at all times, such provisions being incorporated herein by reference and hereby specifically made a part of this Special Exception;

2. A sign permit shall be required for the proposed alternative building signage.

B. The alternative business premise signage (building signage) shall be consistent with the conditions listed in Paragraph A hereof, and the sign plan displayed in Exhibit "B" attached hereto may be amended, if necessary, in order to achieve such consistency. Nothing in this Development Order shall prevent additional building signage (such as a second building sign or window signage) in conformance with the regulations of the Land Development Code.

C. No material change shall be made to the final plans for this Special Exception without further review by the Planning Board and approval by the City Commission in accordance with the procedures for the approval of this Special Exception Development Order.

D. In the event a Neighborhood Improvement Officer subsequently determines there to be any violation of this Special Exception, such Officer shall promptly present such determination to Special Magistrate for hearing.

E. If this Special Exception is abandoned for a period of six (6) months, a zoning approval for alternative business premise signage, subject to Special Exception requirements, shall not be issued until the Site Plan review Committee determines that all of the conditions of Chapter I, Article II, Section 1-14(3)(c) of the *Land Development Code* have been met.

F. In the event a signage permit has not been issued within twenty-four (24) months, which date shall be May 3, 2024, then this Development Order shall automatically become void and shall have no further legal effect per Chapter 1, Article II, Section 1-14(3), of the *Land Development Code*. If a signage permit is issued on or before May 3, 2024, the project shall be vested.

G. This Special Exception Development Order shall be recorded in the public records of Volusia County, Florida, at the expense of HEJAHHA, LLC, a Florida limited liability company, and shall be binding upon HEJAHHA, LLC, a Florida limited liability company, and its successors and assigns, and shall run with the real property described in Exhibit "A" attached hereto and incorporated herein by reference. (Parcel ID No.: 4215-09-03-0050)

ORDERED this 3rd day of May, 2022.

By: _____

BILL PARTINGTON

Mayor

(CITY SEAL)

Attest: _____

JOYCE A. SHANAHAN

City Manager

EXHIBIT "A"**LEGAL DESCRIPTION**

15-14-32 LOTS 5 & 8 ALHAMBRA BLOCK PLAT OF GRANADA PB 1 PG 6
 MB 12 PG 194 PB 1 PG 59 MB 17 PG 17 PB 1 PG 123 MB 17 PG 40 LESS ROAD
 R/O/W PER OR 7640 PG 33 PER OR 7622 PGS 327 THRU 332

LOCATION MAP

PARCEL ID:	4215-09-03-0050
OWNER:	HEJAH, LLC, A FLORIDA LIMITED LIABILITY COMPANY
APPLICANT:	HEJAH, LLC, A FLORIDA LIMITED LIABILITY COMPANY
SPECIAL EXCEPTION ADDRESS:	124 WEST GRANADA BOULEVARD, ORMOND BEACH, FL 32174

STABILIZING
CABLE TIE BACKS
WIDE TO TOWER

Daytona Office:
821 Fentress Ct.
Daytona Beach, FL 32117
386-238-1711
Web. www.seligtingsolutions.com

Packet Pg. 1112



THIS IS AN ORIGINAL DOCUMENT CREATED FOR YOU BY AND REMAINS THE PROPERTY OF SOUTHEASTERN LIGHTING SOLUTIONS. IT IS FOR THE SOLE USE OF THE CUSTOMER AND SOUTHEASTERN LIGHTING SOLUTIONS TO COMMUNICATE PROPOSED IMPROVEMENTS TO THE PROJECT PROPERTY LISTED IN THE DESCRIPTION. IT IS NOT TO BE SHARED, COPIED, USED OR REPRODUCED FOR ANY OTHER PURPOSE OTHER THAN THE COMMUNICATIONS BETWEEN THE CUSTOMER AND SOUTHEASTERN LIGHTING SOLUTIONS.		
DRAWING NUMBER:	REVISIONS:	DATE:
134689	14	02/04/2022

CUSTOMER:
PUMP HOUSE BBQ

LOCATION ADDRESS:
124 W Granada Blvd,
Ormond Beach, FL 32174

PROJECT INFORMATION:
manufacture architectural
and structural support to
attach pig to canopy wall.

FASTENER SCHEDULE

1. **NO H2O, LOT**
 2. **NO H2O, CONC'D**
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 100. **NO H2O, CONC'D**



50% DEPOSIT REQUIRED ON MANUFACTURING JOBS
WITH BALANCE UPON COMPLETION

DRAWING: N.T.S.

Customer approval

Date / /

PAGE 1 OF 1

STAFF REPORT

City of Ormond Beach Department of Planning

DATE: February 28, 2022

SUBJECT: 124 West Granada Boulevard, building signage Special Exception

APPLICANT: HEJAHA, LLC, Property Owner

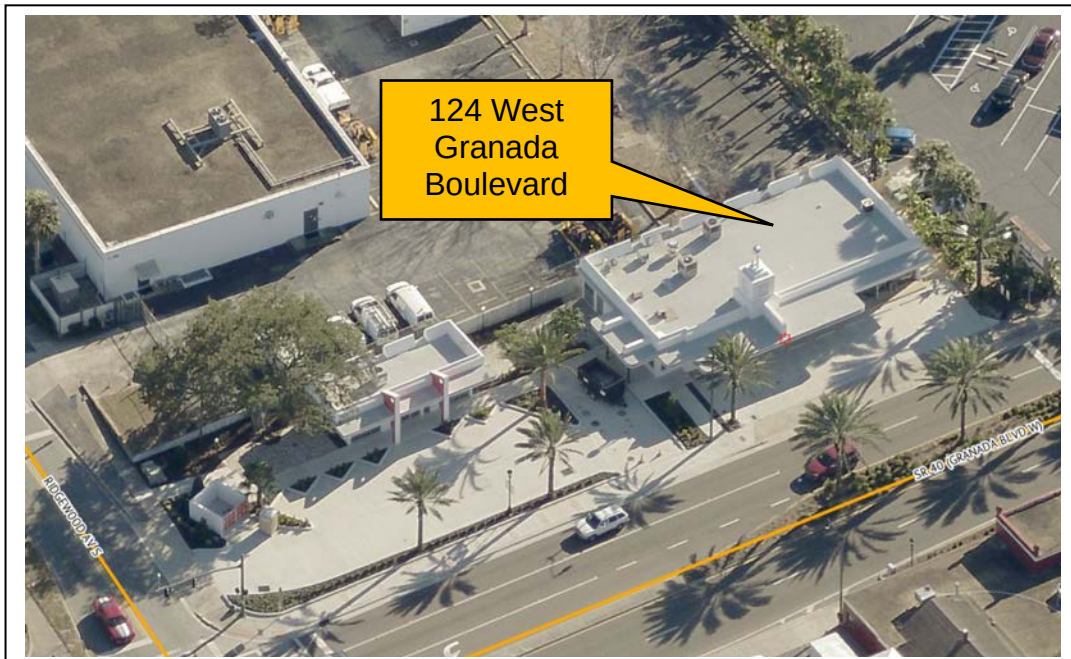
NUMBER: SE 2022-019(B)

