



The City of Delray Beach
100 NW 1st Avenue
Delray Beach, FL 33444

PURCHASING AND CONTRACT ADMINISTRATION DIVISION

INVITATION TO BID CONSTRUCTION

ITBC NO.: 2026-014
Brant Bridge Connector
CITY PROJECT NO.: 20-015
FDOT LAP Project No. 441586-1-58-01

DUE DATE AND TIME: February 11, 2026 @ 2:00 PM., (LOCAL TIME)

INSTRUCTIONS

Sealed Bids must be received on or before the due date and time (local time). All Bids will be publicly opened at City Hall, unless otherwise specified.

The City will only accept electronic submittals for this Invitation to Bid Construction (ITBC). ITBC's will be accepted through a secure mailbox at BidNet Direct, www.bidnetdirect.com/cityofdelraybeach until the Due Date and Time indicated in this ITBC. Bidnet Direct does not accept electronic Proposals after the Due Date and Time. It is the sole responsibility of the Proposer to ensure its electronic ITBC submission is complete prior to the solicitation Due Date and Time. Electronic submission of Proposals will require the uploading of forms and/or attachments as designated in this RFQ. Electronic submission must include a signed original of the Solicitation Summary form. The submission of forms and attachments containing embedded documents or proprietary file extensions is prohibited.

If the Solicitation Summary form is not included, the City may deem the Bid non-responsive. Proposals must contain all information required to be included in the submittal, as described in this Solicitation.

BROADCAST

The City of Delray Beach utilizes electronic online services for notification and distribution of its solicitation documents. The City's solicitation information can be obtained from: (a) Bidnet Direct (b) Purchasing webpage on the City of Delray Beach <https://www.delraybeachfl.gov/government/city-departments/purchasing/current-bids-solicitations>; and (c) Request via email; thompsonc@mydelraybeach.com

Proposers who obtain solicitations from sources other than those named above are cautioned that the Request for Proposals package may be incomplete. The City will not evaluate incomplete Proposal packages. Bidnet Direct is an independent entity and is not an agent or representative of the City. Communications to independent entities do not constitute communications to the City. The City is not

responsible for errors and omissions occurring in the transmission or downloading of any documents, addenda, plans, or specifications from these websites.

CONTACT

Any questions regarding the specifications and Solicitation process must be submitted in writing through the "Question" feature on www.bidnetdirect.com//cityofdelraybeach. Requests for clarification and additional information must be received prior to the deadline for Submission of Questions on **Wednesday January 21, 2026 @ 5:00PM., (LOCAL TIME).**

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The City of Delray Beach
100 N.W. 1st Avenue
Delray Beach, FL 33444

LEGAL ADVERTISEMENT

INVITATION TO BID CONSTRUCTION

ITBC NO.: 2026-014
Brant Bridge Connector
CITY PROJECT NO.: 20-015
FDOT LAP Project No. 441586-1-58-01

DUE DATE AND TIME: February 11, 2026 @ 5:00PM., (LOCAL TIME)

The City of Delray Beach, Florida (“City”) is seeking bids from qualified firms for the **construction** of the **Brant Bridge Connector** project, in accordance with the terms, conditions, and specifications contained in this Invitation to Bid Construction.

Invitation to Bid Construction documents are available beginning **January 6, 2026**, on the Purchasing and Contract Administration Division’s webpage of the City of Delray Beach website at:

<https://www.delraybeachfl.gov/government/city-departments/purchasing/current-bids-solicitations>

Documents may also be obtained via Bidnet Direct at www.bidnetdirect.com//cityofdelraybeach, by contacting the City Purchasing and Contract Administration Division at thompsonc@mydelraybeach.com or by phone at (561) 243-7163.

Bids will be accepted through a secure mailbox at Bidnet Direct until the Deadline for Submission as indicated in this ITBC (www.bidnetdirect.com//cityofdelraybeach). The Due Date and Time for submission of submittals is **February 11, 2026, 2:00 PM LOCAL TIME**. Late Proposals will not be accepted. The City will only accept electronic Proposals for this ITBC.

The City will hold a **Non-Mandatory** Virtual Pre-Bid Conference on **Friday January 16, 2026 @ 10:00 AM (LOCAL TIME)** online via Microsoft Team meeting via the link provided below:

Microsoft Teams Meeting

[Join the meeting now](#)

Meeting ID: 211 378 134 700 4

Passcode: T3b6h9oD

It is the responsibility of the Bidder to ensure all pages are included in the submission. All Bidders are advised to closely examine the solicitation package.

The City of Delray Beach is exempt from Federal and State Taxes for tangible personal property tax.

The City of Delray Beach reserves the right to accept or reject any or all Bids, in whole or in part, with or without cause, to waive any irregularities and/or technicalities, and to award the contract on such coverage and terms it deems will best serve the interests of the City.

CITY OF DELRAY BEACH

SECTION 1: INSTRUCTIONS TO BIDDERS

1. Defined Terms.

Terms used in these Instructions to Bidders which are defined in the City of Delray Beach, Florida Standard General Conditions of the Construction Contract have the meanings assigned to them in the General Conditions. The term "Bidder" means one who submits a Bid directly to the CITY, as distinct from a sub-bidder, who submits a bid to a Bidder. The term "Successful Bidder" means the lowest, most qualified, responsible, and responsive Bidder to whom CITY (on basis of CITY'S evaluation as hereinafter provided) makes an award that is most advantageous to the CITY. The CITY'S evaluation of the bid shall take into consideration the cost (total, unit price, or combination of both), CITY'S prior experience with bidder, demonstrated expertise of bidder, references of bidder, qualifications of bidder and ability of bidder to complete the project in a timely manner. The term "Bidding Documents" includes the Invitation to Bid Construction, Instructions to Bidders, the Bid Form, and the proposed contract documents (including all Addenda issued prior to receipt of Bids). "Addenda" means all written or graphic instruments issued by the City prior to the execution of the Contract that modifies or interprets the Bidding Documents by additions, deletion, clarifications or corrections. "Bid" means a complete and properly signed proposal to do the Work for the sum stipulated therein, submitting in accordance with the Bidding Documents. "Responsible Bidder" means a bidder having the required qualifications to perform the work set forth in the Advertisement for Bids; the Bidder's responsibility is determined by the City's good faith evaluation of whether, in the City's opinion, the Bidder possesses the judgment, skill, experience and financial resources necessary to perform the Contract. "Non-Responsible Bidder" means a bidder who, as judged by the CITY, lacks those attributes of a Responsible Bidder necessary to perform the Contract. "Responsive Bid" means a bid in which the Bidder describes the Work in the same way as it is described in the advertisement for Bids; the Bidder's responsiveness is determined by the CITY'S evaluation of the Bid's conformance in all material respects to the Advertisement for Bids. "Days" means calendar days unless otherwise stated.

2. Copies of Bidding Documents.

- 2.1. Complete sets of the Bidding Documents in the number and for the sum, if any, stated in the Advertisement for Bids may be obtained from CITY Purchasing and Contract Administration Division.
- 2.2. Complete sets of Bidding Documents shall be used in preparing Bids; neither CITY nor CONSULTANT assumes any responsibility for errors or misinterpretations resulting from the use of incomplete sets of Bidding Documents.
- 2.3. CITY and CONSULTANT 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.

3. Qualifications of Bidders.

- 3.1. To demonstrate qualifications to perform the Work, each Bidder must be prepared to submit within three (3) business days of CITY'S request written evidence, such as financial data, previous experience; present commitments and other such data as may be called for in the Instructions to Bidders. Each Bid must contain evidence of Bidder's qualifications to do business in the state where the Project is located. The CITY reserves the right to make such investigations as it may deem necessary to establish the competency and financial ability of any Bidder to perform the Work and if, after investigation, the evidence of his competency or financial ability is not satisfactory, the CITY reserves the right to reject his bid.
- 3.2. Bidder shall submit information and documentation requested in this Section that confirms it meets the following qualification requirement(s). For the purposes of this ITBC, a responsible Bidder is a Bidder that meets the minimum qualification requirements below.

3.2.1. Bidder has previously provided acceptable services for the type of work identified in this ITBC. **Provide the following information for up to five (5) client references to verify Bidder has provided acceptable and applicable services.**

- A. **Owner Name**
- B. **Owner's Primary Contact for Work Provided**
 - i. **Name**
 - ii. **Title**
 - iii. **Phone Number**
 - iv. **Email Address**
- C. **Project Information**
 - i. **Name**
 - ii. **Address**
 - iii. **Brief Description**
 - iv. **Start/End Date**
 - v. **Number of Change Orders and/or Amendments**
 - vi. **Within Budget?**

3.2.2. Bidder has a Florida State General Contractor's license or current certificate of competency issued by Palm Beach County Examining Board having jurisdiction over licensing of Contractors in the type of work involved in this contract. **Provide proof, in the form of a copy of license(s), that the Bidder meets this qualification.**

3.2.3. Bidder must have been in the business of for a minimum of sixty (60) months prior to the Due Date and Time. **Provide supporting documentation (e.g. state, county, city business license; occupational license) that confirms Bidder has been in business for a minimum of sixty months prior to the Due Date and Time.**

3.2.4. Bidder must have experience working with FDOT (or following FDOT Standards), in constructing a minimum of **four (4)** similar projects since **2020**, with a minimum contract value of **\$3,500,000**, that had the following components **curbs, sidewalks, shared use paths, accessibility, drainage, swales, pedestrian lighting, signage, milling and resurfacing, pavement markings, sod and lining of some existing gravity sewer mains and manholes under the FDOT LAP program; per the construction documents.**

Provide the following information for the four (4) qualifying projects:

- A. **Name of Project Owner**
- B. **Contact Name**
- C. **Contact Email**
- D. **Location / Address of Project**
- E. **Dates of Project (start/end)**
- F. **Brief Description of Project**
- G. **List of the components of the project as stated above**

NOTE: The City recognizes that it is unlikely that candidates for this solicitation will have all of the similar experience requested in a single project. Experience in each of the different elements is desired, however, it is not required that all types of similar project experience is included in the same project.

3.2.5. Bidder has no reported conflict of interests in relation to this ITBC. No additional documentation is required. **The City will verify from Bidder's Conflict of Interest Disclosure Form.**

3.2.6. Provide proof that Bidder is registered with the States of Florida, Division of corporations to do business in Florida.

No documentation is required. The City will verify.

3.2.7. **Information concerning any prior or pending litigation, either civil or criminal, involving a governmental agency or which may affect the performance of the services to be rendered herein, in which the Proposer, or any of its employees, is or has been involved within the last three (3) years.**

4. Examination of Contract Documents and Site.

4.1. In submitting a Bid, the Bidder represents that it has examined the location of the proposed Work, by thorough examination of the Contract Documents, requirements of the Work and the accuracy of the estimate of the quantities of the Work to be done; and shall not at any time after the submission of a bid dispute or complain of such estimate nor the nature or amount of work to be done. The Bidder further represents and warrants that it has visited the site, become familiar with local conditions under which the Work must be performed and has correlated its personal observations with the requirements of the Contract Documents.

4.2. Bidder shall be familiar with and fully comply with all federal, state and local laws, ordinances, rules and regulations that in any way affect the cost, progress or performance of the Work. Failure to familiarize himself with applicable laws, ordinances, rules and regulations will in no way relieve bidder from the responsibility included in the applicable laws. Bidder is solely responsible for compliance with all federal, state and local laws, ordinances, rules, regulations and applicable building codes.

4.3. Information and data reflected in the Contract Documents with respect to Underground Utilities at or contiguous to the site is based upon information and data furnished to the CITY and the CONSULTANT by the owners of such Underground Utilities or others, and the CITY does not assume responsibility for the accuracy or completeness thereof.

4.4. Reference may be made to the Technical Specifications for the Identification of:

4.4.1. Those reports of exploration and tests of subsurface conditions at the site which have been utilized by CONSULTANT in preparation of Contract Documents. Bidder may rely upon the accuracy of the technical data contained in such reports but not upon non-technical data, interpretations or opinions contained therein or for the completeness thereof for the purposes of bidding or construction.

4.4.2. Those drawings of physical conditions in or relating to existing surface and subsurface conditions (except Underground Facilities) which are at or contiguous to the site which have been utilized by CONSULTANT in preparation of the Contract Documents. Bidder may rely upon the accuracy of the technical data contained in such drawings but not upon the completeness thereof for the purposes of bidding or construction.

4.4.3. Copies of such reports and drawings will be made available by the CITY to any Bidder on request. Those reports and drawings are not part of the Contract Documents, and such technical data has been identified and established in Technical Specifications.

4.5. In submitting a Bid, Bidder warrants the accuracy of the conformation of the ground, the character and quality of the substrata, the types and quantity of materials to be encountered, the nature of the groundwater conditions, the character of equipment and facilities needed preliminary to and during the execution of the work, the general and local conditions and all other matters which can in any way affect the Work of this Project. The

prices established for the work to be done will reflect all costs pertaining to the Work. Any claims for extras based on substrata or groundwater table conditions will not be allowed.

- 4.6. By submission of its bid, Bidder affirms that he has, at his own expense, made or obtained any additional examinations, investigations, explorations, tests, and studies and obtained any additional information and data which pertain to the physical conditions (surface, subsurface, and Underground Utilities) at or contiguous to the site or otherwise, prior to bidding which may affect cost, progress, or performance of the Work and which Bidder deems necessary to determine its Bid for performing the Work in accordance with the time, price, and other terms and conditions of the Contract Documents and/or he has satisfied himself with respect to such conditions and he shall make no claims against the CITY or the CONSULTANT if on carrying out the Work he finds that the actual conditions do not conform to those indicated. In submitting its Bid, Bidder further warrants the accuracy of the plans and specifications with regard to all underground facilities.
- 4.7. On request, the CITY will provide Bidder access to the site to conduct such investigations and tests as Bidder deems necessary for submission of his Bid. Bidder shall schedule such access in advance with the CITY.
- 4.8. Upon completion of such additional field investigations and tests, Bidder shall completely restore disturbed areas.
- 4.9. The lands upon which the Work is to be performed, rights-of-way and easements for access thereto and other lands designated for use by CONTRACTOR in performing the Work are identified in the Contract Documents. All additional lands and access thereto required for temporary construction facilities or storage of materials and equipment are to be provided by CONTRACTOR. Easements for permanent structures or permanent changes in existing structures are to be obtained and paid for by CITY unless otherwise provided in the Contract Documents.
- 4.10. The submission of a Bid will constitute an incontrovertible representation by Bidder that Bidder has complied with every requirement of Article 4 of the Instructions to Bidders, "Bidder's Examination of Contract Documents and Site", that without exception the Bid is premised upon performing the work required by the Contract Documents and such means, methods, techniques, sequences, or procedures of construction as may be indicated in or required by the Contract Documents, 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.

5. Pre-Bid Conference

- 5.1. The City will hold a **Non-Mandatory** Pre-Bid Conference virtually on **January 16, 2026 @ 10:00 AM (LOCAL TIME)** online via Microsoft Team meeting via the link provided below:

Microsoft Teams Meeting

[Join the meeting now](#)

Meeting ID: 211 378 134 700 4

Passcode: T3b6h9oD

- 5.2. The City will **not** conduct a site visit for this solicitation.
- 5.3. The purpose of the Pre-Bid Conference is to provide and obtain information relative to the scope, purpose, nature, and extent of the work, and any local conditions, which may affect the performance of work. Submission of a Bid shall constitute an acknowledgement by the Bidder that it has thoroughly examined and is familiar with the requirements of this Solicitation package. The failure or neglect of the Bidder to examine the Solicitation

package shall in no way relieve the Bidder of any obligation with respect to its Bid or the requirements of the Contract. No claim for additional compensation will be allowed which is based on a lack of knowledge of the requirements of this Solicitation package or the resultant Contract.

- 5.4. If you need a sign language interpreter or materials in accessible format for this event, please contact the Purchasing and Contract Administration Division at thompsonc@mydelraybeach.com or by phone at (561) 243-7163 at least five (5) days in advance of the scheduled conference.

6. Interpretations and Addenda.

- 6.1. All questions about the meaning or intent of the Contract Documents are to be directed to the Purchasing and Contract Administration Division. Interpretations or clarifications considered necessary by the Purchasing and Contract Administration Division in response to such questions will be issued by addenda mailed or delivered to all parties recorded by the Purchasing and Contract Administration Division as having received the Bidding Documents. Questions received less than ten (10) days prior to the date for opening of Bids may not be answered. Only questions answered by formal written Addenda will be binding. Oral and other interpretations or clarifications will be without legal effect.
- 6.2. Addenda may also be issued to modify the Bidding Documents as deemed advisable by CITY or CONSULTANT.
- 6.3. The Bidder shall carefully study and compare the Bidding Documents with each other, and with other work being bid concurrently or presently under construction to the extent that it relates to the Work for which the Bid is submitted, shall examine the site and local conditions, and shall at once report to the CITY and CONSULTANT errors, inconsistencies for ambiguities discovered.

7. Bid Security.

- 7.1. Each Bid must be accompanied by Bid security made payable to the City of Delray Beach in an amount of **five percent (5%)** of the Bidder's maximum Bid price and in the form of a certified check or cashiers check drawn upon any State or National Bank of Florida or a Bid Bond issued by a surety meeting the requirements of Paragraph 6.1 of the General Conditions. Said check or bond shall be made payable to the CITY and shall be given as a guarantee that Bidder, upon receipt of notification of tentative award of the contract, will enter into an Agreement with the CITY, and furnish the necessary documents including but not limited to: insurance certificates, Payment Bond and Performance Bond; each of the said bonds to be in the amount stated herein, all bonds shall be written by a surety authorized to conduct business in the State of Florida and shall have a registered agent in the State of Florida, meeting the requirements of Paragraph 6.1 of the General Conditions. Bid Bonds issued on any form, other than those provided herein, will not be acceptable.

No bids will be considered unless accompanied by the required bid security. To submit an original bid security, in lieu of submitting an electronic bid bond using Surety 2000 through Bidnet Direct, Vendor must submit an original bid security in a sealed envelope, with the solicitation number, solicitation title, date and the time of bid opening, and address listed on the envelope. A copy of the bid security should also be uploaded into Bidnet Direct. The uploaded copy of the bid guarantee does not replace the original bid security submission requirement. Vendors must submit the original bid guarantee, by the solicitation due date and time, to: City of Delray Beach Purchasing Division 100 NW 1st Avenue, Delray Beach, FL 33444

- 7.2. The Bid Security of the Successful Bidder will be retained until such Bidder has executed the Agreement and furnished the required contract security whereupon the Bid security will be returned. If the apparent successful Bidder fails to execute and deliver the Agreement

and furnish the required contract security within fifteen (15) days after the Notice of Intent to Award, the CITY may annul the Notice of Intent to Award and the Bid security of that Bidder will be forfeited. The CITY may then accept the bid of the next most qualified responsible responsive Bidder, or re-advertise for bids. If the bid of the next most qualified responsible responsive Bidder is accepted, this acceptance shall bind such Bidder as though he was the original successful Bidder. There shall be no binding contract until such time as the CITY accepts the contract and makes final award of the contract. The Bid Security of other Bidders whom CITY believes to have a reasonable chance of receiving the award may be retained by the CITY until the earlier of the seventh day after the effective date of the Agreement or the ninety-first day after the Bid opening, whereupon Bid security furnished by such Bidders will be returned. Bid security with Bids which are not responsive will be returned within ten (10) days after the Bid opening.

8. Contract Time.

The number of calendar days within which, or the date by which, the Work is to be substantially completed and also completed and ready for final payment (the Contract Time) are set forth in the Bid Form and the Agreement.

9. Liquidated Damages.

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

10. Substitute or "Or-Equal" Items.

The Contract, if awarded, will be on the basis of material and equipment described in the Drawings or specified in the Specifications without consideration of possible substitute or "or-equal" items. Whenever it is indicated in the Drawings or specified in the Specifications that a substitute or "or-equal" item of material or equipment may be furnished or used by CONTRACTOR if acceptable to CONSULTANT, application for such acceptance will not be considered by CONSULTANT until after the Effective Date of the Agreement. The procedure for submittal of any such application by Contractor and consideration by CONSULTANT is set forth in Paragraphs 7.6.1, 7.6.2 and 7.6.3 of the General Conditions which may be supplemented in the General Requirements. No substitution will be considered prior to receipt of Bids unless written request for approval has been received by CONSULTANT at least ten (10) days prior to the date for receipt of Bids. Furthermore, no substitutions will be permitted in the absence of the express written consent of CONSULTANT.

11. Subcontractors, Suppliers and Others.

11.1. If the Bid Form requires the identity of certain Subcontractors, Suppliers and other persons and organizations, including those who are to furnish the principal items of material and equipment, to be submitted, the Bidder shall provide such identification. If requested by the CITY or CONSULTANT, Bidder shall provide an experience statement with pertinent information regarding similar projects and other evidence of qualification for each Subcontractor, supplier, person or organization. If the CITY or CONSULTANT after due investigation has reasonable objection to any proposed Subcontractor, supplier, other person or organization, either may, before the Notice of Intent to Award is given, request the apparent successful Bidder to submit an acceptable substitute without an increase in Bid price. If the apparent successful Bidder declines to make any such substitution, the CITY may retract its award of the Contract to Bidder and award the contract to the next lowest Bidder that proposes to use acceptable Subcontractors, Suppliers and other persons and organizations. The declining to make requested substitutions will not constitute grounds for sacrificing the Bid Security of any Bidder. Any Subcontractor, Supplier, other person or organization listed and to whom the CITY or CONSULTANT does not make written objection prior to the giving of the Notice of Intent to Award will be deemed acceptable to the CITY and CONSULTANT subject to revocation of such acceptance after the Effective Date of the Agreement. Subcontractors shall not be changed without the approval of the CITY and the CONSULTANT. No acceptance by the CITY or

CONSULTANT of any such Subcontractor, Supplier or other person or organization shall constitute a waiver of any right of the CITY or CONSULTANT to reject defective work or materials not conforming with these specifications.

- 11.2. In contracts where the Contract Price is on the basis of Cost-of-the-Work Plus a Fee, the apparent successful Bidder, as a condition precedent to being awarded the Contract, shall identify in writing to the CITY those portions of the Work that such Bidder proposes to subcontract. If the Bidder is awarded the Contract based upon such representations, it is precluded from subcontracting out any additional portions of the Work.
- 11.3. No Bidder shall be required to employ any Subcontractor, other person or organization against whom Bidder has reasonable objection.
- 11.4. **No more than sixty percent (60%) of the dollar value of the total contract work may be accomplished by subcontractors.** Balance of work must be accomplished by selected Contractor's own forces. Each bidder must furnish with his proposal, a list of the items he proposes to sub-contract and the estimated cost of these items.

12. Bid Form.

- 12.1. Bids must be submitted on the Bid Form formulated by the CITY. The Bid Form is included with the Bidding Documents. Failure to submit a Bid on the Bid Form provided herein or to fully complete the Bid in accordance with these instructions renders the Bid void and shall not be considered for award by the CITY.
- 12.2. All blanks on the Bid Form must be completed in ink or by typewriter and the Bidder will be responsible for its correctness.
- 12.3. Bids by corporations must be executed in the corporate name by the president, 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. The corporate address and state of incorporation shall be shown below the signature.
- 12.4. Bids by partnerships must be executed in the partnership name and signed by a partner, accompanied by evidence of authority to sign, whose title must appear under the signature and the official address of the partnership must be shown below the signature.
- 12.5. All names must be typed or printed below the signature.
- 12.6. The Bid shall contain an acknowledgment of receipt of all Addenda, the numbers of which shall be filled in on the Bid Form.
- 12.7. The address to which communications regarding the Bid are to be directed must be shown.
- 12.8. The Bidder shall comply with the Florida Trench Safety Act, Fla. Stat. 553.60 et seq. All Bids shall include all information required by Statute.
- 12.9. The Bidder shall comply with the Public Entity's Crime Statute, Fla. Stat. 287.133. All Bids shall include the information required by Statute.
- 12.10. The Bidder shall comply with the Drug-Free Workplace Statute, Fla. Stat. 287.133 and provide information required by Statute.

13. Submission of Bids.

- 13.1. Sealed Electronic Proposals of the Bid shall be submitted at the time and place indicated in the Bid form. Each bid shall be accompanied by all required documents. Bidder assumes full responsibility for timely delivery of its Bid, which must be sent electronically

or be means whereby the Bidder receives positive notification for delivery to the CITY. Oral, telephonic, faxed or telegraphic Bids are invalid and will not receive consideration.

- 13.2. The CITY shall have the right to reject Bids from Bidders whom the CITY has determined to be Non-Responsible. A Bidder determined to be Non-Responsible shall be prohibited from bidding or receiving Contracts for any future work for the CITY until the CITY, declares the Bidder once again responsible.

14. Modification and Withdrawal of Bids.

- 14.1. Bids may be modified or withdrawn only by an appropriate electronically submitted document in the same manner the original Bid was duly executed and delivered.
- 14.2. If any Bidder files a duly signed written notice with the CITY executed by an appropriate official, and promptly thereafter demonstrates to the reasonable satisfaction of the CITY that there was a material and substantial mistake in the preparation of its Bid, that Bidder may withdraw its Bid and the Bid Security will be returned. Thereafter, that Bidder will be disqualified from further bidding on the Work to be provided under the Contract Documents.

15. Opening of Bids.

Bids will be opened and read aloud publicly at the time and place indicated in the Invitation to Bid Construction.

16. Bids to remain Open.

All Bids shall remain subject to acceptance for one hundred and twenty (120) days after the day of the Bid opening, but the CITY may, at the sole discretion of the City, release any Bid and return the Bid Security prior to that date.

17. Award of Contract.

- 17.1. The CITY reserves the right to accept any Bid or combination of Bid alternates which, in the CITY'S judgment will best serve the City's interest, reject any and all Bids, to waive any and all informalities and/or irregularities, and the right to disregard all nonconforming, nonresponsive, unbalanced or conditional Bids. Also, the CITY reserves the right to reject the Bid of any Bidder if the CITY believes that it would not be in the best interest of the City to make an award to that Bidder, whether because the Bid is not responsive or the Bidder is unqualified or of doubtful financial ability or fails to meet any other pertinent standard or criteria established by the CITY. Discrepancies in the multiplication of units of Work and unit prices will be resolved in favor of the unit price. Discrepancies between the indicated sum of any column of figures and the correct sum thereof will be resolved in favor of the correct sum.
- 17.2. In evaluating Bids, the CITY shall consider the cost, CITY'S prior experience with bidder, demonstrated expertise of bidder, references of bidder, qualifications of bidder and ability of bidder to complete the project in a timely manner as well as whether or not the Bids comply with the prescribed requirements, and such alternates, unit prices and other data, as may be requested in the Bid Form or prior to the Notice of Intent to Award.
- 17.3. The CITY may consider the qualifications and experience of Subcontractors, Suppliers, and other persons and organizations proposed for those portions of the work as to which the identity of Subcontractors, Suppliers and other persons and organizations must be submitted as provided in Section 10. The CITY also may consider the operating costs, maintenance requirements, performance data and guarantees of major items of materials and equipment proposed for incorporation in the Work when such data is required to be submitted prior to the Notice of Intent to Award.

- 17.4. The CITY may conduct such investigations as it deems necessary to assist in the evaluation of any Bid and to establish the responsibility qualifications and financial ability of the Bidders, proposed Subcontractors, Suppliers and other persons and organizations to perform and furnish the work in accordance with the Contract Documents to the CITY'S satisfaction within the prescribed time.
- 17.5. If the contract is to be awarded, the contract will be awarded to the lowest and most responsible, responsive Bidder whose evaluation indicates that the award will serve the highest public interest and be in the best interest of the CITY.
- 17.6. The CITY reserves the right to reduce the quantities of work to be done and to completely eliminate any items of the work listed in the Proposal in order that the work can be completed within the amount of available funds.
- 17.7. If the contract is to be awarded, the CITY will give the successful Bidder a Notice of Intent to Award within ninety (90) days after the day of the Bid opening.
- 17.8. In the event of irregularity in the bidding procedure, the CITY reserves the right to reject an unopened Bid, or receive and record it, if in the CITY'S best judgment such action accrues to the best interest of the CITY. Receiving and recording a Bid does not constitute a waiver of irregularities by the CITY.
- 17.9. Upon the CITY'S award of the Contract, the Bidder's failure to execute the Contract within fifteen (15) calendar days from the date of the notification of award shall be just cause and the CITY may annul and void the award and declare forfeiture of the bid security or good faith deposit in liquidation of all damages sustained.
- 17.10. Within fifteen (15) calendar days of the Notice of Intent to Award of the Contract, Bidder shall submit to the CITY and Consultant in writing a list of all subcontractors, principal suppliers and fabricators, persons or entities proposed for the principal portions of the Work.
- 17.11. Upon execution of the Contract by the CITY and the successful Bidder, submittal of the required performance and payment bonds, certificates of insurance, and receipt and approval of the required post-bid information, the CITY will issue the Notice to Proceed.

18. Contract Security and Insurance.

Article 6 of the General Conditions sets forth the CITY'S requirements as to performance and payment Bonds. When the successful Bidder delivers the executed Agreement to the CITY, it must be accompanied by the required performance and payment Bonds and required insurance certificates and policies if applicable. The surety on such bonds shall be a duly authorized nationally recognized surety company satisfactory to the CITY. Such bond shall be executed and issued by a resident agent licensed and having an officer in Palm Beach, Dade, Broward or Martin County, Florida, representing such corporate surety. Attorney-in-fact who signs bonds must file with such bond a certified copy of their Power-of-Attorney to sign said bonds. All bonds and insurance must meet the requirements of Article 6 of the General Conditions.

19. Signing of Agreement.

When CITY gives a Notice of Intent to Award to a successful Bidder, it will be accompanied by the required number of unsigned counterparts of the Agreement with all other written Contract Documents attached. Within fifteen (15) days thereafter, Contractor shall sign and deliver the required number of counterparts of the Agreement and attached documents to CITY with the required bonds and insurance certificates. Within thirty (30) days thereafter, the CITY upon final award by the City Commission shall deliver one fully signed counterpart to CONTRACTOR. Each counterpart is to be accompanied by a complete set of the Drawings with appropriate identification.

20. Qualification of Surety.

See paragraph 6.1 of the General Conditions for the CITY'S requirements.

21. Florida Trench Safety Act-Compliance.

In the event this contract requires trench excavation, the requirement of Florida Statutes 553.60, et seq., shall be adhered to by all Bidders. Every Bidder shall provide a certification on the form provided and other required documentation.

22. 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 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 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.

23. Drug-Free Workplace.

Every Bidder shall provide a certification on the form provided indicating whether the Bidder has implemented a drug-free workplace program pursuant to the requirements of Florida Statute Section 287.087. Preference in the award process shall be given, according to the statutory requirements, to a business that certifies it has implemented a drug-free workplace program.

24. Building Permits.

The CONTRACTOR shall make application and obtain the necessary building permits from the CITY or other governing bodies. There shall be no cost for permits issued by the CITY.

25. Sales Tax.

The CONTRACTOR'S attention is directed to the fact that all materials and supplies necessary for completion of this contract are subject to Florida Sales and Use Tax in accordance with Florida Statutes.

26. Sub-Contracting / MBE Participation:

The CITY reserves the right to accept or reject any or all bids wherein a subcontractor is named and to make the award to the Bidder, who, in the opinion of the CITY will be in the best interest of and/or most advantageous to the CITY. The CITY also reserves the right to reject a bid of any Bidder if the bid names a subcontractor who has previously failed in the proper performance of an award or failed to deliver on time contracts of a similar nature, or who is not in a position to perform properly under this award. The CITY reserves the right to make said determination.

It is the policy of the CITY that Minority and Women Business Enterprises (M/WBEs) shall have the maximum opportunity to participate in, and, perform projects financed with CITY, State and Federal Funds. Bidders are hereby informed that the CITY encourages the utilization and participation of Minority and Women Business Enterprises in contracts financed with CITY funds. Since subcontract awards by successful Bidders to minority/women firms are crucial to the achievement of the CITY'S objectives, Bidders are encouraged to seek Minority and Women Business Enterprises for participation in subcontracting opportunities. Assistance in identifying qualified Minority and Women Business Enterprises may be obtained from the CITY'S Purchasing and Contract Administration Division Office.

27. Contractor's Certification.

CONTRACTOR'S bidding on this project must hold a State license or a current certificate of competency issued by Palm Beach County Examining Board having jurisdiction over licensing of CONTRACTORS in the type of work involved in this contract. The Bidder must submit proof this requirement has been met.

28. Indemnification.

The Bid shall include in its price the sum of \$10.00 in consideration, for the indemnification provision. The indemnification provision contained in Section 7.28 of the general conditions is incorporated herein, and made a part hereof, as if fully set forth herein.

29. Force Majeure.

No party shall be obligated to perform any duty, requirement or obligation under this Agreement if such performance is prevented by fire, hurricane, earthquake, explosion, wars, sabotage, accident, flood, acts of God, strikes, or other labor disputes, riot or civil commotions, or by reason of any other matter or condition beyond the control of any party, and which cannot be overcome by reasonable diligence and without unusual expense ("Force Majeure"). In no event shall a lack of funds on the part of any party be deemed Force Majeure.

30. Undefined General Allowance.

An undefined general allowance may be included as part of the Schedule of Bid Prices. This allowance is included to cover contract item identified in Section 01020 - Undefined General Allowances. Prior to the initiation of any expenditure of any undefined general allowance, an executed formal Change Order is necessary for the utilization of allowance funds. The method for computing Change Order dollar amounts shall be as specified in the General Conditions.

31. Cone of Silence.

The Palm Beach County Lobbyist Registration Ordinance (Sections 2-351 through 2-357 of the Palm Beach County Code of Ordinances) is applicable in the City of Delray Beach. Section 2-355 of the Palm Beach County Lobbyist Registration Ordinance includes a "Cone of Silence" provision that limits communication during the City's procurement process in regard to this ITBC, which provides as follows:

- (a) **Cone of silence** means a prohibition on any communication, except for written correspondence, regarding a particular request for proposal, request for qualification, bid, or any other competitive solicitation between:
 - (1) Any person or person's representative seeking an award from such competitive solicitation; and
 - (2) Any county commissioner or commissioner's staff, any member of a local governing body or the member's staff, a mayor or chief executive officer that is not a member of a local governing body or the mayor or chief executive officer's staff, or any employee authorized to act on behalf of the commission or local governing body to award a particular contract.
- (b) For the purposes of this section, a person's representative shall include but not be limited to the person's employee, partner, officer, director, CONSULTANT, lobbyist, or any actual or potential subcontractor or CONSULTANT of the person.
- (c) Pursuant to Section 2-355 of Palm Beach County Ordinance No. 2011-039, and the purchasing policies of the City of Delray Beach, all Solicitations, once advertised and until the appropriate authority has approved an award recommendation, are under the cone of silence. The cone of silence applies to any person or person's representative who responds to a particular request

- for proposal, request for qualification, bid, or any other competitive solicitation, and shall remain in effect until such response is either rejected by the county or municipality as applicable or withdrawn by the person or person's representative. Each request for proposal, request for qualification, bid or any other competitive solicitation shall provide notice of cone of silence requirements and refer to this article.
- (d) The provisions of this article shall not apply to oral communications at any public proceeding, including prebid conferences, oral presentations before selection committees, contract negotiations during any public meeting, presentations made to the board or local municipal governing body as applicable, and protest hearings. Further, the cone of silence shall not apply to contract negotiations between any employee and the intended awardee, any dispute resolution process following the filing of a protest between the person filing the protest and any employee, or any written correspondence at any time with any employee, county commissioner, member of a local municipal governing body, mayor or chief executive officer that is not a member of the local municipal governing body, or advisory board member or selection committee member, unless specifically prohibited by the applicable competitive solicitation process.
 - (e) The cone of silence shall not apply to any purchases made in an amount less than the competitive bid threshold set forth in the county purchasing ordinance (County Code, chapter 2, article III, division 2, part A, section 2-51 et seq.) or municipal ordinance as applicable.
 - (f) The cone of silence shall terminate at the time the board, local municipal governing body, or a county or municipal department authorized to act on behalf of the board or local municipal governing body as applicable, awards or approves a contract, rejects all bids or responses, or otherwise takes action that ends the solicitation process.
 - (g) Any contract entered into in violation of the cone of silence provisions in this section shall render the transaction voidable.

32. Inspector General.

Contractor is aware that the Inspector General of Palm Beach County has the authority to investigate and audit matters relating to the negotiation and performance of this contract, and may demand and obtain records and testimony from Contractor and its subcontractors and lower tier subcontractors.

Contractor understands and agrees that in addition to all other remedies and consequences provided by law, the failure of Contractor or its subcontractor or lower tier subcontractors to fully cooperate with the Inspector General when requested may be deemed by the City to be a material breach of this Agreement justifying its termination.

33. Protests.

33.1 Standing

Parties that are not actual bidders, proposers or responders, including, but not limited to, subcontractors, material and labor suppliers, manufacturers and their representatives, shall not have standing to protest or appeal any determination made pursuant to this Section.

33.2 Protest Filing

33.2.1 Protest of Failure to Qualify. Upon notification by the City that a bidder, proposer or responder is deemed non-responsive and/or non-responsible, the bidder, proposer or responder who is deemed non-responsive and/or non-responsible may file a protest with the City Clerk by close of business on the third business day after notification (excluding the day of notification) or any right to protest is forfeited. It shall be the sole responsibility of such bidder, proposer or responder to verify the operating hours of City Hall.

33.2.2 Protest of Award of Agreement. After a Notice of Intent to Award an Agreement is posted, any actual bidder, proposer or responder who is aggrieved in connection with the pending award of the agreement or any element of the process leading to the award of the agreement may file a protest with the City Clerk by close of business on the third business day after posting (excluding the day of posting) or any right to protest is forfeited. It shall be the sole responsibility of such bidder, proposer or responder to verify the operating hours of City Hall.

A Notice of Intent to Reject all Bids, Proposals or Responses is subject to the protest procedure.

33.2.3 Content and filing. The protest shall be in writing, shall identify the name and address of the protester, and shall include a factual summary of, and the basis for, the protest. Filing shall be considered complete when the protest and the Protest Bond are received by the City Clerk.

33.3 Protest Bond

Any bidder, proposer or responder filing a protest shall simultaneously provide a Protest Bond to the City in the amount set forth in the Sealed Competitive Method documents. If the protest is decided in the protester's favor, the entire Protest Bond shall be returned to the protester. If the protest is not decided in the protester's favor, the Protest Bond shall be forfeited to the City. The Protest Bond shall be in the form of a cashier's check, and shall be in the amount specified in the Sealed Competitive Method documents.

33.4 Protest Procedures

33.4.1 A bidder or proposer that has submitted a response to a Formal Solicitation and is adversely affected by the decision of award may file a formal written protest within three (3) business days from the time of initial posting of the intended award. Notice of Intent to Award shall be posted in Bidnet Direct.

Note: Suspended or debarred vendors are ineligible to submit a bid protest.

33.4.2 Formal written protests shall not exceed fifteen (15) type-written pages (including exhibits and attachments) and in all other respects shall comply with the formatting requirements for an appellate brief as set forth in the Florida Rules of Appellate Procedure. A written protest is considered received by the City when it is delivered to and received by the City Clerk or designee. The City Clerk shall time/date stamp all written protest immediately upon receipt. Delivery to and receipt by any other City employee or staff member shall not constitute receipt by the City of Delray Beach. Protests submitted via email do not meet the requirements of this Section. Protesters shall file their written protests with the City between the hours of 8:00a.m. and 5:00 p.m. Service of a protest by mail or courier shall not expand the time period allowed for delivery of a protest.

33.4.3 In computing any time period prescribed or allowed by this protest policy, the day of the act or event from which the designated time period begins to run shall not be included. The last day of the period so computed shall be included unless it is a Saturday, Sunday, federal holiday, or holiday observed by the City, in which event the period shall run until the end of the next business day which is neither a Saturday, Sunday, federal holiday, nor a holiday observed by the City. A written protest shall not challenge the specifications, scope of work, relative weight of evaluation criteria, or a formula for assigning points.

33.4.4 Fee Required

The letter of protest shall be accompanied by a non-refundable protest application fee in an amount equal to one percent (1%) of the protestor's bid or five thousand dollars (\$5,000.00), whichever is less. The protest application fee must be a cashier's check, a certified check, or an attorney's trust account check made

payable to the City of Delray Beach. Failure to provide the required protest application fee shall deem the protest as incomplete and invalid.

33.4.5 Authority to Resolve Protests

The City's consideration of a timely written protest shall not necessarily stay the award process, as may be in the best interest of the City. The Purchasing Director may recommend to the City Manager to render moot any written protest that is overtaken by events, in which case the City Manager may abate or dismiss such protest. Within ten (10) business days (excluding Saturdays, Sundays, legal holidays, and City observed holidays) of receipt of the formal written protest, the Chief Financial Officer and the City Attorney shall attempt to settle or resolve the dispute, at the City Attorney's sole discretion. A decision will be rendered in writing and shall: (1) state the reasons for the action taken; and (2) inform the protestor of its right to appeal as provided herein. A copy of the decision of the Chief Financial Officer and the City Attorney shall be mailed or otherwise furnished immediately to the protestor. The protesting party may appeal the decision of the Chief Financial Officer and the City Attorney, by submitting the appeal to the City Manager within seven (7) days (excluding Saturdays, Sundays, legal holidays and City-observed holidays) from the date of the written decision. The appeal shall be in writing and shall state with specificity the grounds therefore and also the action requested of the City Manager. The City Manager shall attempt to settle or resolve the matter at his/her sole option. The City Manager shall render a decision, in writing, within 10 days (excluding Saturdays, Sundays, legal holidays and City observed holidays) following receipt of the appeal. A decision of the City Manager under this section shall be final and conclusive on the protester. Timely submittal of a protest or appeal required. Failure of a party to submit timely a written protest to the Purchasing Director within the time provided in this Section shall constitute a waiver of such party's right to protest pursuant to this Section. Costs. Any and all costs incurred by a protesting party in connection with a protest pursuant to this Section shall be the sole responsibility of the protesting party.

Failure to follow the protest procedures or failure to meet any deadline set forth herein shall automatically nullify any protest or claim brought by an aggrieved bidder, offeror, or contractor. The City is not subject to or bound by the requirements and/or procedures set forth in Chapter 120, Florida Statutes.

33.5 Stay of Award of Agreement or Sealed Competitive Method

In the event of a timely protest, the City Manager shall stay the award of the Agreement or the Sealed Competitive Method unless the City Manager determines that the award of the Agreement without delay or the continuation of the Sealed Competitive Method is necessary to protect any substantial interest of the City. The continuation of the Sealed Competitive Method or award process under these circumstances shall not preempt or otherwise affect the protest.

33.6 Appeals to City Commission

The protesting party may appeal the decision of the Chief Financial Officer and the City Attorney, by submitting the appeal to the City Manager within seven (7) days (excluding Saturdays, Sundays, legal holidays and City-observed holidays) from the date of the written decision. The appeal shall be in writing and shall state with specificity the grounds therefore and also the action requested of the City Manager. The City Manager shall attempt to settle or resolve the matter at his/her sole option. The City Manager shall render a decision, in writing, within ten (10) days (excluding Saturdays, Sundays, legal holidays and City observed holidays) following receipt of the appeal. A decision of the City Manager under this section shall be final and conclusive on the protester.

33.7 Failure to File Protest

Any actual bidder, proposer or responder that does not formally protest or appeal in accordance with this Section shall not have standing to protest the City Commission's award.

END OF SECTION 1

[remainder of page intentionally left blank]

SECTION 2: PROPOSAL

Proposal of _____
(Contractor)

(Address)

to furnish and deliver all materials and to do and perform all work in accordance with the Contract Documents for the Project entitled:

ITBC NO.: 2026-014
Brant Bridge Connector
CITY PROJECT NO.: 20-015
FDOT LAP Project No. 441586-1-58-01

To: Purchasing and Contract Administration Division
City of Delray Beach
100 NW 1st Avenue
Delray Beach, Florida 33444

1. 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 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 accepts all of the terms and conditions of the Instructions to Bidders, including without limitation those dealing with the disposition of Bid Security. This Bid will remain open for one hundred and twenty (120) days after the day of Bid opening. Bidder will sign and deliver to the CITY the Agreement and submit the Contract Security, Insurance Certificates and other documents required by the Contract Documents within fifteen (15) days after the date of OWNER'S Notice of Intent to Award. If Bidder fails to sign the Agreement and deliver the Agreement to the CITY accompanied by the required security, insurance certificates and other documents within the time specified, the CITY has the authority to rescind the bid award and retain the bid security which shall be forfeited as liquidated damages.
3. 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>Number</u>	<u>Date</u>	<u>Number</u>	<u>Date</u>
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____

Attached Bid Security in the amount of five percent (5%) of the Bidders maximum bid price

Acknowledgement of all addendums

receipt of all of which is hereby acknowledged and also copies of the Advertisement for Bids and the Instructions to Bidders;

- 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. **Bidder warrants and represents that there are no defects, errors or inconsistencies in the plans, specifications or any of the Contract Documents and that the actual site conditions comport to the conditions set forth therein.**

- 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 the CITY; no City official nor any City employee has a direct or indirect interested in said bid, in the supplies or work to which it relates, to any person associated with the firm performing the work, or to the profits resulting from the work.

[remainder of page intentionally left blank]

4. Bidder agrees that the Work will be substantially completed within **three hundred and thirty-five (335)** calendar days from the date of the issuance of the Notice to Proceed and completed and ready for final payment in accordance with paragraph 15.13 of the General Conditions within **thirty (30) calendar days** from the date of Substantial Completion.

Bidder accepts the provisions of the Agreement as to liquidated damages in the event of failure to complete the work on time.

5. The undersigned agrees as follows:

Accompanying this Proposal is a certified check, cashier's check or bid bond, in the amount of **five percent (5%)** of total Bid Price, meeting the requirements of the Contract Documents for \$ _____ payable to the City of Delray Beach which is to be forfeited if, in the event that this Proposal is accepted, the undersigned shall fail to execute the contract and furnish satisfactory Contract Security and furnish insurance certificates under the conditions and within the time specified in the Instructions to Bidders; otherwise, said certified check, cashier's check or bid bond is to be returned as provided herein.

6. Communications concerning this Bid shall be addressed to the Bidder as indicated below.

7. 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 _____
(date)

If a Corporation

Signature of Bidder

Corporate Seal

By: _____

Print Name: _____

Address of Bidder: _____

Incorporated under the laws of the State of _____.

If an Individual, Partnership, or Non-Incorporated Organization

Signature of Bidder

By: _____

Print Name: _____

Address of Bidder: _____

Certificate of Competency number _____

The names of the corporate officers, or partners, or individuals doing business under trade name, is as follows:

Signature of Bidder

By: _____

Print Name: _____

Title: _____

Business Address: _____

Incorporated under the laws of the State of _____.

CERTIFICATE
(If a Corporation)

STATE OF _____)
) SS
COUNTY OF _____)

I HEREBY CERTIFY that a meeting of the Board of Directors of _____,
a Corporation under the laws of the State of _____ held on _____, 20__ the
following resolution was duly passed and adopted:

"RESOLVED, that _____, as _____ of the
Corporation, be and he is hereby authorized to execute the Proposal dated
_____, 20__, between the City of Delray Beach, Florida and this Corporation,
and that his execution thereof, attested by the Secretary of the Corporation and with corporate seal
affixed, shall be the official act and deed of this Corporation".

I further certify that said resolution is now in full force and effect.

IN WITNESS WHEREOF, I have hereunto set my hand this ____ day of _____, 20__.

By: _____
Print Name: _____
Title: _____

Subscribed and sworn to before me this ____ day of _____, 20__.

Signature and Stamp of Notary Public
My Commission Expires:

CERTIFICATE
(If a Partnership)

STATE OF _____)
) SS
COUNTY OF _____)

I HEREBY CERTIFY that a meeting of the partners of _____, a Partnership under the laws of the State of _____ held on _____, 20__ the following resolution was duly passed and adopted:

"RESOLVED, that _____, as _____ of the Partnership, be and he is hereby authorized to execute the Proposal dated _____, 20__, between the City of Delray Beach, Florida and this Partnership, and that this execution thereof, attested by the _____ of the Partnership be the official act and deed of this Partnership."

I further certify that said resolution is now in full force and effect.

IN WITNESS WHEREOF, I have hereunto set my hand this ____ day of _____, 20__.

By: _____

Print Name: _____

Title: _____

Subscribed and sworn to before me this ____ day of _____, 20__.

Signature and Stamp of Notary Public

My Commission Expires:

CONFLICT OF INTEREST DISCLOSURE FORM

The award of this contract is subject to the provisions of Chapter 112, *Florida Statutes*. All Proposers must disclose within their Proposal: the name of any officer, director, or agent who is also an employee of the City of Delray Beach.

Furthermore, all Proposers must disclose the name of any City employee who owns, directly or indirectly, an interest of more than five percent (5%) in the Proposer's firm or any of its branches.

The purpose of this disclosure form is to give the City the information needed to identify potential conflicts of interest for evaluation team members and other key personnel involved in the award of this contract.

The term "conflict of interest" refers to situations in which financial or other personal considerations may adversely affect, or have the appearance of adversely affecting, an employee's professional judgment in exercising any City duty or responsibility in administration, management, instruction, research, or other professional activities.

Please check one of the following statements and attach additional documentation if necessary:

_____ To the best of our knowledge, the undersigned firm has no potential conflict of interest due to any other Cities, Counties, contracts, or property interest for this Proposal.

_____ The undersigned firm, by attachment to this form, submits information which may be a potential conflict of interest due to other Cities, Counties, contracts, or property interest for this Proposal.

Acknowledged by:

Firm Name

Signature

Name and Title (Print or Type)

Date

[remainder of page intentionally left blank]

NOTIFICATION OF PUBLIC ENTITY CRIMES LAW

Pursuant to Section 287.133, *Florida Statutes*, you are hereby notified that a person or affiliate who has been placed on the convicted contractors 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 Proposal on leases or real property to a public entity; may not be awarded or perform work as a contractor, supplier, sub-consultant, 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 [F.S.] for Category Two [\$35,000.00] for a period of thirty-six (36) months from the date of being placed on the convicted contractors list.

Acknowledged by:

Firm Name

Signature

Name and Title (Print or Type)

Date

[remainder of page intentionally left blank]

NOTIFICATION OF PUBLIC RECORDS LAW
Pertaining to Public Contracts and Requests for Contractor Records
Pursuant to Chapter 119, *Florida Statutes*

Pursuant to Chapter 119, *Florida Statutes*, Contractor shall comply with the public records law by keeping and maintaining public records required by the City of Delray Beach in order to perform the service. Upon request from the City of Delray Beach' custodian of public records, contract shall provide the City of Delray Beach 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. Contractor shall 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 of Delray Beach. Contractor upon completion of the contract, shall transfer, at no cost, to the City of Delray Beach all public records in possession of the Contractor or keep and maintain public records required by the City of Delray Beach in order to perform the service. If the Contractor transfers all public records to the City of Delray Beach 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 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 of Delray Beach, upon request from the City of Delray Beach' custodian of public records, in a format that is compatible with the information technology systems of the City of Delray Beach.

IF 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 OFFICE OF THE CITY CLERK LOCATED AT 100 NW 1ST AVENUE, DELRAY BEACH, FLORIDA 33444, PHONE NUMBER (561) 243-7000, EMAIL ADDRESS: JOHNSONK@MYDELRAYBEACH.COM

Acknowledged:

Firm Name

Signature

Name and Title (Print or Type)

Date

[remainder of page intentionally left blank]

DRUG FREE WORKPLACE CERTIFICATION

IDENTICAL TIE BIDS: Preference shall be given to businesses with drug-free workplace programs. Whenever two or more bids which are equal with respect to price, quantity, 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 (Florida Statutes Section 287.087). 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, and available drug counseling, rehabilitation, and employee assistance programs, and the penalties that may be imposed upon employees for drug abuse violations.
3. Give each employee engaged 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) days after such conviction.
5. Impose a sanction 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.

As the person authorized to sign the statement, I certify that this firm complies fully with the above requirements.

Bidders Signature

(Print or type)

[remainder of page intentionally left blank]

TRUTH-IN-NEGOTIATION CERTIFICATE

The undersigned warrants (i) that it has not employed or retained any company or person, other than bona fide employees working solely for the undersigned, to solicit or secure the Agreement and (ii) that it has not paid or agreed to pay any person, company, corporation, individual, or firm other than its bona fide employees working solely for the undersigned or agreed to pay any fee, commission, percentage, gift, or any other consideration contingent upon or resulting from the award or making of the Agreement.

The undersigned certifies that the wage rates and other factual unit costs used to determine the compensation provided for in the Agreement are accurate, complete, and current as of the date of the Agreement.

Name: _____

Title: _____

Date: _____

Signature: _____

[remainder of page intentionally left blank]

SCRUTINIZED COMPANY CERTIFICATION

This certification is required pursuant to Florida State Statute Section 287.135.

As of July 1, 2011, a company that, at the time of bidding or submitting a proposal for a new contract or renewal of an existing contract, is on the Scrutinized Companies with Activities in Sudan List or the Scrutinized Companies with Activities in the Iran Petroleum Energy Sector List is ineligible for, and may not bid on, submit a proposal for, or enter into or renew a contract with an agency or local governmental entity for goods or services of \$1 million or more.

Companies must complete and return this form with its response.

Company: _____ FID or EIN No.: _____

Address: _____

City: _____ State: _____ Zip: _____

I, _____, as a representative of _____
certify and affirm that this company is not on the Scrutinized Companies with Activities in Sudan List or the
Scrutinized Companies with Activities in the Iran Petroleum Energy Sector List.

Name: _____

Title: _____

Date: _____

Signature: _____

[remainder of page intentionally left blank]

TRENCH SAFETY ACT
Florida Statutes Section 553.60 et seq.

"Trench Safety Act" Compliance

Bidder acknowledges that the Florida Trench Safety Act, Section 553.60 et. seq., which became effective October 1, 1990, shall be in effect during the period of construction of the project. The Bidder by signing and submitting the bid is, in writing, assuring that it will perform any trench excavation in accordance with the applicable trench safety standards. The Bidder further identifies the following separate item of cost of compliance with the applicable trench safety standards as well as the method of compliance.

Method of Compliance

Cost

Bidder acknowledges that this cost is included in the applicable items of the Proposal and in the Grand Total Bid Price. Failure to complete the above may result in the bid being declared non-responsive.

The Bidder is, and the Owner and Engineer are not, responsible to review or assess City's safety precautions, programs or costs, or the means, methods, techniques or technique adequacy, reasonableness of cost, sequences or procedures of any safety precaution, program or cost, including but not limited to, compliance with any and all requirements of Florida Statute Section 553.60 et. seq. cited as the "Trench Safety Act". Bidder is, and the City and Engineer are not, responsible to determine if any safety or safety related standards apply to the project, including, but not limited to, the "Trench Safety Act".

Name: _____

Title: _____

Date: _____

Signature: _____

[remainder of page intentionally left blank]

AFFIDAVIT REGARDING THE USE OF COERCION FOR LABOR AND SERVICES

Vendor Name: _____

Vendor FEIN: _____

Vendor's
Authorized
Representative
Name and Title: _____

Address: _____

City: _____ State: _____ Zip: _____

Phone Number: _____

Email Address: _____

Florida Statute §787.06(13) requires all nongovernmental entities executing, renewing, or extending a contract with a governmental entity to provide an affidavit signed by an officer or representative of the nongovernmental entity under penalty of perjury that the nongovernmental entity does not use coercion for labor or services as defined in that statute. The City of Delray Beach, Florida is a governmental entity for the purposes of this statute.

As the officer or representative of the company, I certify that the company identified above does not:

- Use or threaten to use physical force against any person;
- Restrain, isolate, or confine or threaten to restrain, isolate, or confine any person without lawful authority and against his or her will;
- Use lending or other credit methods to establish a debt by any person when labor or services are pledged as a security for the debt, if the value of the labor or services as reasonably assessed is not applied towards the liquidation of the debt, the length and nature of the labor or services are not respectively limited and defined;
- Destroy, conceal, remove, confiscate, withhold, or possess any actual or purported passport, visa, or other immigration document, or any other actual or purported government identification, of any person;
- Cause or threaten to cause financial harm to any person;
- Entice or lure any person by fraud or deceit;
- Provide controlled substances as outlined in Schedule I or Schedule II of Florida State Statute §893.03 to any person for the purpose of exploitation of that person.

Under penalties of perjury, I declare that I have read the foregoing document and the at the facts stated in it are true.

Signature: _____
(Authorized Signature)

Print Name
and Title: _____

Date: _____

CONE OF SILENCE

The Palm Beach County Lobbyist Registration Ordinance (Sections 2-351 through 2-357 of the Palm Beach County Code of Ordinances) is applicable in the City of Delray Beach. Section 2-355 of the Palm Beach County Lobbyist Registration Ordinance includes a "Cone of Silence" provision that limits communication during the City's procurement process in regard to this ITBC, which provides as follows:

- (a) **Cone of silence** means a prohibition on any communication, except for written correspondence, regarding a particular request for proposal, request for qualification, bid, or any other competitive solicitation between:
 - (1) Any person or person's representative seeking an award from such competitive solicitation; and
 - (2) Any county commissioner or commissioner's staff, any member of a local governing body or the member's staff, a mayor or chief executive officer that is not a member of a local governing body or the mayor or chief executive officer's staff, or any employee authorized to act on behalf of the commission or local governing body to award a particular contract.
- (b) For the purposes of this section, a person's representative shall include but not be limited to the person's employee, partner, officer, director, CONSULTANT, lobbyist, or any actual or potential subcontractor or CONSULTANT of the person.
- (c) Pursuant to Section 2-355 of Palm Beach County Ordinance No. 2011-039, and the purchasing policies of the City of Delray Beach, all Solicitations, once advertised and until the appropriate authority has approved an award recommendation, are under the cone of silence. The cone of silence applies to any person or person's representative who responds to a particular request for proposal, request for qualification, bid, or any other competitive solicitation, and shall remain in effect until such response is either rejected by the county or municipality as applicable or withdrawn by the person or person's representative. Each request for proposal, request for qualification, bid or any other competitive solicitation shall provide notice of cone of silence requirements and refer to this article.
- (d) The provisions of this article shall not apply to oral communications at any public proceeding, including prebid conferences, oral presentations before selection committees, contract negotiations during any public meeting, presentations made to the board or local municipal governing body as applicable, and protest hearings. Further, the cone of silence shall not apply to contract negotiations between any employee and the intended awardee, any dispute resolution process following the filing of a protest between the person filing the protest and any employee, or any written correspondence at any time with any employee, county commissioner, member of a local municipal governing body, mayor or chief executive officer that is not a member of the local municipal governing body, or advisory board member or selection committee member, unless specifically prohibited by the applicable competitive solicitation process.
- (e) The cone of silence shall not apply to any purchases made in an amount less than the competitive bid threshold set forth in the county purchasing ordinance (County Code, chapter 2, article III, division 2, part A, section 2-51 et seq.) or municipal ordinance as applicable.
- (f) The cone of silence shall terminate at the time the board, local municipal governing body, or a county or municipal department authorized to act on behalf of the board or local municipal governing body as applicable, awards or approves a contract, rejects all bids or responses, or otherwise takes action that ends the solicitation process.
- (g) Any contract entered into in violation of the cone of silence provisions in this section shall render the transaction voidable.

Contractor's Name: _____ Signature: _____

Date: _____

BID BOND

STATE OF _____)
) SS
COUNTY OF _____)

KNOW ALL MY BY THESE PRESENTS that _____ as Principal, and
_____ as surety, are held and firmly bound unto the City of Delray

Beach, Florida, hereinafter called the City in the penal sum of _____ dollars (\$ _____)
lawful money of the United States, for the payment of which sum will and truly to be made, we bind
ourselves, our heirs, executors, administrators, and successors, jointly and severally, firmly by these
presents.

THE CONDITIONS OF THIS OBLIGATION ARE SUCH, that whereas the Principal has submitted the
accompanying bid, dated _____, for project titled:

ITBC NO.: 2026-014
Brant Bridge Connector
CITY PROJECT NO.: 20-015
FDOT LAP Project No. 441586-1-58-01

NOW, THEREFORE,

- (a) It is a condition precedent to the submission of said bid that a certified check, cashiers check or bid bond in the amount of **five percent (5%)** of the base bid be submitted with said bid as a guarantee that Bidder would, if awarded the contract, enter into a written contract with the CITY for the completion of the Work specified in the Contract Documents for the amount indicated in the Bid.
- (b) If the Principal shall not withdraw said bond within one hundred and twenty (120) days after date of the same, and shall within fifteen (15) days after the prescribed forms are presented to him for signature, enter into a written contract with the CITY in accordance with the bid as accepted, and give bonds with good and sufficient surety or sureties, as may be required, for the faithful performance and proper fulfillment of such contract, then the above obligation shall be void and of no effect, otherwise the sum herein stated shall be due and payable to the CITY and the surety herein agrees to pay said sum immediately upon demand of the CITY in good and lawful money of the United States of America as liquidated damages for failure thereof of said principal.

IN WITNESS WHEREOF, the above-bounded parties executed this instrument under their several seals,
this _____ day of _____, the name and corporate seal of each corporate party being
hereto affixed and these presents duly signed by its undersigned representative, pursuant to authority of
its governing body.

I _____ (person), on behalf of
_____ (surety)
_____ (surety company) have read
and examined the Performance and Payment Bonds attached to Bid No. _____.

Signature

Date

WITNESS: If Sole Ownership or Partnership, two (2) Witnesses required. If Corporation, Secretary Only will attest and affix seal.

WITNESSES:

Print Name: _____

Print Name: _____

PRINCIPAL

(firm name)

By: _____
(Signature of Authorized Officer)

(affix Seal)

Print Name: _____

Title: _____

Business Address: _____

WITNESSES:

Print Name: _____

Print Name: _____

SURETY

(firm name)

By: _____
(Signature of Authorized Officer)

(affix Seal)

Print Name: _____

Title: _____

Business Address: _____

Name of Local Insurance Agency _____

INFORMATION REQUIRED OF BIDDER

BIDDER'S GENERAL INFORMATION:

Bidder shall furnish the following information. Failure to comply with this requirement will render Bid non-responsive and may cause its rejection. Additional sheets shall be attached as required.

- (1) CONTRACTOR'S name and address:

- (2) CONTRACTOR'S telephone number: _____

- (3) Number of years as a CONTRACTOR in this type of work: _____

- (4) Names and titles of all officers of CONTRACTOR'S firm:

- (5) Name, address, and telephone number of surety company and agent who will provide the required bonds on this contract:

- (6) Principal Materials Manufactures and Subcontractors. This proposal is being submitted by the hereinafter stated CONTRACTOR who proposes to perform work specified and shown on the Drawings. The Bid Proposal shown on the preceding page(s) has been calculated and tabulated using basic material prices. The following is a list of material manufactures and subcontractors whose materials and services said CONTRACTOR propose to furnish and utilize if the awarded a CONTRACT for the work specified herein and shown on the Plans. It is understood that the following list is not complete but includes the names of manufacturers of the principal components and subcontractors supplying principal services to said project. It is also understood that if awarded a Contract, the CONTRACTOR will furnish the materials of the manufactures and utilize the services of the subcontractors stated herein and that if for any reason whatsoever CONTRACTOR wishes to substitute materials or subcontractors he shall request permission in writing from the City stating fully the reason for making such a request prior to ordering same.

All of said manufactures or their authorized vendors have been made aware of all the appropriate portions of the Contract Documents and agree that their materials will meet all of the requirements stated therein and that deliveries will be scheduled so as not to impede the progress of the work.

Materials

Manufacturer

Subcontractors

Name

Duties

Signature of Bidder

By: _____

Print Name: _____

QUESTIONNAIRE

The undersigned guarantees the truth and accuracy of all statements and answers herein contained.

1. How many years has your organization been in business in the State of Florida as a Contractor?

2. What is the last project of this nature that you have completed?

3. Have you ever failed to complete work awarded to you: If so where and why?

4. Name three individuals or corporations for which you have performed work and to which you refer?

5. List the following information concerning all contracts on hand as of the date of submission of this proposal. (In case of co-venture, list the information of all co-venturers).

<u>NAME OF PROJECT</u>	<u>OWNER</u>	<u>TOTAL CONTRACT VALUE</u>	<u>CONTRACTED DATE/OF COMPLETION</u>	<u>%OF COMPLETION TO DATE</u>
------------------------	--------------	-----------------------------	--------------------------------------	-------------------------------

(Continue list on insert sheet, if needed)

6. Have you personally inspected the proposed work and have you a complete plan for its performance?

7. Will you sublet any part of this work? If so, give details.

8. What equipment do you own that is available for the work?
(Attach additional sheets as necessary)

9. What equipment will you purchase for the proposed work?

10. What equipment will you rent for the proposed work?

State the true, exact, correct and complete name of the partnership, corporation or trade name under which you do business and the address of the place of business. (If a corporation, state the name of the President and Secretary. If a partnership, state the names of all partners. If a trade name, state the names of the business under the trade name. It is absolutely necessary that this information be furnished).

Correct Name of Bidder

a) The business is a (Sole Proprietorship) (Partnership) (Corporation)

b) The address of principal place of business is _____

c) The names of the corporate officers or partners, or individuals doing business under a trade name, is as follows:

Signature of Bidder

By: _____

Print Name: _____

Business Address: _____

Incorporated under the laws of the State of _____.

END OF SECTION 2

STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION
LAP CERTIFICATION OF CURRENT CAPACITY

525-010-46
PROGRAM MANAGEMENT
09/20

CONFIDENTIAL per Ch 337.14(1) F.S.

For bids to be received on _____
(Letting Date)

Fill in your FDOT Vendor Number VF _____ (Only applicable to FDOT pre-qualified contractors)
--

CERTIFICATE

I hereby certify that the amount of any proposal submitted by this bidder for the above letting does not exceed the amount of the Firm's CURRENT CAPACITY (maximum capacity rating less total uncompleted work).

The total uncompleted work as shown on
the "Status of Contracts on Hand" report (page 2) \$ _____

I further certify that the "Status of Contracts on Hand" report (page 2) was prepared as follows:

1. If the letting is before the 25th day of the month, the certificate and report reflect the uncompleted work as of the 15th day of the month, last preceding the month of the letting.
2. If the letting is after the 25th day of the month, the certificate and report reflects the uncompleted work in progress as of the 15th day of the month of the letting.
3. All new contracts (and subcontracts) awarded earlier than five days before the letting date are included in the report and charged against our total rating.

I certify that the information above is correct.

Sworn to and subscribed this _____ day
of _____, 20 _____

NAME OF FIRM
By: _____

Title

STATUS OF CONTRACTS ON HAND

(Furnish complete information about all your contracts, whether prime or subcontracts; whether in progress or awarded, but not yet begun; and regardless of whom contracted with.)

1	2	3	4	5		6
PROJECTS OWNER, LOCATION AND DESCRIPTION	CONTRACT (OR SUBCONTRACT) AMOUNT	AMOUNT SUBLET TO OTHERS	BALANCE OF CONTRACT AMOUNT	UNCOMPLETED AMOUNT TO BE DONE BY YOU		
				AS PRIME CONTRACTOR	AS SUBCONTRACTOR	
NOTE: Columns 2 and 3 to show total contract (or subcontract) amounts. Column 4 to be difference between columns 2 and 3. Amount in columns 5 or 6 to be uncompleted portion of amount in column 4. All amounts to be shown to nearest \$100. The Contractor may consolidate and list as a single item all contracts which, individually, do not exceed 3% of total, and which, in the aggregate, amount to less than 20% of the total.			TOTALS	\$0.00	\$0.00	
			TOTAL UNCOMPLETED WORK ON HAND TO BE DONE BY YOU (TOTAL COLUMNS 5 AND 6)	\$0.00		

STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION
DISCLOSURE OF LOBBYING ACTIVITIES

375-030-34
 PROCUREMENT
 02/16

Is this form applicable to your firm?
 YES NO
 If *no*, then please complete section 4
 below for "Prime"

1. Type of Federal Action: a. contract b. grant c. cooperative agreement d. loan e. loan guarantee f. loan insurance	2. Status of Federal Action: a. bid/offer/application b. initial award c. post-award	3. Report Type: a. initial filing b. material change For Material Change Only: Year: _____ Quarter: _____ Date of last report: _____ (mm/dd/yyyy)
4. Name and Address of Reporting Entity: <input type="checkbox"/> Prime <input type="checkbox"/> Subawardee Tier _____, <i>if known</i> : _____ _____ _____ Congressional District, <i>if known</i> : 4c _____	5. If Reporting Entity in No. 4 is a Subawardee, Enter Name and Address of Prime: _____ _____ _____ _____ Congressional District, <i>if known</i> : _____	
6. Federal Department/Agency: _____ _____	7. Federal Program Name/Description: _____ _____ _____ CFDA Number, <i>if applicable</i> : _____	
8. Federal Action Number, if known: _____	9. Award Amount, if known: \$ _____	
10. a. Name and Address of Lobbying Registrant <i>(if individual, last name, first name, MI):</i> _____ _____ _____	b. Individuals Performing Services <i>(including address if different from No. 10a)</i> <i>(last name, first name, MI):</i> _____ _____ _____	
11. Information requested through this form is authorized by title 31 U.S.C. section 1352. This disclosure of lobbying activities is a material representation of fact upon which reliance was placed by the tier above when this transaction was made or entered into. This disclosure is required pursuant to 31 U.S.C. 1352. This information will be available for public inspection. Any person who fails to file the required disclosure shall be subject to a civil penalty of not less than \$10,000 and not more than \$100,000 for each such failure.	Signature: _____ Print Name: _____ Title: _____ Telephone No.: _____ Date (mm/dd/yyyy): _____	
Federal Use Only:	Authorized for Local Reproduction Standard Form LLL (Rev. 7-97)	

INSTRUCTIONS FOR COMPLETION OF SF-LLL, DISCLOSURE OF LOBBYING ACTIVITIES

This disclosure form shall be completed by the reporting entity, whether subawardee or prime Federal recipient, at the initiation or receipt of a covered Federal action, or a material change to a previous filing, pursuant to title 31 U.S.C. section 1352. The filing of a form is required for each payment or agreement to make payment to any lobbying entity 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 a covered Federal action. Complete all items that apply for both the initial filing and material change report. Refer to the implementing guidance published by the Office of Management and Budget for additional information.

1. Identify the type of covered Federal action for which lobbying activity is and/or has been secured to influence the outcome of a covered Federal action.
2. Identify the status of the covered Federal action.
3. Identify the appropriate classification of this report. If this is a followup report caused by a material change to the information previously reported, enter the year and quarter in which the change occurred. Enter the date of the last previously submitted report by this reporting entity for this covered Federal action.
4. Enter the fullname, address, city, State and zip code of the reporting entity. Include Congressional District, if known. Check the appropriate classification of the reporting entity that designates if it is, or expects to be, a prime or subaward recipient. Identify the tier of the subawardee, e.g., the first subawardee of the prime is the 1st tier. Subawards include but are not limited to subcontracts, subgrants and contract awards under grants.
5. If the organization filing the report in item 4 checks "Subawardee," then enter the full name, address, city, State and zip code of the prime Federal recipient. Include Congressional District, if known.
6. Enter the name of the Federal agency making the award or loan commitment. Include at least one organizational level below agency name, if known. For example, Department of Transportation, United States Coast Guard.
7. Enter the Federal program name or description for the covered Federal action (item 1). If known, enter the full Catalog of Federal Domestic Assistance (CFDA) number for grants, cooperative agreements, loans, and loan commitments.
8. Enter the most appropriate Federal identifying number available for the Federal action identified in item 1 (e.g., Request for Proposal (RFP) number; Invitation for Bid (IFB) number; grant announcement number; the contract, grant, or loan award number; the application/proposal control number assigned by the Federal agency). Include prefixes, e.g., "RFP-DE-90-001."
9. For a covered Federal action where there has been an award or loan commitment by the Federal agency, enter the Federal amount of the award/loan commitment for the prime entity identified in item 4 or 5.
10. (a) Enter the full name, address, city, State and zip code of the lobbying registrant under the Lobbying Disclosure Act of 1995 engaged by the reporting entity identified in item 4 to influence the covered Federal action.

(b) Enter the full names of the individual(s) performing services, and include full address if different from 10 (a). Enter Last Name, First Name, and Middle Initial (MI).
11. The certifying official shall sign and date the form, print his/her name, title, and telephone number.

According to the Paperwork Reduction Act, as amended, no persons are required to respond to a collection of information unless it displays a valid OMB Control Number. The valid OMB control number for this information collection is OMB No. 0348-0046. Public reporting burden for this collection of information is estimated to average 10 minutes per response, including time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding the burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden, to the Office of Management and Budget, Paperwork Reduction Project (0348-0046), Washington, DC 20503.

STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION
**CERTIFICATION FOR DISCLOSURE OF LOBBYING ACTIVITIES
ON FEDERAL-AID CONTRACTS
(Compliance with 49CFR, Section 20.100 (b))**

375-030-33
PROCUREMENT
10/01

The prospective participant certifies, by signing this certification, that to the best of his or her knowledge and belief:

(1) No federal appropriated funds have been paid or will be paid, by or on behalf of the undersigned, to any person for influencing or attempting to influence an officer or employee of any federal 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 contract, the making of any federal grant, the making of any federal loan, the entering into of any cooperative agreement, and the extension, continuation, renewal, amendment, or modification of any federal contract, grant, loan, or cooperative agreement.

(2) If any funds other than federal appropriated funds have been paid or will be paid to any person for influencing or attempting to influence an officer or employee of any federal 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 of Lobbying Activities", in accordance with its instructions. (Standard Form-LLL can be obtained from the Florida Department of Transportation's Professional Services Administrator or Procurement Office.)

This certification is a material representation of fact upon which reliance was placed when this transaction was made or entered into. Submission of this certification is a prerequisite for making or entering into this transaction imposed by Section 1352, Title 31, U.S. Code. Any person who fails to file the required certification shall be subject to a civil penalty of not less than \$10,000 and not more than \$100,000 for each such failure.

The prospective participant also agrees by submitting his or her proposal that he or she shall require that the language of this certification be included in all lower tier subcontracts, which exceed \$100,000 and that all such subrecipients shall certify and disclose accordingly.

Name of Consultant: _____

By: _____ Date: _____

Authorized Signature: _____

Title: _____

**CERTIFICATION REGARDING DEBARMENT, SUSPENSION,
INELIGIBILITY AND VOLUNTARY EXCLUSION-
LOWER TIER COVERED TRANSACTIONS FOR FEDERAL AID CONTRACTS
(Compliance with 2 CFR Parts 180 and 1200)**

It is certified that neither the below identified firm nor its principals are presently suspended, proposed for debarment, declared ineligible, or voluntarily excluded from participation in this transaction by any federal department or agency.

Name of Consultant/Contractor: _____

By: _____

Date: _____

Title: _____

Instructions for Certification

Instructions for Certification - Lower Tier Participants:

(Applicable to all subcontracts, purchase orders and other lower tier transactions requiring prior FHWA approval or estimated to cost \$25,000 or more - 2 CFR Parts 180 and 1200)

- a. By signing and submitting this proposal, the prospective lower tier is providing the certification set out below.
- b. The certification in this clause is a material representation of fact upon which reliance was placed when this transaction was entered into. If it is later determined that the prospective lower tier participant knowingly rendered an erroneous certification, in addition to other remedies available to the Federal Government, the department, or agency with which this transaction originated may pursue available remedies, including suspension and/or debarment.
- c. The prospective lower tier participant shall provide immediate written notice to the person to which this proposal is submitted if at any time the prospective lower tier participant learns that its certification was erroneous by reason of changed circumstances.
- d. The terms "covered transaction," "debarred," "suspended," "ineligible," "participant," "person," "principal," and "voluntarily excluded," as used in this clause, are defined in 2 CFR Parts 180 and 1200. You may contact the person to which this proposal is submitted for assistance in obtaining a copy of those regulations. "First Tier Covered Transactions" refers to any covered transaction between a grantee or subgrantee of Federal funds and a participant (such as the prime or general contract). "Lower Tier Covered Transactions" refers to any covered transaction under a First Tier Covered Transaction (such as subcontracts). "First Tier Participant" refers to the participant who has entered into a covered transaction with a grantee or subgrantee of Federal funds (such as the prime or general contractor). "Lower Tier Participant" refers any participant who has entered into a covered transaction with a First Tier Participant or other Lower Tier Participants (such as subcontractors and suppliers).
- e. The prospective lower tier participant agrees by submitting this proposal that, should the proposed covered transaction be entered into, it shall not knowingly enter into any lower tier covered transaction with a person who is debarred, suspended, declared ineligible, or voluntarily excluded from participation in this covered transaction, unless authorized by the department or agency with which this transaction originated.
- f. The prospective lower tier participant further agrees by submitting this proposal that it will include this clause titled "Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion-Lower Tier Covered Transaction," without modification, in all lower tier covered transactions and in all solicitations for lower tier covered transactions exceeding the \$25,000 threshold.
- g. A participant in a covered transaction may rely upon a certification of a prospective participant in a lower tier covered transaction that is not debarred, suspended, ineligible, or voluntarily excluded from the covered transaction, unless it knows that the certification is erroneous. A participant is responsible for ensuring that its principals are not suspended, debarred, or otherwise ineligible to participate in covered transactions. To verify the eligibility of its principals, as well as the eligibility of any lower tier prospective participants, each participant may, but is not required to, check the Excluded Parties List System website (<https://www.epls.gov/>), which is compiled by the General Services Administration.
- h. Nothing contained in the foregoing shall be construed to require establishment of a system of records in order to render in good faith the certification required by this clause. The knowledge and information of participant is not required to exceed that which is normally possessed by a prudent person in the ordinary course of business dealings.
- i. Except for transactions authorized under paragraph e of these instructions, if a participant in a covered transaction knowingly enters into a lower tier covered transaction with a person who is suspended, debarred, ineligible, or voluntarily excluded from participation in this transaction, in addition to other remedies available to the Federal Government, the department or agency with which this transaction originated may pursue available remedies, including suspension and/or debarment.

END OF SECTION 2

SECTION 3: AGREEMENT

THIS AGREEMENT is dated as of the _____ day of _____, 20____,
by and between the CITY OF DELRAY BEACH, FLORIDA, hereinafter called the CITY or OWNER, and
_____, hereinafter called CONTRACTOR.

OWNER and CONTRACTOR, in consideration of the mutual covenants hereinafter set forth, agree
as follows:

Article 1. WORK.

1.1 CONTRACTOR shall complete all Work as specified or indicated in the Contract Documents. For
the project entitled:

ITBC NO.: 2026-014
Brant Bridge Connector
CITY PROJECT NO.: 20-015
FDOT LAP Project No. 441586-1-58-01

1.2 The Contractor, in full and complete satisfaction of its role as general contractor, hereby accepts
responsibility for the completion of the Work as provided by the Contract Documents, and will
perform the procurement of materials and equipment required by the Contract Documents,
construction coordination, construction, supervision and project management as may be required
in order to construct the Work in accordance with the Contract Documents such that the finished
Work shall be performed and completed and the Work will be performed in accordance with all
required state and local code requirements as are described in the Contract Documents.
Notwithstanding, the foregoing shall not be construed to impose any design responsibility on
Contractor except where such design responsibility is an existing contractual requirement of the
Contractor pursuant to Florida law in performance of the Work or the Contract Documents.

1.3 The Contractor shall schedule and attend regular meetings with the City and Consultant as required
for the timely and proper completion of the Project, but in no event less than twice a week. The
following people shall attend the meeting on behalf of Contractor: Project Executive and General
Superintendent.

1.4 The Contractor hereby represents and warrants to the City that the Contractor has and will
continue, to the extent appropriate during the Project: (1) to evaluate the scope, schedule and
budget established by the City, for the Project in order, among other things, (a) to assess the quality
and soundness of such program, schedule and budget, (b) to identify and evaluate alternatives to
the City's schedule so as to reduce the time required for construction, (c) to evaluate and
recommend alternative materials and systems and methods of achieving the City's program
schedule and cost requirements or other design parameters, and (2) as and when requested by
the City or the Consultant, to discuss and review the cost, scope and schedule any suggested
revisions to same.

1.5 The Contractor hereby represents and warrants to the City that (a) the Contractor has carefully
reviewed and shall continue to review the Drawings (including all notes and specifications
contained in the Drawings), designs and other Contract Documents, (b) the responsibilities of the
Contractor are properly identified and assigned therein, and (c) the Contractor will timely bring to
the attention of City (via written notification) if it discovers that the Drawing (including all notes and
specifications contained in the Drawings) contain any errors, omissions, inconsistencies, or areas
of conflict or overlap in the Work to be performed by the Contractor, with sufficient advanced notice
so as not to delay the progress of the Work.

- 1.6 The Contractor shall coordinate and integrate the activities of the Consultant, Contractor, the City, and other persons or entities participating in the construction of the Project.
- 1.7 The Contractor hereby represents and warrants that the Contractor has particular expertise and experience in the construction of projects similar to the Project and in the performance of the Work and other services required hereunder.
- 1.8 The Contractor shall not be relieved of its obligations to perform the Work in accordance with the Contract Documents and applicable Florida Law, either by tests, inspections, approvals, activities, duties, actions or inactions of the Threshold inspectors, special inspectors, the Consultant, building department inspectors, building department officials or by persons or entities other than the Contractor.
- 1.9 **No Recovery for Changed Market Conditions.**
In entering into the Agreement, the Contractor represents and warrants that it has considered all impacts and potential impacts associated with the following: (1) COVID-19, Monkey Pox, and related worldwide pandemics (“Pandemics”); and (2) the current military conflict involving Russia and the Ukraine (the “Ukraine Military Conflict”). The Contractor further represents and warrants that in entering into this Agreement, it has accounted for any and all labor or material shortages, delivery lead time, or price increases that may be caused by local and or national conditions, including but not limited to impacts from the Pandemics and the Ukraine Military Conflict. The Contractor also represents and warrants that in determining time requirements for procurement, installation, and construction completion, Contractor has taken into account these impacts from the Pandemics and the Ukraine Military Conflict, and has included all of those factors in the Project Schedule and Contract Sum.

The Contractor will not seek any price increases or time extensions relating to or arising from any impacts from the Pandemics or Ukraine Military Conflict.

The City shall not be required to make any adjustment in the Contract Sum or grant an extension to the Contract Time in connection with any failure by the Contractor to comply with the requirements of this Article.

Article 2. CONSULTANT.

The Project will be administered by a third-party construction engineering and inspection firm, who is hereinafter called CONSULTANT and who will assume all duties and responsibilities and will have the rights and authority assigned to CONSULTANT in the Contract Documents in connection with completion of the Work in accordance with the Contract Documents.

Article 3. ENTIRE AGREEMENT.

- 3.1 The Contract Documents consist of this Agreement, all terms and conditions of the solicitation, General and Supplementary Conditions, the City’s Bid Package (including M/WBE Program Requirements and Project Manual), Drawings and Specifications, Addenda issued prior to execution of this Agreement, other documents and exhibits listed in this Agreement and Modifications issued after execution of this Agreement, all of which form the Contract, and are as fully a part of the Contract as if attached to this Agreement or repeated herein (the “Contract Documents”).
- 3.2 The Contract Documents represent the entire and integrated agreement between the parties hereto and supersedes prior negotiations, representations, or agreements, either written or oral. If anything in the other Contract Documents, other than a Modification, is inconsistent or in conflict with any of the terms of this Agreement, this Agreement shall govern. The parties shall not be bound by or be liable for any statement, representation, promise, inducement or understanding of any kind or nature not set forth herein. NO CHANGES, AMENDMENTS OR MODIFICATIONS OF

ANY OF THE TERMS OR CONDITIONS OF THE CONTRACT DOCUMENTS SHALL BE VALID UNLESS REDUCED TO WRITING AND SIGNED BY BOTH PARTIES.

- 3.3 Any of the Contract Documents not attached hereto but expressly identified in this Agreement are hereby incorporated by reference and shall be deemed to be of the same force and effect as if actually attached hereto.
- 3.4 Unless otherwise stated in the Contract Documents, words that have well-known technical or construction industry meanings are used in the Contract Documents in accordance with such recognized meanings. On the Drawings, given dimensions shall take precedence over scaled measurements and large-scale drawings over small-scale drawings.
- 3.5 In the event of any conflicts or discrepancies among the Contract Documents, interpretations will be based on the following priorities, keeping in mind that the better quality or greater quantity of Work shall be provided in accordance with the City's interpretation:
- (1) This Agreement, the General Conditions, and all Exhibits hereto, as modified;
 - (2) Addenda, with those of later date having precedence over those of earlier date;
 - (3) City's Bid Package; and
 - (4) Drawings and Specifications.
- 3.6 In the case of an inconsistency between the Drawings and Specifications or within either document not clarified by an Addendum, the better quality or greater quantity of Work shall be provided in accordance with the City's interpretation.

Article 4. CONTRACT SUM.

- 4.1 The City shall pay, and the Contractor shall accept, as full and complete payment for the Contractor's timely performance of its obligations hereunder, the Contract Price (including all Contractor fees) of _____ dollars (\$ _____), subject to additions and deductions by Change Order as provided in the Contract Documents. The Contract Price shall include Contractor's Fee for the proper performance of the Work. Contractor agrees and represents that the level of staffing, administrative resources, and other conditions of General Conditions shall be sufficient for the Project throughout completion of the Work.
- 4.2 It is the intent and understanding of Contractor in providing a Contract Price for this Work, that the Contract Documents provide for the construction of the Work by the Contractor, including all devices, fasteners, materials or other work not shown in the Drawings but which are reasonably inferable therefrom and any and all incidental accessories necessary to complete the Work (even if not specified in the description of the Work, but necessary for proper installation and operation (not arising from a design deficiency in the design criteria of the equipment) of the Work as required by the Contract Documents), all of which shall be included as part of the Cost of the Work. The expression "reasonably inferable" and similar terms in the Contract Documents shall be interpreted to mean reasonably inferable by a contractor familiar with the Work and exercising the care, skill and diligence of the Contractor by the Contract Documents. Notwithstanding, the foregoing shall not be construed to impose any design responsibility on Contractor except where such design responsibility is contractually required or an existing requirement of Florida law in the performance of the Work or the Contract Documents.
- 4.3 To the extent that the Drawings and Specifications are anticipated to require further development by the Consultant, Contractor shall include in the Contract Price for such further development consistent with the Contract Documents and reasonably inferable therefrom as necessary to produce the indicated results (not arising from a design deficiency in the design criteria). Such further development does not include changes in scope, systems, kinds and quality of materials,

finishes or equipment, all of which, if required, shall be incorporated by Change Order. Contractor will construct the Project in strict accordance with the Contract Documents.

4.4 Subcontractor Buyout/Value Engineering

4.4.1 Contractor shall work with the City to negotiate the most complete and economical deals with the Subcontractors that have not been “bought out” as of the date of this Agreement in order to establish and or achieve the Contract Price.

4.4.2 In addition, in order to control costs, the Contractor shall submit to the City, for the City’s review for any unbought scope of Work, (i) a bid analysis and list of proposed Subcontractors for the performance of the several portions of the Work, (ii) the scope of Work to be performed under each respective subcontract, (iii) a detailed estimate of the Cost of the Work based on such bids, (iv) a list of alternate selections of persons or entities for each proposed Subcontractor and their respective bids, along with a list of the differences between the alternate bids and those set forth in the bid analysis, and (v) the instructions, clarifications, written responses, and other information given to or submitted by the bidders. The Contractor shall consult with the City before awarding the subcontract and shall provide the City with a copy of each proposed subcontract for the City’s review. The Contractor shall provide the City with a complete copy of each executed subcontract.

4.4.3 Until the Subcontractor Buyout is complete, Contractor shall provide City with written ongoing budget updates on a weekly basis or as requested by City.

4.4.4 Contractor shall participate in Value Engineering the Contract Documents with the City and/or Consultant with the goal of finding acceptable means for reducing the Cost of the Work. Upon acceptance by City of recommendation for Value Engineering, the Contract Documents shall be modified to reflect such changes. All savings in connection with Value Engineering of the Work shall revert to City.

4.5 Contractor represents to City that prior to execution of this Agreement, Contractor has compared and reviewed all general and specific details on the Drawings and that all conflicts, discrepancies, errors, and omissions, which are within the commonly accepted knowledge base of a licensed general contractor and subcontractors, or which a reasonably prudent licensed general contractor or subcontractor would have discovered, have been disclosed to the City. Contractor shall represent the same upon inspection of any Drawings prepared after execution of this Agreement. Therefore, Contractor warrants that 1) the Contract Price includes, without limitation, the cost of correcting all conflicts, discrepancies, errors, or omissions which Contractor identified; 2) that Contractor’s review and comparison of all drawings has been taken into consideration the Project can be constructed in accordance with the Contract Documents and therefore, the Contractor represents that the Contract Price represents the total cost of the Work; 3) that Contractor can complete the Project in the time set forth in the Agreement and the approved Project Schedule; and 4) that Contractor has considered all customary issues that could impact price and time, including the inefficiencies pertaining to the Pandemics as well as the Ukrainian Military Conflict.

4.6 Schedule of Values. The Contractor shall provide to City, for City’s written approval, a written Schedule of Values with supporting Subcontractor bids and scope of work used to establish each line item in the Contract Price, which Schedule of Values shall be used for all payment applications going forward.

Article 5. CONTRACT TIME; LIQUIDATED DAMAGES.

5.1 The work will be substantially completed within **three hundred and thirty-five (335)** calendar days from the date of the issuance of the Notice to Proceed and completed and ready for final payment in accordance with paragraph 15.13 of the General Conditions within **thirty (30) calendar days** from the date of Substantial Completion.

5.2 Liquidated Damages. The CITY and CONTRACTOR recognize that time is of the essence of this Agreement and that the CITY will suffer financial loss if the Work is not completed within the times specified in paragraph 5.1 above, plus any extensions thereof allowed solely in accordance with Article 13 of the General Conditions.

They also recognize that the actual loss suffered by the CITY if the Work is not completed on time is not readily ascertainable at the time of entering this Contract. Accordingly, instead of requiring any such proof, the CITY and CONTRACTOR agree that as liquidated damages for delay (but not as a penalty) CONTRACTOR shall pay the CITY for each calendar day that expires after the time specified in paragraphs 5.1 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 Contract Time or any proper extension thereof granted by the CITY, CONTRACTOR shall pay the CITY for each calendar day that expires after the time specified in paragraph 5.1 for completion and readiness for final payment. CONTRACTOR expressly acknowledges that such sum is not payable as a penalty but as liquidated damages representing a reasonable estimate of delay damages, inconvenience, and additional overhead and costs likely to be sustained by the CITY, estimated at the time of executing the Contract. If the CITY reasonably believes in its discretion that Substantial Completion will be delayed, it shall be entitled, but not required to withhold from any amounts otherwise due the CONTRACTOR an amount then believed by the CITY to be adequate to recover liquidated damages applicable to such delays. Partial use or occupancy of the Work shall not result in the Work deemed substantially completed, and such partial use or occupancy shall not be evidence of Substantial Completion.

5.2.1 Amount of Liquidated Damages. Applicable liquidated damages are the amounts established in the following schedule:

<u>Original Contract Amount</u>	<u>Daily Charge Per Calendar Day</u>
\$299,999 and under.....	\$980
\$300,000 but less than \$2,000,000.....	\$1,699
\$2,000,000 but less than \$5,000,000.....	\$2,650
\$5,000,000 but less than \$10,000,000.....	\$3,819
\$10,000,000 but less than \$20,000,000.....	\$4,687
\$20,000,000 but less than \$40,000,000.....	\$7,625
\$40,000,000 and over.....	\$10,467 plus 0.00005 of any amount over \$40 million (rounded to nearest whole dollar)

5.2.2 The above liquidated damages provision shall not affect the City's right to terminate this Agreement as provided in this Agreement nor shall it limit any of the other remedies as provided in the Contract Documents. The City's exercise of its right to terminate this Agreement shall not release City's claim for liquidated damages in the amount set forth herein or Contractor's defenses thereto.

5.2.3 Assessments of liquidated damages shall be immediately due and payable to the City or, at the City's option, may be deducted from payments that may be due and owing to Contractor. To the extent the City agrees in writing to phased Substantial Completion, the above-referenced liquidated damages will apply as to each respective phase of Substantial Completion.

5.2.4 Any Subcontract Agreements providing for liquidated damages at a per diem amount lower than the per diem amount set forth in this Agreement is subject to City's prior written approval.

5.3 Recovery of Damages Suffered by Third Parties. In addition to the damages provided for in paragraph 5.2.1 and pursuant to Section 337.18 of the Florida Statutes, when the CONTRACTOR fails to complete the work within the Contract Time the CITY may recover from the CONTRACTOR

amounts that the CITY pays for damages suffered by third parties unless the failure to timely complete the work was caused by the CITY's act or omission.

- 5.4 In addition to the liquidated damages set forth above, City shall also be entitled to proceed directly against Subcontractors and suppliers (in Contractor's name) responsible for delays in achieving Substantial Completion for the full amount of damages City has incurred, plus any and all acceleration and/or Extraordinary Measures costs as provided in the General and Supplementary Conditions. Said pass-through claim shall be at Contractor's sole cost and expense.

Further, Contractor shall make appropriate claim(s) against all available insurance and the Subcontractor, supplier, and/or manufacturer responsible for delays in achieving Substantial Completion, and if the Subcontractor, supplier and/or manufacturer fails to pay costs incurred by Contractor and the City for the City's actual damages, acceleration, and/or Extraordinary Measures costs, Contractor shall default or terminate such Subcontractor and/or supplier and Contractor shall make and diligently pursue, at Contractor's sole cost and expense, the appropriate claim against its Subcontractors, for the benefit of City. Any recovery from Contractor's Subcontractors and suppliers shall be included in fully compensating City, and not in place of City's recovery of liquidated damages from Contractor. To assist City with claims against Subcontractors and suppliers as set forth above, Contractor shall provide City with Project Records as determined by City to assist City in identifying Contractor's Subcontractors and suppliers responsible for delays in achieving Substantial Completion and or Final Completion.

Article 6. PAYMENT PROCEDURES.

CONTRACTOR shall submit Applications for Payment in accordance with Article 15 of the General Conditions. Applications for Payment will be processed by the CONSULTANT as provided in the General Conditions.

**ATTN: Engineering Division Manager
Engineering Division, Public Works Department
Swinton Operations Complex
434 South Swinton Avenue
Delray Beach, Florida 33444**

- 6.1 Progress Payments. The CITY shall make progress payments on account of the Contract Price on the basis of CONTRACTOR'S Applications for Payment as recommended by CONSULTANT, on or about the First day of each month during construction as provided below and to the extent Contractor's Applications for Payment are timely submitted pursuant to the Contract Documents. All progress payments will be on the basis of the progress of the Work measured by the Schedule of Values initially submitted by the Contractor and approved by the City as established in Paragraph 3.6.3 of the General Conditions and in the case of Unit Price Work based on the number of units completed or, in the event there is no schedule of values, as provided in the General Requirements. Each Application for Payment submitted by the Contractor shall be accompanied by substantiating data and lien waivers as provided in the Contract Documents.
- 6.1.1 Prior to Substantial Completion progress payments will be made in an amount equal to 90% of the work completed until 50% of the work has been completed and installed, then payment may be made in an amount equal to 95% of the work completed, but in each case, less the aggregate of payments previously made and less such amounts as CONSULTANT shall determine, or the CITY may withhold, in accordance with paragraph 15.7 of the General Conditions.
- 6.1.2. Prior to Substantial Completion, progress payments for materials and equipment not incorporated in the Work but delivered and suitably stored and accompanied by documentation satisfactory to the CITY, as provided in paragraph 15.2 of the General Conditions, will be made in an amount equal to 0% as established by the Schedule of Values.

- 6.1.3 The CITY is entitled to withhold amounts due CONTRACTOR for any defective or non-conforming work as well as for liquidated damages.
- 6.1.4 In addition, as a further condition to payment of each progress payment, Contractor shall submit to the City and Consultant: (i) a sworn and certified Progress Payment Affidavit, which recites that all laborers, material suppliers and Subcontractors dealing with the Contractor have been paid in full through the date of the prior application for payment which has been received by Contractor from City, with the exception of disputed payments; (ii) a partial release of lien conditioned upon payment from Contractor for the current Application for Payment, (iii) partial releases of lien from all lienors providing Work on the applicable Application for Payment through the date of the last payment made, (iv) partial releases of lien conditioned only upon payment from all lienors providing Work on the applicable Application for Payment, through the date of the current Application for Payment, (v) any evidence of payment of any indebtedness incurred with respect to the Work of Contractor, as may be required by the Consultant and such other evidence that Consultant may reasonably require substantiating that all Work which is the subject of each such Application for Payment has been performed, and (vi) where required by any manufacturers for extended warranties, inspection certificates or other acceptable documentation confirming the acceptable completion of any and all required inspections for the Work performed for which payment is being made.
- 6.1.5 Each Application for Payment shall be based on the Schedule of Values approved by the City unless subsequently amended by Change Order in accordance with the Contract Documents. If the Schedule of Values is subsequently amended by Change Order in accordance with the Contract Documents, then each subsequent Application for Payment shall be based on the Amended Schedule of Values. The Schedule of Values shall allocate the entire GMP among the various portions of the Work. As individual subcontracts are executed, the actual subcontract value will be identified separately in the Schedule of Values in place of any estimates that made up the original GMP, with any remaining portion of the line item carried in the same scope of Work, to complete the Work in any particular division, as long as the GMP is not increased. The Schedule of Values shall be prepared in such form and supported by such data to substantiate its accuracy as the City or Consultant may require. This Schedule of Values and each update approved by the City shall be used as a basis for reviewing the Contractor's Applications for Payment.
- 6.1.6 In taking action on the Contractor's Application For Payment, the Consultant and the City shall be entitled to reply on the accuracy and completeness of the information furnished by the Contractor and shall not be deemed to represent that the City and/or Consultant has made a detailed examination, audit, or arithmetic verification of the documentation submitted in accordance with this Article or other supporting data; that the Consultant and/or the City has made exhaustive or continuous on-site inspections; or that the City and/or Consultant has made examinations to ascertain how or for what purposes the Contractor has used amounts previously paid on account of the Agreement. Such examinations, audits, and verifications, if required by City, will be performed by the City's auditors acting in the sole interest of the City.
- 6.1.7 For each progress payment made prior to Substantial Completion of the Work as defined in the Contract Documents, determined and certified by Consultant and/or the City, the City may withhold the following amount, as retainage, from the payment otherwise due: Five Percent (5%) of all payments until the Work reaches Final Completion as defined in the Contract Documents and determined and certified by Consultant and City. Contractor shall include a similar retainage provision pertaining to its subcontractors and suppliers.
- 6.1.8 In the event of any default by the Contractor under the Contract Documents for which the Contractor has not cured or commenced to cure, the City may withhold any payment or part of any payment in the amount of the costs and damages incurred by City to correct,

remedy and/or mitigate any Contractor defaults or the amount of the costs of damages, including Liquidated Damages (provided the Contract Time has expired), reasonably estimated to be incurred to correct, remedy and/or mitigate any Contractor defaults including, but not limited to: (1) defective Work not remedied; (2) claims or liens filed; (3) failure of the Contractor to make payments in accordance with the terms of this Agreement and the subcontract agreements for properly performed Work by the Subcontractors or for labor, materials, or equipment; (4) failure to provide waivers of lien for all lienors giving notices; (5) damage to the City's property caused by Contractor, its Subcontractors or anyone working for Contractor, notwithstanding insurance coverage as required by the Contract Documents; (6) failure of the Work to progress satisfactorily or according to schedule; and (7) failure to carry out the Work in accordance with the Contract Documents.

- 6.2 Final Payment. Upon final completion and acceptance of the Work in accordance with paragraph 15.13 of the General Conditions, the CITY shall pay the remainder of the Contract Price as recommended by CONSULTANT as provided in said paragraph 15.13.
- 6.3 The making of progress payments or Final Payment shall not constitute or be deemed to be a waiver by the City of any claims which the City may have against the Contractor under the provisions of this Agreement or otherwise: and provided, further, that the making of the Final Payment shall not be deemed a waiver by the City of any claims which the City may have against the Contractor for latent defects or any other defect or an incomplete item which is not readily apparent at the time such Final Payment is made; and provided further, that the making of Final Payment shall not be deemed a waiver by the City of any obligation of the Contractor under the provisions of the Contract Documents or otherwise to repair or correct any Work or materials that prove defective as a result of faulty materials, equipment or workmanship.
- 6.4 Acceptance of Final Payment by the Contractor, a Subcontractor or material or equipment supplier shall constitute a waiver of claims by that payee except those previously made in writing and identified by that payee as unsettled at the time of final Application for Payment or as provided in this Agreement.

Article 7. SUBCONTRACTS.

No more than sixty percent (60%) of the dollar value of the total Work under the Contract Documents may be accomplished by subcontractors. The balance of Work must be accomplished by selected CONTRACTOR'S own forces.

Article 8. CONTRACTOR'S REPRESENTATIONS.

In order to induce the CITY to enter into this Agreement CONTRACTOR makes the following representations:

- 8.1 CONTRACTOR has familiarized itself with the nature and extent of the Contract Documents, Work, site, locality, and all local conditions and Laws and Regulations that in any manner may affect cost, progress, performance or furnishing of the Work.
- 8.2 CONTRACTOR has obtained at his/her own expense and carefully studied, or assumes responsibility for obtaining and carefully studying, soil investigations, explorations, and test reports which pertain to the subsurface conditions at or contiguous to the site or otherwise may affect the cost, progress, performance or furnishing of the Work as CONTRACTOR considers necessary for the performance or furnishing of the Work at the Contract Price, within the Contract Price, within the Contract Time and in accordance with the other terms and conditions of the Contract Documents, including specifically the provisions of paragraph 4.2 of the General Conditions; and no additional examinations, investigations, explorations, tests, reports, studies or similar information or data are or will be required by CONTRACTOR for such purposes.

- 8.3 CONTRACTOR has reviewed and checked all information and data shown or indicated on the Contract Documents with respect to existing Underground Facilities at or contiguous to the site and assumes responsibility for the accurate location of said Underground Facilities. No additional examinations, investigations, explorations, tests, reports, studies or similar information or data in respect of said Underground Facilities are or will be required by CONTRACTOR in order to perform and furnish the Work at the Contract Price, within the Contract Time and in accordance with the other terms and conditions of the Contract Documents, including specifically the provisions of Paragraph 4.3 of the General Conditions
- 8.4 CONTRACTOR has correlated the results of all such observations, examinations, investigations, explorations, tests, reports and studies with the terms and conditions of the Contract Documents.
- 8.5 CONTRACTOR has given CONSULTANT prompt written notice of all conflicts, errors or discrepancies that he has discovered in the Contract Documents no later than seven (7) calendar days from discovery of such, and the written resolution thereof by CONSULTANT is acceptable to CONTRACTOR.

Article 9. NO DAMAGES FOR DELAY.

- 9.1 All time in the Contract Documents is calculated on a consecutive calendar day basis.
- 9.2 Time is of the essence in this Agreement, and any breach of same shall go to the essence hereof, and CONTRACTOR, in agreeing to complete the Work within the time herein mentioned, has taken into consideration and made allowances for all reasonable hindrances and delays incident to Contractor's Work.
- 9.3 CONTRACTOR agrees to commence the Work when directed by the CITY and to diligently and continuously perform such Work and to coordinate the Work with other Work being performed on the Project by other trades and/or Separate Contractors, if any, so that the CITY shall not be delayed by any act or omission of CONTRACTOR in completion of the Project within the time specified above.
- 9.4 CONTRACTOR shall not be entitled to any claim for damages on account of hindrance or delays from any cause whatsoever, but if caused by any act of God or active interference on the part of the CITY, such act, hindrance or delay may only entitle the CONTRACTOR to receive an extension of time as its sole and exclusive remedy for such delay, as set forth in Article 13 of the Contract General Conditions. Contractor shall not be entitled to an increase in the GMP or to payment of any other additional monies from the City for costs incurred as a result of such delay, including additional or extended General Conditions costs or General Requirements costs. The City's exercise of its rights under this Agreement shall in no way be considered active interference.
- 9.4.1 An extension of time to complete the Work shall be determined by the CONSULTANT provided the CONTRACTOR provides CONSULTANT and CITY with notice in writing of the cause of said act, hindrance, or delay within twenty (20) calendar days after its occurrence.
- 9.4.2 In the event the request for extension is not made in writing within that twenty-day time period, CONTRACTOR acknowledges and agrees it has forever waived any and all rights to such an extension.
- 9.4.3 All extensions of time shall be authorized only by a written change order executed by the CITY, CONSULTANT, and CONTRACTOR; in the absence of a written and fully executed change order, CONTRACTOR shall not be entitled to any claim for additional time.
- 9.4.4 This "no damage for delay" provision shall encompass any damages for delay or disruption even if the CONTRACTOR completes construction of the Work in a timely fashion in accordance with this Agreement.

9.4.5 Damages as referenced in this “no damage for delay” provision shall include any type of damages that are or could be awarded by any court or arbitration panel such as, by way of general example, but not limitation, tort, contract, strict liability, consequential damages, liquidated damages and/or punitive damages.

9.4.6 The CONTRACTOR recognizes and specifically acknowledges the terms and conditions of this “no damage for delay” clause upon execution of this Contract.

Article 10. CONTRACT DOCUMENTS.

- 10.1 This Agreement.
- 10.2 Advertisement for Bids.
- 10.3 Instructions to Bidders.
- 10.4 Bid Submittal.
- 10.5 Bid Bond.
- 10.6 Florida Performance and Payment Bonds.
- 10.7 Certificates of Insurance.
- 10.8 Notice of Intent to Award.
- 10.9 Notice to Proceed.
- 10.10 Certificate of Substantial Completion.
- 10.11 Warranty of Title.
- 10.12 Final Receipt.
- 10.13 Standard General Conditions.
- 10.14 Technical Specifications.
- 10.15 Construction Plans dated _____.

with each sheet bearing the following general title:

ITBC NO.: 2026-014
Brant Bridge Connector
CITY PROJECT NO.: 20-015
FDOT LAP Project No. 441586-1-58-01

- 10.16 Exhibits to this Agreement.
- 10.17 Addenda number _____ to _____, inclusive.
- 10.18 The following which may be delivered or issued after the Effective Date of the Agreement and are not attached hereto: All Written Amendments and other documents amending, modifying, or

supplementing the Contract Documents pursuant to paragraphs 4.4 and 4.5 of the General Conditions.

- 10.19 The documents listed above are attached to this Agreement (except as expressly noted otherwise above). There are no Contract Documents other than those listed above in this Article 10. The Contract Documents may only be amended, modified, or supplemented as provided in paragraphs 4.4 and 4.5 of the General Conditions.

Article 11. INDEMNITY.

- 11.1 In consideration of Ten Dollars (\$10.00) in hand paid and other valuable consideration, receipt of which is hereby acknowledged, CONTRACTOR agrees to defend, indemnify, and hold harmless the CITY, their agents, and employees in accordance with this Article 11 and paragraph 7.28 of the General Conditions which is incorporated herein and made a part hereof as if fully set forth herein. It is the specific intent of the parties hereto that the foregoing indemnification complies with Florida Statutes 725.06, as amended. It is further the specific intent and agreement of said parties that all of the Contract Documents on this Project are hereby amended to include the foregoing indemnification and the "Specific Consideration" therefore.
- 11.2 To the fullest extent permitted by law, the Contractor shall defend, indemnify and hold harmless the City, the Consultant, and agents and employees of any of them from and against claims, damages, losses, and expenses, including but not limited to attorneys' fees (at the trial and appellate levels), arising out of or resulting from performance of the Work, regardless of whether or not such claim, damage, loss, or expense is caused in part by a party indemnified hereunder. Such obligation shall not be construed to negate, abridge, or reduce other rights or obligations of indemnity that would otherwise exist as to a party or person described in this Article 11.
- 11.3 In any and all claims against the Indemnified Parties by any employee of the Contractor, or anyone for whose acts any of them may be liable, the indemnification obligation under this provision of this Agreement shall not be limited in any way by any limitation on the amount or type of damages, compensation or benefits payable by or on behalf of the Contractor or any Subcontractor under Workers Compensation Acts, Disability Benefit Acts or other employee benefit acts.
- 11.4 The Parties hereto acknowledge and agree that, to the extent any portion of the indemnification provisions contained herein is deemed void or unenforceable in any action or proceeding, then such portion shall be considered severed such that it will not affect the remaining portions of these indemnification provisions.
- 11.5 The Indemnitors' indemnity obligations under this Section shall also specifically include, without limitation, all claims, fines, penalties, damages, liability, costs, fees, expenses (including, without limitation, reasonable attorneys' fees and expenses), and punitive and consequential damages (if any) arising out of, or in connection with or attributable to, any claims made against the Indemnified Parties for (i) bodily injury, sickness, disease, death, or destruction of tangible property caused by Contractor and/or any of its Subcontractors and/or Sub-subcontractors, (ii) violation of or failure to comply with any law, statute, ordinance, rule, regulation, code or requirement of a public authority that bears upon the performance of the Work by the Contractor, and/or any of the Indemnitors, or any person or entity for whom they are responsible, (iii) Contractor's failure to comply with any provision of the Contract Documents including Warranty obligations, and obligations to correct damaged and defective work, (iv) means, methods, procedures, techniques, or sequences of execution or performance of the Work, and/or (v) failure to secure and pay for permits, fees, approvals, licenses, and inspections as required under this Agreement and/or the other the Contract Documents, or any violation of any permit or other approval of a public authority applicable to the Work, by the Contractor, a Subcontractor, or any person or entity for whom either is responsible. Moreover, and without limiting the foregoing, the Indemnitor's indemnity obligations under this Section include any and all claims by third parties against Indemnified Parties for consequential damages arising from and/or in connection with this Agreement and/or the performance and/or failure of the Work.

- 11.6 The Contractor shall indemnify and hold harmless all of the Indemnified Parties from and against any costs and expenses (including reasonable attorneys' fees for all trial and appellate levels) incurred by any of the Indemnified Parties in enforcing any of the Contractor's defense, indemnity, and hold-harmless obligations under this Agreement.
- 11.7 The Contractor shall include in all Subcontracts provisions by which each Subcontractor agrees to defend, indemnify, and hold harmless Contractor and the Indemnified Parties from and against liability, damages, losses and costs, including, but not limited to, reasonable attorneys' fees for all trial and appellate levels, arising out of, in connection with, or resulting from the performance of the Work or any Subcontractor's obligations under the Contract Documents to the same extent and in the same manner as the Contractor is liable to the City pursuant to this provision.
- 11.8 The provisions of this Section shall survive Final Completion and Final Payment or termination of this Agreement.

Article 12. REIMBURSEMENT OF CONSULTANT EXPENSES.

Should the completion of this Agreement be delayed beyond the specified or adjusted time limit authorized by the City, CONTRACTOR shall reimburse the CITY for all expenses of CONSULTING and inspection incurred by the CITY during the period between said specified or adjusted time and the actual date of final completion. All such expenses for CONSULTING and inspection incurred by the CITY will be charged to CONTRACTOR and be deducted from payments due CONTRACTOR as provided by this Contract. Said expenses shall be further defined as CONSULTANT charges associated with the construction contract administration, including resident project representative costs.

Article 13. MISCELLANEOUS.

- 13.1 Terms used in this Agreement which are defined in Article 1 of the General Conditions will have the meaning indicated in the General Conditions.
- 13.2 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.
- 13.3 The CITY and CONTRACTOR each binds itself, its partners, its successors, assigns and legal representatives to the other party hereto, its partners, successors, assigns and legal representatives in respect of all covenants, agreements, and obligations contained in the Contract Documents.
- 13.4 The agreement shall be void if not signed by both the CITY and the CONTRACTOR.
- 13.5 No change or modification of this Agreement shall be valid unless in writing and signed by City and the duly authorized representative of Contractor. No waiver of any of the provisions of this Agreement shall be valid unless in writing and signed by the party against whom it is sought to be enforced.
- 13.6 The partial or complete invalidity of any one or more provisions of this Agreement shall not affect the validity or continuing force and effect of any other provision. The failure of either party hereto to insist, in any one or more instances, upon the performance of any of the terms, covenants or conditions of this Agreement, or to exercise any right herein, shall not be construed as a waiver or relinquishment of such term, covenant, condition or right as respects further performance.

Article 14. CITY PROVISIONS.

- 14.1 **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 AGREEMENT, CONTACT THE CUSTODIAN OF PUBLIC RECORDS AT CITY OF DELRAY BEACH, CITY CLERK, 100 N.W. 1ST AVE., DELRAY BEACH FLORIDA. THE CITY CLERK'S OFFICE MAY BE CONTACTED BY PHONE AT 561-243-7050 OR VIA EMAIL AT CITYCLERK@MYDELRAYBEACH.COM.**
- 14.2.1 Contractor shall comply with public records laws, specifically to:
- 14.2.1.1 Keep and maintain public records required by the City to perform the service.
 - 14.2.1.2 Upon request from the City's custodian of public records, 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 Florida Statute or as otherwise provided by law.
 - 14.2.1.3 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 Agreement term and following completion of the Agreement if the Contractor does not transfer the records to the City.
 - 14.2.1.4 Upon completion of the Agreement, 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 Agreement, 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 completion of the Agreement, 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's custodian of public records, in a format that is compatible with the information technology systems of the City.
 - 14.2.1.5 If the Contractor does not comply with this section, the City shall enforce the contract provisions in accordance with the contract and may unilaterally cancel this contract in accordance with state law.
- 14.2 Contractor is aware that the Inspector General of Palm Beach County has the authority to investigate and audit matters relating to the negotiation and performance of this contract and may demand and obtain records and testimony from Contractor and its subcontractors and lower tier subcontractors. Contractor understands and agrees that in addition to all other remedies and consequences provided by law, the failure of Contractor or its subcontractors and lower tier subcontractors to fully cooperate with the Inspector General when requested may be deemed by the City to be a material breach of this Agreement justifying its termination.
- 14.3 The continuation of this Agreement beyond the end of any fiscal year shall be subject to both the appropriation and the availability of funds in accordance with Florida law.
- 14.4 By entering into this Agreement Contractor acknowledges its obligation to comply with the provisions of Section 448.095, Fla. Stat., "Employment Eligibility." Contractor affirms and represents it is registered with the E-Verify system, utilizing same, and will continue to utilize same as required by law. Compliance with this section includes, but is not limited to, utilization of the E-Verify System to verify the work authorization status of all newly hired employees and requiring all subcontractors to provide an affidavit attesting that the subcontractor does not employ, contract

with, or subcontract with, an unauthorized alien. Failure to comply with this section will result in the termination of this Agreement, or if your subcontractor knowingly violates the statute, the subcontract must be terminated immediately. Any challenge to termination under this provision must be filed in the Circuit Court no later than 20 calendar days after the date of termination. If terminated for a violation of the statute by Contractor, the Contractor may be prohibited from conducting future business with the City or awarded a solicitation or contract for a period of 1 year after the date of termination. All costs incurred to initiate and sustain the aforementioned programs shall be the responsibility of the Contractor.

- 14.5 This Agreement shall be construed in accordance with the City of Delray Beach's Code of Ordinances and the laws of the State of Florida. Any dispute relating to this Agreement shall only be filed in a court of competent jurisdiction in Palm Beach County, Florida, and each of the parties to this Agreement submits itself to the jurisdiction of such court. It is hereby understood and agreed that in the event any lawsuit in the judicial system, federal or state, is brought to enforce compliance with this contract or interpret same, or if any administrative proceeding is brought for the same purposes, each party shall pay their own attorney's fees and costs, including appellate fees and costs.

Article 15. FDOT PROVISIONS.

In accordance with Florida Department of Transportation's Local Agency Program, projects receiving federal funds must comply with the following provisions:

15.1 Approved Product List

15.1.1 This list provides assurance to Contractors, consultants, designers, and Department personnel that specific products and materials are approved for use on Department facilities. The Department will limit the Contractor's use of products and materials that require use of APL items to those listed on the APL effective at the time of placement. Where the terms Qualified Products List (QPL) appear in the Contract Documents, they will be synonymous with Approved Product List (APL).

15.1.2 Manufacturers seeking to have a product evaluated for the APL must submit an application, available on the Department's website at the following URL:
<https://www.fdot.gov/programmanagement/ProductEvaluation/Default.shtm>

15.1.3 Applications must include the following documentation:

15.1.3.1 Supporting documentation as required by the Specifications, Standard Plans, and APL approval process. A sample may be requested to verify the product, in accordance with the specifications.

15.1.3.2 A photograph displaying the product as shipped with packaging.

15.1.3.3 A list displaying all components within the shipped packaging, if applicable.

15.1.3.4 Installation instructions and materials, if applicable.

15.1.3.5 Product packaging or product labels as required by the Specifications.

15.1.3.6 Construction material percentages and country source of materials.

15.1.3.7 Last two manufacturing steps and country of manufacture.

15.1.3.8 Manufacturer name and material designation (product name, product model/ part number /style number, etc.) must be as identified on the product, product packaging, and product labels.

- 15.1.3.9 Applications must be signed by a legally responsible person employed by the manufacturer of the product.
 - 15.1.4 Required test reports must be conducted by an independent laboratory or other independent testing facility. Required drawings and calculations must be signed and sealed by a Professional Engineer licensed in the State of Florida.
 - 15.1.5 Products that have successfully completed the Department's evaluation process are eligible for inclusion on the APL. Manufacturers are required to submit requests to the Department for approval of any modifications or alterations made to a product listed on the APL. This includes, but is not limited to, design, raw material, or manufacturing process modifications. Modification or alteration requests must be submitted along with supporting documentation that the product continues to meet Section 6, the Specification, or Standard Plans requirements. A product sample and additional product testing and documentation may be required for the modification evaluation. Any marked variations from original test values, failure to notify the Department of any modifications or alterations, or any evidence of inadequate performance of a product may result in removal of the product from the APL.
 - 15.1.6 Manufacturers must submit supporting documentation to the Department for a periodic review and re-approval of their APL products on or before the product's original approval anniversary. APL products that are not re-approved may be removed from the APL. Documentation requirements for the product review and re-approval, including schedule and criteria, are available on the Department's website at the following URL:
<https://www.fdot.gov/programmanagement/ProductEvaluation/Default.shtm>
- 15.2 Products and Source of Supply.
- 15.2.1 Source of Supply—Convict Labor (Federal-Aid Contracts Only)
 - 15.2.1.1 Do not use materials that were produced after July 1, 1991, by convict labor for Federal-aid highway construction projects unless the prison facility has been producing convict-made materials for Federal-aid highway construction projects before July 1, 1987.
 - 15.2.1.2 Use materials that were produced prior to July 2, 1991, by convicts on Federal-aid highway construction projects free from the restrictions placed on the use of these materials by 23 U.S.C. 114. The Department will limit the use of materials produced by convict labor for use in Federal-aid highway construction projects to (1) materials produced by convicts on parole, supervised release, or probation from a prison or (2) materials produced in a qualified prison facility.
 - 15.2.1.3 The amount of such materials produced for Federal-aid highway construction during any 12-month period shall not exceed the amount produced in such facility for use in such construction during the 12-month period ending July 1, 1987.
 - 15.2.2 Source of Supply
Comply with Section 70914 of Public Law No. 117-58, §§ 70901-52, also known as the Infrastructure Investment and Jobs Act (IIJA), Public Law 117-58, which includes the Build America, Buy America Act (BABA). Domestic compliance for all affected products will be listed on the APL.

15.2.2.1 Steel and Iron

Use steel and iron manufactured in the United States, in accordance with the Buy America provisions of 23 CFR 635.410, as amended. Ensure that all manufacturing processes for this material occur in the United States. As used in this specification, a manufacturing process is any process that modifies the chemical content, physical shape or size, or final finish of a product, beginning with the initial melting and continuing through the final shaping and coating. If a steel or iron product is taken outside the United States for any manufacturing process, it becomes foreign source material. When using steel or iron materials as a component of any manufactured product (e.g., concrete pipe, prestressed beams, corrugated steel pipe, etc.), these same provisions apply. Foreign steel and iron may be used when the total actual cost of such foreign materials does not exceed 0.1% of the total Contract amount or \$2,500, whichever is greater. These requirements are applicable to all steel and iron materials incorporated into the finished work but are not applicable to steel and iron items that the Contractor uses but does not incorporate into the finished work. Submit a certification from the manufacturer of steel or iron, or any product containing steel or iron, stating that all steel or iron furnished or incorporated into the furnished product was produced and manufactured in the United States or a statement that the product was produced within the United States except for minimal quantities of foreign steel and iron valued at \$ (actual cost). Submit each such certification to the Engineer prior to incorporating the material or product into the project. Prior to the use of foreign steel or iron materials on a project, submit invoices to document the actual cost of such material, and obtain the Engineer's written approval prior to incorporating the material into the project.

15.2.2.2 Manufactured Products

Use Manufactured Products that are consumed in, incorporated into, or affixed to an infrastructure project that are manufactured in the United States, in accordance with BABA requirements and applicable waivers.

15.2.2.3 Construction Materials

Use non-ferrous metals, plastic and polymerbased products, glass, lumber, and drywall articles, materials, and supplies that are consumed in, incorporated into, or affixed to an infrastructure project that are manufactured in the United States, in accordance with BABA requirements.

15.2.2.4 Exemptions to Build America, Buy America

Temporary devices, equipment, and other items removed at or before the completion of the project are exempt from BABA funding eligibility requirements. Aggregates, cementitious materials, and aggregate binding agents or additives are exempted from BABA funding eligibility requirements.

15.3 Compliance with Federal Endangered Species Act and other Wildlife Regulations

15.3.1 The Federal Endangered Species Act requires that the Department investigate the potential impact to a threatened or endangered species prior to initiating an activity performed in conjunction with a highway construction project. If the Department's investigation determines that there is a potential impact to a protected, threatened or an endangered species, the Department will conduct an evaluation to determine what measures may be necessary to mitigate such impact. When mitigation measures and/or

- special conditions are necessary, these measures and conditions will be addressed in the Contract Documents or in permits as identified in FDOT Specifications Section 7-2.1.
- 15.3.2 In addition, in cases where certain protected, threatened or endangered species are found or appear within close proximity to the project boundaries, the Department has established guidelines that will apply when interaction with certain species occurs, absent of any special mitigation measures or permit conditions otherwise identified for the project.
- 15.3.3 These guidelines are posted at the following URL address:
<https://www.fdot.gov/docs/default-source/programmanagement/Implemented/URLinSpecs/files/endangeredwildlifeguidelines.pdf>
- 15.3.4 Take responsibility to obtain this information and take all actions and precautions necessary to comply with the conditions of these guidelines during all project activities.
- 15.3.5 Prior to establishing any off-project activity in conjunction with a project, notify the Engineer of the proposed activity. Covered activities include but are not necessarily limited to borrow pits, concrete or asphalt plant sites, disposal sites, field offices, and material or equipment storage sites. Include in the notification the Financial Project ID, a description of the activity, the location of the site by township, range, section, county, and city, a site location map including the access route, the name of the property owner, and a person to contact to arrange a site inspection. Submit this notification at least 30 days in advance of planned commencement of the off-site activity, to allow for the Department to conduct an investigation without delaying job progress.
- 15.3.6 Do not perform any off-project activity without obtaining written clearance from the Engineer. In the event the Department's investigation determines a potential impact to a protected, threatened or endangered species and mitigation measures or permits are necessary, coordinate with the appropriate resource agencies for clearance, obtain permits and perform mitigation measures as necessary. Immediately notify the Engineer in writing of the results of this coordination with the appropriate resource agencies. Additional compensation or time will not be allowed for permitting or mitigation, associated with Contractor initiated off-project activities.
- 15.4 Compliance with Section 4(f) of the USDOT Act
- 15.4.1 Section 4(f) of the USDOT Act prohibits the U. S. Secretary of Transportation from approving a project which requires the use of publicly owned land of a public park, recreation area or a wildlife and waterfowl refuge, or of any historic site of national, state, or local significance unless there is no prudent or feasible alternative to using that land and the program or project includes all possible planning to minimize the harm to the site resulting from the use.
- 15.4.2 Before undertaking any off-project activity associated with any federally assisted undertaking, ensure that the proposed site does not represent a public park, recreation area, wildlife or waterfowl refuge, or a historic site (according to the results of the Cultural Resources Survey discussed in 120-6.2). If such a site is proposed, notify the Engineer and provide a description of the proposed off-site activity, the Financial Project ID, the location of the site by township, range, section, a county or city map showing the site location, including the access route and the name of the property. It is the Contractor's responsibility to submit justification for use of Section 4(f) property that is sufficient for the Florida Department of Transportation and the Federal Highway Administration to make a Section 4(f) determination. Submit this notification sufficiently in advance of planned commencement of the off-site activity to allow a reasonable time for the Engineer to conduct an investigation without delaying job progress. Do not begin any off-project activity without obtaining written clearance from the Engineer.

15.5 Wage Rates for Federal-Aid Projects.

15.5.1 For all projects that include Federal-aid participation, the Special Provisions contain requirements with regard to payment of predetermined minimum wages. Predetermined Wage Rate Decisions (U.S. Department of Labor provided Wage Rate Tables) exist for Heavy, Highway, and Building Construction Projects.

15.5.2 For this Contract, payment of predetermined minimum wages applies. The U.S. Department of Labor (USDOL) Wage Rates applicable to this Contract are listed in table below, as modified up through ten days prior to the opening of bids.

<u>Wage Rate Decision Number</u>	<u>Associated Work</u>
FL20250264 (01/03/2025)	Highway Construction Projects

15.5.3 Obtain the applicable General Decision(s) (Wage Tables) through the Department's Office of Construction website and ensure that employees receive the minimum compensation applicable. Review the General Decisions for all classifications necessary to complete the project. Request additional classifications through the Engineer's office when needed.

15.5.4 For guidance on the requirements for the payment of wages and benefits and the submittal of certified payrolls, and for general guidance and examples of multiple wage rates when assigned to a Contract, refer to the Department's Office of Construction website. Questions regarding wage rates and the applicability of wage tables should be submitted in accordance with FDOT Specifications Section 2-4.

15.6 Disadvantaged Business Enterprise Program.

15.6.1 Disadvantaged Business Enterprise Affirmative Action Plan
Prior to award of the Contract, have an approved Disadvantaged Business Enterprise (DBE) Affirmative Action Program Plan filed with the Equal Opportunity Office. Update and resubmit the plan every three years. No Contract will be awarded until the Department approves the Plan. The DBE Affirmative Action Program Plan is incorporated into and made a part of the Contract.

FDOT's program is race neutral with a 10.54% statewide goal.

15.6.2 Required Contract and Subcontract DBE Assurance Language
In accordance with 49 CFR 26.13 (b), the Contract FDOT signs with the Contractor (and each subcontract the prime contractor signs with a subcontractor) must include the following assurance: "The Contractor, sub-recipient or subcontractor shall not discriminate on the basis of race, color, national origin, or sex in the performance of this contract. The Contractor shall carry out applicable requirements of 49 CFR Part 26 in the award and administration of DOT-assisted Contracts. Failure by the Contractor to carry out these requirements is a material breach of this Contract, which may result in the termination of this Contract or such other remedy as the recipient deems appropriate, which may include, but is not limited to:

15.6.2.1 Withholding monthly progress payments;

15.6.2.2 Assessing sanctions;

15.6.2.3 Liquidated damages; and/or

15.6.2.4 Disqualifying the Contractor from future bidding as non-responsible.

15.6.3 Plan Requirements:

Include the following in the DBE Affirmative Action Program Plan:

15.6.3.1 A policy statement, signed by an authorized representative (president, chief executive officer, or chairman of the contractor), expressing a commitment to use DBEs in all aspects of contracting to the maximum extent feasible, outlining the various levels of responsibility, and stating the objectives of the program. Circulate the policy statement throughout the Contractor's organization.

15.6.3.2 The designation of a Liaison Officer within the Contractor's organization, as well as support staff, necessary and proper to administer the program, and a description of the authority, responsibility, and duties of the Liaison Officer and support staff. The Liaison Officer and staff are responsible for developing, managing, and implementing the program on a day-to-day basis for carrying out technical assistance activities for DBEs and for disseminating information on available business opportunities so that DBEs are provided an equitable opportunity to participate in Contracts let by the Department.

15.6.3.3 Utilization of techniques to facilitate DBE participation in contracting activities which include, but are not limited to:

15.6.3.3.1 Soliciting price quotations and arranging a time for the review of Plans, quantities, specifications, and delivery schedules, and for the preparation and presentation of quotations.

15.6.3.3.2 Providing assistance to DBEs in overcoming barriers such as the inability to obtain bonding, financing, or technical assistance.

15.6.3.3.3 Carrying out information and communication programs or workshops on contracting procedures and specific contracting opportunities in a timely manner, with such programs being bilingual where appropriate.

15.6.3.3.4 Encouraging eligible DBEs to apply for certification with the Department.

15.6.3.3.5 Contacting Minority Contractor Associations and city and county agencies with programs for disadvantaged individuals for assistance in recruiting and encouraging eligible DBE contractors to apply for certification with the Department.

15.6.4 DBE Records and Reports:

Submit the following through the Equal Opportunity Compliance System:

15.6.4.1 DBE Commitments - at or before the Pre-Construction Conference.

15.6.4.2 Report monthly, through the Equal Opportunity Compliance System on the Department's Website, actual payments (including retainage) made to DBEs for work performed with their own workforce and equipment in the area in which they are certified. Report payments made to all DBE and Minority

Business Enterprise (MBE) subcontractors and DBE and MBE construction material and major suppliers.

The Equal Opportunity Office will provide instructions on accessing this system. Develop a record keeping system to monitor DBE affirmative action efforts which include the following:

- 15.6.4.2.1 The procedures adopted to comply with these Specifications;
- 15.6.4.2.2 The number of subordinated Contracts on Department projects awarded to DBEs;
- 15.6.4.2.3 The dollar value of the Contracts awarded to DBEs;
- 15.6.4.2.4 The percentage of the dollar value of all subordinated Contracts awarded to DBEs as a percentage of the total Contract amount;
- 15.6.4.2.5 A description of the general categories of Contracts awarded to DBEs; and
- 15.6.4.2.6 The specific efforts employed to identify and award Contracts to DBEs. Upon request, provide the records to the Department for review. Maintain all such records for a period of five years following acceptance of final payment and have them available for inspection by the Department and the Federal Highway Administration.

15.6.5 Counting DBE Participation and Commercially Useful Functions:

49 CFR Part 26.55 specifies when DBE credit shall be awarded for work performed by a DBE. DBE credit can only be awarded for work actually performed by DBEs themselves for the types of work for which they are certified. When reporting DBE Commitments, only include the dollars that a DBE is expected to earn for work they perform with their own workforce and equipment. Update DBE Commitments to reflect changes to the initial amount that was previously reported or to add DBEs not initially reported. When a DBE participates in a contract, the value of the work is determined in accordance with 49 CFR Part 26.55, for example:

- 15.6.5.1 The Department will count only the value of the work performed by the DBE toward DBE goals. The entire amount of the contract that is performed by the DBE's own forces (including the cost of supplies, equipment and materials obtained by the DBE for the contract work) will be counted as DBE credit.
- 15.6.5.2 The Department will count the entire amount of fees or commissions charged by the DBE firm for providing a bona fide service, such as professional, technical, consultant, or managerial services or for providing bonds or insurance specifically required for the performance of a Department-assisted contract, toward DBE goals, provided that the Department determines the fees to be reasonable and not excessive as compared with fees customarily followed for similar services.
- 15.6.5.3 When the DBE subcontracts part of the work of its contract to another firm, the Department will count the value of the subcontracted work only if the DBE's subcontractor is itself a DBE. Work that a DBE subcontracts to a non-DBE firm does not count toward DBE goals.

- 15.6.5.4 When a DBE performs as a participant in a joint venture, the Department will count the portion of the dollar value of the contract equal to the distinct, clearly defined portion of the work the DBE performs with its own forces toward DBE goals.
 - 15.6.5.5 The Contractors shall ensure that only expenditures to DBEs that perform a commercially useful function (CUF) in the work of a contract may be counted toward the voluntary DBE goal.
 - 15.6.5.6 A DBE performs a commercially useful function when it is responsible for execution of the work of the contract and is carrying out its responsibilities by actually performing, managing, and supervising the work involved. To perform a commercially useful function, the DBE must also be responsible, with respect to materials and supplies used on the contract, for negotiating price, determining quality and quantity, ordering the material, and installing (where applicable) and paying for the material itself.
 - 15.6.5.7 Contractors wishing to use joint checks involving DBE credit must provide written notice to the District Contract Compliance Office prior to issuance of the joint check. The Contractor must also provide a copy of the notice to the DBE subcontractor and maintain a copy with the project records.
 - 15.6.5.8 To determine whether a DBE is performing a commercially useful function, the Department will evaluate the amount of work subcontracted, industry practices, whether the amount the firm is to be paid under the contract is commensurate with the work it is actually performing and the DBE credit claimed for its performance of the work, and other relevant factors.
 - 15.6.5.9 A DBE does not perform a commercially useful function if its role is limited to that of an extra participant in a transaction, contract, or project through which funds are passed in order to obtain the appearance of DBE participation.
 - 15.6.5.10 If a DBE does not perform or exercise responsibility for at least 30% of the total cost of its contract with its own workforce, or if the DBE subcontracts a greater portion of the work of a contract than would be expected on the basis of normal industry practice for the type of work involved, the DBE has not performed a commercially useful function.
- 15.6.6 Prompt Payments: Meet the requirements of FDOT Specification Section 9-5 for payments to all DBE subcontractors.
- 15.7 On-The-Job Training Requirements

As part of the Contractor's equal employment opportunity affirmative action program, the Contractor **shall** provide training aimed at developing full journeymen in a trade or job classification involved on all applicable roadway and bridge construction projects receiving federal funds

Training **shall** be provided as follows:

- 15.7.1 The anticipated minimum number of trainees will be initially derived from construction contract calendar days and dollar value as represented within the provided table in 15.7.3.1 below. A final training goal will be determined at the Training Evaluation Meeting based upon the Department's consideration of all relevant factors including qualitative evidence in the form of contractor efforts to advance equal employment opportunity beyond mere compliance with legal obligations; the availability of eligible trainees; potential for effective training; contractor workforce; project location; type of work and

work items; and contractor participation in other approved training or workforce development programs.

15.7.2 No trainees will be required for Federal-aid Contracts administered with a Contract Time allowance of less than 275 calendar days.

15.7.3 When the Contract Time allowance is 275 calendar days or more, the estimated required number of trainees shown in the provided table in 15.7.3.1 below, with all other relevant factors, be the basis in determining totals. The ability of the contractor to successfully achieve completion of required training goals is desired. From consideration of all criteria presented during the Training Evaluation Meeting, the District Contract Compliance Manager may adjust the minimum number of trainees regarding those totals.

15.7.3.1	<u>Estimated Contract Values</u>	<u>Anticipated Required Trainees</u>
	\$3,500,000 or less	0
	Over \$3,500,000 to \$7,500,000	2
	Over \$7,500,000 to \$12,000,000	3
	Over \$12,000,000 to \$20,000,000	4
	Over \$20,000,000 to \$30,000,000	6
	Over \$30,000,000 to \$40,000,000	8
	Over \$40,000,000 to \$60,000,000	10
	Over \$60,000,000 to \$75,000,000	12
	Over \$75,000,000 to \$90,000,000	14
	Over \$90,000,000 to \$100,000,000	15
	Over \$100,000,000 to \$125,000,000	17
	Over \$125,000,000 to \$150,000,000	20
	Over \$150,000,000 to \$175,000,000	22
	Over \$175,000,000 to \$200,000,000	25
	Over \$200,000,000*	

*One additional trainee per \$10,000,000 additional Construction Contract amount

15.7.4 Training and upgrading of minority, nonminority, women, and economically disadvantaged persons toward journeyman status is a primary objective of this Section. Accordingly, by conducting systematic and direct recruitment through public and private sources likely to yield minorities and women trainees, the Contractor **shall** make every effort to enroll candidates to the extent such individuals are located and available within a reasonable area of recruitment. This training is not intended, and **shall** not be used, to discriminate against any applicant or prevent access of, whether minority, nonminority, woman, or persons believed economically disadvantaged.

15.7.5 The intent of these provisions is to provide training in construction crafts rather than clerical type positions. Training is permissible in lower-level management positions such as Office Engineers, Estimators, etc., where the training is oriented toward construction applications. Training in the laborer classifications, except Common or General Laborer, may be permitted provided that significant and meaningful training plan is provided and approved by the District Contract Compliance Manager. Training as a Helper for any position, Rodman/Chainman, and Timekeeper classifications will not be approved for the On-The-Job Training Program.

15.7.6 The Contractor may incorporate the requirements of this Section, including responsibility for training a portion of trainees, in any such subcontract maintaining continued primary responsibility and satisfaction of requirements imposed by this Section.

15.7.7 The Department and the Contractor **shall** establish a training program which is tied to construction scope of work, length of operations, and satisfy all equal employment opportunity obligations of the Contractor. Other additionally recognized apprenticeship

or training programs may be considered acceptable provided those are being administered in a manner consistent with the equal employment obligations of Federal-aid Highway Construction Contracts. Approval or acceptance of a training schedule **shall** be obtained from the Department prior to commencing work with classifications covered by such programs.

- 15.7.8 The Department and Contractor **shall** determine the training goal, classification types and minimum total hours needed during the Trainee Evaluation Meeting. An On-the-Job Training Schedule indicating number of training candidates and appropriate Proficiency Standards for each classification must be submitted by the Contractor within ten days after the meeting for approval by the Department.
- 15.7.9 This schedule may be subject to change and a revised schedule **shall** be submitted for approval by the Department if any of the following occur:
- Start date on the approved On-The-Job Training Schedule or Plan has been missed by 14 or more days.
- 15.7.9.1 Start date on the approved On-The-Job Training Schedule or Plan is accelerated to commence earlier than 14 or more days.
- 15.7.9.2 A change in previously approved classifications.
- 15.7.9.3 Replacement trainees are added due to voluntary or involuntary termination.
- 15.7.10 The Contractor is responsible for identifying qualified candidates for enrollment and feasibly 25% of trainees in each occupation are in their first year of training. To ensure eligibility, the Contractor should include appropriate questions in the employee application or by other suitable means. Regardless of the method used, the Contractor's records should document the findings in each case. The Department will gather additional information regarding the proposed Candidates' previous work experience, training, as well as understanding of the On-the-Job Program and Proficiency Standards established for the classification.
- 15.7.11 The Trainee Enrollment and Notification of Personnel Action form is to be submitted fourteen days prior to the requested enrollment date. To be considered for enrollment, the proposed trainee candidate must meet the following criteria:
- 15.7.11.1 The candidate did not successfully complete a training course leading to journeyman status for the proposed classification.
- 15.7.11.2 The candidate did not gain sufficient experience by working in the proposed classification.
- 15.7.11.3 The candidate was not hired as a journeyman in the proposed classification.
- 15.7.11.4 The candidate is not currently enrolled in the On-the-Job Program.
- 15.7.12 The Contractor **shall** compensate the trainee at no less than the laborer rate established in the Contract at the commencement of training. The compensation rate will be increased to the journeyman's wage upon graduation from the training program for the remainder of the time the trainee graduate works in the classification in which they were trained.
- 15.7.13 If an economically disadvantaged non-minority person is enrolled, such action **shall** be accompanied by a disadvantaged certification or a justification for such action acceptable to the Department. The Contractor will be responsible for, and provided an opportunity

to identify actions and steps taken in pursuance thereof, prior to a determination of compliance with this Section being assessed the Contractor.

- 15.7.14 The Contractor may only enroll a trainee in one active classification per instance prior to approval of an additional classification for that trainee on the same project unless approved by the District Contract Compliance Manager. At beginning of training, the Contractor **shall** furnish the trainee a copy of the scheduled program they will follow during the intended training period and upon completion, award certification indicating type and total hours satisfactorily achieved.
- 15.7.15 To complete training, the transfer of trainees from project to project and from district to district is permitted. This includes transfers between multiple projects which could include non-FDOT government projects (City, County, etc.) provided there is the existence of an agreement to monitor the OJT Trainees in accordance with the OJT Program with the contractor, FDOT and other participating agencies. A trainee is only allowed to be enrolled on the original project.
- 15.7.16 The Contractor **shall** generate, maintain and furnish the District Contract Compliance Manager with the Monthly Time Report reflecting known training hours apart from other work hours performed by each individual trainee as part of this Contract. The report **shall** be submitted no later than the tenth day of the subsequent month and identify proficiency occurring.
- 15.7.17 Graduation to journeyman status will be based upon satisfactory accomplishment of:
 - 15.7.17.1 Proficiency Demonstration being achieved upon conclusion of training as established for the specific training classification.
 - 15.7.17.2 Completion of the minimum hours in a training classification range.
 - 15.7.17.3 The employer's satisfaction that the trainee does meet journeyman status in the classification of training.
- 15.7.18 The Contractor **shall** furnish the following documentation to the Department within seven days of successfully demonstrating proficiency:
 - 15.7.18.1 Trainee Enrollment and Notification of Personnel Action form.
 - 15.7.18.2 Proficiency Demonstration Verification Form signed by representatives of both the Contractor and the Department as well as the trainee indicating successful completion of each Proficiency Standard established for the classification.
- 15.7.19 The Contractor **shall** submit to the Department a copy of the Trainee Enrollment and Notification of Personnel Action form no later than seven days after the effective date when the candidate is voluntarily or involuntarily terminated from the program.
- 15.7.20 When approved in advance, the Department provides the Contractor the opportunity to participate in "Voluntary On-the-Job Training Program for Banking". Banking Certificates will be issued when the Contractor desires to preserve credit for a trainee. Further, if the Contractor or subcontractor requests to utilize banked trainees, the Banking Certificate will be validated allowing credit to the Contractor on a subsequent Federal-Aid Project. Banked credits of Prime Contractors working as Subcontractors may be accepted for credit. Voluntary On-the-Job Training Program for Banking can be considered under the following circumstances:

- 15.7.20.1 Federal-Aid Projects – Banking Certificates are issued for training of persons in excess of the required number of candidates based on the awarded Contract amount less items of work for which no training can be afforded.
- 15.7.20.2 State Funded Projects – The Contractor will have the option to train employees on project for which On-the-Job Training Program mandates do not apply. However, the request to participate must be evaluated and will be considered if adequate Department staff are available to monitor compliance with the training criteria.
- 15.7.21 The following criteria will be used in determining if the Contractor has complied with the requirements of this specification:
 - 15.7.21.1 Credit will be allowed for each trainee who satisfactorily completes training for the classification in which the trainee is enrolled.
 - 15.7.21.2 Credit will be allowed for each trainee who continues training in the same job classification and who completes their training on a different contract.
 - 15.7.21.3 Credit will be allowed for a trainee who is given the greatest practical amount of training on the contract; however, the trainee is unable to complete the training due to insufficient amount of work available in the classification.
 - 15.7.21.4 Credit will be allowed for any position indicated in the approved On-the-Job Training Schedule or Plan, for which the Contractor can demonstrate that a good faith effort was made to provide training.
 - 15.7.21.5 No credit will be allowed for a trainee whose employment by the Contractor is involuntarily terminated unless the Contractor can clearly demonstrate good cause for this action.
 - 15.7.21.6 Banking certificates may be redeemed within five (5) years of issuance. The issuance and redemption of banking certificates are tracked by each District and the EEO.
 - 15.7.21.7 Earned banking credits are redeemed by presenting the original banking certificate to the DCCM of the district where the project on which the credit is to be applied.
 - 15.7.21.8 A contractor utilizing banking credit(s) to fulfill agreed upon trainee requirement(s), must present the original banking certificate for redemption. If the contractor has determined at the TEM that banked credits will be used to meet trainee requirements, then the certificate(s) is submitted with the initial training schedule. A prime contractor working as a subcontractor to another prime, may redeem their earned banking certificates for the prime.
 - 15.7.21.9 If the contractor subsequently determines to use banked credit(s) to meet trainee requirements, then the certificate(s) are submitted with the revised training schedule.
- 15.7.22 The Contractor will have fulfilled the responsibilities of this Specification when acceptable training has been provided to the trainee as specified above.

15.8 E-Verify

The Contractor shall utilize the U.S. Department of Homeland Security's E-Verify system to verify the employment eligibility of all new employees hired by the Contractor during the term of the Contract and shall expressly require any subcontractors performing work or providing services pursuant to the Contract to likewise utilize the U.S. Department of Homeland Security's E-Verify system to verify the employment eligibility of all new employees hired by the subcontractor during the Contract term.

15.9 Certification of Payment to Subcontractors:

15.9.1 The term "subcontractor," as used herein, includes persons or firms furnishing materials or equipment incorporated into the work or stockpiled for which the Department has made partial payment and firms working under equipment-rental agreements. The Contractor is required to pay all subcontractors for satisfactory performance of their Contracts before the Department will make a further progress (partial) payment. The Contractor shall also return all retainage withheld to the subcontractors within 30 days after the subcontractor's work is satisfactorily complete, as determined by the Department. Prior to receipt of any progress (partial) payment, the prime contractor shall certify that all subcontractors having an interest in the Contract were paid for satisfactory performance of their Contracts and that the retainage is returned to subcontractors within 30 days after satisfactory completion of the subcontractor's work. Submit this certification in the form designated by the Department.

15.9.2 Within 30 days of the Contractor's receipt of the final progress payment or any other payments thereafter, except the final payment, the Contractor shall pay all subcontractors and suppliers having an interest in the Contract for all work completed and materials furnished. The Department will honor an exception to the above when the Contractor demonstrates good cause for not making any required payment and submits written notification of any such good cause to both the Department and the affected subcontractors or suppliers within said 30 day period.

15.9.3 The Contractor shall indemnify and provide defense for the Department when called upon to do so for all claims or suits against the Department, by third parties, pertaining to Contractor payment or performance issues arising out of the Contract. It is expressly understood that the monetary limitation on the extent of the indemnification shall be the approved Contract amount, which shall be the original Contract amount as may be increased by subsequent Supplemental Agreements.

15.10 Restrictions, Prohibitions, Controls, and Labor Provisions

15.10.1 Neither the CITY nor any of its contractors or their subcontractors shall enter into any contract, subcontract or arrangement in connection with the Project or any property included or planned to be included in the Project in which any member, officer or employee of the CITY or the locality during tenure or for 2 years thereafter has any interest, direct or indirect. If any such present or former member, officer or employee involuntarily acquires or had acquired prior to the beginning of tenure any such interest, and if such interest is immediately disclosed to the CITY, the CITY, with prior approval of the Department, may waive the prohibition contained in this paragraph provided that any such present member, officer or employee shall not participate in any action by the CITY or the locality relating to such contract, subcontract or arrangement. The CITY shall insert in all contracts entered into in connection with the Project or any property included or planned to be included in any Project, and shall require its contractors to insert in each of their subcontracts, the following provision:

15.10.1.1 "No member, officer or employee of the CITY or of the locality during his tenure or for 2 years thereafter shall have any interest, direct or indirect, in this contract or the proceeds thereof."

15.10.2 The provisions of this paragraph shall not be applicable to any agreement between the CITY and its fiscal depositories or to any agreement for utility services the rates for which are fixed or controlled by a governmental agency.

15.11 Indemnification and Insurance

15.11.1 To the extent provided by law, contractors, subcontractors, consultants, or subconsultants ("ENTITY") shall indemnify, defend, and hold harmless the CITY and the State of Florida, Department of Transportation, including the Department's officers, agents, and employees, against any actions, claims, or damages arising out of, relating to, or resulting from negligent or wrongful act(s) of ENTITY, or any of its officers, agents, or employees, acting within the scope of their office or employment, in connection with the rights granted to or exercised by CITY.

15.11.2 The foregoing indemnification shall not constitute a waiver of the Department's or CITY's sovereign immunity beyond the limits set forth in Florida Statutes, Section 768.28. Nor shall the same be construed to constitute agreement by ENTITY to indemnify CITY for the negligent acts or omissions of CITY, its officers, agents, or employees, or third parties. Nor shall the same be construed to constitute agreement by CITY to indemnify the Department for the negligent acts or omissions of the Department, its officers, agents, or employees, or third parties. This indemnification shall survive the termination of this Agreement.

15.11.3 The CITY shall, or cause its contractor or consultant to carry and keep in force, during the term of this Agreement, a general liability insurance policy or policies with a company or companies authorized to do business in Florida, affording public liability insurance with combined bodily injury limits of at least \$200,000 per person and \$300,000 each occurrence, and property damage insurance of at least \$200,000 each occurrence, for the services to be rendered in accordance with this Agreement. The CITY shall also, or cause its contractor or consultant to carry and keep in force Workers' Compensation Insurance as required by the State of Florida under the Workers' Compensation Law. With respect to any general liability insurance policy required pursuant to this Agreement, all such policies shall be issued by companies licensed to do business in the State of Florida. The CITY shall provide to the Department certificates showing the required coverage to be in effect with endorsements showing the Department to be an additional insured prior to commencing any work under this Agreement. Policies that include Self Insured Retention will not be accepted. The certificates and policies shall provide that in the event of any material change in or cancellation of the policies reflecting the required coverage, thirty days advance notice shall be given to the Department or as provided in accordance with Florida law.

15.12 Inspector General

The Parties agree to comply with s. 20.055(5), F.S., and to incorporate in all subcontracts the obligation to comply with s. 20.055(5), F.S. "It is the duty of every state officer, employee, agency, special district, board, commission, contractor, and subcontractor to cooperate with the inspector general in any investigation, audit, inspection, review, or hearing pursuant to this section."

STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION
Vendor Eligibility Check Prior to Contract Award

375-030-91
PROCUREMENT
06/22

Project Description(s): _____

Financial Project Number(s): _____

In accordance with State law:

The Convicted Vendor List/ Discriminatory Vendor List / Suspended Vendor List/Antitrust Violator Vendor List/Scrutinized List of Prohibited Companies/Federal Excluded Parties List are available at the following Department of Management Services site:

http://www.dms.myflorida.com/business_operations/state_purchasing/vendor_information/convicted_suspended_discriminatory_complaints_vendor_lists

A public entity may not accept any bid, proposal, or reply from, award any contract to, or transact any business in excess of the threshold amount provided in s. 287.017, F.S., for CATEGORY TWO with any person or affiliate on the convicted vendor list for a period of 36 months following the date that person or affiliate was placed on the convicted vendor list unless that person or affiliate has been removed from the list pursuant to Section 287.133(3)(f), F.S. A public entity that was transacting business with a person at the time of the commission of a public entity crime resulting in that person being placed on the convicted vendor list may not accept any bid, proposal, or reply from, award any contract to, or transact any business with any other person who is under the same, or substantially the same, control as the person whose name appears on the convicted vendor list so long as that person's name appears on the convicted vendor list.

A contract award (reference 2 CFR 1200 and 2 CFR 180) must not be made to parties listed on the government-wide Excluded Parties List System in the System for Award Management (SAM), in accordance with the OMB guidelines at 2 CFR 180 that implement Executive Orders 12549 (3 CFR Part 1986 Comp., p. 189) and 12689 (3 CFR Part 1989 Comp., p. 235), "Debarment and Suspension." Pursuant to 23 CFR 172.7(b)(3), a contracting agency shall verify suspension and debarment actions and eligibility status of consultants and subconsultants prior to entering into an agreement or contract in accordance with 2 CFR part 1200 and 2 CFR part 180, when the identities of such subconsultants are known prior to execution of the subject agreement or contract. The Excluded Parties List System in SAM contains the names of parties debarred, suspended, or otherwise excluded by agencies, as well as parties declared ineligible under statutory or regulatory authority other than Executive Order 12549.

Section 287.135, F.S. prohibits a company from bidding on, submitting a proposal for, or entering into or renewing a contract for goods or services of any amount if the company is on the Scrutinized Companies that Boycott Israel List, created pursuant to Section 215.4725, F.S. or is engaged in a boycott of Israel. Section 287.135, F.S. also prohibits a company from bidding on, submitting a proposal for, or entering into or renewing a contract for goods or services of \$1,000,000 or more, if the company is on either the Scrutinized Companies with Activities in Sudan List, or the Scrutinized Companies with Activities in the Iran Petroleum Energy Sector Lists which are created pursuant to s. 215.473, F.S.

STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION
Vendor Eligibility Check Prior to Contract Award

375-030-91
PROCUREMENT
06/22

The List of Scrutinized Companies that Boycott Israel, and the Scrutinized List of Prohibited Companies (Activities in Sudan/Iran Petroleum Energy Sector) are available at the following Florida State Board of Administration site:

<https://www.sbafla.com/fsb/FundsWeManage/FRSPensionPlan/GlobalGovernanceMandates.aspx>

*Please note that the two lists are under separate links on the same site.

I have checked the aforementioned lists that apply to this procurement, as applicable to verify that the vendor (and all subs where known) is eligible for contract award/execution:

Procurement Office or Contracting Awarding Office:

Printed Name

Signature

Date: _____

**REQUIRED CONTRACT PROVISIONS
FEDERAL-AID CONSTRUCTION CONTRACTS**

- I. General
- II. Nondiscrimination
- III. Non-segregated Facilities
- IV. Davis-Bacon and Related Act Provisions
- V. Contract Work Hours and Safety Standards Act Provisions
- VI. Subletting or Assigning the Contract
- VII. Safety: Accident Prevention
- VIII. False Statements Concerning Highway Projects
- IX. Implementation of Clean Air Act and Federal Water Pollution Control Act
- X. Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion
- XI. Certification Regarding Use of Contract Funds for Lobbying
- XII. Use of United States-Flag Vessels:

ATTACHMENTS

A. Employment and Materials Preference for Appalachian Development Highway System or Appalachian Local Access Road Contracts (included in Appalachian contracts only)

I. GENERAL

1. Form FHWA-1273 must be physically incorporated in each construction contract funded under title 23, United States Code, as required in 23 CFR 633.102(b) (excluding emergency contracts solely intended for debris removal). The contractor (or subcontractor) must insert this form in each subcontract and further require its inclusion in all lower tier subcontracts (excluding purchase orders, rental agreements and other agreements for supplies or services). 23 CFR 633.102(e).

The applicable requirements of Form FHWA-1273 are incorporated by reference for work done under any purchase order, rental agreement or agreement for other services. The prime contractor shall be responsible for compliance by any subcontractor, lower-tier subcontractor or service provider. 23 CFR 633.102(e).

Form FHWA-1273 must be included in all Federal-aid design-build contracts, in all subcontracts and in lower tier subcontracts (excluding subcontracts for design services, purchase orders, rental agreements and other agreements for supplies or services) in accordance with 23 CFR 633.102. The design-builder shall be responsible for compliance by any subcontractor, lower-tier subcontractor or service provider.

Contracting agencies may reference Form FHWA-1273 in solicitation-for-bids or request-for-proposals documents, however, the Form FHWA-1273 must be physically incorporated (not referenced) in all contracts, subcontracts and lower-tier subcontracts (excluding purchase orders, rental agreements and other agreements for supplies or services related to a construction contract). 23 CFR 633.102(b).

2. Subject to the applicability criteria noted in the following sections, these contract provisions shall apply to all work

performed on the contract by the contractor's own organization and with the assistance of workers under the contractor's immediate superintendence and to all work performed on the contract by piecework, station work, or by subcontract. 23 CFR 633.102(d).

3. A breach of any of the stipulations contained in these Required Contract Provisions may be sufficient grounds for withholding of progress payments, withholding of final payment, termination of the contract, suspension / debarment or any other action determined to be appropriate by the contracting agency and FHWA.

4. Selection of Labor: During the performance of this contract, the contractor shall not use convict labor for any purpose within the limits of a construction project on a Federal-aid highway unless it is labor performed by convicts who are on parole, supervised release, or probation. 23 U.S.C. 114(b). The term Federal-aid highway does not include roadways functionally classified as local roads or rural minor collectors. 23 U.S.C. 101(a).

II. NONDISCRIMINATION (23 CFR 230.107(a); 23 CFR Part 230, Subpart A, Appendix A; EO 11246)

The provisions of this section related to 23 CFR Part 230, Subpart A, Appendix A are applicable to all Federal-aid construction contracts and to all related construction subcontracts of \$10,000 or more. The provisions of 23 CFR Part 230 are not applicable to material supply, engineering, or architectural service contracts.

In addition, the contractor and all subcontractors must comply with the following policies: Executive Order 11246, 41 CFR Part 60, 29 CFR Parts 1625-1627, 23 U.S.C. 140, Section 504 of the Rehabilitation Act of 1973, as amended (29 U.S.C. 794), Title VI of the Civil Rights Act of 1964, as amended (42 U.S.C. 2000d et seq.), and related regulations including 49 CFR Parts 21, 26, and 27; and 23 CFR Parts 200, 230, and 633.

The contractor and all subcontractors must comply with: the requirements of the Equal Opportunity Clause in 41 CFR 60-1.4(b) and, for all construction contracts exceeding \$10,000, the Standard Federal Equal Employment Opportunity Construction Contract Specifications in 41 CFR 60-4.3.

Note: The U.S. Department of Labor has exclusive authority to determine compliance with Executive Order 11246 and the policies of the Secretary of Labor including 41 CFR Part 60, and 29 CFR Parts 1625-1627. The contracting agency and the FHWA have the authority and the responsibility to ensure compliance with 23 U.S.C. 140, Section 504 of the Rehabilitation Act of 1973, as amended (29 U.S.C. 794), and Title VI of the Civil Rights Act of 1964, as amended (42 U.S.C. 2000d et seq.), and related regulations including 49 CFR Parts 21, 26, and 27; and 23 CFR Parts 200, 230, and 633.

The following provision is adopted from 23 CFR Part 230, Subpart A, Appendix A, with appropriate revisions to conform to the U.S. Department of Labor (US DOL) and FHWA requirements.

1. Equal Employment Opportunity: Equal Employment Opportunity (EEO) requirements not to discriminate and to take affirmative action to assure equal opportunity as set forth under laws, executive orders, rules, regulations (see 28 CFR Part 35, 29 CFR Part 1630, 29 CFR Parts 1625-1627, 41 CFR Part 60 and 49 CFR Part 27) and orders of the Secretary of Labor as modified by the provisions prescribed herein, and imposed pursuant to 23 U.S.C. 140, shall constitute the EEO and specific affirmative action standards for the contractor's project activities under this contract. The provisions of the Americans with Disabilities Act of 1990 (42 U.S.C. 12101 et seq.) set forth under 28 CFR Part 35 and 29 CFR Part 1630 are incorporated by reference in this contract. In the execution of this contract, the contractor agrees to comply with the following minimum specific requirement activities of EEO:

a. The contractor will work with the contracting agency and the Federal Government to ensure that it has made every good faith effort to provide equal opportunity with respect to all of its terms and conditions of employment and in their review of activities under the contract. 23 CFR 230.409 (g)(4) & (5).

b. The contractor will accept as its operating policy the following statement:

"It is the policy of this Company to assure that applicants are employed, and that employees are treated during employment, without regard to their race, religion, sex, sexual orientation, gender identity, color, national origin, age or disability. Such action shall include: 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, pre-apprenticeship, and/or on-the-job training."

2. EEO Officer: The contractor will designate and make known to the contracting officers an EEO Officer who will have the responsibility for and must be capable of effectively administering and promoting an active EEO program and who must be assigned adequate authority and responsibility to do so.

3. Dissemination of Policy: All members of the contractor's staff who are authorized to hire, supervise, promote, and discharge employees, or who recommend such action or are substantially involved in such action, will be made fully cognizant of and will implement the contractor's EEO policy and contractual responsibilities to provide EEO in each grade and classification of employment. To ensure that the above agreement will be met, the following actions will be taken as a minimum:

a. Periodic meetings of supervisory and personnel office employees will be conducted before the start of work and then not less often than once every six months, at which time the contractor's EEO policy and its implementation will be reviewed and explained. The meetings will be conducted by the EEO Officer or other knowledgeable company official.

b. All new supervisory or personnel office employees will be given a thorough indoctrination by the EEO Officer, covering all major aspects of the contractor's EEO obligations within thirty days following their reporting for duty with the contractor.

c. All personnel who are engaged in direct recruitment for the project will be instructed by the EEO Officer in the contractor's procedures for locating and hiring minorities and women.

d. Notices and posters setting forth the contractor's EEO policy will be placed in areas readily accessible to employees, applicants for employment and potential employees.

e. The contractor's EEO policy and the procedures to implement such policy will be brought to the attention of employees by means of meetings, employee handbooks, or other appropriate means.

4. Recruitment: When advertising for employees, the contractor will include in all advertisements for employees the notation: "An Equal Opportunity Employer." All such advertisements will be placed in publications having a large circulation among minorities and women in the area from which the project work force would normally be derived.

a. The contractor will, unless precluded by a valid bargaining agreement, conduct systematic and direct recruitment through public and private employee referral sources likely to yield qualified minorities and women. To meet this requirement, the contractor will identify sources of potential minority group employees and establish with such identified sources procedures whereby minority and women applicants may be referred to the contractor for employment consideration.

b. In the event the contractor has a valid bargaining agreement providing for exclusive hiring hall referrals, the contractor is expected to observe the provisions of that agreement to the extent that the system meets the contractor's compliance with EEO contract provisions. Where implementation of such an agreement has the effect of discriminating against minorities or women, or obligates the contractor to do the same, such implementation violates Federal nondiscrimination provisions.

c. The contractor will encourage its present employees to refer minorities and women as applicants for employment. Information and procedures with regard to referring such applicants will be discussed with employees.

5. Personnel Actions: Wages, working conditions, and employee benefits shall be established and administered, and personnel actions of every type, including hiring, upgrading, promotion, transfer, demotion, layoff, and termination, shall be taken without regard to race, color, religion, sex, sexual orientation, gender identity, national origin, age or disability. The following procedures shall be followed:

a. The contractor will conduct periodic inspections of project sites to ensure that working conditions and employee facilities do not indicate discriminatory treatment of project site personnel.

b. The contractor will periodically evaluate the spread of wages paid within each classification to determine any evidence of discriminatory wage practices.

c. The contractor will periodically review selected personnel actions in depth to determine whether there is evidence of discrimination. Where evidence is found, the contractor will promptly take corrective action. If the review indicates that the discrimination may extend beyond the actions reviewed, such corrective action shall include all affected persons.

d. The contractor will promptly investigate all complaints of alleged discrimination made to the contractor in connection with its obligations under this contract, will attempt to resolve such complaints, and will take appropriate corrective action

within a reasonable time. If the investigation indicates that the discrimination may affect persons other than the complainant, such corrective action shall include such other persons. Upon completion of each investigation, the contractor will inform every complainant of all of their avenues of appeal.

6. Training and Promotion:

a. The contractor will assist in locating, qualifying, and increasing the skills of minorities and women who are applicants for employment or current employees. Such efforts should be aimed at developing full journey level status employees in the type of trade or job classification involved.

b. Consistent with the contractor's work force requirements and as permissible under Federal and State regulations, the contractor shall make full use of training programs (i.e., apprenticeship and on-the-job training programs for the geographical area of contract performance). In the event a special provision for training is provided under this contract, this subparagraph will be superseded as indicated in the special provision. The contracting agency may reserve training positions for persons who receive welfare assistance in accordance with 23 U.S.C. 140(a).

c. The contractor will advise employees and applicants for employment of available training programs and entrance requirements for each.

d. The contractor will periodically review the training and promotion potential of employees who are minorities and women and will encourage eligible employees to apply for such training and promotion.

7. Unions: If the contractor relies in whole or in part upon unions as a source of employees, the contractor will use good faith efforts to obtain the cooperation of such unions to increase opportunities for minorities and women. 23 CFR 230.409. Actions by the contractor, either directly or through a contractor's association acting as agent, will include the procedures set forth below:

a. The contractor will use good faith efforts to develop, in cooperation with the unions, joint training programs aimed toward qualifying more minorities and women for membership in the unions and increasing the skills of minorities and women so that they may qualify for higher paying employment.

b. The contractor will use good faith efforts to incorporate an EEO clause into each union agreement to the end that such union will be contractually bound to refer applicants without regard to their race, color, religion, sex, sexual orientation, gender identity, national origin, age, or disability.

c. The contractor is to obtain information as to the referral practices and policies of the labor union except that to the extent such information is within the exclusive possession of the labor union and such labor union refuses to furnish such information to the contractor, the contractor shall so certify to the contracting agency and shall set forth what efforts have been made to obtain such information.

d. In the event the union is unable to provide the contractor with a reasonable flow of referrals within the time limit set forth in the collective bargaining agreement, the contractor will, through independent recruitment efforts, fill the employment vacancies without regard to race, color, religion, sex, sexual orientation, gender identity, national origin, age, or disability; making full efforts to obtain qualified and/or qualifiable minorities and women. The failure of a union to provide

sufficient referrals (even though it is obligated to provide exclusive referrals under the terms of a collective bargaining agreement) does not relieve the contractor from the requirements of this paragraph. In the event the union referral practice prevents the contractor from meeting the obligations pursuant to Executive Order 11246, as amended, and these special provisions, such contractor shall immediately notify the contracting agency.

8. Reasonable Accommodation for Applicants / Employees with Disabilities: The contractor must be familiar with the requirements for and comply with the Americans with Disabilities Act and all rules and regulations established thereunder. Employers must provide reasonable accommodation in all employment activities unless to do so would cause an undue hardship.

9. Selection of Subcontractors, Procurement of Materials and Leasing of Equipment: The contractor shall not discriminate on the grounds of race, color, religion, sex, sexual orientation, gender identity, national origin, age, or disability in the selection and retention of subcontractors, including procurement of materials and leases of equipment. The contractor shall take all necessary and reasonable steps to ensure nondiscrimination in the administration of this contract.

a. The contractor shall notify all potential subcontractors, suppliers, and lessors of their EEO obligations under this contract.

b. The contractor will use good faith efforts to ensure subcontractor compliance with their EEO obligations.

10. Assurances Required:

a. The requirements of 49 CFR Part 26 and the State DOT's FHWA-approved Disadvantaged Business Enterprise (DBE) program are incorporated by reference.

b. The contractor, subrecipient or subcontractor shall not discriminate on the basis of race, color, national origin, or sex in the performance of this contract. The contractor shall carry out applicable requirements of 49 CFR part 26 in the award and administration of DOT-assisted contracts. Failure by the contractor to carry out these requirements is a material breach of this contract, which may result in the termination of this contract or such other remedy as the recipient deems appropriate, which may include, but is not limited to:

- (1) Withholding monthly progress payments;
- (2) Assessing sanctions;
- (3) Liquidated damages; and/or
- (4) Disqualifying the contractor from future bidding as non-responsible.

c. The Title VI and nondiscrimination provisions of U.S. DOT Order 1050.2A at Appendixes A and E are incorporated by reference. 49 CFR Part 21.

11. Records and Reports: The contractor shall keep such records as necessary to document compliance with the EEO requirements. Such records shall be retained for a period of three years following the date of the final payment to the contractor for all contract work and shall be available at reasonable times and places for inspection by authorized representatives of the contracting agency and the FHWA.

a. The records kept by the contractor shall document the following:

(1) The number and work hours of minority and non-minority group members and women employed in each work classification on the project;

(2) The progress and efforts being made in cooperation with unions, when applicable, to increase employment opportunities for minorities and women; and

(3) The progress and efforts being made in locating, hiring, training, qualifying, and upgrading minorities and women.

b. The contractors and subcontractors will submit an annual report to the contracting agency each July for the duration of the project indicating the number of minority, women, and non-minority group employees currently engaged in each work classification required by the contract work. This information is to be reported on [Form FHWA-1391](#). The staffing data should represent the project work force on board in all or any part of the last payroll period preceding the end of July. If on-the-job training is being required by special provision, the contractor will be required to collect and report training data. The employment data should reflect the work force on board during all or any part of the last payroll period preceding the end of July.

III. NONSEGREGATED FACILITIES

This provision is applicable to all Federal-aid construction contracts and to all related construction subcontracts of more than \$10,000. 41 CFR 60-1.5.

As prescribed by 41 CFR 60-1.8, the contractor must ensure that facilities provided for employees are provided in such a manner that segregation on the basis of race, color, religion, sex, sexual orientation, gender identity, or national origin cannot result. The contractor may neither require such segregated use by written or oral policies nor tolerate such use by employee custom. The contractor's obligation extends further to ensure that its employees are not assigned to perform their services at any location under the contractor's control where the facilities are segregated. The term "facilities" includes waiting rooms, work areas, restaurants and other eating areas, time clocks, restrooms, washrooms, locker rooms and other storage or dressing areas, parking lots, drinking fountains, recreation or entertainment areas, transportation, and housing provided for employees. The contractor shall provide separate or single-user restrooms and necessary dressing or sleeping areas to assure privacy between sexes.

IV. DAVIS-BACON AND RELATED ACT PROVISIONS

This section is applicable to all Federal-aid construction projects exceeding \$2,000 and to all related subcontracts and lower-tier subcontracts (regardless of subcontract size), in accordance with 29 CFR 5.5. The requirements apply to all projects located within the right-of-way of a roadway that is functionally classified as Federal-aid highway. 23 U.S.C. 113. This excludes roadways functionally classified as local roads or rural minor collectors, which are exempt. 23 U.S.C. 101. Where applicable law requires that projects be treated as a project on a Federal-aid highway, the provisions of this subpart will apply regardless of the location of the project. Examples include: Surface Transportation Block Grant Program projects funded under 23 U.S.C. 133 [excluding recreational trails projects], the Nationally Significant Freight and Highway

Projects funded under 23 U.S.C. 117, and National Highway Freight Program projects funded under 23 U.S.C. 167.

The following provisions are from the U.S. Department of Labor regulations in 29 CFR 5.5 "Contract provisions and related matters" with minor revisions to conform to the FHWA-1273 format and FHWA program requirements.

1. Minimum wages (29 CFR 5.5)

a. *Wage rates and fringe benefits.* All laborers and mechanics employed or working upon the site of the work (or otherwise working in construction or development of the project under a development statute), will be paid unconditionally and not less often than once a week, and without subsequent deduction or rebate on any 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 basic hourly wages and bona fide fringe benefits (or cash equivalents thereof) due at 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 a part hereof, regardless of any contractual relationship which may be alleged to exist between the contractor and such laborers and mechanics. As provided in paragraphs (d) and (e) of 29 CFR 5.5, the appropriate wage determinations are effective by operation of law even if they have not been attached to the contract. Contributions made or costs reasonably anticipated for bona fide fringe benefits under the Davis-Bacon Act ([40 U.S.C. 3141\(2\)\(B\)](#)) on behalf of laborers or mechanics are considered wages paid to such laborers or mechanics, subject to the provisions of paragraph 1.e. of this section; 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 must be paid the appropriate wage rate and fringe benefits on the wage determination for the classification(s) of work actually performed, without regard to skill, except as provided in paragraph 4. of this section. Laborers or mechanics performing work in more than one classification may be compensated at the rate specified for each classification for the time actually worked therein: *Provided*, That the employer's payroll records accurately set forth the time spent in each classification in which work is performed. The wage determination (including any additional classifications and wage rates conformed under paragraph 1.c. of this section) and the Davis-Bacon poster (WH-1321) must be posted at all times by the contractor and its subcontractors at the site of the work in a prominent and accessible place where it can be easily seen by the workers.

b. *Frequently recurring classifications.* (1) In addition to wage and fringe benefit rates that have been determined to be prevailing under the procedures set forth in [29 CFR part 1](#), a wage determination may contain, pursuant to § 1.3(f), wage and fringe benefit rates for classifications of laborers and mechanics for which conformance requests are regularly submitted pursuant to paragraph 1.c. of this section, provided that:

(i) The work performed by the classification is not performed by a classification in the wage determination for which a prevailing wage rate has been determined;

(ii) The classification is used in the area by the construction industry; and

(iii) The wage rate for the classification bears a reasonable relationship to the prevailing wage rates contained in the wage determination.

(2) The Administrator will establish wage rates for such classifications in accordance with paragraph 1.c.(1)(iii) of this section. Work performed in such a classification must be paid at no less than the wage and fringe benefit rate listed on the wage determination for such classification.

c. *Conformance.* (1) The contracting officer must require that any class of laborers or mechanics, including helpers, which is not listed in the wage determination and which is to be employed under the contract be classified in conformance with the wage determination. Conformance of an additional classification and wage rate and fringe benefits is appropriate only when the following criteria have been met:

(i) The work to be performed by the classification requested is not performed by a classification in the wage determination; and

(ii) The classification is used in the area by the construction industry; and

(iii) The proposed wage rate, including any bona fide fringe benefits, bears a reasonable relationship to the wage rates contained in the wage determination.

(2) The conformance process may not be used to split, subdivide, or otherwise avoid application of classifications listed in the wage determination.

(3) If the contractor and the laborers and mechanics to be employed in the classification (if known), or their representatives, and the contracting officer agree on the classification and wage rate (including the amount designated for fringe benefits where appropriate), a report of the action taken will be sent by the contracting officer by email to DBAconformance@dol.gov. The Administrator, or an authorized representative, will approve, modify, or disapprove every additional classification action within 30 days of receipt and so advise the contracting officer or will notify the contracting officer within the 30-day period that additional time is necessary.

(4) In the event the contractor, the laborers or mechanics to be employed in the classification or their representatives, and the contracting officer do not agree on the proposed classification and wage rate (including the amount designated for fringe benefits, where appropriate), the contracting officer will, by email to DBAconformance@dol.gov, refer the questions, including the views of all interested parties and the recommendation of the contracting officer, to the Administrator for determination. The Administrator, or an authorized representative, will issue a determination within 30 days of receipt and so advise the contracting officer or will notify the contracting officer within the 30-day period that additional time is necessary.

(5) The contracting officer must promptly notify the contractor of the action taken by the Wage and Hour Division

under paragraphs 1.c.(3) and (4) of this section. The contractor must furnish a written copy of such determination to each affected worker or it must be posted as a part of the wage determination. The wage rate (including fringe benefits where appropriate) determined pursuant to paragraph 1.c.(3) or (4) of this section must 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.

d. *Fringe benefits not expressed as an hourly rate.* 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 may either pay the benefit as stated in the wage determination or may pay another bona fide fringe benefit or an hourly cash equivalent thereof.

e. *Unfunded plans.* 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, in accordance with the criteria set forth in § 5.28, 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.

f. *Interest.* In the event of a failure to pay all or part of the wages required by the contract, the contractor will be required to pay interest on any underpayment of wages.

2. Withholding (29 CFR 5.5)

a. *Withholding requirements.* The contracting agency may, upon its own action, or must, upon written request of an authorized representative of the Department of Labor, withhold or cause to be withheld from the contractor so much of the accrued payments or advances as may be considered necessary to satisfy the liabilities of the prime contractor or any subcontractor for the full amount of wages and monetary relief, including interest, required by the clauses set forth in this section for violations of this contract, or to satisfy any such liabilities required by any other Federal contract, or federally assisted contract subject to Davis-Bacon labor standards, that is held by the same prime contractor (as defined in § 5.2). The necessary funds may be withheld from the contractor under this contract, any other Federal contract with the same prime contractor, or any other federally assisted contract that is subject to Davis-Bacon labor standards requirements and is held by the same prime contractor, regardless of whether the other contract was awarded or assisted by the same agency, and such funds may be used to satisfy the contractor liability for which the funds were withheld. In the event of a contractor's failure to pay any laborer or mechanic, including any apprentice or helper working on the site of the work all or part of the wages required by the contract, or upon the contractor's failure to submit the required records as discussed in paragraph 3.d. of this section, the contracting agency may on its own initiative and after written notice to the contractor, take such action as may be necessary to cause the suspension of any further payment, advance, or guarantee of funds until such violations have ceased.

b. *Priority to withheld funds.* The Department has priority to funds withheld or to be withheld in accordance with paragraph

2.a. of this section or Section V, paragraph 3.a., or both, over claims to those funds by:

- (1) A contractor's surety(ies), including without limitation performance bond sureties and payment bond sureties;
- (2) A contracting agency for its procurement costs;
- (3) A trustee(s) (either a court-appointed trustee or a U.S. trustee, or both) in bankruptcy of a contractor, or a contractor's bankruptcy estate;
- (4) A contractor's assignee(s);
- (5) A contractor's successor(s); or
- (6) A claim asserted under the Prompt Payment Act, [31 U.S.C. 3901–3907](#).

3. Records and certified payrolls (29 CFR 5.5)

a. *Basic record requirements (1) Length of record retention.* All regular payrolls and other basic records must be maintained by the contractor and any subcontractor during the course of the work and preserved for all laborers and mechanics working at the site of the work (or otherwise working in construction or development of the project under a development statute) for a period of at least 3 years after all the work on the prime contract is completed.

(2) *Information required.* Such records must contain the name; Social Security number; last known address, telephone number, and email address of each such worker; each worker's correct classification(s) of work actually performed; 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 [40 U.S.C. 3141\(2\)\(B\)](#) of the Davis-Bacon Act); daily and weekly number of hours actually worked in total and on each covered contract; deductions made; and actual wages paid.

(3) *Additional records relating to fringe benefits.* Whenever the Secretary of Labor has found under paragraph 1.e. of this section 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 [40 U.S.C. 3141\(2\)\(B\)](#) of the Davis-Bacon Act, the contractor must 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.

(4) *Additional records relating to apprenticeship.* Contractors with apprentices working under approved programs must maintain written evidence of the registration of apprenticeship programs, the registration of the apprentices, and the ratios and wage rates prescribed in the applicable programs.

b. *Certified payroll requirements (1) Frequency and method of submission.* The contractor or subcontractor must submit weekly, for each week in which any DBA- or Related Acts-covered work is performed, certified payrolls to the contracting

agency. The prime contractor is responsible for the submission of all certified payrolls by all subcontractors. A contracting agency or prime contractor may permit or require contractors to submit certified payrolls through an electronic system, as long as the electronic system requires a legally valid electronic signature; the system allows the contractor, the contracting agency, and the Department of Labor to access the certified payrolls upon request for at least 3 years after the work on the prime contract has been completed; and the contracting agency or prime contractor permits other methods of submission in situations where the contractor is unable or limited in its ability to use or access the electronic system.

(2) *Information required.* The certified payrolls submitted must set out accurately and completely all of the information required to be maintained under paragraph 3.a.(2) of this section, except that full Social Security numbers and last known addresses, telephone numbers, and email addresses must not be included on weekly transmittals. Instead, the certified payrolls need only include an individually identifying number for each worker (e.g., the last four digits of the worker's Social Security number). The required weekly certified payroll information may be submitted using Optional Form WH-347 or in any other format desired. Optional Form WH-347 is available for this purpose from the Wage and Hour Division website at <https://www.dol.gov/sites/dolgov/files/WHD/legacy/files/wh347.pdf> or its successor website. It is not a violation of this section for a prime contractor to require a subcontractor to provide full Social Security numbers and last known addresses, telephone numbers, and email addresses to the prime contractor for its own records, without weekly submission by the subcontractor to the contracting agency.

(3) *Statement of Compliance.* Each certified payroll submitted must be accompanied by a "Statement of Compliance," signed by the contractor or subcontractor, or the contractor's or subcontractor's agent who pays or supervises the payment of the persons working on the contract, and must certify the following:

(i) That the certified payroll for the payroll period contains the information required to be provided under paragraph 3.b. of this section, the appropriate information and basic records are being maintained under paragraph 3.a. of this section, and such information and records are correct and complete;

(ii) That each laborer or mechanic (including each helper and apprentice) working on the contract during the payroll period has been 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 permissible deductions as set forth in [29 CFR part 3](#); and

(iii) That each laborer or mechanic has been paid not less than the applicable wage rates and fringe benefits or cash equivalents for the classification(s) of work actually performed, as specified in the applicable wage determination incorporated into the contract.

(4) *Use of Optional Form WH-347.* The weekly submission of a properly executed certification set forth on the reverse side of Optional Form WH-347 will satisfy the requirement for submission of the "Statement of Compliance" required by paragraph 3.b.(3) of this section.

(5) *Signature*. The signature by the contractor, subcontractor, or the contractor's or subcontractor's agent must be an original handwritten signature or a legally valid electronic signature.

(6) *Falsification*. The falsification of any of the above certifications may subject the contractor or subcontractor to civil or criminal prosecution under [18 U.S.C. 1001](#) and [31 U.S.C. 3729](#).

(7) *Length of certified payroll retention*. The contractor or subcontractor must preserve all certified payrolls during the course of the work and for a period of 3 years after all the work on the prime contract is completed.

c. *Contracts, subcontracts, and related documents*. The contractor or subcontractor must maintain this contract or subcontract and related documents including, without limitation, bids, proposals, amendments, modifications, and extensions. The contractor or subcontractor must preserve these contracts, subcontracts, and related documents during the course of the work and for a period of 3 years after all the work on the prime contract is completed.

d. *Required disclosures and access* (1) *Required record disclosures and access to workers*. The contractor or subcontractor must make the records required under paragraphs 3.a. through 3.c. of this section, and any other documents that the contracting agency, the State DOT, the FHWA, or the Department of Labor deems necessary to determine compliance with the labor standards provisions of any of the applicable statutes referenced by § 5.1, available for inspection, copying, or transcription by authorized representatives of the contracting agency, the State DOT, the FHWA, or the Department of Labor, and must permit such representatives to interview workers during working hours on the job.

(2) *Sanctions for non-compliance with records and worker access requirements*. If the contractor or subcontractor fails to submit the required records or to make them available, or refuses to permit worker interviews during working hours on the job, the Federal agency may, after written notice to the contractor, sponsor, applicant, owner, or other entity, as the case may be, that maintains such records or that employs such workers, 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, or to permit worker interviews during working hours on the job, may be grounds for debarment action pursuant to § 5.12. In addition, any contractor or other person that fails to submit the required records or make those records available to WHD within the time WHD requests that the records be produced will be precluded from introducing as evidence in an administrative proceeding under [29 CFR part 6](#) any of the required records that were not provided or made available to WHD. WHD will take into consideration a reasonable request from the contractor or person for an extension of the time for submission of records. WHD will determine the reasonableness of the request and may consider, among other things, the location of the records and the volume of production.

(3) *Required information disclosures*. Contractors and subcontractors must maintain the full Social Security number and last known address, telephone number, and email address

of each covered worker, and must provide them upon request to the contracting agency, the State DOT, the FHWA, the contractor, or the Wage and Hour Division of the Department of Labor for purposes of an investigation or other compliance action.

4. Apprentices and equal employment opportunity (29 CFR 5.5)

a. *Apprentices* (1) *Rate of pay*. 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, Office of Apprenticeship (OA), or with a State Apprenticeship Agency recognized by the OA. A person who is not individually registered in the program, but who has been certified by the OA or a State Apprenticeship Agency (where appropriate) to be eligible for probationary employment as an apprentice, will be permitted to work at less than the predetermined rate for the work they perform in the first 90 days of probationary employment as an apprentice in such a program. In the event the OA or a State Apprenticeship Agency recognized by the OA withdraws approval of an apprenticeship program, the contractor will no longer be permitted to use apprentices at less than the applicable predetermined rate for the work performed until an acceptable program is approved.

(2) *Fringe benefits*. Apprentices must 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, fringe benefits must be paid in accordance with that determination.

(3) *Apprenticeship ratio*. The allowable ratio of apprentices to journeyworkers on the job site in any craft classification must not be greater than the ratio permitted to the contractor as to the entire work force under the registered program or the ratio applicable to the locality of the project pursuant to paragraph 4.a.(4) of this section. Any worker listed on a payroll at an apprentice wage rate, who is not registered or otherwise employed as stated in paragraph 4.a.(1) of this section, must 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 this section must be paid not less than the applicable wage rate on the wage determination for the work actually performed.

(4) *Reciprocity of ratios and wage rates*. Where a contractor is performing construction on a project in a locality other than the locality in which its program is registered, the ratios and wage rates (expressed in percentages of the journeyworker's hourly rate) applicable within the locality in which the construction is being performed must be observed. If there is no applicable ratio or wage rate for the locality of the project, the ratio and wage rate specified in the contractor's registered program must be observed.

b. *Equal employment opportunity*. The use of apprentices and journeyworkers under this part must be in conformity with

the equal employment opportunity requirements of Executive Order 11246, as amended, and [29 CFR part 30](#).

c. Apprentices and Trainees (programs of the U.S. DOT).

Apprentices and trainees working under apprenticeship and skill training programs which have been certified by the Secretary of Transportation as promoting EEO in connection with Federal-aid highway construction programs are not subject to the requirements of paragraph 4 of this Section IV. 23 CFR 230.111(e)(2). The straight time hourly wage rates for apprentices and trainees under such programs will be established by the particular programs. The ratio of apprentices and trainees to journeyworkers shall not be greater than permitted by the terms of the particular program.

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 as provided in 29 CFR 5.5.

6. Subcontracts. The contractor or subcontractor must insert FHWA-1273 in any subcontracts, along with the applicable wage determination(s) and such other clauses or contract modifications as the contracting agency may by appropriate instructions require, and a clause requiring the subcontractors to include these clauses and wage determination(s) in any lower tier subcontracts. The prime contractor is responsible for the compliance by any subcontractor or lower tier subcontractor with all the contract clauses in this section. In the event of any violations of these clauses, the prime contractor and any subcontractor(s) responsible will be liable for any unpaid wages and monetary relief, including interest from the date of the underpayment or loss, due to any workers of lower-tier subcontractors, and may be subject to debarment, as appropriate. 29 CFR 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 as provided in 29 CFR 5.5.

9. Disputes concerning labor standards. As provided in 29 CFR 5.5, 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 the contracting agency, the U.S. Department of Labor, or the employees or their representatives.

10. Certification of eligibility. a. By entering into this contract, the contractor certifies that neither it 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 [40 U.S.C. 3144\(b\)](#) or § 5.12(a).

b. No part of this contract shall be subcontracted to any person or firm ineligible for award of a Government contract by virtue of [40 U.S.C. 3144\(b\)](#) or § 5.12(a).

c. The penalty for making false statements is prescribed in the U.S. Code, Title 18 Crimes and Criminal Procedure, [18 U.S.C. 1001](#).

11. Anti-retaliation. It is unlawful for any person to discharge, demote, intimidate, threaten, restrain, coerce, blacklist, harass, or in any other manner discriminate against, or to cause any person to discharge, demote, intimidate, threaten, restrain, coerce, blacklist, harass, or in any other manner discriminate against, any worker or job applicant for:

a. Notifying any contractor of any conduct which the worker reasonably believes constitutes a violation of the DBA, Related Acts, this part, or [29 CFR part 1](#) or [3](#);

b. Filing any complaint, initiating or causing to be initiated any proceeding, or otherwise asserting or seeking to assert on behalf of themselves or others any right or protection under the DBA, Related Acts, this part, or [29 CFR part 1](#) or [3](#);

c. Cooperating in any investigation or other compliance action, or testifying in any proceeding under the DBA, Related Acts, this part, or [29 CFR part 1](#) or [3](#); or

d. Informing any other person about their rights under the DBA, Related Acts, this part, or [29 CFR part 1](#) or [3](#).

V. CONTRACT WORK HOURS AND SAFETY STANDARDS ACT

Pursuant to 29 CFR 5.5(b), the following clauses apply to any Federal-aid construction contract in an amount in excess of \$100,000 and subject to the overtime provisions of the Contract Work Hours and Safety Standards Act. These clauses shall be inserted in addition to the clauses required by 29 CFR 5.5(a) or 29 CFR 4.6. As used in this paragraph, the terms laborers and mechanics include watchpersons 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 forty hours in such workweek unless such laborer or mechanic receives compensation at a rate not less than one and one-half times the basic rate of pay for all hours worked in excess of forty hours in such workweek. 29 CFR 5.5.

2. Violation; liability for unpaid wages; liquidated damages. In the event of any violation of the clause set forth in paragraph 1. of this section the contractor and any subcontractor responsible therefor shall be liable for the unpaid wages and interest from the date of the underpayment. 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 watchpersons and guards, employed in violation of the clause set forth in paragraph 1. of this section, in the sum currently provided in 29 CFR 5.5(b)(2)* for each calendar day on which such individual was required or permitted to work in excess of the standard workweek of forty hours without payment of the overtime wages required by the clause set forth in paragraph 1. of this section.

* \$31 as of January 15, 2023 (See 88 FR 88 FR 2210) as may be adjusted annually by the Department of Labor, pursuant to the Federal Civil Penalties Inflation Adjustment Act of 1990.

3. Withholding for unpaid wages and liquidated damages

a. *Withholding process.* The FHWA or the contracting agency may, upon its own action, or must, upon written request of an authorized representative of the Department of Labor, withhold or cause to be withheld from the contractor so much of the accrued payments or advances as may be considered necessary to satisfy the liabilities of the prime contractor or any subcontractor for any unpaid wages; monetary relief, including interest; and liquidated damages required by the clauses set forth in this section on this contract, any other Federal contract with the same prime contractor, or any other federally assisted contract subject to the Contract Work Hours and Safety Standards Act that is held by the same prime contractor (as defined in § 5.2). The necessary funds may be withheld from the contractor under this contract, any other Federal contract with the same prime contractor, or any other federally assisted contract that is subject to the Contract Work Hours and Safety Standards Act and is held by the same prime contractor, regardless of whether the other contract was awarded or assisted by the same agency, and such funds may be used to satisfy the contractor liability for which the funds were withheld.

b. *Priority to withheld funds.* The Department has priority to funds withheld or to be withheld in accordance with Section IV paragraph 2.a. or paragraph 3.a. of this section, or both, over claims to those funds by:

- (1) A contractor's surety(ies), including without limitation performance bond sureties and payment bond sureties;
- (2) A contracting agency for its procurement costs;
- (3) A trustee(s) (either a court-appointed trustee or a U.S. trustee, or both) in bankruptcy of a contractor, or a contractor's bankruptcy estate;
- (4) A contractor's assignee(s);
- (5) A contractor's successor(s); or
- (6) A claim asserted under the Prompt Payment Act, [31 U.S.C. 3901](#)–3907.

4. Subcontracts. The contractor or subcontractor must insert in any subcontracts the clauses set forth in paragraphs 1. through 5. of this section and a clause requiring the subcontractors to include these clauses in any lower tier subcontracts. The prime contractor is responsible for compliance by any subcontractor or lower tier subcontractor with the clauses set forth in paragraphs 1. through 5. In the

event of any violations of these clauses, the prime contractor and any subcontractor(s) responsible will be liable for any unpaid wages and monetary relief, including interest from the date of the underpayment or loss, due to any workers of lower-tier subcontractors, and associated liquidated damages and may be subject to debarment, as appropriate.

5. Anti-retaliation. It is unlawful for any person to discharge, demote, intimidate, threaten, restrain, coerce, blacklist, harass, or in any other manner discriminate against, or to cause any person to discharge, demote, intimidate, threaten, restrain, coerce, blacklist, harass, or in any other manner discriminate against, any worker or job applicant for:

a. Notifying any contractor of any conduct which the worker reasonably believes constitutes a violation of the Contract Work Hours and Safety Standards Act (CWHSSA) or its implementing regulations in this part;

b. Filing any complaint, initiating or causing to be initiated any proceeding, or otherwise asserting or seeking to assert on behalf of themselves or others any right or protection under CWHSSA or this part;

c. Cooperating in any investigation or other compliance action, or testifying in any proceeding under CWHSSA or this part; or

d. Informing any other person about their rights under CWHSSA or this part.

VI. SUBLETTING OR ASSIGNING THE CONTRACT

This provision is applicable to all Federal-aid construction contracts on the National Highway System pursuant to 23 CFR 635.116.

1. The contractor shall perform with its own organization contract work amounting to not less than 30 percent (or a greater percentage if specified elsewhere in the contract) of the total original contract price, excluding any specialty items designated by the contracting agency. Specialty items may be performed by subcontract and the amount of any such specialty items performed may be deducted from the total original contract price before computing the amount of work required to be performed by the contractor's own organization (23 CFR 635.116).

a. The term "perform work with its own organization" in paragraph 1 of Section VI refers to workers employed or leased by the prime contractor, and equipment owned or rented by the prime contractor, with or without operators. Such term does not include employees or equipment of a subcontractor or lower tier subcontractor, agents of the prime contractor, or any other assignees. The term may include payments for the costs of hiring leased employees from an employee leasing firm meeting all relevant Federal and State regulatory requirements. Leased employees may only be included in this term if the prime contractor meets all of the following conditions: (based on longstanding interpretation)

- (1) the prime contractor maintains control over the supervision of the day-to-day activities of the leased employees;
- (2) the prime contractor remains responsible for the quality of the work of the leased employees;

- (3) the prime contractor retains all power to accept or exclude individual employees from work on the project; and
- (4) the prime contractor remains ultimately responsible for the payment of predetermined minimum wages, the submission of payrolls, statements of compliance and all other Federal regulatory requirements.

b. "Specialty Items" shall be construed to be limited to work that requires highly specialized knowledge, abilities, or equipment not ordinarily available in the type of contracting organizations qualified and expected to bid or propose on the contract as a whole and in general are to be limited to minor components of the overall contract. 23 CFR 635.102.

2. Pursuant to 23 CFR 635.116(a), the contract amount upon which the requirements set forth in paragraph (1) of Section VI is computed includes the cost of material and manufactured products which are to be purchased or produced by the contractor under the contract provisions.

3. Pursuant to 23 CFR 635.116(c), the contractor shall furnish (a) a competent superintendent or supervisor who is employed by the firm, has full authority to direct performance of the work in accordance with the contract requirements, and is in charge of all construction operations (regardless of who performs the work) and (b) such other of its own organizational resources (supervision, management, and engineering services) as the contracting officer determines is necessary to assure the performance of the contract.

4. No portion of the contract shall be sublet, assigned or otherwise disposed of except with the written consent of the contracting officer, or authorized representative, and such consent when given shall not be construed to relieve the contractor of any responsibility for the fulfillment of the contract. Written consent will be given only after the contracting agency has assured that each subcontract is evidenced in writing and that it contains all pertinent provisions and requirements of the prime contract. (based on long-standing interpretation of 23 CFR 635.116).

5. The 30-percent self-performance requirement of paragraph (1) is not applicable to design-build contracts; however, contracting agencies may establish their own self-performance requirements. 23 CFR 635.116(d).

VII. SAFETY: ACCIDENT PREVENTION

This provision is applicable to all Federal-aid construction contracts and to all related subcontracts.

1. In the performance of this contract the contractor shall comply with all applicable Federal, State, and local laws governing safety, health, and sanitation (23 CFR Part 635). The contractor shall provide all safeguards, safety devices and protective equipment and take any other needed actions as it determines, or as the contracting officer may determine, to be reasonably necessary to protect the life and health of employees on the job and the safety of the public and to protect property in connection with the performance of the work covered by the contract. 23 CFR 635.108.

2. It is a condition of this contract, and shall be made a condition of each subcontract, which the contractor enters into pursuant to this contract, that the contractor and any subcontractor shall not permit any employee, in performance of the contract, to work in surroundings or under conditions which are unsanitary, hazardous or dangerous to his/her health or safety, as determined under construction safety and

health standards (29 CFR Part 1926) promulgated by the Secretary of Labor, in accordance with Section 107 of the Contract Work Hours and Safety Standards Act (40 U.S.C. 3704). 29 CFR 1926.10.

3. Pursuant to 29 CFR 1926.3, it is a condition of this contract that the Secretary of Labor or authorized representative thereof, shall have right of entry to any site of contract performance to inspect or investigate the matter of compliance with the construction safety and health standards and to carry out the duties of the Secretary under Section 107 of the Contract Work Hours and Safety Standards Act (40 U.S.C. 3704).

VIII. FALSE STATEMENTS CONCERNING HIGHWAY PROJECTS

This provision is applicable to all Federal-aid construction contracts and to all related subcontracts.

In order to assure high quality and durable construction in conformity with approved plans and specifications and a high degree of reliability on statements and representations made by engineers, contractors, suppliers, and workers on Federal-aid highway projects, it is essential that all persons concerned with the project perform their functions as carefully, thoroughly, and honestly as possible. Willful falsification, distortion, or misrepresentation with respect to any facts related to the project is a violation of Federal law. To prevent any misunderstanding regarding the seriousness of these and similar acts, Form FHWA-1022 shall be posted on each Federal-aid highway project (23 CFR Part 635) in one or more places where it is readily available to all persons concerned with the project:

18 U.S.C. 1020 reads as follows:

"Whoever, being an officer, agent, or employee of the United States, or of any State or Territory, or whoever, whether a person, association, firm, or corporation, knowingly makes any false statement, false representation, or false report as to the character, quality, quantity, or cost of the material used or to be used, or the quantity or quality of the work performed or to be performed, or the cost thereof in connection with the submission of plans, maps, specifications, contracts, or costs of construction on any highway or related project submitted for approval to the Secretary of Transportation; or

Whoever knowingly makes any false statement, false representation, false report or false claim with respect to the character, quality, quantity, or cost of any work performed or to be performed, or materials furnished or to be furnished, in connection with the construction of any highway or related project approved by the Secretary of Transportation; or

Whoever knowingly makes any false statement or false representation as to material fact in any statement, certificate, or report submitted pursuant to provisions of the Federal-aid Roads Act approved July 11, 1916, (39 Stat. 355), as amended and supplemented;

Shall be fined under this title or imprisoned not more than 5 years or both."

IX. IMPLEMENTATION OF CLEAN AIR ACT AND FEDERAL WATER POLLUTION CONTROL ACT (42 U.S.C. 7606; 2 CFR 200.88; EO 11738)

This provision is applicable to all Federal-aid construction contracts in excess of \$150,000 and to all related subcontracts. 48 CFR 2.101; 2 CFR 200.327.

By submission of this bid/proposal or the execution of this contract or subcontract, as appropriate, the bidder, proposer, Federal-aid construction contractor, subcontractor, supplier, or vendor agrees to comply with all applicable standards, orders or regulations issued pursuant to the Clean Air Act (42 U.S.C. 7401-7671q) and the Federal Water Pollution Control Act, as amended (33 U.S.C. 1251-1387). Violations must be reported to the Federal Highway Administration and the Regional Office of the Environmental Protection Agency. 2 CFR Part 200, Appendix II.

The contractor agrees to include or cause to be included the requirements of this Section in every subcontract, and further agrees to take such action as the contracting agency may direct as a means of enforcing such requirements. 2 CFR 200.327.

X. CERTIFICATION REGARDING DEBARMENT, SUSPENSION, INELIGIBILITY AND VOLUNTARY EXCLUSION

This provision is applicable to all Federal-aid construction contracts, design-build contracts, subcontracts, lower-tier subcontracts, purchase orders, lease agreements, consultant contracts or any other covered transaction requiring FHWA approval or that is estimated to cost \$25,000 or more – as defined in 2 CFR Parts 180 and 1200. 2 CFR 180.220 and 1200.220.

1. Instructions for Certification – First Tier Participants:

- a. By signing and submitting this proposal, the prospective first tier participant is providing the certification set out below.
- b. The inability of a person to provide the certification set out below will not necessarily result in denial of participation in this covered transaction. The prospective first tier participant shall submit an explanation of why it cannot provide the certification set out below. The certification or explanation will be considered in connection with the department or agency's determination whether to enter into this transaction. However, failure of the prospective first tier participant to furnish a certification or an explanation shall disqualify such a person from participation in this transaction. 2 CFR 180.320.
- c. The certification in this clause is a material representation of fact upon which reliance was placed when the contracting agency determined to enter into this transaction. If it is later determined that the prospective participant knowingly rendered an erroneous certification, in addition to other remedies available to the Federal Government, the contracting agency may terminate this transaction for cause of default. 2 CFR 180.325.
- d. The prospective first tier participant shall provide immediate written notice to the contracting agency to whom this proposal is submitted if any time the prospective first tier participant learns that its certification was erroneous when submitted or has become erroneous by reason of changed circumstances. 2 CFR 180.345 and 180.350.

e. The terms "covered transaction," "debarred," "suspended," "ineligible," "participant," "person," "principal," and "voluntarily excluded," as used in this clause, are defined in 2 CFR Parts 180, Subpart I, 180.900-180.1020, and 1200. "First Tier Covered Transactions" refers to any covered transaction between a recipient or subrecipient of Federal funds and a participant (such as the prime or general contract). "Lower Tier Covered Transactions" refers to any covered transaction under a First Tier Covered Transaction (such as subcontracts). "First Tier Participant" refers to the participant who has entered into a covered transaction with a recipient or subrecipient of Federal funds (such as the prime or general contractor). "Lower Tier Participant" refers any participant who has entered into a covered transaction with a First Tier Participant or other Lower Tier Participants (such as subcontractors and suppliers).

f. The prospective first tier participant agrees by submitting this proposal that, should the proposed covered transaction be entered into, it shall not knowingly enter into any lower tier covered transaction with a person who is debarred, suspended, declared ineligible, or voluntarily excluded from participation in this covered transaction, unless authorized by the department or agency entering into this transaction. 2 CFR 180.330.

g. The prospective first tier participant further agrees by submitting this proposal that it will include the clause titled "Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion-Lower Tier Covered Transactions," provided by the department or contracting agency, entering into this covered transaction, without modification, in all lower tier covered transactions and in all solicitations for lower tier covered transactions exceeding the \$25,000 threshold. 2 CFR 180.220 and 180.300.

h. A participant in a covered transaction may rely upon a certification of a prospective participant in a lower tier covered transaction that is not debarred, suspended, ineligible, or voluntarily excluded from the covered transaction, unless it knows that the certification is erroneous. 2 CFR 180.300; 180.320, and 180.325. A participant is responsible for ensuring that its principals are not suspended, debarred, or otherwise ineligible to participate in covered transactions. 2 CFR 180.335. To verify the eligibility of its principals, as well as the eligibility of any lower tier prospective participants, each participant may, but is not required to, check the System for Award Management website (<https://www.sam.gov/>). 2 CFR 180.300, 180.320, and 180.325.

i. Nothing contained in the foregoing shall be construed to require the establishment of a system of records in order to render in good faith the certification required by this clause. The knowledge and information of the prospective participant is not required to exceed that which is normally possessed by a prudent person in the ordinary course of business dealings.

j. Except for transactions authorized under paragraph (f) of these instructions, if a participant in a covered transaction knowingly enters into a lower tier covered transaction with a person who is suspended, debarred, ineligible, or voluntarily excluded from participation in this transaction, in addition to other remedies available to the Federal Government, the department or agency may terminate this transaction for cause or default. 2 CFR 180.325.

2. Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion – First Tier Participants:

a. The prospective first tier participant certifies to the best of its knowledge and belief, that it and its principals:

(1) Are not presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from participating in covered transactions by any Federal department or agency, 2 CFR 180.335;

(2) Have not within a three-year period preceding this proposal been convicted of or had a civil judgment rendered against them for commission of fraud or a criminal offense in connection with obtaining, attempting to obtain, or performing a public (Federal, State, or local) transaction or contract under a public transaction; violation of Federal or State antitrust statutes or commission of embezzlement, theft, forgery, bribery, falsification or destruction of records, making false statements, or receiving stolen property, 2 CFR 180.800;

(3) Are not presently indicted for or otherwise criminally or civilly charged by a governmental entity (Federal, State or local) with commission of any of the offenses enumerated in paragraph (a)(2) of this certification, 2 CFR 180.700 and 180.800; and

(4) Have not within a three-year period preceding this application/proposal had one or more public transactions (Federal, State or local) terminated for cause or default. 2 CFR 180.335(d).

(5) Are not a corporation that has been convicted of a felony violation under any Federal law within the two-year period preceding this proposal (USDOT Order 4200.6 implementing appropriations act requirements); and

(6) Are not a corporation with any unpaid Federal tax liability that has been assessed, for which all judicial and administrative remedies have been exhausted, or have lapsed, and that is not being paid in a timely manner pursuant to an agreement with the authority responsible for collecting the tax liability (USDOT Order 4200.6 implementing appropriations act requirements).

b. Where the prospective participant is unable to certify to any of the statements in this certification, such prospective participant should attach an explanation to this proposal. 2 CFR 180.335 and 180.340.

3. Instructions for Certification - Lower Tier Participants:

(Applicable to all subcontracts, purchase orders, and other lower tier transactions requiring prior FHWA approval or estimated to cost \$25,000 or more - 2 CFR Parts 180 and 1200). 2 CFR 180.220 and 1200.220.

a. By signing and submitting this proposal, the prospective lower tier participant is providing the certification set out below.

b. The certification in this clause is a material representation of fact upon which reliance was placed when this transaction was entered into. If it is later determined that the prospective lower tier participant knowingly rendered an erroneous certification, in addition to other remedies available to the Federal Government, the department, or agency with which

this transaction originated may pursue available remedies, including suspension and/or debarment.

c. The prospective lower tier participant shall provide immediate written notice to the person to which this proposal is submitted if at any time the prospective lower tier participant learns that its certification was erroneous by reason of changed circumstances. 2 CFR 180.365.

d. The terms "covered transaction," "debarred," "suspended," "ineligible," "participant," "person," "principal," and "voluntarily excluded," as used in this clause, are defined in 2 CFR Parts 180, Subpart I, 180.900 – 180.1020, and 1200. You may contact the person to which this proposal is submitted for assistance in obtaining a copy of those regulations. "First Tier Covered Transactions" refers to any covered transaction between a recipient or subrecipient of Federal funds and a participant (such as the prime or general contract). "Lower Tier Covered Transactions" refers to any covered transaction under a First Tier Covered Transaction (such as subcontracts). "First Tier Participant" refers to the participant who has entered into a covered transaction with a recipient or subrecipient of Federal funds (such as the prime or general contractor). "Lower Tier Participant" refers any participant who has entered into a covered transaction with a First Tier Participant or other Lower Tier Participants (such as subcontractors and suppliers).

e. The prospective lower tier participant agrees by submitting this proposal that, should the proposed covered transaction be entered into, it shall not knowingly enter into any lower tier covered transaction with a person who is debarred, suspended, declared ineligible, or voluntarily excluded from participation in this covered transaction, unless authorized by the department or agency with which this transaction originated. 2 CFR 1200.220 and 1200.332.

f. The prospective lower tier participant further agrees by submitting this proposal that it will include this clause titled "Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion-Lower Tier Covered Transaction," without modification, in all lower tier covered transactions and in all solicitations for lower tier covered transactions exceeding the \$25,000 threshold. 2 CFR 180.220 and 1200.220.

g. A participant in a covered transaction may rely upon a certification of a prospective participant in a lower tier covered transaction that is not debarred, suspended, ineligible, or voluntarily excluded from the covered transaction, unless it knows that the certification is erroneous. A participant is responsible for ensuring that its principals are not suspended, debarred, or otherwise ineligible to participate in covered transactions. To verify the eligibility of its principals, as well as the eligibility of any lower tier prospective participants, each participant may, but is not required to, check the System for Award Management website (<https://www.sam.gov/>), which is compiled by the General Services Administration. 2 CFR 180.300, 180.320, 180.330, and 180.335.

h. Nothing contained in the foregoing shall be construed to require establishment of a system of records in order to render in good faith the certification required by this clause. The knowledge and information of participant is not required to exceed that which is normally possessed by a prudent person in the ordinary course of business dealings.

i. Except for transactions authorized under paragraph e of these instructions, if a participant in a covered transaction knowingly enters into a lower tier covered transaction with a person who is suspended, debarred, ineligible, or voluntarily

excluded from participation in this transaction, in addition to other remedies available to the Federal Government, the department or agency with which this transaction originated may pursue available remedies, including suspension and/or debarment. 2 CFR 180.325.

* * * * *

4. Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion--Lower Tier Participants:

a. The prospective lower tier participant certifies, by submission of this proposal, that neither it nor its principals:

(1) is presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from participating in covered transactions by any Federal department or agency, 2 CFR 180.355;

(2) is a corporation that has been convicted of a felony violation under any Federal law within the two-year period preceding this proposal (USDOT Order 4200.6 implementing appropriations act requirements); and

(3) is a corporation with any unpaid Federal tax liability that has been assessed, for which all judicial and administrative remedies have been exhausted, or have lapsed, and that is not being paid in a timely manner pursuant to an agreement with the authority responsible for collecting the tax liability. (USDOT Order 4200.6 implementing appropriations act requirements)

b. Where the prospective lower tier participant is unable to certify to any of the statements in this certification, such prospective participant should attach an explanation to this proposal.

* * * * *

XI. CERTIFICATION REGARDING USE OF CONTRACT FUNDS FOR LOBBYING

This provision is applicable to all Federal-aid construction contracts and to all related subcontracts which exceed \$100,000. 49 CFR Part 20, App. A.

1. The prospective participant certifies, by signing and submitting this bid or proposal, to the best of his or her knowledge and belief, that:

a. No Federal appropriated funds have been paid or will be paid, by or on behalf of the undersigned, to any person for influencing or attempting to influence an officer or employee of any Federal 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 contract, the making of any Federal grant, the making of any Federal loan, the entering into of any cooperative agreement, and the extension, continuation, renewal, amendment, or modification of any Federal contract, grant, loan, or cooperative agreement.

b. If any funds other than Federal appropriated funds have been paid or will be paid to any person for influencing or attempting to influence an officer or employee of any Federal 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.

2. This certification is a material representation of fact upon which reliance was placed when this transaction was made or entered into. Submission of this certification is a prerequisite for making or entering into this transaction imposed by 31 U.S.C. 1352. Any person who fails to file the required certification shall be subject to a civil penalty of not less than \$10,000 and not more than \$100,000 for each such failure.

3. The prospective participant also agrees by submitting its bid or proposal that the participant shall require that the language of this certification be included in all lower tier subcontracts, which exceed \$100,000 and that all such recipients shall certify and disclose accordingly.

XII. USE OF UNITED STATES-FLAG VESSELS:

This provision is applicable to all Federal-aid construction contracts, design-build contracts, subcontracts, lower-tier subcontracts, purchase orders, lease agreements, or any other covered transaction. 46 CFR Part 381.

This requirement applies to material or equipment that is acquired for a specific Federal-aid highway project. 46 CFR 381.7. It is not applicable to goods or materials that come into inventories independent of an FHWA funded-contract.

When oceanic shipments (or shipments across the Great Lakes) are necessary for materials or equipment acquired for a specific Federal-aid construction project, the bidder, proposer, contractor, subcontractor, or vendor agrees:

1. To utilize privately owned United States-flag commercial vessels to ship at least 50 percent of the gross tonnage (computed separately for dry bulk carriers, dry cargo liners, and tankers) involved, whenever shipping any equipment, material, or commodities pursuant to this contract, to the extent such vessels are available at fair and reasonable rates for United States-flag commercial vessels. 46 CFR 381.7.

2. To furnish within 20 days following the date of loading for shipments originating within the United States or within 30 working days following the date of loading for shipments originating outside the United States, a legible copy of a rated, 'on-board' commercial ocean bill-of-lading in English for each shipment of cargo described in paragraph (b)(1) of this section to both the Contracting Officer (through the prime contractor in the case of subcontractor bills-of-lading) and to the Office of Cargo and Commercial Sealift (MAR-620), Maritime Administration, Washington, DC 20590. (MARAD requires copies of the ocean carrier's (master) bills of lading, certified onboard, dated, with rates and charges. These bills of lading may contain business sensitive information and therefore may be submitted directly to MARAD by the Ocean Transportation Intermediary on behalf of the contractor). 46 CFR 381.7.

**ATTACHMENT A - EMPLOYMENT AND MATERIALS
PREFERENCE FOR APPALACHIAN DEVELOPMENT
HIGHWAY SYSTEM OR APPALACHIAN LOCAL ACCESS
ROAD CONTRACTS (23 CFR 633, Subpart B, Appendix B)**

This provision is applicable to all Federal-aid projects funded under the Appalachian Regional Development Act of 1965.

1. During the performance of this contract, the contractor undertaking to do work which is, or reasonably may be, done as on-site work, shall give preference to qualified persons who regularly reside in the labor area as designated by the DOL wherein the contract work is situated, or the subregion, or the Appalachian counties of the State wherein the contract work is situated, except:

a. To the extent that qualified persons regularly residing in the area are not available.

b. For the reasonable needs of the contractor to employ supervisory or specially experienced personnel necessary to assure an efficient execution of the contract work.

c. For the obligation of the contractor to offer employment to present or former employees as the result of a lawful collective bargaining contract, provided that the number of nonresident persons employed under this subparagraph (1c) shall not exceed 20 percent of the total number of employees employed by the contractor on the contract work, except as provided in subparagraph (4) below.

2. The contractor shall place a job order with the State Employment Service indicating (a) the classifications of the laborers, mechanics and other employees required to perform the contract work, (b) the number of employees required in each classification, (c) the date on which the participant estimates such employees will be required, and (d) any other pertinent information required by the State Employment Service to complete the job order form. The job order may be placed with the State Employment Service in writing or by telephone. If during the course of the contract work, the information submitted by the contractor in the original job order is substantially modified, the participant shall promptly notify the State Employment Service.

3. The contractor shall give full consideration to all qualified job applicants referred to him by the State Employment Service. The contractor is not required to grant employment to any job applicants who, in his opinion, are not qualified to perform the classification of work required.

4. If, within one week following the placing of a job order by the contractor with the State Employment Service, the State Employment Service is unable to refer any qualified job applicants to the contractor, or less than the number requested, the State Employment Service will forward a certificate to the contractor indicating the unavailability of applicants. Such certificate shall be made a part of the contractor's permanent project records. Upon receipt of this certificate, the contractor may employ persons who do not normally reside in the labor area to fill positions covered by the certificate, notwithstanding the provisions of subparagraph (1c) above.

5. The provisions of 23 CFR 633.207(e) allow the contracting agency to provide a contractual preference for the use of mineral resource materials native to the Appalachian region.

6. The contractor shall include the provisions of Sections 1 through 4 of this Attachment A in every subcontract for work which is, or reasonably may be, done as on-site work.

"General Decision Number: FL20260264 01/02/2026

Superseded General Decision Number: FL20250264

State: Florida

Construction Type: Highway

County: Palm Beach County in Florida.

HIGHWAY CONSTRUCTION PROJECTS

Modification Number Publication Date
 0 01/02/2026

SUFL2022-033 06/27/2024

	Rates	Fringes
CARPENTER.....	\$ 19.98	0.00
CEMENT MASON/CONCRETE FINISHER...	\$ 20.11	0.00
ELECTRICIAN.....	\$ 27.05	0.00
IRONWORKER.....	\$ 24.44	0.00
LABORER: Asphalt, Includes Raker, Shoveler, Spreader and Distributor.....	\$ 16.65	0.00
LABORER: Common or General.....	\$ 16.94	0.00
LABORER: Mason Tender - Cement/Concrete.....	\$ 20.24	2.01
LABORER: Pipelayer.....	\$ 17.15	0.00
LABORER: Grade Checker.....	\$ 17.21	0.00
OPERATOR: Backhoe/Excavator/Trackhoe.....	\$ 21.96	2.32
OPERATOR: Bobcat/Skid Steer/Skid Loader.....	\$ 17.10	0.00
OPERATOR: Boom.....	\$ 33.61	11.50
OPERATOR: Broom/Sweeper.....	\$ 16.46	0.00
OPERATOR: Bulldozer.....	\$ 20.52	0.00
OPERATOR: Crane.....	\$ 34.84	0.00
OPERATOR: Grader/Blade.....	\$ 19.25	0.00
OPERATOR: Loader.....	\$ 17.83	0.00
OPERATOR: Mechanic.....	\$ 29.69	0.00
OPERATOR: Milling Machine.....	\$ 19.68	0.00
OPERATOR: Paver (Asphalt, Aggregate, and Concrete).....	\$ 21.74	0.00

OPERATOR: Piledriver.....	\$ 22.02	0.00
OPERATOR: Roller.....	\$ 16.82	0.00
OPERATOR: Scraper.....	\$ 15.54	0.00
OPERATOR: Screed.....	\$ 19.24	0.00
OPERATOR: Tractor.....	\$ 16.91	0.66
PAINTER.....	\$ 21.02	0.00
TRAFFIC CONTROL PERSON.....	\$ 16.68	0.00
TRUCK DRIVER: Dump Truck.....	\$ 16.53	0.00
TRUCK DRIVER: Flatbed Truck.....	\$ 19.46	0.00
TRUCK DRIVER: Lowboy Truck.....	\$ 21.36	2.45
TRUCK DRIVER: Off the Road Truck.....	\$ 16.55	0.00
TRUCK DRIVER: Water Truck.....	\$ 18.27	0.00
TRUCK DRIVER: Distributor Truck.....	\$ 19.02	0.00

WELDERS - Receive rate prescribed for craft performing operation to which welding is incidental.

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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>.

Note: Executive Order 13658 generally applies to contracts subject to the Davis-Bacon Act that were awarded on or between January 1, 2015 and January 29, 2022, and that have not been renewed or extended on or after January 30, 2022. Executive Order 13658 does not apply to contracts subject only to the Davis-Bacon Related Acts regardless of when they were awarded. If a contract is subject to Executive Order 13658, the contractor must pay all covered workers at least \$13.30 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 2025. The applicable Executive Order

minimum wage rate will be adjusted annually. Additional information on contractor requirements and worker protections under Executive Order 13658 is available at www.dol.gov/whd/govcontracts.

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) (iii)).

The body of each wage determination lists the classifications and wage rates that have been found to be prevailing for the type(s) of construction and geographic area covered by the wage determination. The classifications are listed in alphabetical order under rate identifiers indicating whether the particular rate is a union rate (current union negotiated rate), a survey rate, a weighted union average rate, a state adopted rate, or a supplemental classification rate.

Union Rate Identifiers

A four-letter identifier beginning with characters other than ""SU"", ""UAVG"", ?SA?, or ?SC? denotes that a union rate was prevailing for that classification in the survey. Example: PLUM0198-005 07/01/2024. PLUM is an identifier of the union whose collectively bargained rate 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. The date, 07/01/2024 in the example, is the effective date of the most current negotiated rate.

Union prevailing wage rates are updated to reflect all changes over time that are reported to WHD in the rates in the collective bargaining agreement (CBA) governing the classification.

Union Average Rate Identifiers

The UAVG identifier indicates that no single rate prevailed for those classifications, but that 100% of the data reported for the classifications reflected union rates. EXAMPLE: UAVG-OH-0010 01/01/2024. UAVG indicates that the rate is a weighted union average rate. OH indicates the State of Ohio. The next number, 0010 in the example, is an internal number used in producing the wage determination. The date, 01/01/2024 in the example, indicates the date the wage determination was updated to reflect the most current union average rate.

A UAVG rate will be updated once a year, usually in January, to reflect a weighted average of the current rates in the collective bargaining agreements on which the rate is based.

Survey Rate Identifiers

The ""SU"" identifier indicates that either a single non-union rate prevailed (as defined in 29 CFR 1.2) for this classification in the survey or that the rate was derived by computing a weighted average rate based on all the rates reported in the survey for that classification. As a weighted

average rate includes all rates reported in the survey, it may include both union and non-union rates. Example: SUFL2022-007 6/27/2024. SU indicates the rate is a single non-union prevailing rate or a weighted average of survey data for that classification. FL indicates the State of Florida. 2022 is the year of the 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. The date, 6/27/2024 in the example, indicates the survey completion date for the classifications and rates under that identifier.

?SU? wage rates typically remain in effect until a new survey is conducted. However, the Wage and Hour Division (WHD) has the discretion to update such rates under 29 CFR 1.6(c)(1).

State Adopted Rate Identifiers

The ""SA"" identifier indicates that the classifications and prevailing wage rates set by a state (or local) government were adopted under 29 C.F.R 1.3(g)-(h). Example: SAME2023-007 01/03/2024. SA reflects that the rates are state adopted. ME refers to the State of Maine. 2023 is the year during which the state completed the survey on which the listed classifications and rates are based. The next number, 007 in the example, is an internal number used in producing the wage determination. The date, 01/03/2024 in the example, reflects the date on which the classifications and rates under the ?SA? identifier took effect under state law in the state from which the rates were adopted.

WAGE DETERMINATION APPEALS PROCESS

1) Has there been an initial decision in the matter? This can be:

- a) a survey underlying a wage determination
- b) an existing published wage determination
- c) an initial WHD letter setting forth a position on a wage determination matter
- d) an initial conformance (additional classification and rate) determination

On survey related matters, initial contact, including requests for summaries of surveys, should be directed to the WHD Branch of Wage Surveys. Requests can be submitted via email to davisbaconinfo@dol.gov or by mail to:

Branch of Wage Surveys
Wage and Hour Division
U.S. Department of Labor
200 Constitution Avenue, N.W.
Washington, DC 20210

Regarding any other wage determination matter such as conformance decisions, requests for initial decisions should be directed to the WHD Branch of Construction Wage Determinations. Requests can be submitted via email to BCWD-Office@dol.gov or by mail 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 an initial decision has been issued, then any interested party (those affected by the action) that disagrees with the decision can request review and reconsideration from the Wage and Hour Administrator (See 29 CFR Part 1.8 and 29 CFR Part 7). Requests for review and reconsideration can be submitted via email to dba.reconsideration@dol.gov or by mail 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 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.

=====

END OF GENERAL DECISION

..

IN WITNESS WHEREOF, the CITY and CONTRACTOR have caused this Agreement to be executed the day and year shown above.

ATTEST:

CITY OF DELRAY BEACH

Alexis Givings, City Clerk

By: _____
Thomas F. Carney, Jr., Mayor

Approved as to form and legal sufficiency:

Lynn Gelin, City Attorney

CONTRACTOR

By: _____

Print Name: _____

Title: _____

(SEAL)

STATE OF _____

COUNTY OF _____

The foregoing instrument was acknowledged before me by means of physical presence or online notarization, this ___ day of _____, 20___, by _____ (name of person), as _____ (type of authority) for _____ (name of party on behalf of whom instrument was executed).

Personally known ___ OR Produced Identification ___

Type of Identification Produced _____

Notary Public – State of _____

CERTIFICATE
(If a Corporation)

STATE OF _____)
) SS
COUNTY OF _____)

I HEREBY CERTIFY that a meeting of the Board of Directors of _____,
a Corporation under the laws of the State of _____ held on _____, 20__ the
following resolution was duly passed and adopted:

“RESOLVED, that _____, as _____ of the
Corporation, be and he is hereby authorized to execute the Proposal dated
_____, 20__, between the City of Delray Beach, Florida and this Corporation,
and that his execution thereof, attested by the Secretary of the Corporation and with corporate seal
affixed, shall be the official act and deed of this Corporation”.

I further certify that said resolution is now in full force and effect.

IN WITNESS WHEREOF, I have hereunto set my hand this ____ day of _____, 20__.

By: _____

Print Name: _____

Title: _____

Subscribed and sworn to before me this ____ day of _____, 20__.

Signature and Stamp of Notary Public

My Commission Expires:

SAMPLE SURETY PERFORMANCE AND PAYMENT BOND

Bond No _____

By this Bond, We _____, as Principal, whose principal business address and phone number are _____, as Contractor under the contract dated _____, 20____. Between Principal and the City of Delray Beach, whose principal address and phone number are _____ for the construction of:

ITBC NO.: 2026-014
Brant Bridge Connector
CITY PROJECT NO.: 20-015
FDOT LAP Project No. 441586-1-58-01

(hereinafter referred to as "Contract") the terms of which Contract are incorporated by reference in its entirety into this Bond and _____, as Surety, whose principal business address and telephone number are _____ the sum of (U.S. dollars) \$ _____, for payment of which we bind ourselves, our heirs, personal representatives, successors, and assigns, jointly and severally.

THE CONDITION OF THIS BOND is that Principal:

1. Performs, all the work under the Contract, including but not limited to guarantees, warranties and the curing of latent defects, said Contract being made a part of this bond by reference, and in the times and in the manner prescribed in the Contract, including any and all damages for delay; and
2. Promptly makes payments to all claimants, as defined in Section 255.05(1) Florida Statutes, supplying Principal with labor, materials, or supplies, used directly or indirectly by Principal in the prosecution of the work provided for in the contract and
3. Pays City all losses, damages, including damages for delay, expenses, costs and attorney's fees, including appellate proceedings, that City sustains because of a default by Principal under the Contract, including but not Limited to a failure to honor all guarantees and warranties or to cure latent defects in its work or materials within 5 years after completion of the work under the Contract; and
4. Performs the guarantee of all work and materials furnished under the contract for the time specified in the Contract, including all warranties and curing all latent defects within 5 years after completion of the work under the Contract;

then this bond is void; otherwise it remains in full force.

In the event that Principal shall fail to comply fully with, carry out and perform the terms and conditions of the Contract the Surety, following receipt of a written demand by the Obligee to correct Principal's default(s), and having failed to correct such default (s) within a reasonable time , shall be deemed to be in default fifteen (15) days after receipt of an additional written demand by the Obligee to correct the Principal's default, and the Obligee shall be entitled to enforce any remedy against Surety available to the Obligee including, but not limited to recovery of damages for the Surety's delay.

If no specific periods of warranty are stated in the Contract for any particular item or work, material or equipment, the warranty shall be deemed to be a period of one (1) year from the date of final acceptance by the City. This Bond does not limit the City's ability to pursue suits directly with the Principal seeking damages for latent defects in materials or workmanship, such actions being subject to the limitations found in Section 95.11(3) include, Florida Statutes.

Any action instituted by a claimant under this bond for payment must be in accordance with the notice and time limitation provisions in Section 255.05 (2), Florida Statutes.

Any changes in or under the Contract Documents and compliance or noncompliance with any formalities connected with the Contract or the changes does not affect Surety's obligation under this Bond.

IN WITNESS WHEREOF, the above bounden parties have caused this Bond to be executed by their appropriate officials as of the ____ day of _____, 20__.

CONTRACTOR: _____
(Contractor Name)

WITNESS: _____

BY: _____
(President, Managing Partner, or Joint Venturer)

(SEAL)

SURETY: _____

FLORIDA AGENT OF SURETY: _____

(Copy of Agent's current Identification Card as issued by State of Florida Insurance Commissioner must be attached)

WITNESS: _____

BY: _____
(Attorney-in-Fact)

(CORPORATE SEAL)

LETTER OF CREDIT FORMAT

LETTER OF CREDIT NO.: _____

ISSUANCE DATE: _____

APPLICANT:
{Name of Corporation}
{Address}
{City, State, Zip}

BENEFICIARY:
CITY OF DELRAY BEACH
100 N.W. 1ST AVENUE
DELRAY BEACH, FL 33444

FOR U.S.D. \$ _____
DATE OF EXPIRATION: _____

WE HEREBY ESTABLISH OUR IRREVOCABLE LETTER OF CREDIT NO. _____ IN FAVOR OF THE BENEFICIARY, THE CITY OF DELRAY BEACH, FLORIDA FOR THE ACCOUNT OF THE ABOVE-REFERENCED APPLICANT, AVAILABLE BY YOUR DRAFTS DRAWN ON **{Name of Bank}** PAYABLE AT SIGHT FOR ANY SUM OF MONEY NOT TO EXCEED A TOTAL OF **{Amount of Money}**, THE AMOUNT REFERENCED ABOVE.

DEMANDS OF THE LETTER OF CREDIT MUST BE ACCOMPANIED BY A STATEMENT FROM THE CITY MANAGER OF THE CITY OF DELRAY BEACH CERTIFYING EITHER: (1) THAT SAID LETTER OF CREDIT IS ABOUT TO EXPIRE AND HAS NOT BEEN RENEWED, OR (2) THAT WORK HAS NOT BEEN COMPLETED IN ACCORDANCE WITH THE PLANS, SPECIFICATIONS, AND AGREEMENTS (INCLUDING ANY AMENDMENTS THEREOF) FOR THE FOLLOWING PROJECT: **{Name of Project}** (THE 'PROJECT').

IT IS A CONDITION OF THIS LETTER OF CREDIT THAT IT WILL BE AUTOMATICALLY EXTENDED FOR PERIODS OF ONE YEAR FROM EXPIRY DATE HEREOF, OR ANY FUTURE EXPIRATION DATE, WITHOUT ANY AMENDMENT, UNLESS THIRTY (30) DAYS BUT NO MORE THAN SIXTY (60) DAYS PRIOR TO ANY EXPIRATION DATE WE SHALL NOTIFY THE CITY OF DELRAY BEACH IN WRITING BY CERTIFIED MAIL RETURN RECEIPT REQUESTED, OR BY COURIER VIA HAND DELIVERY AT THE ABOVE-LISTED ADDRESS, THAT WE ELECT NOT TO CONSIDER THIS LETTER OF CREDIT RENEWED FOR ANY SUCH ADDITIONAL PERIOD.

WE HEREBY AGREE WITH THE DRAWERS, ENDORSERS, AND BONA FIDE HOLDERS OF ALL DRAFTS DRAWN UNDER AND IN COMPLIANCE WITH THE TERMS OF THE CREDIT THAT SUCH DRAFTS WILL BE DULY HONORED UPON PRESENTATION TO **{Name of Bank}** (THE 'BANK'), WHICH IS DULY AUTHORIZED TO CONDUCT BUSINESS IN THE STATE OF FLORIDA IN ACCORDANCE WITH THE TERMS HEREOF. IF A DRAFT, AS DESCRIBED IN THIS LETTER OF CREDIT, IS PRESENTED PRIOR TO THE EXPIRATION DATE AND IN CONFORMITY WITH THE TERMS OF THIS LETTER OF CREDIT AND UPON PRESENTATION IT IS WRONGFULLY DISHONORED BY THE BANK, THE BANK AGREES TO PAY REASONABLE ATTORNEYS FEES AND COSTS, INCLUDING FEES AND COSTS ON APPEAL, INCURRED BY THE CITY OF DELRAY BEACH TO ENFORCE THIS LETTER OF CREDIT SHOULD THE CITY PREVAIL.

DOCUMENTS MUST BE PRESENTED FOR PAYMENT TO:

{Name of Bank Branch}

{Address}

{City, State, Zip}

ATTN: **{Department}**

ALL DRAWINGS UNDER THIS LETTER OF CREDIT MUST BE ACCOMPANIED BY THE ORIGINAL LETTER OF CREDIT INSTRUMENT WHICH WILL BE RETURNED TO THE BENEFICIARY AFTER ENDORSING THE BACK OF SAME WITH THE AMOUNT OF EACH DRAWING BY US.

PARTIAL DRAWINGS ARE PERMITTED.

THE AMOUNT OF ANY DRAFT DRAWN UNDER THIS CREDIT MUST BE ENDORSED ON THE REVERSE OF THE ORIGINAL CREDIT. ALL DRAFTS MUST BE MARKED "DRAWN UNDER **{Name of Bank}** LETTER OF CREDIT NUMBER _____ DATED _____, 20__.

THIS CREDIT IS SUBJECT TO THE "UNIFORM CUSTOMS AND PRACTICE FOR DOCUMENTARY CREDITS, (2007 REVISION), INTERNATIONAL CHAMBER OF COMMERCE PUBLICATION NO. 600", AND TO THE PROVISIONS OF FLORIDA LAW. IF A CONFLICT BETWEEN THE UNIFORM CUSTOMS AND PRACTICE FOR DOCUMENTARY CREDITS AND FLORIDA LAW SHOULD ARISE, FLORIDA LAW SHALL PREVAIL. IF A CONFLICT BETWEEN THE LAW OF ANOTHER STATE OR COUNTRY AND FLORIDA LAW SHOULD ARISE, FLORIDA LAW SHALL PREVAIL. VENUE FOR ANY DISPUTES RELATING TO THE ENFORCEMENT OF THIS LETTER OF CREDIT SHALL BE PALM BEACH COUNTY, FLORIDA.

{Name of Bank}

BY: _____

{Name}

{Title}

LIMITED POWER OF ATTORNEY

and

(Principal)

(Surety)

hereby grants the City Clerk of the City of Delray Beach Power of Attorney to insert the date of execution on the contract, surety bonds to the contract and agreement entitled, _____

In Witness Whereof, we have hereunto set our hand and seal this ____ day of _____, 20__.

Principal (SEAL)

Surety (SEAL)

WITNESS: _____

PRINT NAME: _____

WITNESS: _____

PRINT NAME: _____

[remainder of this page left blank intentionally]

CORPORATE ACKNOWLEDGEMENT

STATE OF _____)
) SS
COUNTY OF _____)

The foregoing instrument was acknowledged before me this ____ day of _____, 20__,
by _____ (name of officer or agent, title of officer or agent),
of _____ (name of corporation acknowledging), a
_____ (state or place of incorporation) corporation, on behalf of the corporation. He/She
is (personally known to me) (or has produced identification) _____
(type of identification).

By: _____
Print Name: _____
Title: _____

Subscribed and sworn to before me this ____ day of _____, 20__.

Signature and Stamp of Notary Public

My Commission Expires:

[remainder of this page left blank intentionally]

NOTICE OF INTENT TO AWARD

DATE: _____

TO: _____
(Bidder)

ADDRESS: _____

ITBC NO.: 2026-014
Brant Bridge Connector
CITY PROJECT NO.: 20-015
FDOT LAP Project No. 441586-1-58-01

You are notified that your Bid dated _____, for the above Contract has been considered. You are the apparent Successful Bidder. Accordingly, notice is hereby given of the Tentative Award of this contract to you.

The Contract Price of your contract is: \$ _____

Dollars

Cents

Five (5) copies of each of the proposed Contract Documents, (except Drawings) accompany this Notice of Intent to Award.

You must comply with the following conditions precedent within fifteen (15) days of the date of this Notice of Intent to Award (that is by _____):

1. You must deliver to the CITY five (5) fully executed counterparts of the Agreement including all the Contract Documents. Each of the Contract Documents must bear your signature on the cover page of each set of Contract Documents.
2. You must deliver with the executed Agreement, Insurance Certificates and the Contract Security Bonds as specified in the Instructions to Bidders and in Article 6 of the General Conditions together with Power of Attorney for use by the City for the purpose of inserting the date of execution of the Contract Surety Bonds and the Agreement, within fifteen (15) calendar days from the date of this Notice to you.
3. You should have the following prepared for the preconstruction conference.
 - (a) A preliminary project construction progress schedule.
 - (b) An itemized schedule of payment and values.
 - (c) A detailed shop drawing submission plan.

Failure to comply with these conditions within the time specified will entitle the CITY to consider your bid abandoned, to annul this Notice of Intent to Award and to declare your Bid Security forfeited.

Within forty-five (45) days after you comply with those conditions, if the contract is approved by the City Commission, the CITY will return to you one fully signed counterpart of the Agreement with the Contract Documents attached.

City of Delray Beach

By: _____

Print Name: _____

Title: _____

ACCEPTANCE OF NOTICE

Receipt of the above NOTICE OF INTENT TO AWARD is hereby acknowledged by
_____ this the ____ day of _____, 20__.

By: _____

Print Name: _____

Title: _____

Copy to: City of Delray Beach
(Use Certified Mail, Return Receipt Requested)

NOTICE TO PROCEED

DATE: _____

TO: _____
(Contractor)

ADDRESS: _____

ITBC NO.: 2026-014
Brant Bridge Connector
CITY PROJECT NO.: 20-015
FDOT LAP Project No. 441586-1-58-01

You are notified that the Contract time under the above contract will commence to run on the ____ day of _____, 20___. By that date, you are to start performing your obligations under the Contract Documents. In accordance with the Agreement the dates of Substantial Completion and Final Completion are the ____ day of _____, 20__ and the ____ of _____, 20__, respectively.

City of Delray Beach

By: _____

Print Name: _____

Title: _____

Copy to _____
(Use Certified Mail, Return Receipt Requested)

cc: Purchasing Manager
Project file

CERTIFICATE OF SUBSTANTIAL COMPLETION

DATE: _____

TO: _____
(Contractor)

ADDRESS: _____

ITBC NO.: 2026-014
Brant Bridge Connector
CITY PROJECT NO.: 20-015
FDOT LAP Project No. 441586-1-58-01

CONTRACT DATE: _____

This Certificate of Substantial Completion applies to all Work under the Contract Documents or to the following specified parts thereof:

TO: City of Delray Beach, Florida

AND TO: _____
(CONTRACTOR)

The Work to which this Certificate applies has been inspected by authorized representatives of the CITY, CONTRACTOR and CONSULTANT, and that Work is hereby declared to be substantially complete in accordance with the Contract Documents on:

(Date of Substantial Completion)

A tentative list of items to be completed or corrected is attached hereto. This list may not be all-inclusive, and the failure to include an item in it does not alter the responsibility of CONTRACTOR to complete all the Work in accordance with the Contract Documents. The items in the tentative list shall be completed or corrected by CONTRACTOR within _____ days of Substantial Completion.

The responsibilities between the CITY and CONTRACTOR for security, operation, safety, maintenance, heat, utilities, insurance, and warranties shall be as follows:

RESPONSIBILITIES:

CITY:

CONTRACTOR:

The following documents are attached to and made a part of this Certificate:

This certificate does not constitute an acceptance of Work not in accordance with the Contract documents nor is it a release of CONTRACTOR'S obligation to complete the Work in accordance with the Contract Documents.

Executed by CONSULTANT on this ____ day of _____, 20__.

By: _____

Print Name: _____

Title: _____

CONTRACTOR accepts this Certificate of Substantial Completion on this ____ day of _____, 20__.

By: _____

Print Name: _____

Title: _____

The CITY accepts this Certificate of Substantial Completion on this ____ day of _____, 20__.

By: _____

Print Name: _____

Title: _____

WARRANTY OF TITLE
(For Periodic Progress Payments)

STATE OF _____)

) SS

COUNTY OF _____)

CONTRACTOR: _____

ITBC NO.: 2026-014
Brant Bridge Connector
CITY PROJECT NO.: 20-015
FDOT LAP Project No. 441586-1-58-01

BEFORE ME, the undersigned authority, personally appeared _____
(the "Affiant"), who after being duly sworn, says that he is the "CONTRACTOR", pursuant to a Contract (the
"Contract") dated the ____ day of _____, 20__, with the CITY OF DELRAY BEACH, FLORIDA,
(the "OWNER"), for the supply of certain labor and/or materials (the "Work"), to certain property, as shown
and described in the Contract Documents, subsequent Addenda or Change Orders, and on behalf of the
Contractor makes the following warranties:

- I. The CONTRACTOR warrants that it has fully completely in accordance with the plans and specifications therefore, that portion of the Work, pursuant to the Contract (the "Completed Work") covered by the attached Periodic Progress Payment Request.
- II. The CONTRACTOR further warrants and represents that:
 1. All subcontractors, vendors, material men, suppliers, and other parties of whatever kind of nature who are entitled to payment from the CONTRACTOR for providing labor and/or materials to the CONTRACTOR pursuant to the Contract as of the date in the last previous request for payment have been paid in full and therefore have delivered to the CONTRACTOR validly executed Partial Release of claims with respect thereto.
 2. Title to all materials and equipment covered by the attached Periodic Pay Request for Payment dated the ____ day of _____, 20__, passes to the City at the time of payment free and clear of all liens.

By: _____

Print Name: _____

Title: _____

Subscribed and sworn to before me this ____ day of _____, 20__.

Signature and Stamp of Notary Public

My Commission Expires:

FINAL RECEIPT

STATE OF _____)
) SS
COUNTY OF _____)

_____ being first duly sworn, deposes and says as follows:

1. HE/SHE is _____ of _____
(Title) (Name of Corporation or Firm)
a _____ corporation which is named in Construction Contract dated the
____ day of _____, 20____, between said corporation as the CONTRACTOR and the CITY OF
DELRAY BEACH, FLORIDA (the CITY) as the OWNER for the construction of:

ITBC NO.: 2026-014
Brant Bridge Connector
CITY PROJECT NO.: 20-015
FDOT LAP Project No. 441586-1-58-01

2. CONTRACTOR has fully completed all construction and work under the Contract and Title to all work, materials and equipment under the Contract passes to the CITY at the time of final payment, free and clear of all liens, and all labors, and material men and subcontractors have been paid in full for performing or furnishing the work, labor or materials under the Contract.

3. Receipt by CONTRACTOR of the final payment from CITY in the amount of
_____ dollars (\$_____)

shall constitute a full release and discharge by CONTRACTOR to the CITY of all claims or liens of CONTRACTOR against OWNER arising out of, connected with, or resulting from performance of the Contract, including full payment for all extra work and material furnished by the undersigned in the construction of said improvements.

4. The undersigned further certifies that all non-exempt taxes imposed by Chapter 212, Florida Statutes (Sales and Use Tax Act), as amended, have been paid and discharged.

5. This statement under oath is given in compliance with Sections 713.05 and 713.06, Florida Statutes.

Affiant Contractor

Signed and sealed in
the presence of:

By: _____

Print Name: _____

Title: _____

Subscribed and sworn to before me this _____ day of _____, 20____.

Signature and Stamp of Notary Public

My Commission Expires:

END OF SECTION 3

SECTION 4: SCOPE OF WORK AND LIST OF EXHIBITS

1. General Requirements

The Scope of Work requires the furnishing of all services and other deliverables necessary for the successful completion of the proposed project. The contractor shall furnish all labor, equipment, and materials required under this scope. The Scope of Work includes: **installation of curbs, sidewalks, shared use paths, accessibility, drainage, swales, pedestrian lighting, signage, milling and resurfacing, pavement markings, sod and lining of some existing gravity sewer mains and manholes under the FDOT LAP program; per the construction documents.**

2. Specifications

Specifications for this project are herein incorporated into this solicitation as:

Exhibit A – Technical Specifications

3. Drawings

Drawings for this project are herein incorporated into this solicitation as:

Exhibit B – Construction Plans;

4. Project Timeline

The awarded Bidder shall agree to substantially complete the work no later than **three hundred and thirty-five (335)** calendar days after the Notice to Proceed is issued. The City will adjust contract time for weather days and holidays in accordance with FDOT and City of Delray Beach standard specifications. Final completion shall be within **thirty (30) calendar days** from the date of Substantial Completion.

5. Bid Items

Refer to Exhibit A, Technical Specifications, for a complete listing of bid items and descriptions.

6. Permits

Permits for this project are herein incorporated into this solicitation as:

Exhibit C – SFWMD and DEP Exemption Correspondence

7. Miscellaneous

Exhibit D – Executed FDOT Local Agency Program Agreement

Exhibit E – FP&L Preliminary Electrical Plans (For references Only)

Exhibit F – Environmental Certification and Commitment (Commitment is for Standard Protection Measures for the Eastern Indigo Snake)

Exhibit G – Bid Item list

SECTION 5: STANDARD GENERAL CONDITIONS

**STANDARD GENERAL CONDITIONS
OF THE CONSTRUCTION CONTRACT
FOR THE CITY OF DELRAY BEACH, FLORIDA**

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STANDARD GENERAL CONDITIONS

ARTICLE 1 – DEFINITIONS

Wherever 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:

ADDENDA - Written or graphic instruments, explanations, interpretations, changes, corrections, additions, deletions or modifications of the contract documents issued prior to the opening of Bids which clarify, correct or change the bidding documents or the Contract Documents.

AGREEMENT - The written agreement between the CITY and CONTRACTOR covering the Work to be performed; when other Contract Documents are attached to the Agreement, they become a part of the Agreement. The Agreement is also referred to as the Contract, interchangeably.

APPLICATION FOR PAYMENT - The form accepted by CONSULTANT which is to be used by CONTRACTOR in requesting progress or final payments and which is to include such supporting documentation as is required by the Contract Documents.

BID - The offer or proposal of the bidder submitted on the prescribed form setting forth the prices for the Work to be performed, properly signed or guaranteed.

BONDS - Bid, Performance and Payment bonds and other instruments which protect against loss due to inability, failure or refusal of the CONTRACTOR to perform the work specified in the contract documents.

CALENDAR DAY - A calendar day of 24 hours measured from midnight to the next midnight, including Saturdays, Sundays and holidays and regardless of the weather.

CHANGE ORDER - A document recommended by CONSULTANT which is signed by the CONTRACTOR and the CITY which authorizes an addition, deletion, or revision in the work, or an adjustment in the Contract Price or Contract Time, issued on or after the execution of the Agreement. Change Orders must be in writing and verbal agreements of any matter are expressly excluded from any definition.

CITY - The City of Delray Beach, Florida, a Florida municipal corporation, its authorized and legal representatives, the public entity with whom the Contractor has entered into the agreement and for whom the work is to be provided. The City may also be referred to in the Contract Documents as the Owner.

CONSTRUCTION SUPERINTENDENT - The construction superintendent shall be in attendance at the project site during performance of the Work and shall represent the CONTRACTOR. Communications given to the construction superintendent or decisions made by the construction superintendent shall be as binding as if given to or made by the CONTRACTOR. Important communications or decisions shall be confirmed in writing. Other communications or decisions shall be similarly confirmed by written request in each case.

CONSULTANT(S) - City of Delray Beach Public Works Department, Engineering Division or its authorized agents, inspectors or representatives acting within the scope of duties entrusted to them by the CITY.

CONTRACT DOCUMENTS - The Advertisement for Bids, Instructions to Bidders, Proposal, Bid Bond, Agreement, Payment Bond, Performance Bond, Certificate of Insurance, Notice of Intent to Award, Notice to Proceed, Certificate of Substantial Completion, Warranty of Title, Final Receipt - Release of Lien, General Conditions, Supplemental General Conditions, Technical Specifications, Contract Drawings, Addenda and Change Orders executed pursuant to the Contract Documents.

CONTRACT PRICE - The total monies payable by the CITY to the CONTRACTOR under the terms and conditions of the Contract Documents which can be modified only by written change order.

CONTRACT TIME - The number of successive calendar days stated in the Contract Documents for the completion of the Work.

CONTRACTOR - The person, firm, or corporation with whom the CITY has executed the Agreement to furnish the Work called for in the Contract Documents and its representatives, agents, employees, officers, directors and all others affiliated therewith.

DEFECTIVE WORK - Work determined by the City or Consultant to be unsatisfactory, faulty, or deficient; or that does not conform to the Contract Documents; or that does not meet the requirements of any inspection, reference standard, test, or approval referred to in the Contract Documents; or Work that has been damaged prior to the CONSULTANT'S recommendation of final payment.

DRAWINGS - The drawings, plans, maps, profiles, diagrams, and other graphic representations which show character, location, nature, extent and scope of the Work, which have been prepared or approved by CONSULTANT and which are considered part of the Contract Documents.

EFFECTIVE DATE OF THE AGREEMENT - The date indicated in the Agreement, but if no such date is indicated it means the date on which the Agreement is signed by the last of the two parties to sign the Agreement.

FIELD ORDER - A written order by the CONSULTANT that does not impact the cost or time of performance of the Work and for which no increase in Contract Sum or Contract Amount shall be permitted.

GENERAL REQUIREMENTS - Division 1 of the Technical Specifications.

LAWS AND REGULATIONS; LAWS OR REGULATIONS - Laws, rules, codes, regulations, ordinances and/or orders promulgated by a lawfully constituted body authorized to issue such Laws and Regulations.

NOTICE OF INTENT TO AWARD - The official written notice by the CITY to the apparent successful bidder stating that upon compliance by the apparent successful bidder with the conditions precedent enumerated therein within the time specified, the CITY may enter into an Agreement for the price specified in the Bid.

NOTICE TO PROCEED - The written notice issued by the CITY, or its agents, to the CONTRACTOR requiring the CONTRACTOR to proceed with the Work and establishing the date of commencement of the Contract Time.

PARTIAL UTILIZATION - Placing a portion of the Work in service for the purpose for which it is intended (or a related purpose) before reaching Substantial Completion for all the Work.

PAYMENT REQUEST - means a request for payment for construction services which conforms with all statutory requirements and with all requirements specified by the City to which the payment request is submitted.

PROJECT - The entire construction to be performed as provided in the Contract Documents.

PROPER INVOICE - means an invoice which conforms with all statutory requirements and with all requirements that have been specified by the City to which the invoice is submitted.

PURCHASE - means the purchase of goods, services, or construction services; the purchase or lease of personal property; or the lease of real property by the City.

RESIDENT PROJECT REPRESENTATIVE (RPR) - The resident project representative, shall be in attendance at the Project site during performance of the Work and shall represent the CITY directly or through the CONSULTANT. Responsibilities of the RPR are further defined in Paragraph 10.3 of these General Conditions.

SHOP DRAWINGS - All drawings, diagrams, illustrations, schedules, and other data which are specifically prepared by or for the CONTRACTOR to illustrate some portion of the Work, and all illustrations, brochures, standard schedules, performance charts, instructions, diagrams and other information prepared by a supplier and submitted by the CONTRACTOR to illustrate material or equipment for some portion of the Work.

SPECIFICATIONS - (Same definition as for Technical Specifications hereinafter).

SUBCONTRACTOR - An individual, firm, or corporation having a direct contract with the CONTRACTOR or with any other Subcontractor for the performance of a part of the Work at the Site.

SUBSTANTIAL COMPLETION - The Work (or a specified part thereof) has progressed to the point where, in the opinion of CONSULTANT as evidenced by CONSULTANT'S definitive certificate of Substantial Completion, it 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 is intended. The terms "substantially complete" and "substantially completed" as applied to any Work refer to Substantial Completion thereof. When the entire Project is considered to be Substantially Complete, this does not constitute Final Acceptance or Final Completion of the entire Project. Substantial Completion cannot occur in the absence of CONSULTANT'S express written approval of such.

SUPPLEMENTARY CONDITIONS - The part of the Contract Documents which amends or supplements these General Conditions.

SUPPLIER - A manufacturer, fabricator, supplier, distributor, material man or vendor.

SURETY - Any person, firm or corporation who is bound by bid or contract bond with and for the CONTRACTOR.

TECHNICAL SPECIFICATIONS - Those portions of the Contract Documents consisting of the General Requirements and written technical descriptions of products and execution of the Work.

UNDERGROUND FACILITIES - All pipelines, conduits, ducts, cables, wires, manholes, vaults, tanks, tunnels or other such facilities or attachments, and any encasements containing such facilities which have been installed underground to furnish any of the following services or materials: electricity, gases, steam, liquid petroleum products, telephone or other communications, cable television, water supply or distribution, sewage and drainage removal, traffic or other control systems.

UNIT PRICE WORK - Work to be paid for on the basis of unit prices rather than on a lump-sum basis.

WORK - The totality of any and all obligations, duties and responsibilities necessary to (or reasonably inferable for) the successful completion of the Project assigned to or undertaken by the CONTRACTOR under the Contract Documents, whether completed or partially completed, including all labor, materials, equipment and other incidentals and the furnishing thereof.

WORK DIRECTIVE CHANGE - A written directive to CONTRACTOR, issued on or after the Effective Date of the Agreement and signed by the CITY and recommended by the CONSULTANT, ordering an addition, deletion or revision in the Work, or which references an emergency or unforeseen physical conditions under which the Work is to be performed. A Work Directive Change may not change the Contract Price or the Contract Time, but is evidence that the parties expect that the change directed or documented by a Work Directive Change will be incorporated in a subsequently issued Change Order following negotiations by the parties as to its effect, if any, on the Contract Price or Contract Time.

WRITTEN AMENDMENT - A written amendment of the Contract Documents, signed by the CITY and CONTRACTOR on or after the Effective Date of the Agreement and normally dealing with the non-engineering or nontechnical rather than strictly Work-related aspects of the Contract Documents.

ARTICLE 2 – THE WORK

2.1 The CONTRACTOR shall perform all of the Work required by the Contract Documents and shall provide materials, supplies, tools, equipment, labor, and services directly related to the Work, and shall perform the Work in a good and workmanlike manner with sufficient manpower to perform the Work in accordance with the time requirements set forth in the Contract Documents, and shall perform all other acts and supply all other things necessary to complete the Work in strict accordance with the Contract Documents. The Work includes the construction and services required by the Contract Documents. The Contractor shall promptly commence the Work required hereby and fully and diligently execute the entire Work as described in the Contract Documents, except to the extent specifically indicated in the Contract Documents to be the responsibility of others. Contractor represents to the City that Contractor shall furnish at all times a sufficient supply of workers, materials, tools and equipment to complete the Work in strict accordance with the Contract Documents, and perform all general requirements and supervision for the construction of the Project in accordance with the Drawings (including all notes and specifications contained in the Drawings) and Specifications. “Work” includes all Work that is reasonably inferable therefrom as being necessary to accomplish the intent of the Contract Documents, being a complete, fully functioning Project. Further, “Work” includes all associated systems needed for a complete, fully functioning Project. All Work is to be performed in accordance with and as required by all applicable building codes, laws, ordinances, rules, and regulations. The Work includes all labor, materials, equipment, and services provided or to be provided by the Contractor to fulfill the Contractor’s obligations. Contractor shall not hinder or delay the City or any separate contractor of the City in the performance of their respective obligations on the Project.

2.2 When completed the Work shall conform to the requirements of the Contract Documents and be completely ready for occupancy and finally completed.

2.3 The CONTRACTOR represents and warrants that:

2.3.1 It is financially solvent and has sufficient working capital to perform obligations under this Construction Contract;

2.3.2 It is experienced and skilled in the construction of the type of project described in this Contract Document;

2.3.3 It is able to provide the labor, materials, equipment and machinery necessary to complete the Work for the agreed upon price;

2.3.4 It is a fully licensed under all applicable laws and authorized to do business in the State of Florida in the name of the entity identified as the “CONTRACTOR” in the Construction Contract;

2.3.5 It has visited the jobsite and examined its nature and location, including without limitation: the surface conditions of the site and any structure or obstruction both natural or man-made; the surface water conditions and waterways of the site and surrounding area; the subsurface conditions of the land as disclosed by soil test borings; and the location of electric and utility lines and water, sanitary, sewer and storm drain lines. The Contract acknowledges receipt and has reviewed the site geotechnical report as provided by the CITY.

2.3.6 It will comply with all federal, state and local government laws, rules regulations and building codes relating to its responsibilities as set forth in the Contract Documents.

ARTICLE 3 – PRELIMINARY MATTERS

DELIVERY OF DOCUMENTS:

3.1. When the CONTRACTOR delivers the signed Agreements to the CITY, the CONTRACTOR shall also deliver to the CITY such Bonds and Insurance Policies, Certificates or other documents as the CONTRACTOR may be required to furnish in accordance with the Contract Documents.

COPIES OF DOCUMENTS:

3.2. The CITY shall furnish to CONTRACTOR five copies (unless otherwise specified in the Supplementary Conditions) of the Contract Documents or as are reasonably necessary for the execution of the Work. Additional copies will be furnished, upon request, at the cost of reproduction.

COMMENCEMENT OF CONTRACT TIME; NOTICE TO PROCEED:

3.3. The Contract Time will commence to run on the day indicated in any Notice to Proceed. A Notice to Proceed may be given at any time within ninety (90) days after the Effective Date of the Agreement.

STARTING THE PROJECT:

3.4. 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.

BEFORE STARTING CONSTRUCTION:

3.5. 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 CONSULTANT any conflict, error, ambiguity or discrepancy which CONTRACTOR may discover and shall obtain a written interpretation or clarification from CONSULTANT before proceeding with any Work affected thereby; CONTRACTOR shall have a continuing obligation to promptly report any conflicts, errors, ambiguities or discrepancies in the Contract Documents to the CONSULTANT over the duration of the Project.

3.5.1 The CONTRACTOR and Subcontractor have fully examined and compared all Drawings, Specifications and other Contract Documents and have compared and reviewed all general and specific details on the Drawings and the various technical and administrative requirements of the Specifications.

3.5.2 With respect to all construction materials, labor, methods, means, techniques and sequence of procedures required to carry out the Work or safety precautions and programs required in connection with carrying out the Work, all conflicts, discrepancies, errors and omissions that CONTRACTOR is aware of as a result of the examination and comparison of the Contract Documents have been either corrected or clarified to the satisfaction of the CONTRACTOR prior to execution of this Construction Contract.

3.5.3 The Contract Sum is reasonable compensation and represents the total lump sum cost for the Work and that all systems and Work shall be functional and in accordance with the requirements of the Contract Documents.

3.5.4 The Contract Time is adequate for the performance of the Work.

3.5.5 The CONTRACTOR is responsible for all means, methods, techniques and sequencing of construction.

3.5.6 If, after execution of this Construction Contract, the CONTRACTOR detects a conflict, discrepancy, error or omission in the Contract Documents then it shall immediately notify CONSULTANT and CITY prior to proceeding with the specific portion of the Work.

3.5.7 CONTRACTOR shall have a continuing duty to read, examine, review, compare and contrast each of the documents which make up this Contract and shall immediately give written notice to the CITY and CONSULTANT of any conflict, ambiguity, error or omission which the CONTRACTOR may find with respect to these documents before proceeding with the affected Work.

3.5.8 In the event of a conflict among the Contract Documents, the most stringent requirement to the CONTRACTOR shall control.

3.5.9 Unless otherwise stated in the Contract Documents, words that have well-known technical or construction industry meanings are used in the Contract Documents in accordance with such recognized meanings. In case of discrepancy between the Drawings (including all notes and specifications contained in the Drawings) and Specifications, or inconsistencies within or between parts of the Contract Documents, or between any of the Contract Documents and applicable standards, codes, and ordinances, the Contractor shall (1) provide the better quality or greater quantity of Work, (2) comply with the more stringent requirement, and (3) provide that which is most beneficial to the City; either or all in accordance with the Consultant's interpretation. On the Drawings, given dimensions shall take precedence over scaled measurements, and large-scale drawings over small-scale drawings. Before ordering any materials or doing any Work, the Contractor shall verify measurements at the Project site and shall be responsible for the correctness of such measurements. The Contractor must call any such conflict or discrepancy between the Contract Documents and/or between the Contract Documents and applicable standards, codes and ordinances and/or between the Contract Documents it discovers to the City's attention, in writing, prior to proceeding with the Work and in sufficient time so as to not to delay the progress. No extra charge, compensation or time adjustment will be allowed on account of differences between actual dimensions encountered in the performance of the Work and the dimensions indicated on the Drawings. Contractor must verify all grades, elevations, dimensions, locations and quantities indicated on the Contract Drawings prior to the performance of Work. The Contractor shall, therefore, satisfy itself as to the accuracy of all grades, elevations, dimensions, locations and quantities. In all cases of interconnection of its Work with existing or other Work, it shall verify at the site all grades, elevations, dimensions, locations and quantities relating to such existing or other Work. Any errors due to the Contractor's failure to so verify all such grades, elevations, dimensions, locations and quantities shall be promptly rectified by the Contractor without any additional cost to the City and without any time extension to Contractor. Any differences found shall be submitted to the Consultant for resolution before proceeding with the Work and in such time so as not to delay the progress of the Work.

3.5.10 Whenever a product to be furnished by Contractor requires it to be in accordance with a Federal Specification, an ASTM Standard, an American National Standards Institute Specification or other Association Standard, including the requirement of compliance with any local certifications for products such as a Notice of Acceptance approving the product, the Contractor shall present an affidavit from the manufacturer when provided by the manufacturer and, when requested by the Consultant or the City or as set forth in the Contract Documents, customary documents from the manufacturer certifying that the product complies with the particular Standard. When provided by the manufacturer and requested by the Consultant or the City, the specified support test data shall be submitted by the Contractor to substantiate compliance.

3.6 At the preconstruction conference, CONTRACTOR shall submit to CONSULTANT for review:

3.6.1 a proposed progress schedule indicating the starting and completion dates of the various stages of the Work; and

3.6.2 a preliminary schedule of Shop Drawing submissions and those shop drawings necessary to begin the work; and

3.6.3 a preliminary schedule of values for all of the Work which will include quantities and prices of items aggregating the Contract Price and will subdivide the Work into component parts in sufficient detail

to serve as the basis for progress payments during construction. Such prices will include an appropriate amount of overhead and profit applicable to each item of Work which will be confirmed in writing by CONTRACTOR at the time of submission; and,

3.6.4. Preconstruction video tapes if required by the technical specifications

3.7. The CONTRACTOR shall not commence construction operations until the construction progress schedule, schedule of values and the shop drawing submission schedule described above have been reviewed by the CONSULTANT for general conformance with the Contract documents. Failure of the CONTRACTOR to timely submit the required documents for the CONSULTANT'S review shall not entitle Contractor to an extension of time or additional compensation under any circumstances. After review of the schedules, no deviation shall be made without prior written acceptance by the CITY for general conformance with the Contract Documents.

RECONSTRUCTION CONFERENCE:

3.8. After the Effective Date of the Agreement, but before CONTRACTOR starts Work at the site, a conference attended by CONTRACTOR, CONSULTANT and others as deemed appropriate by the CITY, CONSULTANT, or CONTRACTOR will be held to discuss the schedules referred to in paragraph 3.6, to discuss 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. Nothing herein shall relieve the CONTRACTOR from the responsibility of contacting local utilities and any other necessary agencies.

FINALIZING SCHEDULES:

3.9. At least ten (10) business days before submission of the first Application for Payment a conference attended by CONTRACTOR, CITY, CONSULTANT and others as appropriate will be held to finalize the schedules submitted in accordance with paragraph 3.6. The finalized progress schedule will be acceptable to the CITY as providing an orderly progression of the Work to completion within the Contract Time, but such acceptance will neither impose on the CITY responsibility for the progress or scheduling of the Work nor relieve CONTRACTOR from full responsibility therefore. The finalized schedule of Shop Drawing submissions will be acceptable to the CITY as providing a workable arrangement for processing the submissions. The finalized schedule of values will be acceptable to the CITY as to form and substance.

ARTICLE 4 – CONTRACT DOCUMENTS: INTENT, AMENDING, REUSE

INTENT:

4.1. The Contract Documents comprise the entire agreement between the CITY and CONTRACTOR concerning the Work. The Contract Documents are complementary: what is called for by one is as binding as if called for by all. The Contract Documents will be construed in accordance with the laws of the State of Florida with exclusive venue in Palm Beach County, Florida.

4.2. It is the intent of the Contract Documents to describe a functionally complete Project (or part thereto) to be constructed in accordance with the Contract Documents. Any Work, materials or equipment that may reasonably be inferred from the Contract Documents as being required to produce the intended result shall be supplied whether or not specifically called for. When words which have a well-known technical or trade meaning are used to describe Work, materials or equipment such words shall be interpreted in accordance with that meaning. Reference to standard specifications, manuals or codes of any technical society, organization or association, or to the Laws or Regulations of any governmental authority, whether such reference be specific or by implication, shall mean the latest standard specification, manual, code or Laws or Regulations in effect at the time of opening of 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 be effective to change the duties or responsibilities of the CITY, CONTRACTOR or CONSULTANT or any of their

consultants, agents or employees from those set forth in the Contract Documents, nor shall it be effective to assign to CONSULTANT'S, agents or employees, any duty or authority to supervise or direct the furnishing or performance of the Work or any duty or authority to undertake responsibility contrary to the provisions of paragraph 10.15 or 10.16. Clarifications and interpretations of the Contract Documents shall be issued by the CONSULTANT as provided in paragraph 10.4.

4.3. If, during the performance of the Work, CONTRACTOR finds a conflict, error or discrepancy in the Contract Documents, CONTRACTOR shall **immediately** so notify the CONSULTANT, in writing, at once and before proceeding with the Work affected thereby shall obtain a written interpretation or clarification.

The captions or subtitles of the several articles and divisions of these Contract Documents constitute no part of the context and hereof, but are only labels to Assist in locating and reading the provisions hereof.

AMENDING AND SUPPLEMENTING CONTRACT DOCUMENTS:

4.4. The Contract Documents may be amended to provide for additions, deletions and revisions in the Work or to modify the terms and conditions thereof in one or more of the following ways:

4.4.1. a formal Written Amendment.

4.4.2. a Change Order (pursuant to paragraph 11.4), or

4.4.3. a Work Directive Change (pursuant to paragraph 11.2).

As indicated in paragraphs 11.2 and 12.2, Contract Price and Contract Time may only be changed by a Change Order or by a Written Amendment.

4.5. In addition, the requirements of the Contract Documents may be supplemented and minor variations and deviations in the Work may be authorized, in one or more of the following ways:

4.5.1. a Field Order (pursuant to paragraph 10.5)

4.5.2. CONSULTANT'S approval of a Shop Drawing or sample (pursuant to paragraphs 7.26 and 7.27), or

4.5.3. CONSULTANT'S written interpretation or clarification (pursuant to paragraph 10.4).

REUSE OF DOCUMENTS:

4.6. Neither CONTRACTOR nor any Subcontractor or Supplier or other person or organization performing or furnishing any of the Work under a direct or indirect contract with the CITY shall have or acquire any title to or ownership rights in any of the Contract Documents, drawings, technical specifications or other documents used on the work; and, they shall not reuse any of them on extensions of the Project or any other project without prior written consent of the CITY and CONSULTANT.

ARTICLE 5 – AVAILABILITY OF LANDS; PHYSICAL CONDITIONS; REFERENCE POINTS

AVAILABILITY OF LANDS:

5.1. The CITY shall furnish, as indicated in the Contract Documents, the lands upon which the Work is to be performed, rights-of-way and easements 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 the CITY, unless otherwise provided in the Contract Documents. CONTRACTOR shall provide for all additional lands and access thereto that may be required for temporary construction facilities or storage of materials and equipment.

5.1.1. Occupying Private Land: The Contractor shall not (except after written consent from the proper parties) enter or occupy with men, tools, equipment or materials, any land outside the rights-of-way or property of the City. A copy of the written consent shall be given to the CITY.

5.1.2. Work in State, County and City Rights-of-Way and Easements: When the Work involves the installation of sanitary sewers, storm sewers, drains, water mains, manholes, underground structures, or other disturbances of existing features in or across street, rights-of-way, easements, or other property, the CONTRACTOR shall (as the Work progresses) promptly back-fill, compact, grade and otherwise restore the disturbed area to a basic condition which will permit resumption of pedestrian or vehicular traffic and any other critical activity or function consistent with the original use of the land. Unsightly mounds of earth, large stones, boulders, and debris shall be removed so that the site presents a neat appearance.

5.1.3. Work Adjacent to Telephone, Power, Cable TV and Gas Company Structures: In all cases where Work is to be performed near telephone, power, water, sewer, drainage, cable TV, or gas company facilities, the Contractor shall provide written notification to the respective companies of the areas of which Work is to be performed, prior to the actual performance of any Work in these areas.

5.1.4. Use of Public Streets: The use of public streets and alleys shall be such as to provide a minimum of inconvenience to the public and to other vehicular and non-vehicular traffic. Any earth or excavated material spilled from trucks shall be removed by the CONTRACTOR and the streets cleaned to the satisfaction of the CITY, the CONSULTANT, the Florida Department of Transportation, or other agency or governmental entity having jurisdiction, as applicable.

PHYSICAL CONDITIONS:

5.2.1. Explorations and Reports: Where applicable, reference is made in the technical specifications, for identification of those reports of explorations and tests of subsurface conditions at the site that have been utilized by CONSULTANT in preparation of the Contract Documents. CONTRACTOR may rely upon the accuracy of the technical data contained in such reports, but not upon nontechnical data, interpretations, or opinions contained therein or for the completeness for CONTRACTOR'S purposes, including, but not limited to, any aspects of the means, methods, techniques, sequences and procedures of construction to be employed by CONTRACTOR and safety precautions and programs incident thereto. Except as indicated in the immediately preceding sentence and in paragraph 5.3, CONTRACTOR shall have full responsibility with respect to subsurface conditions at the site.

5.2.2. Existing Structures: Where applicable, reference is made to the technical specifications, for identification of those drawings of physical conditions in or relating to existing surface and subsurface structures (except Underground Facilities referred to in paragraph 5.3) which are at or contiguous to the site that have been utilized by CONSULTANT in preparation of the Contract Documents. CONTRACTOR may rely upon the general accuracy of the technical data contained in such drawings, but not for the completeness thereof for CONTRACTOR'S purposes including, but not limited to, any aspects of the means, methods, techniques, sequences and procedures of construction to be employed by CONTRACTOR and safety precautions and programs incident thereto. Except as indicated in the immediately preceding sentence and in paragraph 5.3, CONTRACTOR shall have full responsibility with respect to physical conditions in or relating to such structures. However, where the dimensions and locations of existing structures are of critical importance in the installation or connection of new work, the CONTRACTOR shall verify such dimensions and locations in the field before the fabrication of any materials or equipment which is dependent on the correctness of such information. There shall be no additional cost to the CITY for CONTRACTOR'S failure to verify such dimensions and locations, or for inaccurate verifications by CONTRACTOR.

5.2.3. Report of Differing Conditions: If CONTRACTOR believes that:

5.2.3.1. Any technical data on which CONTRACTOR is entitled to rely as provided in paragraphs 5.2.1 and 5.3.3 is inaccurate, or

5.2.3.2. Any physical condition uncovered or revealed at the site differs materially from that indicated, reflected or referred to in the Contract Documents, CONTRACTOR shall, promptly after becoming aware thereof and before performing any Work in connection therewith (except in an emergency as permitted by paragraph 7.22), notify the CITY and the CONSULTANT in writing about the inaccuracy or difference. Should the CONTRACTOR fail to notify the CITY and CONSULTANT within five (5) calendar days of discovering such differing site condition, it waives its right to seek additional time or compensation for such deficiency and is precluded from seeking a change order for such work under any circumstances.

5.2.4. CONSULTANT'S Review: CONSULTANT will promptly review the pertinent conditions, determine the necessity of obtaining additional explorations or tests with respect thereto and advise the CITY in writing (with a copy to the CONTRACTOR) of CONSULTANT'S findings and conclusions.

5.2.5. Possible Document Change: If CONSULTANT concludes that there is a material error in the Contract Documents or that because of newly discovered conditions a change in the Contract Documents is required, a Work Directive Change or a Change Order will be issued as provided in Article 11 to reflect and document the consequences of the inaccuracy or difference.

5.2.6. Possible Price and Time Adjustments: In each such case, an increase or decrease in the Contract Price or an extension or shortening of the Contract Time, or any combination thereof, will be allowable to the extent that they are attributable to any such inaccuracy or difference. If the CITY and CONTRACTOR are unable to agree as to the amount or length thereof, a claim may be made therefore as provided in Article 12 and 13.

PHYSICAL CONDITIONS - UNDERGROUND FACILITIES:

5.3.1. The information and data shown or indicated in the Contract Documents with respect to existing Underground Facilities at or contiguous to the site is based on information and data furnished to the CITY or CONSULTANT by the owners of such Underground Facilities or by others.

5.3.1.1. The CITY and CONSULTANT shall not be responsible for the accuracy or completeness of any such information or data; and,

5.3.1.2. CONTRACTOR warrants that it has examined the information and data presented and that it is accurate and free from any and all defects, inconsistencies, errors and omissions. Further, the CONTRACTOR shall be responsible for locating all Underground Facilities whether or not shown or indicated in the Contract Documents, for coordination of the Work with the owners of such Underground Facilities during construction, for the safety and protection thereof as provided in paragraph 7.20, and repairing any damage thereto resulting from the Work, the cost of all of which will be considered as having been included in the Contract Price.

5.3.1.3. All water pipes, sanitary sewers, storm drains, force mains, gas mains, or other pipe, telephone or power cables or conduits, pipe or conduit casings, curbs, sidewalks, service lines and all other obstructions, whether or not shown, shall be temporarily removed from or supported across utility line excavations. Where it is necessary to temporarily interrupt services, the CONTRACTOR shall notify the owner or occupant of such facilities both before the interruption and again immediately before service is resumed. Before disconnecting any pipes or cables, the CONTRACTOR shall obtain permission from their owner, or shall make suitable arrangements for their disconnection by their owner. The CONTRACTOR shall be responsible for any damage to any such pipes, conduits or cables, and shall restore them to service promptly as soon as the Work has progressed past the point involved. Approximate locations of known water, sanitary, drainage, natural gas, power, telephone and cable TV installations along the route of new pipelines or in the vicinity of new work are shown, but are to be verified in the field by the Contractor prior to performing the work. The CONTRACTOR shall uncover these pipes, ducts, cables, etc., carefully, by hand prior to installing his Work. Any discrepancies or differences found shall be immediately brought

to the attention of the CONSULTANT in order that necessary changes may be made to permit installation of the Work.

5.3.2. If an Underground Facility is uncovered or revealed at or contiguous to the site which was not shown, nor located by the facilities owner and which CONTRACTOR could not reasonably have been expected to be aware of, CONTRACTOR shall, promptly after becoming aware thereof and before performing any Work affected thereby (except in an emergency as permitted by paragraph 7.22), identify the owner of such Underground Facility and give written notice thereof to that owner and to the CITY and the CONSULTANT. The CONSULTANT will promptly review the Underground Facility to determine the extent to which the Contract Documents should be modified to reflect and document the consequences of the existence of the Underground Facility, and the Contract Documents will be amended or supplemented to the extent necessary. During such time, CONTRACTOR shall be responsible for the safety and protection of such Underground Facility as provided in paragraph 7.20.

5.3.3. CONTRACTOR is expressly limited to an extension of the Contract Time to the extent that they are attributable to the existence of any such Underground Facility CONTRACTOR could not reasonably have been expected to have been aware of. CONSULTANT, in its sole discretion, shall determine whether to award an extension of time under such circumstances. Furthermore, should CONTRACTOR fail to provide the CITY and CONSULTANT with written notice of the error, omission or discrepancy in the Underground Facility within five (5) calendar days of discovering such, it waives its right to a time extension for such error, omission or discrepancy.

REFERENCE POINTS:

5.4. The CITY shall provide engineering surveys to establish reference points for construction which in CONSULTANT'S 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 the CITY. The CONTRACTOR shall promptly report to the CONSULTANT whenever any reference point is lost or destroyed or requires relocation because of necessary changes in grades or locations, and shall be responsible for the accurate replacement or relocation of such reference points by professionally qualified personnel.

5.5 Contractor shall maintain at the Project Site, and shall make available to the City and Consultant, one record copy of the Drawings marked to indicate any deviations from the Contract Documents (the "As-Built Drawings") in good order. The As-Built Drawings shall be prepared and updated during the prosecution of the Work. The prints for As-Built Drawings used will be a set of black-line prints provided by Consultant to Contractor at the start of construction. Contractor shall maintain said set in good condition and shall use colored pencils to mark-up said set with "as-built information" in a legible manner to show: (i) deviations from the Drawings made during construction; (ii) details in the Work not previously shown; (iii) changes to existing conditions or existing conditions found to differ from those shown on any existing drawings; (iv) the actual installed position of equipment, piping, conduits, light switches, electric fixtures, circuiting, ducts, dampers, access panels, control valves, drains, openings and stub-outs; and (v) such other information as either the City or Consultant may reasonably request.

5.6 At the completion of the Work, Contractor shall deliver all As-Built Drawings to the City. Final Payment and any retention shall not be due and owing to Contractor until the final As-Built Drawings required above are delivered to the City.

5.6.1. As-Built Drawings shall be provided in accordance with the City of Delray Beach's Minimum Construction Standards and Specifications, which can be found at:

<https://www.delraybeachfl.gov/home/showdocument?id=10685&t=637764593590530483>

ARTICLE 6 – BONDS AND INSURANCE

BONDS:

6.1. CONTRACTOR shall upon delivery of the executed Agreement to the City 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. These Bonds shall remain in effect at least **one (1) year** after the date when final payment becomes due based on Contractor's completion of all requirements for Final Payment set forth in these Contract Documents, except as otherwise provided by Law or Regulation or by the Contract Documents. CONTRACTOR shall also furnish such other Bonds as are required by the Supplementary Conditions. Each Bond shall be furnished in an amount equal to 100% of the amount of the Contract award. The form and conditions of the Bonds and the Surety shall be acceptable and satisfactory to the CITY and Surety shall be a nationally recognized Surety Company acceptable to the City, listed on the current list of "Companies Holding Certificates of Authority as Acceptable Sureties on Federal Bonds and Acceptable Reinsuring Companies" as published in Circular 570 (amended) by the Audit Staff, Bureau of Government Financial Operations, U.S. Treasury Department, for projects not exceeding (\$500,000) five hundred thousand dollars and meet the other requirements of Florida Statutes Section 287.0935 (2001). For projects exceeding five hundred thousand dollars, all bonds shall be placed with sureties with a Best Rating of no less than A-VII. Bonds shall be executed and issued by a resident agent, licensed and having an office in Florida, representing such corporate sureties. If the CONTRACTOR is a partnership, the Bond should be signed by each of the individuals who are partners; if a corporation, the Bond should be signed in the correct corporate name by duly authorized officer, agent or attorney-in-fact. There should be executed an appropriate number of counterparts of the bond corresponding to the number of counterparts in the Contract. Each executed bond should be accompanied by (a) appropriate acknowledgment of the respective parties; (b) appropriate duly certified copy of Power-of-Attorney or other certification of authority where bond is executed by agent, officer or other representative of Contractor or Surety; (c) duly certified extract from by-laws or resolutions of Surety under which Power-of-Attorney, or other certificate of Authority of its agent, officer or representative was issued.

6.2. 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 paragraph 6.1., CONTRACTOR shall within five (5) calendar days thereafter substitute another Bond and Surety, both of which must be in conformance with paragraph 6.1. CONTRACTOR'S failure to timely furnish a substitute surety shall constitute a material breach of the Contract and shall give the CITY the immediate right to terminate the CONTRACTOR for cause in accordance with Article 16 of the Contract's General Conditions.

CONTRACTOR'S INSURANCE:

6.3. General: CONTRACTOR shall purchase and maintain such comprehensive general liability and other insurance as is appropriate for the Work being performed and furnished and as will provide protection from claims set forth below which may arise out of or result from CONTRACTOR'S performance and furnishing of the Work and CONTRACTOR'S other obligations under the Contract Documents, whether it is to be performed or furnished by CONTRACTOR, by any Subcontractor, by anyone directly or indirectly employed by any of them to perform or furnish any of the Work, or by anyone for whose acts any of them may be liable. The Contractor shall purchase and maintain the required insurance from an insurance company or insurance companies lawfully authorized to issue insurance in the jurisdiction where the Project is located and having an A.M. BEST's rating of "A-X" or better. The City and Consultant shall be named as additional insureds by endorsement under the Contractor's applicable policies or as otherwise described in the Contract Documents. Before starting and during the term of this Contract, the CONTRACTOR shall procure and maintain insurance of the types and to the limits specified in paragraph 6.4, inclusive below.

6.4 Coverage: Except as otherwise stated, the amounts and types of insurance shall conform to the following minimum requirements which Contractor shall procure, carry, maintain and pay for from commencement of the Work through Final Acceptance of the Work:

6.4.1. Workers' Compensation. Coverage to apply for all employees for Statutory Limits in compliance with the applicable State and Federal laws. CONTRACTOR shall require all subcontractors to maintain workers compensation coverage during the term of the agreement and up to the date of final acceptance. CONTRACTOR shall defend, indemnify and save the CITY and CONSULTANT harmless from any damage resulting to them for failure of either CONTRACTOR or any subcontractor to take out or maintain such insurance.

6.4.1.1. Employers' Liability with Statutory Limits of \$100,000/\$500,000/ \$100,000.

6.4.1.2. Notice of Cancellation and/or Restriction. The policy must be endorsed to provide the City with thirty (30) days' written notice of cancellation and/or restriction.

6.4.1.3. If any operations are to be undertaken on or about navigable waters, coverage must be included for the U.S. Longshoremen and Harbor Workers Act and/or Jones Act if applicable.

6.4.2. Comprehensive General Liability or Commercial General Liability Coverage must be afforded on a form no more restrictive than the latest edition of the Comprehensive General Liability Policy or Commercial General Liability filed by the Insurance Services Office, and must include:

6.4.2.1. Minimum Limits of total Commercial General Liability Insurance coverage shall be \$3,000,000.00 per occurrence and in the aggregate combined single limit for Bodily Injury Liability and Property Damage Liability, the basic policy to be in said form with any excess coverage (and the carrier) to meet \$3,000,000.00 minimum to be acceptable to the CITY.

6.4.2.2. Premises and/or Operations.

6.4.2.3. Independent Contractor.

6.4.2.4. Products and/or Completed Operations. CONTRACTOR shall maintain in force until at least seven (7) years after completion of all services required under the Contract, coverage for products and completed operations, including Broad Form Property Damage.

6.4.2.5. XCU Coverages.

6.4.2.6. Broad Form Property Damage including Completing Operations.

6.4.2.7. Broad Form Contractual Coverage applicable to this specific Contract, including any hold harmless and/or indemnification agreement.

6.4.2.8. Personal Injury coverage with employees and contractual exclusions removed.

6.4.2.9. Additional Insured. The CITY is to be specifically included as an additional insured (including products).

6.4.2.10. Notice of Cancellation and/or Restriction. The policy must be endorsed to provide the City with thirty (30) days' written notice of cancellation and/or restriction.

6.4.2.11. The CONTRACTOR shall either require each subcontractor to procure and maintain, during the life of the subcontract, insurance of the type and in the same amounts specified herein or insure the activities of subcontractors in his own insurance policy.

6.4.3. Business Auto Policy. Coverage must be afforded on a form no more restrictive than the latest edition of the Business Auto Policy filed by the Insurance Service Office and must include:

6.4.3.1. Minimum limit of \$1,000,000.00 per occurrence combined single limit for Bodily Injury Liability and Property Damage Liability.

6.4.3.2. Owned Vehicles.

6.4.3.3. Hired and Non-Owned Vehicles

6.4.3.4. Employee Non-Ownership

6.4.3.5. Notice of Cancellation and/or Restriction. The policy must be endorsed to provide the City with thirty (30) days' written notice of cancellation and/or restriction.

6.4.4. All Risk Property Insurance - When Applicable. Coverage must include real and personal property and in an amount equal to the replacement cost of all real and personal property of the CITY'S for which the CONTRACTOR is responsible and over which he exercises control. Builders Risk insurance must be provided to cover Property under construction and an Installation Floater must cover all machinery, vessels, air conditioners or electric generators to be installed. This insurance shall include a waiver of subrogation as to the CONSULTANT, the CITY, the CONTRACTOR, and their respective officers, agents, employees, and subcontractors.

6.4.4.1. Coverage to be provided on a full replacement cost basis.

6.4.4.2. Losses in excess of ten thousand dollars (\$10,000) shall be jointly payable to the CONTRACTOR and the CITY.

6.4.4.3. Waiver of occupancy clause or warranty. Policy must be specifically endorsed to eliminate any "Occupancy Clause" or similar warranty or representation that the building(s), addition(s) or structure(s) will not be occupied by the CITY.

6.4.4.4. Maximum Deductible - \$5,000 each claim.

6.4.4.5. Copy of Policy. A certified copy of the policy must be provided to the CITY prior to the commencement of work.

6.4.4.6. Named Insured. The CITY must be included as a named insured.

6.4.4.7. Notice of Cancellation and/or Restriction. The policy must be endorsed to provide the City with thirty (30) days written notice of cancellation and/or restriction.

6.4.4.8. Flood Insurance. When the buildings or structures are located within an identified special flood hazard area, flood insurance protecting the interest of the CONTRACTOR and the CITY must be afforded for the lesser of the total insurable value of such buildings or structures, or, the maximum amount of flood insurance coverage available under the National Flood Program.

6.4.5. Excess (umbrella) Liability Coverage. Excess Liability shall be an occurrence based with regard to coverage and endorsements specified in this Agreement policy and have a limit in an amount not less than \$1,000,000.00 per occurrence and \$2,000,000.00 in the aggregate where applicable and "drop down" for defense and indemnity in the event of exhaustion of the underlying insurance. By its terms, the Excess Policy shall cover:

- (1) Personal injury;
- (2) Contractual Liability;
- (3) X.C.U. Liability;
- (4) Off-Site CGL;

- (5) Automobile Liability;
- (6) Employer's Liability; and,
- (7) City and the Additional Insureds on a primary and noncontributory basis by means of an endorsement acceptable to the City.

6.4.6 Contractual Liability Insurance. This coverage shall be carried, on a blanket broad form basis, throughout the period of time that the Work is being performed and thereafter for a period of three (3) years and shall be in a minimum amount of Ten Million and 00/100 Dollars (\$10,000,000). This coverage is to insure Contractor's indemnity under the Contract Documents, and shall insure against the risks enumerated therein.

6.4.7 Pollution Liability Insurance. Contractor shall provide pollution liability insurance that provides coverage for liability arising from Contractor's construction activities, whether occurring at or away from the Project Site with per occurrence and aggregate limits of One Million and 00/100 Dollars (\$1,000,000). Contractor's pollution liability insurance shall cover property damage abatement/cleanup, whether on-site or off-site as well as bodily injury, repair and defense costs resulting from liability arising out of pollution conditions as including, but not limited to, exposures arising from silica, water intrusion, petroleum related products, asbestos, lead paint, tank removal, removal of contaminated soil, EIFS, bacteria, fungi and mold. Contractor's pollution liability insurance policy shall cover liability of Contractor during the process of construction, installation, removal, storage, encapsulation, transport and disposal of Hazardous Waste, and shall include coverage for bodily injury and loss of damage to, or loss of use of property, arising out of the discharge, dispersal, release or escape of smoke, vapors, soot, fumes, acids, alkalis, toxic chemicals, liquids or gases, waste materials or other irritants, contaminants or pollutants into or upon the Project Site, the Project, the atmosphere, any water course or body of water. Contractor shall maintain its pollution liability insurance coverage from the Commencement Date of the Work through Substantial Completion of the Work and shall renew such coverage annually for the seven (7) years immediately following the date of Substantial Completion of the Work.

6.4.8 A Best Rating of no less than A-7 is required for any carriers providing coverage required under the terms of this Contract. Failure to comply with the insurance requirements as herein provided shall constitute default of this Agreement. Neither **Contractor** nor any subcontractor shall commence work under the Contract until they have all insurance required under this Section and have supplied the CITY with evidence of such coverage in the form of certified copies of policies (where required) and certificates of insurance, and such policies and certificates have been approved by the CITY. CONTRACTOR shall be responsible for and shall obtain and file insurance certificates on behalf of its subcontractors. All certified copies of policies and certificates of insurance shall be filed with the CITY.

6.4.9 Contractor's failure to provide and maintain the insurance required by this Article shall be grounds for termination for cause, and Contractor shall be liable for all losses, damages, costs and expenses associated with the failure to maintain the required insurance.

6.4.10 The Contractor shall secure, pay for, and maintain whatever insurance they may deem necessary for protection against loss of owned or rented capital equipment and tools, including any tools owned by mechanic, any tools, equipment, stagings, towers and forms owned or rented by its subcontractors or agents under this Agreement. Failure of the Contractor to secure such insurance or to maintain adequate levels of coverage shall not obligate the City or its agents and employees for any losses of owned or rented equipment or for any Work damaged. If the Contractor secures such insurance, the insurance policy shall include a waiver of subrogation as follows: "It is agreed that in no event shall this insurance company have any right of recovery against the City." The Contractor agrees to cooperate fully with the insurance company or companies in carrying out the provisions and conditions of all policies applicable to Work to be done, as well as all rules and recommendations of such company or companies in regard to accident prevention, reports and audits. The Contractor further agrees that notice of every accident will not only be reported immediately to the City, and also to such insurance company or companies.

6.4.11 Every subcontract shall contain complete insurance provisions identical to Sections included herein for the benefit, protection, and indemnification of the Contractor and the City.

ARTICLE 7 – CONTRACTOR'S RESPONSIBILITIES

SUPERVISION AND SUPERINTENDENCE:

7.1. The CONTRACTOR has the obligation to deliver to the CITY the completed job in a good and workmanlike condition in accordance with the requirements of the Contract Documents. CONTRACTOR shall supervise and direct the Work completely 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. The CONTRACTOR shall bear all losses resulting on account of the weather, fire, the elements, or other acts of God or causes of every kind or nature prior to Final Acceptance. The supervision of the execution of this Agreement and the Work thereunder is vested wholly in the CONTRACTOR.

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.

LABOR, MATERIALS AND EQUIPMENT; HOURS OF WORK:

7.2. CONTRACTOR shall provide competent, suitably qualified personnel to survey and lay out the Work and perform construction as required by the Contract Documents. 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 Contract Documents, all Work at the site shall be performed during regular working hours, and CONTRACTOR will not permit overtime work or the performance of Work on Saturday, Sunday or any legal holiday without the CITY'S written consent (which shall not be unreasonably withheld) given after prior written notice to CONSULTANT. The CONTRACTOR is hereby informed, and understands that unless otherwise approved by the City, the City restricts the work between the hours of 5:00 p.m. and 8:00 a.m., unless emergency conditions exist that are endangering life or property as may be determined by the CITY. If the CONTRACTOR is authorized to operate equipment twenty-four (24) hours per day, the engines shall be provided with residential type silencers approved by the CITY.

The CONTRACTOR shall receive no additional compensation for overtime work. However, additional compensation will be paid to the CONTRACTOR for overtime work only in the event extra work is ordered by the CONSULTANT and the change order specifically authorizes the use of overtime work and then only to such extent as overtime wages are regularly being paid by the CONTRACTOR for overtime work of a similar nature in the same locality.

All costs of inspection and testing performed by the CITY during overtime work by the CONTRACTOR which is allowed solely for the convenience of the CONTRACTOR shall be borne by the CONTRACTOR. The CITY shall have the authority to deduct the cost of all such inspection and testing from any partial payments otherwise due to the CONTRACTOR.

7.3. Unless otherwise specified in the General Requirements, CONTRACTOR shall furnish and assume full responsibility for all materials, equipment, labor, transportation, construction equipment and machinery, tools, appliances, fuel, power, light, heat, telephone, water, sanitary facilities, temporary facilities and all other facilities and incidentals necessary for the furnishing, performance, testing, start-up and final completion of the work.

7.4. All materials and equipment shall be of good quality and new, except as otherwise provided in the Contract Documents. If required by CONSULTANT, CONTRACTOR shall furnish satisfactory evidence (including reports of required tests) as to the kind and quality of materials and equipment. All materials and equipment shall be applied, installed, connected, erected, used, cleaned and conditioned in accordance with the instructions of the applicable Supplier except as otherwise provided in the Contract Documents; but no provision of any such instructions will be effective to assign to the CITY, CONSULTANT, or any of

the CITY'S or CONSULTANT'S consultants, agents or employees, any duty or authority to supervise or direct the furnishing or performance of the Work or any duty or authority to undertake responsibility contrary to the provisions of paragraph 10.15 or 10.16.

ADJUSTING PROGRESS SCHEDULE:

7.5. CONTRACTOR shall submit to CONSULTANT for review and comment (to the extent indicated in paragraph 3.9) adjustments in the progress schedule to reflect the impact thereon of new developments; these will conform generally to the progress schedule then in effect and additionally will comply with any provisions of the General Requirements applicable thereto.

SUBSTITUTES OR "OR-EQUAL" ITEMS:

7.6.1. The technical specifications shall govern the use of substitute or "or-equal" items. **Consultant shall be solely responsible for determining whether to permit the proposed substitution and Contractor expressly agrees to be bound by Consultant's decision.** The procedure for review by CONSULTANT will include the following as supplemented in the technical specifications. Requests for review of substitute items of material and equipment will not be accepted by CONSULTANT from anyone other than CONTRACTOR. If CONTRACTOR wishes to furnish or use a substitute item of material or equipment, CONTRACTOR shall make written application to CONSULTANT for acceptance thereof, certifying that the proposed substitute will perform equally or better the functions and achieve the results called for by the general design, be similar and of equal substance to that specified and be suited to the same use as that specified. The application will state that the evaluation and acceptance of the proposed substitute will not prejudice CONTRACTOR'S achievement of Substantial Completion on time, whether or not acceptance of the substitute for use in the Work will require a change in any of the Contract Documents (or in the provisions of any other direct contract with the CITY for work on the Project) to adapt the design to the proposed 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 will 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 CONSULTANT in evaluating the proposed substitute. CONSULTANT may require CONTRACTOR to furnish at CONTRACTOR'S expense additional data about the proposed substitute.

7.6.2. If a specific means, method, technique, sequence or procedure of construction is indicated in or required by the Contract Documents, CONTRACTOR may furnish or utilize a substitute means, method, sequence, technique or procedure of construction acceptable to CONSULTANT, if CONTRACTOR submits sufficient information to allow CONSULTANT to determine that the substitute proposed is equal or better to that indicated or required by the Contract Documents. The procedure for review by CONSULTANT will be governed by the procedure provided in paragraph 7.6.1 as applied by CONSULTANT and as may be supplemented in the Technical Specifications.

7.6.3. Substitution requests must include the CONTRACTOR'S written waiver of its right to additional compensation or time for the failure of the proposed substitution to properly perform.

7.6.4 In order for a substitution to be considered, one or more of the following conditions must be met:

- a. The substitution request must be timely, fully documented and properly submitted in writing.
- b. The request is directly related to an "or equal" clause in the Contract Documents.
- c. The product or method prescribed in the Contract Documents is no longer available and Contractor has evidence of such.

- d. There is a substantial advantage offered to the CITY in terms of cost, time, energy conservation or other considerations of merit.

7.6.5. CONSULTANT will be allowed a reasonable time within which to evaluate each proposed substitute. CONSULTANT will be the sole judge of acceptability, and no substitute will be ordered, installed or utilized without CONSULTANT'S prior written acceptance which will be evidenced by either a Change Order or an approved Shop Drawing. The CITY may require the CONTRACTOR to furnish at CONTRACTOR'S expense a special performance guarantee or other surety with respect to any substitute.

CONCERNING SUBCONTRACTORS, SUPPLIERS AND OTHERS:

7.7.1 CONTRACTOR shall not employ any Subcontractor, Supplier or other person or organization (including those acceptable to the CITY and the CONSULTANT as indicated in paragraph 7.7.2), whether initially or as a substitute, against whom the CITY or the CONSULTANT may have objection. CONTRACTOR shall not be required to employ any Subcontractor, Supplier or other person or organization to furnish or perform any of the Work against whom CONTRACTOR has reasonable objection.

7.7.2 If the Technical Specifications or Contract Documents require the identity of certain Subcontractors, Suppliers or other persons or organizations (including those who are to furnish the principal items of materials and equipment) shall be submitted to the CITY for acceptance by the CITY and CONSULTANT, and if CONTRACTOR has submitted a list thereof, the CITY or CONSULTANT'S acceptance (either in writing or by failing to make written objection thereto by the date indicated for acceptance or objection in the bidding documents or the Contract Documents) of any such Subcontractor, Supplier or other person or organization so identified may be revoked on the basis of reasonable objection after due investigation, in which case CONTRACTOR shall submit an acceptable substitute. If after bid opening and prior to the award of the contract, the CITY objects to certain suppliers or subcontractors, the CITY may permit CONTRACTOR to submit an acceptable substitute so long as there is no change in the contract price or contract time. If the contract price or contract time is increased, the CITY may return the bid bond and award the contract to the next qualified, competent bidder. If after the award of the contract, the CITY objects to certain suppliers or subcontractors, the CITY shall permit CONTRACTOR to make an appropriate and acceptable substitution which is also acceptable to the CITY. No acceptance by the CITY or the CONSULTANT of any such Subcontractor, supplier or other person or organization shall constitute a waiver of any right of the CITY or CONSULTANT to reject defective Work. The Contractor shall not substitute a Subcontractor, person or entity for one previously selected if the City or Consultant makes objection to such substitution.

7.8. CONTRACTOR shall be fully responsible to the CITY and CONSULTANT for all acts and omissions of the Subcontractors, Suppliers and other persons and organizations performing or furnishing any of the Work on the Project just as CONTRACTOR is responsible for CONTRACTOR'S own acts and omissions. Nothing in the Contract Documents shall create any contractual relationship between the CITY or the CONSULTANT and any such Subcontractor, Supplier or other person or organization, nor shall it create any obligation on the part of the CITY or CONSULTANT to pay or to see to the payment of any moneys due any such Subcontractor, Supplier or other person or organization except as may otherwise be required by Laws and Regulations.

7.9. The divisions and sections of the Technical Specifications and the identifications of any Drawings shall not control CONTRACTOR in dividing the Work among Subcontractors or Suppliers or delineating the Work to be performed by any specific trade.

7.10. 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 the CITY and the CONSULTANT.

7.10.1 By written agreement, the Contractor shall require each Subcontractor, to the extent of the Work to be performed by the Subcontractor, to be bound to the Contractor by terms of the Contract

Documents, and to assume toward the Contractor all the obligations and responsibilities, including the responsibility for safety of the Subcontractor's Work that the Contractor, by these Contract Documents, assumes toward the City and Consultant. Each subcontract agreement shall preserve and protect the rights of the City and Consultant under the Contract Documents with respect to the Work to be performed by the Subcontractor so that subcontracting thereof will not prejudice such rights, and shall allow to the Subcontractor, unless specifically provided otherwise in the subcontract agreement, the benefit of all rights, remedies, and redress against the Contractor that the Contractor, by the Contract Documents, has against the City. Where appropriate, the Contractor shall require each Subcontractor to enter into similar agreements with Sub-subcontractors. The Contractor shall make available to each proposed Subcontractor, prior to the execution of the subcontract agreement, copies of the Contract Documents to which the Subcontractor will be bound, and, upon written request of the Subcontractor, identify to the Subcontractor terms and conditions of the proposed subcontract agreement that may be at variance with the Contract Documents. Subcontractors will similarly make copies of applicable portions of such documents available to their respective proposed Sub-subcontractors.

7.10.2 Contractor hereby agrees that each subcontract agreement shall contain provisions granting the Contractor the right to terminate the subcontract at any time for the Contractor's convenience and without cause.

7.10.3 Contractor hereby agrees that the City has the right to direct the Contractor to terminate any Subcontractor at any time for the City's convenience and without cause.

7.10.4 Contractor shall have each Subcontractor performing Work at this Project execute warranties for a minimum period of **one (1) year** in favor of the City utilizing forms approved by the City. Contractor shall also have the Subcontractors and material or equipment manufacturers execute Extended Warranties if required by the Contract Documents in favor of the City utilizing the forms approved by the City.

7.10.5 It is further agreed that all Subcontracts and material and equipment purchase contracts entered into by Contractor or its Subcontractors or material suppliers, shall contain a provision stating that, if after termination of Contractor for Contractor's default or completion of the Work, the City may bring any claim directly against any Subcontractor of Contractor, including any surety bond furnished for or on behalf of such Subcontractor, for breach of contract, warranty rights, quality of workmanship, and create third party beneficiary rights of the City in said agreements. It is further agreed and understood that such assignment(s) and third party beneficiary rights are part of the consideration to the City for entering into this Agreement with Contractor and may not be withdrawn. Subcontractor or equipment and material suppliers shall be notified of the City's rights. Additionally, nothing contained in this Agreement shall constitute an assignment of Contractor's rights against the City or create any third party beneficiary rights in any Subcontractors or material and equipment suppliers of Contractor. The purpose of this provision is to allow the City, in addition to Contractor, to make claim for damage or indemnification directly against any Subcontractors or material and equipment suppliers that may be ultimately responsible for defects or deficiencies in the Work or materials and equipment. Additionally, this assignment is for the purpose of permitting the City to require any such Subcontractor or materials and equipment suppliers to complete the unperformed obligations under such Subcontract, should the Contractor be in default or be terminated by City.

7.10.6 The City shall have no obligation to pay, or to see to the payment of, any monies to any Subcontractor. Nothing in this Article or Agreement shall be deemed to create any contractual relationship between the City and any Subcontractor, material provider or supplier or to create any rights of any Subcontractor against the City for any actions, debts, obligations, responsibilities or liabilities occurring prior to any assignment executed pursuant to this Article.

PATENT FEES AND ROYALTIES:

7.11. CONTRACTOR shall pay all license fees and royalties and assume all costs incident to the use in the performance of 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 the CITY or CONSULTANT its use is subject to patent rights or copyrights

calling for the payment of any license fee or royalty to other, the existence of such rights shall be disclosed by the CITY in the Contract Documents. CONTRACTOR shall indemnify and hold harmless the CITY and anyone directly or indirectly employed by the CITY from and against all claims, damages, losses and expenses (including attorney's fees and court costs) 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.

PERMITS:

7.12. CONTRACTOR shall obtain and pay for all construction permits and licenses. The CITY shall assist CONTRACTOR, when necessary, in obtaining such permits and licenses. CONTRACTOR shall pay all governmental charges and inspection fees necessary for prosecution of the Work, which are applicable at the time of opening of Bids. There will be no cost for permits issued by the CITY. CONTRACTOR shall pay all charges of utility for connections to the Work, and the CITY shall pay all charges of such utility owners for capital costs related thereto such as plant investment fees.

LAWS AND REGULATIONS:

7.13.1. CONTRACTOR shall give all notices and comply with all laws, ordinances, rules regulations and building codes applicable to furnishing and performance of the Work. Except where otherwise expressly required by applicable laws, ordinances, rules and regulations, neither the CITY nor the CONSULTANT shall be responsible for monitoring CONTRACTOR'S compliance with any Laws, ordinances, rules or regulations. In addition, Contractor shall be responsible for ensuring the compliance of all subcontractors, suppliers or other entities furnishing labor, services or materials on the Project with all laws, ordinances, rules, regulations and building codes. Contractor's failure to comply with any of the applicable laws, ordinances, rules, regulations or building codes shall constitute a material breach of the Contract.

7.13.2. If CONTRACTOR observes that the Specifications or Drawings are at variance with any laws, ordinances, rules or regulations, CONTRACTOR shall give CITY and CONSULTANT prompt, written notice thereof (no later than seven (7) days from discovery), and any necessary changes will be authorized by one of the methods indicated in Paragraph 4.4. If CONTRACTOR performs any Work knowing or having reason to know that it is contrary to such laws, ordinances, rules or regulations, and without such notice to the CITY and CONSULTANT, CONTRACTOR shall bear all costs arising there from.

7.13.3. Contractor shall comply with all public records laws in accordance with Chapter 119, Fla. Stat. In accordance with state law, Contractor agrees to:

- a) Keep and maintain all records that ordinarily and necessarily would be required by the City.
- b) Provide the public with access to public records on the same terms and conditions that the City would provide for the records and at a cost that does not exceed the costs provided in Chapter 119, Fla. Stat. or as otherwise provided by law.
- c) Ensure that public records that are exempt or confidential and exempt from public records disclosure are not disclosed except as authorized by law.
- d) Meet all requirements for retaining public records and transfer, at no cost, to the City all records in possession of the Contractor at the termination of the contract and destroy any public records that are exempt or confidential and exempt from public records disclosure requirements. All records stored electronically must be provided to the City in a format that is compatible with the information technology systems of the City. All records shall be transferred to the City prior to final payment t being made to the Contractor.

e) If Contractor does not comply with this section, the City shall enforce the contract provisions in accordance with the contract and may unilaterally cancel this contract in accordance with state law.

TAXES:

7.14. CONTRACTOR shall pay all sales, consumer, use and other similar taxes required to be paid by CONTRACTOR in accordance with the laws, ordinances and regulations of the place of the Project which are applicable during the performance of the Work.

USE OF PREMISES:

7.15. CONTRACTOR shall confine construction equipment, the storage of materials and equipment and the operations of workers to the project site and land and areas identified in and permitted by the Contract Documents and other land and areas permitted by laws, ordinances, and regulations, rights-of-way, permits and easements, and shall not reasonably encumber the premises with construction equipment or other materials or equipment. CONTRACTOR shall assume full responsibility for any damage to any such land or area, or to the owner or occupant thereof or of any land or areas contiguous thereto, resulting from the performance of the Work. Should any claim be made against the CITY or CONSULTANT by any such owner or occupant because of the performance of the Work, CONTRACTOR shall promptly attempt to settle with such other party by agreement or otherwise resolve the claim. CONTRACTOR shall, to the fullest extent permitted by laws and regulations, indemnify and hold the CITY and CONSULTANT harmless from and against all claims, damages, losses and expenses (including, but not limited to, fees of engineers, architects, attorneys and other professionals and court costs) arising directly, indirectly or consequentially out of any action, legal or equitable, brought by any such other party against the CITY or CONSULTANT to the extent based on a claim arising out of CONTRACTOR'S performance of the Work or the Work of its subcontractor, suppliers, material men or other entities performing Work under the supervision of CONTRACTOR on the Project.

7.16. During the progress of the Work, CONTRACTOR shall keep the premises free from accumulations of waste materials, rubbish and other debris resulting from the Work. At the completion of the Work 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 CITY. CONTRACTOR shall restore to original condition all property not designated for alteration by the Contract Documents.

7.17. CONTRACTOR shall not load nor permit any part of any structure to be loaded in any manner that will endanger the structure, nor shall CONTRACTOR subject any part of the Work or adjacent property to stresses or pressures that will endanger it.

RECORD DOCUMENTS:

7.18.1 CONTRACTOR shall maintain in accordance with the Technical Specifications in a safe place at the site one record copy of all Drawings, Specifications, Addenda, Written Amendments, Change Orders, Work Directive Changes, Field Orders, and written interpretations and clarifications (issued pursuant to paragraph 10.4) in good order and annotated to show all changes made during construction. The record documents together with all approved samples and a counterpart of all approved Shop Drawings will be available to the CONSULTANT for reference. Upon completion of the Work, these record documents, samples, and Shop Drawings will be delivered to CONSULTANT for the CITY.

7.18.2 The Contractor shall keep full and detailed records and accounts related to the Cost of the Work, and exercise such controls, as may be necessary for proper financial management under this Agreement and to substantiate all costs incurred. The accounting and control systems shall be satisfactory to the City. The City (and its auditors) shall, during regular business hours and upon reasonable notice, be afforded access to, and shall be permitted to audit and copy, the Contractor's records and accounts, including complete documentation supporting accounting entries, books, job cost reports, correspondence, instructions, drawings, receipts, subcontracts, Subcontractor's proposals, Subcontractor's invoices, purchase orders, vouchers, memoranda, and other data relating to this Agreement. The Contractor shall

preserve these records for a period of four (4) years after Final Payment, or for such longer period as may be required by law. This Section is applicable to all Change Orders or Claims by or against the Contractor and or a Subcontractor of any tier whether or not they affect the GMP. To the extent Contractor is able, Contractor agrees to include the provisions of this Section in all its contracts and all tier subcontracts with regard to any audits of payments received by the Contractor to verify that such payments were made and that such payments were made for the use required by the Project. Audits conducted under this Section shall be in accordance with generally accepted auditing standards and established procedures and guidelines of the reviewing audit agency. The Contractor agrees to the disclosure of all information and reports resulting from access to records under this paragraph to the City, provided that the Contractor is afforded the opportunity for an audit exit conference. If the City audits the Contractor's books and records and discovers actual costs or an error in the Contractor's favor by more than one percent (1%) of the Cost of the Work to date, the Contractor shall reimburse the City for the cost of such audit and the Contractor shall promptly refund the amount overpaid to the City.

7.18.3. At the completion of the Work, Contractor shall deliver all As-Built Drawings to the City. Final Payment and any retention shall not be due and owing to Contractor until the final As-Built Drawings required above are delivered to the City.

7.18.3.1. As-Built Drawings shall be provided in accordance with the City of Delray Beach's Minimum Construction Standards and Specifications, which can be found at:

<https://www.delraybeachfl.gov/home/showdocument?id=10685&t=637764593590530483>

SAFETY AND PROTECTION:

7.19. CONTRACTOR shall 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:

7.19.1. All employees on the Work and other persons and organizations who may be affected thereby; and

7.19.2. All the Work and materials and equipment to be incorporated therein, whether in storage on or off the site; and

7.19.3. other property at the site or adjacent thereto, including trees, shrubs, lawns, walks, pavements, roadways, structures, utilities and Underground Facilities not designated for removal, relocation or replacement in the course of construction.

CONTRACTOR shall comply with all applicable laws, ordinances, rules and regulations of any public body having jurisdiction for the safety of persons or property or to protect them from damage, injury or loss on or off the Work and shall erect and maintain all necessary safeguards for such safety and protection. CONTRACTOR shall notify owners of adjacent property and of Underground Facilities and utility owners when prosecution of the Work may affect them, and shall cooperate with them in the protection, removal, relocation and replacement of their property. All damage, injury or loss to any property referred to in paragraphs 7.19.1 to 7.19.3 caused, directly or indirectly, in whole or in part, by CONTRACTOR, any Subcontractor, Supplier or any other person or organization directly or indirectly employed by any of them to perform or furnish any of the Work for anyone for whose acts any of them may be liable, shall be remedied by CONTRACTOR (except damage or loss attributable to the fault of Drawings or Specifications or to the acts or omissions of the CITY or the CONSULTANT or anyone employed by either of them or anyone for whose acts either of them may be liable, and not attributable, directly or indirectly, in whole or in part, to the fault or negligence of 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 CONSULTANT has issued a notice to the CITY and CONTRACTOR in accordance with paragraph 15.13 that the Work is acceptable (Except as otherwise expressly provided in connection with Substantial Completion).

The safety provisions of applicable laws and building and construction codes shall be observed and the Contractor shall take or cause to be taken such additional safety and health measures as the Local Public Agency involved may determine to be reasonably necessary. Machinery, equipment and all hazards shall be guarded in accordance with the safety provisions of the "Manual of Accident Prevention in Construction" as published by the Associated General Contractors of America, Inc., to the extent that such provisions are not in conflict with applicable laws.

The Contractor shall maintain an accurate record of all cases of death, occupational disease, or injury requiring medical attention or causing loss of time from work, arising out of and in the course of employment on Work under the Contract. The Contractor shall promptly furnish the Local Public Agency with reports concerning these matters.

7.20. CONTRACTOR shall designate a responsible representative 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 the CITY.

EMERGENCIES AND PRECAUTIONS DURING ADVERSE WEATHER:

7.21.1. 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 CONSULTANT or the CITY, is obligated to act to prevent threatened damage, injury or loss. CONTRACTOR shall give CONSULTANT prompt written notice if CONTRACTOR believes that any significant changes in the Work or variations from the Contract Documents have been caused thereby. If CONSULTANT determines that a change in the Contract Documents is required because of the action taken in response to an emergency, a Work Directive Change Order or Change Order will be issued to document the consequences of the changes or variations.

7.21.2. During adverse weather, and against the possibility thereof, the CONTRACTOR shall take all necessary precautions to ensure that the Work shall be done in a good and workmanlike condition and is satisfactory in all respects. When required, protection shall be provided by the use of tarpaulins, wood and building paper shelters, or other acceptable means. The CONTRACTOR shall be responsible for all changes caused by adverse weather, including unusually high winds and water levels and he shall take such precautions and procure such additional insurance as he deems prudent. The CONSULTANT may suspend construction operations at any time when, in his judgment, the conditions are unsuitable or the proper precautions are not being taken, whatever the weather or water level conditions may be, in any season.

SHOP DRAWINGS AND SAMPLES:

7.22. After checking and verifying all field measurements and after complying with applicable procedures specified in the General Requirements, CONTRACTOR shall submit to CONSULTANT for review in accordance with the accepted schedule of Shop Drawing submissions (see paragraph 3.9), ordinances, rules and all Shop Drawings which will bear the stamp that CONTRACTOR has satisfied CONTRACTOR'S responsibilities under the Contract Documents with respect to the review of the submission. All submissions will be identified as CONSULTANT may require. The data shown on the Shop Drawings will be complete with respect to quantities, dimensions, specified performance and design criteria, materials and similar data to enable CONSULTANT to review the information as required.

7.23. CONTRACTOR shall also submit to CONSULTANT 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 accompanied by a specific written indication that CONTRACTOR has satisfied CONTRACTOR'S responsibilities under the Contract Documents with respect to the review of the submission and will be identified clearly as to material, Supplier, pertinent data such as catalog numbers and the use for which intended.

7.23.1. Before submission of each Shop Drawing or sample CONTRACTOR shall have determined and verified all quantities, dimensions, specified performance criteria, installation requirements,

materials, catalog numbers and similar data with respect thereto and reviewed or coordinated each Shop Drawing or sample with other Shop Drawings and samples and with the requirements of the Work and the Contract Documents.

7.23.2. At the time of each submission, CONTRACTOR shall give CONSULTANT specific written notice of each variation that the Shop Drawings or samples may have from the requirements of the Contract Documents, and, in addition shall cause a specific notation to be made on each Shop Drawing submitted to CONSULTANT for review of each such variation.

7.24. CONSULTANT will review within ten (10) days of receipt thereof, Shop Drawings and samples but CONSULTANT'S review will 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, techniques, sequences or procedures of construction (except where a specific means, method, technique, sequence or procedure of construction is indicated in or required by the Contract Documents) or to safety precautions or programs incident thereto. The review of a separate item as such will not indicate review of the assembly in which the item functions. CONTRACTOR shall make corrections required by CONSULTANT, and shall return the required number of corrected copies of Shop Drawings and submit as required new samples for review. CONTRACTOR shall direct specific attention in writing to revisions other than the corrections called for by CONSULTANT on previous submittals. CONSULTANT will review one (1) re-submittal for each shop drawing or product data. All costs of reviewing additional submittals shall be at the CONTRACTOR'S expense.

7.25. CONSULTANT'S review of Shop Drawings or samples shall not relieve CONTRACTOR from responsibility for any variation from the requirements of the Contract Documents unless CONTRACTOR has in writing called CONSULTANT'S attention to each such variation at the time of submission as required by paragraph 7.23.2 and CONSULTANT has given written approval of each such variation by a specific written notation thereof incorporated in or accompanying the Shop Drawing or sample approval; nor will any review by CONSULTANT relieve CONTRACTOR from responsibility for errors or omissions in the Shop Drawings or from responsibility for having complied with the provisions of paragraph 7.23.1.

7.26. Where a Shop Drawing or sample is required by the Specifications, any related Work performed prior to CONSULTANT'S review and acceptance of the pertinent submission will be the sole expense and responsibility of CONTRACTOR.

CONTINUING THE WORK:

7.27. CONTRACTOR shall carry on the Work and adhere to the progress schedule during all disputes or disagreements with the CITY. No Work shall be delayed or postponed pending resolution of any disputes or disagreements. While a change order request is pending, CONTRACTOR is still obligated to fully perform all work in accordance with the Contract Documents and as directed by the Consultant. Contractor shall also continue performance of the work during the pendency of a Claim.

INDEMNIFICATION:

7.28. Contractor is bound to the indemnification provisions set forth in Article 11 of the Agreement. In addition, in consideration of ten dollars (\$10.00) and other valuable consideration, the CONTRACTOR shall defend, indemnify and save harmless the CITY, its officers, agents and employees, from or on account of any liabilities, damages, received or sustained by any person or persons by or in consequence of any negligence (excluding the gross negligence, or actions based upon the willful, wanton or intentional misconduct of the CITY as well as other exclusions provided by F.S. 725.06(1)(c), recklessness or intentional wrongful misconduct of the CONTRACTOR and any persons employed or utilized by the CONTRACTOR in the performance of this Project. CONTRACTOR agrees that negligent, reckless or intentional wrongful misconduct includes but is not limited to, use of any improper materials or liabilities, damages, losses or costs caused by or on account of the use of any improper materials. CONTRACTOR agrees that negligent, reckless, or intentional wrongful misconduct also includes but is not limited to the violation of any Federal, State, County or City laws, by-laws, ordinances or regulations by the CONTRACTOR, his subcontractors, agents, servants or employees. CONTRACTOR further agrees to defend, indemnify and save harmless the CITY from all such claims and fees, and from any and all suits

and actions of every name and description that may be brought against the CITY on account of any claims, fees, royalties, or costs for any invention or patent, and from any and all suits and actions that may be brought against the CITY for the infringement of any and all patents or patent rights claimed by any person, firm, or corporation.

The indemnification provided above shall obligate the CONTRACTOR at Contractor's own expense to provide such defense by counsel of the City's choosing, for any and all claims or liability and all suits and actions of every name and description that may be brought against the CITY which may result from the operations and activities under this Contract whether the construction operations be performed by the CONTRACTOR, his subcontractor or by anyone directly or indirectly employed by either. This indemnification includes all costs and fees including attorney's fees and costs at trial and appellate levels.

CONTRACTOR further acknowledges and agrees that as additional inducement to the CITY'S execution of this agreement, CONTRACTOR does hereby release and forever indemnify and hold harmless the CITY from any and all causes of action and/or claims of any kind at law or in equity, relating to any and all prior agreements between CONTRACTOR and CITY.

The CITY will pay to the CONTRACTOR the specific consideration of ten dollars and other good and valuable consideration as specific consideration for the indemnification provided herein. Furthermore, the CONTRACTOR acknowledges that the bid price includes said consideration for the indemnification provision.

Initials: _____

ARTICLE 8 – OTHER WORK

RELATED WORK AT SITE:

8.1. Without invalidating any portion of the Agreement, the CITY may perform other work related to the Project at the site by the CITY'S own forces, let other direct contracts therefore which shall contain General Conditions similar to these. If the fact that such other work is to be performed was not noted in the Contract Documents, written notice thereof will be given to CONTRACTOR prior to starting any such other work; and, if CONTRACTOR believes that such performance will involve additional time and the parties are unable to agree as to the extent thereof, CONTRACTOR may make a claim therefore as provided in Article 13; Contractor, however, shall, under no circumstances, be entitled to any additional compensation and is limited to making a claim for an extension of time. If the performance of additional Work by other contractors (the "Separate Contractors") or the Owner is noted in the Contract Documents, no additional adjustment of time or compensation shall be considered.

8.2. CONTRACTOR shall afford the CITY and Separate Contractors who are a party to such a direct contract (or the CITY, if the CITY is performing the additional work with the CITY'S employees) proper and safe access to the site and a reasonable opportunity for the introduction and storage of materials and equipment and the execution of such work, and shall properly connect and coordinate the work with theirs. CONTRACTOR shall do all cutting, fitting and patching of the Work that may be required to make its several parts come together properly and integrate with such other work. 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 CITY and CONSULTANT and the others whose work will be affected. The duties and responsibilities of CONTRACTOR under this paragraph are for the benefit of the CITY and the Separate Contractors to the extent that there are comparable provisions for the benefit of CONTRACTOR in said direct contracts between the CITY and the Separate Contractors.

8.3. If any part of CONTRACTOR'S Work depends for proper execution or results upon the work of any such Separate Contractor (or the CITY), CONTRACTOR shall inspect and promptly report to CONSULTANT in writing any delays, defects or deficiencies in such other work that render it unavailable or unsuitable for such proper execution and results of CONTRACTOR'S work. CONTRACTOR'S failure to

report will constitute an acceptance of the other work as fit and proper for integration with CONTRACTOR'S Work and CONTRACTOR shall not be entitled to any additional time or compensation therefore.

COORDINATION:

8.4. If the CITY contracts with others for the performance of other work on the Project at the site, the person or organization who will have authority and responsibility for coordination of the activities among the various prime contractors will be identified in the Technical Specifications and the specific matters to be covered by such authority and responsibility will be itemized, and the extent of such authority and responsibilities will be provided in the Technical Specifications. Unless otherwise provided in the Technical Specifications, neither the CITY nor the CONSULTANT shall have any authority or responsibility in respect of such coordination.

8.4.1 The Contractor shall provide for coordination of the activities of the City's own forces and of each Separate Contractor with the Work of the Contractor. The Contractor shall participate with any Separate Contractors and the City in reviewing their construction schedules. The parties acknowledge that the Contractor's schedule has included time for all known Separate Contractors to perform their work, based on Contractor's experience and knowledge. The Contractor shall review those portions of the Contract Documents to be performed by the Separate Contractors, if any, that may impact Contractor's performance of its Work, and that may be interrelated with the Work to be performed by the Contractor, and shall schedule those separate contractors' work so as to cause no delay to the Work.

8.4.2 The Contractor shall coordinate its construction activities with the activities of the Separate Contractors and shall provide the necessary personnel and services which are included in the GMP necessary to connect and coordinate its Work with theirs at the proper time and in a manner so as not to delay the Work or increase costs.

8.4.3 If any part of the Work depends upon proper execution of work performed by the City or the Separate Contractors, the Contractor, its Subcontractors, and their respective Sub-subcontractors shall, prior to proceeding with the Work, inspect such Work and promptly report to the City any apparent discrepancies or defects in such other Work. Failure of the Contractor, its Subcontractors, or their respective Sub-subcontractors to comply with these requirements shall bar any claims thereafter that defects in Contractor's Work, or delays in the schedule, are due to defects in the Work performed by others.

ARTICLE 9 – THE CITY'S RESPONSIBILITIES

9.1. The CITY shall issue all communications to CONTRACTOR through CONSULTANT or CITY staff.

9.2. In case of termination of the employment of CONSULTANT, the CITY shall appoint a consultant whose status under the Contract Documents shall be that of the former CONSULTANT.

9.3. The CITY shall furnish the data required of the CITY under the Contract Documents and shall make payments to CONTRACTOR promptly after they are due as provided in paragraphs 15.4 and 15.13.

9.4. The CITY'S duties in respect of providing lands and easements and providing engineering surveys to establish reference points are set forth in paragraphs 5.1 and 5.4. Paragraph 5.2 refers to the CITY'S identifying and making available to CONTRACTOR copies of all reports of explorations and tests of subsurface conditions at the site and in existing structures which have been utilized by CONSULTANT in preparing the Drawings and Specifications.

9.5. The CITY may execute Change Orders as indicated in paragraph 11.4 if recommended by CONSULTANT. CONSULTANT'S decision, however, is not binding upon the CITY, who may decide, in its sole discretion, to reject a Change Order submitted by the CONTRACTOR.

9.6. In connection with the CITY'S right to stop Work or suspend Work, see paragraph 14.10 and 16.1. Paragraph 16.2 deals with the CITY'S right to terminate services of CONTRACTOR.

ARTICLE 10 – CONSULTANT'S STATUS DURING CONSTRUCTION

CITY REPRESENTATIVE:

10.1. The CONSULTANT will be the CITY'S representative during the construction period. The duties and responsibilities and the limitations of authority of CONSULTANT and the CITY'S representative during construction are set forth in the Contract Documents and shall not be extended without written consent of the CITY and CONSULTANT.

VISITS TO SITE:

10.2. After written notice to proceed with the work, the CONSULTANT shall make visits to the site at intervals appropriate to the various stages of construction to observe the progress and quality of the executed Work and to determine, in general, if the Work is proceeding in accordance with the Contract Documents; he will not be responsible for the construction means, methods, procedures, techniques and sequences of construction, for which CONTRACTOR is solely responsible, and he will not be responsible for the CONTRACTOR'S failure to perform the construction Work in accordance with the Contract Documents; he will not be responsible for safety precautions and procedures in connection with the Work; and during such visits and on the basis of his on-site observations, as an experienced and qualified design professional, he will keep the CITY informed of the progress of the work, will endeavor to guard the CITY against defects and deficiencies in the Work of the CONTRACTOR and may reject Work as failing to conform to the Contract Documents and require CONTRACTOR to repair or replace all defective work at no additional cost to the CITY.

PROJECT REPRESENTATION:

10.3. A Resident Project Representative may be assigned to assist CONSULTANT in carrying out his responsibilities to CITY at the site. Resident Project Representative is CONSULTANT'S agent at site, will act as directed by and under the supervision of CONSULTANT, and will confer with CONSULTANT regarding Resident Representative's actions. Resident Project Representative's dealing in matters pertaining to the on-site work shall in general be with CONSULTANT and CONTRACTOR keeping the CITY advised as necessary. Resident Project Representative's dealings with subcontractors shall only be through or with the full knowledge and approval of CONTRACTOR. Resident Project Representative shall generally communicate with the City with the knowledge of and under the direction of CONSULTANT.

10.3.1. Resident Project Representative shall where applicable:

10.3.1.1. Review the progress schedule, schedule of Shop Drawing submittals and schedule of values prepared by CONTRACTOR and consult with CONSULTANT concerning its general acceptability.

10.3.1.2. Attend meetings with CONTRACTOR, such as preconstruction conferences, progress meetings, job conferences and other project-related meetings, and prepare and circulate copies of minutes thereof.

10.3.1.3. Working principally through CONTRACTOR'S superintendent, assist CONSULTANT in serving as the City's liaison with CONTRACTOR, when CONTRACTOR'S operations affect the City's on-site operations.

10.3.1.4. Assist in obtaining from the City additional details or information, when required for proper execution of the Work.

10.3.1.5. Record date of receipt of Shop Drawings and samples.

10.3.1.6. Receive samples which are furnished at the site by CONTRACTOR, and notify the CONSULTANT of availability of samples for examination.

10.3.1.7. Advise the CONSULTANT and CONTRACTOR of the commencement of any Work requiring a Shop Drawing if the submittal has not been approved by the CONSULTANT.

10.3.1.8. Conduct on-site observations of the Work in progress to assist the CONSULTANT in determining if the Work is, in general, proceeding in accordance with the Contract Documents.

10.3.1.9. Report to the CONSULTANT whenever Residential Project Representative 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 inspection, test or approval required to be made; and advise the CONSULTANT of Work that Resident Project Representative believes should be uncovered for observation, or requires special testing, inspection or approval. Nothing herein shall relieve the CONTRACTOR or the CONSULTANT from the duties imposed by contract.

10.3.1.10. Verify that tests, equipment and systems startups, and operating and maintenance training are conducted in the presence of appropriate personnel, and that CONTRACTOR maintains adequate records thereof; and observe, record and report to the CONSULTANT appropriate details relative to the test procedures and startups.

10.3.1.11. Accompany visiting inspectors representing public or other agencies having jurisdiction over the Project, record the results of these inspections and report to the CONSULTANT.

10.3.1.12. Report to CONSULTANT when clarifications and interpretations of the Contract Documents are needed and transmit to CONTRACTOR clarifications and interpretations as issued by the CONSULTANT.

10.3.1.13. Consider and evaluate CONTRACTOR'S suggestions for modifications in Drawings or Specifications and report with Resident Project Representative's recommendations to the CONSULTANT. Transmit to CONTRACTOR decisions as issued by the CONSULTANT.

10.3.1.14. Maintain at the job site orderly files for correspondence, reports of job conferences, Shop Drawings and samples, reproductions of original Contract Documents including all Work Directive Changes, Addenda, Change Orders, Field Orders, additional Drawings issued subsequent to the execution of the Contract, CONSULTANT'S clarifications and interpretations of the Contract Documents, progress reports, and other Project related documents.

10.3.1.15. Keep a diary or log book, recording CONTRACTOR hours on the job site, weather conditions, data relative to questions of Work Directive Changes, Change Orders or changed conditions, list of job site visitors, daily activities, decisions, observations in general, and specific observations in more detail as in the case of observing test procedures; and send copies to the CONSULTANT.

10.3.1.16. Record all names, addresses and telephone numbers of the CONTRACTOR, all subcontractors and major suppliers of material and equipment.

10.3.1.17. Furnish the CONSULTANT periodic reports as required of progress of the Work of the CONTRACTOR'S compliance with the progress schedule and schedule of Shop Drawing and sample submittals.

10.3.1.18. Consult with the CONSULTANT in advance of schedule major tests, inspections or start of important phases of the Work.

10.3.1.19. Draft proposed Change Orders and Work Directive Changes, obtaining backup material from CONTRACTOR and recommend to the CONSULTANT, Change Orders, Work Directive Changes, and Field Orders.

10.3.1.20. Report immediately to the CONSULTANT and the CITY upon the occurrence of any accident.

10.3.1.21. Review applications for payment with CONTRACTOR for compliance with the established procedure for their submission and forward with recommendations to the CONSULTANT, noting particularly the relationship of the payment requested to the schedule of values, Work completed and materials and equipment delivered at the site but not incorporated in the Work.

10.3.1.22. During the course of the work, verify that certificates, maintenance and operation manuals and other data required to be assembled and furnished by CONTRACTOR are applicable to the items actually installed and in accordance with the Contract Documents, and have this material delivered to the CONSULTANT for review and forwarding to City prior to final payment for the Work.

10.3.1.23. Before the CONSULTANT issues a Certificate of Substantial Completion, submit to CONTRACTOR a list of observed items requiring completion or correction.

10.3.1.24. Conduct final inspection in the company of the CONSULTANT, the City and the CONTRACTOR and prepare a final list of items to be completed or corrected.

10.3.1.25. Observe that all items on final list have been completed or corrected and make recommendations to the CONSULTANT concerning acceptance.

10.3.2. The Resident Project Representative shall not:

10.3.2.1. Authorize any deviation from the Contract Documents or substitution of materials or equipment.

10.3.2.2. Exceed limitations of the CONSULTANT'S authority as set forth in the Contract Documents.

10.3.2.3. Undertake any of the responsibilities of CONTRACTOR, subcontractors, or CONTRACTOR'S superintendent.

10.3.2.4. Advise on, issue directions relative to or assume control over any aspect of the means, methods, techniques, sequences or procedures of construction unless such advice or directions are specifically required by the Contract Documents.

10.3.2.5. Advise on, issue directions regarding or assume control over safety precautions and programs in connection with the Work.

10.3.2.6. Accept Shop Drawing or sample submittals from anyone other than CONTRACTOR.

10.3.2.7. Authorize the City to occupy the Project in whole or in part.

10.3.2.8. Participate in specialized field or laboratory tests or inspections conducted by others except as specifically authorized by the CONSULTANT.

CLARIFICATIONS AND INTERPRETATIONS:

10.4. The Initial Decision Maker is the person identified in the Contract Documents to render initial decisions on Claims in accordance with the Contract Documents. The Initial Decision Maker shall not show partiality to the City or Contractor and shall not be liable for results of interpretations or decisions rendered in good faith. The Consultant shall serve as the Initial Decision Maker. CONTRACTOR expressly agrees that CONSULTANT is the sole judge of the requirements of the Contract Documents and the judge of CONTRACTOR'S performance thereunder and thus agrees that all decisions made by CONSULTANT regarding such issues shall be binding upon CONTRACTOR and the CITY. The CONSULTANT will issue with reasonable promptness such written clarifications or interpretations of the requirements of the Contract Documents (in the form of Drawings or otherwise) as the CONSULTANT may determine necessary, which shall be consistent with or reasonably inferable from the overall intent of the Contract Documents.

AUTHORIZED VARIATIONS OF WORK:

10.5. CONSULTANT may authorize minor variations in the Work from the requirements of the Contract Documents which do not involve an adjustment in the Contract Price or the Contract Time and are consistent with the overall intent of the Contract Documents. These may be accomplished by a field Order and will be binding on the CITY, and also on CONTRACTOR who shall perform the Work involved promptly. As such Field Orders involve minor variations to the Work, CONTRACTOR shall not be entitled to any additional time or compensation for performing such work and is precluded from submitting change order requests for furnishing such work.

10.6. The CONSULTANT will have authority to disapprove or reject Work which CONSULTANT believes to be defective or believes to be in nonconformance with the intent of the contract documents, and will also have authority to require special inspection or testing of the Work as provided in paragraph 14.9, whether or not the Work is fabricated, installed or completed.

SHOP DRAWINGS, CHANGE ORDERS AND PAYMENTS:

10.7. In connection with CONSULTANT'S responsibility for Shop Drawings and samples, see paragraphs 7.22 through 7.26 inclusive.

10.8. In connection with CONSULTANT'S responsibilities as to Change Orders, see Article 11, 12, and 13.

10.9. In connection with CONSULTANT'S responsibilities in respect of Applications for Payment, etc., see Article 15.

DETERMINATIONS FOR UNIT PRICES:

10.10. CONSULTANT will determine the actual quantities and classifications of Unit Price Work performed by CONTRACTOR. CONSULTANT will review with CONTRACTOR CONSULTANT'S preliminary determinations on such matters before rendering a written decision thereon (by recommendation of an Application for Payment or otherwise). CONSULTANT'S written decisions thereon will be final and binding upon the CITY or CONTRACTOR unless, within ten (10) days after the date of any such decision, either the CITY or CONTRACTOR delivers to the other party to the Agreement and to CONSULTANT written notice of intention to appeal from such a decision.

DECISIONS ON DISPUTES:

10.11. As CONSULTANT is the Initial Decision Maker and, in that role will serve as the interpreter of the requirements of the Contract Documents and judge of the acceptability of the Contractor's Work there under, 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 performance and furnishing of the Work and Claims under this section 10.11 and Articles 12 and 13 in respect of changes in the Contract Price or Contract Time will be referred to CONSULTANT in writing with a request for a formal decision in accordance

with this paragraph, which CONSULTANT will render in writing within the time set forth in these Articles. Written notice of each such claim, dispute and other matter will be delivered by the claimant to CONSULTANT and the other party to the Agreement promptly as set forth in paragraph 10.13 below.

10.12. When functioning as interpreter and judge under paragraphs 10.4, 10.10 and 10.11, CONSULTANT will not show partiality to the CITY or CONTRACTOR. The rendering of a decision by CONSULTANT pursuant to paragraphs 10.4, 10.10 and 10.11 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 15.13) will be a condition precedent to any exercise by the CITY or the CONTRACTOR of such rights or remedies as either may otherwise have under the Contract Documents or by Laws or Regulations in respect of any such claim, dispute or other matter. CONTRACTOR'S failure to timely submit a claim to the CONSULTANT in accordance with the requirements of the Contract Documents constitutes a waiver of its claim.

10.12.1 Notice of Claims. Claims by either the City or Contractor shall be initiated by notice to the other party and to the Initial Decision Maker. Claims by the Contractor for an increase in the GMP or the Contract Time must be made within five (5) days after occurrence of the event giving rise to such Claim.

10.12.2 Continuing Contract Performance. Pending final resolution of a Claim, except as otherwise agreed in writing or as provided elsewhere in the Contract Documents, the Contractor shall proceed diligently with performance of the Contract and the City shall continue to make payments in accordance with the Contract Documents.

10.12.3 The GMP and Contract Time shall be adjusted in accordance with the Initial Decision Maker's decision, subject to the right of either party to proceed in accordance with this Article 10. The City will issue Certificates for Payment in accordance with the decision of the Initial Decision Maker.

10.12.3.1 Claims for Additional Cost. If the Contractor wishes to make a Claim for an increase in the GMP, notice as provided in paragraph 10.12.1 shall be given before proceeding to execute the portion of the Work that is the subject of the Claim.

10.12.3.2 Claims for Additional Time. If the Contractor wishes to make a Claim for an increase in the Contract Time, notice as provided in paragraph 10.12.1 shall be given. The Contractor's Claim shall include a Time Impact Analysis and probable effect of delay on progress of the Work. In the case of a continuing delay, only one Claim is necessary.

10.12.3.3 If exceptional and unusual adverse weather conditions are the basis for a Claim for additional time, such Claim shall be made consistent with the provisions of this Article 10 and in accordance with delay and extension of time provisions of the Contract Documents and must meet all of the requirements for a time extension as set forth in the Contract Documents. Such Claim shall be documented by data substantiating that weather conditions were abnormal for the period of time, could not have been reasonably anticipated and had an adverse effect on the critical path of the scheduled construction.

10.12.4 Initial Decision. Claims shall be referred to the Initial Decision Maker for initial decision. The Initial Decision Maker will be the Consultant, unless otherwise indicated in the Agreement. An initial decision shall be required as a condition precedent to mediation or litigation of any Claim. If an initial decision has not been rendered within thirty (30) days after the Claim has been referred to the Initial Decision Maker, the party asserting the Claim may demand mediation followed by litigation without a decision having been rendered. Unless the Initial Decision Maker and all affected parties agree, the Initial Decision Maker will not decide disputes between the Contractor and persons or entities other than the City. Contractor must continue with its Work when a Claim is pending before the Initial Decision Maker.

10.12.4.1 The Initial Decision Maker will review Claims and within ten (10) days of the receipt of a Claim take one or more of the following actions: (1) request additional supporting data from the claimant or a response with supporting data from the other party, (2) reject the Claim in whole or in part, (3) approve the Claim, (4) suggest a compromise, or (5) advise the parties that

the Initial Decision Maker is unable to resolve the Claim if the Initial Decision Maker lacks sufficient information to evaluate the merits of the Claim or if the Initial Decision Maker concludes that, in the Initial Decision Maker's sole discretion, it would be inappropriate for the Initial Decision Maker to resolve the Claim.

10.12.4.2 In evaluating Claims, the Initial Decision Maker may, but shall not be obligated to, consult with or seek information from either party or from persons with special knowledge or expertise who may assist the Initial Decision Maker in rendering a decision.

10.12.4.3 If the Initial Decision Maker requests a party to provide a response to a Claim or to furnish additional supporting data, such party shall respond, within ten (10) days after receipt of such request, and shall either (1) provide a response on the requested supporting data, (2) advise the Initial Decision Maker when the response or supporting data will be furnished or (3) advise the Initial Decision Maker that no supporting data will be furnished. Upon receipt of the response or supporting data, if any, the Initial Decision Maker will either reject or approve the Claim in whole or in part.

10.12.4.4 The Initial Decision Maker will render an initial decision approving or rejecting the Claim, or indicating that the Initial Decision Maker is unable to resolve the Claim. This initial decision shall (1) be in writing; (2) state the reasons therefor; and (3) notify the parties of any change in the GMP or Contract Time or both.

LIMITATIONS ON CONSULTANT'S RESPONSIBILITIES:

10.13. Neither CONSULTANT'S authority to act under this Article 10 or elsewhere in the Contract Documents nor any decision made by CONSULTANT either to exercise or not exercise such authority shall give rise to any duty or responsibility of CONSULTANT or CONTRACTOR, any Subcontractor, any Supplier, or any other person or organization performing any of the Work, or to any surety for any of them.

10.14. Whenever in the Contract Documents the term "as ordered", "as directed", "as required", "as allowed", "as approved" or terms of like effect or import are used, or the adjectives "reasonable", "suitable", "acceptable", "proper", or "satisfactory" or adjectives of the like effect or import are used to describe a requirement, direction, review or judgment of CONSULTANT 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 shall not be effective to assign to CONSULTANT any duty or authority to supervise or direct the furnishing or performance of the Work or any duty or authority to undertake responsibility contrary to the provisions of paragraph 10.15 or 10.16.

10.15. CONSULTANT will not be responsible for CONTRACTOR'S means, methods, techniques, sequences or procedures of construction, or the safety precautions and programs incident thereto, and CONSULTANT will not be responsible to CONTRACTOR for CONTRACTOR'S failure to perform or furnish the Work in accordance with the Contract Documents.

10.16. CONSULTANT will not be responsible for the acts or omissions of CONTRACTOR or of any Subcontractor, any Supplier, or of any other person or organization performing or furnishing any of the Work.

ARTICLE 11 – CHANGES IN THE WORK

11.1 A "Change Order" is defined, for purposes of the Contract Documents, as a written order to the CONTRACTOR executed by the CITY and the CONSULTANT after execution of the Contract, directing a change in the Work and may include a change in the Contract Price or the time for the CONTRACTOR'S performance, or any combination thereof.

11.2 Without invalidating the Agreement and without notice to any surety, the CITY may, at any time or from time to time, order additions, deletions or revisions in the Work; these will be authorized by a Written

Amendment, a Change Order, or a Work Directive Change. Upon receipt of any such document, CONTRACTOR shall promptly proceed with the Work involved which will be performed under the applicable conditions of the Contract Documents (except as otherwise specifically provided).

If the CITY and CONTRACTOR are unable to agree as to the extent, if any, of an increase or decrease in the Contract Price or an extension or shortening of the Contract Time that should be allowed as a result of a Work Directive Change, a Claim may be made therefore as provided in Articles 10, 12 and/or Article 13.

11.3. CONTRACTOR shall not be entitled to an increase in the Contract Price or an extension of the Contract Time with respect to any Work performed that is not required by the Contract Documents as amended, modified and supplemented as provided in paragraphs 4.4 and 4.5, except in the case of an emergency as provided in paragraph 7.21 and except in the case of uncovering Work as provided in paragraph 14.9.

11.4. The CITY and CONTRACTOR shall execute appropriate Change Orders (or Written Amendments) covering:

11.4.1. Changes in the work which are ordered by the CITY pursuant to paragraph 11.2, are required because of acceptance of defective Work under paragraph 14.13 or correcting defective Work under paragraph 14.14, or are agreed to by the parties.

11.4.2. Changes in the Contract Price or Contract time which are agreed to by the parties

11.4.3. Changes in the Contract Price or Contract Time which embody the substance of any written decision rendered by CONSULTANT pursuant to paragraph 10.11; provided that, in lieu of executing any such Change Order, an appeal may be taken from any such decision in accordance with the provision of the Contract Documents and applicable Laws and Regulations, but during any such appeal, CONTRACTOR shall carry on the Work and adhere to the progress schedule as provided in paragraph 7.27.

11.4.4. Execution of a Change Order by the CONTRACTOR constitutes conclusive evidence of the CONTRACTOR'S agreement to the ordered changes in the Work and the change in the Contract Price and the time for performance by the CONTRACTOR. The CONTRACTOR, by executing the Change Order, waives and forever releases any claim against the CITY for additional time or compensation for issues or matters relating to or arising out of or resulting from the Work included within or affected by the executed Change Order.

11.4.5. All Change Orders and adjustments shall be in writing and executed by the CONTRACTOR and CITY; otherwise, no claim for additional compensation or time will be permitted.

11.4.6. All Change Orders in which the CONTRACTOR seeks additional time must include a Time Impact Analysis which includes an analysis of how the change shall be incorporated into the construction schedule; the status of construction at that time; and the start/finish dates of all affected activities utilizing the dates included in the latest construction schedule. Where the CONTRACTOR fails to append a Time Impact Analysis to the Change Order, it agrees that the delay has no affect on Contract Time.

11.5. It is distinctly agreed and understood that any changes made in the Contract Documents for this Work (whether such changes increase or decrease the amount thereof) or any change in the manner or time of payments or time of performance made by the CITY to the CONTRACTOR shall in no way annul, release or affect the liability and surety on the Bonds given by the CONTRACTOR. If notice of any change affecting the general scope of the Work or the provisions of the Contract Documents (including, but not limited to, Contract Price or contract Time) is required by the provisions of any bond to be given to a surety, the giving of any such notice will be CONTRACTOR'S responsibility, and the amount of each applicable Bond will be adjusted accordingly.

11.6. Notwithstanding, anything to the contrary contained within the Contract Documents, all change orders involving additional cost or extensions of time, shall be governed by the ordinances of the City of Delray Beach.

ARTICLE 12 – CHANGE OF CONTRACT PRICE

12.1. The Contract Price constitutes the total compensation (subject to authorized adjustments) payable 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.

12.2. The Contract Price may only be changed by a Change Order or by a Written Amendment. Although the CONTRACTOR acknowledges the “no damages for delay” provision set forth in Article 9 of the Contract Agreement, should it be entitled to any Claim for additional compensation under any circumstances, any claim for an increase or decrease in the Contract Price shall be based on written notice delivered by the party making the Claim to the other party and to CONSULTANT as set forth in Article 10. Notice of the amount of the Claim with supporting data shall be delivered within five (5) days after such occurrence (unless CONSULTANT allows an additional period of time to ascertain more accurate data in support of the claim) and shall be accompanied by claimant’s written statement that the amount claimed covers all known amounts (direct, indirect) to which the claimant believes it is entitled as a result of the occurrence of said event. All claims for adjustment in the Contract Price shall be determined solely by CONSULTANT in accordance with Article 10 if the CITY and CONTRACTOR cannot otherwise agree on the amount involved. No claim for an adjustment in the Contract Price will be valid if not submitted in accordance with this paragraph 12.2. Failure by the CONTRACTOR to strictly comply with such notice requirements shall constitute a complete waiver by the CONTRACTOR of any claim for additional compensation. Furthermore, should the CONTRACTOR be entitled to an increase in the Contract Sum, it shall be strictly limited to the direct cost of labor and materials incurred by the CONTRACTOR at the jobsite and shall in no event include indirect costs, overhead, lost profits or consequential damages incurred by the Contractor. Furthermore, the CITY shall not be liable to the CONTRACTOR for claims of third parties including, but not limited to, subcontractors, suppliers, laborers, etc.

12.3. 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:

12.3.1. 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 paragraphs 12.9.1. and 12.9.2.).

12.3.2. By mutual acceptance of a lump sum (which shall include an allowance for overhead and profit in accordance with paragraph 12.6.2.1).

12.3.3. On the basis of the Cost of the Work (determined as provided in paragraphs 12.4 and 12.5) plus a CONTRACTOR’S Fee for overhead and profit (determined as provided in paragraphs 12.6 and 12.7).

COST OF THE WORK:

12.4. The term Cost of the Work means the sum of all costs necessary incurred and paid by CONTRACTOR in the proper performance of the Work. Except as otherwise may be agreed to in writing by the CITY, 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 12.5.

12.4.1. Payroll costs for employees in the direct employ of CONTRACTOR in the performance of the Work under schedules of job classification agreed upon by the CITY and CONTRACTOR. Payroll costs for employees not employed full time on the Work shall be apportioned on the basis of their time spent on the Work. Payroll costs 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’ or workmen’s compensation, health and retirement benefits, sick leave, vacation and holiday pay applicable thereto. Such employees shall include superintendents and foremen at the site. The expenses of performing Work after regular working hours, on Saturday, Sunday or legal holidays shall be included in the above to the extent authorized by the CITY.

12.4.2. Cost of all materials and equipment furnished and incorporated in the Work, including costs of transportation and storage thereof, and Suppliers' field services required in connection therewith. All cash discounts shall accrue to CONTRACTOR unless the CITY deposits funds with CONTRACTOR with which to make payments, in which case the cash discounts shall accrue to the CITY. All trade discounts, rebates and refunds and all returns from sale of surplus materials and equipment shall accrue to the CITY, and CONTRACTOR shall make provisions so that they may be obtained by the City in the most expeditious manner possible

12.4.3. Payments made by CONTRACTOR to the Subcontractors for Work performed by Subcontractors. If required by the CITY, CONTRACTOR shall obtain competitive bids from Subcontractors acceptable to CONTRACTOR and shall deliver such bids to the CITY who will then determine, with the advice of the CONSULTANT, 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 Work. All subcontracts shall be subject to the other provisions of the Contract Documents insofar as applicable.

12.4.4. Supplemental costs include the following:

12.4.4.1. Cost, including transportation and maintenance, of all materials, supplies, equipment, machinery, appliances, office and temporary facilities at the site and tools not owned by the workers, which are consumed in the performance of Work, and cost less market value of such items used but not consumed which remain the property of CONTRACTOR.

12.4.4.2. Rentals of all construction equipment and machinery and the parts thereof whether rented from CONTRACTOR or others in accordance with rental agreements approved by the CITY with the advice of CONSULTANT, 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. For special equipment and machinery such as power driven pumps, concrete mixers, trucks, front end loaders, backhoes, and tractors, or other equipment, required for the economical performance of the authorized Work, the CONTRACTOR shall receive payment based on the weekly rate divided by 40 to arrive at an hourly cost. The weekly rate shall be from the latest edition of the Rental Rate blue book for Construction Equipment, published by Equipment Guide Book Co., reduced by 25 percent. Equipment cost shall be calculated based upon the actual time the equipment is used in the Work. If said Work required the use of machinery not on the Work or not to be used on the Work, the cost of transportation, not exceeding a distance of one hundred (100) miles, of such machinery to and from the Work shall be added to the fair rental rate; provided, however, that this shall not apply to machinery or equipment already required to be furnished under the terms of the Contract.

12.4.4.3. Sales, consumer, use or similar taxes related to the work and for which CONTRACTOR is liable, imposed by laws and regulations.

12.4.4.4. Royalty payments and fees for permits and licenses.

12.4.4.5. The site costs of utilities, fuel and sanitary facilities.

12.4.4.6. Cost of premiums for additional bonds and insurance required because of changes in the Work.

12.5. The term Cost of the Work shall not include any of the following:

12.5.1. Payroll costs and other compensation of CONTRACTOR'S officers, executives, principals (of partnership and sole proprietorships), general managers, engineers, architects, estimators, attorneys, auditors, accountants, purchasing and contracting agents, expeditors, timekeepers, clerks and other personnel employed by CONTRACTOR whether at the site or in CONTRACTOR'S 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 paragraph 11.4.1, which are to be considered administrative costs covered by the CONTRACTOR'S Fee.

12.5.2. Expenses of CONTRACTOR'S principal and branch offices other than CONTRACTOR'S office at the site. CONTRACTOR expressly agrees that Home Office Overhead is not included within the costs of the work.

12.5.3. Any part of CONTRACTOR'S capital expenses, including interest on CONTRACTOR'S capital employed for the Work and charges against CONTRACTOR for delinquent payments.

12.5.4. 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 the cost of premiums covered by subparagraph 12.4.4.6 above).

12.5.5. Costs due to the acts or omissions of the CONTRACTOR, any Subcontractor, or anyone 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.

12.5.6. Other overhead or general expense costs of any kind and the costs of any item not specifically and expressly included in paragraph 12.4.

CONTRACTOR'S FEE:

12.6. The CONTRACTOR'S Fee allowed to CONTRACTOR for overhead and profits shall be determined as follows:

12.6.1. A mutually acceptable fixed fee; or if none can be agreed upon,

12.6.2. A fee based on the following percentages of the various portions of the Cost of the Work:

12.6.2.1. The cost allowance for overhead and profit shall not exceed **fifteen percent (15%)** of the new cost. If the Work is done by a Subcontractor, he may add **ten percent (10%)** of his net cost for overhead and profit and the Contractor may add **five percent (5%)** of the net cost for overhead and profit. If all the Work is done by the Contractor, he may add **fifteen percent (15%)** of the net cost for overhead and profit.

12.6.2.2. No fee shall be payable on the basis of costs itemized under paragraphs 12.4.4 and 12.5;

12.6.2.3. The amount of credit to be allowed by CONTRACTOR to the CITY for any such change which results in a net decrease in cost will be the amount of the actual net decrease plus a deduction in CONTRACTOR'S Fee by an amount equal to **ten percent (10%)** of the net decrease; and

12.6.2.4. When both additions and credits are involved in any one change, the adjustment in CONTRACTOR'S Fee shall be computed on the basis of the net change in accordance with paragraphs 12.6.2.1 through 11.6.2.3, inclusive.

12.7. Whenever the cost of any Work is to be determined pursuant to paragraph 12.4 or 12.5, CONTRACTOR will submit in form acceptable to CONSULTANT an itemized cost breakdown together with supporting data.

UNDEFINED GENERAL ALLOWANCES:

12.8. It is understood that CONTRACTOR has included in the Contract Price all undefined general allowances so named in the Contract Documents and shall cause the Work so covered to be done by such Subcontractors or Suppliers and for such sums within the limit of the undefined general allowances as may be acceptable to the CONSULTANT, CONTRACTOR agrees that:

12.8.1. The undefined general allowances include the cost to CONTRACTOR (less any applicable trade discounts) of materials and equipment required by the undefined general allowances to be delivered at the site, and all applicable taxes; and

12.8.2. CONTRACTOR'S costs for unloading and handling on the site, labor, installation costs, overhead, profit and other expenses contemplated for the undefined general allowances have been included in the Contract Price and not in the allowances. No demand for additional payment on account of any thereof will be valid.

Prior to final payment, an appropriate Change order will be issued as recommended by CONSULTANT to reflect actual amounts due CONTRACTOR on account of Work covered by undefined general allowances, and the Contract Price shall be correspondingly adjusted.

UNIT PRICE WORK:

12.9.1. Where the Contract Documents provide that all or part of the Work is to be Unit Price Work, initially the Contract Price will be deemed to include for all Unit Price Work an amount equal to the sum of the established unit prices for each separately identified item of Unit Price Work times the estimated quantity of each item as indicated in the Agreement. The estimated quantities of items of Unit Price Work are not guaranteed and are solely for the purpose of comparison of Bids and determining an initial Contract Price. Determinations of the actual quantities and classifications of Unit Price Work performed by CONTRACTOR will be made by CONSULTANT in accordance with Paragraph 10.10.

12.9.2. Each unit price will be deemed to include an amount considered by CONTRACTOR to be adequate to cover CONTRACTOR'S overhead and profit for each separately identified item.

OMITTED WORK:

12.10. The City may at any time, by written order, without Notice to the Sureties, require omission of such contract work as it may find necessary or desirable. An order for omission of work shall be valid only by an executable change order. All work so ordered must be omitted by the CONTRACTOR. The amount by which the contract price shall be reduced shall be determined as follows:

12.10.1. By such applicable unit prices, or rates for work of a similar nature or character as set forth in the contract; or,

12.10.2. By the appropriate lump sum price set forth in the Contract; or,

12.10.3. By the reasonable and fair estimated cost of such omitted work as determined by the CONTRACTOR and the CONSULTANT, and approved by the CITY.

ARTICLE 13 – TIME AND DELAYS

13.1 All time in the Contract Documents is calculated on a consecutive calendar day basis.

13.2 Time is of the essence in this Contract, and any breach of same shall go to the essence hereof, and CONTRACTOR, in agreeing to complete the Work within the time herein mentioned, has taken - into consideration and made allowances for all reasonable hindrances and delays incident to his work

13.3 CONTRACTOR agrees to commence the Work when directed by Owner and to diligently and continuously perform such Work and to coordinate the Work with other Work being performed on the Project by other trades so that the Owner shall not be delayed by any act or omission of CONTRACTOR in completion of the Project within the time specified above.

13.3.1 Contractor shall perform the Work in strict accordance with the Construction Schedule and the Submittal Schedules submitted to and approved by Consultant and City, in writing.

13.3.2 The Construction Schedule and all subsequently submitted updated Construction Schedules shall be in a detailed, precedence-style, resource loaded, critical path method (CPM) type format satisfactory to the City and Consultant, which shall also: (1) provide a graphic representation of all activities and events that will occur during performance of the Work; (2) identify each phase of construction, Substantial Completion, Temporary Certificate of Occupancy Dates, Certificates of Occupancy and Final Completion; and (3) set forth dates that are critical in ensuring the timely and orderly completion of the Work in accordance with the requirements of the Contract Documents (hereinafter referred to as "Milestone Dates"). Contractor shall provide the City with the original/planned, resource loaded Construction Schedule in P6 native electronic files (.xer format) such that the City may see Contractor's logic. Upon review and acceptance by the City and the Consultant of the Construction Schedule, the Construction Schedule shall be deemed part of the Contract Documents.

13.3.3 The Contractor shall monitor the progress of the Work for conformance with the requirements of the Construction Schedule and shall promptly advise the City of any delays or potential delays. The accepted Construction Schedule shall be updated one (1) time each month to reflect actual conditions and Contractor shall provide the City with a copy of the updated, resource loaded schedule, in P6 native electronic files (.xer format), and a list of all changes made to the schedule, at the time Contractor submits its monthly Payment Application. The updated Construction Schedule should include new start dates, new finish dates and the appropriate percent complete. No additional activities, changes to the Construction Schedules logic or changes to the Construction Schedules durations are to be included in the updated Construction Schedule. The Contractor may, at its option, provide fragnets with added activities and logic changes; however, these changes are to be submitted in a separate document and as a separate electronic file. With all submissions, the .xer electronic file is to be submitted along with PDFs.

13.3.4 In the event any progress report or schedule update indicates any delays or loss of time, the Contractor shall propose an affirmative plan to correct the delay, including resequencing of the Work, overtime and/or additional labor, if necessary. In no event shall any progress report constitute an adjustment in the Contract Time or the GMP unless any such adjustment is agreed to by the City and authorized pursuant to properly executed written Change Order. Contractor shall maintain such updated Construction Schedule on a current basis in accordance with the provisions of this Section and shall keep proper records available to inspection by the City to substantiate actual activity, resources, duration and completion dates.

13.3.5 Extraordinary Measures. In the event the City or Consultant determines that the performance of the Work has not progressed or reached the level of completion required by the Contract Documents, the City shall have the right to order the Contractor, in writing, to take corrective measures necessary to expedite the progress of construction, including, without limitation, (1) working additional shifts or overtime, (2) supplying additional manpower, equipment, and facilities, (3) re-sequencing the Work to avoid the effects of the potential delay; and (4) other similar measures utilizing the most cost effective and reasonable acceleration methods possible to avoid delays and Damages (hereinafter referred to collectively as "Extraordinary Measures"). Such Extraordinary Measures shall continue until the progress of the Work complies with the stage of completion required by the Contract Documents and approved Construction Schedule. The City's right to require Extraordinary Measures is solely for the purpose of ensuring the Contractor's compliance with the Construction Schedule. The Contractor shall be responsible for liquidated damages for delays for failure to complete the Work within the Contract Time. All Extraordinary Measures required to keep the Project on schedule and to avoid delays shall not be considered a Cost of the Work and shall not be a basis to increase the GMP. Should Contractor fail to perform the Extraordinary Measures

as provided herein, the City shall give the Contractor a five (5) business day notice of default. If the Contractor does not commence and continue to correct the default as provided in this Section, then the City may supplement Contractor's crews, supply additional manpower, equipment and facilities, and/or other similar measures to avoid delays. Contractor shall be liable to The City for all costs incurred by The City pursuant to this Section. If Contractor does not perform its obligations pursuant to this Section, an appropriate Change Order shall be issued deducting from payments then or thereafter due the Contractor the reasonable cost incurred pursuant to this Section. If payments then or thereafter due the Contractor are not sufficient to cover such amounts, the Contractor shall pay the difference to the City.

13.3.6 The City may exercise the rights furnished the City under or pursuant to this Section 13.3.5 as frequently as the City deems necessary to ensure that the Contractor's performance of the Work will comply with any critical dates and/or the Substantial Completion Date or TCO dates, as applicable. Alternatively, the City may exercise termination rights as provided for in the Contract Documents.

13.3.7 All Float contained in the Construction Schedule, as shown in the initial Construction Baseline Schedule or as generated thereafter, shall be considered a Project resource belonging in whole to the City for City's sole use as needed to absorb delays caused by any event. All Float shall be shown as such in the Construction Schedule on each affected schedule path. The City and Consultant shall have the right to examine the identification of (or failure to identify) Float on the schedule in determining whether to approve the Construction Schedule. Once identified, the Contractor shall monitor, account for and maintain Float in accordance with critical path methodology.

13.4 CONTRACTOR shall make payments promptly to its vendors, subcontractors, suppliers and for labor, material and equipment used by it in the performance of his work.

13.5 The CONTRACTOR shall not be entitled to any claim for damages on account of hindrance or delays from any cause whatsoever; but if caused by any act of God or active interference on the part of the Owner, such act, hindrance, or delay may only entitle the CONTRACTOR to receive an extension of time as its sole and exclusive remedy.

13.6 Adverse weather such as rain is not to be considered to be an Act of God unless it exceeds the ten (10) year average as published by the National Weather Service (or equivalent organization acceptable to the Owner at its sole discretion) for that time of year in Palm Beach County.

13.7 An extension of time to complete the Work shall be determined by the Owner provided that the CONTRACTOR provides the Owner with notice in writing of the cause of said act, hindrance or delay within twenty (20) calendar days after its occurrence.

13.8 In the event the request for extension is not made in writing within that twenty (20) day time period, CONTRACTOR acknowledges and agrees it has forever waived any and all rights to such an extension.

13.9 All extensions of time shall be authorized only by a written change order executed by the Owner and Project Consultant.

13.10 This "no damage for delay" clause, also set forth in Article 9 of the Agreement, will encompass any damages for delay or disruption even if the CONTRACTOR completes construction of the Work in a timely fashion in accordance with this Contract.

13.11 Damages as referenced in this "no damage for delay" shall include any type of damages that are or could be awarded by any court or arbitration panel such as, by way of general example, but not limitation, tort, contract, strict liability, consequential damages, liquidated damages and/or punitive damages.

13.12 By way of specific example but not limitation, damages as referenced within this clause includes loss of use, loss of profits, labor inefficiency, loss of bonding capacity, overhead and repair costs, costs of capital replacement, loss of wages, pain and suffering, loss of production costs to replace facilities, equipment and/or product loss, increased and/or extended home office overhead, increased general conditions, costs of mobilization and demobilization, decrease in value, and/or any other damage or loss.

13.13 The CONTRACTOR recognizes and specifically acknowledges the terms and the "no damage for delay" clause upon execution of this Contract.

ARTICLE 14 – WARRANTY AND GUARANTEE: TESTS AND INSPECTIONS, CORRECTION, REMOVAL OR ACCEPTANCE OF DEFECTIVE WORK

14.1. CONTRACTOR warrants and guarantees to the CITY and CONSULTANT that all Work will be constructed in accordance with the Contract Documents and that all materials and equipment incorporated into any Work covered by the Contract Documents shall be new and, where not specified, of the most suitable grade of their respective kinds for their intended use, and all workmanship shall be in accordance with construction practices acceptable to the City and Consultant. 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 Article 14. The guarantee shall remain in effect for **one (1) year** from the date of final acceptance unless a longer period is specified. The CITY shall give notice of observed defects with reasonable promptness. Un-remedied defects identified for correction during the guarantee period but remaining after its expiration shall be considered as part of the obligations of the guarantee. Defects in material, workmanship or equipment which are remedied as a result of obligations of the guarantee shall subject the remedied portion of the work to an extended guarantee period of one year after the defect has been remedied. The Surety shall be bound with and for the Contractor in the Contractor's faithful observance of the guarantee. However, nothing contained in this Section shall affect or hinder the CITY'S ability to collect on the CONTRACTOR'S Performance Bond within a five (5) year period.

ACCESS TO WORK:

14.2. CONSULTANT'S and CONSULTANT'S representatives, other representatives of the CITY, testing agencies and governmental agencies with jurisdictional interests will have access to the Work at reasonable times for their observation, inspecting and testing. CONTRACTOR shall provide proper and safe conditions for such access.

TESTS AND INSPECTIONS:

14.3. CONTRACTOR shall give CONSULTANT timely notice of readiness of the Work for all required inspections, tests or approvals.

14.4. If Laws or Regulations of any public body having jurisdiction require 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 CONSULTANT 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 the CITY'S or CONSULTANT'S acceptance of a Supplier 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.

14.5. All inspections, tests or approvals other than those required by Laws or Regulations of any public body having jurisdiction shall be performed by organizations acceptable to the CITY (or by CONSULTANT if so specified).

14.6. If any Work (including the work of others) that is to be inspected, tested or approved is covered without written concurrence of CONSULTANT, it must, if requested by CONSULTANT, be uncovered for observation. Such uncovering shall be at CONTRACTOR'S expense unless CONTRACTOR has given CONSULTANT timely notice of CONTRACTOR'S intention to cover the same and CONSULTANT has not acted with reasonable promptness in response to such notice.

14.7. Neither observations by CONSULTANT nor inspections, tests or approvals by others shall relieve CONTRACTOR from CONTRACTOR'S obligation's to perform the Work in accordance with the Contract Documents.

UNCOVERING WORK:

14.8. If any Work is covered contrary to the request of CONSULTANT, it must, if requested by CONSULTANT, be uncovered for CONSULTANT'S observation and replaced, at CONTRACTOR'S expense.

14.9. If CONSULTANT considers it necessary or advisable that covered Work be observed by CONSULTANT or inspected or tested by others, CONTRACTOR, at CONSULTANT'S request shall uncover, expose or otherwise make available for observation, inspection or testing as CONSULTANT 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 direct, indirect and consequential costs of such uncovering, exposure, observation, inspection and testing and of satisfactory reconstruction, (including but not limited to fees and charges of engineers, architects, attorneys and other professionals), and the CITY shall be entitled to an appropriate decrease in the Contract Price, and, if the parties are unable to agree as to the amount thereof, may make a claim therefore as provided in Article 12. 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; and if the parties are unable to agree as to the amount or extent thereof. CONTRACTOR may make a claim therefore as provided in Article 12 and 13.

CITY MAY STOP THE WORK:

14.10. If the Work is defective, or CONTRACTOR fails to supply sufficient skilled workers or suitable materials or equipment, or fails to furnish or perform the Work in such a way that the completed Work will conform to the Contract Documents, the CITY may order CONTRACTOR to stop the Work, or any portion thereof, until the cause for such order has been eliminated; however, this right of the CITY to stop the Work shall not give rise to any duty on the part of the CITY to exercise this right for the benefit of CONTRACTOR or any other party.

CORRECTION OR REMOVAL OF DEFECTIVE WORK:

14.11. If required by CONSULTANT, CONTRACTOR shall promptly, as directed, either correct all defective Work, whether or not fabricated, installed or completed, or, if the Work has been rejected by CONSULTANT, remove it from the site and replace it with non-defective Work. CONTRACTOR shall bear all direct, indirect, and consequential costs of such correction or removal (including but not limited to fees and charges of engineers, architects, attorneys and other professionals) made necessary thereby.

ONE YEAR CORRECTION PERIOD:

14.12. If within **one (1) year** after the date of final acceptance of the Work by the City or such longer period of time as may be prescribed by Laws or Regulations or by the terms of any applicable special guarantee required by the Contract Documents or by any specific provision of the Contract Documents, any Work is found to be defective, CONTRACTOR shall promptly, without cost to the CITY and in accordance with the CITY'S written instructions, either correct such defective Work, or, if it has been rejected by the CITY, remove it from the site and replace it with non-defective 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, the CITY may have the defective Work corrected or the rejected Work removed and replaced, and all direct, indirect and consequential costs of such removal and replacement (including but not limited to fees and charges of engineers, architects, attorneys and other professionals) will be paid by CONTRACTOR. In special circumstances where a particular item of equipment is placed in continuous service before Substantial Completion of all the Work, the correction period for that item may start to run from an earlier date if so provided in the Specifications or by Written Amendment. Nothing herein shall be deemed a waiver of the statute of limitations as provided in Florida Law.

14.13. If instead of requiring correction or removal and replacement of defective Work, the CITY (and prior to CONSULTANT'S recommendation of final payment) prefers to accept it, the CITY may do so. CONTRACTOR shall bear all direct, indirect and consequential costs attributable to the CITY'S evaluation

of and determination to accept such defective Work (such costs to be approved by CONSULTANT as to reasonableness and to include but not be limited to fees and charges of engineers, architects, attorneys and other professionals). If any such acceptance occurs prior to CONSULTANT'S recommendation of final payment, a Change Order will be issued incorporating the necessary revisions in the Contract Documents with respect to the Work; and the CITY shall be entitled to an appropriate decrease in the Contract Price to be determined by the CONSULTANT. If the acceptance occurs after such recommendation, an appropriate amount will be paid by CONTRACTOR to the CITY.

CITY MAY CORRECT DEFECTIVE WORK:

14.14. If CONTRACTOR fails within thirty days (30) after written notice of CONSULTANT to proceed to correct and to correct defective Work or to remove and replace rejected Work as required by CONSULTANT in accordance with paragraph 14.11, or if CONTRACTOR fails to perform the Work in accordance with the Contract Documents, or if CONTRACTOR fails to comply with any other provision of the Contract Documents, the CITY may, after seven (7) days written notice to CONTRACTOR, correct and remedy any such deficiency. In exercising the rights and remedies under this paragraph the CITY shall proceed expeditiously. To the extent necessary to complete corrective and remedial action, the CITY 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 incomplete in the Work all materials and equipment stored at the site or for which the CITY has paid CONTRACTOR but which are stored elsewhere. CONTRACTOR shall allow the CITY, the CITY'S representative, agents and employees such access to the site as may be necessary to enable the CITY to exercise the rights and remedies under this paragraph. All direct, indirect and consequential costs of the CITY in exercising such rights and remedies will be charged against CONTRACTOR in an amount approved as to reasonableness by CONSULTANT, and a Change Order will be issued incorporating the necessary revisions in the Contract Documents with respect to the Work; and the CITY shall be entitled to an appropriate decrease in the Contract Price, and, if the parties are unable to agree as to the amount thereof, the CITY may make a claim therefor as provided in Article 12. Such direct, indirect and consequential costs will include but not be limited to fees and charges of engineers, architects, attorneys and other professionals, all court costs and all costs of repair and replacement of work of other 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 the CITY of the CITY'S rights and remedies hereunder.

ARTICLE 15 – PAYMENTS TO CONTRACTOR AND COMPLETION

15.1. The schedule of values established as provided in paragraph 3.9 will serve as the basis for progress payments and will be incorporated into a form of Application for Payment acceptable to CONSULTANT. The schedule of values shall be presented with such detail, and supported with whatever information the CITY or CONSULTANT reasonably requests. The CONTRACTOR shall not imbalance its schedule of values or artificially inflate any element thereof. Progress payments on account of Unit Price Work will be based on the number of units completed.

APPLICATION FOR PROGRESS PAYMENTS:

15.2 Unless otherwise prescribed by law, at the end of each month, the CONTRACTOR shall submit to the Consultant for review, an Application for Progress Payment filled out and signed by the CONTRACTOR covering the Work completed as of the date of the Application and accomplished by such supporting documentation as is required by the Contract Documents.

The Application for Progress Payment shall identify, as a subtotal, the amount of the CONTRACTOR'S Total Earnings to Date, plus the Value of Materials Stored which have not yet been incorporated in the Work, less a deductive adjustment for materials stored which have been installed which were not previously incorporated in the Work, but for which payment was allowed.

The Net Payment Due to the CONTRACTOR shall be the above- mentioned subtotal from which shall be deducted the amount of retainage specified in the Contract, and the total amount of all previous approved Applications for Progress Payment submitted by the CONTRACTOR. Retainage shall be calculated based upon the above-mentioned subtotal.

The above calculation in tabular form is as follows:

Total Earnings to Date	\$ _____
Value of Materials Stored	\$ _____
Less Value of Materials Stored for which payment was allowed and which have been installed	(\$ _____)
SUBTOTAL	\$ _____
Less Retainage (based on sub total)	(\$ _____)
Less total of all previous approved Applications for Progress Payment	(\$ _____)
NET PAYMENT DUE:	\$ _____

The Value of Materials Stored shall be an amount equal to the specified percent of the value of same as set forth in the Agreement or Schedule of Values. Said amount shall be based upon the value of all acceptable materials and equipment not incorporated in the Work but delivered and suitably stored at the site or at another location agreed to in writing; provided, each such individual item has a value of more than \$5,000 and will become a permanent part of the Work and is planned for installation within the following thirty (30) days. The Application for Progress Payment shall also be accompanied by a Bill of Sale, paid invoice, or other documentation warranting that the CONTRACTOR has received the materials and equipment free and clear of all liens, charges, security interests, and encumbrances (which are hereinafter in these General Conditions referred to as "Liens") and evidence that the materials and equipment are covered by appropriate property insurance and other arrangements to protect the CITY'S interest therein, all of which shall be satisfactory to the CITY. CONTRACTOR warrants and represents that, upon payment of the pay request submitted, title to all work included in such payment shall be vested in the CITY.

CONTRACTOR'S WARRANTY OF TITLE:

15.3. CONTRACTOR warrants and guarantees that title to all Work, materials and equipment covered by any Application for Payment, whether incorporated in the Project or not, will pass to the CITY no later than the time of payment free and clear of Liens.

REVIEW OF APPLICATIONS FOR PROGRESS PAYMENT:

15.4. The CONSULTANT identified within Article 6 of the **payment procedures** must review the payment request or invoice. Payment is due twenty-five (25) business days after the date on which the payment request or invoice is stamped as received. The City may reject the payment request or invoice within twenty (20) business days after the date on which the payment request or invoice is stamped as received. The rejection must be written and must specify the deficiency in the payment request or invoice and the action necessary to make the payment request or invoice proper. If a payment request or an invoice is rejected and the contractor resubmits a corrected payment request or invoice which corrects the deficiency specified in writing by the City, the corrected payment request or invoice must be paid or rejected on the later of:

- Ten (10) business days after the date the corrected payment request or invoice is stamped as received

Or

- The first business day after the next regularly scheduled meeting of the governing body held after the corrected payment request or invoice is stamped as received.

If a dispute between the City and the contractor cannot be resolved, the dispute must be resolved in accordance with the provisions of the Florida Prompt Payment Act Florida Statue 218.70.

When the Contractor receives payment from the City for labor, services, or materials furnished by subcontractors and suppliers hired by the Contractor, the Contractor shall remit payment due to those subcontractors and suppliers within ten (10) days after the Contractor's receipt of payment.

When a subcontractor receives payment from the Contractor for labor, services, or materials furnished by subcontractors and suppliers hired by the subcontractor, the subcontractor shall remit payment due to those subcontractors and suppliers within seven (7) days after the subcontractor's receipt of payment.

Nothing herein shall prohibit the Contractor or subcontractor from disputing, pursuant to the terms of the relevant contract, all or any portion of a payment alleged to be due to another party if the Contractor or subcontractor notifies the party whose payment is disputed, in writing, of the amount in dispute and the actions required to cure the dispute. Any disputes regarding payment shall be raised via a formal Claim pursuant to Article 10. The contractor or subcontractor must pay all undisputed amounts due within the time limits imposed by this section.

CONSULTANT will, within ten (10) days after receipt of each Application for Payment, either indicate in writing a recommendation of payment and present the Application to the CITY, or return the Application to CONTRACTOR indicating in writing CONSULTANT'S reasons for refusing to recommend payment. In the latter case, CONTRACTOR may make necessary corrections and resubmit the Application. Twenty (20) business days after receipt of the Application for Payment by the City with CONSULTANT'S recommendation, the amount recommended will (subject to the provisions of section 15.4 and the last sentence of paragraph 15.7) become due and when due will be paid by the CITY to CONTRACTOR.

15.5. CONSULTANT'S recommendation of any payment requested in the application for payment shall not prohibit the City from withholding payment or prohibit the City from paying additionally sums regarding other matters or issues between the parties. In addition, payment precludes contractor from requesting additional compensation for work for which it has been paid.

15.6. CONSULTANT'S recommendation of final payment will constitute an additional representation by CONSULTANT to the CITY that the conditions precedent to CONTRACTOR'S being entitled to final payment as set forth in paragraph 15.13 have been fulfilled.

15.7. CONSULTANT may refuse to recommend the whole or any part of any payment if, in CONSULTANT'S opinion, it would be incorrect to make such representations to the CITY. The CONSULTANT 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 CONSULTANT'S opinion to protect the CITY from loss, including but not limited to:

15.7.1. The Work is defective, or completed Work has been damaged requiring correction or replacement.

15.7.2. The Contract Price has been reduced by Written Amendment or Change Order.

15.7.3. The CITY has been required to correct defective Work or complete Work in accordance with paragraph 14.14, or

15.7.4. Of CONSULTANT'S actual knowledge of the occurrence of any of the events enumerated in paragraphs 16.2.1 through 16.2.9 inclusive.

15.7.5 for liquidated damages that have accrued against the CONTRACTOR;

15.7.6 for claims filed by Subcontractors, suppliers or other third parties;

15.7.7 CONTRACTOR'S failure to carry out any of its obligations under the Contract Documents;

15.7.8 CONTRACTOR'S failure to make proper payments to Subcontractors or other third parties;

15.7.9 Damage to the CITY or another CONTRACTOR;

15.7.10 Punch list items unremedied;

15.7.11 Failure to comply with any and all insurance requirements;

15.7.12 Reasonable evidence that the Work will not be completed on or before the Substantial Completion or Final Completion date.

The CITY may refuse to make payment of the full amount recommended by the CONSULTANT because claims have been made against the CITY on account of CONTRACTOR'S performance or furnishing of the Work, or there are other items entitling the CITY to credit against the amount recommended, but the CITY must give CONTRACTOR written notice (with a copy to CONSULTANT) stating the reasons for such action.

SUBSTANTIAL COMPLETION:

15.8. When the CONTRACTOR considers the entire Work ready for its intended use, the CONTRACTOR shall notify the CITY and the CONSULTANT in writing that the Work is substantially complete and request that the CONSULTANT prepare a Certificate of Substantial Completion. Within a reasonable time thereafter, the CITY, the CONSULTANT and the CONTRACTOR shall make an inspection of the Work to determine the status of completion. If the CONSULTANT does not consider the Work substantially complete, the CONSULTANT shall notify the CONTRACTOR in writing giving the reasons therefor. If the CONSULTANT considers the Work to be substantially complete, the CONSULTANT will prepare and deliver to the CITY for its execution and recordation the Certificate of Substantial Completion signed by the CONSULTANT and CONTRACTOR, which shall fix the Date of Substantial Completion. Before requesting an inspection for certification of Substantial Completion, the Contractor must have completed the following:

15.8.1 All air conditioning, ventilation, security systems, fire alarms, fire sprinklers and other life safety systems must be completed, tested, approved and demonstrated.

15.8.2 Air Conditioning systems must be completed, tested and approved by the Consultant.

15.8.3 Landscaping must be installed and in the event of ball fields, the grass must have grown to such an extent to be useable. Landscape irrigation systems must be completed, tested, approved and demonstrated.

15.8.4 In the Application for Payment that coincides with, or first follows, the date Substantial Completion is claimed, show 100 percent completion for the Work. Include supporting documentation for completion as indicated in these Contract Documents and a statement showing an accounting of changes to the Contract Sum.

15.8.5 Advise CITY of pending insurance changeover requirements.

15.8.6 Prepare specific warranties, workmanship bonds, maintenance agreements, final certifications and all required closeout submittals.

15.8.7 Obtain and submit releases enabling the CITY unrestricted use of the Work and access to services and utilities; include occupancy permits, operating certificates and similar releases.

15.8.8 Submit record drawings, maintenance manuals, final project photographs, damage or settlement surveys, property surveys and similar final record information.

15.8.9 Make final changeover of permanent locks and transmit master and grand master keys to the CITY.

15.8.10 Advise the CITY'S personnel of pending changeover in security provisions.

15.8.11 Discontinue or change over and remove temporary facilities from the site, along with construction tools, mock-ups and similar elements.

15.8.12 Complete final cleanup requirements, including touch-up painting.

15.8.13 Touch-up and otherwise repair and restore marred exposed finishes.

PUNCHLIST ITEMS:

15.9.1 The City shall develop a single "punch list" within thirty (30) days of the Contractor reaching substantial completion. The "punch list" shall cover the entire project and shall be released to the contractor within five (5) days of the development of said punch-list. The contractor shall have a minimum of thirty (30) days after the delivery of the list of items to complete the punch list.

Upon completion of the "punch list" items the Contractor may submit a request for all retainage held by the City. If there is a dispute as to the completion of a "punch list" item the City shall be allowed to retain 150% of the cost for the item until such dispute is resolved.

15.9.2 The CITY shall have the right to exclude CONTRACTOR from the Work after the date of Substantial Completion, but the CITY shall allow CONTRACTOR reasonable access to complete or correct items on the "punch list". All items of work must be installed and completed per the contract documents. If the City fails to comply with its responsibilities to develop the list required as defined in the contract, within the time limitations provided the contractor may submit a payment request for all remaining retainage withheld by the City pursuant to this section. The City need not pay or process any payment request for retainage if the contractor has, in whole or in part, failed to cooperate with the City in the development of the list or failed to perform its contractual responsibilities, if any, with regard to the development of the punch list. If the punch list is not provided to the contractor by the agreed upon date for delivery of the list, the contract time for completion must be extended by the number of days the City exceeded the delivery date. Damages may not be assessed against a contractor for failing to complete a project within the time required by the contract, unless the contractor failed to complete the project within the contract period as extended under this paragraph.

The failure to include any corrective work or pending items not yet completed on the punch List does not alter the responsibility of the contractor to complete all the construction services purchased pursuant to the contract. Payment of any remaining undisputed contract amount, less any amount withheld pursuant to the contract for incomplete or uncorrected work, must be paid within twenty (20) business days after receipt of a proper invoice or payment request. If the City has provided written notice to the contractor specifying the failure of the contractor to meet contract requirements in the development of the list of items to be completed, the City need not pay for or process any payment request for retainage if the contractor has, in whole or part, failed to cooperate with the City in the development of the list or to perform its contractual responsibilities, if any, with regards to the punch list.

PARTIAL UTILIZATION:

15.10. Use by the CITY of any finished part of the Work, which has specifically been identified in the Contract Documents, or which the CITY, CONSULTANT and CONTRACTOR agree constitutes a separately functioning and useable part of the Work that can be used by the CITY without significant

interference with CONTRACTOR'S performance of the remainder of the Work, may be accomplished prior to Substantial Completion of all Work subject to the following:

15.10.1. The CITY at any time may request CONTRACTOR in writing to permit the CITY to use any such part of the Work which the CITY believes to be ready for its intended use and substantially complete. If CONTRACTOR agrees, CONTRACTOR will certify to the CITY and CONSULTANT that said part of the Work is substantially complete and request CONSULTANT to issue a certificate of Substantial Completion for that part of the Work. CONTRACTOR at any time may notify the CITY and CONSULTANT in writing that CONTRACTOR considers any such part of the Work ready for its intended use and substantially complete and request CONSULTANT to issue a certificate of Substantial Completion for that part of the Work. Within a reasonable time after either such request, the CITY, CONTRACTOR and CONSULTANT shall make an inspection of that part of Work to determine its status of completion. If CONSULTANT does not consider that part of the Work to be substantially complete, CONSULTANT will notify the CITY and CONTRACTOR in writing giving the reasons therefor. If CONSULTANT considers that part of the Work to be substantially complete, the provisions of paragraphs 15.8 and 15.9 will apply with respect to certification of Substantial Completion of that part of the Work and the division of responsibility in respect thereof and access thereto.

15.10.2 The CITY may at any time request CONTRACTOR in writing to permit the CITY to take over operation of any such part of the Work although it is not substantially complete. A copy of such request will be sent to CONSULTANT and within a reasonable time thereafter the CITY, CONTRACTOR and CONSULTANT shall make an inspection of that part of the Work to determine its status of completion and will prepare a list of items remaining to be completed or corrected thereon before final payment. If CONTRACTOR does not object in writing to the CITY and CONSULTANT that such part of the Work is not ready for separate operation by the CITY, CONSULTANT will finalize the list of items to be completed or corrected and will deliver such list to the CITY and CONTRACTOR together with a written recommendation as to the division of responsibilities pending final judgment between the CITY and CONTRACTOR with respect to security, operation, safety, maintenance, utilities, insurance, warranties and guarantees for that part of the Work which will become binding upon the CITY and CONTRACTOR at the time when the CITY takes over such operation (unless they shall have otherwise agreed in writing and so informed CONSULTANT). During such operation and prior to Substantial Completion of such part of the Work, the CITY shall allow CONTRACTOR reasonable access to complete or correct items on said list and to complete other related Work.

15.10.3 If the CONSULTANT'S inspection discloses any item, whether or not included on the CONTRACTOR'S list, which is not in accordance with the Contract Documents and which would precluded beneficial occupancy and would render the Work not Substantially Complete, the CONTRACTOR shall immediately correct such item at no additional cost to the City.

15.10.4 The CITY, upon notification from the CONSULTANT that the Work, or a portion thereof, may be substantially complete, and all project closeout submittals pertaining to the Work have been approved and forwarded to the CITY, will direct the CITY to schedule and coordinate the CITY'S Substantial Completion Inspection. If the CONSULTANT finds that the work is substantially complete, it shall issue the CONTRACTOR a Certificate of Substantial Completion. Should the CONSULTANT deny substantial completion, CONTRACTOR shall promptly correct all deficiencies noted which caused the denial of substantial completion. Upon the correction of such deficiencies, the CONTRACTOR shall notify the CONSULTANT that such deficiencies are ready for reinspection at which time the CONSULTANT shall re-conduct a substantial completion inspection.

FINAL INSPECTION:

15.11. Upon written notice from CONTRACTOR that the entire Work or an agreed portion thereof is complete, CONSULTANT will make a final inspection with the CITY and CONTRACTOR and will notify CONTRACTOR in writing of all particulars in which this inspection reveals that the Work is incomplete, defective, or not in accordance with the Contract Documents. CONTRACTOR shall immediately take such measures as are necessary to remedy such deficiencies at no additional cost to the CITY.

FINAL APPLICATION FOR PAYMENT:

15.12. After CONTRACTOR has completed in writing all such corrections to the satisfaction of CONSULTANT and delivered all maintenance and operating instructions, schedules, guarantees, Bonds, certificates of inspection, marked-up record documents (as provided in paragraph 7.18) and other documents--all as required by the Contract Documents, and after CONSULTANT has indicated in writing that the Work is acceptable and has been completed in conformance with the drawings and specifications and any approved changes thereto, 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.

FINAL PAYMENT AND ACCEPTANCE:

15.13. Upon receipt of written notice from the Contractor that the Work has been completed in conformity with the Drawings and Specifications and any approved changes thereto, and receipt of the Final Application for Payment and accompanying documentation, the CITY'S CONSULTANT shall promptly examine the Work and, making such tests as he may deem proper and using all of the care and judgment normally exercised in the examination of completed Work by a properly qualified and experienced Professional CONSULTANT, shall satisfy himself that the CONTRACTOR'S statement appears to be correct and the CONTRACTOR'S other obligations under the Contract Documents have been fulfilled. He shall then inform the CITY in writing that he has examined the Work and that it appears, to the best of his knowledge and belief, to conform to the Contract Drawings, Specifications and any approved Change Orders, that the CONTRACTORS other obligations under the Contract Documents have been fulfilled, and that he therefore recommends acceptance of the Work for ownership and Final Payment to the CONTRACTOR. However, it is agreed by the CITY and the CONTRACTOR that such statement by the CITY'S CONSULTANT does not in any way relieve the CONTRACTOR from his responsibility to deliver a fully completed job in a good and workmanlike condition, and does not render the CONSULTANT or the CITY liable for any faulty Work done or defective materials or equipment used by the CONTRACTOR. In addition, payment to the CONTRACTOR by the CITY does not constitute acceptance of the CONTRACTOR'S defective Work or release the CONTRACTOR from its obligation to repair or replace all defective and deficient work.

The CONSULTANT will then make a final estimate of the value of all Work done and will deduct there from all previous payments which have been made. The CONSULTANT will report such estimate to the CITY together with his recommendation as to the acceptance of the Work or his findings as to any deficiencies therein. After receipt and acceptance by the CITY of the properly executed Final Warranty of Title and after approval of the CONSULTANT'S estimate and recommendation to the CITY, the CITY will make final payment to the CONTRACTOR of the Amount remaining after deducting all prior payments and all amounts to be kept or retained under the provisions of the Contract Documents, including, but not limited to, Liquidated Damages, as applicable.

All prior estimates are subject to correction in the final estimate. Thirty (30) days after approval by the CITY of the application for final payment, the amount recommended by CONSULTANT shall become due and will be paid to Contractor.

CONTRACTOR'S CONTINUING OBLIGATION:

15.14. 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 CONSULTANT, nor the issuance of a Certificate of Substantial Completion, nor any payment by the CITY to CONTRACTOR under the Contract Documents, nor any use or occupancy of the Work or any part thereof by the CITY, nor any act of acceptance by the CITY nor any failure to do so, nor any review and approval of a Shop Drawing or sample submission, nor the issuance of a notice of acceptability by CONSULTANT pursuant to paragraph 15.13, nor any correction of defective Work by the CITY will 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.

ARTICLE 16 – SUSPENSION OF WORK AND TERMINATION

CITY MAY SUSPEND WORK:

16.1. The CITY may, at any time and without cause, suspend the Work or any portion thereof for a period of not more than ninety (90) days by notice in writing to CONTRACTOR and CONSULTANT which will fix the date on which Work will be resumed. CONTRACTOR shall resume the Work on the date so fixed. In the event of a suspension of the Work, CONTRACTOR is expressly limited to seeking an extension of time in accordance with Article 13 of the Contract General Conditions and is expressly precluded from seeking any additional compensation in such circumstance.

CITY MAY TERMINATE FOR CAUSE:

16.2. Upon the occurrence of any one or more of the following events:

16.2.1. If CONTRACTOR commences a voluntary case under any chapter of the Bankruptcy Code (Title 11, United States Code), as now or hereafter in effect, or if CONTRACTOR takes any equivalent or similar action by filing a petition or otherwise under any other federal or state law in effect at such timing relating to the bankruptcy or insolvency;

16.2.2. If a petition is filed against CONTRACTOR under any chapter of the Bankruptcy Code as now or hereafter in effect at the time of filing, or if a petition is filed seeking any such equivalent or similar relief against CONTRACTOR under any other federal or state law in effect at the time relating to bankruptcy or insolvency;

16.2.3. If CONTRACTOR makes a general assignment for the benefit of creditors;

16.2.4. If a trustee, receiver, custodian or agent of CONTRACTOR is appointed under applicable law or under contract, whose appointment or authority to take charge of property of CONTRACTOR is for the purpose of enforcing a Lien against such property or for the purpose of general administration of such property for the benefit of CONTRACTOR'S creditors;

16.2.5. If CONTRACTOR admits in writing an inability to pay its debts generally as they become due;

16.2.6. If CONTRACTOR fails to perform the Work in accordance with the Contract Documents (including, but not limited to, failure to supply sufficient skilled workers or suitable materials or equipment or failure to adhere to the progress schedule established under paragraph 3.9 as revised from time to time);

16.2.7. If CONTRACTOR disregards Laws or Regulations of any public body having jurisdiction;

16.2.8. If CONTRACTOR disregards the authority of CONSULTANT; or

16.2.9. If CONTRACTOR otherwise violates any provisions of the Contract Documents; the CITY may, after giving CONTRACTOR and Surety seven (7) days written notice of any default and to the extent permitted by Laws and Regulations, 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 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 the CITY has paid CONTRACTOR but which are stored elsewhere, and finish the Work as the CITY may deem expedient. 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 expense of completing the work including compensation for additional managerial and administrative services, plus the CITY'S direct, indirect and consequential losses, damages and costs because of the CONTRACTOR'S default (including but not limited to fees and charges of

engineers, architects, attorneys, and other professionals and court costs) such excess will be paid to CONTRACTOR. If such expenses and costs plus the CITY'S losses and damages exceed such unpaid balance, CONTRACTOR shall pay the difference to the CITY promptly on demand. Such costs incurred by the CITY will be approved as to reasonableness by CONSULTANT and incorporated in a Change Order, but when exercising any rights or remedies under this paragraph the CITY shall not be required to obtain the lowest price for the work performed. In addition, failure of the CITY to comply with the seven (7) days' notice provision to the surety does not render the termination improper, render the termination one for convenience or in any way release surety from liability under its performance bond.

16.3. Where CONTRACTOR'S services have been so terminated by the CITY, the termination will not affect any rights or remedies of the CITY against CONTRACTOR then existing or which may thereafter accrue. Any retention or payment of moneys due CONTRACTOR by the CITY will not release CONTRACTOR from liability.

16.4. The CITY may terminate this Contract without cause and for its convenience by giving seven (7) days prior written notice to the Contractor, and in such event, the CITY will pay the CONTRACTOR for that portion of the Contract Sum, less the aggregate of previous payments, allocable to the Work completed as of the Date of Termination, plus reasonable termination expenses. The CITY also will reimburse the CONTRACTOR for all costs necessarily incurred for organizing and carrying out the stoppage of the Work and paid directly by the CONTRACTOR, not including overhead, general expenses or profit. The CITY will not be responsible to reimburse the CONTRACTOR for any continuing contractual commitments to subcontractors or material men or for penalties or damages for canceling such contractual commitments, (with the exception that the CITY shall reimburse the CONTRACTOR for major materials or equipment purchased before termination if the CONTRACTOR can show proof of said purchases prior to notice of termination) inasmuch as the CONTRACTOR shall make all subcontracts and other commitments subject to this provision. In the event of termination by the CITY, the CITY may require the CONTRACTOR promptly to assign to it all or some subcontracts, construction, plant, materials, tools, equipment, appliances, rental agreements, and other commitments which the CITY, in its sole discretion, chooses to take by assignment, and in such event the CONTRACTOR shall promptly execute and deliver to the CITY written assignments of the same.

CONTRACTOR MAY STOP WORK OR TERMINATE:

16.5. If, through no act or fault of CONTRACTOR, the Work is suspended for a period of more than ninety (90) consecutive days by the CITY or under an order of court or other public authority, or CONSULTANT fails to act on any Application for Payment within thirty (30) days after it is submitted, or the CITY fails for ninety (90) days to pay CONTRACTOR any sum finally determined to be due, then CONTRACTOR may, upon seven (7) days written notice to the CITY and CONSULTANT, terminate the Agreement and the CITY will pay the CONTRACTOR for that portion of the Contract Sum, less the aggregate of previous payments, allocable to the work completed as of the Date of Termination plus reasonable termination expenses. The CITY will not be responsible to reimburse the CONTRACTOR for any continuing contractual commitments for canceling such contractual commitments inasmuch as the CONTRACTOR shall make all subcontracts and other commitments subject to this provision. The CITY may require the CONTRACTOR promptly to assign to it all or some subcontracts, construction, plant, materials, tools, equipment, appliances, rental agreements, and any other commitments which the CITY, in its sole discretion, chooses to take by assignment, and in such event the CONTRACTOR shall promptly execute and deliver to the CITY written assignments of the same. In addition and in lieu of terminating the Agreement, if CONSULTANT has failed to act on an Application for Payment or the CITY has failed to make any payment as aforesaid, CONTRACTOR may upon seven (7) days written notice to the CITY and CONSULTANT stop the Work until payment of all amounts then due. The provisions of this paragraph shall not relieve CONTRACTOR of the obligations under paragraph 7.27 to carry on the Work in accordance with the progress schedule and without delay during disputes and disagreements with the CITY.