PROJECT PLANNER: Steven Spraker, AICP, Planning Director

INTRODUCTION: This is a request submitted by HEJAHA, LLC, for a Special Exception for wall signage at 124 West Granada Boulevard. The property at 124 West Granada Boulevard is being redeveloped for a BBQ restaurant. Section 3-48(B) of the Land Development Code allows alternative business premise signage through a Special Exception. The Special Exception seeks to allow a projecting sign of approximately 30.33 square feet on the building. The subject property is located at 124 West Granada Boulevard and is zoned as B-4 (Central Business) and is within the Downtown Overlay District.

BACKGROUND: The subject property is currently designated as “General Commercial” on the City’s Future Land Use Map (FLUM), and is classified as B-4 (Central Business) on the City’s Official Zoning Map. The property is within the Downtown Overlay District. The property is shown in the aerial in Exhibit 1 and surrounding uses on Exhibit 2.

Exhibit 1: Site Aerial:



Source: <https://explorer.pictometry.com/index.php>

Exhibit 2: Surrounding Uses with Land Use and Zoning Designations:

	Land Uses	Land Use Designation	Zoning Classification
North	Hull's Seafood	"General Commercial"	B-4 (Central Business)
South	ATT facility	"General Commercial"	B-4 (Central Business)
East	Ormond Elementary parking lot	"General Commercial"	B-4 (Central Business)
West	Commercial uses	"General Commercial"	B-4 (Central Business)

The property owner purchased the former dry cleaner building at 124 West Granada Boulevard and was issued permits to construct the barbecue restaurant where the former dry cleaner store was located. Construction started in 2019 and is now coming to a conclusion. The property owner has identified that the end user would be the Pumphouse BBQ restaurant.

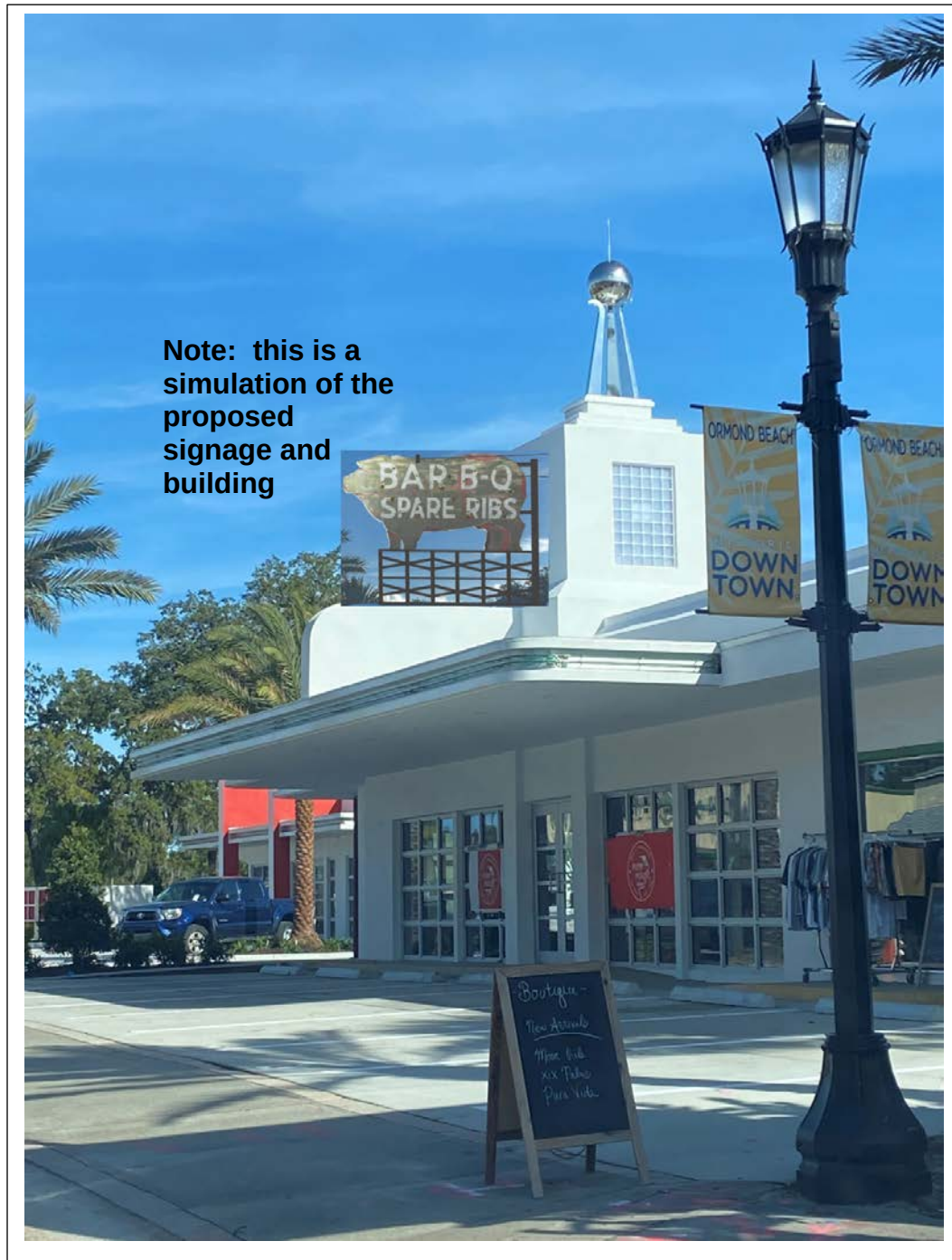
Exhibit 3: Building at 124 West Granada Boulevard:

PROJECT DESCRIPTION: The renovations for the BBQ restaurant are nearly complete. The project coordinator for the property met with city staff and detailed the uniqueness of the redeveloped building and the desire to allow a projecting sign along the “L” shaped portion of the building. The Special Exception seeks to allow a projecting sign of approximately 30.33 square feet on the building. A rendering of the sign is show in Exhibit 4 below.