ARTICLE 17 – MISCELLANEOUS

GIVING NOTICE:

17.1. Whenever any provision of the Contract Documents requires the giving of written notice, it will 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:

17.2. When any period of time is referred to in the Contract Documents by days, it will 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 will be omitted from the computation.

NO LIMITATION OF RIGHTS AND REMEDIES:

17.3. 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 7.28, 14.1, 14.12, 14.14, 15.3 and 16.2 and all of the rights and remedies available to the CITY and CONSULTANT thereunder, are in addition to , and are not to be construed in any way as a limitation of, any rights and remedies available to any or all of them which are otherwise imposed or available by Laws or Regulations, by special warranty or guarantee or by other provisions of the Contract Documents, and the provisions of this paragraph will 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 will survive final payment and termination or completion of the Agreement.

ACCIDENT AND PREVENTION:

17.4. The safety provisions of applicable laws and building and construction codes shall be observed and the Contractor shall take or cause to be taken such additional safety and health measures as the Local Public Agency involved may determine to be reasonably necessary. Machinery, equipment and all hazards shall be guarded in accordance with the safety provisions of the "Manual of Accident Prevention in Construction" as published by the Associated General Contractors of America, Inc. to the extent that such provisions are not in conflict with applicable laws. The Contractor shall maintain an accurate record of all cases of death, occupational disease, or injury requiring medical attention or causing loss of time from work, arising out of and in the course of employment on Work under the Contract. The Contractor shall promptly furnish the Local Public Agency with reports concerning these matters.

17.5. In the event the CITY is prevented from proceeding with any or all of this Work as stated in this Contract, due to a declaration of war, or national emergency, by the United States government, whereas the construction of the type contracted for herein is specifically prohibited by statute or governmental edict, or due to the stoppage of construction caused by any governmental agency, State, City, Town, or County regulations, orders, restrictions, or due to circumstances beyond the CITY'S control, then the CITY herein reserves the right to either suspend the Work to be done for an indefinite period of time or to cancel this Agreement outright by giving notice by registered mail of such intention to the CONTRACTOR herein. In the event of any conditions above mentioned occurring after the Work herein has already been commenced, then the CITY herein shall be liable for only the cancellation or suspension without the addition of prospective profits or other changes whatsoever.

FLORIDA PRODUCTS AND LABOR:

17.6. The CONTRACTOR'S attention is called to Section 255.04, Florida Statutes, which requires that on public building contracts, Florida products and labor shall be used wherever price and quality are equal.

EMPLOYEES:

17.7. All labor described in these specifications or indicated on the Drawings and the Work specified or indicated shall be executed in a thoroughly substantial and workmanlike manner by mechanics skilled in the applicable trades.

17.8. Any person employed on the Work who fails, refuses or neglects to obey the instructions of the CONTRACTOR in anything relating to this Work or who appears to the CITY to be disorderly, intoxicated, insubordinate, or incompetent, shall upon the order of the CITY, be at once discharged and not again employed in any part of the Work. Any interference with, or abuse or threatening conduct toward the CITY, CONSULTANT or their inspectors by the CONTRACTOR or his employees or agents, shall be authority for the CITY to annul the Contract and re-let the Work. No intoxicating substance shall be allowed on the Work site.

NON-DISCRIMINATION:

17.9 The CONTRACTOR shall not discriminate against employees or applicants for employment because of race, creed, color, religion, sex, age, handicapped status, disabilities, or national origin. The CONTRACTOR will endeavor to ensure that applicants are employed and that employees are treated during employment, without regard to their race, creed, color, religion, sex, age, handicapped status, or national origin. Such action 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. The CONTRACTOR agrees to post in conspicuous places, available to employees and applicants for employment, notices setting forth the provisions of this nondiscrimination clause. These provisions apply to all subcontractors and it is the responsibility of the subcontractor compliance.

DRUG-FREE WORKPLACE:

17.10. The CONTRACTOR shall comply with Florida Statutes Section 287.087 which gives preference to businesses with drug-free workplace programs.

ASSIGNMENT:

17.11. This Agreement, nor any monies due hereunder, or any part thereof, shall not be assigned, or transferred, by CONTRACTOR, nor shall the CITY be liable to any assignee or transferee, without the written consent of the CITY, to the assignment, or transfer. The CITY shall not release or discharge CONTRACTOR from any obligation hereunder. The CITY shall not approve an assignment or transfer unless the Surety on the Contract Performance and Payment Bonds has informed the CITY in writing that it consents to the assignment or transfer.

GOVERNING LAW AND VENUE:

17.12. This Agreement shall be governed by the laws of the State of Florida as now and hereafter in force, without regard to conflicts of law provisions. The venue for actions arising out of this Agreement is fixed in Palm Beach County, Florida.

ASBESTOS:

17.13. If the CONTRACTOR during the course of the Work observes the existence of asbestos in any structure, building or facility, the CONTRACTOR shall promptly notify the CITY and the CONSULTANT. The CITY shall consult with the CONSULTANT regarding removal or encapsulation of the asbestos material and the CONTRACTOR shall not perform any Work pertinent to the asbestos material prior to receipt of special instructions from the CITY through the CONSULTANT.

RIGHT TO AUDIT:

17.14. If the CONTRACTOR submits a claim to the CITY for additional compensation, the CITY shall have the right, as a condition to considering the claim, and as a basis for evaluation of the claim, and until the claim has been settled, to audit the CONTRACTOR'S books to the extent they are relevant. This right shall include the right to examine books, records, documents, and other evidence and accounting procedures and practices, sufficient to discover and verify all direct and indirect costs of whatever nature claimed to have been incurred or anticipated to be incurred and for which claim has been submitted. The right to audit shall include the right to inspect the CONTRACTOR'S plants, or such parts thereof, as may be or have been engaged in the performance of the Work. The CONTRACTOR further agrees that the right to audit encompasses all subcontracts and is binding upon all subcontractors. The rights to examine and inspect herein provided for shall be exercisable through such representatives as the CITY deems desirable during the CONTRACTOR'S normal business hours at the office of the CONTRACTOR. The accounting records and documents, and other financial data, and upon request, shall submit true copies of requested records to the CITY.

LITIGATION:

17.15 Litigation of Claims, disputes or other matters in question between the City and Contractor arising out of or relating to this Agreement or breach thereof shall be subject to and decided by litigation exclusively in the Florida state courts of Palm Beach County. Contractor and the City consent to the venue of the Florida state courts Palm Beach County, and specifically recognize and acknowledge the waiver of any right to remove any action to federal court on the basis of diversity jurisdiction or on any other basis.

17.16 It is hereby understood and agreed that in the event any lawsuit in the judicial system, federal or state, is brought to enforce compliance with this contract or interpret same, or if any administrative proceeding is brought for the same purposes, each party shall pay their own attorney's fees and costs, including appellate fees and costs.

CONTRACTOR'S WAIVER OF CONSEQUENTIAL DAMAGES:

17.18 The Contractor waives Claims against the City for consequential damages arising out of or relating to the Contract Documents. This waiver includes damages due to the City's Termination, damages incurred by the Contractor for principal office expenses including the compensation of personnel stationed there, loss of management or labor productivity, for losses of financing, business and reputation, all or any part of the profit, except anticipated profit arising directly from the Work performed; and for loss of profit on any Work not performed by Contractor.

END OF SECTION 5

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SECTION 6: SOLICITATION SUMMARY



The City of Delray Beach
100 NW 1st Avenue
Delray Beach, FL 33444

PURCHASING AND CONTRACT ADMINISTRATION DIVISION

IMPORTANT NOTICE

The information you provide on this page will be read aloud at the **PUBLIC OPENING** for this Solicitation. It is **VERY IMPORTANT** that the summary information you provide below is exactly the same information contained in your Bid. If subsequent to the opening of Bids, the City determines that the information contained in the electronic version of your Bid is different from the information on this Solicitation Summary, the City reserves the right to deem your Bid **NON-RESPONSIVE**, and remove your Bid from further evaluation and consideration for contract award.

BID INFORMATION

Bid Number: ITBC No. 2026-014

Title: Brant Bridge Connector

City Project Number: 20-015

FDOT Project No.: 441586-1-58-01

Due Date and Time: February 11, 2026 @ 2:00PM (LOCAL TIME)

Name of Bidder: _____

Address: _____

Contact Person: _____

Total Bid Amount: \$ _____

Authorized Signature: _____

Date: _____

By signing and submitting this Solicitation Summary, the Bidder affirms that the information provided above is an exact and correct summary of the information contained in the electronic version of the Bidder's Bid to the City of Delray Beach.

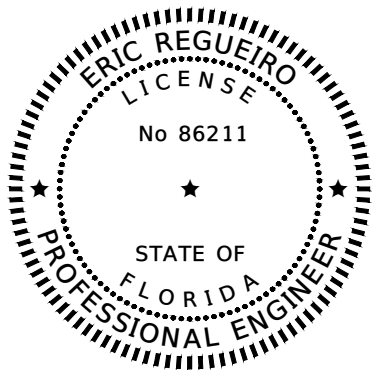
END OF SECTION 6

Technical Specifications Index

SPECIFICATIONS

In the event of a conflict between the FDOT LAP SPECIFICATIONS; “BIG THREE” listed in this section and other provisions of the technical specifications, the FDOT SPECIFICATIONS “BIG THREE” will govern and prevail.

The Engineering Division uses the Florida Department of Transportation (FDOT) Standard Specifications for Road and Bridge Construction, and the FDOT Design Standards as reference documents. It is the intent of the Engineering Division that the City of Delray Beach technical specifications shall govern the applicable project work that is typically identified in those FDOT Specifications and Standard sections:



*THIS ITEM HAS BEEN DIGITALLY SIGNED
AND SEALED BY*

ON THE DATE ADJACENT TO THE SEAL

*PRINTED COPIES OF THIS DOCUMENT ARE
NOT CONSIDERED SIGNED AND SEALED AND
THE SIGNATURE MUST BE VERIFIED ON ANY
ELECTRONIC COPIES.*

*KIMLEY-HORN AND ASSOCIATES, INC.
1920 WEKIVA WAY
SUITE 200
WEST PALM BEACH, FL 33411*

FDOT SPECIFICATIONS FOR OFF-SYSTEM PROJECTS (“BIG THREE”)

120	EARTHWORK AND RELATED OPERATIONS FOR LAP (OFF-SYSTEM)
334	ASPHALT CONCRETE FOR LAP (OFF-SYSTEM)
344	CONCRETE FOR LAP (OFF-SYSTEM)

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APPENDICES

A – ADDITIONAL REQUIREMENTS

**120 EARTHWORK AND RELATED OPERATIONS FOR LAP (CLASS - D).
(REV 3-2-22) (FA 7-13-21) (FY 2024-25)**

SECTION 120 is deleted and the following substituted:

**SECTION 120
EARTHWORK AND RELATED OPERATIONS FOR LAP (CLASS - D)**

120-1 Description.

120-1.1 General: Perform earthwork and related operations based on the type of work specified in the Contract and the Earthwork Categories as defined below. Meet the applicable requirements for materials, equipment and construction as specified.

Earthwork and related operations consist of excavation for the construction of the roadway, excavation for structures and pipe, constructing backfill around structures and pipe, and constructing embankments as required for the roadway, ditches, and channel changes.

120-1.2 Earthwork Categories: Performance of Earthwork Operations will fall into one of the following Earthwork Categories:

120-1.2.1 Earthwork Category 1: Includes the earthwork and related operations associated with the construction of sidewalks and bike paths along with any drainage structures associated with these facilities.

120-1.2.2 Earthwork Category 2: Includes the earthwork and related operations associated with the construction of turn lanes and other non-mainline traffic lanes, widening, roadway shoulders, concrete box culverts, retaining walls, and other drainage structures on the non-mainline pavement.

120-1.2.3 Earthwork Category 3: Includes the earthwork and related operations associated with the construction of new mainline pavement, along with concrete box culverts, retaining walls, and other drainage structures on the mainline pavement.

120-1.3 Unidentified Areas of Contamination: When encountering or exposing any abnormal condition indicating the presence of contaminated materials, cease operations immediately in the vicinity and notify the Engineer. The presence of tanks or barrels; discolored earth, metal, wood, ground water, etc.; visible fumes; abnormal odors; excessively hot earth; smoke; or other conditions that appear abnormal may indicate the presence of contaminated materials and must be treated with extreme caution.

Make every effort to minimize the spread of contamination into uncontaminated areas. Immediately provide for the health and safety of all workers at the job site and make provisions necessary for the health and safety of the public that may be exposed to any potentially hazardous conditions. Ensure provisions adhere to all applicable laws, rules or regulations covering potentially hazardous conditions and will be in a manner commensurate with the gravity of the conditions.

The Engineer will notify the Department of a contamination assessment/remediation process plan to determine the course of action necessary for site security and the steps necessary under applicable laws, rules, and regulations for additional assessment and/or remediation work to resolve the contamination issue.

120-2 Classifications of Excavation.

120-2.1 General: The Engineer may classify excavation specified under this Section for payment as any of the following: regular excavation, subsoil excavation, lateral ditch excavation, and channel excavation.

The definition of existing surface is a combination of the following:

1. The original unpaved ground line;
2. The bottom of the existing pavement;
3. The bottom of existing features removed by clearing and grubbing;
4. The bottom of the existing base, if the base is to be removed.

The definition of finished graded surface includes the completed grades of side slopes, unpaved shoulders, and the bottom of the base for flexible or rigid pavement.

120-2.2 Regular Excavation: Regular excavation includes roadway excavation and borrow excavation, as defined below for each.

: Roadway excavation consists of the excavation and the utilization or disposal of all materials necessary for the construction of the roadway, ditches, channel changes, etc., except as may be specifically shown to be paid for separately and that portion of the lateral ditches within the limits of the roadway right-of-way as shown in the Plans.

Borrow excavation consists of the excavation and utilization of material from authorized borrow pits, including only material that is suitable for the construction of roadway embankments or of other embankments covered by the Contract.

A Cost Savings Initiative Proposal (CSIP) submittal based on using borrow material from within the project limits will not be considered.

120-2.3 Subsoil Excavation: Subsoil excavation consists of the excavation and disposal of muck, clay, rock, or any other material that is unsuitable in its original position and that is excavated below the existing surface. For pond and ditches that identify the placement of a blanket material, the existing surface is the bottom of the blanket material. Subsoil excavation also consists of the excavation of all suitable material within the above limits as necessary to excavate the unsuitable material. Consider the limits of subsoil excavation indicated in the Plans as being particularly variable, in accordance with the field conditions encountered.

The quantity of material required to replace the excavated material and to raise the elevation of the roadway to the bottom of the template will be paid for under embankment or borrow excavation (Truck Measure).

120-2.4 Lateral Ditch Excavation: Lateral ditch excavation consists of all excavation of inlet and outlet ditches to structures and roadway, and ditches parallel to the roadway right-of-way. Dress lateral ditches to the grade and finished graded surface shown in the Plans.

120-2.5 Channel Excavation: Channel excavation consists of the excavation of channels of streams and satisfactory disposal of all materials from the limits of the channel as shown in the Plans.

120-2.6 Excavation for Structures and Pipe: Excavation for structures consists of the excavation for bridge foundations, box culverts, pipe culverts, storm sewers and all other pipelines, retaining walls, headwalls for pipe culverts and drains, catch basins, drop inlets, manholes, and similar structures.

120-3 Preliminary Soils Investigations.

When the Plans contain the results of a soil survey, do not assume such data is a guarantee of the depth, extent, or character of material present.

120-4 Excavation Requirements.

120-4.1 Removal of Unsuitable Materials and Existing Roads

120-4.1.1 Subsoil Excavation: Where rock, muck, clay, or other material within the limits of the roadway is unsuitable in its original position, excavate such material to the depth shown in the Plans as the removal limits or as indicated by the Engineer, and backfill with suitable material. Where the removal of plastic soils is required, meet a construction tolerance of ± 0.2 foot in depth and ± 6 inches (each side) in width.

120-4.1.2 Construction over Existing Old Road: Where a new roadway is to be constructed over an old one, completely remove the existing pavement for the entire limits of the width and depth. If the Plans provide that paving materials may be incorporated into the fill, distribute such material in a manner so as not to create voids. Recompact the old road meeting the requirements of 120-10.2.

120-4.2 Lateral Ditch Excavation: Excavate inlet and outlet ditches to structures and roadway, changes in channels of streams and ditches parallel to the roadway. Dress lateral ditches to the grade and finished graded surface shown in the Plans.

120-4.3 Channel Excavation: Excavate and dispose of all materials from the limits of the channel as shown in the Plans. Excavate for bridge foundations, box culverts, pipe culverts, storm sewers and all other pipelines, retaining walls, headwalls for pipe culverts and drains, catch basins, drop inlets, manholes, and similar structures.

120-4.4 Excavation for Structures and Pipe.

120-4.4.1 Requirements for all Excavation: Perform all excavation to foundation materials, satisfactory to the Engineer, regardless of the elevation shown in the Plans. Remove rock, boulders or other hard lumpy or unyielding material to a depth of 12 inches below the bottom of pipes and box culverts elevations. Remove muck or other soft material to the depth indicated in the Plans or as directed by the Engineer.

120-4.4.2 Earth Excavation:

120-4.4.2.1 Foundation Material other than the Rock: When masonry is to rest on an excavated surface other than rock, take special care to avoid disturbing the bottom of the excavation, and do not remove the final foundation material to grade until just before placing the masonry. In case the foundation material is soft or mucky, the Engineer may require excavation to a greater depth and to backfill to grade with approved material.

120-4.4.2.2 Foundation Piles: Where foundation piles are used, complete the excavation of each pit before driving the piles. After the driving is completed, remove all loose and displaced material, leaving a smooth, solid, and level bed to receive the masonry.

120-4.4.2.3 Removal of Obstructions: Remove boulders, logs, or any unforeseen obstacles encountered in excavating.

120-4.4.3 Rock Excavation: Clean all rock and other hard foundation material, remove all loose material, and cut all rock to a firm surface. Either level, step vertically and horizontally, or serrate the rock, as may be directed by the Engineer. Clean out all seams and fill them with concrete or mortar.

120-4.4.4 Pipe Trench Excavation: Excavate trenches for pipes to the elevation of the bottom of the pipe and to a width sufficient to provide adequate working room. Remove soil not meeting the classification specified as suitable backfill material in 120-8.3.2.2 to a depth of 4 inches below the bottom of the pipe elevation. Remove rock, boulders or other hard lumpy or unyielding material to a depth of 12 inches below the bottom of the pipe elevation. Remove

muck or other soft material to a depth necessary to establish a firm foundation. Where the soils permit, ensure that the trench sides are vertical up to at least the mid-point of the pipe.

For pipelines placed above the natural ground line, place and compact the embankment, prior to excavation of the trench, to an elevation at least 2 feet above the top of the pipe and to a width equal to four pipe diameters, and then excavate the trench to the required grade.

For pipe trenches utilizing trench boxes, ensure that the trench box used is of sufficient width to permit thorough tamping of bedding material under and around the pipes as specified in 125-8.1.6.

Do not disturb the installed pipe and its embedment when moving trench boxes. Move the trench box carefully to avoid excavated wall displacement or damage. As the trench box is moved, fill any voids left by the trench box and continuously place and compact the backfill material adjacent to and all along the side of the trench box walls to fill any voids created by the trench box.

120-5 Disposal of Surplus and Unsuitable Material.

120-5.1 Ownership of Excavated Materials: Take ownership of the materials and dispose them outside the right-of-way.

120-5.2 Placement of Muck on Side Slopes: As an exception to the provisions of 120-5.1, the Contractor may store muck (A-8 material) alongside the roadway, provided there is a clear distance of at least 6 feet between the roadway grading limits and the muck. Do not store such material in a manner which will impede the inflow or outfall of any channel or side ditches. All stored materials that is not used for the final surface material must be disposed of outside the right-of-way.

120-5.3 Disposal of Paving Materials: Unless otherwise noted, take ownership of paving materials, such as paving brick, asphalt block, concrete slab, sidewalk, curb and gutter, etc., excavated in the removal of existing pavements, and dispose of them outside the right-of-way. Existing limerock base that is removed may be incorporated in the stabilized portion of the subgrade. If the construction sequence will allow, incorporate all existing limerock base into the project as allowed by the Contract Documents.

120-5.4 Disposal Areas: Where the Contract Documents require disposal of excavated materials outside the right-of-way, and the disposal area is not indicated in the Contract Documents, furnish the disposal area without additional compensation.

Provide areas for disposal of removed paving materials out of sight of the project and at least 300 feet from the nearest roadway right-of-way line of any road. If the materials are buried, disregard the 300-foot limitation.

120-6 Materials for Embankment.

120-6.1 General Requirements for Embankment Materials: Construct embankments using suitable materials excavated from the roadway or delivered to the jobsite from authorized borrow pits. Embankment material shall not contain muck, stumps, roots, brush, vegetable matter, rubbish, reinforcement bar or other material that does not compact into a suitable and enduring roadbed.

Remove all waste material designated as undesirable. Use material in embankment construction in accordance with Plan details or as the Engineer directs.

Construct the embankment using maximum particle sizes as follows:

1. In top 12 inches: 3-1/2 inches (in any dimension).

2. 12 to 24 inches: 6 inches (in any dimension).

3. In the depth below 24 inches: not to exceed 12 inches (in any dimension) or the compacted thickness of the layer being placed, whichever is less.

Spread all material so that the larger particles are separated from each other to minimize voids between them during compaction. Compact around these rocks in accordance with 120-9.2.

When and where approved by the Engineer, larger rocks (not to exceed 18 inches in any dimension) may be placed outside the 1:2 slope and at least 4 feet or more below the bottom of the base. Compact around these rocks to a firmness equal to that of the supporting soil. Where constructing embankments adjacent to bridge end bents or abutments, do not place rock larger than 3-½ inches in diameter within 3 feet of the location of any end-bent piling.

120-6.2 Use of Materials Excavated from the Roadway and Appurtenances: Assume responsibility for determining the suitability of excavated material for use on the project in accordance with the applicable Contract Documents. Consider the sequence of work and maintenance of traffic phasing in the determination of the availability of this material.

120-6.3 Authorization for Use of Borrow: Use borrow pit only when sufficient quantities of suitable material are not available from roadway and drainage excavation, to properly construct the embankment, subgrade, and shoulders, and to complete the backfilling of structures and pipe. Do not use borrow material until so ordered by the Engineer, and then only use material from approved borrow pits.

120-6.3.1 Haul Routes for Borrow Pits: Provide and maintain, at no expense to the Agency, all necessary roads for hauling the borrow material. Where borrow area haul roads or trails are used by others, do not cause such roads or trails to deteriorate in condition.

Arrange for the use of all non-public haul routes crossing the property of any railroad. Incur any expense for the use of such haul routes. Establish haul routes which will direct construction vehicles away from developed areas when feasible and keep noise from hauling operations to a minimum. Advise the Engineer in writing of all proposed haul routes.

120-6.3.2 Borrow Material for Shoulder Build-up: When so indicated in the Plans, furnish borrow material with a specific minimum bearing value, for building up of existing shoulders. Blend materials as necessary to achieve this specified minimum bearing value prior to placing the materials on the shoulders. Take samples of this borrow material at the pit or blended stockpile. Include all costs of providing a material with the required bearing value in the Contract unit price for borrow material.

120-6.4 Materials Used at Pipes, Culverts, etc.: Construct embankments over and around pipes, culverts, and bridge foundations with selected materials.

120-7 Embankment Construction.

120-7.1 General: Construct embankments in sections of not less than 300 feet in length or for the full length of the embankment. Do not construct another LOT over an untested LOT without the Engineer's approval in writing.

For construction of mainline pavement lanes, turn lanes, ramps, parking lots, concrete box culverts and retaining wall systems, a LOT is defined as a single lift of finished embankment not to exceed 500 feet.

For construction of shoulder-only areas, shared use paths, and sidewalks areas, a LOT is defined as a single lift of finished embankment not to exceed 2000 feet.

Isolated compaction operations will be considered as separate LOTs. For multiple phase construction, a LOT shall not extend beyond the limits of the phase.

120-7.2 Dry Fill Method:

120-7.2.1 General: Construct embankments to meet compaction requirements in 120-7 and in accordance with the acceptance program requirements in 120-10.

Construct embankment in the dry whenever normal dewatering equipment and methods can accomplish the needed dewatering.

120-7.2.1.1 Maximum Compacted Lift Thickness Requirements:

Construct the embankment in successive layers with lifts up to a maximum listed in the table below based on the embankment material classification group.

Table 120-1			
Group	AASHTO Soil Class	Maximum Lift Thickness	Thick Lift Control Test Section Requirements
1	A-3	12 inches	Not Needed
	A-2-4 (No. 200 Sieve ≤ 15%)		
2	A-1	6 inches without Control Test Section	Maximum of 12 inches per 120-7.2.1.2
	A-2-4 (No. 200 Sieve > 15%)		
	A-2-5, A-2-6, A-2-7, A-4, A-5, A-6		
	A-7 (Liquid Limit < 50)		

120-7.2.1.2 Thick Lift Requirements: For embankment materials classified as Group 2 in Table 120-1 above, the option to perform thick lift construction in successive layers of not more than 12 inches compacted thickness may be used after meeting the following requirements:

1. Demonstrate the possession and control of compacting equipment sufficient to achieve density required by 120-10.5 for the full depth of a thicker lift.
2. Construct a test section of the length of one full LOT of not less than 500 feet.
3. Perform five tests at random locations within the test section.
 - a. All five tests must meet the density required by 120-10.5.
 - b. Identify the test section with the compaction effort and soil classification in the project's records.
4. Obtain Engineer's approval for the compaction effort after completing a successful test section.

In case of a change in compaction effort or soil classification, failing density test, construct a new test section. The Contractor may elect to place material in 6 inches compacted thickness at any time. Construct all layers approximately parallel to the centerline profile of the road.

The Engineer reserves the right to terminate the Contractor's use of thick lift construction. Whenever the Engineer determines that the Contractor is not achieving satisfactory results, revert to the 6-inch compacted lifts.

120-7.2.1.3 Equipment and Methods: Provide normal dewatering equipment including, but not limited to, surface pumps, sump pumps and trenching/digging machinery. Provide normal dewatering methods including, but not limited to, constructing shallow surface drainage trenches/ditches, using sand blankets, sumps, and siphons.

When normal dewatering does not adequately remove the water, the Engineer may require the embankment material to be placed in the water or in low swampy ground in accordance with 120-9.2.4.

120-7.2.2 Placing in Unstable Areas: When depositing the material in water, or in low swampy ground that will not support the weight of hauling equipment, construct the embankment by dumping successive loads in a uniformly distributed layer of a thickness not greater than necessary to support the hauling equipment while placing subsequent layers. Once sufficient material has been placed so that the hauling equipment can be supported, construct the remaining portion of the embankment in layers in accordance with the applicable provisions of 120-9.2.3 and 120-9.2.6.

120-7.2.3 Placing on Steep Slopes: When constructing an embankment on a hillside sloping more than 20 degrees from the horizontal, before starting the fill, deeply plow or cut into steps the surface of the original ground on which the embankment is to be placed.

120-7.2.4 Placing Outside Standard Minimum Slope: The standard minimum slope is defined as the plane described by a one (vertical) to two (horizontal) slope downward from the roadway shoulder point or the gutter line, in accordance with Standard Plans, Index 120-001 and 120-002. Where material that is unsuitable for normal embankment construction is to be used in the embankment outside the standard minimum slope, place such material in layers of not more than 18 inches in thickness, measured loose. The Contractor may also place material, which is suitable for normal embankment, outside such standard minimum slope in 18-inch layers. Maintain a constant thickness for suitable material placed within and outside the standard minimum slope, unless placing in a separate operation.

120-7.3 Hydraulic Method:

120-7.3.1 Method of Placing: When the hydraulic method is used, as far as practicable, place all dredged material in its final position in the embankment by such method. Place and compact any dredged material that is reworked or moved and placed in its final position by any other method, as specified in 120-9.2. Baffles or any other form of construction may be used if the slopes of the embankments are not steeper than indicated in the Plans. Remove all timber used for temporary bulkheads or baffles from the embankment and fill and thoroughly compact all voids. When placing fill on submerged land, construct dikes prior to beginning of dredging, and maintain the dikes throughout the dredging operation.

120-7.3.2 Excess Material: Do not use excess material placed outside the prescribed slopes, below the normal high-water level, to raise the fill. Remove only the portion of this material required for dressing the slopes.

120-7.3.3 Protection of Openings in Embankment: Maintain openings in the embankments at the bridge sites. Remove any material which invades these openings or existing channels without additional compensation to provide the same depth of channel as existed before the construction of the embankment. Do not excavate or dredge any material within 200 feet of the toe of the proposed embankment.

120-8 Backfilling Around Structures and Pipe.

120-8.1 Requirements for Structures and Pipes:

120-8-1.1 General: Backfill around structures and pipe in the dry whenever normal dewatering equipment and methods can accomplish the needed dewatering. A LOT is defined as one lift of backfill material placement, not to exceed 500 feet in length or a single run of pipe connecting two successive structures, whichever is less. Backfill for structures and pipe compacted in one operation will be considered as one LOT within the cover zone. Backfill around structures compacted separately from the pipe will be considered as separate LOTs. Backfill on each side of the pipe for the first lift will be considered a separate LOT. Backfill on opposite sides of the pipe for the remaining lifts will be considered separate LOTs, unless the same compaction effort is applied. Same compaction effort is defined as the same type of equipment (make and model) making the same number of passes on both sides of the pipe. For multiple phases of backfill, a LOT shall not extend beyond the limits of the phase.

When placing backfill within a trench box, each lift of backfill is considered a LOT. Placement of backfill within a trench box limits will be considered a complete operation before trench box is moved for next backfill operation. When the trench box is moved for next backfill operation this will start new LOTs for each lift. Follow the density testing frequency in 125-9.3.1.

129-8.1.2 Equipment and Methods: Provide normal dewatering equipment including, but not limited to, surface pumps, sump pumps, wellpoints and header pipe and trenching/digging machinery. Provide normal dewatering methods including, but not limited to, constructing shallow surface drainage trenches/ditches, using sand blankets, perforated pipe drains, sumps, and siphons.

120-8.1.3 Backfill Materials: Backfill to the original ground surface or subgrade surface of openings made for structures, with a sufficient allowance for settlement. The Engineer may require that the material used for this backfill be obtained from a source entirely apart from the structure.

Do not allow heavy construction equipment to cross over culvert or storm sewer pipes until placing and compacting backfill material to the finished earthwork grade or to an elevation at least 4 feet above the crown of the pipe.

120-8.1.4 Use of A-7 Material: In the backfilling of trenches, A-7 material may be used from a point 12 inches above the top of the pipe up to the elevation shown in the Standard Plans as the elevation for undercutting of A-7 material.

120-8.1.5 Time of Placing Backfill: Do not place backfill against any masonry or concrete abutment, wingwall, or culvert until the Engineer has given permission to do so, and in no case until the masonry or concrete has been in place seven days or until the specified 28-day compressive strength occurs.

120-8.1.6 Placement and Compaction: Place the material in horizontal layers not exceeding 6 inches compacted thickness in depth above water level, behind abutments, wingwalls and end bents or end rest piers, under the haunches of the pipes, around box culverts, and all structures including pipe culverts. When the backfill material is deposited in water, compact as specified in 125-8.2.5 and 125-8.3.4.

120-8.1.6.1 Thick Lift Requirements: The Contractor may elect to place material in thicker lifts of no more than 12 inches compacted thickness above the Soil Envelope if the embankment material is classified as Group 1 in the table below. If the embankment material is classified as Group 2 in the table below and the Contractor chooses to place material in thicker lifts of no more than 12 inches compacted thickness above the soil envelope, then the Contractor must demonstrate with a successful test section that density can be achieved. Thick

lift around structures is only allowed above the soil envelope of the connecting pipe. Notify the Engineer in writing prior to beginning construction of a test section. Construct a test section of the length of one LOT. Perform five quality control tests at random locations within the test section. All five tests must meet the density required by 120-9.2. Identify the test section with the compaction effort and soil classification in the project's records. In case of a change in compaction effort or soil classification, construct a new test section. When a test fails the requirements of 120-9.2, construct a new test section. The Contractor may elect to place material in 6 inches compacted thickness at any time.

Group	AASHTO Soil Class	Maximum Lift Thickness		Thick Lift Control Test Section Requirements	
		Within Cover Zone	Above Soil Envelope	Within Cover Zone	Above Soil Envelope
1	A-3	6 inches	12 inches	N/A	Not Needed
	A-2-4 (No. 200 Sieve ≤ 15%)				
2	A-1	6 inches without control test section	N/A	Maximum of 12 inches per 120-7.2.1.2	
	A-2-4 (No. 200 Sieve > 15%)				
	A-2-5, A-2-6, A-2-7, A-4, A-5, A-6				
	A-7 (Liquid Limit < 50)				

120-8.2 Additional Requirements for Structures Other than Pipe:

120-8.2.1 Density: Where the backfill material is deposited in water, obtain a 12 inch layer of comparatively dry material, thoroughly compacted by tamping, before the Engineer verifies layer and density requirements. Meet the requirements of the density Acceptance Criteria.

120-8.2.2 Box Culverts: For box culverts over which pavement is to be constructed, compact around the structure to an elevation not less than 12 inches above the top of the structure, using rapid-striking mechanical tampers.

120-8.2.3 Other Limited Areas: Compact in other limited areas using mechanical tampers or approved hand tampers, until the cover over the structure is at least 12 inches thick. When hand tampers are used, deposit the materials in layers not more than 4 inches thick using hand tampers suitable for this purpose with a face area of not more than 100 in². Take special precautions to prevent any wedging action against the masonry, and step or terrace the slope bounding the excavation for abutments and wingwalls if required by the Engineer.

120-8.2.4 Culverts and Piers: Backfill around culverts and piers on both sides simultaneously to approximately the same elevation.

120-8.2.5 Compaction Under Wet Conditions: Where wet conditions do not permit the use of mechanical tampers, compact using hand tampers. Use only A-3 material for the hand tamped portions of the backfill. When the backfill has reached an elevation and condition such as to make the use of the mechanical tampers practical, perform mechanical

tamping in such manner and to such extent as to transfer the compaction force into the sections previously tamped by hand.

120-8.3 Additional Requirements for Pipe Greater than 12 Inches Inside Diameter:

120-8.3.1 General: Trenches for pipe may have up to four zones that must be backfilled.

Lowest Zone: The lowest zone is backfilled for deep undercuts up to within 4 inches of the bottom of the pipe.

Bedding Zone: The zone above the Lowest Zone is the Bedding Zone. Usually, it will be the backfill which is the 4 inches of soil below the bottom of the pipe. When rock or other hard material has been removed to place the pipe, the Bedding Zone will be the 12 inches of soil below the bottom of the pipe.

Cover Zone: The next zone is the backfill that is placed after the pipe has been laid and will be called the Cover Zone. This zone extends to 12 inches above the top of the pipe. The Cover Zone and the Bedding Zone are considered the Soil Envelope for the pipe.

Top Zone: The Top Zone extends from 12 inches above the top of the pipe to the base or final grade.

120-8.3.2 Material:

120-8.3.2.1 Lowest Zone: Backfill areas undercut below the Bedding Zone of a pipe with coarse sand, or other suitable granular material, obtained from the grading operations on the project, or a commercial material if no suitable material is available.

120-8.3.2.2 Soil Envelope: In both the Bedding Zone and the Cover Zone of the pipe, backfill with materials classified as A-1, A-2, or A-3. Material classified as A-4 may be used if the pipe is concrete pipe.

120-8.3.2.3 Top Zone: Backfill the area of the trench above the soil envelope of the pipe with materials allowed on Standard Plans, Index 120-001.

120-8.3.3 Compaction:

120-8.3.3.1 Lowest Zone: Compact the soil in the Lowest Zone to approximately match the density of the soil in which the trench was cut.

120-8.3.3.2 Bedding Zone: If the trench was not undercut below the bottom of the pipe, loosen the soil in the bottom of the trench immediately below the approximate middle third of the outside diameter of the pipe.

If the trench was undercut, place the bedding material and leave it in a loose condition below the middle third of the outside diameter of the pipe. Compact the outer portions to meet the density requirements of the Acceptance Criteria. Place the material in lifts no greater than 6 inches (compacted thickness).

120-8.3.3.3 Cover Zone: Place the material in 6 inches layers (compacted thickness), evenly deposited on both sides of the pipe, and compact with mechanical tampers suitable for this purpose. Hand tamp material below the pipe haunch that cannot be reached by mechanical tampers. Meet the requirements of the density Acceptance Criteria.

120-8.3.3.4 Top Zone: Place the material in layers not to exceed 12 inches in compacted thickness. Meet the requirements of the density acceptance criteria.

120-8.3.4 Backfill Under Wet Conditions: Where wet conditions are such that dewatering by normal pumping methods would not be effective, the procedure outlined below may be used when specifically authorized by the Engineer in writing.

Granular material may be used below the elevation at which mechanical tampers would be effective, but only material classified as A-3. Place and compact the material

using timbers or hand tampers until the backfill reaches an elevation such that its moisture content will permit the use of mechanical tampers. When the backfill has reached such elevation, use normally acceptable backfill material. Compact the material using mechanical tampers in such manner and to such extent as to transfer the compacting force into the material previously tamped by hand.

The Engineer may permit the use of coarse aggregate below the elevation at which mechanical tampers would be effective. Use coarse aggregate from approved sources for Aggregate Size Number 89, 8, 78, 7, 68, 6, or 57. Place the coarse aggregate such that it will be stable and firm. Fully wrap the aggregate with an appropriate geosynthetic filter fabric, as specified by the Engineer. Do not place coarse aggregate within 4 feet of the ends of the trench or ditch. Use normally accepted backfill material at the ends.

120-9 Compaction Requirements.

120-9.1 Moisture Content: Compact the materials at a moisture content such that the specified density can be attained. If necessary, add water to the material, or lower the moisture content by manipulating the material or allowing it to dry, as is appropriate, to attain the specified density.

120-9.2 Compaction of Embankments:

120-9.2.1 Earthwork Category 1 and 2 Density Requirements: The Engineer will accept a minimum density of 95% of the maximum density as determined by FM 1-T099 for all earthwork items requiring densities.

120-9.2.2 Earthwork Category 3 Density Requirements: The Engineer will accept a minimum of 100% of the maximum density as determined by FM 1-T099 for all densities required under category 3. Except for embankments constructed by the hydraulic method as specified in 120-7.3, and for the material placed outside the standard minimum slope as specified in 120-7.2.4, and for other areas specifically excluded herein, compact each layer of the material used in the formation of embankments to the required density stated above. Uniformly compact each layer using equipment that will achieve the required density, and as compaction operations progress, shape and manipulate each layer as necessary to ensure uniform density throughout the embankment.

120-9.2.3 Compaction Over Unstable Foundations: Where the embankment material is deposited in water or on low swampy ground, and in a layer thicker than 12 inches (as provided in 120-7.2.2), compact the top 6 inches (compacted thickness) of such layer to the density as specified in 120-10.5.

120-9.2.4 Compaction Where Plastic Material Has Been Removed: Where unsuitable material is removed and the remaining surface is of soil classifications A-4, A-5, A-6, or A-7 per AASHTO M145, as determined by the Engineer, compact the surface of the excavated area by rolling with a sheepsfoot roller exerting a compression of at least 250 psi on the tamper feet, for the full width of the roadbed (subgrade and shoulders). Perform rolling before beginning any backfill and continue until the roller feet do not penetrate the surface more than 1 inch. Do not perform such rolling where the remaining surface is below the normal water table and covered with water. Vary the procedure and equipment required for this operation at the discretion of the Engineer.

120-9.2.5 Compaction for Pipes, Culverts, etc.: Compact the backfill of trenches to the densities specified for embankment or subgrade, as applicable, and in accordance with the requirements of this section.

Thoroughly compact embankments over and around pipes, culverts, and bridges in a manner which will not place undue stress on the structures, and in accordance with the requirements of this section.

120-9.2.6 Compaction of Grassed Shoulder Areas: For the upper 6-inch layer of all shoulders which are to be grassed, since no specific density is required, compact only to the extent needed for planting.

120-9.2.7 Compaction of Grassed Embankment Areas: For the outer layer of all embankments where plant growth will be established, do not compact. Leave this layer in a loose condition to a minimum depth of 6 inches for the subsequent seeding or planting operations.

120-9.3 Compaction of Subgrade: If the plans do not provide for stabilizing, compact the subgrade in both cuts and fills to the density specified in 120-10.5. For cut areas, determine Standard Proctor Maximum Density in accordance with FM 1-T099 at a frequency of one per mile or when there is a change in soil type, whichever occurs first. For undisturbed soils, do not apply density requirements where constructing paved shoulders is 5 feet or less in width.

Where trenches for widening strips are not of sufficient width to permit the use of standard compaction equipment, perform compaction using vibratory rollers, trench rollers, or other type compaction equipment approved by the Engineer.

Maintain the required density until the base or pavement is placed on the subgrade.

120-10 Acceptance Program.

120-10.1 Density over 105%: When a computed dry density results in a value greater than 105% of the applicable Proctor maximum dry density, the Engineer will perform a second density test within 5 feet. If the second density results in a value greater than 105%, investigate the compaction methods, examine the applicable Maximum Density and material description. If necessary, the Engineer will test an additional sample for acceptance in accordance with FM 1-T099.

120-10.2 Maximum Density Determination: The Engineer will determine the maximum density and optimum moisture content by sampling and testing the material in accordance with the specified test method listed in 120-10.3.

120-10.3 Density Testing Requirements: Compliance with the requirements of 120-10.5 will be determined in accordance FM 1-T 238. The in-place moisture content will be determined for each density in accordance with FM 5-507 (Determination of Moisture Content by Means of a Calcium Carbide Gas Pressure Moisture Tester), or ASTM D 4643 (Laboratory Determination of Moisture Content of Granular Soils by Use of a Microwave Oven).

120-10.4 Soil Classification and Organic Content: The Engineer will perform soil classification tests in accordance with AASHTO T88, T89, T90, and FM 1-T267. The Engineer will classify soils in accordance with AASHTO M-145 in order to determine compliance with embankment utilization requirements. The Engineer will verify the organic content test with the criteria specified in Standard Plans, Index 120-001.

120-10.5 Acceptance Criteria: The Engineer will accept a minimum density in accordance with 120-9.2 with the following exceptions:

- 1) embankment constructed by the hydraulic method as specified in 120-7.3;
- 2) material placed outside the standard minimum slope as specified in 120-7.2.4;
- 3) other areas specifically excluded herein.

120-10.6 Frequency: The Engineer will conduct sampling and testing at a minimum frequency listed in the table below.

Test Name	Frequency
Proctor Maximum Density	One per soil type
Density	1 per LOT (Alternate Lift)
Soil Classification and Organic Content	One per Maximum Density

120-11 Maintenance and Protection of Work.

While construction is in progress, always maintain adequate drainage for the roadbed. Maintain a shoulder at least 3 feet wide adjacent to all pavement or base construction to provide support for the edges.

Maintain and protect all earthwork construction throughout the life of the Contract and take all reasonable precautions to prevent loss of material from the roadway due to the action of wind or water. Repair any slides, washouts, settlement, subsidence, or other mishap which may occur prior to final acceptance of the work. Maintain all channels excavated as a part of the Contract work against natural shoaling or other encroachments to the lines and grades shown in the Plans, until final acceptance of the project.

120-12 Construction.

120-12.1 Construction Tolerances: Shape the surface of the earthwork to conform to the lines and grades shown in the Plans. In final shaping of the surface of earthwork, maintain a tolerance of 0.3 foot above or below the finished graded surface with the following exceptions:

1. Shape the surface of shoulders to within 0.1 foot of the finished graded surface.
2. Shape the earthwork to match adjacent pavement, curb, sidewalk, structures, etc.
3. Shape the bottom of ditches so that the ditch impounds no water.
4. When the work does not include construction of base or pavement, shape the entire roadbed (shoulder point to shoulder point) to within 0.1 foot above or below the Plan finished graded surface.

Ensure that the shoulder lines do not vary horizontally more than 0.3 foot from the true lines shown in the Plans.

120-12.2 Operations Adjacent to Pavement: Carefully dress areas adjacent to pavement areas to avoid damage to such pavement. Complete grassing of shoulder areas prior to placing the final wearing course. Do not manipulate any embankment material on a pavement surface.

When shoulder dressing is underway adjacent to a pavement lane being used to maintain traffic, exercise extreme care to avoid interference with the safe movement of traffic.

120-13 Method of Measurement.

120-13.1 Excavation: Excavation will be paid for by volume, in cubic yards, calculated by the method of average end areas, unless the Engineer determines that another method of calculation will provide a more accurate result. The material will be measured in its original position by field survey or by photogrammetric means as designated by the Engineer. Measurement for payment will include the excavation of unsuitable material, lateral ditch excavation, channel excavation, and excavation for structures and pipe. Payment will not be

made for excavation or embankment beyond the limits shown in the plans or authorized by the Engineer.

120-13.2 Embankment: Measurement will be made on a loose volume basis, as measured in trucks or other hauling equipment at the point of dumping on the road. Payment will not be made for embankment beyond the limits shown in the plans or authorized by the Engineer.

120-14 Basis of Payment.

120-14.1 General: Prices and payments for the work items included in this Section will be full compensation for all work described herein, including excavating, dredging, pumping, hauling, placing, and compacting; dressing the surface of the earthwork; and maintaining and protecting the complete earthwork.

120-14.2 Excavation: The total quantity of all excavation specified under this Section will be paid for at the Contract unit price for Excavation. No payment will be made for the excavation of any materials which are used for purposes other than those shown in the plans or designated by the Engineer. No payment will be made for materials excavated outside the lines and grades given by the Engineer, unless specifically authorized by the Engineer.

120-14.3 Embankment: The total quantity of embankment specified in this Section will be paid for at the Contract unit price for embankment. No payment will be made for materials which are used for purposes other than those shown in the plans or designated by the Engineer. No payment will be made for materials placed outside the lines and grades given by the Engineer.

**334 ASPHALT CONCRETE FOR LAP (CLASS - D).
 (REV 3-2-22) (FA 7-2-21) (FY 2024-25)**

SECTION 334 is deleted and the following substituted:

**SECTION 334
 ASPHALT CONCRETE FOR LAP (OFF-SYSTEM)**

334-1 Description.

334-1.1 General: Construct an Asphalt Concrete pavement based on the type of work specified in the Contract and the Asphalt Work Categories as defined below. Meet the applicable requirements for plants, equipment, and construction requirements as defined below. Use an asphalt concrete mix that meets the requirements of this specification.

334-1.2 Asphalt Work Mix Categories: Construction of Asphalt Concrete Pavement will fall into one of the following work categories:

334-1.2.1 Asphalt Work Category 1: Includes the construction of bike paths and miscellaneous asphalt.

334-1.2.2 Asphalt Work Category 2: Includes the construction of new turn lanes, paved shoulders and other non-mainline pavement locations.

334-1.2.3 Asphalt Work Category 3: Includes the construction of new mainline pavement lanes, milling and resurfacing.

334-1.3 Mix Types: Use the appropriate mix type as shown in Table 334-1.

Table 334-1 Mix Types			
Asphalt Work Category	Mix Types	Traffic Level	ESALs (millions)
1	Type SP-9.5 ⁽¹⁾	A	<0.3
2	Structural Mixes: Types SP-9.5 or SP-12.5 ⁽¹⁾ Friction Mixes: Types FC-9.5 or FC-12.5 ⁽¹⁾	B	0.3 to <3
3	Structural Mixes: Types SP-9.5 or SP-12.5 Friction Mixes: Types FC-9.5 or FC-12.5	C	≥3

(1) Equivalent mixes may be approved as determined by the Engineer. For example, Marshall S-III mixture type is equivalent to Superpave SP-9.5, Marshall S-I is equivalent to Superpave SP-12.5, and Marshall FC-3 is equivalent to Superpave FC-9.5.

For a Traffic Level A mixture, meet the mix design criteria for a Traffic Level B mixture and for a Traffic Level D mixture meet the mix design criteria for a Traffic Level E mixture.

At no additional cost to the Department, for a Type SP mix the following Traffic Level substitutions are allowed:

- Traffic Level E can be substituted for Traffic Level D.
- Traffic Level D or E can be substituted for Traffic Level C.
- Traffic Level C can be substituted for Traffic Level B.
- Traffic Level B or C can be substituted for Traffic Level A.

334-1.4 Gradation Classification: Asphalt concrete mixtures are classified as fine and are defined in Standard Specification 334-3.2.2.

The equivalent AASHTO nominal maximum aggregate size Superpave mixes are as follows:

Type SP-9.5, FC-9.5	9.5 mm
Type SP-12.5, FC-12.5	12.5 mm

334-1.5 Thickness: The total pavement thickness of the asphalt concrete pavement layers will be the plan thickness as shown in the Contract Documents. Before paving, propose a thickness for each individual layer meeting the requirements of this specification, which when combined with other layers (as applicable) will equal the plan thickness. For construction purposes, the plan thickness and individual layer thickness will be converted to spread rate using the following equation:

$$\text{Spread rate (lbs/yd}^2\text{)} = t \times G_{\text{mm}} \times 43.3$$

where: t = Thickness (in.) (Plan thickness or individual layer thickness)
 G_{mm} = Maximum specific gravity from the mix design

For target purposes only, spread rate calculations shall be rounded to the nearest whole number.

334-1.5.1 Layer Thicknesses: Unless otherwise called for in the Contract Documents, the allowable layer thicknesses for asphalt concrete mixtures are as follows:

Type SP-9.5, FC-9.5.....	1 to 1-1/2 inches
Type SP-12.5.....	1-1/2 to 3 inches
Type FC-12.5.....	1-1/2 to 2-1/2 inches

334-1.5.2 Additional Requirements: The following requirements also apply to asphalt Concrete mixtures:

1. When construction includes the paving of adjacent shoulders (less than or equal to 5 feet wide), the layer thickness for the upper pavement layer and shoulder shall be the same and paved in a single pass, unless otherwise called for in the Contract Documents.
2. For overbuild layers, use the minimum and maximum layer thicknesses as specified above unless called for differently in the Contract Documents. On variable thickness overbuild layers, the minimum and maximum allowable thicknesses will be as specified below, unless called for differently in the Contract Documents.

Type SP-9.5.....	3/8 to 2 inches
Type SP-12.5.....	1/2 to 3 inches
Type SP-19.0.....	1-1/2 to 4 inches

3. Variable thickness overbuild layers constructed using a Type SP-9.5 or SP-12.5 mixtures may be tapered to zero thickness provided the contract documents require a minimum of 1-1/2 inches of dense-graded mix placed over the variable thickness overbuild layer.

334-1.6 Weight of Mixture: The weight of the mixture shall be determined as provided in 320-3.2 of the Florida Department of Transportation (FDOT) specifications.

334-2 Materials.

334-2.1 Superpave Asphalt Binder: Unless specified elsewhere in the Contract Documents, use an asphalt binder grade as determined from Table 334-2. If the Contract calls for an alternative binder, meet the requirements of FDOT Specification 916.

334-2.2 Aggregate: Use aggregate capable of producing a quality pavement. Size, grade and combine the aggregate fractions to meet the grading and physical properties of the mix design. Aggregates from various sources may be combined.

For Type FC mixes, use an aggregate blend that consists of approved friction course aggregates that consists of crushed granite, crushed granitic gneiss, crushed limestone, crushed shell rock, or a combination of the above. As an exception, mixes that contain a minimum of 60% of approved friction course aggregates of crushed granite and/or crushed gneiss may either contain: up to 40% fine aggregate from other sources of aggregate not approved for friction courses or a combination of up to 20% RAP and the remaining fine aggregate from other sources of aggregate not approved for friction courses. Mixtures utilizing High Polymer (HP) binder are not allowed to contain RAP.

A list of aggregates approved for use in friction courses may be available on the FDOT's State Materials Office website. The URL for obtaining this information, if available, is: <https://mac.fdot.gov/>.

334-2.3 Reclaimed Asphalt Pavement (RAP) Material:

334-2.3.1 General requirements: RAP may be used as a component of the asphalt mixture subject to the following requirements:

1. Limit the amount of RAP material used in the mix to a maximum of 50% by weight of total aggregate.
2. Assume full responsibility for the design, production and construction of asphalt mixes which incorporate RAP as a component material.
3. Provide stockpiled RAP material that is reasonably consistent in characteristics and contains no aggregate particles which are soft or conglomerates of fines.
4. Provide RAP material having a minimum average asphalt content of 4.0% by weight of total mix. As an exception, when using fractionated RAP, the minimum average asphalt binder content for the coarse portion of the RAP shall be 2.5% by weight of the coarse portion of the RAP. The coarse portion of the RAP shall be the portion of the RAP retained on the No. 4 sieve. The Engineer may sample the stockpile to verify that this requirement is met.
4. When using RAP as a component material, prevent any oversized RAP from being incorporated into the completed mixture by the use of a grizzly or grid over the RAP bin; in-line roller or impact crusher; screen; or other suitable means. If oversized RAP material appears in the completed recycled mix, take the appropriate corrective action immediately. If the appropriate corrective actions are not immediately taken, stop plant operations.

334-2.3.2 Material Characterization: Assume responsibility for establishing the asphalt binder content, gradation, viscosity and bulk specific gravity (G_{sb}) of the RAP material based on a representative sampling of the material.

334-2.3.3 Asphalt Binder for Mixes with RAP: Select the appropriate asphalt binder grade based on Table 334-2

Table 334-2 Asphalt Binder Grade for Mixes Containing RAP	
Percent RAP	Asphalt Binder Grade
0 - 15	PG 67-22
16 - 30	PG 58-22
≥ 30	PG 52-28

334-3 Composition of Mixture.

334-3.1 General: Compose the asphalt mixture using a combination of aggregate (coarse, fine or mixtures thereof), mineral filler, if required, and asphalt binder material. Size, grade and combine the aggregate fractions to meet the grading and physical properties of the mix design. Aggregates from various sources may be combined.

334-3.2 Mix Design:

334-3.2.1 General: Design the asphalt mixture in accordance with AASHTO R 35, except as noted herein. Submit the proposed mix design with supporting test data indicating compliance with all mix design criteria to the Engineer. Prior to the production of any asphalt mixture, obtain the Engineer's conditional approval of the mix design. If required by the Engineer, send representative samples of all component materials, including asphalt binder to a laboratory designated by the Engineer for verification. As an exception to these requirements, use a currently approved FDOT Mix Design.

The Engineer will consider any marked variations from original test data for a mix design or any evidence of inadequate field performance of a mix design as sufficient evidence that the properties of the mix design have changed, and at his/her discretion, the Engineer may no longer allow the use of the mix design.

334-3.2.2 Mixture Gradation Requirements: Combine the coarse and fine aggregate in proportions that will produce an asphalt mixture meeting all of the requirements defined in this specification and conform to the gradation requirements at design as defined in AASHTO M 323. Aggregates from various sources may be combined.

334-3.2.2.1 Mixture Gradation Classification: Plot the combined mixture gradation on an FHWA 0.45 Power Gradation Chart. Include the Control Points from AASHTO M, as well as the Primary Control Sieve (PCS) Control Point from AASHTO M. Fine mixes are defined as having a gradation that passes above the primary control sieve control point and above the maximum density line for all sieve sizes smaller than the primary control sieve and larger than the No. 30 sieve. Use only fine mixes.

334-3.2.3 Gyratory Compaction: Compact the design mixture in accordance with AASHTO T 312, with the following exception: use the number of gyrations at N_{design} as defined in Standard Specification Table 334-4. Measure the inside diameter of gyratory molds in accordance with AASHTO T 312.

334-3.2.4 Design Criteria: Meet the requirements for nominal maximum aggregate size as defined in AASHTO M, as well as for relative density, VMA, VFA, and dust-to-binder ratio as specified in AASHTO M 323. N_{initial} and N_{maximum} requirements are not applicable.

334-3.2.5 Moisture Susceptibility:

1. For all traffic levels, use a liquid anti-strip agent listed on the APL at the specified dosage rate. Hydrated lime may be used instead of the liquid anti-strip agent.
2. Provide a mixture having a retained tensile strength ratio of at least 0.80 and a minimum tensile strength (unconditioned) of 100 psi in accordance with FM 1-T 283.

334-3.2.6 Additional Information: In addition to the requirements listed above, provide the following information on each mix design:

1. The design traffic level and the design number of gyrations (N_{design}).
2. The source and description of the materials to be used.
3. The Department source number and the FDOT product code of the aggregate components furnished from an FDOT approved source (if required).

4. The gradation and proportions of the raw materials as intended to be combined in the paving mixture. The gradation of the component materials shall be representative of the material at the time of use. Compensate for any change in aggregate gradation caused by handling and processing as necessary.

5. A single percentage of the combined mineral aggregate passing each specified sieve. Degradation of the aggregate due to processing (particularly material passing the No. 200 sieve) should be accounted for and identified.

6. The bulk specific gravity (G_{sb}) value for each individual aggregate and RAP component, as identified in the Department's aggregate control program.

7. A single percentage of asphalt binder by weight of total mix intended to be incorporated in the completed mixture, shown to the nearest 0.1%.

8. A target temperature for the mixture at the plant (mixing temperature) and a target temperature for the mixture at the roadway (compaction temperature). Do not exceed a target temperature of 340°F for High Polymer asphalt binders, 330°F for PG 76-22 asphalt binders, and 315°F for unmodified asphalt binders.

9. Provide the physical properties at the optimum asphalt content, which must conform to all specified requirements.

10. The name of the Construction Training Qualification Program (CTQP) mix designer.

11. The ignition oven and maximum specific gravity (G_{mm}) calibration factors.

12. The warm mix technology, if used.

334-4 Producer Process Control (PC).

Assume full responsibility for controlling all operations and processes such that the requirements of these Specifications are met at all times. Perform any tests necessary at the plant and roadway for process control purposes.

334-5 General Construction Requirements.

334-5.1 Weather Limitations: Do not transport asphalt mix from the plant to the roadway unless all weather conditions are suitable for the laying operations.

334-5.2 Limitations of Paving Operations:

334-5.2.1 General: Place the mixture only when the surface upon which it is to be placed has been previously prepared, is intact, firm, dry, clean, and the tack or prime coat, with acceptable spread rate, is properly broken or cured. Do not place friction course until the adjacent shoulder area has been dressed and grassed.

334-5.2.2 Ambient Air Temperature: Place the mixture only when the air temperature in the shade and away from artificial heat meets the requirements of Table 334-3. The minimum ambient temperature requirement may be reduced by 5°F when using warm mix technology, if mutually agreed to by both the Engineer and the Contractor.

Table 334-3 Ambient Air Temperature Requirements for Paving	
Layer Thickness or Asphalt Binder Type	Minimum Temperature (°F)
≤ 1 inch	50
Any mixture > 1 inch containing a PG asphalt binder with a high temperature designation ≥ 76°C	45
Any mixture > 1 inch containing a PG asphalt binder with a high temperature designation < 76°C	40
FC-5 ⁽¹⁾	65
⁽¹⁾ As an exception, place the mixture at temperatures no lower than 60°F, only when approved by the Engineer based on the Contractor's demonstrated ability to achieve a satisfactory surface texture and appearance of the finished surface. For mixtures containing PG 76-22 binder, the minimum ambient temperature may be further reduced to 55°F when using warm mix technology, if agreed to by both the Engineer and the Contractor.	

334-5.3 Mix Temperature: Heat and combine the ingredients of the mix in such a manner as to produce a mixture with a temperature at the plant and at the roadway, within a range of plus or minus 30°F from the target temperature as shown on the mix design. Reject all loads outside of this range. Reject any load or portion of a load of asphalt mix at the plant or at the roadway with a temperature outside of its respective master range shown in Table 334-4. Notify the Engineer of the rejection immediately.

Table 334-4 Mix Temperature Master Range Tolerance	
Location	Acceptable Temperature Tolerance
Plant	Mixing Temperature ±30 F
Roadway (mix in truck)	Compaction Temperature ±30°F

334-5.4 Transportation of the Mixture: Transport the mixture in trucks of tight construction, which prevents the loss of material and the excessive loss of heat and previously cleaned of all foreign material. After cleaning, thinly coat the inside surface of the truck bodies with soapy water or an asphalt release agent as needed to prevent the mixture from adhering to the beds. Do not allow excess liquid to pond in the truck body. Do not use a release agent that will contaminate, degrade, or alter the characteristics of the asphalt mix or is hazardous or detrimental to the environment. Petroleum derivatives (such as diesel fuel), solvents, and any product that dissolves asphalt are prohibited. Provide each truck with a tarpaulin or other waterproof cover mounted in such a manner that it can cover the entire load when required. When in place, overlap the waterproof cover on all sides so that it can be tied down. Cover each load during cool and cloudy weather and at any time it appears rain is likely during transit with a tarpaulin or waterproof cover. Cover and tie down all loads of friction course mixtures.

334-5.5 Surface Preparation:

334-5.5.1 Cleaning: Before placing the mixture, clean the surface of the base or underlying pavement of all loose and deleterious material by the use of power brooms or blowers, supplemented by hand brooming where necessary.

334-5.5.2 Patching and Leveling Courses: As shown in the plans, bring the existing surface to proper grade and cross-section by the application of patching or leveling courses.

334-5.5.3 Application over Surface Treatment: Where an asphalt mix is to be placed over a surface treatment, sweep and dispose of all loose material from the paving area.

334-5.5.4 Tack Coat: Use a rate of application as defined in Table 334-5. Control application rate within plus or minus 0.01 gallon per square yard of the target application rate. The target application rate may be adjusted by the Engineer to meet specific field conditions. Determine the rate of application as needed to control the operation. When using PG 52-28, multiply the target rate of application by 0.6.

Table 300-2 Tack Coat Application Rates		
Asphalt Mixture Type	Underlying Pavement Surface	Target Tack Rate (gal/yd ²) ¹
Base Course, Structural Course, Dense-Graded Friction Course, Open-Graded Friction Course	Newly Constructed Asphalt Layers	0.06
	Milled Asphalt Pavement Surface, Oxidized and Cracked Asphalt Pavement, Concrete Pavement	0.09
Note 1: Target tack application rates greater than those specified may be used upon approval of the Engineer.		

When using a meter to control the tack or prime application rate, manually measure the volume in the tank at the beginning and end of the application area for a specific target application rate. Perform this operation at a minimum frequency of once per production shift. Resolve any differences between the manually measured method and the meter to ensure the target application rate is met in accordance with this Section. Adjust the application rate if the manually measured application rate is greater than plus or minus 0.01 gallons per square yard when compared to the target application rate.

334-5.5.5 Curing and Time of Application: Apply tack coat sufficiently in advance of placing bituminous mix to permit drying, but do not apply tack coat so far in advance that it might lose its adhesiveness as a result of being covered with dust or other foreign material.

334-5.5.6 Protection: Keep the tack coat surface free from traffic until the subsequent layer of bituminous hot mix has been laid.

334-6 Placing Mixture:

334-6.1 Alignment of Edges: Place all asphalt mixtures by the stringline method to obtain an accurate, uniform alignment of the pavement edge. As an exception, pavement edges adjacent to curb and gutter or other true edges do not require a stringline. Control the unsupported pavement edge to ensure that it will not deviate from the stringline more than plus or minus 1.5 inches.

334-6.2 Rain and Surface Conditions: Immediately cease transportation of asphalt mixtures from the plant when rain begins at the roadway. Do not place asphalt mixtures while rain is falling, or when there is water on the surface to be covered. Once the rain has stopped, standing water has been removed from the tacked surface to the satisfaction of the Engineer, and

the temperature of the mixture caught in transit still meets the requirements as specified in 334-5.3, the Contractor may then place the mixture caught in transit.

334-6.3 Checking Depth of Layer: Check the depth of each layer at frequent intervals to ensure a uniform spread rate that will meet the requirements of the Contract.

334-6.4 Hand Work: In limited areas where the use of the paver is impossible or impracticable, the Contractor may place the mixture by hand.

334-6.5 Spreading and Finishing: Upon arrival, dump the mixture in the approved paver, and immediately spread and strike-off the mixture to the full width required, and to such loose depth for each course that, when the work is completed, the required weight of mixture per square yard, or the specified thickness, is secured. Carry a uniform amount of mixture ahead of the screed at all times.

334-6.6 Thickness Control: Ensure the spread rate is within 5% of the target spread rate, as indicated in the Contract. When determining the spread rate, use, at a minimum, an average of five truckloads of mix and at a maximum, an average of 10 truckloads of mix. When the average spread rate is beyond plus or minus 5% of the target spread rate, monitor the thickness of the pavement layer closely and adjust the construction operations.

When the average spread rate for two consecutive days is beyond plus or minus 5% of the target spread, stop the construction operation at any time until the issue is resolved.

The Engineer will allow a maximum deficiency from the specified spread rate for the total thickness as follows:

1. For pavement of a specified thickness of 2-1/2 inches or more: 50 pounds per square yard.
2. For pavement of a specified thickness of less than 2-1/2 inches: 25 pounds per square yard.

Address the unacceptable pavement in accordance with 334-5.10.4, unless an alternative approach is agreed upon by the Engineer.

334-6.7 Leveling Courses:

334-6.7.1 Patching Depressions: Before spreading any leveling course, fill all depressions in the existing surface as shown in the plans.

334-6.7.2 Spreading Leveling Courses: Place all courses of leveling with an asphalt paver or by the use of two motor graders, one being equipped with a spreader box. Other types of leveling devices may be used upon approval by the Engineer.

334-6.7.3 Rate of Application: When using Type SP-9.5 (fine graded) for leveling, do not allow the average spread of a layer to be less than 50 pounds per square yard or more than 75 pounds per square yard. The quantity of mix for leveling shown in the plans represents the average for the entire project; however, the Contractor may vary the rate of application throughout the project as directed by the Engineer. When leveling in connection with base widening, the Engineer may require placing all the leveling mix prior to the widening operation.

334-6.8 Compaction: For each paving or leveling train in operation, furnish a separate set of rollers, with their operators.

When density testing for acceptance is required, select equipment, sequence, and coverages of rolling to meet the specified density requirement. Regardless of the rolling procedure used, complete the final rolling before the surface temperature of the pavement drops

to the extent that effective compaction may not be achieved or the rollers begin to damage the pavement.

No vibratory compaction in the vertical direction will be allowed for layers one inch or less in thickness or, if the Engineer or Contract Documents limit compaction to the static mode only. Compact these layers in the static mode only. Other non-vertical vibratory modes of compaction will be allowed, if approved by the Engineer; however, no additional compensation, cost or time, will be made.

When density testing for acceptance is not required, use a rolling pattern approved by the Engineer.

Use hand tamps or other satisfactory means to compact areas which are inaccessible to a roller, such as areas adjacent to curbs, headers, gutters, bridges, manholes, etc.

334-6.9 Joints.

334-6.9.1 Transverse Joints: Construct smooth transverse joints, which are within 3/16 inch of a true longitudinal profile when measured with a 15 foot manual straightedge. The Engineer may waive straightedge requirements for transverse joints at the beginning and end of the project, at the beginning and end of bridge structures, at manholes, and at utility structures if the deficiencies are caused by factors beyond the control of the Contractor such as no milling requirement, as determined by the Engineer. When smoothness requirements are waived, construct a reasonably smooth transitional joint.

334-6.9.2 Longitudinal Joints: Place each layer of pavement so all longitudinal construction joints are offset 6 to 12 inches laterally between successive layers. Plan offsets in advance so the longitudinal joints of the friction course are not in wheel path areas. The longitudinal joints for friction course layers should be within 6 inches of the lane edge or at the center of the lane. The Engineer may waive these requirements where offsetting is not feasible due to the sequence of construction.

334-6.10 Surface Requirements: Construct a smooth pavement with good surface texture and the proper cross-slope.

334-6.10.1 Texture of the Finished Surface of Paving Layers: Produce a finished surface of uniform texture and compaction with no pulled, torn, raveled, crushed or loosened portions and free of segregation, bleeding, flushing, sand streaks, sand spots, or ripples. Correct any area of the surface that does not meet the foregoing requirements in accordance with 334-6.10.4.

334-6.10.2 Cross Slope: Construct a pavement surface with cross slopes in compliance with the requirements of the Contract Documents. Furnish a four-foot-long electronic level accurate to 0.1 degree, approved by the Engineer for the control of cross slope. Make this electronic level available at the jobsite at all times during paving operations.

334-6.10.3 Pavement Smoothness: Construct a smooth pavement meeting the requirements of this Specification. Furnish a 15 foot manual and a 15 foot rolling straightedge meeting the requirements of FM 5-509. Obtain a smooth surface on all pavement courses placed, and then straightedge all layers as required by this Specification.

334-6.10.3.1 Straightedge Testing:

334-6.10.3.1.1 Acceptance Testing: Using a rolling straightedge, test the final (top) layer of the pavement. Test all pavement lanes where the width is constant using a rolling straightedge and document all deficiencies on a form approved by the Engineer. Notify the Engineer of the location and time of all straightedge testing a minimum of 48 hours before beginning testing.

334-6.10.3.1.2 Final (Top) Pavement Layer: At the completion of all paving operations, straightedge the final (top) layer either behind the final roller of the paving train or as a separate operation. Address all deficiencies in excess of 3/16 inch in accordance with 334-5.10.4, unless waived by the Engineer. Retest all corrected areas.

334-6.10.3.1.3 Straightedge Exceptions: Straightedge testing will not be required in the following areas: shoulders, intersections, tapers, crossovers, sidewalks, bicycle/shared use paths, parking lots and similar areas, or in the following areas when they are less than 250 feet in length: turn lanes, acceleration/deceleration lanes and side streets. The limits of the intersection will be from stop bar to stop bar for both the mainline and side streets.

As an exception, in the event the Engineer identifies an objectional surface irregularity in the above areas, straightedge and address all deficiencies in excess of 3/8 inch in accordance with 334-5.10.4.

334-6.10.4 Correcting Unacceptable Pavement: Correct deficiencies in the pavement layer by removing and replacing the full depth of the layer, extending a minimum of 50 feet on both sides (where possible) of the defective area for the full width of the paving lane, at no additional cost.

334-7 Acceptance of the Mixture.

334-7.1 General: The asphalt mixture will be accepted based on the Asphalt Work Category as defined below:

1. Asphalt Work Category 1 – Certification by the Contractor as defined in 334-7.2.
2. Asphalt Work Category 2 – Certification and process control testing by the Contractor as defined in 334-7.3
3. Asphalt Work Category 3 – Process control testing by the Contractor and acceptance testing by the Engineer as defined in 334-7.4.

334-7.2 Certification by the Contractor: On Asphalt Work Category 1 construction, the Engineer will accept the mix on the basis of visual inspection. Submit a Notarized Certification of Specification Compliance letter on company letterhead to the Engineer stating that all material produced and placed on the project meets the requirements of the Specifications. The Engineer may run independent tests to determine the acceptability of the material.

334-7.3 Certification and Process Control Testing by the Contractor: On Asphalt Work Category 2 construction, submit a Notarized Certification of Specification Compliance letter on company letterhead to the Engineer stating that all material produced and placed on the project meets the requirements of the Specifications, along with supporting test data documenting all process control testing as described in 334-6.3.1. If required by the Contract, utilize an Independent Laboratory as approved by the Engineer for the process control testing. The mix will also require visual acceptance by the Engineer. In addition, the Engineer may run independent tests to determine the acceptability of the material. Material failing to meet these acceptance criteria will be addressed as directed by the Engineer such as but not limited to acceptance at reduced pay, delineation testing to determine the limits of the questionable material, removal and replacement at no cost to the agency, or performing an Engineering analysis to determine the final disposition of the material.

334-7.3.1 Process Control Sampling and Testing Requirements: Perform process control testing at a frequency of once per day. Obtain the samples in accordance with FDOT Method FM 1-T 168. Test the mixture at the plant for gradation (P_{.8} and P_{.200}) and asphalt

binder content (P_b). Measure the roadway density with 6 inch diameter roadway cores at a minimum frequency of once per 1,500 feet of pavement with a minimum of three cores per day.

Determine the asphalt binder content of the mixture in accordance with FM 5-563. Determine the gradation of the recovered aggregate in accordance with FM 1-T 030. Determine the roadway density in accordance with FM 1-T 166. The minimum roadway density will be based on the percent of the maximum specific gravity (Gmm) from the approved mix design. If the Contractor or Engineer suspects that the mix design Gmm is no longer representative of the asphalt mixture being produced, then a new Gmm value will be determined from plant-produced mix with the approval of the Engineer. Roadway density testing will not be required in certain situations as described in 334-7.4.1. Assure that the asphalt binder content, gradation and density test results meet the criteria in Table 334-6.

Table 334-6 Process Control and Acceptance Values	
Characteristic	Tolerance
Asphalt Binder Content (percent)	Target \pm 0.55
Passing No. 8 Sieve (percent)	Target \pm 6.00
Passing No. 200 Sieve (percent)	Target \pm 1.50
Roadway Density (daily average)	Minimum 91.5% of Gmm
Roadway Density (any single core)	Minimum 88.0 % of Gmm

334-7.4 Process Control Testing by the Contractor and Acceptance Testing by the Engineer: On Asphalt Work Category 3, perform process control testing as described in 334-6.3.1. In addition, the Engineer will accept the mixture at the plant with respect to gradation ($P_{.8}$ and $P_{.200}$) and asphalt binder content (P_b). The mixture will be accepted on the roadway with respect to density. The Engineer will sample and test the material as described in 334-7.3.1. The Engineer will randomly obtain at least one set of samples per day. Assure that the asphalt content, gradation and density test results meet the criteria in Table 334-6. Material failing to meet these acceptance criteria will be addressed as directed by the Engineer such as but not limited to acceptance at reduced pay, delineation testing to determine the limits of the questionable material, removal and replacement at no cost to the agency, or performing an Engineering analysis to determine the final disposition of the material.

334-7.4.1 Acceptance Testing Exceptions: When the total quantity of any mix type in the project is less than 500 tons, the Engineer will accept the mix on the basis of visual inspection. The Engineer may run independent tests to determine the acceptability of the material.

Density testing for acceptance will not be performed on widening strips or shoulders with a width of 5 feet or less, open-graded friction courses, variable thickness overbuild courses, leveling courses, any asphalt layer placed on subgrade (regardless of type), miscellaneous asphalt pavement, bike/shared use paths, crossovers, gore areas, or any course with a specified thickness less than 1 inch or a specified spread rate less than 100 lb per square yard. Density testing for acceptance will not be performed on asphalt courses placed on bridge decks or approach slabs; compact these courses in static mode only. In addition, density testing for acceptance will not be performed on the following areas when they are less than 500 feet (continuous) in length: turning lanes, acceleration lanes, deceleration lanes, shoulders, parallel parking lanes, or ramps. Do not perform density testing for acceptance in situations where the

area requiring density testing is less than 50 tons. Density testing for acceptance will not be performed in intersections. The limits of the intersection will be from stop bar to stop bar for both the mainline and side streets. A random core location that occurs within the intersection shall be moved forward or backward from the intersection at the direction of the Engineer. Compact these courses in accordance with a standard rolling procedure approved by the Engineer. In the event that the rolling procedure deviates from the approved procedure, placement of the mix will be stopped.

334-8 Method of Measurement.

For the work specified under this Section, the quantity to be paid for will be the weight of the mixture, in tons.

The bid price for the asphalt mix will include the cost of the liquid asphalt and the tack coat application as specified in 334-5.5.4. There will be no separate payment or unit price adjustment for the asphalt binder material in the asphalt mix.

334-9 Basis of Payment.

334-.1 General: Price and payment will be full compensation for all the work specified under this Section.

**344 CONCRETE FOR LOCAL AGENCY PROGRAM (LAP) (CLASS - D).
(REV 6-9-2021) (FA 7-2-21) (FY 2024-25)**

SECTION 344 is deleted and the following substituted:

**SECTION 344
CONCRETE FOR LAP (OFF-SYSTEM)**

344-1 Description.

344-1 General: Construct concrete structures and other concrete members, based on the type of work as described in the Contract Documents and the concrete work categories as defined below.

344-1.2 Work Categories: Construction will fall into one of the following concrete work categories:

344-1.2.1 Concrete Work Category 1: Includes the construction of cast-in-place nonstructural concrete; including sidewalks, curb and gutter, ditch and slope pavement, or other non-reinforced cast-in-place elements.

344-1.2.2 Concrete Work Category 2: Includes the construction of precast and prestressed concrete products.

344-1.2.2.1 Precast Concrete Drainage Structures: Includes but are not limited to reinforced and non-reinforced concrete pipes, french drains, underdrains, inlets, manholes, junction boxes, endwalls, pipe culverts, storm sewers, and box culverts.

344-1.2.2.1 Incidental Precast/Prestressed Concrete Structures: Includes the fabrication, storage, transportation, and erection of prestressed concrete poles, concrete bases for light poles, highway sign foundations, retaining wall systems, traffic separators, sound barriers or other structural precast elements.

344-1.2.3 Concrete Work Category 3: Includes the work associated with the placement and/or construction of structural cast-in-place concrete meeting the requirements of this section.

344-2 Materials.

344-2.1 General: Use concrete composed of a mixture of portland cement, aggregates, and water, with or without chemical or mineral admixtures and supplementary cementitious materials that meet the following requirements:

344-2.1.1 Portland Cement: Portland cements meeting the requirements of AASHTO M 85 or ASTM C150 is required. Different brands of cement, cement of the same brand from different facilities or different types of cement shall be stored separately and shall not be mixed.

344-2.1.2 Coarse and Fine Aggregates: Aggregates shall meet ASTM C33.

344-2.1.3 Water: Water shall meet the requirements of ASTM C 1602.

344-2.1.4 Chemical Admixtures: Use chemical admixtures shall be listed on the FDOT Approved Products List (APL). Admixtures may be added at the dosage rates recommended by the manufacturer.

344-2.1.5 Types of Cement: Unless a specific type of cement is designated in the Contract Documents, use Type I, Type IL, Type IP, Type IS, Type II, Type II (MH) or Type III cement in all classes of concrete. Use Type IL or Type II (MH) for all mass concrete elements.

344-2.1.6 Supplementary Cementitious Materials: Supplementary Cementitious Materials shall meet the requirements of ASTM C618 and ASTM C 989, respectively. Fly ash shall not include the residue resulting from the burning of municipal garbage or any other refuse with coal, or the burning of industrial or municipal garbage in incinerators.

344-3 Production, Mixing and Delivery of Concrete.

344-3.1 Concrete Production Requirements:

344-3.1.1 Category 1: Use a concrete production facility that is certified by the National Ready Mixed Concrete Association (NRMCA) or listed on the FDOT list of non-structural concrete producers. Concrete production facilities listed on the FDOT Producers with Accepted QC Programs list for structural concrete may also be used for Category 1.

344-3.1.2 Category 2: Obtain precast concrete products from plants that are currently on the FDOT's Production Facility Listing for the types of products that they are producing.

344-3.1.3 Category 3: Obtain structural concrete from a plant that is currently on the FDOT's Production Facility Listing for structural concrete.

344-3.2 Classes of Concrete: Meet the requirements of Table 344-1.

Table 344-1 Master Proportion Table ⁽⁷⁾				
Class of Concrete	28-day Specified Minimum Compressive Strength (f _c ') (psi)	Maximum Water to Cementitious Materials Ratio (pounds per pounds)	Minimum Total Cementitious Materials Content (lb/yd ³)	Target Slump Value (inches) ⁽³⁾
Category 1				
Class NS	2,500	N/A	N/A	N/A
Category 3				
I ⁽¹⁾	3,000	0.53	470	3 ⁽²⁾
I (Pavement)	3,000	0.50	470	1.5 or 3 ⁽⁵⁾
II ⁽¹⁾	3,400	0.53	470	3 ⁽²⁾
II (Bridge Deck)	4,500	0.44	600 ⁽⁸⁾	3 ⁽²⁾
III ⁽⁴⁾	5,000	0.44	600 ⁽⁸⁾	3 ⁽²⁾
III (Seal)	3,000	0.53	600 ⁽⁸⁾	8
IV	5,500	0.41 ⁽⁶⁾	600 ⁽⁸⁾	3 ⁽²⁾
IV (Drilled Shaft)	4,000	0.41	600 ⁽⁸⁾	8.5
V (Special)	6,000	0.37 ⁽⁶⁾	600 ⁽⁸⁾	3 ⁽²⁾
V	6,500	0.37 ⁽⁶⁾	600 ⁽⁸⁾	3 ⁽²⁾
VI	8,500	0.37 ⁽⁶⁾	600 ⁽⁸⁾	3 ⁽²⁾
VII	10,000	0.37 ⁽⁶⁾	600 ⁽⁸⁾	3 ⁽²⁾

Notes:

- (1) For precast three-sided culverts, box culverts, endwalls, inlets, manholes and junction boxes, the target slump value and air content will not apply. The maximum allowable slump is 6 inches, except as noted in (2). The Contractor is permitted to use concrete meeting the requirements of ASTM C478 (4,000 psi) in lieu of the specified Class I or Class II concrete for precast endwalls, inlets, manholes and junction boxes.
- (2) The Engineer may allow a maximum target slump of 7 inches when a Type F, G, I or II admixture is used. When flowing concrete is used, meet the requirements of Section 8.6 of the FDOT Materials Manual.
- (3) For a reduction in the target slump for slip-form operations, submit a revision to the mix design to the Engineer. The target slump for slip-form mix is 1.50 inches.
- (4) When precast three-sided culverts, box culverts, endwalls, inlets, manholes or junction boxes require a Class III concrete, the minimum cementitious materials content is 470 pounds per cubic yard. Do not apply the air content range and the maximum target slump shall be 6 inches, except as allowed in (2).
- (5) Meet the requirements of Section 350 of FDOT Specifications.
- (6) When silica fume or metakaolin is required, the maximum water to cementitious material ratio will be 0.35. When ultrafine fly ash is used, the maximum water to cementitious material ratio will be 0.30.
- (7) Tolerance for slump is ± 1.5 inches and Air Content range is 0.0% to 6.0%.
- (8) The minimum total amount of cementitious materials content of 600 pounds per cubic yard is required for extremely aggressive environment. For moderately and slightly aggressive environments, the required amounts are 550 lb/yd³ and 510 lb/yd³, respectively.

344-3.3 Contractors Quality Control: For Categories 1 and 2, assume full responsibility for controlling all operations and processes such that the requirements of these Specifications are always met.

For Category 3, furnish a Quality Control (QC) plan to identify to the Engineer how quality will be ensured at the project site. During random inspections, the Engineer will use this document to verify that the construction of the project agrees with the QC plan.

344-3.4 Concrete Mix Design: Before producing any Category 1 or Category 2 concrete, submit the proposed mix designs to the Engineer. For Category 3, submit to the Engineer for approval, FDOT approved mix designs. Do not use concrete mix designs without prior approval of the Engineer.

Materials may be adjusted provided that the theoretical yield requirement of the approved mix design is met. Show all required original approved design mix data and batch adjustments on an Engineer approved concrete delivery ticket.

344-3.5 Delivery: For Category 3, the maximum allowable transit time of concrete is 90 minutes. For critical placements, with the Engineer's approval, the transit time may be extended to the allowable mixing time shown in the mix design.

Furnish a delivery ticket on a form approved by the Engineer with each batch of concrete before unloading at the placement site. Record material quantities incorporated into the mix on the delivery ticket. Ensure that the Batchers responsible for producing the concrete signs the delivery ticket certifying that the batch was produced and delivered in accordance with these requirements. Sign the delivery ticket certifying that the concrete was placed in accordance with these requirements.

344-3.6 Placing Concrete:

344-3.6.1 Concreting in Cold Weather: Do not mix or place concrete when the air temperature at placement is below 40°F.

During the curing period, if the National Oceanic and Atmospheric Administration (NOAA) predicts the ambient temperature to fall below 35°F for 12 hours or more or to fall below 30°F for more than 4 hours, enclose the structure in such a way that the air temperature within the enclosure can be kept above 50°F for a period of 3 days after placing the concrete or until the concrete reaches a minimum compressive strength of 1,500 psi.

Assume all risks connected with the placing and curing of concrete.

Although the Engineer may give permission to place concrete, the Contractor is responsible for satisfactory results. If the placed concrete is determined to be unsatisfactory, remove, dispose of, and replace the concrete at no expense to the Agency.

344-3.6.2 Concreting in Hot Weather: For Category 3, hot weather concreting is defined as the production, placing and curing of concrete when the concrete temperature at placing exceeds 86°F but is less than 100°F.

Spray reinforcing bars and metal forms with cool fresh water just prior to placing the concrete in a method approved by the Engineer.

Assume all risks associated with the placing and curing of concrete.

Although the Engineer may give permission to place concrete, the Contractor is responsible for satisfactory results. If the placed concrete is determined to be unsatisfactory, remove, dispose of, and replace the concrete at no expense to the Agency.

Unless the specified hot weather concreting measures are in effect, reject concrete exceeding 85°F at the time of placement. Regardless of special measures taken, reject concrete exceeding 100°F. Predict the concrete temperatures at placement time and implement hot weather measures to avoid production shutdown.

344-3.7 Mixers: For Category 3 concrete, do not place concrete from a truck mixer that does not have a current FDOT mixer identification card.

344-3.8 Small Quantities of Concrete: With approval of the Engineer, small quantities of concrete, less than 3 cubic yards placed in one day and less than 0.5 cubic yards placed in a single placement may be accepted using a pre-bagged mixture. The Engineer may verify that the pre-bagged mixture is prepared in accordance with the manufacturer's recommendations and will meet the requirements of this Specification.

344-3.9 Sampling and Testing:

344-3.9.1 Category 1: The Engineer may sample and test the concrete to verify its quality. The minimum 28 day compressive strength requirement for this concrete is 2,500 psi.

344-3.9.2: Category 2: No sampling and testing is required by the Engineer for category 2.

344-3.9.3 Category 3: The Engineer will randomly select a sample from each LOT to determine its plastic properties and to make three 4 x 8 inch cylinders for testing by the Engineer at 28 days to ensure that the design compressive strength has been met for the class of concrete as specified in Table 344-1. A LOT is defined as the concrete placement of 200 cubic yards or one day's production, whichever is less.

344-3.10 Records: Ensure the following records are available for review for at least 3 years after final acceptance of the project:

1. Accepted concrete Plant QC Plan.
2. Approved concrete mix designs.
3. Materials source (delivery tickets, certifications, certified mill test reports).

4. A copy of the scale company or testing agency report showing the signature of the scale company representative, date of inspection, observed deviations from quantities checked during calibration of the scales and meters.

5. A copy of the documentation certifying the admixture weighing/measuring devices.

6. Aggregate moisture control records including date and time of test.

7. Manufacturer's mixer information.

8. Certification documents for admixture weighing and measuring dispensers.

9. A daily record of all concrete batched for delivery to the projects, including respective mix design numbers and quantities of batched concrete.

344-4 Acceptance of the Work.

344-4.1 Category 1 Work: Category 1 work will be accepted based on certification by the batcher and contractor on the delivery ticket.

344-4.2 Category 2 Work: Certify that the precast elements were produced by production facilities that are currently on the FDOT's Production Facility Listing for the types of products that they are producing. In addition, the producer's logo shall be stamped on the element. The producer shall not use the Florida Department of Transportation QC stamp on elements used on this project. Provide a statement of certification from the manufacturer of the precast element that the element meets the requirements of this Specification.

344-4.3 Category 3 Work: Category 3 concrete will be accepted based on the Engineer's test results for plastic properties and compressive strength requirements for the class of concrete as defined in Table 344-2. In addition, a Delivery Ticket as described in 344-3.5 will be required for acceptance of the material at the project site.

344-4.4 Small Quantities of Concrete: Category 3 concrete meeting the definition of 344-3.8 will be accepted in accordance with 344-4.3 based on test results for plastic properties and compressive strength.

344-5 Method of Measurement.

The quantities to be paid for will be the items shown in the plans, completed and accepted.

344-6 Basis of Payment.

Prices and payments will be full compensation for all work and materials specified in this Section.

SECTION 01010 SUMMARY OF WORK

PART 1 - GENERAL

1.01 General Terms

- A. The City will use the following terms in the Agreement Documents
1. Addenda – Written or graphic instruments, explanations, interpretations, changes, corrections, additions, deletions or modifications of the Agreement Documents issued prior to the opening of Bids which clarify, correct or change the bidding documents or the Agreement Documents.
 2. Agreement – The words Agreement and Contract may be used interchangeably in these General Terms and Conditions and shall mean the written agreement between the City and Contractor covering the Work to be performed. When other Documents are attached to the Agreement, they shall become part of the Agreement.
 3. Agreement Documents – The Advertisement for Bids, Instruction to Bidders, Proposal, Bid Bond, Agreement, Payment Bond, Performance Bond, Certificate of Insurance, Notice of Tentative Award, Notice to Proceed, Certificate of Substantial Completion, Warranty of Title, Final Receipt – Release of Lien, General Conditions, Supplemental General Conditions, Technical Specifications, Contract Drawings, Addenda and Change Orders executed pursuant to the Agreement Documents.
 4. Application for Payment – The form accepted by Consultant which is to be used by Contractor in requesting progress or final payments and which is to include such supporting documentation as is required by the Agreement Documents.
 5. Bonds – Bid, Performance and Payment bonds and other instruments which protect against loss due to inability, failure or refusal of Contractor to perform the work specified in the Agreement Documents.
 6. Calendar Day – A calendar day of 24 hours measured from midnight to the next midnight, including Saturdays, Sundays and holidays and regardless of the weather.
 7. Change Order – A document recommended by Consultant which is signed by Contractor and the City which authorizes an addition, deletion, or revision in the work, or an adjustment in the Contract Price or Contract Time, issued on or after the execution of the Agreement. Change Orders must be in writing. Verbal agreements of any matter are expressly excluded from any definition.
 8. Contractor – Successful Bidder who is awarded a Purchase Order or Agreement, to provide goods or services and/or to furnish the Work called

- for in the Agreement Documents and shall include Contractor's representatives, agents, employees, officers, directors and all others affiliated therewith.
9. Construction Superintendent – The construction superintendent shall be in attendance at the project site during the performance of the Work and shall represent the Contractor. Communications given to the construction superintendent shall be binding. Important communications or decisions shall be confirmed in writing. Other communications or decisions shall be similarly confirmed by written request in each case.
 10. Consultant(s) – City of Delray Beach or its authorized agents, inspectors or representatives acting within the scope of duties entrusted to them by the City. Reference to “Consultant” is equivalent to “Engineer” in FDOT specifications.
 11. Contract Price – The total monies payable by the City to Contractor under the terms and conditions of the Agreement Documents which can be modified only by written change order.
 12. Contract Time – The number of successive calendar days stated in the Agreement Documents for the completion of work.
 13. Defective Work – Work determined by the City or Consultant to be unsatisfactory, faulty, or deficient; or does not confirm to the Agreement Documents; or that does not meet the requirements of any inspection, reference standard, test, or approval referred to in the Agreement Documents; or work that has been damaged prior to Consultant's recommendation of final payment.
 14. Drawings – The drawings, plans, maps, profiles, diagrams, and other graphic representations which show character, location, nature, extent and scope of the Work, which have been prepared or approved by Consultant and which are considered part of the Agreement Documents.
 15. Effective Date of the Agreement – The date indicated in the Agreement, but if no such date is indicated it means the date on which the Agreement is signed by the last of the two parties to sign the Agreement.
 16. Field Order – A written order by Consultant that does not impact the cost or time of performance of the Work and for which no increase in Contract Sum or Contract Amount shall be permitted.
 17. General Requirements – Division 1 of the Technical Specifications.
 18. Laws and Regulations; Laws or Regulations – Laws, rules, codes, regulations, ordinances and/or orders promulgated by a lawfully constituted body authorized to issue such Laws and Regulations.
 19. Notice of Tentative Award – The official written notice by the City to the apparent successful bidder stating that upon compliance by the apparent successful bidder with the conditions precedent enumerated therein within

- the time specified, the City may enter into an Agreement for the price specified in the Bid.
20. Notice to Proceed – The written notice issued by the City, or its agents, to Contractor requiring Contractor to proceed with the Work and establishing the date of commencement of Contract Time.
 21. Partial Utilization – Placing a portion of the Work in service for the purpose for which it is intended (or a related purpose) before reaching Substantial Completion for all the Work.
 22. Payment Request – Mean a request for payment for construction services which confirms with all statutory requirements and with all requirements specified by the City to which the payment request is submitted.
 23. Project – The entire construction to be performed as provided in the Agreement Documents.
 24. Proper Invoice – Means an invoice which conforms with all statutory requirements and with all requirements that have been specified by the City to which the invoice is submitted.
 25. Purchase – means the purchase of goods, services, or construction services; the purchase or lease of personal property; or the lease of real property by the City.
 26. Resident Project Representative (RPR) – The resident project representative shall in be attendance at the project site during performance of the Work and shall represent the City directly or through Consultant. Responsibilities of the RPR are further defined by these General Terms and Conditions.
 27. Shop Drawings – All drawings, diagrams, illustrations, schedules, and other data which are specifically prepared by or for the Contractor to illustrate some portion of the Work, and all illustrations, brochures, standard schedules, performance charts, instructions, diagrams, and other information prepared by a supplier and submitted by Contractor to illustrate material or equipment for some portion of the Work.
 28. Specifications – (same definition as for Technical Specifications hereinafter).
 29. Subcontractor – An individual, firm, or corporation having a direct contract with Contractor or with any other Subcontractor for the performance of a part of the Work at the Site.
 30. Substantial Completion – The Work (or specified part thereof) has progressed to the point where, in the opinion of Consultant as evidenced by Consultant’s definitive certificate of Substantial Completion, it is sufficiently complete, in accordance with the Agreement Documents, so that the Work (or specified part) can be utilized for the purposes for which it is intended. The terms “substantially complete” and “substantially completed” as applied to any Work refer to Substantial Completion

- thereof. When the entire Project is consider to be Substantially Complete, this does not constitute Final Acceptance or Final Completion of the entire Project. Substantial Completion cannot occur in the absence of Consultant's express written approval of such.
31. Supplementary Conditions – the part of the Agreement Documents consisting of the General Requirements and written technical descriptions of products and execution of the Work.
 32. Supplier – A manufacturer, fabricator, distributor, material man or vendor.
 33. Surety – Any person, firm or corporation who is bound by bid or contract bond with and for Contractor.
 34. Technical Specifications – Those portions of the Agreement Documents consisting of the General Requirements and written technical descriptions of products and execution of the Work.
 35. Testing – Testing includes testing of materials and products being performed by a City Approved Independent Testing Laboratory including but not limited to density, compressive strength, temperature, pressure, thickness, coverage, or any other required investigation to very the work has been completed in accordance with the Technical Specifications and as shown on the Contract Drawings, Addenda, or Amendments to the Contract Documents.
 36. Underground Facilities – All pipeline, conduits, ducts, cables, wires, manholes, vaults, tanks, tunnels or other such facilities or attachments, and any encasements containing such facilities which have been installed underground to furnish any of the following services or materials: electricity, gases, steam, liquid petroleum products, telephone or other communications, cable television, water supply or distribution, sewage and drainage removal, traffic or other control systems.
 37. Unit Price Work – Work to be paid for on the basis of unit prices rather than on a lump-sum basis.
 38. Work – The totality of any and all obligations, duties and responsibilities necessary to the successful completion of the Project Assigned to or undertaken by Contractor under the Agreement Documents, whether completed or partially completed, including all labor, materials, equipment and other incidentals and the furnishing thereof.
 39. Work Directive Change – A written directive to the contractor, issued on or after the Effective Date of the Agreement and signed by the City and recommended by Consultant, ordering an addition, deletion or revision in the Work, or which references an emergency or unforeseen physical conditions under which the Work is to be performed. A Work Directive Change may not change the Contract Price or Contract Time, but is evidence that the parties expect that the change directed or documented by a Work Directive Change will be incorporated in a subsequently issued

Change Order following negotiations by the parties as to its effect, if any, on the Contract Price or Contract Time.

40. Written Amendment – A written amendment of the Agreement Documents, signed by the City and Contractor on or after the Effective Date of the Agreement and normally dealing with the non-engineering or nontechnical rather than strictly Work-related aspects of the Agreement Documents.

1.02 WORK COVERED BY CONTRACT DOCUMENTS

- A. The work covered by these specifications comprises, in general, the furnishing of all labor, equipment, materials, and performing all operations to construct the improvements, including but limited to roadway, water, sewer, and drainage improvements for the City of Delray Beach as described and specified further in the Technical Specifications and as shown on the Contract Drawings, Addenda, or Amendments to the Contract Documents.
- B. The Contractor shall provide and pay for:
 1. Labor, materials, tools, construction equipment, and machinery.
 2. Water and utilities required for construction.
 3. Other facilities and services necessary including all required testing, for proper execution and completion of the work.
- C. The Contractor shall comply with all codes, ordinances, rules, regulations, orders, permits and other legal requirements of the City of Delray Beach.
- D. Roadway restoration/reconstruction for any individual street shall be completed within 30 calendar days subsequent to substantial completion of underground utility construction on a street by street basis. The submitted construction schedule shall indicate this construction sequence.

1.03 STORMWATER POLLUTION PREVENTION PLAN

The Contractor shall comply with the requirements of the approved stormwater prevention plan and take adequate precautions to minimize siltation and bank erosion in the vicinity of canals or ditches, in discharging dewatering systems or during other construction activities. Contractor shall provide all required rainfall and weekly report documents to the City on a monthly basis.

1.04 STORAGE OF MATERIALS

Suitable storage facilities shall be furnished by the Contractor. All materials, supplies and equipment intended for use in the work shall be suitably stored by the

Contractor to prevent damage from exposure, admixture with foreign substances, or vandalism or other cause. All hazardous materials must be stored in compliance with all pertinent requirements concerning their safe use and storage. The Consultant will refuse to accept, or sample for testing, materials, supplies or equipment that have been improperly stored, as determined by the Consultant.

Materials found unfit for use shall not be incorporated in the work and shall immediately be removed from the construction or storage site. Delivered materials shall be stored in manner acceptable to the Engineer before any payment for same will be made. Materials strung out along the line of construction will not be allowed unless the materials will be installed within one week from the time of unloading and stringing out.

1.05 PRESERVATION OF PROPERTY

The Contractor shall preserve from damage all property along the line of the work, or which is in the vicinity of or is in any way 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 for 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.

1.06 CLEAN UP

The Contractor shall keep the construction site free of rubbish and other materials and restore to their original conditions those portions of the site not designated for the alteration by the Contract Documents. Clean up and restoration shall be accomplished on a continuing basis throughout the contract period and in such a manner as to maintain a minimum of nuisance and interference to the general public and residents in the vicinity of the work.

The Contractor shall also remove, when no longer needed, all temporary structures and equipment used in their operation. It is the intent of this specification that the construction areas and those other areas not designated for alteration by the Contract Documents shall be immediately restored to original condition as upon completion of the project.

1.07 PUBLIC SAFETY AND CONVENIENCE

The Contractor shall at all times so conduct his work as to ensure the least possible obstruction to traffic, or inconvenience to the general public and residents in the

vicinity of the work. No road or street shall be closed to the public, except with the permission of the City and other jurisdictional governmental authority, if any. Fire hydrants on or adjacent to the work shall be kept accessible. Provisions shall be made by the Contractor to ensure public access to sidewalks, public telephones, and the proper functioning of all gutters, sewer inlets, drainage ditches, and irrigation ditches. No open excavation shall be left overnight. All open excavation within the roadway shall be backfilled and a temporary asphalt patch applied prior to darkness each day. A cold asphalt patch is acceptable.

1.08 SAFETY AND OSHA COMPLIANCE

- A. The Contractor shall comply in all respects with all Federal, State and Local safety and health regulations. Copies of the Federal regulations may be obtained from the U.S. Department of Labor, Occupation Safety and Health Administration (OSHA), Washington, DC 20210 or their regional offices.
- B. The Contractor shall comply in all respects with the applicable Workman's Compensation Law.

1.09 CONTRACTOR'S USE OF PREMISES

- A. Coordinate use of premises under direction of City through Consultant. Contract shall not use any private property not governed by a Temporary Construction Easement, License Agreement, or other legally binding agreement allowing such use.
- B. Assume full responsibility for the protection and safekeeping of equipment and materials stored on the site.
- C. Move any stored Products, under Contractor's control, which interfere with operations of the Owner or separate Contractor.

END OF SECTION

SECTION 01020 ALLOWANCE

PART 1 - GENERAL

1.01 REQUIREMENTS INCLUDED

Include in the Contract Sum the allowance stated in the Contract Documents.

1.02 RELATED REQUIREMENTS

1. Section 01025: Measurement and Payment
2. Section 01370: Schedule of Values

1.03 UNDEFINED ALLOWANCE

Include in the Contract, lump sum allowances as follows:

1. Allowance – Utility (\$50,000)
2. Allowance - Video Recordings (\$10,000)
3. Allowance - Removal and Re-Installation of all Irrigation Systems Complete & Operational (\$30,000)
4. Allowance – Landscaping (\$30,000)
5. Allowance – Root Barrier (\$30,000)
6. Allowance – As-Built Drawings (\$20,000)
7. Allowance – Indemnification (\$10)
8. Allowance – Unforeseen Conditions (\$175,000)
9. Allowance – NPDES Permit (\$5,000)
10. Allowance – Sanitary Sewer Repairs (\$50,000)

PART 2 - PRODUCTS

Not used.

PART 3 - EXECUTION

3.01 GENERAL

- A. The Utility Allowance is to be used as directed by the Engineer. This allowance shall be used for unforeseen utility conflicts.
- B. The Video Allowance is to be used as directed by the Engineer. This allowance shall be used for videoing completed drainage installations and sanitary sewer linings.

- C. The Removal and Re-Installation of all Irrigation Systems Complete and Operational Allowance shall be used as directed by the Engineer. This allowance shall be used to pay for cutting and capping the irrigation at the R/W line for private properties and to provide an irrigation sleeve below the proposed shared use path/sidewalks.
- D. The Landscaping Allowance is to be used as directed by the Engineer. This allowance shall be used to pay for any landscaping impacted as part of the construction of the project.
- E. The As-Built Drawings Allowance shall be used as directed by the Engineer. This allowance shall be used to pay for the Contractor to complete as-built drawings once construction is completed. The Contractor is to provide both CADD and PDF files of the as-builts to the City.
- F. The Indemnification Allowance shall be used as directed by the Engineer.
- G. The Unforeseen Conditions Allowance shall be used as directed by the Engineer. This allowance shall be used as necessary to pay for unforeseen conflict resolutions or other work not within the original scope of work as bid, such work to be performed only at the direction and with the authorization of the City.
- H. The NPDES Permit Allowance shall be used as directed by the Engineer. This allowance shall be used to pay for the permit fees applicable to the NPDES permit.
- I. The Sanitary Sewer Repairs Allowance shall be used as directed by the Engineer. This allowance shall be used to pay for any repairs identified when lining the sanitary sewer lines.
- J. At the closeout of contract, monies remaining in the Allowances will be credited to the Owner by Change Order.

END OF SECTION

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ALLOWANCE

SECTION 01025 MEASUREMENT AND PAYMENT

PART 1 - GENERAL

1.01 EXPLANATION AND DEFINITIONS

- A. The following explanation of the Measurement and Payment for the bid form items is made for information and guidance. The omission of reference to any item in this description shall not, however, alter the intent of the bid form or relieve the Contractor of the necessity of furnishing such as part of the Contract.

1.02 PAYMENT

- A. Payment shall be made for the items listed on the Bid Form on the basis of the work actually performed and completed, such work including but not limited to, the furnishing of all necessary labor, materials, equipment, transportation, clean up, and all other appurtenances to complete the construction and installation of the work to the configuration and extent as shown on the drawings and described in the specifications.
- B. It is intended that all license and other miscellaneous administrative costs, overhead and profit, and all other costs to the Contractor not specifically identified in the following item descriptions be distributed among and included in the unit prices stated. No additional payment shall be made for transportation, communications, office maintenance, and other incidental work or services, and no further payment shall be made for remobilization unless all of the work is suspended by the Consultant for a period in excess of three months and through no fault to the Contractor.
- C. The Contractor's attention is called to the fact that the quotations for the various items of work are intended to establish a total price for completing the work in its entirety. No separate payment will be made for any item that is not specifically set forth in the Bid Schedule, and all costs therefore shall be included in the prices named in Bid Schedule for various appurtenant items of work.
- D. All required manufacturer testing and certification shall be included in the unit prices shown in the Proposal and Contract. Density testing required for compacted backfilling, and concrete strength and materials testing required at the time of construction shall be arranged for and paid for by the Contractor.
- E. No payment for storage of materials.

PART 2 - MATERIALS

Not used.

PART 3 – EXECUTION

In the event of a conflict between the FDOT LAP SPECIFICATIONS; “BIG THREE” listed in this section and other provisions of the technical specifications, the FDOT SPECIFICATIONS “BIG THREE” will govern and prevail.

The Engineering Division uses the Florida Department of Transportation (FDOT) Standard Specifications for Road and Bridge Construction, and the FDOT Design Standards as reference documents. It is the intent of the Engineering Division that the City of Delray Beach technical specifications shall govern the applicable project work that is typically identified in those FDOT Specifications and Standard sections:

In the event that the City of Delray Beach technical specification are either silent on an issue or requirement or if it appears to present a conflict with the referenced FDOT Specifications and Standards, it is the responsibility of the Contractor to request clarification or resolution, in writing, from the Project Manager and Engineer.

In the event that the City of Delray Beach technical specification are either silent on or requirement is not listed for testing and acceptance requirements the FDOT Specifications and Standards shall govern.

In the event that the City of Delray Beach technical specification are either silent on or requirement is not listed for method of measurement the FDOT Specifications and Standards shall govern.

In the event that the City of Delray Beach technical specification are either silent on or if it appears to present a conflict with method of payment the referenced FDOT pay item shall govern.

3.01 MOBILIZATION - PAY ITEM NO. 101-1

- A. Payment for mobilization/demobilization, license and other miscellaneous administrative costs, and all other costs to the Contractor not specifically identified in the costs of other work under the Contract will be made at the contract lump sum price bid for the item. An Excel file is to be provided by the Contractor that shows the non-reimbursable and reimbursable items and includes bonds, insurance, overhead and profit. No additional payment shall be made for transportation, communications, office maintenance, project signs, and other incidental work or services, and no further payment shall be made for remobilization unless all of the work is suspended by the

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Consultant for a period in excess of three months and through no fault to the Contractor (approved by the City and Engineer).

- B. The Contractor's Lump Sum Price shall include compensation for labor, materials, equipment and all other incidentals required to complete this item. Payment item for mobilization shall not exceed fifteen percent (15%) of the contract price.
- C. The Contractor's Lump Sum Price shall include full compensation for the preparation of As-Built Record Drawings for the Project including finished grades, above ground improvements and sizes and inverts and materials of pipes.
- D. The Contractor's Lump Sum Price shall include full compensation for litter removal and mowing within the project limits. Payment for this item shall be based on percentage complete over the contract duration and be billed on a monthly basis.
- E. The Contractor shall maintain full size (24"x 36") field drawings to reflect the "as-built" items of work as the work progresses. Upon completion of the work, the contractor shall prepare a record set of "as-built" drawings on full size which includes one set of design drawings on reproducible material, and two-sets of signed and sealed black line/blueprints, and an electronic file in the latest version of AutoCAD. No payment will be made for "as-built" drawings until both the reproducible and electronic files are received and accepted by the City. The Contractor shall have As-Built Record Drawings prepared by a surveyor licensed in the State of Florida. As-builts shall show all above ground improvements constructed by the project and the locations, sizes, and inverts of underground piping for drainage, water and sewer, electrical, and irrigation systems. Finished grades shall be provided relative to the benchmark identified on the survey.

3.02 MAINTENANCE OF TRAFFIC - PAY ITEM NO. 102-1

- A. The quantity of traffic control to be considered for payment shall be equivalent to the percentage of the project determined by the Consultant to be complete as of the date of the pay request submitted. The percent completion of the project shall be based on the percent of the total project actually constructed and not on the percent of the Contract price completed. This is to be billed monthly.
- B. Payment for traffic control shall be made on the basis of a percentage (as determined in 'A' above) of the Lump Sum Price. The contract unit price shall include compensation for required labor, materials, and equipment necessary to provide traffic control in accordance with the specifications. Payment item for traffic control shall not exceed fifteen percent (15%) of the contract price.
- C. This item includes preparation of the maintenance of traffic plan (signed by a Professional Engineer), traffic control, flagmen, Variable Message Signs (VMS), detour signs, barricades, advance warning arrow panels, construction and removal of

temporary access driveways to business and/or residential properties, etc. in order to provide safety and traffic access in accordance with local and state requirements.

- D. MOT Plans shall be prepared and signed and sealed by a Professional Engineer. MOT Plans are to be submitted and approved by the City prior to constructions. The contractor must assign and identify an ATSSA certified person in charge of the MOT.
- 3.03 SEDIMENT BARRIER – PAY ITEM NO. 104-10-3
- A. Payment for this item shall be made at the Contractor's Unit Price per linear foot of sediment barrier installed and accepted. The Contract Unit Price shall include compensation for labor, material, and equipment required to furnish, install and maintain the sediment barrier in accordance with the plans and specifications.
- 3.04 INLET PROTECTION SYSTEM – PAY ITEM NO. 104-18
- A. Payment for this item shall be made at the Contractor's Unit Price per each of inlet protection installed and accepted. The Contract Unit Price shall include compensation for labor, material, and equipment required to furnish, install and maintain the inlet protection system in accordance with the plans and specifications.
- 3.05 MONITOR EXISTING STRUCTURES – VIBRATION MONITORING – PAY ITEM NO. 108-2
- A. Payment for this item shall be made at the contract lump sum price bid for the item. No additional payment shall be made for the design, furnishing, construction, and removal of precautionary features, such as but not limited to sheeting, shoring, or bracing, installed for protection of existing structures. The contract lump sum price shall include compensation for labor, material, and equipment required to provide vibration monitoring in accordance with the plans and specifications. This is to be billed monthly
- 3.06 CLEARING AND GRUBBING – PAY ITEM NO. 110-1-1
- A. Payment for this item shall be made on a Lump Sum (LS) basis. The Contractor's unit price shall include full compensation for all excavation necessary within the road right of way including debris removal, grading, and any other required clearing and grubbing in accordance with the plans and specifications, except for any areas designated to be paid for separately or to be specifically included in the costs of other work under the Contract.
 - B. The Contractor shall remove and dispose of all bushes, trees, stumps, roots, fill material, debris, and other such protruding objects, appurtenances, fences, or any other facilities to prepare the area within the Right-of Way for construction of the proposed improvements.

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- C. The Contractor shall take the necessary precautions to protect existing landscape, fencing, above ground appurtenances, etc. which are determined to remain in place or relocated, by the CEI.
 - D. This item shall include root pruning, and the relocation of all mailboxes, signs, walls, fencing, meter boxes, trees, and other such appurtenances that conflict with the proposed improvements or is shown to be relocated.
- 3.07 REMOVAL OF EXISTING CONCRETE – PAY ITEM NO. 110-4-10
- A. Payment for this item shall be made at the Contractor’s Unit Price per square yard of material excavated. The Contractor's unit price shall include full compensation for all removing and disposing of existing concrete pavement, concrete sidewalks, slope pavement, ditch pavement and curb and gutter, where required because of construction operations, where the work is NOT included in other operations, labor, equipment, and materials required to complete the work in accordance with the plans and specifications. This unit pricing includes cost of legal disposal of all deleterious material, Trench Safety Compliance and removal of all extraneous excavated materials in accordance with the plans and specifications.
- 3.08 MAILBOX, F&I, SINGLE - PAY ITEM NO. 110-7-1
- A. Payment for this item shall be made at the Contractor’s Unit Price per each mailbox relocation, assembled, installed and accepted. The Contract Unit Price shall include compensation for labor, material, and equipment required to furnish, install and maintain the mailbox in accordance with the specifications.
- 3.09 REGULAR EXCAVATION – PAY ITEM NO. 120-1
- A. Payment for this item shall be made at the Contractor’s Unit Price per cubic yard of material excavated. The Contractor's unit price shall include full compensation for all supervision, labor, equipment, and materials required to complete the work in accordance with the plans and specifications Section 120, Earthwork and Related Operations for LAP (Off-System). This unit pricing includes, Excavation including cost of legal disposal of all deleterious material, Trench Safety Compliance and removal of all extraneous excavated materials in accordance with the plans and specifications in accordance with FDOT Specifications.
- 3.10 EMBANKMENT – PAY ITEM NO. 120-6
- A. Payment for this item shall be made at the Contractor’s Unit Price per cubic yard of embankment material. The Contractor's unit price shall include compensation for all labor, material, and equipment required to install the embankment material in accordance with the plans and specifications.

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- 3.11 TYPE B STABILIZATION – PAY ITEM NO. 160-4
- A. Payment for this item shall be made at the Contractor's Unit Price per square yard of Type B Stabilization (stabilized subgrade) installed and accepted. The Contract Unit Price shall include compensation for all labor, material, subgrade compaction and equipment required to complete the work in accordance with the plans and specifications.
 - B. Payment shall be made for Type B Stabilization for subgrade constructed or replaced by authorization of the Consultant. Any Stabilization that is damaged incidental to construction or defective shall be replaced at the Contractor's expense.
- 3.12 OPTIONAL BASE GROUP 6 – PAY ITEM NO. 285-706
- A. Payment for this item shall be made at the Contractor's Unit Price per square yard of base installed and accepted. The Contract Unit Price shall include compensation for all labor, material, compaction, equipment, and all other miscellaneous work required to complete the work in accordance with the plans and specifications.
 - B. Payment shall be made for optional base group 6 constructed or replaced by authorization of the Consultant. Any optional base group 6 that is damaged incidental to construction or defective shall be replaced at the Contractor's expense.
- 3.13 MILLING EXISTING ASPHALT PAVEMENT, 1” AVERAGE DEPTH – PAY ITEM NO. 327-70-1
- A. Payment for this item shall be made at the Contractor's Unit Price square yard of milling existing asphalt pavement, 1” removed and accepted. The Contract Unit Price shall include compensation for all labor, material, and equipment required to remove 1” asphaltic concrete in accordance with the plans and specifications.
- 3.14 SUPERPAVE ASPHALTIC CONCRETE (TRAFFIC C) (PG76-22) - PAY ITEM NO. 334-1-53
- A. Payment for this item shall be made at the Contractor's Unit Price per ton of Superpave Asphaltic Concrete installed and accepted. The Contract Unit Price shall include compensation for all labor, material, and equipment required to install the Superpave Asphaltic Concrete in accordance with the plans, specifications, and FDOT “Big Three” LAP Specifications.
 - B. Payment shall be made for Superpave Asphaltic Concrete constructed or replaced by authorization of the Consultant. Any Super Asphaltic Concrete that is damaged incidental to construction or defective shall be replaced at the Contractor's expense.

3.15 INLETS, MANHOLES - PAY ITEM NO.:

425-1-201A-1 – Inlets, Curb, Type F, C Bottom, <10’

425-1-201A-2 – Inlets, Curb, Type F, 4’ Dia., <10’

425-1-203A – Inlets, Curb, Type F, 5’ Dia., <10’

425-1-521A-1 – Inlets, DT Bot, Type C, 4’ Dia., <10’

425-1-521A-2 – Inlets, DT Bot, Type C, w/Apron, 4’ Dia., <10’

425-1-529A – Inlets, DT Bot, Type C, Modify

425-1-551A – Inlets, DT Bot, Type E, w/Apron, <10’

425-2-41 – Manholes, P-7, <10’

- A. Payment for this item shall be made at the Contractor's Unit Price per each inlet, manhole, or junction structure installed and accepted. The Contract Unit Price shall include compensation for all labor, material, hardware, caulking, cutting and connecting existing pipes, pollution retardant baffles, grout, brick, shoring, trenching, equipment or any other items required to install the inlets, manholes, or junction structure complete in place in accordance with the plans and specifications.
- B. Payment shall be made for each inlet, manhole, or junction structure installed by authorization of the Consultant. Any inlet, manhole, or junction structure that are damaged incidental to construction or defective shall be repaired at the Contractor's expense.

3.16 MANHOLE, ADJUST, UTILITIES - PAY ITEM NO. 425-5-1

- A. Payment for this item shall be made at the Contractor's Unit Price per each of manhole adjustments installed and accepted. The Contract Unit Price shall include compensation for labor, material, and equipment required to adjust manholes shown in the Plans to be adjusted or requiring adjustment for the satisfactory completion of the work.

3.17 VALVE BOXES, ADJUST – PAY ITEM NO. 425-6

- A. Payment for this item shall be made at the Contractor's Unit Price per each of valve adjustments installed and accepted. The Contract Unit Price shall include compensation for labor, material, and equipment required to adjust valves shown in the Plans to be adjusted or requiring adjustment for the satisfactory completion of the work.

- 3.18 METER BOXES, ADJUST – PAY ITEM NO. 425-6-1
- A. Payment for this item shall be made at the Contractor's Unit Price per each of meter box adjustments installed and accepted. The Contract Unit Price shall include compensation for labor, material, and equipment required to adjust meter boxes shown in the Plans to be adjusted or requiring adjustment for the satisfactory completion of the work.
- 3.19 PIPE CULVERT, OPTIONAL MATERIAL, ROUND, 18" S/CD – PAY ITEM NO. 430-175-118
- A. Payment for this item shall be made at the Contractor's Unit Price per linear foot of pipe installed and accepted. The Contract Unit Price shall include compensation for all labor, material, hardware, caulking, cutting and connecting existing pipes, grout, brick, shoring, trenching, equipment or any other items required to install the pipe complete in place in accordance with the plans and specifications.
- B. Payment shall be made for 18” pipe culvert installed by authorization of the Consultant. Any 18” pipe culvert that is damaged incidental to construction or defective shall be repaired at the Contractor's expense.
- 3.20 PIPE CULVERT, OPTIONAL MATERIAL, ROUND, 30" S/CD – PAY ITEM NO. 430-175-130
- A. Payment for this item shall be made at the Contractor's Unit Price per linear foot of pipe installed and accepted. The Contract Unit Price shall include compensation for all labor, material, hardware, caulking, cutting and connecting existing pipes, grout, brick, shoring, trenching, equipment or any other items required to install the pipe complete in place in accordance with the plans and specifications.
- B. Payment shall be made for 30” pipe culvert installed by authorization of the Consultant. Any 30” pipe culvert that is damaged incidental to construction or defective shall be repaired at the Contractor's expense.
- 3.21 PIPE FILLING AND PLUGGING – PLACE OUT OF SERVICE - PAY ITEM NO. 430-830
- A. Payment for this item shall be made at the Contractor's Unit Price per cubic yard of pipe fill and plugging installed and accepted. The Contract Unit Price shall include compensation for labor, material, and equipment required to fill and plug the pipe complete in place in accordance with the plans and specifications.

3.22 FRENCH DRAIN, 18” – PAY ITEM NO. 443-70-3

- A. Payment for this item shall be made at the Contractor's Unit Price per linear foot of 18” french drain installed and accepted. The Contract Unit Price shall include compensation for all labor, material, gravel backfill, filter fabric, slotted RCP, cutting and connecting existing pipes, grout, brick, shoring, trenching, equipment or any other items required to install the exfiltration trench complete in place in accordance with the plans and specifications.
- B. Payment shall be made for 18” french drain installed by authorization of the Consultant. Any 18” french drain that is damaged incidental to construction or defective shall be repaired at the Contractor's expense.

3.23 CONCRETE CURB – PAY ITEM NO.:

520-1-10 – Concrete Curb and Gutter, Type F

520-2-4 – Concrete Curb, Type D

520-2-10A – Concrete Curb, Header Curb

- A. Payment for this item shall be made at the Contractor's Unit Price per linear foot of concrete curb installed and accepted. The Contract Unit Price shall include compensation for all labor, material, and equipment required to install the concrete curb complete in place in accordance with the plans and specifications.
- B. Payment shall be made for Concrete Curb constructed or replaced by authorization of the Consultant. Any Concrete Curb that is damaged incidental to construction or defective shall be replaced at the Contractor's expense.

3.24 CONCRETE SIDEWALK, 4” THICK – PAY ITEM NO. 522-1

- A. Payment for this item shall be made at the Contractor's Unit Price per square yard of concrete sidewalk (4” thick) installed and accepted. The Contract Unit Price shall include compensation for all labor, material, and equipment required to install the concrete sidewalk in accordance with the plans, specifications, and FDOT “Big Three” LAP Specifications.
- B. Payment shall be made for Concrete Sidewalk (4” Thick) constructed or replaced by authorization of the Consultant. Any Concrete Sidewalk (4” Thick) that is damaged incidental to construction or defective shall be replaced at the Contractor's expense.

- 3.25 CONCRETE SIDEWALK AND DRIVEWAYS, 6" THICK – PAY ITEM NO. 522-2
- A. Payment for this item shall be made at the Contractor's Unit Price per square yard of concrete sidewalk and driveway (6" thick) installed and accepted. The Contract Unit Price shall include compensation for all labor, material, and equipment required to install the concrete sidewalk or driveway in accordance with the plans, specifications, and FDOT "Big Three" LAP Specifications.
 - B. Payment shall be made for Concrete Sidewalk and Driveway (6" Thick) constructed or replaced by authorization of the Consultant. Any Concrete Sidewalk and Driveway (6" Thick) that is damaged incidental to construction or defective shall be replaced at the Contractor's expense.
- 3.26 PAVERS, ARCHITECTURAL ROADWAY – PAY ITEM NO. 526-1-1
- A. Payment for this item shall be made at the Contractor's Unit Price per square yard of pavers installed and accepted. The Contract Unit Price shall include compensation for all labor, material, equipment or any other items required to install including bedding materials and concrete to install the pavers in accordance with the plans and specifications.
 - B. Payment shall be made for Pavers, Architectural Roadway constructed or replaced by authorization of the Consultant. Any pavers that are damaged incidental to construction or defective shall be replaced at the Contractor's expense.
- 3.27 PAVERS, ARCHITECTURAL, REMOVE EXISTING AND REINSTALL – PAY ITEM NO. 526-1-101
- A. Payment for this item shall be made at the Contractor's Unit Price per square yard of pavers removed, reinstalled and accepted. The Contract Unit Price shall include compensation for all labor, material, equipment or any other items required to remove and reinstall including bedding materials and concrete to install the pavers in accordance with the plans and specifications.
 - B. Payment shall be made for Pavers, Architectural, Remove Existing and Reinstall constructed or replaced by authorization of the Consultant. Any pavers that are damaged incidental to construction or defective shall be replaced at the Contractor's expense.
- 3.28 DETECTABLE WARNINGS – PAY ITEM NO. 527-2
- A. Payment for this item shall be made at the Contractor's Unit Price per square foot of detectable warning installed and accepted. The Contract Unit Price shall include

compensation for all labor, material, and equipment required to install the detectable warning in accordance with the plans and specifications.

- B. Payment shall be made for Detectable Warning constructed or replaced by authorization of the Consultant. Any Detectable Warning that is damaged incidental to construction or defective shall be replaced at the Contractor's expense.

3.29 PERFORMANCE TURF, SOD, ST AUGUSTINE FORATAM – PAY ITEM NO. 570-1-130

- A. A. Payment for this item shall be made on a square yard basis. The Contractor's unit price shall include full compensation for all sodding within the road right of way as indicated on the plans.
- B. The Contractor's unit price shall constitute full compensation for all labor, materials, and equipment required for excavation, grading, hauling, placing, compacting, and dressing of the surface of the swales in preparation for sodding, placement, and establishment. Any sod that is damaged incidental to construction or defective shall be replaced at the Contractor's expense.
- C. Includes 2" of independent topsoil.

3.30 PERFORMANCE TURF, SOD, BAHIA – PAY ITEM NO. 570-1-2

- A. A. Payment for this item shall be made on a square yard basis. The Contractor's unit price shall include full compensation for all sodding within the road right of way as indicated on the plans.
- B. The Contractor's unit price shall constitute full compensation for all labor, materials, and equipment required for excavation, grading, hauling, placing, compacting, and dressing of the surface of the swales in preparation for sodding, placement, and establishment. Any sod that is damaged incidental to construction or defective shall be replaced at the Contractor's expense.
- C. Includes 2" of independent topsoil.

3.31 CONDUIT, FURNISH & INSTALL, OPEN TRENCH - PAY ITEM NO. 630-2-11

- A. Payment for this item shall be made at the Contractor's Unit Price per linear foot of open trench conduit installed and accepted. The Contract Unit Price shall include compensation for all labor, material, and equipment required to install the open trench conduit in accordance with the plans and specifications.

- 3.32 CONDUIT FURNISH & INSTALL, DIRECTIONAL BORE - PAY ITEM NO. 630-2-12
- A. Payment for this item shall be made at the Contractor's Unit Price per linear foot of directional bore conduit installed and accepted. The Contract Unit Price shall include compensation for all labor, material, and equipment required to install the directional bore conduit in accordance with the plans and specifications.
- 3.33 PULL & SPLICE BOX, F&I, 24" X 36" COVER SIZE - PAY ITEM NO. 635-2-12
- A. Payment for this item shall be made at the Contractor's Unit Price per each pull box installed and accepted. The Contract Unit Price shall include compensation for all labor, material, and equipment required to install the pull box in accordance with the plans and specifications.
- 3.34 PULL & SPLICE BOX, F&I, 17" X 30" COVER SIZE - PAY ITEM NO. 635-2-14
- A. Payment for this item shall be made at the Contractor's Unit Price per each pull box installed and accepted. The Contract Unit Price shall include compensation for all labor, material, and equipment required to install the pull box in accordance with the plans and specifications.
- 3.35 FIRE HYDRANT, RELOCATE – PAY ITEM NO. 1644-800
- A. Payment for this item shall be made at the Contractor's Unit Price per fire hydrant relocated and accepted. The Contract Unit Price shall include compensation for all labor, material, and equipment required to relocate the fire hydrant in accordance with the plans and specifications.
- B. Payment shall be made for fire hydrant relocated by authorization of the Consultant. Any fire hydrant that is damaged incidental to construction or defective shall be replaced at the Contractor's expense.
- 3.36 SINGLE POST SIGN, F & I GROUND MOUNT UP TO 12 SF – PAY ITEM NO. 700-1-111
- A. Payment for this item shall be made at the Contractor's Unit Price per each sign assembly furnished and installed and accepted. The Contract Unit Price shall include compensation for all labor, material, and equipment required to install the Sign Assemblies in accordance with the plans and specifications.

- B. Payment shall be made for each Single Post Sign Assembly installed by authorization of the Consultant. Any signs that are damaged incidental to construction shall be replaced at the Contractor's expense.
- 3.37 SINGLE POST SIGN, RELOCATE – PAY ITEM NO. 700-1-500
- A. Payment for this item shall be made at the Contractor's Unit Price per each sign assembly relocated and accepted. The Contract Unit Price shall include compensation for all labor, material, and equipment required to relocate the Sign Assemblies in accordance with the plans and specifications.
- B. Payment shall be made for each Single Post Sign Assembly relocated by authorization of the Consultant. Any signs that are damaged incidental to construction shall be replaced at the Contractor's expense.
- 3.38 SINGLE POST SIGN, REMOVE – PAY ITEM NO. 700-1-600
- A. Payment for this item shall be made at the Contractor's Unit Price per each sign assembly removed. The Contractor's unit price shall include full compensation for all removing and disposing of existing sign panels, posts and ground attachments, where required because of construction operations, where the work is NOT included in other operations, labor, equipment, and materials required to complete the work in accordance with the plans and specifications. This unit pricing includes cost of legal disposal of all deleterious material and removal of all extraneous materials in accordance with the plans and specifications.
- 3.39 MULTI POST SIGN, F&I, GROUND MOUNT, 30.1-50.0 SF – PAY ITEM NO. 700-2-114
- A. Payment for this item shall be made at the Contractor's Unit Price per each sign assembly furnished and installed and accepted. The Contract Unit Price shall include compensation for all labor, material, and equipment required to install the Sign Assemblies in accordance with the plans and specifications.
- B. Payment shall be made for each Multi Post Sign Assembly installed by authorization of the Consultant. Any signs that are damaged incidental to construction shall be replaced at the Contractor's expense.
- 3.40 RAISED PAVEMENT MARKER, TYPE B (YELLOW/YELLOW) (BLUE/BLUE) – PAY ITEM NO. 706-1-3
- A. Payment for this item shall be made at the Contractor's Unit Price per each Raised Pavement Marker furnished and installed and accepted. The Contract Unit Price shall

include compensation for all labor, material, and equipment required to install the Raised Pavement Marker in accordance with the plans and specifications.

- B. Payment shall be made for each Raised Pavement Marker installed by authorization of the Consultant. Any Raised Pavement Marker that are damaged incidental to construction shall be replaced at the Contractor's expense.
- 3.41 PAINTED PAVEMENT MARKINGS, STANDARD, YELLOW ISLAND NOSE – PAY ITEM NO. 710-11-290
- A. Payment for this item shall be made at the Contractor's Unit Price per square foot of striping installed and accepted. The Contract Unit Price shall include compensation for all labor, material, and equipment required to install the striping in accordance with the plans and specifications.
 - B. Payment shall be made for each square foot of Painted Pavement Markings, Standard, Yellow Island Nose installed by authorization of the Consultant. Any striping that is damaged incidental to construction or defective shall be replaced at the Contractor's expense.
- 3.42 PAINTED PAVEMENT MARKINGS, FINAL SURFACE – PAY ITEM NO. 710-90
- A. Payment for this item shall be made on a Lump Sum Basis. The Contractor's unit price shall include full compensation for the painted pavement markings including, striping, messages, symbols, arrows or other similar pavement markings in accordance with the specifications.
- 3.43 THERMOPLASTIC, STANDARD, PAVEMENT STRIPING – PAY ITEM NO.:
- 711-11123 – Thermoplastic, Standard, White, Solid, 12” for Crosswalk and Roundabout
- 711-11125 – Thermoplastic, Standard, White, Solid, 24” for Stop Line and Crosswalk
- A. Payment for this item shall be made at the Contractor's Unit Price per linear foot of striping installed and accepted. The Contract Unit Price shall include compensation for all labor, material, and equipment required to install the striping in accordance with the plans and specifications.
 - B. Payment shall be made for each linear foot of Thermoplastic, Standard, Pavement Striping installed by authorization of the Consultant. Any striping that is damaged incidental to construction or defective shall be replaced at the Contractor's expense.

- 3.44 THERMOPLASTIC, STANDARD, VERTICAL DEFLECTION MARKINGS –
PAY ITEM NO.:
- 711-11130 – Thermoplastic, Standard, White, Vertical Deflection Marking
- 711-11140 – Thermoplastic, Standard, White, Vertical Deflection Advance Warning Marking
- A. Payment for this item shall be made at the Contractor's Unit Price per each marking installed and accepted. The Contract Unit Price shall include compensation for all labor, material, and equipment required to install the marking in accordance with the plans and specifications.
- B. Payment shall be made for each marking installed by authorization of the Consultant. Any marking that is damaged incidental to construction or defective shall be replaced at the Contractor's expense.
- 3.45 THERMOPLASTIC, STANDARD, YELLOW, SOLID, 18" FOR DIAGONAL OR CHEVRON – PAY ITEM NO. 711-11224
- A. Payment for this item shall be made at the Contractor's Unit Price per linear foot of striping installed and accepted. The Contract Unit Price shall include compensation for all labor, material, and equipment required to install the striping in accordance with the plans and specifications.
- B. Payment shall be made for each linear foot of Thermoplastic, Standard, Pavement Striping installed by authorization of the Consultant. Any striping that is damaged incidental to construction or defective shall be replaced at the Contractor's expense.
- 3.46 THERMOPLASTIC, STANDARD – OTHER SURFACES, YELLOW, SOLID 6" – PAY ITEM NO. 711-16201
- A. Payment for this item shall be made at the Contractor's Unit Price per gross mile furnished and installed and accepted. The Contract Unit Price shall include compensation for all labor, material, and equipment required to install the striping in accordance with the plans and specifications.
- B. Payment shall be made for striping installed by authorization of the Consultant. Any striping that is damaged incidental to construction shall be replaced at the Contractor's expense.
- 3.47 ALLOWANCE – UTILITY – PAY ITEM RD-1
- A. Payment for this item shall be made at the contract allowance price bid for the item. The contract allowance price shall include compensation for labor, material, and

equipment required to provide utility allowance in accordance with the plans and specifications. (City approval required)

3.48 ALLOWANCE - VIDEO RECORDINGS – PAY ITEM RD-2

- A. Payment for this item shall be made at the contract allowance price bid for the item. The contract allowance price shall include compensation for labor, material, and equipment required to provide video recordings in accordance with the plans and specifications. (City approval required)

3.49 ALLOWANCE - REMOVAL AND RE-INSTALLATION OF ALL IRRIGATION SYSTEMS COMPLETE & OPERATIONAL – PAY ITEM RD-3

- A. Payment for this item shall be made on an allowance basis. The Contractor's unit price shall include full compensation for all excavation necessary within the road right of way including debris removal, grading, and any other required clearing and grubbing in accordance with the plans and specifications, except for any areas designated to be paid for separately or to be specifically included in the costs of other work under the Contract.
- B. The Contractor shall include in their Pre-Construction Video proof of the existing & working irrigation systems, type of irrigation heads and appurtenances, along with any other special conditions relating to the existing irrigation systems. The Contractor shall create a detailed spreadsheet log all the existing irrigation system materials per each homeowner/commercial property for restoration use. The Contractor shall then temporarily cap the existing irrigation systems to allow for the normal operations of the irrigations systems during the term of the construction contract. Prior to site restorations and placement of sod, Contractor shall install a minimum of 2” of topsoil along the entire area of the proposed sod (St. Augustine Floratam for irrigated properties or Bahia for non-irrigation properties), and re-install the irrigation system (piping, heads, tested and complete) prior to any installation of the sod. (City approval required)

3.50 ALLOWANCE - LANDSCAPING – PAY ITEM RD-4

- A. Payment for this item shall be made at the contract allowance price bid for the item. The contract allowance price shall include compensation for labor, material, and equipment required to provide installation of landscaping in accordance with the plans and specifications. (City approval required)

3.51 ALLOWANCE – ROOT BARRIER – PAY ITEM RD-5

- A. Payment for this item shall be made at the contract allowance price bid for the item. The contract allowance price shall include compensation for labor, material, and

equipment required to provide installation of root barrier in accordance with the plans and specifications. (City approval required)

3.52 ALLOWANCE – AS-BUILT DRAWINGS – PAY ITEM RD-6

- A. Payment for this item shall be made at the contract allowance price bid for the item. The contract allowance price shall include compensation for labor, material, and equipment required to provide as-built drawings in accordance with the plans and specifications. (City approval required)

3.53 ALLOWANCE – INDEMNIFICATION – PAY ITEM RD-7

- A. Payment for this item shall be made at the contract allowance price bid for the item. The contract allowance price shall include compensation for labor, material, and equipment required to provide indemnification in accordance with the plans and specifications. (City approval required)

3.54 ALLOWANCE – UNFORESEEN CONDITIONS – PAY ITEM RD-8

- A. Payment for this item shall be made at the contract allowance price bid for the item. The contract allowance price shall include compensation for labor, material, and equipment required to provide unforeseen conditions in accordance with the plans and specifications. (City approval required)

3.55 ALLOWANCE – NPDES PERMIT – PAY ITEM RD-9

- A. Payment for this item shall be made at the contract allowance price bid for the item. The contract allowance price shall include compensation for labor, material, and equipment required to provide an NPDES permit in accordance with the plans and specifications. (City approval required)

3.56 SANITARY SEWER LINING - PAY ITEM NO. SS-1

- A. Payment for this item shall be made at the Contractor's Unit Price per linear foot of sanitary sewer lining installed and accepted. The Contract Unit Price shall include compensation for all labor, material, and equipment required to install the sanitary sewer lining in accordance with the plans and specifications.

3.57 ALLOWANCE – SANITARY SEWER REPAIRS – PAY ITEM SS-2

- B. Payment for this item shall be made at the contract allowance price bid for the item. The contract allowance price shall include compensation for labor, material, and

equipment required to provide sanitary sewer repairs in accordance with the plans and specifications. (City approval required)

3.58 SANITARY SEWER MANHOLE REHABILITATION – PAY ITEM NO. SS-3

- A. Payment for this item shall be made at the Contractor's Unit Price per each of sanitary sewer manhole rehabilitation installed and accepted. The Contract Unit Price shall include compensation for labor, material, and equipment required to rehabilitate sanitary sewer manholes shown in the Plans to be adjusted or requiring adjustment for the satisfactory completion of the work.

SECTION 01030

SPECIAL PROJECT PROCEDURES

PART 1 - GENERAL

1.1 OBSTRUCTIONS

- A. The attention of the Contractor is drawn to the fact that during digging at the Project site, the possibility exists of the Contractor encountering various water, sewer, petroleum, gas, telephone, electrical or other lines not shown on the Drawings. The Contractor is responsible for obtaining utility locations from the utility owners or utility locate company. The Contractor shall exercise extreme care before and during digging to locate and flag these lines so as to avoid damage to the existing lines. Should damage occur to an existing line, The Contractor shall repair the line at the no cost to the Owner.

1.2 PROVISIONS FOR THE CONTROL OF DUST

- A. Sufficient precautions shall be taken during construction to minimize the amount of dust created. Wetting down the site may be required or as directed by the Engineer to prevent dust as a result of vehicular traffic.

1.3 SALVAGE

- A. Any existing equipment or material, including but not limited to, valves, pipes, fittings, couplings, etc., which is removed or replaced as a result of construction under this project may be designated as salvage by the Engineer or Owner and if so shall be excavated, if necessary, and delivered to the Owner by a location directed by the Owner. Any equipment or material not worthy of salvaging, as directed by the Owner, shall be disposed of by the Contractor at a suitable location.

1.4 MAINTENANCE OF EXISTING WATER AND WASTEWATER FACILITIES OPERATION

- A. The Contractor shall take notice that existing water and wastewater collections and transmission lines are operated in the construction area. It is the responsibility of the Contractor to contact the Owner's utility operator and ascertain the extent of any specific service area.
- B. The Contractor shall fully cooperate at all times with the Owner in order to maintain the operation of the existing facilities with the least amount of interference and interruption possible. Continuous service, public health and safety considerations shall exceed all others and the Contractor's schedule, plans and work shall at all times be subject to alteration and revision if necessary, for above considerations.
- C. The Engineer and Owner reserve the right to require the Contractor to work 24 hours per day in all cases where, in their opinion, interference with operation of the system may result.

- D. In no case will the Contractor be permitted to interfere with the existing system until all materials, supplies, equipment, tools and incidentals necessary to complete the interfering portion of the work are on the site. All existing utilities shall be pothole located prior to construction of conflicting piping.

1.5 UTILITY CROSSINGS

- A. It is intended that wherever existing utilities such as water, chemical, electrical or other service lines must be crossed, deflection of the pipe within recommended limits and cover shall be used to satisfactorily clear the obstruction unless otherwise indicated on the Drawings. However, when in the opinion of the Owner or Engineer this procedure is not feasible, he may direct the use of fittings for a utility crossing as detailed on the Drawings. All existing utilities shall be pothole located prior to construction of conflicting piping.

1.6 CONNECTIONS TO EXISTING SYSTEMS

- A. The Contractor shall perform all work necessary to locate, excavate and prepare for connections to the terminus of the existing mains all as shown on the Drawings or where directed by the Owner. The cost of this work and for the actual connection of the existing mains shall be included in the bid price for the pipe installation and shall not result in any additional cost to the Owner.

1.7 RELOCATIONS

- A. The Contractor shall be responsible for the relocation of structures, including but not limited to light poles, signs, sign poles, fences, piping, irrigation conduits and drains that interfere with the positioning of the work as set out on the Drawings. The cost of all such relocations shall be included in the bid for the project and shall not result in any additional cost to the Owner.

1.8 WARRANTIES

- A. All equipment supplied under these Specifications shall be warranted by the Contractor and the equipment manufacturers for a period of one (1) year, unless otherwise specified. Warranty period shall commence on the date of Owner acceptance.
- B. The equipment shall be warranted to be free from defects in workmanship, design and materials. If any part of the equipment should fail during the warranty period, it shall be replaced and restored to service at no expense to the Owner. In the event of Contractor's failure to perform warranty work promptly, the Owner reserves the right to perform the work, and the Contractor shall be liable to the Owner for the cost thereof.
- C. The manufacturer's warranty period shall run concurrently with the Contractor's warranty or guarantee period. No exception to this provision shall be allowed. The Contractor shall be responsible for obtaining equipment warranties in accordance with Section 01740 from each of the respective suppliers or manufacturers for all the equipment specified under Divisions 11 through 16.

- D. In the event that the manufacturer is unwilling to provide a one-year warranty commencing at the time of Owner acceptance, the Contractor shall obtain from the manufacturer a two (2) year warranty commencing at the time of equipment delivery at the job site.
- E. All warranties and bonds shall be submitted prior to the issuance of final payment.

1.9 HURRICANE PREPAREDNESS PLAN

- A. Within thirty days of the date of Notice to Proceed, the Contractor shall submit to the Engineer and Owner a Hurricane Preparedness Plan. The plan should outline the necessary measures which the Contractor proposes to perform at no additional cost to the Owner in case of a hurricane warning. The plan shall detail these measures with specific action items defining responsible personnel.
- B. In the event of inclement weather, or whenever Engineer shall direct; Contractor will cause Subcontractors to protect carefully the Work and materials against damage or injury from the weather. If, in the opinion of the Engineer, any portion of Work or materials shall have been damaged or injured by reason of failure on the part of Contractor or any Subcontractor to so protect the Work, such Work and materials shall be removed and replaced at the expense of the Contractor.

1.10 EQUIPMENT, TESTING & INSPECTION

- A. Regardless of the number of days specified in the individual sections for the manufacturer's representative to be present on the site for inspection and testing, if the equipment fails to perform as specified then the representative shall remain on site until the malfunction is corrected and the Owner received specified days of inspection or testing.
- B. The cost for the additional days required shall not be added to the cost of the Owner, but shall be to the account of the Contractor.

1.11 ADJACENT PROPERTY OWNER NOTIFICATION

- A. The Contractor shall prepare a written notice to property owners adjacent to the project work site notifying them of the schedule of work affecting them and anticipated inconveniences they may expect. The notice shall meet the approval of the Engineer and be delivered to property owners at least 72 hours prior to construction adjacent to their property. This notice shall indicate the work to be performed, the time it will take to perform the work, and the time when the water service to the property owner will be disrupted.

1.12 RIGHTS-OF-WAY

- A. The Contractor shall not do any work that would affect any oil, gas, sewer, or water pipeline; any telephone, telegraph, or electric transmission line; any fence; or any other structure, nor shall the Contractor enter upon the rights-of-way involved until notified by the Engineer that the Owner has secured authority therefore from the proper party. After authority has been obtained, the Contractor shall give said party due notice of its intention to begin work, if required by said party, and shall remove, shore, support or otherwise protect such pipeline, transmission line, ditch, fence, or structure or replace the same. When two or more contracts are being executed at one time on the same or adjacent land in such manner that work on one contract may interfere with that on another, the Owner shall determine the sequence and order of the work. When the territory of one contract is the necessary or convenient means of access for the execution of another contract, such privilege of access or any other reasonable privilege may be granted by the Owner to the Contractor so desiring, to the extent, amount, in the manner, and at the times permitted. No such decision as to the method or time of conducting the work or the use of territory shall be made the basis of any claim for delay or damage, except as provided for temporary suspension of the work in Article 15 of the General Conditions of the Contract.

1.13 PROTECTION OF STREET OR ROADWAY MARKERS

- A. The Contractor shall not destroy, remove, or otherwise disturb any existing survey markers or other existing street or roadway markers without proper authorization. No pavement breaking or excavation shall be started until all survey or other permanent marker points that will be disturbed by the construction operations have been properly referenced for easy and accurate restoration. It shall be the Contractor's responsibility to notify the proper representatives of the Owner of the time and location that work will be done. Such notification shall be sufficiently in advance of construction so that there will be no delay due to waiting for survey points to be satisfactorily referenced for restoration. All survey markers or points disturbed by the Contractor without proper authorization by the Engineer, will be accurately restored by the Owner at the Contractor's expense after all street or roadway resurfacing has been completed.

PART 2 - PRODUCTS

NOT USED

PART 3 - EXECUTION

NOT USED

END OF SECTION 01030

SECTION 01041 PROJECT COORDINATION

PART 1 - GENERAL

1.01 REQUIREMENTS INCLUDED

- A. Consultant will coordinate the work with Contractor as required.
- B. The Contractor shall:
 - 1. Coordinate work of his [own] employees and subcontractors.
 - 2. Expedite his work to assure compliance with schedules.
 - 3.
 - 4. Comply with orders and instructions of Consultant.
 - 5. Not commence any work on the project until the Notice to Proceed is issued by the City through the Consultant.

1.02 RELATED REQUIREMENTS

- A. Section 01152: Applications for Payment.
- B. Section 01200: Project Meetings.
- C. Section 1310: Construction Schedules.
- D. Section 01340: Shop Drawings, Product Data and Samples.
- E. Section 01700: Contract Closeout.

1.03 CONSTRUCTION ORGANIZATION AND START-UP

- A. Consultant shall establish on-site lines of authority and communications:
 - 1. Schedule and conduct pre-construction meeting and progress meetings as specified in Section.
 - 2. Establish procedures for:
 - a. Submittals
 - b. Reports and records
 - c. Recommendations
 - d. Coordination of drawings
 - e. Schedules
 - f. Resolution of conflicts
 - g. Issues raised by the public
 - 3. Interpret Contract Documents:

- a. Transmit written interpretations to Contractors, and to other concerned parties.
4. Assist in obtaining permits and approvals:
 - a. Verify that contractor[s] and subcontractors have obtained inspections for Work and for temporary facilities.
5. Control the use of Site:
 - a. Allocate space for Contractor's use for field offices, sheds, and work and storage areas.
6. Inspection and Testing:
 - a. Inspect work to assure performance in accord with requirements of Contract Documents.
 - b. Administer special testing and inspections of suspect Work.
 - c. Reject Work which does not comply with requirements of Contract Documents.

1.04 CITY'S RESPONSIBILITIES

A. Communications:

- a. The City shall issue all communications to the Contractor through Consultant.
- b. In case of termination of the employment of Consultant, the City shall appoint a consultant whose status under the Agreement Documents shall be that of the former consultant.

B. Payments:

- a. The City shall furnish the data required of the City under the Agreement Documents promptly and shall make payments to Contractor promptly after there are due as provided herein.

C. Access:

- a. The City's duties in respect of providing lands and easements and providing engineering surveys to establish reference points are set forth herein.

D. Change Orders:

- a. The City may execute Change Orders as indicated herein if recommended by Consultant.
- b. Consultant's decision, however, is not binding upon the City, who may decide, in its sole discretion, to reject a Change Order submitted by the Contractor where it determines that such is in the City's best interests.

E. Work Stoppage:

- a. In connection with the City's right to stop Work or suspend Work. The City may issue at any time a Stop Work Notice to the Contractor if a health and safety issue arises or if the Contractor is in violation of such. No additional time or compensatory cost shall be approved as a result of such a stoppage.

1.05 CONTRACTOR'S DUTIES

A. Obligations:

- a. Contractor has the obligation to deliver the City the completed job in a good and workmanlike manner condition in accordance with the requirements of the Agreement Documents.
- b. Contractor shall supervise and direct the Work completely and efficiently, devoting such attention thereto and applying such skills and expertise as may be necessary to perform the work in accordance with the Agreement Documents.
- c. 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 Agreement Documents.
- d. Contractor shall bear all losses resulting on account of the weather, fire, the elements, or other acts of god or cause of every kind or nature prior to Final Acceptance.
- e. The supervision of the execution of this contract is vested wholly in Contractor.
- f. The Contractor shall issue all communications to the City through the Consultant.

B. Construction Schedules:

1. Prepare a schedule in conformance with Section 01310 Construction Schedules.

C. Process Shop Drawings, Product Data and Samples:

1. Process Shop Drawings, Product Samples in conformance with Section 01340 Shop Drawings, Project Data and Samples.

D. Prepare Coordination Drawings as required to resolve conflicts and to assure coordination of the work of, or affected by, mechanical, electrical, and plumbing trades (MEP), or by special equipment requirements.

1. Submit to Consultant.
2. Reproduce and distribute copies to concerned parties after Consultant review.

E. Maintain Reports and Records at Job Site, available to Consultant and Owner.

1. Daily log of progress of work.
2. Records
 - a. Contracts
 - b. Purchase orders

- c. Materials and equipment records
 - d. Applicable handbooks, codes and standards
 - e. Required NPDES Weekly and Rainfall Event Reports.
 - f. Health and Safety Plan
 - g. Emergency Preparedness Plan
 - h. QA/QC Plan
3. Maintain file of record documents
- F. Labor, Materials and Equipment; Hours of Work:
1. Contractor shall provide competent, suitably qualified personnel to survey and lay out the Work and perform construction as required by the Agreement Documents. Contractor shall at all times maintain good discipline and order at the site. Except in connection with safety or protection of persons or the Work or property at the site or adjacent thereto, and except as otherwise indicated in the Agreement Documents, all Work at the site shall be performed during regular working hours, and Contractor will not permit overtime work or the performance of Work on Saturday, Sunday, or any City approved legal holiday without the City's written notice to Contractor provided through the Consultant. Contractor is hereby informed, and understands that unless otherwise approved by the City, the City restricts the work to between the hours of 7:30 A.M. and 4:30 P.M. and, unless emergency conditions exist that are endangering life or property as may be determined by the City. If Contractor is authorized to operate equipment twenty-four (24) hours per day, the equipment shall be provided with residential type silencers approved by the City.
 2. Contractor shall receive no additional compensation for overtime work. However, additional compensation will be paid to Contractor for overtime work only in the event extra work is ordered by Consultant and the change order specifically authorizes the use of overtime work and then only to such extent as overtime wages are regularly being paid by Contractor for overtime work of similar nature in the same locality.
 3. All costs of inspection and testing performed by the City during overtime work by Contractor which is allowed solely for the convenience of Contractor shall be borne by Contractor. The City shall have the authority to deduct cost of all such inspection and testing from any partial payments otherwise due to the Contractor.
 4. Unless otherwise specified in the Agreement Documents, Contractor shall furnish and assume full responsibility for all materials, equipment, labor, transportation, construction equipment and machinery, tools, appliances, fuel, power, light, heat, telephone, water, sanitary facilities, temporary facilities and all other facilities and incidentals necessary for furnishing, performance, testing, start-up and final completion of the work.
 5. All materials and equipment shall be of good quality and new except as otherwise provided in the Agreement Documents. If required by Consultant, Contractor shall furnish satisfactory evidence (including reports of required

tests) as to the kind and quality of materials and equipment. All materials and equipment shall be applied, installed, connected, erected, used, cleaned and conditioned in accordance with the instructions of the applicable Supplier/Manufacturer except as otherwise provided in the Agreement Documents; but no provision of any such instructions will be effective to assign to the City, Consultant, or any of the City's or Consultant's consultant's, agents or employees, any duty or authority to supervise or direct the furnishing or performance of the Work or any duty or authority to undertake responsibility contrary to the provisions of the Agreement Documents.

G. Superintendent:

1. The superintendent will be Contractor's representative at the site and shall have all authority to act on behalf of the Contractor. All communications given to the superintendent shall be as binding as if given to Contractor.

1.06 CONTRACTOR'S CLOSE-OUT DUTIES

- A. Perform duties in conformance with Section 01700 Project Close Out.

1.07 CONSULTANT'S CLOSE-OUT DUTIES

- A. Perform duties in conformance with Section 01700 Project Close Out.

PART 2 - PRODUCTS

Not used.

PART 3 - EXECUTION

Not used.

END OF SECTION

SECTION 01045 CUTTING AND PATCHING

PART 1- GENERAL

1.01 REQUIREMENTS INCLUDED

- A. Contractor shall be responsible for all cutting, fitting and patching, either above or underground, including related excavation and backfill, required to complete the Work or to:
 - 1. Ensure all joints/patches comply with ADA vertical difference requirements.
 - 2. Make its several parts fit together properly.
 - 3. Uncover portions of the Work to provide for installation of ill-timed work.
 - 4. Remove and replace work not conforming to requirement of Contract Documents.
 - 5. Remove samples of installed work as specified for testing.
 - 6. Provide routine penetrations of non-structural surfaces for installation of piping and electrical conduit.

1.02 RELATED REQUIREMENTS

- A. Section 01010: Summary of Work.
- B. Section 01630: Substitutions and Product Options.

1.03 SUBMITTALS

- A. Submit a written request to Consultant well in advance of executing and cutting or alteration which affects:
 - 1. Work of the Owner or any separate contractor.
 - 2. Structural value or integrity of any element of the project.
 - 3. Integrity or effectiveness of weather-exposed or moisture-resistant element or systems.
 - 4. Efficiency, operational life, maintenance or safety of operational elements.
 - 5. Visual qualities of sight-exposed elements.
- B. Request shall include:
 - 1. Identification of the Project.
 - 2. Description of affected work.
 - 3. The necessity for cutting, alteration or excavation.

4. Effect on work of Owner or any separate contractor, or on structural or weatherproof integrity of Project.
 5. Description of proposed work:
 - a. Scope of cutting, patching, alteration, or excavation.
 - b. Trades who will execute the work.
 - c. Products proposed to be used.
 - d. Extent of refinishing to be done.
 6. Alternative to cutting and patching.
 7. Cost proposal, when applicable.
 8. Written permission of any separate contractor whose work will be affected.
- C. Should conditions of Work or the schedule indicate a change of products from original installation, contractor shall submit request for substitution as specified in Section 01630 - Substitutions and Product Options.
- D. Submit written notice to Consultant designating the date and the time the Work will be uncovered.

PART 2 - PRODUCTS

2.01 MATERIALS

- A. Comply with specifications and standards for each specific product involved.

PART 3 - EXECUTION

3.01 INSPECTION

- A. Inspect existing conditions of Project, including elements subject to damage or to movement during cutting and patching.
- B. After uncovering work, inspect conditions affecting installation of Products, or performance of work.
- C. Report unsatisfactory or questionable conditions to Consultant in writing; do not proceed with work until Consultant has provided further instructions.

3.02 PREPARATION

- A. Provide adequate temporary support as necessary to assure structural value or integrity of affected portion of work.
- B. Provide devices and methods to protect other portions of Project from damage.

- C. Provide protection from elements for that portion of the Project which may be exposed by cutting and patching work, and maintain excavations free from water.

3.03 PERFORMANCE

- A. Execute cutting and demolition by methods which will prevent damage to other work and will provide proper surfaces to receive installation of repairs.
- B. Execute excavating and backfilling by methods which will prevent settlement or damage to other work.
- C. Employ original Installer or Fabricator to perform cutting and patching for:
 - 1. Weather-exposed or moisture-resistant elements.
 - 2. Sight-exposed finished surfaces.
- D. Execute fittings and adjustment of products to provide a finished installation to comply with specified products, functions, tolerances and finishes.
- E. Restore work which has been cut or removed; install new products to provide completed work in accord with requirements of Contract documents.
- F. Fit work airtight to pipes, sleeves, ducts, conduit or other penetrations through surfaces.
- G. Refinish entire surfaces as necessary to provide an even finish to match adjacent finishes;
 - 1. For continuous surfaces, refinish to nearest intersection.
 - 2. For an assembly, refinish entire unit.

END OF SECTION

01045-3

CUTTING AND PATCHING

SECTION 01050 FIELD SURVEYING

PART 1 - GENERAL

1.01 REQUIREMENTS INCLUDED

- A. Contractor to provide and pay for surveying services required for Project.
- B. Contractor will identify existing control points indicated on the Drawings, as required.

1.02 RELATED REQUIREMENTS

- A. Section 01010: Summary of Work.
- B. Section 01025: Measurement and Payment
- C. Section 01700: Contract Closeout.

1.03 QUALIFICATIONS OF SURVEYOR

- A. Licensed land surveyor, registered in the State of Florida.

1.04 SURVEY REFERENCE POINTS

- A. Existing basic horizontal and vertical control points for the Project are those designated on Drawings.
- B. Locate and protect control points prior to starting site work and preserve all permanent reference points during construction.
 - 1. Make no changes or relocations without prior written notice to Engineer.
 - 2. Report to Engineer when any reference point is lost or destroyed or requires relocation because of necessary changes in grades or locations.
 - 3. Require surveyor to replace project control points which may be lost or destroyed.
 - a. Establish replacements based on original survey control.

1.05 PROJECT SURVEY REQUIREMENTS

- A. Establish lines and levels, locate and lay out, by instrumentation and similar appropriate means:

1. Site improvements
 - a. Stakes for grading, fill and topsoil placement.
 - b. Utility slopes and invert elevations.
 2. Batter boards for structures.
 3. Building foundation, column locations and floor levels.
 4. Controlling lines and levels required for mechanical and electrical trades.
- B. From time to time, verify layouts by same methods.
- C. Locate and mark all known underground utilities prior to entrance of any equipment on the site. All such utilities shall be protected from heavy traffic. Establish and maintain barricades around all manholes, drains, and similar underground items. Immediately notify the owner of any conflict between operations and any in ground item to remain.

1.06 RECORDS

- A. Maintain a complete, accurate log of all control and survey work as it progresses.

1.07 SUBMITTALS

- A. Submit name and address of registered surveyor.
- B. On request of Consultant, submit documentation to verify accuracy of surveying work.
- C. Submit certificate signed and sealed by surveyor certifying that elevations and locations of improvements are in conformance, or non-conformance, with Contract Documents.

PART 2 - PRODUCTS

Not used.

PART 3 - EXECUTION

Not used.

END OF SECTION

01050-2

FIELD SURVEYING

SECTION 01090 REFERENCE STANDARDS

PART 1 - GENERAL

1.01 REQUIREMENTS INCLUDED

Abbreviation and acronyms used in Contract Documents to identify reference standards.

1.02 QUALITY ASSURANCE

- A. Application: When a standard is specified by reference, comply with requirements and recommendations stated in that standard, except when requirements are modified by the Contract Documents, or applicable codes establish stricter standards.
- B. Publication Date: The publication in effect on the date of issue of Contract Documents, except when a specific publication date is specified.

1.03 ABBREVIATIONS, NAMES, AND ADDRESSES OR ORGANIZATIONS

- A. Obtain copies of referenced standards direct from publication source, when needed for proper performance of Work, or when required for submittal by Contract Documents.

AA	Aluminum Association 818 Connecticut Avenue, N.W. Washington, DC 20006
AABC	Associated Air Balance Council 1000 Vermont Avenue, N.W. Washington, DC 20005
AASHTO	American Association of State Highway & Transportation Officials 444 North Capitol Street, N.W. Washington, DC 20001
ACI	American Concrete Institute Box 19150 Redford Station Detroit, MI 48219
ADC	Air Diffusion Council 435 North Michigan Avenue

01090-1

REFERENCE STANDARDS

Chicago, IL 60611

AI	Asphalt Institute Asphalt Institute Building College Park, MD 20740
AISC	American Institute of Steel Construction 1221 Avenue of the Americas New York, NY 10020
AISI	American Iron and Steel Institute 1000 16th Street, N.W. Washington, DC 20036
AMCA	Air Movement and Control Association 30 West University Drive Arlington Heights, IL 60004
ANSI	American National Standards Institute 1430 Broadway New York, NY 10018
ARI	Air-Conditioning and Refrigeration Institute 1815 North Fort Myer Drive Arlington, VA 22209
ASHRAE	American Society of Heating, Refrigerating & Conditioning Engineers 345 East 47th Street New York, NY 10017
ASME	American Society of Mechanical Engineers 345 East 47th Street New York, NY 10017
ASPA	American Sod Producers Association Association Building Ninth and Minnesota Hastings, NE 68901
ASTM	American Society of Testing & Materials 1916 Race Street Philadelphia, PA 19103
AWWA	American Water Works Association 6666 W. Quincy Avenue

01090-2

AWI	Denver, CO 80235 Architectural Woodwork Institute 2310 South Walter Reed Drive Arlington, VA 22206
AWPA	American Wood-Preserver's Association 7735 Old Georgetown Road Bethesda, MD 20014
AWS	American Welding Society 2501 NW 7th Street Miami, FL 33125
CDA	Cooper Development Association 57th Floor, Chrysler Building 405 Lexington Avenue New York, NY 10017
CLFMI	Chain Link Fence Manufacturers Institute 1101 Connecticut Avenue Washington, DC 20036
CRSI	Concrete Reinforcing Steel Institute 180 North LaSalle Street, Suite 2110 Chicago, IL 60601
EPA	Environmental Protection Agency 1200 Pennsylvania Avenue, N.W. Washington, DC 20460
FEMA	Federal Emergency Management Agency 3003 Chamblee Tucker Road Atlanta, GA 30341
FMS	Factory Mutual System 1151 Boston Providence Turnpike Norwood, MA 02062
FS	Federal Specification General Services Administration Specifications and Consumer Information Distribution Section (WFSIS) Washington Navy Yard, Bldg. 197 Washington, DC 20407
GA	Gypsum Association

01090-3

1603 Orrington Avenue
Evanston, IL 60201

ICPI	Interlocking Concrete Pavement Institute 14801 Murdock Street Suite 230 Chantilly, VA 20151
MIL	Military Specification Naval Publications and Forms Center 5801 Tabor Avenue Philadelphia, PA 19120
MLSFA	Metal Lath/Steel Framing Association 221 North LaSalle Street Chicago, IL 60601
NAAMM	National Association of Architectural Metal Manufacturers 221 North LaSalle Street Chicago, IL 60601
NEBB	National Environmental Balancing Bureau 8224 Old Courthouse Road Vienna, VA 22180
NEMA	National Electrical Manufacturer's Association 2101 L Street, N.W. Washington, DC 20037
NFPA	National Fire Protection Association 470 Atlantic Avenue Boston, MA 02210
NFPA	National Forest Products Association 1619 Massachusetts Avenue, N.W. Washington, DC 20036
NTMA	National Terrazzo and Mosaic Association 3166 Des Plains Avenue Des Plains, Il 60018
OSHA	Occupational Safety and Health Administration 200 Constitution Ave., NW, Washington, DC 20210
PCA	Portland Cement Association 5420 Old Orchard Road

01090-4

REFERENCE STANDARDS

	Skokie, IL 20076
PCI	Prestressed Concrete Institute 20 North Wacker Drive Chicago, IL 60606
PS	Product Standard U.S. Department of Commerce Washington, DC 20203
RCSHSB	Red Cedar Shingle & Handsplit Shake Bureau 515 116th Avenue Bellevue, WA 98004
SDI	Steel Deck Institute Box 3812 St. Louis, MO 63122
SDI	Steel Door Institute 712 Lakewood Center North Cleveland, OH 44107
SIGMA	Sealed Insulating Glass Manufacturers Association 111 East Wacker Drive Chicago, IL 60601
SJI	Steel Joist Institute 1703 Parham Road, Suite 204 Richmond, VA 23229
SMACNA	Sheet Metal and Air Conditioning Contractors' National Association 8224 Old Court House Road Vienna, VA 22180
TAS	Technical Aid Series Construction Specifications Institute 1150 Seventeenth Street, N.W. Washington, DC 20036
TCA	Tile Council of America, Inc. Box 326 Princeton, NJ 08540
UL	Underwriter's Laboratories, Inc.

01090-5

333 Pfingston Road
Northbrook, IL 60062

PART 2 - PRODUCTS

Not used.

PART 3 - EXECUTION

Not used.

END OF SECTION

01090-6

REFERENCE STANDARDS

SECTION 01152 APPLICATION FOR PAYMENT

PART 1 - GENERAL

1.01 REQUIREMENTS INCLUDED

- A. Submit Applications for Payment to Consultant in a format acceptable to the City and with the Pay Application Spreadsheet in accordance with the schedule established by Conditions of the Contract and herein.

1.02 RELATED REQUIREMENTS

- A. Agreement Between Owner and Contractor: Lump Sum and Unit Price.
- B. Conditions of the Contract: Progress Payments, Retainage and Final Payment.
- C. Section 01020: Allowances.
- D. Section 01153: Change Order Procedures.
- E. Section 01200: Project Meetings
- F. Section 01370: Schedule of Values.
- G. Section 01700: Contract Closeout.

1.03 FORMAT AND DATA REQUIRED

- A. Submit applications in accordance with the example provided by the Consultant with itemized data typed on the 8-1/2 inch x 11 inch Pay Application Spreadsheet.
- B. Provide all the information required on the Pay Application Spreadsheet:

1.04 PREPARATION OF APPLICATION FOR EACH PROGRESS PAYMENT

- A. Field Review:
 - 1. Prior to preparation of the Application Form, the Contractor and Consultant shall meet in the field and verify the quantities of items to be included in the Pay Application. This shall take place at least one week prior to the submission of the Pay Application.
- B. Application Form:

1. Fill in required information, including that for Change Orders executed prior to date of submittal of application.
2. Fill in Project Name, City Project Number, City Purchase Order Number.
3. Fill in summary of dollar values to agree with respective totals indicated on Pay Application Spreadsheet.
4. Execute certification with signature of a responsible officer of Contract firm.

C. Pay Application Spreadsheet:

1. Fill in total list of all scheduled component items of Work, with item number and scheduled dollar value for each item.
2. Fill in dollar value in each column for each scheduled line item when work has been performed or products stored.
 - a. Round off values to nearest dollar, or as specified for Schedule of Values.
3. List each Change Order executed prior to date of submission at the end of the Pay Application Spreadsheet.
 - a. List by Change Order Number, and description, as for an original component item of work.

D. Other Required Documentation

1. Prior to the acceptance of the Pay Application, submit all required documentation including but not limited to:
 - a. Updated Construction Schedule detailing Critical Path
 - b. NPDES GSP Weekly and Rainfall Event Reports as required by the SWPPP
 - c. Color Photographs
 - d. Updated RFI Log
 - e. Updated Shop Drawing Submittal Log
 - f. Updated Change Order Log
 - g. Updated Progress Drawings
 - h. Release of Liens
 - i. Notice to Owners
 - j. Slippage/Recovery Plan

1.05 SUBSTANTIATING DATA FOR PROGRESS PAYMENTS

- A. When the Owner or the Consultant requires substantiating data, Contractor shall submit suitable information, with a cover letter identifying:
1. Project Name and Location (Limits)
 2. City Project Number
 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 copy of data and cover letter for each copy of application.

1.06 PREPARATION OF APPLICATION FOR FINAL PAYMENT

A. Fill in Application form as specified for progress payments.

B. Use Pay Application Spreadsheet for presenting the final statement of accounting as specified in Section 01700 - Contract Closeout.

1.07 SUBMITTAL PROCEDURE

A. At least ten days before the submission of the first Application for Payment a conference attended by Contractor, City, Consultant and others as appropriate will be held to finalize the schedules submitted in accordance with the Agreement Documents.

B. Submit Applications for Payment to Consultant at the times stipulated.

C. Submit two (2) original Application forms and required documentation and 1 (one) electronic copy of same.

D. After the Consultant finds the Payment Application to be properly completed and correct, they will transmit the certification for payment to Owner, with a copy to the Contractor.

E. The Owner has twenty days from receipt to approve the Payment Application or provide written notice to the Contractor of why the Payment Application is not approved. The rejection must be written and must specify where the deficiency in the Payment Application is and the action necessary to make the Payment Application proper. If a Payment Application is rejected and the Contractor resubmits a corrected Payment Application which corrects the deficiency specified in writing by the City, the corrected Payment Application must be approved or rejected on the later of:

1. Ten business days after the corrected payment or invoice is stamped as received
2. The first business day after the next regularly scheduled meeting of the governing body held after the corrected Payment Application is stamped as received.

F. The Contractor may send the City an overdue notice. If the Payment Application is not rejected within 4 business days after delivery of the overdue notice, the Payment Application shall be deemed accepted, except for any portion of the Payment

Application that is fraudulent or misleading. If a dispute between the City and the Contractor cannot be resolved, the dispute must be resolved in accordance with the provisions of the Florida Prompt Payment Act, Florida Statute 218.70.

PART 2 - PRODUCTS

Not used.

PART 3 - EXECUTION

Not used.

END OF SECTION

01152-4

SECTION 01153 CHANGE ORDER PROCEDURES

PART 1 - GENERAL

1.01 REQUIREMENTS INCLUDED

- A. Properly document change order proceedings.
 - 1. Provide full written data required to evaluate changes.
 - 2. Maintain detailed records of work done on time and materia basis.
 - 3. Provide full documentation to Consultant on request.
- B. Designate in writing the member of Contractor's organization:
 - 1. Who is authorized to accept changes in the Work.
 - 2. Who is responsible for informing others in the Contractor's employ of the authorization of changes in the Work.
- C. Owner will designate in writing the person who is authorized to execute Change Orders.

1.02 RELATED REQUIREMENTS

- A. Agreement: The amounts of established unit prices.
 - B. General conditions and Supplementary Conditions.
 - C. Conditions of the Contract:
 - 1. Methods of determining cost or credit to Owner resulting from changes in Work made on a time and material basis.
 - 2. Contractor's claims for the additional cost.
 - D. Section 01020: Allowances.
 - E. Section 01152: Application for Payment.
 - F. Section 01310: Construction Schedules.
 - G. Section 01370: Schedule of Values.
 - H. Section 01630: Substitutions and Product Options.
- Section 01700: Contract Closeout.

1.03 DEFINITIONS

- A. Change Order: A document which is signed by the Contractor and the City which authorizes an addition, deletion, or revision in the work, or an adjustment in the contract Price or Contract Time, issued on or after the execution of the Agreement. Change Orders must be in writing and verbal agreements of any matter are expressly excluded from any definition.
- B. Work Change Directive: A written order to the Contractor, signed by Owner and Consultant, which directs a change which may affect the Contract Sum or the Contract Time. If the Contract Time or Sum is affected, the contractor is required to prepare a proposed Change Order. Note, the Work Change Directive cannot alter the Contract Sum or Time, only an executed Change Order can do that.
- C. Field Order: A written order, instructions, or interpretations, signed by Consultant making minor changes in the Work not involving a change in Contract Sum or Contract Time.

1.04 PRELIMINARY PROCEDURES

- A. Owner or Architect may initiate changes by submitting a Proposal Request to Contractor. Request will include:
 - 1. Detailed description of the Change, products, and location of the change in the Project.
 - 2. Supplementary or revised Drawings and Specifications.
 - 3. The projected time span for making the change, and a specific statement as to whether overtime work is, or is not, authorized.
 - 4. A specific period of time during which the requested price will be considered valid.
 - 5. Such request is for information only, and is not an instruction to execute the changes, nor to stop Work in progress.
- B. Contractor may initiate changes by submitting a written notice to Architect, containing:
 - 1. Description of the proposed changes.
 - 2. Statement of the reason for making the changes.
 - 3. Statement of the effect on the Contract Sum and the Contract Time.
 - 4. Statement of the effect on the work of separate contractors.
 - 5. Documentation supporting any change in Contract Sum or Contract Time, as appropriate.

1.05 CONSTRUCTION-CHANGE AUTHORIZATION

- A. In lieu of Proposal Request, Consultant may issue a construction change authorization for Contractor to proceed with a change for subsequent inclusion in a Change Order.
- B. Authorization will describe changes in the Work, both additions and deletions, with attachments of revised Contract Documents to define details of the change, and will designate the method of determining any change in the Contract Sum and any change in Contract Time.
- C. Owner and Consultant will sign and date the Construction Change Authorization as authorization for the Contractor to proceed with the changes.
- D. Contractor shall sign and date the Construction Change Authorization to indicate agreement with the terms therein.

1.06 DOCUMENTATION OF PROPOSALS AND CLAIMS

- A. Support each quotation for a lump-sum proposal, and for each unit price which has not previously been established, with sufficient substantiating data to allow Consultant to evaluate the quotation.
- B. On request provide additional data to support time and cost computations:
 - 1. Labor required.
 - 2. Equipment required.
 - 3. Products required.
 - a. Recommended sources of purchase and unit cost.
 - b. Quantities required.
 - 4. Taxes, insurance and bonds.
 - 5. Credit for work deleted from Contract, similarly documented.
 - 6. Overhead and profit.
 - 7. Justification for any change in Contract Time.
- C. Support each claim for additional costs, and for work done on a time-and-material basis, with documentation as required for a lump-sum proposal, plus additional information:
 - 1. Name of Owner's authorized agent who ordered the work, and date of the order.
 - 2. Dates and times work was performed, and by whom.
 - 3. Time record, summary of hours worked, and hourly rates paid.
 - 4. Receipts and invoices for:
 - a. Equipment used, listing dates and times of use.
 - b. Products used, listing of quantities.
 - c. Subcontractors.

- D. Document requests for substitutions for Products as specified in Section 01630.

1.07 PREPARATION OF CHANGE ORDERS

- A. Consultant will prepare each Change Order.
- B. Owner's Form, per example provided by the Consultant.
- C. Change Order will describe changes in the Work, both additions and deletions, with attachments of revised Contract Documents to define details of the change.
- D. Change Order will provide an accounting of the adjustment in the Contract Sum and in the Contract Time.

1.08 LUMP-SUM/FIXED PRICE CHANGE ORDER

- A. Content of Change Orders will be based on, either;
 - 1. Consultant's Proposal Request and Contractor's responsive Proposal as mutually agreed between Owner and Contractor.
 - 2. Contractor's Proposal for a change, as recommended by Consultant.
- B. Owner and Consultant will sign and date the Change Order as authorization for the Contractor to proceed with the changes.
- C. Contractor shall sign and date the Change Order to indicate agreement with the terms therein.

1.09 UNIT PRICE CHANGE ORDER

- A. Content of Change Orders will be based on, either:
 - 1. Consultant's definition of the scope of the required changes.
 - 2. Contractor's Proposal for a change, as recommended by Consultant.
 - 3. Survey of completed work.
- B. The amounts of the unit prices to be:
 - 1. Those stated in the Agreement.
 - 2. Those mutually agreed upon between Owner and Contractor.
- C. When quantities of each of the items affected by the Change Order can be determined prior to start of the work:

1. Owner and Consultant will sign and date the Change Order as authorization for Contractor to proceed with the changes.
 2. Contractor shall sign and date the Change Order to indicate agreement with the terms herein.
- D. When quantities of the items cannot be determined prior to start of the work:
1. Consultant or Owner will issue a construction change authorization directing Contractor to proceed with the change on the basis of unit prices, and will cite the applicable unit prices.
 2. At completion of the change, Consultant will determine the cost of such work based on the unit process and quantities used.
 - a. Contractor shall submit documentation to establish the number of units of each item and any claims for a change in Contract Time.
 3. Consultant will sign and date the Change Order to establish the change in Contract Sum and in Contract Time.
 4. Owner and Contractor will sign and date the Change Order to indicate their agreement with the terms therein.

1.10 TIME AND MATERIAL CHANGE ORDER/ CONSTRUCTION CHANGE AUTHORIZATION

- A. Consultant and Owner will issue a Construction Change Authorization directing Contractor to proceed with the changes.
- B. At completion of the change, Contractor shall submit itemized accounting and supporting data as provided in the Article "Documentation of Proposals and Claims" of this Section.
- C. Consultant will determine the allowable cost for such work, as provided in General Conditions and Supplementary Conditions.
- D. Consultant will sign and date the Change Order to establish the change in Contract Sum and in Contract Time.
- E. Owner and Contractor will sign and date the Change Order to indicate their agreement therewith.

1.11 CORRELATION WITH CONTRACTOR'S SUBMITTALS

- A. Periodically revise Schedule of Values and Request for Payment forms to record each change as a separate item of Work, and to record the adjusted Contract sum.
- B. Periodically revise the Construction Schedule to reflect each change in Contract Time.

1. Revise subschedules to show changes for other items of work affected by the changes.
- C. Upon completion of work under a Change Order, enter pertinent changes in Record Documents.

PART 2 - PRODUCTS

Not used.

PART 3 - EXECUTION

Not used.

END OF SECTION

SECTION 01200 PROJECT MEETINGS

PART 1 - GENERAL

1.01 REQUIREMENTS INCLUDED

- A. Consultant shall schedule and administer the preconstruction meeting, periodic progress meetings, and specially called meetings throughout progress of the Work. The Consultant shall:
1. Prepare the agenda for the meetings.
 2. Distribute written notice of each meeting at least four days in advance of meeting date.
 3. Make physical arrangements for the meetings.
 4. Preside at meetings.
 5. Make an electronic recording of each meeting, produce minutes including significant proceedings and decisions.
 6. Reproduce and distribute copies of minutes within seven days after each meeting:
 - a. To participants in the meeting.
 - b. To parties affected by decisions made at the meeting.
- B. Representatives of contractors, subcontractors and suppliers attending meetings shall be qualified and authorized to act on behalf of the entity that each represents.

1.02 RELATED REQUIREMENTS

- A. Section 01152: Applications for Payment
- B. Section 01340: Shop Drawings, Product Data and Samples.
- C. Section 01370: Schedule of Values
- D. Section 01410: Testing Laboratory Services
- E. Section 01570: Traffic Control
- F. Section 01700: Contract Closeout.
- G. Section 01730: Operating and Maintenance Data.

1.03 PRE-CONSTRUCTION MEETING

- A. Scheduled by Consultant after effective date of the contract agreement prior to the Notice To Proceed Date.
- B. Location: A site designated by the Owner.
- C. Attendance:
 - 1. Owner.
 - 2. Consultant.
 - 3. Engineer of Record (EOR) and their professional consultants.
 - 4. Resident Project Representative (RPR).
 - 5. Contractor.
 - 6. Contractor's Project Manager.
 - 7. Contractor's Superintendent.
 - 8. Major Subcontractors.
 - 9. Others as Appropriate and approved by the Owner.
- D. Suggested Agenda:
 - 1. Distribution and discussion of:
 - a. List of subcontractors and suppliers.
 - b. Initial construction schedule indicating start and completion dates of various stages of the Work.
 - 2. Critical work sequencing.
 - 3. Major equipment deliveries and priorities.
 - 4. Preliminary contract schedule of values for all of the Work which will include quantities and prices of items aggregating the Contract Price and will subdivide the Work into component parts in sufficient detail to serve as the basis for progress payments during construction. Such prices to include an appropriate amount of overhead and profit applicable to each item of Work which will be confirmed in writing by Contractor at the time of submission.
 - 5. Project Coordination.
 - a. Designation of responsible personnel.
 - 6. Procedures and processing of:
 - a. Field decisions.
 - b. Contractor Proposed requests.
 - c. Compliance submittals.
 - d. Change Orders.
 - e. Processing Applications for Payment.
 - 7. Adequacy for distribution of Contract Documents.
 - 8. Preliminary Shop Drawing submission and shop drawings necessary to begin work, if any.
 - 9. Procedures for maintaining Record Documents.
 - 10. Use of premises.
 - a. Office, work and storage areas.
 - b. Owner's requirements.

11. Construction facilities, controls and construction aids.
12. Temporary utilities.
13. Safety and first-aid procedures.
14. Security procedures.
15. Housekeeping procedures.
16. Preconstruction video tapes if required by the technical specifications.
17. Miscellaneous.

Nothing herein shall relieve Contractor from the responsibility of contacting local utilities and any other necessary agencies

1.04 PROGRESS MEETINGS

- A. Consultant shall schedule regular periodic meetings, as required.
- C. Location of the meetings: Project field office of the Contractor or other site directed by the Consultant.
- D. Attendance:
 1. Contractor, and their superintendent.
 2. Owner
 3. Consultant, and their professional consultants as needed.
 4. Resident Project Representative.
 5. Subcontractors as appropriate to the agenda.
 6. Suppliers as appropriate to the agenda.
 7. Others as needed.
- E. Suggested Agenda:
 1. Review, approval of minutes of previous meeting.
 2. Review of Work progress since previous meeting.
 3. Field observations, problems, conflicts.
 4. Problems which impede Construction Schedule.
 5. Review of off-site fabrication, delivery schedules.
 6. Corrective measures and procedures to regain projected schedule.
 7. Revisions to Construction Schedule.
 8. Discussion of schedule during succeeding work period.
 9. Coordination of schedules.
 10. Review of submittal schedules; expedite as required.
 11. Maintenance of quality standards.
 12. Pending changes and substitutions.
 13. Review proposed changes for:
 - a. Effect on Construction Schedule and on completion date.
 - b. Effect on other contracts relating to the project.
 14. Review of progress drawings.

15. Other business.

PART 2 - PRODUCTS

Not used.

PART 3 - EXECUTION

Not used.

END OF SECTION

01200-4

SECTION 01310 CONSTRUCTION SCHEDULES

PART 1 - GENERAL

1.01 REQUIREMENTS INCLUDED

- A. Promptly after award of the Contract, prepare and submit to Consultant estimated construction progress schedules for the Work, with sub-schedules of related activities which are essential to its progress.
- B. Submit revised progress schedules with each Payment Application to maintain proposed schedule within 30 days of work in place.

1.02 RELATED REQUIREMENTS

- A. Section 01010: Summary of Work.
- B. Section 01020: Allowances.
- C. Section 01041: Project Coordination.
- D. Section 01152: Applications for Payment.
- E. Section 01200: Project Meetings.
- F. Section 01340: Shop Drawings.

1.03 FORM OF SCHEDULES

- A. Prepare schedules in the form of:
 - 1. Horizontal Bar Chart (Gantt Chart).
 - 2. Other Method Accepted by Owner.
- B. Format of Listings: The chronological order of the start of each item of work.
- C. The schedule must show the relation of all aspects of the work so as to show the critical path of the work.

1.04 CONTENT OF SCHEDULES

- A. Construction Progress Schedule Including Critical Path:
 - 1. Show the complete sequence of construction by activity.

2. Show the dates for the beginning, and completion of each milestone of construction. At a minimum, specifically list:
 - a. Notice to Proceed Date
 - b. Mobilization Dates
 - c. Submittals for Shop Drawings, Project Data and Samples
 - d. Water Construction
 - e. Sewer Construction
 - f. Reclaim Construction
 - g. Drainage Construction
 - h. Paving Operations
 - i. Building Construction
 - j. Equipment Start-up
 - k. Delivery of O & M Manuals
 - l. Substantial Completion
 - m. Final Completion

1.05 PROGRESS REVISIONS

- A. Indicate progress of each activity to date of submission.
- B. Show changes occurring since previous submission of schedule:
 1. Major changes in scope.
 2. Activities modified since previous submission.
 3. Revised projections of progress and completion.
 4. Other identifiable changes.
- C. Provide a narrative report as needed to define:
 1. Problem areas, anticipated delays, and the impact on the schedule.
 2. Corrective action recommended, and its effect.
 3. The effect of changes on schedules of subcontractors.

1.06 SUBMISSIONS

- A. Submit initial schedules at the Pre-Construction Meeting. Consultant will review schedules and return reviewed copy within 10 days after receipt.
 1. The finalized progress schedule will provide an orderly progression of the Work to completion within the Contract Time, but will neither impose on the City any responsibility for the progress or scheduling of the Work nor relieve the Contractor from full responsibility thereof.
 2. If required, resubmit within seven days after return of review copy.

- B. With each application for payment, submit an updated progress schedule.
- C. At each progress meeting, submit an updated progress schedule.

1.07 DISTRIBUTION

- A. Distribute copies of the approved schedules to the City, Consultant, Contractor and other concerned parties.
- B. Instruct recipients to report promptly to the Contractor, in writing, any problems anticipated by the projections shown in the schedules.

PART 2 - PRODUCTS

Not used.

PART 3 - EXECUTION

Not used.

END OF SECTION

SECTION 01322 PHOTOGRAPHIC DOCUMENTATION

PART 1 - GENERAL

1.1 SUMMARY

- A. Section Includes:
 - 1. Preconstruction video recordings.

1.2 INFORMATIONAL SUBMITTALS

- A. Key Plan: Submit key plan of Project site and building with notation of vantage points marked for location and direction of video recording.
- B. Video Recordings: Submit video recordings within seven days of recording.
 - 1. Submit video recordings on removable media (USB drive preferred). Include copy of key plan indicating each video's location and direction.
 - 2. Identification: With each submittal, provide the following information in file metadata tag:
 - a. Name of Project.
 - b. Name and contact information for photographer.
 - c. Name of Architect.
 - d. Name of Contractor.
 - e. Date video recording was recorded.
 - f. Description of vantage point, indicating location, direction (by compass point), and elevation.

1.3 QUALITY ASSURANCE

- A. Photographer Qualifications: An individual who has been regularly engaged as a professional video photographer of construction projects for not less than three years.

1.4 FORMATS AND MEDIA

- A. Digital Video Recordings: Provide high-resolution, digital video in MPEG format, produced by a digital camera with minimum sensor resolution of 12 megapixels and capable of recording in full high-definition mode with vibration-reduction technology. Provide supplemental lighting in low light levels or backlit conditions.

1.5 CONSTRUCTION VIDEO RECORDINGS

- A. Video Recording Photographer: Engage a qualified videographer to record construction video recordings.
- B. Preconstruction Video Recording: Before starting the Work, record video recording of Project limits as directed by Architect.

1.6 USAGE RIGHTS

- A. Transfer copyright usage rights from photographer to Owner for unlimited reproduction of photographic documentation.

PART 2 - PRODUCTS

(Not Used) PART 3 -

EXECUTION (Not Used)

END OF SECTION 01322

SECTION 01340
SHOP DRAWINGS, PRODUCT DATA AND SAMPLES

PART 1 - GENERAL

1.01 REQUIREMENTS INCLUDED

Submit all Shop Drawings, Product Data and Samples required to complete the construction required by the Contract Documents. Approval of Shop Drawings, Product Data and Samples shall not extend the final completion date.

1.02 RELATED REQUIREMENTS

- A. Section 01010: Summary of Work.
- B. Section 01041: Project Coordination
- C. Section 01090: Reference Standards.
- D. Section 01152: Application for Payment.
- E. Section 01200: Project Meetings.
- F. Section 01310: Construction Schedules
- G. Section 01600: Material and Equipment.
- H. Section 01630: Substitutions and pro
- I. Section 01700: Contract Closeout.

1.03 SHOP DRAWINGS

- A. Drawings shall be presented in a clear and thorough manner.
 - 1. Details shall be identified by reference of sheet and detail or schedule.
- B. Minimum sheet size: 8½ X 11 inches.

1.04 PRODUCT DATA

- A. Preparation
 - 1. Clearly mark each copy to identify pertinent products or models.
 - 2. Show performance characteristics and capacities.
 - 3. Show dimensions and clearances required.
 - 4. Show wiring or piping diagrams and controls.
- B. Manufacturer's standard schematic drawings and diagrams:
 - 1. Modify drawings and diagrams by deleting information which is not applicable to the work.

2. Supplement standard information to provide information specifically applicable to the work.

1.05 CONTRACTOR RESPONSIBILITIES

- A. Prepare and review Shop Drawings, Product Data and Samples prior to submission.
- B. Determine and verify:
 1. Field measurements.
 2. Field construction criteria.
 3. Catalog numbers and similar data.
 4. Conformance with specifications.
- C. Coordinate each submittal with requirements of the Work and of the Contract Documents.
- D. Notify the Consultant in writing, at time of submission, of any deviations in the submittals from requirements of the contract Documents.
- E. Begin no fabrication or work which requires approved submittals until return of submittals by Consultant

1.06 SUBMISSION REQUIREMENTS

- A. The Contractor shall prepare a schedule of Shop Drawing submissions providing a workable arrangement for processing submissions.
- B. Make submittals in such sequence as to cause no delay in the work.
- B. Number of submittals required:
 1. Shop Drawings and Product Data: Submit either one (1) electronic copy OR six (6) paper copies.
 2. Samples: Submit the quantity stated in each specification section.
- C. Submittals shall contain:
 1. The date of submission and the dates of any previous submissions.
 2. The Project title and number.
 3. The names of:
 - a. Contractor
 - b. Supplier
 - c. Manufacturer
 4. Identification of the product, with the specification section number.
 5. Field dimensions, clearly identified as such.

6. Relation to adjacent or critical features of the work or materials.
7. Applicable standards, such as ASTM or Federal specification numbers.
8. Identifications of deviations from Contract Documents.
9. Identification of revisions on resubmittals.
10. An 8-inch x 3.5-inch blank space for Contractor and Consultant stamps.
11. CONTRACTOR'S stamp, initialed or signed, and dated certifying to review and approval of submittal, verification of products, field measurements and field construction criteria and coordination of the information within the submittal with requirements of the Work and of Contract Documents.

1.07 RESUBMISSION REQUIREMENTS

- A. Make any corrections or changes in the submittals noted by the Consultant and resubmit unless otherwise noted.
- B. Shop Drawings and Product Data:
 1. Revise initial drawings or data and resubmit as specified for the initial submittal.
 2. Indicate any changes which have been made other than those suggested by the Consultant.
- C. Samples: Submit new samples as required in each specification section.
- D. Contractor must compensate the Consultant at the hourly rates established in the Consultant's contract for the time to review Shop Drawings that have been Rejected more than one time.

1.08 CONSULTANT'S DUTIES

- A. Prepare and keep current a Submittal Log which identifies at a minimum the following:
 - i. The Number of each submittal
 - ii. The relevant Specification Section
 - iii. The date each submittal was received for review
 - iv. The date each submittal was returned to the Contractor
 - v. The approval status of each submittal
- B. Review submittals within 14 days.
- C. Affix stamp and initials or signature, date, and status of submittal.
- D. Return submittals to Contractor for distribution, or resubmission.
- E. Coordinate with City on approval of all samples, or other items the City indicates that they wish to have final approval of.

- F. Review initial submittals and one resubmittal. Additional resubmittals will be reviewed by the Consultant, and costs for time and materials for reviewing those resubmittals will be paid for by the Contractor via direct reimbursement at the hourly rates established in the Consultant's contract with the City.

END OF SECTION

01340-4

SECTION 01370 SCHEDULE OF VALUES

PART 1 - GENERAL

1.01 REQUIREMENTS INCLUDED

- A. Submit to the Consultant a Schedule of Values allocated to the various portions of the Work, within ten days after award of contract.
- B. Upon the request of the Consultant, support the values with data which will substantiate their correctness.
- C. The Schedule of Values, unless objected to by the Consultant, shall be used only as the basis for the Contractor's Applications for Payment.
- D. The finalized schedule of values will be acceptable to the City as to form and substance.

1.02 RELATED REQUIREMENTS

- A. Section 01020: Allowances
- B. Section 01025: Measurement and Payment
- C. Section 01152: Application for Payment
- D. Section 01153: Change Orders
- E. Section 01600: Material and Equipment

1.03 FORM AND CONTENT OF SCHEDULE OF VALUES

- A. Type schedule on 8-1/2-inch X 11-inch white paper; Contractor's standard forms and automated printout will be considered for approval by Consultant upon Contractor's request. Identify schedule with:
 - 1. Title of Project,
 - 2. Location (Limits)
 - 3. City Project Number.
 - 2. Consultant
 - 3. Name and Address of Contractor.
 - 4. Date of Submission.

- B. Schedule shall list the installed value of the component parts of the Work, in sufficient detail to serve as a basis for computing values for progress payments during construction.
- C. Follow Section 1025 of these Specifications as the format for listing component items.
 - 1. Identify each line item with the number and title of the respective major section of the specifications.
- D. For the various portions of the Work:
 - 1. Each item shall include a directly proportional amount of the Contractor's overhead and profit.
 - 2. For items on which progress payments will be requested for stored materials, break down the value into:
 - a. The cost of the materials, delivered and unloaded, with taxes paid.
 - b. The total installed value.
- E. The sum of all values listed in the schedule shall equal the total Contract Sum.

1.04 SUBSCHEDULE OF UNIT MATERIAL VALUES

- A. Submit a sub-schedule of unit costs and quantities for:
 - 1. Products specified under a unit cost allowance in Section 01020.
 - 2. Products on which progress payments will be requested for stored products.
- B. The form of submittal shall parallel that of the Schedule of Values, with each item identified the same as the line item in the Schedule of Values.
- C. The unit quantity for bulk materials shall include an allowance for normal waste.
- D. The unit values for the materials shall be broken down into:
 - 1. The cost of the material, delivered and unloaded at the site, with taxes paid.
 - 2. Installation costs, including Contractor's overhead and profit.
- E. The installed unit value multiplied by the quantity listed shall equal the cost of that item in the Schedule of Values.

PART 2 - PRODUCTS

Not used.

PART 3 - EXECUTION

Not used.

END OF SECTION

01370-3

**SECTION 01380
VIDEO AND PHOTOGRAPHIC SITE SURVEY**

PART 1 - GENERAL

1.01 SECTION INCLUDES:

- A. The work under this Section includes a Preconstruction Video Survey of the existing facilities, public ROW, easements, roads, private property, and other surface features as well as "before and after" digital still photographs.

1.02 SUBMITTALS:

- A. Preconstruction Video and Photographic Site Survey
 1. Submit two (2) copies of the Preconstruction Video Survey delivered via an acceptable electronic format with video log to the Consultant for review and acceptance.

PART 2 - EXECUTION

2.01 VIDEO SITE SURVEY

- A. The Contractor shall provide the City with video survey accurately representing existing conditions of the site to be disturbed by his operations. This video survey shall be submitted at least 21 days prior to the start of work on this project.
- B. Video shall be provided on electronic media. The camera shall be capable of producing clean color images. The original is to be submitted to the Consultant and a copy is to be retained by the Contractor until Final Acceptance.
- C. As a minimum, the video shall contain:
 1. At the beginning of the video, the project name and date of recording shall be superimposed on the picture.
 2. As the location of the video recording progresses, i.e., the individual street name shall be temporally superimposed on the picture.
 3. Centerline stationing at 100' intervals or clear reference to the individual residences (by street number) and/or business (by street number and name).

- a. The video shall be run twice the full length of the project plus 100 feet past the project limit in each direction, first facing and proceeding ahead station wise and slightly angled to the right of centerline. The second run shall be the full length of the project facing and proceeding back station wise and slightly angled to the right of centerline.
 - b. Both recordings shall contain the centerline within the view of the observer. The recording is to be continuous during each run. Areas of special importance / interest may be "zoomed-in" on to provide the necessary details but must be "zoomed-out" to the original view before proceeding.
- D. Audio content
1. Simultaneously record the audio portion during video recording.
 2. Audio recording shall assist in viewer orientation and in any needed identification, clarification, or description of features being recorded.
 3. Audio recording will only consist of camera operator commentary.
- E. Prepare a written video log that describes the contents of each recording including:
1. Name of streets and/or easements.
 2. Recording location designator.
 3. Coverage begin/end, station and location.
 4. Recording date.
- F. The video shall present a clear and accurate representation of existing conditions. If, in the opinion of the Consultant, this intent is not met, the recording will be returned, and the area re-recorded at no additional cost to the Owner.
- G. This accepted video will serve as an aid to the Consultant in determining existing conditions. Nothing contained in the video will supersede or relieve the Consultant from determining the acceptability of restoration.
- H. Prior to Substantial Completion, the Contractor is responsible to review the video and prepare a detailed list of surface improvements to be reinstated. This list shall include lawn areas, trees and plants, driveways, driveway aprons, roadways, signage, sprinkler systems, sidewalks, mailboxes and any other existing conditions affected by the work and submit to the Consultant for review and approval.

2.02 PHOTOGRAPHIC SURVEY

- A. In addition to the video, the Contractor shall take "before and after" digital still photographs of each home and/or property. The photographs of each home and/or property shall consist of a set of photographs (3 minimum) and shall provide property-line to property-line coverage of the roadway, swale and sidewalk areas for each property.

The "areas of interest" are the edge of roadway, condition of the swale, type of grass, landscaping within the swale, mail box and driveway apron.

- B. The digital "file" name is to be the address of the property being photographed and shall be incorporated as part of the image. The Contractor shall provide the Consultant the following:
1. Two (2) sets of the digital files in street named/numbered subdirectory and a digital file log.
 2. Two (2) sets of "Before" color photographs and Two (2) set of "After" color photographs of each digital file, with the file name displayed. The digital file shall include a Table of Contents and divided by street name/number.
 3. "Before" photographs shall be submitted 21 days in advance of the commencement of the work. "After" photographs shall be submitted with the final Application For Payment.
- C. The Contractor shall maintain an electronic copy of pre-construction photographs available at the Project Site for use during the project.