Exhibit 4: Proposed signage – 30.33 square feet:



Exhibit 5: Photoshop simulation of proposed signage and building:



ANALYSIS: The property at 124 West Granada Boulevard is included in the overall parcel that also includes the building at 100 West Granada Boulevard. Each building has applied for a Special Exception related to building signage. Staff has separated the application into two separate actions as neither application depends on the other. Each

Special Exception should be reviewed independently using the Special Exception and Development Order criteria discussed in this report.

The Land Development Code defines a projecting sign as: “means any sign attached to or designed as an integral part of a building or structure that extends in whole or in part more than twelve inches (12”) beyond the surface of the portion of the building to which it is attached or designed.” Projecting signs are limited to 12 square feet.

Section 3-48(B) of the Land Development Code allows alternative business premise signage through a Special Exception. Section 3-48(E) of the Land Development Code establishes the maximum square footage and number of wall signs. The property at 124 West Granada Boulevard is allowed two (2) wall signs for a total of 78 square feet. The proposed sign is 30.33 square feet.

In staff’s review, a key component has been to focus on the content neutral aspects of the signage, such as the Land Development Code allows projecting signs that are 12 square feet and the proposed sign is 30.33 square feet. The project is allowed wall signage of 52 square feet or one sign or 78 square feet for two signs. The content of the sign is not an aspect of the sign that staff has reviewed, only the square footage.

Section 2-25(A) of the Land Development Code provides the purpose of the B-4 (Central Business) zoning district as,

“The purpose of the B-4, Central Business Zoning District is to provide for a wide range of uses and facilities in a manner offering optimum design flexibility. Where dimensional or landscape standards cannot be met due to the prevalence of nonconforming lots in this zoning district or at an applicant’s option, these requirements may be waived through a city commission monitored process aimed at producing development having design compatibility, meeting required parking to the maximum extent feasible, and achieving a high level of aesthetic appeal through a combination of innovative architecture, landscaping and hardscape materials. It is intended that permitted uses meeting applicable lot and building requirements be approved administratively, and those requiring special approval by the city commission be approved through the special exception process. Chapter 2, article VI, provides design regulations applicable to the Downtown Overlay District.”

A Special Exception requires the review/recommendation by the Planning Board and a final decision by the City Commission. The Special Exception requires review of the criteria of the following Land Development Code Sections:

1. Section 2-56: General criteria and Special Exception review criteria (applies to all Special Exception requests);
2. Section 1-15.E: Planned Developments and Special Exceptions (Planning Board criteria for all Special Exceptions); and
3. Section 1-18.E: Criteria for Issuance of Development Order (City Commission criteria for all Special Exceptions).

Section 2-56: Special Exception Criteria

Section 2-56 of the Land Development Code outlines the general criteria for all Special Exception approvals:

- A. *Off-street parking, loading and service areas shall be provided and located such that there is no adverse impact on adjoining properties, beyond that generally experienced in the district.***

The Special Exception for building signage would not have an impact to the overall provision of parking.

- B. *Required yards, screening or buffering, and landscaping shall be consistent with the district in general, the specific needs of the abutting land uses, Chapter 3, Article 1, and other applicable provisions of this Code.***

The Special Exception for building signage would not have an impact on buffering or landscaping.

- C. *Size, location, or number of conditional or Special Exceptions in an area shall be limited so as to maintain the overall character of the district in which said conditional or Special Exceptions are located.***

The Special Exception for building signage would not impact the overall character of the Downtown District of the Downtown area. Section 3-48(B) of the Land Development Code is a mechanism to allow alternative wall signage through a Special Exception process. The allowance of the wall signage plan will enhance the visual impact of the building as well as the Granada corridor.

- D. *Hours of operation may be limited and the city may require additional information on structural design and site arrangement, to assure the compatibility of the development with existing and proposed uses in the surrounding area.***

The requested Special Exception for building signage would not require any hours of operation restrictions and the site is located along a commercial corridor.

- E. *The Special Exception shall not generate hazardous waste or require use of hazardous materials in its operation without use of City-approved mitigative techniques.***

This Special Exception for building signage request will not generate hazardous waste.

- F. *All development proposed as a Special Exception within or adjacent to a historic district shall be reviewed based on applicable criteria stated herein for residential, commercial or mixed-use development and shall also comply with appearance and design guidelines for historic structures.***

The building is not historic and the project seeks to redevelop/repurpose the building to a functional use. The building space was previously used for a dry cleaner.

- G. *Outdoor lighting shall have no spillover onto adjacent property or rights-of-way beyond the building site property line, and the lumens shall not exceed two (2) foot-candles at the property line.***

The Special Exception for the requested building signage would not impact outdoor lighting.

Section 1-15.E: Planning Board Criteria and Section 1-18.E: City Commission Criteria

Sections 1-15.E. and 1-18.E of the Land Development Code establish the Planning Board and City Commission Development Order criteria. The Land Development Code states that the following criteria shall be considered:

- 1. The proposed development conforms to the standards and requirements of this Code and will not create undue crowding beyond the conditions normally permitted in the zoning district, or adversely affect the public health, safety, welfare or quality of life.**

The Land Development Code allows alternative building signage based on the issuance of a Special Exception. The proposed building signage is based upon the unique building design and will not create undue crowding beyond the conditions normally permitted in the zoning district, or adversely affect the public health, safety, welfare or quality of life.

- 2. The proposed development is consistent with the Comprehensive Plan.**

The site has a Future Land Use designation of "General Commercial", which is consistent with the proposed use. The Special Exception building signage plan is consistent with the Comprehensive Plan and the 2019 Downtown Master Plan Update.

- 3. The proposed development will not adversely impact environmentally sensitive lands or natural resources, including but not limited to waterbodies, wetlands, xeric communities, wildlife habitats, endangered or threatened plants and animal species or species of special concern, wellfields, and individual wells.**

The proposed Special Exception application is for building signage and will not adversely impact environmentally sensitive lands or natural resources, and is an existing developed site.

- 4. The proposed use will not substantially or permanently depreciate the value of surrounding property; create a nuisance; or deprive adjoining properties of adequate light and air; create excessive noise, odor, glare, or visual impacts on the neighborhood and adjoining properties.**

The proposed Special Exception application for building signage will not depreciate the value of surrounding properties based on the location of abutting roadways. It is understood that the proposed sign is unique. Staff is not aware of another projecting sign similar to what is being proposed. If the sign was mounted to the face of the building, it would not require a Special Exception.

- 5. There are adequate public facilities to serve the development, including but not limited to roads, sidewalks, bike paths, potable water, wastewater treatment, drainage, fire and police safety, parks and recreation facilities, schools, and playgrounds.**

Public facilities currently serve the site and there would be no impact to the existing infrastructure.

- 6. Ingress and egress to the property and traffic patterns are designed to protect and promote motorized vehicle and pedestrian/bicycle safety and convenience, allow for desirable traffic flow and control, and provide adequate access in case of fire or catastrophe. This finding shall be based on a traffic report where available, prepared by a qualified traffic consultant, engineer or planner which details the anticipated or projected effect of the project on adjacent roads and the impact on public safety.**

The Special Exception for building signage would not impact traffic patterns or adjacent roadways.

- 7. The proposed development is functional in the use of space and aesthetically acceptable.**

The Special Exception for building signage is aesthetically acceptable. In staff's review, a key component has been to focus on the content neutral aspects of the signage, such as the Land Development Code allows projecting signs that are 12 square feet and the proposed sign is 30.33 square feet. The project is allowed wall signage of 52 square feet or one sign or 78 square feet for two signs. The content of the sign is not an aspect of the sign that staff has reviewed, only the square footage.

- 8. The proposed development provides for the safety of occupants and visitors.**

The Special Exception for building signage would not impact the safe movement on the site for occupants and visitors.

- 9. The proposed use of materials and architectural features will not adversely impact the neighborhood and aesthetics of the area.**

The Special Exception for wall signage would not impact the neighborhood or impact the aesthetics. The proposed building and site improvements provide character and charm for Downtown Ormond Beach. The Special Exception seeks to generate more visibility and positive impact as part of the Granada corridor.

- 10. The testimony provided at public hearings.**

This application has not been reviewed in a public forum and no testimony has been provided.

RECOMMENDATION: It is expected that the application will be reviewed by the City Commission on April 19, 2022. It is recommended that the Planning Board **APPROVE** the application to allow a 30.33 square foot projecting sign at 124 West Granada Boulevard.

Attachments:

Attachment 1: Site map and pictures

Attachment 2: Applicant provided information and signage exhibit

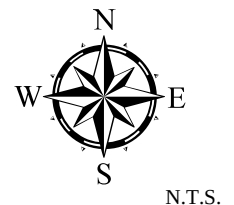
ATTACHMENT 1

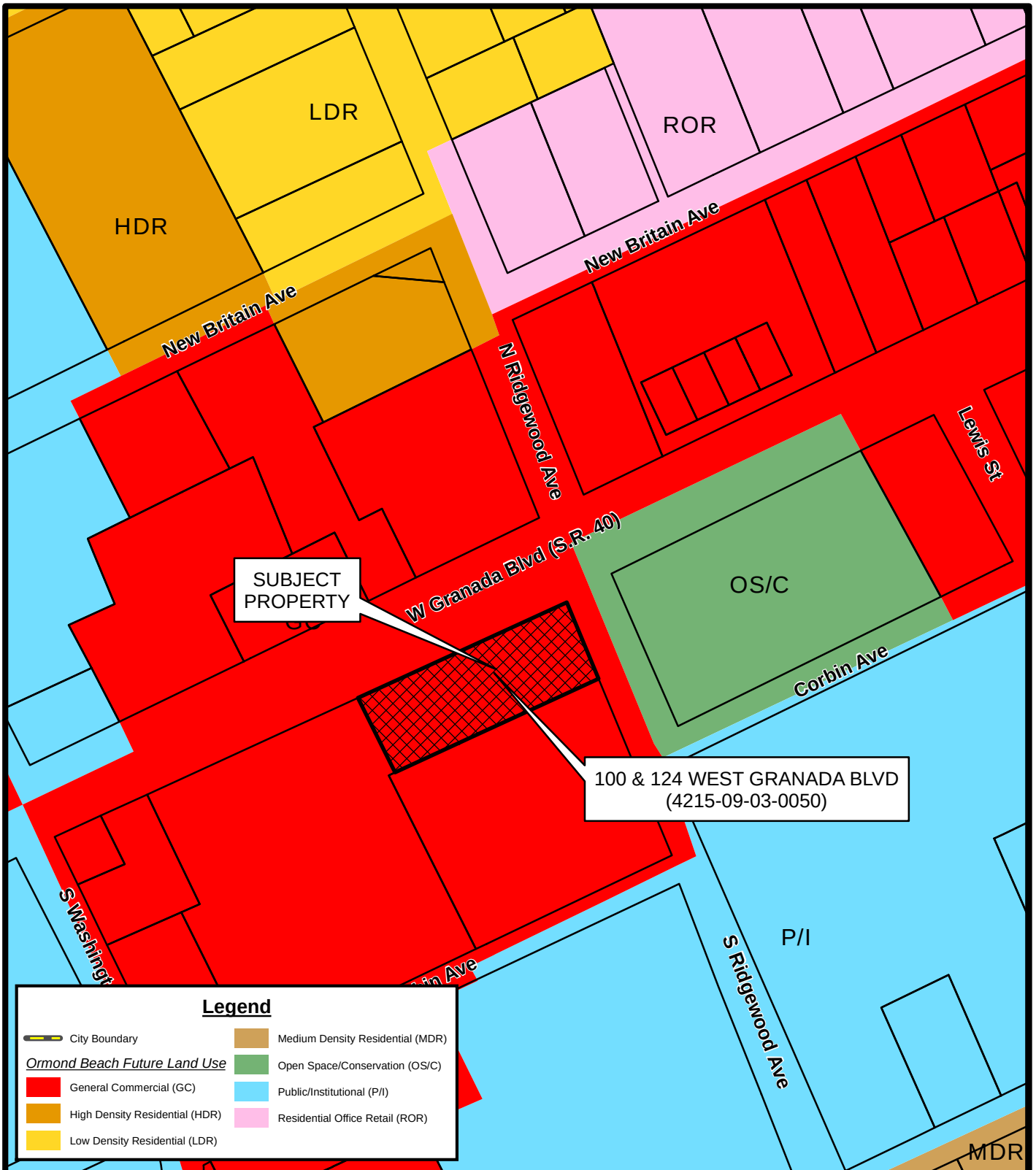
Site map and pictures



AERIAL MAP
100 & 124 WEST GRANADA BLVD
(4215-09-03-0050)