END OF SECTION

**SECTION 01410
TESTING LABORATORY SERVICES**

PART 1 - GENERAL

1.01 REQUIREMENTS INCLUDED

- A. The Contractor will employ and pay for services of an Independent Testing Laboratory which must be approved by the City to perform specified testing.
 - 1. Contractor shall cooperate with laboratory to facilitate the execution of its required services.

1.02 LIMITATIONS OF AUTHORITY OF TESTING LABORATORY

- A. Laboratory is not authorized to:
 - 1. Release, revoke, alter or expand on the requirements of the Contract Documents.
 - 2. Approve or accept any portion of the Work.
 - 3. Perform any duties of the Contractor.

1.03 CONTRACTOR'S RESPONSIBILITIES

- A. Cooperate and coordinate with laboratory personnel and/or Consultant to provide access to Work or manufacturer's operations.
- B. Secure and deliver to the laboratory adequate quantities of representational samples of materials proposed to be used, if required, under supervision of the laboratory.
- C. Provide to the laboratory the approved design mix proposed to be used for concrete, and other material mixes which require control by the testing laboratory.
- D. Furnish required copies of test reports to Consultant.
- E. Furnish incidental labor and facilities:
 - 1. To provide access to Work to be tested.
 - 2. To obtain and handle samples at the Project site or at the source of the product to be tested, if required under the supervision of the laboratory.
 - 3. To facilitate inspections and tests.
 - 4. For storage and curing of test samples.

PART 2 - PRODUCTS

Not used.

PART 3 - EXECUTION

3.01 PAYMENT

- A. Testing of materials and products will be performed by an independent testing laboratory. The laboratory shall be approved by the City and employed and paid for by the Contractor. Testing will be performed so as to least encumber the performance of the Work.
- B. When the work of this contract or portions of the work are completed, notify the Consultant so that arrangements can be made with the laboratory to perform or witness the tests. Do not proceed with additional portions of the Work until results have been accepted by the Consultant.

END OF SECTION

SECTION 01500 CONSTRUCTION FACILITIES AND TEMPORARY CONTROLS

PART 1 - GENERAL

1.01 REQUIREMENTS INCLUDED

- A. Furnish, install and maintain temporary utilities required for construction. Temporary Facilities shall be removed with completion of the Work.

1.02 RELATED REQUIREMENTS

- A. Section 01010: Summary of Work.
- B. Section 01525: Protection of Existing Facilities
- C. Section 01530: Barriers
- D. Section 01570: Traffic Control
- E. Section 01580: Project identification Sign
- F. Section 02140: Dewatering

1.03 REQUIREMENTS OF REGULATORY AGENCIES

- A. Comply with National Electric Code.
- B. Comply with Federal, State and local codes and regulations and with utility company requirements.

PART 2 - PRODUCTS

2.01 MATERIALS, GENERAL

- A. Materials may be new or used but must be adequate in capacity for the required usage, must not create unsafe conditions, and must not violate requirements of applicable codes and standards.

2.02 TEMPORARY ELECTRICITY AND LIGHTING

- A. Arrange with utility company, provide service required for power and lighting, and pay all costs for service and for power used.

- B. Install circuit and branch wiring, with area distribution boxes located so that power and lighting is available throughout the construction by the use of construction-type power cords.
- C. Provide adequate artificial lighting for all areas of work when natural light is not adequate for work, and for areas accessible to the public.

2.03 TEMPORARY HEAT AND VENTILATION

- A. Provide temporary heat and ventilation as required to maintain adequate environmental conditions to facilitate progress of the Work, to meet specified minimum conditions for the installation of materials, and to protect materials and finishes from damage due to temperature or humidity.
- B. Provide adequate forced ventilation of enclosed areas for curing of installed materials, to disperse humidity, and to prevent hazardous accumulations of dust, fumes, vapors or gases.
- C. Portable heaters and air conditioning units shall be standard approved units complete with controls.
- D. Pay all costs of installation, maintenance, operation and removal, and for fuel consumed.

2.04 TEMPORARY TELEPHONE SERVICE

- A. Arrange with local telephone service company to provide adequate telephone service at the construction site
- B. Pay all costs for installation, maintenance and removal, and service charges for local calls.

2.05 TEMPORARY WATER

- A. Water for construction and potable purposes may be obtained from City hydrants or other connection points designated by the City. Contractor shall coordinate with City Utility Department for connection options and pay all costs for installation, maintenance and removal of temporary connections.
- B. Make conservative use of water.
- C. All connections to hydrants to be made by City Utility Department personnel.
- D. Non-potable water for general construction purposes shall be clean, non-turbid, and non-saline; and acceptable to the Consultant.

- E. Water utilization for concrete plaster and mortar shall meet the respective requirements and standards set forth for water utilized in these construction materials.

2.06 TEMPORARY SANITARY FACILITIES

- A. Provide sanitary facilities in compliance with the applicable laws and regulations.
- B. Service, clean and maintain facilities and enclosures.
- C. Existing plumbing facilities shall not be used by construction personnel.

2.07 TEMPORARY ACCESS ROAD AND PARKING

- A. Site Access Roads:
 - 1. Construct new temporary access roads over designated easements from public roadway to site entrance.
- B. On-Site Roads and Parking Areas:
 - 1. Locate roads, drives, walks and parking facilities to provide uninterrupted access to construction offices, mobilization, work, storage areas, and other areas required for execution of the contract.
 - 2. Submit proposed location for Consultant's approval.
 - 3. Provide access for emergency vehicles.
 - a. Maintain driveways a minimum of 15 feet wide between and around combustible materials in storage and mobilization areas.
 - 4. Maintain traffic areas free as possible of excavated materials, construction equipment, products and debris.
 - 5. Keep fire hydrants and water control valves free from obstruction and accessible for use.
 - 6. Provide traffic control devices as required by governing authorities along established roadways which will be used as haul routes to site access.

2.08 TEMPORARY CONTROLS

- A. Noise Control:

Not used.

B. Dust Control:

1. Provide positive methods and apply dust control materials to minimize raising dust from construction operations, and provide positive means to prevent air-borne dust from dispersing into the atmosphere.

C. Water Control:

1. Provide methods to control surface water to prevent damage to the Project, the site, or adjoining properties.
 - a. Control fill, grading and ditching to direct surface drainage away from excavations, pits, tunnels and other construction areas; and to direct drainage to proper runoff.
2. Provide, operate and maintain hydraulic equipment of adequate capacity to control surface water.
3. Dispose of drainage water in accordance with the approved Stormwater Pollution Prevention Plan.

D. Pest Control:

Not used.

E. Rodent Control:

1. Provide rodent control as necessary to prevent infestation of construction or storage area.
 - a. Employ methods and use materials which will not adversely affect conditions at the site or on adjoining properties.
 - b. Should the use of rodenticides be considered necessary, submit an informational copy of the proposed program to Consultant for approval. Clearly indicate:
 - (1) The area or areas to be treated.
 - (2) The rodenticides to be used, with a copy of the manufacturer's printed instructions.
 - (3) The pollution preventative measures to be employed.

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2. The use of any rodenticide shall be in full accordance with the manufacturer's printed instructions and recommendations.

F. Debris Control:

1. Maintain all areas under Contractor's control free of extraneous debris.
2. Initiate and maintain a specific program to prevent accumulation of debris at construction site, storage and parking areas, or along access roads and haul routes.
 - a. Provide acceptable containers for deposit of debris.
 - b. Prohibit overloading of trucks to prevent spillages on access and haul routes.
 - (1) Provide periodic inspection of traffic areas to enforce requirements.
3. Schedule periodic collection and disposal of debris.
 - a. Provide additional collections and disposals of debris whenever the periodic schedule is inadequate to prevent accumulation.

G. Pollution Control:

1. Provide methods, means and facilities required to prevent contamination of soil, water or atmosphere by the discharge of pollutant substances from construction operations.
2. Provide equipment and personnel required to perform emergency measures required to contain any spillages, and to remove contaminated soils or liquids.
 - a. Excavate and legally dispose of any contaminated materials off-site, and replace soils with suitable compacted fill and topsoil.
3. Take special measures to prevent harmful substances from entering public waters.
 - a. Prevent disposal of wastes, effluents, chemicals, or other such substances adjacent to streams, or in sanitary or storm sewers.
4. Provide systems for control of atmospheric pollutants.
 - a. Prevent toxic concentrations of chemicals.

- b. Prevent harmful dispersal of pollutants into the atmosphere.

H. Erosion Control:

- 1. Plan and execute construction earthwork activities utilizing approved methods to control surface drainage from cuts, fills, borrow and waste disposal areas to prevent erosion and sedimentation.
 - a. Hold the areas of bare soil exposed at one time to a minimum.
 - b. Provide temporary runoff control measures such as berms, silt fences, inlet protection devices, temporary grassing, turbidity barriers and gravel sedimentation traps at construction entrances.
- 2. All City Projects shall comply in all parts with the required NPDES General Stormwater Permit. Projects less than 1 acre in size shall comply with the requirements even though a permit is not required.

PART 3 - EXECUTION

3.01 GENERAL

- A. Comply with applicable requirements specified in Division 15 - Mechanical, and in Division 16 - Electrical.
- B. Maintain and operate systems to assure continuous service.
- C. Modify and extend systems as work progress requires.

3.02 REMOVAL

- A. Completely remove temporary materials and equipment when their use is no longer required.
- B. Clean and repair damage caused by temporary installations or use of temporary facilities.
- C. Restore permanent facilities used for temporary services to original or better conditions.

END OF SECTION

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CONSTRUCTION FACILITIES AND TEMPORARY CONTROL

SECTION 01505 CONSTRUCTION CONSIDERATIONS

PART 1 - GENERAL

1.01 HYDRAULIC UPLIFT ON STRUCTURES

- A. The Contractor shall be completely responsible for any pipelines, valve vaults, or similar structures that may become buoyant during the construction operations due to the ground water or floods and before the structure is put into operation. Should there be any possibility of buoyance of a structure, the Contractor shall take the necessary steps to prevent its buoyance. Damage to any structures due to floating or flooding shall be repaired or the structures replaced at the Contractor's expense. Damage caused by buoyant structures shall be repaired at the Contractor's expense.

1.02 RELOCATIONS

- A. The Contractor shall be responsible for the relocation of structures, including but not limited to, light poles, sign poles, fences, piping, conduits and drains that interfere with the positioning of the Work as set out on the Drawings. The cost of all such relocations shall be included in the bid for the project and shall not result in any additional cost to the Owner.

1.03 SUBSURFACE INVESTIGATIONS

- A. The Contractor shall be responsible for having determined to their satisfaction, prior to their bid, the nature and location of the work, the conformation of the ground, the character and quality of the substrata, the types and quantity of materials to be encountered, the nature of the groundwater condition, the character of equipment and facilities required preliminary to and during the performance of the work, the general and local conditions and all other matters which can in any way affect the work under this Contract. The prices established for the work to be done shall reflect all costs pertaining to the work. Any claims for extras based on the substrata or groundwater table conditions will be disallowed.

1.04 OBSTRUCTIONS

- A. All water pipes, storm drains, sanitary sewers, force mains, gas, or other pipe, telephone or power cables or conduits and all other obstructions, whether or not shown, shall be temporarily supported across utility line excavations. The Contractor shall be responsible for any damage to any such pipes, conduits, or structures. Approximate locations of known water, sanitary, raw water, drainage, power and telephone installations along route of sanitary sewer, storm and water

main pipeline or in the vicinity of new work are shown, but must be verified in the field by the Contractor before beginning any excavation. The Contractor shall uncover these pipes, ducts, cables, etc., carefully, by hand if necessary, prior to installing new pipeline. Any discrepancies or differences found shall be brought to the attention of the Consultant in order that necessary changes may be made to permit installation of new work. These conditions are supplemental to general requirements elsewhere in the Contract Documents.

1.05 SITE CONDITIONS

- A. The Contractor acknowledges that they have investigated prior to bidding and satisfied themselves as to the conditions affecting the work, including but not restricted to those bearing upon transportation, disposal, handling and storage of materials, availability of labor, water, electric power, roads and uncertainties of weather, canal stages, tides, water tables or similar physical conditions at the site, the conformation and conditions of the ground, the character of equipment and facilities needed preliminary to and during prosecution of the work. The Contractor further acknowledges that they have satisfied themselves as to the character, quality of surface and subsurface materials or obstacles to be encountered insofar as this information is reasonably ascertainable from an inspection of the site, or any contiguous site, as well as from information presented by the Drawings and Specifications made a part of this Contract, or any other information made available to them prior to receipt of Bids. Any failure by the Contractor to acquaint themselves with the available information will not relieve them from responsibility for estimating properly the difficulty or cost of successfully performing the work. The City assumes no responsibility for any conclusions or interpretations made by the Contractor on the basis of the information made available by the City.

1.06 PROTECTION OF PROPERTY

- A. The Contractor shall protect all property that may be affected by their work or operations. The location and extent of underground and covered facilities are not guaranteed and the Contractor is cautioned to proceed with care in order to prevent the undermining or damage to existing structures, piping, or facilities.
- B. When City water is being used, the supply source shall be protected against contamination in accordance with existing codes and regulations with proper backflow prevention equipment.
- C. In the event any of the Contractor's activities were to disrupt or endanger any facilities, they shall at their own expense make all necessary repairs or replacements necessary to correct the situation to the satisfaction of the Consultant. Such work shall progress continuously to completion on a 24-hour per day, seven workday basis. The Contractor shall be financially responsible for the services of repair crews and inspectors on call 24 hours per day for emergencies that arise involving work under this Contract.

1.07 WORK ADJACENT TO FLORIDA POWER AND LIGHT CORPORATION (FP&L) FACILITIES

- A. The attention of the Contractor is drawn to existing FP&L overhead and underground facilities which may be located in the construction area. The Contractor shall protect all existing power transmission and distribution facilities throughout the period of construction and shall contact the offices of FP&L at least 72 hours prior to the start of any construction.
- B. It is full and complete responsibility of the Contractor to determine the exact location of all overhead and underground power transmission and distribution facilities in the work area whether or not they are indicated on the Drawings.

1.08 WORK ADJACENT TO BELLSOUTH TELEPHONE COMPANY OR AT&T TELECOMMUNICATIONS FACILITIES

- A. The attention of the Contractor is drawn to the existing overhead and underground telecommunications facilities which may be located in the construction area. The Contractor shall protect all existing telecommunications facilities throughout the construction of the project and shall contact the appropriate telecommunications offices at least 72 hours prior to the start of construction.
- B. It is full and complete responsibility of the Contractor to determine the exact location of all overhead and underground telecommunications facilities in the work area whether or not they are indicated on the Drawings.

1.09 WORK ADJACENT TO FLORIDA PUBLIC UTILITIES COMPANY FACILITIES

- A. The attention of the Contractor is drawn to the existing underground natural gas lines which may be located in the construction area. The Contractor shall protect all existing natural gas pipelines throughout the construction of the project and shall contact the appropriate natural gas offices at least 72 hours prior to the start of construction.
- B. It is full and complete responsibility of the Contractor to determine the exact location of all underground natural gas lines in the work area whether or not they are indicated on the Drawings.

1.10 WORK ADJACENT TO CABLE TV (CATV)/COMMUNICATION FACILITIES

- A. The attention of the Contractor is drawn to the existing overhead and buried CATV/communication lines which may be located in the construction area. The Contractor shall protect all existing overhead and buried CATV/communication throughout the construction of the project and shall contact the appropriate CATV/communication offices at least 72 hours prior to the start of construction.

- B. It is full and complete responsibility of the Contractor to determine the exact location of all overhead and underground CATV/Communication in the work area whether or not they are indicated on the Drawings.

1.11 NOTIFICATIONS

- A. The Contractor will be responsible for preparation and distribution of informational flyers to affected properties on a periodic basis. The flyers shall include notification of construction schedules with regards to road closures, detours, or utility service interruptions, etc.

PART 2 - PRODUCTS (NOT USED)

PART 3 - EXECUTION (NOT USED)

END OF SECTION

SECTION 01506

CONTROL OF WORK

PART 1 - GENERAL

1.1 QUALITY OF WORK

- A. The Contractor shall furnish personnel and equipment which will be efficient, appropriate and a quantity large enough to secure a satisfactory quality of work and a rate of progress which will insure the completion of the work within the time stipulated in the Proposal. If at any time such personnel appear to the Consultant to be inefficient, inappropriate or insufficient for securing the quality of work required or for producing the rate of progress aforesaid, he may order the Contractor to increase the efficiency, change the character or increase the personnel and equipment, and the Contractor shall conform to such order. Failure of the Consultant to give such order shall in no way relieve the Contractor of his obligations to secure the quality of the work and rate of progress required.

1.2 PRIVATE LAND

- A. The Contractor shall not enter or occupy private land outside of easements, except by written permission of the Owner.
- B. Temporary restoration shall be completed within five days of pipe installation. Temporary restoration shall include all driveways, sidewalks and roadways. They shall be swept clean and be maintained free of dirt and dust. All areas disturbed by the construction activities shall be restored to proper grade, cleaned up, including the removal of debris, trash, and deleterious materials. All construction materials, supplies, or equipment, including piles of debris shall be removed from the area. All temporarily restored areas shall be maintained by the Contractor. These areas shall be kept clean and neat, free of dust and dirt, until final restoration operations are completed. The Contractor is responsible to utilize dust abatement operations in the temporarily restored areas as required, to the satisfaction of the Consultant.

Wherever sidewalks or private roads have been removed for purposes of construction, the Contractor shall place suitable temporary sidewalks or roadways promptly after backfilling and shall maintain them in satisfactory condition for the period of time fixed by the authorities having jurisdiction over the affected portions before proceeding with the final restoration or, if no such period of times is so fixed, the Contractor shall maintain said temporary sidewalks or roadways until the final restoration thereof has been made.

- C. Final restoration shall be completed within thirty days of pipe acceptance. Final restoration shall include the completion of all required pavement replacement of roadways, driveways, curbs, gutters, sidewalks and other existing improvements disturbed by the construction; final grading, placement of sod, pavement marking, etc., all complete and finished, acceptable to the Consultant.

In order to obtain a satisfactory junction with adjacent surfaces, the Contractor shall saw cut back and trim the edge so as to provide a clean, sound, vertical joint

before permanent replacement of an excavated or damaged portion of pavement. Damaged edges of pavement along excavations and elsewhere shall be trimmed back by saw cutting in straight lines. All pavement restoration and other facilities restoration shall be constructed to finish grades compatible with the adjacent undisturbed pavement.

- D. The Contractor shall test an installed section of pipeline within five calendar days from completion of the pipeline. A section of pipe is defined as a pipe section which can be isolated by valves for appurtenances is satisfactorily completed, the Contractor shall provide the Consultant with a "Schedule of Existing Facilities Restoration" which will be reviewed and be acceptable to the Consultant. The schedule shall show the existing facilities to be restored and schedule of beginning and completion dates for each item of restoration. The work for completing the final restoration of existing facilities for a tested section of work shall be completed within 30 days of acceptance of the pipeline testing.

1.3 PIPE LOCATIONS

- A. Pipeline shall be located substantially as indicated on the Drawings, but the Consultant reserves the right to make such modifications in locations as may be found desirable to avoid interference with existing structures or for other reasons.

1.4 OBSTRUCTIONS

- A. The attention of the Contractor is drawn to the fact that during digging at the Project site, the possibility exists of the Contractor encountering various water, sewer, petroleum, gas, telephone, electrical, or other lines not shown on the Drawings. The Contractor shall exercise extreme care before and during digging to locate and flag these lines so as to avoid damage to the existing lines. Should damage occur to an existing line, The Contractor shall repair the line at no cost to the owner.
- B. The Contractor shall protect all existing utilities and improvements not designated for removal and shall restore damaged or temporarily relocated utilities and improvements to a condition equal to or better than they were prior to such damage or temporary relocation, all in accordance with requirements of the Contract Documents.
- C. The Contractor shall verify the exact locations and depths of all utilities shown and the Contractor shall make exploratory excavations of all utilities that may interfere with the work. All such exploratory excavations shall be performed as soon as practicable after award of the contract and, in any event, a sufficient time in advance of construction to avoid possible delays to the Contractor's work. When such exploratory excavations show the utility location as shown to be in error, the Contractor shall so notify the Consultant.
- D. The number of exploratory excavations required shall be that number which is sufficient to determine the alignment and grade of the utility. Test pits shall be dug at the Contractor's expense, as directed.
- E. The Contractor shall protect all Underground Utilities and other improvements which may be impaired during construction operations. It shall be the Contractor's responsibility to ascertain the actual location of all existing utilities and other

improvements that will be encountered in its construction operations, and to see that such utilities or other improvements are adequately protected from damage due to such operations. The Contractor shall take all possible precautions for the protection of unforeseen utility lines to provide for uninterrupted service and to provide such special protection as may be necessary.

- F. In case it shall be necessary to move the property of any public utility or franchise holder, such utility company or franchise holder will, upon request of the Contractor, be notified by the Owner to move such property within a specified reasonable time. When utility lines that are to be removed are encountered within the area of operations, the Contractor shall notify the Consultant a sufficient time in advance for the necessary measures to be taken to prevent interruption of service.
- G. Where the proper completion of the work requires the temporary or permanent removal and/or relocation of an existing utility or other improvement which is indicated, the Contractor shall remove and, without unnecessary delay, temporarily replace or relocate such utility or improvement in a manner satisfactory to the Consultant and the owner of the facility. In all cases of such temporary removal or relocation, restoration to former location shall be accomplished by the Contractor in a manner that will restore or replace the utility or improvement as nearly as possible to its former locations and to as good or better condition than found prior to removal.
- H. Existing utility lines that are indicated or the locations of which are made known to the Contractor prior to excavation and that are to be retained, and all utility lines that are constructed during excavation operations shall be protected from damage during excavation and backfilling and, if damaged, shall be immediately repaired or replaced by the Contractor at the Contractor's expense. Sewer laterals are included.
- I. All repairs to a damaged utility or improvement are subject to inspection and approval by an authorized representative of the utility or improvement owner before being concealed by backfill or other work.
- J. All oil and gasoline pipelines, power, and telephone or the communication cable ducts, gas and water mains, irrigation lines, sewer lines, storm drain lines, poles, and overhead power and communication wires and cables encountered along the line of the work shall remain continuously in service during all the operations under the Contract, unless other arrangements satisfactory to the Consultant are made with the owner of said pipelines, duct, main, irrigation line, sewer, storm drain, pole, or wire or cable. The Contractor shall be responsible for and shall repair all damage due to its operations, and the provisions of this Section shall not be abated even in the event such damage occurs after backfilling or is not discovered until after completion of the backfilling.

1.5 OPEN EXCAVATIONS

- A. All open excavations shall be adequately safeguarded by providing temporary barricades, caution signs, lights and other means to prevent accidents to persons, and damage to property. The Contractor shall, at his own expense, provide suitable and safe bridges and other crossings for accommodating travel by pedestrians and workmen. Bridges provided for access to private property during construction shall

be removed when no longer required. The length of open trench will be controlled by the particular surrounding conditions, but shall always be confined to the limits prescribed by the Consultant. If the excavation becomes a hazard, or if it excessively restricts traffic at any point, the Consultant may require special construction procedures such as limiting the length of open trench, prohibiting stacking excavated material in the street, and requiring that the trench shall not remain open overnight.

- B. The Contractor shall take precautions to prevent injury to the public due to open trenches. All trenches, excavated material, equipment, or other obstacles which could be dangerous to the public shall be well lighted at night.

1.6 TEST PITS

- A. Test pits for the purpose of locating underground pipeline or structures in advance of the construction shall be excavated and backfilled by the Contractor at his cost at the direction of the Consultant. Test pits shall be backfilled immediately after their purpose has been satisfied and the surface restored and maintained in a manner satisfactory to the Consultants.

1.7 SITE CLEANLINESS

- A. Dust Abatement - The Contractor shall furnish all labor, equipment, and means required and shall carry out effective measures wherever and as often as necessary to prevent its operation from producing dust in amounts damaging to property, cultivated vegetation, or domestic animals, or causing a nuisance to persons living in or occupying buildings in the vicinity. The Contractor shall be responsible for any damage resulting from any dust originating from its operations. The dust abatement measures shall be continued until the Contractor is relieved of further responsibility by the Consultant.
- B. Rubbish Control - During the progress of the work, the Contractor shall keep the site of the work and other areas used by it in a neat and clean condition, and free from any accumulation of rubbish. The Contractor shall dispose of all rubbish and waste materials of any nature occurring at the work site, and shall establish regular intervals of collection and disposal of such materials and waste. The Contractor shall also keep its haul roads free from dirt, rubbish, and unnecessary obstructions resulting from its operations. Disposal of all rubbish and surplus materials shall be off the site of construction in accordance with local codes and ordinances governing locations and methods of disposal, and in conformance with all applicable safety laws, and to the particular requirements of Part 1926 of the OSHA Safety and Health Standards for Construction.
- C. Sanitation
 - 1. Toilet Facilities - Fixed or portable chemical toilets shall be provided wherever needed for the use of employees. Toilets at construction job sites shall conform to the requirements of Part 1926 of the OSHA Standards for Construction.
 - 2. Sanitary and Other Organic Wastes - The Contractor shall establish a regular daily collection of all sanitary and organic wastes. All wastes and refuse from sanitary facilities provided by the Contractor or organic material wastes from

any other source related to the Contractor's operations shall be disposed of away from the site in a manner satisfactory to the Consultant and in accordance with all laws and regulations pertaining thereto.

1.8 UTILITY CROSSINGS

- A. It is intended that wherever existing utilities such as service lines must be crossed, deflection of the pipe within recommended limits and cover shall be used to satisfactorily clear the obstruction unless otherwise indicated on the Drawings. However, when in the opinion of the City or Consultant this procedure is not feasible, he may direct the use of fittings.

1.9 RELOCATIONS

- A. The Contractor shall be responsible for the relocation of structures, including but not limited to light poles, signs, sign poles, fences, piping, conduits and drains that interfere with the positioning of the work as set out on the Drawings. The cost of all such relocations shall be included in the bid for the project and shall not result in any additional cost to the owner.

PART 2 - PRODUCTS (NOT USED)

PART 3 - EXECUTION

3.1 COOPERATION WITHIN THIS CONTRACT

- A. All firms or persons authorized to perform any work under this Contract shall cooperate with the General Contractor and his subcontractors or trades, and shall assist in incorporating the work of other trades where necessary or required.
- B. Cutting and patching, drilling and fitting shall be carried out where required by the trade or subcontractor having jurisdiction, unless otherwise indicated herein or directed by the Consultant.

3.2 PROTECTION OF CONSTRUCTION AND EQUIPMENT

- A. All newly constructed work shall be carefully protected from injury in any way. No wheeling or walking or placing of heavy loads on it shall be allowed and all portions injured shall be reconstructed by the Contractor at his own expense.
- B. Further, the Contractor shall take all necessary precaution to prevent damage to any structure due to water pressure during and after construction and until such structure is accepted and taken over by the Owner.

END OF SECTION 01506

SECTION 01510 TEMPORARY UTILITIES

PART 1 - GENERAL

1.1 SECTION INCLUDES

- A. Furnish, install and maintain temporary utilities required for construction, remove on completion of work.

1.2 RELATED SECTIONS

- A. Section 01010: Summary of Work

1.3 REQUIREMENTS OF REGULATORY AGENCIES

- A. Comply with National Electric Code.
- B. Comply with Federal, State and Local codes and regulations and with utility company requirements.
- C. Comply with County Health Department and Environmental Regulations.

PART 2 – PRODUCTS

2.1 MATERIALS

- A. Materials may be new or used, but must be adequate in capacity for the required usage, must not create unsafe conditions, and must not violate requirements of applicable codes and standards.

2.2 TEMPORARY ELECTRICITY AND LIGHTING

- A. Arrange with utility company, provide service required for power and lighting, and pay all costs for service and for power used in the construction, testing and trial operation prior to final acceptance of the work by the Owner.
- B. Install circuit and branch wiring, with the area distribution boxes located so that power and lighting is available throughout the construction by the use of construction type power cords.
- C. Provide adequate artificial lighting for all areas of work when natural light is not adequate to work, and all areas accessible to the public.

2.3 TEMPORARY WATER

- A. Arrange with the Owner, as described in the Supplemental Conditions to provide water for construction purposes.
- B. Install branch piping with taps located so that water is available throughout the construction by the use of hoses.
- C. Install at each and every connection to the Owner water supply a backflow preventer meeting the requirements of AWWA C511-89, latest revision. Contractor shall be required to meter and pay for all water used.

2.4 TEMPORARY SANITARY FACILITIES

- A. Provide sanitary facilities in compliance with laws and regulations.
- B. Service, clean and maintain facilities and enclosures.

PART 3 - EXECUTION

2.5 GENERAL

- A. Comply with applicable requirements specified in Division 15 - Mechanical and in Division 16 - Electrical.
- B. Maintain and operate systems to assure continuous service.
- C. Modify and extend systems as work progress requires.

2.6 REMOVAL

- A. Completely remove temporary materials and equipment when their use is no longer required.
- B. Clean and repair damage caused by temporary installations or use of temporary facilities.
- C. Restore permanent facilities used for temporary services to specified condition.

END OF SECTION 01510

SECTION 01525

PROTECTION OF EXISTING FACILITIES

PART 1 - GENERAL

1.1 GENERAL REQUIREMENTS

- A. The Contractor shall protect all existing utilities and improvements not designated for removal and shall restore damaged or temporarily relocated utilities and improvements to a condition equal to or better than they were prior to such damage or temporary relocation, all in accordance with requirements of the Contract Documents.
- B. The Contractor shall verify the exact locations and depths of all utilities shown, and the Contractor shall make exploratory excavations of all utilities that may interfere with the Work.
- C. All such exploratory excavations shall be performed as soon as practicable after award of the Contract and, in any event, a sufficient time in advance of construction to avoid possible delays to the Contractor's work.
- D. When such exploratory excavations show the utility location as shown to be in error, the Contractor shall so notify the Engineer.
- E. The number of exploratory excavations required shall be that number which is sufficient to determine the alignment and grade of the utility.

1.2 RIGHTS-OF-WAY

- A. The Contractor shall not do any Work that would affect any oil, gas, sewer, or water pipeline; any telephone, telegraph, or electric transmission line; any fence; or any other structure, nor shall the Contractor enter upon the rights-of-way involved until notified by the Engineer that the Owner has secured authority therefor from the proper party.
- B. After authority has been obtained, the Contractor shall give said party due notice of its intention to begin work, if required by said party, and shall remove, shore, support, or otherwise protect such pipeline, transmission line, ditch, fence, or structure, or replace the same.
- C. When two or more contracts are being executed at one time on the same or adjacent land in such manner that work on one Contract may interfere with that

on another, the Owner shall determine the sequence and order of the Work.

- D. When the limits of one Contract are the necessary or convenient means of access for the execution of another Contract, such privilege of access or any other reasonable privilege may be granted by the Owner to the Contractor so desiring, to the extent, amount, in the manner, and at the times permitted.
- E. No such decision as to the method or time of conducting the Work or the use of territory shall be made the basis of any claim for delay or damage, except as provided for temporary suspension of the Work.

1.3 PROTECTION OF STREET OR ROADWAY MARKERS

- A. The Contractor shall not destroy, remove, or otherwise disturb any existing survey markers or other existing street or roadway markers without proper authorization.
- B. No pavement breaking or excavation shall be started until all survey or other permanent marker points that will be disturbed by the construction operations have been properly referenced.
- C. All survey markers or points disturbed by the Contractor shall be accurately replaced after all street or roadway re-surfacing has been completed.

1.4 RESTORATION OF PAVEMENT

- A. General:
 - 1 All paved areas including asphaltic concrete cut or damaged during construction shall be replaced with similar materials and of equal thickness to match the existing adjacent undisturbed areas, except where specific re-surfacing requirements have been called for in the Contract Documents or in the requirements of the agency issuing the permit.
 - 2 All temporary and permanent pavement shall conform to the requirements of the affected pavement owner.
 - 3 All pavements subject to partial removal shall be neatly saw-cut in straight lines.
- B. Temporary Re-surfacing:
 - 1. Wherever required by the public authorities having jurisdiction, the Contractor shall place temporary surfacing promptly after backfilling and shall maintain such surfacing for the period of time fixed by said authorities before proceeding with final restoration.
- C. Permanent Re-surfacing:
 - 1. To obtain a satisfactory junction with adjacent surfaces, the Contractor shall

saw cut back and trim the edge so as to provide a clean, sound, vertical joint before permanent replacement of an excavated or damaged portion of pavement.

2. Damaged edges of pavement along excavations and elsewhere shall be trimmed back by saw cutting in straightlines.
3. All pavement restoration and other facilities restoration shall be constructed to finish grades compatible with adjacent undisturbed pavement.

D. Restoration of Sidewalks or Private Driveways:

1. Wherever sidewalks or private roads have been removed for purposes of construction, the Contractor shall place suitable temporary sidewalks or roadways promptly after backfilling and shall maintain them in satisfactory condition for the period of time fixed by the authorities having jurisdiction over the affected portions before proceeding with the final restoration or, if no such period of time is so fixed, the Contractor shall maintain said temporary sidewalks or roadways until the final restoration thereof has been made.

1.5 EXISTING UTILITIES AND IMPROVEMENTS

A. General:

- 1 The Contractor shall protect all underground utilities and other improvements that may be impaired during construction operations.
- 2 It shall be the Contractor's responsibility to ascertain the actual location of all existing utilities and other improvements that will be encountered in its construction operations, and to see that such utilities or other improvements are adequately protected from damage due to such operations.
- 3 The Contractor shall take all possible precautions for the protection of unforeseen utility lines to provide for uninterrupted service and to provide such special protection as may be deemed necessary.

B. Utilities to be Moved:

- 1 In case it shall be necessary to move the property of any public utility or franchise holder, such utility company or franchise holder will, upon request of the Contractor, be notified by the Owner to move such property within a specified reasonable time.
- 2 When utility lines that are to be removed are encountered within the area of operations, the Contractor shall notify the Engineer a sufficient time in advance for the necessary measures to be taken to prevent interruption of service.

C. Temporary Removal and/or Relocation:

- 1 Where the proper completion of the Work requires the temporary removal

and/or relocation of an existing utility or other improvement which is indicated, the Contractor shall remove and, without unnecessary delay, temporarily replace or relocate such utility or improvement in a manner satisfactory to the Engineer and the owner of the facility.

- 2 In all cases of such temporary removal or relocation, restoration to the former location shall be accomplished by the Contractor in a manner that will restore or replace the utility or improvement as nearly as possible to its former locations and to as good or better condition than found prior to removal.

D. The right is reserved to the Owner and to the owners of public utilities and franchises to enter at any time upon any public street, alley, right-of-way, or easement for the purpose of making changes in their property made necessary by the Work of this Contract.

E. Existing utility lines that are indicated or the locations of which are made known to the Contractor prior to excavation and that are to be retained, and all utility lines that are constructed during excavation operations shall be protected from damage during excavation and backfilling and, if damaged, shall be immediately repaired or replaced by the Contractor.

F. Underground Utilities Not Indicated:

- 1 In the event that the Contractor damages any existing utility lines that are not indicated or the locations of which are not made known to the Contractor prior to excavation, a written report thereof shall be made immediately to the Engineer.
- 2 If directed by the Engineer, repairs shall be made by the Contractor under the provisions for changes and extra work contained in the General Conditions.

G. All costs of locating, repairing damage not due to failure of the Contractor to exercise reasonable care, and removing or relocating such utility facilities not shown in the Contract Documents with reasonable accuracy, and for equipment on the project which was actually working on that portion of the work interrupted or idled by removal or relocation of such utility facilities, and which was necessarily idled during such work will be paid for as extra work in accordance with the provisions for changes and extra work contained in the General Conditions.

H. All repairs to a damaged utility or improvement are subject to inspection and approval by an authorized representative of the utility or improvement owner before being concealed by backfill.

I. Maintaining Service:

- 1 All oil and gasoline pipelines, power, and telephone or the communication cable ducts, gas mains, water mains, irrigation lines, sewer lines, storm drainage, poles, and overhead power and communication wires and cables encountered along the line of the Work shall remain continuously in service during all the operations under the Contract, unless other arrangements satisfactory to the Engineer are made with the owner(s) of said pipelines, ducts, main, irrigation lines, sewers, storm drains, poles, wires or cables.
- 2 The Contractor shall be responsible for and shall repair all damage due to its operations, and the provisions of this Section shall not be abated even in the event such damage occurs after backfilling or is not discovered until after completion of the backfilling.
- 3 Contractor shall replace all damaged irrigation piping, heads and control lines in kind. Zones to be capped off at construction line. If this results in discontinuance of service on private property, the contractor shall provide for irrigation service to this area(s).

1.6 TREES WITHIN ROAD RIGHTS-OF-WAY AND PROJECT LIMITS

A. General:

- 1 The Contractor shall exercise all necessary precautions so as not to damage or destroy any trees or shrubs, including those lying within street rights-of-way and project limits, and shall not trim or remove any trees unless such trees have been approved for trimming or removal by the jurisdictional agency or Owner.
- 2 All existing trees and shrubs which are damaged during construction shall be trimmed or replaced by the Contractor or a certified tree company under permit from the jurisdictional agency and/or the Owner.

B. Trimming:

- 1 Symmetry of the tree shall be preserved; no stubs or splits or torn branches left; clean cuts shall be made close to the trunk or large branch.
- 2 Spikes shall not be used for climbing live trees.
- 3 All cuts over 1-1/2" in diameter shall be coated with an asphaltic emulsion material.

C. Replacement:

- 1 The Contractor shall immediately notify the jurisdictional agency and/or the Owner if any tree is damaged by the Contractor's operations.
- 2 If, in the opinion of said agency or the Owner, the damage is such that

replacement is necessary, the Contractor shall replace the tree at its own expense.

- 3 The tree shall be of a like size and variety as the tree damaged, or, if of a smaller size, the Contractor shall pay to the owner of said tree a compensatory payment acceptable to the tree owner, subject to the approval of the jurisdictional agency or Owner.
- 4 The size of the trees shall be not less than 1-inch diameter, nor less than six feet high.

1.7 NOTIFICATION BY THE CONTRACTOR

- A. Prior to any excavation in the vicinity of any existing underground facilities, including all water, sewer, storm drain, gas, petroleum products, or other pipelines; all buried electric power, communications, or television cables; all traffic signal and street lighting facilities; and all roadway and state highway rights-of-way the Contractor shall notify the respective authorities representing the owners or agencies responsible for such facilities not less than three days nor more than seven days prior to excavation so that a representative of said owners or agencies can be present during such work if they so desire.

PART 2 - PRODUCTS (NOT

USED) PART 3 -

EXECUTION (NOT USED)

END OF SECTION 01525

SECTION 01530 BARRIERS

PART 1 - GENERAL

1.01 REQUIREMENTS INCLUDED

- A. Furnish, install and maintain suitable barriers as required to prevent public entry, and to protect the Work, existing facilities, trees and plants from construction operations; remove when no longer needed, or at completion of Work.

1.02 RELATED REQUIREMENTS

- A. Section 01010: Summary of Work.
- B. Section 01500: Construction Facilities and Temporary controls.

PART 2 - PRODUCTS

2.01 MATERIALS, GENERAL

- A. Materials may be new or used, suitable for the intended purpose, but must not violate requirements of applicable codes and standards.

2.02 FENCING

- A. Minimum fence height six feet.
- B. Open-Mesh Fence:
 - 1. No 11 gauge, two inch mesh, 72 inches high galvanized chain link fabric, with extension arms and three strands of galvanized barbed wire.
 - 2. Galvanized steel posts; 1-1/2 inch line posts and two inch corner posts.

2.03 BARRIERS

- A. Materials are Contractor's option, as appropriate to serve required purpose.

PART 3 - EXECUTION

3.01 GENERAL

- A. Install facilities of a neat and reasonably uniform appearance, structurally adequate for the required purposes.
- B. Maintain barriers during entire construction period.
- C. Relocate barriers as required by the progress of construction.

3.02 FENCES

- A. Provide and maintain fences necessary to assure security of the site during construction to keep unauthorized people and animals from the site when construction is not in progress.
- B. Gates shall have locks; and keys shall be furnished to the Owner.
- C. Provide additional security measures as deemed necessary and approved by the Engineer.

3.03 TREE AND PLANT PROTECTION

- A. Tree pruning work must be performed by or directly supervised by an ISA-Certified Arborist.
- B. Contractor shall hold a pre-pruning conference with the owner and ISA-certified arborist prior to commencing pruning operations.
- C. Preserve and protect existing trees and plants at site which are designated to remain, and those adjacent to site.
- D. Consult with the Engineer and remove agreed-on roots and branches which interfere with construction.
 - 1. Employ qualified tree surgeon to remove branches and treat cuts.
- C. Provide temporary barriers to a height of six feet, around each, or around each group, of trees and plants.
- D. Protect root zones of trees and plants:
 - 1. Do not allow vehicular traffic or parking.
 - 2. Do not store materials or products.
 - 3. Prevent dumping of refuse or chemically injurious materials or liquids.
 - 4. Prevent puddling or continuous running water.

- E. Carefully supervise excavating, grading and filling, and other construction operations, to prevent damage.
- F. Replace, or suitably repair, trees and plants designated to remain which are damaged or destroyed due to construction operations.

3.04 REMOVAL

- A. Completely remove barricades, omit, when construction has progressed to the point that they are no longer needed and when approved by Engineer.
- B. Repair damage caused by construction. Fill and grade areas of the site to the required evaluations, and clean up the area.

END OF SECTION

SECTION 01550 SITE ACCESS AND STORAGE

PART I - GENERAL

1.1 HIGHWAY LIMITATIONS

- A. The Contractor shall make his own investigation of the condition of available public and private roads and of clearances, restrictions, bridge load limits, and other limitations affecting transportation and ingress and egress to the site of the work.

1.2 TEMPORARY CROSSINGS

- A. General: Continuous, unobstructed, safe, and adequate pedestrian and vehicular access shall be provided to fire hydrants, commercial and industrial establishments, churches, schools, parking lots, service stations, motels, fire and police stations, and hospitals. Safe and adequate public transportation stops and pedestrian crossings at intervals not exceeding 300 feet shall be provided. The Contractor shall cooperate with parties involved in the delivery of mail and removal of trash and garbage so as to maintain existing schedules for such services. Vehicular access to residential driveways shall be maintained to the property line except when necessary construction precludes such access for reasonable periods of time.
- B. Temporary Bridges: Wherever necessary, the Contractor shall provide suitable temporary bridges or steel plates over unfilled excavations, except in such cases as the Contractor shall secure the written consent of the individuals or authorities concerned to omit such temporary bridges or steel plates, which written consent shall be delivered to the Consultant prior to excavation. All such bridges or steel plates shall be maintained in service until access is provided across the backfilled excavation. Temporary bridges or steel plates for street and highway crossing shall conform to the requirements of the authority having jurisdiction in each case, and the Contractor shall adopt designs furnished by said authority for such bridges or steel plates, or shall submit designs to said authority for approval, as may be required.
- C. Street Use: Nothing herein shall be construed to entitle the Contractor to the exclusive use of any public street, alleyway, or parking area during the performance of the work hereunder, and he shall so conduct his operations as not to interfere unnecessarily with the authorized work of utility companies or other agencies in such streets, alleyways, or parking areas. No street shall be closed to the public without first obtaining permission of the Consultant and proper governmental authority. Where excavation is being performed in primary streets or highways, one lane in each direction shall be kept open to traffic at all times unless otherwise indicated. Toe boards shall be provided to retain excavated material if required by the Consultant or the agency having jurisdiction over the street or highway. Fire hydrants on or adjacent to the work shall be kept accessible to fire-fighting equipment at all times. Temporary provisions shall be made by the Contractor to assure the use of sidewalks and the proper functioning of all gutters, storm drain inlets, and other drainage facilities.

- D. Traffic Control: For the protection of traffic in public or private streets and ways, the Contractor shall provide, place, and maintain all necessary barricades, traffic cones, warning signs, lights and other safety devices in accordance with the requirements of the "Manual of Uniform Traffic Control Devices, Part VI - Traffic Controls for Street and Highway Construction and Maintenance Operations," published by U.S. Department of Transportation, Federal Highway Administration (ANSI D6.1).

The Contractor shall take all necessary precautions for the protection of the work and the safety of the public. All barricades and obstructions shall be illuminated at night, and all lights shall be kept burning from sunset until sunrise. The Contractor shall station such guards or flaggers and shall conform to such special safety regulations relating to traffic control as may be required by the public authorities within their respective jurisdictions. All signs, signals, and barricades shall conform to the requirements of OSHA and Subpart G, Part 1926, of the OSHA Safety and Health Standards for Construction.

The Contractor shall remove traffic control devices when no longer needed, shall repair all damage caused by installation of the devices, and shall remove post settings and backfill the resulting holes to match grade.

- E. Temporary Street Closure: If closure of any street is required during construction, the Contractor shall apply in writing to the Building Department other jurisdictional agency at least 30 days in advance of the required closure. A Detour and Traffic Control Plan shall accompany the application.
- F. Temporary Driveway Closure: The Contractor shall notify the owner or occupant (if not owner-occupied) of the closure of the driveways to be closed more than one (1) eight-hour work day at least three (3) working days prior to the closure. The Contractor shall minimize the inconvenience and minimize the time period that the driveways will be closed. The Contractor shall fully explain to the owner/occupant how long the work will take and when closure is to start.

1.3 CONTRACTOR'S WORK AND STORAGE AREA

- A. The Contractor shall make his own arrangements for any necessary off-site storage or shop areas necessary for the proper execution of the work.

PART II - PRODUCTS

(Not Used)

PART III - EXECUTION

(Not Used) END OF

SECTION 01550

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SECTION 01570 TRAFFIC CONTROL

PART 1 - GENERAL

1.01 REQUIREMENTS INCLUDED

- A. Provide, operate and maintain equipment, services and personnel, with traffic control and protective devices, as required to expedite vehicular traffic flow around the construction area.
- B. Remove temporary equipment and facilities when no longer required, restore grounds to original, or to specified conditions.

1.02 REFERENCES

Traffic regulation shall be in accordance with FDOT Roadway Construction and Bridge Construction Standards Series 102, 2019 Edition, Manual on Uniform Traffic Control Devices (MUTCD), latest Ed., and FDOT Standard Specifications, latest Ed.

1.03 TRAFFIC CONTROL PLAN

- A. The Contractor is to prepare a traffic control plan and for each phase of construction. The Contractor shall provide detailed Maintenance of Traffic (MOT) plans signed and sealed by a professional engineer to the City for their approval four weeks prior to construction. In addition, Contractor shall provide a detailed access management plan to maintain access to local businesses, residents, and school at all times for each construction phase.
- B. All proposed traffic control plans and policy statements shall be complete and in compliance with Section 1.02.

1.04 TRAFFIC SIGNALS, SIGNS AND PAVEMENT MARKINGS

- A. Provide and operate traffic control and directional signals required to direct and maintain an orderly flow of traffic in all areas under Contractor's control, or affected by Contractor's operations.
- B. Provide traffic control and direction signs, post mounted, at all areas required by Section 1.02.
- C. Traffic Signals - Construction requiring traffic signal modification shall be reported to the City Engineer at least 72 hours prior to the commencement of such activities.

All excavation work within 30 feet of any traffic signal shall be reported to the City Engineer at least 72 hours prior to its commencement.

- D. All existing traffic signs shall remain visible throughout construction activities unless superseded by required construction signing.
- E. Provide temporary traffic control pavement markings at all areas required by Section 1.02.

1.05 FLAGMEN

Provide qualified and suitably equipped flagmen when construction operations encroach on traffic lanes, as required for regulation of traffic (See Section 1.02).

1.06 FLARES AND LIGHTS

- A. Provide lights as required by Section 1.02.
 - 1. To clearly delineate traffic lanes and to guide traffic as required in Section 1.02
 - 2. For use by flagmen in directing traffic.
- B. Provide illumination of critical traffic and parking areas as required in Section 1.02.

1.07 CONSTRUCTION PARKING CONTROL

- A. Control vehicular parking to preclude interference with public traffic or parking, access by emergency vehicles, Owner's operations, or construction operations.
- B. Monitor parking of construction personnel's private vehicles.
 - 1. Maintain free vehicular access to and through parking areas and driveways.
 - 2. Prohibit parking on or adjacent to access roads, or in non-designated areas.

1.08 CONSTRUCTION VEHICLES

- A. All slow moving construction vehicles shall have a slow moving sign visible from the rear of the vehicle.
- B. All vehicles used for construction activities shall have audible back-up warning devices.

1.09 ROAD CLOSURES

- A. No road shall be closed prior to receiving approval from the City Engineer.

- B. At least seven days prior to a proposed road closure, the contractor shall submit to the City Engineer a complete traffic control plan. This plan shall include the following minimum information:
 - 1. Sketch of work site and all area roads, streets and mark driveways.
 - 2. Proposed detour route.
 - 3. All necessary traffic control devices to be used.
 - 4. Emergency contractor contact person name and phone to be available 24 hours a day.
 - 5. Estimated times/dates of road closure.

- C. The City Engineer shall have the authority to approve an emergency road closure.

PART 2 - PRODUCTS

- A. All traffic control devices shall meet or exceed FDOT certification standards.

- B. All traffic signs shall have meet FDOT standards.

PART 3 - EXECUTION

- A. Upon notification by the owner either verbally or in writing, the contractor shall correct any noted deficiencies within one hour.

- B. Inspection of all traffic control items shall be accomplished at least twice per day. One of these inspections shall be at the end of the work day or at night.

END OF SECTION

SECTION 01580 PROJECT IDENTIFICATION AND SIGNS

PART 1 - GENERAL

1.01 REQUIREMENTS INCLUDED

- A. Furnish, install and maintain one project identification sign. See end of section for a graphic on the sign details.
- B. Remove sign upon completion of construction.
- C. Allow no other signs to be displayed without approval of Engineer.

1.02 PROJECT IDENTIFICATION SIGN

One painted sign of size, design, lettering, and construction as shown on page three of this section.

- 1. Locate as directed by Engineer.
- 2. Color as indicated.

1.03 QUALITY ASSURANCE

- A. Sign Painter: Professional Experience in type of work required.
- B. Finishes, Painting: Adequate to resist weathering and fading for scheduled construction period.

PART 2 - PRODUCTS

2.01 SIGN MATERIALS

- A. Structure and Framing: May be new or used, wood or metal, in sound condition structurally adequate to work and suitable for specified finish.
- B. Sign Surfaces: Exterior softwood plywood with medium density overlay, standard large sizes to minimize joints.
- C. Rough Hardware: Galvanized
- D. Paint: Exterior quality.
 - 1. Use Bulletin colors for graphics.

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PROJECT IDENTIFICATION AND SIGNS

2. Colors for structure, framing, sign surfaces and graphics: As indicated.

PART 3 - EXECUTION

3.01 PROJECT IDENTIFICATION SIGN

- A. Paint exposed surfaces of supports, framing and surface material; one coat of primer and one coat of exterior paint.
- B. Paint graphics in styles, sizes and colors selected.
 1. Lettering shall be as noted.
 2. City Logo shall be yellow and blue.
 3. Background shall be white.
- C. Submit shop drawing for approval.

3.02 SIGN LOCATION

Sign shall be located within the City right of way in an area approved by the Engineer.

3.03 MAINTENANCE

- A. Maintain sign and supports in a neat, clean condition; repair damages to structure, framing or sign.
- B. Relocate informational sign as required by progress of the work.

3.04 REMOVAL

- A. Remove sign, framing, supports and foundations at completion of project or at direction of Engineer.

END OF SECTION

01580-2

PROJECT IDENTIFICATION AND SIGNS

SECTION 01590 FIELD OFFICES AND SHEDS

PART 1 - GENERAL

1.01 REQUIREMENTS INCLUDED

- A. Furnish, install and maintain temporary field offices/construction trailer during entire construction period.
- B. Furnish, install and maintain storage and work sheds needed for construction.
- C. At completion of work, remove field offices, sheds and contents.

1.02 RELATED REQUIREMENTS

- A. Section 01010: Summary of Work.
- B. Section 01500: Construction Facilities and Temporary Controls.

1.03 OTHER REQUIREMENTS

- A. Prior to installation of offices and sheds, consult with Engineer on location, access and related facilities. Building department permit and City approval for the locations is required.
- B. Provide the City with a copy of the agreement for the staging area between the landowner and the Contractor.

1.04 REQUIREMENTS FOR FACILITIES

- A. Construction:
 - 1. Structurally sound, weathertight, with floors raised above ground.
 - 2. Temperature transmission resistance: Compatible with occupancy and storage requirements.
 - 3. At Contractor's option, portable or mobile buildings may be used.
 - a. Mobile homes, when used, shall be modified for office use.
 - b. Do not use mobile homes for living quarters.
- B. Office for Engineer and Owner's Representative:
 - 1. A separate space for sole use of designated occupants, with secure entrance doors and one key per occupant.
 - 2. Area: 150 sq. ft. minimum, with minimum dimension eight feet.

3. Windows:
 - a. Minimum: Three, with a minimum total area of 10 percent of floor area.
 - b. Operable sash and insect screens.
 - c. Locate to provide view of construction areas.
4. Furnishings:
 - a. One standard size desk with three drawers, one per occupant.
 - b. One drafting table: 39 in. X 72 in. and 36 in. high.
 - c. One metal, double-door storage cabinet.
 - d. One plan rack to hold a minimum of six racks of project drawings.
 - e. Standard four-drawer legal-size metal filing cabinet with locks and keys.
 - f. Six LF of bookshelves.
 - g. One swivel arm chair.
 - h. Two straight chairs.
 - i. One drafting table stool.
 - j. One waste basket per desk and table.
 - k. One tackboard, 36 in. X 30 in.
5. Services
 - a. Lighting: 50 foot-candles at desk top height.
 - b. Automatic heating and mechanical cooling equipment to maintain comfort conditions.
 - c. Minimum of four 110 volt duplex electric convenience outlets, at least one on each wall.
 - d. Electric distribution panel: Two circuits minimum, 110 volt, 60 hertz service.
 - e. Convenient access to drinking water and toilet facilities.
 - f. Telephone: One direct line instrument.

C. Storage Sheds:

1. To requirements of various trades.
2. Dimensions: Adequate for storage and handling of products.
3. Ventilation: Comply with specified and code requirements for products stored.
4. Heating: Adequate to maintain temperatures specified in respective sections for the products stored.

1.05 USE OF EXISTING FACILITIES

- A. Existing facilities at the site shall not be used for field offices or for storage.

1.06 USE OF PERMANENT FACILITIES

- A. Permanent facilities shall not be used for field offices or for storage.

PART 2 - PRODUCTS

2.01 MATERIALS, EQUIPMENT, FURNISHINGS

- A. May be new or used, but must be serviceable, adequate for required purpose, and must not violate applicable codes or regulations.

PART 3 - EXECUTION

3.01 PREPARATION

- A. Fill and grade sites for temporary structures to provide surface drainage.
 - 1. Dimensions: Adequate for storage and handling of products.

3.02 INSTALLATION

- A. Construct temporary field office and storage sheds on proper foundations, provide connections for utility services.
 - 1. Secure portable or mobile buildings when used.
 - 2. Provide steps and landings at entrance doors.
- B. Mount thermometer at convenient outside location, not in direct sunlight.

3.03 MAINTENANCE AND CLEANING

- A. Provide periodic maintenance and cleaning for temporary structures, furnishings, equipment and services.

3.04 REMOVAL

- A. Remove temporary field offices, contents and services at a time no longer needed.
- B. Remove storage sheds when no longer needed.
- C. Remove foundations and debris; grade site to required elevations and clean the areas.

END OF SECTION

01590-3

FIELD OFFICES AND SHEDS

SECTION 01600 MATERIAL AND EQUIPMENT

PART 1 - GENERAL

1.01 REQUIREMENTS INCLUDED

- A. Products.
- B. Workmanship.
- C. Manufacturer's Instructions.
- D. Transportation and Handling.
- E. Storage and Protection
- F. Substitutions and Product Options.

1.02 RELATED REQUIREMENTS

- A. Section 01010: Summary of Work.
- B. Section 01020: Allowances.
- C. Section 01090: Reference Standards.
- D. Section 01340: Shop Drawings, Product Data and Samples.
- E. Section 01630: Substitutions and Product Options.
- F. Section 01700: Contract Closeout.

1.03 PRODUCTS

- A. Products include material, equipment, and systems.
- B. Comply with Specifications and referenced standards as minimum requirements.
- C. Components required to be supplied in quantity within a Specification section shall be the same, and shall be interchangeable.

1.04 WORKMANSHIP

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MATERIAL AND EQUIPMENT

- A. Comply with industry standards except when more restrictive tolerances of specified requirements indicate more rigid standards or more precise workmanship.
- B. Perform work by persons qualified to produce workmanship for specified quality.
- C. Secure Products in place with positive anchorage devices designed and sized to withstand stresses, vibration, and racking.

1.05 MANUFACTURER'S INSTRUCTIONS

- A. When work is specified to comply with manufacturer's instructions, submit copies as specified in Section 01340, and distribute copies to persons involved, and maintain one set in field office.
- B. Perform work in accordance with details of instructions and specified requirements. Should a conflict exist between Specifications and instructions, consult with the Engineer.

1.06 TRANSPORTATION AND HANDLING

- A. Provide equipment and personnel necessary to handle products, including those provided by Owner, by methods to prevent soiling or damage to products or packaging.
- B. Provide additional protection during handling as necessary to prevent scraping, marring or otherwise damaging products or surrounding surfaces.
- C. Handle products by methods to prevent bending or overstressing.
- D. Lift heavy components only at designated lifting points.

1.07 STORAGE AND PROTECTION

- A. Store Products in accordance with manufacturer's instructions, with seals and labels intact and legible. Store sensitive Products in weather-tight enclosures and maintain within temperature and humidity ranges required by manufacturer's instructions.
- B. For exterior storage of fabricated Products, place on supports above ground. Cover Products subject to deterioration with impervious sheet covering; and provide ventilation to avoid condensation.
- C. Store loose granular materials on solid surfaces in a well-drained area; prevent mixing with foreign matter.

- D. Arrange storage to provide access for inspection. Periodically inspect to assure Products are undamaged, and are maintained under required conditions.
- E. After installation, provide coverings to protect Products from damage from traffic and construction operations. Remove when no longer needed.
- F. During such periods of time that are designated by the United States Weather Bureau as being a hurricane warning or alert, construction materials or equipment shall be secured against displacement by wind forces.

PART 2 - PRODUCTS

Not used.

PART 3 - EXECUTION

Not used.

END OF SECTION

01600-3

MATERIAL AND EQUIPMENT

SECTION 01630 SUBSTITUTIONS AND PRODUCT OPTIONS

PART 1 - GENERAL

1.01 REQUIREMENTS INCLUDED

Furnish and install Products specified, under options and conditions for substitutions stated in this Section.

1.02 RELATED REQUIREMENTS

- A. Information for Bidders and General Conditions.
- B. Section 01020: Allowances.
- C. Section 01340: Shop Drawings.
- D. Section 01700: Contract Closeout.

1.03 PRODUCTS LIST

- A. Within 30 days after award of Contract, submit to Engineer five copies of complete list of major Products which are proposed for installation.
- B. Tabulate Products by specification section number and title.
- C. For products specified only by reference standards, list for each such Product:
 - 1. Name and address of manufacturer.
 - 2. Trade Name.
 - 3. Model or catalog designation.
 - 4. Manufacturer's data:
 - a. Reference standards.
 - b. Performance test data.

1.04 CONTRACTOR'S OPTIONS

- A. For Products specified only by reference standard, select product meeting that standard, by any manufacturer.
- B. For products specified by naming several products or manufacturers, select any one or those products and manufacturers names which complies with Specifications.

- C. For products specified by naming only one or more products or manufacturers and stating "or equal", submit a request as for substitutions, for any product or manufacturer which is not specifically named.

1.05 SUBSTITUTIONS

- A. Within a period of 30 days after award of Contract, Engineer will consider formal requests from the Contractor for substitution of products in place of those specified:

After the end of that period, the request will be considered only in case of product unavailability or other conditions beyond the control of the Contractor.

- B. Submit a separate request for each substitution. Support each request with:

1. Complete data substantiating compliance of the proposed substitution with requirements stated in the Contract Documents:
 - a. Product identification, including manufacturer's name and address.
 - b. Manufacturer's literature; identify:
 - 1) Product description.
 - 2) Reference standards.
 - 3) Performance and test data.
 - c. Samples, as applicable.
 - d. Name and address of similar projects on which product has been used, and the date of each installation
2. Itemized comparison of the proposed substitution with product specified; List significant variations.
3. Data relating to changes in the construction schedule.
4. Any effect of the substitution on separate contracts.
5. List of changes required in other work or products.
6. Accurate cost data comparing proposed substitution with product specified.
7. Designation of required license fees or royalties.
8. Designation of availability of maintenance services, and sources of replacement materials.

- C. Substitutions will not be considered for acceptance when:

1. They are indicated or implied on Shop Drawings or product data submittals without a formal request from Contractor.
2. They are requested directly by a subcontractor or supplier.
3. No Data relating to changes in construction schedule.
4. Any effect of substitution on separate contracts.
5. List of changes required in other work or products.
6. Accurate cost data comparing proposed substitution with product specified.
7. Designation of required license fees or royalties.
8. Designation of availability of maintenance services, sources of replacement materials.

9. Acceptance will require substantial revision of Contract Documents.

D. Substitute products shall not be ordered or installed without written acceptance of Engineer.

E. Engineer will determine the acceptability of proposed substitutions.

1.06 CONTRACTOR'S REPRESENTATION

A. In making formal request for substitution Contractor represents that:

1. He has investigated proposed product and has determined that it is equal to or superior in all respects to that specified.
2. He will provide the same warranties or bonds for substitution as for product specified.
3. He will coordinate installation of accepted substitution into the Work, and will make such changes as may be required for the Work to be complete in all respects.
4. He waives claims for additional costs caused by substitution which may subsequently become apparent.
5. Cost data is complete and includes related costs under his Contract, but not:
 - a. Costs under separate contracts.
 - b. Engineer's costs of redesign or revision of Contract Documents.

1.07 ENGINEER DUTIES

A. Review Contractor's requests for substitutions with reasonable promptness.

B. Notify Contractor, in writing, of decision to accept or reject requested substitution.

PART 2 - PRODUCTS

Not used.

PART 3 - EXECUTION

Not used.

END OF SECTION

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SUBSTITUTIONS AND PRODUCT OPTIONS

SECTION 01650 STARTING OF MECHANICAL SYSTEMS

PART 1 - GENERAL

1.01 REQUIREMENTS INCLUDED

- A. Provide material and labor required to perform start-up of each respective item of equipment and system. Start-up shall include: adjustment and balance procedures.
 - 1. Provide information and assistance required, cooperate with test, adjust and balance services.
- B. Comply strictly with specified procedures in starting up mechanical systems.
- C. Provide Factory Service Representative to check equipment and certify to its proper installation prior to start-up and during start-up and testing.

1.02 RELATED REQUIREMENTS

- A. Section 01041: Project Coordination.
- B. Each Specification Section as Applicable.

1.03 START-UP PROCEDURES

- A. Bearings:
 - 1. Inspect for cleanliness, clean and remove foreign materials.
 - 2. Verify alignment.
 - 3. Replace defective bearings, and those which run rough or noisy.
 - 4. Grease as necessary, and in accord with manufacturer's recommendations.
- B. Drives:
 - 1. Adjust tension in V-belt drives, and adjust varipitch sheaves and drives for proper equipment speed.
 - 2. Adjust drives for alignment of sheaves and V-belts.
 - 3. Clean, remove foreign materials before starting operation.
- C. Motors:
 - 1. Check each motor for amperage comparison to nameplate value.
 - 2. Correct conditions which produce excessive current flow, and which exist due to equipment malfunction.

D. Pumps:

1. Check mechanical seals for cleanliness and adjustment before running pump.
2. Inspect shaft sleeves for scoring.
3. Inspect mechanical faces, chambers, and seal rings, replace if defective.
4. Verify that piping system is free of dirt and scale before circulating liquid through the pump.

E. Control Valves:

1. Inspect both hand and automatic control valves, clean bonnets and stems.
2. Tighten packing glands to assure no leakage, but permit valve stems to operate without galling.
3. Replace packing in valves to retain maximum adjustment after system is judged complete.
4. Replace packing on any valve which continues to leak.
5. Remove and repair bonnets which leak.
6. Coat packing gland threads and valve stems with a surface preparation of "Moly-Cote", "Fel-Pro", or equal after cleaning.
7. Verify that control valve seats are free from foreign material, and are properly positioned for intended service.

F. Tighten flanges after system has been placed in operation.

1. Replace flange gaskets which show any sign of leakage after tightening.

G. Inspect screwed joints for leakage.

1. Promptly remake each joint which appears to be faulty, do not wait for rust to form.
2. Clean threads on both parts, apply compound and remake joints.

H. After systems has been placed in operation, clean strainers, dirt pockets, orifices, valve seats and headers in fluid systems, to assure being free of foreign materials.

I. Open air vents, remove operation elements.

1. Clean thoroughly, replace internal parts and put back into operation.

K. Set and calibrate draft guages of air filters and other equipment.

L. Inspect fan wheels for clearance and balance.

1. Provide factory-authorized personnel for adjustment when needed.

- M. Check each electrical control circuit to assure that operation complies with specifications and requirements to provide desired performance.
- N. Inspect each pressure gauge and thermometer for calibration.
 - 1. Replace items which are defaced, broken, or which read incorrectly.
- O. Repair damaged insulation.
- P. Vent gases trapped in any part of systems.
 - 1. Verify that liquids are drained from all parts of gas or air systems.
- Q. Check piping for leaks at every joint, and at every screwed, flanged, or welded connection, using "Leak-Tek" or other approved compound.

PART 2 - PRODUCTS

Not used.

PART 3 - EXECUTION

Not used.

END OF SECTION

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STARTING OF MECHANICAL SYSTEMS

SECTION 01660
TESTING, ADJUSTING & BALANCING OF ENVIRONMENTAL SYSTEMS

PART 1 - GENERAL

1.01 REQUIREMENTS INCLUDED

- A. Supplementary Conditions: Retainage to be withheld against installing contractor until final completion of testing, adjusting and balancing for one season.
- B. Section 01041: Project Coordination.
- C. Section 01650: Starting of Mechanical Systems.
- D. Section 01730: Operating and Maintenance Data.

1.02 DESCRIPTION

- A. Perform testing of central station equipment, balancing of distribution system, and adjustment of terminal devices for HVAC systems of Project.
- B. Provide instruments required for testing, adjusting and balancing operations.
 - 1. Make instruments available to Engineer to facilitate spot checks during testing.
 - 2. Retain possession of instruments, remove from site at completion of services.

1.03 QUALITY ASSURANCE

- A. The organization which performs the service shall be a current member in good standing, certified to perform services required for the Project, of either:
 - 1. Associated Air Balance Council (AABC).
 - 2. National Environmental Balancing Bureau (NEBB).
- B. At least 60 days before start of required Work, transmit to Engineer the name of the organization proposed to perform the services.
- C. Comply with applicable procedures and standards of the certification sponsoring association; either:
 - 1. "National Standards for Field Measurements and Instrumentation, Total Systems Balance, Air Distribution-Hydronics Systems", dated 1974 by AABC.

2. "Procedural Standards for Testing, Adjusting and Balancing of Environmental Systems", dated January 1977, by NEBB.
3. Perform services under direction of the supervisor who is designated and qualified under certification requirements of sponsoring association.
4. Calibration and maintenance of instruments shall be in accord with requirements of the standards, and calibration histories for each instrument shall be available for examination.
5. Accuracy of measurements shall comply with requirements of the standards.

1.04 SUBMITTALS

- A. Preliminary: Submit three copies of documentation to confirm compliance with Quality Assurance provisions:
 1. Organization supervisor and personnel training and qualifications.
 2. Specimen copy of each of the report forms proposed for use.
- B. Second: At least fifteen days prior to starting field Work, submit three copies of:
 1. A set of report forms filled out as to the design flow values and the installed equipment pressure drops, and the required CFM for air terminals.
 2. A complete list of instruments proposed to be used, organized in appropriate categories, with data sheets for each. Show:
 - a. Manufacturer and model number.
 - b. Description and use when needed to further identify the instrument.
 - c. Requests for re-calibration of specific instruments.
- C. Third: At least fifteen days prior to Contractor's request for final inspection, submit three copies of final reports on applicable reporting forms for review.
 1. Schedule testing and balancing of parts of the systems which is delayed due to seasonal, climatic, occupancy, or other conditions beyond control of the Contractor as early as the proper conditions will allow after consultation with Engineer.
 2. Submit reports of delayed testing promptly after execution of those services.
 3. Form of Final Reports:
 - a. Each individual final reporting form must bear the signature of the person who recorded data and that of the TAB supervisor of the reporting organization.
 - b. Identify instruments of all types which are used, and last date of calibration of each.

1.05 JOB CONDITIONS

- A. Prior to start of testing, adjusting and balancing, verify that required "Job Conditions" are met:
 - 1. System installation is complete and in full operation.
 - 2. Outside conditions are within a reasonable range relative to design conditions.
 - 3. Lights are turned "on" when lighting is included in the cooling load.
 - 4. Special equipment such as computers, laboratory equipment, and electronic equipment are in full operation.
- B. Verify that requirements for preparation for testing and balancing have been met for elements for each of the systems which require testing.

1.06 PROCEDURES, GENERAL

- A. Comply fully with the procedural standards for the certifying association under whose standards service will be performed.
 - 1. Execute each step of the prescribed TAB procedures without omission.
 - 2. Accurately record the required data.

1.07 AIR BALANCING

- A. Make measurements in accord with recognized procedures and practices of the certifying association.
- B. Measure air volume discharge at each outlet and adjust air outlets to design air volumes within ten percent over or under.
- C. Adjust fan speeds and motor drives within drive limitations for required air volume.
 - 1. Set a speed to provide air volume at farthest distance without excess static pressure.
- D. Measure and adjust air supply and exhaust fan units to deliver design conditions at 100 percent cooling.
- E. Adjust outside air automatic dampers, outside air, return air, and exhaust dampers for design conditions.
- F. Measure static air pressure conditions on air supply units, including filter and coil pressure drops, and total pressure across the fan.

- G. Evaluate building and room pressure conditions to determine adequate supply and return air conditions.
- H. Evaluate space and zone temperature conditions to determine adequate performance of the systems to maintain temperatures without draft.
- I. Measure temperature conditions across outside air, return air, and e
- J. Mark balancing dampers and cocks.

1.08 HYDRONIC BALANCING

Not used.

1.09 COORDINATION

- A. Coordinate services with the work of the various trades to ensure rapid completion of the services.
- B. Promptly report to Engineer any deficiencies noted during performance of services to allow immediate corrective action.

PART 2 - PRODUCTS

Not used.

PART 3 - EXECUTION

Not used.

END OF SECTION

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TESTING, ADJUSTING & BAL. ENV. SYSTEMS

SECTION 01672 TESTING PIPING SYSTEMS

PART 1 - GENERAL

1.01 REQUIREMENTS INCLUDED

- A. Perform specified services with Contractor's qualified personnel, or employ and pay for a qualified organization to perform specified services.
- B. Domestic and Small Diameter Systems Test.
- C. Interior Drainage Systems.
- D. Underground Sewer Systems.
- E. Exterior and Interior Process Piping Systems.
- F. Gas and Air Piping Systems.

1.02 RELATED REQUIREMENTS

- A. Section 01200: Project Meetings
- B. Section 02675: Disinfection of Potable Water Lines.
- C. Section 01700: Contract Closeout.

1.03 DESCRIPTION

- A. Perform testing of piping systems as specified below.
- B. Provide instruments required for testing of piping systems.
 - 1. Make instruments available to Engineer to facilitate spot checks during testing.
 - 2. Retain possession of instruments, remove from site at completion of services.
- C. Provide all water required for flushing and testing.
- D. Provide all necessary pumping equipment and other equipment, materials and facilities required for proper completion of the flushing and testing specified.

- E. Source and quality of water, procedure and test equipment shall be acceptable to the Engineer.
- F. All tests shall be made in the presence of the Engineer. Notify Engineer at least 48 hours before any Work is to be inspected or tested.
- G. If inspection or test shows defects, the piping system(s) shall be repaired or replaced and inspection repeated, until such piping is acceptable to the Engineer.
- H. All pipe, fittings, valves and joints shall be carefully examined during test. Leaky joints shall be tightened by remaking the joint. Repair of lead joints with a caulking tool using wicking, or tinfoil will not be accepted.
- I. Sections of the system may be tested separately, but when so tested it shall be distinctly understood that any defect which may subsequently develop in a section already tested and accepted shall promptly be corrected and that section retested.
- J. Disposal of the water used for testing shall be subject to the approval of the Engineer.

1.04 QUALITY ASSURANCE

- A. The organization which performs the testing shall, prior to testing, provide their qualifications and demonstrate their ability to perform the services to the satisfaction of the Engineer.

1.05 SUBMITTALS

- A. Preliminary:
 - 1. Submit three copies of documentation to confirm compliance with Quality Assurance provisions:
 - a. Organization supervisor and personnel training and qualifications.
 - b. Specimen copy of each of the report forms proposed for use.
- B. At least fifteen days prior to Contractor's request for final inspection, submit three copies of final reports on applicable reporting forms, for review.
 - 1. Each individual final reporting form must bear the signature of the person who recorded data and that of the supervisor of the reporting organization.
 - 2. Identify instruments of all types which were used, and last date of calibration of each.

1.06 JOB CONDITIONS

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TESTING PIPE SYSTEMS - POTABLE & NON-POTABLE

- A. Prior to start of testing of piping systems, verify that required "Job Conditions" are met:
 - 1. System or system element installation is complete.
 - 2. All required materials, water, instruments, etc. are on hand.
 - 3. All other preparations are completed.

1.07 TESTING PROCEDURES

- A. Domestic and Small Diameter Process Systems Test:
 - 1. Domestic Water and process system four inches and under in size, including hot and cold water systems, water supply lines, chemical handling and process systems, shall all be tested and approval obtained prior to painting, placing of any backfill, installation of insulating covering, or concealment within the building construction.
 - 2. All such piping systems shall be tested at a pressure of 100 psi unless written approval for a lesser test pressure is obtained from the Engineer.

- B. Interior Drainage System:
 - 1. The entire drainage system inside teh buildings, including underground sanitary and storm sewer and soil waste, vent and downspout piping shall be tested with air or water.
 - 2. Teh tests shall be applied to the drainage system in sections as directed by the Engineer.
 - 3. No section shall be tested with less than a 10 foot head of water or five pounds per square inch of air pressure and all underground storm sewer and downspout piping shall be tested with a pressure equal to at least 10 feet above the highest roof drain.
 - 4. In general, one of the following tests will be required, as the plumbing on each floor is completed.
 - a. Water Test:
 - (1) Each section shall be tightly plugged except the highest opening of the section under test. The Contractor shall set up a temporary standpipe on the highest opening not less than 10 feet high above the opening and fill the test section with water.
 - (2) In testing successive sections, at least the upper 10 feet of the next preceding section shall be retested, so that no joint or pipe in the building shall have been subjected to a test of less than a head of 10 feet of water.
 - (3) The water pressure shall remain constant for not less than two hours without the addition of water.

- (4) When vertical stacks above the ground floor, together with their branch waste and vent pipes, are tested separately, a plug shall be inserted in the cleanout at the base of the vertical stack being tested in lieu of filling entire system in the building with water.

b. Air Test:

- (1) The air test shall be made by attaching an air compressor or test apparatus to any suitable opening, and closing all other inlets and outlets to the system, then forcing air into the system until there is a uniform pressure sufficient to balance a column of mercury 10 inches in height, or five pounds per square inch, whichever is greater, on the entire system. This pressure shall be maintained constant for 30 minutes.
- (2) Water tests are preferred, and shall be made, unless prohibited by freezing weather. In all cases, prior approval of the Engineer shall be obtained before substituting air tests for water tests.

C. Underground Sewer System:

1. After backfill has been placed, the Engineer shall visually inspect, by lamping, all gravity flow lines to check alignment and grade. All obstructions shall be removed. Any sewer showing less than a full circle of light when a lamp is viewed between adjacent manholes shall be considered unsatisfactory and shall be repaired by the Contractor without additional compensation.
2. All force mains shall be tested before the joints are covered by applying a hydrostatic pressure of 100 psi for a duration of two hours or as directed by the Engineer.
3. All underground sewer system piping for gravity flow shall be tested according to one of the following leakage test methods as approved by the Engineer. When leakage occurs in excess of the specified limits, defective pipe or joints shall be located and repaired at the expense of the Contractor. If defective portions cannot be located, the Contractor, at his own expense, shall remove and reconstruct as much of the original work as necessary to obtain a sewer testing within the allowable leakage limits.
 - a. Infiltration Tests:
 - (1) When the ground water level is above the level of the top of the sewer, a test shall be made for infiltration. The infiltration test will be made by sealing off a length of sewer and measuring the amount of infiltration by the depth of flow over a measuring weir, or by pumping the infiltrated water into barrels, or other suitable containers.
 - (2) Tests shall be conducted for a minimum of four hours. Infiltration leakage shall not exceed 50 gallons per 24

hours, per inch diameter, per mile of sewer (0.038 gallons/day/inch/foot).

b. Exfiltration Tests:

- (1) When the ground water table is below the top of the pipe, the sewer shall be tested for leakage by exfiltration. Exfiltration leakage test shall consist of plugging off the particular section of the sewer pipe between two manholes, filling the section with water to the rim in the upper manhole and allowing it to stand not less than four hours.
- (2) The section shall then be refilled with water up to the original point and after two additional hours the drop in the water surface shall be measured. With this measurement over the two hour period and based on the diameter of the manhole, the Engineer will compute the leakage, which in no case shall exceed 50 gallons per inch diameter, per 24 hours, per mile of pipe for exfiltration (0.076 gal./day/inch/foot).

c. Air Testing:

- (1) After backfilling the Contractor shall conduct a pressure test using low pressure air. The contractor shall furnish all labor, tools and equipment for air testing. The section of sewer to be tested shall be isolate with pneumatic plugs that have a sealing length greater than the diameter of the pipe and are capable of resisting test pressures without external bracing or blocking.
- (2) The sewer shall be pressurized to four psi gauge greater than the average back pressure of any ground water over the pipe. This pressure shall be maintained until the temperature of the pipe and the air have equalized, but not less than two minutes. After the temperature has stabilized, the air supply shall be disconnected and the pressure allowed to drop. The time in minutes required for the pressure to drip from 3.5 psig to 2.5 psig shall not be less than t as computed as follows: $t = 0.47d$, where d is the pipe diameter in inches.

D. Exterior and Interior Process Piping Systems:

1. Exterior and interior process piping shall pass a hydrostatic pressure test and a leakage test as defined below before acceptance. The pressure and leakage test shall be made after all jointing operations are completed and after backfilling is completed. All concrete reaction blocks, or other bracing and restraining facilities, shall be in place at least 14 days before the initial filling of the line.
2. The pressure and leakage tests may be applied to an individual section of line isolated between the existing line valves, or may be applied to shorter

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sections of line at the Contractor's option. If shorter sections are tested, test plugs or bulkheads as required at the ends of the test section shall be furnished and installed by the Contractor at his expense, together with all anchors, braces, and other devices required to withstand the hydrostatic pressure on such plug or plugs, without imposing any hydraulic thrust on the pipe line or any part thereof. The Contractor shall be solely responsible for any and all damage to the pipe line, and/or to any other facility, which may result from the failure of test plugs furnished by him or supports therefor, in any case.

3. Tests:

a. Hydrostatic Tests.

- (1) The section of line to be tested shall be slowly filled with water and all air expelled from the pipe. Care shall be taken that all air valves are installed and open in the section being filled, and that the rate of filling does not exceed the venting capacity of the air valves.
- (2) Hydrostatic test pressure shall be as follows:

Pressure Test System	Rating
Effluent Piping	20 psi
Potable Water	100 psi
Miscellaneous Pressure Pipe	100 psi
Other Process Piping	20 psi

- (3) After the section of the line to be tested has been filled with water, the specified test pressure shall be applied and maintained for a period of not less than two hours for whatever longer period as may be necessary for the Engineer to complete the inspection of the line under test and to locate any and all defective joints and pipe line materials. If the repairs are needed, such repairs shall be made, the line refilled, and the test pressure applied as before; this operation shall be repeated until the line and all parts of it withstand the test pressure in a satisfactory manner.

b. Leakage Test for Slip Type Joint.

- (1) After the specified pressure test has been completed, the line being tested shall be subjected to a leakage test under a hydrostatic pressure selected by the Contractor in the range of 50 percent to 100 percent of the pressure specified for the pressure test. Regardless of the leakage test pressure used, such pressure shall be maintained constant (within a maximum variation of plus or minus five percent) during the entire time that line leakage measurements are being made, so that the allowable leakage rate may be determined accurately from the leakage rate formula.

(2) Leakage measurements shall not be started until a constant test pressure has been established. Compression of air trapped in unvented pipes or fittings will give false leakage readings under changing pressure conditions. After the test pressure has been established and stabilized, the line leakage shall be measured by means of a water meter installed on the line side of the force pump.

(3) Line leakage is defined as the total amount of water introduced into the line as measured by the meter during the leakage test. The pipe line, or tested section thereof, will not be accepted if and while it has a leakage rate in excess of that rate determined by the following formula:

$$L = 0.00025 NDp, \text{ in which:}$$

L = Maximum permissible leakage rate, in gallons per hour, throughout the entire length of line being tested.

N = Number of gasketed joints (two for each flexible coupling joint) in the line under test.

D = Nominal internal diameter (in inches) of the pipe in the line.

p = The square root of the actual pressure in psig on all joints in the tested portion of the line (not necessarily the authorized test pressure). This actual pressure shall be determined by finding the difference between the average elevation of all tested pipe joints and the elevation of the pressure plane represented by the specified or authorized leakage test pressure, and then converting this difference, in feet of head, to pounds per square inch hydrostatic pressure.

The average actual pressure may be assumed to be equal to the leakage test pressure where the maximum difference in elevations of the pipe joints under test does not exceed 20 feet.

(4) There shall be no leakage allowed in threaded, flanged, mechanical joint or welded pipeline construction whether buried or exposed. The field welded pipe joints shall be inspected for pinholes and tested by means of soap suds and vacuum look box or other methods acceptable to the Engineer. Pinholes and leaks shall not be repaired by peening. The defective portion of weld shall be cut out and rewelded. All testing and repairs shall meet the approval of the Engineer at all times.

(5) Where the leakage test shows a leakage rate in excess of the permissible maximum, the Contractor shall make all necessary surveys in connection with the location and repair of leaking joints to the extent required to reduce the total leakage to the prescribed amount.

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(6) All joints in piping shall be watertight and free from visible leaks during the prescribed tests. Each and every leak which may be discovered at any time prior to the expiration of one year from and after the date of final acceptance of the work by the Owner shall be located and repaired by and at the expense of the Contractor, regardless of any amount that the total line leakage rate during the specified leakage test may be below the specified maximum rate.

E. Gas and Air Piping Systems: Gas and air piping systems shall be tested with air at a pressure of 20 psig. The test pressure shall be maintained for a period of not less than two hours and for whatever longer period as may be necessary for the Engineer to complete the inspection of the line under test and to locate; any and all defective joints and pipe line materials.

PART 2 - PRODUCTS

Not used.

PART 3 - EXECUTION

3.01 GENERAL

- A. Prior to testing, flush all piping systems with water to remove all debris in the system.
- B. For testing refer to the Testing Procedures above.

END OF SECTION

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TESTING PIPE SYSTEMS - POTABLE & NON-POTABLE

SECTION 01700 CONTRACT CLOSEOUT

PART 1 - GENERAL

1.01 REQUIREMENTS INCLUDED

- A. Substantial Completion
- B. Final inspection after completion
- C. Final cleaning
- D. Contractor's closeout submittals
- E. Final adjustment of accounts

1.02 SUBSTANTIAL COMPLETION

- A. When CONTRACTOR considers work has reached substantial completion, he shall submit to the ENGINEER the following:
 - 1. Written notice that the work is substantially complete in accordance with Contract Documents.
 - 2. A list of items yet to be completed or corrected and explanations thereof.
- B. Within a reasonable time upon receipt of such notice, the ENGINEER will make an inspection, if necessary, to determine the status of completion.
- C. Should the ENGINEER determine that the work is not substantially complete:
 - 1. The ENGINEER will promptly notify the CONTRACTOR in writing, giving the reasons thereof.
 - 2. CONTRACTOR shall remedy the deficiencies in the work and send a second written notice of Substantial Completion to the ENGINEER.
 - 3. Upon receipt of the second notice, the ENGINEER will reinspect the Work.
- D. When the ENGINEER finds that the Work is substantially complete he will issue a Certificate of Substantial Completion with a tentative list of items to be completed or corrected before final inspection.

1.03 FINAL INSPECTION AFTER COMPLETION

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- A. When CONTRACTOR considers the Work is complete with all minor deficiencies completed or corrected, he shall submit written certification that:
 - 1. Contract Document requirements have been met.
 - 2. Work has been inspected for compliance with Contract Documents.
 - 3. Work has been completed in accordance with Contract Documents.
 - 4. All minor deficiencies have been corrected or completed and the Work is ready for final inspection.
 - 5. Project record documents are complete and submitted.
- B. Within a reasonable time upon receipt of such certification, the ENGINEER will make an inspection to verify the status of completion.
- C. Should the ENGINEER determine that the work is incomplete or defective:
 - 1. The ENGINEER will promptly notify the CONTRACTOR in writing, listing the incomplete or defective work.
 - 2. CONTRACTOR shall remedy the deficiencies in the work and send a second written certification to the ENGINEER that the Work is complete.
 - 3. Upon receipt of the second certification, the ENGINEER will reinspect the Work.
- D. When the ENGINEER determines that the work is acceptable, under the Contract Documents, he shall request the CONTRACTOR to make closeout submittals.

1.04 FINAL CLEANING

- A. Execute prior to final inspection.
- B. Clean site; sweep paved areas, rake clean other surfaces.
- C. Remove waste and surplus materials, rubbish, and construction facilities from the Project and from the site.

1.05 CONTRACTOR'S CLOSEOUT SUBMITTALS

- A. Project Record Documents
 - 1. At Contract closeout, submit documents with transmittal letter containing date, Project title, CONTRACTOR'S name and address, list of documents, and signature of CONTRACTOR.
 - 2. Drawings; Legibly marked to record actual construction:

- a. Horizontal and vertical locations of underground utilities and appurtenances, referenced to permanent surface improvements.
- b. Drawings shall be signed and sealed by a surveyor registered in the State of Florida.
3. Specifications and Addenda; Legibly mark each Section to record.
4. Changes made by Field Order or by Change Order.

B. Evidence of payment and Release of Liens.

1.06 FINAL ADJUSTMENT OF ACCOUNTS

A. Submit a final statement of accounting to the Engineer.

B. Statement shall reflect all adjustments to the Contract Sum.

1. The original Contract sum.
2. Additions and deductions resulting from:
 - a. Previous change orders or written amendment.
 - b. Allowances
 - c. Unit prices
 - d. Deductions for uncorrected work.
 - e. Penalties and bonuses
 - f. Deductions for liquidated damages
 - g. Other adjustments
3. Total Contract Sum as adjusted
4. Previous payments
5. Sum remaining due

PART 2 - PRODUCTS

Not used.

PART 3 - EXECUTION

Not used.

END OF SECTION

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CONTRACT CLOSEOUT

**SECTION 01720
PROJECT RECORD DOCUMENTS**

PART 1 - GENERAL

1.01 REQUIREMENTS INCLUDED

- A. Maintain at the site of the OWNER a record copy of:
 - 1. Drawings
 - 2. Specifications
 - 3. Addenda
 - 4. Change Orders and other modifications to the Contract.
 - 5. Approved Shop Drawings, Product Data and Samples.
 - 6. Field Test Records.

1.02 RELATED REQUIREMENTS

- A. All applicable sections of the Specifications.
- B. Conditions of the Contract.

1.03 MAINTENANCE OF DOCUMENTS AND SAMPLES

- A. Store documents and samples in CONTRACTOR's field office apart from documents used for construction.
 - 1. Provide files and racks for storage of documents.
 - 2. Provide locked cabinet or secure storage space for storage of samples.
- B. File documents and samples in accordance with CSI format.
- C. Maintain documents in a clean, dry, legible condition and in good order. Do not use record documents for construction purposes.
- D. Make documents and samples available at all times for inspection by OWNER's Representative.

1.04 MARKING DEVICES

Provide felt tip marking pens for recording information in the color code designated by OWNER's Representative.

1.05 RECORDING

- A. Label each document, "PROJECT RECORD" in neat large printed letters, or by rubber stamp.
- B. Record information concurrently with construction progress. Do not conceal any work until required information is recorded.
- C. Drawings: Legibly mark to record actual construction (hard copy):
 - 1. Horizontal and vertical locations of underground utilities and appurtenances, referenced to permanent surface improvements.
 - 2. Location of internal utilities and appurtenances concealed in the construction, referenced to visible and accessible features of the structures.
 - 3. Field changes of dimension and detail.
 - 4. Changes made by Field Order or by Change Order.
 - 5. Details not on original Contract Drawings.
- D. Specifications and Addenda; legibly mark each Section to record:
 - 1. Manufacturer, trade name, catalog number, and supplier of each produce and item of equipment actually installed.
 - 2. Changes made by Field Order or by Change Order.

1.06 AS-BUILT PLANS (RECORD DRAWINGS)

- A. The CONTRACTOR shall maintain full size (24"x36") field drawings to reflect the "as-built" items of work as the work progresses. Upon completion of the work, the CONTRACTOR shall prepare a record set of "as-built" drawings on full-size, reproducible material and an electronic file in ACAD 2000 Format or Latest Version. One set of full size design drawings on reproducible material will be furnished to the CONTRACTOR by the design ENGINEER at the current square foot price. An electronic file of the design drawings on a compact disk will be furnished to the CONTRACTOR by the design ENGINEER at no additional cost. No additional payment will be made for those "as-built" drawings.
- B. The cost of maintaining record changes, and preparation of the Record Drawings shall be included in the unit prices bid for the affected items. Upon completion of the work the CONTRACTOR shall furnish the ENGINEER the reproducible "as-built" Drawings and the electronic files. The completed Record drawings shall be delivered to the Engineer at least 48 hours prior to final inspection of the work. **The Final inspection will not be conducted unless the Record Drawings are in the possession of the ENGINEER.**
- C. The completed (or final) record drawings shall be certified by a Professional Land surveyor registered in the State of Florida. This certification shall consist of the surveyor's embossed seal bearing his registration number, the surveyor's signature and date on each sheet of the drawing set. In addition, the key sheet, cover sheet or first sheet of the plans set shall list the business address and telephone number of the surveyor.
- D. Representative items of work that should be shown on the record drawings as verified, changed or added are shown below:
1. Plans:
 - a. Structure types, location with grade of rim and flow-line elevations.
 - b. Sewer type, length, size and elevations.
 - c. Utility type, length, size and elevation in conflict structures.
 - d. All maintenance access structures, valves and hydrants within right-of way.
 - e. Spot (critical) elevations at plateaued intersections, P.C., P.T., midpoint of all intersections.
 - f. Sewer laterals shall be stationed between maintenance access structures.

2. Pavement Marking and Signing Plans: Sign location where installed if different from plans.
 3. Water and Sewer Plans: Location (horizontal and vertical) of all pipe lines, structures, fittings, valves and appurtenances and water /sanitary sewer pipe crossings.
- E. The CONTRACTOR shall submit three sets of progress record drawings with each application for payment. These drawings shall accurately depict the work completed and for which payment is being requested.
- F. As-built drawings shall include the following criteria at a minimum.
1. As-builts of water lines shall include the following information:
 - a. Top of pipe elevations and horizontal location every 100 lf.
 - b. Locations and elevations of all fittings including bends, tees, gate valves, double detector check valves, fire hydrant, etc.
 - c. All tie-ins to existing lines shall be as-built.
 - d. The ends of all water services at the buildings or homes shall be as-built or where the water service terminates.
 2. As-builts of all gravity sanitary sewer lines include the following information:
 - a. Rims, inverts and length of piping between structures as well as slopes.
 - b. The stub ends of all sewer laterals shall be located and if there are any cleanouts installed on the sewer laterals then the invert elevation of these cleanouts need to be obtained.
 - c. Lift station as-builts shall consist of top of wet well elevation, invert elevation of the incoming line, bottom of the wet well and as-builts of the compound area.
 3. Force main as-builts shall be prepared the same as the water line as-builts.
 4. As-builts of all drainage lines shall include the following information:
 - a. Rims, inverts and length of piping between structures and weir elevations if applicable.

- b. The size of the piping shall be verified by the survey crew at the time of as-built.
5. All rock as-builts for parking lot, roadways and swales areas shall consist of the following:
 - a. Rock elevations at all high and low points, and at enough intermediate points to confirm slope consistency and every 50' for roadways.
 - b. Rock as-builts shall be taken at all locations where there is a finish grade elevation shown on the design plans.
 - c. All catch basin and manhole rim elevations shall be shown.
 - d. Elevations around island areas will also be required.
 - e. As-builts shall be taken on all paved and unpaved swales prior to placement of asphalt and/or topsoil/sod, at enough intermediate points to confirm slope consistency and conformance to the plan details.
6. Lake and canal bank as-builts shall include a key sheet of the lake for the location of cross sections. Lake and canal bank cross sections shall be plotted at a minimum of every 100 lf, unless otherwise specified. As built shall consist of the location and elevation of the top of bank, edge of water and the deep cut line, with the distance between each shown on the drawing.
7. Retention area as-built elevations shall be taken at the bottom of the retention area and at the top of bank. If there are contours indicated on the design plans, then they shall be as-built as well
8. If a change is made via field order or deviation to any structure, pipeline, etc., a new location shall be noted on the as-builts. The ENGINEER may request additional as-built information to verify horizontal or vertical locations.

1.07 SUBMITTAL

- A. At Contract closeout, deliver Record Documents to OWNER's Representative, or presentation to the OWNER.
- B. A complete set of "As-Built" Drawings shall be prepared and delivered to the OWNER's Representative for the OWNER. Work shall be performed by a Registered Professional Land Surveyor and shall include, but not be limited to the following:
 - 1. Valve boxes, splice boxes, pull boxes, al underground utilities-waterlines, electrical runs, irrigation system, storm drainage pipe and structures, finished necessary grades, benches, curbs, fences walls signs, light fixtures and other items as necessary.
- C. Accompany submittal with 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.

PART 2 – PRODUCTS (Not Applicable)

PART 3 – EXECUTION (Not Applicable)

END OF SECTION

SECTION 01740

WARRANTIES

PART 1 - GENERAL

1.01 SECTION INCLUDES

- A. Administrative and procedural requirements for warranties required by the Contract Documents, including manufacturers standard warranties on products and special warranties. Refer to the General Conditions for terms of the Contractor's period for correction of the Work.
- B. 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.

1.02 DEFINITIONS

- A. Standard product warranties are preprinted written warranties published by individual manufacturers for particular products and are specifically endorsed by the manufacturer to the Owner.
- B. 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.

1.03 WARRANTY REQUIREMENTS

- A. 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.
- B. Reinstatement of Warranty: When Work covered by a warranty has failed and been corrected by replacement or rebuilding, Contractor shall reinstate the warranty by written endorsement. The reinstated warranty shall be equal to the original warranty with an equitable adjustment for depreciation.
- C. Replacement Cost: Upon determination that Work covered by a warranty has failed, replace or rebuild the Work to an acceptable condition complying with 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.

- D. 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.
- E. 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.
- F. Where the Contract Documents require a special warranty, or similar commitment on the Work or part of the Work, 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.

1.04 SUBMITTALS

- A. Submit written warranties to the Engineer prior to the date certified for Final Completion. The Engineer's Certificate of Final Completion designates a commencement date for warranties for the Work. Submit written warranties upon request of the Engineer.
- B. When the Contract Documents require the Contractor, or the Contractor and a subcontractor, supplier or manufacturer to execute a special warranty, prepare a written document that contains appropriate terms and identification, ready for execution by the required parties. Submit a draft to the Owner, through the Engineer, for approval prior to final execution.
- C. Form of Submittal: At Final Completion compile two (2) copies of each required warranty properly executed by the Contractor, or by the Contractor, subcontractor, supplier, or manufacturer. Organize the warranty documents into an orderly sequence.
- D. Bind warranties and bonds in heavy-duty, commercial-quality, durable 3-ring, vinyl covered loose-leaf binders, thickness as necessary to accommodate contents, and sized to receive 8 ½-inch x 11-inch paper.
- E. Provide heavy paper dividers with celluloid covered tabs for each separate warranty. Mark the tab to identify the product or installation. Provide a typed description of the product or installation, including the name of the product, and the name, address, and telephone number of the Installer.

- F. Identify each binder on the front and spine with the typed or printed title "WARRANTIES," Project title or name, and name of the Contractor.

PART 2 - PRODUCTS

(NOT USED) PART 3 -

EXECUTION (NOT

USED)

END OF SECTION 01740

SUBSURFACE INVESTIGATION

PART 1 - GENERAL

1.1 RESPONSIBILITY

- A. Subsurface explorations have been made and copies of the results are included herein for information only. Data on indicated subsurface conditions is not intended as representative or a warranty of accuracy or continuity between soil borings. It is expressly understood that Owner and Engineer will not be responsible for interpretations or conclusions drawn by Contractor from the soils investigation report. Data is made available only for convenience of Contractor. No claim for extra compensation or for extension of time will be allowed on account of subsurface conditions inconsistent with the data shown. Additional test borings and other exploratory operations may be performed by Contractor, at the Contractor's option; however, no change in the Contract Sum will be authorized for such additional exploration.
- B. Data in the soft-dig reports was used for the basis of design and is available to the Contractor for information only. Conditions are not intended as representations or warranties of accuracy or continuity of pot-hole locations. The Owner and Engineer will not be responsible for interpretations or conclusions drawn from this data by Contractor. The Contractor is required to provide pot-holing in order to field verify location of all utility crossings, including paralleling of utilities, prior to construction of the proposed work.

PART 2 - PRODUCTS

2.1 SOIL BORINGS

- A. Copies of the following are included herein:
1. Soil boring data.
- B. Copies of the following are included herein:
1. Underground utility "soft dig" data.

PART 3 - EXECUTION

Not used.

END OF SECTION 2010

SECTION 02012 PROTECTING EXISTING UNDERGROUND UTILITIES

PART 1 - GENERAL

1.01 DESCRIPTION

- A. This section includes materials and procedures for protecting existing underground utilities.

1.02 RELATED WORK SPECIFIED ELSEWHERE

- A. Section 02220: Trenching, Backfilling, and Compacting

PART 2 - MATERIALS

2.01 REPLACEMENT IN KIND

- A. Except as indicated below or as specifically authorized by the Owner's Representative, reconstruct utilities with new material of the same size, type, and quality as that removed.

PART 3 - EXECUTION

3.01 GENERAL

- A. Replace in kind street improvements, such as curbs and gutters, barricades, traffic islands, signalization, fences, signs, etc., that are cut, removed, damaged, or otherwise disturbed by the construction.
- B. Where utilities are parallel to or cross the construction but do not conflict with the permanent work to be constructed, follow the procedures given below and as indicated in the drawings. Notify the utility owner 48 hours in advance of the crossing construction and coordinate the construction schedule with the utility owner's requirements. For utility crossings not shown in the drawings, refer to the General Conditions and the instructions of the Owner's Representative for guidance.
- C. Determine the true location and depth of utilities and service connections which may be affected by or affect the work. Determine the type, material, and condition of these utilities. In order to provide sufficient lead-time to resolve unforeseen conflicts, order materials and take appropriate measures to ensure that there is no delay in work.

D. Expose utilities 200 feet in advance of the pipeline construction.

3.02 PROCEDURES

- A. **Protect in Place:** Protect utilities in place, unless abandoned, and maintain the utility in service, unless otherwise specified in the drawings or in the specifications.
- B. **Cut and Plug Ends:** Cut abandoned utility lines and plug the ends. Plug storm drains and sewers with an 8-inch wall of brick and mortar. Cap waterlines with a cast-iron cap or install a 3-foot-long concrete plug. Dispose of the cut pipe as unsuitable material.
- C. **Remove and Reconstruct:** Where so indicated in the drawings or as required by the Owner's Representative, remove the utility and, after passage, reconstruct it with new materials. Provide temporary service for the disconnected utility.
- D. **In the event an existing City utility is damaged by the Contractor which was accurately marking in the field, shown on the drawings, or previously identified through potholing procedures, the Contractor shall be responsible to make the repair if directed by City or pay City's current repair rate if City is required to make the repair.**

3.03 COMPACTION

- A. **Utilities Protected in Place:** Backfill and compact under and around the utility so that no voids are left.
- B. **Utilities Reconstructed:** Prior to replacement of the utility, backfill the trench and compact to an elevation 1 foot above the top of the ends of the utility. Excavate a cross trench of the proper width for the utility and lay, backfill, and compact.

END OF SECTION 02012

SECTION 02018

VIBRATION MONITORING

PART 1 - GENERAL

1.01 REQUIREMENTS INCLUDED

- A. Furnish, install, maintain and remove vibration-monitoring equipment as specified and as indicated herein.
- B. Monitor vibrations and noise levels originating from construction operations as indicated or specified herein.
- C. Modify construction operation procedures if existing procedures create vibration or noise exceeding the threshold limits specified herein.

1.02 RELATED REQUIREMENTS

- A. Section 01340: Shop Drawings, Product Data and Samples
- B. Section 01505: Construction Considerations
- C. Section 01700: Contract Closeout
- D. Section 02140: Dewatering
- E. Section 02664: Horizontal Directional Drilling and Pipe Installation

1.03 UNIT PRICE – MEASUREMENT AND PAYMENT

- A. When this Section is to be implemented, it shall be considered to be incidental to the specific Work scope for the individual Sections (i.e. Section 02140 entitled “Dewatering” and Section 02664 entitled “Horizontal Directional Drilling and Pipe Installation”).

1.04 SUBMITTALS

- A. Submit the following:
 - 1. Qualifications of the independent vibration consulting firm. The qualifications shall include a description of five (5) successful projects with the names, current addresses, and telephone numbers of the person(s) in responsible charge at the time monitoring of the vibration-inducing operation and noise levels was performed. Qualifications shall include

specific project experience of all proposed personnel with the installation, operation and interpretation of the data collected during vibration monitoring. All proposed personnel shall have successfully performed in the same capacity on no less than three (3) similar projects.

2. Prior to commencement of any horizontal directional drilling, pile driving or other vibration inducing operations the Contractor shall submit in writing the proposed plan for monitoring construction operations as well as the equipment to be used to assure compliance with the vibration and noise limitations specified. At a minimum, the plan shall provide for the following:
 - a. Recommended vibration-limiting methods to meet the specified peak particle velocity limitations specified herein. The plan shall indicate the proposed locations where any instruments will be installed for data collection.
 - b. Manufacturers' brochures and written operating instructions for seismograph recording equipment intended to be used for each vibration occurrence.
3. Daily reports shall be prepared and submitted at all times when drilling, sheet pile driving and other vibration-inducing operations are in progress. The reports shall document and detail each source of vibration, the monitoring location(s), and the vibration measurements recorded. The maximum daily peak particle velocity at each monitoring location shall be highlighted on the reports. All daily reports shall be signed and sealed by a Florida registered Professional Engineer who is a full time employee of the vibration consulting firm.

PART 2 - PRODUCTS

2.01 EQUIPMENT

- A. Provide a low frequency sensitive three-component seismic recording instrument with wave paper trace, variable trigger level setting, peak particle velocity memory operation (units shall be "inches/second") and sound level readout capability.
- B. Manufacturers:
 1. InstanTEL, Inc.
 2. Thomas Instruments, Inc.
 3. Or equal

PART 3 - EXECUTION

3.01 QUALITY ASSURANCE

- A. Provide in accordance with Division 1
- B. Contractor shall retain the services of an independent vibration consulting firm to perform the following specific work tasks:
 - 1. Preparation, signing and sealing of monitoring plans and daily reports, and overseeing monitoring and interpretation of monitoring equipment shall be performed by personnel with the following qualifications:
 - a. Properly licensed Florida Registered Professional Engineer.
 - b. Have a minimum of five (5) years' experience in the vibration monitoring consulting field.
 - c. Have successfully completed at least five (5) projects with vibration-inducing operations and noise levels equal to or greater than those anticipated to be encountered.
 - 2. Installation, monitoring and interpretation of monitoring equipment shall be performed by personnel with the following minimum qualifications:
 - a. Minimum three (3) years' experience in the installation and operation of the types of monitoring equipment proposed for use. Experience shall include the review and interpretation of records produced by such equipment.
 - b. Have installed, operated, monitored and interpreted equipment and records on at least three (3) projects with vibration-inducing operations and noise levels equal to or more severe than those anticipated to be encountered.

3.02 EXECUTION

- A. Furnish specified instrumentation to be installed, operated and interpreted by the vibration consulting firm's personnel, as specified.
- B. Monitor vibrations and record the entire particle velocity wave train, not just peak velocities. Obtain accurate, legible seismometer records of monitored vibrations.
- C. Perform all horizontal directional drilling, sheet pile driving and other vibration-inducing operations so that vibrations reaching adjacent structures and facilities are below the specified limits.

- D. Monitor vibrations by measuring the peak particle velocity in the vicinity of work. Peak particle velocity is defined as a maximum of the three velocity components, measured in three mutually perpendicular directions at any point by an instrument and combining the results. The peak particle velocity as measured by the vibration consulting firm's personnel on or at the location specified in the submitted vibration monitoring plan, for horizontal directional drilling, pile driving, or other vibration-inducing operations, shall not exceed the following:

Type of Concrete	Age of Concrete (hrs.)	Peak Particle Velocity (in/sec).
Mass Concrete	0-11	1.0
	11 and over	2.0
Concrete Structures	0-11	0.5
	11-24	1.0
	24 and over	2.0
Permanent Structure or Utility	Not Applicable	2.0

- E. In the event the any recordings indicate that the vibration limits are being exceeded, the Contractor shall immediately suspend all directional drilling, sheet pile driving and/or other vibration-inducing operations and submit a report to the Engineer. The construction operation methods shall be reviewed and adjusted as required to reduce the vibrations to a level below the specified limits. A copy of the revised procedure shall be submitted to the Engineer for review. The Contractor will not be provided with any additional compensation to revise his construction procedures to comply with the vibration limitations stipulated herein.
- F. If evidence of displacement or damage to utilities, equipment, or structures is observed or reported, immediately notify the Engineer and discontinue operations inducing the vibrations. Revise operation to reduce vibrations and submit a copy of the revised procedure to the Engineer.
- G. Restore or replace utilities, equipment, or structures damaged by at no additional cost to the City.
- H. Monitor and record all chart noise originating from construction activities.
- I. If the noise limitations specified in the City Ordinance's are exceeded the Contractor shall notify the Engineer and discontinue all operations which are creating excessive noise. The construction operation methods shall be reviewed and adjusted as required to reduce the noise level to a level below the specified limits. A copy of the revised procedure shall be submitted to the Engineer for review. The Contractor will not be provided with any additional compensation to revise his construction procedures to comply with the City's noise ordinance.

END OF SECTION 02018

SECTION 02050

DEMOLITION

PART 1 -- GENERAL

1.1 WORK INCLUDED

- A. Demolish designated structures.
- B. Remove materials from site.
- C. Remove foundations as applicable.
- D. Remove designated underground tanks and piping, unless noted otherwise.
- E. Disconnect, cap, remove and identify utilities as necessary to complete the work.

1.2 RELATED SECTIONS

- A. Section 1340 – Shop Drawings, Product Data and Samples
- B. Section 01700 - Contract Closeout

1.3 SUBMITTALS

- A. Submit demolition and removal procedures and schedule under provisions of Section 01340 entitled "Shop Drawings, Product Data and Samples".

1.4 EXISTING CONDITIONS

- A. Conduct demolition to minimize interference with adjacent structures.
- B. Provide, erect, and maintain temporary barriers and security devices.
- C. Conduct operations with minimum interference to public or private thoroughfares. Maintain protected egress and access at all times.

PART 2 -- PRODUCTS (NOT USED)

PART 3 -- EXECUTION

3.1 PREPARATION

- A. Prevent movement or settlement of adjacent structures. Provide bracing and shoring.
- B. Protect existing landscaping materials, appurtenances, structures, which are not to be demolished.
- C. Disconnect, remove and cap designated utility lines within demolition areas.
- D. Mark location of disconnected utilities. Identify utilities and indicate capping locations on Project Record Documents.

3.2 EXECUTION

- A. Demolish indicated structures and appurtenances in an orderly and careful manner, and in accordance with staging requirements.
- B. Cease operations and notify Consultant immediately if adjacent structures appear to be endangered. Do not resume operations until corrective measures have been taken.
- C. Except where noted otherwise, immediately remove demolished material from site.
- D. Remove materials to be re-installed or retained in manner to prevent damage. Store and protect under provisions of Section 01600 entitled "Material and Equipment".
- E. Remove, store, and protect for re-installation the following materials and equipment:
 - 1. Traffic signalization structures as designated by Palm Beach County or the Owner under separate construction drawings.
 - 2. Aboveground utility structures designated by Florida Power and Light, Palm Beach County, Bell South, Adelphia, other pertinent utility companies, or the Owner as indicated on the Drawings.
- F. Remove the following material and equipment to be retained by Owner. Deliver to Water Treatment Plant:
 - 1. Not Applicable
- G. Remove and promptly dispose of contaminated, vermin infested, or dangerous materials encountered.
- H. Do not burn or bury materials on site.
- I. Remove foundation walls and footings to a minimum two feet below finished grade.
- J. Remove concrete slabs on grade.
- K. Pump out buried tanks located within demolition area. Fill tanks with sand or fine gravel and cover with fill; remove piping.
- L. Keep work sprinkled to minimize dust. Provide hoses and watermain or hydrant connections for this purpose.
- M. Backfill areas excavated, open pits and holes caused as a result of demolition. Use backfill specified in Section 02220 entitled "Trenching, Backfilling and Compacting".
- N. Rough grade and compact areas affected by demolition to maintain site grades and contours.

0. Remove demolished materials from site as work progresses. Leave site in clean condition.

END OF SECTION 02050

SECTION 02100

SITE PREPARATION

PART 1 - GENERAL

1.1 REQUIREMENTS INCLUDED

- A. This Section covers clearing, grubbing, stripping and demucking of the construction site, complete as specified herein.
- B. Clear and demuck the area within the limits of construction as required, including utility easements. The width of the area to be cleared and demucked shall be established by the Consultant prior to the beginning of any work.

1.2 RELATED SECTIONS

- A. Section 02220 – Trenching, Backfilling and Compacting
- B. Section 02511 – Concrete Sidewalks
- C. Section 02513 - Asphaltic Concrete Paving
- D. PART 2 - PRODUCTS (Not Used)
- E. PART 3 - EXECUTION

3.1 CLEARING

- A. The surface of the ground, for the area to be cleared and grubbed shall be completely cleared of all timber, brush, stumps, roots, grass, weeds, rubbish and all other objectionable obstructions resting on or protruding through the surface of the ground. However, those trees which are designated by the Landscape Architect to be preserved as hereinafter specified shall be protected. Clearing operations shall be conducted so as to prevent damage to existing structures and installations, and to those under construction, so as to provide for the safety of employees and others. Clearing for structures shall consist of topsoil, vegetation and lime sludge removal. Clearing for pipelines shall consist of vegetation removal.

3.2 GRUBBING

- A. Grubbing shall consist of the complete removal of all stumps, roots larger than 1 1/2 inches in diameter, matted roots, brush, timber, logs and any other organic or metallic debris resting on, under or protruding through the surface of the ground to a depth of 36 inches below the subgrade. All depressions excavated below the original

ground surface for or by the removal of such objects, shall be refilled with suitable materials and compacted to a density conforming to the surrounding ground surface.

3.3 STRIPPING

- A. In areas so designated, topsoil, not muck shall be stockpiled. Topsoil so stockpiled to a maximum height of 6 feet shall be protected until it is placed as specified. Any topsoil remaining after all work is in place shall be disposed of by the Contractor in the manner specified in Section 02220.

3.4 DEMUCKING

- A. When encountered, organic material (muck) and/or lime sludge shall be excavated and removed. This material may be stockpiled temporarily but must be disposed of by the Contractor in accordance with all local regulations.

3.5 DISPOSAL OF CLEARED AND GRUBBED MATERIAL

- A. The Contractor shall dispose of all material and debris from the clearing and grubbing operation by chipping such material and debris and disposing such material to a suitable location in accordance with all local regulations. Disposal by deep burial or burning will not be permitted. The cost of disposal of material (including hauling) shall be considered a subsidiary obligation of the Contractor, the cost of which shall be included in the contract prices.

3.6 PRESERVATION OF TREES

- A. Those trees which are designated by the Landscape Architect or a shown on the drawings for preservation shall be carefully protected from damage. The Contractor shall erect such barricades, guards, and enclosures as may be considered necessary by Contractor for the protection of the trees during all construction operations.

3.7 PRESERVATION OF DEVELOPED PRIVATE PROPERTY

- A. The Contractor shall exercise extreme care to avoid necessary disturbance of developed private property as applicable. Trees, shrubbery, gardens, lawn and other landscaping, which in the opinion of the Landscape Architect must be removed, shall be replaced and replanted to restore the construction easement to the condition existing prior to construction.
- B. All soil preparation procedures and replanting operations shall be under the supervision of nurseryman experienced in such operations.

- C. Improvements to the land such as fences, walls, outbuildings, etc., which of necessity must be removed shall be replaced with equal quality materials and workmanship.
- D. The Contractor shall clean up the construction site across developed private property directly after construction is complete upon approval of the Consultant.

3.8 PRESERVATION OF PUBLIC PROPERTY

- A. The appropriate paragraphs of Article 3 of these specifications shall apply to the preservation and restoration of all damaged areas of public lands, right-of-way, easements, etc.

END OF SECTION 02100

SECTION 02110 CLEARING AND GRUBBING

PART 1 - GENERAL

1.01 SCOPE

The work to be performed under this item shall consist of either the clearing of or the clearing and grubbing of the area along the alignment of construction, from public right-of-way to public right-of-way, as designated on the drawings, and areas required to perform the proposed construction.

- A. Clearing - Where clearing only is required it shall consist of the cutting and removal of all trees, stumps, bush, logs, hedges, and the removal of all fences and other loose or projecting material from the designated area. Clearing shall also apply to the removal of existing pavement and concrete required to perform the scope of work. The grubbing of stumps and roots will be required.
- B. Clearing and Grubbing - Clearing and grubbing shall consist of clearing the surface of the ground of the designated areas of all trees, stumps, down timber, logs, snags, brush, undergrowth, hedges, heavy growth of grass or weeds, fences, structures, debris, and rubbish of any nature, natural obstructions or such material which, in the opinion of ENGINEER, is unsuitable, including grubbing of stumps, roots, matter roots, foundations and disposal from the project of all spoil materials resulting from clearing and grubbing by burning or otherwise.

1.02 REFERENCES

Florida Department of Transportation Standard Specifications for Road and Bridge construction (F.D.O.T.). latest edition.

PART 2 - MATERIALS

2.01 MATERIALS FOR REPLACEMENT

All materials required to be brought on to the site for filling of holes caused by grubbing or otherwise shall be consistent with materials of the surrounding area.

PART 3 - EXECUTION

3.01 SCHEDULE

CONTRACTOR shall schedule the clearing or clearing and grubbing work at a satisfactory distance in advance of the pipe laying operations.

3.02 SPOIL MATERIALS REMOVAL

All materials to be disposed of by removal from the site shall be disposed of by CONTRACTOR at the Contractor's expense. In no case shall any discarded materials be left in piles adjacent to or within the project limits. The manner and location of disposal of materials shall be subject to review by ENGINEER and shall not create an unsightly or objectionable view.

3.03 CLEARING

Clear the area of all objectionable materials. Trees unavoidably falling outside the specified limits must be cut up, removed, and disposed of in a satisfactory manner. Preserve and protect from injury all trees not to be removed. The trees, stumps, and brush shall be cut to a height of not more than 12-inches above the ground. The grubbing of stumps and roots will be required.

Fences shall be removed and disposed of when directed by ENGINEER. Fence wire shall be neatly rolled and the wire and posts stored on the project if they are to be used again, or stored at a designated location if the fence is to remain the property of OWNER.

3.04 CLEARING AND GRUBBING

In areas designated to be cleared and grubbed, all stumps, roots, buried logs, brush, grass and other unsatisfactory materials shall be removed.

All holes remaining after the grubbing operation in embankment areas shall have the sides broken down to flatten out the slopes, and shall be filled with acceptable material, moistened and properly compacted in layers to the density required. The same construction procedure shall be applied to all holes remaining after grubbing in excavation areas where the depth of holes exceeds the depth of the proposed excavation.

END OF SECTION

SECTION 02140 DEWATERING

PART 1 - GENERAL

1.01 WORK INCLUDED

- A. The work covered by this Section consists of furnishing all permits, labor, equipment, appliances and materials, and performing all operations required for dewatering excavations as required to ensure that all work is performed in the dry.
- B. The Contractor shall not discharge water from dewatering operations in any manner that will:
 - 1. Adversely affect the water quality of adjoining water bodies.
 - 2. Violate federal, state or local laws and regulations.
 - 3. Allow discharge to flow onto private property.
 - 4. Hamper the movement of traffic.
 - 5. Damage portions of the work previously constructed.
- C. Furnish the services of a licensed professional engineer registered in the State of Florida, to prepare the dewatering system design and submittals.

1.02 STATUTORY REQUIREMENTS

- A. **All State and local permits associated with the dewatering are the responsibility of the Contractor. Obtain and pay for all permits required for temporary dewatering systems. Contractor will need to secure Dewatering Permit for this project from SFWMD within 30 days of Tentative Notice to Proceed.**
- B. Original permits shall be prominently displayed on the site prior to constructing dewatering systems.

1.03 RELATED WORK

- A. Section 02200: Trenching, Backfilling and Compacting
- B. Section 02661: Water Mains

1.04 SUBMITTALS

- A. Administrative Submittals: Discharge permits.

- B. Shop Drawings: Water Control Plan, including dewatering pumps, stilling basin, and means of sound attenuation. Dewatering operations shall not commence until Owner and Engineer have reviewed and approved this plan.**

1.05 WATER CONTROL PLAN

- A. As a minimum, include descriptions of proposed groundwater and surface water control facilities including, but not limited to, equipment, methods, standby equipment and power supply, pollution control facilities, discharge locations to be utilized, and provisions for immediate temporary water supply as required by this Section.

PART 2 - PRODUCTS

2.01 PUMP DRIVERS

- A. Sound attenuated pumps as manufactured by Thompson Pumps with "Silent Knight" canopy, or approved equal shall be used for all dewatering activities that require a pumping system. Contractor shall demonstrate, measure and record the dB levels at the time of initial set-up. The Contractor shall record the dB levels weekly.

PART 3 - EXECUTION

- A. The Contractor's proposed method for dewatering pipe trenches and manhole excavations shall be reviewed by the Engineer prior to instituting any such operations. Methods may include wellpoints, sump pumps, bedding rock or other methods approved by the Engineer. The Contractor is responsible for means and methods of construction dewatering activities.
- B. In areas of deep trench where dewatering and maintenance of vehicular traffic is required, the Contractor shall bench down the sides of the trench in order to cover the dewatering well point heads with temporary steel plating.**
- C. The Contractor shall provide all labor, materials, tools and equipment necessary to properly control the quality of the discharge from dewatering operations. The Contractor shall comply with all applicable laws, rules and regulations governing the discharge of water from dewatering operations.
- D. The impact of anticipated subsurface soil/water conditions shall be considered when selecting methods of excavation and temporary dewatering and drainage systems. Where groundwater levels are above the proposed bottoms of excavations, a pumped dewatering system is expected for pre-drainage of the soils prior to excavation to final grade and for maintenance of the lowered groundwater level until construction has been completed to such an extent that the foundation,

structure, pipe, conduit, or fill will not be floated or otherwise damaged. Type of dewatering system, spacing of dewatering units and other details of the work are expected to vary with soil/water conditions at a particular location.

- E. The Contractor is responsible for controlling the bacteriological quality of well point discharges into existing bodies of water. The maximum allowable level for fecal coliform in the wellpoint discharge is a mean MPN of 14 per 100 ML with not more than ten percent (10%) of the samples exceeding an MPN of 43 per 100 ML.
- F. Protection of Property - Contractor shall make an assessment for dewatering induced settlement and shall provide devices or systems, including but not limited to re-injection wells, infiltration trenches and cutoff walls, necessary to prevent damage to existing facilities, completed Work and adjacent facilities.
- G. Control surface water and groundwater such that excavation to final grade is made in the dry, and bearing soils are maintained undisturbed. Prevent softening, or instability of, or disturbance to, the sub-grade due to water seepage.
- H. Provide protection against flotation for all work.
- I. Wellpoints shall not be set in such a way that undermines or jeopardizes paved areas; if the setting of wellpoints undermines or impacts paved areas, the impacted areas shall be removed and restored equal to or better than their original condition at the expense of the Contractor.
- J. Pipe and conduit shall not be installed in water or allowed to be submerged prior to backfilling. Pipe and conduit which becomes submerged shall be removed and the excavation dewatered and restored to proper conditions prior to reinstalling the pipe and conduit.
- K. Collect and properly dispose of all discharge water from dewatering and drainage systems in accordance with State and local requirements and permits. As a minimum, no discharge or run-off of groundwater or surface water that is contaminated with any petroleum products (gasoline, diesel fuel, oil, grease, hydraulic fluid, etc.) and/or sanitary waste shall be made to surface water systems such as lakes, rivers, streams, the Intracoastal Waterway or “on-site” retention ponds that secondarily discharge to these surface water systems.
- L. Dewatering systems shall be designed to allow for localized variations in the depths of the excavations.
- M. Do not allow water to accumulate in excavations. Remove water to prevent softening of foundation bottoms, undercutting footings, and soil changes detrimental to stability of sub-grades and foundations. Provide and maintain pumps, well points, sumps, suction and discharge lines, and other dewatering system components necessary to convey water away from excavations.

- N. Establish and maintain temporary drainage ditches and other diversions outside excavation limits to convey rainwater and water removed from excavations to collecting or runoff areas. Do not use trench excavations as temporary drainage ditches.
- O. As the wellpoints are withdrawn, the locations of the voided areas shall backfilled by jetting approved backfill material into the voids until they are completely filled. These restored wellpoint voids are subject to random density verification testing.
- P. Comply with City's Noise Ordinance.

END OF SECTION 02140

SECTION 02210

EXCAVATION

PART 1 - GENERAL

1.1 SCOPE

- A. This item shall consist of the excavating, removing and satisfactory disposition of all materials required to construct the Project and the placement and shaping of required swales to be done in accordance with these Specifications and in conformity with the dimensions and typical sections, lines, and grades, shown on the Plans.
- B. All suitable material taken from excavation shall be used in the formation of embankment, subgrade and for backfilling as indicated on the Plans or hauled off-site, or as directed by the ENGINEER. When the volume of excavation is not sufficient for construction of the fill to the grades indicated, the deficiency shall be supplied by the Contractor.

1.2 REFERENCES

- A. Standards applicable to these specifications shall be:
 - 1. Americans Association of State Highway and Transportation Officials (AASHTO).
 - 2. Florida Department of Transportation (F.D.O.T.) Section 120 "Excavation and Embankment".

PART 2 - PRODUCTS

Not used.

PART 3 - EXECUTION OF WORK

3.1 EXCAVATION

- A. The rough excavation shall be carried to the necessary depth to obtain the specified depth of subgrade compaction shown on the Plans. Likewise, on embankments, the depth of subgrade compaction shall be as shown on the Plans.

- B. Should the CONTRACTOR, through negligence or other fault, excavate below the designated lines, he shall replace the excavation with approved materials, in an approved manner and condition, at this own expense. The ENGINEER shall have complete control over the interpretation of the Plans and Specifications concerning the excavation, moving, placing and disposal of all material and shall determine the suitability of material to be placed in embankments. All material determined unsuitable shall be disposed of in waste areas or as directed. Topsoil shall not be used in fill or in subgrades but shall be handled and placed as directed.
- C. The CONTRACTOR shall inform and satisfy himself as to the character, quantity, and distribution of all material to be excavated. No payment will be made for any excavated material which is used for purposes other than those designated. All spoil areas shall be leveled to a uniform line and section and shall present a neat appearance before project acceptance.
- D. Those areas outside of the pavement areas in which the top layer of soil material becomes compacted, due to hauling or to any other activity of the CONTRACTOR, shall be scarified to a depth of 4-inches, as directed, to loosen and pulverize the soil.
- E. If it is necessary to interrupt existing irrigation systems, sewers or under drainage conduits, utilities or similar underground structures, or parts thereof, the CONTRACTOR shall be responsible for and shall take all necessary precautions to protect and preserve or provide temporary services. When such facilities are encountered, the CONTRACTOR shall, at his own expense, satisfactorily repair all damage to such facilities or structures which may result from any of his operations during the period of the contract.

END OF SECTION 02210

SECTION 02211 SITE GRADING

PART 1 - GENERAL

1.01 WORK INCLUDED

- A. Remove topsoil and stockpile on site for later use.
- B. Excavate sub-soil and reform to grades, contours and levels.
- C. Excavate or fill for roadways, walks, curbs, gutters, parking areas, landscaped areas and as shown on the Drawings.

1.02 RELATED WORK

- A. Section 02220: Trenching, Backfilling and Compacting.

1.03 EXISTING CONDITIONS

- A. Known underground, surface and aerial utility lines, and buried objects are based on best available data and indicated on the Drawings. Contractor shall verify all locations.

1.04 PROTECTION

- A. Protect trees, shrubs and lawns and other features remaining as part of final landscaping.
- B. Protect bench marks, and existing structures, fences, roads, sidewalks, paving and curbs against damage from equipment and vehicular traffic.
- C. Protect aerial, surface, or underground utility lines or appurtenance which are to remain.
- D. Repair any damage, at no cost to Owner.

PART 2 - PRODUCTS

2.01 MATERIALS

- A. Excavated fill material: Soil free from roots, rocks larger than 3-inches, and building debris.
- B. Additional fill material: Shall be approved by the Engineer.

PART 3 - EXECUTION

3.01 PREPARATION

- A. Establish and identify required lines, levels, contours and datum.
- B. Maintain bench marks, monuments, and other reference points. Re-establish if disturbed or destroyed, at no cost to Owner.
- C. Before start of grading, establish the location and extent of utilities in the work areas. Notify utilities to remove and relocate lines which are in the way of construction.
- D. Maintain, protect, reroute or extend as required existing utilities to remain which pass through the work area.

3.02 REMOVAL OF TOPSOIL

- A. Topsoil of horticultural value shall be stripped from areas of construction under this contract and stockpiled in area designated by Engineer. Said material shall be stockpiled separately from fill material.
- B. Do not permit topsoil to be mixed with subsoil
- C. Do not strip topsoil when wet.
- D. Do not drive heavy equipment over stockpiled topsoil.

3.03 ROUGH GRADING

- A. Rough grade site to required levels, profiles, contours and elevations ready for finish grading and surface treatment. Maintain the following:
 - 1. Sodded areas - 4 1/2-inches below finished grade elevation.
 - 2. Seeded areas - 6-inches below finished grade.
 - 3. Paved areas - 18-inches below finished grade elevations.

4. Shrub beds - 24-inches below finished grade elevations.
 5. Flower beds - 18-inches below finished grade elevations.
 6. Concrete sidewalks - 8-inches below finished grade elevations.
- B. Prior to placing fill material over undisturbed subsoil, scarify surface to depth of 6-inches.

3.04 SURPLUS MATERIAL

- A. Remove surplus materials from site.
- B. Dispose of surplus material at no cost to Owner.

END OF SECTION 02211

SECTION 02220

TRENCHING, BACKFILLING AND COMPACTING

PART 1 - GENERAL

1.1 WORK INCLUDED

- A. Excavate for all underground piping.
- B. Place and compact granular beds and fills over pipelines to rough grade elevations.
- C. Dewater excavations as required.

1.2 SITE COMPACTION TESTING

- A. Testing of compacted fill materials will be performed in accordance with F.D.O.T. and A.A.S.H.T.O. specifications.
- B. If, during progress of Work, tests indicate that compacted materials do not meet specified requirements, remove defective work, replace and retest as directed by ENGINEER.
- C. Ensure compacted fills are tested before proceeding with placement of surface materials.

1.3 PROTECTION

- A. Protect trees, shrubs, lawn, areas to receive planting, rock outcropping and other features remaining as part of final landscaping.
- B. Protect benchmarks and existing structures, roads, sidewalks, paving and curbs against damage from vehicular or foot traffic. Install and maintain proper bridging, planking and cants to provide access to buildings.
- C. Protect excavations by shoring, bracing, sheet piling underpinning, or by other methods, as required to prevent cave-ins or loose dirt from falling into excavations in accordance with Trench Safety Act.
- D. Underpin or otherwise support adjacent structure(s) which may be damaged by excavation work. This includes other utility lines, power poles and pipe run.
- E. Notify ENGINEER of any unexpected sub-surface conditions. Discontinue work in the area until ENGINEER provides notification to resume work.

PART 2 - PRODUCTS

2.1 PRODUCTS

- A. Bedding Materials: Pipe shall be placed on dry, undisturbed earth.
- B. Selected Backfill: After pipe joints have been inspected and given preliminary approval, and sufficient time has elapsed for setting of joints if necessary, backfilling shall be performed, together with tamping until fill has progressed to an elevation at least one foot above the top of the pipe bell. During this initial stage of backfilling, approved granular materials or loose soil free from lumps, clods, or stones shall be deposited in layers approximately 6-inches thick and compacted by manually operated machine tampers actuated by compressed air, or other suitable means. Tampers and machines shall be suitable for the work, and subject to approval by ENGINEER.
- C. Backfill Material: Excavated material, free from roots, rocks larger than 3½ inches in size and building debris.
- D. Fill under landscaped areas: Free from alkali, salt, and petroleum products. Use sub-soil excavated from site only if conforming to specified requirements.

PART 3 - EXECUTION

3.1 PREPARATION AND LAYOUT

- A. Establish extent of excavation by area and elevation. Designate and identify datum elevation.
- B. Set required lines and levels.
- C. Maintain benchmarks, monuments and other reference points.

3.2 UTILITIES

- A. Before starting excavation, establish the location and extent of underground utilities occurring in the work area.
- B. Notify ENGINEER if utility lines which are in the way of excavation are uncovered.
- C. Protect active utility services uncovered by excavation.
- D. Remove abandoned utility service lines from areas of excavation. Cap, plug or seal such lines and identify at grade.
- E. Accurately locate and record abandoned, and active utility lines re-routed or extended on Project Record Documents.

3.3 TRENCHING

- A. Ensure trenching does not interfere with normal 45 degree bearing splay of any foundation.
- B. Excavate in accordance with lines and grades.
- C. Cut trenches sufficiently wide to enable proper installation of pipe and to allow for inspection. Trim and shape trench bottom and leave free of irregularities, lumps and projections.
- D. Do not disturb soil within branch spread of existing trees or shrubs that are to remain. If it is necessary to excavate through roots, perform work by hand and cut roots with a sharp axe.
- E. When complete, request ENGINEER to inspect excavations. Correct unauthorized excavation as directed, at no cost to OWNER.
- F. Remove excess or unsuitable excavated sub-soil from site.

3.4 DEWATERING

- A. Keep trenches dry. Provide necessary equipment including pumps, piping and temporary drains.
- B. Do not discharge drainage water into municipal sewers without municipal approval. Ensure water discharge does not contain silt held in suspension.
- C. Direct surface drainage away from excavated areas.
- D. Control the grading in and adjacent to excavations to prevent water running into excavated areas or onto adjacent properties or public thoroughfares.
- E. Furnish and operate suitable pumps on a 24-hour basis to keep excavations free of water until piping has been placed and backfilling has been completed.
- F. No water shall be allowed to rise over masonry or mortar until the concrete or mortar has set at least 24 hours.
- G. The Contractor is responsible for acquiring all necessary dewatering permits at no cost to the Owner.

3.5 BACKFILLING

- A. Do not start backfilling until piping has been inspected.
- B. Ensure trenches are free of building debris, wood, rocks over 3½ inches in diameter and water.

- C. Backfill systematically and as early as possible to allow maximum time for natural settlement and compaction.

- D. After backfill has reached a point one foot above the top of the pipe, a variation in the procedure as to manner of placing and amount of compaction to fill will be allowed, depending upon the location of the work and danger from subsequent settlement, as follows:
 - 1. For backfilling in unimproved areas (along utility easements and in parkway strip beyond the edge of driveways and graveled parking areas), from an elevation of one foot above top of pipe to the surface of the ground, backfill may be deposited by equipment. Depositing in layers, or tamping will not be required. Sufficient surplus excavated material shall be neatly rounded over the trench, to compensate for settlement. All surplus excavated materials beyond that indicated above shall be disposed of by Contractor.

 - 2. For backfilling beneath driveways and parking areas, alleys, and streets where non-rigid type surfacing is to be replaced. This shall also include dirt, gravel or asphalt driveways and alleys.
 - a. The backfill material shall be carefully deposited in uniform layers not to exceed 12-inches in thickness and each layer shall be compacted to 98% of maximum density in accordance with AASHTO T-180 with manually operated machine tampers.

 - b. In lieu of the foregoing compaction method, the backfill material and procedure used may be that as specified under Method 3, below.

 - 3. For backfilling across and beneath driveways, sidewalks, parking areas or streets where a rigid type paving is to be replaced (concrete and asphaltic concrete and brick surfaces).
 - a. All backfill material shall be approved granular material of high weight and density. The material shall be carefully deposited in uniform layers not to exceed 12-inches thick (loose measure), and each layer shall be compacted by ramming or tamping with tools approved by ENGINEER in a manner that does not disturb the pipe. Where necessary, granular base material of the type and thickness specified shall be used for the last layer prior to surfacing.

END OF SECTION 02220

SECTION 02235
LIMEROCK BASE, PRIMED

PART 1 - GENERAL

1.01 SCOPE

- A. This item shall consist of the construction of a base course composed of limerock including the application of a bituminous prime coat. It shall be constructed on the prepared subgrade in accordance with these specifications and shall conform to the dimensions, lines, grades and cross sections shown on the plans.

1.02 REFERENCES

Standards applicable to this Specification shall be:

- A. American Association of State Highway and Transportation Officials Standard Specifications (AASHTO).
 - 1. AASHTO T49-80 - Standard Method of Test for Penetration of Bituminous Materials.
 - 2. AASHTO M81-75 (latest ed.) - Standard Specification for Cut-Back Asphalt (Rapid-Curing Type).
 - 3. AASHTO T180-74 (latest ed.) - Standard Method of Tests for Moisture-Density Relations.
- B. Florida Department of Transportation Standard Specifications (F.D.O.T.).
 - 1. FDOT Section 200, Limerock Base (latest ed.).
 - 2. FDOT Section 300, Prime and tack (latest ed.)
 - 3. FDOT Section 911, Limerock Material for Base and Stabilized Base (latest ed.)

1.03 SUBMITTALS

- A. The contractor will, at least ten days prior to start of work, submit in writing the source of all materials to be used.
- B. The Contractor will, without additional compensation, submit such tests as may be required by the Engineer.

1.04 MEASUREMENT AND PAYMENT

- A. Method of Measurement: The quantity to be paid for under this Section shall be the area, in square yards, of limerock base, primed, completed and accepted.
- B. Basis of Payment: The quantity of limerock base primed, determined as provided above, shall be paid for at the contract unit price per square yard for Limerock Base primed, completed and accepted. Such price and payment shall be full compensation for all the work specified in this Section, including correcting all defective surface and deficient thickness.

PART 2 - MATERIALS

2.01 LIMEROCK

Except as might be specifically shown otherwise, all limerock material and the sources thereof shall be furnished by the Contractor. Any limerock material occurring in State furnished borrow areas shall not be used by the Contractor in constructing the base, unless permitted by the plans or other contract documents.

- A. Composition - The minimum percentage of carbonates of calcium and magnesium in the limerock material shall be 70. The maximum percentage of water-sensitive clay mineral shall be 3%. Determination shall be at the option of the Engineer.
- B. Liquid Limit and Plasticity Requirements
 - 1. Material for Limerock Base: The liquid limit shall not exceed 35 and the material shall be non-plastic.
 - 2. Material Used in Limerock Stabilized Base: The liquid limit shall not exceed 35 and the plastic index shall not exceed 10.
- C. Mechanical Requirements
 - 1. Deleterious Material - Limerock material shall not contain cherty or other extremely hard pieces, or lumps, balls or pockets of sand or clay size material in sufficient quantity as to be detrimental to the proper bonding, finishing, or strength of the limerock base.
 - 2. Gradation and Size Requirements
 - a) For Limerock Base - At least 97 percent (by weight of the material) shall pass a 3-1/2 inch sieve and the material shall be graded uniformly down to dust. The fine material shall consist entirely of dust of fracture. All crushing or breaking-up which might be necessary in order to meet such size requirements shall be done before the material is placed on the road.

b) For Limerock Stabilized Base - For this use the limerock material shall meet the requirements of 911-5.21 except that 97 percent shall pass the 1-1/2 inch sieve.

D. Limerock Bearing Ratio Requirements - Limerock material used in construction of limerock base shall have an average LBR value of not less than 100. The average LBR value of material produced at a particular source shall be determined in accordance with an approved quality control procedure.

2.02 CRUSHED CONCRETE

A. Composition - The minimum percentage of carbonates of calcium and magnesium in the material shall be 70. All foreign material such as metal fragments, organic matter, etc. shall be removed from the material before delivery to the job site.

B. Gradation - 100 percent (by weight) of the material shall pass a 3 inch sieve, with 40 percent to 70 percent passing the number 10 sieve. Not more than 20 percent, by dry weight, of the material shall pass the 200 sieve by washing. All crushing or breaking up which might be necessary in order to meet such size requirements shall be done before the material is placed on the road.

C. Bearing Requirements - The Crushed Concrete Base shall have an average Limerock Bearing Ratio (LBR) of not less than 100. The average LBR value of material produced at a particular source shall be determined in accordance with an approved quality control procedure.

D. Crushed Concrete may be substituted for Limerock as base material by adding 2 inches to the specified thickness.

2.03 PRIME COAT

A. The material used for prime coat shall be cut-back Asphalt Grade RC-70 or RC-250 meeting the requirements of (FDOT 916-2) Emulsified Asphalt Grades SS-1 or CSS-1, SS-1H or CSS-1H diluted in equal proportion with water; Asphalt Emulsified Asphalt Grade AE-60, AE-90, AE-150 or AE-200 diluted at the ratio of 6 parts emulsified asphalt to 4 parts water; special MS-Emulsion diluted at the ratio of 6 parts emulsified asphalt to 4 parts water; Asphalt Emulsion Prime 9AEP) meeting the requirements of (FDOT 916-4), Emulsion Prime (RS type) meeting the requirements of (FDOT 916-5), or other types and grades of bituminous material which may be called for in the plans or Special Provisions.

The Contractor may select any of the specified bituminous materials unless the plans or Special Provisions indicate the use of a specific material. Types and Grades of bituminous material other than those specified above may be allowed if

it can be shown that the alternate material will properly perform the function of prime coat material.

- B. Cover Material for Prime Coat - If an emulsified asphalt is used for prime coat, the Engineer may require that cover material be hot-asphalt coated (mix to contain from two to four percent asphalt-cement) if necessary to achieve a prime coat which will remain reasonably intact until the surface course is placed.

If material other than emulsified asphalt is used for the prime coat, the cover material shall be either sand (bare or hot-asphalt coated) or screenings, at the Contractor's option. The sand shall be nonplastic and free from any appreciable amount of silt, clay balls and root particles, and from any noticeable sticks, trash, vegetation or other organic matter. Screening shall be as specified in FDOT 902.5.

PART 3 - EXECUTION

3.01 TRANSPORTING LIMEROCK

- A. The limerock shall be transported to the point where it is to be used, over rock previously placed if practicable, and dumped on the end of the preceding spread. Hauling over the subgrade and dumping on the subgrade will be permitted when these operations will not be detrimental to the base as determined by the Engineer.

3.02 EQUIPMENT

- A. Limerock Base - The rock shall be spread by mechanical rock spreaders, equipped with a device which strikes off the rock uniformly to laying thickness, and capable of producing an even distribution of the rock. For crossovers, intersections and ramp areas; for roadway widths of 20 feet or less; for the main roadway area when forms are used and for any other areas where the use of a mechanical spreader is not practicable; spreading may be done by bulldozers or blade graders.
- B. Pressure Distributor - The pressure distributor shall be equipped with pneumatic tires having a sufficient width of rubber in contact with the road surface to avoid breaking the bond or forming a rut in the surface. The distance between the centers of openings of the outside nozzles of the spray bar shall be equal to the width of the application required, within an allowable variation two (2) inches.

The outside nozzle at each end of the spray bar shall have an area of opening not less than 25 percent nor more than 75 percent, in excess of the other nozzles. All other nozzles shall have uniform openings. When the application covers less than the full width, the normal opening of the end nozzle at the junction line may remain the same as those of the interior nozzles. less than the full width, the

normal opening of the end nozzle at the junction line may remain the same as those of the interior nozzles.

3.03 SPREADING LIMEROCK

- A. Method of Spreading - The limerock shall be spread uniformly with equipment as specified in 3.02 A. above. All segregated areas of fine or coarse rock shall be removed and replaced with properly graded rock.
- B. Number of Courses - When the specified compacted thickness of the base is greater than six inches, the base; shall be constructed in two courses. The thickness of the first course shall be approximately one-half the total thickness of the finished base, or enough additional to bear the weight of the construction equipment without disturbing the subgrade.

3.04 COMPACTING AND FINISHING BASE

- A. Single-Course Base - For single-course base, after the spreading is completed the entire surface shall be scarified and then shaped so as to produce the required grade and cross section after compaction.
- B. Double-Course Base - For double-course base, the first course shall be cleaned of foreign material and bladed and brought to a surface cross section approximately parallel to that of the finished base. Prior to the spreading of any material for the upper course, the density tests for the lower course shall be made and the Engineer shall have determined that the required compaction has been obtained. After the spreading of the material for the final course is completed, its surface shall be finished and shaped so as to produce the required grade and cross section after compaction, and free of scabs and laminations.
- C. Moisture Content - When the material does not have the proper moisture content to insure the required density, wetting or drying will be required. When water is added it shall be uniformly mixed-in by disking to the full depth of the course which is being compacted. Wetting or drying operations shall involve manipulation, as a unit, of the entire width and depth of the course which is being compacted.
- D. Density Requirements - As soon as proper conditions of moisture are attained the material shall be compacted to a density of not less than 98 percent of maximum density as determined by AASHTO T 180. The minimum density which will be acceptable at any location outside the traveled roadway (such as intersections, crossovers, turnouts, etc) shall be 95 percent of such maximum. Limerock base for shoulder pavement shall be compacted to a density not less than 95 percent of the maximum density as determined under AASHTO T 180.

- E. Density Test - At least three density determinations shall be made on each day's final compaction operations on each course, and the density determinations shall be made at more frequent intervals if deemed necessary by the Engineer.

During final compacting operations, if blading of any areas is necessary to obtain the true grade and cross section, the compacting operations for such areas shall be completed prior to making the density tests on the finished base.

- F. Correction of Defects
1. Contamination of Base Material - If, at any time, the subgrade material should become mixed with the base course material, the Contractor shall, without additional compensation, dig out and remove the mixture, reshape and compact the subgrade and replace the materials removed with clean base material, which shall be shaped and compacted as specified above.
 2. Cracks and Checks - If cracks or checks appear in the base, either before or after priming, which, in the opinion of the Engineer, would impair the structural efficiency of the base, the Contractor shall remove the cracks or checks by rescarifying, reshaping, adding base material where necessary, and recompacting.

3.05 PRIMING

- A. Preparation - The prime coat shall be applied only when the base meets the specified density requirements and the moisture content in the top half of the base does not exceed 90 percent of the optimum moisture of the base material. At the time of priming, the base shall be firm, unyielding and in such condition that no undue distortion will occur.

Before any bituminous material is applied, all loose material, dust, dirt, caked clay and other foreign material which might prevent proper bond with the existing surface shall be removed for the full width of the application. Particular care shall be taken in cleaning the outer edges of the strip to be treated, to insure that the prime or tack coat will adhere.

When the prime or tack coat is applied adjacent to curb and gutter, valley gutter or any other concrete surfaces, such concrete surfaces (except where they are to be covered with a bituminous wearing course) shall be covered with heavy paper, or otherwise protected while the prime or tack coat is being applied. Any bituminous material deposited on such concrete surfaces shall be removed.

The temperature of the prime material shall be between 100 degrees Fahrenheit and 150 degrees Fahrenheit. The actual temperature shall be that which will insure uniform distribution. The material shall be applied by means of a pressure distributor. The amount to be applied will be dependent on the character of the

surface and shall be sufficient to coat the surface thoroughly and uniformly, with no excess.

- B. Rate of Application - The rate of application shall be not less than 0.10 gallon per square yard, unless a lower rate is approved by the Engineer.
- C. Sprinkling - If so required by the Engineer the base shall be lightly sprinkled with water and rolled with a traffic roller, in advance of the application of the prime.
- D. Sanding - The primed base shall be covered by a light uniform application of cover material. If considered necessary for proper distribution of spread, the cover material shall be lightly dragged with a drag broom, after which it shall be rolled with a traffic roller, for at least ten passes over the entire area.
- E. Sampling Device on Transport Tanks - All transport tanks delivering bituminous materials for use on the project shall be equipped with an approved spigot-type sampling device.
- F. Temperature Sensing Device on Transport Tanks - All transport tanks delivering bituminous materials for use on the Department's projects shall be equipped with an approved dial type thermometer.

The thermometer shall have a temperature range from 50 degrees Fahrenheit to 500 degrees Fahrenheit in 25 degrees Fahrenheit increments with a minimum dial diameter of two inches.

The thermometer shall be located near the midpoint in length and within the middle third of the height of the tank and be enclosed in a well with a protective window or by other means as necessary to keep the instrument clean and in the proper working condition.

3.06 QUALITY CONTROL

- A. Testing Surface - The finished surface of the base course shall be checked with a template cut to the required crown and with a 15-foot straightedge laid parallel to the centerline of the road. All irregularities greater than 1/4 inch shall be corrected by scarifying and removing or adding rock as required, after which the entire area shall be recompact as specified hereinbefore. In the testing of the surface, the measurements will not be taken in small holes caused by individual pieces of rock having been pulled out by the grader.
- B. Thickness Requirements
 - 1. Measurements - Thickness of base shall be measured at intervals of not more than 200 feet. Measurements shall be taken at various points on the cross section, through holes not less than three inches in diameter.

2. Areas Requiring Correction - Where the compacted base is deficient by more than 1/2 inch from the thickness called for in the plans, the Contractor shall correct such areas by scarifying and adding rock. The base shall be scarified and rock added for a distance of 100 feet in each direction from the edge of the deficient area. The affected areas shall then be brought to the required state of compaction and to the required thickness and cross section.
3. Deficient Areas Left in Place - As an exception to the requirement for correcting areas of base which show a thickness deficiency exceeding the allowable 1/2 inch, if so approved in writing by the Engineer. Any of such areas in which the extent of the deficiency might be considered as not sufficient to seriously impair the required strength of the base may be left in place. No payment, however, will be made for such deficient areas left in place and not corrected.

3.07 MAINTENANCE

- A. The Contractor will be responsible for assuring that the true crown and template are maintained, with no rutting or other distortion, and that the base meets all the requirements, at the time the surface course is applied.

END OF SECTION 02235

SECTION 02260 FINISH GRADING

PART 1 - GENERAL

1.01 WORK INCLUDED

- A. The Contractor shall, under this Section, supply, place, compact and roll finish grade materials prior to landscaping work.
- B. Finish grade sub-soil.
- C. Cut out areas to receive stabilizing base course materials for paving and sidewalks.
- D. Place, finish grade and compact topsoil.

1.02 RELATED WORK

- A. Section 02210: Excavation and Swale Grading.
- B. Section 02211: Site Grading.
- C. Section 02220: Trenching, Backfilling and Compacting.
- D. Section 02934: Sodding.

1.03 PROTECTION

The Contractor shall prevent damage to existing fencing, trees, landscaping, natural features, bench marks, pavement, utility lines, and sprinkler system. Correct damage at no cost to the Owner.

PART 2 - PRODUCTS

2.01 MATERIALS

Topsoil shall be friable loam free from subsoil, roots, grass, excessive amount of weeds, stones and foreign matter; acidity range (ph) of 5.5 to 7.5; containing a minimum of 4 percent and a maximum of 25 percent organic matter. (Use topsoil stockpiled on site if conforming to these requirements, or as directed by the Engineer.)

PART 3 - EXECUTION

3.01 SUB-SOIL PREPARATION

- A. Rough grade sub-soil systematically to allow for a maximum amount of natural settlement and compaction. Eliminate uneven areas and low spots. Remove debris, roots, branches, stones, etc., in excess of 2 inches in size. Remove sub-soil which has been contaminated with petroleum products.
- B. Cut out areas, to sub-grade elevation, which are to receive stabilizing base for paving and sidewalks.
- C. Bring sub-soil to required levels, profiles and contours. Make changes in grade gradual. Blend slopes in to level areas.
- D. Slope grade away from building minimum 4 inches in 10 feet (unless indicated otherwise on Drawings).

3.02 PLACING TOPSOIL

- A. Place topsoil in area where seeding, sodding and planting is to be performed. Place to the following minimum depths, up to finished grade elevations:
 - 1. 6-inches for seeded areas.
 - 2. 4 1/2-inches for sodded areas.
 - 3. 24-inches for shrub beds.
 - 4. 18-inches for flower beds.
- B. Use topsoil in relatively dry state. Place during dry weather.
- C. Fine grade topsoil eliminating rough and low areas to ensure positive drainage. Maintain levels, profiles and contours of sub-grades.
- D. Remove stones, roots, grass, weeds, debris and other foreign material while spreading.
- E. Manually spread topsoil around trees, plants, buildings and other structures to prevent damage which may be caused by grading equipment.
- F. Lightly compact placed topsoil.

3.03 SURPLUS MATERIAL

- A. Remove surplus sub-soil and topsoil from site.

- B. Leave stockpile areas and entire job site clean and raked, ready to receive landscaping.

END OF SECTION

SECTION 02276

TEMPORARY EROSION AND SEDIMENTATION CONTROL

PART 1 -- GENERAL

1.1 SECTION INCLUDES

- A. The Contractor shall design, provide, maintain, and remove temporary erosion and sedimentation controls, as necessary. Contractor should sequence fill, grading, and coir erosion control mat installation so as to complete fill, grading and mat installation for each required area within the same day. This will reduce the need for temporary erosion control.
- B. Temporary erosion controls may include, but are not limited to, mulching, netting, and watering on-site surfaces.
- C. Temporary sedimentation controls include turbidity barriers such as silt fences, floating barriers, and bales shown on the Drawings, which will ensure that sedimentation pollution will be either eliminated or maintained within acceptable limits as established by the Owner and as shown in the Drawings.
- D. Contractor shall provide effective temporary erosion and sediment control measures during construction or until final controls become effective.

1.2 RELATED SECTIONS

- A. Section 02900 – Landscape Installation Specifications

1.3 SUBMITTALS

- A. Submit schedule for temporary erosion and sedimentation control, if none are needed state so.

PART 2 -- PRODUCTS

2.1 EROSION CONTROL

- A. Mulching: Shall be in accordance with Section 02900 of these Specifications.
- B. Netting: Fabricated of material acceptable to the Owner or Consultant.

2.2 SEDIMENTATION CONTROL

- A. Floating Turbidity Barrier: Fabricated of material acceptable to Owner or Consultant.
- B. Silt Fences: Fabricated of material acceptable to Owner or Consultant; Minimum 3- feet high polypropylene.

- C. Synthetic Bales: Shall be as shown on the Drawings. “Hay” bales shall be synthetic.

PART 3 -- EXECUTION

3.1 EROSION CONTROL

- A. Mulching shall be in accordance with Section 02900 of these Specifications.
- B. Minimum procedures for mulching and netting are:
 - 1. Apply mulch loosely to a thickness of between 0.75 inches and 1.5 inches.
 - 2. Apply netting over mulched areas on sloped surfaces.
- C. Installation of Coir Mat may be substituted for mulching and netting, with approval from the Consultant and the Owner.

3.2 SEDIMENTATION CONTROL

- A. Install and maintain floating barriers, silt fences, and synthetic bales as shown on the Drawings. Barrier shall be installed prior to construction, so as to trap and collect all fugitive silt. Contractor shall make all necessary adjustments to prevent any silt from entering waters beyond the barrier. All turbidity barriers shall be installed immediately waterward of toe of bank prior to placing fill or grading. Turbidity barrier shall remain in place until the Work is completed and final controls become effective. Contractor is responsible for removing and disposing of turbidity barriers once the final controls become effective.

3.3 PERFORMANCE

- A. Should any of the temporary erosion and sediment control measures employed by the Contractor fail to produce results which comply with the requirements of the Owner, Contractor shall immediately take whatever steps are necessary to correct the deficiency at his own expense.

END OF SECTION 02276

SECTION 02281 TERMITE CONTROL

PART 1 - GENERAL

1.01 SCOPE

- A. Intent: The intent under this Section is to encompass subterranean termite control treatment by means of soil poisoning at and under buildings:
 - 1. Main Pumping Facility and Control Building.
 - 2. Chlorination Building.
 - 3. Maintenance Garage
 - 4. Grit Chamber.

1.02 QUALIFICATIONS

- A. Acceptable Applicators: The Work shall be performed by a certified pest or termite control organization that is licensed in the State of Florida for termite control work.

1.03 TESTING AND GUARANTEE

- A. Testing: At the Owner's option, during application one or more samples of the poison being used may be taken for testing. Costs will be paid by the Owner, unless test results indicate non-compliance with Specifications, in which case all areas shall be retreated and all resulting costs, including testing shall be at no expense to the Owner.
- B. Guarantee: Upon completion of the soil treatment and prior to final payment of the Work, furnish to the Owner, a written guarantee certifying that the application was made at the concentration rates and methods specified herein for subterranean termite control.

PART 2 - PRODUCTS

2.01 MATERIALS

- A. Chemicals & Concentrations: The listed chemicals are toxic to animal and plant life and shall be applied with caution by experienced personnel. Apply to soil areas to be treated one of the following chemicals at not less than the designated concentration applied in water emulsion.

- | | | |
|----|----------------------|----------------------|
| 1. | Benzene Hexachloride | 0.8% of Gamma Isomer |
| 2. | Chlordane | 1.0% |
| 3. | Dieldrin | 0.5% |

PART 3 - EXECUTION

3.01 APPLICATION

- A. Soil preparation: The toxicant shall not be applied until the subgrade work of other trades has been completed. The toxicant shall not be applied when soil or fill is excessively wet.

- B. Vapor Bearer Material: All toxic treated areas shall be immediately protected with vapor barrier and adequate precautions taken to prevent disturbance of the toxic treatment by human or animal contact.
 - 1. Concrete Foundations: At exterior and interior foundation walls or columns, soil treatment shall extend one foot below grade. Rate of application is four (4) gallons per ten (10) lineal feet on each side of wall or column.
 - 2. Concrete Floor Slabs: Apply an overall treatment of toxicant at the rate of one and one half (1-1/2) gallon per ten (10) square feet under the entire area of floor slabs, exterior platforms, and to a distance of five (5) feet from the building walls. Additional toxicant shall be applied at the rate of two (2) gallons per five (5) lineal feet beneath slab expansion joints, and all areas where the slab will be penetrated by pipes, floor drains, ducts, conduit or other construction features.

END OF SECTION

SECTION 02310 HORIZONTAL DIRECTIONAL DRILLING

PART 1 – GENERAL

1.1 DESCRIPTION OF WORK

The CONTRACTOR shall provide all investigation, planning, geotechnical work, equipment, labor, etc. necessary to properly install the proposed directional bores as indicated on the construction using horizontal directional drilling (directional boring) technology. Pipe materials shall match those indicated on the plans.

1.2 SUBMITTALS

Shop drawings and manufacturer's literature shall be submitted to the Engineer for approval.

PART 2 – PRODUCTS:

2.1 PRESSURE PIPE AND FITTINGS FOR HORIZONTAL DIRECTIONAL DRILLING

A. Ductile iron pipe for horizontal directional drilling

1. Ductile Iron Pipe for horizontal directional drilling shall be restrained and boltless flexible joint pipe as approved by the Engineer.
2. The Ductile Iron Pipe material shall meet the minimum requirements of FDOT Technical Specification Section 02550. Additionally, the joints shall meet the requirements of ANSI/AWWA C111/A21.11.
3. Approved manufacturer includes the American Cast Iron Pipe Company and Griffin Pipe Products Company.

B. Polyvinyl chloride pipe (PVC) for horizontal directional drilling

1. Products delivered under this specification shall be manufactured only from water distribution pipe and couplings conforming to AWWA C900 or AWWA C905, as appropriate for the size of the watermain indicated on the plans. Pipe materials and joints shall be rated for 200 psi or greater.
2. Pipe and couplings shall be made from unplasticized PVC compounds having a minimum cell classification of 12454-B, as defined in ASTM D1784. Pipe, couplings, and locking splines shall be completely nonmetallic. The compound shall qualify for a Hydrostatic Design Basis (HDB) of 4000 psi for water at 73.4°F, in accordance with the requirements of ASTM D2837.
3. Pipe shall be joined using non-metallic couplings to form an integral system for maximum reliability and interchangeability. High-strength, flexible thermoplastic splines shall be inserted into mating, precision machined

grooves in the pipe and coupling to provide full 360° restraint with evenly distributed loading.

4. Couplings shall be designed for use at or above the rated pressures of the pipe with which they are utilized, and shall incorporate twin elastomeric sealing gaskets meeting the requirements of ASTM F477. Joints shall be designed to meet the leakage test requirements of ASTM D3139.
5. Approved manufacturer includes C900/RJ™ PVC restrained-joint pipe or C905/RJ™ PVC restrained-joint pipe from CertainTeed Corporation and any other manufacturer approved by Engineer.

C. High-density polyethylene (HDPE) for horizontal directional drilling

1. Pipes: HDPE reclaimed water main pipe shall meet the requirements for Type III, Grade P345 Polyethylene Material as defined in ASTM Specification D-1248 (PE 3408). The minimum pressure class/SDR rating acceptable shall be Class 200/SDR 11. The pipe shall be DIPS and shall have an interior diameter no less than the piping that it is connected to.
2. Joints: Joints shall be of a heat fusion joining system. Pipe and fittings shall be thermal butt fusion, saddle fusion, or socket fusion in accordance with manufacturer recommended procedures and ASTM D-2161. At the point of fusion, the outside diameter and minimum wall thickness of the fitting shall match the outside diameter and minimum wall thickness specifications of ASTM D-1248 for the same size pipe.

Joining of the pipes and fittings shall be performed in accordance with ASTM D-2774. Depending upon the installation requirements and site location, joining shall be performed within or outside the excavation. Joints of the pipe sections shall be smooth on the inside and internal projection beads shall not be greater than 3/16 inch.

The tensile strength at yield of the butt-fusion joints shall not be less than the pipe. A specimen of the pipe cut across the butt-fusion joints shall be tested in accordance with ASTM D-638. The manufacturer shall provide fusion training. The contractor and the onsite joint inspector shall be trained by the manufacturer or manufacturer's authorized representative.

The fusion equipment and operator shall be required to demonstrate successful field experience. Regarding fusion over 36" capability, the fusion unit shall be field tested for a period of five years and the fusion operator shall have pipe size experience of the same size pipe on this project for five years or longer.

3. Fittings: All fitting shall be provided as indicated on the plans. HDPE Fittings shall be of the same material and class as the pipe and shall be manufactured by the manufacturer of the pipe. HDPE Elbows, tees, and wyes shall be

manufactured by mitered fabrication. The manufacturer shall have a written specification for all standard mitered fittings, which establishes Quality Control criteria and tolerances. The manufacturer may be required to demonstrate its ability to produce product required by this specification.

Mechanical joint anchor fittings (MJ Adapter or Harvey Adapter) shall be used to transition from ductile iron to HDPE and from HDPE to PVC. The fitting shall be stronger than the pipe in that when it is subjected to tensile stress the pipe will pull apart before the fitting will pull out and the pipe will blow before the fitting will rupture under pressure.

The MJ Adapter shall have a pre-installed stainless-steel stiffener, in accordance with Plastic Pipe Institute (PPI) recommendations, to neutralize point-loading, ACQ, creep and loss of gasket seal due to diameter contraction. The stiffener shall be engineered sufficiently thick to avoid radial buckling due to gasket pressure.

The MJ Adapter requires longer bolts and shall be sold with the modified longer bolt kit to avoid construction crew delays or improper installation with too short bolts.

All fittings for reclaimed water mains or pressure rated fittings shall be rated according to the manufacturer's written specifications, and clearly labeled on the fittings as such.

4. Installation: The installation shall conform to the requirements of the manufacturer, the AWWA Standard, and as indicated on the plans and specified herein.
5. Marking and Certification: Each length of HDPE reclaimed water main shall be clearly marked with the Manufacturer's Name, Tradename or Trademark, Nominal pipe size, Pipe Stiffness, Production Code/Extrusion Code, Material Cell Class Designation and ASTM number.

The pipe manufacturer shall provide certification that the stress regression testing has been performed on the specific product. The said certification shall include a stress live curve per ASTM D-2837. The stress regression testing shall have been performed in accordance with ASTM D-2837, and the manufacturer shall provide a product supplying a minimum Hydrostatic Design Basis of 1,600 psi as determined by ASTM D-2837. This certification shall also state that the pipe was manufactured from one specific resin in compliance with these specifications. The certificate shall state the specific resin used and its source.

PART 3 – EXECUTION:

3.1 MATERIALS

3.15.1 Piping and conduits installed by horizontal directional drilling (directionally bore) shall be HDPE, PVC, DI or Steel as indicated in the plans and other sections of these specifications.

3.2 INSTALLATION

- A. Depths of all existing utilities must be confirmed by the CONTRACTOR prior to the crossing to avoid conflicts. Equipment shall be utilized that does not require the conventional bore and receiving pits due to space constraints. Proper connection to the piping at each end shall be done by standard excavation. The CONTRACTOR shall be responsible to provide a slurry containment pit and shall remove all excess material and dispose of appropriately off-site upon completion. All erosion control facilities shall be provided to contain any solids from migrating beyond the project site. If the CONTRACTOR utilizes a subcontractor for this work, they shall provide proof of adequate comprehensive general liability insurance covering underground collapse and explosion and experience to the ENGINEER and OWNER for prior approval. The CONTRACTOR shall be required to provide all necessary water in accordance with other applicable sections of these specifications.
- B. In all cases the manufacturer's recommendations and procedures shall be followed regarding the installation of their pipe material by horizontal directional drilling.
- C. Subsurface investigation, if deemed necessary, shall be provided prior to bids by the CONTRACTOR. No additional payments will be made if rock is encountered or if soil conditions require additional construction time and equipment. Proper equipment and methods shall be used in rock and soil bores to insure proper grades, elevations and separations.
- D. All directional drilling operations shall be performed by a qualified directional drilling CONTRACTOR with at least (3) years' experience involving work of a similar nature to the work required of this project. The CONTRACTOR must have installed a minimum of 10,000 linear feet of pipe (4-inch diameter or greater) using directional drilling operations. A list of project references and proof of contractor experience shall be presented to the ENGINEER, upon request by the ENGINEER.
- E. The requirements of all applicable local and state authorities shall be followed by the CONTRACTOR.
- F. The piping shall be installed at the minimum depths indicated in the plans and shall deviate no more than six inches along the vertical axis and 2' along the horizontal alignment.

- G. The CONTRACTOR shall provide accurate As-Built data based on downhole survey data or a walkover location system that indicates x, y and z coordinates of the pipe at least every thirty (30) feet along the alignment or at a midpoint if the bore length is less than thirty (30) feet.

END OF SECTION 02310

SECTION 02445
JACKING AND BORING CASING PIPE

PART 1 GENERAL

1.01 SECTION INCLUDES

- A. Installation of casing pipe by the boring and jacking method of placement for drainage, irrigation, reclaimed water, wastewater, and water pipelines.

1.02 REFERENCES

- A. ASTM A139-04 – Electric – Fusion (Arc) – Welded Steel Pipe (NPS 4 and Over).

1.03 SUBMITTALS

- A. Product information on the casing pipe.

PART 2 PRODUCTS

2.01 MATERIALS

- A. Casing Pipe – ASTM A139, Grade B. Minimum casing pipe size and wall thickness are shown below. Coat interior and exterior of pipe with a bituminous coating to a minimum thickness of 16 mils.

Carrier Pipe (Inches)	Casing Pipe (Inches)	Wall Thickness (Inches)
4	12	3/8
6	18	3/8
8	20	3/8
10	24	3/8
12	24	3/8
16	30	3/8
20	36	3/8
24	42	1/2
30	48	1/2
36	54	1/2
42	60	1/2
48	66	5/8

- B. Casing Spacers – Model CCS as manufactured by Cascade Waterworks Manufacturing Company of Yorkville, Illinois. Two-piece shell of Type 304 stainless steel and minimum 14-gauge thickness. Center positioned. Type 304 stainless steel bolts.

PART 3 EXECUTION

3.01 INSTALLATION

- A. Boring and jacking operations shall be done simultaneously, with continuous installation, until the casing is in the final position.
- B. Mechanical bore casing pipe hole through the soil by a cutting head on a continuous auger mounted inside the casing pipe. Extend auger a minimum distance beyond the end of the casing pipe to preclude formation of voids outside of the pipe shell.
- C. Casing installation shall produce no upheaval, settlement, cracking, movement, or distortion of the existing roadbed or other facilities.
- D. Correct line and grade shall be carefully maintained.
- E. Add-on sections of casing pipe shall be welded continuous over the entire circumference and with full penetration. Welder shall be qualified in accordance with the American Welding Society's standards.
- F. Casing pipe shall be adequately protected to prevent crushing or other damage under jacking pressures.
- G. Install carrier pipe using casing spacers.
- H. Touch up interior coating at all welds and where coating was harmed due to installation of pipe.
- I. Seal ends with a minimum of 18 inches of non-shrink sand/cement grout.

END OF SECTION - 02445

SECTION 02500 SURFACE

RESTORATION PART 1 - GENERAL

1.1 THE REQUIREMENT

- A. The Contractor shall repair landscaped and grassed areas that may be damaged by Contractor activities.

1.2 RELATED WORK SPECIFIED ELSEWHERE

- A. Section 02050: Demolition
- B. Section 02900: Landscaping

1.3 SUBMITTALS

- A. The Contractor shall submit submittals for review in accordance with the Section 01300 entitled "Submittals".

1.4 DEFINITIONS

- A. The phrase "DOT Specifications" shall refer to the Florida Department of Transportation Standard Specifications for Road and Bridge Construction. The DOT Specifications are referred to herein and are hereby made a part of this Contract to the extent of such references and shall be as binding upon the Contract as though reproduced herein in their entirety.

1.5 PROTECTION OF EXISTING IMPROVEMENTS

- A. The Contractor shall be responsible for the protection of all pavements and other improvements within the work area. All damage to such improvements as a result of the Contractor's operations, beyond the limits of the work of pavement replacement, shall be repaired by the Contractor at its own expense.

1.6 GUARANTEE

- A. The Contractor shall guarantee all trees, ground cover, or shrubs planted or replanted under this Contract for a period of one (1) year beyond acceptance of the project. In the event that any new tree, plant, or shrub dies within the guarantee period, the Contractor shall be responsible for replacement in kind. In the event that a transplanted (reused) tree dies within the guarantee period, the Contractor shall be responsible for

replacement in kind, except that the maximum height of any new tree shall be eight (8) feet as measured from the ground surface, once planted, to the top of the tree.

PART 2 - PRODUCTS

2.1 SOD

- A. All sod shall be replaced with the same as was removed or damaged.

2.2 NEW TREES AND SHRUBS

- A. Contractor shall install new trees and shrubs in accordance with the proposed grading and landscaping.
- B. Trees and shrubs that will be impacted by this construction shall be relocated as directed by the Consultant at no additional cost to the Owner.

2.3 REPLACEMENT TREES, GROUND COVER AND SHRUBS

- A. Replacement trees, ground cover, and shrubs shall be of the same type and size and sound, healthy and vigorous, well branched, and densely foliated when in leaf. They shall have healthy, well developed root systems and shall be free of disease and insect pests, eggs, or larvae.

2.4 MULCH

- A. Mulch shall be shredded cypress and shall be clean, fresh, and free of branches and other foreign matter. Mulch shall be used around all shrubs, ground covers, and tree trunks and placed to a minimum depth of three (3) inches extending from the tree trunk outward to the extent of the root ball or a minimum of two (2) feet.

PART 3 - EXECUTION

3.1 GRADING AND SODDING

- A. The Contractor shall regrade the work areas disturbed by his construction activities to the existing grade prior to commencement of construction.
- B. Maintenance: Sufficient watering shall be done by the Contractor to maintain adequate moisture for optimum development of the sodded areas. Sodded areas shall receive no less than 1.5 inches of water per week. Contractor shall include in the bid a watering truck during the period that the plant material is installed and the irrigation system is not functioning. This shall be provided at no additional cost to the Owner.
- C. Repairs to Lawn Areas Disturbed by Contractor's Operations: Lawn areas damaged by the Contractor's operations shall be repaired at once by proper sod bed preparation, fertilization, and resodding, in accordance with these

Specifications. Regardless of the condition of the lawn area (weed content, etc.) prior to the Contractor working in the area, all repairs shall be made with sod.

3.2 TREES, GROUND COVER, AND SHRUBS

- A. Excavation and Plant Holes: Plant hole excavations shall be roughly cylindrical in shape, with the side approximately vertical. Plants shall be centered in the hole. Bottoms of the holes shall be loosened at least six (6) inches deeper than the required depth of excavation.

- B. Holes for balled and burlapped plants shall be large enough to allow at least eight (8) inches of backfill around the earth ball. For root balls over 18 inches in diameter, this dimension shall be increased to 12 inches. Where excess material has been excavated from the plant hole, the excavated material shall be disposed of as and where directed by the Consultant.

- C. Setting of Plants: When lowered into the hole, the plant shall rest on a prepared hole bottom such that the roots are level with, or slightly above, the level of their previous growth and so oriented such as to present the best appearance. The Contractor, when setting plants in holes, shall make allowances for any anticipated settling of plants.

- D. The backfill shall be made with planting mixture and shall be firmly rodded and watered-in, so that no air pockets remain. The quantity of water applied immediately upon planting shall be sufficient to thoroughly moisten all of the backfilled earth. Plants shall be kept in a moistened condition for the duration of the Contract.

- E. Staking and Guying: Plants shall be staked in accordance with the following provisions:
 - 1. Small Trees: For trees and shrubs of less than one-inch caliper, the size of stakes and the method of tying shall be such as to rigidly support the staked plant against damage caused by wind action or other effects. Trees larger than one inch and smaller than one and one-half inch caliper shall be staked with a two-inch stake, set at least 24 inches in the ground and extending to the crown of the plant. The plant shall be firmly fastened to the stake with two strands of 14-gauge soft wire, and enclosed in rubber hose or other approved covering. The wire shall then be nailed or stapled to the stake to prevent slippage.
 - 2. Medium Trees: All trees, other than palm trees, larger than one and one-half inch caliper and smaller than two and one-half inch caliper shall be staked with two (2) or more, two-inch by two-inch stakes, eight (8) feet long, set two (2) feet in the ground. The tree shall be midway between the stakes and held firmly in place by

- two strands of 12-gauge wire, applied as specified above for single stakes. The wires shall be tightened and kept tight by twisting.
3. Large Trees: All trees, other than palm trees, larger than two and one-half inch caliper, shall be braced with three (3) or more two-inch by four-inch wood braces, toenailed to cleats which are securely banded at two (2) points to the palm, at a point at least six (6) feet above the ground. The trunk shall be padded with five (5) layers of burlap under the cleats. Braces shall be approximately equidistantly spaced and secured underground with two-inch by four-inch by 24-inch stake pads. In firm rock soils, Number 4 steel reinforcing rods or one-half inch pipe is acceptable.
4. Palm Trees: Palm trees shall be braced with three (3) or more two-inch by four-inch wood braces, toenailed to cleats which are securely banded at two (2) points to the palm, at a point at least six (6) feet above the ground. The trunk shall be padded with five (5) layers of burlap under the cleats. Braces shall be approximately equidistantly spaced and secured underground with two-inch by four-inch by 24-inch stake pads. In firm rock soils, Number 4 steel reinforcing rods or one-half inch pipe is acceptable.
- F. Pruning: All broken or damaged roots shall be cut off smoothly, and the tops of all trees shall be pruned in a manner complying with standard horticultural practice. At the time pruning is completed, all remaining wood shall be alive.
- G. Maintenance: Maintenance shall begin immediately after each plant is planted and shall continue until all Work under this Contract has been completed and accepted by the Owner. Plants shall be watered, mulched, weeded, pruned, sprayed, fertilized, cultivated, and otherwise maintained and protected. Settled plants shall be reset to proper grade position, planting saucer restored and dead material removed. Guys shall be tightened and repaired.
- H. Defective work shall be corrected as soon as possible after it becomes apparent. Upon completion of planting, the Contractor shall remove excess soil and debris, and repair any damage to structures, etc., resulting from planting operations.

END OF SECTION 02500

SECTION 02511 CONCRETE SIDEWALKS

PART 1 - GENERAL

1.01 SCOPE

- A. The work specified in this section consists of the construction of concrete sidewalks, in accordance with these specifications, and in conformity with the lines, grades, dimensions and notes shown on the plans.

1.02 REFERENCES

- A. City of Delray Beach Standards RT 5.1.
- B. FDOT Standard Specifications Section 344 Concrete
- C. FDOT Standard Specifications for Road and Bridge Construction, latest edition

PART 2 - PRODUCTS

2.01 MATERIALS

- A. The concrete mix shall produce standard weight concrete with the following properties to be verified by the use of the appropriate listed test methods.
 - 1. Compressive strength: 3,000 psi at 28 days - tested according to ASTM designation C31 (AASHTO T23)
 - 2. Slump Range: 2-4 inches - tested according to ASTM designation C143 (AASHTO T119)
- B. Joint materials shall be in accordance with FDOT Specification Section 932

2.02 FORMS

- A. Forms for this work shall be made of either wood or metal and shall have a depth equal to the plan dimensions for the depth of concrete being deposited against them. They shall be straight, free from warp or bends, and of sufficient strength, when staked, to resist the pressure of the concrete without deviation from line and grade. Forms shall be cleaned each time they are used and shall be oiled or saturated with water prior to placing the concrete.

PART 3 - EXECUTION

3.01 SUB-GRADE

- A. Excavation shall be made to the required depth, and the sub-grade or base upon which the sidewalk is to be set shall be compacted to a firm, even surface, true to grade and cross-section, by means of watering, rolling or tamping. The sub-grade For sidewalk to be used as driveway pavement shall be compacted as directed by the City Engineer. The sub-grade shall be moist at the time the concrete is placed.

3.02 JOINTS

- A. Expansion Joints between the sidewalk and the curb or driveway or at fixed objects and sidewalk intersections shall be 1/2 inch joints, formed with a preformed joint filler.
- B. Preformed Filler shall meet the requirements of AASHTO M-153 or M-213, or cellulose fiber types meeting all the requirements of AASHTO M-213 except the asphalt content are acceptable provided they contain minimums of 0.2 percent copper pentachloro phenate as a preservative and 1.0 percent waterproofing wax. For AASHTO M-153, unless a particular type is specified, either type I, type II, or type III may be used
- C. Contraction Joints may be of the open type or may be sawed.
 - 1. Open type contraction joints shall be formed by staking a metal bulkhead in place and depositing the concrete on both sides. After the concrete has set sufficiently to preserve the width and shape of the joint, the bulkhead shall be removed. After the sidewalk has been finished over the joint, the slot shall be edged with a tool having a 1/2" radius.
 - 2. If the Contractor elects to saw the contraction joints, a slot approximately 3/16" wide and not less than 1-1/2" deep shall be cut with a concrete saw after the concrete has set and within the following periods of time: Joints at not more than 30' intervals - 12 hrs after finishing, and remaining joints - within 96 hrs after finishing.

3.03 PLACING

- A. The concrete shall be placed in the forms to the required depth and shall be tamped and spaded until mortar entirely covers its surface.

3.04 FINISHING

- A. **SCREEDING:** All surplus water, laitance and inert material shall be worked off the surface of the concrete with a ten (10) foot straight edge, or by some other method equally as satisfactory and so approved by the City Engineer.

- B. FLOATING; SURFACE REQUIREMENTS: The concrete shall be given a wooden float finish. The surface variations shall not be more than three-sixteenths (3/16) inch under a ten (10) foot straight edge, nor more than one-eighth (1/8) inch on a five (5) foot transverse section. The edge of the sidewalk shall be carefully finished with an edging tool having a radius of one-half (1/2) inch.

3.06

THICKNESS

Concrete sidewalks shall be four (4) inches thick except at driveways where sidewalks shall be six (6) inches thick.

END OF SECTION

SECTION 02512

CONCRETE SIDEWALK RESTORATION

PART 1 - GENERAL

1.01 SCOPE

The work to be performed under this item shall include the selling and delivering and the installing of concrete sidewalk which have been removed and/or damaged during the course of construction of the work performed under this Contract. The sidewalk shall be replaced to the same width as the original sidewalk.

1.02 REFERENCES

A. FDOT Standard Specifications Section 344 Concrete.

PART 2 - MATERIALS

2.01 ACCEPTABLE MATERIALS

- A. The concrete mix shall produce standard weight concrete with the following properties to be verified by the use of the appropriate listed test methods.
1. Compressive strength: 3,000 psi at 28 days - tested according to ASTM designation C31 (AASHTO T23)
 2. Slump Range: 2-4 inches - tested according to ASTM designation C143 (AASHTO T119)
- B. Joint materials shall be in accordance with FDOT Specification Section 932.

PART 3 - EXECUTION

All material, labor, forms, tools and equipment for restoration of the sidewalk shall be supplied by the Contractor. All disturbed sidewalk shall be replaced with 4-inch thick 3,000 psi concrete (6-inches thick at driveways) to the widths required. The sidewalk finish shall match as near as possible the original finish. Broken or cracked sidewalk shall be removed and disposed of as directed by the Engineer.

END OF SECTION

SECTION 02513 ASPHALTIC CONCRETE PAVING

PART 1 - GENERAL

1.01 WORK INCLUDED

- A. Prepare sub-grade to receive base course.
- B. Place stabilizing base courses, work and compact.
- C. Prime base course, place asphalt pavement.

1.02 RELATED WORK

- A. Section 01410: Testing Laboratory Services.
- B. Section 02211: Site Grading.
- C. Section 02580: Pavement Marking.

1.03 REFERENCE STANDARDS

- A. FDOT Specification Section 334 HOT MIX ASPHALT
- B. ASTM D1557 - Tests for Moisture - Density Relationship of Soils using 10 lb. Rammer in 18 inch Drop.
- C. AASHTO M-81 - Penetration Graded Asphalt Cement.
- D. AASHTO M-140 - Emulsified Asphalt.
- E. FDOT Standard Specification for Road & Bridge Construction - Section 200 - Limerock Base
- F. FDOT Standard Specification for Road and Bridge Construction - Section 913 - Shell Base.
- G. FDOT Standard Specification for Road and Bridge Construction - Section 913 - Shell Stabilized Base.
- H. FDOT Standard Specification for Road and Bridge Construction - Section 330 - Hot Bituminous Mixtures General Construction Requirements.
- I. FDOT Standard Specification for Road and Bridge Construction - Section 916-1 - Asphalt Cement.

1.04 TESTING AND INSPECTION

- A. Testing and inspection of asphalt pavement mixes and testing of placed stabilizing base course and asphalt pavement will be performed by an independent testing laboratory, in accordance with Section 01410-Testing Lab Services, and Section 01020-Allowances. Testing and inspection will be performed so as to minimize disruption to work.
- B. Allow testing laboratory access to the mixing plant for verification of weights or proportions, character of materials used and determination of temperatures used in the preparation of asphalt concrete mix.
- C. When and if required, the testing laboratory will perform laboratory tests on proposed asphalt pavement mixes to determine conformity with requirements.
- D. The testing laboratory will perform one series of compaction tests for stabilizing base course and for asphalt pavement. The contractor shall pay for costs of additional testing as required due to improper performance of work.
- E. When stabilizing base course or portion thereof has been placed and compacted in accordance with requirements, notify the testing laboratory to perform density and bearing value tests. Do not place asphalt pavement until results have been verified and base course installation approved.
- F. If compaction tests indicate that stabilizing base course or asphalt paving do not meet specified requirements, remove defective work, replace and retest at Contractor's expense.

PART 2 - MATERIALS

2.01 LIMEROCK

- A. Composition - The minimum percentage of carbonates of calcium and magnesium in the limerock material shall be 70. The maximum percentage of water-sensitive clay mineral shall be 3 percent. Limerock material shall not contain cherty or other extremely hard pieces, or lumps, balls or pockets of sand or clay size material in sufficient quantity as to be detrimental to the proper bonding, finishing, or strength of the limerock base.
- B. Gradation and Size Requirements - At least 97 percent (by weight of the material shall pass a 3½ inch sieve and the material shall be graded uniformly down to dust.

The fine material shall consist entirely of dust of fracture. All crushing or breaking-up which might be necessary in order to meet such size requirements shall be done before the material is placed on the road.

- C. Limerock Bearing Requirements - Limerock material used in construction of limerock base shall have an average LBR value of not less than 100. The average LBR value of material produced at a particular source shall be determined in accordance with an approved quality control procedure.

2.02 CRUSHED CONCRETE

- A. Composition - The minimum percentage of carbonates of calcium and magnesium in the material shall be 70. All foreign material such as metal fragments, organic matter, etc. shall be removed from the material before delivery to the job site.
- B. Gradation - 100 percent (by weight) of the material shall pass a 3 inch sieve, with 40 percent to 70 percent passing the number 10 sieve. Not more than 20 percent, by dry weight, of the material shall pass the 200 sieve by washing. all crushing or breaking up which might be necessary in order to meet such size requirements shall be done before the material is placed on the road.
- C. Bearing Requirements - The Crushed Concrete Base shall have an average Limerock Bearing Ratio (LBR) of not less than 100. The average LBR value of material produced at a particular source shall be determined in accordance with an approved quality control procedure.
- D. Crushed Concrete may be substituted for Limerock as base material by adding 2 inches to the specified thickness.

2.03 PRIME COAT

- A. Prime coat shall be one of the following:
 - 1. Cutback Asphalt, Grade RC-70 or RC-250 shall meet the requirements of AASHTO Specification M-81.
 - 2. Emulsified Asphalt Grade SS-1 or SS1H shall meet the requirements of AASHTO Specifications M-140 and/or M-280.

2.04 TACK COAT

- A. Tack coat shall be one of the following:
 - 1. Asphalt Cement, Penetration Grade 85-100 shall meet the requirements of AASHTO Specification M-20.
 - 2. Emulsified Asphalt, Grade RS-2 shall meet the requirements of AASHTO Specification M-140.

2.05 ASPHALTIC CONCRETE

- A. Asphaltic concrete surface course - Type S-III asphaltic concrete wearing surface, 1½ inches in compacted thickness or as indicated on the Drawings, in accordance with Sections 330-10 Compacting Mixture and 331 Type S-III Asphaltic Concrete of aforesaid DOT Standard Specification.

PART 3 - EXECUTION

3.01 PREPARATION

- A. Subgrade shall be stabilized per Section 160 - Stabilizing, of the FDOT Standard Specifications for Road and Bridge Construction.
- B. Bearing Value Requirements for subgrade stabilization
 - 1. Limerock Bearing Ratio - Minimum LBR 40 under paved and curbed areas, and minimum LBR 30 in shoulder and swale areas.
 - 2. Florida Bearing Value - Minimum FBV 75 pounds per square inch (psi) under paved and curbed areas, and minimum FBV 50 psi in shoulder and swale areas.

3.02 TRANSPORTING BASE COURSES

The limerock shall be transported to the point where it is to be used, over rock previously placed if practicable, and dumped on the end of the preceding spread. Hauling over the subgrade and dumping on the subgrade will be permitted when these operations will not be detrimental to the base as determined by the Engineer.

3.03 EQUIPMENT

- A. Base Course - The rock shall be spread by mechanical rock spreaders, equipped with a device which strikes off the rock uniformly to laying thickness, and capable of producing an even distribution of the rock.
- B. Pressure Distributor - The pressure distributor shall be equipped with pneumatic tires having a sufficient width of rubber in contact with the road surface to avoid breaking the bond or forming a rut in the surface. The distance between the centers of openings of the outside nozzles of the spray bar shall be equal to the width of the application required, within an allowable variation two (2) inches.

3.04 SPREADING BASE COURSE

- A. Method of Spreading - The limerock shall be spread uniformly with equipment as specified in 3.02 above. All segregated areas of fine or coarse rock shall be removed and replaced with properly graded rock.
- B. Number of Courses - When the specified compacted thickness of the base is greater than six inches, the base shall be constructed in two courses. The thickness of the first course shall be approximately one-half the total thickness of the finished base, or enough additional to bear the weight of the construction equipment without disturbing the subgrade.

3.05 COMPACTING AND FINISHING BASE

- A. **Dynamic Compactor with vibratory rollers shall not be used on this project and shall not be permitted at the job site. The contractor is responsible for all damages caused by compaction operations.**
- B. Single-Course Base - For single-course base, after the spreading is completed the entire surface shall be scarified and then shaped so as to produce the required grade and cross section after compaction.
- C. Double-Course Base - For double-course base, the first course shall be cleaned of foreign material and bladed and brought to a surface cross section approximately parallel to that of the finished base. Prior to the spreading of any material for the upper course, the density tests for the lower course shall be made and the Engineer shall have determined that the required compaction has been obtained. After the spreading of the material for the final course is completed, its surface shall be finished and shaped so as to produce the required grade and cross section after compaction, and free of scabs and laminations.
- D. Moisture Content - When the material does not have the proper moisture content to insure the required density, wetting or drying will be required. When water is added it shall be uniformly mixed-in by disking to the full depth of the course which is being compacted. Wetting or drying operations shall involve manipulation, as a unit, of the entire width and depth of the course which is being compacted.
- E. Density Requirements - As soon as proper conditions of moisture are attained the material shall be compacted to a density of not less than 98 percent of maximum density as determined by AASHTO T-180. The minimum density which will be acceptable at any location outside the traveled roadway.

- F. Density Test - At least three density determinations shall be made on each day's final compaction operations on each course, and the density determinations shall be made at more frequent intervals if deemed necessary by the Engineer.
During final compacting operations, if blading of any areas is necessary to obtain the true grade and cross section, the compacting operations for such areas shall be completed prior to making the density tests on the finished base.
- G. Correction of Defects:
1. Contamination of Base Material - If, at any time, the subgrade material should become mixed with the base course material, the Contractor shall, without additional compensation, dig out and remove the mixture, reshape and compact the subgrade and replace the materials removed with clean base material, which shall be shaped and compacted as specified above.
 2. Cracks and Checks - If cracks or checks appear in the base, either before or after priming, which, in the opinion of the Engineer, would impair the structural efficiency of the base, the Contractor shall remove the cracks or checks by rescarifying, reshaping, adding base material where necessary, and recompacting.
- H. Surface Testing - The finished surface of the base course shall be checked with a templet cut to the required crown and with a 15 foot straightedge laid parallel to the center line of the road. All irregularities greater than $\frac{1}{4}$ inch shall be corrected by scarifying and removing or adding base course material as required, after which the entire area shall be recompacted.

3.06 PRIMING

- A. Preparation - The prime coat shall be applied only when the base meets the specified density requirements and the moisture content in the top half of the base does not exceed 90 percent of the optimum moisture of the base material. At the time of priming, the base shall be firm, unyielding and in such condition that no undue distortion will occur.

Before any bituminous material is applied, all loose material, dust, dirt, caked clay and other foreign material which might prevent proper bond with the existing surface shall be removed for the full width of the application. Particular care shall be taken in cleaning the outer edges of the strip to be treated, to insure that the prime or tack coat will adhere.

When the prime or tack coat is applied adjacent to curb and gutter, valley gutter or any other concrete surfaces, such concrete surfaces (except where they are to be covered with a bituminous wearing course) shall be covered with heavy paper, or otherwise protected while the prime or tack coat is being applied. Any bituminous material deposited on such concrete surfaces shall be removed.

The temperature of the prime material shall be between 100 degrees Fahrenheit and 150 degrees Fahrenheit. The actual temperature shall be that which will insure uniform distribution. The material shall be applied by means of a pressure distributor. The amount to be applied will be dependent on the character of the surface and shall be sufficient to coat the surface thoroughly and uniformly, with no excess.

- B. Rate of Application - The rate of application shall be not less than 0.10 gallon per square yard, unless a lower rate is approved by the Engineer.
- C. Sprinkling - If so required by the Engineer the base shall be lightly sprinkled with water and rolled with a traffic roller, in advance of the application of the prime.
- D. Sanding - The primed base shall be covered by a light uniform application of cover material. If considered necessary for proper distribution of spread, the cover material shall be lightly dragged with a drag broom, after which it shall be rolled with a traffic roller.
- E. Sampling Device on Transport Tanks - All transport tanks delivering bituminous materials for use on the project shall be equipped with an approved spigot-type sampling device.
- F. Temperature Sensing Device on Transport Tanks - All transport tanks delivering bituminous materials shall be equipped with an approved dial type thermometer. The thermometer shall have a temperature range from 50 degrees Fahrenheit to 500 degrees Fahrenheit in 25 degrees Fahrenheit increments with a minimum dial diameter of two inches.

3.07 QUALITY CONTROL

- A. Testing Surface - The finished surface of the base course shall be checked with a templet cut to the required crown and with a 15-foot straightedge laid parallel to the centerline of the road. All irregularities greater than $\frac{1}{4}$ inch shall be corrected by scarifying and removing or adding rock as required, after which the entire area shall be recompacted as specified hereinbefore. In the testing of the surface, the measurements will not be taken in small holes caused by individual pieces of rock having been pulled out by the grader.
- B. Thickness Requirements:
 - 1. Measurements - Thickness of base shall be measured at intervals of not more than 200 feet. Measurements shall be taken at various points on the cross section, through holes not less than three inches in diameter.
 - 2. Areas Requiring Correction - Where the compacted base is deficient by more than $\frac{1}{2}$ inch from the thickness called for in the plans, the Contractor shall correct such areas by scarifying and adding rock. The base shall be scarified

and rock added for a distance of 100 feet in each direction from the edge of the deficient area. The affected areas shall then be brought to the required state of compaction and to the required thickness and cross section.

3. Deficient Areas Left in Place - As an exception to the requirement for correcting areas of base which show a thickness deficiency exceeding the allowable $\frac{1}{2}$ inch, the deficiency might be considered as not sufficient to seriously impair the required strength of the base and may be left in place. No payment, however, will be made for such deficient areas left in place and not corrected.

3.08 MAINTENANCE

The Contractor will be responsible for assuring that the true crown and templet are maintained, with no rutting or other distortion, and that the base meets all the requirements, at the time the surface course is applied.

3.09 PROTECTING ADJACENT WORK

Provide adequate protection for all adjacent construction, whatever it may be, against bituminous spraying. Spraying of bituminous material on work, other than base course, will not be accepted.

3.10 TRANSPORTATION OF THE ASPHALT

The surface course shall be transported in tight vehicles previously cleaned of all foreign material. The inside surface of the truck bodies shall be only thinly coated with soapy water or an approved emulsion containing not over 5 percent oil. Kerosine, gasoline or similar products shall not be used. After coating and before loading, the truck bodies shall be raised and drained of all excess liquids.

3.11 INSTALLATION OF FINAL ASPHALTIC CONCRETE SURFACE COURSE

The Contractor shall install Type S-III asphaltic concrete surface course over the entire surface in two (2) $\frac{3}{4}$ inch lifts.

Mechanical spreading and screeding equipment shall be of an approved type that is self-propelled and can be steered. It shall be equipped with a receiving and disbursing hopper and a mechanical screed or strike-off member capable of adjustment to regulate the depth of material being spread. Tandem Type 5 to 12 ton steel- wheeled rollers shall be used for sealing. Self- Propelled, pneumatic-tired traffic rollers equipped with at least 7b smooth tread, low pressure tires, having a total weight of 6 to 10 tons shall be used for final rolling.

3.12 FIELD QUALITY CONTROL

The final surface course of all pavements will be required to be checked by a rolling straightedge. The finished surface shall not vary more than 3/16 inch from the straightedge applied parallel to the centerline of the pavement. The straightedge shall have an effective length of 15 feet.

END OF SECTION

SECTION 02515 CONCRETE PAVING STONES

PART 1 - GENERAL

1.01 RELATED WORK

- A. Section 02513: Asphaltic Concrete Paving

1.02 WORK INCLUDED

- A. Prepare subgrade and base course
- B. Supply and place sand laying course.
- C. Supply and install interlocking concrete paving stones in quality, shape, thickness and color as specified.
- D. Supply and place all accessory items as required by the Contract.

1.03 PRODUCT HANDLING

- A. Paving stones shall be delivered and unloaded at jobsite with or without pallets and bound in such manner that no damage occurs to the product during handling, hauling and unloading.

PART 2 - MATERIALS

2.01 SOLID CONCRETE INTERLOCKING PAVING STONES:

ASTM DESIGNATION C936-82

Paving stones shall be : UNI-Stone, UNI-Decor, Super-Decor, Appian-Stone, City Square, Holland-Stone, UNI-Coloc, UNI-Stone II, Finetta Stone, or Delta Stone, as shown on the plans, and manufactured by Paver Systems, or equal.

Paving stones thickness shall be: 2-3/8" (6cm) or 3-1/8" (8cm). Paving stones color shall be: Grey, Charcoal, Tan, Colorado, Brown, Red, Colormix II (Red & Charcoal), Colormix III (Red, Charcoal, & Tan), Colormix I (Tan - Red), Slate (Grey - Charcoal).

2.02 CEMENTITIOUS MATERIALS

- A. Portland Cements shall conform to ASTM Specification C-150.

02515-1

- B. Aggregates shall conform to ASTM Specification C-33 for Normal Weight Concrete Aggregate (no expanded shale or lightweight aggregates) except that grading requirements shall not necessarily apply.
- C. Other Constituents:
- Coloring pigments, air-intraining agents, integral water repellents, finely ground silica, etc., shall conform to ASTM standards where applicable, or shall be previously established as suitable for use in concrete.
- D. Physical Requirements:
1. Compressive Strength - At the time of delivery to the work site, the average compressive strength shall not be less than 8,000 psi with no individually unit strength less than 7,200 psi with testing procedures in accordance with ASTM Standard C-140.
 2. Absorption - The average absorption shall not be greater than five percent (5%) with no individual unit absorption greater than seven percent (7%).
 3. Proven Field Performance - Satisfying field performance is indicated with units similar in composition, and made with the same manufacturing equipment as those to be supplied to the City, do not exhibit objectionable deterioration after at least one (1) year.
- E. Visual Inspection:
1. All units shall be sound and free of defects. Pavers damaged in any manner will be rejected and replaced with new materials at no expense to the City.
- F. Sampling and Testing:
1. The Contractor shall submit manufacturer's product data for each type of concrete paver specified.
 2. A minimum of three (3) concrete pavers of each type and size specified shall be submitted to the City for approval. Samples shall exhibit the full color range of pavers to be provided.
 3. Reports of testing of pressed concrete paver shall be submitted to the City.
 4. Testing shall be performed by an independent testing laboratory, and shall conform to ASTM C 140 methods where applicable.
 5. Test reports shall indicate the following as a minimum:
 - a. Compressive strength, psi.
 - b. Absorption, 5 hour submersion in cold water.
 - c. Absorption, 24 hour submersion in cold water.
 - d. Maximum saturation coefficient.
 - e. Initial rate of absorption (suction).
 - f. Abrasion index.

g. Freeze - thaw.

G. Rejection:

1. In case the shipment fails to conform to the specified requirements, the manufacturer may sort it, and new test units shall be selected at random by the purchaser from the retained lot and tested at the expense of the manufacturer. In case the second set of test units fails to conform to the specified requirements, the entire lot shall be rejected.

H. Expense of Tests:

The expense of inspection and testing shall be borne by the Contractor.

2.03 SAND LAYING COURSE

- A. The sand laying course shall be a well graded clean washed sharp sand with 100% passing a 3/8" sieve size and a maximum of 3% passing a No. 200 sieve size. Manufactured concrete sand, limestone screening, or similar material may be used. DO NOT USE MASON SAND.

2.04 EDGE RESTRAINT

- A. All edges of the installed paving stone shall be restrained. The type of edge restraint shall be approved at locations as noted on plans.
- B. The edge restraint can be:
 1. Paver Systems-Curb (Precast)
 2. Buildings
 3. Concrete curb or sidewalk (Cast in Place)
 4. Pressure treated timber
 5. Compacted earth
 6. Other suitable method of preventing movement of edge stones
 7. As indicated on the plans

PART 3 - EXECUTION

3.01 CONTRACTOR

The paving stone installer/contractor must have related experience in the installation of interlocking concrete paving stones.

3.02 PREPARATION OF THE BASE COURSE

- A. A suitable base must be prepared as detailed in section 02513 - Asphaltic Concrete Pavers of the project specifications.
- B. The base course shall be shaped to grade and cross section with an allowable tolerance of 1/4" (5mm).
- C. The compacted base shall be 3-1/8" (80 mm) below final grade for 2-3/8" (6cm) pavers and 3-7/8" (100 mm) below final grade for 3-1/8" (8cm) pavers.

3.03 CONSTRUCTION OF THE SAND LAYING COURSE

- A. The finished base course shall be approved before the placement of the sand laying course.
- B. The uncompacted sand laying course shall be spread evenly over the area to be paved and then screeded to a level that will produce 1" (25 mm) thickness when the paving stones have been placed.
- C. Screeded and leveled to the desired elevation, this sand laying course shall not be disturbed in any way.

3.04 LAYING OF CONCRETE PAVING STONES

- A. The paving stones shall be laid in the approved pattern as noted or shown on drawings.
- B. The paving stones shall be laid in such a manner that the desired pattern is maintained and the joints between the stones do not exceed 1/8" (3 mm).
- C. String lines should be used to hold all pattern lines true.
- D. The gaps at the edge of the paver surface shall be filled with standard edge stone or with stones cut to fit. Cutting shall be accomplished to leave a clean edge to the traffic surface using a masonry saw. Scoring and breaking will not be acceptable. No cuts shall result with a paver less than 1/3 of original dimension.
- E. Paving stones shall be vibrated into the sand laying course using a vibrator capable of 3,000 to 5,000 pounds compaction force with the surface clean and joints open.
- F. After vibration, clean masonry type sand containing at least 30% of 1/8" (3mm) particles shall be spread over the paving stone surface, allowed to dry, and vibrated into joints with additional vibrator passes and brushing so as to completely fill joints.
- G. Surplus material shall then be swept from the surface or left on surface during construction time to insure complete filling of joints during initial use. This sand also may provide surface protection from construction debris.

- H. Upon completion of work covered in the Section, the Contractor shall clean up all work areas by removing all debris, surplus material and equipment from the site.

END OF SECTION

SECTION 02520 CONCRETE CURBS AND HEADERS

PART 1 - GENERAL

1.1 SCOPE

- A. The work covered by this section of the specifications consists of furnishing all plant, labor, equipment, appliances and materials and performing all operations in connection the construction of concrete curbs and headers, complete and in place, in strict accordance with these specifications and the applicable drawings and subject to the terms and conditions of this contract.

1.2 REFERENCES

- A. Florida Department of Transportation Standard Specifications for Road and Bridge Construction, (latest edition)

PART 2 - PRODUCTS

2.1 MATERIALS

- A. The concrete mix shall produce standard weight concrete with the following properties to be verified by the use of the appropriate listed test methods.
- *Compressive strength*: 3,000 psi at 28 days - tested according to ASTM designation C31 (AASHTOT23)
 - *Slump Range*: 2-4 inches - tested according to ASTM designation C143 (AASHTO T119)
- B. Joint materials shall be in accordance with FDOT Specification Section 932

PART 3 - EXECUTION

3.1 CONSTRUCTION METHODS

Concrete curbs and headers shall be constructed of the type and in the locations as shown on the plans.

- A. **FORMS:** Forms for this work shall be made of either wood or metal. They shall be straight, free from warp or bends, and of sufficient strength, when staked, to resist the pressure of the concrete without springing. If made of wood, they shall be of two (2) inch surfaced planks; if made of metal, they shall be of approved section and shall have a flat surface on top.

- B. CONSTRUCTION: Excavation shall be made to the required depth; and the sub-grade or base upon which the curb or header is placed shall be compacted to 98% AASHTO T-180.
1. The concrete shall be placed in the forms to the depth specified, and tamped and spaded to prevent honeycomb and until the top of the structure can be floated smooth and the edges rounded to the radius shown on the plans.
 2. Contraction joints shall be placed at intervals of ten feet except where a lesser interval is required for closure, but no section shall be less than four feet in length.
 3. Contraction joints shall be created while the concrete is still plastic by using a grooving tool or by inserting a premolded filler strip, or a groove may be saw cut into the concrete soon after it has hardened. Curb with irregular cracks due to late contraction joint construction will not be accepted.
 4. Expansion joints shall be constructed at all radius points and at other locations indicated on the plans. They shall be located at intervals of 500 feet between other expansion joints, or ends of a run. The joint shall be 1/2 inch in width.
 5. The forms shall be removed within twenty-four (24) hours after the concrete has been placed, and minor defects then filled with mortar composed of one (1) part of Portland Cement and two (2) parts of fine aggregate. Plastering shall not be permitted on the face of the curb; and all rejected curb, or header shall be removed and replaced without additional compensation. The curb top, face and/or header top shall be given a surface finish while the concrete is still green. A brush finish will be required unless noted otherwise; however, additional finishing may be required in areas considered too rough or with minor defects.
 6. After the concrete has been rubbed smooth, it shall be rubbed again until a uniform color is produced, using a thin grout composed of one (1) part of Portland Cement and one (1) part of fine aggregate.
 7. After concrete has set sufficiently, the spaces in front and back of the curb shall be refilled to the required elevation with suitable material, which shall be placed and thoroughly compacted in layers of not more than six (6) inches in thickness.

END OF SECTION 02520

SECTION 02521 FLOWABLE FILL

PART 1 - GENERAL

1.01 SCOPE OF WORK

- A. This Section specifies the requirements for flowable fill used for trenches, support for pipe structures, culverts, utility cuts and other works where cavities exist and where firm support is needed for pavements and structural elements. Flowable fill may also be used to fill water pipes that need to be abandoned in place and at other locations approved by the Engineer.

1.02 REFERENCE SPECIFICATIONS

- A. Section 01010 - Summary of Work
- B. Section 01090 - Reference Standards
- C. Section 01340 - Shop Drawings, Product Data and Samples
- D. Section 02220 - Trenching, Backfilling and Compacting
- E. Section 02574 - Pavement Removal and Replacement

PART 2 - PRODUCTS

2.01 MATERIALS

- A. The materials used shall conform with the requirements specified in Division III of the F.D.O.T. Standard Specification for Road and Bridge Construction, latest edition, and herein. Specific reference are as follows:
 - 1. Portland Cement (Type I, II or III) Section 921
 - 2. Fly Ash, Slag and other Pozzolanic materials
For Portland Cement Concrete Section 929
 - 3. Fine Aggregate (Sand)* Section 902
 - 4. Water Section 923

*Any clean sand with 100% passing 3/8" sieve and not more than 10% passing with 200 mesh may be used.

2.02 MIX PROPORTIONS

- A. The Contractor shall be responsible for producing a flowable mixture using these guidelines and by adjusting his mixture design as called for by circumstances or as may be directed by the Engineer.
- B. Flowable fill material shall be proportioned to produce a 28-day compressive strength of a minimum of 100 psi.
- C. General mix quantities are as follows:

<u>Components</u>	<u>Pounds per Cubic Yard</u>
Cement	50-100*
Fly Ash or Granulated Blast Furnace Slag	0-600
Fine Sand	2,750
	(Adjust to yield one cubic yard of flowable fill)
Water	500 (Max.)

*The percentage of cement may be increased above these limits only when early strength is required and future removal is unlikely.

- D. Weights for fine aggregates and water shall be adjusted for removability, pumpability and flowability. If required, strength test data shall be provided prior to batching.
- E. If required by the Engineer, the flowability can be measured by afflux time determined in accordance with ASTM C 939 and shall be 30 seconds +/- 5 seconds as measured on mortar passing the No. 4 sieve. The equipment required to perform this test shall be provided by the Contractor.

2.03 APPROVED MIXES OF “FLOWABLE FILL”

- A. Ready Mixed Flowable Fill – Excavatable or Engineer approved equal.

PART 3 - EXECUTION

3.01 PRODUCTION AND PLACING

- A. Flowable fill shall be produced and delivered using ready mix concrete trucks and placed easily by chute in a flowable condition directly into the cavity to be filled or into a pump for final placement.
- B. The flowable fill shall be placed to the designated fill line without vibration or other means of compaction. Placement shall be avoided during inclement

weather, e.g. rain. The Contractor shall take all necessary precautions to prevent any damages caused by hydraulic pressure of the fill during placement prior to hardening. Also, necessary means to confine the material within the designated space shall be provided by the Contractor.

3.02 ACCEPTANCE

- A. The flowable shall be proportioned and placed as specified herein. In general, the strength desired is the maximum hardness that can be excavated at a later date using conventional excavation equipment. No curing protection is required.
- B. The fill shall be left undisturbed until material obtains sufficient strength. Sufficient strength is 250 psi penetration resistance as measured using a hand held penetrometer. The penetrometer shall be provided by the Contractor.
- C. All flowable fill areas subject to traffic loads must have a durable riding surface.
- D. An approved type of accelerator may be approved for the placement of “Flowable Fill” in traffic areas when submitted to the Engineer. Depending on the condition of the cavity, paving can begin from 8-24 hours after placement.

END OF SECTION 02521

SECTION 02546
FINAL ASPHALTIC CONCRETE SURFACE COURSE

PART 1 - GENERAL

1.01 SCOPE

The work to be performed under this item shall include the selling, delivering and installing of final asphaltic concrete surface courses as herein specified.

1.02 REFERENCES

Standards applicable in this Specification shall be:

- A. Florida Department of Transportation - Standard Specifications for Road and Bridge Construction (latest ed.).
 - 1. Section 300 - Prime and Tack Coats for Base Courses. Subsections (1, 2.3, 3, 4, 5, 7).
 - 2. Section 320 - Hot Bituminous Mixtures - Plant, Methods and Equipment. Subsections (1, 2.1, 2.5 to 2.13, 3, 4, 5).
 - 3. Section 330 - Hot Bituminous Mixtures - General Construction Requirements. Subsections (1, 3 to 13).
 - 4. Section 331 - Type S-1, Asphaltic Concrete. Subsections (1 to 5).

1.03 SUBMITTALS

- A. Manufacturer's Data - Prior to fabrication or installation of the final asphaltic concrete surface course, the Contractor shall furnish to the Engineer, for review and approval the following:
 - 1. Certification from the manufacturer that their plant meets the requirements of Section 320 above.
 - 2. Formula for job mix.

PART 2 - MATERIALS

2.01 TACK COAT

Unless otherwise specified by the Engineer, the material used for the tack coat shall be Emulsified Asphalt, Grade RS-2, Section 300-2.3 F.D.O.T. Specification.

2.02 FINAL ASPHALTIC SURFACE COURSES

The material used shall be Type S-III asphaltic concrete conforming to Section 331 of the F.D.O.T. Standard Specifications for Road and Bridge Construction.

PART 3 - EXECUTION

3.01 CLEANING SURFACES

Prior to the laying of the surface courses, the surface of the pavement or base to be covered shall be cleaned of all loose and deleterious material by the use of power brooming or hand brooming where necessary. All such material shall be collected and disposed of by the Contractor.

3.02 PATCHING AND LEVELING COURSES

Where a surface course is to be constructed on an existing paved surface which is irregular, said surface shall be brought to proper grade and cross section by the application of patching or leveling courses.

3.03 APPLICATION OF TACK COAT

The material shall be heated to a suitable temperature and applied in a thin, uniform layer at a rate of between 0.02 and 0.08 gallons per square yard. The tack coat shall be applied sufficiently in advance of the surface course laying to permit drying but not so far in advance as to lose its adhesiveness as a result of being covered with dust. The tack coat shall be kept free from traffic until the surface course has been laid.

3.04 TRANSPORTATION OF THE ASPHALT

The surface course shall be transported in tight vehicles previously cleaned of all foreign material. The inside surface of the truck bodies shall be only thinly coated with soapy water or an approved emulsion containing not over 5% oil. Kerosine, gasoline or similar products shall not be used. After coating and before loading, the truck bodies shall be raised and drained of all excess liquids.

3.05 INSTALLATION OF FINAL ASPHALTIC CONCRETE SURFACE COURSE

Prior to final acceptance, or as directed by the Engineer, the Contractor shall install a 1-inch layer of Type S-3 Final Asphaltic Concrete Surface course over the entire street width as directed by the Engineer.

Mechanical spreading and screeding equipment shall be of an approved type that is self-propelled and can be steered. It shall be equipped with a receiving and discharging hopper and a mechanical screed or strike-off member capable of adjustment to regulate the depth of material being spread. Tandem Type 5 to 12 ton steel- wheeled rollers shall be used for sealing. Self- Propelled, pneumatic- tired traffic rollers equipped with at least 7b smooth tread, low pressure tires, having a total weight of 6 to 10 tons shall be used for final rolling.

3.06 FIELD QUALITY CONTROL

The final surface course of all pavements will be required to be checked by a rolling straightedge. The finished surface shall not vary more than 3/16 inch from the straightedge applied parallel to the centerline of the pavement. The straightedge shall have an effective length of 15 feet.

END OF SECTION

SECTION 02550 ASPHALTIC CONCRETE OVERLAY

PART 1 - GENERAL

1.10 SCOPE

The work to be performed under this item shall include the selling, delivering and installing of final asphaltic concrete surface courses as herein specified.

1.02 REFERENCES

Standards applicable in this Specification shall be:

- A. Florida Department of Transportation - Standard Specifications for Road and Bridge Construction (1986).
 - 1. Section 300 - Prime and Tack Coats for Base Courses. Subsections (1, 2.3, 3, 4, 5, 7).
 - 2. Section 320 - Hot Bituminous Mixtures - Plant, Methods and Equipment. Subsections (1, 2.1, 2.5, to 2.13, 3, 4, 5).
 - 3. Section 330 - Hot Bituminous Mixtures - General Construction Requirements. Subsections (1, 3 to 13).
 - 4. Section 331 - Type S-III, Asphaltic Concrete. Subsections (1 to 5).

1.03 SUBMITTALS

- A. Manufacturer's Data - Prior to fabrication or installation of the final asphaltic concrete surface course, the Contractor shall furnish to the Engineer, for review and approval the following:
 - 1. Certification from the manufacturer that their plant meets the requirements of Section 320 above.
 - 2. Formula for job mix.

PART 2 - MATERIALS

2.01 TACK COAT

Unless otherwise specified by the Engineer, the material used for the tack coat shall be Emulsified Asphalt, Grade RS-2, Section 300-2.3 F.D.O.T. Specification.

2.02 ASPHALTIC CONCRETE

Asphaltic concrete surface course - Type S-III asphaltic concrete wearing surface, 1 inch in compacted thickness or as indicated on the Drawings, in accordance with Sections 330-10 Compacting Mixture and 331 Type S-III Asphaltic Concrete of aforesaid DOT Standard Specification.

PART 3 - EXECUTION

3.01 CLEANING SURFACES

Prior to the laying of the surface courses, the surface of the pavement or base to be covered shall be cleaned of all loose and deleterious material by the use of power brooming or hand brooming where necessary. All such material shall be collected and disposed of by the Contractor.

3.02 PATCHING AND LEVELING COURSES

Where a surface course is to be constructed on an existing paved surface which is irregular, said surface shall be brought to proper grade and cross section by the application of patching or leveling courses.

3.03 APPLICATION OF TACK COAT

The material shall be heated to a suitable temperature and applied in a thin, uniform layer at a rate of between 0.02 and 0.08 gallons per square yard. The tack coat shall be applied sufficiently in advance of the surface course laying to permit drying but not so far in advance as to lose its adhesiveness as a result of being covered with dust. The tack coat shall be kept free from traffic until the surface course has been laid.

3.04 TRANSPORTATION OF THE ASPHALT

The surface course shall be transported in tight vehicles previously cleaned of all foreign material. The inside surface of the truck bodies shall be only thinly coated with soapy water or an approved emulsion containing not over 5 percent oil. Kerosine, gasoline or similar products shall not be used. After coating and before loading, the truck bodies shall be raised and drained of all excess liquids.

3.05 INSTALLATION OF ASPHALTIC CONCRETE

Prior to final acceptance, or as directed by the Engineer, the Contractor shall install a 1-inch layer of Type S-III (as indicated on the drawings) Asphaltic Concrete over the entire street width as directed by the Engineer. A leveling course as indicated on the

plan sheets shall be placed prior to the final asphaltic concrete surface course under this item.

Mechanical spreading and screeding equipment shall be of an approved type that is self-propelled and can be steered. It shall be equipped with a receiving and disbursing hopper and a mechanical screed or strike-off member capable of adjustment to regulate the depth of material being spread. Tandem Type 5 to 12 ton steel- wheeled rollers shall be used for sealing. Self- Propelled, pneumatic-tired traffic rollers equipped with at least 7b smooth tread, low pressure tires, having a total weight of 6 to 10 tons shall be used for final rolling.

3.06 FIELD QUALITY CONTROL

The final surface course of all pavements will be required to be checked by a rolling straightedge. The finished surface shall not vary more than 3/16 inch from the straightedge applied parallel to the centerline of the pavement. The straightedge shall have an effective length of 15 feet.

END OF SECTION

SECTION 02570 MILLING OF EXISTING ASPHALT PAVEMENT

PART 1 - GENERAL

1.01 SCOPE

- A. The work specified in this Section consists of removing existing asphaltic concrete pavement by milling to improve the rideability of the finished pavement, to lower the finished grade adjacent to existing curb prior to resurfacing, or to completely remove existing pavement.
- B. When milling to improve rideability, an average depth of cut will be specified in the plans.
- C. Unless otherwise specified, the milled material becomes the property of the Contractor.

1.02 REFERENCES

- A. Florida Department of Transportation - Standard Specification for Road and Bridge Construction (Latest Edition)

PART 2 - EQUIPMENT

2.01 MILLING MACHINE

- A. The milling machine shall be capable of maintaining a depth of cut and cross slope that will achieve the results specified in the plans and specifications. The overall length of the machine (out to out measurement excluding the conveyor) shall be a minimum of 18 feet. The minimum cutting width shall be six feet.
- B. The milling machine shall be equipped with a built-in automatic grade control system that can control the transverse slope and the longitudinal profile to produce the specified results.
- C. Any commercially manufactured milling machine meeting the above requirements will be approved to start the project. If it becomes evident after milling has started that the milling machine cannot consistently produce the specified results, the milling machine will be rejected for further use.

- D. When milling to lower the grade adjacent to existing curb or other areas where it impractical to use the above described equipment, the use of a smaller milling machine will be permitted.
- E. The milling machine shall be equipped with means to effectively limit the amount of dust escaping the removal operation. For complete pavement removal, the use of alternate removal and crushing equipment, in lieu of the equipment specified above, may be approved by the Engineer.

PART 3 - EXECUTION

3.01 CONSTRUCTION

- A. When milling to improve rideability, the existing pavement shall be removed to the average depth specified in the plans, in a manner that will restore the pavement surface to a uniform cross section and longitudinal profile. The Project Engineer may require the use of a stringline to ensure maintaining the proper alignment.
- B. The contractor may elect to make multiple cuts to achieve the required pavement configuration or depth of cut.
- C. The milling machine shall be operated to effectively minimize the amount of dust being emitted from the machine. Prewetting of the pavement may be required.
- D. If traffic is to be maintained on the milled surface prior to the placement of the new asphaltic concrete, the pattern of striations shall be such as to produce an acceptable riding surface.
- E. Prior to opening an area which has been milled to traffic, the pavement shall be thoroughly swept with a power broom or other approved equipment to remove to the greatest extent practicable, fine material which will dust under traffic. This operation shall be conducted in a manner so as to minimize the potential for creation of a traffic hazard and to minimize air pollution.
- F. Sweeping of the milled surface with a power broom will be required prior to placing asphaltic concrete.
- G. In urban and other sensitive areas where dust would cause a serious problem, the Contractor shall use a street sweeper (using water) or other equipment capable of removing and controlling dust. Approval of the use of such equipment is contingent upon its demonstrated ability to do the work.
- H. To prevent, to the greatest extent practicable, the infiltration of milled material into the storm sewer system when the milling operation is within the limits of and

adjacent to a municipal curb and gutter or a closed drainage system, the sweeping operation shall be performed immediately after the milling operations or as directed by the Engineer.

END OF SECTION 02570

**SECTION 02574
PAVEMENT REMOVAL AND REPLACEMENT**

PART 1 - GENERAL

1.01 WORK INCLUDED

- A. Work included under this Section consists of cutting, removing, protecting and replacing existing pavements of the various types encountered, roadways, driveways, sidewalks, curb and combination curb and gutter.
- B. Protection of Existing Improvements: The Contractor shall be responsible for the protection of all pavements, sidewalks and other improvements within the work area. All damage to such improvements, as a result of the Contractor's operations, beyond the limits of the work of pavement replacement as described herein, shall be repaired by the Contractor at his expense.

PART 2 - PRODUCTS

2.01 MATERIALS

- A. Materials, including limerock, bituminous prime and tack coat, and asphaltic concrete for the above work shall meet the requirements established therefore by the FDOT Specifications.
 - 1. Limerock shall be Miami or Ocala Limerock.
 - 2. Bituminous prime coat material shall be cutback asphalt Grade RC-70. Prime coat material shall be placed between Baserock and initial Asphalt layer.
 - 3. Bituminous tack coat material shall be emulsified asphalt Grade RS-2. Tack coat shall be placed between Asphalt layers.
 - 4. Asphaltic concrete shall be Type S-III

PART 3 - EXECUTION

3.01 PREPARATION

- A. *Pedestrian or school crossings:* Where the work crosses or interferes with school or pedestrian crossings, extreme care shall be taken by the contractor to insure the safety of school children or other pedestrians.

3.02 PERFORMANCE

A. Removals:

1. *Pavement Removal:* Where existing pavement is to be removed, the surfacing shall be mechanical saw cut prior to trench excavation, leaving a uniform and straight edge, with minimum disturbance to the remaining adjacent surfacing. The width of cut for this phase of existing pavement removal shall be minimal.
2. *Sidewalk, Drive, and Curb Removal:* Concrete sidewalks, curbs, combination curb and gutter, walks, drive ribbons, or driveways shall be removed by initially sawing the structure, with a suitable power saw, as specified above for pavement. When a formed joint in the concrete exists within 3 feet of the proposed saw cut and parallels the proposed saw cut, the removal line shall be extended to the formed joint. After sawing, the material shall be removed.

B. Restorations:

1. *General:* Street or roadway pavement cut and removed in connection with trench excavation shall be replaced or restored in equal or better condition than the original and as shown on the Drawings. The Drawings indicate minimum requirements.
2. Pavement Restoration - Asphalt:
 - a. Limerock base course shall be compacted for its full thickness to not less than 98 percent of maximum density as determined by AASHTO T-180.
 - b. Construction methods and equipment shall generally meet the requirements therefore as established in the FDOT Specifications, but shall be modified to meet the relatively narrow strip construction conditions. Any such modifications shall be approved by the Engineer prior to their use.

- c. Joints with existing surface and base shall be straight and neat. If necessary to obtain a straight net joint, the Contractor shall cut out sufficient existing material and replace it with new material.
 - d. The upper surface of the completed base course shall be compacted to an elevation to permit the full depth of the surface course to be of the pavement surface. The completed surface shall match the line and grade of the existing surface. When pavement is removed to the edge of the roadway, the replaced base course shall extend not less than 6-inches beyond the edge of the surfacing constructed without deviating from the grade
3. *Driveway Restoration - Asphalt:* Driveway pavement with limerock base cut and removed in connection with trench excavation shall be replaced or restored as specified above for street or roadway pavement, except the new limerock base course shall equal the existing base course in thickness, except that in no case shall new driveway base course be less than 6-inches in thickness. Muck or unsuitable material found under existing driveway construction will not be removed and replaced.
4. Concrete, Sidewalk, Walkway, Driveway Ribbon and Curb Restoration.
- a. Concrete sidewalks, walkways, driveways, driveway ribbons and curbs required to be removed for the installation of facilities under this Contract shall be restored. Class B concrete shall be used in all cases.
 - b. Replaced portions of these items shall conform to the lines, grades and cross sections of the removed portions. Concrete sidewalks and walkways shall be of 4-inch thickness; concrete driveways and driveway ribbons shall be 6-inch thickness. Replaced concrete curb and/or gutter shall joint neatly to the remaining section.
5. *Pavement Restoration - Concrete:* Rigid pavement shall be replaced in kind with Class B concrete, using high early strength cement.

END OF SECTION

SECTION 02580 PAVEMENT MARKINGS AND SIGNING

PART 1 - GENERAL

1.1 SCOPE

- A. The Contractor shall supply all labor, equipment, materials and incidentals necessary to install pavement markings and signing in accordance with the plans and the following specifications.

1.2 REFERENCED SPECIFICATIONS, CODES AND STANDARDS

- A. Manual of Uniform Control Devices, current version.
- B. FDOT Design Standards, current version
- C. FDOT Standard Specifications for Road and Bridge Construction, current version.
- D. Palm Beach County Typicals for Pavement Markings, Signing and Geometrics, Current Drawing No.
- E. City of Delray Beach Standards and Details, current version.

PART 2 - PRODUCTS

2.1 MATERIALS

- A. Thermoplastic traffic stripes and markings shall meet the requirements of AASHTO M249-79 (1986) and exceptions as indicated in the "FDOT Standard Specifications for Road and Bridge Construction", current version.
- B. Signs - General:
 1. The design and construction of traffic signs shall be in accordance with the following standards:
 - FDOT Standard Specifications for Road & Bridge Construction, current version.
 - FDOT Design Standards, current version.
 - City of Delray Beach Standards
 2. All "STOP", "YIELD", and other required signs and street name signs shall be fabricated entirely with High Intensity reflective sheeting. Other signs shall be fabricated using engineering grade materials. Post-mounted signs shall be mounted on single or double steel U-Channel posts. Tubular posts shall not be used.
 3. Shop drawings and quantities for paint overhead sign structures, special designs for ground sign structures, shall be submitted to the Consultant for approval.

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PART 3 - EXECUTION

- A. Directional arrows shall be marked on pavement in location and of size indicated on drawings.
- B. Paint top and face of concrete curb at front sidewalk, parking lot entrances and traffic islands and asphalt entrance ramps.

END OF SECTION 02580

SECTION 02605

SEWERAGE AND DRAINAGE MANHOLES

PART 1 - GENERAL

1.01 WORK INCLUDED

- A. Furnish and install manholes as shown on the drawings, including:
 - 1. Precast concrete sections
 - 2. Brick
 - 3. Mortar
 - 4. Cast iron frame and lids

1.02 RELATED WORK

- A. Section 02720: Storm Drainage System
- B. Section 02221: Trenching, Backfilling and Compacting
- C. Section 02513: Asphaltic Concrete Paving

1.03 REFERENCE STANDARDS

- A. ASTM C478: Precast Reinforced Concrete Manhole Sections.
- B. ASTM C443: Joints For Circular Concrete Sewer and Culvert Pipe Using Rubber Gaskets.

1.04 SUBMITTALS

- A. Submit Shop Drawings in accordance with Section 01340.

PART 2 - PRODUCTS

2.01 MANHOLES

- A. Manholes shall be 48 inch diameter, unless otherwise indicated, constructed of precast ring block and/or precast concrete ring, eight inch minimum thickness construction, unless otherwise indicated on the Drawings.

- B. Concrete floor slab shall be minimum eight inches thick with #6 bar at six inch spacing each way or precast bases.
- C. Top section shall be offset cone 2 feet 8 inches high with 24 inch opening at top.
- D. Joints shall be a compression type, neoprene gasket joint conforming to ASTM C443, of a design approved by the Engineer.
- E. Lifting holes through the structures are not permitted.
- F. All grout used for sealing around pipe openings shall be of a non-shrinking type, acceptable to the Engineer, designed for use in water. All openings and joints shall be sealed water-tight.
- G. Precast manhole tops shall terminate at such elevations as will permit laying up a minimum of five inches of brick under the manhole frame to make allowance for future street grade adjustments.
- H. Drop connections, where required on precast manholes, shall be cast monolithically with the manhole elements.
- I. Inverts shall be formed of sewer pipe or of mortar and brick, as described below, to provide a smooth flowing channel of the exact shape of the sewer to which it connects. All inverts of manholes shall be shaped while the manholes are under construction. All inverts shall follow the grades of the pipe entering the manholes. Changes in direction of the sewer and entering branch or branches shall have a true curve of as large a radius as the size of the manhole will permit.
- J. Where shown on the Drawings or ordered by the Engineer, the Contractor shall provide manholes with stub lines for connection to future sewer lines. Provide the end of each stub line with a bell and close by means of an approved plug. This plug shall be removed, at some later time, without injury to the pipe. Reference each stub accurately to the center of the manhole, and record the actual invert elevation of each end.

PART 3 - EXECUTION

3.01 LEAK PROOFING

- A. Walls shall be sealed against leakage by the application on the complete exterior surface of a plaster coat of cement mortar of approximately the same composition as mortar for masonry joints, applied not less than 1/2 inch in thickness at any point by steel trowel as the wall is built. Precast manholes shall be sealed at ring joints.

- B. Walls alternatively may be sealed against leakage by a heavy brush-coat application of an approved waterproofing compound, mixed and applied in accordance with manufacturer's recommendations. Not less than 50 pounds of compound shall be used on each 125 square feet of exterior surface area, and the coverage of block and joints shall be continuous and uniform. Joints must be struck and troweled flush, and dried for at least twenty four (24) hours under good curing conditions, before seal coat is applied.

3.02 INSTALLATION

No backfilling of excavation, above elevation of top of interior concrete fill, shall be performed until waterproof coating has been cured for at least twenty four (24) hours and inspected and approved by the Engineer. Any defective coverage shall be repaired to the satisfaction of the Engineer before backfilling is performed.

END OF SECTION

SECTION 02645
VALVES AND APPURTENANCES

PART 1 - GENERAL

1.01 WORK INCLUDED

- A. Gate valves
- B. Butterfly Valves
- C. Tapping sleeves
- D. Sampling cocks and hose bibbs
- E. Air release valves
- F. Valve boxes
- G. Valve vaults
- H. Service saddles
- I. Polyethylene tubing
- J. Corporation stops
- K. Curb stops
- L. Tie Rods
- M. Valve identification systems
- N. Corporation Cocks

1.02 RELATED WORK

- A. Section 02661: Water Mains

1.03 REFERENCES

- A. AWWA - American Waterworks Association.
- B. ASTM - American Society for Testing Materials

- C. FS - Federal Specification.

1.04 SHOP DRAWINGS

- A. Submit copies of valve ordering schedule for approval before ordering valves.
- B. Submit detailed Shop Drawings in accordance with Section 01340. Clearly indicate make, model, location, type, size and pressure rating.

PART 2 - PRODUCTS

2.01 ACCEPTABLE MANUFACTURERS

- A. Provide valves and operators of same manufacturer throughout, where possible.
- B. Provide valves with manufacturer's name and pressure rating clearly marked on outside of body.
- C. Acceptable Manufacturers as noted herein. Substitutions in accordance with Section 01630.

2.02 GATE VALVES

- A. Gate valves 3 inches and larger in size shall be of the non-rising stem type and shall conform to AWWA C500, latest revision, with handwheel or wrench nut, extension stems and other appurtenances as required. Valves shall be rated for 150 pounds per square inch (psi) working pressure.
 - 1. Shall open counter clockwise.
 - 2. Shall be iron body, fully bronze mounted, double disk, parallel seat; non-rising stem valves with O-ring seals and with end connection as called for in the Drawings.
 - 3. Shall be as manufactured by Clow Co., Mueller Co., Crane Co., or equal.
- B. *Exterior Valve Coatings:* All exterior surfaces of iron body gate valves shall be clean, dry and free from rust and grease before coating. For buried service, the exterior ferrous parts of all valves shall be coated at the factory with a fusion bonded epoxy. Prior to backfilling, all uncoated nuts, bolts, glands, rods and other parts of joints shall be coated in the field with coal tar epoxy equal to Koppers Bitumastic No. 300-M.

2.03 BUTTERFLY VALVES

- A. All butterfly valves shall conform to AWWA C504-latest revision, Class 150-B. Hardware shall be constructed of 18-8 Type 304 or Type 316 stainless steel. Butterfly valves shall have a rubber lined body and 316 SS disc and shaft. Ends shall be flanged or mechanical joint as required to match the piping system to which they will connect. The disc shall be centered between flanges or mechanical joints. Direction to open valve shall be counter-clockwise. Valves shall be manufactured by Mueller B3211, American Darling, Kennedy or Clow.
- B. Each valve disc shall rotate through an angle of 90 degrees from the fully opened to the fully closed position. The axis of rotation of all valve discs shall be horizontal except where otherwise shown on the drawings. A position indicator shall be provided for valves with a handwheel.

2.04 CORPORATION COCKS

- A. Corporation cocks for connection to cast-iron, ductile iron or steel piping shall be all brass or bronze suitable for 150 psi operating pressure and similar to Mueller Co. H-10046 or equal by Clow Corp., and shall be of sizes required and/or noted on the Drawings.

2.05 TAPPING SLEEVES

- A. Tapping sleeves shall conform to the requirements of AWWA C110/A21.10 latest revision. Refer to the Tapping Sleeve detail shown on the Drawings. Tapping Sleeves shall be Stainless Steel.

2.06 SAMPLING COCKS AND HOSE BIBBS

- A. Sampling cocks and hose bibbs shall be provided and installed where indicated on the drawings and shall be ¾-inch bronze body, rubber composition disc, garden hose valves.

2.07 AIR RELEASE VALVE

- A. A water main or force main shall have air release valve assemblies installed where indicated on the Drawings. The locations indicated are approximate. The actual locations shall be determined in the field during construction and approved by the Engineer prior to construction of the assemblies.
- B. The Contractor shall submit to the Engineer, for approval, a profile of the water main or force main in the vicinity of the high point indicated. The profile shall extend a minimum of 200 linear feet each side of the high point of the water

main/force main as installed during construction. Elevations of the high point and the top of the pipe at 50-foot intervals within the 400-foot area described above shall be submitted.

- C. The air release valves shall be of the type that will release air, manually from the line when pressurized and keeps air from entering the line when not pressurized. The air release valves shall have a 2-inch valve inlet, corporation stop, saddle, galvanized steel pipe and fittings and gate valve. Valves, fittings and piping shall be rated for a working pressure of 150 psi for below ground installation.
- D. Air release valves shall be 2-inch combination valve for wastewater – short version (stainless steel) with threaded inlet ARI – D-025SST02, for water/force main. Air release valves shall be installed at all high points and shall be located in approved vault structures. Air release valves shall be attached to an approved saddle with 2-inch Mueller Corporation stop or Ford ball-corp (2-inch with tee head adapter). Air release valves will be checked for proper operation during the hydrostatic testing of the water main/force main to two times rated working pressure.

2.08 VALVE BOXES

- A. Furnish, assemble, and place a valve box over the operating nut for each buried valve. The valve box shall be designed so as to prevent the transmission of surface loads directly to the valve or piping.
- B. Valve boxes shall be of the adjustable screw-type of suitable length with an interior diameter of not less than 5 inches. The valve boxes shall be manufactured of cast iron and shall be adjustable for elevation and shall be set to allow equal movement above and below finished grade. The castings shall be manufactured clean, even grain, gray cast iron conforming to ASTM A48 Class 30B for Gray Iron Castings; and shall be smooth, true to pattern, free from blow holes, sand holes, projections and other harmful defects. The seating surfaces of both the cover and the top section shall be machined so that the cover will not rock after it has been seated. The valve boxes shall be coated inside and outside with an asphaltic coating prior to machining, so that the machined seating surfaces will be free of any coating. Cast iron valve box assemblies shall be Clow Corp. No. F- 2452, Tyler Corp. Series 6855 or 6865 approved equal.
- C. Valve extension stems shall be provided for all buried valves when operating nut is deeper than 3 feet below final grade.

2.09 VALVE VAULTS

Valve vaults shall be constructed of precast or cast-in-place concrete with dimensions as shown on the Drawings. Concrete shall have a minimum compressive strength of 4,500

psi at 28 days. The steel reinforcement for the structures shall be designed and constructed to withstand the loads expected. The cover for the valve vault shall be as shown on the Drawings as approved by the Engineer according to Public Utility Department Standards.

2.10 SERVICE SADDLES

Service saddles shall have ductile iron bodies in accordance with ASTM A536, latest revision, with double stainless steel straps. Ductile iron body shall have a fusion bonded nylon coating with a minimum thickness of 12 mils. Straps shall be Type 316 stainless steel with premium grade Type 316 stainless steel bolts and Type 316 stainless steel washers and nuts. The nuts shall be Teflon coated. The gasket material shall be an elastomeric compound resistant to degradation by oil, natural gas, acids, alkalis, most aliphatic fluids and chloramines in potable water. The outlet to the saddle shall have CC threads. Service saddles shall be Rockwell, Baker, Shur-o-Seal, Romac or an equal approved by the Engineer.

2.11 POLYETHYLENE TUBING

Service lines and jumper connections shall be polyethylene tubing conforming to ASTM D2737; SDR 9 with a minimum working pressure of 200 psi.

2.12 CORPORATION STOPS

Corporation stops shall be manufactured from cast bronze with machined fitting surfaces, and in accordance with AWWA C-800 latest, in sizes 1 inch up to including 2 inches. The inlet connection shall be AWWA standard corporation stop thread. The outlet connection shall be a packjoint outlet for copper or plastic tubing. Corporation stops with compression joint outlets for copper or plastic tubing shall be Type FB 1102 as manufactured by Ford Meter Box Company, or approved equal.

2.13 CURB STOPS

Curb stops shall be AWWA C-800 approved ball valve, roundway, with check, with lock wing cast on stop body and operating tee cap to provide for locking the stop in closed position. Curb stops for use with copper or plastic services shall have an inlet connection with a compression joint and an outlet connection with female iron pipe thread, as manufactured by Ford Meter Box Company B41 with padlock wings, or approved equal.

2.14 TIE RODS

When prior approval is obtained from the Engineer, ductile iron pipe, fittings, and valves may be restrained using tie bolt joint restraint. All bolts, nuts, washers, tie rods and other

fasteners for the joint restraint system shall be manufactured of Type 316 Stainless Steel. Tie rods shall have a minimum diameter of ¾-inch. The number of tie rods required per joint shall be as recommended by the manufacturer.

2.15 VALVE IDENTIFICATION SYSTEMS

A. Buried Valves:

1. In paved areas, tops of valve box covers shall be set flush with pavement. Following paving operations, a 30-inch square shall be neatly cut in the pavement around the box and the paving removed. The top of the box shall then be adjusted to the proper elevation and a 30-inch square by 6-inch thick concrete pad poured around the box cover. Concrete pads in traffic areas shall be reinforced with No. 4 reinforcement bars as shown on the Drawings. Concrete for the pad shall be 3,000 psi compressive strength.
2. In unpaved areas, tops of valve box covers shall be set 0.20 feet above finished grade. After the top of the box is set to the proper elevation, a 30-inch square by 6-inch thick concrete pad shall be poured around the box cover. Concrete for the pad shall be 3,000 psi compressive strength.
3. Shall have valve boxes protected by a concrete pad. The concrete pad for the valve box cover shall have a 2½-inch diameter, bronze disc embedded in the surface as shown on the Drawings. The bronze disc shall have the following information neatly stamped on it:
 - a. Size of valve, inches
 - b. Type of valve:
Y GV - Gate Valve
Y BFV - Butterfly Valve
 - c. Valve Service - "RW" for Reclaimed Water
 - d. Number of turns to fully open
 - e. Direction to open
 - f. Year of installation

PART 3 - EXECUTION

3.01 INSTALLATION OF VALVES

- A. Valves of the size and type shown on the Drawings shall be set plumb and installed at the locations indicated on the Drawings. Valves shall be installed in

accordance with manufacturer's installation instructions and with the Details shown on the Drawings.

- B. Valves shall be installed such that they are supported properly in their respective positions, free from distortion and strain. Valves shall be installed such that their weight is not borne by pumps and equipment that are not designed to support the weight of the valve.
- C. Valves shall be carefully inspected during installation; they shall be opened wide and then tightly closed and the various nuts and bolts shall be tested for tightness. Special care shall be taken to prevent any foreign matter from becoming lodged in the valve seat. Check and adjust all valves for smooth operation.
- D. Install valves with the operating stem in either horizontal or vertical position.
- E. Allow sufficient clearance around the valve operator for proper operation.
- F. Clean iron flanges before installing flanged valves. Clean carbon steel flange bolts and nuts by wire brushing, lubricate threads with oil or graphite, and tighten nuts uniformly and progressively. Clean threaded joints by wire brushing or swabbing. Apply Teflon joint compound or Teflon tape to pipe threads before installing threaded valves. Joints shall be watertight.
- G. For buried valves, a valve box shall be centered accurately over the operating nut and the entire assembly shall be plumb. The tops of valve boxes shall be adjusted to the proper elevation as specified below and as shown on the Drawings.
- H. Valves shall be tested hydrostatically, concurrently with the pipeline in which they are installed. Protect or isolate any parts of valves, operators, or control and instrumentation systems whose pressure rating is less than the pressure test(s). If valve joints leak during pressure testing, loosen or remove the nuts and bolts, reseal or replace the gasket, reinstall or retighten the bolts and nuts and hydrostatically retest the joints.
- I. Following installation of buried valves or valve installed in valve vaults, repair any scratches, marks and other types of surface damage, etc., etc., with a coating equal to the original coating supplied by the manufacturer. Prior to backfilling, coat all nuts, bolts and other parts of the valve joints with coal tar epoxy equal to Koppers Bitumastic No. 300-M, for a minimum dry film thickness of 16 mils.

3.02 INSTALLATION OF VALVE VAULTS

- A. Concrete valve vaults shall be constructed in a workmanlike manner at locations and dimensions indicated on the Drawings. Precast concrete vaults shall be set on a foundation of crushed stone, 12 inches thick. The vaults shall be constructed

such that the structure will not transmit dead or live loads to the piping. Care shall be taken to prevent earth and other material from entering vault structures.

- B. Door frames and covers for meter or vault shall be cast into the top as indicated on the Drawings. In non-paved areas, the top of the vaults shall be set a minimum of 2 inches above finished grade.

3.03 INSTALLATION OF TIE RODS

Tie rods shall be installed in strict accordance with the manufacturer's written installation requirements. Unless otherwise indicated on the Drawings, the size and number of tie rods for a joint or installation shall be as recommended by the manufacturer's design chart for a working pressure of 150 psi.

END OF SECTION 02645

SECTION 02662
RECLAIMED WATER MAINS

PART 1 - GENERAL

1.01 SCOPE

- A. The work to be performed under this Item shall include the furnishing and installing of water mains and appurtenances as herein described and as shown on the Plans. The Contractor shall perform all excavation, backfilling and related work required for the construction of these mains, in accordance with the provisions set forth under the applicable items of this Specification and of the General Requirements.
- B. In general, the work under this Section shall include but is not limited to furnishing and installing the following:
1. Reclaimed Water Main
 - a. Ductile iron restrained mechanical joint pipe and fittings with an interior cement mortar lining per AWWA C-104/A21.50.
 - b. Ductile iron push-on with an interior cement mortar lining per AWWA C-104/A21.50.
 - c. Reclaimed water main and appurtenances shall be painted the color Pantone 522c.
 - d. Schedule 80. Polyvinyl Chloride (PVC) Plastic Pipe, 4 in. and smaller, color purple, ASTM D1785
 - e. Socket-Type Polyvinyl Chloride (PVC) Plastic Pipe Fittings, Schedule 80, ASTM D2467.
 - f. Solvent Cements for Polyvinyl Chloride (PVC) Plastic Pipe and Fittings, ASTM D2467.

1.02 REFERENCES

Standards applicable in this Specification shall be:

A. American Water Works Association (AWWA) and American National Standards Institute (ANSI).

1. AWWA C104 (ANSI A21.4) Cement-Mortar Lining for Ductile-Iron and Gray Iron Pipe and Fittings for Water.
2. AWWA C105 Polyethylene Encasement for Ductile-Iron Pipe Systems
3. AWWA C110 Gray-Iron and Ductile-Iron Fittings, 3-inch through 48-inch for Water and Other Liquids.
4. AWWA C111 (ANSI A21.11) Rubber Gasket Joints for Ductile-Iron and Gray-Iron Pressure Pipe and Fittings.
5. AWWA C150 (ANSI A21.50) Thickness Design of Ductile-Iron Pipe.
6. AWWA C151 (ANSI A21.51) Ductile-Iron Pipe, Centrifugally Cast in Metal Molds or Sand Lined Molds for Water or Other Liquids.
7. AWWA C600 Installation of Ductile Iron Water Mains and Appurtenances.
8. AWWA C601 Standard for Disinfecting Water Mains.
9. AWWA C900 Polyvinyl Chloride (PVC) Pressure Pipe, 4 in. through 12 in., for Water Distribution.
10. AWWA C901 Polyethylene Pressure Pipe and Tubing for Water Service

B. American Association of State Highway and Transportation Official (AASHTO).
AASHTO T-180-82 The Moisture-Density Relation of Soils Using a 10-pound. (4.54 kilogram) Rammer and an 18-inch (457 milimeter) Drop.

PART 2 – MATERIALS

2.01 PIPE

- A. Ductile Iron Pipe: Ductile iron pipe shall conform to AWWA C151 (ANSI A21.51) and shall conform to working pressure class 350 psi.
- B. Lining: Ductile iron pipe for water mains shall have an internal lining of cement mortar

in accordance with AWWA C104/A21.4.

- C. Coating: Buried ductile iron pipe shall be bituminous coated per AWWA C151/A21.51.
- D. Encasement: In corrosive environments, Ductile iron pipe shall be encased in polyethylene in accordance with AWWA C105.
- E. Polyvinyl Chloride (PVC) Pipe DR 18 Pipe (color-blue): In corrosive environments where PVC pipe, 4 in. through 12 in., is specified, it shall conform to AWWA C900. Pipe shall be manufactured by Diamond Plastic Corp., IPEX, National Plastic or Freedom Plastics.
- F. Service Lines: Service lines shall be polyethylene (SDR 9) tubing and have a minimum working pressure of 200 pounds per square inch (psi).

2.02 FITTINGS

- A. Ductile Iron Fittings - Ductile iron fittings shall be mechanical joint type and shall conform to ANSI/AWWA C110/A21.10. All fittings shall have a working pressure rating of 350 psi in sizes 4-inch through 24-inch and 250 psi for sizes 30- inch through 54-inch, and shall be coated and lined as specified for pipe. All fittings shall be Domestic cast fittings.
- B. If the project is located east of the Intracoastal Waterway the DIP fittings shall be encased in polyethylene in accordance with AWWA C105.

2.03 JOINTS

- A. Push-on Joints - For bell and spigot ductile iron pipe and fittings shall be rubber gasket compression, push-on type as specified in AWWA C111 (ANSI A21.11). These joints may be U.S. pipe and Foundry "Tyton" Joints or approved equal.

Restrained Joints - Restrained joints may be used in lieu of thrust blocks for changes in elevation or alignment as shown on the Plans or as required in the field by the Engineer. The length of restraint required shall be approved by the engineer. These joints may be U.S. Pipe and Foundry "TR Flex" Joints, MEGALUGS, or approved equal. Restraining devices for PVC pipe is as follows:

- ◆ Series 2000PV (mechanical joint restraint for PVC pipe) as manufactured by EBBA Iron or approved equal – For restraining plain end PVC pipe at mechanical joint fittings. This can be used for both C900 and C905 piping.
- ◆ Series 1600 (bell restraint harness for C900 PVC pipe) as manufactured by EBBA Iron or approved equal – For use on restraining C900 PVC pipe bells.
- ◆ Series 2800 (bell restraint harness for C905 PVC pipe) as manufactured by EBBA Iron or approved equal – For use on restraining C905 pipe bells.

Bell Protection System for PVC piping shall be MEGA-STOP Series 5000 as manufactured by EBBA Iron. Bell Protection System is required on pressure pipes greater than or equal to 12-inches in diameter.

2.04 CONCRETE FOR THRUST BLOCKS

- A. Concrete for thrust blocks shall have a compressive strength of 2,500 psi after 28 days.

2.05 FOUNDATION ROCK

- A. A sieve analysis of foundation rock shall conform to the following limits:

Passing 3/4" - 100%	Passing #4 - 0-10%
Passing 3/8" - 20-55%	Passing #8 - 0-5%

2.06 ELECTRONIC PIPE LOCATORS

- A. The Contractor shall install blue “Scotchmark” electronic ball markers at all fittings and service connections. The Contractor shall furnish the City, upon completion of the work, with a transmitter/receiver device for locating the ball markers.

PART 3 - EXECUTION

The installation and testing of the water main shall be done in accordance with AWWA (ANSI) C600 plus the additional requirements described herein or shown on the Plans.

3.01 PREPARATION

- A. Clearing - The Contractor shall perform all clearing necessary, where applicable, for the

proper installation of all water mains, and appurtenances in the locations shown on the drawings. Plantings, shrubbery, trees, utility poles or structures subject to damage resulting from the excavation shall be transplanted, relocated, braced, shored or otherwise protected and preserved unless otherwise directed by the Engineer.

- B. The layout of some of the piping systems shown on the drawings may be diagrammatic, but shall be followed as closely as the work will permit.
- C. Ream pipes and tubes. Clean off scale and dirt, inside and out, before assembly. Remove all foreign material from piping.

3.02 TRENCHING

- A. Perform trench excavation and provide pipe protection to the line and grade indicated on the contract drawings and as specified in Section 02220. Remove all muck and organic material.
- B. Foundation - Foundations are shown on the plan details and described in this specification.
 - 1. Type 1 Trench - Type 1 Trench shall be considered "Standard" for this project and shall be installed under all pipe when an undisturbed trench bottom is found.
 - 2. Bedding shall consist of at least four inches of 3/8-inch to 3/4-inch (where unsuitable in-situ materials are encountered) washed and graded limerock placed in the trench and tamped to the proposed elevation of the center line of the pipe prior to any pipe laying. Holes shall be excavated at each bell so that the pipe is supported along the barrel only. This bedding shall not be used under any circumstances as a drain for ground water. The contractor shall take all precautions necessary to maintain the bedding in a compacted state and to prevent washing, erosion or loosening of this bed.
 - 3. Preparation of Trench - The trench shall be excavated to the depth shown on the Plans. Care shall be taken during the excavation operation not to disturb the soil below the grade line of the bottom of the pipe. Bell holes shall be hand excavated so that there are no bearing surfaces on the bells. The pipe barrel shall be uniformly supported along its entire length.

In granular material and where the conditions permit, the bottom shall be shaped to fit the lower quarter of the pipe barrel. Where rock or unstable material is encountered, the trench shall be excavated 8 inches below the required depth. The subgrade for the pipe shall be made by backfilling with approved material and compacted as directed by the

Engineer. The pipe shall not be installed when the stabilization of the trench bottoms are rendered soft or unstable as a result of construction methods, such as improper or inadequate sheeting, dewatering or other causes. The Contractor shall correct such conditions so as to provide proper bedding or foundations for the proposed installation as indicated in the paragraph above.

3.03 INSTALLATION

- A. All pipe, fittings and valves shall be installed according to AWWA Specification C600. Prior to installation, all pipe and appurtenances shall be examined for damage and defects. Under no circumstances shall defective pipe be installed. All lumps, blisters and excess coating materials shall be removed from the socket and plain ends of each pipe. While being placed in the trench, care shall be taken to prevent foreign material from entering the pipe. As each length of pipe is placed in the trench, the joint shall be assembled and the pipe brought to correct line and grade.
- B. At times when pipe laying is not in progress, the open end of the pipe shall be closed by a watertight plug. When practical, the plug shall remain in place until the trench is pumped completely dry. When it is necessary to deflect the pipe from a straight line in either the vertical or horizontal plane, or where long radius curves are permitted, the amount of deflection shall not exceed that of Table 5 and 6 in AWWA Specification C600.
- C. Pipe Restraint - All bends, tees, and dead ends shall be restrained by a thrust block as detailed on the drawings (or other approved method).

All bends, tees and dead ends in pipe 4 inches to 12 inches shall be restrained by a thrust block as detailed on the drawings. In pipe sizes greater than 12 inches, the restraint shall be by restraint joints on the piping on each side of the fittings for distances detailed on the drawings.

- D. Polyethylene Encasement - Ductile Iron Pipe installed in corrosive environments shall be encased in either 8-mil low-density (LD) polyethylene or 4 mil, high-density, cross-laminated (HDCL) polyethylene, in accordance with AWWA C105 latest edition.
- E. Backfill
 - 1. General - Where the trench has been dewatered, backfilling must progress sufficiently before pumps are shut off to prevent flotation of pipe. Any pipe that has been displaced perceptibly from its correct position shall be removed and relaid properly at the Contractor's expense. Backfilling shall follow pipe laying within 100 feet, unless

otherwise directed by the Engineer, but shall not be performed in any case until the Engineer has approved the line for backfilling. Water shall not be added except as required to obtain Optimum Moisture Content and "flooding" or "puddling" will not be allowed.

Backfill material shall be free of roots, logs, limbs, large rocks or any material or debris determined to be unsuitable by the Engineer. The Engineer may reject any material which he considers unsuitable for backfill. The compaction procedures specified herein shall be considered "minimum procedures" to prevent after-settlement and the Contractor shall reopen, refill and recompact any trenches indicating improper backfill procedures or after settlement.

All road crossings shall be backfilled immediately, made passable and maintained passable until the permanent repair is made.

2. City Rights-of-Way

- a) Initial Lift (to 12 inches above pipe) - The initial lift shall be carefully backfilled around and over the pipe with select materials, not exceeding 1/2 inch in diameter, and compacted in 6-inch layers with manual equipment to an average maximum density of 95 percent as determined by AASHTO T-180 (Modified Proctor).
- b) Final Lift - The final lift (to finish grade or bottom of pavement as applicable) shall be carefully backfilled with material free from organic material and stones or clumps exceeding 6 inches (4 inches in the final 12-inch layer) in diameter, and compacted in 12-inch layers to an average maximum density of 98 percent as determined by AASHTO T-180 (Modified Proctor).
- c) Density Compliance - In determining compliance with the density specifications, the lowest acceptable density shall be 98 percent. In determining "job average maximum density, " 102 percent shall be the highest percentage used.

3.04 PIPELINE CLEANING (PIGGING)

A. The Contractor shall clean and flush water mains in the following manner:

1. The Contractor will insert a flexible polyurethane foam "swab" (2 lbs/CF) complete with rear polyurethane drive seal, into the first section of pipe. The "swab" shall remain there until the pipeline construction is complete. The "swab" may also be inserted into wyes or tees after construction is complete.
2. Cleaning and flushing shall be accomplished by propelling the "swab" down the pipeline to the exit point with potable water during the initial filling of the main, prior to bacteriological testing. Flushing shall continue until the pig exits and the water is completely clear.

3. If cleaning and flushing exit point is through a fire hydrant (8" line or smaller) the Contractor shall remove the hydrant internal valve assembly to allow passage of the "swab".

3.05 FIELD QUALITY CONTROL

A. Hydrostatic Tests:

1. The Contractor shall provide all necessary material and shall perform all work required in connection with the test, including temporary plugs where required. All pipe shall be tested to a hydrostatic pressure of 150

P.S.I. The required pressure as measured at the point of highest elevation shall be applied for not less than two hours, and all pipe, fittings, valves and joints shall be made water tight if leakage is evident.

2. No pipe installation will be accepted unless and until the leakage is less than that as specified under Section 4.2 of the AWWA (ANSI) C600.

B. Sterilization of Complete Line:

1. Before being placed in service, each line shall be sterilized in accordance with the directions of the Florida State Board of Health and in accordance with AWWA C601.

C. Connections to the Existing System:

1. Connections to be made by the Contractor are shown on the Plans. Connections shall not be made until the new main is cleared by HRS.

D. Density Tests:

1. The Engineer shall specify at what locations test will be made in the backfill to determine the adequacy of the compaction operation.

3.06 ADJUSTING AND CLEANING

A. Restoring Surfaces:

1. The top surfaces of the backfill shall be restored to present standards or better

conditions. Trenches shall be carefully examined upon the completion of backfilling and surface irregularities, that are dangerous or obstructive to traffic, are to be removed.

2. Paved sections shall conform in grade with adjacent areas and shall be of at least equal quality. Design mixes for flexible pavement shall be subject to approval by the Engineer. All damaged or undermined areas of existing pavement, not previously removed, shall be removed and restored to original conditions or in the specified manner.
3. Equipment shall not travel over loose rock fragments, or other hard material, lying on sections or pavement which are not to be removed. Removal, replacement and restoration of areas of pavement shall be as indicated on drawings.

END OF SECTION 02662

SECTION 02670 PIPELINE CLEANING

PART 1 - GENERAL

1.01 REQUIREMENTS INCLUDED

- A. The Contractor shall furnish all supervision, tools, equipment, materials, labor, and other incidental items required to thoroughly clean and flush all piping specified herein.
- B. All piping specified herein shall be cleaned.
- C. Furnish all equipment, materials and labor to install temporary piping required to direct all water used for flushing the pipelines to the disposal points designated herein or as otherwise directed by the Owner.
- D. Provide all necessary radio communication units, job site transportation, and auxiliary centrifugal pumps for cleaning.
- E. Provide detailed pipeline cleaning plan as a shop drawing for review and approval.
- F. Piping to be cleaned and flushed shall include the following:
 - 1. All water main installed under this Contract.
 - 2. All water mains to be decommissioned by grouting must be flushed to designated flushing discharge points (either to City facilities or Contractor provided Vac Truck).

1.02 RELATED REQUIREMENTS

- A. Section 02661: Water Mains
- B. Section 02664: Horizontal Directional Drilling and Pipe Installation
- C. Section 01700: Contract Close-out

1.03 TOOLING AND EQUIPMENT

- A. Contractor shall furnish and install poly pigs and pigging apparatus. Remove upon successful completion of all pipeline cleaning. The poly pig shall be 2-inches greater in diameter than the pipe diameter size.

- B. Contractor must provide poly-lined flushing discharge pits and vac trucks to remove and dispose of flushing discharge.
- C. Contractor to provide abandonment vent tubes every 300' to 400' to verify dispersement of grout.

1.04 SCHEDULE

- A. All pipeline flushing shall be performed between the hours of 8:00 A.M. and 4:00 P.M.

1.05 WORKMANSHIP

- A. The Contractor may furnish the services of a specialty subcontractor for the proper cleaning and flushing of all pipelines specified herein.
- B. The subcontractor shall provide knowledgeable and experienced personnel for supervision of the entire pipeline cleaning. The subcontractor shall be certified and licensed by the State of Florida as an Underground Contractor.
- C. All personnel shall be trained and accredited to be in compliance with OSHA 29, CFR 1910.120, Health and Safety Training.

PART 2 - PRODUCTS (NOT USED)

PART 3 - EXECUTION

3.01 GENERAL

- A. Excavations, temporary piping and fittings required for access to the pipelines to be cleaned, and restoration of excavations shall be performed and installed by the Contractor. Excavations shall provide access one foot below the pipeline.
- B. If required, sheeting, bracing, and other appropriate means, methods and techniques of maintaining excavations to prevent accidents, cave-ins, or breaking of the ground outside of the excavation area shall be provided by the Contractor.
- C. Accurate record drawing information for the pipeline detailing all valves, fittings and appurtenances, etc.
- D. Sufficient labor and supervision necessary or required for the duration of the cleaning operation with valve keys for operation of the system.

- E. Barricades, cones, lights and other traffic control items that may be required to conform to existing safety and traffic regulations.
- F. **Potable water source for flushing and/or pigging must be obtained and coordinated through the City of Delray Beach and paid for by the Contractor.**
- G. The Engineer must verify flushing and/or pigging procedures. Notify Engineer within 48 hours.

END OF SECTION

SECTION 02680 PIPELINE INTEGRITY TESTS

PART 1 - GENERAL

1.01 REQUIREMENTS INCLUDED

- A. Perform specified services with Contractor's qualified personnel, or employ and pay for a qualified organization to perform specified services.
- B. Pressure Piping Systems.

1.02 RELATED REQUIREMENTS

- A. Section 02675: Disinfection of Potable Water Lines.
- B. Section 01700: Contract Closeout.

1.03 DESCRIPTION

- A. Perform testing of piping systems in accordance with AWWA C-600 and as specified below.
- B. Provide instruments required for testing of piping systems.
 - 1. Make instruments available to Engineer to facilitate spot checks during testing.
 - 2. Retain possession of instruments, remove from site at completion of services.
- C. Provide all water required for flushing and testing.
- D. Provide all necessary pumping equipment and other equipment, materials and facilities required for proper completion of the flushing and testing specified.
- E. Source and quality of water, procedure and test equipment shall be by approval of the Engineer.
- F. All tests shall be made in the presence of the Engineer. Notify Engineer at least 48 hours before any Work is to be inspected or tested.
- G. If inspection or test shows defects, the piping system(s) shall be repaired and replaced and inspection repeated, until such piping is acceptable to the Engineer.

- H. Sections of the system may be tested separately, but when so tested it shall be distinctly understood that any defect which may subsequently develop in a section already tested and accepted shall promptly be corrected and that section retested.
- I. Disposal of the water used for testing shall be subject to the approval of the Engineer.

1.04 JOB CONDITIONS

- A. Prior to start of testing of piping systems, verify that required "Job Conditions" are met:
 - 1. System or system element installation is complete.
 - 2. All required materials, water, instruments, etc. are on hand.
 - 3. All other preparations are completed.

1.05 TESTING PROCEDURES

- A. Pressure Piping Systems:
 - 1. All pressure piping shall pass a hydrostatic pressure test and a leakage test as defined below before acceptance. The pressure and leakage test shall be made after all jointing operations are completed and after backfilling is completed. All concrete reaction blocks, or other bracing and restraining facilities, shall be in place at least 24 hours before the initial filling of the line.
 - 2. The pressure and leakage tests may be applied to an individual section of line isolated between the existing line valves, or may be applied to shorter sections or line as approved by the Engineer. If shorter sections are tested, test plugs or bulkheads as required at the ends of the test section shall be furnished and installed by the Contractor at his expense, together with all anchors, braces and other devices required to withstand the hydrostatic pressure on such plug or plugs, without imposing any hydraulic thrust on the pipe line or any part thereof. The Contractor shall be solely responsible for any and all damage to the pipe line, and/or to any other facility, which may result from the failure of test plugs furnished by him or supports therefor, in any case.
 - 3. Tests:
 - a. Hydrostatic Tests:
 - 1) The section of line to be tested shall be slowly filled with water and all air expelled from the pipe. Care shall be taken that all air valves are installed and open in the section

- being filled, and that the rate of filling does not exceed the venting capacity of the air valves.
- 2) Hydrostatic test pressure shall be as follows:
System Working Pressure 100 psi
 - 3) After the pipe has been laid, all newly laid pipe or any valved section thereof shall be subjected to a hydrostatic pressure of at least 1.5 times the working pressure at the point of testing (or 150 p.s.i., whichever is greater).
 - a) Test pressure shall:
 - i. Not be less than 1.25 times the working pressure at the highest point along the test section.
 - ii. Not exceed pipe or thrust-restraint design pressures.
 - iii. Be of at least 2-hour duration.
 - iv. Not vary by more than + 5 psi (0.35 Bar) for the duration of the test.
 - v. Not exceed twice the rated pressure of the valves or hydrants when the pressure boundary of the test section includes closed gate valves or hydrants. NOTE: Valves shall not be operated in either direction at differential pressure exceeding the rated pressure.
 - vi. Not exceed the rated pressure of the valves when the pressure boundary of the test section includes closed resilient-seated gate valves or butterfly valves.
 - b) Each valved section of pipe shall be filled with water slowly and the specified test pressure based on the elevation of the lowest point of the line or section under test and corrected to the elevation of the test gauge shall be applied by means of a pump connected to the pipe in a manner satisfactory to the owner. Valves shall not be operated in either the opening or closing direction at differential pressures above the rated pressure. It is good practice to allow the system to stabilize at the test pressure before conducting the leakage test.
 - 4) Examination. Any exposed pipe, fittings, valves, hydrants, and joints shall be examined carefully during the test. Any damage or defective pipe, fittings, valves, or hydrants that are discovered following the pressure test shall be repaired or replaced with sound material and the test shall be repeated until it is satisfactory to the Owner.

b. *Leakage Test:*

- 1) A leakage test shall be conducted concurrently with the pressure test. A leakage shall be defined as the quantity of water that must be supplied into the newly laid pipe, or any valved section thereof, to maintain pressure within 5 psi (0.35 Bar) of the specified test pressure after the air in the pipeline has been expelled and the pipe has been filled with water. Leakage shall not be measured by a drop in pressure in a test section over a period of time.
- 2) No pipe installation will be accepted if the leakage is greater than that determined by the following formula:

$$L = \frac{S \times D \times \sqrt{P}}{148,000} \times 1/2$$

in which L is the allowable leakage, in gallons per hour; S is the length of pipe tested in feet; D is the nominal diameter of the pipe in inches; and P is the average test pressure during the leakage test, in pounds per square inch. The leakage test shall be conducted for a period of two hours.

- a) Allowable leakage at various pressures is shown in Section 3.02.
 - b) When the testing again closed metal-seated valves, an additional leakage per closed valve of 0.0078 gal/h/in (0.0012L/h/mm) of nominal valve size shall be allowed.
 - c) When hydrants are in the test section, the test shall be made against the closed hydrant.
 - d) Acceptance of installation. Acceptance shall be determined on the basis of allowable leakage. If any test of pipe laid disclosed leakage greater than that specified in Section "b" above, the contractor shall, at his own expense, locate and make repairs as necessary until the leakage is within the specified allowance.
- 3) All visible leaks are to be repaired regardless of the amount of leakage.

PART 2 - PRODUCTS

Not used.

PART 3 - EXECUTION

3.01 GENERAL

- A. Prior to testing, flush all piping systems with water to remove all debris in the system.
- B. For testing refer to the Testing Procedures above.

END OF SECTION 02680

SECTION 02720 STORM DRAINAGE SYSTEM

PART 1 - GENERAL

1.01 DESCRIPTION OF WORK

The extent of the storm drainage system is shown on the drawings and/or specified.

1.02 RELATED WORK

- A. Section 02110: Clearing and Grubbing
- B. Section 02210: Excavation and Swale Grading
- C. Section 02220: Trenching, Backfilling and Compacting

1.03 SUBMITTALS

- A. Submit shop drawings for pipe, inlets, manholes, frames and covers.

PART 2 - PRODUCTS

2.01 REINFORCED CONCRETE PIPE

- A. Reinforced concrete pipe for the construction of the storm drainage system shall be manufactured in accordance with Section 430 of the Florida Department of Transportation Standard Specifications for Road and Bridge Construction and ASTM C76. The reinforced concrete pipe shall meet the design requirements for Class III, Wall B pipe as specified on Table 3, ASTM C76. Location and size of pipe is as shown on the drawings.
- B. The reinforced concrete pipe shall be sealed by the use of round rubber gaskets. The rubber gaskets used shall meet the requirements as specified in Section 941 of the Standard Specifications for Road and Bridge Construction and ASTM C76.

2.02 CORRUGATED ALUMINUM PIPE

- A. Corrugated Aluminum pipe for the construction of the storm drainage system shall be manufactured in accordance with Section 945 of the Florida Department of Transportation Standard Specifications for Road and Bridge Construction.

2.03 MANHOLES AND INLETS

- A. Precast manholes and inlets shall be manufactured in accordance with Section 425 of the Florida Department of Transportation Standard Specifications for Road and Bridge Construction and the Department of Transportation Road Design Standards.
- B. Manhole frames and covers, and inlet frames and grates shall be the type and duty as shown on the drawings. All castings shall be true to pattern in form, have the correct dimensions and be free from faults and cracks. Bearing surfaces between frames and covers shall be machine fitted to prevent rocking.

PART 3 - EXECUTION

3.01 INSTALLATION

- A. Piping and appurtenances for sewers shall be of the type and material specified in the applicable sections of the Detailed Specifications. All pipe, fittings, jointing, materials, grates, manhole frames and covers, and other appurtenances shall be new material to be included in the work; and if not specifically described in these specifications, shall be of the best quality and entirely suitable for the service intended. All such material shall be approved by the engineer prior to installation.
- B. Pipe shall be protected during storage and handling against impact shocks, or free fall. Pipe shall be kept clean at all times and no pipe shall be used that does not conform fully with standards or specifications hereinafter described.
- C. Each pipe section shall be laid in strict conformance with the line and grade as shown on the construction plans. Three (3) batter boards and a top line shall be used when pipe is laid, unless another method of checking the inner grade is approved by the engineer. The laying of pipe in finished trenches shall commence at the lowest point with the bell end laid upgrade.
- D. The contractor shall provide and maintain on the job site at all times, a gauge rod of sufficient length to reach from the invert of the pipe being laid to the top line secured on the batter boards. The gauge rod shall be graduated and numbered each foot of its entire length and shall be equipped with either a plumb line or two (2) spirit levels.
- E. Construction using any of the several type laser beam devices is generally acceptable provided same is in good repair and calibration and a level and level rod is used to check for grade at catch basins, manholes and outfalls. Use of levels and/or transits alone is discouraged and generally will not be permitted.
- F. Prior to installing the pipe, the rubber gasket shall be placed on the tongue of the pipe, in accordance with the manufacturer's recommendations, but not more than

twenty-four (24) hours prior to installation of the pipe. The tongue end shall be protected at all times from the sun, blowing dust, or other deleterious agents. Gaskets shall be inspected before installation of the pipe and any loose or improperly affixed gaskets shall be removed and replaced to the satisfaction of the engineer.

- G. Pipe shall be set firmly according to the lines and grade; and preparatory to making joints for concrete pipe, all surfaces of the portion of the pipe to be jointed shall be thoroughly cleaned. The pipe shall be laid with the groove upstream. A shallow excavation shall be made underneath the pipe at the joint.
- H. Immediately prior to installation, the entire interior of the groove of the pipe already installed, and the rubber gasket of the pipe to be installed shall be coated with an approved vegetable soap lubricant. The groove and spigot ends shall be cleaned prior to application of the lubricant. The pipe shall then be aligned with the previously installed pipe and the joint pulled together. The joint shall be pulled by the use of interior or exterior pull jacks or winches, anchored by suitable means. The choice of method and type of equipment will depend on trench conditions, type and size of pipe, and its ability to properly seat the gasket. If, while making the joint, the gasket becomes loose and can be seen through the exterior joint recess, when the joint is pulled up to within one (1) inch of closure, the pipe shall be removed and the joint remade to the satisfaction of the engineer.

3.02 EARTHWORK

Excavation of trenches, preparation of trench bottoms, backfilling and other earthwork in connection with installation of storm sewers shall be in accordance with the section: 02220 Trenching, Backfilling and Compacting for piping systems.

3.03 RESPONSIBILITY

The contractor shall be held strictly responsible for all parts of the work that bear the load of the backfill. If structural failures in the sewers or appurtenances develop within one (1) year from the date of final acceptance of the work, the contractor shall be required to replace all faulty material at his full expense. To this end, the contractor is advised to purchase material under a guarantee from the manufacturer, guaranteeing proper service under conditions which are established by the drawings, specifications and local conditions.

END OF SECTION

SECTION 02767 MANHOLE REHABILITATION

PART 1 - GENERAL

1.01 SCOPE

This specification shall govern all work, materials, and equipment required for manhole rehabilitation for the purpose of eliminating infiltration, providing corrosion protection, repair of voids, and restoration of the structural integrity of the manhole as a result of applying a monolithic fiber-reinforced structural/structurally enhanced cementitious liner to the wall and bench surfaces of brick, concrete, or any other masonry construction material.

Described are procedures for manhole preparation, cleaning, application and testing. The applicator, approved and trained by the manufacturer, shall furnish all labor, equipment and materials for applying a cementitious mix to form a monolithic liner of a minimum ½ inch thickness, with machinery specifically designed for the application. All aspects of the installation shall be in accordance with the manufacturer's recommendation and with the following specifications which includes:

- A. The removal of any loose and unsound material.
- B. Cleaning of the area to be sprayed with high water pressure.
- C. The repair and filling voids.
- D. The repair and sealing of the invert and benches.
- E. The elimination of active infiltration prior to making the application.
- F. The spray application of a cementitious mix to form a structural/structurally enhanced monolithic liner.

PART 2 - PRODUCTS

2.01 PATCHING MIX

A quick-setting, fiber-reinforced, calcium aluminate-based cementitious material for patching and filling voids and cracks.

- A. Compressive strength (ASTM C-109) 6 Hrs. 1400 psi
- B. Shrinkage (ASTM C-596) 0% at 90% R.H.
- C. Bond (ASTM C321) 28 days, 150 psi

- | | | |
|----|-----------------------|-------------------|
| D. | Cement | Sulfate resistant |
| E. | Density, when applied | 105 +/- 5 pcf |

2.02 INFILTRATION CONTROL MIX

A rapid setting cementitious product specifically formulated for leak control, shall be used to stop minor water infiltration and shall be mixed and applied according to manufacturer's recommendations and shall have the following minimum requirements:

- | | | | | |
|----|----------------------|------------|-------|-----------|
| A. | Compressive Strength | ASTM C-109 | 1 hr | 600 psi |
| B. | Compressive Strength | ASTM C-109 | 24 hr | 1,000 psi |
| C. | Bond | ASTM C-321 | 1 hr | 30 psi |
| D. | Bond | ASTM C-321 | 24 hr | 80 psi |

2.03 GROUTING MIX

- A. A rapid setting cementitious grout, shall be used for stopping very active infiltration and filling voids and shall be mixed and applied according to manufacturer's recommendations.
- B. Chemical grouts may be used for stopping very active infiltration and shall be mixed and applied per manufacturer's recommendations.

2.04 LINER MIX

- A. A fiber-reinforced pure-fused calcium aluminate aggregate to be wet mixed and low pressure spray applied to form the structure/structurally enhanced monolithic cementitious liner covering all internal manhole surfaces. Liner material to be one of the following:
 - 1. Madewell Corp. Mainstay System (ML-10 hydraulic cement mortar, ML-72 microsilica mortar, DS-5 epoxy)
 - 2. SewperCoat by Kerneos
 - 3. String Seal High Performance Mix
 - 4. REFRATTA GAC 100 by Global Materials Company
- B. Material shall be pre-mixed and specifically formulated to withstand H2S (hydrogen sulfide) bacterial corrosion and abrasion in sewer networks.
- C. Material shall have the following minimum requirements:

1.	Compressive Strength	ASTM C-495	1 day > 8,000 psi
2.	Compressive Strength	ASTM C-495	7 day > 9,000 psi
3.	Compressive Strength	ASTM C-495	28 day > 9,000 psi
4.	Flexural Strength	ASTM C-293	12 hr > 1,000 psi
5.	Flexural Strength	ASTM C-293	28 day > 1,400 psi
6.	Shrinkage	ASTM C-596	0% at 95% R.H.

2.05 BONDING COMPOUND

- A. Material shall be a modified cementitious bonding compound that protects exposed reinforcement steel and enhances bond of overlay to substrate.

2.06 WATER

- A. Shall be clean and potable. Questionable water shall be tested by a testing laboratory in accordance with ASTM C-94. Potable water need not be tested.

2.07 OTHER MATERIALS

- A. No other materials shall be used with the mixes described in 2.01, 2.02, 2.03, 2.04 and 2.05 without prior approval from the Engineer.

PART 3 - EXECUTION

3.01 PREPARATION

- A. Place covers over sewer invert to prevent extraneous material from entering the sewer lines.
- B. Remove foreign loose and unsound concrete and masonry material not able to be removed by high pressure water spray may require the use of mason's or mechanical tools for removal.
- C. Loose, unsound, and protruding concrete and masonry material not able to be removed by high pressure water spray may require the use of mason's or mechanical tools for removal.
- D. Active hydrostatic leaks (infiltration) shall be stopped using one of the rapid-setting grouting mixes specially formulated for control of very active infiltration.
- E. Very active hydrostatic leaks (infiltration) shall be stopped using one of the rapid-setting grouting mixes specially formulated for control of very active

infiltration.

- F. Clean and prepare exposed reinforcement steel, and apply and cure bonding compound, in accordance with the product manufacturer's instructions and recommendations.
- G. Prepare cracks and voids to be patched and filled, and apply cure patching mix, in accordance with the product manufacturer's instructions and recommendations.
- H. Areas of manholes that are found to be structurally damaged and in need of repair beyond the scope of this specification shall be brought to the attention of the Engineer. A suitable repair method shall be developed for each area and submitted to the Engineer for review prior to commencing the repair.
- I. Prepare, clean and repair manhole benches and inverts in the same manner as prescribed above.

3.02 INVERT REPAIR

- A. After all preparation has been completed, remove all loose material and wash wall again.
- B. Any bench, invert, or service line repairs shall be made at this time using the quick setting patching mix (paragraph 2.01) and shall be used per the manufacturer's recommendations.
- C. Invert repair shall be performed on all inverts with visible damage or infiltration. After blocking flow through the manhole, and thoroughly cleaning invert, the quick setting patch mix (paragraph 2.01) shall be applied to the invert in an expeditious manner. The mix shall be troweled uniformly onto the damaged invert extending out onto the base of the manhole sufficiently to tie into the structure/structurally enhanced monolithic liner to be applied. The finished invert surfaces shall be smooth and free of ridges. The flow may be re-established in the manhole within 30 minutes after placement of the mix.

3.03 LINER APPLICATION CURING AND TESTING

- A. Prepare manhole surfaces, wet batch-mix liner material, low pressure spray apply liner mix to manhole ceiling, wall and bench surfaces and allow liner to cure in accordance with the product manufacturer's instructions and recommendations.
- B. Equipment is complete with water storage and metering system. Mixer and pump are hydraulically powered. Equipment is mounted to heavy duty construction tandem axle, road worthy trailer, complete with electric brakes and running lights. Internal combustion engine powers hydraulic system and air compressor.

3.04 MIXING

- A. For each bag of product, use the amount of water specified by the manufacturer and mix using the approved equipment described in Part 3 for 30 seconds to 1 minute after all materials have been placed in the mixing hopper.
- B. Liner application shall be 0.5 inch minimum thickness. The application shall be completed with a minimum of two coats. The first coat shall be applied at a thickness adequate to cover the substrate and be troweled to compact the material into voids and set the bond. The second coat shall be applied to ensure complete coverage at the specified 0.5 inch minimum thickness.
- C. Inverts shall be lined with patching mix, trowel applied in one coat to a 0.5 inch minimum thickness.
- D. Prepare, label and submit recommended daily or per lot test specimens for testing.

3.05 WEATHER

- A. No application shall be made to frozen surfaces or if freezing is expected to occur inside the manhole within 24 hours after application. If ambient temperatures are in excess of 95 degrees F, precautions shall be taken to keep the mix temperature at time of application below 90 degrees F. Mix water temperature shall not exceed 85 degrees F. Chill with ice if necessary.

3.06 FINAL ACCEPTANCE TESTING

At the direction of the owner or his assignee, the rehabilitated manholes shall be tested as follows:

- A. Visually verify the absence of leaks.
- B. Perform an exfiltration test.
 - (For manholes 0 to 6 feet deep) if water loss is one (1) inch or less in five minutes manhole is acceptable.
 - (For manholes over 6 feet deep) if water loss is one (1) inch or less plus 1/8 inch per additional foot of depth in five minutes, manhole is acceptable.

END OF SECTION

SECTION 02775 MANHOLES AND VAULTS

PART 1 - GENERAL

1.01 WORK INCLUDED

- A. Furnish and install, as shown on the Drawings, manholes and vaults including:
 - 1. Precast concrete sections
 - 2. Brick
 - 3. Mortar
 - 4. Cast iron frame and lids

1.02 RELATED WORK

- A. Section 02720: Storm Drainage System
- B. Section 02221: Trenching, Backfilling and Compacting
- C. Section 02513: Asphaltic Concrete Paving

1.03 REFERENCE STANDARDS

- A. ASTM C478: Precast Reinforced Concrete Manhole Sections.
- B. ASTM C443: Joints For Circular Concrete Sewer and Culvert Pipe Using Rubber Gaskets.

1.04 SUBMITTALS

- A. Submit Shop Drawings in accordance with Section 01340.

PART 2 - PRODUCTS

2.01 ACCEPTABLE MANUFACTURERS

- A. Neenah No. R-1712 with Type A Lid.
- B. Russco No. M-510 with Type C lid.
- C. Clark No. R502 with Type A lid.

- D. Substitutions: Items of same function and performance are acceptable in conformance with Section 1630.

2.02 MANHOLES

- A. Manholes shall be 48 inch diameter, unless otherwise indicated, constructed of precast ring block and/or precast concrete ring, eight inch minimum thickness construction, unless otherwise indicated on the Drawings.
- B. Concrete floor slab shall be minimum eight inches thick with #6 bar at six inch spacing each way or precast bases.
- C. Top section shall be offset cone 2 feet 8 inches high with 24 inch opening at top.
- D. Joints shall be a compression type, neoprene gasket joint conforming to ASTM C443, of a design approved by the Engineer.
- E. Lifting holes through the structures are not permitted.
- F. All grout used for sealing around pipe openings shall be of a non-shrinking type, acceptable to the Engineer, designed for use in water. All openings and joints shall be sealed water-tight.
- G. Precast manhole tops shall terminate at such elevations as will permit laying up a minimum of five inches of brick under the manhole frame to make allowance for future street grade adjustments.
- H. Drop connections, where required on precast manholes, shall be cast monolithically with the manhole elements.
- I. Manhole steps shall be provided in the manholes, consisting of approved aluminum or fiberglass steps spaced at 16 inches on centers, set into the manhole wall.
- J. Inverts shall be formed of sewer pipe or of mortar and brick, as described below, to provide a smooth flowing channel of the exact shape of the sewer to which it connects. All inverts of manholes shall be shaped while the manholes are under construction. All inverts shall follow the grades of the pipe entering the manholes. Changes in direction of the sewer and entering branch or branches shall have a true curve of as large a radius as the size of the manhole will permit.
- K. Where shown on the Drawings or ordered by the Engineer, the Contractor shall provide manholes with stub lines for connection to future sewer lines. Provide the end of each stub line with a bell and close by means of an approved plug. This plug shall be removed, at some later time, without injury to the pipe. Reference each stub accurately to the center of the manhole, and record the actual invert elevation of each end.

2.03 VAULTS

- A. Vaults and similar structures shall be constructed as shown on the Drawings of size and shape indicated. The installation shall be in accordance with all other sections of this specification.
- B. Pipes entering the vault or structure shall enter through wall sleeves, except for concrete or VCP pipe entering a wet vault, wherein the pipe may be installed as follows:
 - 1. The pipe may be cast into the wall of the structure provided the first three pipe lengths outside the structure shall have minimum laying length, dependent on pipe type and size, with the first point occurring within 12 inches of the structure.
 - 2. Grout the pipe into the structure with a non-shrinking grout, acceptable to the Engineer, designed for use in water. All joints shall be sealed watertight.
 - 3. Utilize a sealing material between the pipe and structure such as Link Seal manufactured by the Thunderline Corporation, or equal when approved by the Engineer.

PART 3 - EXECUTION

3.01 LEAK PROOFING

- A. Walls shall be sealed against leakage by the application on the complete exterior surface of a plaster coat of cement mortar of approximately the same composition as mortar for masonry joints, applied not less than 1/2 inch in thickness at any point by steel trowel as the wall is built. Precast manholes shall be sealed at ring joints.
- B. Walls alternatively may be sealed against leakage by a heavy brush-coat application of an approved waterproofing compound, mixed and applied in accordance with manufacturer's recommendations. Not less than 50 pounds of compound shall be used on each 125 square feet of exterior surface area, and the coverage of block and joints shall be continuous and uniform. Joints must be struck and troweled flush, and dried for at least twenty four (24) hours under good curing conditions, before seal coat is applied.

3.02 INSTALLATION

- A. No backfilling of excavation, above elevation of top of interior concrete fill, shall be performed until waterproof coating has been cured for at least twenty four (24) hours

and inspected and approved by the Engineer. Any defective coverage shall be repaired to the satisfaction of the Engineer before backfilling is performed.

END OF SECTION

SECTION 02800 IRRIGATION

PART I - GENERAL

1.01 DESCRIPTION OF WORK

- A. The scope of work consists of installing a complete and operable irrigation system as shown on the drawings and as hereafter specified, including furnishing all labor, equipment, materials and supervision necessary to construct the irrigation system. The Contractor shall also be responsible for necessary electrical wiring that may be needed to power the controller, including coordination with FPL and payment of FPL fees.
- B. The irrigation system shall be constructed using the sprinkler heads, valves, piping, fittings, controllers, wiring, etc., of the sizes and types as shown on the drawings and as required by these specifications.
- C. The Contractor shall obtain all required City permits, although permit fees will be waived.
- D. Locations of all sprinkler lines shown on the drawings are essentially diagrammatic. Locations of all sprinkler heads, valves, piping, wiring, etc., shall be established by the Contractor, in coordination with the landscaping at the time of construction.
- F. The Contractor shall provide as built shop drawings for any major field changes made by the Contractor to the original plans authorized by the City.

1.02 JOB CONDITIONS

- A. It shall be the responsibility of the Contractor to protect all persons from injury and to avoid property damage.
- B. The Contractor shall be responsible for locating all underground utilities in the field prior to beginning construction. The Contractor shall call the following numbers 48 hours prior to digging to obtain the existing utilities locations.

Sunshine State One Call Center	1-800-432-4770
City of Delray Beach Utilities	407-243-7300
- C. The Contractor shall be responsible for the temporary support, adequate protection, maintenance and repair of any damage to existing utilities, structures, drains, sewer and other obstructions encountered in the progress of work.

- D. The contractor shall not be held responsible for concealed contingencies such as, but not limited to rock, water, hard pan or other obstacles encountered in excavation work which are not apparent at the time of trenching.
- E. The Contractor shall protect existing lawns, plant materials, and site grades unless otherwise noted on plans or previously approved by the City's Representative.
- F. Any disruption, destruction, or disturbance of any plants or structures shall be completely restored to the satisfaction of the City's Representative.
- G. Whenever irrigation plans and existing utilities conflict, the Contractor shall notify the City's Representative in order to field adjust the irrigation plan layout.
- H. Any pavement cut, broken, or undermined during the installation of the system shall be fully restored at the Contractor's expense.
- I. The drawings show conditions as they are believed to exist, but it is not intended or inferred that the conditions as shown constitute a presentation by or on behalf of the City that such conditions actually exist. The Contractor shall inspect the job site prior to the bid submittal and shall accept full responsibility for any loss sustained as a result of any variance between the conditions shown on the drawings and the actual conditions revealed during the progress of work or otherwise.
- J. The Contractor shall be responsible for relocating any irrigation lines as required by the proposed modifications to the intersection. These locations will generally occur in areas where the sod will be eliminated and asphalt will be installed. If needed, to minimize disruption of irrigation service to adjacent properties, lines will be temporarily capped until ultimate modifications are completed.

PART 2 - PRODUCTS

- A. General
 - 1. All irrigation work shall be done in a good workman like manner and in accordance with the manufacturer's specifications.
 - 2. Any existing irrigation pipes and heads encountered during installation of the new system shall be removed.
 - 3. All irrigation system materials shall be new.
- B. Pipe: All pipes shall be delivered in full 20 foot lengths and clearly marked with the manufacturer's name and classification.
 - 1. Main: All pipe situated hydraulically between the water meter and the sprinkler control valve is classified as MAIN LINE PIPE, and is herein

specified to be PVC Type I, Schedule 40 and shall be equipped with factory attached couplings or integrally formed bells for solvent weld connections. All pipe shall be cut squarely and burrs removed. All P.V.C. joints to be made with the use of cleaner, primer and clean solvent weld.

2. Lateral: Pipe situated hydraulically on the discharge side of the sprinkler control valve is classified as LATERAL LINE PIPE. All pipe sizes from 1/2" to 1" diameter shall be PVC, Type I SDR 26, class 315 and pipe size ranging from 1 1/4" to 3 " diameter shall be PVC, Type I SRD 26, class 160. Pipe shall be equipped with factory attached couplings or integrally formed bells for solvent weld connections.

C. Fittings:

1. Main line and lateral pipe fittings shall be of the proper type and class for use with the above specified pipe and shall have either solvent weld IPS threaded connections according to the requirements of the connection being made.
2. Both the fittings and the solvent cement and cleaner used in their installation shall be either manufactured or supplied by the manufacturer, or supplied by, the manufacturer of the pipe on which they are to be used. The Contractor shall guarantee that the pipe, fittings, cement and cleaner utilized in this work are all compatible with one another.

D. Threaded pipe connections between Main pipe and sprinkler control valves shall be made using threaded pipe and fittings. Galvanized schedule 40 or PVC Schedule 80 threaded pipe and fittings are herein specified for this use.

E. Sprinkler heads shall be as specified on the drawings and shall be installed 6 inches from the back of the curb.

F. Valves and Gate Valves shall be as specified on the drawings.

G. Valve boxes shall be "Ametek", "Flexon" or equal. All valve boxes shall be numbered according to the irrigation plans.

H. Wire:

1. Wiring used for connecting the automatic remote control valves to the controllers shall be type UF, 600 Volt, single strand, solid copper with PVC insulation 4/64 inch thick. Size shall be 14 gauge, red for "hot" or lead wires, and the common wire to be 14 gauge, white in color.
2. All splices in control wire shall be made at valve locations or marked with valve access box.

I. Irrigation controllers shall be as specified on the plans.

J. Hose bibs shall be installed at all valve boxes.

PART 3 - EXECUTION

3.01 INSTALLATION

- A. General: The Contractor shall install the irrigation system to provide a fully operational automatic system. The Contractor shall install all materials specified and implied by the drawings and specifications.

- B. Trenching and Backfilling
 - 1. Trenches for pipe shall be cut to required grade lines and compacted to provide accurate grade and uniform bearing for the full length of the line. The bottom of the trenches shall be free of rock or other sharp edged objects. Minimum cover shall be 24 inches for pressure lines and 18 inches for non-pressure lines. All pipe lines shall have a 6 inch minimum clearance from each other and from lines of other trades. Backfill shall be compacted to dry density equal to adjacent undisturbed soils and shall conform to adjacent grades without dips, sunken areas or other irregularities.

- C. Sprinkler Heads
 - 1. Riser mounted spray sprinkler heads shall be installed above the plant material taking into account the mature plant height.
 - 2. Spray pop-up sprinkler heads shall be installed flush with finish grade. One-half- inch flexible PVC shall be installed between the rigid PVC and the sprinkler head.
 - 3. Sprinkler heads placed adjacent to walks and curbs shall be installed 6 inches from concrete.
 - 4. High-pop sprinkler heads in planted areas shall be installed with the top of the head even with the top of the adjacent plant material.
 - 5. Automatic remote control valves shall be installed in specified valve boxes. The valve shall have 6 inches of pea gravel installed below the bottom of the valve.
 - 6. Controller shall be installed as specified on the accompanying drawing detail. It shall be equipped with lightning protection and grounded to a standard 5/8 inch copper clad steel ground rod or rods driven a minimum of 8 feet into the ground and clamped.

3.02 TESTING AND INSPECTION

- A. Prior to the commencement of work an inspection schedule will be established between the Contractor and the City's Representative. All work will be inspected

prior to backfilling trenches. Should the material, workmanship or method of installation not meet the standards specified herein, the Contractor shall replace the work at his own expense.

- B. All irrigation main lines shall be pressure tested prior to acceptance and shall maintain a pressure of 100 psi for one hour with no leakage.
- C. The contractor shall balance and adjust the various components of the system so the overall operation of the system is most efficient. This includes a synchronization of the controllers, adjustments to pressure regulations, pressure relief valves, part circle sprinkler heads, and individual station adjustments on the controllers.

3.03 SITE CLEANUP

- A. The Contractor shall keep the construction site clean of all surplus materials, waste, tools, equipment, rubbish, excessive earth and waste generated by the installation of the irrigation system.
- B. The Contractor shall fully restore the site to the conditions that existed prior to the beginning of the irrigation system installation.

3.04 MAINTENANCE

It shall be the Contractor's responsibility to maintain the irrigation system until the date of acceptance for substantial completion.

3.05 GUARANTEE

The Contractor, as part of this contract shall furnish a written guarantee for all materials and workmanship for a period of one year from the date of substantial completion. Leaks shall be repaired and paid for by the Contractor at any time they appear during the warranty period.

END OF SECTION

SECTION 02850 UNDERGROUND SPRINKLER SYSTEM

PART 1 - GENERAL

1.01 SCOPE

- A. The Contractor shall provide all labor, materials and equipment necessary to construct an irrigation system complete with ditching, piping, manual valves, sprinklers, cleaning and testing. All materials shall be new. If a conflict arises between Drawings and Specifications, the Specifications shall govern.

1.02 WORK INCLUDED

- A. Sprinkler heads.
- B. Valves and associated accessories.
- C. Excavation, installation of system to water source, testing, and backfilling.

1.03 RELATED WORK

- A. Section 02220: Trenching, Backfilling and Compacting.
- B. Section 02260: Finish Grading.
- C. Section 02661: Water Mains
- D. Section 02640: Valves, Cocks and Appurtenances.

1.04 WARRANTY AND GUARANTEE CERTIFICATE

- A. The Contractor shall furnish a Certificate of Warranty registration and a guarantee of workmanship and materials for a one (1) year period from the date of final acceptance of the system. Final payment for the system shall be contingent upon receipt of this certification by the Owner.

1.05 OPERATING AND MAINTENANCE DATA

- A. The Contractor shall submit data in accordance with Section 01340.
- B. Provide instructions covering full operation, care and maintenance of system and controls, and manufacturer's parts catalog.

- C. Include schedule showing length of time each valve is to be open to provide determined amount of water.
- D. Instruct Owner's designated maintenance personnel in proper operation of system, including adjusting of sprinkler heads.

1.08 PROTECTION

- A. Protect trees, shrubs, lawns, structures, and features installed or remaining as part of landscaping, from damage.

PART 2 - PRODUCTS

2.01 ACCEPTABLE MANUFACTURERS

- A. Buckner
- B. Safe-T-Lawn
- C. Rainbird

2.02 MATERIALS

- A. Pipe:
 - 1. Polyvinyl Chloride Pipe: polyvinyl chloride pipe and fittings shall be rigid high impact Type 1, Schedule 80, meeting commercial standards CS-207-60; and physical characteristics shall conform to the latest ASTM Specifications D-256, D-696, D-785, D792 and D-1599. Fittings shall be compatible with the pipe.
 - a. The jointing and installation of polyvinyl chloride pipe and fittings shall conform to the manufacturer's recommendations. All PVC joints shall have clean solvent welds except; those threaded connections shown.
 - b. PVC pipe under pavement shall be in sleeves constructed of Schedule 40 galvanized sleeve prior to placement of the sleeve. The encased PVC irrigation line shall be capped on both ends to prevent foreign materials from entering the pipe.
 - c. Pipe sleeves shall extend not less than 12 inches beyond the curb line into the planting areas. The PVC irrigation lines shall extend not less than two (2) feet into the planting areas. All sleeves shall have minimum cover of twenty-four (24) inches. The ends of all sleeves shall be marked and flagged to prevent them from being lost during construction.
 - d. Valves and Boxes: see Section 02640

PART 3 - EXECUTION

3.01 PREPARATION

- A. Piping layout indicated on Drawings is diagrammatic. Reroute around plants and structures.
- B. Ensure sleeves are installed under paving.

3.02 TRENCHING

- A. Trench for sprinkler system to ensure proper grades and slopes to drain points.
- B. Keep trenches free of debris, material, or obstructions that may damage pipe.

3.03 INSTALLATION

- A. Install piping, valves, controls, and sprinklers in accordance with manufacturer's written instructions.
- B. Provide for thermal movement.
- C. Set sprinkler heads and box covers to finished grade.
- D. Use threaded Schedule 80 nipples for risers to each outlet to facilitate easy replacement.
- E. After piping is installed and before sprinkler heads are installed and backfilling commences, open valves and use full head of water to flush out system.
- F. Backfill sprinkler system as specified in Section 02220.
- G. Replace plantings or structures damaged by installation of sprinkler system.
- H. Mark locations of all buried valves with a five (5) foot section of three (3) inch concrete filled PVC Pipe set vertically so that three (3) feet extends above finish grade.

3.04 CLEANING AND TESTING OF SYSTEM

- A. Prior to installing irrigation heads, the lines shall be thoroughly flushed with water to remove all stone and sand particles from the system. Threaded caps shall be installed on all risers, beginning with one closest to the water source and working out to the end of all lateral lines. Backfilling of the trench may begin at this time; however, all pipe joints and riser connections shall be left exposed for leakage testing. At the direction of the Engineer, all heads within a representative portion of the system shall be capped and the following hydrostatic leakage tests shall be performed.
- B. The pressure required for hydrostatic pressure tests shall be 100 pounds per square inch. The Contractor shall provide temporary plugs and blocking necessary to maintain the required test pressure. Corporation cocks at least 3/4 inches in diameter shall be provided at each pipe dead end in order to bleed air from the line. The cost of these items shall be included as part of testing.
- C. Pipe lines shall be filled with water, all air shall be removed, and a pressure of 100 pounds per square inch shall be maintained in the pipe for a period of not less than two (2) hours by means of a pressure pump. Accurate means shall be provided for measuring the water required to maintain this pressure. The line water loss when tested under a pressure of 100 pounds per square inch, shall not exceed 60 gallons per 24 hours per inch diameter per mile of pipe. All leaks at exposed joints, and all leaks evident at the surface where pipe is covered shall be repaired, regardless of total leakage, as shown by test. Lines which fail to meet tests shall be repaired and re-tested as necessary until test requirements are met. Defective materials, pipes, valves and accessories shall be removed and replaced at no cost to the Owner.

3.05 WATERING PERIODS AND APPLICATION RATES

- A. All sections of the irrigation system are to provide the landscaped areas with 1.5 inches of water per week. Each system should be run every other day; however, during the first month after planting, the sprinkler system should be operated every day to ensure establishment of the plants.

3.06 SPARE PARTS

- A. The following items shall be provided:
 - 1. Two extra sprinkler heads of each size and type for each twenty (20) heads installed.
 - 2. Two valve keys for every ten (10) manual valves.
 - 3. Two keys for valve markers.
 - 4. Two wrenches for each type of head core, and for removing and installing each type of head.

END OF SECTION

SECTION 02900 LANDSCAPING

PART I - GENERAL

1.01 DESCRIPTION OF WORK

- A. The extent of the work is shown on the drawings and described in these specifications. The Contractor shall provide all plant materials, soil, mulch and equipment and labor necessary to install the landscaping indicated on the drawings and as described in these specifications.
- B. All landscaping shown therein shall be installed in compliance with the Florida Department of Transportation "Manual of Uniform Minimum Standards for Design, Construction, and Maintenance for Streets and Highways" and the "Manual of Traffic Control Safe Practices for the Streets and Highway Construction Maintenance and Utility Operation."

1.02 WORK NOT INCLUDED

All work indicated on the plans is the responsibility of the Contractor. No work has been deleted or assigned to others.

1.03 STANDARDS

- A. All plant materials shall conform to the grades and standards for Florida No. 1 or better, as established in the most recent edition of "Grades and Standards for Nursery Plants", Part I & II, Florida Department of Agriculture.
- B. All plant material shall be grown and installed in accordance with good horticultural practices. The stock, free of disease, insects, eggs, larvae and defects such as knots, sun-scald, injuries, abrasions or disfigurement.
- C. The City reserves the right to reject any materials that do not meet drawing or specification requirements.
- D. All trees must be planted with a 4 foot minimum off-set from the face of the curb.

1.04 SUBSTITUTIONS

- A. If a plant is found not to be suitable or available, the Landscape Contractor is to notify the City's Representative prior to bidding.
- B. The City's Representative is then required to select an alternative and to inform all prospective bidders of the approved alternate.

- C. All plant materials shall conform to the sizes indicated on plans. If materials cannot be located at the specified sizes, this information must be indicated on the plant materials estimated quantities bid sheet. The ability of other bidders to provide the materials at the sizes specified will generally be given favorable consideration over a bidder who cannot provide materials requested.

1.05 QUANTITIES

All quantities indicated on the plant list are intended as a guide for bidders. All bidders must, however, submit their bid based on the estimated quantities sheet in the bid package. Any discrepancy found shall be resolved after the award of bid and adjusted based on unit prices.

1.06 EXISTING CONDITIONS

- A. The Landscape Contractor shall notify all utility companies prior to construction to locate all underground utilities. The Contractor shall perform work in such a manner to protect and avoid damage to said utilities. Contractor shall call the following numbers 48 hours prior to digging for any installation work:
- | | |
|--------------------------------|----------------|
| Sunshine State One Call Center | 1-800-432-4770 |
| City of Delray Beach | 407- 243-7300 |
- B. The Contractor shall protect all lawns and existing site conditions unless otherwise noted on plans or previously approved in writing by the property owner or City's representative.
- C. When conditions detrimental to plant growth are encountered, such as fill, rubble, drainage problems or other obstructions, the contractor shall notify the City's Representative before planting.
- D. The Contractor shall not be held responsible for concealed contingencies such as, but not limited to, rock, water, clay pan or other obstacles encountered in excavation that were not apparent at the time of bidding.
- E. Street lighting or other utilities that may impact ultimate plant materials locations shall be brought to the attention of the City's Representative. Field adjustments shall be approved by the City prior to planting.

PART 2 - PRODUCTS

2.01 PRODUCTS & MATERIAL

02900-2

- A. Plant Mix: shall be composed of 75% coarse sand, and 25% decomposed compost. Soil shall be well mixed, friable, free of subsoil, brush, weeds, litter, roots, stumps and stones larger than 2" and other extraneous or toxic materials harmful to plant growth.
- B. Mulch: shall be shredded Melaleuca mulch which shall be clean, fresh, free of branches and other foreign matter. Mulch shall be used around all shrubs, ground covers and tree trunks and placed to a minimum depth of 3 inches.
- C. Wood tree stakes: shall be pine wood.

2.02 PLANT MATERIALS

- A. Container grown stock shall have been grown in a container long enough for the root system to have developed sufficiently to hold its soil together.
- B. All plant materials shall be nursery grown unless otherwise specified. Pruning shall be done before planting or during planting operations.
- C. All plant materials in transit shall be covered with burlap or similar cover to keep from drying out.
- D. State nursery inspection certificates shall be furnished to the City's Representative upon request.

PART 3 - EXECUTION

3.01 SITE PREPARATION

- A. The finished grade shall be established by the Landscape Contractor prior to the installation of plant materials and sod. Relative to sod laying, rough grades shall be established adjacent to curb lines, sidewalks or roadways so that the sod is flush or slightly below these areas.

3.02 PLANTING PROCEDURES

- A. Planting pits shall be dug large enough for the proper setting of the rootball (a minimum of one foot wider than the rootball for shrubs and 2 feet wider for trees) and deep enough to permit the rootball to rest at the same grade at which it was grown or slightly higher.
- B. Plants shall be set straight in the center of the pit with the most desirable side facing the prominent view.

- C. The planting pit shall be backfilled with planting mix according to the specifications.
- D. Tamp soil half way through backfilling to remove air pockets; finish backfilling and water thoroughly.
- E. All trees shall be staked using sound horticultural methods; guy wires shall be flagged.
- F. All plant materials shall be fertilized at the time of planting at application rates following manufacturer's specifications.

3.03 CLEAN-UP

- A. During planting, all areas shall be kept reasonably clean and neat.
- B. Upon completion, all debris and waste materials resulting from planting operations shall be removed from the project and disposed of legally.

3.04 WATER

Water for plant materials installation will be available within the medians via a hose bib connection from the irrigation system.

3.05 MAINTENANCE

- A. It shall be the responsibility of the Landscape Contractor to maintain the planting areas until acceptance of substantial completion. Maintenance shall include, but not be restricted to watering, weeding, mowing, pruning, cultivating, spraying for insects and disease, removal of dead materials, and adjustment of stakes and/or other necessary maintenance procedures.
- B. After acceptance for substantial completion the Landscape Contractor shall be responsible during the twelve month warranty period to ensure that all plant materials are being adequately watered.

3.06 LANDSCAPING GUARANTEE

- A. The Contractor, as part of this contract shall guarantee all materials, workmanship and plant materials for a period of twelve months from the date of the acceptance for substantial completion. The Contractor shall notify the City's Representative upon completion of the guarantee period in order to schedule the final inspection and acceptance under this contract.

- B. All plant materials shall be alive and in a vigorous growing condition at the end of the guarantee period.
- C. Any plant materials that are rejected for failure to meet specifications shall be replaced within two weeks of rejection. A new warranty period shall begin upon replacement and acceptance by the City.
- D. The Landscape Contractor shall be responsible during the six month warranty period to inform the City of any maintenance deficiencies verbally to avoid and delays in needed maintenance, which shall be followed up in writing.
- E. The Landscape Contractor shall not be responsible during the guarantee period for damages resulting from natural causes such as floods, lightning, freezing rain or winds over 60 miles per hour, nor will he be held accountable for acts of negligence on the part of the owner, or fires, or vandalism unless insurance required under this contract covers this damage or loss.
- F. All replacements shall be plants of the same kind and size as those specified in the plant list. They shall be furnished and planted as specified herein at no additional cost to the owner.

END OF SECTION

SECTION 02934 SODDING

PART 1 - GENERAL

1.01 SCOPE

Provide all labor, materials and equipment necessary for complete sodding of areas affected by construction and not within the area covered by the Landscaping Plans. This shall include, but not be limited to: liming, fertilizing, sodding, necessary barriers, tests and all incidentals to make the work complete.

1.02 WORK INCLUDED

- A. Testing of topsoil.
- B. Raking and leveling topsoil as required for sodding.
- C. Liming and fertilizing of topsoil.
- D. Laying and rolling of sod.
- E. Maintaining sod.

Part 2 - PRODUCTS

2.01 MATERIALS

- A. Fertilizer:
 - 1. Fertilizer shall be commercial fertilizer, as manufactured by International Chemical Company or approved equal.
 - 2. Said fertilizer shall have a 10-20-6 N.P.K. content and contain a minimum of 60 percent of organic material.
 - 3. It shall be delivered at the site in the original sealed containers.
- B. Sod:
 - 1. The sod shall be as grown by a certified turf nursery and CONTRACTOR shall inform ENGINEER as to the source of the sod to be utilized prior to ordering and delivery of sod.

2. Sod shall be furnished and installed in rectangular sod strips measuring 12 to 16-inches in width of standard lengths of not less than 2 feet and delivered on pallets.
3. After the preparation of the areas to be sodded has been approved by ENGINEER sod all previously sodded areas where no permanent construction exists. Supply and install sod which is equal to or approved equal to sod which exists at the project site. As a minimum, Type No. 1 sod composed of grasses grown from a Bahia Seed mixture shall be used for stabilization of final grade.
4. St. Augustine Floratam Sod shall be placed in areas that will be or are irrigated. Bahia sod shall be placed in areas not irrigated.

PART 3 - EXECUTION

3.01 INSTALLATION

- A. These areas shall be fine graded to achieve the finished subgrade after compaction which shall be obtained by rolling, dragging or by an approved method which obtains an equivalent compaction to that produced by a hand roller weighing from 75 to 100 pounds per foot of width. All depressions caused by settlement or rolling shall be filled with additional existing or furnished topsoil and regraded and prepared as specified above until it presents a reasonably smooth and even finish at the required sod sub-grade.
- B. All sod furnished shall be living sod containing at least 70 percent of thickly matter grasses as specified and free from noxious weeds.
- C. No broken pads or torn or uneven ends will be accepted. Standard size sections of sod shall be strong enough to support own weight and retain their size and shape when suspended vertically with a firm grasp on the upper 10 percent of the section. Sod shall not be harvested when its moisture content (excessively wet or dry) may adversely affect its survival.
- D. Sod shall be harvested, delivered, and installed within a period of 36 hours. Sod not installed within this time period shall be subject to inspection and rejection by ENGINEER, and shall be removed from the site and a fresh sod supply shall be furnished at no extra cost to OWNER.
- E. The topsoil shall not be moist at time of installation; however, it shall contain sufficient moisture so as not be powdery or dusty, both as determined by the supplier's representative.
- F. The overlapping of existing lawn with new sod along limit of work lines will not be permitted. Sod shall be laid in strips, edge to edge, with the lateral joints staggered. All minor or unavoidable openings in the sod shall be closed with sod plugs or with

topsoil, as directed by ENGINEER. However, sod laid with joints determined to be too large shall be lifted and 43-laid as specified herein at no extra cost to OWNER.

- G. Immediately after the sod is laid, the sod shall be watered thoroughly by hand or mechanical sprinkling until the sod and at least 2-inch of the top soil bed have been thoroughly moistened.
- H. CONTRACTOR shall be responsible to furnish his own supply of water to the site at no extra cost. If possible, OWNER shall furnish CONTRACTOR, upon request, with a source and supply of water. Contractor shall apply for temporary meter and pay Owner for water used at current utility billing rates. However, if OWNER' water supply is not available or not functioning, CONTRACTOR shall be responsible to furnish adequate supplies at his own cost. All work injured or damaged due to the lack of, or the use of too much water, shall be CONTRACTOR's responsibility to correct.

3.02 MAINTENANCE

- A. Maintain the entire sodded areas until final acceptance at the completion of the Contract. Maintenance shall include watering as specified, weeding and removal of stones which may appear. All bare or dead spots which become apparent shall be properly prepared, limed and fertilized, and resodded at CONTRACTOR's expense as many times as necessary to secure a good growth. In the event that the sod installation is not accepted by ENGINEER, the entire area shall be maintained and cut by CONTRACTOR until final acceptance of the sod installation.
- B. Take whatever measures are necessary to protect the sod while it is developing. These measures shall include furnishing or warning signs, barriers, or any other necessary measures of protection.

END OF SECTION

SECTION 02944 SEEDING

PART 1 - GENERAL

1.01 WORK INCLUDED

- A. Preparation of subgrade to receive topsoil.
- B. Seeding and fertilizing.
- C. Seed protection on slopes.
- D. Hydroseeding.
- E. Maintaining seeded areas until acceptance.

1.02 RELATED WORK

- A. Section 01410: Testing Laboratory Services.
- B. Section 02260: Finish Grading.

1.03 QUALITY ASSURANCE

- A. Test top soil in accordance with Section 01410.
- B. Supply written analysis stating N, P, and K requirements, organic matter content, and ph value of soil.

1.04 DELIVERY, STORAGE AND HANDLING

- A. Deliver grass seed in original containers showing analysis of seed moisture, percentage of pure seed, year of production, net weight, date of packaging and location of packaging. Damaged packages are not acceptable.
- B. Deliver fertilizer in waterproof bags showing weight, chemical analysis, and name of manufacturer.

1.05 EXISTING CONDITIONS

- A. Beginning work means acceptance of existing conditions.

PART 2 - PRODUCTS

2.01 MATERIALS

A. Seed:

1. Grass seed shall be a mixture of equal parts of Bermuda seed and Pensacola bahia, except that during the winter months, if so directed by the Engineer, rye grass seed or other approved winter cover crop seed may be substituted for the Bermuda seed. The two types of seed used shall be thoroughly dry-mixed immediately before sowing. Seed which has become wet or moldy shall not be used.
2. The Bermuda seed shall be hulled seed. The Pensacola bahia seed shall be scarified seed, having a minimum active germination of 40 percent and a total germination of 85 percent. All seed shall meet the requirements of the Florida State Department of Agriculture and all applicable State laws, and shall be approved by the Engineer before being sown.

B. Mulch:

1. Dry Mulch: The mulch material used shall normally be dry mulch. Dry mulch shall be straw or hay, consisting of oat, rye or wheat straw, or of pangola, peanut, coastal Bermuda or bahia grass hay.
2. Green Mulch: Green mulch shall consist of live coastal Bermuda, or other approved type of grass, and shall be free from weeds and obnoxious or undesirable grasses.
3. No green mulch which, in the Engineer's opinion, has been allowed to become sufficiently dry as to lose its growth-producing benefits, will be allowed to be used.
4. In the event that the subsequent stand of grass is found to be contaminated with weeds or other obnoxious or undesirable growth, and it can be determined that such growth was introduced with the green mulch, then the Contractor will be required to effectively eliminate such undesirable growth at his own expense.

C. Commercial Fertilizer:

1. Commercial fertilizers shall comply with the State fertilizer laws.
2. The numeral designations for fertilizer indicate the minimum percentages (respective) of: (1) total nitrogen, (2) available phosphoric acid, and (3) water-soluble potash, contained in the fertilizer.
3. The chemical designation shall be 8-8-8. Other designations may be approved specifically for a particular project; and if liquid fertilizer other than that of chemical designation 8-8-8 is used, the total nitrogen content shall not exceed 12 percent.
4. Either dry or liquid fertilizer may be used.

D. Water for Grassing:

1. The water used in the grassing operations may be obtained from any approved spring, pond, lake, stream or municipal water system. The water shall be free of excess and harmful chemicals, acids, alkalis or any substance which might be harmful to plant growth or obnoxious to traffic. Salt water shall not be used. Municipal water shall be metered. Contractor shall apply for temporary meter and pay current utility billing rates.

2.02 EQUIPMENT

- A. Fertilizer Spreader: The device for spreading dry fertilizer or for spraying liquid fertilizer shall meet the approval of the Engineer.
- B. Seed Spreader: The seed spreader shall be an approved mechanical hand spreader or other approved type of spreader and may be integral with the cultipacker rolling equipment specified below.
- C. Equipment for Cutting Mulch into Soil: The mulching equipment shall be a rotavator, or other equipment determined by the Engineer to be equally suitable for cutting the specified materials uniformly into the soil and to the required controlled depth.
- D. Rollers: A cultipacker, traffic roller, or other roller approved by the Engineer, will be required for rolling the grassed or grassed and mulched areas.
- E. Water-Metering Devices: The vehicle used for applying the water to the grassed areas shall be equipped with an approved metering device installed at such point on the vehicle as to measure the water at the time of its being applied to the grassed areas.

PART 3 - EXECUTION

3.01 INSTALLATION

- A. General
 1. Fertilizing, seeding or mulching operations will not be permitted when wind velocities exceed 15 miles per hour. Seed shall be sown only when the soil is moist and in proper condition to induce growth.
 2. All soil manipulation shall be done at right angles to the direction of slope.
 3. The soil shall be maintained in a moist condition for a period of at least two weeks after the planting.

B. Applying and Mixing Fertilizer:

1. At the Contractor's option either dry or liquid commercial-grade fertilizer may be used. The rate of application for dry fertilizer may be used. The rate of application for dry fertilizer shall be 800 to 1000 pounds per acre, with application in the upper range for sandy soils and in the lower range for loamy soils. The exact rate will be set by the Engineer. Liquid fertilizer shall be applied at an equivalent rate which will provide the same amount of plant food as required for dry fertilizer (or at approximately 74 to 92 gallons per acre).
2. The fertilizer shall be spread or sprayed uniformly over the area to be grassed by use of the approved distributing device, except that on steep slopes or other areas where machine spreading may not be practicable, spreading may be done by hand or by hose if the Engineer so directs. Immediately after dry fertilizer is spread it shall be harrowed in and mixed with the soil to a depth of approximately four inches. When liquid fertilizer is used, the Soil, if dry, shall be moistened by sprinkling before the liquid fertilizer is applied. Liquid fertilizer shall be applied not later than seven days after the seed is in place.

C. Mulching:

1. *Dry Mulch:* When mulching is called for approximately two inches, loose thickness, of the straw or hay material shall then be applied uniformly over the grassing area, and the mulch material cut into the soil with the equipment specified, so as to produce a loose mulch thickness of three to four inches. Care shall be exercised so that the materials are not cut into the soil deeper than four inches.
2. *Green Mulch:* When green mulch is used, the green mulch shall be incorporated into the soil not later than two days after being cut, and no artificial watering shall be done before the mulch is applied. It shall be spread in a layer of approximately two inches loose thickness, and cut into the soil with the equipment specified. The material shall not be cut into the soil deeper than four inches.

D. Seeding:

1. Soon after the mulch material has been cut into the soil, and while the soil is still loose and moist, the seed shall be scattered uniformly over the grassing area.
2. The rate of spread for the seed shall be as follows:
 - a. Where mulching is not called for, or where dry mulch is used, the rate shall be 60 pounds per acre. In the period from March 15th to October 15th the seed mixture shall be 30 pounds of bahia and 30 pounds of Bermuda. In the remainder of the year the mixture shall be 20 pounds each of bahia, Bermuda and rye seed.
 - b. When green mulch is used, the required rate of spread shall be reduced to 40 pounds per acre, because of the faster growing rate of the green

mulch as compared with that of the seeds. The seed mixture shall be 22-1/2 pounds of bahia and 22-1/2 pounds of Bermuda, except that in the period of October 15th to March 15th the mixture shall be 15 pounds each of bahia, Bermuda and rye grass seed.

3. Seeding may be done in conjunction with rolling if the equipment used is designed for that purpose.
- E. Rolling: Immediately after completion of the seeding, the entire grassed or mulched area shall be rolled thoroughly with the equipment specified. At least two trips over the entire area will be required.
- F. Seed Protection on Slopes:
 1. Cover seeded slopes where grade is 3:1 or greater with jute matting. Roll matting down over slopes without stretching or pulling.
 2. Lay matting smoothly on soil surface, burying top end of each section in narrow six inch trench. Leave 12 inch overlap from top roll over bottom roll. Leave four inch overlap over adjacent section.
 3. Staple outside edges and overlaps at 36 inch intervals.
 4. Lightly dress slopes with topsoil to ensure close contact between matting and soil.
 5. In ditches, unroll matting in direction of flow. Overlap ends of strips six inches with upstream section on top.

3.02 MAINTENANCE PERIOD

- A. Maintenance period shall be until final acceptance.

3.03 MAINTENANCE

- A. Maintain surfaces and supply additional topsoil where necessary, including areas affected by erosion.
- B. Water to ensure uniform seed germination and to keep surface of soil damp.
- C. Apply water slowly so that surface of soil will not puddle and crust.
- D. Cut grass first time when it reaches height of 2-1/2 inches and maintain to minimum height of two inches. Do not cut more than 1/3 of blade at any one mowing. Remove clippings.
- E. After first mowing, water grass sufficiently to moisten soil from three to five inches deep.
- F. Apply weed killer when weeds start developing, during calm weather when air temperature is above 50 degrees Fahrenheit.

- G. Replant damaged grass areas showing root growth failure, deterioration, bare or thin spots, and eroded areas.

3.04 RESTORATION

- A. Restore pavement, concrete, grassed areas, planted areas, and structures damaged during execution of work of this section.

3.05 ACCEPTANCE

- A. Seeded areas will be accepted at end of maintenance period when seeded areas are properly established and otherwise acceptable.

END OF SECTION

SECTION 03300

CONCRETE

PART 1 - GENERAL

1.01 WORK INCLUDED

- A. This section covers all work necessary for providing, testing and placing ready mix concrete.
- B. See GENERAL CONDITIONS which contain information and requirements which apply to the Work specified herein and are mandatory for this project.

1.02 REFERENCE STANDARDS, CODES AND SPECIFICATIONS

- A. ACI 214 "Recommended Practice for Evaluation of Compressive Test Results of Field Concrete".
- B. ACI 318 "Building Code Requirement for Reinforced Concrete".
- C. ASTM C31 "Standard Method for Making and Curing Concrete Compressive and Flexure Test Specimens in the Field".
- D. ASTM C33 "Standard Specification for Concrete Aggregates".
- E. ASTM C94 "Standard Specification for Ready-Mix Concrete".

1.03 SUBMITTALS

- A. Submittals shall be in accordance with the GENERAL CONDITIONS and shall include the following:
 - 1. Concrete mix designs and trial mix laboratory reports.
 - 2. Manufacturer's certification of admixtures.
 - 3. Contractor's schedule and sequence of placement.
 - 4. All Test Results.
 - 5. Drawings showing locations of construction joints.

1.04 QUALITY ASSURANCE

- A. Submit certificates of mill reports on all foreign cements for review by ENGINEER before batching concrete.

- B. Secure the services of a reputable manufacturer for counseling regarding the use of any specified admixture, as required.
- C. The ENGINEER shall have access to and have the right to inspect all batch plants, cement mills, and supply facilities of suppliers, manufacturers, subcontractors, and contractors providing products included in these Specifications. Batch plants shall have current certification that all weighing scales have been tested and are within the tolerances as set forth in the National Bureau of Standards Handbook No. 44.

1.05 CERTIFICATION

- A. Submit batch delivery tickets to the ENGINEER in compliance with and in accordance to ASTM C94.

1.06 TESTING

- A. Performed by an acceptable Engineering Laboratory at CITY's expense. CONTRACTOR shall assist in the collection of samples. Any retests shall be within the Scope of the Contract.
- B. Criteria:
 - 1. Each test: not less than 5 cylinders; retain one after 28 days.
 - 2. One test for every 50 consecutive cubic yards of concrete cast.
 - 3. Furnish ENGINEER with 4 certified copies of tests made of 2 at 7 days, and 2 at 28 days.
- C. Questionable strength of in-place concrete:
 - 1. Additional tests may be ordered by the ENGINEER.
 - 2. Execute the core tests in accordance with ASTM C42 procedure.
 - 3. Costs of additional tests showing strength of in-place concrete conforming to design criteria are the responsibility of the CITY.
 - 4. Costs of additional tests showing noncompliance with the design criteria are the responsibility of the CONTRACTOR.
 - 5. Additional items at CONTRACTOR's expense:
 - a. Provide load tests as directed by the ENGINEER.
 - b. Reinforce structure as directed or remove and replace all Under strength concrete structure in place.

PART 2 - PRODUCTS

2.01 MATERIALS

- A. Cement
 - 1. Portland cement Type I or Type II conforming to ASTM C 150. In addition, the tricalcium aluminate content of Type I cement shall not exceed 12 percent.
 - 2. Type I or Type II cement, at the Contractor's option, may be used for nonhydraulic structures, slabs on grade, sidewalks, thrust blocks and miscellaneous.
 - 3. Type II cement or Type I cement, in combination with pozzolan (fly ash) as hereinafter specified, shall be used for all precast sanitary structures.
- B. Water: potable, salt free.
- C. Fine Aggregate: salt free and clean, conforming to ASTM C33.
- D. Coarse Aggregate: salt free and clean, conforming to ASTM C33.
- E. All Aggregate: quarried/mined in fresh water only.

2.02 MIXES

- A. Slab on Grade, Thrust Blocks, sidewalks and Miscellaneous Cast-In-Place
 - 1. 28 day compressive strength: 3000 psi
 - 2. Minimum cement content: 5 ½ bags per cubic yard.
 - 3. Admixture: As required below, use only specified product.
 - 4. Slump: 2 to 3 inches.
 - 5. Air Content: (ASTM C231): 4 to 6 percent.
- B. Precast concrete:
 - 1. 28 day compressive strength: 4000 psi, minimum, or as illustrated on the Drawings.
 - 2. Minimum cement content for 4000 psi concrete: 6 bags per cubic yard.
 - 3. Admixture: As required below, use only specified products.
- C. Flowable Fill
 - 1. Cement: 200 lbs/Cy.

2. Pozzolan (Flyash): 0 to 600 lbs/Cy.
3. Fine Aggregate: 2750 lb/Cy.
4. Water: 500 lbs/Cy. (maximum)

2.03 ADMIXTURES

- A. Provide air-entraining admixture in all concrete. Admixture shall conform to ASTM C 260, except it shall be nontoxic after 30 days and shall contain no chlorides. Furnish manufacturer's compliance statement for these requirements.
- B. All concrete shall contain a water-reducing admixture. The admixture shall conform to ASTM C 494, Type A or Type D, except it shall contain no chlorides, shall be nontoxic after 30 days, and shall be compatible with the air-entraining admixtures. The amount of admixture added to the concrete shall be in accordance with the manufacturer's recommendations. Furnish a compliance statement that the admixture used satisfies all requirements of this Specification.
- C. The pozzolan to be used in combination with Type I cement, as previously specified, shall be Class C or Class F fly ash conforming to ASTM C 618-78. Furnish test data confirming that the fly ash in combination with the cement to be used meets all strength requirements, is compatible with air-entraining agents and other additives, and provides increased sulfate resistance equivalent to or better than Type II cement.

2.04 CURING COMPOUNDS

- A. Normal placement without special finish; approved products:
 1. Master Builders Company: "Masterseal".
 2. Sonneborn-Contech: "Kure-N'Seal".

2.05 DEFORMED REINFORCING BARS

- A. ASTM A615: "Standard Specification for Deformed and Plain Billet-Steel Bars for concrete Reinforcement".
 1. Grade: 60
 2. Minimum yield strength: 60,000 psi.
- B. Sizes shall be as indicated on the Drawings.

2.06 WELDED WIRE FABRIC

- A. Welded wire fabric shall conform to ASTM A185.

2.07 ACCESSORIES

- A. Tie wires shall be 16-gauge, black, soft-annealed wire.
- B. Bar supports shall be of proper type for use intended. Bar supports in beams and slabs exposed to view after stripping shall be galvanized or plastic coated. Use concrete supports for reinforcing in concrete placed on grade.

PART 3 - EXECUTION

3.01 EXAMINATION

- A. Place no concrete until all reinforcing steel, pipes, inserts, sleeves, etc., have been set in place and reviewed by the ENGINEER. Notify the ENGINEER of scheduled pours 24 hours prior to placement.

3.02 PLACING

- A. Place concrete expeditiously in clean forms that are not hot to the touch; spray forms with water just prior to placing concrete. Before placing concrete directly against earth, install vapor barrier to prevent water absorption, secure reinforcement in position, inspect, and approve before placing concrete. Do not rest runways for transporting concrete on the reinforcing steel. Deposit concrete as nearly as practical in final position; and, do not allow concrete to drop freely more than 5 feet. Place all concrete during daylight, unless otherwise authorized. Where reinforcing steel above the top of the cast is coated with concrete while placing below, remove all concrete from such reinforcing steel after the placing is complete and prior to the next cast.
- B. Place slabs-on-grade carefully to avoid damages to the vapor barrier.
- C. Concrete shall not be placed in the rain or when it looks as if it is going to rain unless specifically authorized by the ENGINEER.

3.03 CONSOLIDATION

- A. Consolidate concrete in layers by internal vibrating equipment, supplemented by hand rodding and tamping as required. Do not use vibrators to move the concrete laterally inside the forms.

- B. Maintain internal vibrators at speed of at least 5000 impulses per minute when submerged in concrete. Maintain at least 1 spare vibrator in working condition at site at all times.
- C. Limit duration of vibration to time necessary to produce satisfactory consolidation without causing segregation. In no case more than 15 seconds per square foot of exposed surface. Move the vibrator constantly and place in each specific spot only once.

3.04 JOINTS

- A. Construction joints:
 - 1. Locate as illustrated on the Drawings and as reviewed by the ENGINEER for slabs.
 - 2. Key joints.
- B. Expansion Joints. Place pre-formed expansion joints as indicated on the Drawings.

3.05 CURING

- A. Begin curing of concrete as soon as practicable after placing, but not more than 3 hours thereafter.
- B. Begin curing of the structural elements immediately after removal of forms.
- C. Apply curing compounds as specified.

3.06 FINISHES

- A. Formed surfaces:
 - 1. Patching: immediately after stripping forms, patch all defective areas with mortar similar to the concrete mix; but, without coarse aggregate. Patch minor honeycombs, bulges and other minor defects as designed by the ENGINEER, only where exposed to view. Clean, dampen, and fill all the holes with patching mortar.
 - a. Major defective areas, as judged by the ENGINEER, including those resulting from the leakage of forms, excessive honeycombs, large bulges, and large offsets at form joints: chip away to a depth of at least 1/4 inch; and, the surfaces that are to be patched coat with an epoxy-polysulfide adhesive. Press patching mortar in for a complete bond and finish to match adjacent areas.

- b. Minor defective areas, as judged by the ENGINEER, including honeycombs, air bubbles, holes resulting from removal of ties and those resulting from leakage of forms: patch with grout without resorting to chipping. Minor bulges and offsets at form joints: finish as specified herein below.
 - 2. Finishes; locations:
 - a. Rough or board finish: for all concrete surfaces not exposed to public view.
 - 3. Finishes; definitions:
 - a. Rough or board finish: reasonably true to line and plane. Tie holes and defects patched, and the fins exceeding $\frac{1}{4}$ inch rubbed down, otherwise, surfaces may be left with texture imparted by forms.
- B. Unformed surfaces (flatwork):
- 1. Finishes:
 - a. General: grade and screed slab to exact elevation, as required. After screeding, tamp mixture thoroughly to drive the coarse aggregate down from surfaces and apply finish specified hereinafter.
 - b. Broom finish: slab on grade.
 - 2. Finishes; definition:
 - a. Broom finish: finish with street type broom as soon as surface water sheen has disappeared.

3.07 FIELD QUALITY CONTROL

- A. Only ready mixed concrete in accordance with ASTM C94 will be accepted.
- B. Place all concrete within 1-1/2 hours after introduction of water to mix.
- C. Under no circumstances may additional water be added to mix.
- D. Discard unused concrete older than 1-1/2 hours. Retempering is prohibited.

END OF SECTION 03300

SECTION 03600

GROUT

PART 1 GENERAL

1.01 WORK INCLUDED

- A. Furnish all materials for grout in accordance with the provisions of this Section and form, mix, place, cure, repair, finish, and do all other work as required to produce finished grout, all in accordance with the requirements of the Contract Documents.
- B. The following types of grout shall be covered in this Section:
 - 1. Non-Shrink Grout: This type of grout shall be used to seal abandoned pipe and other penetrations of existing and new sanitary structures.
 - 2. Cement Grout: This type of grout to be used for pump station inverts.
 - 3. Epoxy Grout: This type of grout to be used for setting anchor bolts and other mechanical features as required.
- C. Like items of materials provided hereunder shall be the end products of one manufacturer in order to achieve standardization for appearance, maintenance, replacement and service.

1.02 RELATED WORK SPECIFIED ELSEWHERE

- A. Section 03300 - Concrete.

1.03 REFERENCE SPECIFICATIONS, CODES, AND STANDARDS

- A. Specifications, codes, and standards shall be as specified in Section 03300 - Concrete and as referred to herein.
- B. Additional Commercial Standards:
 - CRD-C 621-82B Corps of Engineers Specifications for Non-shrink grout.
 - ASTM C 109-80 Standard test methods for compressive strength of hydraulic cement mortars (using 2-in or 50-mm cube specimens).
 - ASTM C 531-81 Test method for linear shrinkage and coefficient of thermal expansion of chemical-resistant mortars, grouts and monolithic surfacings.

ASTM C 579-82 Test methods for compressive strength of chemical-resistant mortars and monolithic surfacings.

ASTM C 827-82 Standard test method for early volume change of cementitious mixtures.

ASTM C 696-79 Test method for coefficient of linear thermal expansion of plastics.

1.04 SUBMITTALS

- A. Submit certified test results verifying the compressive strength, shrinkage, and expansion requirements specified herein; and manufacturer's handling, placement and appropriate uses for each type of non-shrink and epoxy grout used in the Work.

PART 2 PRODUCTS

2.01 CEMENT GROUT

- A. Cement Grout: Cement grout shall be composed of one part cement, three parts sand, and the minimum amount of water necessary to obtain the desired consistency. Where needed to match the color of adjacent concrete, white portland cement shall be blended with regular cement as needed. The minimum compressive strength at 28 days shall be 4000 psi.
- B. Cement grout materials shall be as specified in Section 03300 - Concrete.

2.02 PREPACKAGED GROUTS

- A. Non-Shrink Grout
 1. Non-shrink grout shall be a prepackaged, inorganic, non-gasliberating, non-metallic, cement-based grout requiring only the addition of water. Manufacturer's instructions shall be printed on each bag or other container in which the materials are packaged. The specific formulation for each class of non-shrink grout specified herein shall be that recommended by the manufacturer for the particular application.
 2. Class A non-shrink grouts shall have a minimum 28 day compressive strength of 5000 psi; shall have no shrinkage (0.0 percent) and a maximum 4.0 percent expansion in the plastic state when tested in accordance with ASTM C-827; and shall have no shrinkage (0.0 percent) and a maximum of 0.2 percent expansion in the hardened state when tested in accordance with CRD C 621.
 3. Class B non-shrink grouts shall have a minimum 28 day compressive strength of 5000 psi and shall meet the requirements of CRD C 621.
 4. Application
 - a. Class A non-shrink grout shall be used for the repair of all holes and defects in concrete members which are water bearing or in contact with soil or other fill material, grouting under all equipment base plates, and at all locations where grout is specified in the Contract Documents; except for those applications for Class B non-shrink grout and epoxy grout specified herein. Class A non-shrink grout may be used in place of Class B

non-shrink grout for all applications.

- b. Class B non-shrink grout shall be used for the repair of all holes and defects in concrete members which are not water-bearing and not in contact with soil or other fill material, grouting under all base plates for structural steel members, and grouting railing posts in place.

B. Epoxy Grout

1. Epoxy grout shall be a pourable, non-shrink, 100 percent solids system. The epoxy grout system shall have three components: resin, hardener, and specially blended aggregate, all premeasured and prepackaged. The resin component shall not contain any nonreactive diluents. Resins containing butyl glycidyl ether (BGE) or other highly volatile and hazardous reactive diluents are not acceptable. Variation of component ratios is not permitted unless specifically recommended by the manufacturer. Manufacturer's instructions shall be printed on each container in which the materials are packaged.
2. The chemical formulation of the epoxy grout shall be that recommended by the manufacturer for the particular application.
3. The mixed epoxy grout system shall have a minimum working life of 45 minutes at 75 degrees F.
4. The epoxy grout shall develop a compressive strength of 5000 psi in 24 hours and 10,000 psi in seven days when tested in accordance with ASTM C 579, Method B. There shall be no shrinkage (0.0 percent) and a maximum 4.0 percent expansion when tested in accordance with ASTM C 827.
5. The epoxy grout shall exhibit a minimum effective bearing area of 95 percent. This shall be determined by a test consisting of filling a 2-inch diameter by 4-inch high metal cylinder mold covered with a glass plate coated with a release agent. A weight shall be placed on the glass plate. At 24 hours after casting, the weight and plate shall be removed and the area in plan of all voids measured. The surface of the grout shall be probed with a sharp instrument to locate all voids.
6. The peak exotherm of a 2-inch diameter by 4-inch high cylinder shall not exceed 95 degrees F when tested with 75 degree F material at laboratory temperature. The epoxy grout shall exhibit a maximum thermal coefficient of 30×10^{-6} inches/inch/degree F when tested according to ASTM C 531 or ASTM D 696.
7. Application: Epoxy grout shall be used to embed all anchor bolts and reinforcing steel required to be set in grout and for all other applications required in the Contract Documents.

1.03 CURING MATERIALS

- A. Curing materials shall be as specified in the Section entitled, 03300 - Concrete, for cement grout and as recommended by the manufacturer of prepackaged grouts.

1.04 CONSISTENCY

- A. The consistency of grouts shall be that necessary to completely fill the space to be grouted for the particular application. Dry pack consistency is such that the grout is plastic and moldable but will not flow. Where "dry pack" is called for in the Contract Documents, it shall mean a grout of that consistency; the type of grout to be used shall be as specified herein for the particular application.

1.05 MEASUREMENT OF INGREDIENTS

- A. Measurements for cement grout shall be made accurately by volume using containers. Shovel measurement will not be allowed.
- B. Prepackaged grouts shall have ingredients measured by means recommended by the manufacturer.

PART 3 EXECUTION

3.01 GENERAL

- A. All surface preparation, curing, and protection of cement grout shall be as specified in Section 03300 - Concrete. The finish of the grout surface shall match that of the adjacent concrete.
- B. The manufacturer of Class A non-shrink grout and epoxy grout shall provide on-site technical assistance upon request.
- C. All mixing, surface preparation, handling, placing, consolidation and other means of execution for prepackaged grouts shall be done according to the instructions and recommendations of the manufacturer.

1.02 CONSOLIDATION

- A. Grout shall be placed in such a manner for the consistency necessary for each application so as to assure that the space to be grouted is completely filled.

END OF SECTION

SECTION 04100

MORTAR

PART 1 - GENERAL

1.01 REQUIREMENTS INCLUDED

- A. Mortar and grout for unit masonry.

1.02 RELATED REQUIREMENTS

- A. Section 01410: Testing Laboratory Services
- B. Section 04300: Unit Masonry System: Installation of Mortar

1.03 MIX TESTS

- A. Testing of Mortar Mix Cubes: In accordance with Section 01410.
- B. Testing of Grout Mix Cylinders: In accordance with Section 01410.

1.04 REFERENCES

- A. ASTM C5 – Quicklime for Structural Purposes.
- B. ASTM C91 – Masonry Cement.
- C. ASTM C94 – Ready-Mixed Concrete.
- D. ASTM C144 – Aggregate for Masonry Mortar.
- E. ASTM C150 – Portland Cement.
- F. ASTM C270 – Mortar for Unit Masonry.
- G. ASTM C387 – Packaged, Dry, Combined Materials for Mortar and Concrete.
- H. ASTM C476 – Grout for Reinforced and Non-Reinforced Masonry.
- I. ASTM C780 – Preconstruction and Construction Evaluation of Mortars for Plain and Reinforced Unit Masonry.
- J. International Masonry Industry All-Weather Council (IMIAC) – Recommended Practices and Guide Specifications for Cold Weather Masonry Construction.

1.05 SUBMITTALS

- A. Submit in accordance with Section 01340.

1.06 ENVIRONMENTAL REQUIREMENTS

- A. Cold Weather Requirements: IMIAC – Recommended Practices and Guide Specifications for Cold Weather Masonry Construction.

PART 2 - PRODUCTS

2.01 ACCEPTABLE MANUFACTURERS

- A. Not applicable.

2.02 MATERIALS

- A. Portland Cement: ASTM C150, normal-Type I; gray color.
- B. Masonry Cement: ASTM C98, for general use.
- C. Mortar Aggregate: ASTM C144, standard masonry type; clean, dry, protected against dampness, freezing, and foreign matter.
- D. Grout Fine Aggregate: Not less than 2 ¼ inches and not more than three times the sum of volume of cement used.
- E. Hydrated Lime: ASTM C207, Type S.
- F. Quicklime: ASTM C5, non-hydraulic type.
- G. Premix Mortar: ASTM C387, using gray cement.
- H. Water: Clean and potable.

2.03 MORTAR COLOR

- A. Not used.

2.04 ADMIXTURES

- A. Not used.

2.05 MIXES

- A. Mortar for Load Bearing Walls and Partitions: ASTM C270, Type S.
- B. Mortar for Reinforced Masonry: ASTM C476, Type PM.
- C. Pointing Mortar: ASTM C270, Type N; with maximum two percent ammonium stearate or calcium stearate per cement weight.

2.06 GROUT FILL

- A. Not used.

2.07 MORTAR MIXING

- A. Thoroughly mix mortar ingredients in quantities needed for immediate use in accordance with ASTM C270 and C476.
- B. If water is lost by evaporation, retemper within one hour of mixing. Do not retemper mortar after two hours of mixing.

PART 3 - EXECUTION

3.01 INSTALLATION

- A. After inspection of concrete grout spaces by Engineer, plug cleanout holes with masonry units. Brace against wet grout pressure.
- B. Install mortar and grout in accordance with Section 04300.
- C. Work grout into cores and cavities to eliminate voids.
- D. Do not displace reinforcing steel placing grout.
- E. Clean concrete grout spaces of excess mortar and debris.

END OF SECTION

SECTION 04300
UNIT MASONRY SYSTEM

PART 1 - GENERAL

1.01 REQUIREMENTS INCLUDED

- A. Concrete units.
- B. Reinforcement, anchorages, and accessories.

1.02 WORK INSTALLED BUT FURNISHED BY OTHERS

- A. Section 07600 – Flashing and Sheet Metal: Reglets for flashings.

1.03 RELATED WORK

- A. Section 04100: Mortar: Mortar and grout.
- B. Section 07160: Bituminous Dampproofing: Dampproofing masonry surfaces.
- C. Section 07175: Water repellent coating.
- D. Section 07211: Granular Insulation: Loose fill insulation for masonry unit cores.

1.04 MOCK UP

- A. Provide mock-up for Engineer's inspection.
- B. Construct split fluted block to four X four panel size, including mortar and accessories specified. When used.
- C. Obtain approval prior to proceeding with the Work.
- D. Remove the panel when directed by the Engineer.

1.05 REFERENCES

- A. ASTM C90 – Hollow Load Bearing Concrete Masonry Units.
- B. International Masonry Industry All-Weather Council (IMIAC) – Recommended Practices and Guide Specifications for Cold Weather Masonry Construction.

1.06 SAMPLES

- A. Submit samples in accordance with Section 01340.
- B. Submit one sample of split fluted block of integral color available to illustrate color, texture, and extremities of color range.

1.07 CERTIFICATIONS

- A. Submit manufacturer's certifications in accordance with Section 01340.

1.08 ENVIRONMENTAL REQUIREMENT

- A. Cold Weather Requirements: IMIAC – Recommended Practices and Specifications for Cold Weather Masonry Construction.

PART 2 – PRODUCTS

2.01 ACCEPTABLE CONCRETE MASONRY UNIT MANUFACTURERS

- A. Substitutions: Items of same function and performance are acceptable in accordance with Section 01600 and 01630.

2.02 CONCRETE MASONRY UNITS

- A. Concrete masonry units shall be plain concrete masonry units meeting the requirements of ASTM C90, latest revision, unless specified otherwise.
- B. Concrete Masonry Unit:
 - 1. *Split Fluted*: As specified for plain concrete masonry unit but with eight fluted uniformly placed on one face, or on one face and one end at corner units. Flute faces shall be as-split, without tool marks. Refer to area drawing where applicable.
 - Flute profile shall be rectangular.
 - Flute size: $\frac{3}{4}$ inch deep by $\frac{1}{4}$ inch wide.
 - 2. Concrete Masonry Unit, Acoustical: As specified for plain concrete masonry units but with two flared slots starting at bottom of unit to form resonating cavities at cores, and two septas sprung in place.
 - Slot size: Approximately $\frac{1}{2}$ inch by 6 inches.
 - Core fillers: Fibrous filler element.
 - Noise reduction coefficient of painted 8 inch unit: 0.50 to 0.60 minimum.
 - Peak sound absorption: 90 to 180 Hz.

PART 3 - EXECUTION

3.01 PREPARATION

- A. Supply metal anchors for placement. Direct correct placement.
- B. Verify items provided by other sections of work are properly sized and located.
- C. Establish lines, levels, and coursing. Protect from disturbance.
- D. Provide temporary bracing during erection of masonry work. Maintain in place until building structure provides permanent bracing.

3.02 COURSING

- A. Place masonry to lines and levels indicated.
- B. Maintain masonry courses to uniform width. Make vertical and horizontal joints equal and of uniform thickness.
- C. Lay standard concrete masonry in running bond. Course one block unit and one mortar joint to equal 8 inches. Form flush mortar joints.
- D. Lay split fluted masonry units in stacked bond.

3.03 PLACING AND BONDING

- A. Lay masonry in full bed or mortar, properly jointed with other work. Butting corners of joints, deep or excessive furrowing of mortar joints are not permitted.
- B. Fully bond intersections, and external and internal corners.
- C. Do not shift or tap masonry units after mortar has taken initial set. Where adjustment must be made, remove mortar and replace.
- D. Remove excess mortar.
- E. Perform job site cutting with proper tools to provide straight unchipped edges. Take care to prevent breaking masonry unit corners or edges.
- F. Cut mortar joints of masonry units flush where resilient base is scheduled or bitumen dampproofing is applied.

3.04 CAVITY WALL

- A. Not used.

3.05 TOLERANCES

- A. Alignment of Columns: Maximum $\frac{1}{4}$ inch from true line.
- B. Variation from Unit to Adjacent Unit: $\frac{1}{32}$ inch maximum.
- C. Variation from Plane of Wall: $\frac{1}{4}$ inch in 10 feet and $\frac{1}{2}$ inch in 20 feet or more.
- D. Variation from Plumb: $\frac{1}{4}$ inch per story noncumulative; $\frac{1}{2}$ inch in two stories or more.
- E. Variation from Level Coursing: $\frac{1}{8}$ inch in 3 feet; $\frac{1}{4}$ inch in 10 feet; $\frac{1}{2}$ inch maximum.
- F. Variation of Joint Thickness: $\frac{1}{8}$ inch in 3 inches.
- G. Maximum Variation from Cross Sectional Thickness of Walls: Plus or minus $\frac{1}{4}$ inch.

3.06 REINFORCMENT AND ANCHORAGES

- A. Install horizontal joint reinforcement 16 inches oc, unless noted otherwise on the drawings.
- B. Place masonry joint reinforcement in first and second horizontal joints above and below openings. Extend 16 inches minimum each side of opening.
- C. Place joint reinforcement continuous in first and second joint below top of walls.
- D. Lap joint reinforcement ends minimum 6 inches. Extend 16 inches minimum each side of opening.
- E. Place reinforcing bars supported and secured against displacement. Maintain position within $\frac{1}{2}$ inch of true dimension.
- F. Verify that anchorages embedded in concrete members are properly placed. Embed anchorages in every second joint. Dovetail masonry anchors shall be hot dip galvanized and 1 inch X $\frac{3}{16}$ inch X required length.
- G. Embed wall ties in masonry back-up for veneer at maximum 16 inches oc vertically and 36 inches oc horizontally.
- H. For 8 inch walls, two deformed side rods, No. 5 or larger, truss rods No. 5 or larger. Hot dip galvanized after fabrication. Truss-mesh by Hohmann and Barnard, Inc., Dur-O-Wal, or Blok-Turs by AA Wire Products, Inc.

3.07 MASONRY FLASHINGS

- A. Not used.

3.08 LINTELS

- A. Construct lintels using grout fill and reinforcing specified. Place two No. 4 reinforcing bars 1 inch from bottom web, for openings up to 42 inches wide. Place 2 No. 5 reinforcing bars in same location for openings up to 78 inches wide. (Height of floor or roof above shall exceed opening width).
- B. Use reinforcing bars of one piece lengths only.
- C. Place and consolidate grout fill without disturbing reinforcing.
- D. Allow lintels to reach strength before removing temporary supports.

3.09 GROUTED COMPONENTS

- A. At bearing points, fill masonry cores with grout minimum 12 inches from opening.

3.10 CONTROL JOINTS

- A. Do not continue horizontal joint reinforcing across control joints.
- B. Form control joints by use of sheet building paper bond breaker one side fitted to hollow contour of block unit end. Fill created core with grout fill. Rake joint at exposed faces for road and sealant.
- C. Size joint in accordance with standard practices for sealant performance.

3.11 BUILT-IN WORK

- A. As work progresses, build-in aluminum door frames, fabricated aluminum frames, window frames, wood nailing strips, anchor bolts, and other items to be built in the work supplied by other sections.
- B. Build-in items plumb and level.
- C. Bed anchors of aluminum door and glazed frames in mortar joints. Fill frame voids solid with mortar. Fill masonry cores with grout minimum 12-inches from framed openings.
- D. Do not build-in organic materials subject to deterioration.

3.12 CUTTING AND FITTING

- A. Cutting of masonry shall be with a masonry saw and openings in walls for electrical boxes and other items to be cut no greater than 1.4 inch larger than the box or item. Cutting or chiseling of masonry units for installation of conduit shall be permitted. Conduit shall be installed as masonry work progresses.
- B. Obtain approval prior to cutting or fitting any area not indicated or where appearance of strength of masonry work may be impaired.

3.13 PARGING

- A. Parge masonry walls in two uniform coats of mortar. Maintain $\frac{3}{4}$ inch total thickness.
- B. Dampen masonry walls prior to application.
- C. Scarify base coat to ensure full bond to subsequent coat.
- D. Sponge trowel surface smooth and flat with a maximum surface variation of 1:100.

3.14 CLEANING

- A. Remove excess mortar and smears.
- B. Replace defective mortar. Match adjacent work.
- C. Clean soiled surfaces with a non-acidic solution which will not harm masonry or adjacent materials. Consult masonry manufacturer for acceptable cleaners.

3.15 PROTECTION

- A. Maintain protective boards at exposed external corners which may be damaged by construction activities.
- B. Provide protection without damaging completed work.
- C. At day's end cover unfinished walls to prevent moisture infiltration.

END OF SECTION

APPENDIX A:

Additional Requirements

Item No. 1 Utility Clear Letter

- AT&T
- City of Boca Raton
- City of Delray Beach
- Comcast
- Florida Power and Light
- Florida Public Utilities

Item No.1 Right-of-Way Clear Letter

Item No. 1 Permits



Garth Bedward
Sr. Specialist – OSP Design
Engineer
(Sr. Utility Coordinator for Palm
Beach County)

AT&T Florida
120 North K Street
Room 3D-05
Lake Worth, FL 33460

T: 561-540-9263
M: 561-329-5451
gb7410@att.com

September 9, 2024

Max Teddy, P.E.
Kimley-Horn
1920 Wekiva Way
Ste 200
West Palm Beach, FL. 33411

Re: ADJUSTMENT OF UTILITIES – STATE STATUTES CHAPTER 337.403

FIN PROJ ID: 441586-1-58-01
State Road No.: Lindell Blvd
FM No.: N/A
F.A.P. No.: N/A
County(s): Palm Beach
Description: Pathway Loop Connection

“No Conflict”

To Whom It May Concern:

Based on the plans, dated August 23, 2024, it appears that AT&T should have no conflict with this project. Please, call for facility locations prior to any excavation in the area. I would recommend that Sunshine One-Call of Florida be called to locate our facilities prior to digging. They can be reached at 811 or 800-432-4770.

Should you require additional information, please contact me at 561-540-9263.

All correspondence and coordination herein are with regards to BellSouth Telecommunications, LLC d/b/a AT&T Florida (ATT-D) which is not responsible for facilities owned and managed by AT&T Enterprises, LLC (ATT-T). Any questions with regards to ATT-T facilities should be addressed to Inquiries@pea-inc.net.

Cordially,

Garth Bedward
Sr Specialist-OSP Design Engineer
AT&T Utility Coordinator (Palm Beach County)



CITY OF Boca Raton

UTILITY SERVICES DEPARTMENT
1401 GLADES ROAD • BOCA RATON, FL 33431
PHONE (561) 338-7300 • FAX (561) 338-7345
www.myboca.us

Max Teddy
Kimely-Horn and Associates
1920 Wekiva Way, Suite 200
West Palm Beach, Florida 33411

January 4, 2024

PROJECT: Lindell Loop
From R/W to R/W
City of Delray Beach
Palm Beach County, Florida

I HAVE REVIEWED OUR IN-HOUSE RECORDS AND CONDUCTED A FIELD REVIEW OF THE ABOVE PROJECT. BASED ON THE CITY OF DELRAY BEACH PRELIMINARY CONSTRUCTION PLANS DATED **JANUARY 3, 2024**, I CERTIFY THAT **BOCA RATON UTILITY SERVICES DOES NOT HAVE** EXISTING FACILITIES LOCATED WITHIN THE ABOVE PROJECT LIMITS.

Jan 4, 2024

SIGNED

DATE

Talia Garcia, P.E.

PRINT NAME

Engineering Manager

TITLE

City of Delray Beach

Utility Certification Memorandum

DATE: 09/10/2024

TO: Kelvin Ellington, City of Delray Beach, Assistant Water/Sewer Manager

FROM: *Juan Palacio, City of Delray Beach, Project Manager*


CC: Ramon E. Alvarez, FDOT LAP Coordinator
Brandon Kern, P.E., Kimley-Horn and Associates Project Manager

SUBJECT: **City-Owned Utility Adjustments**
Agency: City of Delray Beach
LAP Project FM #: 441586-1-58-01
Description: Carl Bolter Dr from Avocet Rd to Lindell Blvd
Blue Jay Turn from Carl Bolter Dr to Lindell Blvd
Avocet Rd from Carl Bolter Dr to Lindell Blvd

During a utility coordination meeting on August 22, 2024, Kimley-Horn made the City of Delray Beach Utilities Department aware of the following adjustments to City of Delray Beach-owned utilities that will be required during construction of the subject project. The City of Delray Beach agrees to coordinate with the project's selected contractor and CEI for these adjustments and is willing to coordinate if any additional field adjustments are needed during construction.

CONFLICT #	STREET	BEGIN STATION	OFFSET (FT)	SIDE	CONFLICT WITH	DESCRIPTION	REMARKS
1	AVOCET RD	57+83	22	LT	CURB RAMP	WATER VALVE	RELOCATE
2	AVOCET RD	57+83	25	LT	CURB RAMP	FIRE HYDRANT	RELOCATE
3	AVOCET RD	60+57	16	LT	SHARED USE PATH	SANITARY STAND PIPE	RELOCATE TO OUTSIDE 2' CLEAR AREA
4	CARL BOLTER DR	4+94	26	RT	CURB RAMP	WATER VALVE	ADJUST TO GRADE
5	CARL BOLTER DR	10+77	17	LT	CURB	MANHOLE	ADJUST TO CURB
6	CARL BOLTER DR	10+86	35	RT	SHARED USE PATH	SANITARY CLEANOUT	ADJUST TO GRADE
7	CARL BOLTER DR	10+90	36	RT	SHARED USE PATH	WATER METER	ADJUST TO GRADE
8	BLUE JAY TURN	901+62	23	RT	SIDEWALK	SANITARY CLEANOUT	ADJUST TO GRADE

City of Delray Beach
Utility Certification Memorandum



Signed

Sep 16, 2024
Date

HASSAN HAWMIR
Print Name

Utilities Director
Title



West Palm Area / Florida Region
1401 Northpoint Park Way
West Palm Beach, FL 33407

September 12, 2024

RE: No Objection letter for Lindell Blvd loop connection Delray Beach
FM.: NO 441586-1-58-01

Please let this letter serve as notice that Comcast Cable Communications has
No Objection / No Conflict for Lindell loop FM.:NO 441586-1-58-01

Please call 1-800-432-4770, 811 or www.callsunshine.com before you dig.
Please contact my office if you require any additional information
concerning this matter

Sincerely,
Steven F. Rosa

Steven Rosa

Construction Specialist 2
Comcast Cable Communications.
Phone: 561-815-6634
Email: steven_rosa@cable.comcast.com

FLORIDA DEPARTMENT OF TRANSPORTATION
UTILITY WORK SCHEDULE

December 14, 2016

Pursuant to Section 337.403 F.S., the UAO and FDOT agree to the UAO's need for relocation or adjustment to its utilities and FDOT's need for a schedule for the UAO to effect the relocation or adjustment. This utility work schedule is based on FDOT plans dated in the project information box below. Any deviation by FDOT or its contractor from these plans, may void this utility work schedule. Upon notification by FDOT of a change to these plans, the UAO may negotiate a new utility work schedule. The UAO agrees to notify FDOT and the contractor in writing prior to starting, stopping, resuming, and completing work in accordance with this utility work schedule. The UAO shall obtain a utility permit and comply with requirements of the 2017 Utility Accommodation Manual (UAM) for all work done under this utility work schedule. The UAO is not responsible for events beyond the control of the UAO that could not be reasonably anticipated by the UAO and which could not be avoided by the UAO with exercise of due diligence at the time of the occurrence.

FDOT PROJECT INFORMATION

Financial Project ID: 441586-1-58-01	Federal Project ID: N/A
State Road Number: Lindell Blvd	County: Palm Beach
FDOT Plans Dated: 4/3/2024	District Document No.:

UTILITY AGENCY/OWNER (UAO)

Utility Company: Florida Power and Light		
UAO Project Rep: David Fuchs	Phone: 321-214-3814	E-mail: David.Fuchs@fpl.com
UAO Field Rep: David Fuchs	Phone: 321-214-3814	E-mail: David.Fuchs@fpl.com

UTILITY SIGNATURE

I have reviewed the FDOT plans referenced above and submit this utility work schedule in compliance with UAM Section 5 and agree to be bound by the terms of this utility work schedule.

UAO Rep. Byron Sample Date 9 / 12 / 2024
 Name Byron Sample
 Title Engineering Lead - Distribution Engineering

ENGINEER OF RECORD SIGNATURE

I attest this utility work schedule is compatible with the FDOT plans referenced above.

EOR. _____ Date ___ / ___ / ____
 Name _____
 Title _____

APPROVAL BY DISTRICT UTILITIES

This utility work schedule is complete and acceptable to FDOT.

FDOT Rep. _____ Date ___ / ___ / ____
 Name _____
 Title _____

SECTION A: SUMMARY OF UTILITY WORK

The below days are the total numbers of days shown for all activities in Section C of this utility work schedule. The breakdown of how these days are to be incorporated into the FDOT project and the dependence of these days upon the completion of other activities by the UAO or others is shown in Section C.

Days prior to FDOT project construction: 0 Days during FDOT project construction: 0

Financial Project ID: 441586-1-58-01
Utility Company: Florida Power and Light
FDOT Plans Dated: 4/3/2024

SECTION B: UAO SPECIAL CONDITIONS/CONSTRAINTS

- 1) FPL IS A MEMBER OF SUNSHINE STATE ONE CALL OF FLORIDA. LOCATES SHALL BE PROVIDED UPON NOTIFICATION FROM SUNSHINE ONE CALL WITH A LOCATE TICKET NUMBER.
- 2) FDOT's CONTRACTOR MUST MAINTAIN CLEARANCES, AS REQUIRED BY OSHA, WHEN WORKING IN THE PROXIMITY OF FPL's HIGH-VOLTAGE TRANSMISSION CONDUCTORS & LOW VOLTAGE DISTRIBUTION CONDUCTORS. OVERHEAD ELECTRICAL FACILITIES TO REMAIN ENERGIZED AND IN PLACE DURING CONSTRUCTION. TABLE A MINIMUM CLEARANCE DISTANCES SPECIFIED IN SUBPART CC OF OSHA RULE 1926 (AS THEY PERTAIN TO CRANE/DERRICK OPERATIONS), AND/OR THOSE MINIMUM DISTANCES SPECIFIED IN 29 CFR 1910.333 (C) (3) (i)(A) AND (iii)(A) FOR WORK IN PROXIMITY TO POWER LINES NOT COVERED BY THIS SUBPART CC, MUST BE MAINTAINED."
- 3) THE ROADWAY CONTRACTOR MUST MAINTAIN OR ENABLE ACCESS TO ALL FPL FACILITIES AT ALL TIMES DURING CONSTRUCTION, AND PROVIDE PROPER TRAFFIC CONTROL AROUND FPL FACILITIES DURING CONSTRUCTION. IF ANY TRAFFIC CONTROL AND/OR TRAFFIC RE-ROUTING IS REQUIRED FOR THE ROAD CONSTRUCTION, PROPER ACTION MUST BE TAKEN BY THE FDOT ROAD CONSTRUCTION CONTRACTOR TO PROTECT IN PLACE EXISTING FPL TRANSMISSION/DISTRIBUTION FACILITIES.
- 4) WHEN EXCAVATING IN THE VICINITY OF FPL FACILITIES (POLES, ANCHORS, UNDERGROUND CABLES/CONDUITS, ETC.), THE FDOT CONTRACTOR SHOULD EMPLOY THE CONSTRUCTION TECHNIQUES NECESSARY TO PROTECT FPL FACILITIES IN PLACE FROM DAMAGE OR DISPLACEMENT

FLORIDA DEPARTMENT OF TRANSPORTATION
UTILITY WORK SCHEDULE

Financial Project ID: 441586-1-58-01
 Utility Company: Florida Power and Light
 FDOT Plans Dated: 4/3/2024

SECTION C: UAO's WORK ACTIVITIES

Act. No.	Utility Facility (type, size, material, status)	From Station/Offset	To Station/Offset	Utility Work Activity Description	Dependent Activity	TCP Phase	Consecutive Calendar Days	
							Prior to Const.	During Const.
1	OE 23KV facilities	STA 1+80.33 (Carl Bolter Dr)	STA 12+29.36 (Carl Bolter Dr)	All Distribution Poles lines and attachments lines (23KV and below) within the boundaries of this project are to remain in place & energized.	N/A	N/A	0	0
2	BE 23KV facilities	STA 1+80.33 (Carl Bolter Dr)	STA 12+29.36 (Carl Bolter Dr)	All Distribution Buried lines (23KV and below) within the boundaries of this project are to remain in place & energized.	N/A	N/A	0	0
3	OE 23KV facilities	STA 52+58.40 (Avocet Rd)	STA 62+38.59 (Avocet Rd)	All Distribution Poles lines and attachments lines (23KV and below) within the boundaries of this project are to remain in place & energized	N/A	N/A	0	0
4	BE 23KV facilities	STA 52+58.40 (Avocet Rd)	STA 62+38.59 (Avocet Rd)	All Distribution Buried lines (23KV and below) within the boundaries of this project are to remain in place & energized.	N/A	N/A	0	0
5	OE 23KV facilities	STA 900+47.00 (Blue Jay Turn)	STA 903+21.82 (Blue Jay Turn)	All Distribution Poles lines and attachments lines (23KV and below) within the boundaries of this project are to remain in place & energized	N/A	N/A	0	0
6	BE 23KV facilities	STA 900+47.00 (Blue Jay Turn)	STA 903+21.82 (Blue Jay Turn)	All Distribution Buried lines (23KV and below) within the boundaries of this project are to remain in place & energized.	N/A	N/A	0	0

Kern, Brandon

From: Bono, Peter <pbono@chpk.com>
Sent: Thursday, August 22, 2024 10:49 AM
To: Teddy, Max
Cc: ENGINEERING - WPB
Subject: RE: Lindell Loop Utility Conflict Matrix and Plans

Florida Public Utilities has no conflicts within in your project for the Lindell Loop.

Thank you and have a good day,



Peter Bono
Engineering Technician
Engineering Department
Florida Public Utilities
P.O. Box 3395, West Palm Beach FL 33402-3395
Engineering-wpb@fpuc.com
561-838-1841

From: Teddy, Max <Max.Teddy@kimley-horn.com>
Sent: Thursday, August 22, 2024 9:08 AM
To: Palacio, Juan <palacioj@mydelraybeach.com>; Ellington, Kelvin <EllingtonK@mydelraybeach.com>; rezkm@mydelraybeach.com; David Fuchs (david.fuchs@fpl.com) <david.fuchs@fpl.com>; robert.weese@fpl.com; steven_rosa@comcast.com; Van-Leeuwen Fernando <fvanleeuwen@chpk.com>; Bono, Peter <pbono@chpk.com>; Garth Bedward (gb7410@att.com) <gb7410@att.com>; Kaufman, Jason <Kaufmanj@mydelraybeach.com>; Van-Leeuwen Fernando <fvanleeuwen@chpk.com>
Cc: Regueiro, Eric <eric.regueiro@kimley-horn.com>; Kern, Brandon <Brandon.Kern@kimley-horn.com>
Subject: [EXTERNAL] Lindell Loop Utility Conflict Matrix and Plans

This Message Is From an External Sender

This message came from outside your organization.

Good morning everyone,

I am looking forward to this morning's meeting regarding the Lindell Loop Connector project. I have attached here the updated utility conflict matrix and the latest roadway plans for your review.

Thank you,

Max

Max Teddy, P.E.
Kimley-Horn | 1920 Wekiva Way, Ste 200, West Palm Beach, FL. 33411
Direct: 561-593-0403

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R/W ITEM/SEGMENT NO.: _____ MANAGING DISTRICT: D-4
CONSTRUCTION ITEM/SEGMENT NO.: 441586-1-58-01 STATE ROAD: N/A Off-System
F.A.P. NO. (Construction): D423-052-B DESCRIPTION: Lindell Boulevard Loop Connector
COUNTY: Palm Beach
LETTING DATE: 06/2025

The undersigned hereby certifies as follows:

Title to all property and easements needed for the above construction project is vested in the Florida Department of Transportation (Department) or a state or local government. The Department or a state or local government has obtained sufficient authority to construct and maintain the proposed improvements on property and easements owned by state or local governments. Further:

Acquisition

- Right of way was not acquired for this project.
- Right of way was acquired for this project in compliance with applicable state and federal law.

Relocation

- No persons or businesses were required to move or move personal property from the project right of way.
- All persons and businesses that were required to move or move personal property from the project right of way have been provided relocation assistance in compliance with applicable state and federal law.

Demolition

- No structures or improvements, including encroachments, required removal from the project right of way.
- All structures and/or improvements, including encroachments, have been removed from the project right of way in compliance with applicable state and federal law, or will be included in the construction contract.

Asbestos Abatement

- No structures or improvements requiring asbestos abatement were located on the project right of way.
- Asbestos abatement of buildings and/or structures, including those to be removed by the construction contractor, has been completed in compliance with applicable state and federal law, or will be included in the construction contract.

Certified by Local Agency: _____
Title: Engineering Division Manager, Agency Responsible Charge Date: 9/17/2024

Acknowledged by: _____
Title: _____ Date: _____



SOUTH FLORIDA WATER MANAGEMENT DISTRICT

September 3, 2024

** Delivered via email*

Missie Barletto *
City Of Delray Beach
434 S Swinton Ave
Delray Beach, FL 33444

Subject: Exemption for Lindell Blvd. Loop Connection
Application No. 240805-45039
Exemption No. 50-111416-P
Palm Beach County

Dear Ms. Barletto:

The South Florida Water Management District (District) reviewed the information submitted for a proposed pedestrian safety enhancement and has determined that the proposed project is exempt from the requirement to obtain an Environmental Resource Permit, pursuant to Florida rule 62-330.051 Florida Administrative Code.

The project is proposing enhancement of pedestrian safety to comply with the American with Disabilities Act (ADA) by adding 10.0-foot wide shared use paths and 5.0-foot wide sidewalks, for a total of 0.23 acres of additional impervious area. The proposed enhancement includes milling and resurfacing of the existing travel lanes. No wetlands exist within the project area. The project proposes adding inlets, closed exfiltration systems, and pollution control structure with a weir to the drainage system. The project is located along Carl Bolter Dr. from Avocet Rd. to Lindell Blvd., Blue Jay Turn from Carl Bolter Dr. to Lindell Blvd., and Avocet Rd. from Carl Bolter Dr. to Lindell Blvd. in Delray Beach, Broward County. Refer to Exhibit Nos. 1.0 and 2.0 for a location map and construction plans, respectively.

Activities that qualify for this exemption must be conducted and operated using appropriate best management practices and in a manner which does not cause or contribute to a water quality violation. Pursuant to Chapters 62-302 or 62-4, Florida Administrative Code.

This letter does not relieve you from the responsibility of obtaining other permits (federal, state or local) which may be required for the project.

The determination that this project qualifies as an exempt activity may be revoked if the installation is substantially modified, if the basis of the exemption is determined to be materially incorrect, or if the installation results in violation to state water quality standards. Any changes made in the construction plans or location of the project may necessitate a permit from the District. Therefore you are advised to contact the District before beginning any work in wetlands which is not specifically described in the submittal.

The notice of determination that the project qualifies as an exempt activity constitutes final agency action by the District unless a petition for administrative hearing is filed. Upon timely filing of a petition, this Notice will not be effective until further Order of the District. If you have any questions concerning this matter, please contact Shari Tellman, Environmental Analyst 2 at (561) 682-6109 or stellman@sfwmd.gov, and Mehrnoosh Mahmoudi, P.E., Lead Engineer at 561-682-2728 or mmahmoud@sfwmd.gov.

Sincerely,



Jesse Markle, P.E.
Chief, Environmental Resource Bureau

c: David Teddy, Kimley-horn *

Exhibits

The following exhibits to this permit are incorporated by reference. The exhibits can be viewed by clicking on the links below or by visiting the District's ePermitting website (<http://my.sfwmd.gov/ePermitting>) and searching under this application number 240805-45039.

[Exhibit No. 1.0 Location Map](#)

[Exhibit No. 2.0 Construction Plan](#)

NOTICE OF RIGHTS

As required by Chapter 120, Florida Statutes, the following provides notice of the opportunities which may be available for administrative hearing pursuant to Sections 120.569 and 120.57, Florida Statutes, or judicial review pursuant to Section 120.68, Florida Statutes, when the substantial interests of a party are determined by an agency. Please note that this Notice of Rights is not intended to provide legal advice. Some of the legal proceedings detailed below may not be applicable or appropriate for your situation. You may wish to consult an attorney regarding your legal rights.

RIGHT TO REQUEST ADMINISTRATIVE HEARING

A person whose substantial interests are or may be affected by the South Florida Water Management District's (District) action has the right to request an administrative hearing on that action pursuant to Sections 120.569 and 120.57, Florida Statutes. Persons seeking a hearing on a District decision which affects or may affect their substantial interests shall file a petition for hearing in accordance with the filing instructions set forth herein within 21 days of receipt of written notice of the decision unless one of the following shorter time periods apply: (1) within 14 days of the notice of consolidated intent to grant or deny concurrently reviewed applications for environmental resource permits and use of sovereign submerged lands pursuant to Section 373.427, Florida Statutes; or (2) within 14 days of service of an Administrative Order pursuant to Section 373.119(1), Florida Statutes. "Receipt of written notice of agency decision" means receipt of written notice through mail, electronic mail, posting, or publication that the District has taken or intends to take final agency action. Any person who receives written notice of a District decision and fails to file a written request for hearing within the timeframe described above waives the right to request a hearing on that decision.

If the District takes final agency action that materially differs from the noticed intended agency decision, persons who may be substantially affected shall, unless otherwise provided by law, have an additional point of entry pursuant to Rule 28-106.111, Florida Administrative Code.

Any person to whom an emergency order is directed pursuant to Section 373.119(2), Florida Statutes, shall comply therewith immediately, but on petition to the board shall be afforded a hearing as soon as possible.

A person may file a request for an extension of time for filing a petition. The District may grant the request for good cause. Requests for extension of time must be filed with the District prior to the deadline for filing a petition for hearing. Such requests for extension shall contain a certificate that the moving party has consulted with all other parties concerning the extension and whether the District and any other parties agree to or oppose the extension. A timely request for an extension of time shall toll the running of the time period for filing a petition until the request is acted upon.

FILING INSTRUCTIONS

A petition for administrative hearing must be filed with the Office of the District Clerk. Filings with the Office of the District Clerk may be made by mail, hand-delivery, or e-mail. Filings by facsimile will not be accepted. A petition for administrative hearing or other document is deemed filed upon receipt during normal business hours by the Office of the District Clerk at the District's headquarters in West Palm Beach, Florida. The District's normal business hours are 8:00 a.m. – 5:00 p.m., excluding weekends and District holidays. Any document received by the Office of the District Clerk after 5:00 p.m. shall be deemed filed as of 8:00 a.m. on the next regular business day.

Additional filing instructions are as follows:

- Filings by mail must be addressed to the Office of the District Clerk, 3301 Gun Club Road, West Palm Beach, Florida 33406.
- Filings by hand-delivery must be delivered to the Office of the District Clerk. Delivery of a

petition to the District's security desk does not constitute filing. It will be necessary to request that the District's security officer contact the Office of the District Clerk. An employee of the District's Clerk's office will receive and process the petition.

- Filings by e-mail must be transmitted to the Office of the District Clerk at clerk@sfwmd.gov. The filing date for a document transmitted by electronic mail shall be the date the Office of the District Clerk receives the complete document.

INITIATION OF ADMINISTRATIVE HEARING

Pursuant to Sections 120.54(5)(b)4. and 120.569(2)(c), Florida Statutes, and Rules 28-106.201 and 28-106.301, Florida Administrative Code, initiation of an administrative hearing shall be made by written petition to the District in legible form and on 8 1/2 by 11 inch white paper. All petitions shall contain:

1. Identification of the action being contested, including the permit number, application number, District file number or any other District identification number, if known.
2. The name, address, any email address, any facsimile number, and telephone number of the petitioner, petitioner's attorney or qualified representative, if any.
3. An explanation of how the petitioner's substantial interests will be affected by the agency determination.
4. A statement of when and how the petitioner received notice of the District's decision.
5. A statement of all disputed issues of material fact. If there are none, the petition must so indicate.
6. A concise statement of the ultimate facts alleged, including the specific facts the petitioner contends warrant reversal or modification of the District's proposed action.
7. A statement of the specific rules or statutes the petitioner contends require reversal or modification of the District's proposed action.
8. If disputed issues of material fact exist, the statement must also include an explanation of how the alleged facts relate to the specific rules or statutes.
9. A statement of the relief sought by the petitioner, stating precisely the action the petitioner wishes the District to take with respect to the District's proposed action.

MEDIATION

The procedures for pursuing mediation are set forth in Section 120.573, Florida Statutes, and Rules 28-106.111 and 28-106.401–.405, Florida Administrative Code. The District is not proposing mediation for this agency action under Section 120.573, Florida Statutes, at this time.

RIGHT TO SEEK JUDICIAL REVIEW

Pursuant to Section 120.68, Florida Statutes, and in accordance with Florida Rule of Appellate Procedure 9.110, a party who is adversely affected by final District action may seek judicial review of the District's final decision by filing a notice of appeal with the Office of the District Clerk in accordance with the filing instructions set forth herein within 30 days of rendition of the order to be reviewed, and by filing a copy of the notice with the appropriate district court of appeals via the Florida Courts E-Filing Portal.

Teddy, Max

From: Hardman, Henry J <Henry.Hardman@flhealth.gov>
Sent: Tuesday, October 15, 2024 10:29 AM
To: Teddy, Max
Cc: Kern, Brandon; Santore, Sal; Jensen, Tom
Subject: RE: FDOT FM #441586-1-58-01 Lindell Loop - City of Delray Beach - DOH Permit Exemption

Max, this would be exempt from DEP permitting per FAC 62-604 *Replacement of any facilities with new facilities of the same capacity at the same location as the facilities being replaced*

Thanks,

Jay Hardman, P.E.
Plan Review Manager
FDOH-PBC
800 Clematis Street
West Palm Beach, FL 33402
(561) 837-5958

From: Teddy, Max <Max.Teddy@kimley-horn.com>
Sent: Tuesday, October 15, 2024 10:18 AM
To: Hardman, Henry J <Henry.Hardman@flhealth.gov>
Cc: Kern, Brandon <Brandon.Kern@kimley-horn.com>
Subject: FDOT FM #441586-1-58-01 Lindell Loop - City of Delray Beach - DOH Permit Exemption

You don't often get email from max.teddy@kimley-horn.com. [Learn why this is important](#)

EXTERNAL EMAIL: DO NOT CLICK links or open attachments unless you recognize the sender and know the content is safe.

Good morning Jay,

My name is Max Teddy and I am a Civil Engineer with Kimley-Horn's West Palm Beach office. I am reaching out today regarding a project called Lindell Loop that you spoke about with my colleague, Sal Santore, yesterday.

I wanted to confirm that this project qualifies for an exemption from a Palm Beach County DOH Permit.

The project is jointly funded by FDOT and the City of Delray Beach. The main scope of the project includes minor roadway, drainage, and pedestrian improvements.

The scope also includes the sanitary sewer items below. The sanitary sewer runs are all along Carl Bolter Dr.

- Lining four runs of existing 8" VCP gravity sewer with CIPP
- Rehabilitating the 5 existing sanitary manholes that connect these pipe runs

Please find attached the plan sheets associated with the sewer work. Feel free to let me know if you have any questions.

Thank you!

Max

Max Teddy, P.E.

Kimley-Horn | 1920 Wekiva Way, Ste 200, West Palm Beach, FL. 33411

Direct: 561-593-0403

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CONTRACT PLAN COMPONENTS
 ROADWAY PLANS
 SIGNING & PAVEMENT MARKING PLANS
 STORMWATER POLLUTION PREVENTION PLANS
 WATER & SEWER UTILITIES PLANS

INDEX OF ROADWAY PLANS

SHEET NO.	SHEET DESCRIPTION
C-100	KEY SHEET
C-101	SIGNATURE SHEET
C-102 TO 103	SUMMARY OF PAY ITEMS
C-104 TO 105	TYPICAL SECTION
C-106	CURVE DATA
C-107 TO 108	GENERAL NOTES
C-200 TO 204	ROADWAY PLAN
C-205 TO 209	ROADWAY PROFILE
C-210 TO 214	INTERSECTION LAYOUT
C-215	DRAINAGE DETAILS
C-216 TO 225	CITY OF DELRAY BEACH STANDARD DETAILS
C-500	TEMPORARY TRAFFIC GENERAL NOTES
C-501	TEMPORARY TRAFFIC TYPICAL SECTIONS
C-600	VERIFIED UTILITY LOCATES SHEET

INDEX OF SIGNING & PAVEMENT MARKING PLANS

SHEET NO.	SHEET DESCRIPTION
C-300 TO 304	SIGNING AND PAVEMENT MARKING PLAN

INDEX OF STORMWATER POLLUTION PREVENTION PLANS

SHEET NO.	SHEET DESCRIPTION
C-400 TO 404	STORMWATER POLLUTION PREVENTION PLAN

INDEX OF WATER & SEWER UTILITIES PLANS

SHEET NO.	SHEET DESCRIPTION
U-101 TO 103	SANITARY SEWER LINING PLAN

*THESE SHEETS ARE INCLUDED IN THE INDEX OF ROADWAY PLANS ONLY TO INDICATE THAT THEY ARE PART OF THE ROADWAY PLANS. THESE SHEETS ARE CONTAINED IN A SEPARATE DIGITALLY SIGNED AND SEALED DOCUMENT.

*SURVEY HORIZONTAL CONTROL PLAN

GOVERNING DESIGN STANDARDS:
 City of Delray Beach Roadway and Traffic Standards Details dated September 2021.

Manual on Uniform Minimum Standards for Design, Construction and Maintenance for Streets and Highways ("Florida Greenbook") dated 2018.

Florida Department of Transportation, FY 2024-25 Standard plans for Roadway and Bridge Construction and applicable Interim Revisions (IRs).

Standard Plans for Roadway Construction and associated IRs are available at the following website: <http://www.fdot.gov/design/standardplans>

SPECIFICATION STANDARDS:
 City of Delray Beach Specifications

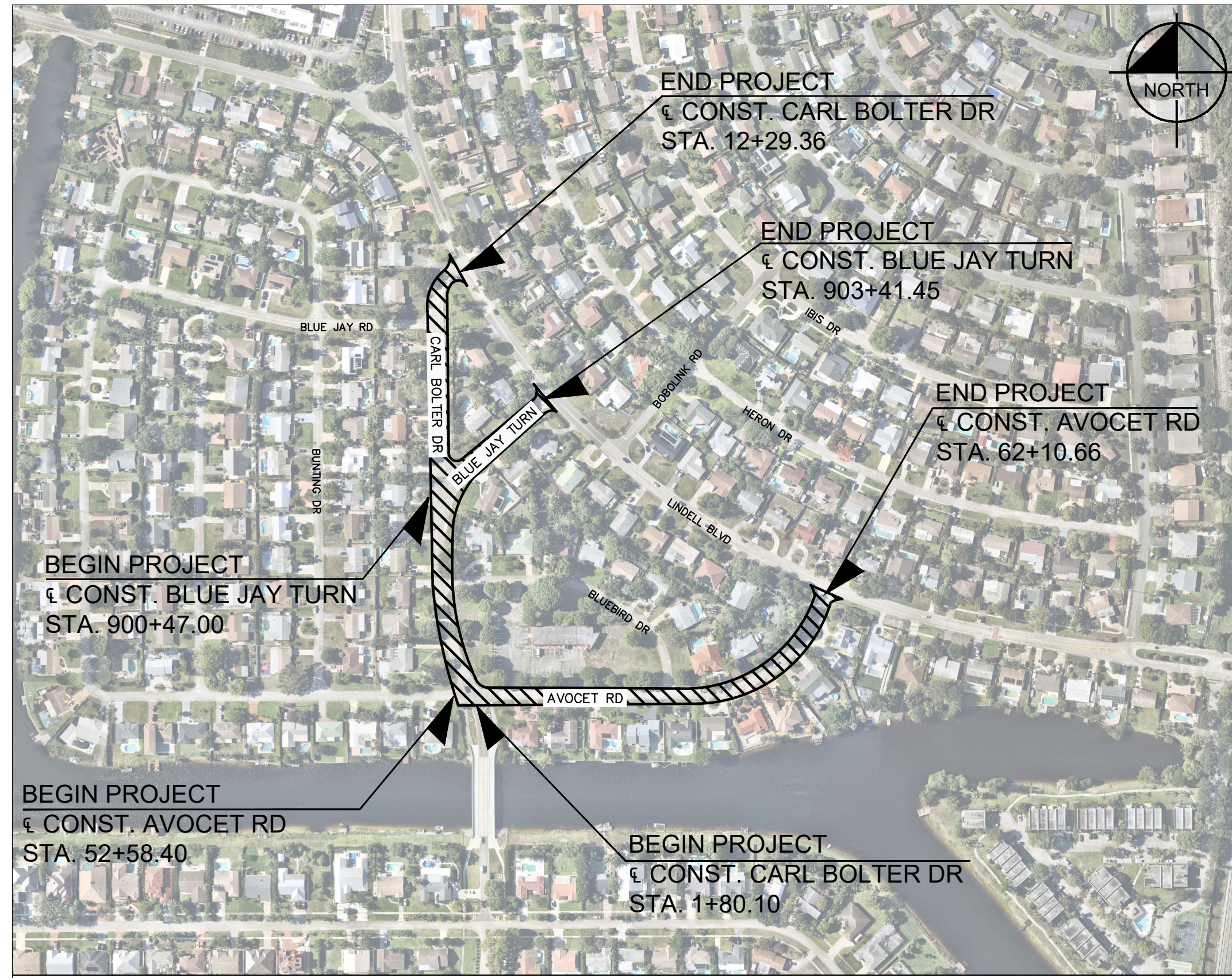
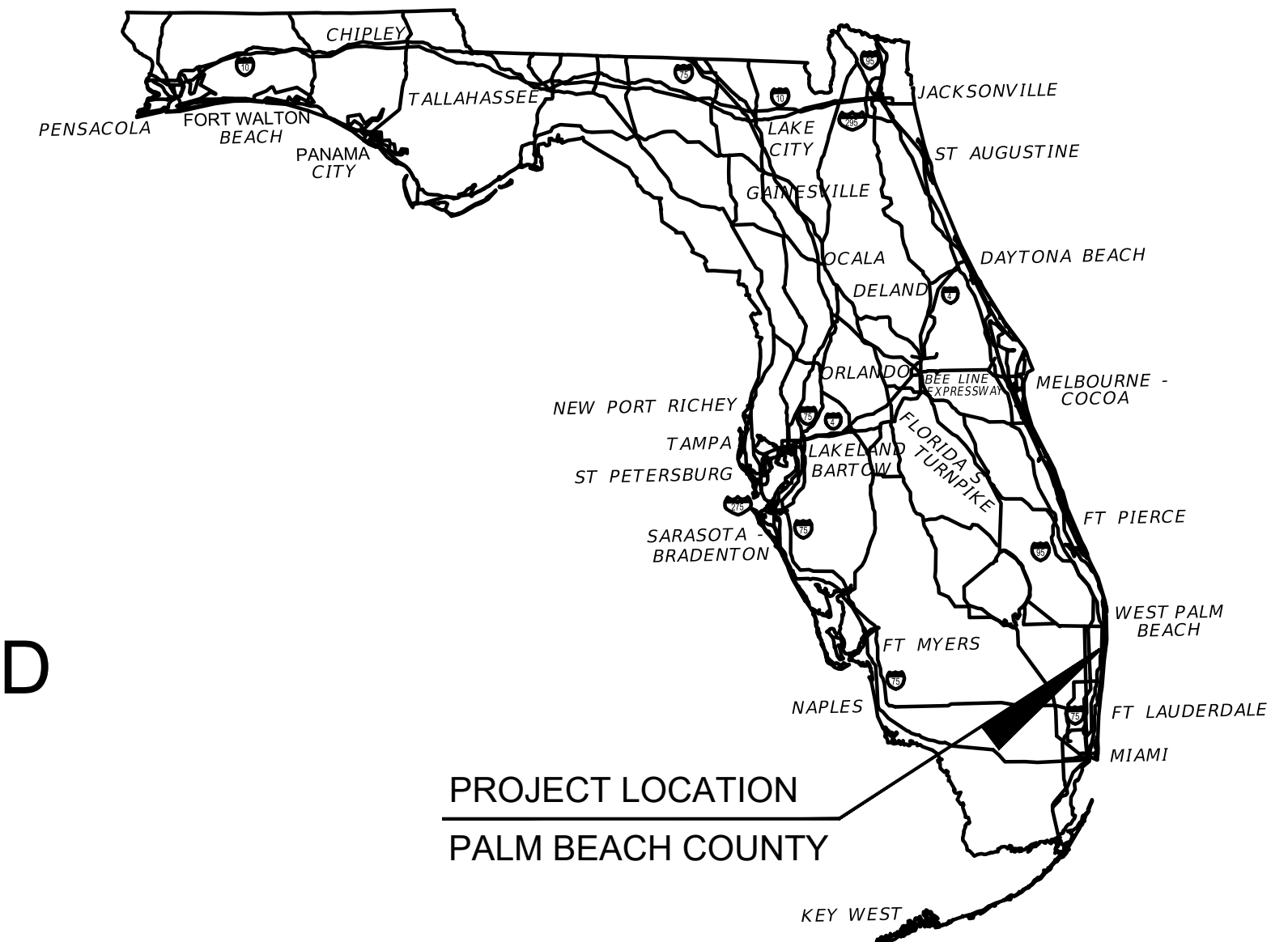
City of Delray Beach Minimum Construction Standards and Specifications-2021

Florida Department of Transportation, FY 2024-25 Standard Specifications for Roadway and Bridge Construction at the following website: <http://www.fdot.gov/programmanagement/implemented/SpecBooks>

CITY OF DELRAY BEACH BRANT BRIDGE CONNECTOR DELRAY BEACH, FLORIDA

AVOCET RD FROM CARL BOLTER DR TO LINDELL BLVD, CARL BOLTER DR FROM AVOCET RD TO LINDELL BLVD, AND BLUE JAY TURN FROM CARL BOLTER DR TO LINDELL BLVD

CITY OF DELRAY BEACH PROJECT NO. 20-015 LAP PROJECT FM NO.: 441586-1-58-01 FEDERAL FUNDS



LOCATION MAP
 SCALE: 1" = 500'

LEGEND
 PROJECT LOCATION

CITY OFFICIALS

MAYOR	TOM CARNEY
VICE-MAYOR	JULI CASALE
DEPUTY VICE-MAYOR	ROB LONG
COMMISSIONER	ANGELA BURNS
COMMISSIONER	TOM MARKERT

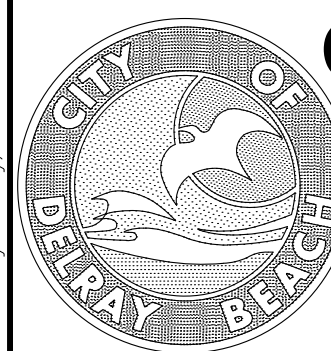
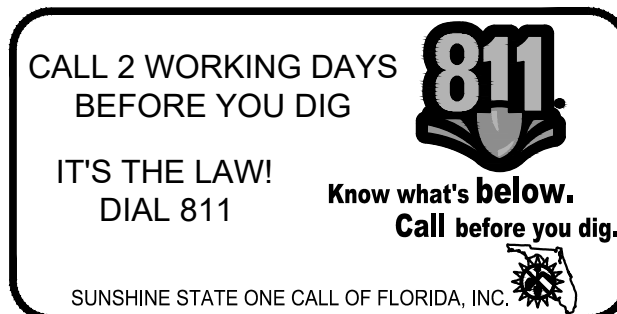
PROJECT TEAM

OWNER
 CITY OF DELRAY BEACH
 SWINTON OPERATIONS CENTER
 434 SOUTH SWINTON AVE
 DELRAY BEACH, FL 33444
 PHONE: (561) 243-6212
 CONTACT: JUAN PALACIO

SURVEYOR
 CRAIG A. SMITH & ASSOCIATES
 1425 E NEWPORT CENTER DR
 DEERFIELD BEACH, FL 33442
 PHONE: (561) 314-4445
 CONTACT: ROBERT D. KEENER, P.S.M.

CIVIL ENGINEER
 KIMLEY-HORN AND ASSOCIATES, INC.
 1920 WEKIVA WAY, SUITE 200
 WEST PALM BEACH, FL 33411
 PHONE: (561) 840-0214
 CONTACT: ERIC REGUEIRO, P.E.

GEOTECH
 TSFGEO
 2765 VISTA PARKWAY, SUITE 10
 WEST PALM BEACH, FL 33411
 PHONE: (561) 687-8536
 CONTACT: ESVAARD JANVIER



CITY OF DELRAY BEACH
 SWINTON OPERATIONS CENTER
 434 SOUTH SWINTON AVENUE,
 DELRAY BEACH, FL 33444
 PHONE: (561) 243 7322 FAX: (561) 243 7314
 www.mydelraybeach.com

Kimley»Horn
 REGISTRY NO. 35106
 ERIC REGUEIRO, P.E.
 P.E. LICENSE NO. 86211
 1920 WEKIVA WAY SUITE 200, WEST PALM BEACH, FL 33411
 WWW.KIMLEY-HORN.COM

KH PROJECT #
 044300089
 FM #
 441586-1-58-01
 SCALE AS SHOWN
 DESIGNED BY BK
 DRAWN BY MT
 CHECKED BY ER

BRANT BRIDGE CONNECTOR
 PREPARED FOR
CITY OF DELRAY BEACH

CITY OF DELRAY BEACH

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 ERIC REGUEIRO, P.E.
 FL LICENSE NUMBER
 86211
 FL DATE: 09/17/2024

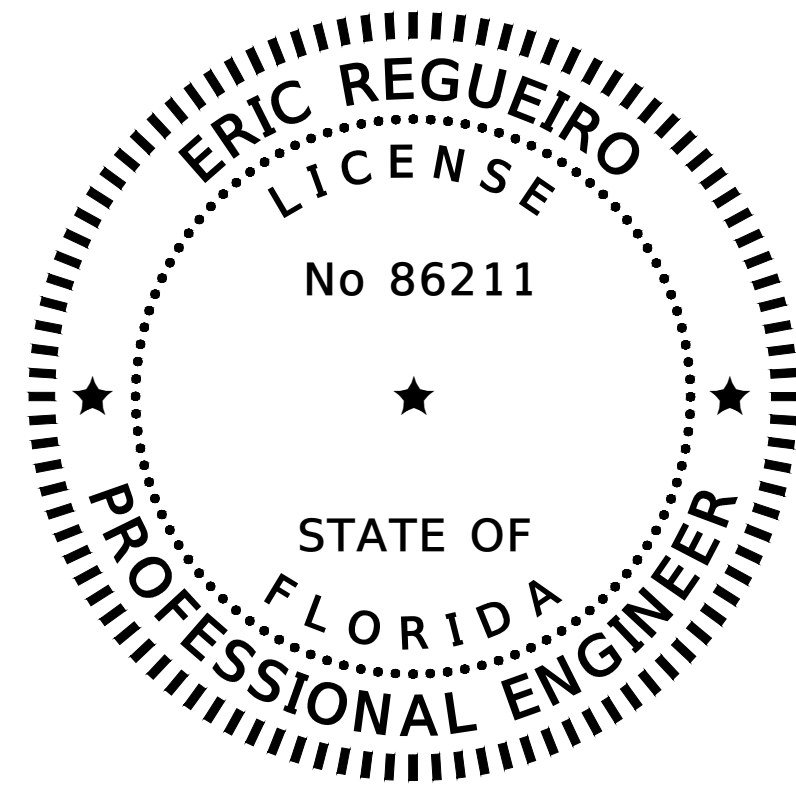
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KEY SHEET

PROJECT NUMBER
 20-015
 SHEET NUMBER
C-100
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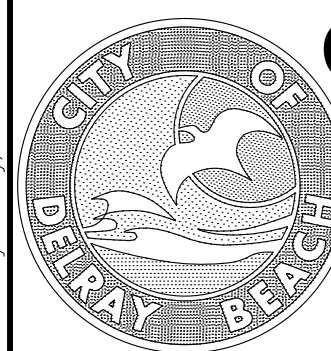
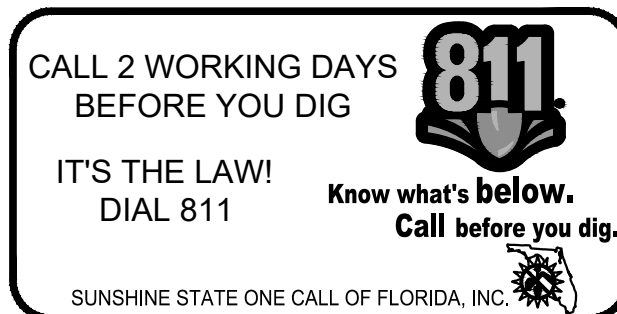
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 1920 WEKIVA WAY SUITE 200
 WEST PALM BEACH, FL 33411
 ERIC REGUEIRO, P.E. NO. 86211

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SHEET LIST TABLE	
SHEET NUMBER	SHEET TITLE
C-100	KEY SHEET
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C-106	CURVE DATA
C-107 TO 108	GENERAL NOTES
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C-205 TO 209	ROADWAY PROFILE
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ROADWAY			
PAY ITEM	DESCRIPTION	UNIT	QUANTITY
0101 1	MOBILIZATION	LS	1
0102 1	MAINTENANCE OF TRAFFIC	LS	1
0104 10 3	SEDIMENT BARRIER	LF	3254
0104 18	INLET PROTECTION SYSTEM	EA	16
0108 2	MONITOR EXISTING STRUCTURES - VIBRATION MONITORING	LS	1
0110 1 1	CLEARING AND GRUBBING	AC	1.07
0110 4 10	REMOVAL OF EXISTING CONCRETE	SY	249
0110 7 1	MAILBOX F&I SINGLE	EA	26
0120 1	REGULAR EXCAVATION	CY	368.1
0120 6	EMBANKMENT	CY	317.7
0160 4	TYPE B STABILIZATION (12")	SY	283
0285 7 06	OPTIONAL BASE GROUP 6	SY	283
0327 70 1	MILLING EXISTING ASPHALT PAVEMENT, 1" AVG DEPTH	SY	5266
0334 1 53	SUPERPAVE ASPHALTIC CONCRETE, TRAFFIC C, PG76-22	TN	532.0
0425 1 201A-1	INLETS, CURB, TYPE F, C BOTTOM, <10'	EA	2
0425 1 201A-2	INLETS, CURB, TYPE F, 4' DIA, <10'	EA	1
0425 1 203A	INLETS, CURB, TYPE F, 5' DIA, <10'	EA	1
0425 1 521A-1	INLETS, DITCH BOTTOM, TYPE C, 4' DIA, <10'	EA	5
0425 1 521A-2	INLETS, DITCH BOTTOM, TYPE C W/APRON, 4' DIA, <10'	EA	1
0425 1 529A	INLETS, DITCH BOTTOM, TYPE C, MODIFY	EA	1
0425 1 551A	INLETS, DITCH BOTTOM, TYPE E W/APRON, <10'	EA	1
0425 2 41	MANHOLES, P=7, <10'	EA	1
0425 5 1	MANHOLE, ADJUST, UTILITIES	EA	1
0425 6	VALVE BOXES, ADJUST	EA	4
0425 6 1	METER BOXES, ADJUST	EA	1
0430 175 118	PIPE CULVERT, OPTIONAL MATERIAL, ROUND, 18" S/CD	LF	211
0430 175 130	PIPE CULVERT, OPTIONAL MATERIAL, ROUND, 30" S/CD	LF	4
0430 830	PIPE FILLING AND PLUGGING - PLACE OUT OF SERVICE	CY	3.0
0443 70 3	FRENCH DRAIN, 18"	LF	461
0520 1 10	CONCRETE CURB & GUTTER, TYPE F	LF	590
0520 2 4	CONCRETE CURB, TYPE D	LF	314
0520 2 10A	CONCRETE CURB, HEADER CURB	LF	176
0522 1	CONCRETE SIDEWALK AND DRIVEWAYS, 4" THICK	SY	104
0522 2	CONCRETE SIDEWALK AND DRIVEWAYS, 6" THICK	SY	2672
0526 1 1	PAVERS, ARCHITECTURAL, ROADWAY	SY	35
0526 1101	PAVERS, ARCHITECTURAL, REMOVE EXISTING AND REINSTALL	SY	15
0527 2	DETECTABLE WARNINGS	SF	233
0570 1130	PERFORMANCE TURF, SODDING, ST AUGUSTINE FLORATAM	SY	2172
0570 1 2	PERFORMANCE TURF, SODDING, BAHIA	SY	1930
0630 2 11	CONDUIT, FURNISH & INSTALL, OPEN TRENCH	LF	1065
0630 2 12	CONDUIT, FURNISH & INSTALL, DIRECTIONAL BORE	LF	536
0635 2 12	PULL & SPLICE BOX, F&I, 24" X 36" COVER SIZE	EA	3
0635 2 14	PULL & SPLICE BOX F&I, 17" X 30" COVER SIZE	EA	18
1644 800	FIRE HYDRANT, RELOCATE	EA	1
RD-1	UTILITY ALLOWANCE	ALLOWANCE	1
RD-2	VIDEO ALLOWANCE	ALLOWANCE	1
RD-3	IRRIGATION SYSTEMS MODIFICATIONS	ALLOWANCE	1
RD-4	LANDSCAPING	ALLOWANCE	1
RD-5	ROOT BARRIER	ALLOWANCE	1
RD-6	AS-BUILT DRAWINGS	ALLOWANCE	1
SS-1	SANITARY SEWER LINING	LF	1110
SS-2	SANITARY SEWER LINING - REPAIRS	ALLOWANCE	1
SS-3	MANHOLE REHABILITATION	EA	5

PAY ITEM FOOTNOTES

0101-1
INCLUDES COST OF STAKING ROW LINE PRIOR TO BEGINNING CONSTRUCTION BY THE CONTRACTOR.