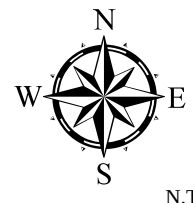
Prepared By: The City of Ormond Beach
 G.I.S. Department - February 7, 2022

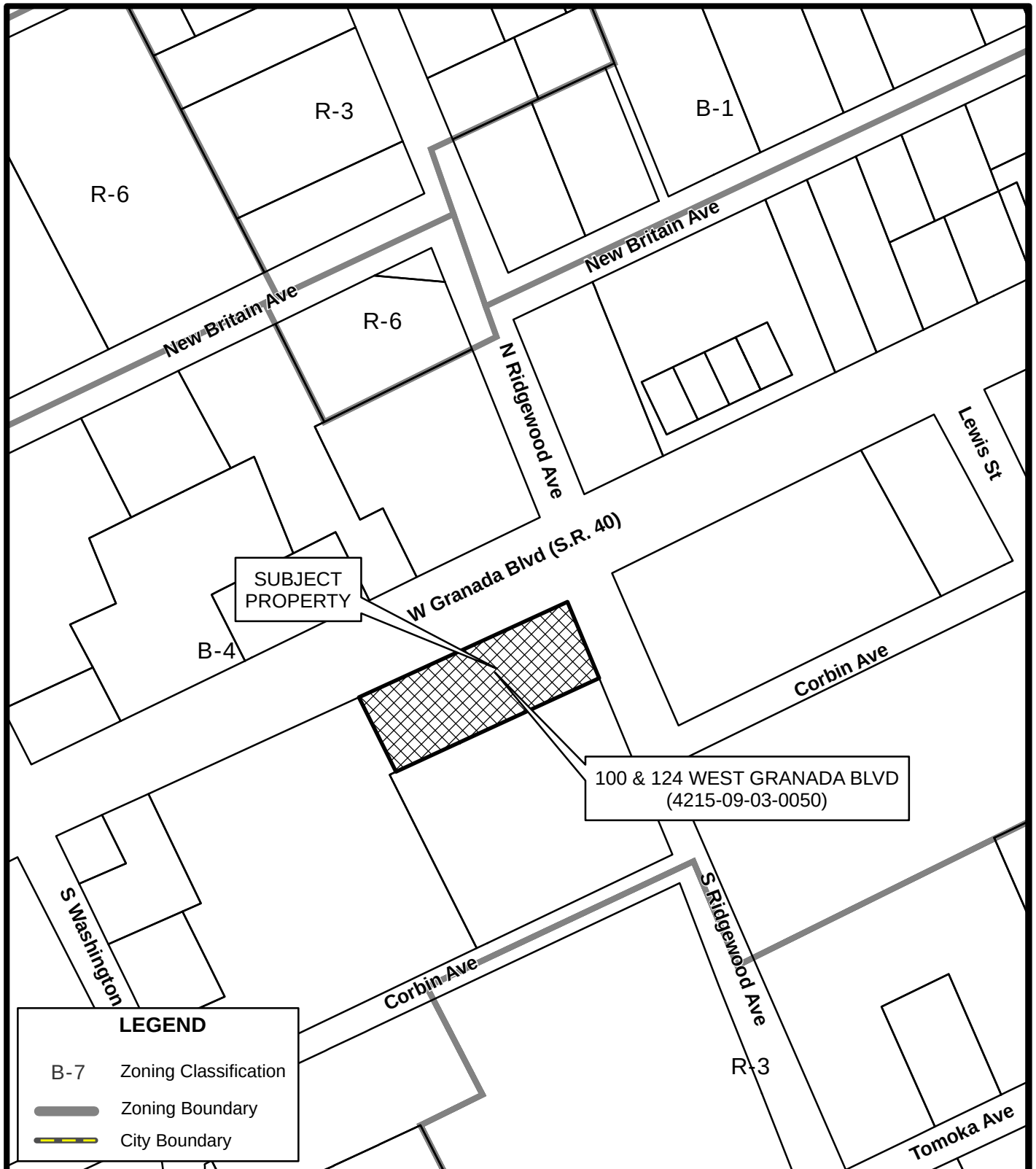




FUTURE LAND USE MAP
100 & 124 WEST GRANADA BLVD
(4215-09-03-0050)

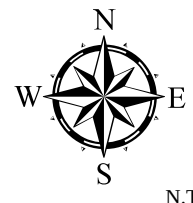
Prepared By: The City of Ormond Beach
 G.I.S. Department - February 7, 2022