0102-1
INCLUDES ALL ITEMS AND COSTS NECESSARY TO MEET THE REQUIREMENTS OF THE CONTRACT DOCUMENTS AND PROVIDE ALL TRAFFIC CONTROL NEEDS THROUGHOUT ALL PHASES OF THE PROJECT AND CONFORM TO THE LATEST FDOT SPECIFICATIONS. FDOT ROADWAY AND TRAFFIC DESIGN STANDARD PLANS INDICES DRAWINGS, AND MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES. THERE ARE NO OTHER SEPARATE PAY ITEMS FOR TRAFFIC CONTROL. THIS PAY ITEM SHALL ALSO INCLUDE ALL COSTS FOR TEMPORARY SIGNING AND PAVEMENT MARKINGS (THERMOPLASTIC AND PAINT), WORK ZONE SIGNS, BUSINESS SIGNS, REFLECTIVE PAVEMENT MARKERS, TEMPORARY LANE SEPARATORS, TEMPORARY TRAFFIC DETECTION AND MAINTENANCE, BARRICADES, ARROW BOARDS, PORTABLE CHANGEABLE MESSAGE SIGNS, CONES, CROSSING GUARDS, OFF-DUTY POLICEMEN, FLAGMEN, FLAGS, TEMPORARY ASPHALT PAVEMENT, TEMPORARY BASE, TEMPORARY DRAINAGE SYSTEM, TEMPORARY SHORING, CLEANING AND MAINTENANCE OF EXISTING DRAINAGE SYSTEM, TEMPORARY BARRIERS, BARRIER WALLS, TEMPORARY BARRIER WALLS (INCLUDING RELOCATION), GUARDRAIL, RELOCATION OF GUARDRAIL, TEMPORARY CRASH CUSHIONS, MAINTENANCE OF TEMPORARY CRASH CUSHIONS, TEMPORARY SIDEWALKS, DETOURS, ADJACENT PROPERTY ACCESS, DRIVEWAY CONNECTIONS AND MAINTENANCE OF EXISTING AND TEMPORARY PAVEMENTS, BICYCLE PATHS, TEMPORARY MAILBOX, SIDEWALKS, MAINTENANCE OF SAFE ROUTES TO SCHOOLS, SCHOOL CROSSINGS, PEDESTRIAN LONGITUDINAL CHANNELIZING DEVICES, COMMERCIAL MATERIAL FOR DRIVEWAYS, ADJACENT PROPERTY ACCESS AND OBLITERATION OF PAVEMENT MARKINGS AS NEEDED.

0110-1-1
INCLUDES COST OF REMOVAL OF EXISTING COLUMNS AND GATES, TEMPORARY RELOCATION OF MAILBOXES, SIGNS, WALLS, FENCING, METER BOXES, TREES, AND OTHER SUCH APPURTENANCES THAT CONFLICT WITH THE PROPOSED IMPROVEMENTS OR IS SHOWN TO BE RELOCATED.

0120-1
EARTHWORK HAS BEEN CALCULATED USING THE LIMEROCK BASE OPTION. IF ANOTHER OPTION IS CONSTRUCTED, THERE SHALL BE NO REVISION TO THE EARTHWORK QUANTITIES FOR WHICH PAYMENT IS MADE BY PLAN QUANTITY.

0425-5-1, 0425-6, 0425-6-1
INCLUDES MANHOLE, VALVE BOX, ETC ADJUSTMENTS ALONG WITH ALL WATER, SEWER AND METER BOX ADJUSTMENTS.

0425-X-X
COST OF TYPE I AND II SKIMMERS AND CONCRETE JACKETS INCLUDED IN THE PRICE OF STRUCTURE.

0425-X-X AND 0430-X-X
INCLUDES COST OF DRAINAGE CONSTRUCTION NEAR THE RIGHT OF WAY LINE OR OTHER OBSTRUCTIONS MAY REQUIRE SHEETING OR OTHER MEANS TO AVOID ENCRoACHMENT ON PRIVATE PROPERTY AND TO PROTECT TREES, TREE ROOTS, HEDGES, LIGHTS, PRIVACY WALLS, IRRIGATION, SHEDS, ETC. ALL COSTS ASSOCIATED WITH AVOIDANCE OF ENCRoACHMENT ARE TO BE INCLUDED IN THE COST OF THE DRAINAGE ITEM.

0520-1
COST OF ASPHALT CURB PAD AND ADDITIONAL CURB THICKNESS IS INCLUDED IN THE COST OF CURB AND GUTTER.

0522 2
INCLUDES COST OF 9" THICKENED EDGE REQUIREMENT AT CONCRETE DRIVEWAYS AND CURB RAMPS PER DELRAY BEACH STANDARD DETAIL RT 23.0, AND THE 9" THICKENED EDGE REQUIREMENT AT LOCATIONS WITH PEDESTRIAN/BICYCLE RAILING PER FDOT INDEX 515-062.

RD-2
INCLUDES THE COST OF PRE-CONSTRUCTION VIDEO.

RD-3
INCLUDES COST OF PROVIDING AN IRRIGATION SLEEVE UNDER THE SIDEWALK/SHARED USE PATH FOR EACH PROPERTY.

RD-4
INCLUDES THE COST OF EXTENDING EXISTING HEDGES WHEN CALLED FOR IN THE PLANS, AND ROOT AND TREE PRUNING AS DETERMINED BY AN ISA-CERTIFIED ARBORIST HIRED BY THE CONTRACTOR.

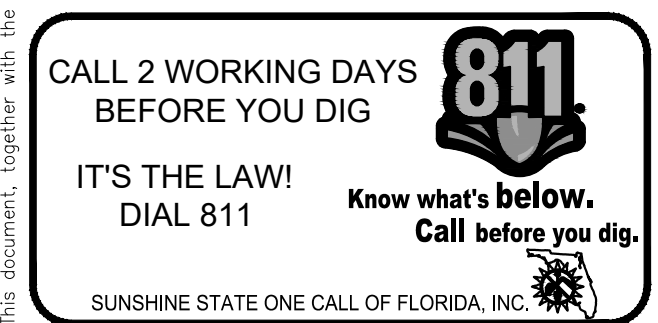
RD-5
EXTENTS AND QUANTITY OF 36" ROOT BARRIER ARE TO BE DETERMINED BY AN ISA-CERTIFIED ARBORIST HIRED BY THE CONTRACTOR.

SS-1
INCLUDES THE COST OF LINING RUNS OF SANITARY SEWER PIPE WHEN CALLED FOR IN THE PLANS, IN ACCORDANCE WITH THE SPECIFICATIONS.

SS-2
INCLUDES THE COST OF REPAIRING EXISTING BROKEN SANITARY SEWER PIPE IF ENCOUNTERED DURING LINING.

SS-3
INCLUDES THE COST OF REHABILITATING SANITARY SEWER MANHOLES WHEN CALLED FOR IN THE PLANS, IN ACCORDANCE WITH THE SPECIFICATIONS.

PAY ITEMS CONTAINING SUFFIX "A": CONTRACTOR TO USE CITY OF DELRAY STANDARD DETAILS.



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 CITY OF DELRAY BEACH

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86211
 DATE: 09/17/2024

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SUMMARY OF PAY ITEMS

PROJECT NUMBER
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C-102
 3 OF 51

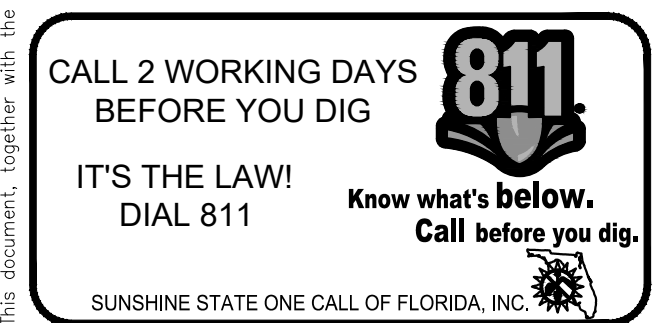
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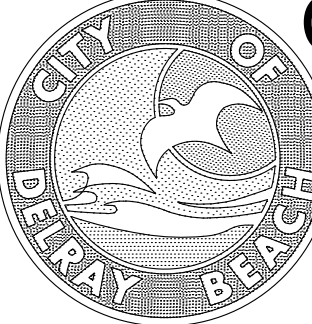
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SIGNING AND PAVEMENT MARKINGS			
PAY ITEM	DESCRIPTION	UNIT	QUANTITY
0700 1 111	SINGLE POST SIGN, F&I GROUND MOUNT, UP TO 12 SF	EA	20
0700 1 500	SINGLE POST SIGN, RELOCATE	EA	1
0700 1 600	SINGLE POST SIGN, REMOVE	EA	15
0700 2 111	MULTI POST SIGN, F&I GROUND MOUNT, LESS THAN 12 SF	EA	3
0706 1 3	RAISED PAVEMENT MARKER, TYPE B WITHOUT FINAL SURFACE MARKINGS (YELLOW/YELLOW)	EA	96
0706 1 3	RAISED PAVEMENT MARKER, TYPE B WITHOUT FINAL SURFACE MARKINGS (BLUE/BLUE)	EA	2
0710 11290	PAINTED PAVEMENT MARKINGS, STANDARD, YELLOW ISLAND NOSE	SF	14
0710 90	PAINTED PAVEMENT MARKINGS, FINAL SURFACE	LS	1
*	PAINTED PAVEMENT MARKINGS, STANDARD, WHITE, SOLID, 12" FOR CROSSWALK AND ROUNDABOUT		
*	PAINTED PAVEMENT MARKINGS, STANDARD, WHITE, SOLID, 24" FOR STOP LINE AND CROSSWALK		
*	PAINTED PAVEMENT MARKINGS, STANDARD, YELLOW, SOLID, 18" FOR DIAGONAL OR CHEVRON		
*	PAINTED PAVEMENT MARKINGS, STANDARD-OTHER SURFACES, YELLOW, SOLID, 6"		
0711 11123	THERMOPLASTIC, STANDARD, WHITE, SOLID, 12" FOR CROSSWALK AND ROUNDABOUT	LF	296
0711 11125	THERMOPLASTIC, STANDARD, WHITE, SOLID, 24" FOR STOP LINE AND CROSSWALK	LF	129
0711 11130	THERMOPLASTIC, STANDARD, WHITE, VERTICAL DEFLECTION MARKING	EA	4
0711 11140	THERMOPLASTIC, STANDARD, WHITE, VERTICAL DEFLECTION ADVANCE WARNING MARKING	EA	4
0711 11224	THERMOPLASTIC, STANDARD, YELLOW, SOLID, 18" FOR DIAGONAL OR CHEVRON	LF	7
0711 16201	THERMOPLASTIC, STANDARD-OTHER SURFACES, YELLOW, SOLID, 6"	GM	0.432

* THESE QUANTITIES ARE PAID FOR UNDER PAINTED PAVEMENT MARKINGS (FINAL SURFACE), LUMP SUM - ITEM NO. 710-90. THE QUANTITIES ARE FOR ONE APPLICATION; SEE SPECIFICATION 710 FOR THE NUMBER OF APPLICATIONS REQUIRED.

0700 2 111 INCLUDES THE COST OF CITY OF DELRAY BEACH PROJECT INFORMATION SIGNS PER DETAILS SHOWN ON TEMPORARY TRAFFIC GENERAL NOTES




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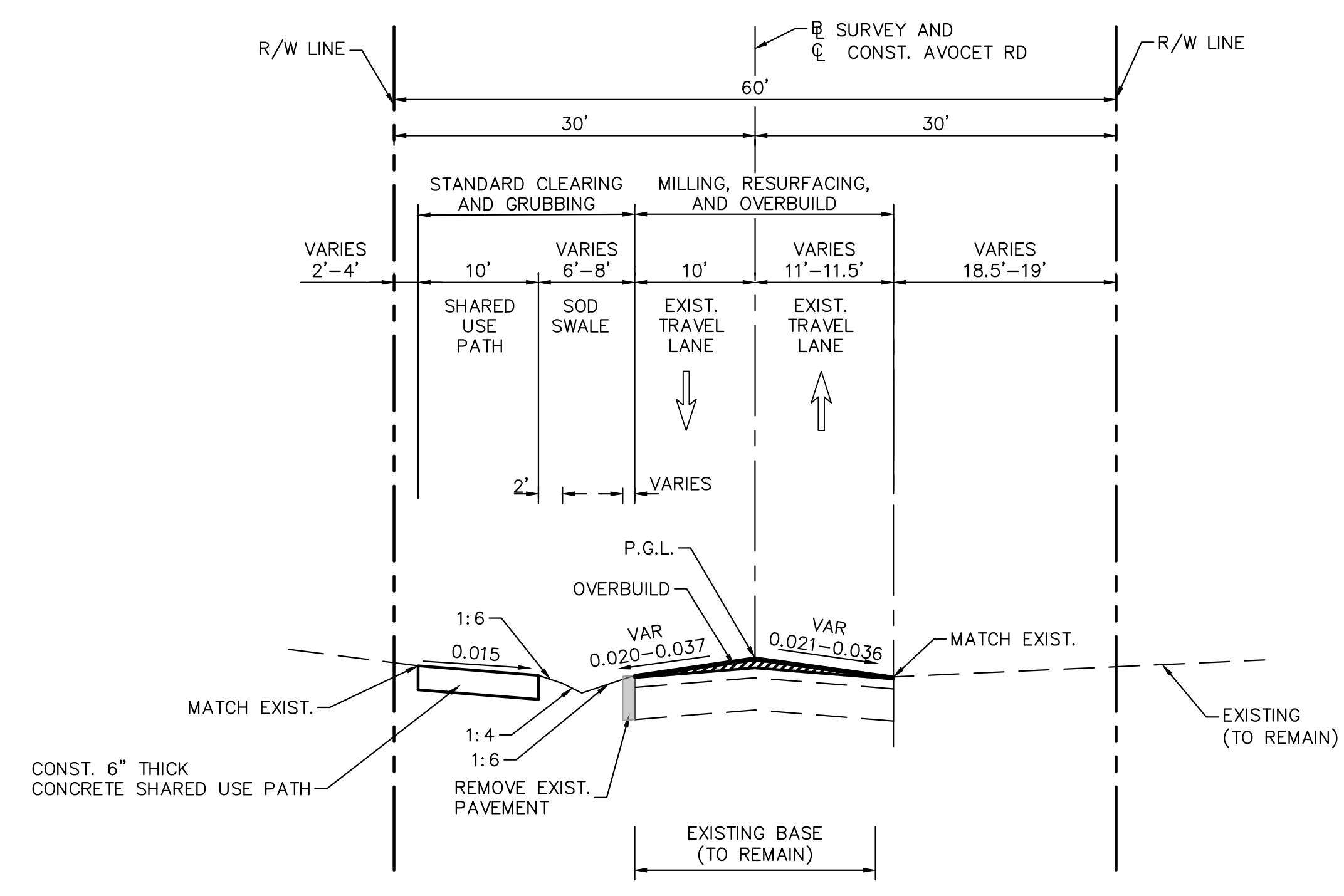
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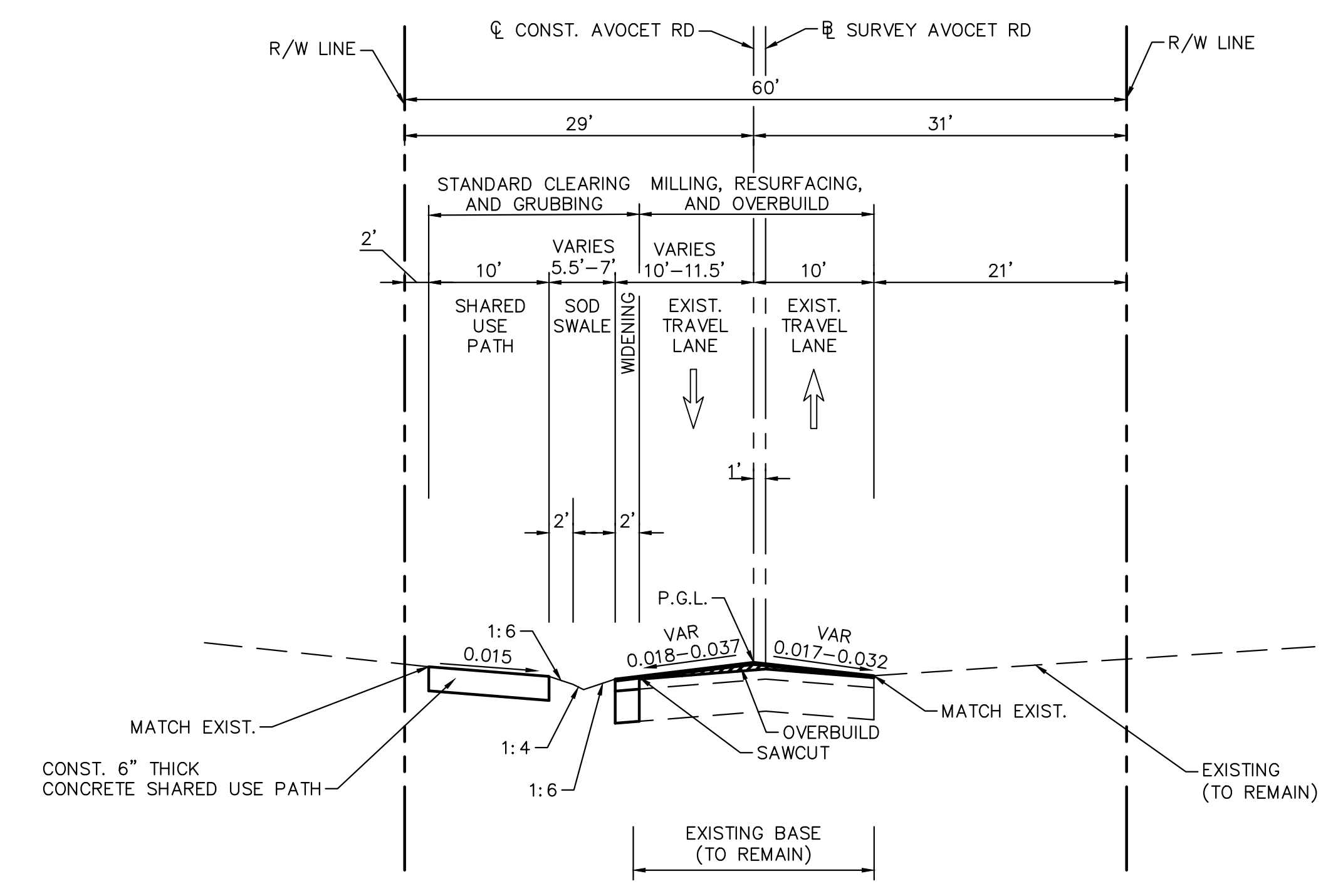
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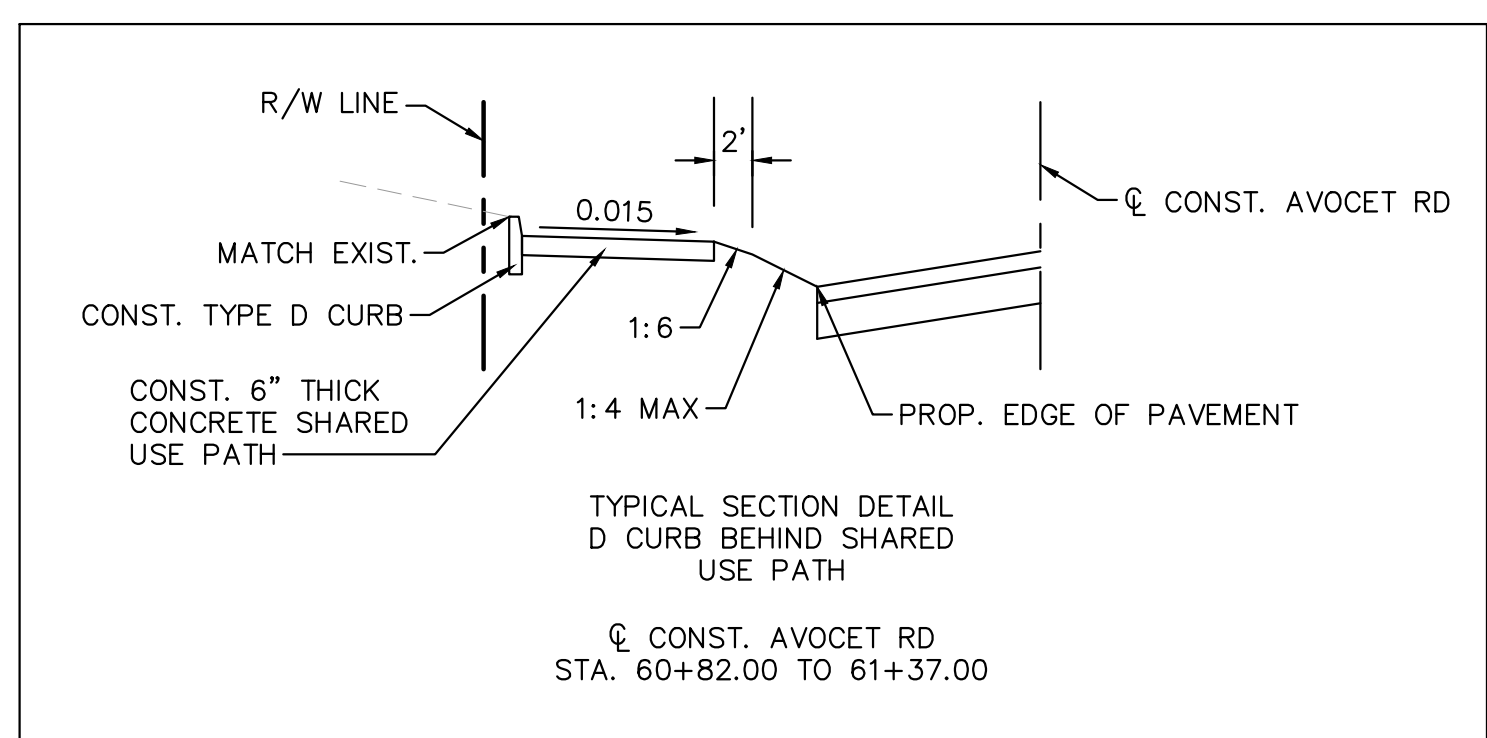
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AVOCET RD
 TYPICAL SECTION
 N.T.S.
 FROM CARL BOLTER DR/BRANT DR
 TO BLUEBIRD DR
 FROM STA 52+58.40 TO 57+55.99
 DESIGN SPEED = 25 MPH
 POSTED SPEED = 25 MPH
 TARGET SPEED = 25 MPH



AVOCET RD
 TYPICAL SECTION
 N.T.S.
 FROM BLUEBIRD DR TO LINDELL
 BLVD
 FROM STA 57+55.99 TO 62+10.66
 DESIGN SPEED = 25 MPH
 POSTED SPEED = 25 MPH
 TARGET SPEED = 25 MPH



TYPICAL SECTION DETAIL
 D CURB BEHIND SHARED
 USE PATH
 6" CONST. AVOCET RD
 STA. 60+82.00 TO 61+37.00

LEGEND	
	MILLING & RESURFACING
	OVERBUILD
	REMOVAL OF EXISTING PAVEMENT

MILLING
 MILL EXISTING ASPHALT PAVEMENT (1" AVG.)
RESURFACING
 STRUCTURAL COURSE TYPE SP-9.5
 (TRAFFIC C) (PG 76-22) (1")
OVERBUILD
 STRUCTURAL COURSE TYPE SP-9.5
 (TRAFFIC C) (PG76-22) (VARIABLE DEPTH 0"-3")
SHARED USE PATH CONSTRUCTION
 6" CONCRETE
WIDENING/RECONSTRUCTION
 12" TYPE B STABILIZATION (LBR 40),
 OPTIONAL BASE GROUP 6
 3" STRUCTURAL COURSE TYPE SP-9.5
 (2 LIFTS) (TRAFFIC C) (PG 76-22)

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 Call before you dig.
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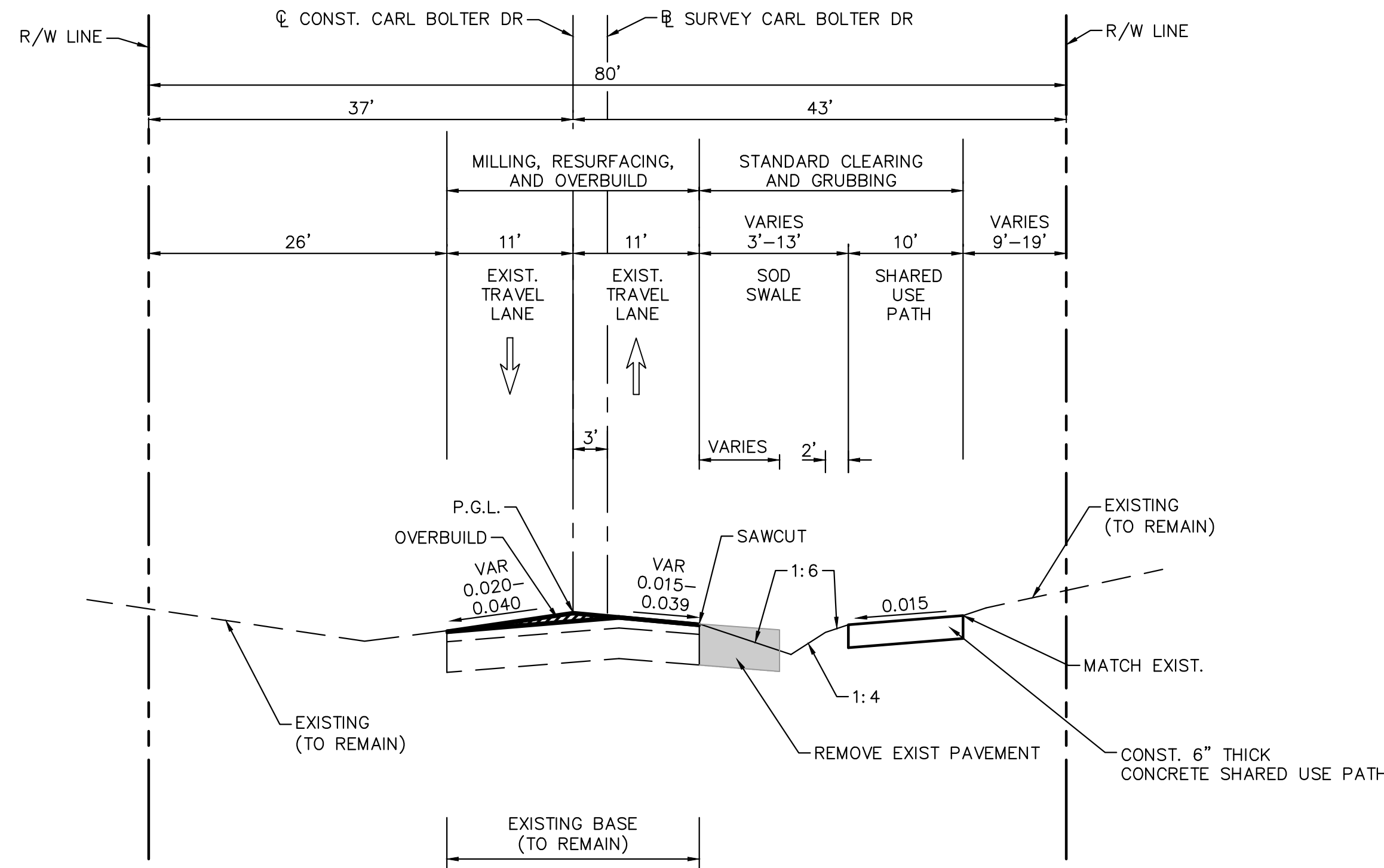
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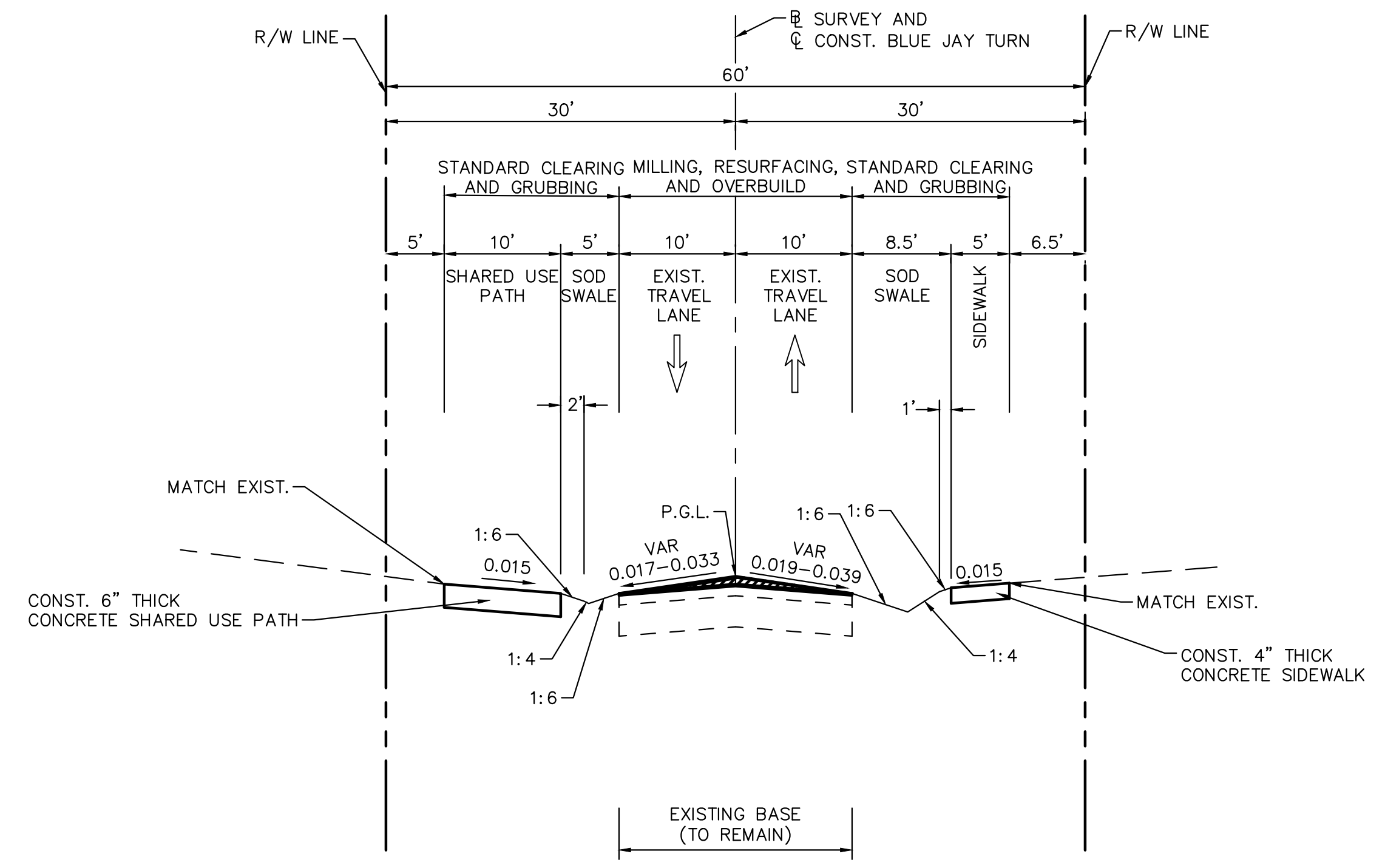
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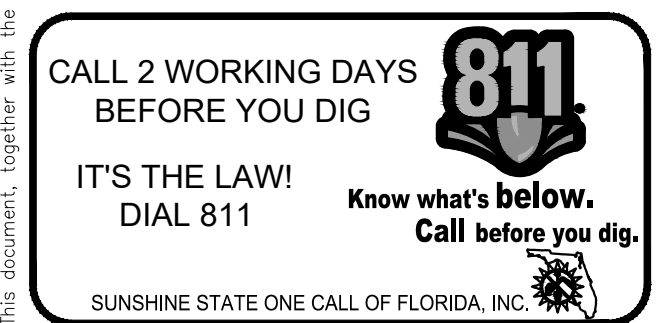


CARL BOLTER DR
TYPICAL SECTION
 N.T.S.
 FROM AVOCET RD
 TO LINDELL BLVD
 FROM STA 1+80.10 TO 12+29.36
 DESIGN SPEED = 25 MPH
 POSTED SPEED = 25 MPH
 TARGET SPEED = 25 MPH



BLUE JAY TURN
TYPICAL SECTION
 N.T.S.
 FROM CARL BOLTER DR
 TO LINDELL BLVD
 FROM STA 900+47.00 TO 903+41.45
 DESIGN SPEED = 25 MPH
 POSTED SPEED = 25 MPH
 TARGET SPEED = 25 MPH

- LEGEND**
- MILLING & RESURFACING
 - OVERBUILD
 - REMOVAL OF EXISTING PAVEMENT
- MILLING**
 MILL EXISTING ASPHALT PAVEMENT (1" AVG.)
RESURFACING
 STRUCTURAL COURSE TYPE SP-9.5
 (TRAFFIC C) (PG 76-22) (1")
OVERBUILD
 STRUCTURAL COURSE TYPE SP-9.5
 (TRAFFIC C) (PG 76-22) (VARIABLE DEPTH 0"-3")
SHARED USE PATH CONSTRUCTION
 6" CONCRETE
WIDENING/RECONSTRUCTION
 12" TYPE B STABILIZATION (LBR 40),
 OPTIONAL BASE GROUP 6
 3" STRUCTURAL COURSE TYPE SP-9.5
 (2 LIFTS) (TRAFFIC C) (PG 76-22)



CITY OF DELRAY BEACH
 SWINTON OPERATIONS CENTER
 434 SOUTH SWINTON AVENUE,
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KH PROJECT #	044300089
FM #	441586-1-58-01
SCALE	AS SHOWN
DESIGNED BY	BK
DRAWN BY	MT
CHECKED BY	ER

BRANT BRIDGE CONNECTOR
 PREPARED FOR
CITY OF DELRAY BEACH
 CITY OF DELRAY BEACH

ENGINEER'S SEAL

ERIC REGUEIRO, P.E.
FL LICENSE NUMBER 86211

No.	REVISIONS	DATE	BY

TYPICAL SECTION

PROJECT NUMBER	20-015
SHEET NUMBER	C-105
6 OF 51	

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Plotted By: Teddy, Max Sheet: Set1:LINDELL LOOP - Layout: C-106 - November 06, 2024 - 05:22:19pm - K:\WPB_Design\044300089_LindellLoop_Working\04_Sheets\CURVE_DATA.dwg
 This document, together with the concepts and designs presented herein, is intended only for the specific purpose and client for which it was prepared. Reuse of and improper reliance on this document without written authorization and adaptation by Kimley-Horn and Associates, Inc. shall be without liability to Kimley-Horn and Associates, Inc.

AVOCET RD CL CONST													
NO.	DELTA OR BRG	D	T	LENGTH	RADIUS	e	PC STATION	PC EASTING	PC NORTHING	PT STATION	PT EASTING	PT NORTHING	PI STATION
C1	Δ=67° 31' 50"	19.2223	199.279	351.31'	298.1'	NC	58+23.09	957236.2865	761314.9116	61+74.41	957510.9512	761500.2189	60+22.37
L1	N 89°45'33" E			726.47'			50+00.00	956413.2114	761310.4500	57+26.47	957139.6771	761313.5040	
L2	N 88°49'58" E			61.93'			57+26.47	957139.6771	761313.5040	57+88.41	957201.5992	761314.7657	
L3	N 89°45'33" E			34.69'			57+88.41	957201.5992	761314.7657	58+23.09	957236.2865	761314.9116	
L4	N 22°13'43" E			64.18'			61+74.41	957510.9512	761500.2189	62+38.59	957535.2307	761559.6294	

CARL BOLTER DR CL CONST													
NO.	DELTA OR BRG	D	T	LENGTH	RADIUS	e	PC STATION	PC EASTING	PC NORTHING	PT STATION	PT EASTING	PT NORTHING	PI STATION
C2	Δ=26° 19' 21"	13.6653	98.042	192.62'	419.3'	NC	1+00.00	956755.3561	761171.8877	2+92.62	956711.0952	761357.6199	1+98.04
C3	Δ=26° 19' 27"	9.7276	137.737	270.61'	589.0'	NC	2+92.62	956711.0952	761357.6199	5+63.23	956648.9177	761618.5521	4+30.36
C4	Δ=56° 03' 27"	81.8511	37.265	68.49'	70.0'	NC	11+46.77	956646.4636	762202.0844	12+15.26	956677.1338	762260.2858	11+84.04
L5	N 0°14'27" W			583.54'			5+63.23	956648.9177	761618.5521	11+46.77	956646.4636	762202.0844	
L6	N 55°48'59" E			41.00'			12+15.26	956677.1338	762260.2858	12+56.26	956711.0512	762283.3218	

BLUE JAY TURN CL CONST													
NO.	DELTA OR BRG	D	T	LENGTH	RADIUS	e	PC STATION	PC EASTING	PC NORTHING	PT STATION	PT EASTING	PT NORTHING	PI STATION
C5	Δ=41° 23' 33"	95.4930	22.668	43.35'	60.0'	NC	900+88.60	956689.6727	761820.4164	901+31.95	956729.3178	761835.4773	901+11.27
L7	N 89°53'41" E			88.60'			900+00.00	956601.0694	761820.2537	900+88.60	956689.6727	761820.4164	
L8	N 48°30'09" E			239.87'			901+31.95	956729.3178	761835.4773	903+71.82	956908.9758	761994.4121	

AVOCET RD BL SURVEY													
NO.	DELTA OR BRG	D	T	LENGTH	RADIUS	e	PC STATION	PC EASTING	PC NORTHING	PT STATION	PT EASTING	PT NORTHING	PI STATION
C6	Δ=67° 31' 50"	19.1580	199.948	352.49'	299.1'	NC	208+23.09	957236.2907	761313.9116	211+75.58	957511.8769	761499.8406	210+23.03
L9	N 89°45'33" E			823.09'			200+00.00	956413.2114	761310.4500	208+23.09	957236.2907	761313.9116	
L10	N 22°13'43" E			64.18'			211+75.58	957511.8769	761499.8406	212+39.76	957536.1562	761559.2509	

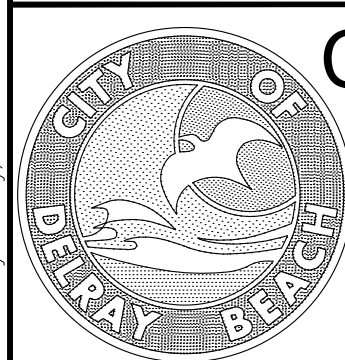
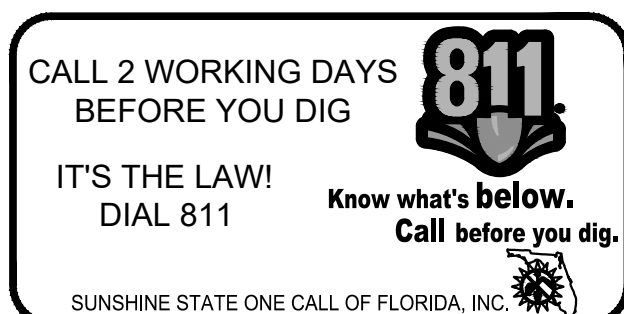
CARL BOLTER DR BL SURVEY													
NO.	DELTA OR BRG	D	T	LENGTH	RADIUS	e	PC STATION	PC EASTING	PC NORTHING	PT STATION	PT EASTING	PT NORTHING	PI STATION
C7	Δ=28° 29' 23"	13.6653	106.443	208.48'	419.3'	NC	301+00.00	956755.3561	761171.8877	303+08.48	956703.7360	761371.6675	302+06.44
C8	Δ=28° 29' 29"	13.6653	106.450	208.49'	419.3'	NC	303+08.48	956703.7360	761371.6675	305+16.98	956652.1158	761571.4599	304+14.93
L11	N 0°14'34" W			100.00'			300+00.00	956755.7797	761071.8886	301+00.00	956755.3561	761171.8877	
L12	N 0°14'27" W			850.58'			305+16.98	956652.1158	761571.4599	313+67.56	956648.5385	762422.0348	

BLUE JAY TURN BL SURVEY													
NO.	DELTA OR BRG	D	T	LENGTH	RADIUS	e	PC STATION	PC EASTING	PC NORTHING	PT STATION	PT EASTING	PT NORTHING	PI STATION
L13	N 48°30'09" E			344.04'			500+00.00	956651.2957	761766.4549	503+44.04	956908.9758	761994.4121	

BLUE JAY RD BL SURVEY													
NO.	DELTA OR BRG	D	T	LENGTH	RADIUS	e	PC STATION	PC EASTING	PC NORTHING	PT STATION	PT EASTING	PT NORTHING	PI STATION
L14	N 89°45'33" E			240.00'			600+00.00	956409.6786	762150.4522	602+40.00	956649.6765	762151.4615	

BLUEBIRD DR BL SURVEY													
NO.	DELTA OR BRG	D	T	LENGTH	RADIUS	e	PC STATION	PC EASTING	PC NORTHING	PT STATION	PT EASTING	PT NORTHING	PI STATION
C9	Δ=33° 36' 16"	22.4689	77.000	149.56'	255.0'	NC	403+35.00	956887.1117	761572.4519	404+84.56	957028.4210	761530.4298	404+12.00
C10	Δ=56° 23' 44"	43.8142	70.112	128.72'	130.8'	NC	405+81.18	957109.1179	761477.2937	407+09.89	957167.9700	761368.6248	406+51.29
L15	N 89°45'33" E			335.00'			400+00.00	956552.1166	761571.0430	403+35.00	956887.1117	761572.4519	
L16	S 56°38'11" E			96.62'			404+84.56	957028.4210	761530.4298	405+81.18	957109.1179	761477.2937	
L17	S 0°14'27" E			55.00'			407+09.89	957167.9700	761368.6248	407+64.89	957168.2013	761313.6253	

LINDELL BLVD BL SURVEY													
NO.	DELTA OR BRG	D	T	LENGTH	RADIUS	e	PC STATION	PC EASTING	PC NORTHING	PT STATION	PT EASTING	PT NORTHING	PI STATION
C11	Δ=43° 10' 50"	4.2758	530.281	1009.88'	1340.0'	NC	127+76.88	956182.7075	764589.0114	137+86.76	956549.4316	763673.5840	133+07.16
C12	Δ=49° 09' 30"	4.0351	649.470	1218.26'	1419.9'	NC	145+31.08	956552.5619	762929.2705	157+49.34	957048.4124	761857.1414	151+80.55
C13	Δ=32° 50' 00"	3.2009	527.392	1025.76'	1790.0'	NC	157+49.34	957048.4124	761857.1414	167+75.10	957971.3942	761442.6461	162+76.73
L18	S 43°25'17" E			776.88'			120+00.00	955648.7139	765153.2689	127+76.88	956182.7075	764589.0114	
L19	S 0°14'27" E			583.46'			137+86.76	956549.4316	763673.5840	143+70.22	956551.8854	763090.1291	
L20	S 0°14'27" E			160.86'			143+70.22	956551.8854	763090.1291	145+31.08	956552.5619	762929.2705	
L21	S 82°13'57" E			510.00'			167+75.10	957971.3942	761442.6461	172+85.10	958476.7149	761373.7190	



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KH PROJECT #
 044300089
 FM #
 441586-1-58-01
 SCALE AS SHOWN
 DESIGNED BY BK
 DRAWN BY MT
 CHECKED BY ER

BRANT BRIDGE CONNECTOR
 PREPARED FOR
CITY OF DELRAY BEACH
 CITY OF DELRAY BEACH

ENGINEER'S SEAL
 ERIC REGUEIRO, P.E.
 FL LICENSE NUMBER
 86211
 DATE: 09/17/2024

REVISIONS			
No.	REVISIONS	DATE	BY

PROJECT NUMBER
 20-015
 SHEET NUMBER
C-106
 7 OF 51

THE OFFICIAL RECORD OF THIS SHEET IS THE ELECTRONIC FILE DIGITALLY SIGNED AND SEALED UNDER RULE 61G15-23.004, F.A.C.

GENERAL CONSTRUCTION NOTES

- BENCHMARK DATUM IS NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD '88). ELEVATION 1.53" (NGVD '29) = ELEVATION 0.00' (NAVD '88). ALL ELEVATIONS ARE REFERENCED FROM THE 1988 NAVD DATUM.
- THE LOCATION(S) OF THE UTILITIES SHOWN IN THE PLANS (INCLUDING THOSE DESIGNATED Vv, Vh, AND Vvh) ARE BASED ON LIMITED INVESTIGATION TECHNIQUES AND SHOULD BE CONSIDERED APPROXIMATE ONLY. THE VERIFIED LOCATIONS/ELEVATIONS APPLY ONLY AT THE POINTS SHOWN. INTERPOLATIONS BETWEEN THESE POINTS HAVE NOT BEEN VERIFIED. ALL EXISTING UNDERGROUND AND ABOVEGROUND UTILITIES ARE TO REMAIN, UNLESS OTHERWISE NOTED.
- THE CONTRACTOR SHALL NOTIFY UTILITY OWNERS THROUGH SUNSHINE STATE ONE CALL OF FLORIDA (811) AND UTILITY OWNERS LISTED BELOW TWO BUSINESS DAYS (OR 10 DAYS IF DIGGING UNDER WATER) IN ADVANCE OF BEGINNING CONSTRUCTION ON THE JOB SITE.

UTILITY/AGENCY OWNERS:		
COMPANY	CONTACT	TELEPHONE NUMBERS
AT&T	GARTH BEDWARD	(561) 540-9263
CITY OF BOCA RATON-TRAFFIC	TALIA GARCIA	(561) 239-6292
CITY OF DELRAY WATER		
/SEWER NETWORK	SPENCER BRITT	(561) 243-7164
COMCAST-PBG	STEVE ROSA	(561) 436-9034
FLORIDA PUBLIC UTILITIES CO	PETER BONO	(561) 660-1829
FPL	DAVID FUCHS	(321) 214-3814
- CONTRACTOR TO REPOSITION ALL EXISTING UTILITY STRUCTURE COVERS, OWNED BY THE CITY OF DELRAY BEACH, TO THE PROPOSED FINISHED GRADE, INCLUDING MAINTENANCE ACCESS STRUCTURES, VALVES, METERS, CLEAN OUTS, ETC.
- CONTRACTOR SHALL COORDINATE WITH UTILITY OWNERS TO ALLOW UTILITY AGENCIES TO MODIFY THEIR FACILITIES.
- THE CONTRACTOR SHALL COORDINATE SELECTION AND REVIEW OF ANY PROPOSED CONSTRUCTION STAGING AREAS ASSOCIATED WITH THE PROJECT WITH THE ENGINEER AT LEAST 30 CALENDAR DAYS PRIOR TO USE, IN ORDER TO COMPLY WITH THE FEDERAL ENDANGERED SPECIES ACT. THE STAGING AREA SHALL BE RESTORED TO ITS ORIGINAL OR BETTER CONDITION AS DETERMINED BY THE ENGINEER AT NO ADDITIONAL COST TO THE CITY. ALL STAGING AND STOCKPILING AREAS, WHETHER WITHIN OR OUTSIDE CITY RIGHT-OF-WAY, USED BY THE CONTRACTOR MUST HAVE SEDIMENT AND EROSION CONTROL MEASURES INSTALLED PRIOR TO USE AT NO ADDITIONAL COST TO THE CITY. THE CONTRACTOR SHALL INCLUDE ALL COST RELATED TO STAGING AREAS IN MOBILIZATION COST.
- CONTRACTOR IS RESPONSIBLE FOR ESTABLISHING/SECURING ITS OWN STAGING AREA/STORAGE AREA.
- CONTRACTOR TO RESTORE PAVEMENT TO EXISTING OR BETTER CONDITION PER CITY OF DELRAY BEACH STANDARD GU 1.1.
- CONTRACTOR TO RESTORE PROJECT AREA TO EXISTING OR BETTER CONDITION AND PLACE SOD BEHIND SIDEWALK ALONG THE PROJECT LENGTH.
- PROPOSED SOD FOR SWALE REGRADING IS TO BE BAHIA SOD.
- AS PART OF THE CITY OF DELRAY BEACH CONSTRUCTION PROJECT, ANY PRIVATELY-OWNED IRRIGATION SYSTEMS FOUND INSIDE CITY RIGHT-OF-WAY SHALL BE CUT AND CAPPED AT THE RIGHT-OF-WAY LINE BY THE CONTRACTOR WHERE THIS SYSTEM IS IMPACTED BY THE PROJECT CONSTRUCTION LIMITS. CONTRACTOR TO NOTIFY PROPERTY OWNER 48 HOURS PRIOR TO ANY MODIFICATIONS TO CUTTING AND CAPPING IRRIGATION LINES. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO NOTIFY THE ADJACENT PROPERTY OWNERS WHERE THE IRRIGATION SYSTEMS ARE FOUND TO ENSURE ALL SALVAGEABLE MATERIAL CAN BE RETRIEVED BY THE PROPERTY OWNER PRIOR TO CONSTRUCTION. IT WILL BE THE RESPONSIBILITY OF THE PROPERTY OWNER TO REPAIR, CONSTRUCT OR REPLACE THE IRRIGATION SYSTEMS WITHIN CITY RIGHT-OF-WAY CAPPED OR DAMAGED DURING THE CONSTRUCTION OPERATIONS. ALL COST FOR CUTTING AND CAPPING THE EXISTING IRRIGATION SYSTEM AND NOTIFICATION OF THE ADJACENT PROPERTY OWNERS ARE TO BE INCLUDED IN MAINTENANCE OF TRAFFIC COST.
- ALL WORK SHALL BE DONE FROM AND WITHIN THE EXISTING RIGHT-OF-WAY
- OFFSETS FOR CURB INLETS AND VALLEY GUTTER INLETS ARE MEASURED FROM THE E OF CONSTRUCTION TO THE EDGE OF PAVEMENT. OFFSETS FOR MANHOLES ARE MEASURED FROM THE E OF CONSTRUCTION TO THE CENTER OF THE RIM. OFFSETS FOR DITCH BOTTOM INLETS ARE MEASURED FROM THE E OF CONSTRUCTION TO THE CENTER OF THE GRATE. OFFSETS FOR POLLUTION CONTROL STRUCTURES ARE MEASURED FROM THE E OF CONSTRUCTION TO THE CENTER OF THE STRUCTURE BOTTOM.
- PROVIDE 18" SUMP FOR ALL DRAINAGE STRUCTURES UNLESS OTHERWISE SPECIFIED.
- "INDEX ###-###" REFERS TO 2024-25 FDOT STANDARD PLANS.
- THE CONTRACTOR IS REQUIRED TO ADJUST FIRE HYDRANTS TO MATCH NEW GRADE. PRIOR TO ADJUSTING THE CONTRACTOR WILL NOTIFY THE CITY OF DELRAY BEACH UTILITIES DEPARTMENT TO OBSERVE ALL ADJUSTMENTS.
- PROPOSED SIDEWALK AND CURB AND GUTTER ARE TO CONNECT TO EXISTING SIDEWALK AND CURB AND GUTTER WITH 5' TRANSITION FOR SIDEWALK AND 3' TRANSITION FOR CURB AND GUTTER.
- CONTRACTOR IS TO PROVIDE ADJACENT PROPERTY OWNERS A 30-DAY ADVANCE NOTIFICATION PRIOR TO BEGINNING WORK IN THE AREA TO ALLOW THE PROPERTY OWNER TIME TO MODIFY ITEMS OWNED BY THE PROPERTY OWNER. THE CONTRACTOR SHALL COORDINATE DRIVEWAY CONFIGURATION AND STYLE WITH THE CITY PRIOR TO CONSTRUCTION. FOR EXISTING DRIVEWAYS WITH COLORED OR STAMPED CONCRETE, REPLACE NEW AND IN-KIND (MATCH EXIST. PATTERN, COLOR, AND LAYOUT). FOR EXISTING PAVER DRIVEWAYS, CONSTRUCT ACCORDING TO ONE OF THE FOLLOWING OPTIONS, TO BE SELECTED BY THE CITY.
 OPTION 1: REPLACE DRIVEWAY NEW AND IN-KIND.
 OPTION 2: REMOVE AND REINSTALL EXIST. PAVERS. IN THE EVENT THAT PAVERS HAVE BEEN DAMAGED DURING CONSTRUCTION, REPLACE DRIVEWAY NEW AND IN-KIND.
- THE CONTRACTOR SHALL SUBMIT THE FOLLOWING FOR NEW PAVER INSTALLATION FOR EACH DRIVEWAY:
 - FOUR REPRESENTATIVE FULL-SIZE SAMPLES OF EACH PAVER TYPE, THICKNESS, COLOR, AND FINISH THAT INDICATE THE RANGE OF COLOR VARIATION AND TEXTURE EXPECTED IN THE FINISHED INSTALLATION. COLOR(S), TEXTURE(S), AND PATTERN(S) TO MATCH EXIST. PAVERS.
 - ACCEPTED SAMPLES BECOME THE STANDARD OF ACCEPTANCE FOR THE WORK.
 - TEST RESULTS FROM AN INDEPENDENT TESTING LABORATORY FOR COMPLIANCE OF ARCHITECTURAL PAVERS WITH ASTM C936 OR WITH ASTM C902.
 - MANUFACTURER'S CATALOG PRODUCT DATA, INSTALLATION INSTRUCTIONS, AND MATERIAL SAFETY DATA SHEETS FOR THE SAFE HANDLING OF THE SPECIFIED MATERIALS AND PRODUCTS.
- THIS PROJECT IS WITHIN 10 NAUTICAL MILES OF PALM BEACH INTERNATIONAL AIRPORT (PBI). ALL PERMANENT FEATURES OF THE PROJECT HAVE BEEN FOUND IN COMPLIANCE WITH FEDERAL AVIATION ADMINISTRATION (FAA) 14 CFR PART 77 (S 77.7). DURING CONSTRUCTION THE CONTRACTOR MUST COMPLY WITH FEDERAL AVIATION ADMINISTRATION (FAA) 14 CFR PART 77 (S 77.7). THE CONTRACTOR SHALL CONTACT APPROPRIATE FAA PERSONNEL TO COORDINATE SUCH COMPLIANCE FOR CONSTRUCTION OPERATIONS AND EQUIPMENT TO BE USED ON THE PROJECT SITE. BE AWARE THAT 14 CFR PART 77 (S 77.7) ESTABLISHES THAT NOTIFICATION MUST BE SUBMITTED 45-DAYS PRIOR TO CONSTRUCTION ACTIVITIES WHICH MAY IMPACT AIRPORT-CONTROLLED AIRSPACE OR FACILITIES. GIVEN THE TIME REQUIRED TO CONDUCT AN AERONAUTICAL STUDY, A 45-60 DAY ADVANCE FILING IS RECOMMENDED TO ACCOMMODATE THE REVIEW PROCESS AND ALLOW TIMELY ISSUANCE OF THE FAA DETERMINATION LETTER. SEE [HTTPS://WWW.FAA.GOV/AIRPORTS/CENTRAL/ENGINEERING/PART77/](https://www.faa.gov/airports/central/engineering/part77/) FOR ADDITIONAL INFORMATION." THE CONTRACTOR SHALL FILE THE REQUIRED NOTICE OF CONSTRUCTION COMMENCEMENT FORM (7460-2 PART 1) PRIOR TO STARTING WORK. THE CONTRACTOR SHALL FILE THE REQUIRED FORM (7460-2 PART 2) WITHIN 5 DAYS OF COMPLETION OF THE HIGHEST ELEMENT OF PERMANENT CONSTRUCTION.

STORMWATER POLLUTION PREVENTION PLAN (SWPPP) - EROSION CONTROL FEATURES:

- SILT FENCE SHALL BE PROPERLY INSTALLED PER CITY STANDARDS ALONG ALL R/W LINES TO CONTROL SEDIMENTATION.
- INLET PROTECTION SHALL BE INSTALLED AT EVERY INLET WITHIN THE PROJECT LIMITS TO CONTROL SEDIMENTATION.
- EROSION CONTROL ITEMS ARE INCLUDED FOR PREVENTION, CONTROL, ABATEMENT OF EROSION, SEDIMENTATION, AND WATER POLLUTION. THESE ITEMS ARE TO BE USED AT THE LOCATIONS DESCRIBED COMPLY WITH ALL FEDERAL, STATE AND LOCAL REGULATIONS.

CALL 2 WORKING DAYS BEFORE YOU DIG

811

IT'S THE LAW! DIAL 811

Know what's below. Call before you dig.

SUNSHINE STATE ONE CALL OF FLORIDA, INC.

ENVIRONMENTAL NOTES

- WHEN ENCOUNTERING OR EXPOSING ANY ABNORMAL CONDITION INDICATING THE PRESENCE OF A HAZARDOUS OR TOXIC WASTE, OR CONTAMINANTS, CEASE OPERATIONS IMMEDIATELY IN THE VICINITY AND NOTIFY THE CITY OF DELRAY BEACH. THE PRESENCE OF TANKS OR BARRELS; DISCOLORED EARTH, METAL, WOOD, GROUND WATER, ETC.; VISIBLE FUMES; ABNORMAL ODORS; EXCESSIVELY HOT EARTH; SMOKE; OR OTHER CONDITIONS THAT APPEAR ABNORMAL MAY INDICATE HAZARDOUS OR TOXIC WASTES OR CONTAMINANTS AND MUST BE TREATED WITH EXTREME CAUTION.
- MAKE EVERY EFFORT TO MINIMIZE THE SPREAD OF CONTAMINATION INTO UNCONTAMINATED AREAS. IMMEDIATELY PROVIDE FOR THE HEALTH AND SAFETY OF ALL WORKERS AT THE JOB SITE AND MAKE PROVISIONS NECESSARY FOR THE HEALTH AND SAFETY OF THE PUBLIC THAT MAY BE EXPOSED TO ANY POTENTIALLY HAZARDOUS CONDITIONS. PROVISIONS SHALL MEET ALL APPLICABLE LOCAL, STATE, AND FEDERAL LAWS, RULES, REGULATIONS OR CODES COVERING HAZARDOUS CONDITIONS AND WILL BE IN A MANNER COMMENSURATE WITH THE GRAVITY OF THE CONDITIONS.
- CITY OF DELRAY BEACH WILL COORDINATE AND MOBILIZE A QUALIFIED CONTAMINATION ASSESSMENT/REMEDATION (CAR) CONTRACTOR. QUALIFICATIONS OF SUCH CAR CONTRACTOR SHALL INCLUDE, BUT NOT BE LIMITED TO: EXPERIENCE AND PERSONNEL TO PREPARE CONTAMINATION ASSESSMENT PLANS, CONDUCT CONTAMINATION ASSESSMENTS, PREPARE SITE ASSESSMENT REPORTS, REMEDIATION PLANS, IMPLEMENT REMEDIAL ACTION PLANS, RISK BASED CORRECTIVE ACTIONS, STORAGE TANKS SYSTEM REMOVAL, HIGHWAY SPILL RESPONSE AS WELL AS EXPERIENCE WITH INFRASTRUCTURE/CONSTRUCTION ACTIVITIES WITHIN (POTENTIALLY) CONTAMINATED AREAS SPECIFIC TO TRANSPORTATION SYSTEMS.
- ALL THE WORK PERFORMED BY THE CAR CONTRACTOR SHALL BE PERFORMED IN COMPLIANCE WITH ALL APPLICABLE LOCAL, STATE AND FEDERAL REGULATIONS GOVERNING WORKER SAFETY AND ENVIRONMENTAL REGULATIONS. THIS IS TO INCLUDE OCCUPATIONAL EXPOSURE TO CONTAMINATED SOILS, GROUNDWATER, WASTES AND ATMOSPHERE DURING THE CONSTRUCTION OF ALL FEATURES INCLUDED IN THE CONSTRUCTION PLANS. IN ADDITION, THE CAR CONTRACTOR MUST BE STAFFED WITH FLORIDA LICENSED TECHNICAL PROFESSIONALS (GEOLOGISTS AND ENGINEERS) WHO WILL BE INVOLVED WITH THE PROJECT AND KNOWLEDGEABLE OF THE WORK ACTIVITIES CONDUCTED WITHIN THE IDENTIFIED CONTAMINATED AREAS AND WHO WOULD SIGN AND SEAL PROJECT REPORTS AS REQUIRED FOR SUBMITTAL TO THE APPROPRIATE ENVIRONMENTAL REGULATORY AGENCIES.
- THE CEI WILL IMMEDIATELY NOTIFY THE FLORIDA DEPARTMENT OF TRANSPORTATION (FDOT) DISTRICT VI CONTAMINATION IMPACT COORDINATOR (DIC) AT (954) 777-4286 AFTER ENCOUNTERING THE UNIDENTIFIED AREAS OF CONTAMINATION. PRELIMINARY INVESTIGATION BY THE CAR CONTRACTOR WILL DETERMINE THE COURSE OF ACTION NECESSARY FOR SITE SECURITY AND THE STEPS NECESSARY UNDER APPLICABLE LAWS, RULES, AND REGULATIONS FOR ADDITIONAL ASSESSMENT AND/OR REMEDIATION WORK TO RESOLVE THE CONTAMINATION ISSUE.
- FOLLOWING COMPLETION OF THE PROJECT, THE CAR CONTRACTOR SHALL BE REQUIRED TO PROVIDE COPIES OF ALL REPORTS SUBMITTED TO REGULATORY AGENCIES, WASTE MATERIAL PROFILES, MANIFESTS AND/OR DISPOSAL RECEIPTS FOR THE HANDLING OF ALL CONTAMINATED MEDIA INCLUDING BUT NOT LIMITED TO GROUND WATER, WASTEWATER, SOILS, SOLID WASTES, SLUDGE, HAZARDOUS WASTES, AIR MONITORING RECORDS AND SAMPLE RESULTS FOR ALL MATERIALS TESTED AND ANALYZED TO THE CITY OF DELRAY BEACH PROJECT MANAGER AND THE FDOT DIC.
- THE CONTRACTOR MUST ADHERE TO THE MOST CURRENT VERSION OF THE USFWS STANDARD PROTECTION MEASURES FOR THE EASTERN INDIGO SNAKE DURING SITE PREPARATION AND PROJECT CONSTRUCTION.

EXISTING TREE - PRUNING NOTES

- TREE PRUNING WORK MUST BE PERFORMED BY OR DIRECTLY SUPERVISED BY AN ISA-CERTIFIED ARBORIST.
- CONTRACTOR SHALL HOLD A PRE-PRUNING CONFERENCE WITH THE OWNER AND ISA-CERTIFIED ARBORIST PRIOR TO COMMENCING PRUNING OPERATIONS.
- PRUNE TREES PER ANSI A300 FOR THE FOLLOWING:
 - HAZARD REDUCTION - TO REMOVE DEAD LIMBS OR OTHER VISIBLE HAZARDS FROM THE TREE CANOPY.
 - CROWN CLEANING - TO SELECTIVELY REMOVE DEAD, DYING, OR DISEASED BRANCHES, WEAK BRANCHES, AND SUCKER SPROUTS.
 - CROWN RAISING - TO REMOVE LOWER BRANCHES TO PROVIDE VERTICAL CLEARANCE.
 - VISTA PRUNING - TO SELECTIVELY THIN FRAMEWORK LIMBS WITHIN THE CROWN TO ALLOW FOR VIEWS THROUGH THE TREE.
 - CROWN RESTORATION - TO IMPROVE THE STRUCTURE, FORM, AND APPEARANCE OF A TREE THAT HAS BEEN DAMAGED.
 - SHARED USE PATH - PROVIDE 7' MINIMUM VERTICAL CLEARANCE ABOVE SHARED USE PATH PER FDM 224.

ROOT PRUNING

- THE LANDSCAPE ARCHITECT HAS OBSERVED TREES THAT COULD BE IMPACTED BY CONSTRUCTION OF THE PROPOSED IMPROVEMENTS.
- IF CONSTRUCTION ACTIVITIES OCCUR WITHIN THE DRIFLINE (OR THE HORIZONTAL EXTENT OF THE OF A TREE, THEN THAT TREE IS A CANDIDATE FOR ROOT PRUNING.
- ROOT PRUNING MUST OCCUR PRIOR TO TRENCHING OPERATIONS TO ENSURE THAT THE ROOTS ARE CUT CLEAN AND AT PROPER ANGLES AND NOT MECHANICALLY RIPPED FROM THE EARTH DURING CONSTRUCTION.
- FOR TREES REQUIRING ROOT PRUNING, A TREE ASSESSMENT SHALL BE CONDUCTED AND A ROOT-PRUNING PLAN SHALL BE DEVELOPED BY AN ISA-CERTIFIED ARBORIST OR CONSULTING ARBORIST. THIS PLAN SHOULD IDENTIFY:
 - MAXIMUM ALLOWABLE SIZE OF ROOTS TO BE CUT.
 - ALLOWABLE PROXIMITY TO THE TRUNK FOR CUTS.
 - TIME OF YEAR WHEN ROOT CUTTING IS ALLOWABLE (NOTE: IN FLORIDA, IT IS BEST TO AVOID ROOT PRUNING DURING TIMES OF MAY THROUGH SEPTEMBER WHEN THE POTENTIAL FOR DAMAGING WIND LOADS ON TREES ARE GREATEST).
 - METHOD FOR MAKING CUTS.
 - MITIGATING CANOPY PRUNING.
 - TYPE AND EXTENT OF NECESSARY STRUCTURAL SUPPORT.
 - SCHEDULE FOR WASHING/FERTILIZATION AFTER PRUNING.
 - IMPLEMENT THE ROOT PRUNING PLAN PER THE ARBORIST'S RECOMMENDATION.

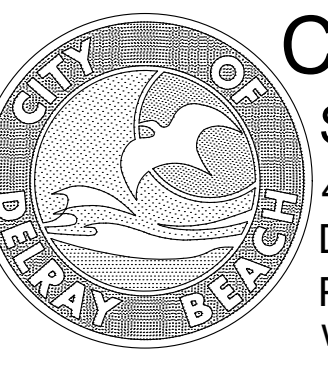
CITY OF DELRAY BEACH GENERAL NOTES :

DEFINITIONS:

- CITY - THE CITY OF DELRAY BEACH
- CONTRACTOR - ROADWAY CONTRACTOR AND ALL SUBCONTRACTORS
- ENGINEER - ENGINEER RESPONSIBLE FOR INSPECTION AND CERTIFICATION PROCEDURE

- A PRE-CONSTRUCTION MEETING IS TO BE HELD PRIOR TO DELIVERY OF MATERIALS AND INITIATION OF ANY WATER, SEWER, OR DRAINAGE CONSTRUCTION. THE MEETING SHALL BE ATTENDED BY THE CITY, CONTRACTOR, SUBCONTRACTORS, ENGINEER, AND OTHER INTERESTED PARTIES.
- ANY REVISIONS TO THE APPROVED PLANS MUST BE APPROVED BY THE CITY PRIOR TO THE PRE-CONSTRUCTION MEETING.
- A MINIMUM OF THREE (3) COPIES OF THE CURRENT APPROVED PRODUCT LIST AND ALL NECESSARY SHOP DRAWINGS SHALL BE SUBMITTED FOR APPROVAL PRIOR TO SCHEDULING THE PRE-CONSTRUCTION MEETING. ALL PIPE MANUFACTURERS SHALL SUBMIT THREE (3) COPIES OF AN AFFIDAVIT THAT THE PIPE AND COATINGS WERE MANUFACTURED IN ACCORDANCE WITH AWWA C151/A21.51-91.
- ALL APPLICABLE PERMITS MUST BE OBTAINED WITH COPIES PROVIDED TO THE CITY PRIOR TO COMMENCEMENT OF CONSTRUCTION.
- THE CONTRACTOR SHALL MAINTAIN A CURRENT APPROVED SET OF CONSTRUCTION DOCUMENTS ON SITE AT ALL TIMES.
- ALL MATERIALS SUPPLIED SHALL CONFORM TO THE PRODUCT LIST AND SHOP DRAWINGS AS APPROVED BY THE CITY PRIOR TO CONSTRUCTION. ALL REQUESTS FOR MATERIAL SUBSTITUTION SHALL BE APPROVED PRIOR TO DELIVERY OF THESE MATERIALS TO THE JOB SITE.
- THE LOCATION OF THE EXISTING UTILITIES AS SHOWN ON THE PLANS ARE APPROXIMATE ONLY. THE EXACT LOCATIONS SHALL BE DETERMINED BY THE CONTRACTOR PRIOR TO CONSTRUCTION. IN ADDITION, THE CONTRACTOR SHALL BE RESPONSIBLE TO VERIFY IF OTHER UTILITIES (NOT SHOWN ON THE PLAN) EXIST WITHIN THE AREA OF CONSTRUCTION. SHOULD THERE BE UTILITY CONFLICTS, THE CONTRACTOR SHALL INFORM THE CITY AND NOTIFY THE RESPECTIVE UTILITY OWNER TO RESOLVE THE UTILITY CONFLICTS AND THE UTILITY ADJUSTMENTS AS REQUIRED.

- PRIOR TO ANY SANITARY PLOT OR WATER MAIN TESTING, UNDER EXISTING OR FUTURE PAVEMENT, THE ROCK BASE SHALL BE FINISHED AND PRIMED OR FIRST LIFT OF PAVEMENT PLACED.
- THE CONTRACTOR SHALL BE RESPONSIBLE AT ALL TIMES THROUGHOUT THE DURATION OF CONSTRUCTION FOR THE PROTECTION OF EXISTING AND NEWLY INSTALLED UTILITIES FROM DAMAGE OR DISRUPTION OF SERVICE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR TAKING SUCH MEASURES AS NECESSARY TO PROTECT THE HEALTH, SAFETY, AND WELFARE OF THOSE PERSONS HAVING ACCESS TO THE WORK SITE.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING LOCATIONS OF ALL OTHER UTILITY FACILITIES.
- THE CONTRACTOR SHALL SCHEDULE INSPECTIONS AND TESTS WITH THE CITY A MINIMUM OF 48 HOURS IN ADVANCE.
- CONTRACTOR SHALL NOT DISTURB EXISTING CITY MAINS OR STRUCTURES WITHOUT THE PRESENCE OF A CITY INSPECTOR. CITY UTILITY SYSTEM VALVES AND APPURTENANCES MAY ONLY BE OPERATED BY CITY PERSONNEL.
- FACILITIES PROPOSED HEREIN SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE APPROVED PLANS. DEVIATIONS FROM THE APPROVED PLANS MUST BE APPROVED IN ADVANCE BY THE CITY.
- UPON COMPLETION OF CONSTRUCTION AND PRIOR TO FINAL ACCEPTANCE OF THE WORK, A FINAL INSPECTION SHALL VERIFY PROPER ADHERENCE TO ALL FACETS OF THE PLANS AND SPECIFICATIONS.
- PAVING, DRAINAGE, AND TRAFFIC CONSTRUCTION SHALL CONFORM TO FLORIDA DEPARTMENT OF TRANSPORTATION ROADWAY AND DESIGN STANDARDS, STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION, MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES LATEST EDITION, (MUTCD) AND PALM BEACH COUNTY TYPICAL T-3-89-004-PS (LATEST REVISION) UNLESS SHOWN OTHERWISE.
- AS-BUILT DRAWINGS SHALL BE PREPARED BY A REGISTERED LAND SURVEYOR, REGISTERED IN THE STATE OF FLORIDA, AND SUBMITTED BY THE CONTRACTOR TO THE CITY. AS THE WORK PROGRESSES, THE ENGINEER OF RECORD (OR THEIR REPRESENTATIVE) SHALL RECORD ON ONE SET OF DRAWINGS THE LOCATION INCLUDING STATION AND OFFSET WITH SUFFICIENT DIMENSIONS AND DISTANCES TO ADEQUATELY DESCRIBE THE LOCATION OF THE IMPROVEMENT FROM THE BASELINE. ELEVATIONS ARE TO BE PROVIDED AT THE TOP OF PIPE AT INCREMENTS OF EVERY 100 FEET ON ALL WATER AND FORCE MAINS. STATIONING IS REQUIRED ON ALL VALVES, FITTINGS, WATER AND SEWER SERVICES AND FIRE HYDRANTS. THE LENGTHS OF ALL WATER SERVICE LINES AND SEWER LATERALS MUST BE NOTED ON GRAVITY SEWER LINES. ELEVATIONS AND STATIONING ARE TO BE INDICATED ON ALL MANHOLE RIMS AND INVERTS. THE DISTANCE BETWEEN MANHOLES IS TO BE SHOWN ON BOTH THE PLAN AND PROFILE SHEETS UNLESS PLAN VIEW AND PROFILE VIEW ARE ON THE SAME SHEET. THE ENGINEER OF RECORD IS TO SUBMIT TWO SETS OF BLUE PRINT RECORD OR AS-BUILT DRAWINGS AND ONE MYLAR TO THE ENGINEERING DEPARTMENT ALONG WITH THE HEALTH DEPARTMENT APPLICATION FOR RELEASE OF THE SYSTEM. ALL "AS-BUILT DRAWINGS" SHALL BE SIGNED SEALED AND DATED BY THE ENGINEER OF RECORD. CERTIFICATE OF OCCUPANCY WILL BE HELD UNTIL ACCEPTANCE BY HRS AND THE PUBLIC WORKS ENGINEERING DEPARTMENT. PAVING & DRAINAGE AS-BUILT DRAWINGS SHALL INCLUDE RIM ELEVATIONS, INVERT ELEVATIONS, PIPE SIZES, CONTROL STRUCTURE DIMENSIONS, AS WELL AS, AS-BUILT ELEVATIONS AT EVERY LOCATION A PROPOSED ELEVATION IS INDICATED ON THE CONSTRUCTION PLAN. ADEQUATE AS-BUILT ELEVATIONS SHALL BE PROVIDED ON EMBANKMENTS TO DETERMINE COMPLIANCE WITH MAXIMUM SLOPE REQUIREMENTS.



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KH PROJECT #	044300089
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441586-1-58-01	
SCALE	AS SHOWN
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DRAWN BY	MT
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 PREPARED FOR
CITY OF DELRAY BEACH
 CITY OF DELRAY BEACH

ENGINEER'S SEAL	
ERIC REGUEIRO, P.E.	
FL LICENSE NUMBER	86211
DATE:	09/17/2024

No.	REVISIONS	DATE	BY

GENERAL NOTES

PROJECT NUMBER	20-015
SHEET NUMBER	C-107
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Plotted By: Teddy, Max - Sheet: Set1:LINDELL_LAYOUT.C-107 - November 06, 2024 05:22:24pm - IC:\WPB_Design\044300089_Lindep\loop_Working\04_Sheets\GENERAL_NOTES.dwg
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GENERAL CONSTRUCTION NOTES

CITY OF DELRAY BEACH GENERAL NOTES CONTINUED:


17. CONTRACTOR SHALL CLEAN AND TELEVISION ALL STORM DRAINAGE SYSTEM IN PROJECT AREA
18. CONTRACTOR SHALL SUBMIT A HEALTH & SAFETY PLAN & EMERGENCY HURRICANE PLAN FOR APPROVAL BY CITY & EOR.
19. CONTRACTOR SHALL ESTABLISH A PUBLIC OUTREACH WEBSITE AND OFFICER TO UPDATE DATABASE WEEKLY.
20. ALL LUMBER SHALL BE ACQ TREATED TO 502.
21. ALL HARDWARE AND FASTENERS SHALL BE 316 STAINLESS STEEL.
22. ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH ADA CODES & REGULATIONS.
23. CONTRACTOR TO ADJUST ALL UTILITY VALVES, METERS, AND COVERS TO MATCH NEW GRADE.
24. THE CONTRACTOR SHALL BE RESPONSIBLE TO CONTACT/LOCATE OTHER UTILITIES NOT SUBSCRIBING TO "SUNSHINE".
25. ALL PIPES SHALL BE IN ACCORDANCE WITH FLORIDA DOT AND PALM BEACH COUNTY REQUIREMENTS AND SHALL BE A MINIMUM 18" DIAMETER WITHIN THE CITY RIGHT OF WAY.
26. ALL INLET DRAINAGE STRUCTURES SHALL HAVE A MINIMUM 18" SUMP, EXCEPT CONTROL STRUCTURES. VARIATION FROM THIS REQUIREMENT MAY BE ALLOWED IN LIMITED CIRCUMSTANCES, SUCH AS TO AVOID UTILITY CONFLICTS. WEEP HOLES SHALL NOT BE A PART OF THESE SUMPS.
27. THE CONTRACTOR SHALL TAKE ALL NECESSARY CARE AND CAUTION TO PREVENT MILLED MATERIALS FROM ENTERING THE EXISTING AND PROPOSED DRAINAGE SYSTEM. ALL COSTS ASSOCIATED WITH THIS WORK SHALL BE INCLUDED IN ITEM MILLING EXISTING ASPHALT PAVEMENT.
28. THE CONTRACTOR SHALL MAINTAIN ACCESS TO ALL ADJOINING PROPERTIES AT ALL TIMES AND SCHEDULE WORK TO EXPEDITE DRIVEWAY DRAINAGE STRUCTURE INSTALLATION IN THE VICINITY OF ADJOINING PROPERTIES.
29. WHEN WORKING WITHIN (10') FEET OF A TRAFFIC SIGNAL POLE, PALM BEACH COUNTY TRAFFIC OPERATIONS SHALL BE NOTIFIED FROM 6 AM - 5 PM (561) 233-3900 AFTER 5 PM (561) 683-6885.
30. AT THE BEGINNING AND END OF THE PROJECT, THE CONTRACTOR SHALL USE CAUTION DURING SAW CUTTING AND MILLING OPERATIONS SO AS NOT TO DAMAGE EXISTING LOOPS. IN CASE OF DAMAGE, THE COST OF REPLACING EXISTING AND CONNECTING NEW LOOPS, SHALL BE AT THE CONTRACTOR'S COST.
31. IMMEDIATELY AFTER AWARDED THE CONTRACT BUT BEFORE THE CONTRACTOR BEGINS WORK, THE ENGINEER WILL CALL A PRE-CONSTRUCTION CONFERENCE AT A PLACE THE ENGINEER DESIGNATES TO GO OVER THE CONSTRUCTION ASPECTS OF THE PROJECT. ATTEND THIS MEETING, ALONG WITH THE CITY AND THE VARIOUS UTILITY COMPANIES THAT WILL BE INVOLVED WITH THE ROAD CONSTRUCTION.
32. CONTRACTOR TO RESTORE PROJECT AREA TO EXISTING OR BETTER CONDITION AND PLACE SOD BEHIND SIDEWALK ALONG THE PROJECT LENGTH.
33. CONTRACTOR SHALL SUBMIT A SWPPP PRIOR AND DURING CONSTRUCTION OF ALL SITES. THIS PLAN AND IMPLEMENTATION MUST FOLLOW THE CITY'S STANDARD AND SPECS.
34. UTILITIES ARE TO BE ADJUSTED BY OTHERS UNLESS OTHERWISE NOTED.
35. PROJECT MANAGER AND THE DESIGN ENGINEER, SHALL BE ACCOMPANIED WITH MANUFACTURER'S DRAWINGS, SPECIFICATIONS, AND SUFFICIENT DATA TO ESTABLISH THE EQUIVALENCY OF THE PROPOSED SUBSTITUTION. AT THE CITY'S OPTION, A SIGNED AND SEALED CERTIFICATION BY A FLORIDA LICENSED ENGINEER MAY BE REQUIRED.
36. CONTRACTOR TO RESTORE PAVEMENT TO EXISTING OR BETTER CONDITION PER CITY OF DELRAY BEACH STANDARD GU 1.1.
37. ALL TREE REMOVAL MUST BE PERFORMED WITHIN THE RIGHT OF WAY. ALL TREE TRIMMING SHALL TAKE PLACE WITHIN OR AT THE RIGHT OF WAY LINE.

GENERAL CONSTRUCTION NOTES:

1. PRIOR TO COMMENCEMENT OF ANY EXCAVATION, THE CONTRACTOR SHALL COMPLY WITH FLORIDA STATUTE 553-851 FOR PROTECTION OF UNDERGROUND GAS PIPE LINES.
2. CONTRACTOR SHALL NOTIFY SUNSHINE STATE ONE (1-800-638-4097) 48 HOURS IN ADVANCE OF CONSTRUCTION.
3. GRADES SHOWN ON PLANS ARE FINISHED GRADES. THE CONTRACTOR SHALL BE REQUIRED TO ADJUST EXISTING SANITARY SEWER MANHOLE TOPS, STORM DRAIN MANHOLE TOPS, AND VALVE BOX COVERS TO FINISHED GRADE.
4. CONTRACTOR SHALL MAINTAIN LOCAL TRAFFIC AT ALL TIMES DURING CONSTRUCTION AND SHALL BE REQUIRED TO PROVIDE ALL BARRICADES, LIGHTING, SIGNAGE AND FLAGMEN AS NECESSARY TO PROVIDE FOR THE SAFETY OF THE PUBLIC IN THE WORK AREA. THE CONTRACTOR SHALL SUBMIT A DETAILED TRAFFIC CONTROL PLAN PRIOR TO CONSTRUCTION.
5. CONTRACTOR SHALL COORDINATE AND MAINTAIN ACCESS AT ALL TIMES AND PARKING TO THE PARKING LOTS AND DRIVEWAYS. CONTRACTOR TO PROVIDE TEMPORARY PAVEMENT AND SHALL ESTABLISH TEMPORARY DRIVEWAYS AS NECESSARY TO CONSTRUCT THE PROJECT AND MAINTAIN ACCESS TO THE RESIDENCES AND BUSINESSES. CONTRACTOR TO COORDINATE WITH PROPERTY OWNERS AT LEAST 48-HOURS IN ADVANCE OF ANY WORK THAT IMPACTS THE PARKING LOTS OR DRIVEWAYS. CONTRACTOR TO MAINTAIN ACCESS TO PROPERTY FROM IMPACTED WORK BEFORE THE END OF EACH WORK DAY.
6. EXISTING BASE MATERIAL THAT IS REMOVED DURING CONSTRUCTION SHALL NOT BE USED IN THE CONSTRUCTION OF NEW LIMEROCK BASE.
7. ALL VEGETATION, DEBRIS, CONCRETE OR OTHER UNSUITABLE MATERIAL SHALL BE LEGALLY DISPOSED OF OFF-SITE IN AN AREA AT THE CONTRACTORS EXPENSE.
8. CONTRACTOR SHALL UTILIZE CONSTRUCTION METHODS AND DEVICES, SUCH AS TURBIDITY SCREENS, CURTAINS AND FLOATING SILT BARRIERS WHERE NECESSARY IN ORDER TO COMPLY WITH ALL STATE AND LOCAL WATER QUALITY STANDARDS.
9. PRIOR TO AND DURING CONSTRUCTION OF ALL SITES, THE PERMITEE SHALL IMPLEMENT AND MAINTAIN ALL EROSION AND SEDIMENT CONTROL MEASURES INCLUDED IN A POLLUTION PREVENTION PLAN PROVIDED TO THE CITY OF DELRAY BEACH.
10. ALL REINFORCED CONCRETE STORM SEWER PIPE SHALL BE CLASS III, UNLESS OTHERWISE NOTED.
11. ALL PAVED SURFACES SHALL BE PROPERLY MARKED PRIOR TO HOURS OF DARKNESS. PERMANENT PAVEMENT MARKINGS SHALL BE LAID OUT USING MARKING CHALK. LAYOUT TO BE REVIEWED BY THE CITY PRIOR TO PLACEMENT OF FINAL MARKING.
12. EMBANKMENT (FILL) AND EXCESS MATERIAL REQUIRED FOR ROADWAY RECONSTRUCTION AND UTILITY INSTALLATIONS SHALL BE SUPPLIED AND/OR DISPOSED OF BY THE CONTRACTOR. ALL COSTS ASSOCIATED WITH EARTHWORK REQUIREMENTS TO COMPLETE THE ROADWAY RECONSTRUCTION AND UTILITY IMPROVEMENTS SHALL BE INCLUDED IN THE COSTS OF OTHER APPROPRIATE PAY ITEMS.
13. CONTINUITY OF WATER AND SEWER SERVICE TO CITY UTILITY CUSTOMERS SHALL BE MAINTAINED THROUGHOUT THE DURATION OF THIS PROJECT. IF A BREAK IN SERVICE IS UNAVOIDABLE TO ACCOMMODATE CONNECTION OF NEW FACILITIES, IT SHALL BE SCHEDULED FOR OFF PEAK HOURS WITH THE CITY. DETERMINATION OF SERVICE BREAK REQUIREMENT WILL BE MADE BY THE CITY.
14. SITE INFORMATION BASED ON A SURVEY PREPARED BY:
 CRAIG A. SMITH & ASSOCIATES
 1425 E NEWPORT CENTER DR
 DEERFIELD BEACH, FL 33442
 (561) 314-4445
 CERTIFICATE NO. LB0003110
15. RELOCATION OF UTILITY POLES AND GAS PIPE LINES SHALL BE COORDINATED BY THE CONTRACTOR WITH FLORIDA POWER AND LIGHT, AT&T AND FLORIDA PUBLIC UTILITIES, RESPECTIVELY. EACH UTILITY HAS BEEN NOTIFIED THAT THEY WILL BE REQUIRED TO RELOCATE THEIR UTILITIES.

ABBREVIATION	MEANING
EXIST.	EXISTING
CONST.	CONSTRUCT
R/W	RIGHT-OF-WAY
FD	FRENCH DRAIN
LF	LINEAR FOOT
ME	MATCH EXISTING
PVMT.	PAVEMENT
GR	GUARDRAIL
STA.	STATION
LT	LEFT
RT	RIGHT
EL	ELEVATION
AH	AHEAD
EOP	EDGE OF PAVEMENT
BK	BACK
FL	FLOW LINE
TYP	TYPICAL

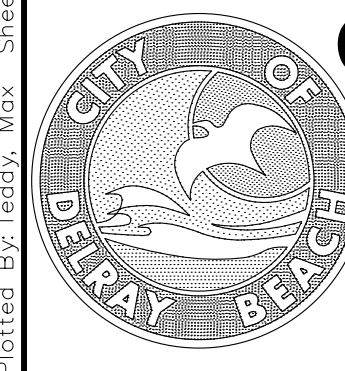
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DIAL 811

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SUNSHINE STATE ONE CALL OF FLORIDA, INC.



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 WWW.KIMLEY-HORN.COM

KH PROJECT #	044300089
FM #	441586-1-58-01
SCALE	AS SHOWN
DESIGNED BY	BK
DRAWN BY	MT
CHECKED BY	ER

BRANT BRIDGE CONNECTOR
 PREPARED FOR
CITY OF DELRAY BEACH
 CITY OF DELRAY BEACH

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ERIC REGUEIRO, P.E.	
FL LICENSE NUMBER	86211
DATE:	09/17/2024

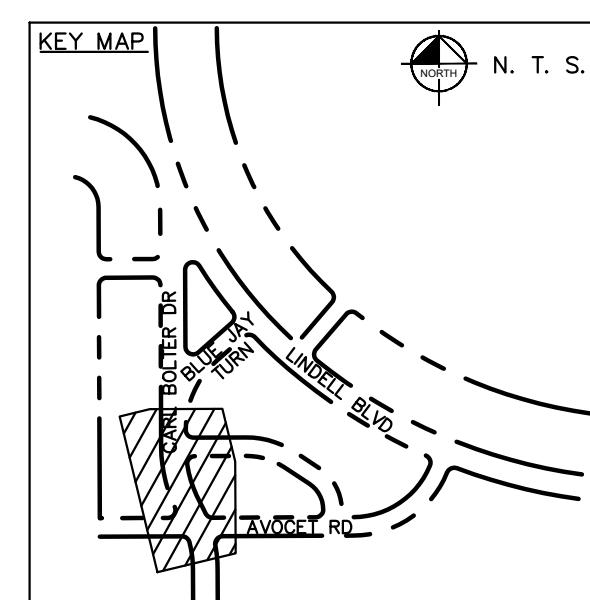
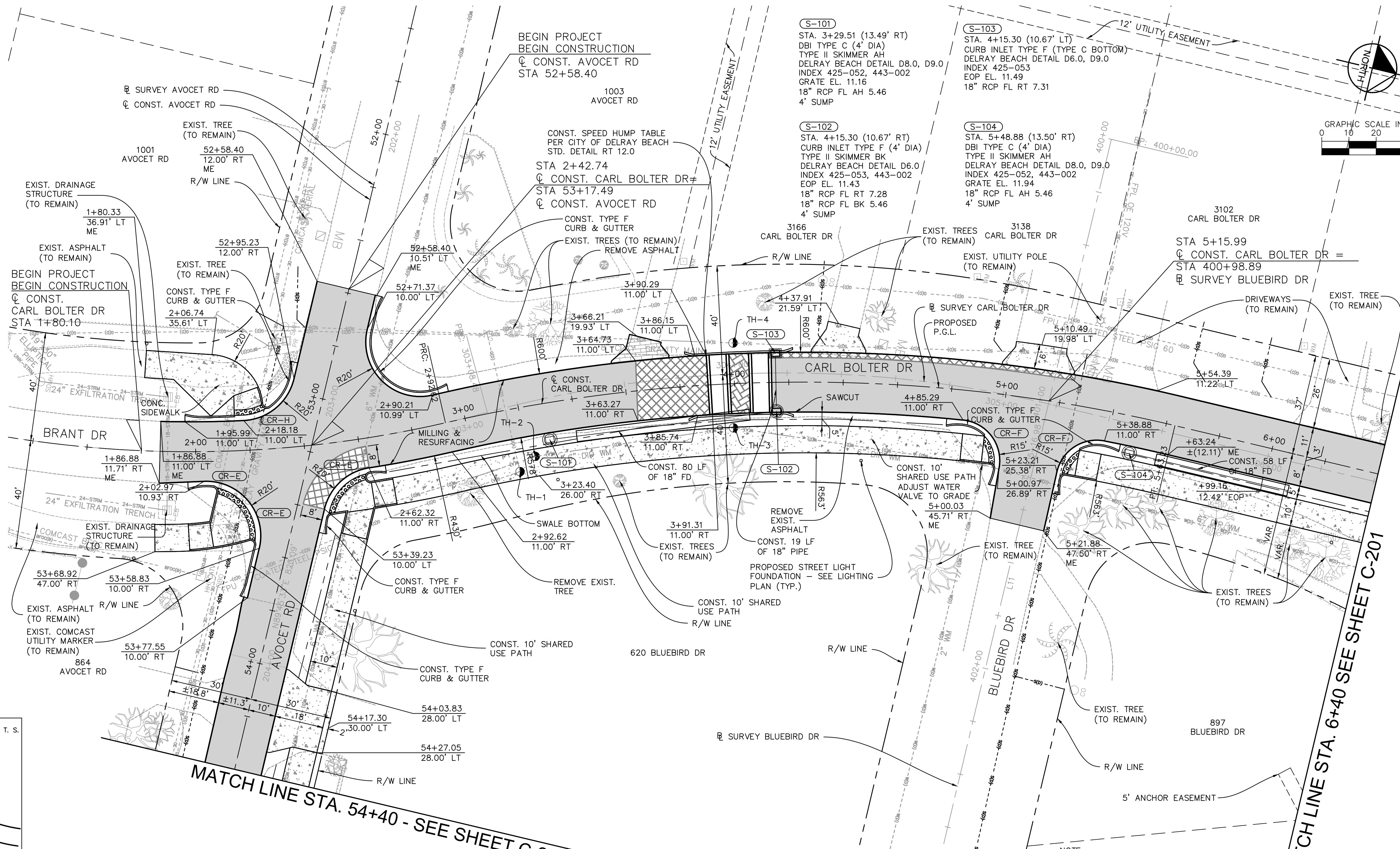
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GENERAL NOTES

PROJECT NUMBER	20-015
SHEET NUMBER	C-108
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LEGEND

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 SUNSHINE STATE ONE CALL OF FLORIDA, INC.

- NOTE:**
- CONTRACTOR TO COORDINATE WITH HOMEOWNER WHEN RELOCATED/REPLACING MAILBOX
 - CONTRACTOR TO MATCH DRIVEWAY TYPE. CONTRACTOR TO INSTALL EXPANSION JOINT MATERIAL PER CITY OF DELRAY STANDARD DETAIL RT 18.1.
 - INCLUDE 9" THICKENED EDGE FOR CONCRETE DRIVEWAYS PER CITY OF DELRAY STANDARD DETAIL RT 23.0

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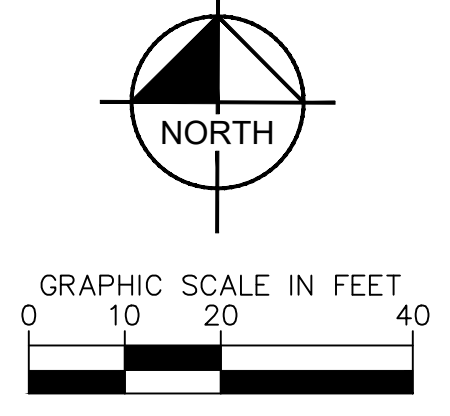
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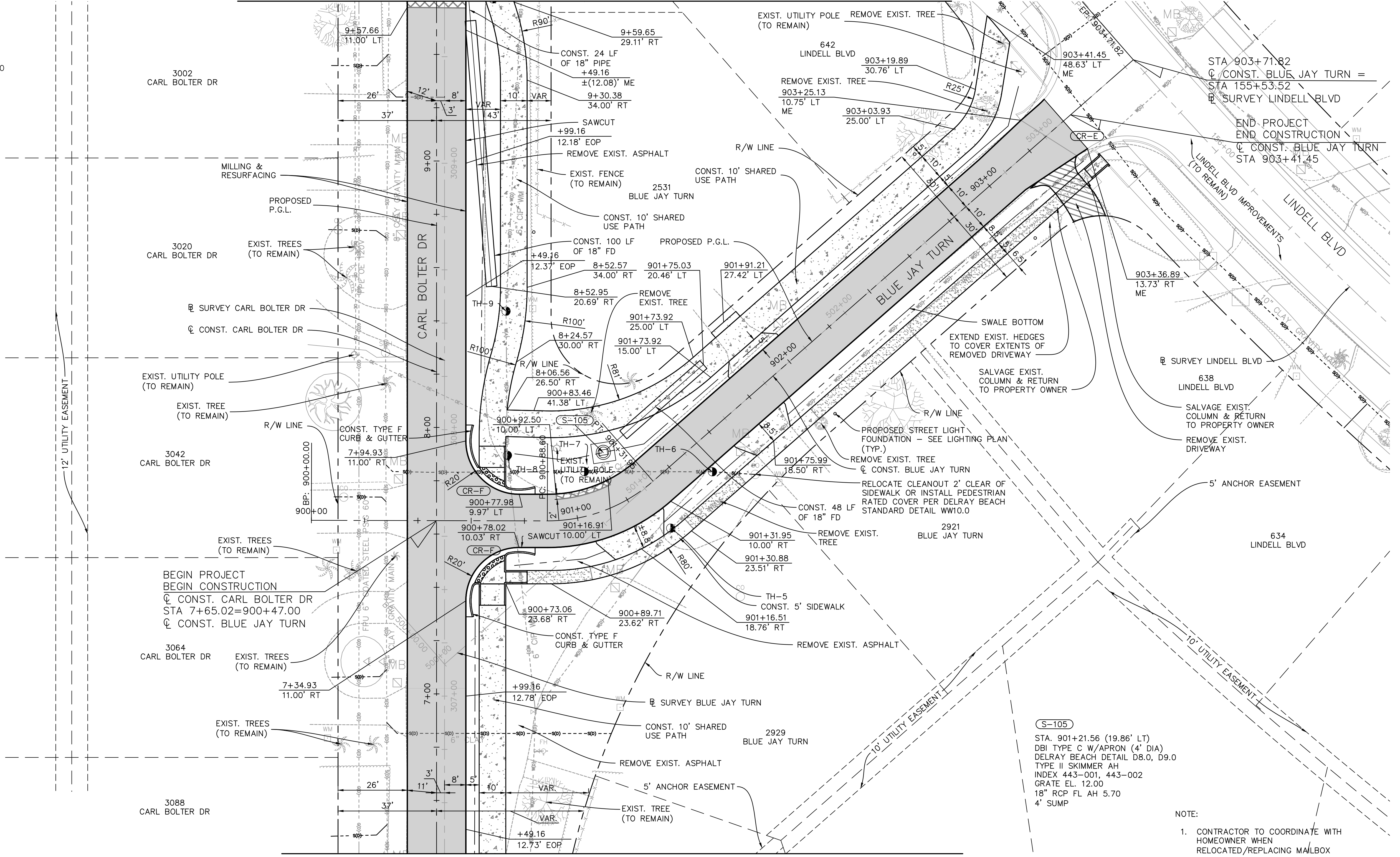
ROADWAY PLAN

PROJECT NUMBER	20-015
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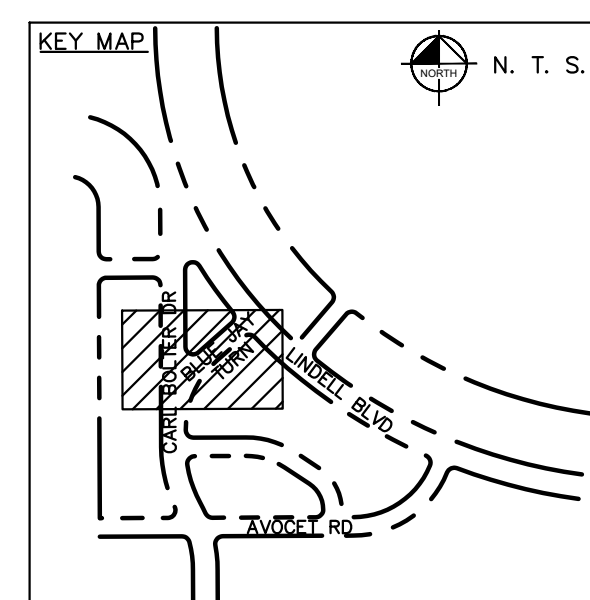
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MATCH LINE STA. 9+60 - SEE SHEET C-202



MATCH LINE STA. 6+40 - SEE SHEET C-200



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LEGEND			
	DETECTABLE WARNING SURFACE		MILLING, OVERBUILD & RESURFACING
	WIDENING/RECONSTRUCTION		6" CONCRETE
	ARCHITECTURAL ROADWAY PAVERS		4" CONCRETE
	DRIVEWAY REMOVAL		

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ROADWAY PLAN

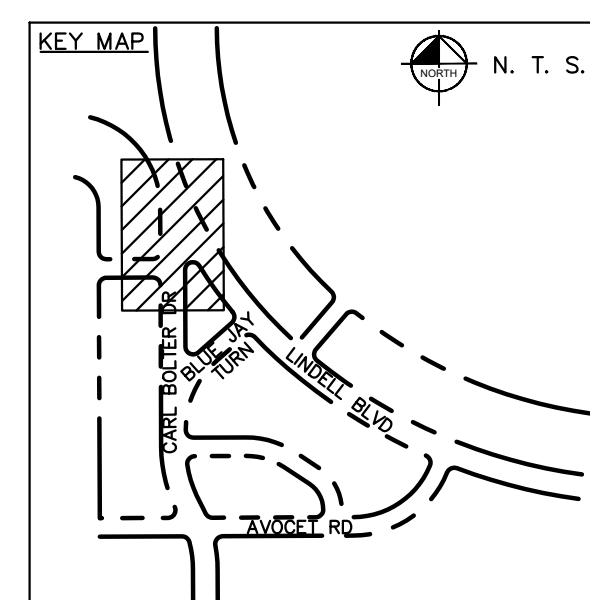
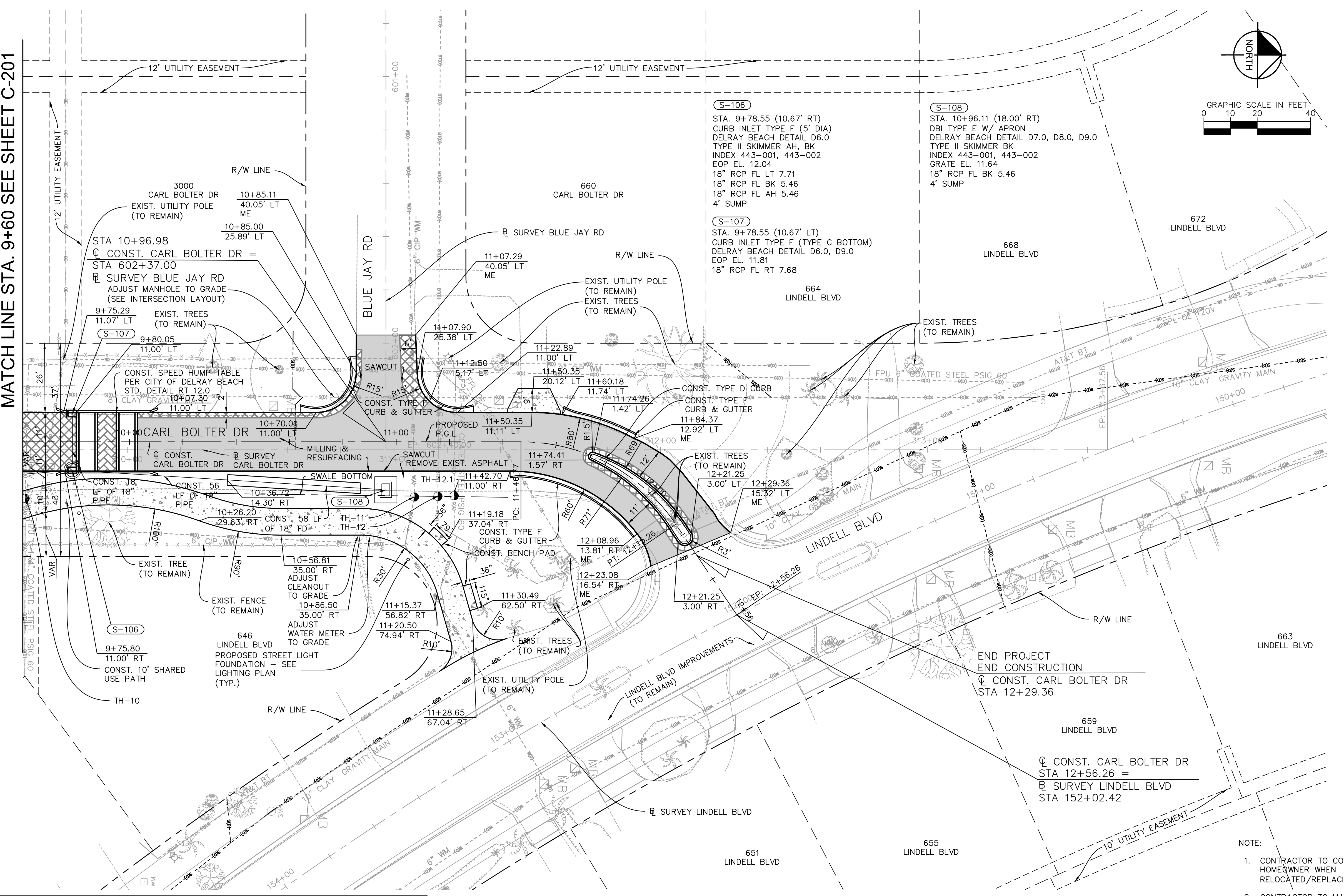
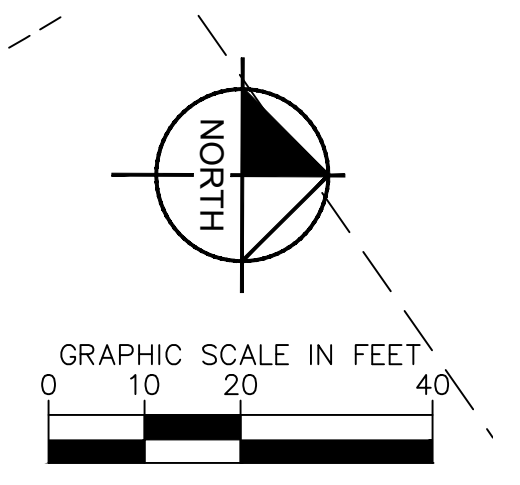
PROJECT NUMBER 20-015
SHEET NUMBER C-201
11 OF 51

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MATCH LINE STA. 9+60 SEE SHEET C-201



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LEGEND	
	DETECTABLE WARNING SURFACE
	MILLING, OVERBUILD & RESURFACING
	WIDENING/RECONSTRUCTION
	ARCHITECTURAL ROADWAY PAVERS
	6" CONCRETE

- NOTE:
- CONTRACTOR TO COORDINATE WITH HOMEOWNER WHEN RELOCATED/REPLACING MAILBOX
 - CONTRACTOR TO MATCH DRIVEWAY TYPE. CONTRACTOR TO INSTALL EXPANSION JOINT MATERIAL PER CITY OF DELRAY STANDARD DETAIL RT 18.1.
 - INCLUDE 9" THICKENED EDGE FOR CONCRETE DRIVEWAYS PER CITY OF DELRAY STANDARD DETAIL RT 23.0

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KH PROJECT # 044300089
 FM # 441586-1-58-01
 SCALE AS SHOWN
 DESIGNED BY BK
 DRAWN BY MT
 CHECKED BY ER
BRANT BRIDGE CONNECTOR
 PREPARED FOR
CITY OF DELRAY BEACH
 CITY OF DELRAY BEACH

ENGINEER'S SEAL	
ERIC REGUEIRO, P.E.	FL LICENSE NUMBER 86211
No.	REVISIONS
DATE	BY

ROADWAY PLAN

PROJECT NUMBER	20-015
SHEET NUMBER	C-202
	12 OF 51

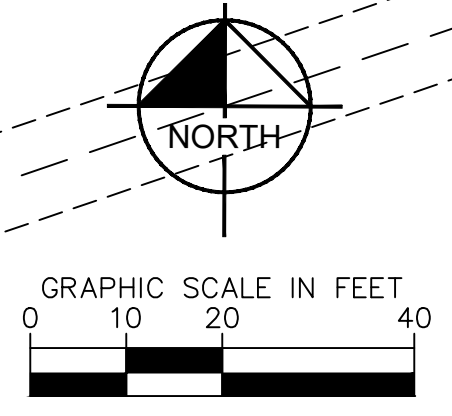
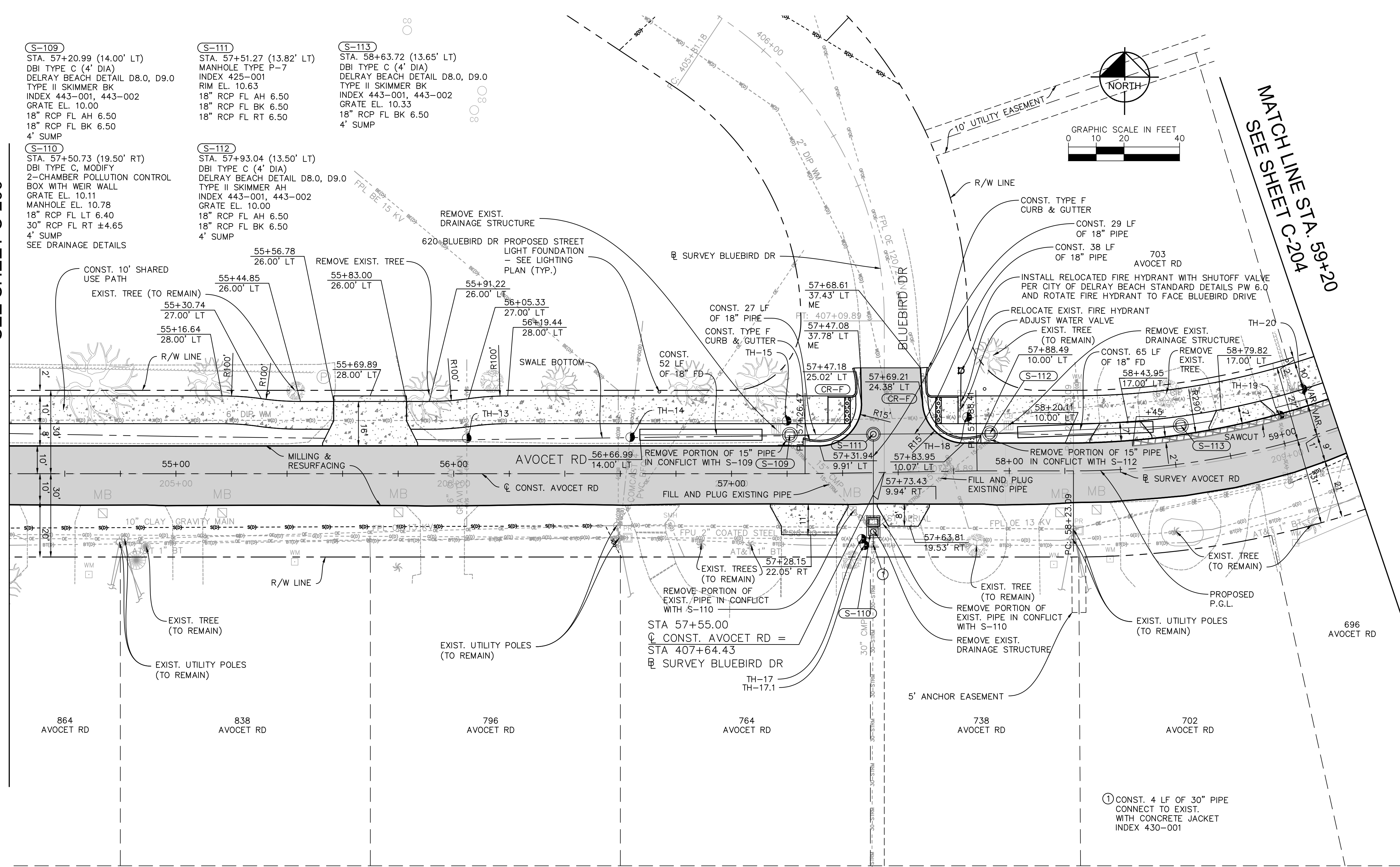
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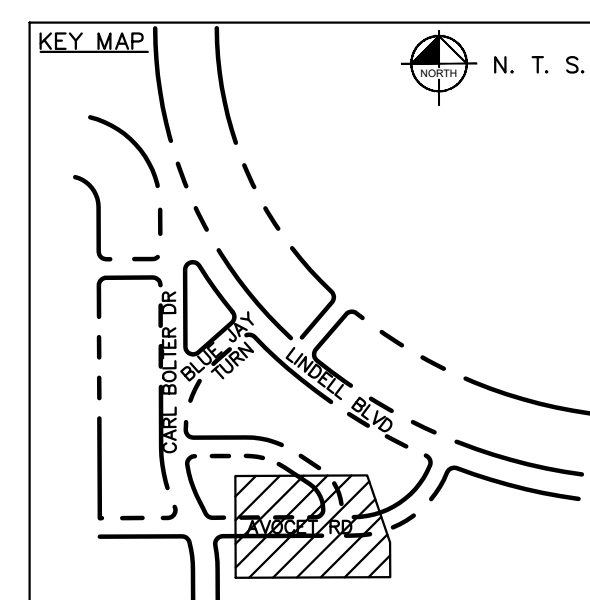
MATCH LINE STA. 54+40
 SEE SHEET C-200

- (S-109)**
 STA. 57+20.99 (14.00' LT)
 DBI TYPE C (4" DIA)
 DELRAY BEACH DETAIL D8.0, D9.0
 TYPE II SKIMMER BK
 INDEX 443-001, 443-002
 GRATE EL. 10.00
 18" RCP FL AH 6.50
 18" RCP FL BK 6.50
 4' SUMP
- (S-111)**
 STA. 57+51.27 (13.82' LT)
 MANHOLE TYPE P-7
 INDEX 425-001
 RIM EL. 10.63
 18" RCP FL AH 6.50
 18" RCP FL BK 6.50
 18" RCP FL RT 6.50
- (S-113)**
 STA. 58+63.72 (13.65' LT)
 DBI TYPE C (4" DIA)
 DELRAY BEACH DETAIL D8.0, D9.0
 TYPE II SKIMMER BK
 INDEX 443-001, 443-002
 GRATE EL. 10.33
 18" RCP FL BK 6.50
 4' SUMP

- (S-110)**
 STA. 57+50.73 (19.50' RT)
 DBI TYPE C, MODIFY
 2-CHAMBER POLLUTION CONTROL
 BOX WITH WEIR WALL
 GRATE EL. 10.11
 MANHOLE EL. 10.78
 18" RCP FL LT 6.40
 30" RCP FL RT ±4.65
 4' SUMP
 SEE DRAINAGE DETAILS
- (S-112)**
 STA. 57+93.04 (13.50' LT)
 DBI TYPE C (4" DIA)
 DELRAY BEACH DETAIL D8.0, D9.0
 TYPE II SKIMMER AH
 INDEX 443-001, 443-002
 GRATE EL. 10.00
 18" RCP FL AH 6.50
 18" RCP FL BK 6.50
 4' SUMP



MATCH LINE STA. 59+20
 SEE SHEET C-204



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LEGEND	
	DETECTABLE WARNING SURFACE
	6" CONCRETE
	MILLING, OVERBUILD & RESURFACING
	PAVER DRIVEWAY RECONSTRUCTION

① CONST. 4 LF OF 30" PIPE
 CONNECT TO EXIST.
 WITH CONCRETE JACKET
 INDEX 430-001

- NOTE:
- CONTRACTOR TO COORDINATE WITH HOMEOWNER WHEN RELOCATED/REPLACING MAILBOX
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 DRAWN BY MT
 CHECKED BY ER
BRANT BRIDGE CONNECTOR
 PREPARED FOR
CITY OF DELRAY BEACH
 CITY OF DELRAY BEACH

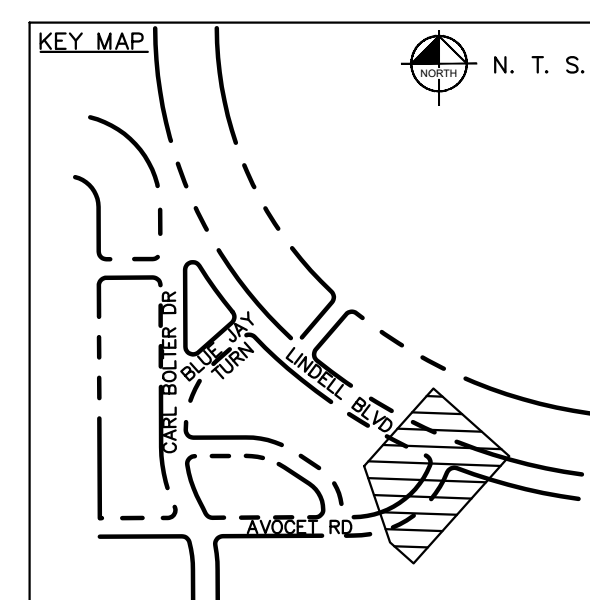
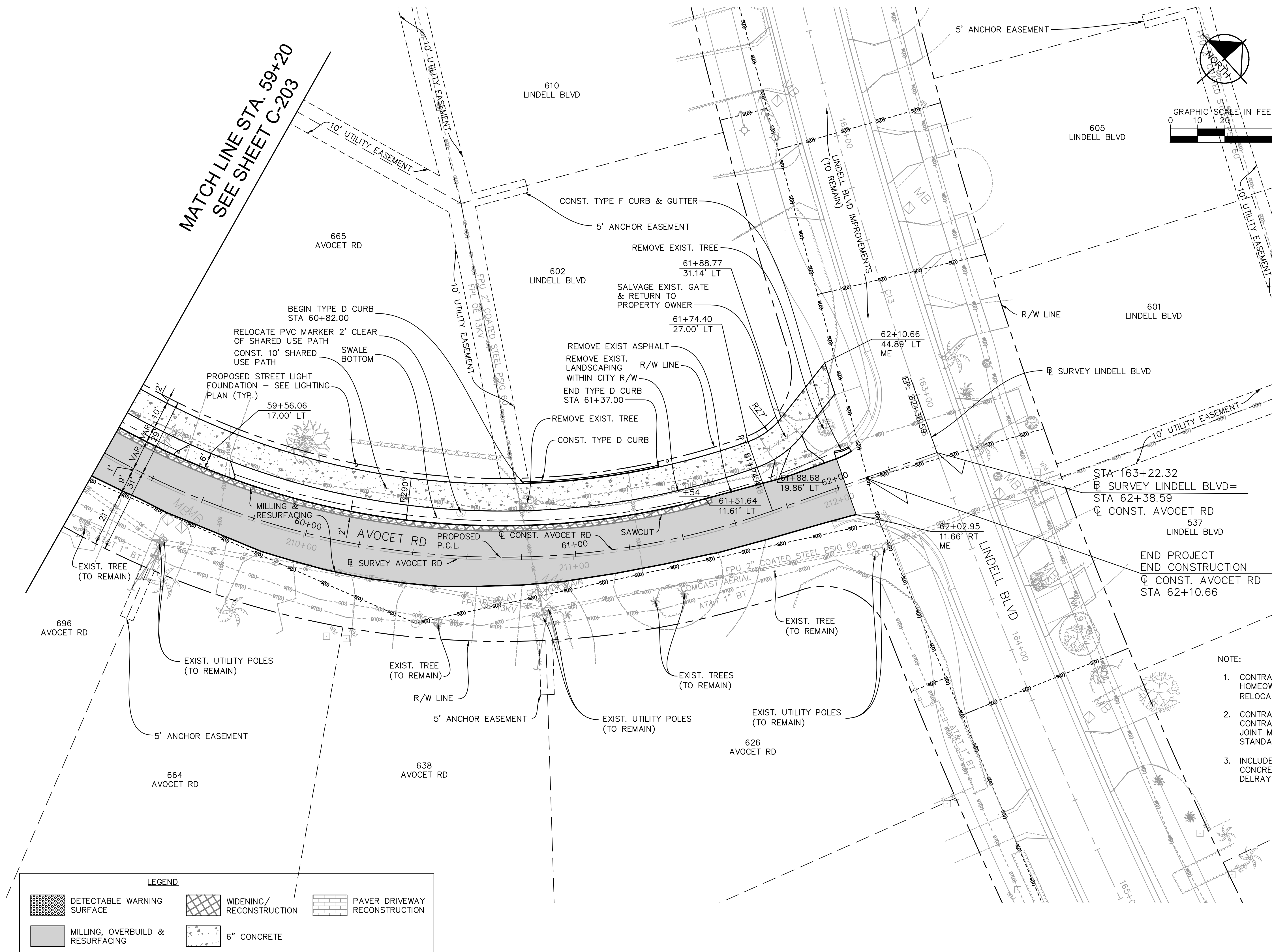
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ROADWAY PLAN

PROJECT NUMBER 20-015
SHEET NUMBER C-203
13 OF 51

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FL DATE:	09/17/2024

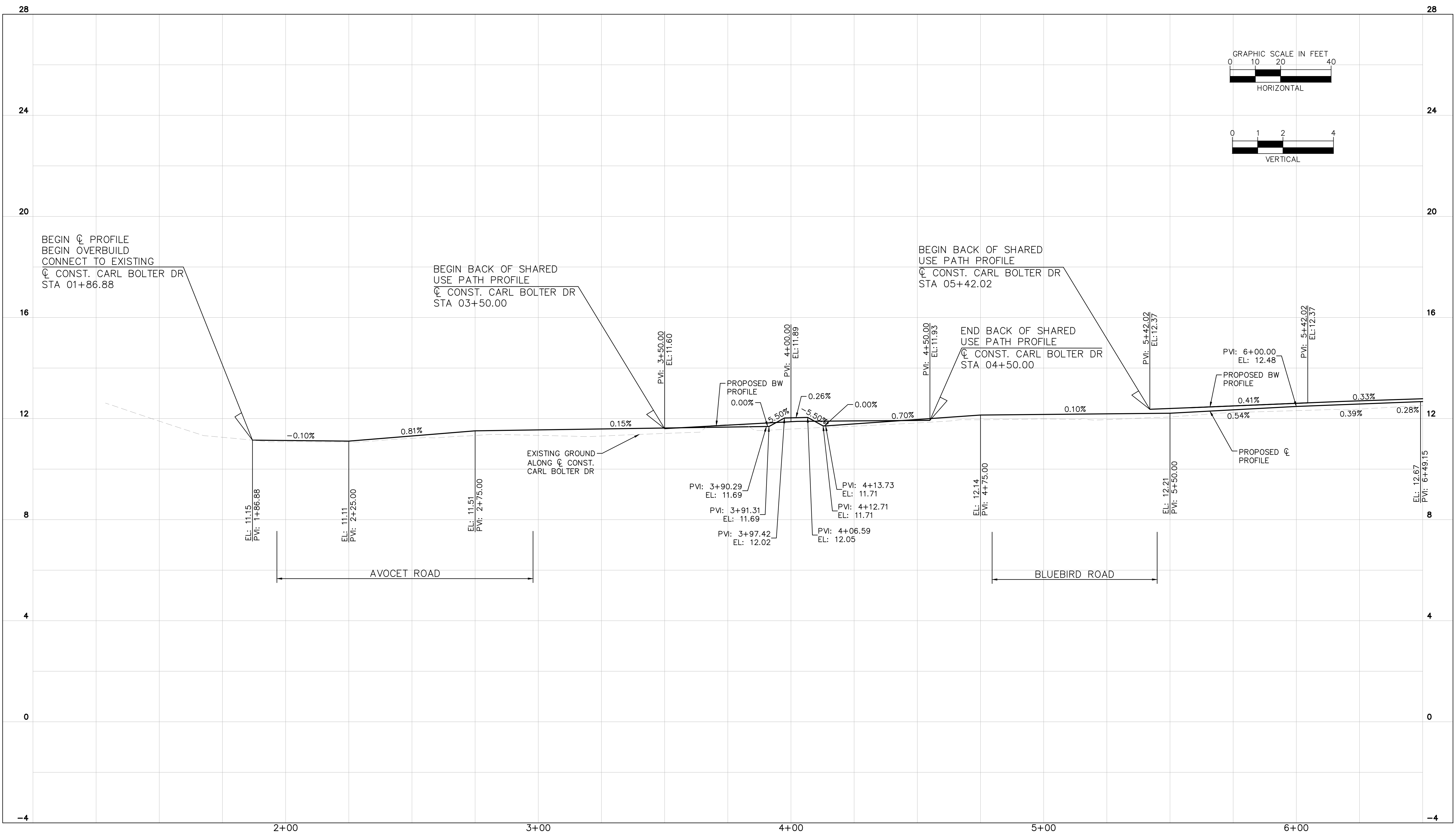
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ROADWAY PLAN

PROJECT NUMBER	20-015
SHEET NUMBER	C-204
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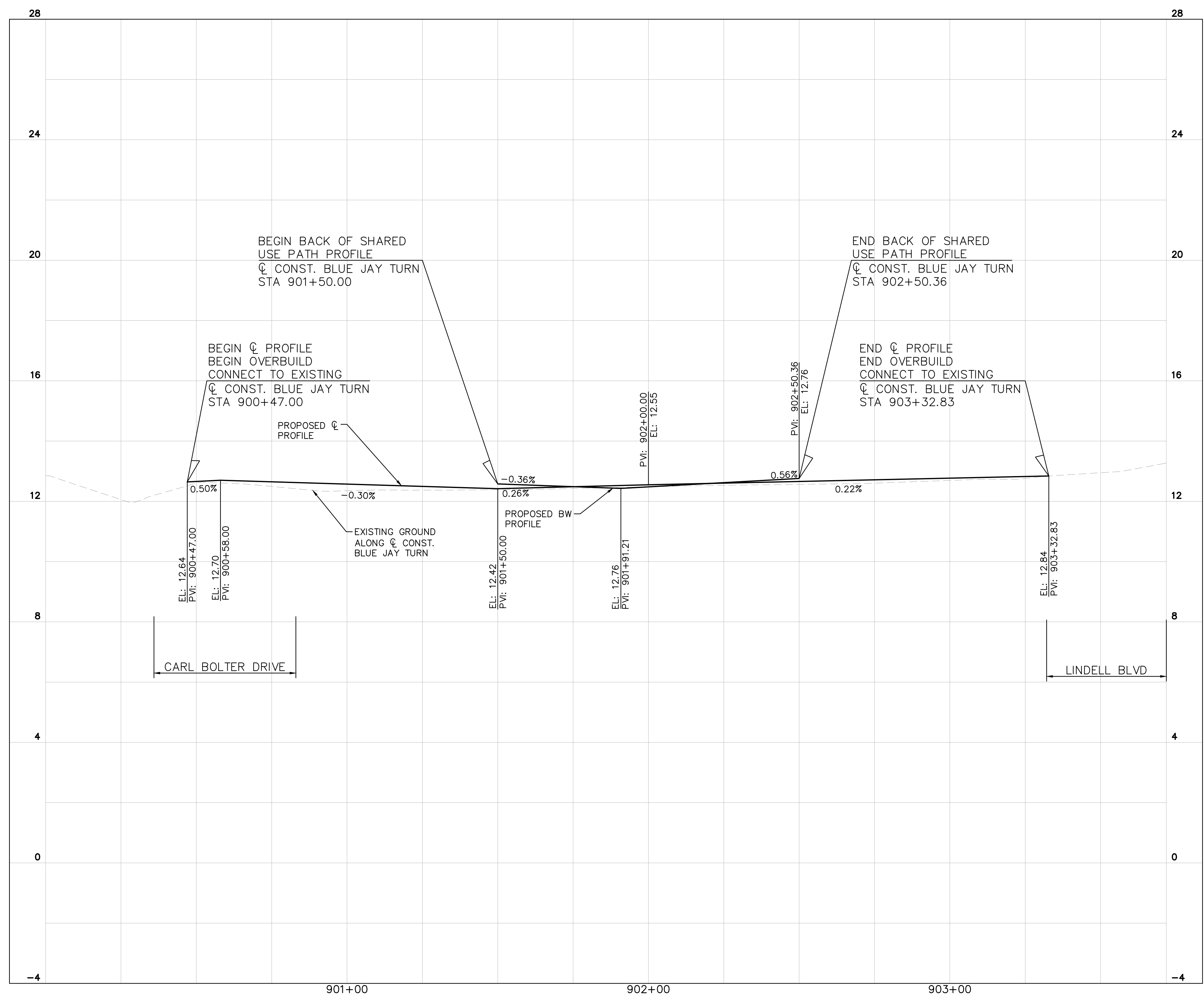
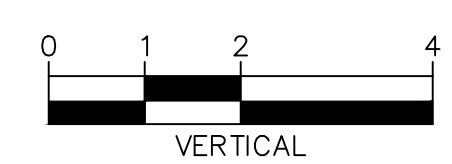
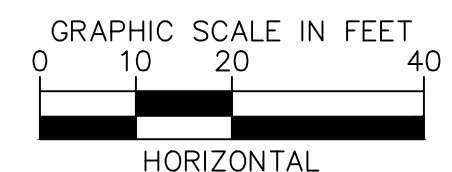
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CARL BOLTER DRIVE
ROADWAY PROFILE

PROJECT NUMBER 20-015
 SHEET NUMBER **C-205**
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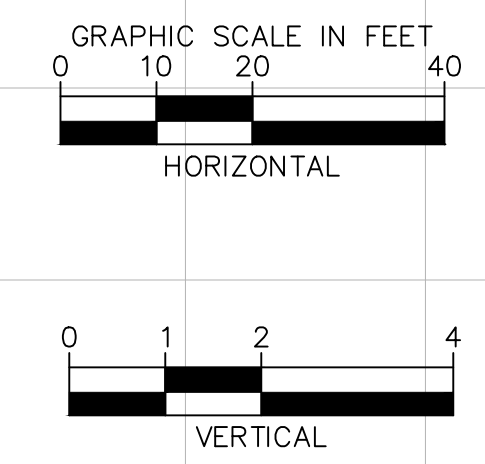
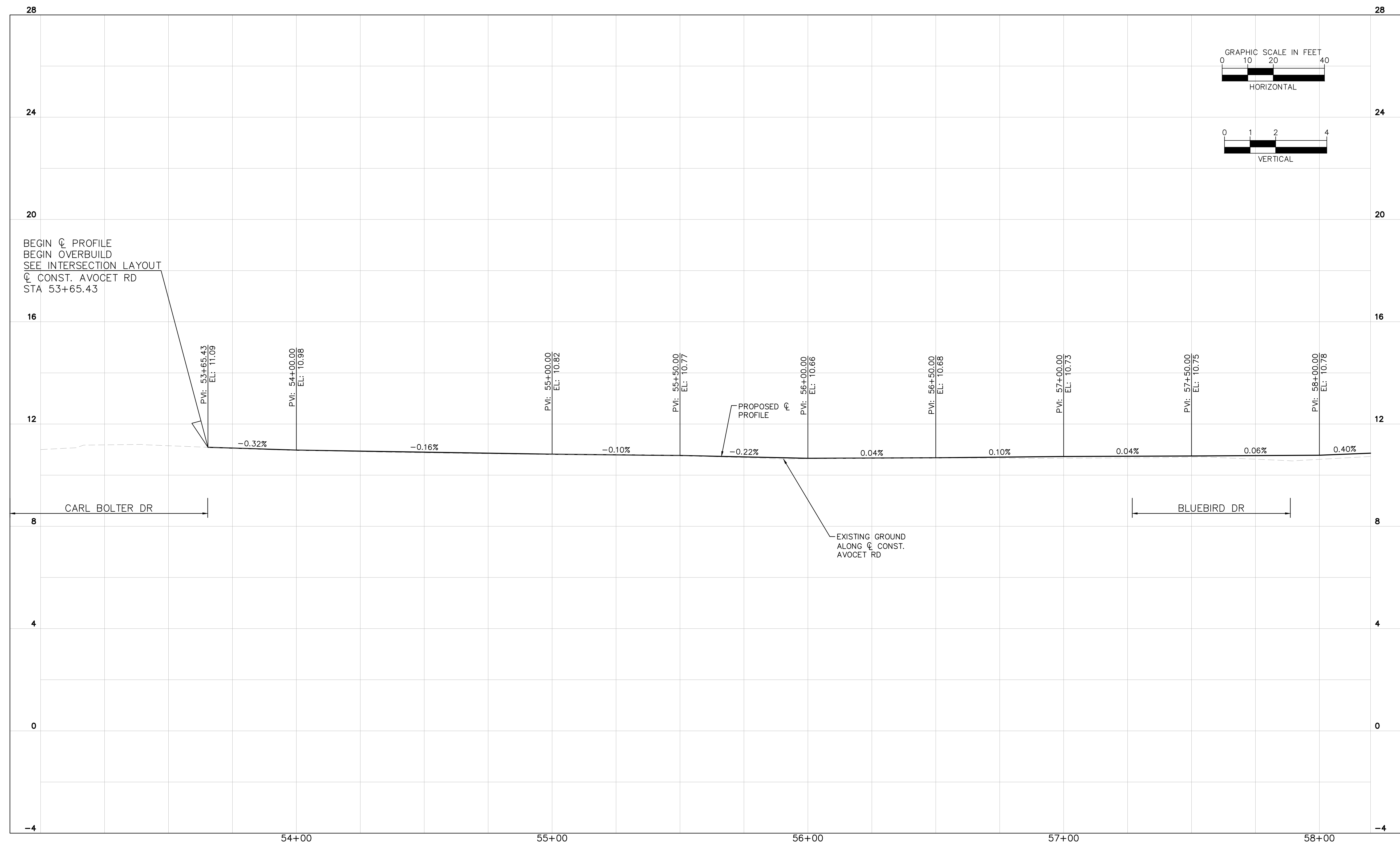
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BLUE JAY TURN
ROADWAY PROFILE

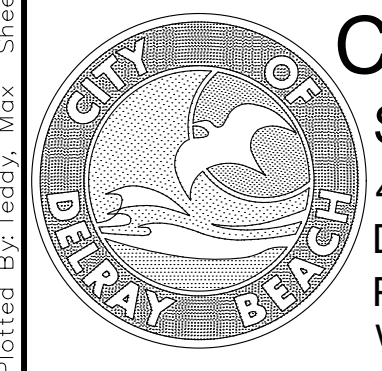
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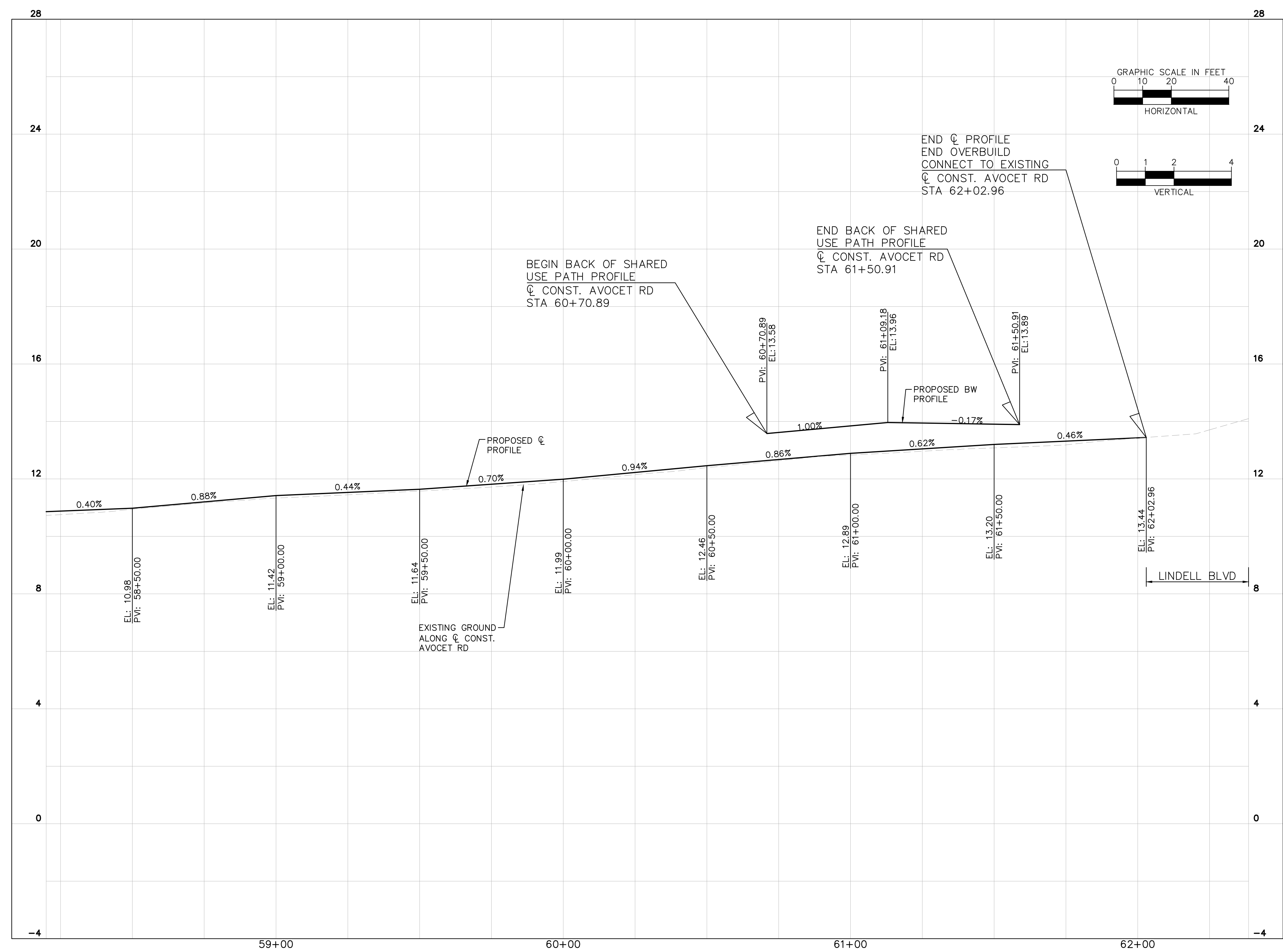
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AVOCET ROAD
ROADWAY PROFILE

PROJECT NUMBER	20-015
SHEET NUMBER	C-208
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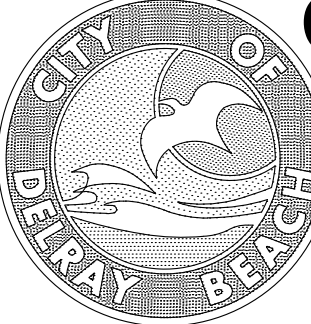
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AVOCET ROAD

ROADWAY PROFILE


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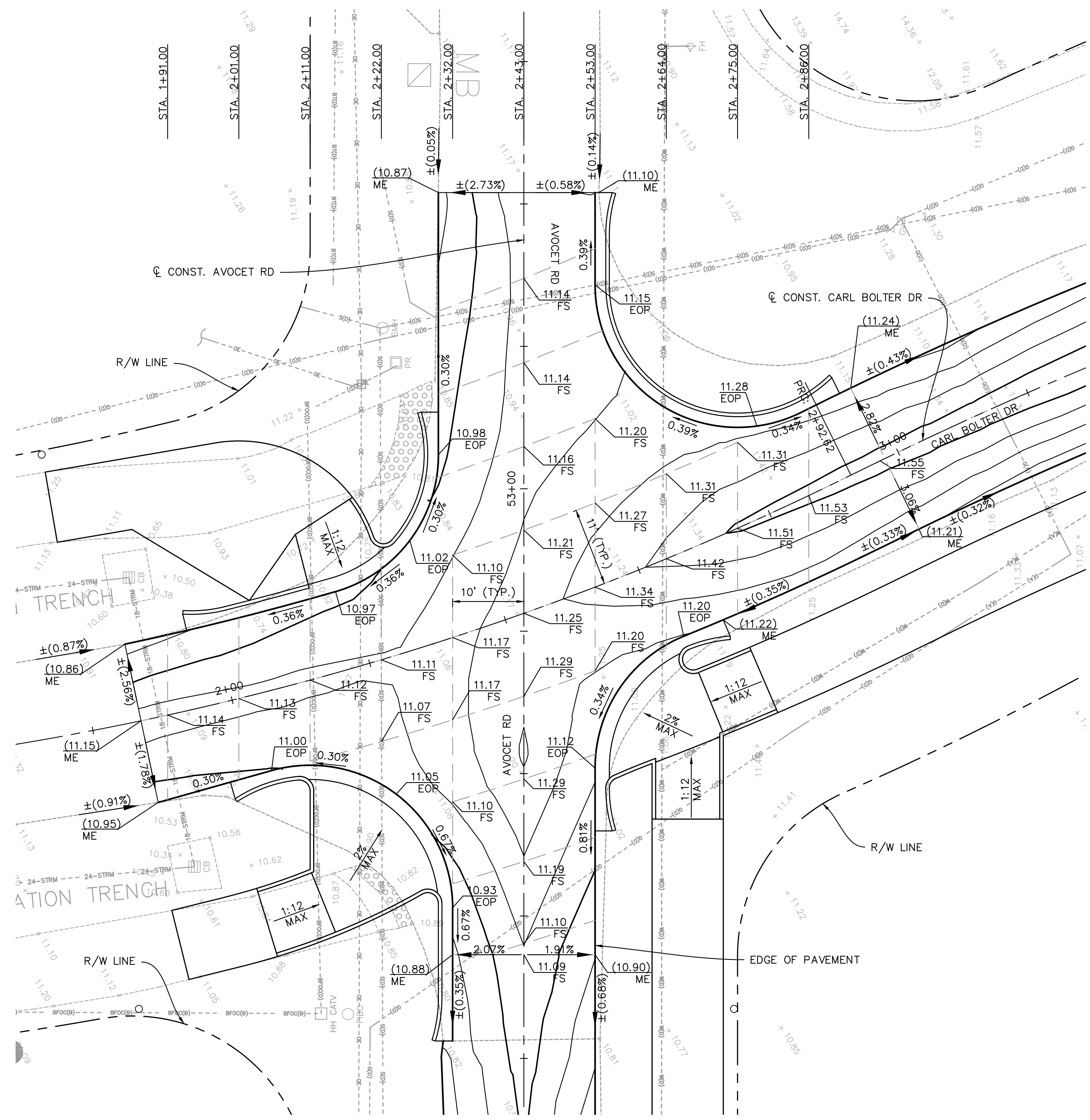
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 SHEET NUMBER **C-209**
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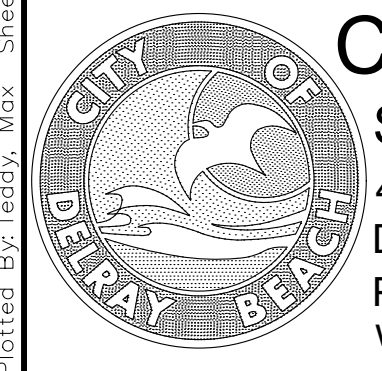
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INTERSECTION GRADING DETAIL
AVOCET RD & CARL BOLTER DR

ABBREVIATIONS	
EOP	EDGE OF PAVEMENT
FS	FINISH SURFACE
ME	MATCH EXISTING
(X.XX)	EXISTING ELEVATION
X.XX	PROPOSED ELEVATION

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 CITY OF DELRAY BEACH

ENGINEER'S SEAL
 ERIC REGUEIRO, P.E.
 FL LICENSE NUMBER
 86211
 FL DATE: 09/17/2024

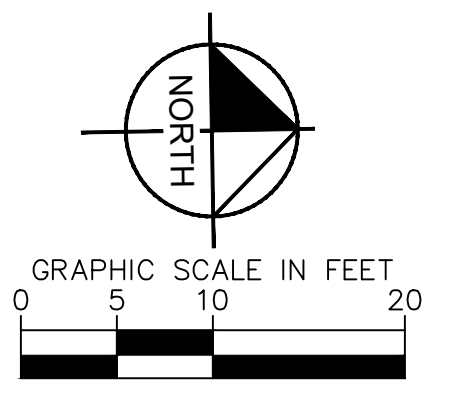
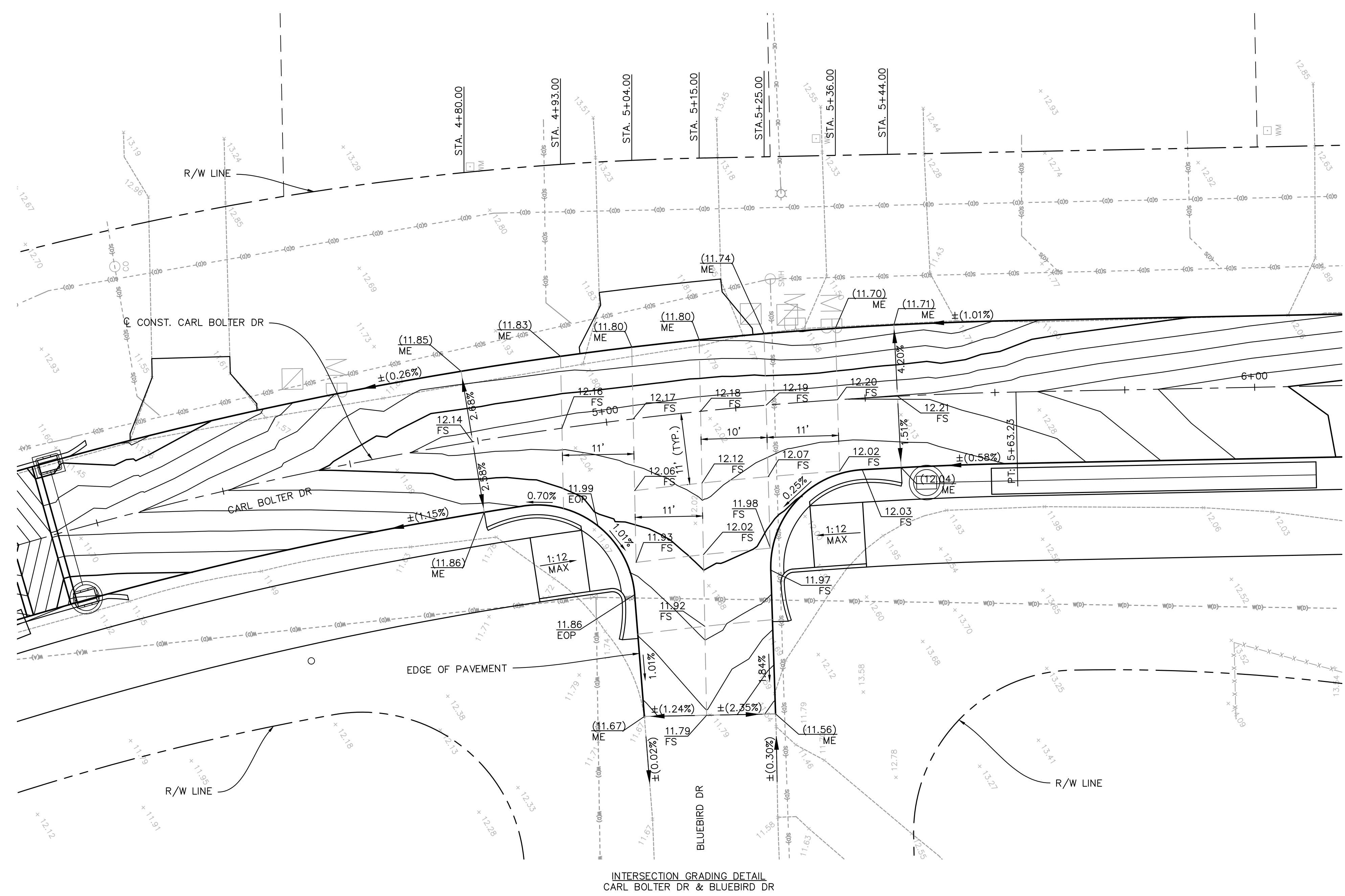
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INTERSECTION LAYOUT

PROJECT NUMBER
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 SHEET NUMBER
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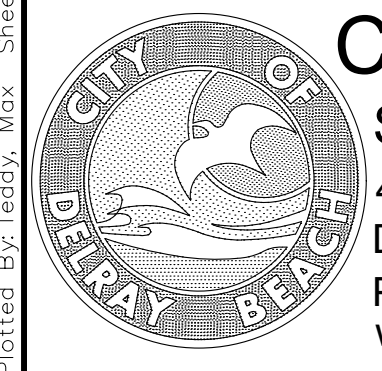
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INTERSECTION GRADING DETAIL
CARL BOLTER DR & BLUEBIRD DR

ABBREVIATIONS	
EOP	EDGE OF PAVEMENT
FS	FINISH SURFACE
ME	MATCH EXISTING
(X.XX)	EXISTING ELEVATION
X.XX	PROPOSED ELEVATION

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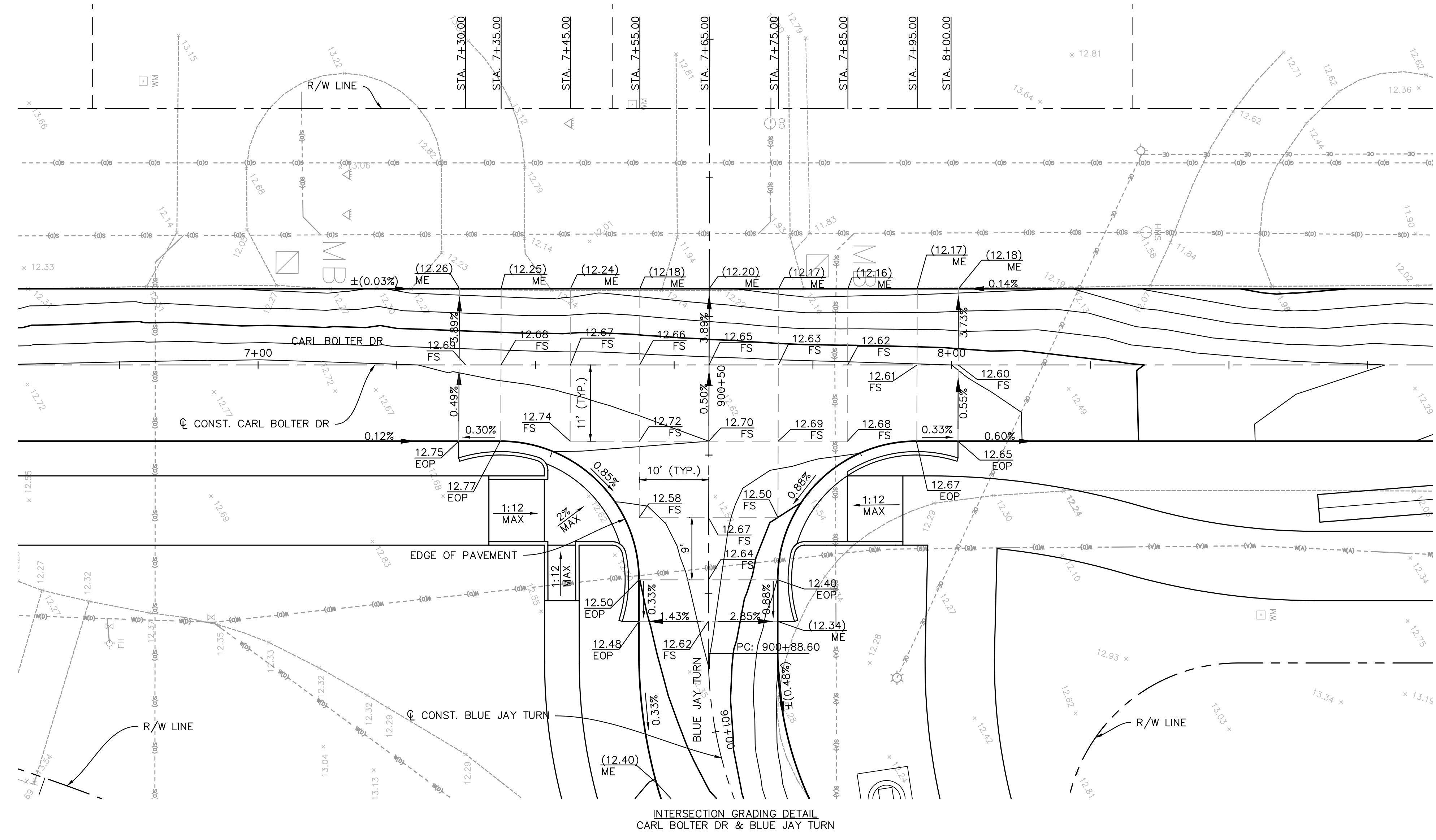
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PROJECT NUMBER 20-015
 SHEET NUMBER **C-211**
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ABBREVIATIONS	
EOP	EDGE OF PAVEMENT
FS	FINISH SURFACE
ME	MATCH EXISTING
(X.XX)	EXISTING ELEVATION
X.XX	PROPOSED ELEVATION

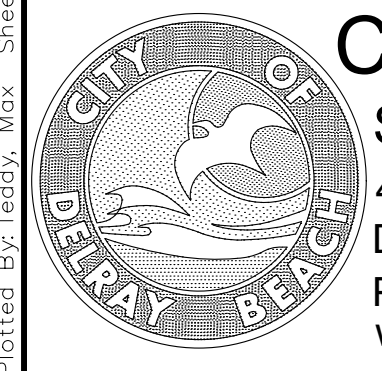
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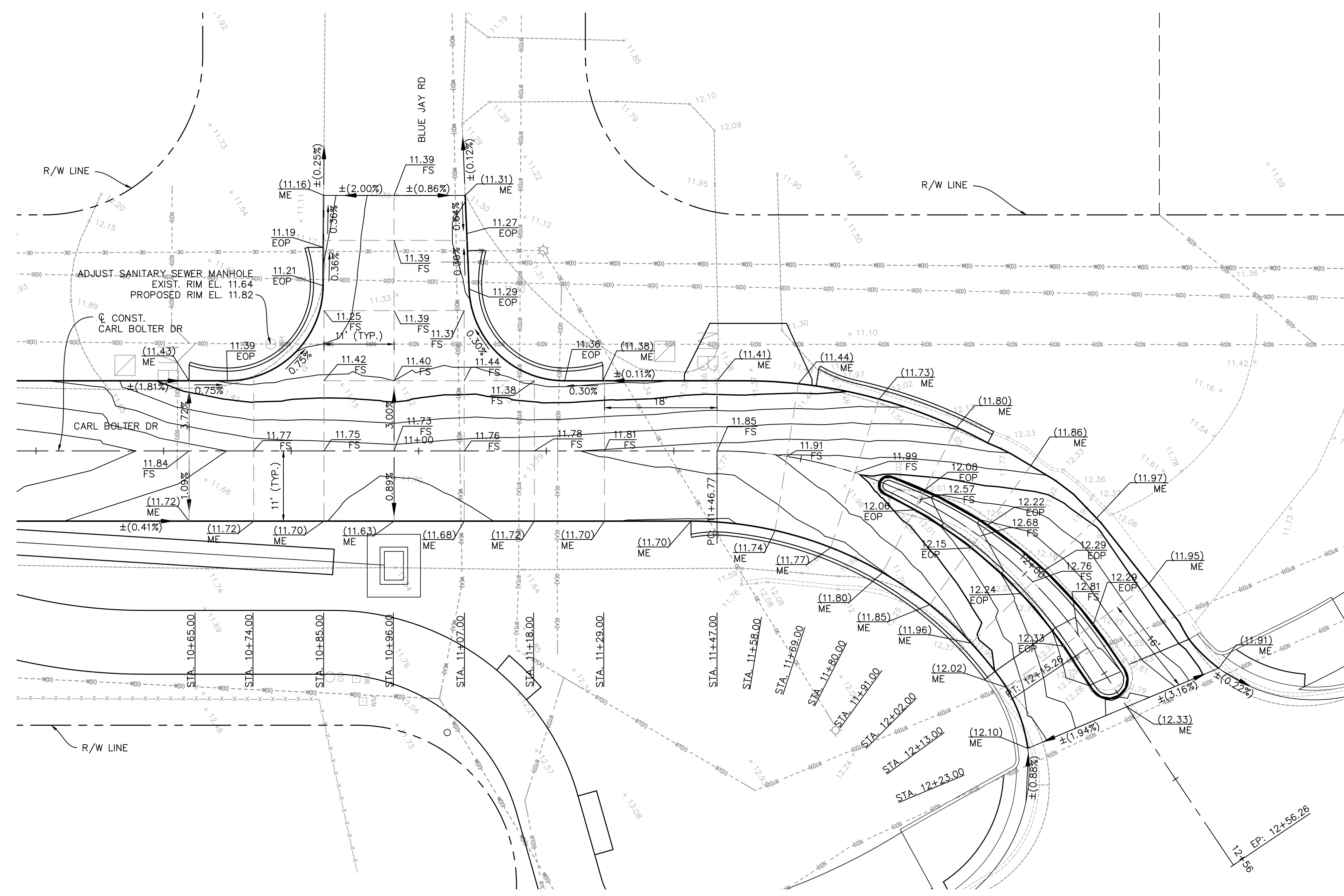
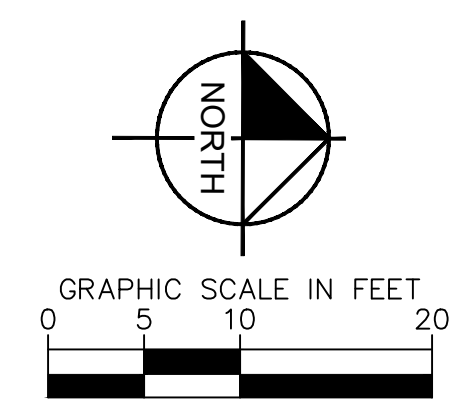
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PROJECT NUMBER 20-015
 SHEET NUMBER C-212
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CARL BOLTER DR & BLUE JAY RD

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FS	FINISH SURFACE
ME	MATCH EXISTING
(X.XX)	EXISTING ELEVATION
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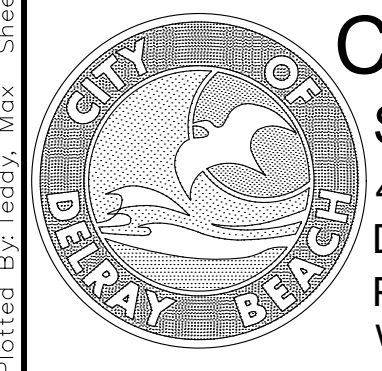
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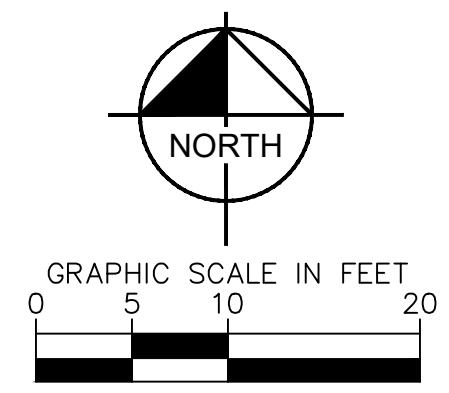
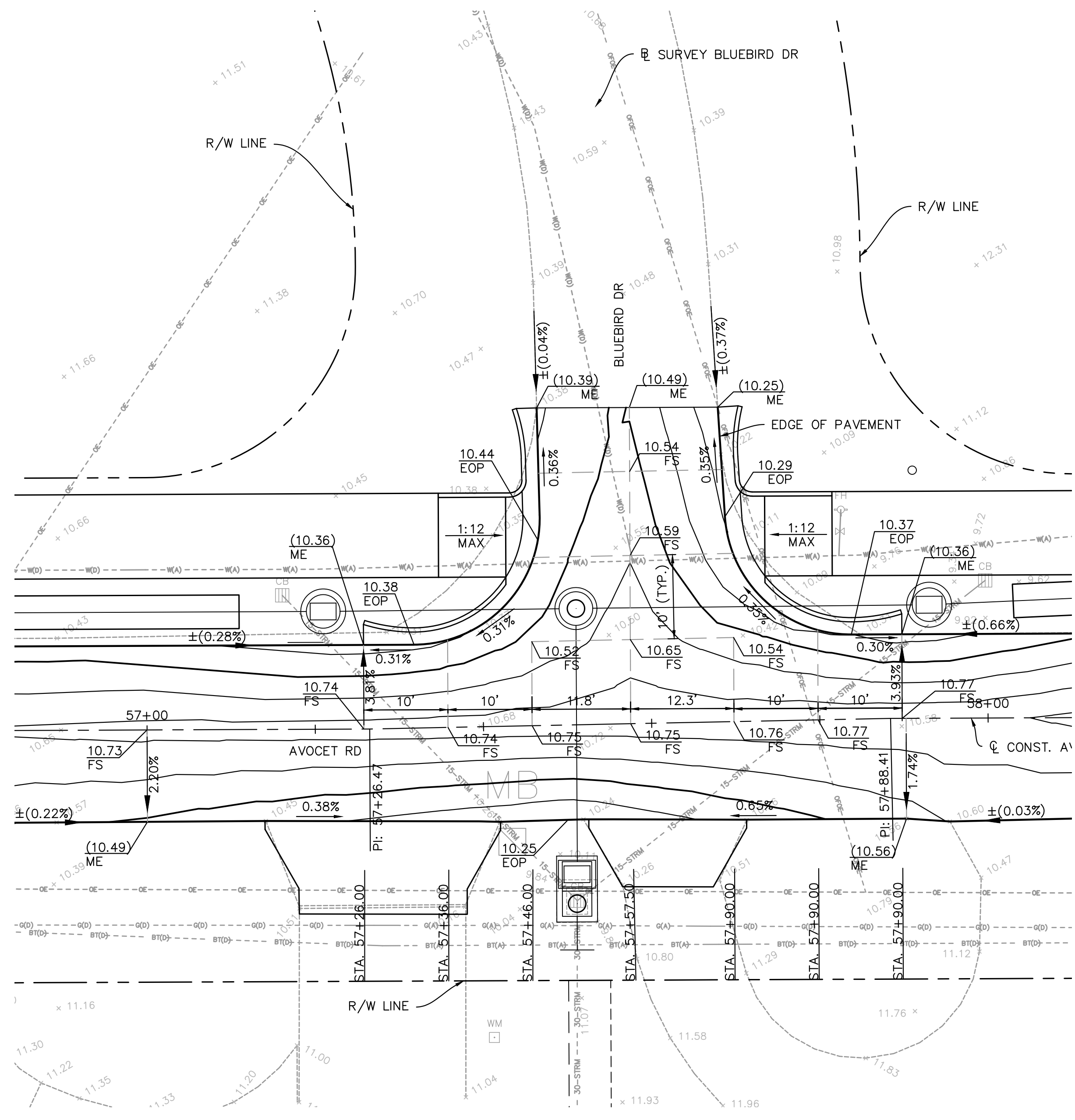
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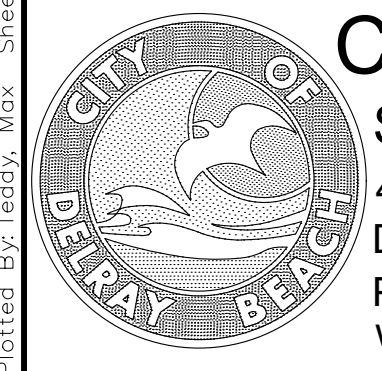
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AVOCET RD & BLUEBIRD DR

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FS	FINISH SURFACE
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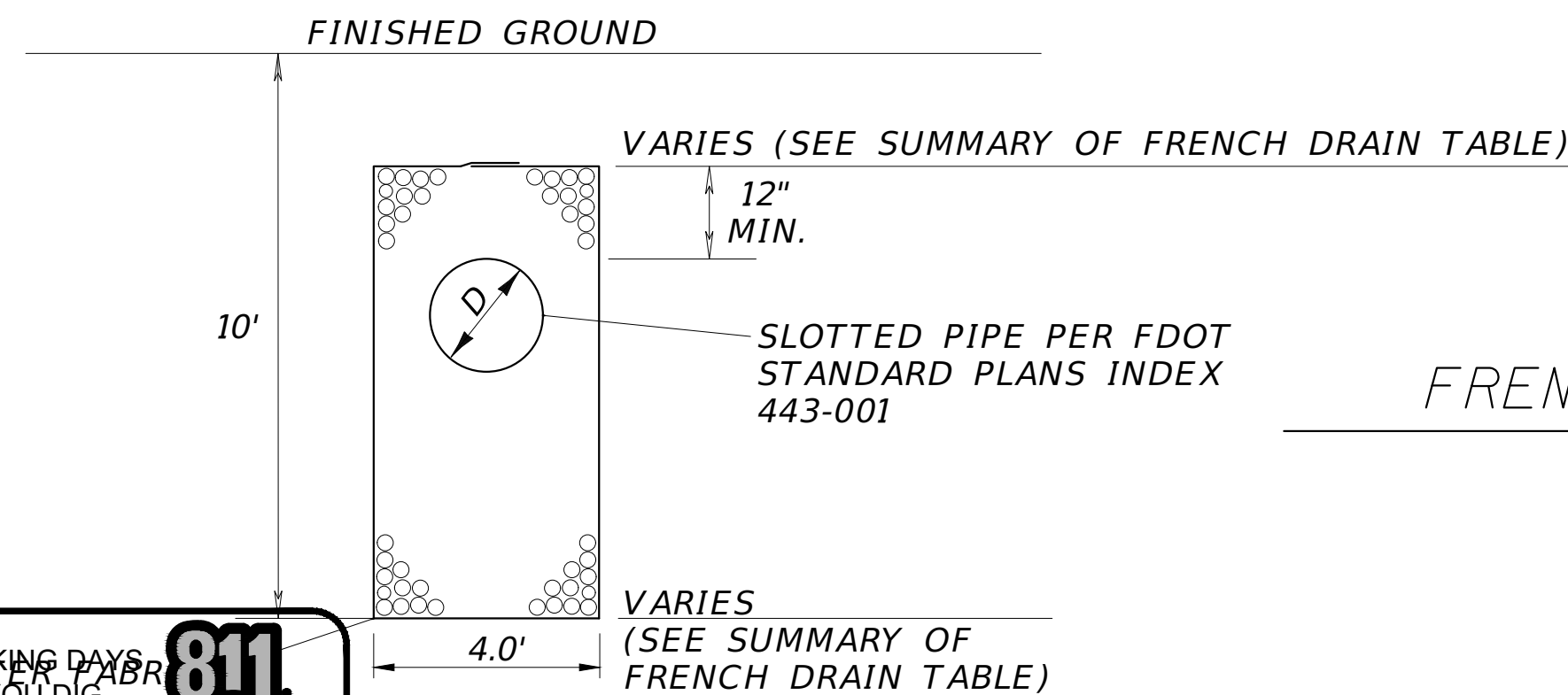
SUMMARY OF DRAINAGE STRUCTURES								
STRUCTURE ID #	CONST.	STA	OFF	LT/RT	STRUCTURE TOP	TYPE (P/J, #)	BOTTOM DIMENSIONS	SKIMMER
S-101	CARL BOLTER DR	3+29.51	13.49	RT	DBI	TYPE C	4' DIA	TYPE II SKIMMER AH
S-102	CARL BOLTER DR	4+15.30	10.67	RT	CURB INLET	TYPE F	4' DIA	TYPE II SKIMMER BK
S-103	CARL BOLTER DR	4+15.30	10.67	LT	CURB INLET	TYPE F	CITY DETAIL D9.0	
S-104	CARL BOLTER DR	5+48.88	13.50	RT	DBI	TYPE C	4' DIA	TYPE II SKIMMER AH
S-105	BLUE JAY TURN	901+21.56	19.86	LT	DBI	TYPE C W/APRON	4' DIA	TYPE II SKIMMER AH
S-106	CARL BOLTER DR	9+78.55	10.67	RT	CURB INLET	TYPE F	5' DIA	TYPE II SKIMMER AH, BK
S-107	CARL BOLTER DR	9+78.55	10.67	LT	CURB INLET	TYPE F	CITY DETAIL D9.0	
S-108	CARL BOLTER DR	10+96.11	18.00	RT	DBI	TYPE E W/APRON	CITY DETAIL D9.0	TYPE II SKIMMER BK
S-109	AVOCET RD	57+20.99	14.00	LT	DBI	TYPE C	4' DIA	TYPE II SKIMMER BK
S-110	AVOCET RD	57+50.73	19.50	RT	DBI, MODIFY	TYPE C	DRAINAGE DETAILS SHEET	
S-111	AVOCET RD	57+51.27	13.82	LT	MANHOLE	TYPE P-7	4' DIA	
S-112	AVOCET RD	57+93.04	13.50	LT	DBI	TYPE C	4' DIA	TYPE II SKIMMER AH
S-113	AVOCET RD	58+63.72	13.65	LT	DBI	TYPE C	4' DIA	TYPE II SKIMMER BK

SUMMARY OF PIPES					
FROM STRUCTURE ID #	DIRECTION (AH, BK, LT, RT)	TO STRUCTURE ID#	PIPE LENGTH (LF)	PIPE SIZE (IN)	PIPE MATERIAL
S-102	LT	S-103	19	18	RCP
S-106	BK	N/A	24	18	RCP
S-106	LT	S-207	18	18	RCP
S-106	AH	S-108	56	18	RCP
S-109	AH	S-111	27	18	RCP
S-110	RT	OUTFALL	4	30	RCP
S-111	RT	S-110	29	18	RCP
S-111	AH	S-112	38	18	RCP

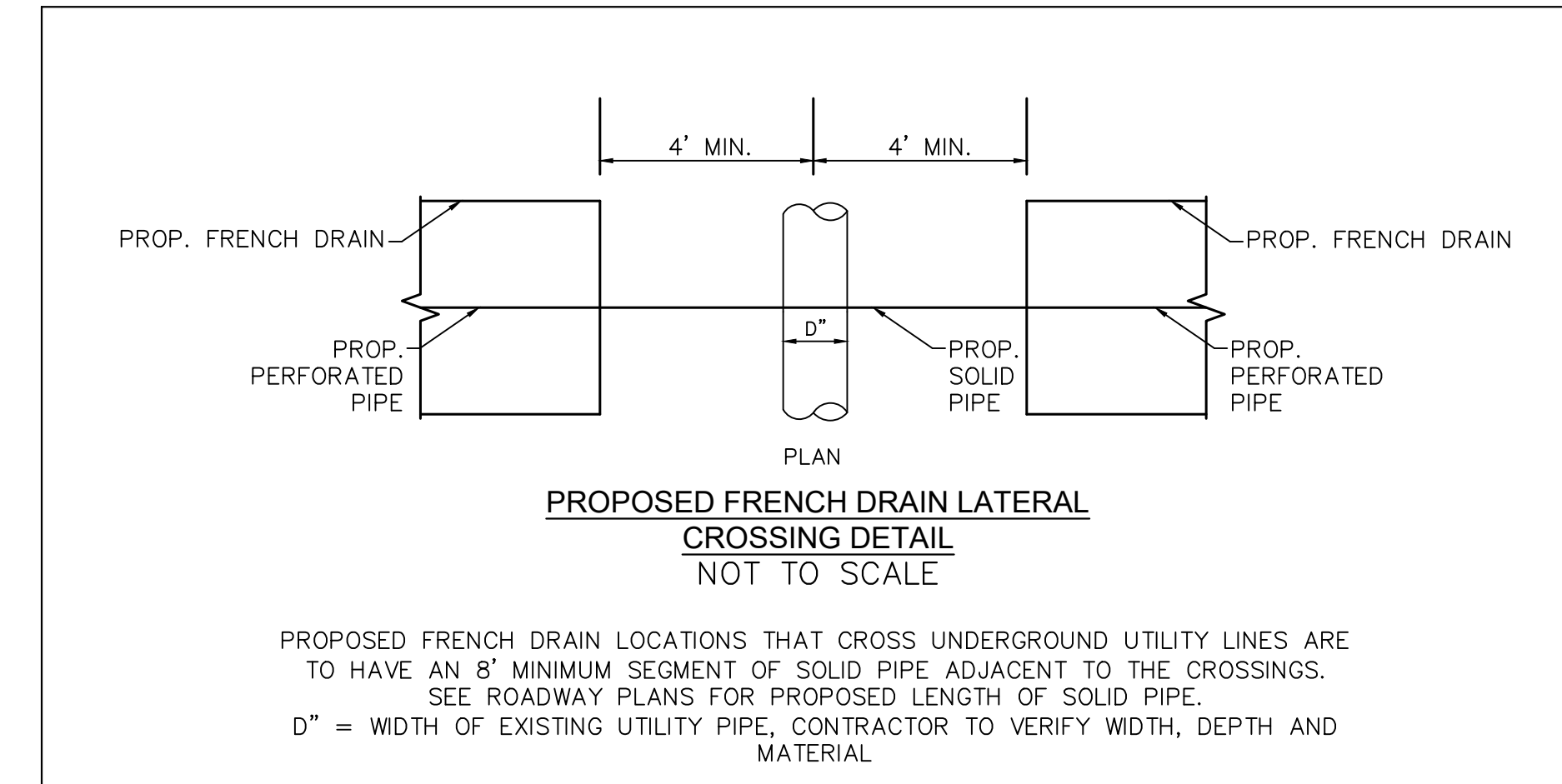
NOTES:
1. SUMMARY OF PIPES TABLE DOES NOT INCLUDE SLOTTED PIPE ASSOCIATED WITH FRENCH DRAIN.

SUMMARY OF PROPOSED FRENCH DRAIN							
FROM STRUCTURE ID #	DIRECTION (AH, BK)	TO STRUCTURE ID # (IF APPLICABLE)	INVERT ELEVATION	FRENCH DRAIN LENGTH (FT)	TRENCH WIDTH (FT)	TOP OF TRENCH ELEVATION	BOTTOM OF TRENCH ELEVATION
S-101	AH	S-102	5.46	80	4	8.00	1.76
S-104	AH	N/A	5.46	58	4	8.00	1.76
S-105	AH	N/A	5.70	48	4	8.20	2.00
S-106	BK	N/A	5.46	100	4	8.00	1.76
S-106	AH	S-108	5.46	58	4	8.00	1.76
S-109	BK	N/A	6.50	52	4	9.21	0.00
S-112	AH	S-113	6.50	65	4	9.21	0.00

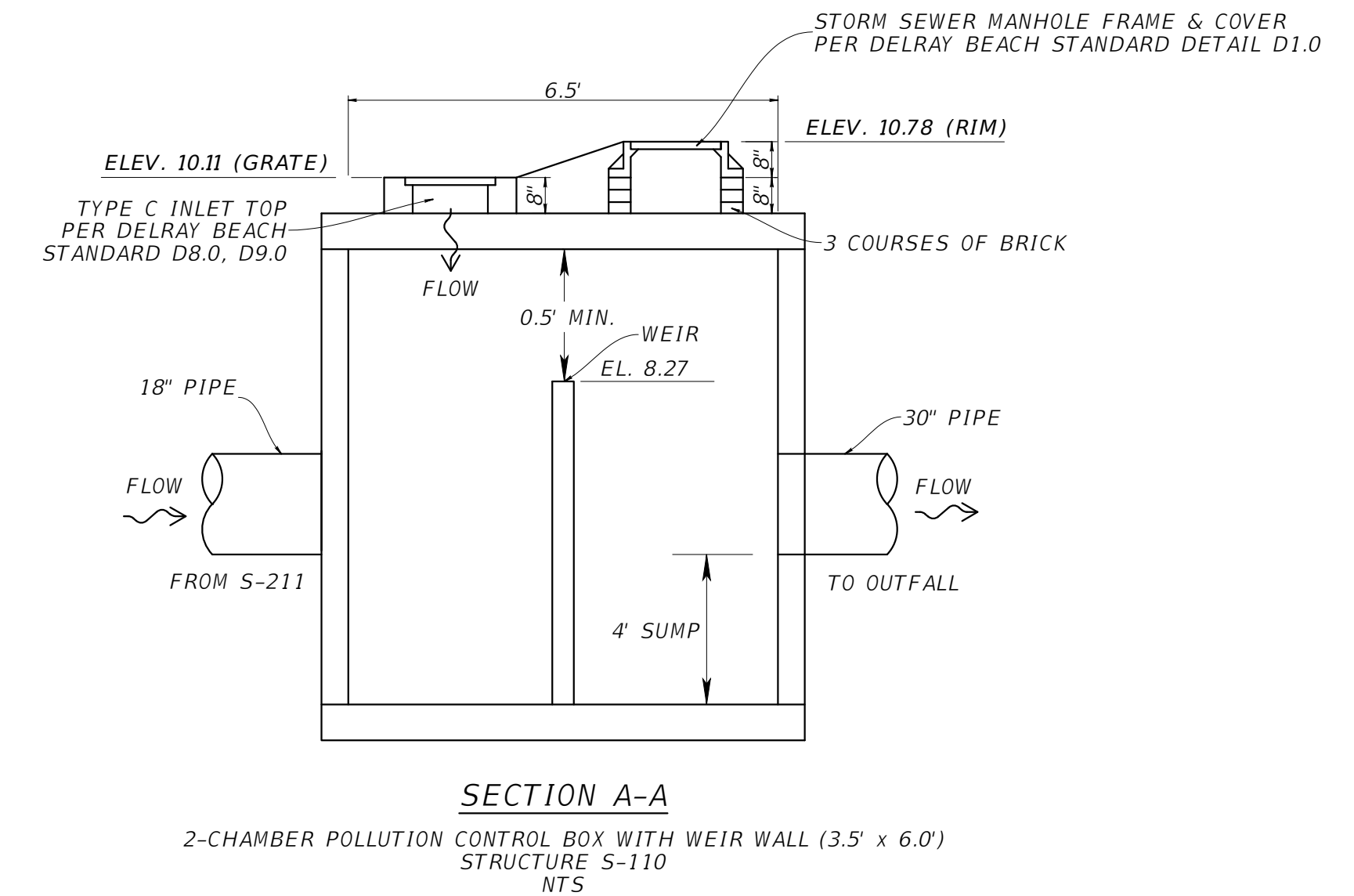
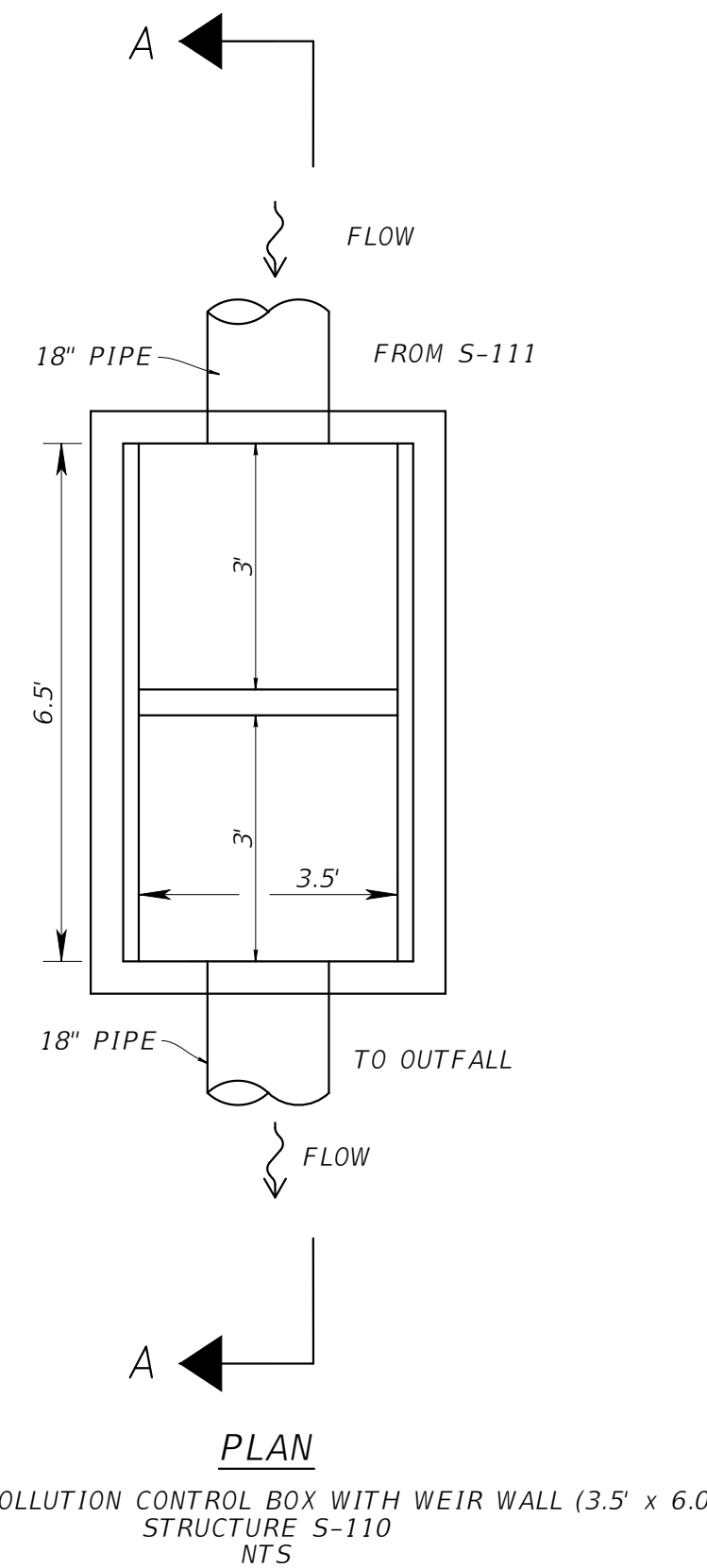
NOTES:
1. SEE STANDARD PLANS INDEX NO. 443-001 FOR ADDITIONAL INFORMATION.
2. FOR PIPE RUNS WHICH ARE A COMBINATION OF FRENCH DRAIN AND SOLID PIPE (SEE PROPOSED FRENCH DRAIN LATERAL CROSSING DETAIL), THE LENGTH OF SOLID PIPE APPEARS IN THE SUMMARY OF PIPES TABLE AND THE LENGTH OF FRENCH DRAIN APPEARS IN THE SUMMARY OF FRENCH DRAIN TABLE.
3. PROVIDE 4' SUMP FOR THE FOLLOWING STRUCTURES WITH FRENCH DRAIN:
S-101, S-102, S-104, S-105, S-106, S-108, S-109, S-112, S-113



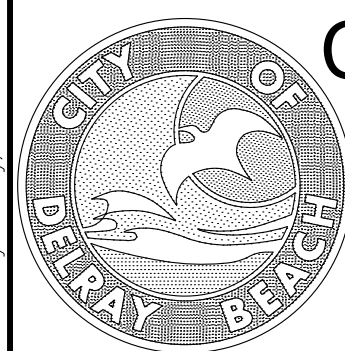
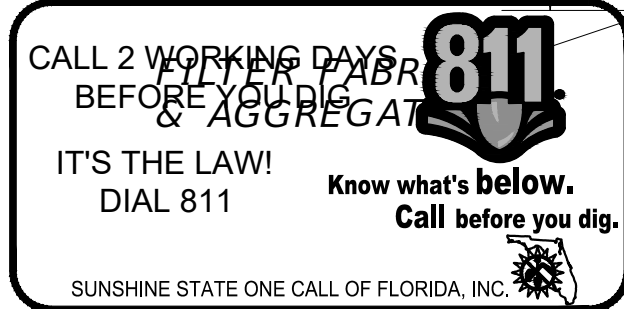
FRENCH DRAIN DETAIL
(N.T.S.)



PROPOSED FRENCH DRAIN LOCATIONS THAT CROSS UNDERGROUND UTILITY LINES ARE TO HAVE AN 8' MINIMUM SEGMENT OF SOLID PIPE ADJACENT TO THE CROSSINGS. SEE ROADWAY PLANS FOR PROPOSED LENGTH OF SOLID PIPE.
D" = WIDTH OF EXISTING UTILITY PIPE, CONTRACTOR TO VERIFY WIDTH, DEPTH AND MATERIAL



NOTE: THE IMMEDIATE AREA SURROUNDING THE POLLUTION CONTROL STRUCTURE SHALL BE GRADED SUCH THAT THE GRATE CONSTITUTES A LOCAL LOW POINT. GRADE AND SOD THE AREA SURROUNDING THE MANHOLE SUCH THAT THE RIM IS FLUSH WITH THE FINISHED GROUND.