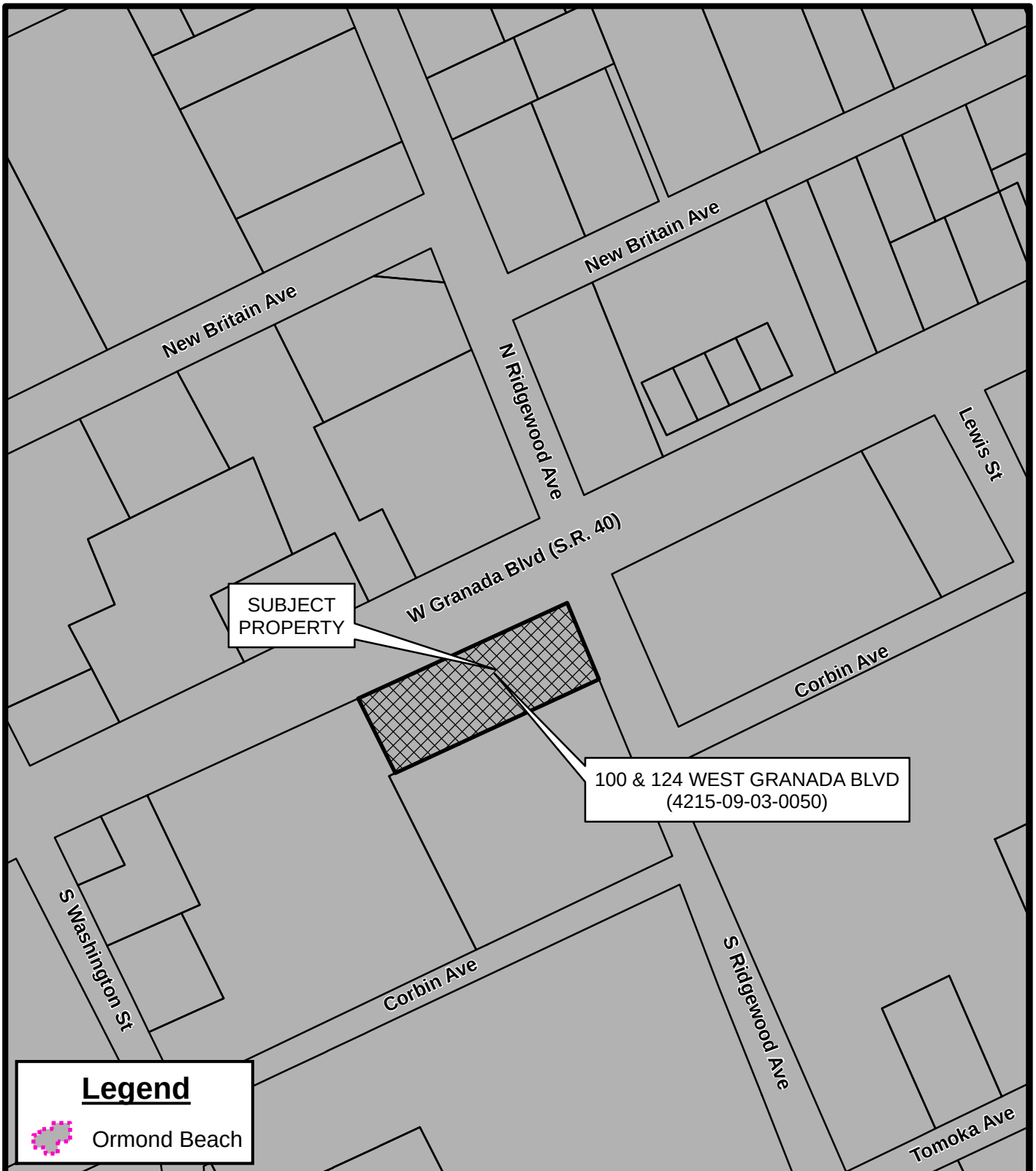




ZONING MAP
100 & 124 WEST GRANADA BLVD
(4215-09-03-0050)

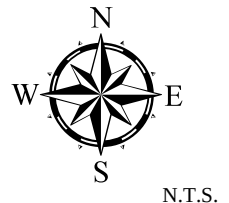
Prepared By: The City of Ormond Beach
 G.I.S. Department - February 7, 2022





LOCATION MAP
100 & 124 WEST GRANADA BLVD
(4215-09-03-0050)

Prepared By: The City of Ormond Beach
 G.I.S. Department - February 7, 2022







Area of
proposed
signage



Area of
proposed
signage



**Note: this is a
simulation of the
proposed
signage and
building**



ATTACHMENT 2

Applicant provided
information and signage
exhibit

Summary

This is a Request for a Special Exception brought by Hejaha, LLC, owner of the real property located at 124 West Granada Boulevard, Ormond Beach, Fl 32174.

Located on this property are two separate buildings, 100 and 124 West Granada Boulevard. Currently on 100 West Granada Blvd., a building is in its' final stage of construction which shall become the Neighborhood Scoop, a long awaited ice cream parlor. At 124 W. Granada also currently in its' final stages of construction is the soon to be Pumphouse which will be a most delicious bar b que restaurant. Both establishments are owned by local residents who have a desire to invest in Ormond Beach's downtown. You have an opportunity to help them succeed.

These two buildings with their individual unique architectural style have been designed by Bill Jones who has almost singlehandedly been credited with the restoration of Ormond Beach's downtown which has become the most vibrant center for dining and entertainment, a true destination.

Hejaha is asking for a sign for each building which does not conform to the City's code and hence requires a special exception. True to form these signs are unique and will add to the visual and cultural vibrancy of the downtown's evolving character.

Due to the unique architectural style of the ice cream parlor the sign that has been created (copy attached) compliments the building and adds an additional element of architectural design along with visibility to beckon one and all.

The sign for the bar b que restaurant is an antique Pig, over 100 years old, purchased by Mr. Jones from a bar b que restaurant on the West Coast. This Pig is truly a one of a kind as are many of his ideas, and will add an element of whimsy as well as becoming a landmark in the Downtown.

In keeping with the goals of Ormond Main Street these unique attributes help create a sense of place and draw locals and tourists to our Downtown. In these most uncertain financial times the Planning Board as citizens empowered with decision making should broaden horizons and should facilitate and applaud those who invest in our town.

Hejaha respectfully requests that you review the documents and grant these special exceptions in furtherance of the vibrancy of Ormond Beach.

Respectfully,
Dorian Burt
Project Coordinator Hejaha, LLC



SLS
SOUTHEASTERN LIGHTING SOLUTIONS

DRAWING NUMBER:	REVISIONS:	DATE:
134689	14	02/04/2022

LOCATION ADDRESS:
124 W Granada Blvd,
Ormond Beach, FL 32174

PROJECT INFORMATION:
manufacture architectural
and structural support to
attach pig to canopy wall.

50% DEPOSIT REQUIRED ON MANUFACTURING JOBS
WITH BALANCE UPON COMPLETION

DRAWING: N.T.S.

Customer approval

Date 11

PAGE 1 OF 1

Draft Planning Board minutes

March 10, 2022

124 West Granada Boulevard, Special Exception

B. SE2022-019(B) – 124 West Granada Boulevard, Special Exception

Mr. Steven Spraker, Planning Director, explained the request submitted by HEJAHHA, LLC, for a Special Exception for wall signage at 124 West Granada Boulevard. The property is being redeveloped for a BBQ restaurant. The building has undergone substantial renovations and improvements. He continued that the Special Exception seeks to allow a projecting sign of approximately 30.33 square feet on the building. Mr. Spraker explained that staff can allow a 12 square foot projecting sign and the proposed sign is at 30.33 square feet. Section 3-48(B) of the Land Development Code (LDC) allows alternative business premise signage through a Special Exception. Mr. Spraker detailed the location of the proposed sign and concluded that staff is recommending approval.

Ms. Shull commented that she likes the pig and that it is whimsical, and cute for the downtown area.

Mr. Galloway asked about the size of the proposed sign versus what is allowed. Mr. Spraker confirmed that the property at 124 West Granada Boulevard is allowed 52 square feet for one sign or for two signs, a total of 78 square feet. The proposed sign is 30.33 square feet.

Ms. Dorian Burt, 203 Pine Cone Trail, read a letter from Mr. Bill Jones, property owner:

Hello to all members of the board.

I am pleased and honored that you would give us this time to speak about, what I believe, is an amazing piece of structural artwork. Affectionately dubbed “the pig” the sign would sit proudly on the new/old vintage gas station known as the “pump house”. It has always been my goal to attempt to bring the downtown to its former glory.

Everything we do downtown is at the top of its class. I don’t build “disposable structures” and in fact spend more than most builders do. I do this because I have a sense of history and I want the downtown to be as vintage and beautiful as it can be. I spend more time to get the desired affect that I want and the city deserves. My return on investment takes longer to recoup but, after all, this is my home. I love this town and its people and only wish to enhance and beautify the place we all call home.

Now, to the barbecue sign or as I like to call it, “the pig”. It is an original vintage sign approaching nearly one hundred years of age. I bought it from a collector in Los Angeles and its story is that hung over one of the many barbecue restaurants in Memphis, Tennessee on Beale Street. It wasn’t cheap but beauty comes with a price. I believe that if you will allow me to display the sign over the pump house it will be the beginning of structural art in the downtown. It is not signage per se but instead equivalent to an installation of cows I have seen in downtown Chicago and New York City and Los Angeles, as well as other cities all embracing structural art.

In closing, I hope that you see the beauty in the piece and allow me to install one more amazing piece in the downtown that will catch people’s and visitors eye and make them want to stop and investigate our beautiful downtown.

I’m sorry I couldn’t be here tonight as I am on a business trip to Los Angeles. Thank you for your time and consideration.

Yours truly

Bill Jones

Mr. Briley reiterated the appreciation of the ability in the Land Development Code to have flexibility to allow signage such as proposed in this application.

Mr. Jorczak noted that the signage adds character to the Downtown.

Ms. Tolland motioned to approve SE2022-019(B) – 124 West Granada Boulevard, Special Exception. Ms. Shull seconded it. Vote was called, and the motion was approved (7-0).



CITY OF ORMOND BEACH

City Manager • 22 S. Beach Street • Ormond Beach • Florida • 32174 • (386) 676-3200 • Fax (386) 676-3384

CITY MANAGER MEMORANDUM

To: The Honorable Mayor Partington and City Commissioners

Through: Joyce A. Shanahan, City Manager

From: Susan C. Dauderis, City Clerk

Date: May 3, 2022

Subject: Ordinance Calling 2022 Regular City Election

Commission Goal: Governance - Other

Introduction

This is a request to adopt an ordinance calling for a regular election for the offices of Mayor and City Commissioner in all four (4) City Commission zones; if warranted, a primary election for said offices, and establishing a qualifying period for the election(s). The regular election is to be held on November 8, 2022. The primary election, if needed, would be held on August 23, 2022.

Background

Pursuant to Section 3.03 of the City Charter, terms of office for the Mayor and City Commission are two (2) years. On July 15, 2008, the City Commission approved an ordinance allowing the City to hold elections at the same time as the state and federal elections in even numbered years. This year's general election date is November 8, 2022.

As a result of the City's 2019 municipal charter referendum, Section 5.06 of the City Charter calls for a primary election to be held in the event that three or more persons qualify as candidates for any designated seat of the City Commission. If such an election is warranted, it would be held on August 23, 2022.

Discussion

Approval of this ordinance is required to meet notice requirements for the noon, Monday, June 13, 2022, through noon, Friday, June 17, 2022, qualifying period.

Budget Impact

Approval of this ordinance will have no impact to the budget.

Citizen Impact

Upon adoption of this ordinance, public notice will be provided for the qualifying period for the municipal elections.

Recommendation

It is recommended that the attached ordinance calling for a regular election, a primary election; if needed, and setting a qualifying period concurrent with the regularly scheduled 2022 state and Volusia County elections be approved.

Attachments:

- 22- 13 Ord Calling Reg Election (P22-0041G) (PDF)

REVIEWED BY:


Kelly McGuire, Finance Director 3/28/2022


Claire Whitley, Assistant City Manager 4/12/2022

APPROVED BY:


Joyce A. Shanahan, City Manager 4/14/2022

ORDINANCE NO. 2022-13

AN ORDINANCE REGARDING THE OFFICE OF MAYOR AND CITY COMMISSIONERS FOR ZONES 1 THROUGH 4 BY PROVIDING FOR AND CALLING A PRIMARY MUNICIPAL ELECTION OF THE REGISTERED ELECTORS OF THE CITY OF ORMOND BEACH TO BE HELD ON AUGUST 23, 2022; PROVIDING FOR AND CALLING A REGULAR MUNICIPAL ELECTION OF THE REGISTERED ELECTORS RESIDING IN THE CITY OF ORMOND BEACH TO BE HELD ON NOVEMBER 8, 2022; PROVIDING FOR QUALIFYING AND ELECTION PROCEDURES; ESTABLISHING A DATE FOR TAKING OFFICE; AUTHORIZING THE EXECUTION OF A MEMORANDUM OF UNDERSTANDING FOR SERVICES AND MATERIALS WITH THE COUNTY OF VOLUSIA; PROVIDING FOR SEVERABILITY; AND SETTING FORTH AN EFFECTIVE DATE.

BE IT ENACTED BY THE PEOPLE OF THE CITY OF ORMOND BEACH, FLORIDA, THAT:

SECTION ONE. This Ordinance is adopted pursuant to the *Charter* of the City of Ormond Beach, Florida, and other applicable provisions of law.

SECTION TWO. A Primary Municipal Election of the registered electors residing in the City of Ormond Beach is hereby called to be held, if necessary, on Tuesday, August 23, 2022, for the purpose of electing the following members of the City Commission of the City of Ormond Beach, Florida: a Commissioner from Zone 1; a Commissioner from Zone 2; a Commissioner from Zone 3; a Commissioner from Zone 4; and for the purpose of electing a Mayor by a vote of the qualified electors of the entire City at large. All registered electors residing within the City of Ormond Beach shall be entitled and permitted to vote in the Primary Election hereby called. The polls will be open at the polling places from 7:00 a.m. until 7:00 p.m. of the same day.