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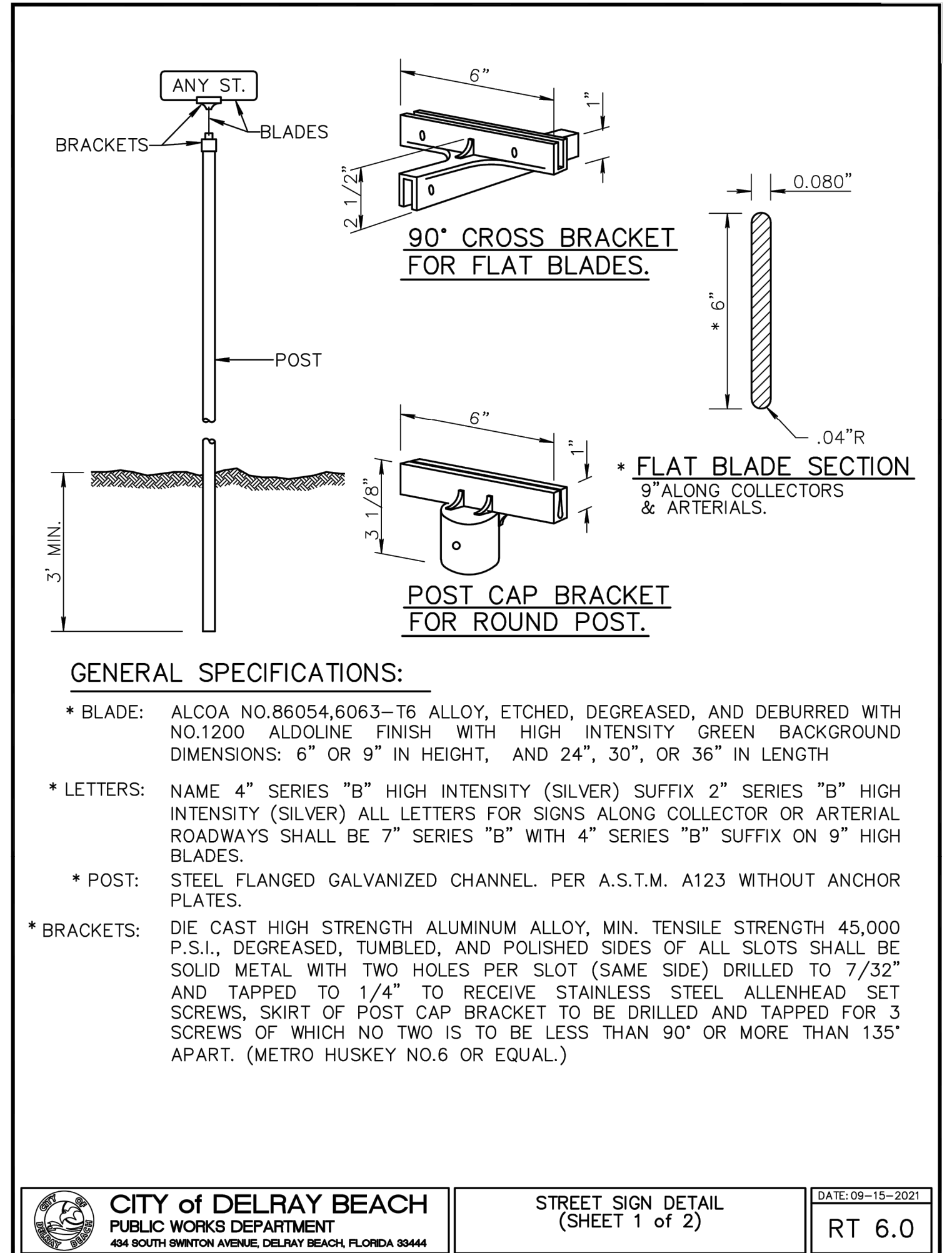
DRAINAGE DETAILS

PROJECT NUMBER 20-015
SHEET NUMBER C-215
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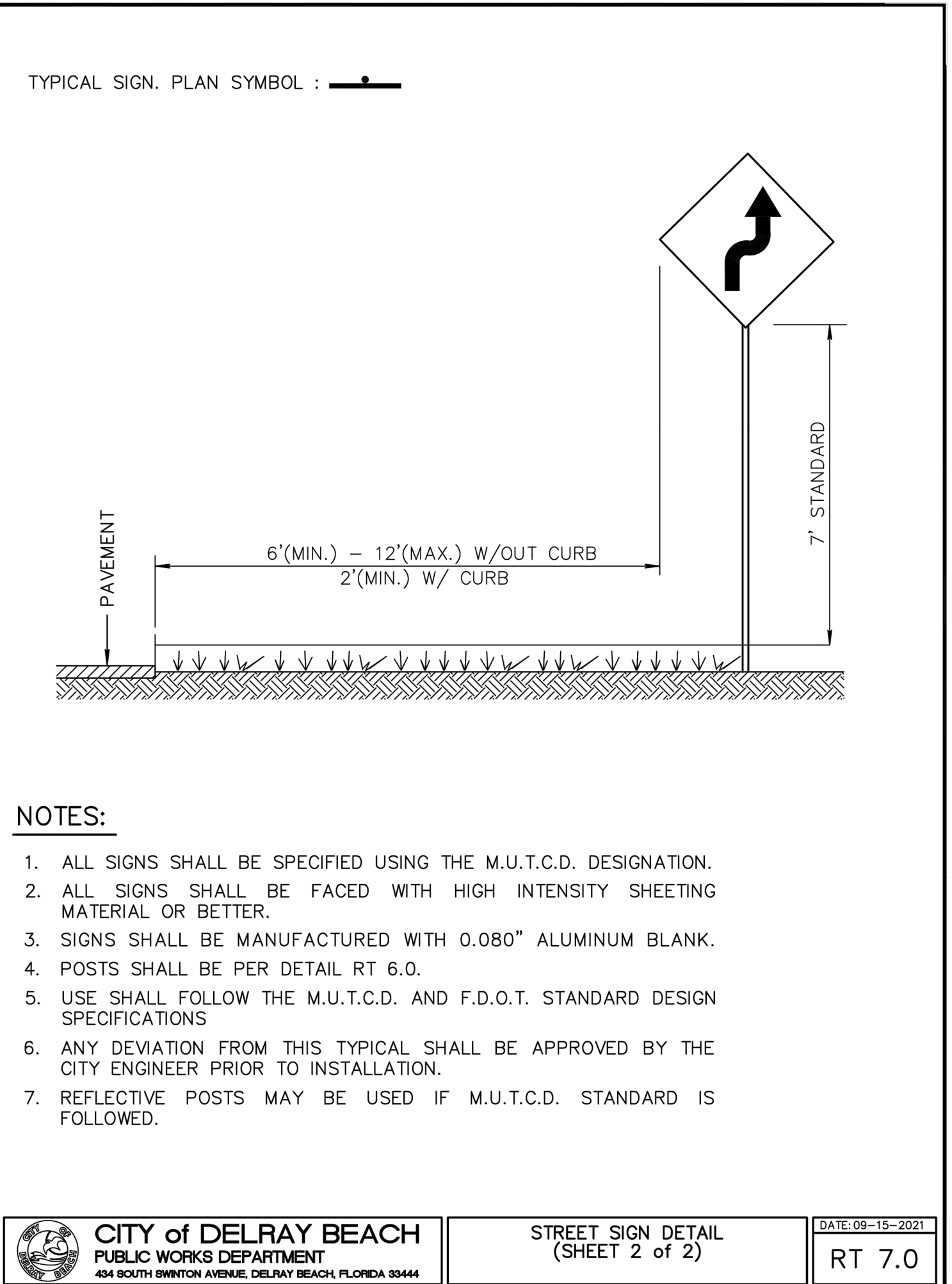
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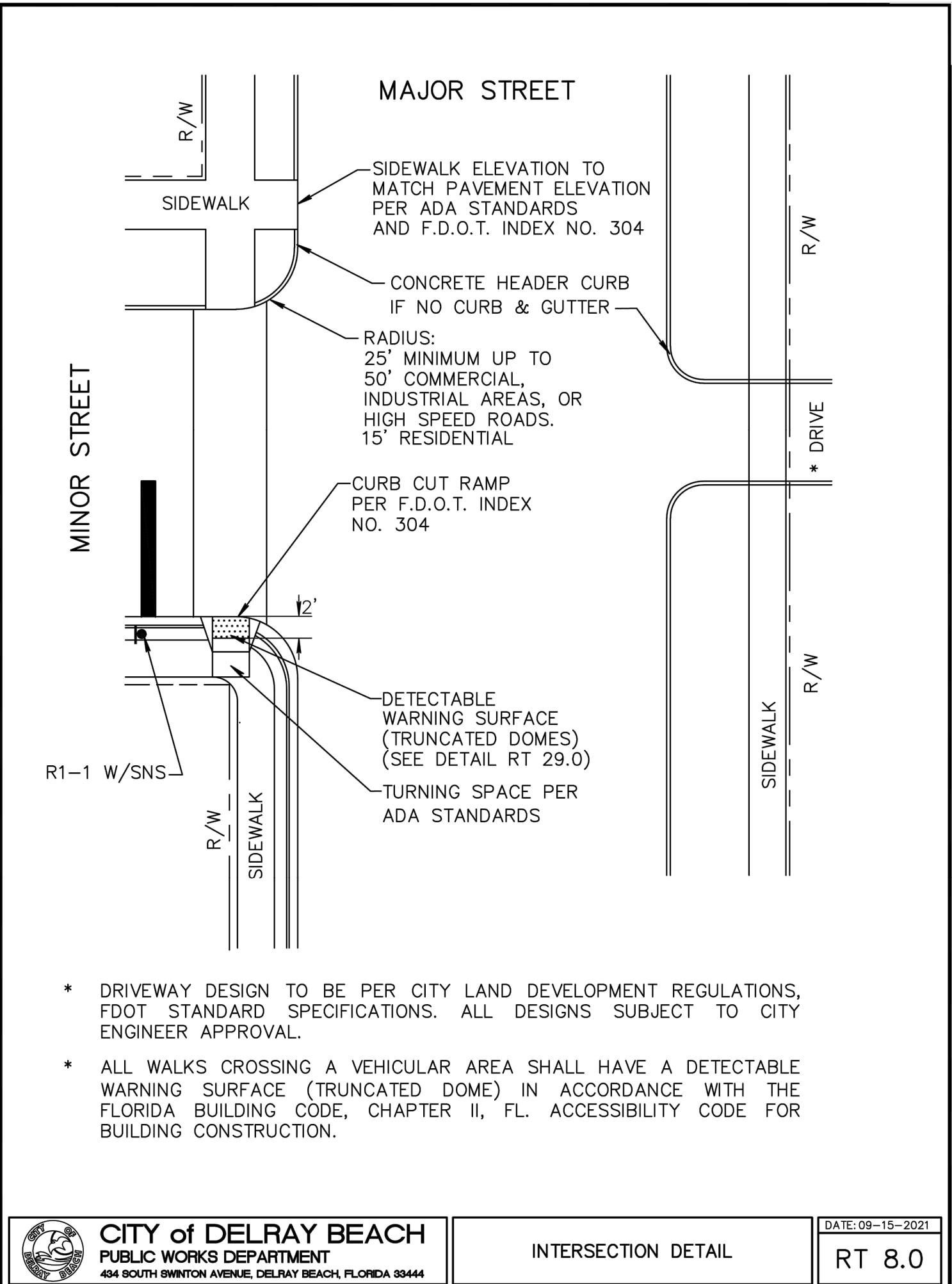
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 STREET SIGN DETAIL (SHEET 1 of 2)
 DATE: 09-15-2021
 RT 6.0



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 PUBLIC WORKS DEPARTMENT
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 STREET SIGN DETAIL (SHEET 2 of 2)
 DATE: 09-15-2021
 RT 7.0



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 INTERSECTION DETAIL
 DATE: 09-15-2021
 RT 8.0



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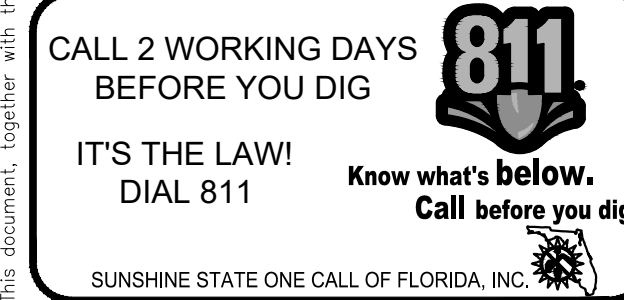
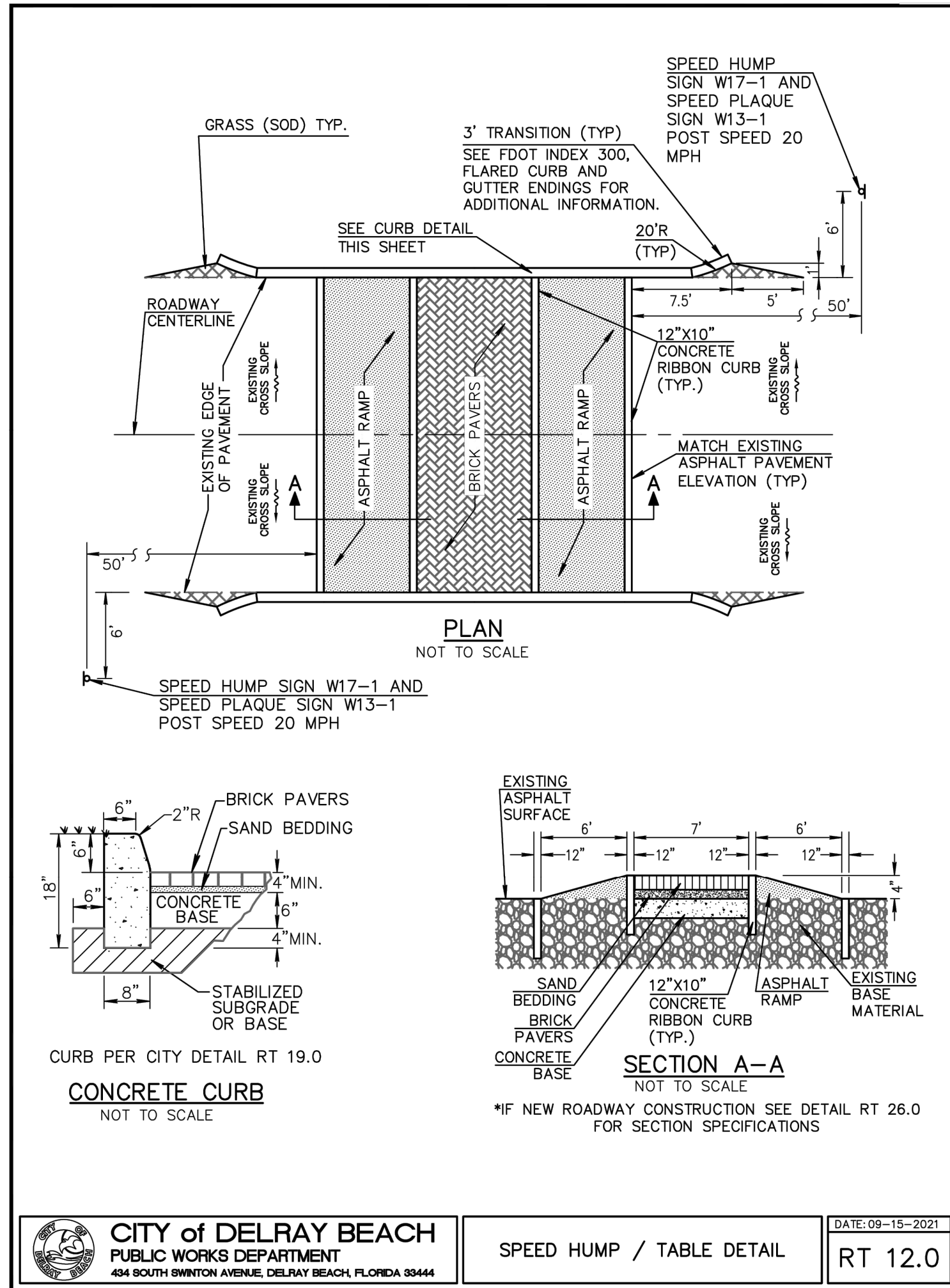
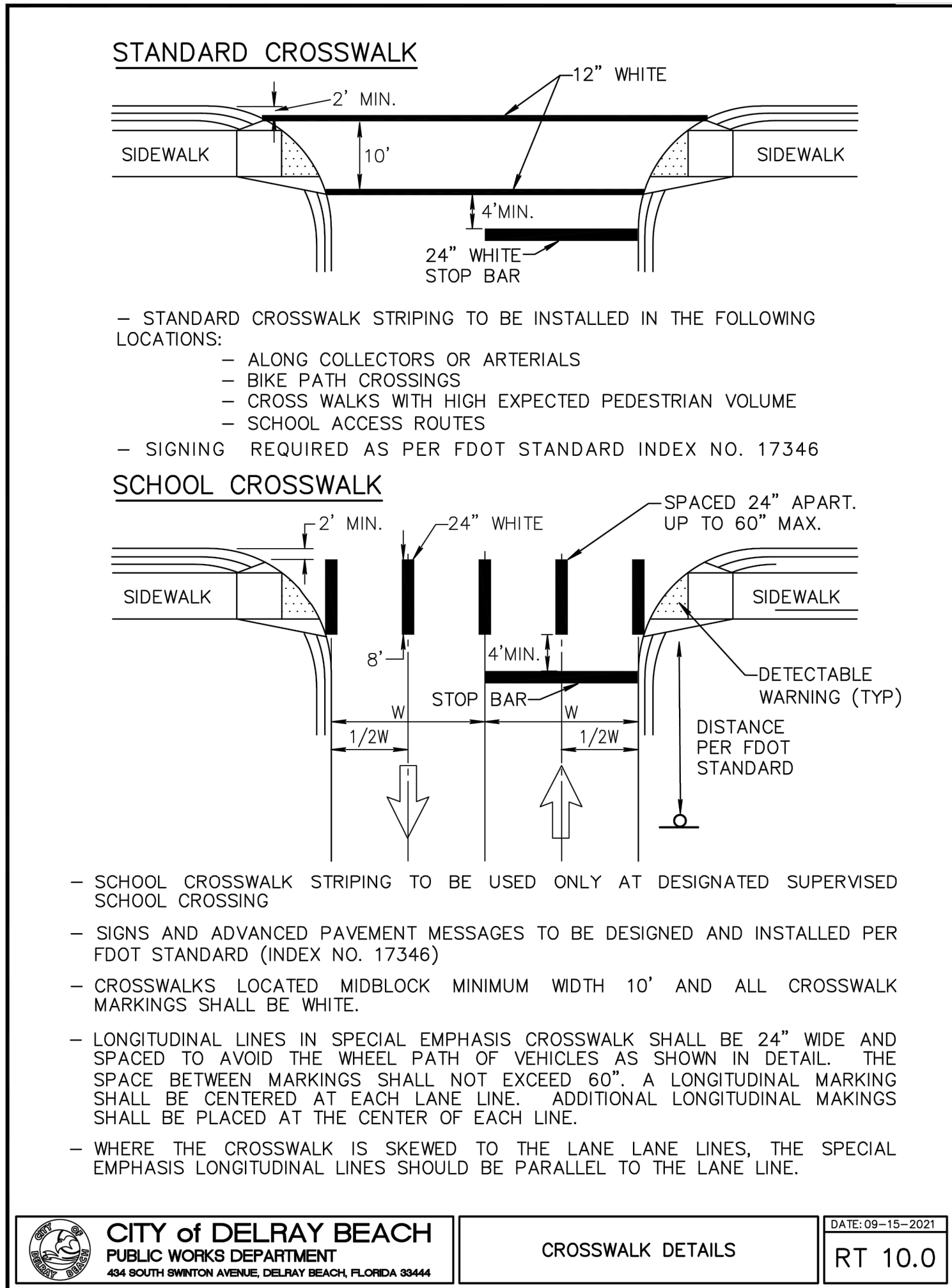
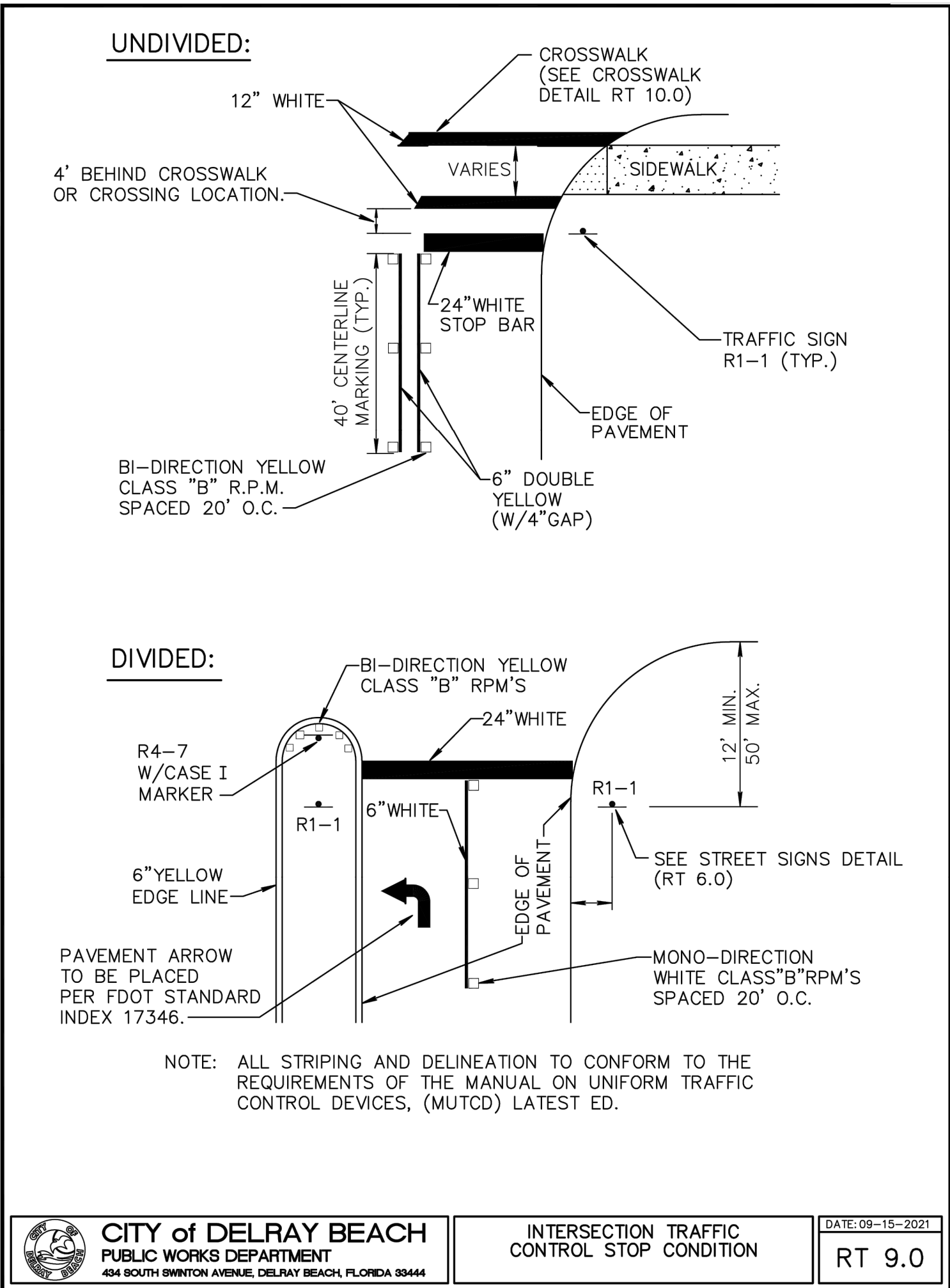
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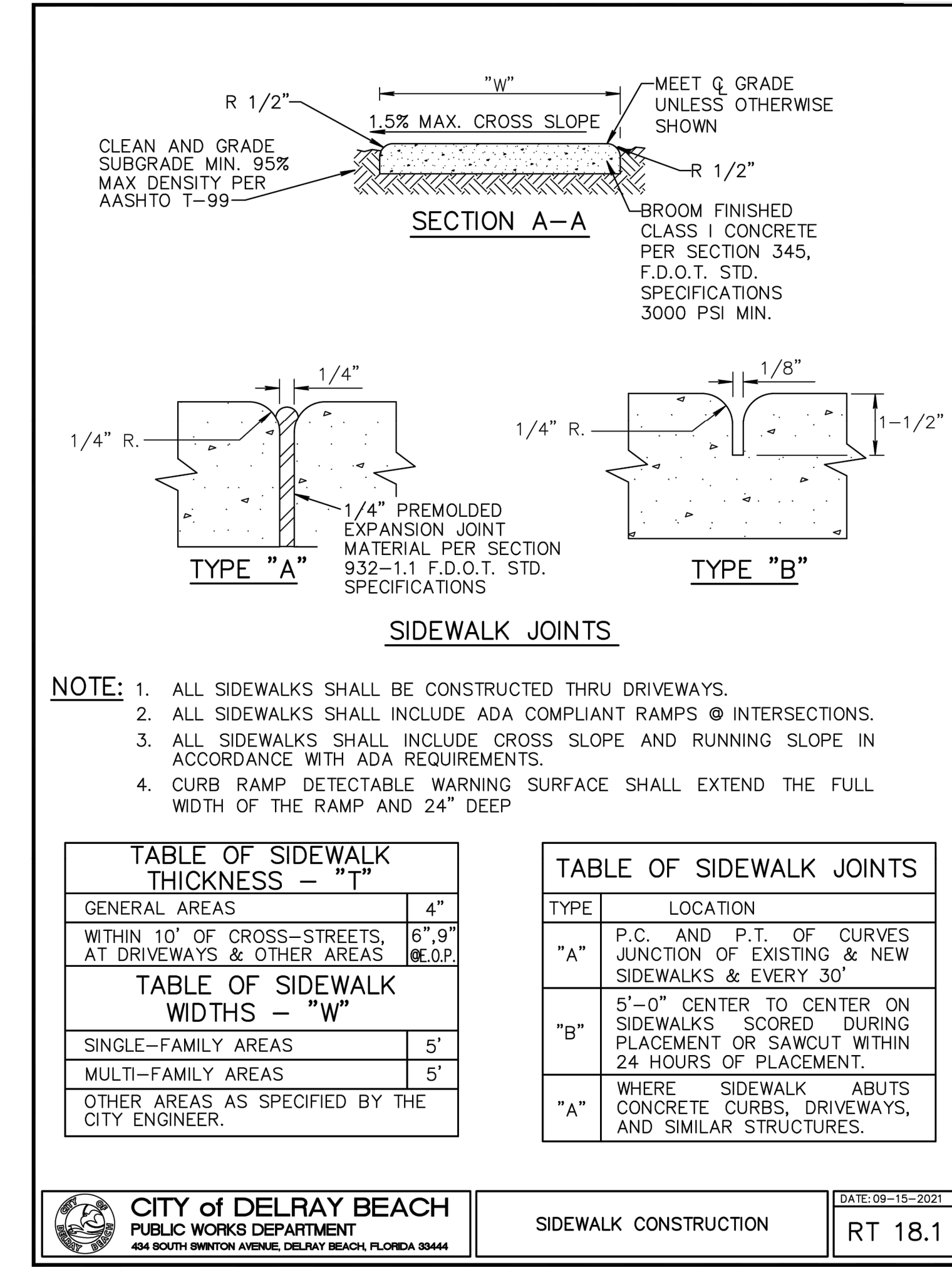
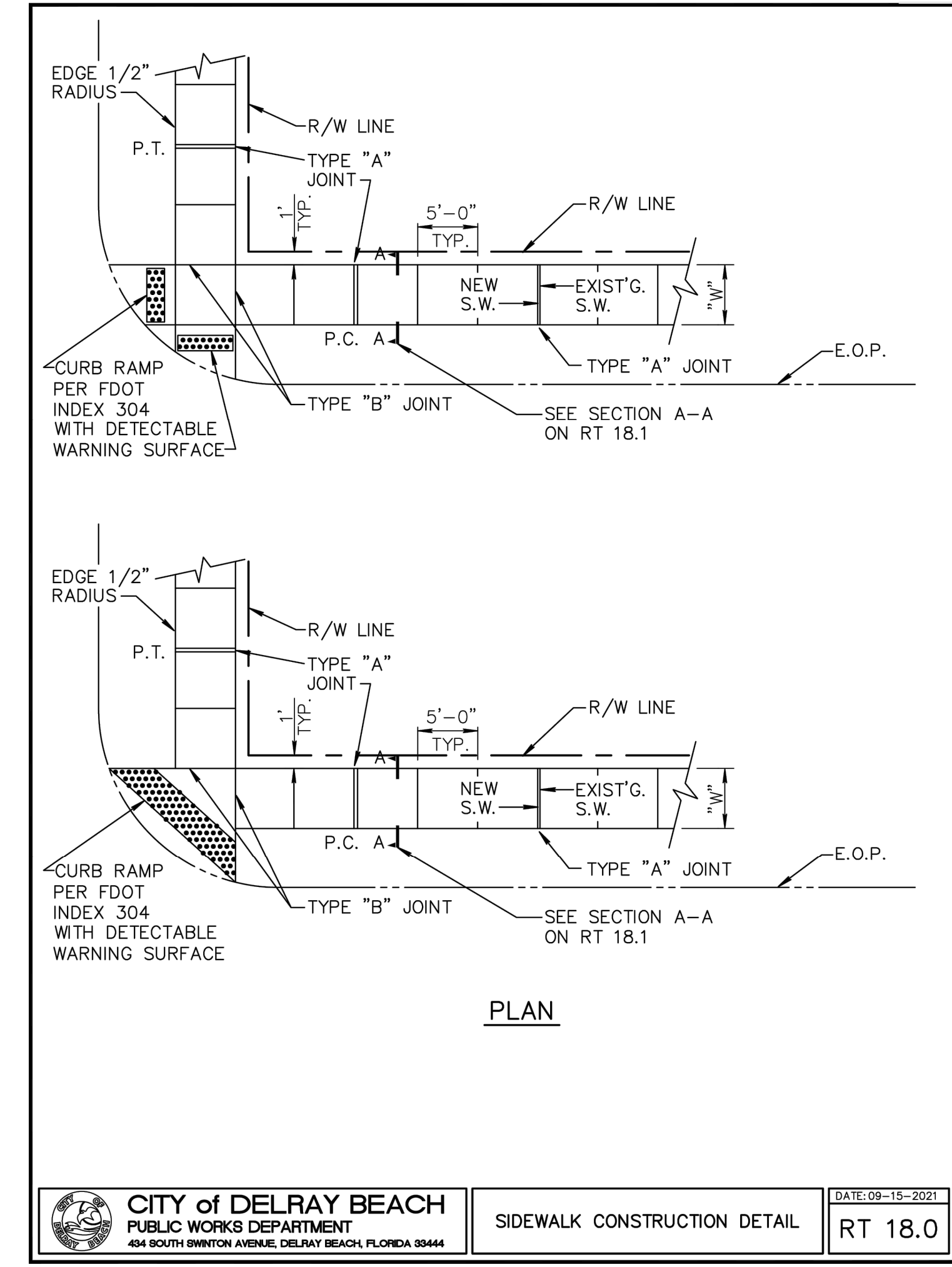
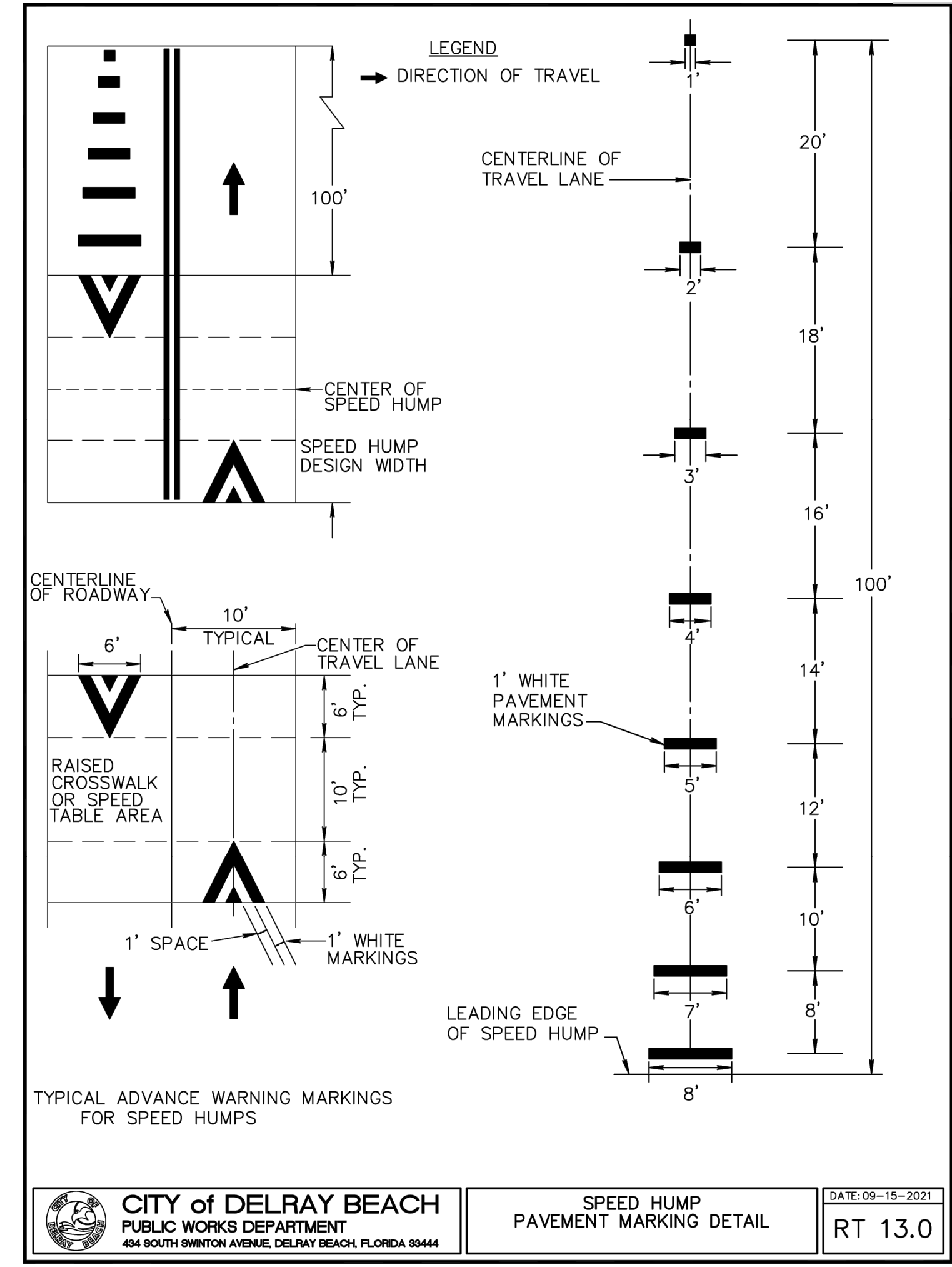
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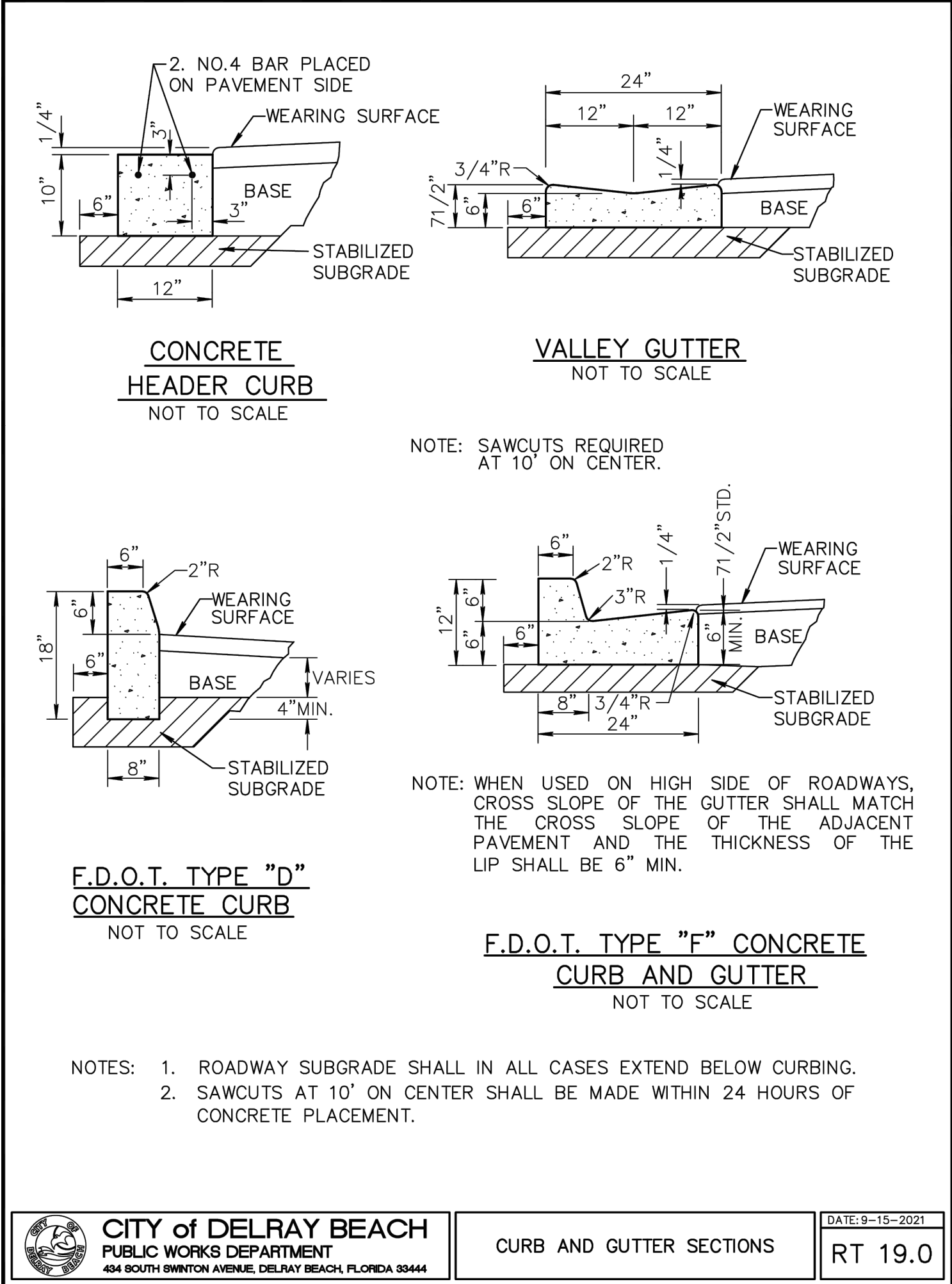
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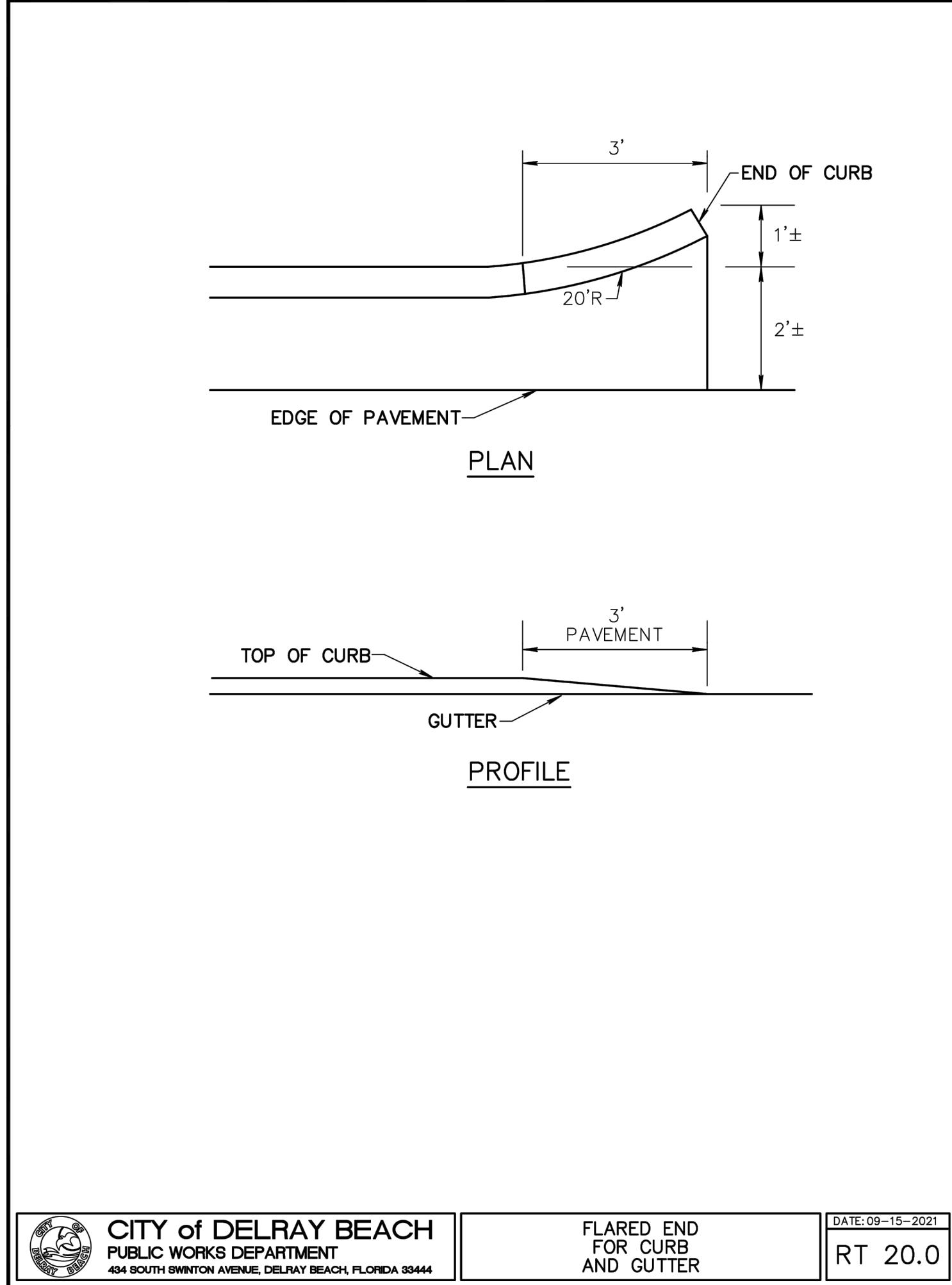
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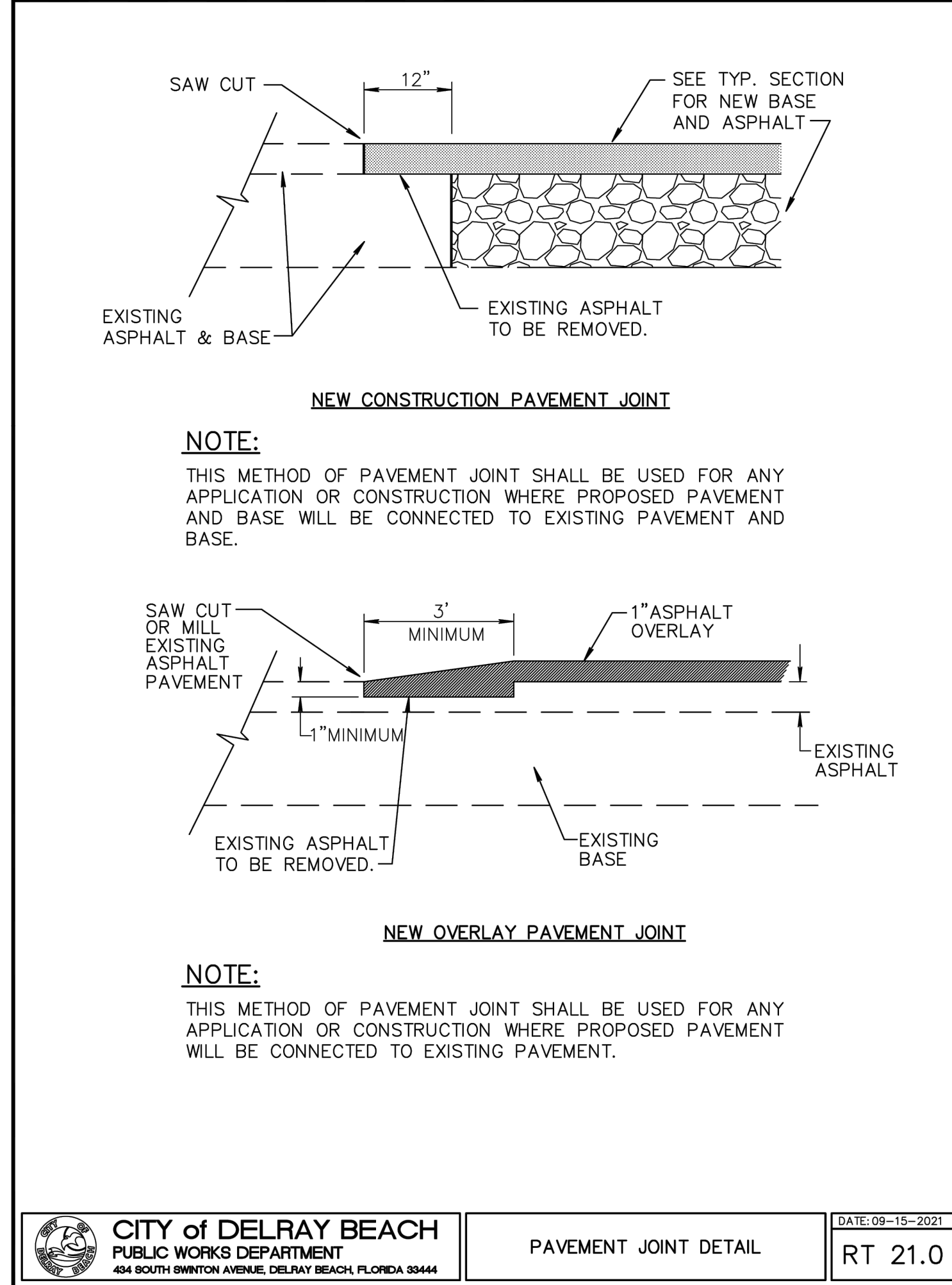
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CITY of DELRAY BEACH PUBLIC WORKS DEPARTMENT <small>434 SOUTH SWINTON AVENUE, DELRAY BEACH, FLORIDA 33444</small>	CURB AND GUTTER SECTIONS	DATE: 09-15-2021
		RT 19.0



CITY of DELRAY BEACH PUBLIC WORKS DEPARTMENT <small>434 SOUTH SWINTON AVENUE, DELRAY BEACH, FLORIDA 33444</small>	FLARED END FOR CURB AND GUTTER	DATE: 09-15-2021
		RT 20.0



CITY of DELRAY BEACH PUBLIC WORKS DEPARTMENT <small>434 SOUTH SWINTON AVENUE, DELRAY BEACH, FLORIDA 33444</small>	PAVEMENT JOINT DETAIL	DATE: 09-15-2021
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 www.mydelraybeach.com

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 ERIC REGUEIRO, P.E.
 P.E. LICENSE NO. 86211
 1920 WEKIVA WAY SUITE 200, WEST PALM BEACH, FL 33411
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KH PROJECT # 044300089
 FM # 441586-1-58-01
 SCALE AS SHOWN
 DESIGNED BY BK
 DRAWN BY MT
 CHECKED BY ER

BRANT BRIDGE CONNECTOR
 PREPARED FOR
CITY OF DELRAY BEACH

CITY OF DELRAY BEACH

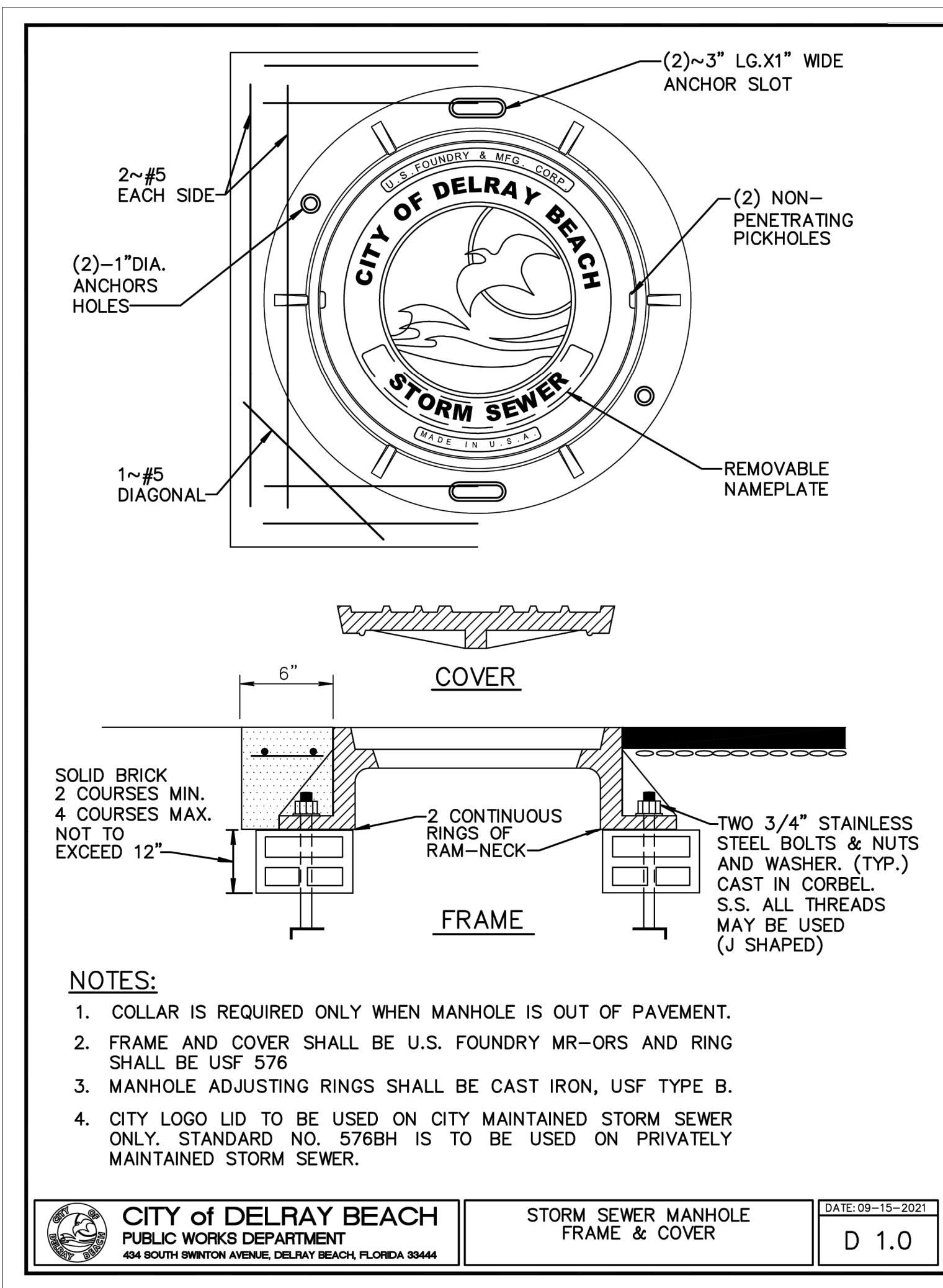
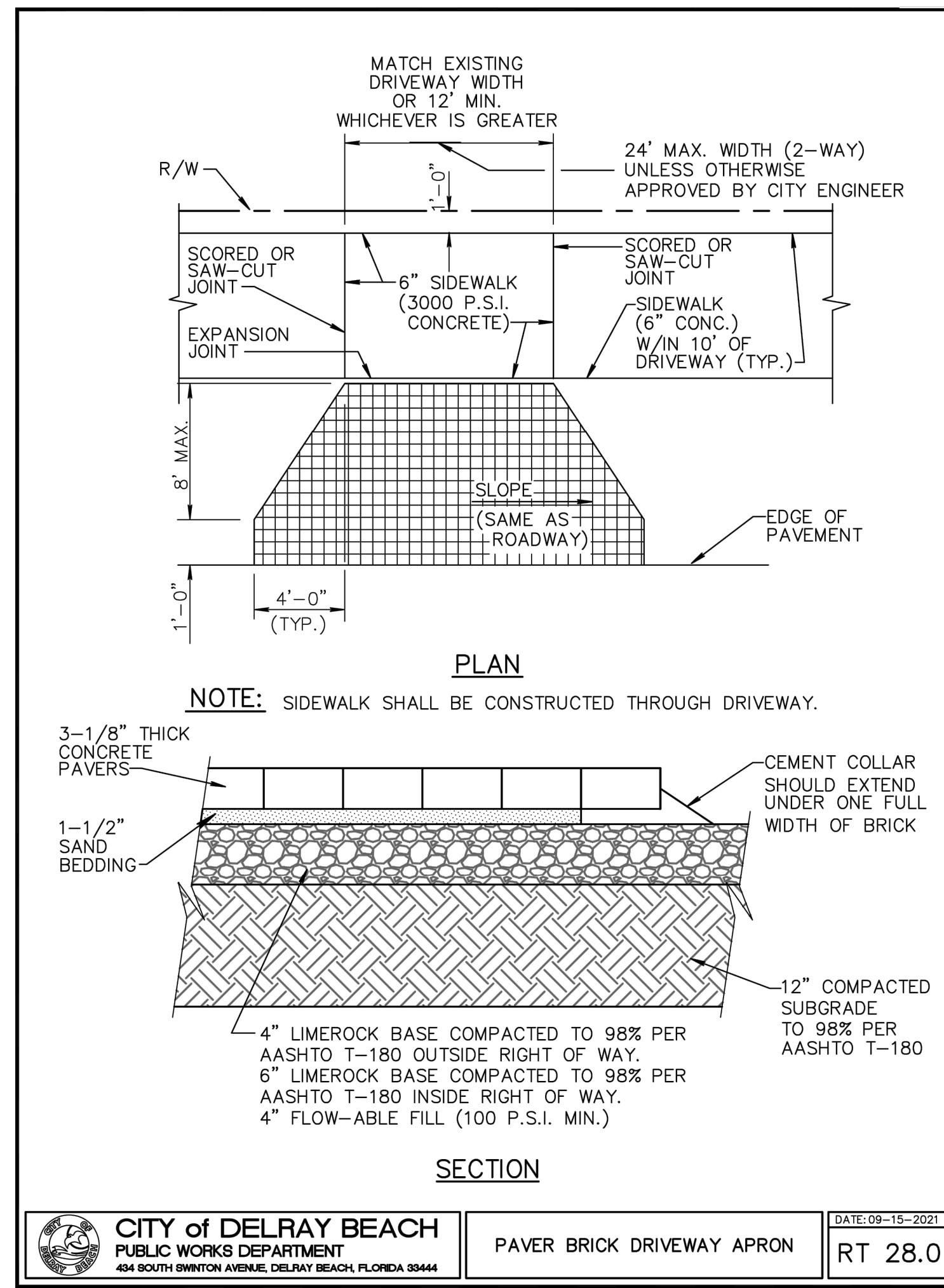
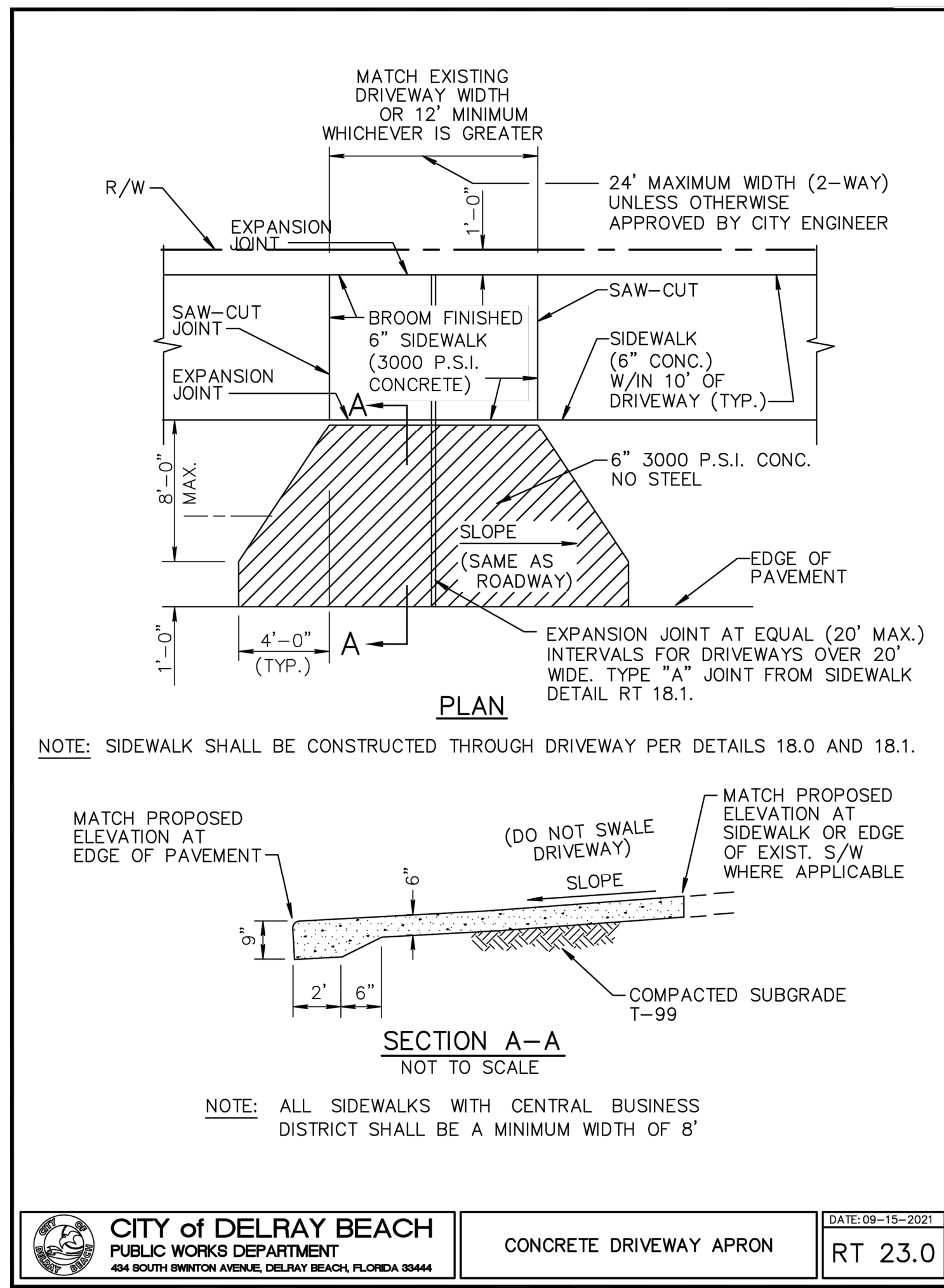
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CITY OF DELRAY BEACH STANDARD DETAILS

PROJECT NUMBER 20-015
 SHEET NUMBER C-219
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FL DATE: 09/17/2024

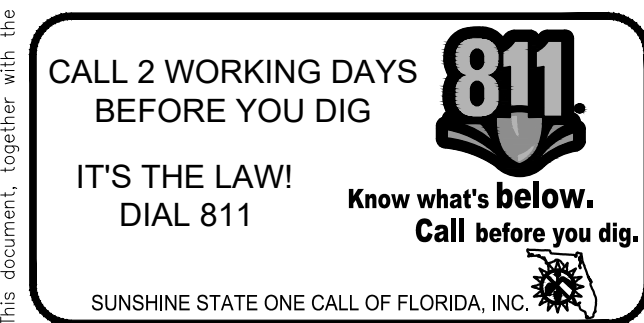
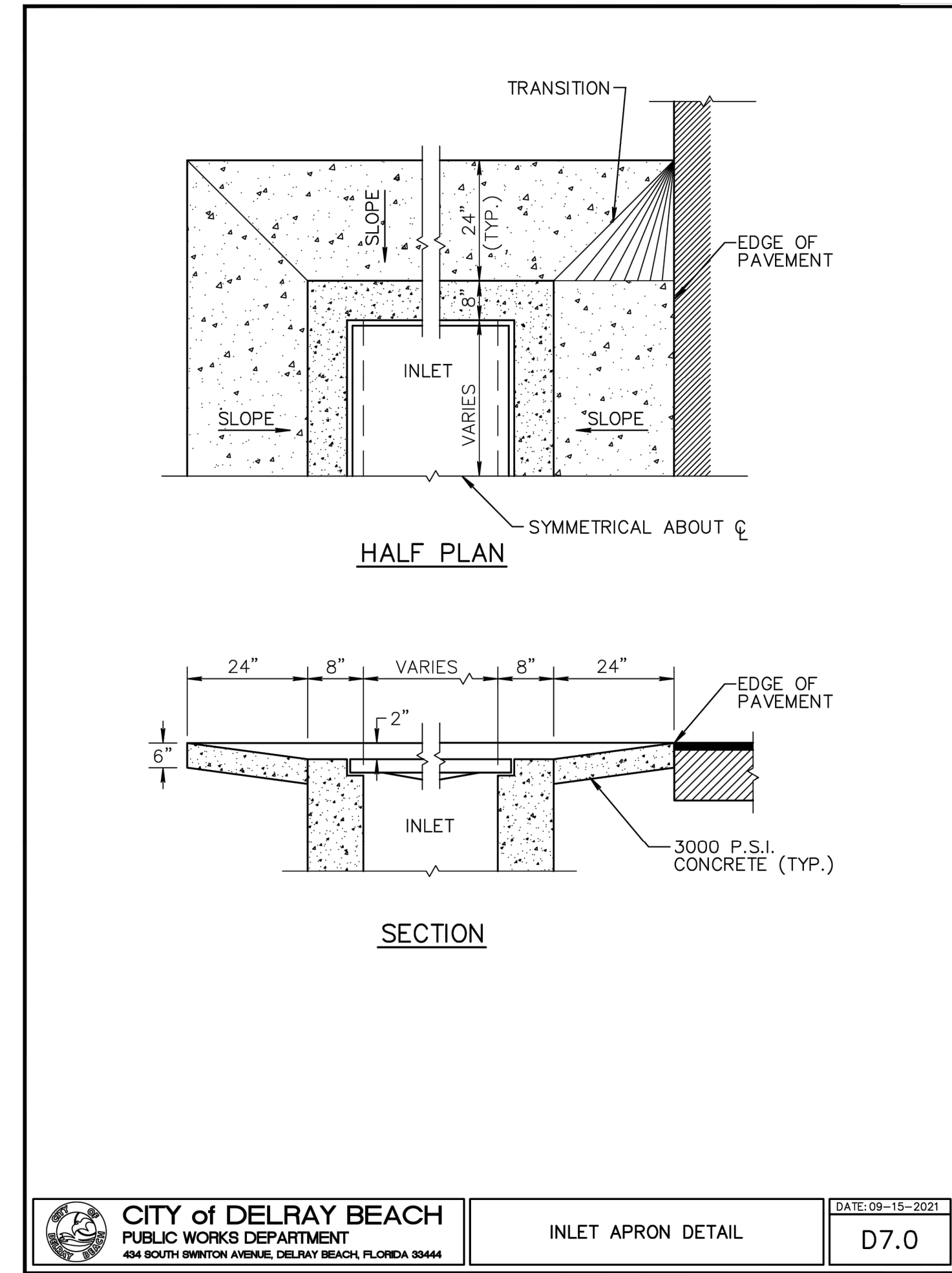
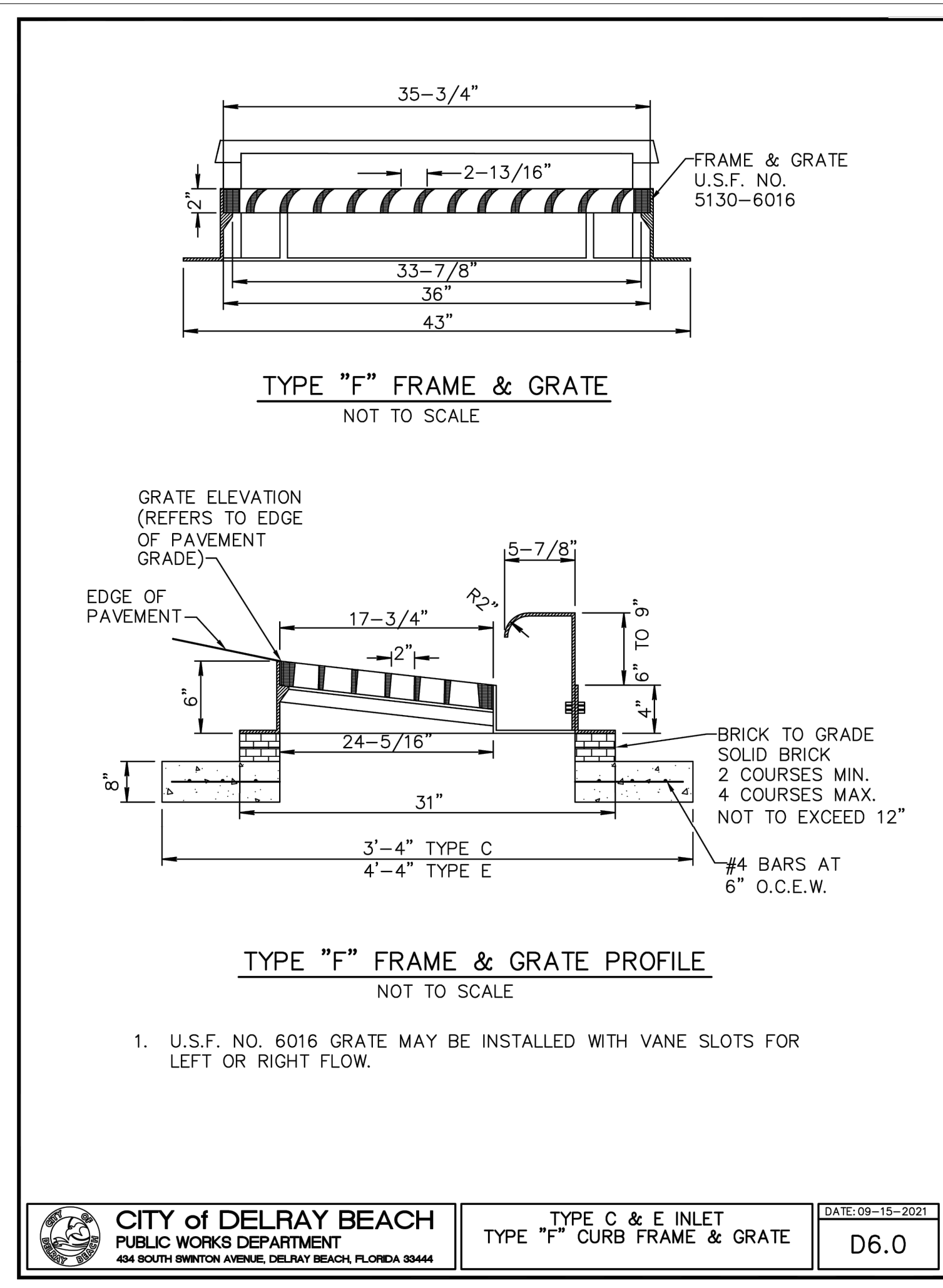
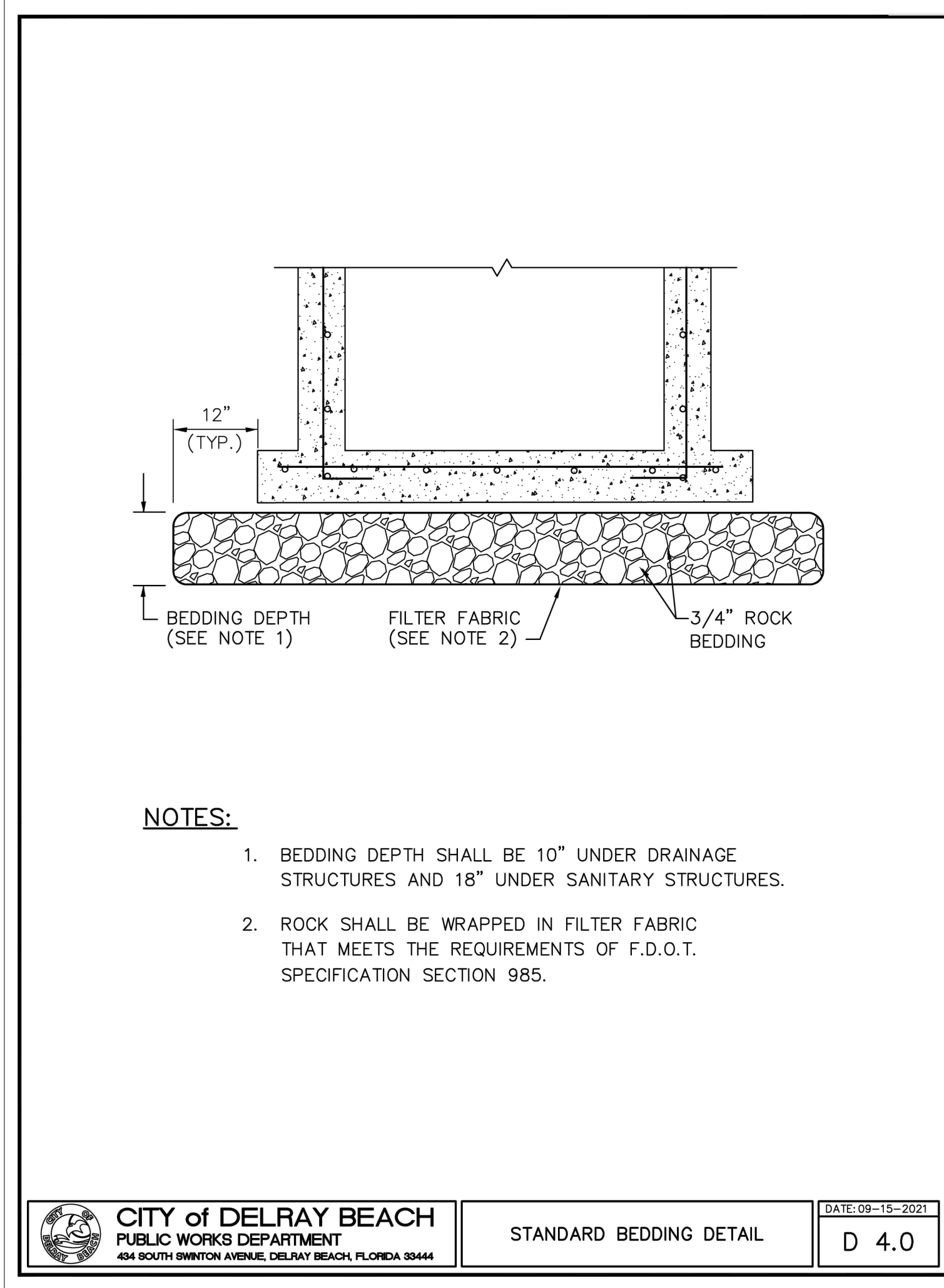
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CITY OF DELRAY BEACH STANDARD DETAILS

PROJECT NUMBER 20-015
SHEET NUMBER C-220
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CITY OF DELRAY BEACH STANDARD DETAILS

PROJECT NUMBER 20-015
SHEET NUMBER C-221
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INLET TYPE	DIMENSIONS		GRATE TYPE	MAX. PIPE SIZE	
	A	B		WALL A	WALL B
'C'	2'-0"	3'-1"	U.S. FOUNDRY No. 6212	15" R.C.P.	24" R.C.P.
'E'	3'-0"	4'-5"	U.S. FOUNDRY No. 6290	24" R.C.P.	36" R.C.P.

U.S. FOUNDRY GRATE #6212 OR EQUAL

TYPE "C"

U.S. FOUNDRY GRATE #6290 OR EQUAL

TYPE "E"

NOTES:

- ALL GRATES SHALL BE SUITABLE FOR H-20 LOADING (HIGHWAY TRAFFIC LOADS)
- WHEN INSTALLED IN PAVEMENT OR WITHIN 6' OF PAVEMENT USE U.S.F. 4160-6210

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TYPE C & E INLET GRATE DETAIL

DATE: 09-15-2021
D8.0

PLAN

SECTION

SECTION * SEE TYPICAL BACKFILL DETAIL GU 2.0

INLET TYPE	DIMENSIONS		GRATE TYPE	MAX. PIPE SIZE	
	A	B		WALL A	WALL B
'C'	2'0"	3'1"	U.S. FOUNDRY NO. 6212	15" R.C.P.	24" R.C.P.
'E'	3'0"	4'6"	U.S. FOUNDRY NO. 6290	24" R.C.P.	36" R.C.P.

NOTES:

- INLET TO BE PRECAST WITH CLASS 'A' 4000 P.S.I. CONCRETE.
- ALL EXPOSED CORNERS AND EDGES TO BE CHAMFERED 3/4".
- 12" DIAMETER WEEP HOLE REQUIRED ON ALL STRUCTURES WHICH HAVE A BOTTOM ELEVATION ABOVE THE WATER TABLE EXCEPT IN WELLFIELDS.
- 18" SUMP REQUIRED IN ALL DRAINAGE STRUCTURES.
- SEE BEDDING DETAIL D 3.0
- ALL STRUCTURES TO BE 4 SIDED ANGLE SHOULDERS.

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TYPE C & E INLET DETAIL

DATE: 09-15-2021
D9.0

INLET FILTER INSTALLATION WITHOUT FRAME AND GRATE

WIRE SUPPORT - MOULD 6x6", 5/5 GA. 49 #/100 SQ. FT. WELD WIRE SUPPORT. EXTEND 6" MIN. AT SIDES

6" MIN.

BACKFILL AFTER INSTALLATION OF INLET FILTER

SECURE FILTER FABRIC TO FRAME AND GRATE

NOT TO SCALE

NOTES:

- CONTRACTOR IS TO CLEAN INLET FILTER AFTER EVERY STORM.
- CONTRACTOR TO REMOVE FABRIC JUST PRIOR TO PAVING.

A SEDIMENT TRAP WILL BE EXCAVATED BEHIND THE CURB AT THE INLET. THE BASIN SHALL BE AT LEAST 12 TO 14 INCHES IN DEPTH, APPROXIMATELY 36 INCHES IN WIDTH, AND APPROXIMATELY 7 TO 10 FEET IN LENGTH PARALLEL TO THE CURB.

STORM WATER WILL REACH THE SEDIMENT TRAP VIA CURB CUTS ADJACENT TO EACH SIDE OF THE INLET STRUCTURE. THESE OPENINGS SHALL BE AT LEAST 12 INCHES IN LENGTH. STORM WATER MAY ALSO REACH THE BASIN VIA OVERLAND FLOW LAND AREA BEHIND THE CURB. THE CURB CUTS SHALL BE REPAIRED WHEN THE SEDIMENT TRAP IS REMOVED.

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INLET FILTER DETAIL

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KH PROJECT # 044300089	BRANT BRIDGE CONNECTOR PREPARED FOR CITY OF DELRAY BEACH	ENGINEER'S SEAL
FM # 441586-1-58-01		
SCALE AS SHOWN		
DESIGNED BY BK		
DRAWN BY MT		
CHECKED BY ER	CITY OF DELRAY BEACH	FL DATE: 09/17/2024

No.	REVISIONS	DATE	BY

CITY OF DELRAY BEACH STANDARD DETAILS

PROJECT NUMBER 20-015
SHEET NUMBER C-222
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1. THE INTENT OF EROSION CONTROL MEASURES INDICATED GRAPHICALLY ON PLANS IS TO PROVIDE A BARRIER TO CONTAIN SILT AND SEDIMENT ON THE PROJECT SITE. THIS REPRESENTATION IS PROVIDED FOR THE CONVENIENCE OF THE CONTRACTOR. THE TEST OF EROSION CONTROL EFFECTIVENESS IS NOT TO BE DETERMINED BY ADHERENCE TO THE REPRESENT SET FORTH ON THE DRAWINGS AND SPECIFICATIONS, BUT BY MEETING THE REGULATIONS SET FORTH BY THE AUTHORITY HAVING JURISDICTION OVER WATER QUALITY CONTROL AND OTHER SEDIMENTATION RESTRICTION REQUIREMENTS IN THE REGION.

2. APPROVED EROSION AND SEDIMENT CONTROL MEASURES SHALL BE INSTALLED PRIOR TO ANY CLEARING GRADING, EXCAVATION, FILLING, OR OTHER LAND DISTURBANCE ACTIVITIES, EXCEPT THOSE OPERATIONS NEEDED TO INSTALL SUCH MEASURES.

3. INSPECTION OF ALL EROSION CONTROL MEASURES SHALL BE CONDUCTED WEEKLY, OR AFTER EACH RAINFALL EVENT, REPAIR, AND/OR REPLACEMENT OF SUCH MEASURES SHALL BE MADE PROMPTLY, AS NEEDED.

4. KEEP DUST WITHIN TOLERABLE LIMITS BY SPRINKLING OR OTHER ACCEPTABLE MEANS.

5. ADDITIONAL EROSION AND SEDIMENT CONTROL MEASURES MAY BE REQUIRED IF DEEMED NECESSARY BY ONSITE INSPECTION.

6. FAILURE TO PROPERLY INSTALL AND MAINTAIN EROSION CONTROL PRACTICES SHALL RESULT IN CONSTRUCTION BEING HALTED.

7. DRAINAGE INLETS SHALL BE PROTECTED BY FILTER AND GRADED ROCK AS PER INLET PROTECTION DETAIL.


8. ANY ACCESS ROUTES TO SITE SHALL BE BASED WITH CRUSHED STONE, WHERE PRACTICAL.

9. EROSION CONTROL MEASURES ARE TO BE MAINTAINED UNTIL PERMANENT GROUND COVER IS ESTABLISHED.

10. WHENEVER FEASIBLE, NATURAL VEGETATION SHALL BE RETAINED AND PROTECTED.

11. ALL WORK IS TO BE IN COMPLIANCE WITH THE RULES AND REGULATIONS SET FORTH BY THE STATE OF FLORIDA, DEPARTMENT OF ENVIRONMENTAL PROTECTION AND THE CITY OF DELRAY BEACH.

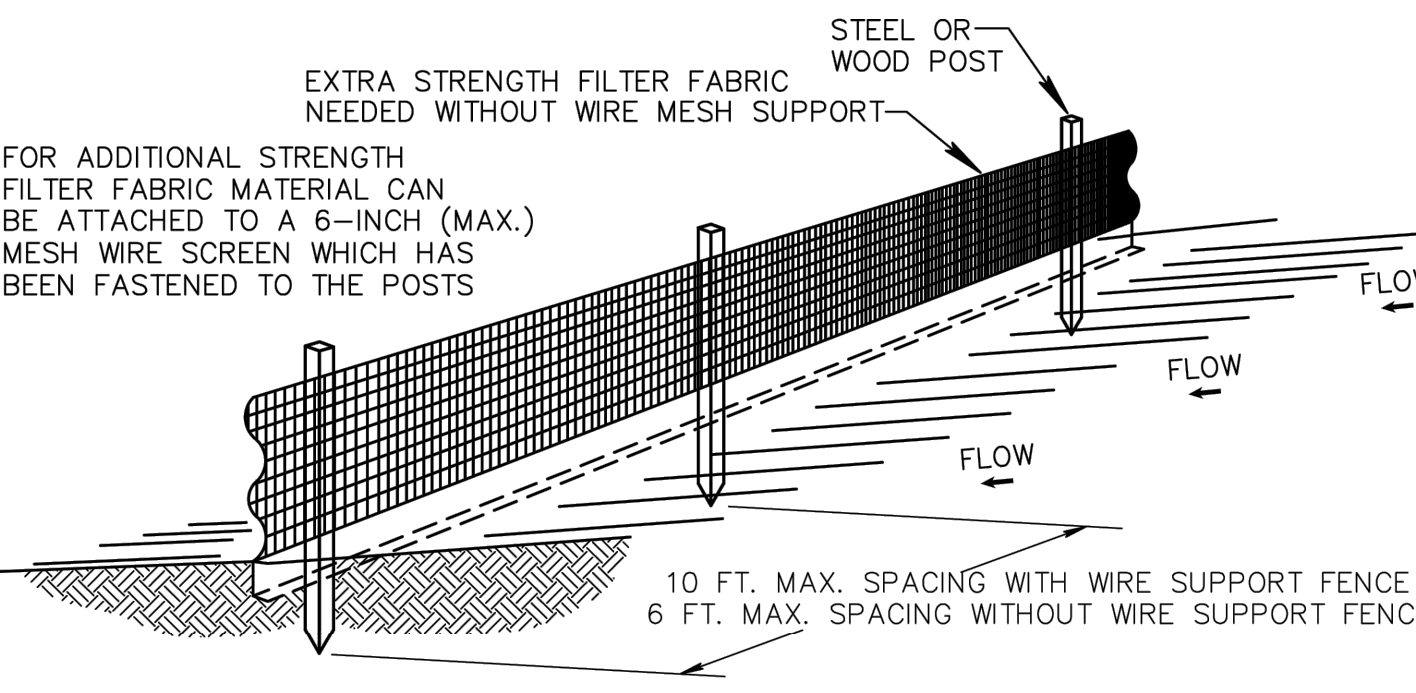
12. DISCHARGE FROM DEWATERING OPERATIONS SHALL BE RETAINED ONSITE IN A CONTAINMENT AREA.



CITY of DELRAY BEACH
PUBLIC WORKS DEPARTMENT
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EROSION CONTROL NOTES DETAIL


DATE: 09-15-2021
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FOR ADDITIONAL STRENGTH FILTER FABRIC MATERIAL CAN BE ATTACHED TO A 6-INCH (MAX.) MESH WIRE SCREEN WHICH HAS BEEN FASTENED TO THE POSTS

NOTES:

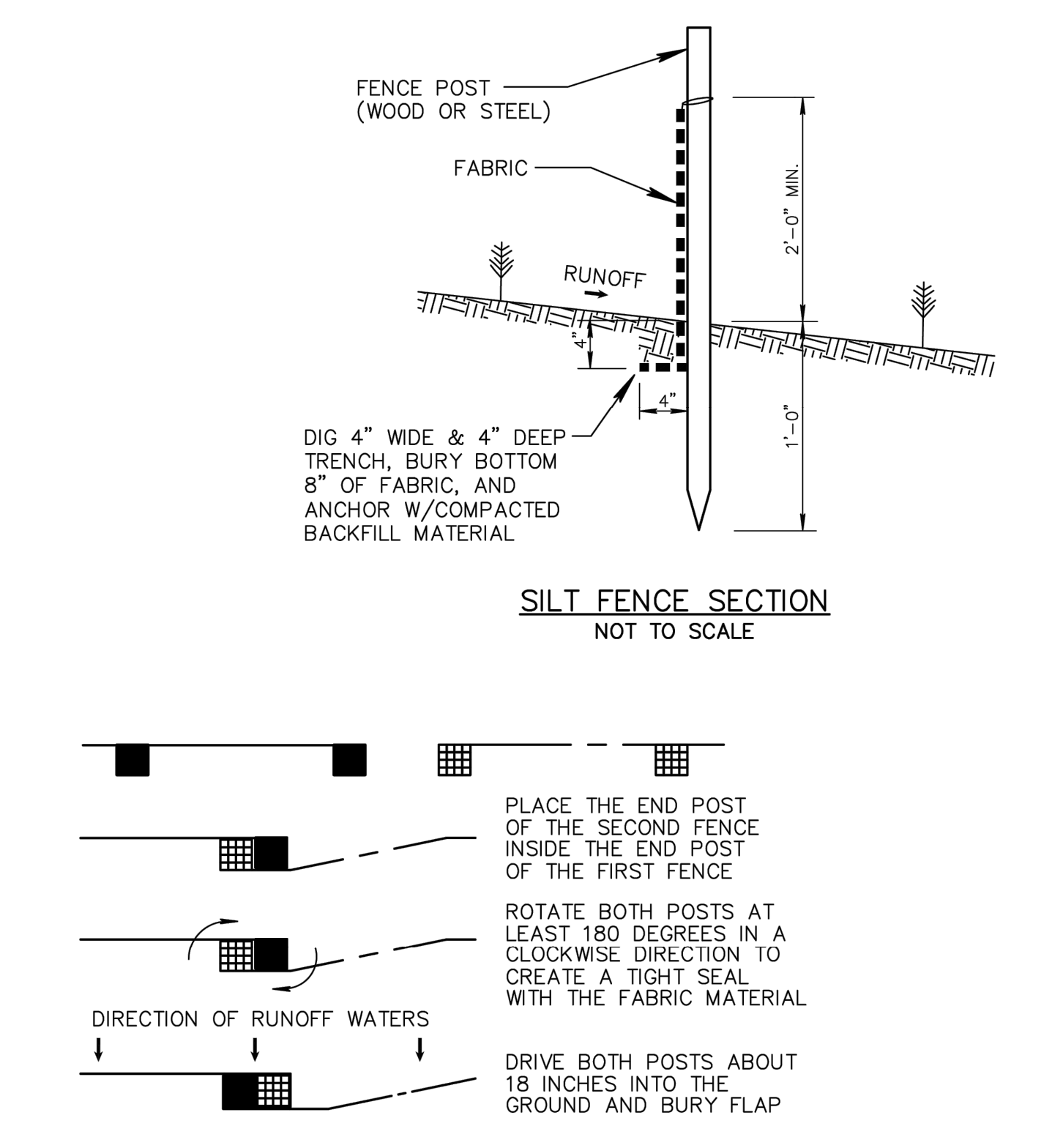
1. THE HEIGHT OF A SILT FENCE SHALL NOT EXCEED 36 INCHES.
2. THE FILTER FABRIC SHALL BE PURCHASED IN A CONTINUOUS ROLL CUT TO THE LENGTH OF THE BARRIER TO AVOID THE USE OF JOINTS.
3. POSTS SHALL BE SPACED A MAXIMUM OF 10 FEET APART AT THE BARRIER LOCATION AND DRIVEN SECURELY INTO THE GROUND A MINIMUM OF 12 INCHES. WHEN EXTRA STRENGTH FABRIC IS USED WITHOUT THE WIRE SUPPORT FENCE, POST SPACING SHALL NOT EXCEED 6 FEET.
4. A TRENCH SHALL BE EXCAVATED APPROXIMATELY 4 INCHES WIDE AND 4 INCHES DEEP ALONG THE LINE OF POSTS AND UPSLOPE FROM THE BARRIER.
5. WHEN STANDARD STRENGTH FILTER FABRIC IS USED, A WIRE MESH SUPPORT FENCE SHALL BE FASTENED SECURELY TO THE UPSLOPE SIDE OF THE POSTS USING HEAVY DUTY WIRE STAPLES AT LEAST 1 INCH LONG, TIE WIRES, OR HOG RINGS. THE WIRE SHALL EXTEND INTO THE TRENCH A MINIMUM OF 2 INCHES AND SHALL NOT EXTEND MORE THAN 36 INCHES ABOVE THE ORIGINAL GROUND SURFACE.
6. THE STANDARD STRENGTH FILTER FABRIC SHALL BE STAPLED OR WIRED TO THE FENCE, AND 8 INCHES OF THE FABRIC SHALL BE EXTENDED INTO THE TRENCH. THE FABRIC SHALL NOT EXTEND MORE THAN 36 INCHES ABOVE THE ORIGINAL GROUND SURFACE.
7. THE TRENCH SHALL BE BACKFILLED AND THE SOIL COMPACTED OVER THE FILTER FABRIC.
8. ALL PROJECTS REQUIRE SUBMITTAL OF POLLUTION PREVENTION PLAN (PPP).
9. ALL PROJECTS 1 AC. OR MORE MUST SUBMIT NOTICE OF INTENT (NOI) TO FDEP.



CITY of DELRAY BEACH
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SILT FENCE INSTALLATION DETAIL
(SHEET 1 OF 2)

DATE: 09-15-2021
D12.0



SILT FENCE SECTION
NOT TO SCALE

ATTACHING TWO SILT FENCES
NOT TO SCALE



CITY of DELRAY BEACH
PUBLIC WORKS DEPARTMENT
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SILT FENCE INSTALLATION DETAIL
(SHEET 2 OF 2)

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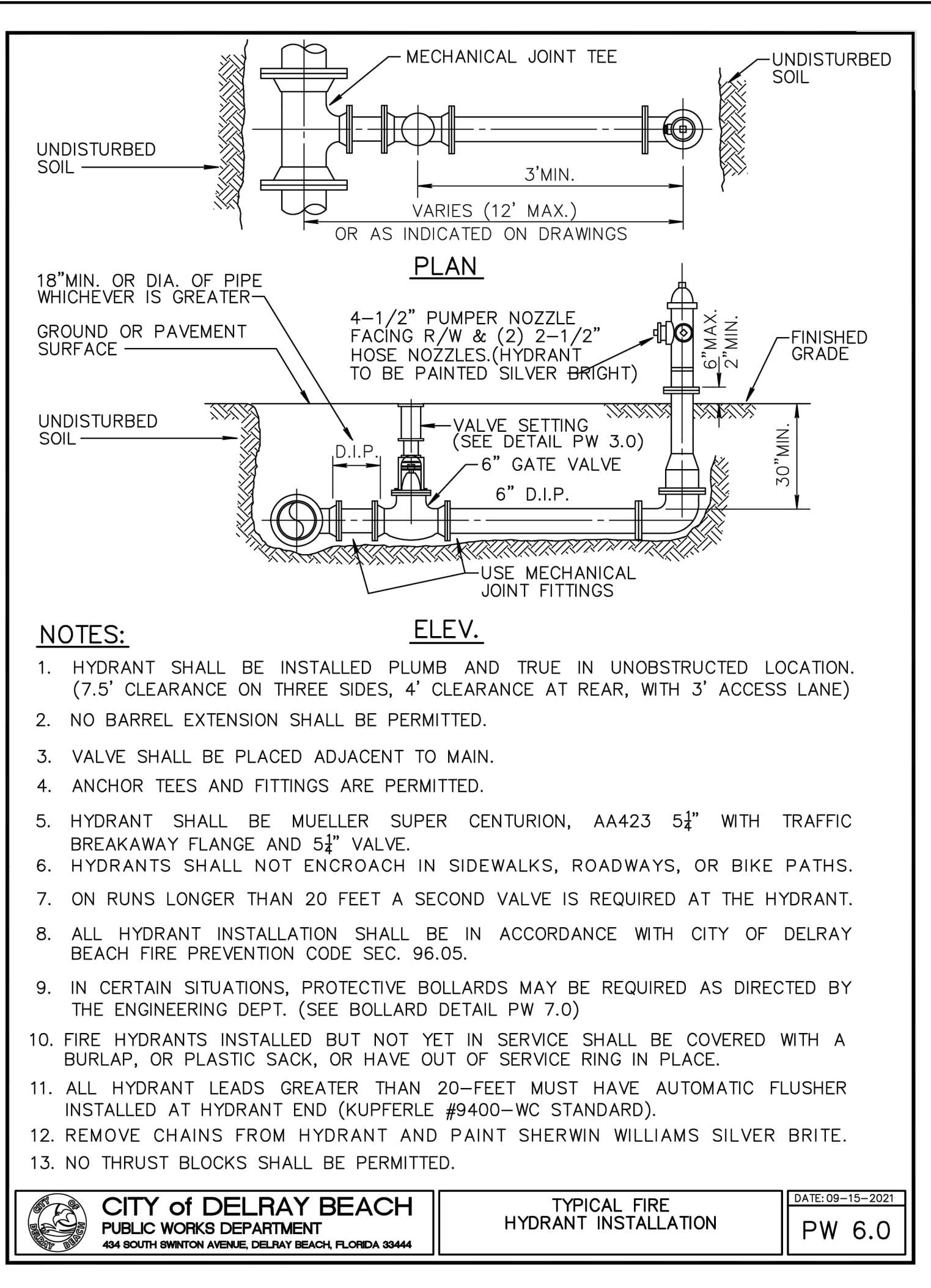
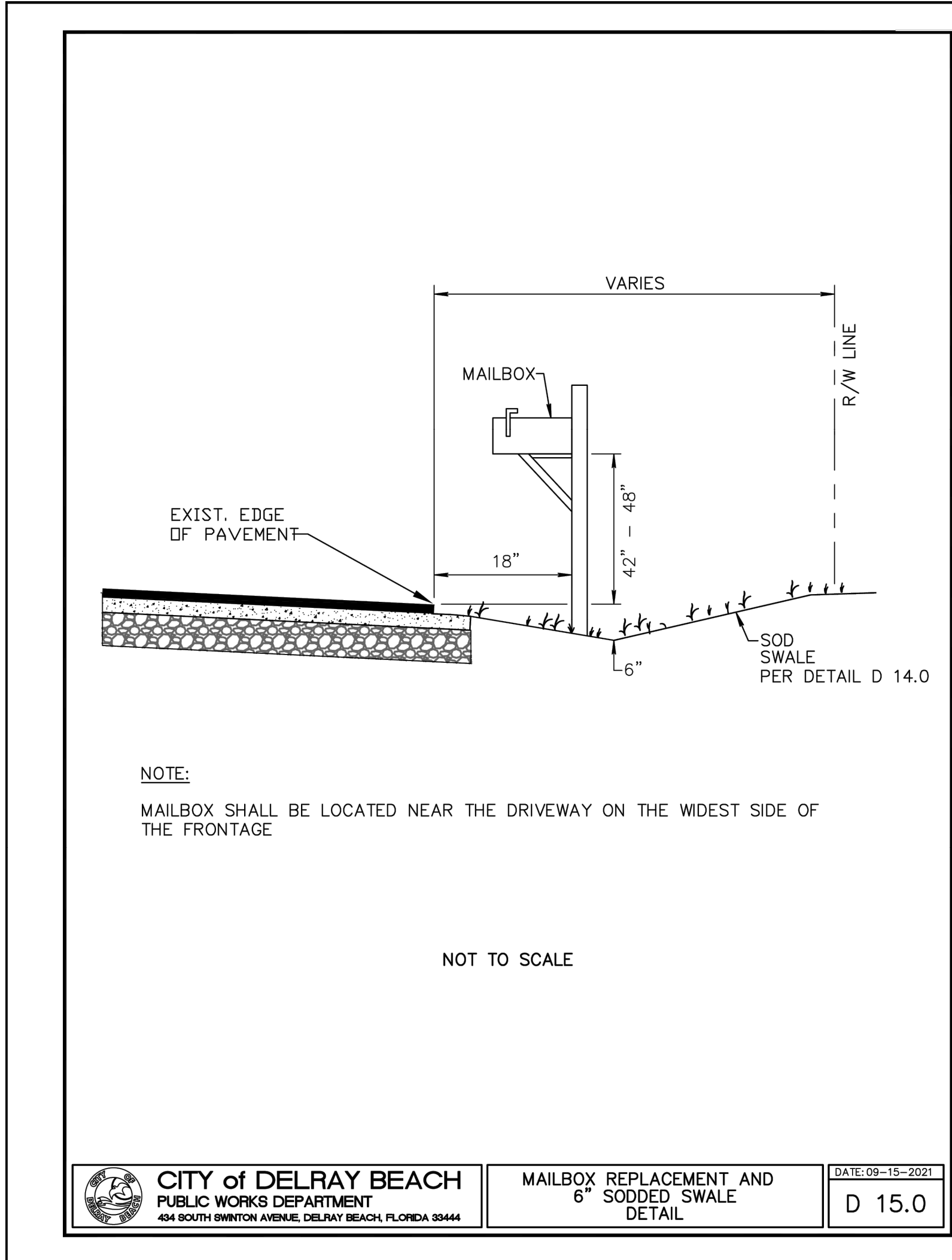
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CITY OF DELRAY BEACH STANDARD DETAILS

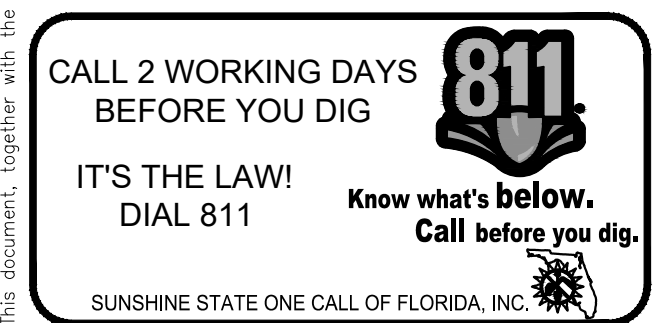
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- GRAVITY SEWER NOTES**
- MANHOLES SHALL BE INSPECTED BY THE ENGINEER BEFORE PLACEMENT AND SURFACE TREATMENT.
 - ALL OPENINGS IN PRECAST MANHOLES SHALL BE CAST AT TIME OF MANUFACTURE. CONNECTIONS TO EXISTING MANHOLES SHALL BE CORE ENTRY ONLY.
 - ALL MANHOLES SHALL BE SET PLUMB TO LINE AND GRADE.
 - (PVC) GRAVITY SEWER PIPE SHALL CONFORM TO ASTM D 3034, SDR 35, LATEST REVISIONS, WITH PUSH ON RUBBER GASKET JOINTS.
 - (DIP) GRAVITY SEWER PIPE SHALL BE CLASS 350, 401 EPOXY LINED OR AS OTHERWISE APPROVED BY UTILITIES DEPARTMENT.
 - NO SERVICE CONNECTIONS, WYES, SERVICES OR VALVES WILL BE PERMITTED IN RESIDENTIAL DRIVEWAYS.
 - MANHOLE FRAMES SHALL BE ATTACHED TO THE PRECAST STRUCTURE WITH A MINIMUM OF TWO 3/4" 316 STAINLESS STEEL BOLTS, NUTS AND WASHERS. FRAMES SHALL BE SEALED WITH A MINIMUM OF TWO 1/2" BEADS OF RAM-NEK CAULKING.
 - TRENCHES SHALL BE DE-WATERED TO ENABLE PIPE AND APPURTENANCES TO BE INSTALLED FREE OF WATER ON UNDISTURBED SOIL. IF UNSUITABLE SUBSURFACE MATERIAL IS ENCOUNTERED, EXCAVATE EXTRA 6" AND BACKFILL WITH 3/4" GRAVEL.
 - PVC SHALL BE LAID IN STRICT CONFORMANCE TO MANUFACTURER'S SPEC (JOHNS MANVILLE RING TITE PVC PIPE INSTALLATION GUIDE OR EQUAL). BACKFILLING OF UTILITY TRENCHES WILL NOT BE ALLOWED UNTIL INSPECTED BY THE ENGINEER.
 - BACKFILL MATERIAL FOR SEWER MAIN AND LINES SHALL BE NON-COHESIVE, NON PLASTIC MATERIAL FREE OF ALL DEBRIS, LUMPS AND ORGANIC MATTER. BACKFILL MATERIAL PLACED WITHIN ONE (1) FOOT OF PIPING AND APPURTENANCES SHALL NOT CONTAIN ANY STONES LARGER THAN TWO (2) INCHES IN DIAMETER (1" FOR PVC PIPE) AND NO STONES LARGER THAN SIX (6) INCHES IN DIAMETER WILL BE PERMITTED IN ANY BACKFILL.
 - ALL EXCAVATION IN EXISTING RIGHT OF WAY SHALL BE BACKFILLED AND STABILIZED AT THE END OF EACH DAY TO PERMIT PEDESTRIAN AND VEHICULAR TRAFFIC PRIOR TO THE CONTRACTOR LEAVING THE SITE.
 - WHERE SEWER IS NOT WITHIN PUBLIC R/W, IT IS TO BE LOCATED IN A 12' UTILITY EASEMENT. CITY MAINTENANCE RESPONSIBILITY IS MANHOLE TO MANHOLE ONLY.
 - UPON COMPLETION OF THE WORK AND PRIOR TO PLACEMENT OF ASPHALT A VISUAL INSPECTION BY THE ENGINEER SHALL BE MADE OF THE COMPLETED SYSTEM ALONG WITH A LOW PRESSURE AIR TEST, AFTER ROCK BASE FINISHED & PRIMED, OR 1ST LIFT OF ASPHALT PLACED. AFTER ALL OTHER TESTING HAS BEEN COMPLETED, A CD VIDEO RECORDING SHALL BE MADE BY THE CONTRACTOR AND APPROVED BY THE ENGINEER, BEFORE THE LENGTHS ARE ACCEPTED FOR MAINTENANCE.
 - EACH LINE SEGMENT SHALL BE LAMPED TO DETERMINE PROPER ROUNDNESS.
 - COMPLETE "AS BUILT" INFORMATION RELATIVE TO MANHOLES, VALVES, SERVICES FITTINGS, PIPE LENGTHS, INVERTS AND SLOPES SHALL BE ACCURATELY RECORDED & SUBMITTED TO THE ENGINEER CITY SIGNED AND SEALED BY A REGISTERED LAND SURVEYOR.
 - AT THE END OF THE ONE (1) YEAR WARRANTY PERIOD THE DEVELOPER/CONTRACTOR WILL T.V. INSPECT, AIR TEST EVERY JOINT AND CHECK MANHOLE JOINTS AND CONNECTIONS TO DETERMINE IF REPAIRS ARE NECESSARY BEFORE THE WARRANTY BOND IS RELEASED.
 - NO PROPOSED STRUCTURES SHALL BE INSTALLED WITHIN A HORIZONTAL DISTANCE OF 10- FEET FROM ANY EXISTING OR PROPOSED SANITARY SEWER FACILITY.
 - ANY PIPE INTRODUCED INTO AN EXISTING MANHOLE MUST HAVE CARBOLINE BITUMASTIC 300M OR APPROVED EQUAL APPLIED EXTERNALLY WITHIN A MINIMUM 2-FOOT RADIUS OF OPENING AND THE ENTIRE MANHOLE MUST HAVE SEWER COAT OR APPROVED EQUAL APPLIED INTERNALLY.
 - ANY REHABILITATION TO AN EXISTING MANHOLE MUST BE INTERNALLY STRIPPED AND LINED WITH SEWER COAT OR APPROVED EQUAL.
- CITY of DELRAY BEACH**
PUBLIC WORKS DEPARTMENT
434 SOUTH SWINTON AVENUE, DELRAY BEACH, FLORIDA 33444
- GRAVITY SEWER NOTES
- DATE: 09-15-2021
WW 1.0



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www.mydelraybeach.com

Kimley»Horn

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ERIC REGUEIRO, P.E.
P.E. LICENSE NO. 86211
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KH PROJECT # 044300089
FM # 441586-1-58-01
SCALE AS SHOWN
DESIGNED BY BK
DRAWN BY MT
CHECKED BY ER

BRANT BRIDGE CONNECTOR
PREPARED FOR
CITY OF DELRAY BEACH

CITY OF DELRAY BEACH

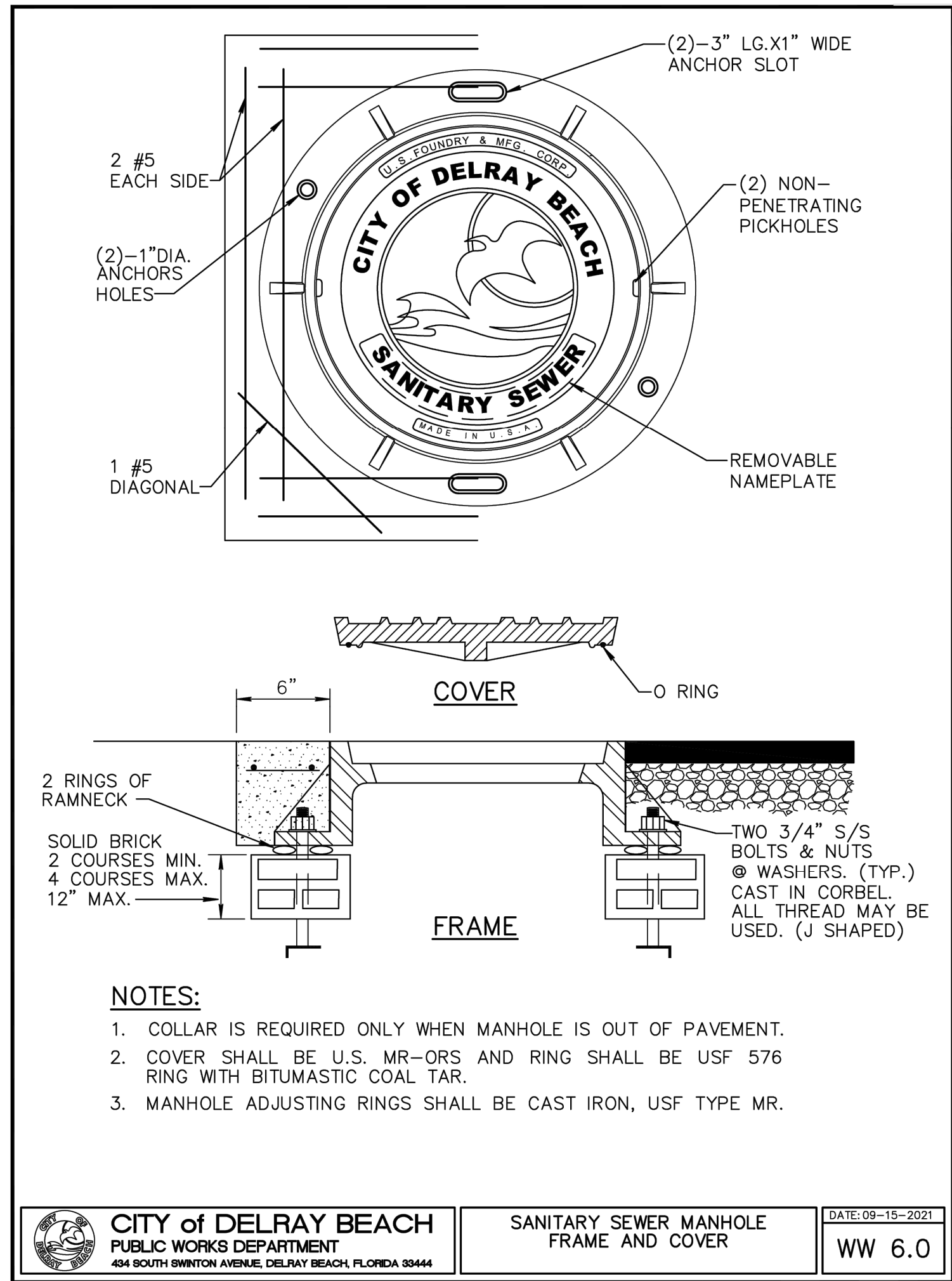
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ERIC REGUEIRO, P.E.				
FL LICENSE NUMBER 86211				
No.	REVISIONS	DATE	BY	

CITY OF DELRAY BEACH STANDARD DETAILS

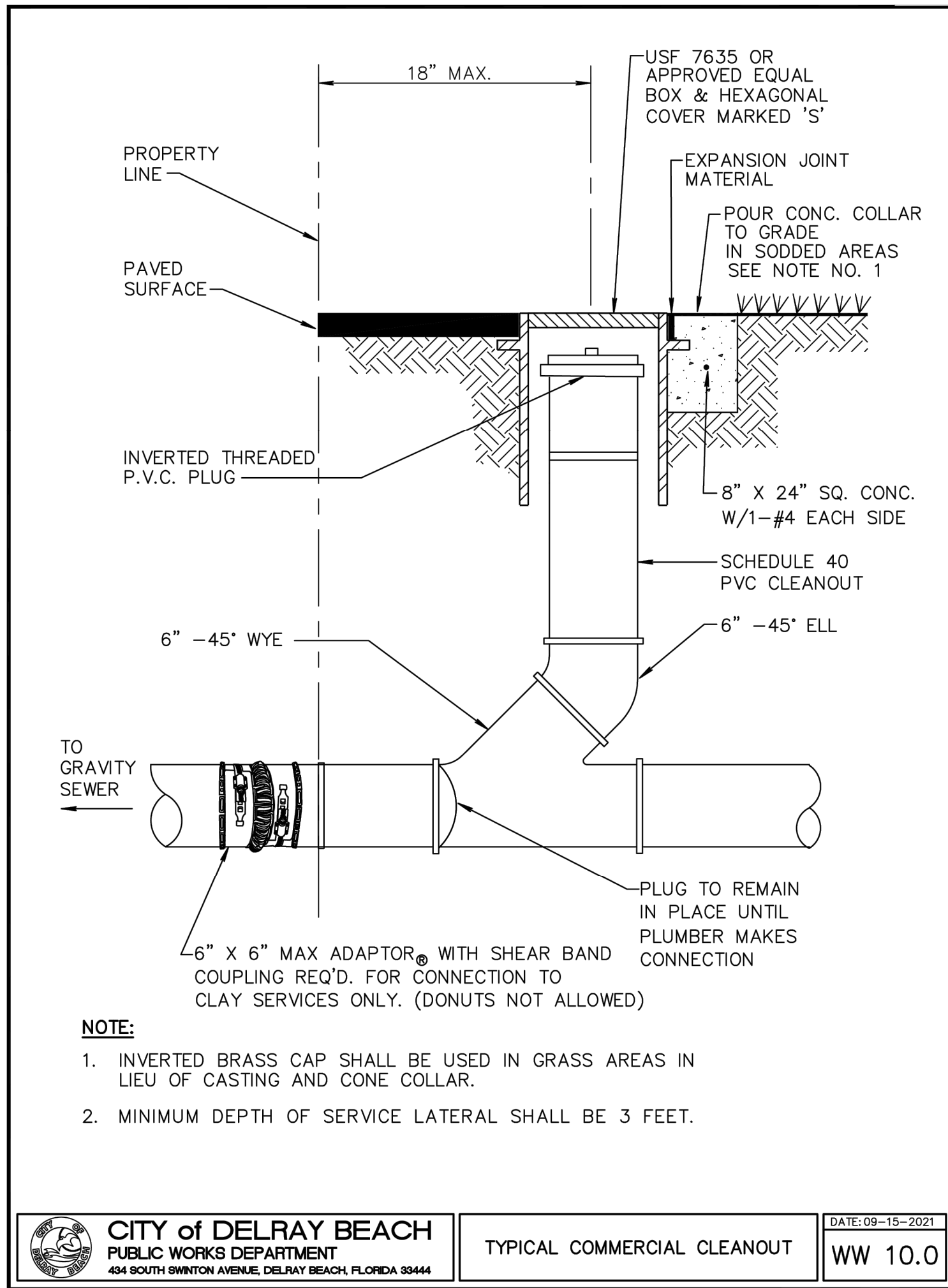
PROJECT NUMBER 20-015
SHEET NUMBER C-224
34 OF 51

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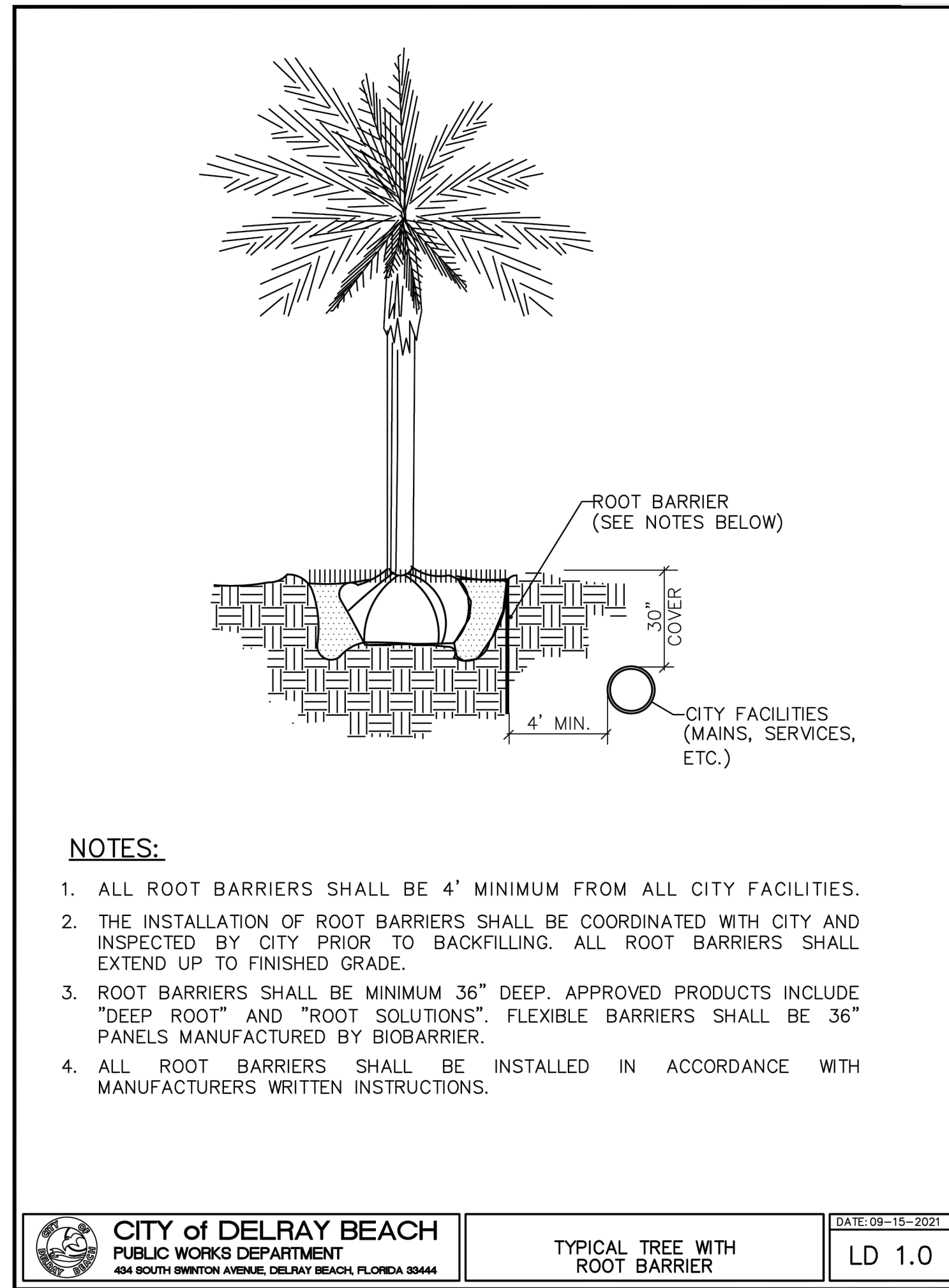
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CITY of DELRAY BEACH
 PUBLIC WORKS DEPARTMENT
 434 SOUTH SWINTON AVENUE, DELRAY BEACH, FLORIDA 33444
SANITARY SEWER MANHOLE FRAME AND COVER
 DATE: 09-15-2021
WW 6.0



CITY of DELRAY BEACH
 PUBLIC WORKS DEPARTMENT
 434 SOUTH SWINTON AVENUE, DELRAY BEACH, FLORIDA 33444
TYPICAL COMMERCIAL CLEANOUT
 DATE: 09-15-2021
WW 10.0



CITY of DELRAY BEACH
 PUBLIC WORKS DEPARTMENT
 434 SOUTH SWINTON AVENUE, DELRAY BEACH, FLORIDA 33444
TYPICAL TREE WITH ROOT BARRIER
 DATE: 09-15-2021
LD 1.0

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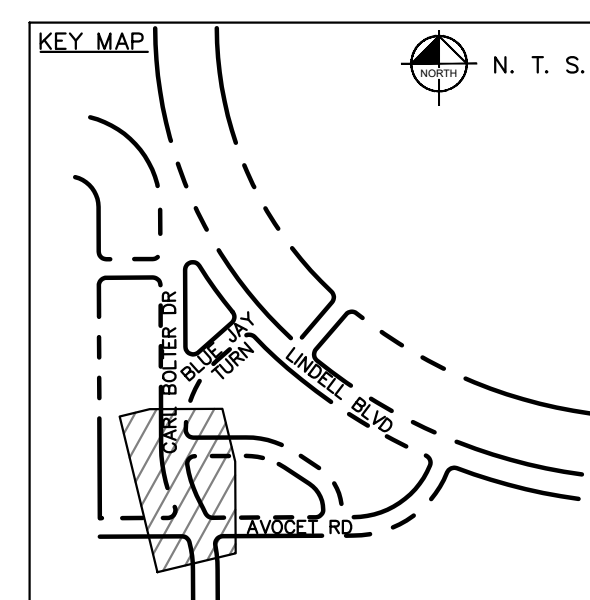
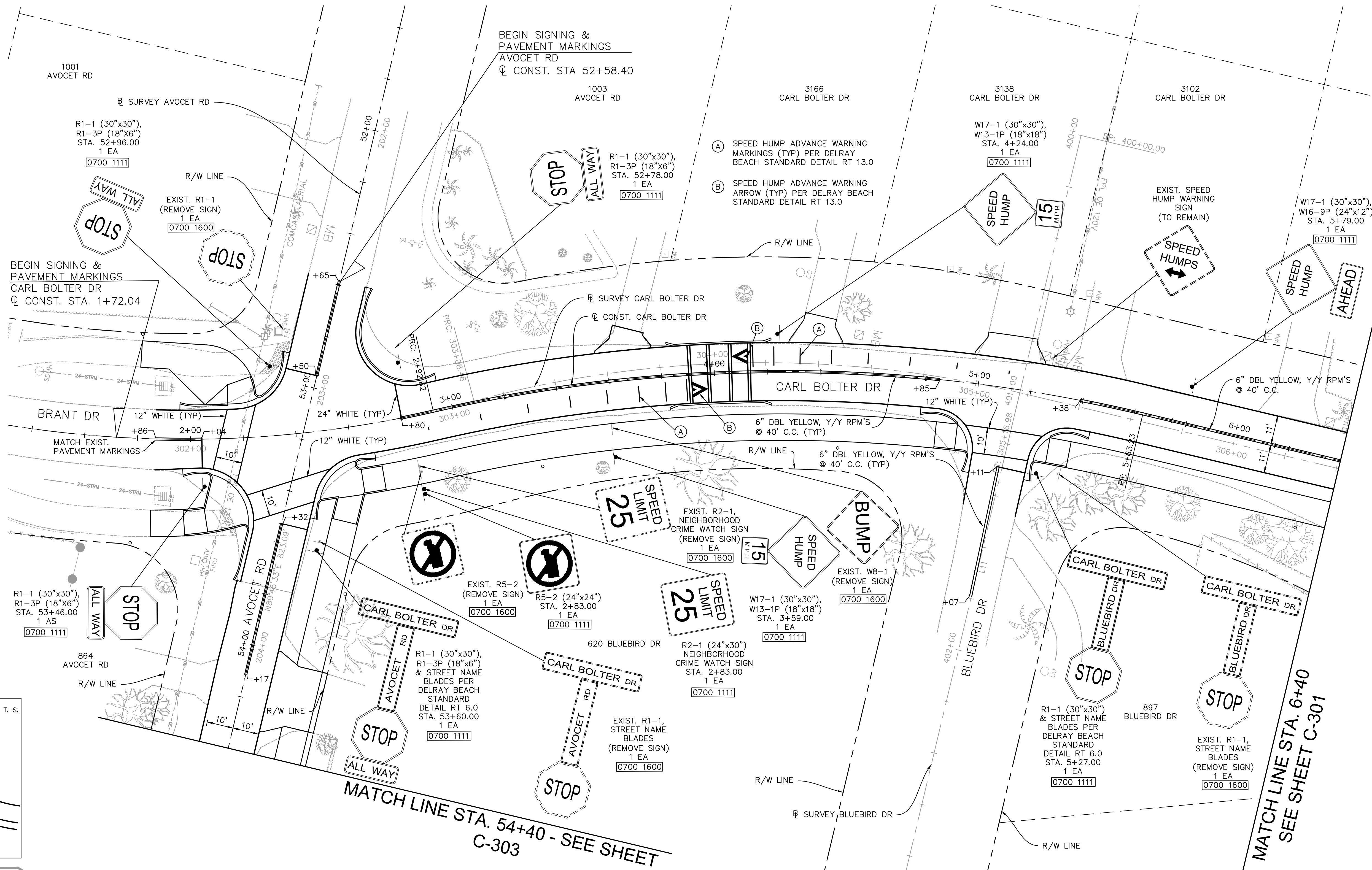
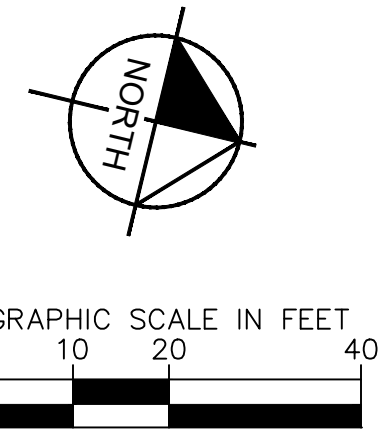
KH PROJECT # 044300089
 FM # 441586-1-58-01
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FL LICENSE NUMBER 86211				
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CITY OF DELRAY BEACH STANDARD DETAILS

PROJECT NUMBER 20-015
SHEET NUMBER C-225
35 OF 51

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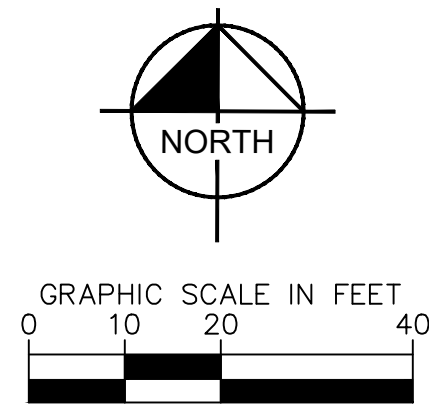
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ERIC REGUEIRO, P.E.	
FL LICENSE NUMBER 86211	
FL DATE: 09/17/2024	
No.	REVISIONS
	DATE
	BY

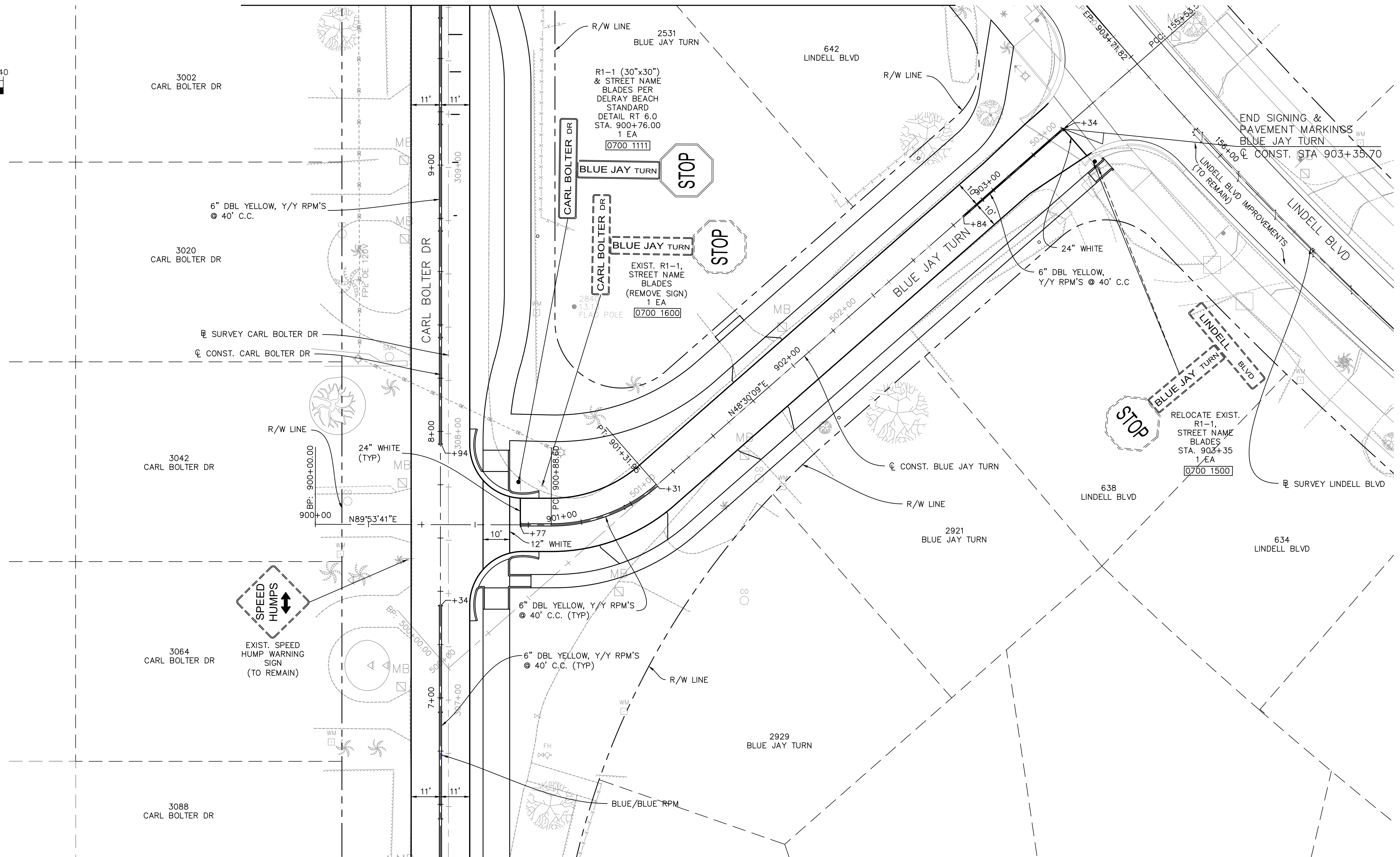
SIGNING AND PAVEMENT MARKING PLAN

PROJECT NUMBER 20-015
SHEET NUMBER C-300
36 OF 51

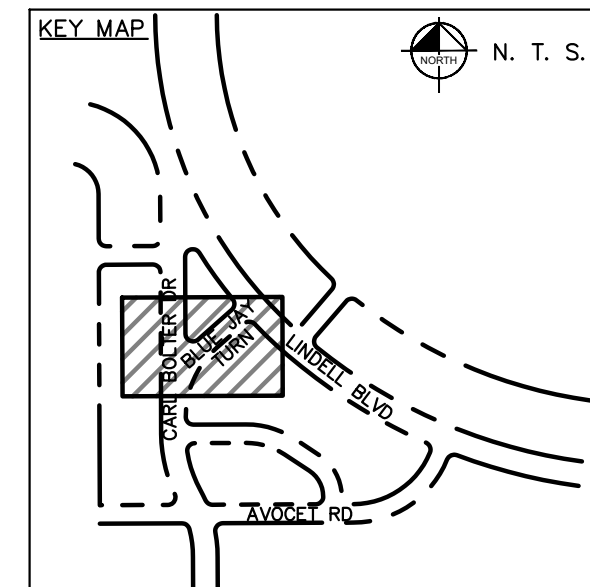
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MATCH LINE STA. 9+60 - SEE SHEET C-302



MATCH LINE STA. 6+40 - SEE SHEET C-300



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KH PROJECT #	044300089
FM #	441586-1-58-01
SCALE	AS SHOWN
DESIGNED BY	BK
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ENGINEER'S SEAL	
ERIC REGUEIRO, P.E.	
FL LICENSE NUMBER	86211
FL DATE:	09/17/2024

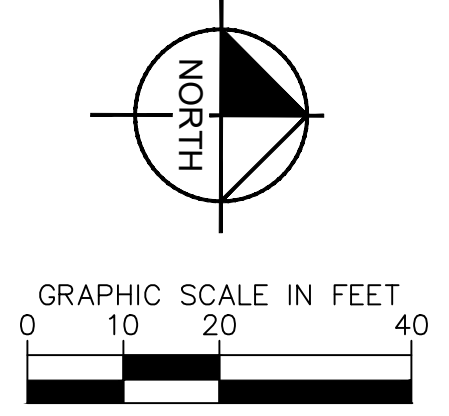
No.	REVISIONS	DATE	BY

SIGNING AND PAVEMENT MARKING PLAN

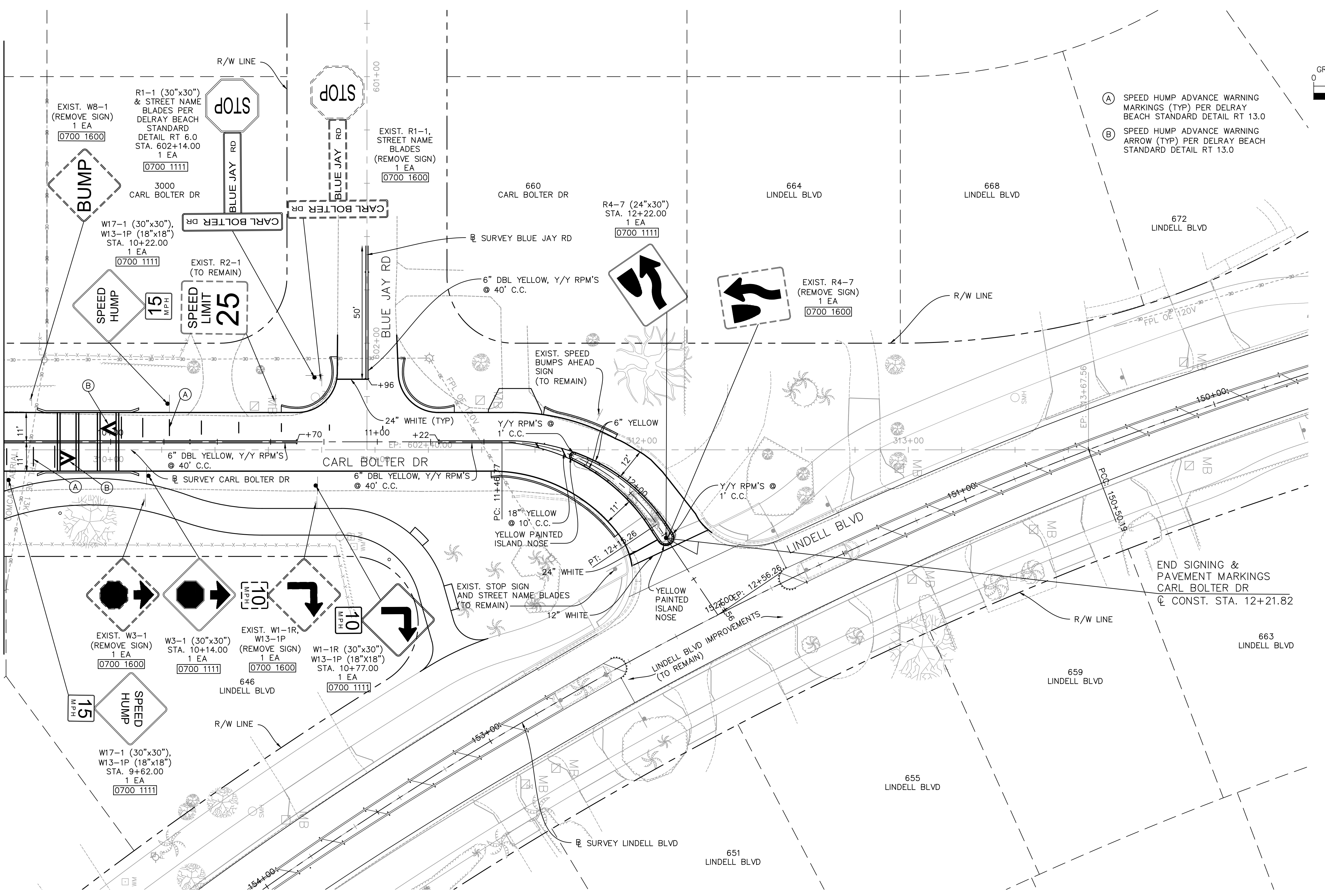
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SHEET NUMBER	C-301
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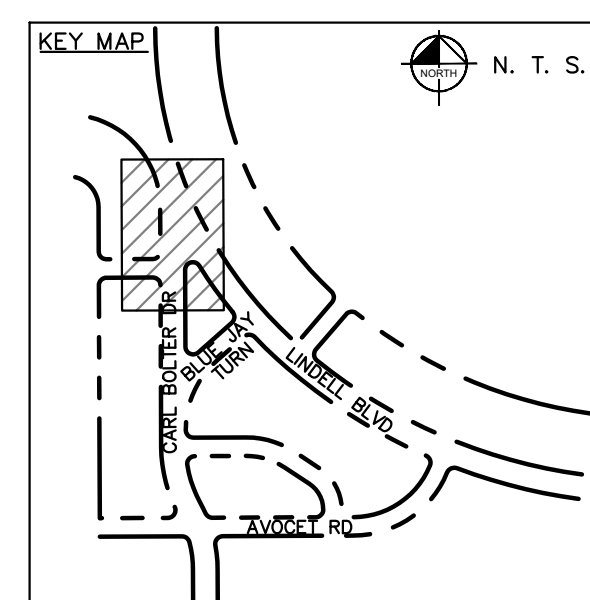
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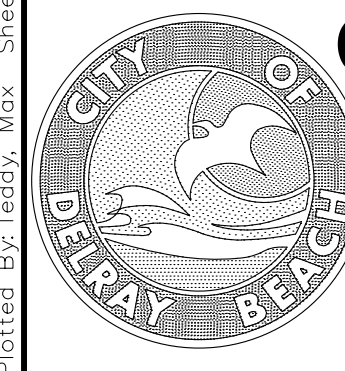
MATCH LINE STA. 9+60 SEE SHEET C-301



- (A) SPEED HUMP ADVANCE WARNING MARKINGS (TYP) PER DELRAY BEACH STANDARD DETAIL RT 13.0
- (B) SPEED HUMP ADVANCE WARNING ARROW (TYP) PER DELRAY BEACH STANDARD DETAIL RT 13.0



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KH PROJECT # 044300089
FM # 441586-1-58-01
SCALE AS SHOWN
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ENGINEER'S SEAL
ERIC REGUEIRO, P.E.
FL LICENSE NUMBER 86211
FL DATE: 09/17/2024

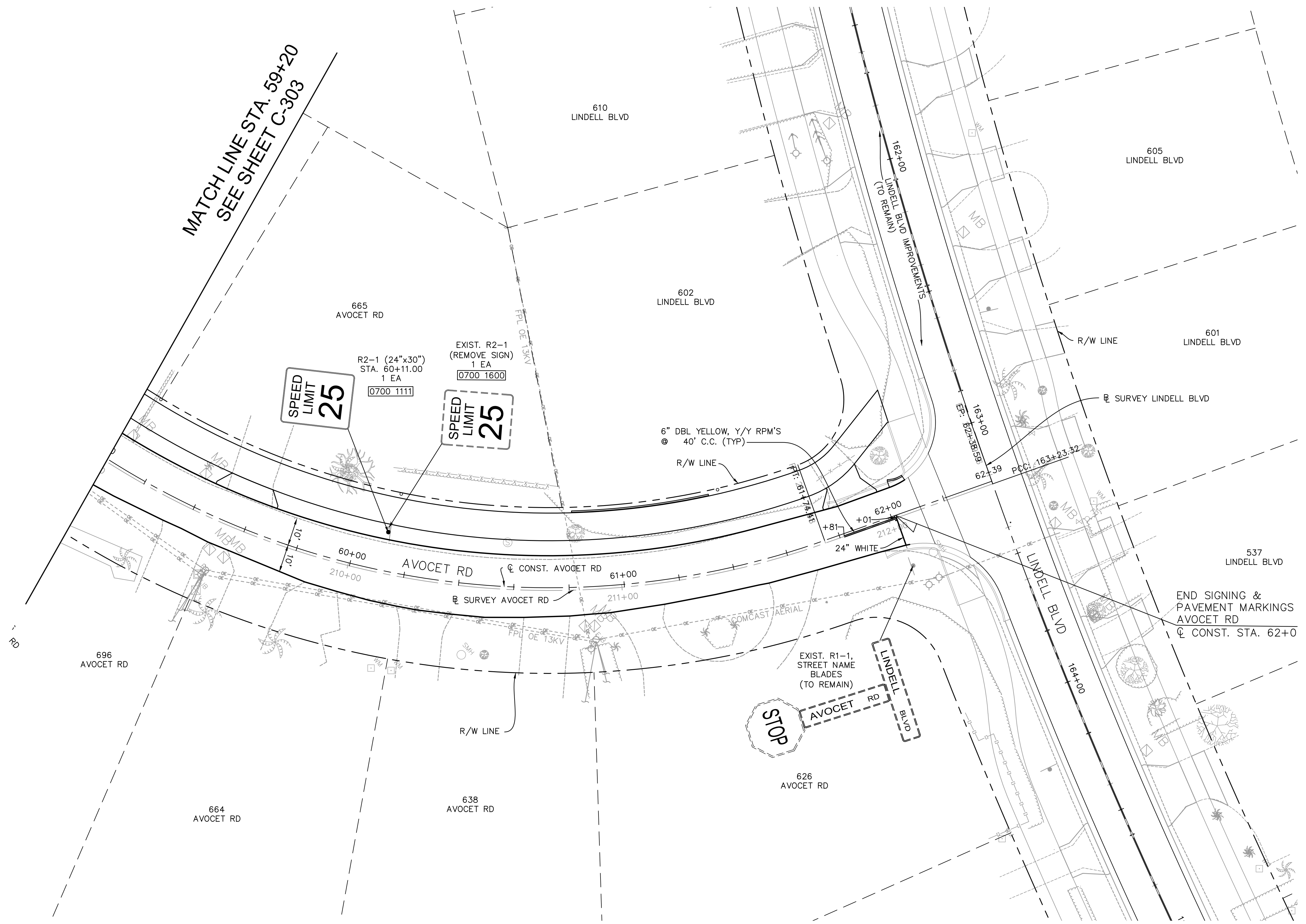
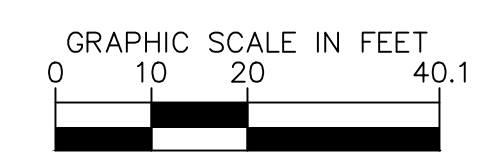
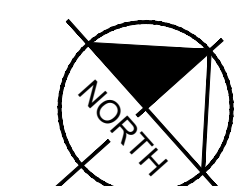
No.	REVISIONS	DATE	BY

SIGNING AND PAVEMENT MARKING PLAN

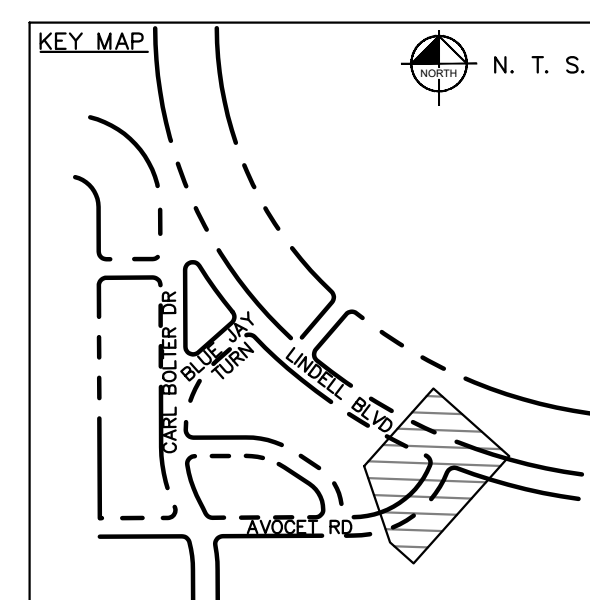
PROJECT NUMBER 20-015
SHEET NUMBER C-302
38 OF 51

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MATCH LINE STA. 59+20
SEE SHEET C-303



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KH PROJECT #	044300089
FM #	441586-1-58-01
SCALE	AS SHOWN
DESIGNED BY	BK
DRAWN BY	MT
CHECKED BY	ER

BRANT BRIDGE CONNECTOR
PREPARED FOR
CITY OF DELRAY BEACH
CITY OF DELRAY BEACH

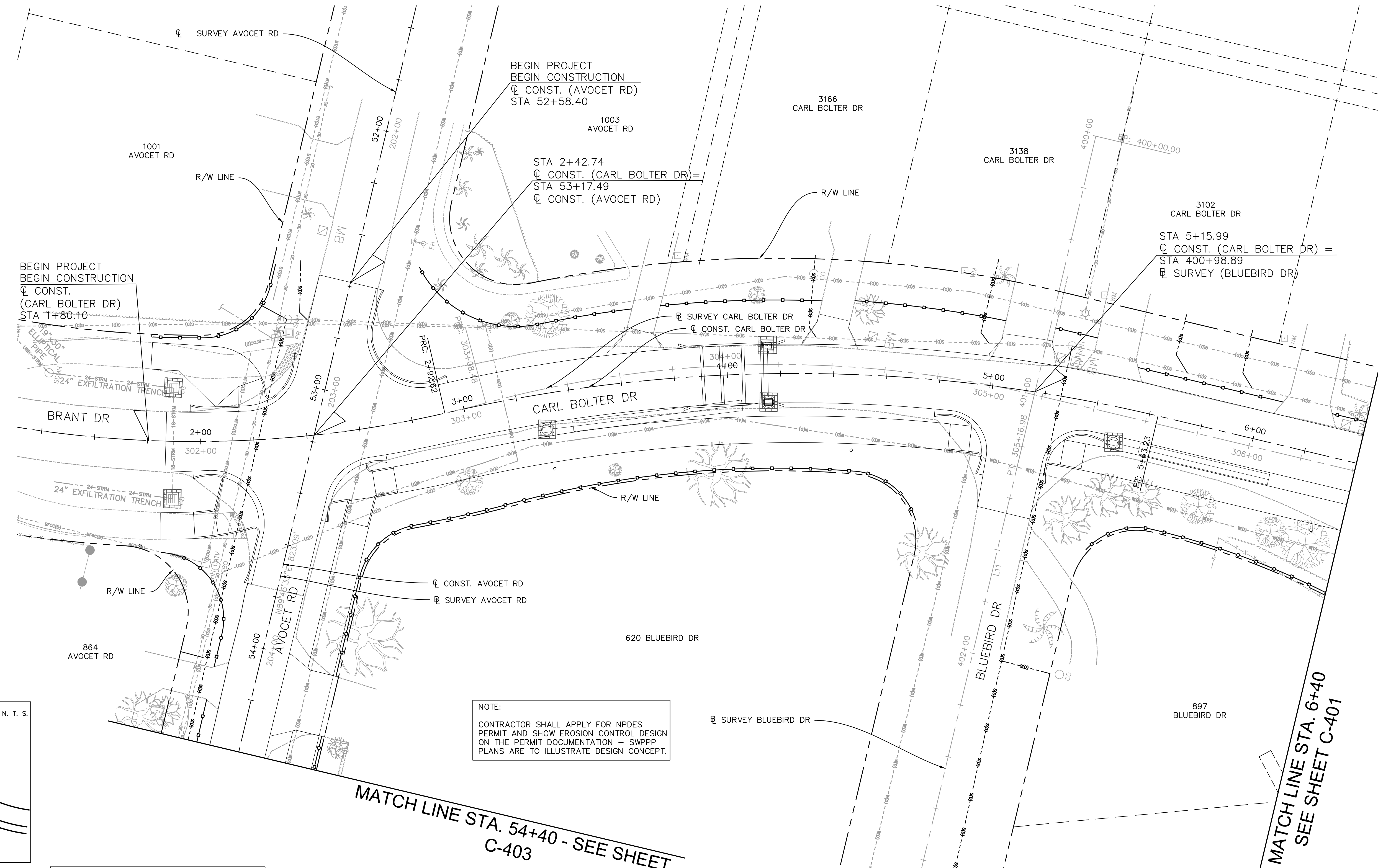
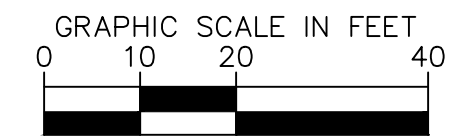
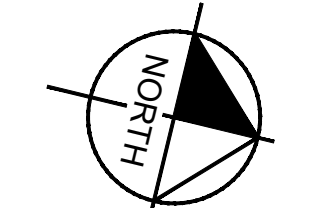
ENGINEER'S SEAL	
ERIC REGUEIRO, P.E.	
FL LICENSE NUMBER	86211
FL DATE:	09/17/2024

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SIGNING AND PAVEMENT MARKING PLAN

PROJECT NUMBER	20-015
SHEET NUMBER	C-304
	40 OF 51

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BEGIN PROJECT
BEGIN CONSTRUCTION
C CONST. (CARL BOLTER DR)
STA T+80.10

BEGIN PROJECT
BEGIN CONSTRUCTION
C CONST. (AVOCET RD)
STA 52+58.40

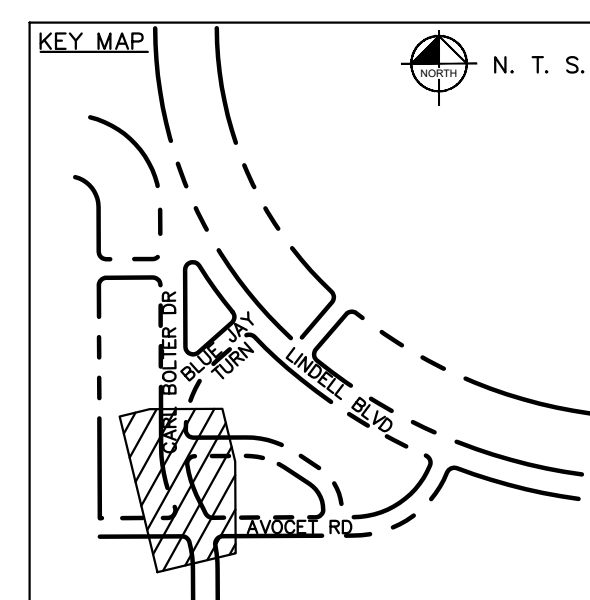
STA 2+42.74
C CONST. (CARL BOLTER DR)=
STA 53+17.49
C CONST. (AVOCET RD)

STA 5+15.99
C CONST. (CARL BOLTER DR) =
STA 400+98.89
E SURVEY (BLUEBIRD DR)

NOTE:
CONTRACTOR SHALL APPLY FOR NPDES
PERMIT AND SHOW EROSION CONTROL DESIGN
ON THE PERMIT DOCUMENTATION - SWPPP
PLANS ARE TO ILLUSTRATE DESIGN CONCEPT.

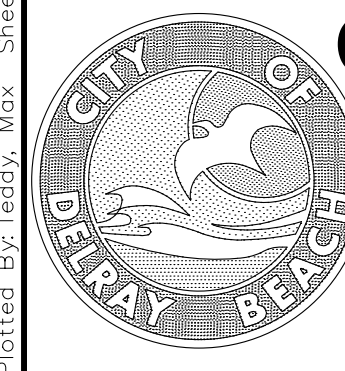
MATCH LINE STA. 54+40 - SEE SHEET
C-403

MATCH LINE STA. 6+40
SEE SHEET C-401



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 INLET PROTECTION
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FL LICENSE NUMBER
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FL DATE: 09/17/2024

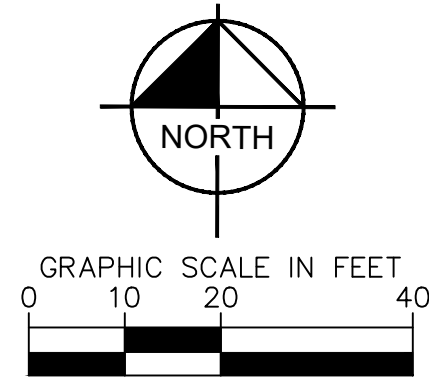
No.	REVISIONS	DATE	BY

**STORMWATER
POLLUTION
PREVENTION PLAN**

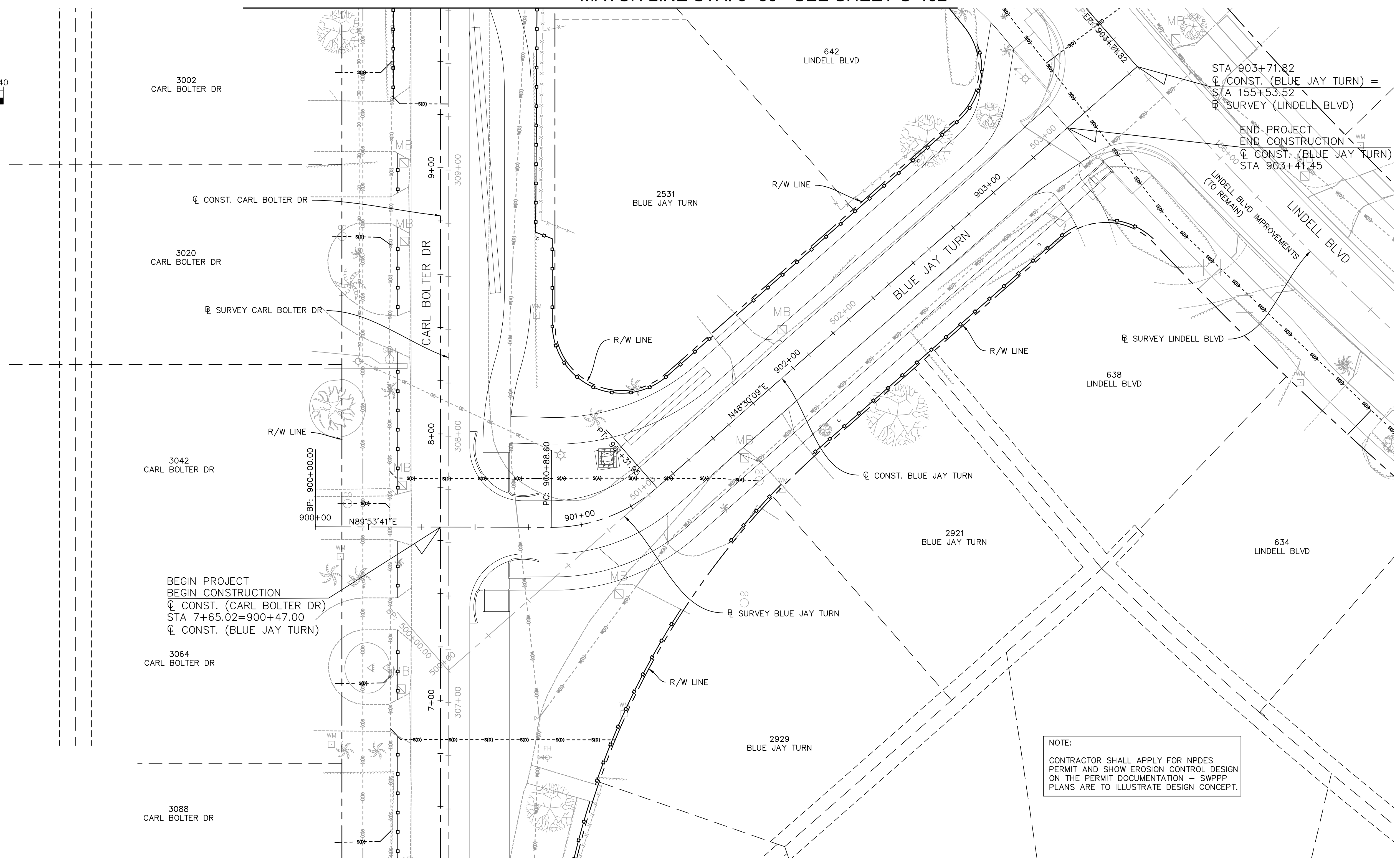
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20-015
SHEET NUMBER
C-400
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MATCH LINE STA. 9+60 - SEE SHEET C-402

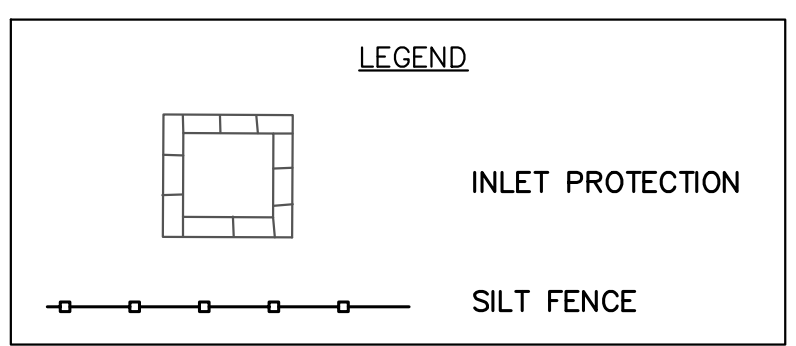
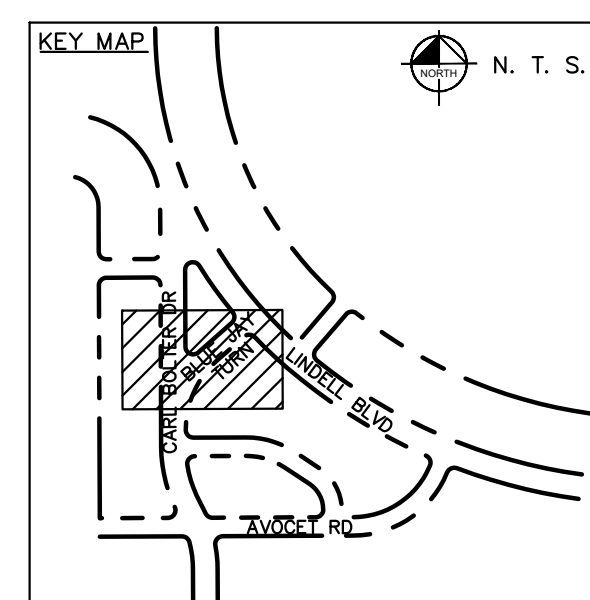


BEGIN PROJECT
BEGIN CONSTRUCTION
C CONST. (CARL BOLTER DR)
STA 7+65.02=900+47.00
C CONST. (BLUE JAY TURN)

STA 903+71.82
C CONST. (BLUE JAY TURN) =
STA 155+53.52
S SURVEY (LINDELL BLVD)
END PROJECT
END CONSTRUCTION
C CONST. (BLUE JAY TURN)
STA 903+41.45

NOTE:
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ON THE PERMIT DOCUMENTATION - SWPPP
PLANS ARE TO ILLUSTRATE DESIGN CONCEPT.

MATCH LINE STA. 6+40 - SEE SHEET C-400



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ENGINEER'S SEAL	
ERIC REGUEIRO, P.E.	
FL LICENSE NUMBER	86211
FL DATE:	09/17/2024

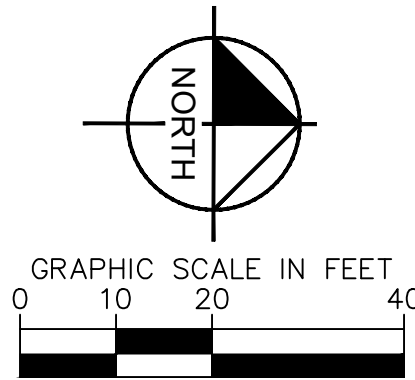
No.	REVISIONS	DATE	BY

**STORMWATER
POLLUTION
PREVENTION PLAN**

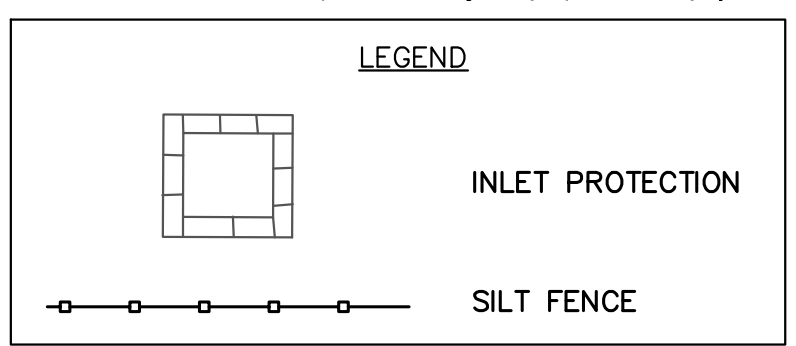
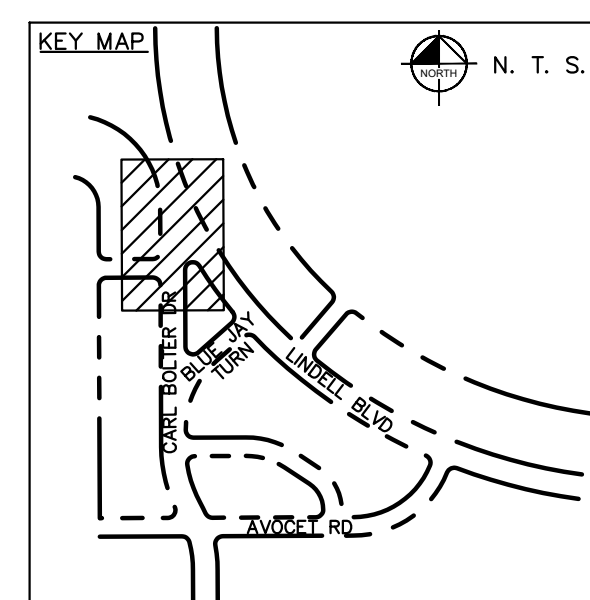
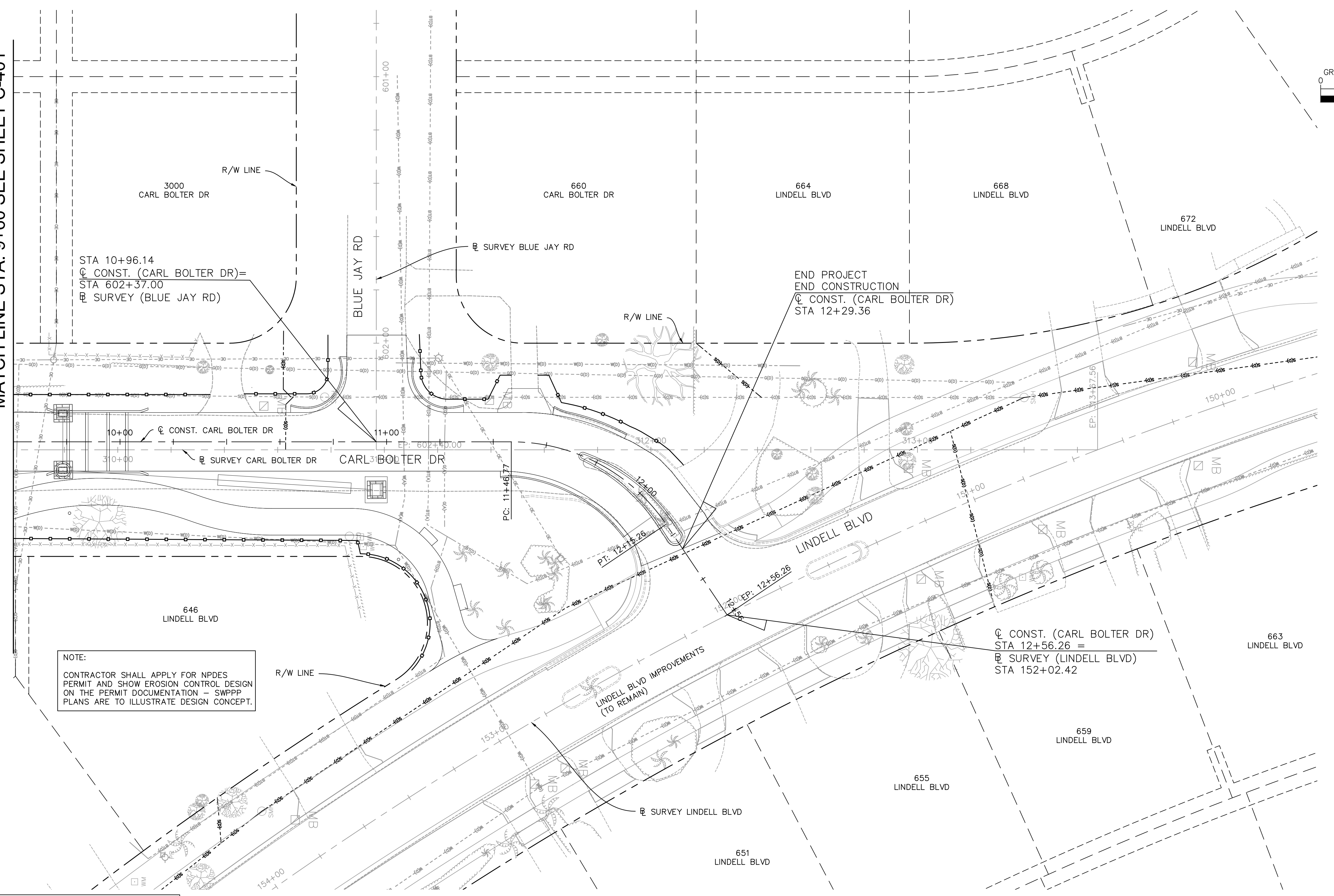
PROJECT NUMBER	20-015
SHEET NUMBER	C-401
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KH PROJECT #	044300089
FM #	441586-1-58-01
SCALE	AS SHOWN
DESIGNED BY	BK
DRAWN BY	MT
CHECKED BY	ER

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 PREPARED FOR
CITY OF DELRAY BEACH
 CITY OF DELRAY BEACH

ENGINEER'S SEAL	
ERIC REGUEIRO, P.E.	
FL LICENSE NUMBER	86211
FL DATE:	09/17/2024

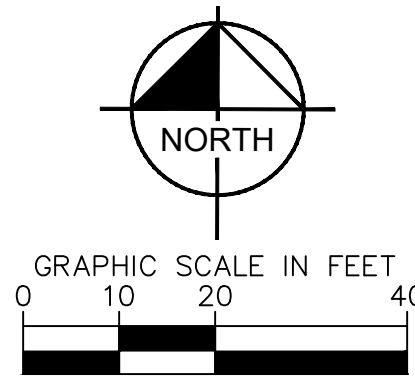
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**STORMWATER
 POLLUTION
 PREVENTION PLAN**

PROJECT NUMBER	20-015
SHEET NUMBER	C-402
	43 OF 51

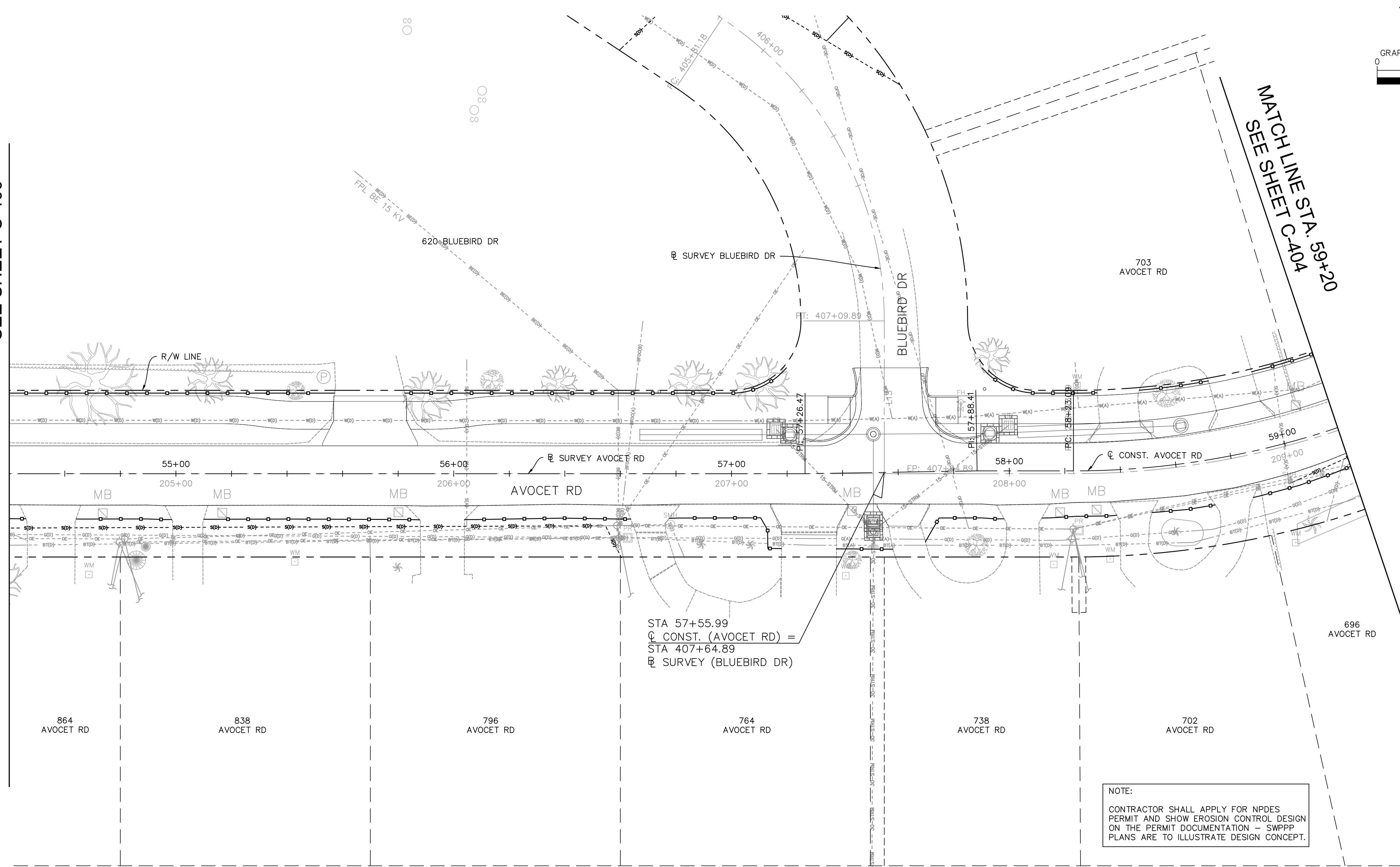
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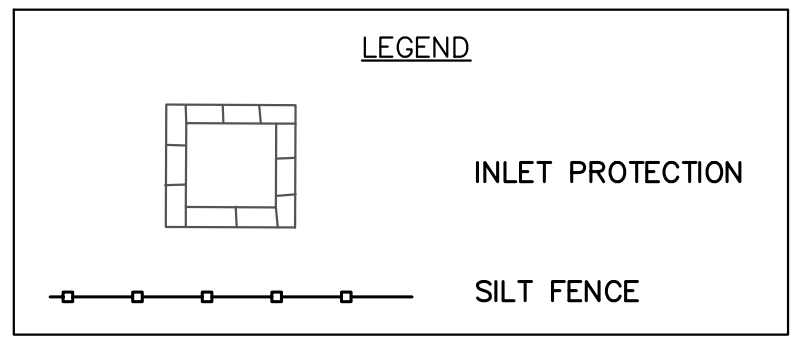
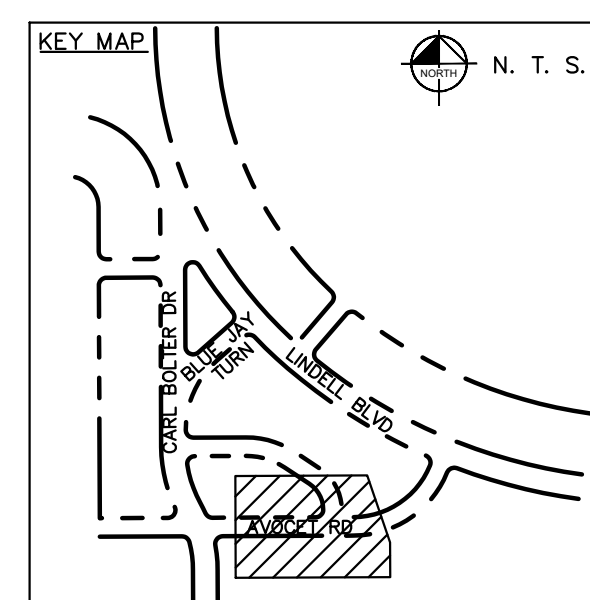
MATCH LINE STA. 54+40
SEE SHEET C-400

MATCH LINE STA. 59+20
SEE SHEET C-404



STA 57+55.99
C CONST. (AVOCET RD) =
STA 407+64.89
S SURVEY (BLUEBIRD DR)

NOTE:
CONTRACTOR SHALL APPLY FOR NPDES PERMIT AND SHOW EROSION CONTROL DESIGN ON THE PERMIT DOCUMENTATION - SWPPP PLANS ARE TO ILLUSTRATE DESIGN CONCEPT.



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P.E. LICENSE NO. 86211
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KH PROJECT #	044300089
FM #	441586-1-58-01
SCALE	AS SHOWN
DESIGNED BY	BK
DRAWN BY	MT
CHECKED BY	ER

BRANT BRIDGE CONNECTOR
PREPARED FOR
CITY OF DELRAY BEACH
CITY OF DELRAY BEACH

ENGINEER'S SEAL
ERIC REGUEIRO, P.E.
FL LICENSE NUMBER
86211
FL DATE: 09/17/2024

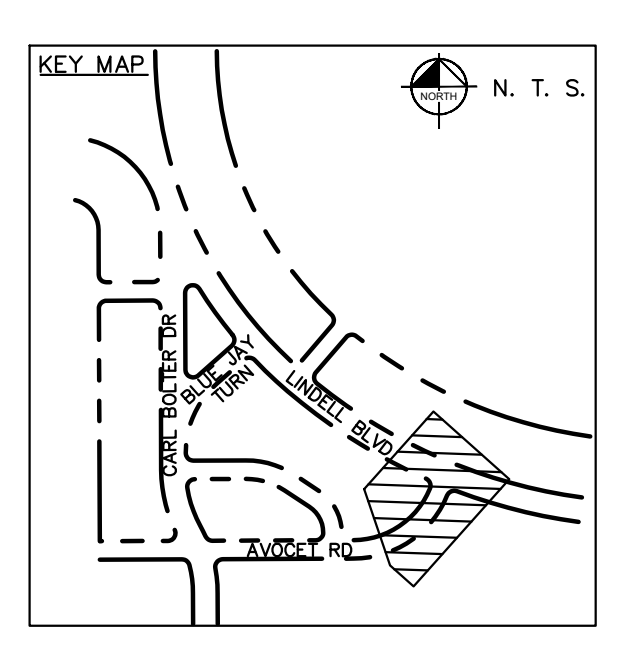
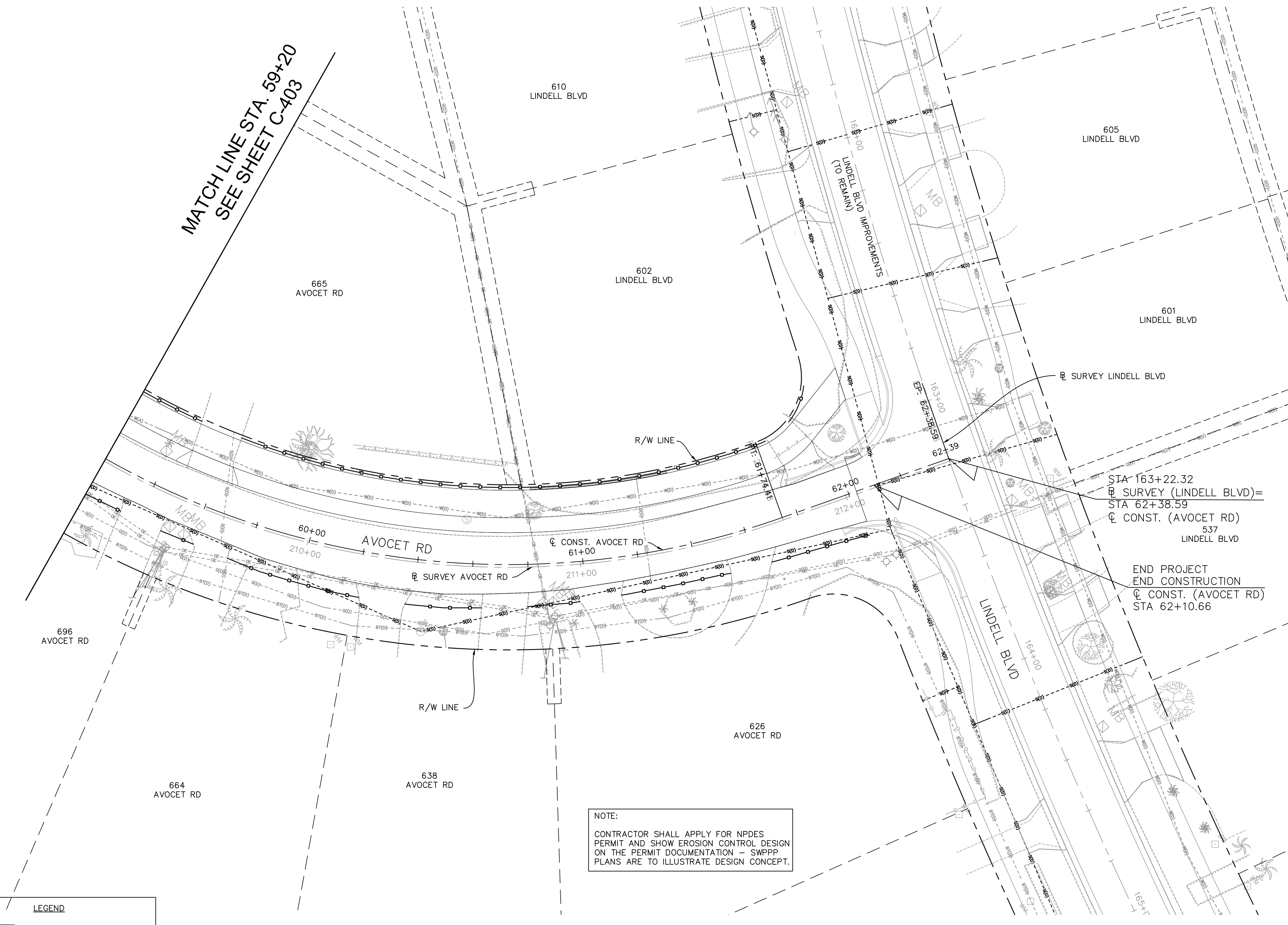
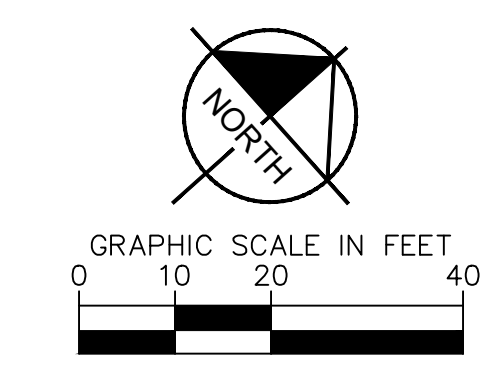
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STORMWATER POLLUTION PREVENTION PLAN

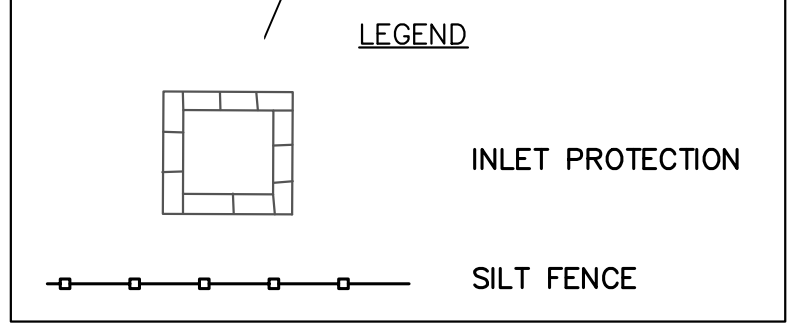
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SHEET NUMBER	C-403
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NOTE:
 CONTRACTOR SHALL APPLY FOR NPDES PERMIT AND SHOW EROSION CONTROL DESIGN ON THE PERMIT DOCUMENTATION - SWPPP PLANS ARE TO ILLUSTRATE DESIGN CONCEPT.

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 ERIC REGUEIRO, P.E.
 FL LICENSE NUMBER
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 FL DATE: 09/17/2024

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STORMWATER POLLUTION PREVENTION PLAN

PROJECT NUMBER	20-015
SHEET NUMBER	C-404
	45 OF 51

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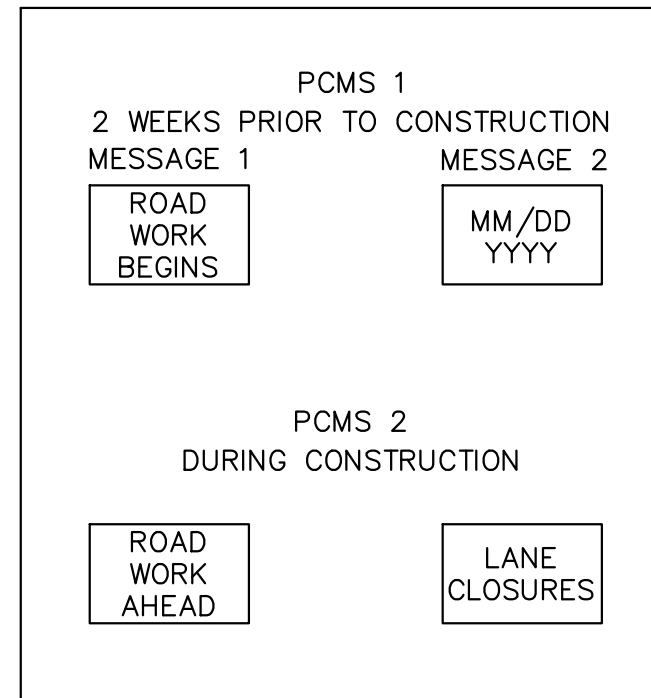
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ADVANCE CONSTRUCTION NOTICE

A PORTABLE CHANGEABLE MESSAGE SIGN (PCMS) SHALL BE USED AS INDICATED IN THE TRAFFIC CONTROL PLANS OR AS DIRECTED BY THE ENGINEER UNDER THE FOLLOWING CONDITIONS:

TWO (2) WEEKS PRIOR TO CONSTRUCTION, INSTALL PCMS AS PER STANDARD PLANS INDEX 102-600 (PCMS 1).

DURING ACTIVE WORK PERIODS
INSTALL PCMS AS IDENTIFIED IN THE TEMPORARY CONTROL PLANS (PCMS 2).



GENERAL NOTES

- ALL MAINTENANCE OF TRAFFIC (MOT) FOR THIS PROJECT WILL BE IN COMPLIANCE WITH THE FDOT STANDARD PLANS FOR ROAD AND BRIDGE CONSTRUCTION FY 2024-25 INDICES, (102-600 SERIES) AND THE LATEST EDITION OF THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (MUTCD). THE OPERATIONS ENGINEER OR HIS DESIGNEE RESERVES THE RIGHT TO DIRECT THE REMOVAL/RELOCATION/MODIFICATION OF ANY TRAFFIC DEVICE(S) AT THE CONTRACTOR'S SOLE EXPENSE. SPECIAL ATTENTION WILL BE GIVEN TO INDICES 102-601, 102-602, 102-603, 102-604 AND 102-660. CONTRACTOR SHALL PROVIDE DETAILED MOT PLANS SIGNED AND SEALED BY A PROFESSIONAL ENGINEER TO THE CITIES FOR THEIR APPROVAL FOUR WEEKS PRIOR TO CONSTRUCTION. IN ADDITION, CONTRACTOR SHALL PROVIDE A DETAILED ACCESS MANAGEMENT PLAN TO MAINTAIN ACCESS TO LOCAL BUSINESSES, RESIDENTS, AND SCHOOLS AT ALL TIMES THROUGHOUT CONSTRUCTION. CONTRACTOR MOT PLANS SHALL ADDRESS SAFE PEDESTRIAN DETOURS AT ALL TIMES FOR EACH CONSTRUCTION PHASE.
- CONTRACTOR IS REQUIRED TO APPLY FOR ANY ADDITIONAL MOT PERMITS IF REQUIRED FROM THE CITY OF BOCA RATON, ETC. COST TO BE INCLUDED IN MAINTENANCE OF TRAFFIC PAY ITEM.
- MAINTAIN MINIMUM 1 THROUGH LANE IN EACH DIRECTION ON CARL BOLTER DR, BLUE JAY TURN, AND AVOCET RD UNLESS OTHERWISE NOTED. WHERE EXISTING PAVEMENT IS NOT SUFFICIENT TO MAINTAIN ONE LANE OF TRAFFIC IN EACH DIRECTION WHEN WIDENING, CONSTRUCTING CURB ADJACENT TO EXISTING PAVEMENT, OR INSTALLING DRAINAGE FEATURES, FLAGGING OPERATION MAY BE USED TO FACILITATE THAT CONSTRUCTION. THROUGH LANE CLOSURE ON CARL BOLTER DR, BLUE JAY TURN, AND AVOCET RD IS ALLOWED 9:00 AM TO 3:00 PM MONDAY THROUGH FRIDAY. NO LANE CLOSURES ALLOWED DURING NON-WORK PERIODS OR HOLIDAYS.
- NIGHT OR WEEKEND WORK IS NOT PERMITTED UNLESS APPROVED IN WRITING BY THE ENGINEER. DAYTIME CONSTRUCTION OPERATIONS ARE TO BE IN ACCORDANCE WITH THE CITY'S NOISE ORDINANCE (FROM 7:00 AM TO 6:00 PM MONDAY THROUGH FRIDAY AND FROM 8:00 AM TO 4:00 PM ON SATURDAYS, WHEN APPROVED).
- PRIOR TO ANY WORK REQUIRING LANE CLOSURES OR MOBILE OPERATIONS, THE CONTRACTOR SHALL SUBMIT A REQUEST TO THE CITY THAT INCLUDES THE TIME, LOCATION, AND DESCRIPTION OF THE WORK BEING PERFORMED. THE LANE CLOSURE REQUEST SHALL BE SUBMITTED TO THE CITY A MINIMUM OF TWO (2) WEEKS PRIOR TO THE PROPOSED CLOSURE DATE AND MUST BE APPROVED BY THE CITY BEFORE WORK REQUIRING THE CLOSURE MAY BEGIN WITHIN THE CITY RIGHT-OF-WAY.
- CONTRACTOR SHALL MAKE PROVISIONS FOR CONSTRUCTION VEHICLE ACCESS TO THE WORK AREAS INCLUDING MATERIAL DELIVERY. VEHICLE ACCESS AND MATERIAL DELIVERY SHOULD BE PROHIBITED VIA LOCAL RESIDENTIAL ROADS. LANE CLOSURES MAY BE WARRANTED FOR CERTAIN CONSTRUCTION VEHICLES TO ACCESS THE WORK AREAS. COORDINATE ALL ACCESS LOCATIONS WITH THE ENGINEER FOR APPROVAL PRIOR TO CONSTRUCTION.
- THE REGULATORY SPEED USED FOR MOT CALCULATIONS FOR EACH FACILITY ARE NOTED BELOW. MODIFICATIONS TO THE REGULATORY SPEED MAY REQUIRE RE-SUBMITTAL OF THE MOT PLAN.

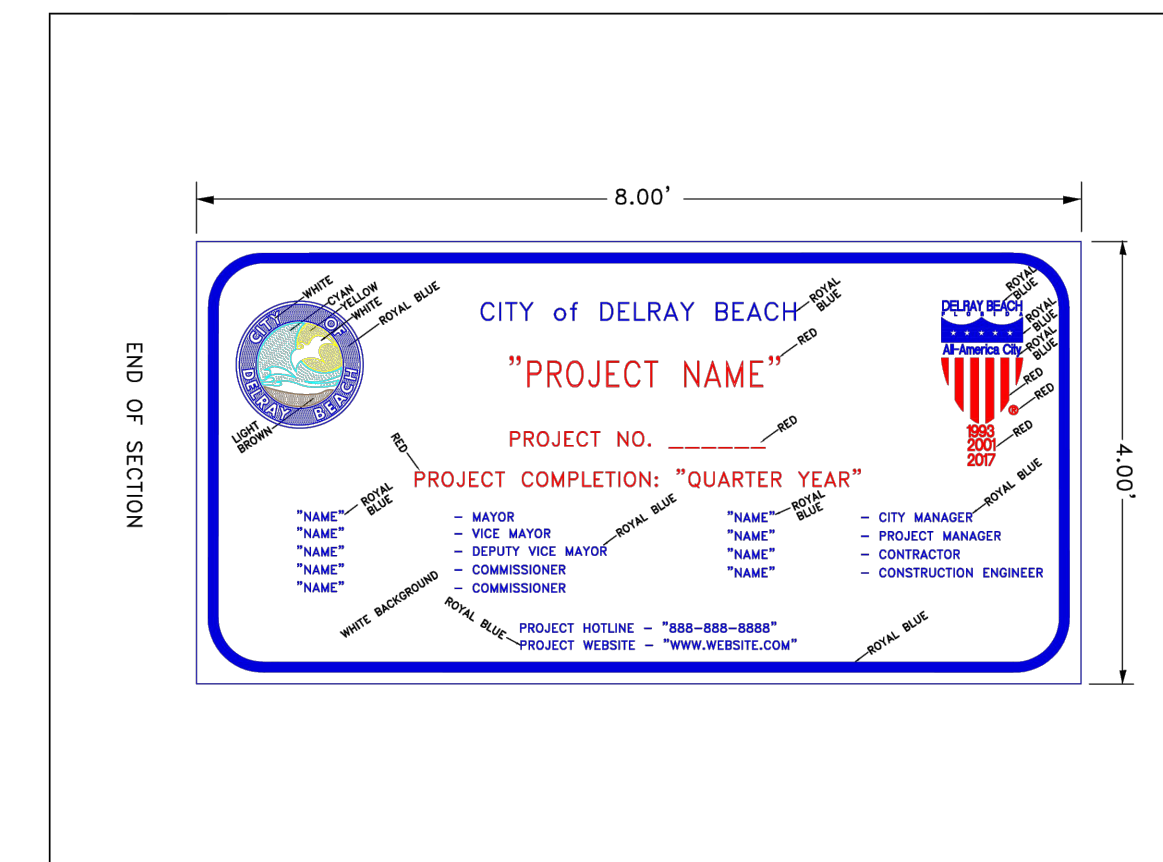
ROAD NAME	REGULATORY SPEED
CARL BOLTER DR	25 MPH
BLUE JAY TURN	25 MPH
AVOCET RD	25 MPH
- TWO WEEKS BEFORE CONSTRUCTION BEGINS, PORTABLE CHANGEABLE MESSAGE SIGNS (PCMS) SHALL BE PLACED IN EACH DIRECTION, TO NOTIFY DRIVERS OF FUTURE ROAD WORK. IT SHOULD DISPLAY THE MESSAGE "ROADWORK BEGINS" FOLLOWED BY THE APPROPRIATE MONTH AND DATE. IN ADDITION, PCMS SIGNS MUST BE PROVIDED FOR ANY DETOURS.
- COORDINATE ALL CONSTRUCTION ACTIVITIES THAT WILL RESULT IN LANE CLOSURES AND DETOURS WITH THE CITY OF DELRAY BEACH ENGINEER TO ALLOW PUBLIC NOTIFICATION OF UPCOMING CLOSURES ON CITY SOCIAL MEDIA SITES.
- MAINTAIN EXISTING TRAFFIC LANES AT SIGNALIZED INTERSECTIONS WHEN WORK IS NOT CONDUCTED AT THE INTERSECTION.
- PCMS SIGNS SHALL BE PROVIDED PRIOR TO START OF ANY FLAGGING OPERATIONS TO WARN MOTORISTS AND ALLOW THEM TO SEEK ALTERNATIVE ROUTES 2 DAYS PRIOR TO START OF THOSE OPERATIONS.
- MAINTAIN PEDESTRIAN ACCESS MEETING ADA REQUIREMENTS WHERE PEDESTRIAN FACILITIES EXIST AND ON ONE SIDE AT ALL TIMES.
- CONTRACTOR SHALL ONLY WORK ON ONE CORNER OF A SIGNALIZED INTERSECTION AT ANY TIME AND SHALL MAINTAIN PEDESTRIAN ACCESS ON THE OTHER REMAINING CORNERS. CONTRACTOR TO PROVIDE ANY TEMPORARY ADA RAMP OR TEMPORARY CROSS WALK TO MAINTAIN PEDESTRIAN CONNECTIVITY.
- CONTRACTOR MUST MAINTAIN ACCESS TO PRIVATE PROPERTIES AT ALL TIMES. CONTRACTOR MUST PROVIDE A SAFE PEDESTRIAN ACCESS ROUTE AT ALL TIMES THROUGHOUT CONSTRUCTION. CONTRACTOR SHALL ESTABLISH TEMPORARY BUS STOPS IN A SAFE AREA, IN ACCORDANCE WITH PALM TRAN STANDARDS.
- THE CONTRACTOR SHALL COORDINATE CONSTRUCTION ACTIVITIES WITH FPL FOR ANY WORK NEAR THEIR AERIAL POWER LINES EIGHT (8) WEEKS PRIOR TO CONSTRUCTION. ANY DE-ENERGIZING OF FPL LINES WILL BE COORDINATED BY THE CONTRACTOR AND WILL BE PAID UNDER THE MAINTENANCE OF TRAFFIC BID ITEM.
- CONTRACTOR TO PROVIDE TEMPORARY PAVEMENT AND SHALL ESTABLISH TEMPORARY DRIVEWAYS AS NECESSARY TO CONSTRUCT THE PROJECT AND MAINTAIN ACCESS TO RESIDENCES. CONTRACTOR TO RESTORE ACCESS TO PROPERTY FROM IMPACTED WORK BEFORE THE END OF EACH WORK DAY.
- CONTRACTOR SHALL COORDINATE MAINTENANCE OF TRAFFIC WITH THE ADJACENT PROJECT ON LINDELL BLVD.
- PROJECT INFORMATION SIGN: PROVIDE AND PLACE SIGNS (ONE AT EACH END OF PROJECT) IN ACCORDANCE WITH THE SPECIFICATIONS SECTION 01580 PROJECT IDENTIFICATION SIGN AND PROJECT SIGN DETAIL BELOW. PAYMENT TO FURNISH AND INSTALL PROJECT SIGNS WILL BE PAID UNDER MOT BID ITEM 102-1.
- AT THE END OF EACH DAY'S OPERATION, ENSURE DROP-OFF CRITERIA PER FDOT STANDARD PLANS INDEX 102-600 IS MET.
- CONTRACTOR IS RESPONSIBLE FOR ALL COORDINATION WITH BUSINESSES AND RESIDENCES ALONG CARL BOLTER DR, BLUE JAY TURN, AND AVOCET RD. THE COST OF PROVIDING BUSINESS SIGNS IS TO BE INCLUDED IN THE COST FOR MAINTENANCE OF TRAFFIC.
- CONTRACTOR SHALL COORDINATE WITH BUSINESSES AND RESIDENCES REGARDING LOCAL TRAFFIC ONLY SIGNAGE AND VEHICLES ENTERING CARL BOLTER DR, BLUE JAY TURN, AND AVOCET RD WHILE UNDER CONSTRUCTION.
- CONTRACTOR SHALL COORDINATE SELECTION AND REVIEW OF ANY PROPOSED CONSTRUCTION STAGING AREAS ASSOCIATED WITH THE PROJECT WITH THE ENGINEER AT LEAST 30 CALENDAR DAYS PRIOR TO USE. IN ORDER TO COMPLY WITH THE FEDERAL ENDANGERED SPECIES ACT, THE STAGING AREA SHALL BE RESTORED TO ITS ORIGINAL OR BETTER CONDITION AS DETERMINED BY THE ENGINEER, AT NO ADDITIONAL COST TO THE CITY. ALL STAGING AND STOCKPILING OF AREAS, WHETHER WITHIN OR OUTSIDE CITY RIGHT-OF-WAY, USED BY THE CONTRACTOR MUST HAVE SEDIMENT AND EROSION CONTROL MEASURES INSTALLED PRIOR TO USE AT NO ADDITIONAL COST TO THE CITY. THE CONTRACTOR SHALL INCLUDE ALL COSTS RELATED TO STAGING AREAS IN MOBILIZATION COST. NO STAGING OF EQUIPMENT WILL BE PERMITTED WITHIN THE CARL BOLTER DR, BLUE JAY TURN, OR AVOCET RD RIGHT-OF-WAY.
- NO EQUIPMENT "BACK UP ALARMS" ALLOWED PRIOR TO 7:00 AM. THE ENTIRE PROJECT MUST BE SHUTDOWN, SITE CLEANED UP, AND WITH ANY NECESSARY BARRICADES IN PLACE BY 6:00 AM.
- HAZARDS WITHIN CLEAR ZONE WIDTHS REQUIRE PROPER PROTECTION PER STANDARD PLANS INDEX 102-600 SHEET 3 OF 11.
- REFERENCE THE FDOT STANDARD PLANS 102-600 SERIES FOR ALL REQUIRED AND APPLICABLE MOT PLANS.

SIGNING AND PAVEMENT MARKING

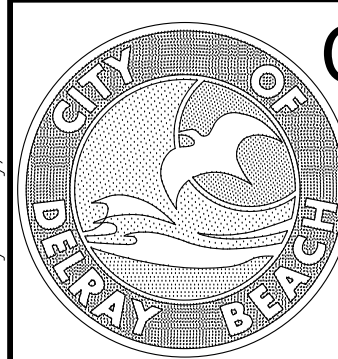
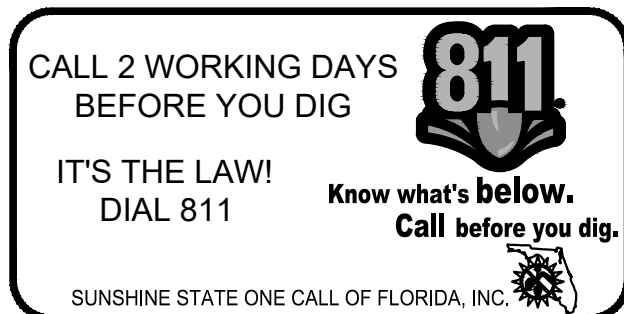
- BEFORE FINAL ACCEPTANCE, THE PERMANENT RPM'S SHALL BE PLACED WITHIN 72 HOURS OF COMPLETION OF THE FRICTION COURSE PER SIGNING AND PAVEMENT MARKING PLAN. OTHER LOCATIONS FOR RPM PLACEMENT MAY BE DESIGNATED BY THE ENGINEER.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING EXISTING SIGNS WITHIN THE CONSTRUCTION LIMITS. A LIST OF THE EXISTING SIGNS SHALL BE SUBMITTED TO THE PROJECT ENGINEER PRIOR TO THE BEGINNING OF CONSTRUCTION.
- REMOVAL OF EXISTING AND/OR TEMPORARY PAVEMENT MARKINGS SHALL BE ACCOMPLISHED BY WATER BLASTING. USE OF BLACK PAINT TO COVER EXISTING AND/OR TEMPORARY PAVEMENT MARKINGS IS PROHIBITED. MATCH EXISTING PAVEMENT MARKINGS AT THE BEGINNING AND AT THE END OF THE PROJECT AND AT ALL SIDE STREETS.
- ALL TEMPORARY PAVEMENT MARKINGS SHALL BE PAINT UNLESS OTHERWISE NOTED.
- EXISTING PAVEMENT MARKINGS CONFLICTING WITH TEMPORARY MARKINGS/MESSAGES SHALL BE REMOVED AT NO ADDITIONAL COST TO THE CITY.

DRAINAGE

- THE CONTRACTOR SHALL MAINTAIN DRAINAGE AND BE RESPONSIBLE FOR THE IMMEDIATE REMOVAL OF STORM WATER FROM ROADWAY UTILIZED FOR TRAFFIC MAINTENANCE DURING CONSTRUCTION AT ALL TIMES BY USING EXISTING, PROPOSED, AND IF NECESSARY TEMPORARY DRAINAGE SYSTEMS. EXISTING DRAINAGE STRUCTURES ARE TO BE MAINTAINED UNTIL THE NEW SYSTEM IS CONSTRUCTED AND FUNCTIONAL.



PROJECT SIGN DETAIL



CITY OF DELRAY BEACH
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KH PROJECT #
 044300089
 FM #
 441586-1-58-01
 SCALE AS SHOWN
 DESIGNED BY BK
 DRAWN BY MT
 CHECKED BY ER

BRANT BRIDGE CONNECTOR
 PREPARED FOR
CITY OF DELRAY BEACH

CITY OF DELRAY BEACH

ENGINEER'S SEAL
 ERIC REGUEIRO, P.E.
 FL LICENSE NUMBER
 86211
 DATE: 09/17/2024

No.	REVISIONS	DATE	BY

**TEMPORARY TRAFFIC
 GENERAL NOTES**

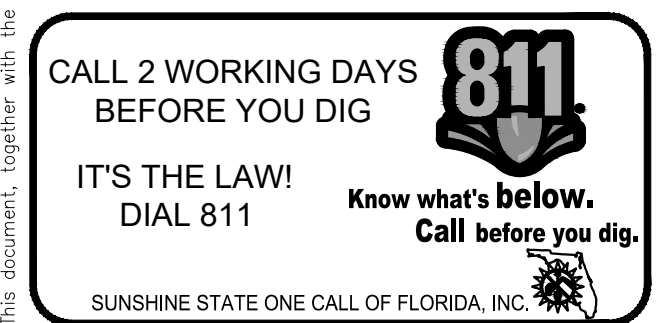
PROJECT NUMBER
 20-015
 SHEET NUMBER
 C-500
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	CARL BOLTER DR	BLUE JAY TURN	AVOCET RD
PHASE 1 1. INSTALL TEMPORARY EROSION AND SEDIMENT CONTROL DEVICES. 2. SET UP TRAFFIC CONTROL DEVICES, TEMPORARY SIGNS, BARRICADES, PCMS, AND ADVANCE WARNING ARROW PANELS AS NECESSARY PER STANDARD PLANS INDICES 102-600 SERIES. 3. DURING ROADWAY CONSTRUCTION TIMES WHERE EXISTING PAVEMENT DOES NOT ALLOW FOR TWO LANES OF TRAFFIC, ESTABLISH ONE 11' TRAVEL LANE AND USE FLAGGING OPERATIONS TO MAINTAIN TRAFFIC. 4. DURING CONSTRUCTION TIMES WHERE NO ROADWAY WORK IS BEING PERFORMED, EXISTING TRAVEL LANES SHALL BE MAINTAINED. 5. PERFORM CONSTRUCTION ACTIVITIES WITHIN WORK ZONE. 6. BEFORE THE END OF THE CONSTRUCTION DAY, REMOVE OR RELOCATE TRAFFIC CONTROL DEVICES, BARRICADES, PCMS, AND ADVANCE WARNING ARROW PANELS. COVER TEMPORARY LANE CLOSURE SIGNS. OPEN TRAFFIC TO ALL TRAVEL LANES.	<p>PROPOSED TYPICAL SECTION (PHASE 1) DESIGN SPEED 25 mph</p>	<p>PROPOSED TYPICAL SECTION (PHASE 1) DESIGN SPEED 25 mph</p>	<p>PROPOSED TYPICAL SECTION (PHASE 1) DESIGN SPEED 25 mph</p>
PHASE 2 1. INSTALL TEMPORARY EROSION AND SEDIMENT CONTROL DEVICES. 2. SET UP TRAFFIC CONTROL DEVICES, TEMPORARY SIGNS, BARRICADES, PCMS, AND ADVANCE WARNING ARROW PANELS AS NECESSARY PER STANDARD PLANS INDICES 102-600 SERIES. 3. DURING ROADWAY CONSTRUCTION TIMES WHERE EXISTING PAVEMENT DOES NOT ALLOW FOR TWO LANES OF TRAFFIC, ESTABLISH ONE 11' TRAVEL LANE AND USE FLAGGING OPERATIONS TO MAINTAIN TRAFFIC. 4. DURING CONSTRUCTION TIMES WHERE NO ROADWAY WORK IS BEING PERFORMED, EXISTING TRAVEL LANES SHALL BE MAINTAINED. 5. PERFORM CONSTRUCTION ACTIVITIES WITHIN WORK ZONE. 6. BEFORE THE END OF THE CONSTRUCTION DAY, REMOVE OR RELOCATE TRAFFIC CONTROL DEVICES, BARRICADES, PCMS, AND ADVANCE WARNING ARROW PANELS. COVER TEMPORARY LANE CLOSURE SIGNS. OPEN TRAFFIC TO ALL TRAVEL LANES.	<p>PROPOSED TYPICAL SECTION (PHASE 2) DESIGN SPEED 25 mph</p>	<p>PROPOSED TYPICAL SECTION (PHASE 2) DESIGN SPEED 25 mph</p>	<p>PROPOSED TYPICAL SECTION (PHASE 2) DESIGN SPEED 25 mph</p>
PHASE 3 1. INSTALL TEMPORARY EROSION AND SEDIMENT CONTROL DEVICES. 2. SET UP TRAFFIC CONTROL DEVICES, TEMPORARY SIGNS, BARRICADES, PCMS, AND ADVANCE WARNING ARROW PANELS AS NECESSARY PER STANDARD PLANS INDICES 102-600 SERIES. 3. DURING CONSTRUCTION TIMES, PERFORM MILLING AND RESURFACING OPERATIONS. 4. DURING CONSTRUCTION TIMES WHERE NO ROADWAY WORK IS BEING PERFORMED, EXISTING TRAVEL LANES SHALL BE MAINTAINED. 5. PERFORM CONSTRUCTION ACTIVITIES WITHIN THE WORK ZONE. 6. BEFORE THE END OF THE CONSTRUCTION DAY, REMOVE OR RELOCATE TRAFFIC CONTROL DEVICES, BARRICADES, PCMS, AND ADVANCE WARNING ARROW PANELS. COVER TEMPORARY LANE CLOSURE SIGNS. OPEN TRAFFIC TO ALL TRAVEL LANES.	N/A	<p>PROPOSED TYPICAL SECTION (PHASE 3) DESIGN SPEED 25 mph</p>	N/A



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BRANT BRIDGE CONNECTOR
 PREPARED FOR
CITY OF DELRAY BEACH
 CITY OF DELRAY BEACH

ENGINEER'S SEAL	
ERIC REGUEIRO, P.E.	
FL LICENSE NUMBER	86211
FL DATE:	09/17/2024

No.	REVISIONS	DATE	BY


TEMPORARY TRAFFIC TYPICAL SECTIONS

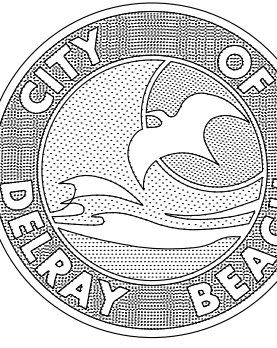
PROJECT NUMBER	20-015
SHEET NUMBER	C-501
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SUMMARY OF VERIFIED UTILITIES										
Vvh #	UTILITY DESCRIPTION (OWNER/TYPE)	SIZE	MATERIALS	€	STATION	OFFSET	LT/RT	EXIST. GROUND ELEVATION	TOP ELEVATION	COMMENTS
TH-1	GAS	2"	METAL	CARL BOLTER DR	9+47.3	24.2'	RT	11.26'	8.18'	
TH-2	WL	6"	DIP	CARL BOLTER DR	9+54.4	20.0'	RT	11.30'	8.72'	
TH-3	WL	6"	DIP	CARL BOLTER DR	10+31.8	19.8'	RT	10.98'	8.73'	
TH-4	SAN	UNKNOWN	UNKNOWN	CARL BOLTER DR	10+33.1	11.4'	LT	11.49'	4.33'	
TH-5	WL	2"	DIP	BLUE JAY TURN	7+53.5	17.6'	RT	12.19'	9.36'	
TH-6	SAN	UNKNOWN	UNKNOWN	BLUE JAY TURN	7+79.2	12.0'	RT	12.13'	8.22'	
TH-7	SAN	UNKNOWN	UNKNOWN	BLUE JAY TURN	7+43.1	19.7'	LT	12.08'	8.00'	
TH-8	WL	6"	DIP	CARL BOLTER DR	14+22.8	23.6'	RT	12.17'	9.42'	
TH-9	WL	6"	DIP	CARL BOLTER DR	14+76.9	23.1'	RT	12.11'	9.36'	
TH-10	GAS	3"	METAL	CARL BOLTER DR	15+94.1	18.2'	RT	12.08'	9.76'	
TH-11	WL	8"	DIP	CARL BOLTER DR	17+40.1	17.7'	RT	11.36'	8.11'	
TH-12	BT	1"	DBC	CARL BOLTER DR	17+48.9	17.5'	RT	11.72'	9.55'	
TH-12.1	GAS	1/2"	METAL	CARL BOLTER DR	17+55.0	17.3'	RT	11.70'	8.62'	
TH-13	SAN	6"	CLAY	AVOCET RD	56+21.4	14.6'	LT	10.41'	6.91'	
TH-14	COMM	4"	PVC	AVOCET RD	56+59.2	14'	LT	10.64'	7.64'	
TH-15	WL	6"	DIP	AVOCET RD	57+20.8	23.0'	LT	10.48'	7.65'	
TH-17	GAS	2"	STEEL	AVOCET RD	57+49.7	22.6'	RT	10.39'	8.14'	
TH-17.1	COMM	1"	UNKNOWN	AVOCET RD	57+50.8	28.5'	RT	10.69'	8.69'	
TH-18	WL	6"	DIP	AVOCET RD	57+92.81	22.6'	LT	10.17'	7.59'	
TH-19	SAN	2"	STEEL	AVOCET RD	58+65.6	17.9'	LT	11.90'	9.09'	
TH-20	WL	6"	DIP	AVOCET RD	58+92.4	19.1'	LT	11.65'	9.15'	

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 P.E. LICENSE NO. 86211
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KH PROJECT # 044300089
 FM # 441586-1-58-01
 SCALE AS SHOWN
 DESIGNED BY BK
 DRAWN BY MT
 CHECKED BY ER
BRANT BRIDGE CONNECTOR
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CITY OF DELRAY BEACH
 CITY OF DELRAY BEACH

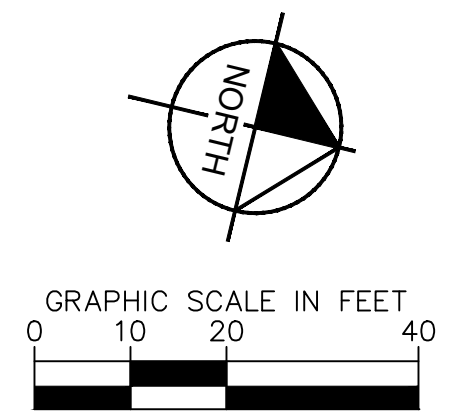
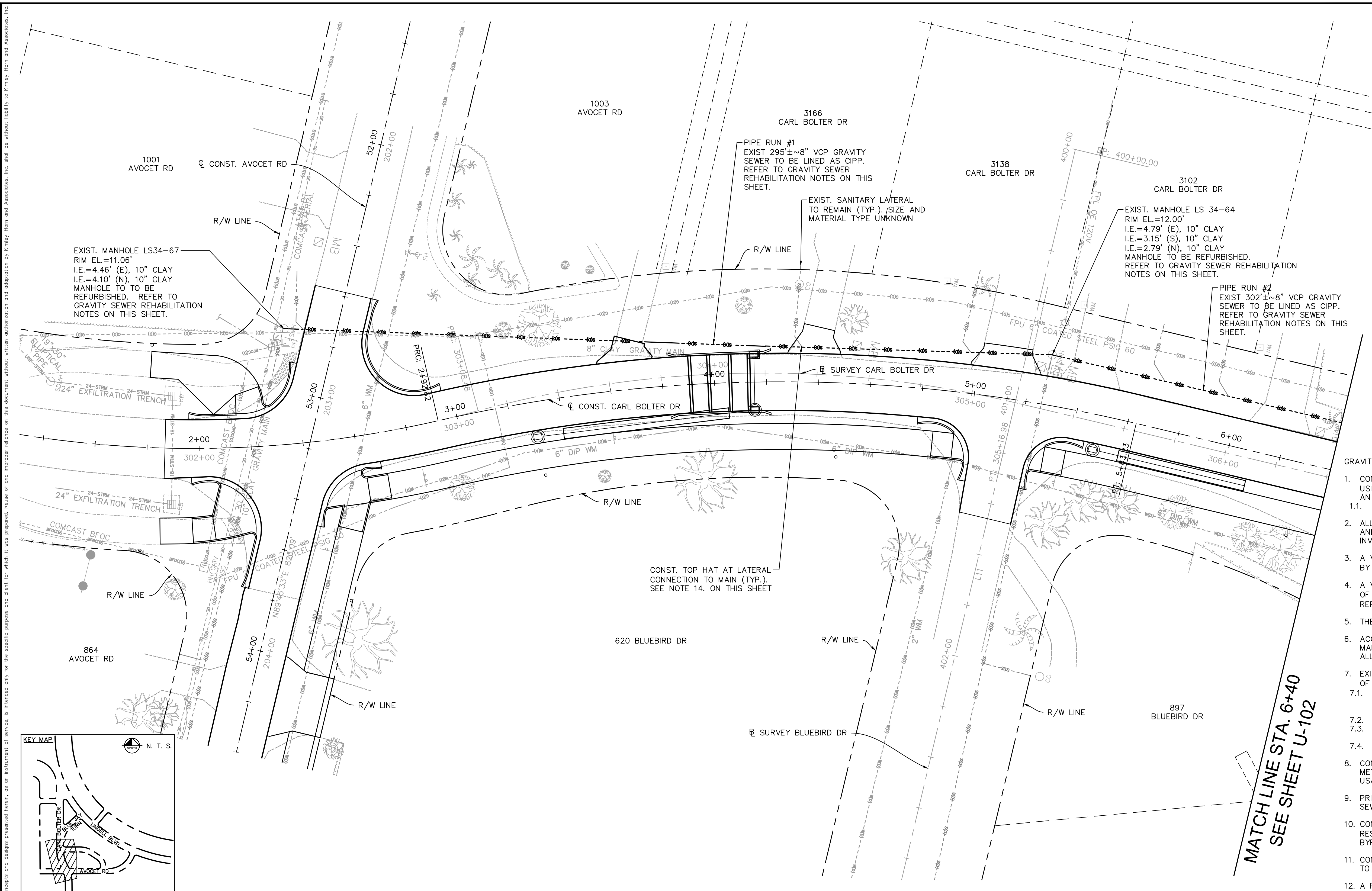
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 FL DATE: 09/17/2024

No.	REVISIONS	DATE	BY

VERIFIED UTILITY LOCATES SHEET

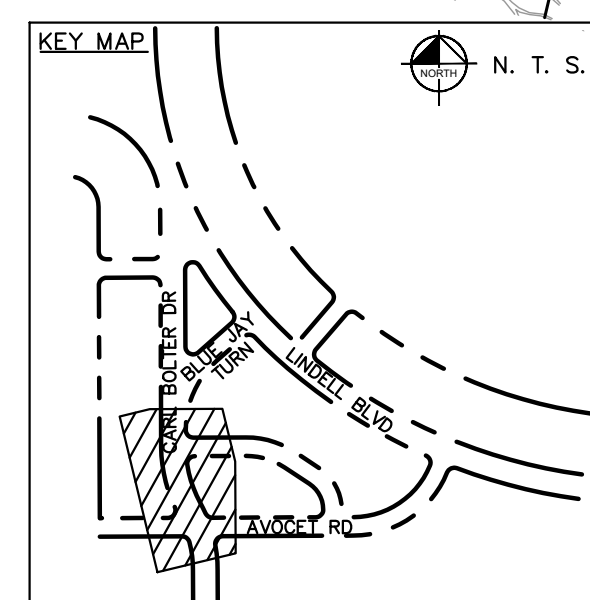
PROJECT NUMBER 20-015
 SHEET NUMBER **C-600**
 48 OF 51

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- GRAVITY SEWER REHABILITATION NOTES:
- CONTRACTOR SHALL RECONSTRUCT EXISTING GRAVITY SEWER USING THE FOLLOWING APPROVED MANUFACTURERS/PRODUCTS OR AN APPROVED EQUAL:
 - MTUBE BY MANUFACTURED TECHNOLOGIES CORPORATION
 - ALL CIPP PRODUCTS SHALL CONFORM TO ASTM F1216, F1743 AND D790. CIPP LINER IS TO BE INSTALLED VIA STEAM INVERSION.
 - A VIDEO OF EXISTING PIPE RUNS #1 AND #2 WERE PERFORMED BY MINCAN ON 2/1/2022 AND 2/2/2022 RESPECTIVELY.
 - A VIDEO OF EXISTING PIPE RUN #3 WAS PERFORMED BY THE CITY OF DELRAY BEACH UTILITY DEPARTMENT ON 3/22/1999 AND THE REPORT WAS GENERATED ON 3/19/2004.
 - THERE WAS NO VIDEO PERFORMED FOR EXISTING PIPE RUN #4.
 - ACCESS POINTS TO THE EXISTING GRAVITY SEWER IS BY EXISTING MANHOLES. THE CONTRACTOR IS RESPONSIBLE FOR PROVIDING ALL M.O.T. AND RESTORATION OF THE AREA.
 - EXISTING MANHOLES INTERIOR ARE TO BE REHABBED USING ONE OF THE FOLLOWING APPROVED MANUFACTURERS/PRODUCTS:
 - MADEWELL PRODUCTS CORP. MAINSTAY SYSTEM (ML-10 HYDRAULIC CEMENT MORTAR, ML-72 MICROSILICA MORTAR, DS-5 EPOXY)
 - SEWPERCOAT BY IMERYS
 - STRONG-SEAL HIGH PERFORMANCE MIX BY THE STRONG COMPANY, INC.
 - REFRATTA HAC 100 BY GLOBAL MATERIALS COMPANY
 - CONTRACTOR WILL BE RESPONSIBLE FOR ACQUIRING A HYDRANT METER FROM THE MUNICIPAL UTILITY AND PAY FOR ALL WATER USAGE.
 - PRIOR TO THE START OF WORK, CONTRACTOR SHALL PROVIDE A SEWER BYPASS PLAN FOR APPROVAL.
 - CONTRACTOR SHALL COORDINATE WITH THE LOCAL UTILITY FOR RESIDENT/USER NOTIFICATIONS ADVISING OF UPCOMING WORK AND BYPASS.
 - CONTRACTOR IS RESPONSIBLE FOR CLEANING ALL GRAVITY SEWER TO BE LINED.
 - A PRE AND POST VIDEO SHALL BE PERFORMED BY THE CONTRACTOR.
 - CIPP WALL THICKNESS SHALL BE PER ASTM F1743, PARAGRAPH 8.1.6. THE MINIMUM WALL THICKNESS AT ANY POINT SHALL NOT BE LESS THAN 90% OF THE HOST PIPE.
 - EACH SANITARY SERVICE LATERAL (SIZE TO BE DETERMINED IN THE FIELD) SHALL HAVE A CIPP "BRIM" STYLE (TOP HAT) INSTALLED AFTER THE HOST MAIN LINE IS LINED.