SECTION THREE. A Regular Election of the registered electors residing in the City of Ormond Beach is hereby called to be held on Tuesday, November 8, 2022, for the purpose of electing the following members of the City Commission of the City of Ormond Beach, Florida: a commissioner from Zone 1; a commissioner from Zone 2; a commissioner from Zone 3; a commissioner from Zone 4; and for the purpose of electing a mayor by a vote of the qualified electors of the entire City at large. All registered electors residing within the City of Ormond Beach shall be entitled and permitted to vote in the Regular Election hereby called. The polls will be open at the polling places from 7:00 a.m. until 7:00 p.m. of the same day.

SECTION FOUR. All notices of candidacy for the Primary Municipal Election and the Regular Municipal Election hereby called shall be filed with the City Clerk's office between 12:00 p.m. (noon) on Monday, June 13, 2022 and 12:00 p.m. (noon) on Friday, June 17, 2022.

SECTION FIVE. The candidate elected to serve as the successor City Commissioner for each of the respective zones and for the office of Mayor shall be sworn in by the City Clerk, shall officially take office on Tuesday, November 15, 2022, and shall serve until Tuesday, November 19, 2024.

SECTION SIX. The locations of the polling places for the Regular Election hereby called shall be as established by the Volusia County Supervisor of Elections.

SECTION SEVEN. Voting machines, or other voting devices as have been adopted by the County of Volusia, shall be used in the Primary Municipal Election, if held, and in the Regular Election hereby called, and the form of the ballot to be used shall be in accordance with the form specified by the Municipal Election Code (Chapter 13, *Code of Ordinances*) and other applicable law.

SECTION EIGHT. Paper ballots shall be used at the Primary Municipal Election, if held, and at the Regular Election hereby called for absentee voting. The form of the ballot to be used in the said Election(s) for absentee voters shall be in accordance with the municipal Election Code (Chapter 13, *Code of Ordinances*) and other applicable law.

SECTION NINE. The City Clerk is hereby authorized and directed to have printed a sufficient number of the aforesaid ballots, to be printed in English and Spanish languages, for the use of absentee electors entitled to cast ballots in the Primary Municipal Election and in the Regular Election hereby called, and shall also have printed sample ballots and deliver them to the inspectors and clerks on or before the date and time for the opening of the polls for the said Primary Municipal Election, if held, and for the Regular Election for the polling places at which voting machines, or other voting devices, are to be used; and further is authorized and directed to make appropriate arrangements for the use of such voting machines, or other voting devices, at the polling places specified herein and to have printed and delivered in accordance with law the official ballot for use in such voting machines or other voting devices.

SECTION TEN. The City Clerk is hereby authorized and directed to execute a Memorandum of Understanding between the City and the Volusia County Department of Elections for the printing of ballots, recruitment and training of poll workers, scheduling of polling places and the use of voting machines.

SECTION ELEVEN. The Primary Municipal Election, if held, and the Regular Election shall be held and conducted in the manner prescribed by law for holding general elections in the City. The inspectors and clerks at each polling place shall prepare and file returns of such Primary Municipal Election, if held, and of such Regular Election and shall deliver the same to the City Commission. Such returns shall show the total number of qualified electors who voted at

such Primary Municipal Election, if held, and at such Regular Election and the number of votes cast, respectively, for each candidate in each such Election. Returns shall be canvassed in accordance with applicable election law as soon as practicable following said Election.

SECTION TWELVE. The City of Ormond Beach shall publish notice of the Primary Municipal Election, if held, and of the Regular Election once in the fifth week and once in the third week prior to the week in which said Election is to be held, together with an appropriate caption in such form as the City Clerk shall determine, in *The News-Journal*, a newspaper published and of general circulation in the City of Ormond Beach.

SECTION THIRTEEN. (a) In the event only one (1) candidate qualifies for the office of City Commissioner in any of the respective zones, or for the office of Mayor, at large, during the period established by Section Four of this Ordinance, such candidate shall be deemed to have voted for himself/herself and shall be declared as elected.

(b) In the event two (2) or more candidates qualify for the office of City Commissioner in any of the respective zones, or for the office of Mayor, during the period established by Section Four of this Ordinance, and prior to the Primary Municipal Election or prior to the Regular Election hereby called there is a vacancy in candidacy caused by the death, withdrawal, or removal from the ballot of a qualified candidate, which leaves only one (1) candidate for the said office, such remaining candidate shall be deemed to have voted for himself/herself and shall be declared as elected.

(c) In the event more than two (2) candidates qualify for the office of City Commissioner in any of the respective zones, or for the office of Mayor, during the period established by Section Four of this Ordinance, the two (2) persons receiving the highest number of votes cast in the Primary Municipal Election for each designated seat on the city commission

or the office of mayor shall be declared candidates for each of the designated seats or office and shall be voted upon at the Regular Municipal Election, and the candidate receiving the highest number of votes cast at the Regular Municipal Election for the designated seats or office shall be declared elected; provided that if any one (1) candidate in the Primary Municipal Election receives more than fifty percent (50%) of the votes cast for a designated seat or office, such candidate shall be declared elected without the necessity of being voted upon in the Regular Municipal Election.

(d) In the event only two (2) persons qualify for the office of City Commissioner in any of the respective zones, or for the office of Mayor, those candidates shall oppose each other in the Regular Municipal Election hereby called, and the Primary Municipal Election hereby called for those city commission seats shall not be held in any such respective zone, or in the case of the mayoral election, at large.

(e) The candidate for the office of City Commissioner in any of the respective zones, or for the Mayor at large, who receives the highest number of votes cast in the Regular Election shall be declared elected to such office.

(f) In the event the candidates for the office of City Commissioner in any of the respective zones, or in the mayor election, receive an equal number of votes in the Regular Election hereby called, the outcome shall be determined by the custom of drawing lots.

SECTION FOURTEEN. The cost of the Primary Municipal Election, if held, and of the Regular Election as specified herein, shall be paid for as provided by law.

SECTION FIFTEEN. In the event any court of competent jurisdiction hereof shall hold any word, phrase, clause, sentence, or paragraph invalid, such holding shall not affect any other word, clause, phrase, sentence, or paragraph hereof.

SECTION SIXTEEN. This Ordinance shall take effect immediately upon its adoption.

PASSED UPON at the first reading of the City Commission, this 19th day of April, 2022.

PASSED UPON at the second and final reading of the City Commission, this 3rd day of May, 2022.

BILL PARTINGTON
Mayor

ATTEST:

SUSAN CARROLL DAUDERIS
City Clerk