MATCHLINE STA. 6+40
SEE SHEET U-102



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KH PROJECT #	044300089
FM #	441586-1-58-01
SCALE	AS SHOWN
DESIGNED BY	BK
DRAWN BY	MT
CHECKED BY	ER

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FL DATE: 09/17/2024

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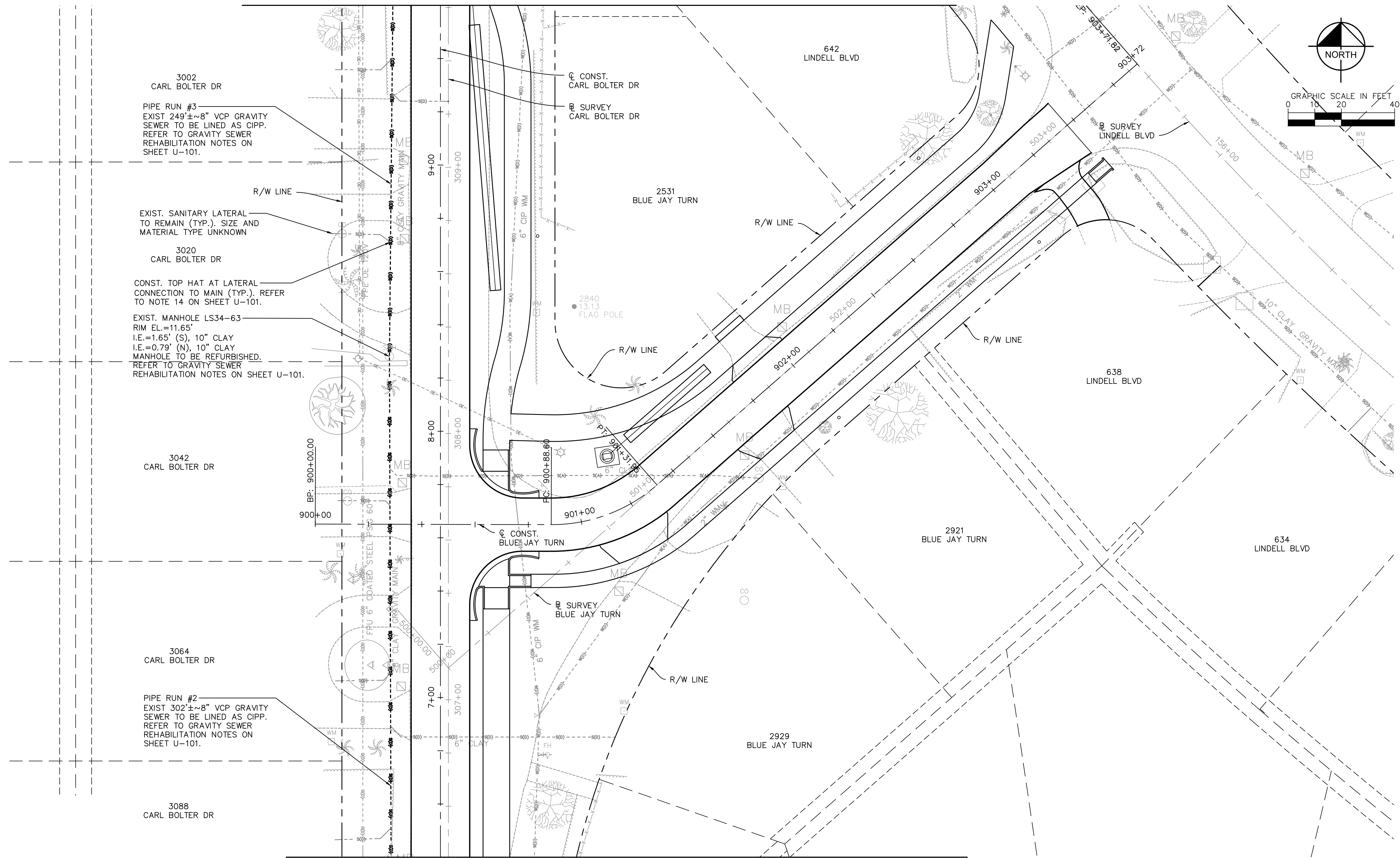
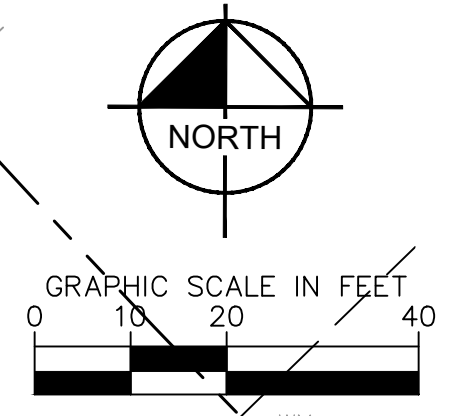
SANITARY SEWER LINING PLAN

PROJECT NUMBER	20-015
SHEET NUMBER	U-101
	49 OF 51

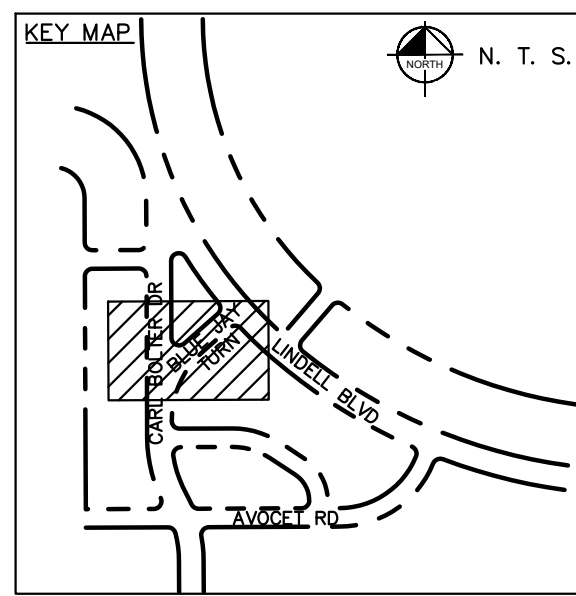
Plotted By: Teddy, Max. Sheet: Set: LINDLEL LOOP. Layout: U-101. November 05, 2024. 05:28:42pm. K:\WPB_Design\044300089_LindellLoop_Working\04_Sheets\SANITARY SEWER LINING PLAN.dwg
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MATCH LINE STA. 9+60 - SEE SHEET U-103



MATCH LINE STA. 6+40 - SEE SHEET U-101



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Plotted By: Teddy, Max. Sheet: Set1:LINDELL LOOP - Layout:U-102 - November 06, 2024 - 05:28:47pm. K:\WPB_Design\044300089 - LindeellLoop\Working\04 - Sheets\SANITARY SEWER LINING PLAN.dwg
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KH PROJECT # 044300089
 FM # 441586-1-58-01
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ENGINEER'S SEAL				
ERIC REGUEIRO, P.E.				
FL LICENSE NUMBER 86211				
FL DATE: 09/17/2024	No.	REVISIONS	DATE	BY

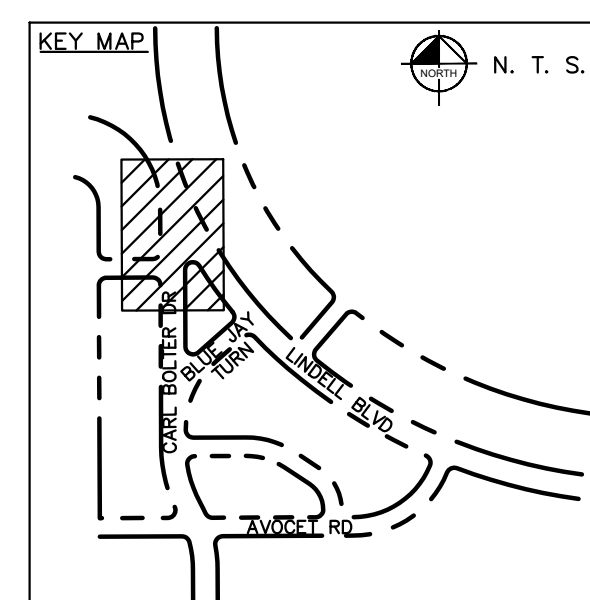
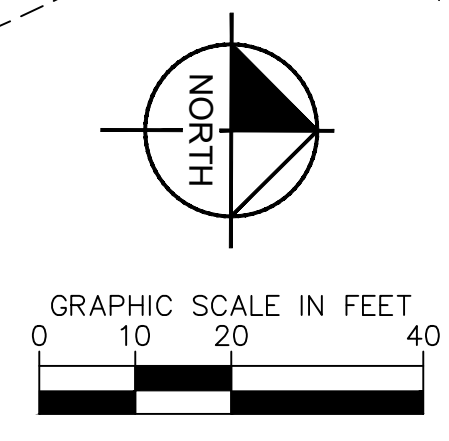
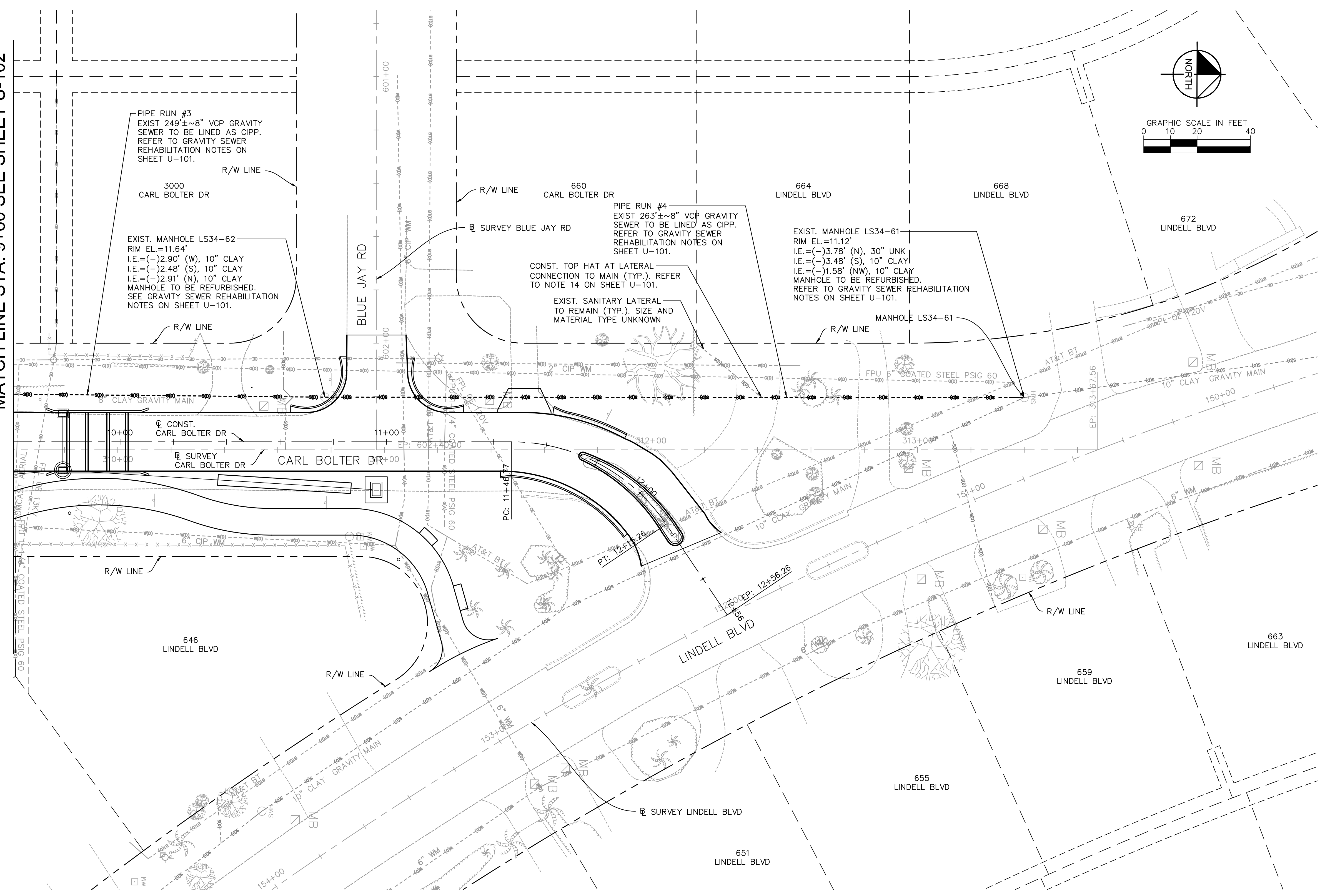
SANITARY SEWER LINING PLAN

PROJECT NUMBER 20-015
SHEET NUMBER U-102
50 OF 51

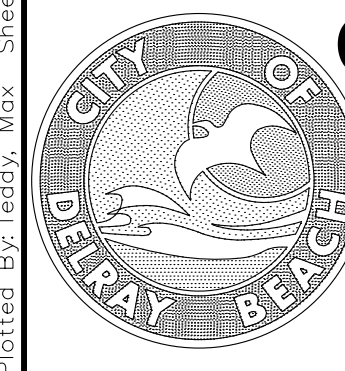
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Plotted By: Teddy, Max. Sheet: Set1:LINDELL LOOP - Layout:U-103 - November 06, 2024 - 05:28:52pm. K:\WPB_Design\044300089_LindellLoop_Working\04_Sheets\SANITARY SEWER LINING PLAN.dwg
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MATCH LINE STA. 9+60 SEE SHEET U-102



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 FL LICENSE NUMBER 86211
 FL DATE: 09/17/2024

No.	REVISIONS	DATE	BY

SANITARY SEWER LINING PLAN

PROJECT NUMBER 20-015
 SHEET NUMBER **U-103**
 51 OF 51

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From: [Kern, Brandon](#)
To: [Palacio, Juan](#); [Kaufman, Jason](#)
Subject: FW: FDOT FM #441586-1-58-01 Lindell Loop - City of Delray Beach - DOH Permit Exemption
Date: Friday, October 18, 2024 8:12:37 AM

****Please be cautious****

This email originated from outside of The City of Delray Beach. Do not click links or open attachments unless you recognize the sender and know the content is safe.

Brandon Kern, P.E.

Kimley-Horn | 1920 Wekiva Way Suite 200 West Palm Beach, FL 33411

Direct: (561) 486-1853

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From: Hardman, Henry J <Henry.Hardman@flhealth.gov>
Sent: Tuesday, October 15, 2024 10:29 AM
To: Teddy, Max <Max.Teddy@kimley-horn.com>
Cc: Kern, Brandon <Brandon.Kern@kimley-horn.com>; Santore, Sal <Sal.Santore@kimley-horn.com>; Jensen, Tom <Tom.Jensen@kimley-horn.com>
Subject: RE: FDOT FM #441586-1-58-01 Lindell Loop - City of Delray Beach - DOH Permit Exemption

Max, this would be exempt from DEP permitting per FAC 62-604 *Replacement of any facilities with new facilities of the same capacity at the same location as the facilities being replaced*

Thanks,

Jay Hardman, P.E.
Plan Review Manager
FDOH-PBC
800 Clematis Street
West Palm Beach, FL 33402
(561) 837-5958

From: Teddy, Max <Max.Teddy@kimley-horn.com>
Sent: Tuesday, October 15, 2024 10:18 AM
To: Hardman, Henry J <Henry.Hardman@flhealth.gov>
Cc: Kern, Brandon <Brandon.Kern@kimley-horn.com>
Subject: FDOT FM #441586-1-58-01 Lindell Loop - City of Delray Beach - DOH Permit Exemption

You don't often get email from max.teddy@kimley-horn.com. [Learn why this is important](#)

EXTERNAL EMAIL: DO NOT CLICK links or open attachments unless you recognize the sender and know the content is safe.

Good morning Jay,

My name is Max Teddy and I am a Civil Engineer with Kimley-Horn's West Palm Beach office. I am reaching out today regarding a project called Lindell Loop that you spoke about with my colleague, Sal Santore, yesterday.

I wanted to confirm that this project qualifies for an exemption from a Palm Beach County DOH Permit.

The project is jointly funded by FDOT and the City of Delray Beach. The main scope of the project includes minor roadway, drainage, and pedestrian improvements.

The scope also includes the sanitary sewer items below. The sanitary sewer runs are all along Carl Bolter Dr.

- Lining four runs of existing 8" VCP gravity sewer with CIPP
- Rehabilitating the 5 existing sanitary manholes that connect these pipe runs

Please find attached the plan sheets associated with the sewer work. Feel free to let me know if you have any questions.

Thank you!

Max

Max Teddy, P.E.

Kimley-Horn | 1920 Wekiva Way, Ste 200, West Palm Beach, FL. 33411

Direct: 561-593-0403

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SOUTH FLORIDA WATER MANAGEMENT DISTRICT

September 3, 2024

** Delivered via email*

Missie Barletto *
City Of Delray Beach
434 S Swinton Ave
Delray Beach, FL 33444

Subject: Exemption for Lindell Blvd. Loop Connection
Application No. 240805-45039
Exemption No. 50-111416-P
Palm Beach County

Dear Ms. Barletto:

The South Florida Water Management District (District) reviewed the information submitted for a proposed pedestrian safety enhancement and has determined that the proposed project is exempt from the requirement to obtain an Environmental Resource Permit, pursuant to Florida rule 62-330.051 Florida Administrative Code.

The project is proposing enhancement of pedestrian safety to comply with the American with Disabilities Act (ADA) by adding 10.0-foot wide shared use paths and 5.0-foot wide sidewalks, for a total of 0.23 acres of additional impervious area. The proposed enhancement includes milling and resurfacing of the existing travel lanes. No wetlands exist within the project area. The project proposes adding inlets, closed exfiltration systems, and pollution control structure with a weir to the drainage system. The project is located along Carl Bolter Dr. from Avocet Rd. to Lindell Blvd., Blue Jay Turn from Carl Bolter Dr. to Lindell Blvd., and Avocet Rd. from Carl Bolter Dr. to Lindell Blvd. in Delray Beach, Broward County. Refer to Exhibit Nos. 1.0 and 2.0 for a location map and construction plans, respectively.

Activities that qualify for this exemption must be conducted and operated using appropriate best management practices and in a manner which does not cause or contribute to a water quality violation. Pursuant to Chapters 62-302 or 62-4, Florida Administrative Code.

This letter does not relieve you from the responsibility of obtaining other permits (federal, state or local) which may be required for the project.

The determination that this project qualifies as an exempt activity may be revoked if the installation is substantially modified, if the basis of the exemption is determined to be materially incorrect, or if the installation results in violation to state water quality standards. Any changes made in the construction plans or location of the project may necessitate a permit from the District. Therefore you are advised to contact the District before beginning any work in wetlands which is not specifically described in the submittal.

The notice of determination that the project qualifies as an exempt activity constitutes final agency action by the District unless a petition for administrative hearing is filed. Upon timely filing of a petition, this Notice will not be effective until further Order of the District. If you have any questions concerning this matter, please contact Shari Tellman, Environmental Analyst 2 at (561) 682-6109 or stellman@sfwmd.gov, and Mehrnoosh Mahmoudi, P.E., Lead Engineer at 561-682-2728 or mmahmoud@sfwmd.gov.

Sincerely,

A handwritten signature in blue ink that reads "Jesse Markle". The signature is stylized with a large, sweeping initial "J" and "M".

Jesse Markle, P.E.
Chief, Environmental Resource Bureau

c: David Teddy, Kimley-horn *

Exhibits

The following exhibits to this permit are incorporated by reference. The exhibits can be viewed by clicking on the links below or by visiting the District's ePermitting website (<http://my.sfwmd.gov/ePermitting>) and searching under this application number 240805-45039.

[Exhibit No. 1.0 Location Map](#)

[Exhibit No. 2.0 Construction Plan](#)

NOTICE OF RIGHTS

As required by Chapter 120, Florida Statutes, the following provides notice of the opportunities which may be available for administrative hearing pursuant to Sections 120.569 and 120.57, Florida Statutes, or judicial review pursuant to Section 120.68, Florida Statutes, when the substantial interests of a party are determined by an agency. Please note that this Notice of Rights is not intended to provide legal advice. Some of the legal proceedings detailed below may not be applicable or appropriate for your situation. You may wish to consult an attorney regarding your legal rights.

RIGHT TO REQUEST ADMINISTRATIVE HEARING

A person whose substantial interests are or may be affected by the South Florida Water Management District's (District) action has the right to request an administrative hearing on that action pursuant to Sections 120.569 and 120.57, Florida Statutes. Persons seeking a hearing on a District decision which affects or may affect their substantial interests shall file a petition for hearing in accordance with the filing instructions set forth herein within 21 days of receipt of written notice of the decision unless one of the following shorter time periods apply: (1) within 14 days of the notice of consolidated intent to grant or deny concurrently reviewed applications for environmental resource permits and use of sovereign submerged lands pursuant to Section 373.427, Florida Statutes; or (2) within 14 days of service of an Administrative Order pursuant to Section 373.119(1), Florida Statutes. "Receipt of written notice of agency decision" means receipt of written notice through mail, electronic mail, posting, or publication that the District has taken or intends to take final agency action. Any person who receives written notice of a District decision and fails to file a written request for hearing within the timeframe described above waives the right to request a hearing on that decision.

If the District takes final agency action that materially differs from the noticed intended agency decision, persons who may be substantially affected shall, unless otherwise provided by law, have an additional point of entry pursuant to Rule 28-106.111, Florida Administrative Code.

Any person to whom an emergency order is directed pursuant to Section 373.119(2), Florida Statutes, shall comply therewith immediately, but on petition to the board shall be afforded a hearing as soon as possible.

A person may file a request for an extension of time for filing a petition. The District may grant the request for good cause. Requests for extension of time must be filed with the District prior to the deadline for filing a petition for hearing. Such requests for extension shall contain a certificate that the moving party has consulted with all other parties concerning the extension and whether the District and any other parties agree to or oppose the extension. A timely request for an extension of time shall toll the running of the time period for filing a petition until the request is acted upon.

FILING INSTRUCTIONS

A petition for administrative hearing must be filed with the Office of the District Clerk. Filings with the Office of the District Clerk may be made by mail, hand-delivery, or e-mail. Filings by facsimile will not be accepted. A petition for administrative hearing or other document is deemed filed upon receipt during normal business hours by the Office of the District Clerk at the District's headquarters in West Palm Beach, Florida. The District's normal business hours are 8:00 a.m. – 5:00 p.m., excluding weekends and District holidays. Any document received by the Office of the District Clerk after 5:00 p.m. shall be deemed filed as of 8:00 a.m. on the next regular business day.

Additional filing instructions are as follows:

- Filings by mail must be addressed to the Office of the District Clerk, 3301 Gun Club Road, West Palm Beach, Florida 33406.
- Filings by hand-delivery must be delivered to the Office of the District Clerk. Delivery of a

petition to the District's security desk does not constitute filing. It will be necessary to request that the District's security officer contact the Office of the District Clerk. An employee of the District's Clerk's office will receive and process the petition.

- Filings by e-mail must be transmitted to the Office of the District Clerk at clerk@sfwmd.gov. The filing date for a document transmitted by electronic mail shall be the date the Office of the District Clerk receives the complete document.

INITIATION OF ADMINISTRATIVE HEARING

Pursuant to Sections 120.54(5)(b)4. and 120.569(2)(c), Florida Statutes, and Rules 28-106.201 and 28-106.301, Florida Administrative Code, initiation of an administrative hearing shall be made by written petition to the District in legible form and on 8 1/2 by 11 inch white paper. All petitions shall contain:

1. Identification of the action being contested, including the permit number, application number, District file number or any other District identification number, if known.
2. The name, address, any email address, any facsimile number, and telephone number of the petitioner, petitioner's attorney or qualified representative, if any.
3. An explanation of how the petitioner's substantial interests will be affected by the agency determination.
4. A statement of when and how the petitioner received notice of the District's decision.
5. A statement of all disputed issues of material fact. If there are none, the petition must so indicate.
6. A concise statement of the ultimate facts alleged, including the specific facts the petitioner contends warrant reversal or modification of the District's proposed action.
7. A statement of the specific rules or statutes the petitioner contends require reversal or modification of the District's proposed action.
8. If disputed issues of material fact exist, the statement must also include an explanation of how the alleged facts relate to the specific rules or statutes.
9. A statement of the relief sought by the petitioner, stating precisely the action the petitioner wishes the District to take with respect to the District's proposed action.

MEDIATION

The procedures for pursuing mediation are set forth in Section 120.573, Florida Statutes, and Rules 28-106.111 and 28-106.401–.405, Florida Administrative Code. The District is not proposing mediation for this agency action under Section 120.573, Florida Statutes, at this time.

RIGHT TO SEEK JUDICIAL REVIEW

Pursuant to Section 120.68, Florida Statutes, and in accordance with Florida Rule of Appellate Procedure 9.110, a party who is adversely affected by final District action may seek judicial review of the District's final decision by filing a notice of appeal with the Office of the District Clerk in accordance with the filing instructions set forth herein within 30 days of rendition of the order to be reviewed, and by filing a copy of the notice with the appropriate district court of appeals via the Florida Courts E-Filing Portal.

STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION
LOCAL AGENCY PROGRAM AGREEMENT

FPN: <u>441586-1-58-01</u>	FPN: _____	FPN: _____
Federal No (FAIN): <u>D424-022-B</u>	Federal No (FAIN): _____	Federal No (FAIN): _____
Federal Award Date: _____	Federal Award Date: _____	Federal Award Date: _____
Fund: _____	Fund: _____	Fund: _____
Org Code: <u>55043010404</u>	Org Code: _____	Org Code: _____
FLAIR Approp: _____	FLAIR Approp: _____	FLAIR Approp: _____
FLAIR Obj: _____	FLAIR Obj: _____	FLAIR Obj: _____

County No: 93 Contract No: _____
Recipient Vendor No: F596000308007 Recipient Unique Entity ID (UEI) No: XDQ9TLEDU456

Catalog of Federal Domestic Assistance (CFDA): 20.205 Highway Planning and Construction

THIS LOCAL AGENCY PROGRAM AGREEMENT ("Agreement"), is entered into on _____, by and between the State of Florida Department of Transportation, an agency (This date to be entered by DOT only) of the State of Florida ("Department"), and City of Delray Beach ("Recipient").

NOW, THEREFORE, in consideration of the mutual benefits to be derived from joint participation on the Project, the Parties agree to the following:

1. **Authority:** The Department is authorized to enter into this Agreement pursuant to Section 339.12, Florida Statutes. The Recipient by Resolution or other form of official authorization, a copy of which is attached as **Exhibit "D"** and made a part of this Agreement, has authorized its officers to execute this Agreement on its behalf.
2. **Purpose of Agreement:** The purpose of this Agreement is to provide for the Department's participation in Brant Bridge Connector, as further described in **Exhibit "A"**, Project Description and Responsibilities attached to and incorporated in this Agreement ("Project"), to provide Department financial assistance to the Recipient; state the terms and conditions upon which Department funds will be provided; and to set forth the manner in which the Project will be undertaken and completed.
3. **Term of Agreement:** The Recipient agrees to complete the Project on or before December 31st, 2026. If the Recipient does not complete the Project within this time period, this Agreement will expire on the last day of the scheduled completion as provided in this paragraph unless an extension of the time period is requested by the Recipient and granted in writing by the Department prior to the expiration of this Agreement. Expiration of this Agreement will be considered termination of the Project. The cost of any work performed after the term of this Agreement will not be reimbursed by the Department.
4. **Project Cost:**
 - a. The estimated cost of the Project is \$ 2,519,130.00. This amount is based upon the Schedule of Financial Assistance in **Exhibit "B"**, attached to and incorporated in this Agreement. **Exhibit "B"** may be modified by mutual execution of an amendment as provided for in paragraph 5.i.
 - b. The Department agrees to participate in the Project cost up to the maximum amount of \$ 1,671,256.00 and as more fully described in **Exhibit "B"**. This amount includes Federal-aid funds which are limited to the actual amount of Federal-aid participation. The Department's participation may be increased or reduced upon determination of the actual bid amounts of the Project by the mutual execution of an amendment. The Recipient agrees to bear all expenses in excess of the total cost of the Project and any deficits incurred in connection with the completion of the Project.
 - c. Project costs eligible for Department participation will be allowed only from the date of this Agreement. It is understood that Department participation in eligible Project costs is subject to:

- i. Legislative approval of the Department's appropriation request in the work program year that the Project is scheduled to be committed;
- ii. Availability of funds as stated in paragraphs 5.l. and 5.m. of this Agreement;
- iii. Approval of all plans, specifications, contracts or other obligating documents and all other terms of this Agreement; and
- iv. Department approval of the Project scope and budget at the time appropriation authority becomes available.

5. Requisitions and Payments

- a. The Recipient shall provide quantifiable, measurable, and verifiable units of deliverables. Each deliverable must specify the required minimum level of service to be performed and the criteria for evaluating successful completion. The Project and the quantifiable, measurable, and verifiable units of deliverables are described more fully in **Exhibit "A"**.
- b. Invoices shall be submitted by the Recipient in detail sufficient for a proper pre-audit and post-audit based on the quantifiable, measurable and verifiable units of deliverables as established in **Exhibit "A"**. Deliverables must be received and accepted in writing by the Department's Project Manager prior to payments. Requests for reimbursement by the Recipient shall include an invoice, progress report and supporting documentation for the period of services being billed that are acceptable to the Department. The Recipient shall use the format for the invoice and progress report that is approved by the Department.
- c. The Recipient shall charge to the Project account all eligible costs of the Project except costs agreed to be borne by the Recipient or its contractors and subcontractors. Costs in excess of the programmed funding or attributable to actions which have not received the required approval of the Department shall not be considered eligible costs. All costs charged to the Project, including any approved services contributed by the Recipient or others, shall be supported by properly executed payrolls, time records, invoices, contracts or vouchers evidencing in proper detail the nature and propriety of the charges.
- d. Supporting documentation must establish that the deliverables were received and accepted in writing by the Recipient and must also establish that the required minimum level of service to be performed based on the criteria for evaluating successful completion as specified in **Exhibit "A"** was met. All costs invoiced shall be supported by properly executed payrolls, time records, invoices, contracts or vouchers evidencing in proper detail the nature and propriety of charges as described in **Exhibit "F"**, Contract Payment Requirements.
- e. Bills for travel expenses specifically authorized in this Agreement shall be submitted on the Department's Contractor Travel Form No. 300-000-06 and will be paid in accordance with Section 112.061, Florida Statutes and the most current version of the Disbursement Handbook for Employees and Managers.
- f. Payment shall be made only after receipt and approval of goods and services unless advance payments are authorized by the Chief Financial Officer of the State of Florida under Chapters 215 and 216, Florida Statutes or the Department's Comptroller under Section 334.044(29), Florida Statutes.

- If this box is selected, advance payment is authorized for this Agreement and **Exhibit "H"**, Alternative Advance Payment Financial Provisions is attached and incorporated into this Agreement.

If the Department determines that the performance of the Recipient is unsatisfactory, the Department shall notify the Recipient of the deficiency to be corrected, which correction shall be made within a time-frame to be specified by the Department. The Recipient shall, within thirty (30) days after notice from the Department, provide the Department with a corrective action plan describing how the Recipient will address all issues of contract non-performance, unacceptable performance, failure to meet the minimum performance levels, deliverable deficiencies, or contract non-compliance. If the corrective action plan is unacceptable to the

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Department, the Recipient will not be reimbursed to the extent of the non-performance. The Recipient will not be reimbursed until the Recipient resolves the deficiency. If the deficiency is subsequently resolved, the Recipient may bill the Department for the unpaid reimbursement request(s) during the next billing period. If the Recipient is unable to resolve the deficiency, the funds shall be forfeited at the end of the Agreement's term.

- g.** Agencies providing goods and services to the Department should be aware of the following time frames. Inspection and approval of goods or services shall take no longer than 20 days from the Department's receipt of the invoice. The Department has 20 days to deliver a request for payment (voucher) to the Department of Financial Services. The 20 days are measured from the latter of the date the invoice is received or the goods or services are received, inspected, and approved.

If a payment is not available within 40 days, a separate interest penalty at a rate as established pursuant to **Section 55.03(1), F.S.**, will be due and payable, in addition to the invoice amount, to the Recipient. Interest penalties of less than one (1) dollar will not be enforced unless the Recipient requests payment. Invoices that have to be returned to an Recipient because of Recipient preparation errors will result in a delay in the payment. The invoice payment requirements do not start until a properly completed invoice is provided to the Department.

A Vendor Ombudsman has been established within the Department of Financial Services. The duties of this individual include acting as an advocate for Agencies who may be experiencing problems in obtaining timely payment(s) from a state agency. The Vendor Ombudsman may be contacted at (850) 413-5516.

- h.** The Recipient shall maintain an accounting system or separate accounts to ensure funds and projects are tracked separately. Records of costs incurred under the terms of this Agreement shall be maintained and made available upon request to the Department at all times during the period of this Agreement and for five years after final payment is made. Copies of these documents and records shall be furnished to the Department upon request. Records of costs incurred include the Recipient's general accounting records and the project records, together with supporting documents and records, of the contractor and all subcontractors performing work on the project, and all other records of the Contractor and subcontractors considered necessary by the Department for a proper audit of costs.
- i.** Prior to the execution of this Agreement, a Project schedule of funding shall be prepared by the Recipient and approved by the Department. The Recipient shall maintain said schedule of funding, carry out the Project, and shall incur obligations against and make disbursements of Project funds only in conformity with the latest approved schedule of funding for the Project. The schedule of funding may be revised by execution of a Local Agency Program ("LAP") Supplemental Agreement between the Department and the Recipient. The Recipient acknowledges and agrees that funding for this project may be reduced upon determination of the Recipient's contract award amount.
- j.** If, after Project completion, any claim is made by the Department resulting from an audit or for work or services performed pursuant to this Agreement, the Department may offset such amount from payments due for work or services done under any agreement which it has with the Recipient owing such amount if, upon demand, payment of the amount is not made within 60 days to the Department. Offsetting any amount pursuant to this paragraph shall not be considered a breach of contract by the Department.
- k.** The Recipient must submit the final invoice on the Project to the Department within 120 days after the completion of the Project. Invoices submitted after the 120-day time period may not be paid.
- l.** The Department's performance and obligation to pay under this Agreement is contingent upon an annual appropriation by the Legislature. If the Department's funding for this Project is in multiple fiscal years, funds approval from the Department's Comptroller must be received each fiscal year prior to costs being incurred. See **Exhibit "B"** for funding levels by fiscal year. Project costs utilizing these fiscal year funds are not eligible for reimbursement if incurred prior to funds approval being received. The Department will notify the Recipient, in writing, when funds are available.
- m.** In the event this Agreement is in excess of \$25,000 and has a term for a period of more than one year, the provisions of Section 339.135(6)(a), Florida Statutes, are hereby incorporated:

"The Department, during any fiscal year, shall not expend money, incur any liability, or enter into any contract which, by its terms, involves the expenditure of money in excess of the amounts budgeted as available for expenditure during such fiscal year. Any contract, verbal or written, made in violation of this subsection is null and void, and no money may be paid on such contract. The Department shall require a statement from the comptroller of the Department that funds are available prior to entering into any such contract or other binding commitment of funds. Nothing herein contained shall prevent the making of contracts for periods exceeding 1 year, but any contract so made shall be executory only for the value of the services to be rendered or agreed to be paid for in succeeding fiscal years, and this paragraph shall be incorporated verbatim in all contracts of the Department which are for an amount in excess of \$25,000 and which have a term for a period of more than 1 year."

6. Department Payment Obligations:

Subject to other provisions of this Agreement, the Department will honor requests for reimbursement to the Recipient pursuant to this Agreement. However, notwithstanding any other provision of this Agreement, the Department may elect by notice in writing not to make a payment if:

- a. The Recipient shall have made misrepresentation of a material nature in its application, or any supplement or amendment to its application, or with respect to any document or data furnished with its application or pursuant to this Agreement;
- b. There is any pending litigation with respect to the performance by the Recipient of any of its duties or obligations which may jeopardize or adversely affect the Project, the Agreement or payments to the Project;
- c. The Recipient shall have taken any action pertaining to the Project which, under this Agreement, requires the approval of the Department or has made a related expenditure or incurred related obligations without having been advised by the Department that same are approved;
- d. There has been any violation of the conflict of interest provisions contained in paragraph 14.f.; or
- e. The Recipient has been determined by the Department to be in default under any of the provisions of the Agreement.

The Department may suspend or terminate payment for that portion of the Project which the Federal Highway Administration ("FHWA"), or the Department acting in lieu of FHWA, may designate as ineligible for Federal-aid.

In determining the amount of the payment, the Department will exclude all Project costs incurred by the Recipient prior to the Department's issuance of a Notice to Proceed ("NTP"), costs incurred after the expiration of the Agreement, costs which are not provided for in the latest approved schedule of funding in **Exhibit "B"** for the Project, costs agreed to be borne by the Recipient or its contractors and subcontractors for not meeting the Project commencement and final invoice time lines, and costs attributable to goods or services received under a contract or other arrangements which have not been approved in writing by the Department.

7. General Requirements:

The Recipient shall complete the Project with all practical dispatch, in a sound, economical, and efficient manner, and in accordance with the provisions in this Agreement, and all applicable laws. The Project will be performed in accordance with all applicable Department procedures, guidelines, manuals, standards, and directives as described in the Department's **Local Agency Program Manual** (FDOT Topic No. 525-010-300), which by this reference is made a part of this Agreement. Time is of the essence as to each and every obligation under this Agreement.

- a. A full time employee of the Recipient, qualified to ensure that the work being pursued is complete, accurate, and consistent with the terms, conditions, and specifications of this Agreement shall be in responsible charge of the Project, which employee should be able to perform the following duties and functions:

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- i. Administers inherently governmental project activities, including those dealing with cost, time, adherence to contract requirements, construction quality and scope of Federal-aid projects;
 - ii. Maintains familiarity of day to day Project operations, including Project safety issues;
 - iii. Makes or participates in decisions about changed conditions or scope changes that require change orders or supplemental agreements;
 - iv. Visits and reviews the Project on a frequency that is commensurate with the magnitude and complexity of the Project;
 - v. Reviews financial processes, transactions and documentation to ensure that safeguards are in place to minimize fraud, waste, and abuse;
 - vi. Directs Project staff, agency or consultant, to carry out Project administration and contract oversight, including proper documentation;
 - vii. Is aware of the qualifications, assignments and on-the-job performance of the Recipient and consultant staff at all stages of the Project.
- b. Once the Department issues the NTP for the Project, the Recipient shall be obligated to submit an invoice or other request for reimbursement to the Department no less than once every 90 days (quarterly), beginning from the day the NTP is issued. If the Recipient fails to submit quarterly invoices to the Department, and in the event the failure to timely submit invoices to the Department results in the FHWA removing any unbilled funding or the loss of state appropriation authority (which may include the loss of state and federal funds, if there are state funds programmed to the Project), then the Recipient will be solely responsible to provide all funds necessary to complete the Project and the Department will not be obligated to provide any additional funding for the Project. The Recipient waives the right to contest such removal of funds by the Department, if the removal is related to FHWA's withdrawal of funds or if the removal is related to the loss of state appropriation authority. In addition to the loss of funding for the Project, the Department will also consider the de-certification of the Recipient for future LAP Projects. No cost may be incurred under this Agreement until after the Recipient has received a written NTP from the Department. The Recipient agrees to advertise or put the Project out to bid thirty (30) days from the date the Department issues the NTP to advertise the Project. If the Recipient is not able to meet the scheduled advertisement, the Department District LAP Administrator should be notified as soon as possible.
- c. If all funds are removed from the Project, including amounts previously billed to the Department and reimbursed to the Recipient, and the Project is off the State Highway System, then the Department will have to request repayment for the previously billed amounts from the Recipient. No state funds can be used on off-system projects, unless authorized pursuant to **Exhibit "I"**, State Funds Addendum, which will be attached to and incorporated in this Agreement in the event state funds are used on the Project.
- d. In the event that any election, referendum, approval, permit, notice or other proceeding or authorization is required under applicable law to enable the Recipient to enter into this Agreement or to undertake the Project or to observe, assume or carry out any of the provisions of the Agreement, the Recipient will initiate and consummate, as provided by law, all actions necessary with respect to any such matters.
- e. The Recipient shall initiate and prosecute to completion all proceedings necessary, including Federal-aid requirements, to enable the Recipient to provide the necessary funds for completion of the Project.
- f. The Recipient shall submit to the Department such data, reports, records, contracts, and other documents relating to the Project as the Department and FHWA may require. The Recipient shall make such submissions using Department-designated information systems.
- g. Federal-aid funds shall not participate in any cost which is not incurred in conformity with applicable federal and state laws, the regulations in 23 Code of Federal Regulations (C.F.R.) and 49 C.F.R., and policies and procedures prescribed by the Division Administrator of FHWA. Federal funds shall not be paid on account of any cost incurred prior to authorization by FHWA to the Department to proceed with the Project or part

thereof involving such cost (23 C.F.R. 1.9 (a)). If FHWA or the Department determines that any amount claimed is not eligible, federal participation may be approved in the amount determined to be adequately supported and the Department shall notify the Recipient in writing citing the reasons why items and amounts are not eligible for federal participation. Where correctable non-compliance with provisions of law or FHWA requirements exists federal funds may be withheld until compliance is obtained. Where non-compliance is not correctable, FHWA or the Department may deny participation in parcel or Project costs in part or in total. For any amounts determined to be ineligible for federal reimbursement for which the Department has advanced payment, the Recipient shall promptly reimburse the Department for all such amounts within 90 days of written notice.

- h. For any project requiring additional right-of-way, the Recipient must submit to the Department an annual report of its real property acquisition and relocation assistance activities on the project. Activities shall be reported on a federal fiscal year basis, from October 1 through September 30. The report must be prepared using the format prescribed in 49 C.F.R. Part 24, Appendix B, and be submitted to the Department no later than October 15 of each year.

8. Audit Reports:

The administration of resources awarded through the Department to the Recipient by this Agreement may be subject to audits and/or monitoring by the Department. The following requirements do not limit the authority of the Department to conduct or arrange for the conduct of additional audits or evaluations of federal awards or limit the authority of any state agency inspector general, the State of Florida Auditor General, or any other state official. The Recipient shall comply with all audit and audit reporting requirements as specified below.

- a. In addition to reviews of audits conducted in accordance with 2 CFR Part 200, Subpart F – Audit Requirements, monitoring procedures may include, but not be limited to, on-site visits by Department staff and/or other procedures including, reviewing any required performance and financial reports, following up, ensuring corrective action, and issuing management decisions on weaknesses found through audits when those findings pertain to federal awards provided through the Department by this Agreement. By entering into this Agreement, the Recipient agrees to comply and cooperate fully with any monitoring procedures/processes deemed appropriate by the Department. The Recipient further agrees to comply and cooperate with any inspections, reviews, investigations, or audits deemed necessary by the Department, State of Florida Chief Financial Officer (“CFO”), or State of Florida Auditor General.
- b. The Recipient, a non-federal entity as defined by 2 CFR Part 200, as a subrecipient of a federal award awarded by the Department through this Agreement is subject to the following requirements:
 - i. In the event the Recipient expends a total amount of federal awards equal to or in excess of the threshold established by 2 CFR Part 200, Subpart F – Audit Requirements, the Recipient must have a federal single or program-specific audit for such fiscal year conducted in accordance with the provisions of 2 CFR Part 200, Subpart F – Audit Requirements. **Exhibit “E”** to this Agreement provides the required federal award identification information needed by the Recipient to further comply with the requirements of 2 CFR Part 200, Subpart F – Audit Requirements. In determining federal awards expended in a fiscal year, the Recipient must consider all sources of federal awards based on when the activity related to the federal award occurs, including the federal award provided through the Department by this Agreement. The determination of amounts of federal awards expended should be in accordance with the guidelines established by 2 CFR Part 200, Subpart F – Audit Requirements. An audit conducted by the State of Florida Auditor General in accordance with the provisions of 2 CFR Part 200, Subpart F – Audit Requirements, will meet the requirements of this part.
 - ii. In connection with the audit requirements, the Recipient shall fulfill the requirements relative to the auditee responsibilities as provided in 2 CFR Part 200, Subpart F – Audit Requirements.

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- iii. In the event the Recipient expends less than the threshold established by 2 CFR Part 200, Subpart F – Audit Requirements, in federal awards, the Recipient is exempt from federal audit requirements for that fiscal year. However, the Recipient must provide a single audit exemption statement to the Department at FDOTSingleAudit@dot.state.fl.us no later than nine months after the end of the Recipient's audit period for each applicable audit year. In the event the Recipient expends less than the threshold established by 2 CFR Part 200, Subpart F – Audit Requirements, in federal awards in a fiscal year and elects to have an audit conducted in accordance with the provisions of 2 CFR Part 200, Subpart F – Audit Requirements, the cost of the audit must be paid from non-federal resources (*i.e.*, the cost of such an audit must be paid from the Recipient's resources obtained from other than federal entities).
- iv. The Recipient must electronically submit to the Federal Audit Clearinghouse (“FAC”) at <https://harvester.census.gov/facweb/> the audit reporting package as required by 2 CFR Part 200, Subpart F – Audit Requirements, within the earlier of 30 calendar days after receipt of the auditor's report(s) or nine months after the end of the audit period. The FAC is the repository of record for audits required by 2 CFR Part 200, Subpart F – Audit Requirements, and this Agreement. However, the Department requires a copy of the audit reporting package also be submitted to FDOTSingleAudit@dot.state.fl.us within the earlier of 30 calendar days after receipt of the auditor's report(s) or nine months after the end of the audit period as required by 2 CFR Part 200, Subpart F – Audit Requirements.
- v. Within six months of acceptance of the audit report by the FAC, the Department will review the Recipient's audit reporting package, including corrective action plans and management letters, to the extent necessary to determine whether timely and appropriate action on all deficiencies has been taken pertaining to the federal award provided through the Department by this Agreement. If the Recipient fails to have an audit conducted in accordance with 2 CFR Part 200, Subpart F – Audit Requirements, the Department may impose additional conditions to remedy noncompliance. If the Department determines that noncompliance cannot be remedied by imposing additional conditions, the Department may take appropriate actions to enforce compliance, which actions may include but not be limited to the following:
 - 1. Temporarily withhold cash payments pending correction of the deficiency by the Recipient or more severe enforcement action by the Department;
 - 2. Disallow (deny both use of funds and any applicable matching credit for) all or part of the cost of the activity or action not in compliance;
 - 3. Wholly or partly suspend or terminate the federal award;
 - 4. Initiate suspension or debarment proceedings as authorized under 2 C.F.R. Part 180 and federal awarding agency regulations (or in the case of the Department, recommend such a proceeding be initiated by the federal awarding agency);
 - 5. Withhold further federal awards for the Project or program;
 - 6. Take other remedies that may be legally available.
- vi. As a condition of receiving this federal award, the Recipient shall permit the Department or its designee, the CFO, or State of Florida Auditor General access to the Recipient's records including financial statements, the independent auditor's working papers, and project records as necessary. Records related to unresolved audit findings, appeals, or litigation shall be retained until the action is complete or the dispute is resolved.
- vii. The Department's contact information for requirements under this part is as follows:

Office of Comptroller, MS 24
605 Suwannee Street
Tallahassee, Florida 32399-0450
FDOTSingleAudit@dot.state.fl.us
- c. The Recipient shall retain sufficient records demonstrating its compliance with the terms of this Agreement for a period of five years from the date the audit report is issued and shall allow the Department or its designee, the CFO, or State of Florida Auditor General access to such records upon request. The Recipient shall ensure that the audit working papers are made available to the Department or its designee, the CFO, or State of Florida Auditor General upon request for a period of five years from the date the audit report is issued, unless extended in writing by the Department.

9. Termination or Suspension of Project:

The Department may, by written notice to the Recipient, suspend any or all of the Department's obligations under this Agreement for the Recipient's failure to comply with applicable law or the terms of this Agreement until such time as the event or condition resulting in such suspension has ceased or been corrected.

- a. If the Department intends to terminate the Agreement, the Department shall notify the Recipient of such termination in writing at least thirty (30) days prior to the termination of the Agreement, with instructions to the effective date of termination or specify the stage of work at which the Agreement is to be terminated.
- b. The Parties to this Agreement may terminate this Agreement when its continuation would not produce beneficial results commensurate with the further expenditure of funds. In this event, the Parties shall agree upon the termination conditions.
- c. If the Agreement is terminated before performance is completed, the Recipient shall be paid only for that work satisfactorily performed for which costs can be substantiated. Such payment, however, may not exceed the equivalent percentage of the Department's maximum financial assistance. If any portion of the Project is located on the Department's right-of-way, then all work in progress on the Department right-of-way will become the property of the Department and will be turned over promptly by the Recipient.
- d. In the event the Recipient fails to perform or honor the requirements and provisions of this Agreement, the Recipient shall promptly refund in full to the Department within thirty (30) days of the termination of the Agreement any funds that were determined by the Department to have been expended in violation of the Agreement.
- e. The Department reserves the right to unilaterally cancel this Agreement for failure by the Recipient to comply with the Public Records provisions of Chapter 119, Florida Statutes.

10. Contracts of the Recipient:

- a. Except as otherwise authorized in writing by the Department, the Recipient shall not execute any contract or obligate itself in any manner requiring the disbursement of Department funds, including consultant or construction contracts or amendments thereto, with any third party with respect to the Project without the written approval of the Department. Failure to obtain such approval shall be sufficient cause for nonpayment by the Department. The Department specifically reserves the right to review the qualifications of any consultant or contractor and to approve or disapprove the employment of such consultant or contractor.
- b. It is understood and agreed by the parties to this Agreement that participation by the Department in a project with the Recipient, where said project involves a consultant contract for engineering, architecture or surveying services, is contingent on the Recipient's complying in full with provisions of Section 287.055, Florida Statutes, Consultants' Competitive Negotiation Act, the federal Brooks Act, 23 C.F.R. 172, and 23 U.S.C. 112. At the discretion of the Department, the Recipient will involve the Department in the consultant selection process for all projects funded under this Agreement. In all cases, the Recipient shall certify to the Department that selection has been accomplished in compliance with the Consultants' Competitive Negotiation Act and the federal Brooks Act.
- c. The Recipient shall comply with, and require its consultants and contractors to comply with applicable federal law pertaining to the use of Federal-aid funds. The Recipient shall comply with the provisions in the FHWA-1273 form as set forth in **Exhibit "G"**, FHWA 1273 attached to and incorporated in this Agreement. The Recipient shall include FHWA-1273 in all contracts with contractors performing work on the Project.
- d. The Recipient shall require its consultants and contractors to take emergency steps to close any public road whenever there is a risk to life, health and safety of the travelling public. The safety of the travelling public is the Department's first priority for the Recipient. If lane or road closures are required by the LA to ensure the life, health, and safety of the travelling public, the LA must notify the District Construction Engineer and District Traffic Operations Engineer immediately once the travelling public are not at imminent risk. The Department expects professional engineering judgment be applied in all aspects of locally

delivered projects. Defect management and supervision of LAP project structures components must be proactively managed, monitored, and inspected by department prequalified structures engineer(s). The District Construction Engineer must be notified immediately of defect monitoring that occurs in LAP project construction, whether or not the defects are considered an imminent risk to life, health, or safety of the travelling public. When defects, including but not limited to, structural cracks, are initially detected during bridge construction, the engineer of record, construction engineering inspector, design-build firm, or local agency that owns or is responsible for the bridge construction has the authority to immediately close the bridge to construction personnel and close the road underneath. The LA shall also ensure compliance with the CPAM, Section 9.1.8 regarding actions for maintenance of traffic and safety concerns.

11. Disadvantaged Business Enterprise (DBE) Policy and Obligation:

It is the policy of the Department that DBE's, as defined in 49 C.F.R. Part 26, as amended, shall have the opportunity to participate in the performance of contracts financed in whole or in part with Department funds under this Agreement. The DBE requirements of applicable federal and state laws and regulations apply to this Agreement.

The Recipient and its contractors agree to ensure that DBE's have the opportunity to participate in the performance of this Agreement. In this regard, all recipients and contractors shall take all necessary and reasonable steps in accordance with applicable federal and state laws and regulations to ensure that the DBE's have the opportunity to compete for and perform contracts. The Recipient and its contractors and subcontractors shall not discriminate on the basis of race, color, national origin or sex in the award and performance of contracts, entered pursuant to this Agreement.

12. Compliance with Conditions and Laws:

The Recipient shall comply and require its contractors and subcontractors to comply with all terms and conditions of this Agreement and all federal, state, and local laws and regulations applicable to this Project. Execution of this Agreement constitutes a certification that the Recipient is in compliance with, and will require its contractors and subcontractors to comply with, all requirements imposed by applicable federal, state, and local laws and regulations, including the "Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion – Lower Tier Covered Transactions," in 49 C.F.R. Part 29, and 2 C.F.R. Part 200 when applicable.

13. Performance Evaluations:

Recipients are evaluated on a project-by-project basis. The evaluations provide information about oversight needs and provide input for the recertification process. Evaluations are submitted to the Recipient's person in responsible charge or designee as part of the Project closeout process. The Department provides the evaluation to the Recipient no more than 30 days after final acceptance.

- a. Each evaluation will result in one of three ratings. A rating of Unsatisfactory Performance means the Recipient failed to develop the Project in accordance with applicable federal and state regulations, standards and procedures, required excessive District involvement/oversight, or the Project was brought in-house by the Department. A rating of Satisfactory Performance means the Recipient developed the Project in accordance with applicable federal and state regulations, standards and procedures, with minimal District involvement/oversight. A rating of Above Satisfactory Performance means the Recipient developed the Project in accordance with applicable federal and state regulations, standards and procedures, and the Department did not have to exceed the minimum oversight and monitoring requirements identified for the project.
- b. The District will determine which functions can be further delegated to Recipients that continuously earn Satisfactory and Above Satisfactory evaluations.

14. Restrictions, Prohibitions, Controls, and Labor Provisions:

During the performance of this Agreement, the Recipient agrees as follows, and agrees to require its contractors and subcontractors to include in each subcontract the following provisions:

- a. The Recipient will comply with all the requirements imposed by Title VI of the Civil Rights Act of 1964, the regulations of the U.S. Department of Transportation issued thereunder, and the assurance by the Recipient pursuant thereto. The Recipient shall include the attached **Exhibit "C"**, Title VI Assurances in all contracts

with consultants and contractors performing work on the Project that ensure compliance with Title VI of the Civil Rights Act of 1964, 49 C.F.R. Part 21, and related statutes and regulations.

- b. The Recipient will comply with all the requirements as imposed by the ADA, the regulations of the Federal Government issued thereunder, and assurance by the Recipient pursuant thereto.
- c. 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 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 in excess of the threshold amount provided in Section 287.017, Florida Statutes, for CATEGORY TWO for a period of 36 months from the date of being placed on the convicted vendor list.
- d. In accordance with Section 287.134, Florida Statutes, an entity or affiliate who has been placed on the Discriminatory Vendor List, kept by the Florida Department of Management Services, may not submit a bid on a contract to provide 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.
- e. An entity or affiliate who has had its Certificate of Qualification suspended, revoked, denied or have further been determined by the Department to be a non-responsible contractor may not submit a bid or perform work for the construction or repair of a public building or public work on a contract with the Recipient.
- f. Neither the Recipient nor any of its contractors or their subcontractors shall enter into any contract, subcontract or arrangement in connection with the Project or any property included or planned to be included in the Project in which any member, officer or employee of the Recipient or the locality during tenure or for 2 years thereafter has any interest, direct or indirect. If any such present or former member, officer or employee involuntarily acquires or had acquired prior to the beginning of tenure any such interest, and if such interest is immediately disclosed to the Recipient, the Recipient, with prior approval of the Department, may waive the prohibition contained in this paragraph provided that any such present member, officer or employee shall not participate in any action by the Recipient or the locality relating to such contract, subcontract or arrangement. The Recipient shall insert in all contracts entered into in connection with the Project or any property included or planned to be included in any Project, and shall require its contractors to insert in each of their subcontracts, the following provision:

"No member, officer or employee of the Recipient or of the locality during his tenure or for 2 years thereafter shall have any interest, direct or indirect, in this contract or the proceeds thereof."

The provisions of this paragraph shall not be applicable to any agreement between the Recipient and its fiscal depositories or to any agreement for utility services the rates for which are fixed or controlled by a governmental agency.

- g. No member or delegate to the Congress of the United States shall be admitted to any share or part of this Agreement or any benefit arising therefrom.

15. Indemnification and Insurance:

- a. It is specifically agreed between the parties executing this Agreement that it is not intended by any of the provisions of any part of this Agreement to create in the public or any member thereof, a third-party beneficiary under this Agreement, or to authorize anyone not a party to this Agreement to maintain a suit for personal injuries or property damage pursuant to the terms or provisions of this Agreement. The Recipient guarantees the payment of all just claims for materials, supplies, tools, or labor and other just claims against the Recipient or any subcontractor, in connection with this Agreement.

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- b. To the extent provided by law, Recipient shall indemnify, defend, and hold harmless the Department against any actions, claims, or damages arising out of, relating to, or resulting from negligent or wrongful act(s) of Recipient, or any of its officers, agents, or employees, acting within the scope of their office or employment, in connection with the rights granted to or exercised by Recipient hereunder, to the extent and within the limitations of Section 768.28, Florida Statutes. The foregoing indemnification shall not constitute a waiver of the Department's or Recipient's sovereign immunity beyond the limits set forth in Florida Statutes, Section 768.28, nor shall the same be construed to constitute agreement by Recipient to indemnify the Department for the negligent acts or omissions of the Department, its officers, agents, or employees, or for the acts of third parties. Nothing herein shall be construed as consent by Recipient to be sued by third parties in any manner arising out of this Agreement. This indemnification shall survive the termination of this Agreement.
- c. Recipient agrees to include the following indemnification in all contracts with contractors, subcontractors, consultants, or subconsultants (each referred to as "Entity" for the purposes of the below indemnification) who perform work in connection with this Agreement:

"To the extent provided by law, [ENTITY] shall indemnify, defend, and hold harmless the [RECIPIENT] and the State of Florida, Department of Transportation, including the Department's officers, agents, and employees, against any actions, claims, or damages arising out of, relating to, or resulting from negligent or wrongful act(s) of [ENTITY], or any of its officers, agents, or employees, acting within the scope of their office or employment, in connection with the rights granted to or exercised by [ENTITY].

The foregoing indemnification shall not constitute a waiver of the Department's or [RECIPIENT]'s sovereign immunity beyond the limits set forth in Florida Statutes, Section 768.28. Nor shall the same be construed to constitute agreement by [ENTITY] to indemnify [RECIPIENT] for the negligent acts or omissions of [RECIPIENT], its officers, agents, or employees, or third parties. Nor shall the same be construed to constitute agreement by [ENTITY] to indemnify the Department for the negligent acts or omissions of the Department, its officers, agents, or employees, or third parties. This indemnification shall survive the termination of this Agreement."

- d. The Recipient shall, or cause its contractor or consultant to carry and keep in force, during the term of this Agreement, a general liability insurance policy or policies with a company or companies authorized to do business in Florida, affording public liability insurance with combined bodily injury limits of at least \$200,000 per person and \$300,000 each occurrence, and property damage insurance of at least \$200,000 each occurrence, for the services to be rendered in accordance with this Agreement. The Recipient shall also, or cause its contractor or consultant to carry and keep in force Workers' Compensation Insurance as required by the State of Florida under the Workers' Compensation Law. With respect to any general liability insurance policy required pursuant to this Agreement, all such policies shall be issued by companies licensed to do business in the State of Florida. The Recipient shall provide to the Department certificates showing the required coverage to be in effect with endorsements showing the Department to be an additional insured prior to commencing any work under this Agreement. Policies that include Self Insured Retention will not be accepted. The certificates and policies shall provide that in the event of any material change in or cancellation of the policies reflecting the required coverage, thirty days advance notice shall be given to the Department or as provided in accordance with Florida law.

16. Maintenance Obligations: In the event the Project includes construction then the following provisions are incorporated into this Agreement:

- a. The Recipient agrees to maintain any portion of the Project not located on the State Highway System constructed under this Agreement for its useful life. If the Recipient constructs any improvement on Department right-of-way, the Recipient
 - shall
 - shall not
 - N/A

maintain the improvements located on the Department right-of-way for their useful life. If the Recipient is required to maintain Project improvements located on the Department right-of-way beyond final acceptance, then Recipient shall, prior to any disbursement of the state funding provided under this Agreement, also execute a Maintenance Memorandum of Agreement in a form that is acceptable to the Department. The Recipient has agreed to the foregoing by resolution, and such resolution is attached and incorporated into this Agreement as **Exhibit "D"**. This provision will survive termination of this Agreement.

17. Miscellaneous Provisions:

- a. The Recipient will be solely responsible for compliance with all applicable environmental regulations, for any liability arising from non-compliance with these regulations, and will reimburse the Department for any loss incurred in connection therewith. The Recipient will be responsible for securing any applicable permits. The Recipient shall include in all contracts and subcontracts for amounts in excess of \$150,000, a provision requiring compliance with all applicable standards, orders or regulations issued pursuant to the Clean Air Act (42 U.S.C. 7401-7671q) and the Federal Water Pollution Control Act as amended (33 U.S.C. 1251-1387).
- b. The Department shall not be obligated or liable hereunder to any individual or entity not a party to this Agreement.
- c. In no event shall the making by the Department of any payment to the Recipient constitute or be construed as a waiver by the Department of any breach of covenant or any default which may then exist on the part of the Recipient and the making of such payment by the Department, while any such breach or default shall exist, shall in no way impair or prejudice any right or remedy available to the Department with respect to such breach or default.
- d. If any provision of this Agreement is held invalid, the remainder of this Agreement shall not be affected. In such an instance, the remainder would then continue to conform to the terms and requirements of applicable law.
- e. By execution of the Agreement, the Recipient represents that it has not paid and, also agrees not to pay, any bonus or commission for the purpose of obtaining an approval of its application for the financing hereunder.
- f. Nothing in the Agreement shall require the Recipient to observe or enforce compliance with any provision or perform any act or do any other thing in contravention of any applicable state law. If any of the provisions of the Agreement violate any applicable state law, the Recipient will at once notify the Department in writing in order that appropriate changes and modifications may be made by the Department and the Recipient to the end that the Recipient may proceed as soon as possible with the Project.
- g. In the event that this Agreement involves constructing and equipping of facilities, the Recipient shall submit to the Department for approval all appropriate plans and specifications covering the Project. The Department will review all plans and specifications and will issue to the Recipient a written approval with any approved portions of the Project and comments or recommendations covering any remainder of the Project deemed appropriate. After resolution of these comments and recommendations to the Department's satisfaction, the Department will issue to the Recipient a written approval with said remainder of the Project. Failure to obtain this written approval shall be sufficient cause of nonpayment by the Department.
- h. Upon completion of right-of-way activities on the Project, the Recipient must certify compliance with all applicable federal and state requirements. Certification is required prior to authorization for advertisement for or solicitation of bids for construction of the Project, including if no right-of-way is required.
- i. The Recipient will certify in writing, prior to Project closeout that the Project was completed in accordance with applicable plans and specifications, is in place on the Recipient's facility, adequate title is in the Recipient's name, and the Project is accepted by the Recipient as suitable for the intended purpose.

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- j. The Recipient agrees that no federally-appropriated funds have been paid, or will be paid by or on behalf of the Recipient, to any person for influencing or attempting to influence any officer or employee of any federal 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 contract, the making of any federal grant, the making of any federal loan, the entering into of any cooperative agreement, and the extension, continuation, renewal, amendment or modification of any federal contract, grant, loan or cooperative agreement. If any funds other than federally-appropriated funds have been paid by the Recipient to any person for influencing or attempting to influence an officer or employee of any federal agency, a Member of Congress, an officer or employee of Congress or an employee of a Member of Congress in connection with this Agreement, the undersigned shall complete and submit Standard Form-LLL, "Disclosure Form to Report Lobbying," in accordance with its instructions. The Recipient shall require that the language of this paragraph be included in the award documents for all subawards at all tiers (including subcontracts, subgrants, and contracts under grants, loans, and cooperative agreements) and that all subrecipients shall certify and disclose accordingly. No funds received pursuant to this contract may be expended for lobbying the Legislature, the judicial branch or a state agency.
- k. The Recipient may not permit the Engineer of Record to perform Construction, Engineering and Inspection services on the Project.
- l. The Recipient shall comply with all applicable federal guidelines, procedures, and regulations. If at any time a review conducted by Department and or FHWA reveals that the applicable federal guidelines, procedures, and regulations were not followed by the Recipient and FHWA requires reimbursement of the funds, the Recipient will be responsible for repayment to the Department of all funds awarded under the terms of this Agreement.
- m. The Recipient shall:
 - i. utilize the U.S. Department of Homeland Security's E-Verify system to verify the employment eligibility of all new employees hired by Recipient during the term of the contract; and
 - ii. expressly require any contractor and subcontractors performing work or providing services pursuant to the state contract to likewise utilize the U.S. Department of Homeland Security's E-Verify system to verify the employment eligibility of all new employees hired by the subcontractor during the contract term.
- n. This Agreement may be executed in one or more counterparts, each of which shall be deemed an original, but all of which shall constitute the same Agreement. A facsimile or electronic transmission of this Agreement with a signature on behalf of a party will be legal and binding on such party.
- o. The Parties agree to comply with s.20.055(5), Florida Statutes, and to incorporate in all subcontracts the obligation to comply with s.20.055(5), Florida Statutes.
- p. If the Project is procured pursuant to Chapter 255, Florida Statutes, for construction services and the cost of the Project is to be paid from state-appropriated funds, then the Recipient must comply with the requirements of Section 255.0991, Florida Statutes.

18. Exhibits:

- a. Exhibits "A", "B", "C", "D", "E" and "F" are attached to and incorporated into this Agreement.
- b. If this Project includes Phase 58 (construction) activities, then **Exhibit "G"**, FHWA FORM 1273, is attached and incorporated into this Agreement.
- c. Alternative Advance Payment Financial Provisions are used on this Project. If an Alternative Pay Method is used on this Project, then **Exhibit "H"**, Alternative Advance Payment Financial Provisions, is attached and incorporated into this Agreement.
- d. State funds are used on this Project. If state funds are used on this Project, then **Exhibit "I"**, State Funds Addendum, is attached and incorporated into this Agreement. **Exhibit "J"**, State Financial Assistance (Florida Single Audit Act), is attached and incorporated into this Agreement.

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- e. This Project utilizes Advance Project Reimbursement. If this Project utilizes Advance Project Reimbursement, then **Exhibit "K"**, Advance Project Reimbursement is attached and incorporated into this Agreement.
- f. This Project includes funding for landscaping. If this Project includes funding for landscaping, then **Exhibit "L"**, Landscape Maintenance, is attached and incorporated into this Agreement.
- g. This Project includes funding for a roadway lighting system. If the Project includes funding for roadway lighting system, **Exhibit "M"**, Roadway Lighting Maintenance is attached and incorporated into this Agreement.
- h. This Project includes funding for traffic signals and/or traffic signal systems. If this Project includes funding for traffic signals and/or traffic signals systems, **Exhibit "N"**, Traffic Signal Maintenance is attached and incorporated into this Agreement.
- i. A portion or all of the Project will utilize Department right-of-way and, therefore, **Exhibit "O"**, Terms and Conditions of Construction in Department Right-of-Way, is attached and incorporated into this Agreement.
- j. The following Exhibit(s) are attached and incorporated into this Agreement: _____

k. Exhibit and Attachment List

Exhibit A: Project Description and Responsibilities

Exhibit B: Schedule of Financial Assistance

Exhibit C: Title VI Assurances

Exhibit D: Recipient Resolution

Exhibit E: Federal Financial Assistance (Single Audit Act)

Exhibit F: Contract Payment Requirements

* Exhibit G: FHWA Form 1273

* Exhibit H: Alternative Advance Payment Financial Provisions

* Exhibit I: State Funds Addendum

* Exhibit J: State Financial Assistance (Florida Single Audit Act)

* Exhibit K: Advance Project Reimbursement

* Exhibit L: Landscape Maintenance

* Exhibit M: Roadway Lighting Maintenance

* Exhibit N: Traffic Signal Maintenance

* Exhibit O: Terms and Conditions of Construction in Department Right-of-Way

* Additional Exhibit(s):

*** Indicates that the Exhibit is only attached and incorporated if applicable box is selected.**

STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION
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IN WITNESS WHEREOF, the parties have executed this Agreement on the day and year written above.

RECIPIENT City of Delray Beach

STATE OF FLORIDA, DEPARTMENT OF TRANSPORTATION

By: _____
Name:
Title:

By: _____
Name: John P. Krane, P.E.
Title: Director of Transportation Development

Legal Review:

EXHIBIT A**PROJECT DESCRIPTION AND RESPONSIBILITIES**FPN: 441586-1-58-01

This exhibit forms an integral part of the Agreement between the State of Florida, Department of Transportation and
City of Delray Beach (the Recipient)

PROJECT LOCATION:

- The project is on the National Highway System.
- The project is on the State Highway System.

PROJECT LENGTH AND MILE POST LIMITS: 0.430

Roadway ID# 93000102 BMP 0.546 to 0.737

Roadway ID# 93900185 BMP 0.000 to 0.064

Roadway ID# 93900186 BMP 0.000 to 0.175

PROJECT DESCRIPTION: Construction of a 10' shared use path throughout the limits of the project along with a 5' sidewalk on Blue Jay Turn from Carl Bolter Dr to Lindell Blvd. There will also be the milling & resurfacing, installation of curb & gutter, ADA compliant curb ramps, drainage features, and 2 speed humps on Carl Bolter Dr.

SPECIAL CONSIDERATIONS BY RECIPIENT:

The Recipient is required to provide a copy of the design plans for the Department's review and approval to coordinate permitting with the Department, and notify the Department prior to commencement of any right-of-way activities.

The Recipient shall commence the project's activities subsequent to the execution of this Agreement and shall perform in accordance with the following schedule:

- a) Study to be completed by N/A.
- b) Design to be completed by N/A.
- c) Right-of-Way requirements identified and provided to the Department by N/A.
- d) Right-of-Way to be certified by 12.13.2024.
- e) Construction contract to be let by 4.8.2025.
- f) Construction to be completed by 12.31.2026.

If this schedule cannot be met, the Recipient will notify the Department in writing with a revised schedule or the project is subject to the withdrawal of funding.

SPECIAL CONSIDERATIONS BY DEPARTMENT:

Execution of the Local Agency Program (LAP) Agreement and Issuance of the Notice to Proceed (NTP) to the City of Delray Beach is subject to the submittal and approval of the LAP Certification Package Production Package which includes 100% signed and sealed plans, approved cost estimate, technical specifications, bid documents, executed construction contracts checklist, right-of-way certification and the environmental certification which is contingent on the submittal of the type I categorical exclusion checklist & memo and the cultural resource assessment survey.

STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION
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EXHIBIT B
SCHEDULE OF FINANCIAL ASSISTANCE

RECIPIENT NAME & BILLING ADDRESS: Jason M. Kaufman, P.E. Engineering Division Manager 434 S. Swinton Avenue Delray Beach, FL 33444	FINANCIAL PROJECT NUMBER: 441586-1-58-01
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PHASE OF WORK By Fiscal Year	MAXIMUM PARTICIPATION			
	(1) TOTAL PROJECT FUNDS	(2) LOCAL FUNDS	(3) STATE FUNDS	(4) FEDERAL FUNDS
Design- Phase 38				
FY: (Insert Program Name)	\$ _____	\$ _____	\$ _____	\$ _____
FY: (Insert Program Name)	\$ _____	\$ _____	\$ _____	\$ _____
FY: (Insert Program Name)	\$ _____	\$ _____	\$ _____	\$ _____
Total Design Cost	\$ 0.00	\$ 0.00	\$ 0.00	\$ 0.00
Right-of-Way- Phase 48				
FY: (Insert Program Name)	\$ _____	\$ _____	\$ _____	\$ _____
FY: (Insert Program Name)	\$ _____	\$ _____	\$ _____	\$ _____
FY: (Insert Program Name)	\$ _____	\$ _____	\$ _____	\$ _____
Total Right-of-Way Cost	\$ 0.00	\$ 0.00	\$ 0.00	\$ 0.00
Construction- Phase 58				
FY: 2025 (Surface Transportation)	\$ 2,519,130.00	\$ 847,874.00	\$ _____	\$ 1,671,256.00
FY: (Insert Program Name)	\$ _____	\$ _____	\$ _____	\$ _____
FY: (Insert Program Name)	\$ _____	\$ _____	\$ _____	\$ _____
Total Construction Cost	\$ 2,519,130.00	\$ 847,874.00	\$ 0.00	\$ 1,671,256.00
Construction Engineering and Inspection (CEI)- Phase 68				
FY: (Insert Program Name)	\$ _____	\$ _____	\$ _____	\$ _____
FY: (Insert Program Name)	\$ _____	\$ _____	\$ _____	\$ _____
FY: (Insert Program Name)	\$ _____	\$ _____	\$ _____	\$ _____
Total CEI Cost	\$ 0.00	\$ 0.00	\$ 0.00	\$ 0.00
(Insert Phase)				
FY: (Insert Program Name)	\$ _____	\$ _____	\$ _____	\$ _____
FY: (Insert Program Name)	\$ _____	\$ _____	\$ _____	\$ _____
FY: (Insert Program Name)	\$ _____	\$ _____	\$ _____	\$ _____
Total Phase Costs	\$ 0.00	\$ 0.00	\$ 0.00	\$ 0.00
TOTAL COST OF THE PROJECT	\$ 2,519,130.00	\$ 847,874.00	\$ 0.00	\$ 1,671,256.00

COST ANALYSIS CERTIFICATION AS REQUIRED BY SECTION 216.3475, FLORIDA STATUTES:

I certify that the cost for each line item budget category has been evaluated and determined to be allowable, reasonable, and necessary as required by Section 216.3475, F.S. Documentation is on file evidencing the methodology used and the conclusions reached.

Mya Gray
 District Grant Manager Name

 Signature Date

EXHIBIT C**TITLE VI ASSURANCES**

During the performance of this contract, the consultant or contractor, for itself, its assignees and successors in interest (hereinafter collectively referred to as the "contractor") agrees as follows:

- (1.) Compliance with REGULATIONS:** The contractor shall comply with the Regulations relative to nondiscrimination in federally-assisted programs of the U.S. Department of Transportation (hereinafter, "USDOT") **Title 49, Code of Federal Regulations, Part 21**, as they may be amended from time to time, (hereinafter referred to as the **REGULATIONS**), which are herein incorporated by reference and made a part of this contract.
- (2.) Nondiscrimination:** The Contractor, with regard to the work performed by it during the contract, shall not discriminate on the basis of race, color, national origin, or sex in the selection and retention of sub-contractors, including procurements of materials and leases of equipment. The contractor shall not participate either directly or indirectly in the discrimination prohibited by **Section 21.5** of the **REGULATIONS**, including employment practices when the contract covers a program set forth in **Appendix B** of the **REGULATIONS**.
- (3.) Solicitations for Sub-contractors, including Procurements of Materials and Equipment:** In all solicitations either by competitive bidding or negotiation made by the contractor for work to be performed under sub-contract, including procurements of materials or leases of equipment, each potential sub-contractor or supplier shall be notified by the contractor of the contractor's obligations under this contract and the **REGULATIONS** relative to nondiscrimination on the basis of race, color, national origin, or sex.
- (4.) Information and Reports:** The contractor shall provide all information and reports required by the **REGULATIONS** or directives issued pursuant thereto, and shall permit access to its books, records, accounts, other sources of information, and its facilities as may be determined by the *Florida Department of Transportation* or the *Federal Highway Administration, Federal Transit Administration, Federal Aviation Administration, and Federal Motor Carrier Safety Administration* to be pertinent to ascertain compliance with such **REGULATIONS**, orders and instructions. Where any information required of a contractor is in the exclusive possession of another who fails or refuses to furnish this information the contractor shall so certify to the *Florida Department of Transportation, or the Federal Highway Administration, Federal Transit Administration, Federal Aviation Administration, or Federal Motor Carrier Safety Administration* as appropriate, and shall set forth what efforts it has made to obtain the information.
- (5.) Sanctions for Noncompliance:** In the event of the contractor's noncompliance with the nondiscrimination provisions of this contract, the Florida Department of Transportation shall impose such contract sanctions as it or the Federal Highway Administration, Federal Transit Administration, Federal Aviation Administration, or

Federal Motor Carrier Safety Administration may determine to be appropriate, including, but not limited to:

- a. withholding of payments to the contractor under the contract until the contractor complies, and/or
- b. cancellation, termination or suspension of the contract, in whole or in part.

(6.) Incorporation of Provisions: The contractor shall include the provisions of paragraphs (1) through (7) in every sub-contract, including procurements of materials and leases of equipment, unless exempt by the **REGULATIONS**, or directives issued pursuant thereto. The contractor shall take such action with respect to any sub-contract or procurement as the *Florida Department of Transportation* or the *Federal Highway Administration*, *Federal Transit Administration*, *Federal Aviation Administration*, or *Federal Motor Carrier Safety Administration* may direct as a means of enforcing such provisions including sanctions for noncompliance, provided, however, that, in the event a contractor becomes involved in, or is threatened with, litigation with a sub-contractor or supplier as a result of such direction, the contractor may request the *Florida Department of Transportation* to enter into such litigation to protect the interests of the *Florida Department of Transportation*, and, in addition, the contractor may request the United States to enter into such litigation to protect the interests of the United States.

(7.) Compliance with Nondiscrimination Statutes and Authorities: Title VI of the Civil Rights Act of 1964 (42 U.S.C. § 2000d et seq., 78 stat. 252), (prohibits discrimination on the basis of race, color, national origin); and 49 CFR Part 21; The Uniform Relocation Assistance and Real Property Acquisition Policies Act of 1970, (42 U.S.C. § 4601), (prohibits unfair treatment of persons displaced or whose property has been acquired because of Federal or Federal-aid programs and projects); Federal-Aid Highway Act of 1973, (23 U.S.C. § 324 et seq.), (prohibits discrimination on the basis of sex); Section 504 of the Rehabilitation Act of 1973, (29 U.S.C. § 794 et seq.), as amended, (prohibits discrimination on the basis of disability); and 49 CFR Part 27; The Age Discrimination Act of 1975, as amended, (42 U.S.C. § 6101 et seq.), (prohibits discrimination on the basis of age); Airport and Airway Improvement Act of 1982, (49 USC § 471, Section 47123), as amended, (prohibits discrimination based on race, creed, color, national origin, or sex); The Civil Rights Restoration Act of 1987, (PL 100-209), (Broadened the scope, coverage and applicability of Title VI of the Civil Rights Act of 1964, The Age Discrimination Act of 1975 and Section 504 of the Rehabilitation Act of 1973, by expanding the definition of the terms “programs or activities” to include all of the programs or activities of the Federal-aid recipients, sub-recipients and contractors, whether such programs or activities are Federally funded or not); Titles II and III of the Americans with Disabilities Act, which prohibit discrimination on the basis of disability in the operation of public entities, public and private transportation systems, places of public accommodation, and certain testing entities (42 U.S.C. §§ 12131 -- 12189) as implemented by Department of Transportation regulations at 49 C.F.R. parts 37 and 38; The Federal Aviation Administration’s Non-discrimination statute (49 U.S.C. § 47123) (prohibits discrimination on the basis of race, color, national origin, and sex); Executive Order 12898, Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations, which ensures non-discrimination against minority populations by discouraging programs, policies, and activities with disproportionately high and adverse human health or environmental effects on minority and low-income populations; Executive Order 13166, Improving Access to Services for Persons with Limited English Proficiency, and resulting agency guidance, national origin discrimination includes discrimination because of limited English proficiency (LEP). To ensure compliance with Title VI, you must take reasonable steps to ensure that LEP persons have meaningful access to your programs (70 Fed. Reg. at 74087 to 74100); Title IX of the Education Amendments of 1972, as amended, which prohibits you from discriminating because of sex in education programs or activities (20 U.S.C. 1681 et seq).

STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION
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EXHIBIT D

RECIPIENT RESOLUTION

The Recipient's Resolution authorizing entry into this Agreement is attached and incorporated into this Agreement.

STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION
LOCAL AGENCY PROGRAM AGREEMENT**EXHIBIT E****FEDERAL FINANCIAL ASSISTANCE (SINGLE AUDIT ACT)****FEDERAL RESOURCES AWARDED PURSUANT TO THIS AGREEMENT ARE AS FOLLOWS:**

CFDA No.: 20.205
CFDA Title: Highway Planning and Construction
Federal-Aid Highway Program, Federal Lands Highway Program
CFDA Program Site: https://beta.sam.gov/fal/1093726316c3409a8e50f4c75f5ef2c6/view?keywords=20.205&sort=-relevance&index=cfda&is_active=true&page=1
Award Amount: \$1,671,256.00
Awarding Agency: Florida Department of Transportation
Award is for R&D: No
Indirect Cost Rate: N/A

FEDERAL RESOURCES AWARDED PURSUANT TO THIS AGREEMENT ARE SUBJECT TO THE FOLLOWING:

2 CFR Part 200 – Uniform Administrative Requirements, Cost Principles & Audit Requirements for Federal Awards
<http://www.ecfr.gov/cgi-bin/text-idx?node=2:1.1.2.2.1>

FEDERAL RESOURCES AWARDED PURSUANT TO THIS AGREEMENT MAY ALSO BE SUBJECT TO THE FOLLOWING:

Title 23 – Highways, United States Code
<http://uscode.house.gov/browse/prelim@title23&edition=prelim>

Title 49 – Transportation, United States Code
<http://uscode.house.gov/browse/prelim@title49&edition=prelim>

Infrastructure Investment and Jobs Act (IIJA) (Public Law 117-58, also known as the “Bipartisan Infrastructure Law”)
<https://www.congress.gov/117/bills/hr3684/BILLS-117hr3684enr.pdf>

Federal Highway Administration – Florida Division
<http://www.fhwa.dot.gov/fldiv/>

Federal Funding Accountability and Transparency Act (FFATA) Sub-award Reporting System (FSRS)
<https://www.fsr.gov/>

EXHIBIT F**CONTRACT PAYMENT REQUIREMENTS**
Florida Department of Financial Services, Reference Guide for State Expenditures
Cost Reimbursement Contracts

Invoices for cost reimbursement contracts must be supported by an itemized listing of expenditures by category (salary, travel, expenses, etc.). Supporting documentation shall be submitted for each amount for which reimbursement is being claimed indicating that the item has been paid. Documentation for each amount for which reimbursement is being claimed must indicate that the item has been paid. Check numbers may be provided in lieu of copies of actual checks. Each piece of documentation should clearly reflect the dates of service. Only expenditures for categories in the approved agreement budget may be reimbursed. These expenditures must be allowable (pursuant to law) and directly related to the services being provided.

Listed below are types and examples of supporting documentation for cost reimbursement agreements:

Salaries: Timesheets that support the hours worked on the project or activity must be kept. A payroll register, or similar documentation should be maintained. The payroll register should show gross salary charges, fringe benefits, other deductions and net pay. If an individual for whom reimbursement is being claimed is paid by the hour, a document reflecting the hours worked times the rate of pay will be acceptable.

Fringe benefits: Fringe benefits should be supported by invoices showing the amount paid on behalf of the employee, e.g., insurance premiums paid. If the contract specifically states that fringe benefits will be based on a specified percentage rather than the actual cost of fringe benefits, then the calculation for the fringe benefits amount must be shown. Exception: Governmental entities are not required to provide check numbers or copies of checks for fringe benefits.

Travel: Reimbursement for travel must be in accordance with s. 112.061, F.S., which includes submission of the claim on the approved state travel voucher along with supporting receipts and invoices.

Other direct costs: Reimbursement will be made based on paid invoices/receipts and proof of payment processing (cancelled/processed checks and bank statements). If nonexpendable property is purchased using state funds, the contract should include a provision for the transfer of the property to the State when services are terminated. Documentation must be provided to show compliance with DMS Rule 60A-1.017, F.A.C., regarding the requirements for contracts which include services and that provide for the contractor to purchase tangible personal property as defined in s. 273.02, F.S., for subsequent transfer to the State.

Indirect costs: If the contract stipulates that indirect costs will be paid based on a specified rate, then the calculation should be shown. Indirect costs must be in the approved agreement budget and the entity must be able to demonstrate that the costs are not duplicated elsewhere as direct costs. All indirect cost rates must be evaluated for reasonableness and for allowability and must be allocated consistently.

Contracts between state agencies may submit alternative documentation to substantiate the reimbursement request, which may be in the form of FLAIR reports or other detailed reports.

The Florida Department of Financial Services, online Reference Guide for State Expenditures can be found at this web address

<https://www.myfloridacfo.com/docs-sf/accounting-and-auditing-libraries/state-agencies/reference-guide-for-state-expenditures.pdf>.

EXHIBIT G

FHWA FORM 1273 FEDERAL RESOURCES AWARDED PURSUANT TO THIS AGREEMENT ARE AS FOLLOWS:

LEGAL REQUIREMENTS AND RESPONSIBILITY TO THE PUBLIC – COMPLIANCE WITH FHWA 1273.

The FHWA-1273 version dated October 23, 2023 is appended in its entirety to this Exhibit. FHWA-1273 may also be referenced on the Department's website at the following URL address:

<http://www.fhwa.dot.gov/programadmin/contracts/1273/1273.pdf>

Sub-recipients of federal grants awards for Federal-Aid Highway construction shall take responsibility to obtain this information and comply with all provisions contained in FHWA-1273.

**REQUIRED CONTRACT PROVISIONS
FEDERAL-AID CONSTRUCTION CONTRACTS**

- I. General
- II. Nondiscrimination
- III. Non-segregated Facilities
- IV. Davis-Bacon and Related Act Provisions
- V. Contract Work Hours and Safety Standards Act Provisions
- VI. Subletting or Assigning the Contract
- VII. Safety: Accident Prevention
- VIII. False Statements Concerning Highway Projects
- IX. Implementation of Clean Air Act and Federal Water Pollution Control Act
- X. Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion
- XI. Certification Regarding Use of Contract Funds for Lobbying
- XII. Use of United States-Flag Vessels:

ATTACHMENTS

A. Employment and Materials Preference for Appalachian Development Highway System or Appalachian Local Access Road Contracts (included in Appalachian contracts only)

I. GENERAL

1. Form FHWA-1273 must be physically incorporated in each construction contract funded under title 23, United States Code, as required in 23 CFR 633.102(b) (excluding emergency contracts solely intended for debris removal). The contractor (or subcontractor) must insert this form in each subcontract and further require its inclusion in all lower tier subcontracts (excluding purchase orders, rental agreements and other agreements for supplies or services). 23 CFR 633.102(e).

The applicable requirements of Form FHWA-1273 are incorporated by reference for work done under any purchase order, rental agreement or agreement for other services. The prime contractor shall be responsible for compliance by any subcontractor, lower-tier subcontractor or service provider. 23 CFR 633.102(e).

Form FHWA-1273 must be included in all Federal-aid design-build contracts, in all subcontracts and in lower tier subcontracts (excluding subcontracts for design services, purchase orders, rental agreements and other agreements for supplies or services) in accordance with 23 CFR 633.102. The design-builder shall be responsible for compliance by any subcontractor, lower-tier subcontractor or service provider.

Contracting agencies may reference Form FHWA-1273 in solicitation-for-bids or request-for-proposals documents, however, the Form FHWA-1273 must be physically incorporated (not referenced) in all contracts, subcontracts and lower-tier subcontracts (excluding purchase orders, rental agreements and other agreements for supplies or services related to a construction contract). 23 CFR 633.102(b).

2. Subject to the applicability criteria noted in the following sections, these contract provisions shall apply to all work

performed on the contract by the contractor's own organization and with the assistance of workers under the contractor's immediate superintendence and to all work performed on the contract by piecework, station work, or by subcontract. 23 CFR 633.102(d).

3. A breach of any of the stipulations contained in these Required Contract Provisions may be sufficient grounds for withholding of progress payments, withholding of final payment, termination of the contract, suspension / debarment or any other action determined to be appropriate by the contracting agency and FHWA.

4. Selection of Labor: During the performance of this contract, the contractor shall not use convict labor for any purpose within the limits of a construction project on a Federal-aid highway unless it is labor performed by convicts who are on parole, supervised release, or probation. 23 U.S.C. 114(b). The term Federal-aid highway does not include roadways functionally classified as local roads or rural minor collectors. 23 U.S.C. 101(a).

II. NONDISCRIMINATION (23 CFR 230.107(a); 23 CFR Part 230, Subpart A, Appendix A; EO 11246)

The provisions of this section related to 23 CFR Part 230, Subpart A, Appendix A are applicable to all Federal-aid construction contracts and to all related construction subcontracts of \$10,000 or more. The provisions of 23 CFR Part 230 are not applicable to material supply, engineering, or architectural service contracts.

In addition, the contractor and all subcontractors must comply with the following policies: Executive Order 11246, 41 CFR Part 60, 29 CFR Parts 1625-1627, 23 U.S.C. 140, Section 504 of the Rehabilitation Act of 1973, as amended (29 U.S.C. 794), Title VI of the Civil Rights Act of 1964, as amended (42 U.S.C. 2000d et seq.), and related regulations including 49 CFR Parts 21, 26, and 27; and 23 CFR Parts 200, 230, and 633.

The contractor and all subcontractors must comply with: the requirements of the Equal Opportunity Clause in 41 CFR 60-1.4(b) and, for all construction contracts exceeding \$10,000, the Standard Federal Equal Employment Opportunity Construction Contract Specifications in 41 CFR 60-4.3.

Note: The U.S. Department of Labor has exclusive authority to determine compliance with Executive Order 11246 and the policies of the Secretary of Labor including 41 CFR Part 60, and 29 CFR Parts 1625-1627. The contracting agency and the FHWA have the authority and the responsibility to ensure compliance with 23 U.S.C. 140, Section 504 of the Rehabilitation Act of 1973, as amended (29 U.S.C. 794), and Title VI of the Civil Rights Act of 1964, as amended (42 U.S.C. 2000d et seq.), and related regulations including 49 CFR Parts 21, 26, and 27; and 23 CFR Parts 200, 230, and 633.

The following provision is adopted from 23 CFR Part 230, Subpart A, Appendix A, with appropriate revisions to conform to the U.S. Department of Labor (US DOL) and FHWA requirements.

1. Equal Employment Opportunity: Equal Employment Opportunity (EEO) requirements not to discriminate and to take affirmative action to assure equal opportunity as set forth under laws, executive orders, rules, regulations (see 28 CFR Part 35, 29 CFR Part 1630, 29 CFR Parts 1625-1627, 41 CFR Part 60 and 49 CFR Part 27) and orders of the Secretary of Labor as modified by the provisions prescribed herein, and imposed pursuant to 23 U.S.C. 140, shall constitute the EEO and specific affirmative action standards for the contractor's project activities under this contract. The provisions of the Americans with Disabilities Act of 1990 (42 U.S.C. 12101 et seq.) set forth under 28 CFR Part 35 and 29 CFR Part 1630 are incorporated by reference in this contract. In the execution of this contract, the contractor agrees to comply with the following minimum specific requirement activities of EEO:

a. The contractor will work with the contracting agency and the Federal Government to ensure that it has made every good faith effort to provide equal opportunity with respect to all of its terms and conditions of employment and in their review of activities under the contract. 23 CFR 230.409 (g)(4) & (5).

b. The contractor will accept as its operating policy the following statement:

"It is the policy of this Company to assure that applicants are employed, and that employees are treated during employment, without regard to their race, religion, sex, sexual orientation, gender identity, color, national origin, age or disability. Such action shall include: 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, pre-apprenticeship, and/or on-the-job training."

2. EEO Officer: The contractor will designate and make known to the contracting officers an EEO Officer who will have the responsibility for and must be capable of effectively administering and promoting an active EEO program and who must be assigned adequate authority and responsibility to do so.

3. Dissemination of Policy: All members of the contractor's staff who are authorized to hire, supervise, promote, and discharge employees, or who recommend such action or are substantially involved in such action, will be made fully cognizant of and will implement the contractor's EEO policy and contractual responsibilities to provide EEO in each grade and classification of employment. To ensure that the above agreement will be met, the following actions will be taken as a minimum:

a. Periodic meetings of supervisory and personnel office employees will be conducted before the start of work and then not less often than once every six months, at which time the contractor's EEO policy and its implementation will be reviewed and explained. The meetings will be conducted by the EEO Officer or other knowledgeable company official.

b. All new supervisory or personnel office employees will be given a thorough indoctrination by the EEO Officer, covering all major aspects of the contractor's EEO obligations within thirty days following their reporting for duty with the contractor.

c. All personnel who are engaged in direct recruitment for the project will be instructed by the EEO Officer in the contractor's procedures for locating and hiring minorities and women.

d. Notices and posters setting forth the contractor's EEO policy will be placed in areas readily accessible to employees, applicants for employment and potential employees.

e. The contractor's EEO policy and the procedures to implement such policy will be brought to the attention of employees by means of meetings, employee handbooks, or other appropriate means.

4. Recruitment: When advertising for employees, the contractor will include in all advertisements for employees the notation: "An Equal Opportunity Employer." All such advertisements will be placed in publications having a large circulation among minorities and women in the area from which the project work force would normally be derived.

a. The contractor will, unless precluded by a valid bargaining agreement, conduct systematic and direct recruitment through public and private employee referral sources likely to yield qualified minorities and women. To meet this requirement, the contractor will identify sources of potential minority group employees and establish with such identified sources procedures whereby minority and women applicants may be referred to the contractor for employment consideration.

b. In the event the contractor has a valid bargaining agreement providing for exclusive hiring hall referrals, the contractor is expected to observe the provisions of that agreement to the extent that the system meets the contractor's compliance with EEO contract provisions. Where implementation of such an agreement has the effect of discriminating against minorities or women, or obligates the contractor to do the same, such implementation violates Federal nondiscrimination provisions.

c. The contractor will encourage its present employees to refer minorities and women as applicants for employment. Information and procedures with regard to referring such applicants will be discussed with employees.

5. Personnel Actions: Wages, working conditions, and employee benefits shall be established and administered, and personnel actions of every type, including hiring, upgrading, promotion, transfer, demotion, layoff, and termination, shall be taken without regard to race, color, religion, sex, sexual orientation, gender identity, national origin, age or disability. The following procedures shall be followed:

a. The contractor will conduct periodic inspections of project sites to ensure that working conditions and employee facilities do not indicate discriminatory treatment of project site personnel.

b. The contractor will periodically evaluate the spread of wages paid within each classification to determine any evidence of discriminatory wage practices.

c. The contractor will periodically review selected personnel actions in depth to determine whether there is evidence of discrimination. Where evidence is found, the contractor will promptly take corrective action. If the review indicates that the discrimination may extend beyond the actions reviewed, such corrective action shall include all affected persons.

d. The contractor will promptly investigate all complaints of alleged discrimination made to the contractor in connection with its obligations under this contract, will attempt to resolve such complaints, and will take appropriate corrective action

within a reasonable time. If the investigation indicates that the discrimination may affect persons other than the complainant, such corrective action shall include such other persons. Upon completion of each investigation, the contractor will inform every complainant of all of their avenues of appeal.

6. Training and Promotion:

a. The contractor will assist in locating, qualifying, and increasing the skills of minorities and women who are applicants for employment or current employees. Such efforts should be aimed at developing full journey level status employees in the type of trade or job classification involved.

b. Consistent with the contractor's work force requirements and as permissible under Federal and State regulations, the contractor shall make full use of training programs (i.e., apprenticeship and on-the-job training programs for the geographical area of contract performance). In the event a special provision for training is provided under this contract, this subparagraph will be superseded as indicated in the special provision. The contracting agency may reserve training positions for persons who receive welfare assistance in accordance with 23 U.S.C. 140(a).

c. The contractor will advise employees and applicants for employment of available training programs and entrance requirements for each.

d. The contractor will periodically review the training and promotion potential of employees who are minorities and women and will encourage eligible employees to apply for such training and promotion.

7. Unions: If the contractor relies in whole or in part upon unions as a source of employees, the contractor will use good faith efforts to obtain the cooperation of such unions to increase opportunities for minorities and women. 23 CFR 230.409. Actions by the contractor, either directly or through a contractor's association acting as agent, will include the procedures set forth below:

a. The contractor will use good faith efforts to develop, in cooperation with the unions, joint training programs aimed toward qualifying more minorities and women for membership in the unions and increasing the skills of minorities and women so that they may qualify for higher paying employment.

b. The contractor will use good faith efforts to incorporate an EEO clause into each union agreement to the end that such union will be contractually bound to refer applicants without regard to their race, color, religion, sex, sexual orientation, gender identity, national origin, age, or disability.

c. The contractor is to obtain information as to the referral practices and policies of the labor union except that to the extent such information is within the exclusive possession of the labor union and such labor union refuses to furnish such information to the contractor, the contractor shall so certify to the contracting agency and shall set forth what efforts have been made to obtain such information.

d. In the event the union is unable to provide the contractor with a reasonable flow of referrals within the time limit set forth in the collective bargaining agreement, the contractor will, through independent recruitment efforts, fill the employment vacancies without regard to race, color, religion, sex, sexual orientation, gender identity, national origin, age, or disability; making full efforts to obtain qualified and/or qualifiable minorities and women. The failure of a union to provide

sufficient referrals (even though it is obligated to provide exclusive referrals under the terms of a collective bargaining agreement) does not relieve the contractor from the requirements of this paragraph. In the event the union referral practice prevents the contractor from meeting the obligations pursuant to Executive Order 11246, as amended, and these special provisions, such contractor shall immediately notify the contracting agency.

8. Reasonable Accommodation for Applicants / Employees with Disabilities: The contractor must be familiar with the requirements for and comply with the Americans with Disabilities Act and all rules and regulations established thereunder. Employers must provide reasonable accommodation in all employment activities unless to do so would cause an undue hardship.

9. Selection of Subcontractors, Procurement of Materials and Leasing of Equipment: The contractor shall not discriminate on the grounds of race, color, religion, sex, sexual orientation, gender identity, national origin, age, or disability in the selection and retention of subcontractors, including procurement of materials and leases of equipment. The contractor shall take all necessary and reasonable steps to ensure nondiscrimination in the administration of this contract.

a. The contractor shall notify all potential subcontractors, suppliers, and lessors of their EEO obligations under this contract.

b. The contractor will use good faith efforts to ensure subcontractor compliance with their EEO obligations.

10. Assurances Required:

a. The requirements of 49 CFR Part 26 and the State DOT's FHWA-approved Disadvantaged Business Enterprise (DBE) program are incorporated by reference.

b. The contractor, subrecipient or subcontractor shall not discriminate on the basis of race, color, national origin, or sex in the performance of this contract. The contractor shall carry out applicable requirements of 49 CFR part 26 in the award and administration of DOT-assisted contracts. Failure by the contractor to carry out these requirements is a material breach of this contract, which may result in the termination of this contract or such other remedy as the recipient deems appropriate, which may include, but is not limited to:

- (1) Withholding monthly progress payments;
- (2) Assessing sanctions;
- (3) Liquidated damages; and/or
- (4) Disqualifying the contractor from future bidding as non-responsible.

c. The Title VI and nondiscrimination provisions of U.S. DOT Order 1050.2A at Appendixes A and E are incorporated by reference. 49 CFR Part 21.

11. Records and Reports: The contractor shall keep such records as necessary to document compliance with the EEO requirements. Such records shall be retained for a period of three years following the date of the final payment to the contractor for all contract work and shall be available at reasonable times and places for inspection by authorized representatives of the contracting agency and the FHWA.

a. The records kept by the contractor shall document the following:

(1) The number and work hours of minority and non-minority group members and women employed in each work classification on the project;

(2) The progress and efforts being made in cooperation with unions, when applicable, to increase employment opportunities for minorities and women; and

(3) The progress and efforts being made in locating, hiring, training, qualifying, and upgrading minorities and women.

b. The contractors and subcontractors will submit an annual report to the contracting agency each July for the duration of the project indicating the number of minority, women, and non-minority group employees currently engaged in each work classification required by the contract work. This information is to be reported on [Form FHWA-1391](#). The staffing data should represent the project work force on board in all or any part of the last payroll period preceding the end of July. If on-the-job training is being required by special provision, the contractor will be required to collect and report training data. The employment data should reflect the work force on board during all or any part of the last payroll period preceding the end of July.

III. NONSEGREGATED FACILITIES

This provision is applicable to all Federal-aid construction contracts and to all related construction subcontracts of more than \$10,000. 41 CFR 60-1.5.

As prescribed by 41 CFR 60-1.8, the contractor must ensure that facilities provided for employees are provided in such a manner that segregation on the basis of race, color, religion, sex, sexual orientation, gender identity, or national origin cannot result. The contractor may neither require such segregated use by written or oral policies nor tolerate such use by employee custom. The contractor's obligation extends further to ensure that its employees are not assigned to perform their services at any location under the contractor's control where the facilities are segregated. The term "facilities" includes waiting rooms, work areas, restaurants and other eating areas, time clocks, restrooms, washrooms, locker rooms and other storage or dressing areas, parking lots, drinking fountains, recreation or entertainment areas, transportation, and housing provided for employees. The contractor shall provide separate or single-user restrooms and necessary dressing or sleeping areas to assure privacy between sexes.

IV. DAVIS-BACON AND RELATED ACT PROVISIONS

This section is applicable to all Federal-aid construction projects exceeding \$2,000 and to all related subcontracts and lower-tier subcontracts (regardless of subcontract size), in accordance with 29 CFR 5.5. The requirements apply to all projects located within the right-of-way of a roadway that is functionally classified as Federal-aid highway. 23 U.S.C. 113. This excludes roadways functionally classified as local roads or rural minor collectors, which are exempt. 23 U.S.C. 101. Where applicable law requires that projects be treated as a project on a Federal-aid highway, the provisions of this subpart will apply regardless of the location of the project. Examples include: Surface Transportation Block Grant Program projects funded under 23 U.S.C. 133 [excluding recreational trails projects], the Nationally Significant Freight and Highway

Projects funded under 23 U.S.C. 117, and National Highway Freight Program projects funded under 23 U.S.C. 167.

The following provisions are from the U.S. Department of Labor regulations in 29 CFR 5.5 "Contract provisions and related matters" with minor revisions to conform to the FHWA-1273 format and FHWA program requirements.

1. Minimum wages (29 CFR 5.5)

a. *Wage rates and fringe benefits.* All laborers and mechanics employed or working upon the site of the work (or otherwise working in construction or development of the project under a development statute), will be paid unconditionally and not less often than once a week, and without subsequent deduction or rebate on any 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 basic hourly wages and bona fide fringe benefits (or cash equivalents thereof) due at 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 a part hereof, regardless of any contractual relationship which may be alleged to exist between the contractor and such laborers and mechanics. As provided in paragraphs (d) and (e) of 29 CFR 5.5, the appropriate wage determinations are effective by operation of law even if they have not been attached to the contract. Contributions made or costs reasonably anticipated for bona fide fringe benefits under the Davis-Bacon Act ([40 U.S.C. 3141\(2\)\(B\)](#)) on behalf of laborers or mechanics are considered wages paid to such laborers or mechanics, subject to the provisions of paragraph 1.e. of this section; 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 must be paid the appropriate wage rate and fringe benefits on the wage determination for the classification(s) of work actually performed, without regard to skill, except as provided in paragraph 4. of this section. Laborers or mechanics performing work in more than one classification may be compensated at the rate specified for each classification for the time actually worked therein: *Provided*, That the employer's payroll records accurately set forth the time spent in each classification in which work is performed. The wage determination (including any additional classifications and wage rates conformed under paragraph 1.c. of this section) and the Davis-Bacon poster (WH-1321) must be posted at all times by the contractor and its subcontractors at the site of the work in a prominent and accessible place where it can be easily seen by the workers.

b. *Frequently recurring classifications.* (1) In addition to wage and fringe benefit rates that have been determined to be prevailing under the procedures set forth in [29 CFR part 1](#), a wage determination may contain, pursuant to § 1.3(f), wage and fringe benefit rates for classifications of laborers and mechanics for which conformance requests are regularly submitted pursuant to paragraph 1.c. of this section, provided that:

(i) The work performed by the classification is not performed by a classification in the wage determination for which a prevailing wage rate has been determined;

(ii) The classification is used in the area by the construction industry; and

(iii) The wage rate for the classification bears a reasonable relationship to the prevailing wage rates contained in the wage determination.

(2) The Administrator will establish wage rates for such classifications in accordance with paragraph 1.c.(1)(iii) of this section. Work performed in such a classification must be paid at no less than the wage and fringe benefit rate listed on the wage determination for such classification.

c. *Conformance.* (1) The contracting officer must require that any class of laborers or mechanics, including helpers, which is not listed in the wage determination and which is to be employed under the contract be classified in conformance with the wage determination. Conformance of an additional classification and wage rate and fringe benefits is appropriate only when the following criteria have been met:

(i) The work to be performed by the classification requested is not performed by a classification in the wage determination; and

(ii) The classification is used in the area by the construction industry; and

(iii) The proposed wage rate, including any bona fide fringe benefits, bears a reasonable relationship to the wage rates contained in the wage determination.

(2) The conformance process may not be used to split, subdivide, or otherwise avoid application of classifications listed in the wage determination.

(3) If the contractor and the laborers and mechanics to be employed in the classification (if known), or their representatives, and the contracting officer agree on the classification and wage rate (including the amount designated for fringe benefits where appropriate), a report of the action taken will be sent by the contracting officer by email to DBAconformance@dol.gov. The Administrator, or an authorized representative, will approve, modify, or disapprove every additional classification action within 30 days of receipt and so advise the contracting officer or will notify the contracting officer within the 30-day period that additional time is necessary.

(4) In the event the contractor, the laborers or mechanics to be employed in the classification or their representatives, and the contracting officer do not agree on the proposed classification and wage rate (including the amount designated for fringe benefits, where appropriate), the contracting officer will, by email to DBAconformance@dol.gov, refer the questions, including the views of all interested parties and the recommendation of the contracting officer, to the Administrator for determination. The Administrator, or an authorized representative, will issue a determination within 30 days of receipt and so advise the contracting officer or will notify the contracting officer within the 30-day period that additional time is necessary.

(5) The contracting officer must promptly notify the contractor of the action taken by the Wage and Hour Division

under paragraphs 1.c.(3) and (4) of this section. The contractor must furnish a written copy of such determination to each affected worker or it must be posted as a part of the wage determination. The wage rate (including fringe benefits where appropriate) determined pursuant to paragraph 1.c.(3) or (4) of this section must 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.

d. *Fringe benefits not expressed as an hourly rate.* 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 may either pay the benefit as stated in the wage determination or may pay another bona fide fringe benefit or an hourly cash equivalent thereof.

e. *Unfunded plans.* 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, in accordance with the criteria set forth in § 5.28, 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.

f. *Interest.* In the event of a failure to pay all or part of the wages required by the contract, the contractor will be required to pay interest on any underpayment of wages.

2. Withholding (29 CFR 5.5)

a. *Withholding requirements.* The contracting agency may, upon its own action, or must, upon written request of an authorized representative of the Department of Labor, withhold or cause to be withheld from the contractor so much of the accrued payments or advances as may be considered necessary to satisfy the liabilities of the prime contractor or any subcontractor for the full amount of wages and monetary relief, including interest, required by the clauses set forth in this section for violations of this contract, or to satisfy any such liabilities required by any other Federal contract, or federally assisted contract subject to Davis-Bacon labor standards, that is held by the same prime contractor (as defined in § 5.2). The necessary funds may be withheld from the contractor under this contract, any other Federal contract with the same prime contractor, or any other federally assisted contract that is subject to Davis-Bacon labor standards requirements and is held by the same prime contractor, regardless of whether the other contract was awarded or assisted by the same agency, and such funds may be used to satisfy the contractor liability for which the funds were withheld. In the event of a contractor's failure to pay any laborer or mechanic, including any apprentice or helper working on the site of the work all or part of the wages required by the contract, or upon the contractor's failure to submit the required records as discussed in paragraph 3.d. of this section, the contracting agency may on its own initiative and after written notice to the contractor, take such action as may be necessary to cause the suspension of any further payment, advance, or guarantee of funds until such violations have ceased.

b. *Priority to withheld funds.* The Department has priority to funds withheld or to be withheld in accordance with paragraph

2.a. of this section or Section V, paragraph 3.a., or both, over claims to those funds by:

- (1) A contractor's surety(ies), including without limitation performance bond sureties and payment bond sureties;
- (2) A contracting agency for its procurement costs;
- (3) A trustee(s) (either a court-appointed trustee or a U.S. trustee, or both) in bankruptcy of a contractor, or a contractor's bankruptcy estate;
- (4) A contractor's assignee(s);
- (5) A contractor's successor(s); or
- (6) A claim asserted under the Prompt Payment Act, [31 U.S.C. 3901–3907](#).

3. Records and certified payrolls (29 CFR 5.5)

a. *Basic record requirements (1) Length of record retention.* All regular payrolls and other basic records must be maintained by the contractor and any subcontractor during the course of the work and preserved for all laborers and mechanics working at the site of the work (or otherwise working in construction or development of the project under a development statute) for a period of at least 3 years after all the work on the prime contract is completed.

(2) *Information required.* Such records must contain the name; Social Security number; last known address, telephone number, and email address of each such worker; each worker's correct classification(s) of work actually performed; 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 [40 U.S.C. 3141\(2\)\(B\)](#) of the Davis-Bacon Act); daily and weekly number of hours actually worked in total and on each covered contract; deductions made; and actual wages paid.

(3) *Additional records relating to fringe benefits.* Whenever the Secretary of Labor has found under paragraph 1.e. of this section 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 [40 U.S.C. 3141\(2\)\(B\)](#) of the Davis-Bacon Act, the contractor must 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.

(4) *Additional records relating to apprenticeship.* Contractors with apprentices working under approved programs must maintain written evidence of the registration of apprenticeship programs, the registration of the apprentices, and the ratios and wage rates prescribed in the applicable programs.

b. *Certified payroll requirements (1) Frequency and method of submission.* The contractor or subcontractor must submit weekly, for each week in which any DBA- or Related Acts-covered work is performed, certified payrolls to the contracting

agency. The prime contractor is responsible for the submission of all certified payrolls by all subcontractors. A contracting agency or prime contractor may permit or require contractors to submit certified payrolls through an electronic system, as long as the electronic system requires a legally valid electronic signature; the system allows the contractor, the contracting agency, and the Department of Labor to access the certified payrolls upon request for at least 3 years after the work on the prime contract has been completed; and the contracting agency or prime contractor permits other methods of submission in situations where the contractor is unable or limited in its ability to use or access the electronic system.

(2) *Information required.* The certified payrolls submitted must set out accurately and completely all of the information required to be maintained under paragraph 3.a.(2) of this section, except that full Social Security numbers and last known addresses, telephone numbers, and email addresses must not be included on weekly transmittals. Instead, the certified payrolls need only include an individually identifying number for each worker (e.g., the last four digits of the worker's Social Security number). The required weekly certified payroll information may be submitted using Optional Form WH-347 or in any other format desired. Optional Form WH-347 is available for this purpose from the Wage and Hour Division website at <https://www.dol.gov/sites/dolgov/files/WHD/legacy/files/wh347.pdf> or its successor website. It is not a violation of this section for a prime contractor to require a subcontractor to provide full Social Security numbers and last known addresses, telephone numbers, and email addresses to the prime contractor for its own records, without weekly submission by the subcontractor to the contracting agency.

(3) *Statement of Compliance.* Each certified payroll submitted must be accompanied by a "Statement of Compliance," signed by the contractor or subcontractor, or the contractor's or subcontractor's agent who pays or supervises the payment of the persons working on the contract, and must certify the following:

(i) That the certified payroll for the payroll period contains the information required to be provided under paragraph 3.b. of this section, the appropriate information and basic records are being maintained under paragraph 3.a. of this section, and such information and records are correct and complete;

(ii) That each laborer or mechanic (including each helper and apprentice) working on the contract during the payroll period has been 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 permissible deductions as set forth in [29 CFR part 3](#); and

(iii) That each laborer or mechanic has been paid not less than the applicable wage rates and fringe benefits or cash equivalents for the classification(s) of work actually performed, as specified in the applicable wage determination incorporated into the contract.

(4) *Use of Optional Form WH-347.* The weekly submission of a properly executed certification set forth on the reverse side of Optional Form WH-347 will satisfy the requirement for submission of the "Statement of Compliance" required by paragraph 3.b.(3) of this section.

(5) *Signature*. The signature by the contractor, subcontractor, or the contractor's or subcontractor's agent must be an original handwritten signature or a legally valid electronic signature.

(6) *Falsification*. The falsification of any of the above certifications may subject the contractor or subcontractor to civil or criminal prosecution under [18 U.S.C. 1001](#) and [31 U.S.C. 3729](#).

(7) *Length of certified payroll retention*. The contractor or subcontractor must preserve all certified payrolls during the course of the work and for a period of 3 years after all the work on the prime contract is completed.

c. *Contracts, subcontracts, and related documents*. The contractor or subcontractor must maintain this contract or subcontract and related documents including, without limitation, bids, proposals, amendments, modifications, and extensions. The contractor or subcontractor must preserve these contracts, subcontracts, and related documents during the course of the work and for a period of 3 years after all the work on the prime contract is completed.

d. *Required disclosures and access* (1) *Required record disclosures and access to workers*. The contractor or subcontractor must make the records required under paragraphs 3.a. through 3.c. of this section, and any other documents that the contracting agency, the State DOT, the FHWA, or the Department of Labor deems necessary to determine compliance with the labor standards provisions of any of the applicable statutes referenced by § 5.1, available for inspection, copying, or transcription by authorized representatives of the contracting agency, the State DOT, the FHWA, or the Department of Labor, and must permit such representatives to interview workers during working hours on the job.

(2) *Sanctions for non-compliance with records and worker access requirements*. If the contractor or subcontractor fails to submit the required records or to make them available, or refuses to permit worker interviews during working hours on the job, the Federal agency may, after written notice to the contractor, sponsor, applicant, owner, or other entity, as the case may be, that maintains such records or that employs such workers, 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, or to permit worker interviews during working hours on the job, may be grounds for debarment action pursuant to § 5.12. In addition, any contractor or other person that fails to submit the required records or make those records available to WHD within the time WHD requests that the records be produced will be precluded from introducing as evidence in an administrative proceeding under [29 CFR part 6](#) any of the required records that were not provided or made available to WHD. WHD will take into consideration a reasonable request from the contractor or person for an extension of the time for submission of records. WHD will determine the reasonableness of the request and may consider, among other things, the location of the records and the volume of production.

(3) *Required information disclosures*. Contractors and subcontractors must maintain the full Social Security number and last known address, telephone number, and email address

of each covered worker, and must provide them upon request to the contracting agency, the State DOT, the FHWA, the contractor, or the Wage and Hour Division of the Department of Labor for purposes of an investigation or other compliance action.

4. Apprentices and equal employment opportunity (29 CFR 5.5)

a. *Apprentices* (1) *Rate of pay*. 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, Office of Apprenticeship (OA), or with a State Apprenticeship Agency recognized by the OA. A person who is not individually registered in the program, but who has been certified by the OA or a State Apprenticeship Agency (where appropriate) to be eligible for probationary employment as an apprentice, will be permitted to work at less than the predetermined rate for the work they perform in the first 90 days of probationary employment as an apprentice in such a program. In the event the OA or a State Apprenticeship Agency recognized by the OA withdraws approval of an apprenticeship program, the contractor will no longer be permitted to use apprentices at less than the applicable predetermined rate for the work performed until an acceptable program is approved.

(2) *Fringe benefits*. Apprentices must 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, fringe benefits must be paid in accordance with that determination.

(3) *Apprenticeship ratio*. The allowable ratio of apprentices to journeyworkers on the job site in any craft classification must not be greater than the ratio permitted to the contractor as to the entire work force under the registered program or the ratio applicable to the locality of the project pursuant to paragraph 4.a.(4) of this section. Any worker listed on a payroll at an apprentice wage rate, who is not registered or otherwise employed as stated in paragraph 4.a.(1) of this section, must 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 this section must be paid not less than the applicable wage rate on the wage determination for the work actually performed.

(4) *Reciprocity of ratios and wage rates*. Where a contractor is performing construction on a project in a locality other than the locality in which its program is registered, the ratios and wage rates (expressed in percentages of the journeyworker's hourly rate) applicable within the locality in which the construction is being performed must be observed. If there is no applicable ratio or wage rate for the locality of the project, the ratio and wage rate specified in the contractor's registered program must be observed.

b. *Equal employment opportunity*. The use of apprentices and journeyworkers under this part must be in conformity with

the equal employment opportunity requirements of Executive Order 11246, as amended, and [29 CFR part 30](#).

c. Apprentices and Trainees (programs of the U.S. DOT).

Apprentices and trainees working under apprenticeship and skill training programs which have been certified by the Secretary of Transportation as promoting EEO in connection with Federal-aid highway construction programs are not subject to the requirements of paragraph 4 of this Section IV. 23 CFR 230.111(e)(2). The straight time hourly wage rates for apprentices and trainees under such programs will be established by the particular programs. The ratio of apprentices and trainees to journeyworkers shall not be greater than permitted by the terms of the particular program.

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 as provided in 29 CFR 5.5.

6. Subcontracts. The contractor or subcontractor must insert FHWA-1273 in any subcontracts, along with the applicable wage determination(s) and such other clauses or contract modifications as the contracting agency may by appropriate instructions require, and a clause requiring the subcontractors to include these clauses and wage determination(s) in any lower tier subcontracts. The prime contractor is responsible for the compliance by any subcontractor or lower tier subcontractor with all the contract clauses in this section. In the event of any violations of these clauses, the prime contractor and any subcontractor(s) responsible will be liable for any unpaid wages and monetary relief, including interest from the date of the underpayment or loss, due to any workers of lower-tier subcontractors, and may be subject to debarment, as appropriate. 29 CFR 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 as provided in 29 CFR 5.5.

9. Disputes concerning labor standards. As provided in 29 CFR 5.5, 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 the contracting agency, the U.S. Department of Labor, or the employees or their representatives.

10. Certification of eligibility. a. By entering into this contract, the contractor certifies that neither it 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 [40 U.S.C. 3144\(b\)](#) or § 5.12(a).

b. No part of this contract shall be subcontracted to any person or firm ineligible for award of a Government contract by virtue of [40 U.S.C. 3144\(b\)](#) or § 5.12(a).

c. The penalty for making false statements is prescribed in the U.S. Code, Title 18 Crimes and Criminal Procedure, [18 U.S.C. 1001](#).

11. Anti-retaliation. It is unlawful for any person to discharge, demote, intimidate, threaten, restrain, coerce, blacklist, harass, or in any other manner discriminate against, or to cause any person to discharge, demote, intimidate, threaten, restrain, coerce, blacklist, harass, or in any other manner discriminate against, any worker or job applicant for:

a. Notifying any contractor of any conduct which the worker reasonably believes constitutes a violation of the DBA, Related Acts, this part, or [29 CFR part 1](#) or [3](#);

b. Filing any complaint, initiating or causing to be initiated any proceeding, or otherwise asserting or seeking to assert on behalf of themselves or others any right or protection under the DBA, Related Acts, this part, or [29 CFR part 1](#) or [3](#);

c. Cooperating in any investigation or other compliance action, or testifying in any proceeding under the DBA, Related Acts, this part, or [29 CFR part 1](#) or [3](#); or

d. Informing any other person about their rights under the DBA, Related Acts, this part, or [29 CFR part 1](#) or [3](#).

V. CONTRACT WORK HOURS AND SAFETY STANDARDS ACT

Pursuant to 29 CFR 5.5(b), the following clauses apply to any Federal-aid construction contract in an amount in excess of \$100,000 and subject to the overtime provisions of the Contract Work Hours and Safety Standards Act. These clauses shall be inserted in addition to the clauses required by 29 CFR 5.5(a) or 29 CFR 4.6. As used in this paragraph, the terms laborers and mechanics include watchpersons 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 forty hours in such workweek unless such laborer or mechanic receives compensation at a rate not less than one and one-half times the basic rate of pay for all hours worked in excess of forty hours in such workweek. 29 CFR 5.5.

2. Violation; liability for unpaid wages; liquidated damages. In the event of any violation of the clause set forth in paragraph 1. of this section the contractor and any subcontractor responsible therefor shall be liable for the unpaid wages and interest from the date of the underpayment. 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 watchpersons and guards, employed in violation of the clause set forth in paragraph 1. of this section, in the sum currently provided in 29 CFR 5.5(b)(2)* for each calendar day on which such individual was required or permitted to work in excess of the standard workweek of forty hours without payment of the overtime wages required by the clause set forth in paragraph 1. of this section.

* \$31 as of January 15, 2023 (See 88 FR 88 FR 2210) as may be adjusted annually by the Department of Labor, pursuant to the Federal Civil Penalties Inflation Adjustment Act of 1990.

3. Withholding for unpaid wages and liquidated damages

a. *Withholding process.* The FHWA or the contracting agency may, upon its own action, or must, upon written request of an authorized representative of the Department of Labor, withhold or cause to be withheld from the contractor so much of the accrued payments or advances as may be considered necessary to satisfy the liabilities of the prime contractor or any subcontractor for any unpaid wages; monetary relief, including interest; and liquidated damages required by the clauses set forth in this section on this contract, any other Federal contract with the same prime contractor, or any other federally assisted contract subject to the Contract Work Hours and Safety Standards Act that is held by the same prime contractor (as defined in § 5.2). The necessary funds may be withheld from the contractor under this contract, any other Federal contract with the same prime contractor, or any other federally assisted contract that is subject to the Contract Work Hours and Safety Standards Act and is held by the same prime contractor, regardless of whether the other contract was awarded or assisted by the same agency, and such funds may be used to satisfy the contractor liability for which the funds were withheld.

b. *Priority to withheld funds.* The Department has priority to funds withheld or to be withheld in accordance with Section IV paragraph 2.a. or paragraph 3.a. of this section, or both, over claims to those funds by:

- (1) A contractor's surety(ies), including without limitation performance bond sureties and payment bond sureties;
- (2) A contracting agency for its procurement costs;
- (3) A trustee(s) (either a court-appointed trustee or a U.S. trustee, or both) in bankruptcy of a contractor, or a contractor's bankruptcy estate;
- (4) A contractor's assignee(s);
- (5) A contractor's successor(s); or
- (6) A claim asserted under the Prompt Payment Act, [31 U.S.C. 3901](#)–3907.

4. Subcontracts. The contractor or subcontractor must insert in any subcontracts the clauses set forth in paragraphs 1. through 5. of this section and a clause requiring the subcontractors to include these clauses in any lower tier subcontracts. The prime contractor is responsible for compliance by any subcontractor or lower tier subcontractor with the clauses set forth in paragraphs 1. through 5. In the

event of any violations of these clauses, the prime contractor and any subcontractor(s) responsible will be liable for any unpaid wages and monetary relief, including interest from the date of the underpayment or loss, due to any workers of lower-tier subcontractors, and associated liquidated damages and may be subject to debarment, as appropriate.

5. Anti-retaliation. It is unlawful for any person to discharge, demote, intimidate, threaten, restrain, coerce, blacklist, harass, or in any other manner discriminate against, or to cause any person to discharge, demote, intimidate, threaten, restrain, coerce, blacklist, harass, or in any other manner discriminate against, any worker or job applicant for:

a. Notifying any contractor of any conduct which the worker reasonably believes constitutes a violation of the Contract Work Hours and Safety Standards Act (CWHSSA) or its implementing regulations in this part;

b. Filing any complaint, initiating or causing to be initiated any proceeding, or otherwise asserting or seeking to assert on behalf of themselves or others any right or protection under CWHSSA or this part;

c. Cooperating in any investigation or other compliance action, or testifying in any proceeding under CWHSSA or this part; or

d. Informing any other person about their rights under CWHSSA or this part.

VI. SUBLETTING OR ASSIGNING THE CONTRACT

This provision is applicable to all Federal-aid construction contracts on the National Highway System pursuant to 23 CFR 635.116.

1. The contractor shall perform with its own organization contract work amounting to not less than 30 percent (or a greater percentage if specified elsewhere in the contract) of the total original contract price, excluding any specialty items designated by the contracting agency. Specialty items may be performed by subcontract and the amount of any such specialty items performed may be deducted from the total original contract price before computing the amount of work required to be performed by the contractor's own organization (23 CFR 635.116).

a. The term "perform work with its own organization" in paragraph 1 of Section VI refers to workers employed or leased by the prime contractor, and equipment owned or rented by the prime contractor, with or without operators. Such term does not include employees or equipment of a subcontractor or lower tier subcontractor, agents of the prime contractor, or any other assignees. The term may include payments for the costs of hiring leased employees from an employee leasing firm meeting all relevant Federal and State regulatory requirements. Leased employees may only be included in this term if the prime contractor meets all of the following conditions: (based on longstanding interpretation)

- (1) the prime contractor maintains control over the supervision of the day-to-day activities of the leased employees;
- (2) the prime contractor remains responsible for the quality of the work of the leased employees;

- (3) the prime contractor retains all power to accept or exclude individual employees from work on the project; and
- (4) the prime contractor remains ultimately responsible for the payment of predetermined minimum wages, the submission of payrolls, statements of compliance and all other Federal regulatory requirements.

b. "Specialty Items" shall be construed to be limited to work that requires highly specialized knowledge, abilities, or equipment not ordinarily available in the type of contracting organizations qualified and expected to bid or propose on the contract as a whole and in general are to be limited to minor components of the overall contract. 23 CFR 635.102.

2. Pursuant to 23 CFR 635.116(a), the contract amount upon which the requirements set forth in paragraph (1) of Section VI is computed includes the cost of material and manufactured products which are to be purchased or produced by the contractor under the contract provisions.

3. Pursuant to 23 CFR 635.116(c), the contractor shall furnish (a) a competent superintendent or supervisor who is employed by the firm, has full authority to direct performance of the work in accordance with the contract requirements, and is in charge of all construction operations (regardless of who performs the work) and (b) such other of its own organizational resources (supervision, management, and engineering services) as the contracting officer determines is necessary to assure the performance of the contract.

4. No portion of the contract shall be sublet, assigned or otherwise disposed of except with the written consent of the contracting officer, or authorized representative, and such consent when given shall not be construed to relieve the contractor of any responsibility for the fulfillment of the contract. Written consent will be given only after the contracting agency has assured that each subcontract is evidenced in writing and that it contains all pertinent provisions and requirements of the prime contract. (based on long-standing interpretation of 23 CFR 635.116).

5. The 30-percent self-performance requirement of paragraph (1) is not applicable to design-build contracts; however, contracting agencies may establish their own self-performance requirements. 23 CFR 635.116(d).

VII. SAFETY: ACCIDENT PREVENTION

This provision is applicable to all Federal-aid construction contracts and to all related subcontracts.

1. In the performance of this contract the contractor shall comply with all applicable Federal, State, and local laws governing safety, health, and sanitation (23 CFR Part 635). The contractor shall provide all safeguards, safety devices and protective equipment and take any other needed actions as it determines, or as the contracting officer may determine, to be reasonably necessary to protect the life and health of employees on the job and the safety of the public and to protect property in connection with the performance of the work covered by the contract. 23 CFR 635.108.

2. It is a condition of this contract, and shall be made a condition of each subcontract, which the contractor enters into pursuant to this contract, that the contractor and any subcontractor shall not permit any employee, in performance of the contract, to work in surroundings or under conditions which are unsanitary, hazardous or dangerous to his/her health or safety, as determined under construction safety and

health standards (29 CFR Part 1926) promulgated by the Secretary of Labor, in accordance with Section 107 of the Contract Work Hours and Safety Standards Act (40 U.S.C. 3704). 29 CFR 1926.10.

3. Pursuant to 29 CFR 1926.3, it is a condition of this contract that the Secretary of Labor or authorized representative thereof, shall have right of entry to any site of contract performance to inspect or investigate the matter of compliance with the construction safety and health standards and to carry out the duties of the Secretary under Section 107 of the Contract Work Hours and Safety Standards Act (40 U.S.C. 3704).

VIII. FALSE STATEMENTS CONCERNING HIGHWAY PROJECTS

This provision is applicable to all Federal-aid construction contracts and to all related subcontracts.

In order to assure high quality and durable construction in conformity with approved plans and specifications and a high degree of reliability on statements and representations made by engineers, contractors, suppliers, and workers on Federal-aid highway projects, it is essential that all persons concerned with the project perform their functions as carefully, thoroughly, and honestly as possible. Willful falsification, distortion, or misrepresentation with respect to any facts related to the project is a violation of Federal law. To prevent any misunderstanding regarding the seriousness of these and similar acts, Form FHWA-1022 shall be posted on each Federal-aid highway project (23 CFR Part 635) in one or more places where it is readily available to all persons concerned with the project:

18 U.S.C. 1020 reads as follows:

"Whoever, being an officer, agent, or employee of the United States, or of any State or Territory, or whoever, whether a person, association, firm, or corporation, knowingly makes any false statement, false representation, or false report as to the character, quality, quantity, or cost of the material used or to be used, or the quantity or quality of the work performed or to be performed, or the cost thereof in connection with the submission of plans, maps, specifications, contracts, or costs of construction on any highway or related project submitted for approval to the Secretary of Transportation; or

Whoever knowingly makes any false statement, false representation, false report or false claim with respect to the character, quality, quantity, or cost of any work performed or to be performed, or materials furnished or to be furnished, in connection with the construction of any highway or related project approved by the Secretary of Transportation; or

Whoever knowingly makes any false statement or false representation as to material fact in any statement, certificate, or report submitted pursuant to provisions of the Federal-aid Roads Act approved July 11, 1916, (39 Stat. 355), as amended and supplemented;

Shall be fined under this title or imprisoned not more than 5 years or both."

IX. IMPLEMENTATION OF CLEAN AIR ACT AND FEDERAL WATER POLLUTION CONTROL ACT (42 U.S.C. 7606; 2 CFR 200.88; EO 11738)

This provision is applicable to all Federal-aid construction contracts in excess of \$150,000 and to all related subcontracts. 48 CFR 2.101; 2 CFR 200.327.

By submission of this bid/proposal or the execution of this contract or subcontract, as appropriate, the bidder, proposer, Federal-aid construction contractor, subcontractor, supplier, or vendor agrees to comply with all applicable standards, orders or regulations issued pursuant to the Clean Air Act (42 U.S.C. 7401-7671q) and the Federal Water Pollution Control Act, as amended (33 U.S.C. 1251-1387). Violations must be reported to the Federal Highway Administration and the Regional Office of the Environmental Protection Agency. 2 CFR Part 200, Appendix II.

The contractor agrees to include or cause to be included the requirements of this Section in every subcontract, and further agrees to take such action as the contracting agency may direct as a means of enforcing such requirements. 2 CFR 200.327.

X. CERTIFICATION REGARDING DEBARMENT, SUSPENSION, INELIGIBILITY AND VOLUNTARY EXCLUSION

This provision is applicable to all Federal-aid construction contracts, design-build contracts, subcontracts, lower-tier subcontracts, purchase orders, lease agreements, consultant contracts or any other covered transaction requiring FHWA approval or that is estimated to cost \$25,000 or more – as defined in 2 CFR Parts 180 and 1200. 2 CFR 180.220 and 1200.220.

1. Instructions for Certification – First Tier Participants:

- a. By signing and submitting this proposal, the prospective first tier participant is providing the certification set out below.
- b. The inability of a person to provide the certification set out below will not necessarily result in denial of participation in this covered transaction. The prospective first tier participant shall submit an explanation of why it cannot provide the certification set out below. The certification or explanation will be considered in connection with the department or agency's determination whether to enter into this transaction. However, failure of the prospective first tier participant to furnish a certification or an explanation shall disqualify such a person from participation in this transaction. 2 CFR 180.320.
- c. The certification in this clause is a material representation of fact upon which reliance was placed when the contracting agency determined to enter into this transaction. If it is later determined that the prospective participant knowingly rendered an erroneous certification, in addition to other remedies available to the Federal Government, the contracting agency may terminate this transaction for cause of default. 2 CFR 180.325.
- d. The prospective first tier participant shall provide immediate written notice to the contracting agency to whom this proposal is submitted if any time the prospective first tier participant learns that its certification was erroneous when submitted or has become erroneous by reason of changed circumstances. 2 CFR 180.345 and 180.350.

e. The terms "covered transaction," "debarred," "suspended," "ineligible," "participant," "person," "principal," and "voluntarily excluded," as used in this clause, are defined in 2 CFR Parts 180, Subpart I, 180.900-180.1020, and 1200. "First Tier Covered Transactions" refers to any covered transaction between a recipient or subrecipient of Federal funds and a participant (such as the prime or general contract). "Lower Tier Covered Transactions" refers to any covered transaction under a First Tier Covered Transaction (such as subcontracts). "First Tier Participant" refers to the participant who has entered into a covered transaction with a recipient or subrecipient of Federal funds (such as the prime or general contractor). "Lower Tier Participant" refers any participant who has entered into a covered transaction with a First Tier Participant or other Lower Tier Participants (such as subcontractors and suppliers).

f. The prospective first tier participant agrees by submitting this proposal that, should the proposed covered transaction be entered into, it shall not knowingly enter into any lower tier covered transaction with a person who is debarred, suspended, declared ineligible, or voluntarily excluded from participation in this covered transaction, unless authorized by the department or agency entering into this transaction. 2 CFR 180.330.

g. The prospective first tier participant further agrees by submitting this proposal that it will include the clause titled "Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion-Lower Tier Covered Transactions," provided by the department or contracting agency, entering into this covered transaction, without modification, in all lower tier covered transactions and in all solicitations for lower tier covered transactions exceeding the \$25,000 threshold. 2 CFR 180.220 and 180.300.

h. A participant in a covered transaction may rely upon a certification of a prospective participant in a lower tier covered transaction that is not debarred, suspended, ineligible, or voluntarily excluded from the covered transaction, unless it knows that the certification is erroneous. 2 CFR 180.300; 180.320, and 180.325. A participant is responsible for ensuring that its principals are not suspended, debarred, or otherwise ineligible to participate in covered transactions. 2 CFR 180.335. To verify the eligibility of its principals, as well as the eligibility of any lower tier prospective participants, each participant may, but is not required to, check the System for Award Management website (<https://www.sam.gov/>). 2 CFR 180.300, 180.320, and 180.325.

i. Nothing contained in the foregoing shall be construed to require the establishment of a system of records in order to render in good faith the certification required by this clause. The knowledge and information of the prospective participant is not required to exceed that which is normally possessed by a prudent person in the ordinary course of business dealings.

j. Except for transactions authorized under paragraph (f) of these instructions, if a participant in a covered transaction knowingly enters into a lower tier covered transaction with a person who is suspended, debarred, ineligible, or voluntarily excluded from participation in this transaction, in addition to other remedies available to the Federal Government, the department or agency may terminate this transaction for cause or default. 2 CFR 180.325.

* * * * *

2. Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion – First Tier Participants:

a. The prospective first tier participant certifies to the best of its knowledge and belief, that it and its principals:

(1) Are not presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from participating in covered transactions by any Federal department or agency, 2 CFR 180.335;

(2) Have not within a three-year period preceding this proposal been convicted of or had a civil judgment rendered against them for commission of fraud or a criminal offense in connection with obtaining, attempting to obtain, or performing a public (Federal, State, or local) transaction or contract under a public transaction; violation of Federal or State antitrust statutes or commission of embezzlement, theft, forgery, bribery, falsification or destruction of records, making false statements, or receiving stolen property, 2 CFR 180.800;

(3) Are not presently indicted for or otherwise criminally or civilly charged by a governmental entity (Federal, State or local) with commission of any of the offenses enumerated in paragraph (a)(2) of this certification, 2 CFR 180.700 and 180.800; and

(4) Have not within a three-year period preceding this application/proposal had one or more public transactions (Federal, State or local) terminated for cause or default. 2 CFR 180.335(d).

(5) Are not a corporation that has been convicted of a felony violation under any Federal law within the two-year period preceding this proposal (USDOT Order 4200.6 implementing appropriations act requirements); and

(6) Are not a corporation with any unpaid Federal tax liability that has been assessed, for which all judicial and administrative remedies have been exhausted, or have lapsed, and that is not being paid in a timely manner pursuant to an agreement with the authority responsible for collecting the tax liability (USDOT Order 4200.6 implementing appropriations act requirements).

b. Where the prospective participant is unable to certify to any of the statements in this certification, such prospective participant should attach an explanation to this proposal. 2 CFR 180.335 and 180.340.

3. Instructions for Certification - Lower Tier Participants:

(Applicable to all subcontracts, purchase orders, and other lower tier transactions requiring prior FHWA approval or estimated to cost \$25,000 or more - 2 CFR Parts 180 and 1200). 2 CFR 180.220 and 1200.220.

a. By signing and submitting this proposal, the prospective lower tier participant is providing the certification set out below.

b. The certification in this clause is a material representation of fact upon which reliance was placed when this transaction was entered into. If it is later determined that the prospective lower tier participant knowingly rendered an erroneous certification, in addition to other remedies available to the Federal Government, the department, or agency with which

this transaction originated may pursue available remedies, including suspension and/or debarment.

c. The prospective lower tier participant shall provide immediate written notice to the person to which this proposal is submitted if at any time the prospective lower tier participant learns that its certification was erroneous by reason of changed circumstances. 2 CFR 180.365.

d. The terms "covered transaction," "debarred," "suspended," "ineligible," "participant," "person," "principal," and "voluntarily excluded," as used in this clause, are defined in 2 CFR Parts 180, Subpart I, 180.900 – 180.1020, and 1200. You may contact the person to which this proposal is submitted for assistance in obtaining a copy of those regulations. "First Tier Covered Transactions" refers to any covered transaction between a recipient or subrecipient of Federal funds and a participant (such as the prime or general contract). "Lower Tier Covered Transactions" refers to any covered transaction under a First Tier Covered Transaction (such as subcontracts). "First Tier Participant" refers to the participant who has entered into a covered transaction with a recipient or subrecipient of Federal funds (such as the prime or general contractor). "Lower Tier Participant" refers any participant who has entered into a covered transaction with a First Tier Participant or other Lower Tier Participants (such as subcontractors and suppliers).

e. The prospective lower tier participant agrees by submitting this proposal that, should the proposed covered transaction be entered into, it shall not knowingly enter into any lower tier covered transaction with a person who is debarred, suspended, declared ineligible, or voluntarily excluded from participation in this covered transaction, unless authorized by the department or agency with which this transaction originated. 2 CFR 1200.220 and 1200.332.

f. The prospective lower tier participant further agrees by submitting this proposal that it will include this clause titled "Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion-Lower Tier Covered Transaction," without modification, in all lower tier covered transactions and in all solicitations for lower tier covered transactions exceeding the \$25,000 threshold. 2 CFR 180.220 and 1200.220.

g. A participant in a covered transaction may rely upon a certification of a prospective participant in a lower tier covered transaction that is not debarred, suspended, ineligible, or voluntarily excluded from the covered transaction, unless it knows that the certification is erroneous. A participant is responsible for ensuring that its principals are not suspended, debarred, or otherwise ineligible to participate in covered transactions. To verify the eligibility of its principals, as well as the eligibility of any lower tier prospective participants, each participant may, but is not required to, check the System for Award Management website (<https://www.sam.gov>), which is compiled by the General Services Administration. 2 CFR 180.300, 180.320, 180.330, and 180.335.

h. Nothing contained in the foregoing shall be construed to require establishment of a system of records in order to render in good faith the certification required by this clause. The knowledge and information of participant is not required to exceed that which is normally possessed by a prudent person in the ordinary course of business dealings.

i. Except for transactions authorized under paragraph e of these instructions, if a participant in a covered transaction knowingly enters into a lower tier covered transaction with a person who is suspended, debarred, ineligible, or voluntarily

excluded from participation in this transaction, in addition to other remedies available to the Federal Government, the department or agency with which this transaction originated may pursue available remedies, including suspension and/or debarment. 2 CFR 180.325.

4. Certification Regarding Debarment, Suspension, Ineligibility and Voluntary Exclusion--Lower Tier Participants:

a. The prospective lower tier participant certifies, by submission of this proposal, that neither it nor its principals:

(1) is presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from participating in covered transactions by any Federal department or agency, 2 CFR 180.355;

(2) is a corporation that has been convicted of a felony violation under any Federal law within the two-year period preceding this proposal (USDOT Order 4200.6 implementing appropriations act requirements); and

(3) is a corporation with any unpaid Federal tax liability that has been assessed, for which all judicial and administrative remedies have been exhausted, or have lapsed, and that is not being paid in a timely manner pursuant to an agreement with the authority responsible for collecting the tax liability. (USDOT Order 4200.6 implementing appropriations act requirements)

b. Where the prospective lower tier participant is unable to certify to any of the statements in this certification, such prospective participant should attach an explanation to this proposal.

XI. CERTIFICATION REGARDING USE OF CONTRACT FUNDS FOR LOBBYING

This provision is applicable to all Federal-aid construction contracts and to all related subcontracts which exceed \$100,000. 49 CFR Part 20, App. A.

1. The prospective participant certifies, by signing and submitting this bid or proposal, to the best of his or her knowledge and belief, that:

a. No Federal appropriated funds have been paid or will be paid, by or on behalf of the undersigned, to any person for influencing or attempting to influence an officer or employee of any Federal 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 contract, the making of any Federal grant, the making of any Federal loan, the entering into of any cooperative agreement, and the extension, continuation, renewal, amendment, or modification of any Federal contract, grant, loan, or cooperative agreement.

b. If any funds other than Federal appropriated funds have been paid or will be paid to any person for influencing or attempting to influence an officer or employee of any Federal 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.

2. This certification is a material representation of fact upon which reliance was placed when this transaction was made or entered into. Submission of this certification is a prerequisite for making or entering into this transaction imposed by 31 U.S.C. 1352. Any person who fails to file the required certification shall be subject to a civil penalty of not less than \$10,000 and not more than \$100,000 for each such failure.

3. The prospective participant also agrees by submitting its bid or proposal that the participant shall require that the language of this certification be included in all lower tier subcontracts, which exceed \$100,000 and that all such recipients shall certify and disclose accordingly.

XII. USE OF UNITED STATES-FLAG VESSELS:

This provision is applicable to all Federal-aid construction contracts, design-build contracts, subcontracts, lower-tier subcontracts, purchase orders, lease agreements, or any other covered transaction. 46 CFR Part 381.

This requirement applies to material or equipment that is acquired for a specific Federal-aid highway project. 46 CFR 381.7. It is not applicable to goods or materials that come into inventories independent of an FHWA funded-contract.

When oceanic shipments (or shipments across the Great Lakes) are necessary for materials or equipment acquired for a specific Federal-aid construction project, the bidder, proposer, contractor, subcontractor, or vendor agrees:

1. To utilize privately owned United States-flag commercial vessels to ship at least 50 percent of the gross tonnage (computed separately for dry bulk carriers, dry cargo liners, and tankers) involved, whenever shipping any equipment, material, or commodities pursuant to this contract, to the extent such vessels are available at fair and reasonable rates for United States-flag commercial vessels. 46 CFR 381.7.

2. To furnish within 20 days following the date of loading for shipments originating within the United States or within 30 working days following the date of loading for shipments originating outside the United States, a legible copy of a rated, 'on-board' commercial ocean bill-of-lading in English for each shipment of cargo described in paragraph (b)(1) of this section to both the Contracting Officer (through the prime contractor in the case of subcontractor bills-of-lading) and to the Office of Cargo and Commercial Sealift (MAR-620), Maritime Administration, Washington, DC 20590. (MARAD requires copies of the ocean carrier's (master) bills of lading, certified onboard, dated, with rates and charges. These bills of lading may contain business sensitive information and therefore may be submitted directly to MARAD by the Ocean Transportation Intermediary on behalf of the contractor). 46 CFR 381.7.

**ATTACHMENT A - EMPLOYMENT AND MATERIALS
PREFERENCE FOR APPALACHIAN DEVELOPMENT
HIGHWAY SYSTEM OR APPALACHIAN LOCAL ACCESS
ROAD CONTRACTS (23 CFR 633, Subpart B, Appendix B)**

This provision is applicable to all Federal-aid projects funded under the Appalachian Regional Development Act of 1965.

1. During the performance of this contract, the contractor undertaking to do work which is, or reasonably may be, done as on-site work, shall give preference to qualified persons who regularly reside in the labor area as designated by the DOL wherein the contract work is situated, or the subregion, or the Appalachian counties of the State wherein the contract work is situated, except:

a. To the extent that qualified persons regularly residing in the area are not available.

b. For the reasonable needs of the contractor to employ supervisory or specially experienced personnel necessary to assure an efficient execution of the contract work.

c. For the obligation of the contractor to offer employment to present or former employees as the result of a lawful collective bargaining contract, provided that the number of nonresident persons employed under this subparagraph (1c) shall not exceed 20 percent of the total number of employees employed by the contractor on the contract work, except as provided in subparagraph (4) below.

2. The contractor shall place a job order with the State Employment Service indicating (a) the classifications of the laborers, mechanics and other employees required to perform the contract work, (b) the number of employees required in each classification, (c) the date on which the participant estimates such employees will be required, and (d) any other pertinent information required by the State Employment Service to complete the job order form. The job order may be placed with the State Employment Service in writing or by telephone. If during the course of the contract work, the information submitted by the contractor in the original job order is substantially modified, the participant shall promptly notify the State Employment Service.

3. The contractor shall give full consideration to all qualified job applicants referred to him by the State Employment Service. The contractor is not required to grant employment to any job applicants who, in his opinion, are not qualified to perform the classification of work required.

4. If, within one week following the placing of a job order by the contractor with the State Employment Service, the State Employment Service is unable to refer any qualified job applicants to the contractor, or less than the number requested, the State Employment Service will forward a certificate to the contractor indicating the unavailability of applicants. Such certificate shall be made a part of the contractor's permanent project records. Upon receipt of this certificate, the contractor may employ persons who do not normally reside in the labor area to fill positions covered by the certificate, notwithstanding the provisions of subparagraph (1c) above.

5. The provisions of 23 CFR 633.207(e) allow the contracting agency to provide a contractual preference for the use of mineral resource materials native to the Appalachian region.

6. The contractor shall include the provisions of Sections 1 through 4 of this Attachment A in every subcontract for work which is, or reasonably may be, done as on-site work.

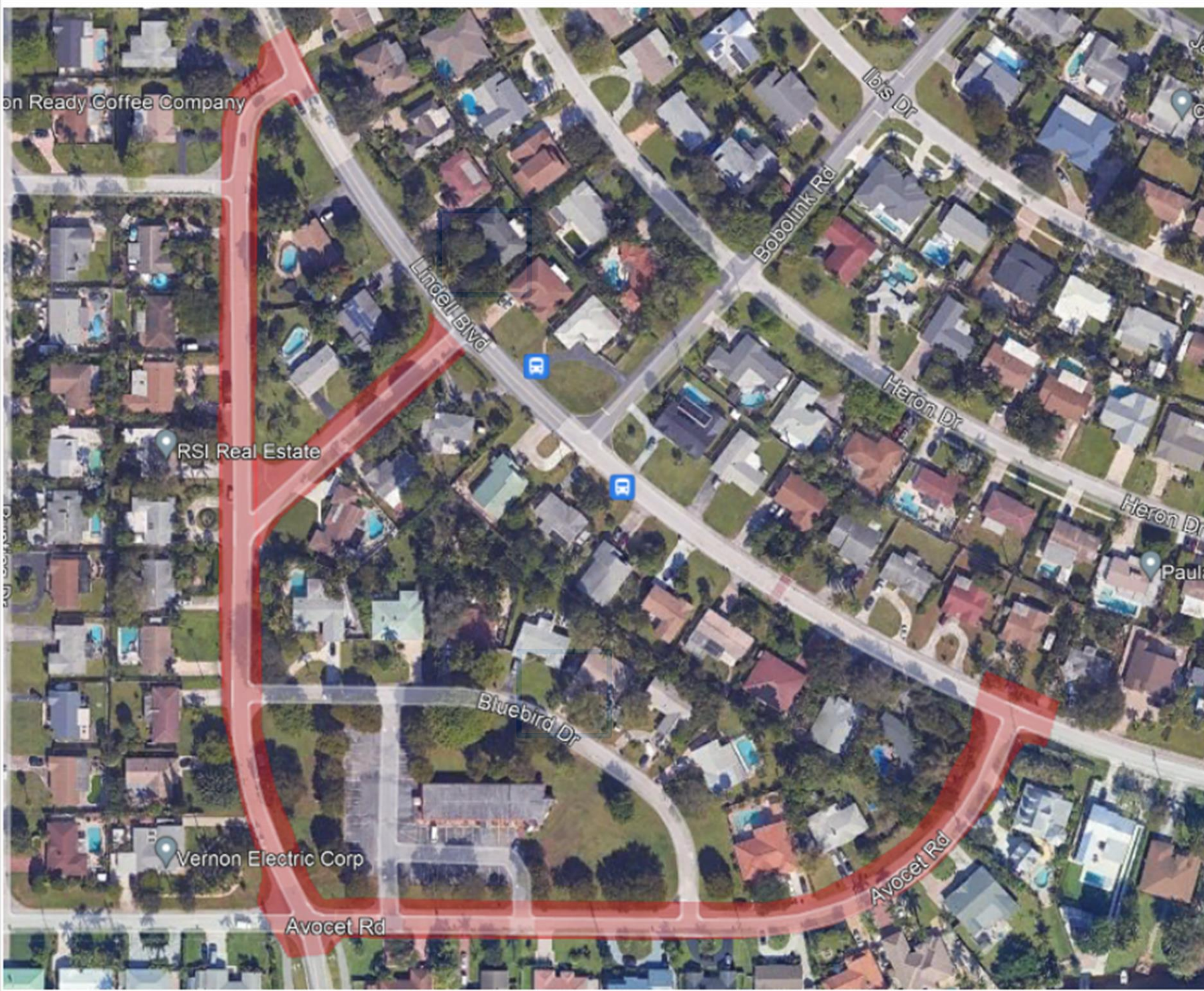
STATE OF FLORIDA DEPARTMENT OF TRANSPORTATION
LOCAL AGENCY PROGRAM AGREEMENT**EXHIBIT H****ALTERNATIVE ADVANCE PAYMENT FINANCIAL PROVISIONS**

If payments are authorized by the Chief Financial Officer of the State of Florida under Chapters 215 and 216, Florida Statutes or the Department's Comptroller under Section 334.044(29), Florida Statutes:

1. The invoiced amount to the Department for contractor(s) and consultant(s) cannot exceed the amount of the invoice received from the Recipient's contractor(s) or consultant(s).
2. All of the Recipient's costs must have been incurred and paid prior to the date of the invoice.
3. All invoices received from the Recipient shall clearly separate the cost of the contractor(s) or consultant(s) from the Recipient's costs billed to the Department.
4. All invoices submitted to the Department must provide complete documentation, including a copy of the contractor's or consultant's invoice(s), to substantiate the cost on the invoice.
5. The Recipient must certify on each invoice that the costs from the contractor(s) or consultant(s) are valid and have been incurred by the contractor(s) or consultant(s).
6. Each monthly invoice subsequent to the first invoice from the Recipient must contain a statement from the Recipient that the previous month's cost incurred by the contractor(s) or consultant(s) has been paid by the Recipient to the contractor(s) or consultant(s).

Total UG footage = 1,601ft

INACCESSIBLE 13 kV FUTURE 23 kV 23 kV SALT SPRAY



CITY OF DELRAY BEACH LINDEL BLVD LOOP NEW SL



FEEDER: 404840

FPL CONSTRUCTION SYMBOL

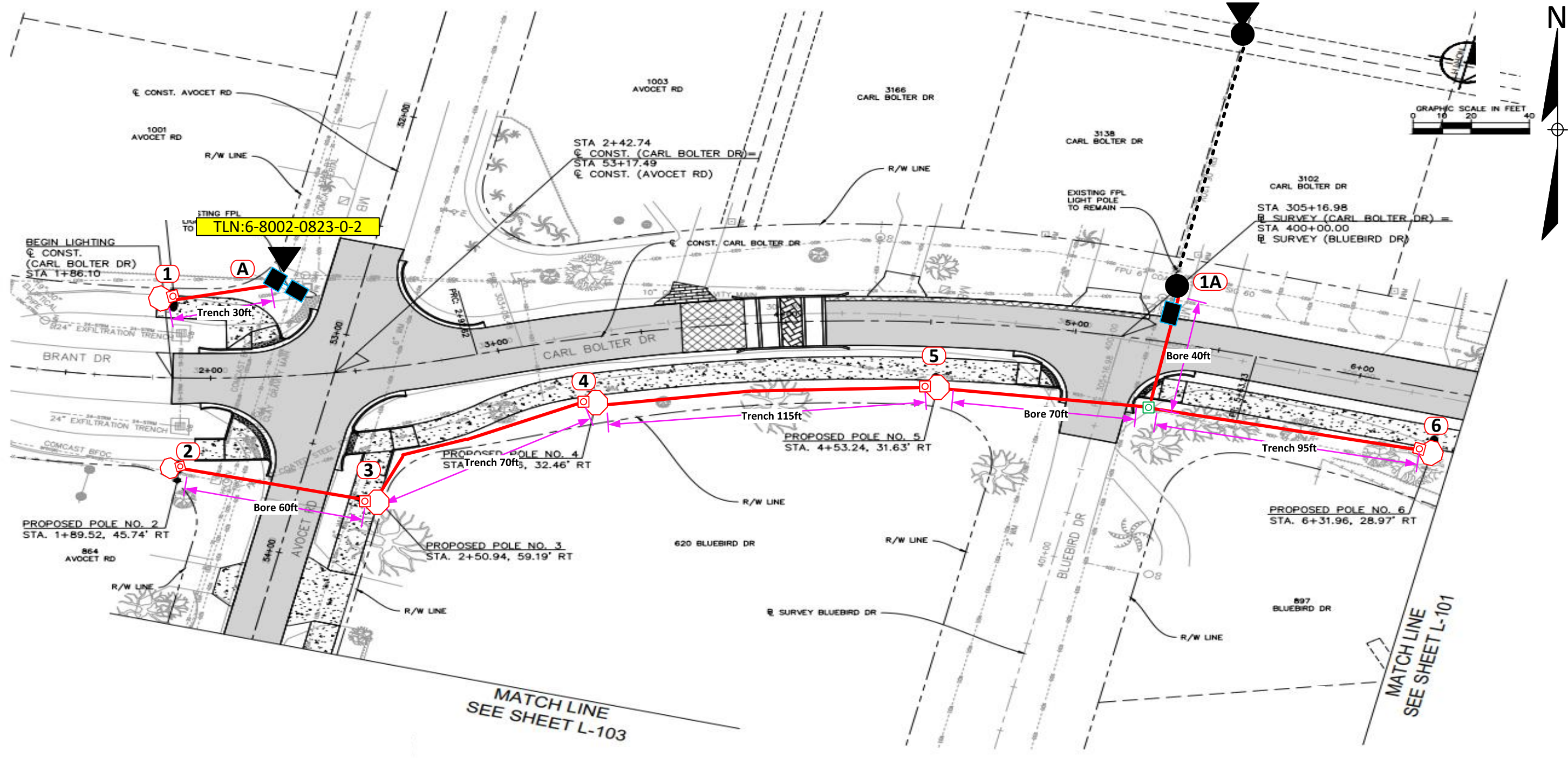
- = New #6DPX Cable
- = Existing OH Cable
- ⬡ = New SL on Decorative pole
- ◇ = New 17" HH
- ◇ = New 24" HH
- = Existing streetlight on existing wood pole
- = Existing streetlight on existing wood pole

PERMIT REQUIRED

Product summary			
Symbol	Description	Lumens	Quantity
⬡	HOLOPHANE GRANVILLE GREEN/GREEN 39W 3000K 5,190L	3K	18
■	GREEN WASHINGTON FOR SINGLE POST TOPS 18' 6" (14' 6" MH)	N/A	18

AS-BUILT CREW PRINT		ALL REQUIRED GROUND RODS HAVE BEEN DRIVEN & VERIFIED TO BE WITHIN FPL STANDARDS, VALUES ARE SHOWN AT ALL LOCATIONS.		JOB CERTIFIED COMPLETED AS SHOWN ON THIS AS-BUILT PRINT. MATERIAL CHANGES SHOWN ON ROS		AS-BUILT COPY	
FOREMAN'S SIGNATURE _____ DATE _____		FOREMAN'S SIGNATURE _____ DATE _____		SUPERVISOR'S SIGNATURE _____ DATE _____		INITIALS _____ CERT. DATE _____	
Easement? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>		Survey/Stake? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>		Work with SMO? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>		FPL	
Tree Work? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>		Designer/Stake? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>		CT/Special Mtr? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>		CITY OF DELRAY-LINDEL SL	
PERMIT REQ'D City _____ County Rd. _____ County Air _____ State Road _____ FAA _____		WMD _____ RR Xing _____ DR. Dist. _____ Transm. _____		620 BLUEBIRD DR DELRAY BEACH, 33444		Designed by: EZECHIEL ALCIUS Date: 09/19/24	
Requested Tel. Co. Set Poles? YES <input type="checkbox"/> NO <input checked="" type="checkbox"/>		Tele. Attachment Per _____		Drawn by: ML Check by: _____ Dwg No. 1 OF 6		Rural Location Sec. 29 TWP. 46 S, RGE. 43 E.	
Requested Tel. Co. Transfer? YES <input type="checkbox"/> NO <input checked="" type="checkbox"/>		Telephone Co. Job No. _____		SCALE: N.T.S. St. Lt MAP No. R0382 Pri Map No. _____		WR XXXXX M/A	
Request CAVT Transfer? YES <input type="checkbox"/> NO <input checked="" type="checkbox"/>		POLE LINE FEET 0' DUCT BANK FT. 0'		POLE LINE FT. ON TRANSM. POLES 0' TRENCH FT. 0'		TLM/LDS MODEL No. - Map Posting? YES <input checked="" type="checkbox"/> NO <input type="checkbox"/> Posted by: _____	

TLN:6-8002-0529-0-0



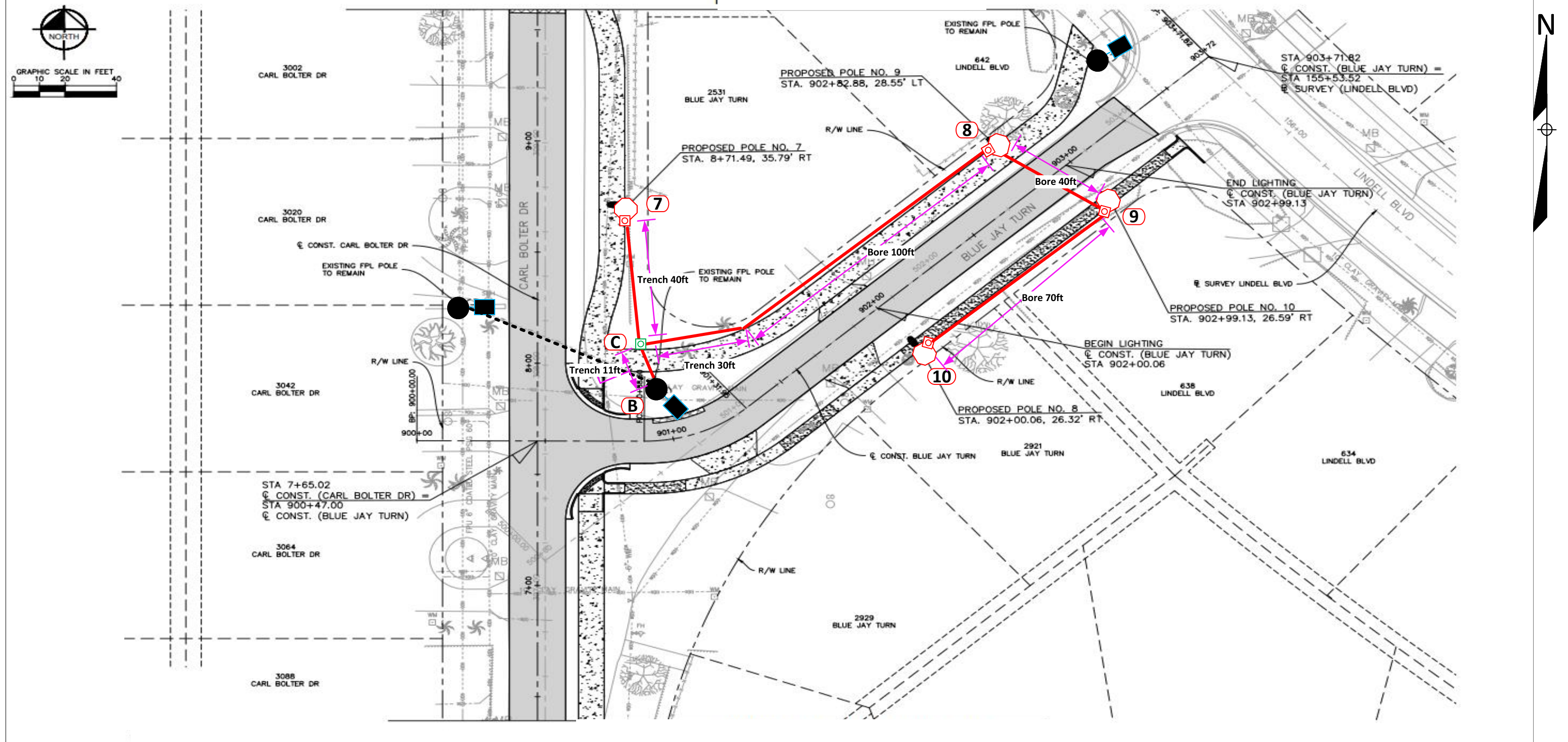
Construction Notes:

- FPL Contractor to install #6 DPX UG through conduit for all locations shown.
- FPL Contractor to install 2" PVC for rapid trenching for all locations and use 2" HDPE for directional bore. Call locates prior to digging.
- LOC 1A: install 2" riser on existing 30' Wood pole
- LOC A: install 2" riser on existing 50' Concrete pole
- LOC: 1-6: Install (1) HOLOPHANE GRANVILLE GREEN/GREEN 39W 3000K 5,190L on NEWGREEN WASHINGTON FOR SINGLE POST TOPS 18' 6" (14' 6" MH)
- *All lights are being fed underground
- FPL installing poles, pulling #6 DPX UG cable and doing terminations. Poles on this page to be installed within utility easements.
- CHECK VOLTAGE – CONVERT 480V to 120V or 240V'
- On 480V circuits, change the relay prior to installing the lights. Verify the source and amount of lights on that relay.
- Verify fixture is working correctly after installation. Check 120V to terminal blocks.
- Customer responsible for any restoration required.

FPL LED Representative: Gladys Reyes

AS-BUILT CREW PRINT		ALL REQUIRED GROUND RODS HAVE BEEN DRIVEN & VERIFIED TO BE WITHIN FPL STANDARDS, VALUES ARE SHOWN AT ALL LOCATIONS.		JOB CERTIFIED COMPLETED AS SHOWN ON THIS AS-BUILT PRINT. MATERIAL CHANGES SHOWN ON ROS		AS-BUILT COPY	
FOREMAN'S SIGNATURE _____ DATE _____		FOREMAN'S SIGNATURE _____ DATE _____		SUPERVISOR'S SIGNATURE _____ DATE _____		INITIALS _____ CERT. DATE _____	
Easement? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>		Survey/Stake? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>		Work with SMO? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>		FPL	
Tree Work? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>		Designer/Stake? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>		CT/Special Mtr? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>			
PERMIT REQ'D City _____ County Rd. _____ County Air _____ State Road _____ FAA _____		WMD _____ RR Xing _____ DR. Dist. _____ Transm. _____		CITY OF DELRAY-LINDEL SL 620 BLUEBIRD DR DELRAY BEACH, 33444		Designed by: EZECHIEL ALCIUS Date: 09/19/24	
Requested Tel. Co. Set Poles? YES <input type="checkbox"/> NO <input checked="" type="checkbox"/>		Tele. Attachment Per _____				Drawn by: ML Check by: _____ Dwg No. 2 OF 6	
Requested Tel. Co. Transfer? YES <input type="checkbox"/> NO <input checked="" type="checkbox"/>		Telephone Co. Job No. _____				Rural Location Sec. 29 TWP. 46 S, RGE. 43 E.	
Request CAVT Transfer? YES <input type="checkbox"/> NO <input checked="" type="checkbox"/>		POLE LINE FEET 0' DUCT BANK FT. 0'				SCALE: N.T.S St. Lt MAP No. R0382 Pri Map No. _____	
TLM/LDS MODEL No. -		Map Posting? YES <input checked="" type="checkbox"/> NO <input type="checkbox"/> Posted by: _____		WR XXXXX		M/A	

INACCESSIBLE 13 kV FUTURE 23 kV 23 kV SALT SPRAY

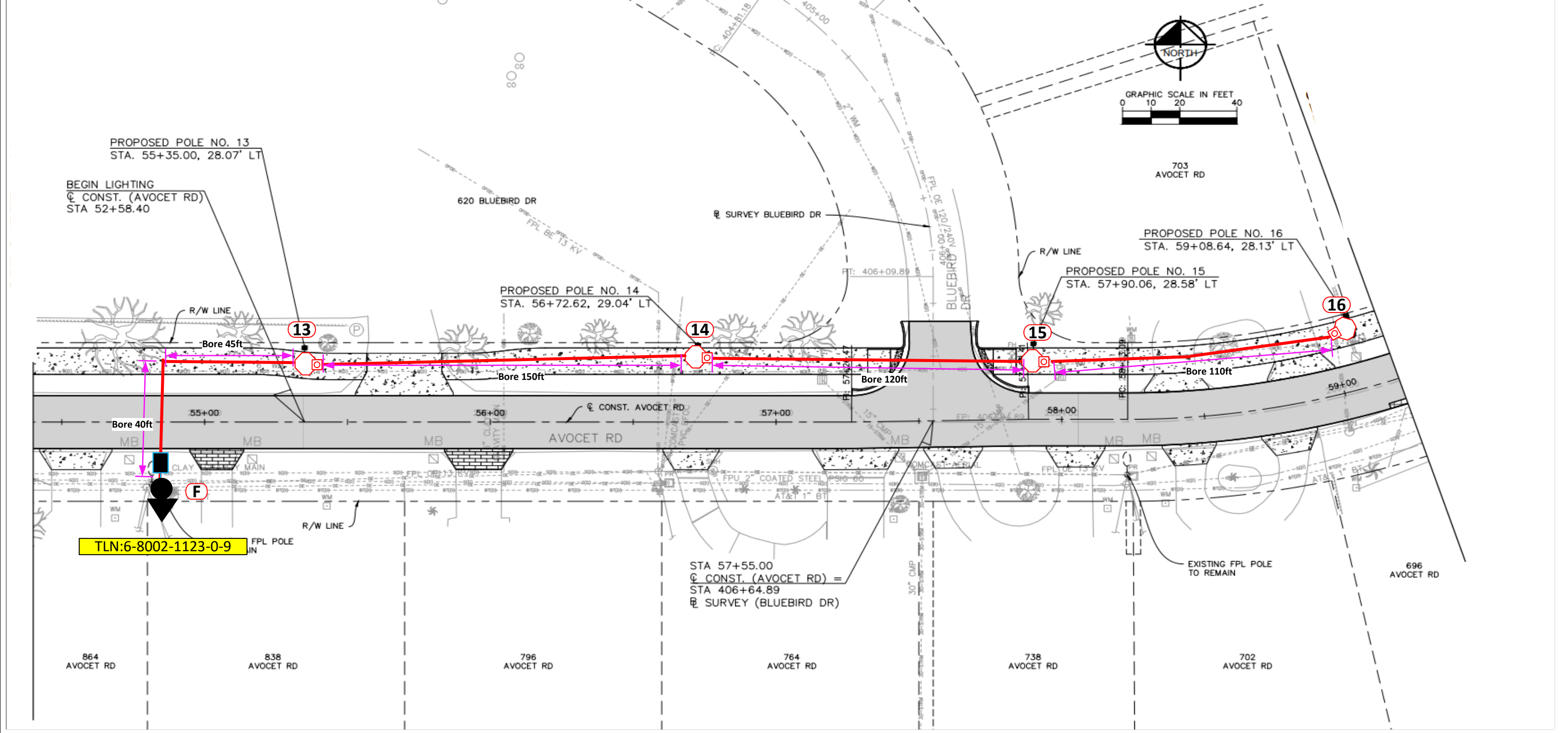


Construction Notes:

- FPL Contractor to install #6 DPX UG through conduit for all locations shown.
- FPL Contractor to install 2" PVC for rapid trenching for all locations and use 2" HDPE for directional bore. Call locates prior to digging.
- LOC B: Install 2" riser on existing 30' wood pole
- LOC C: Install (1) 24" Hand-hold
- LOC: 7-10: Install (1) HOLOPHANE GRANVILLE GREEN/GREEN 39W 3000K 5,190L on NEWGREEN WASHINGTON FOR SINGLE POST TOPS 18' 6" (14' 6" MH)
- *All lights are being fed underground
- FPL installing poles, pulling #6 DPX UG cable and doing terminations. Poles on this page to be installed within utility easements.
- CHECK VOLTAGE – CONVERT 480V to 120V or 240V'
- On 480V circuits, change the relay prior to installing the lights. Verify the source and amount of lights on that relay.
- Verify fixture is working correctly after installation. Check 120V to terminal blocks.
- Customer responsible for any restoration required.

FPL LED Representative: Gladys Reyes

AS-BUILT CREW PRINT		ALL REQUIRED GROUND RODS HAVE BEEN DRIVEN & VERIFIED TO BE WITHIN FPL STANDARDS, VALUES ARE SHOWN AT ALL LOCATIONS.		JOB CERTIFIED COMPLETED AS SHOWN ON THIS AS-BUILT PRINT. MATERIAL CHANGES SHOWN ON ROS		AS-BUILT COPY	
FOREMAN'S SIGNATURE _____ DATE _____		FOREMAN'S SIGNATURE _____ DATE _____		SUPERVISOR'S SIGNATURE _____ DATE _____		INITIALS _____ CERT. DATE _____	
Easement? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>		Survey/Stake? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>		Work with SMO? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>		FPL	
Tree Work? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>		Designer/Stake? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>		CT/Special Mtr? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>			
PERMIT REQ'D	City	County Rd.	County Air	State Road	FAA	CITY OF DELRAY-LINDELL SL 620 BLUEBIRD DR DELRAY BEACH, 33444	
	WMD	RR Xing	DR. Dist.	Transm.			
Requested Tel. Co. Set Poles? YES <input type="checkbox"/> NO <input checked="" type="checkbox"/>		Requested Tel. Co. Transfer? YES <input type="checkbox"/> NO <input checked="" type="checkbox"/>		Request CAVT Transfer? YES <input type="checkbox"/> NO <input checked="" type="checkbox"/>		Designed by: EZECHIEL ALCIUS Date: 09/19/24	
POLE LINE FEET 0'		DUCT BANK FT. 0'		Telephone Co. Job No. _____		Drawn by: ML Check by: Dwg No. 3 OF 6	
POLE LINE FT. ON TRANSM. POLES 0'		TRENCH FT. 0'		Rural Location Sec. 29 TWP. 46 S, RGE. 43 E.		SCALE: N.T.S St. Lt MAP No. R0382 Pri Map No.	
TLM/LDS MODEL No. -		Map Posting? YES <input checked="" type="checkbox"/> NO <input type="checkbox"/>		Posted by: _____		WR XXXXX M/A	



Construction Notes:

- FPL Contractor to install #6 DPX UG through conduit for all locations shown.
- FPL Contractor to install 2" PVC for rapid trenching for all locations and use 2" HDPE for directional bore. Call locates prior to digging.
- LOC F: Install 2" riser on existing 50' wood pole
- LOC:13-16:Install (1) HOLOPHANE GRANVILLE GREEN/GREEN 39W 3000K 5,190L on NEW GREEN WASHINGTON FOR SINGLE POST TOPS 18' 6" (14' 6" MH)
- *All lights are being fed underground
- FPL installing poles, pulling #6 DPX UG cable and doing terminations. Poles on this page to be installed within utility easements.
- CHECK VOLTAGE – CONVERT 480V to 120V or 240V
- On 480V circuits, change the relay prior to installing the lights. Verify the source and amount of lights on that relay.
- Verify fixture is working correctly after installation. Check 120V to terminal blocks.
- Customer responsible for any restoration required.

FPL LED Representative: Gladys Reyes

AS-BUILT CREW PRINT		ALL REQUIRED GROUND RODS HAVE BEEN DRIVEN & VERIFIED TO BE WITHIN FPL STANDARDS, VALUES ARE SHOWN AT ALL LOCATIONS.		JOB CERTIFIED COMPLETED AS SHOWN ON THIS AS-BUILT PRINT. MATERIAL CHANGES SHOWN ON ROS		AS-BUILT COPY	
FOREMAN'S SIGNATURE _____ DATE _____		FOREMAN'S SIGNATURE _____ DATE _____		SUPERVISOR'S SIGNATURE _____ DATE _____		INITIALS _____ CERT. DATE _____	
Easement?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Survey/Stake?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Work with SMO?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	FPL	
Tree Work?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Designer/Stake?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	CT/Special Mtr?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>		
PERMIT REQ'D	City	County Rd.	County Air	State Road	FAA	CITY OF DELRAY-LINDEL SL 620 BLUEBIRD DR DELRAY BEACH, 33444	
	WMD	RR Xing	DR. Dist.	Transm.			
Requested Tel. Co. Set Poles?	YES <input type="checkbox"/> NO <input checked="" type="checkbox"/>	Tele. Attachment Per		Designed by: EZECHIEL ALCIUS		Date: 09/19/24	
Requested Tel. Co. Transfer?	YES <input type="checkbox"/> NO <input checked="" type="checkbox"/>	Telephone Co. Job No.		Drawn by: ML		Check by: _____	
Request CAVT Transfer?	YES <input type="checkbox"/> NO <input checked="" type="checkbox"/>	POLE LINE FEET	DUCT BANK FT.	Rural Location Sec. 29 TWP. 46 S, RGE. 43 E.		Dwg No. 5 OF 6	
		POLE LINE FT. ON TRANSM. POLES	TRENCH FT.	SCALE: N.T.S		St. Lt MAP No. R0382 Pri Map No.	
TLM/LDS MODEL No.	-	Map Posting?	YES <input checked="" type="checkbox"/> NO <input type="checkbox"/>	Posted by: _____		WR XXXXX M/A	

STANDARD PROTECTION MEASURES FOR THE EASTERN INDIGO SNAKE

U.S. Fish and Wildlife Service

May 2024

The Standard Protection Measures for the Eastern Indigo Snake (Plan) below has been developed by the U.S. Fish and Wildlife Service (USFWS) in Florida and Georgia for use by project proponents and their construction personnel help minimize adverse impacts to eastern indigo snakes. However, implementation of this Plan does not replace any state or federal consultation or regulatory requirements. At least 30 days prior to any land disturbance activities, the project proponent shall notify the appropriate USFWS Field Office (see Field Office contact information) via e-mail that the Plan will be implemented as described below.

As long as the signatory of the e-mail certifies compliance with the below Plan (including use of the approved poster and pamphlet ([USFWS Eastern Indigo Snake Conservation webpage](#))), no further written confirmation or approval from the USFWS is needed regarding use of this Plan as a component of the project.

If the project proponent decides to use an eastern indigo snake protection/education plan other than the approved Plan below, written confirmation or approval from the USFWS that the plan is adequate must be obtained. The project proponent shall submit their unique plan for review and approval. The USFWS will respond via e-mail, typically within 30 days of receiving the plan, either concurring that the plan is adequate or requesting additional information. A concurrence e-mail from the appropriate USFWS Field Office will fulfill approval requirements.

STANDARD PROTECTION MEASURES

BEFORE AND DURING CONSTRUCTION ACTIVITIES:

- All Project personnel shall be notified about the potential presence and appearance of the federally protected eastern indigo snake (*Drymarchon couperi*).
- All personnel shall be advised that there are civil and criminal penalties for harassing, harming, pursuing, hunting, shooting, wounding, killing, capturing, or collecting the species, in knowing violation of the Endangered Species Act of 1973.
- The project proponent or designated agent will post educational posters in the construction office and throughout the construction site. The posters must be clearly visible to all construction staff and shall be posted in a conspicuous location in the

Project field office until such time that Project construction has been completed and time charges have stopped.

- Prior to the onset of construction activities, the project proponent or designated agent will conduct a meeting with all construction staff (annually for multi-year projects) to discuss identification of the snake, its protected status, what to do if a snake is observed within the project area, and applicable penalties that may be imposed if state and/or federal regulations are violated. An educational pamphlet including color photographs of the snake will be given to each staff member in attendance and additional copies will be provided to the construction superintendent to make available in the onsite construction office. Photos of eastern indigo snakes may be accessed on USFWS, Florida Fish and Wildlife Conservation Commission and/or Georgia Department of Natural Resources websites.
- Each day, prior to the commencement of maintenance or construction activities, the Contractor shall perform a thorough inspection for the species of all worksite equipment.
- If an eastern indigo snake (alive, dead or skin shed) is observed on the project site during construction activities, all such activities are to cease until the established procedures are implemented according to the Plan, which includes notification of the appropriate USFWS Office. The contact information for the USFWS is provided below and on the referenced posters and pamphlets.
- During initial site clearing activities, an onsite observer is recommended to determine whether habitat conditions suggest a reasonable probability of an eastern indigo snake sighting (example: discovery of snake sheds, tracks, lots of refugia and cavities present in the area of clearing activities, and presence of gopher tortoises and burrows).
- Periodically during construction activities, the project area should be visited to observe the condition of the posters and Plan materials and replace them as needed. Construction personnel should be reminded of the instructions (above) as to what is expected if any eastern indigo snakes are seen.
- For erosion control use biodegradable, 100% natural fiber, net-free rolled erosion control blankets to avoid wildlife entanglement.

POST CONSTRUCTION ACTIVITIES:

Whether or not eastern indigo snakes are observed during construction activities, a monitoring report should be submitted to the appropriate USFWS Field Office within 60 days of project completion (See USFWS Field Office Contact Information).

USFWS FIELD OFFICE CONTACT INFORMATION

Georgia Field Office: Phone: (706) 613-9493, email: gaes_assistance@fws.gov
Florida Field Office: Phone: (352) 448-9151, email: fw4flesregs@fws.gov

POSTER & PAMPHLET INFORMATION

Posters with the following information shall be placed at strategic locations on the construction site and along any proposed access roads (final posters for Plan compliance are available on our website in English and Spanish and should be printed on 11 x 17in or larger paper and laminated ([USFWS Eastern Indigo Snake Conservation webpage](#))). Pamphlets are also available on our webpage and should be printed on 8.5 x 11in paper and folded, and available and distributed to staff working on the site.

POSTER CONTENT (ENGLISH):

ATTENTION

Federally-Threatened Eastern Indigo Snakes may be present on this site!

Killing, harming, or harassing eastern indigo snakes is strictly prohibited and punishable under State and Federal Law.

IF YOU SEE A LIVE EASTERN INDIGO SNAKE ON THE SITE:

- Stop land disturbing activities and allow the snake time to move away from the site without interference. Do NOT attempt to touch or handle the snake.
- Take photographs of the snake, if possible, for identification and documentation purposes.
- Immediately notify supervisor/agent, and a U.S. Fish and Wildlife Service (USFWS) Ecological Services Field Office, with the location information and condition of the snake.
- If the snake is located near clearing or construction activities that will cause harm to the snake, the activities must pause until a representative of the USFWS returns the call (within one day) with further guidance.

IF YOU SEE A DEAD EASTERN INDIGO SNAKE ON THE SITE:

- Stop land disturbing activities and immediately notify supervisor/applicant, and a USFWS Ecological Services Field Office, with the location information and condition of the snake.
- Take photographs of the snake, if possible, for identification and documentation purposes.
- Thoroughly soak the dead snake in water and then freeze the specimen. The appropriate wildlife agency will retrieve the dead snake.

DESCRIPTION: The eastern indigo snake is one of the largest non-venomous snakes in North America, reaching up to 8 ft long. Named for the glossy, blue-black scales above and slate blue below, they often have orange to reddish color (cream color in some cases)

in the throat area. They are not typically aggressive.

SIMILAR SPECIES: The black racer resembles the eastern indigo snake. However, black racers have a white or cream chin, and thinner bodies.

LIFE HISTORY: Eastern indigo snakes live in a variety of terrestrial habitat types. Although they prefer uplands, they also use wetlands and agricultural areas. They will shelter inside gopher tortoise burrows, other animal burrows, stumps, roots, and debris piles. Females may lay from 4 to 12 white eggs as early as April through June, with young hatching in late July through October.

PROTECTED STATUS: The eastern indigo snake is protected by the USFWS, Florida Fish and Wildlife Conservation Commission, and Georgia Department of Natural Resources. Any attempt to kill, harm, harass, pursue, hunt, shoot, wound, trap, capture, collect, or engage eastern indigo snakes is prohibited by the U.S. Endangered Species Act. Penalties include a maximum fine of \$25,000 for civil violations and up to \$50,000 and/or imprisonment for criminal offenses. Only authorized individuals with a permit (or an Incidental Take Statement associated with a USFWS Biological Opinion) may handle an eastern indigo snake.

Please contact your nearest USFWS Ecological Services Field Office if a live or dead eastern indigo snake is encountered:

Florida Office: (352) 448-9151

Georgia Office: (706) 613-9493

POSTER CONTENT (SPANISH):

ATENCIÓN

¡Especie amenazada, la culebra Índigo del Este, puede ocupar el área!

Matar, herir o hostigar culebras Índigo del Este es estrictamente prohibido bajo la Ley Federal.

SI VES UNA CULEBRA ÍNDIGO DEL ESTE O UNA CULEBRA NEGRA VIVA EN EL ÁREA:

- Pare excavación y permite el movimiento de la culebra fuera del área sin interferir. NO atentes tocar o recoger la culebra.
- Fotografié la culebra si es posible para identificación y documentación.
- Notifique supervisor/agente, y la Oficina de Campo de Servicios Ecológicos del Servicio Federal de Pesca y Vida Silvestre (USFWS) apropiada con información acerca del sitio y condición de la culebra.

- Si la culebra está cerca de un área de construcción que le pueda causar daño, las actividades deben parar hasta un representante del USFWS regrese la llamada (dentro de un día) con más orientación.

SI VES UNA CULEBRA ÍNDIGO DEL ESTE MUERTA EN EL ÁREA:

- Pare excavación. Notifique supervisor/aplicante, y la Oficina de Campo de Servicios Ecológicos apropiada con información acerca del sitio y condición de la culebra.
- Fotografié la culebra si es posible para identificación y documentación.
- EmERGE completamente la culebra en agua y congele la especie hasta que personal apropiado de la agencia de vida silvestre la recoja.

DESCRIPCIÓN. La culebra Índigo del Este es una de las serpientes sin veneno más grande en Norte América, alcanzando hasta 8 pies de largo. Su nombre proviene del color azul-negro brillante de sus escamas, pero pueden tener un color anaranjado-rojizo (color crema en algunos casos) en su mandíbula inferior. No tienden a ser agresivas.

SERPIENTES PARECIDAS. La corredora negra, que es de color negro sólido, es la única otra serpiente que se asemeja a la Índigo del Este. La corredora negra se diferencia por una mandíbula inferior color blanca o crema y un cuerpo más delgado.

HÁBITATS Y ECOLOGÍA. La culebra Índigo del Este vive en una variedad de hábitats, incluyendo tierras secas, humedales, y áreas de agricultura. Ellas buscan refugio en agujeros o huecos de tierra, en especial madrigueras de tortugas de tierra. Las hembras ponen 4 hasta 12 huevos blancos entre abril y junio, y la cría emergen entre julio y octubre.

PROTECCIÓN LEGAL. La culebra Índigo del Este es clasificada como especie amenazada por el USFWS, la Comisión de Conservación de Pesca y Vida Silvestre de Florida y el Departamento de Recursos Naturales de Georgia. Intento de matar, hostigar, herir, lastimar, perseguir, cazar, disparar, capturar, coleccionar o conducta parecida hacia las culebras Índigo del Este es prohibido por la Ley Federal de Especies en Peligro de Extinción. Penalidades incluyen un máximo de \$25,000 por violaciones civiles y \$50,000 y/o encarcelamiento por actos criminales. Solos individuales autorizados con un permiso o Determinación de toma incidental (Incidental Take Statement) asociado con una Opinión Biológico del USFWS pueden recoger una Índigo del Este.

Por favor de contactar tu Oficina de Campo de Servicios Ecológicos más cercana si encuentras una culebra Índigo del Este viva o muerta:

Oficina de Florida: (352) 448-9151

Oficina de Georgia: (706) 613-9493



ATTENTION

Federally-Threatened Eastern Indigo Snakes may be present on this site!

Killing, harming, or harassing eastern indigo snakes is strictly prohibited and punishable under State and Federal Law.

If you see a **LIVE** eastern indigo snake on the site:

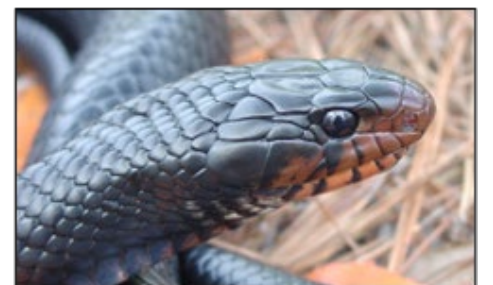
- Stop land disturbing activities and allow the snake time to move away from the site without interference. Do NOT attempt to touch or handle the snake.
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If you see a **DEAD** eastern indigo snake on the site:

- Stop land disturbing activities and immediately notify supervisor/applicant, and a USFWS Ecological Services Field Office, with the location information and condition of the snake.
- Take photographs of the snake, if possible, for identification and documentation purposes.
- Thoroughly soak the dead snake in water and then freeze the specimen. The appropriate wildlife agency will retrieve the dead snake.

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Eastern indigo snake. Credit: Dirk Stevenson



SIMILAR SPECIES. The black racer resembles the eastern indigo snake. However, black racers have a white or cream chin, and thinner bodies.

LIFE HISTORY. Eastern indigo snakes live in a variety of terrestrial habitat types. Although they prefer uplands, they also use wetlands and agricultural areas. They will shelter inside gopher tortoise burrows, other animal burrows, stumps, roots, and debris piles. Females may lay from 4 to 12 white eggs as early as April through June, with young hatching in late July through October.

Gopher tortoise and burrow. Credit: James Hunt



PROTECTED STATUS. The eastern indigo snake is protected by the USFWS, Florida Fish and Wildlife Conservation Commission, and Georgia Department of Natural Resources. Any attempt to kill, harm, harass, pursue, hunt, shoot, wound, trap, capture, collect, or engage eastern indigo snakes is prohibited by the U.S. Endangered Species Act. Penalties include a maximum fine of \$25,000 for civil violations and up to \$50,000 and/or imprisonment for criminal offenses. Only authorized individuals with a permit (or an Incidental Take Statement associated with a USFWS Biological Opinion) may handle an eastern indigo snake.

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Florida Office: (352) 448-9151
Georgia Office: (706) 613-9493



Brant Bridge Connector
City Project No. 20-015
FDOT LAP Project No. 441586-1-58-01
Bid Item List

Item No.	Pay Item	Lot Name	Item Name	Description	Quantity	Unit	Shipping Location	Pricing Type
1	101-1	Pay Item	Mobilization (shall not exceed 15% of all bid items not including allowances)		1	Lump Sum	Public Works	Contractor Bid
2	102-1	Pay Item	Maintenance of Traffic (shall not exceed 15% of all bid items not including allowances)		1	Lump Sum	Public Works	Contractor Bid
3	104-10-3	Pay Item	Sediment Barrier		3254	Linear Foot	Public Works	Contractor Bid
4	104-18	Pay Item	Inlet Protection System		16	Each	Public Works	Contractor Bid
5	108-2	Pay Item	Monitor Existing Structures - Vibration Monitoring		1	Lump Sum	Public Works	Contractor Bid
6	110-1-1	Pay Item	Clearing & Grubbing		1.07	Acre	Public Works	Contractor Bid
7	110-4-10	Pay Item	Removal of Existing Concrete		249	Square Yard	Public Works	Contractor Bid
8	110-7-1	Pay Item	Mailbox, F&I, Single		26	Each	Public Works	Contractor Bid
9	120-1	Pay Item	Regular Excavation		368.1	Cubic Yard	Public Works	Contractor Bid
10	120-6	Pay Item	Embankment		317.7	Cubic Yard	Public Works	Contractor Bid
11	160-4	Pay Item	Type B Stabilization		283	Square Yard	Public Works	Contractor Bid
12	285-706	Pay Item	Optional Base Group 6		283	Square Yard	Public Works	Contractor Bid
13	327-70-1	Pay Item	Milling Existing Asphalt Pavement, 1" Average Depth		5266	Square Yard	Public Works	Contractor Bid
14	334-1-53	Pay Item	Superpave Asphaltic Concrete (Traffic C) (PG76-22)		532.0	Ton	Public Works	Contractor Bid
15	0425-1-201A-1	Pay Item	Inlets, Curb, Type F, C Bottom, <10'		2	Each	Public Works	Contractor Bid
16	0425-1-201A-2	Pay Item	Inlets, Curb, Type F, 4' Dia., <10'		1	Each	Public Works	Contractor Bid
17	0425-1-203A	Pay Item	Inlets, Curb, Type F, 5' Dia., <10'		1	Each	Public Works	Contractor Bid
18	0425-1521A-1	Pay Item	Inlets, Ditch Bottom, Type C, 4' DIA, <10'		5	Each	Public Works	Contractor Bid
19	0425-1521A-2	Pay Item	Inlets, Ditch Bottom, Type C, w/Apron, 4' DIA, <10'		1	Each	Public Works	Contractor Bid
20	0425-1529A	Pay Item	Inlets, Ditch Bottom, Type C, Modify		1	Each	Public Works	Contractor Bid
21	425-1551A	Pay Item	Inlets, Ditch Bottom, Type E, w/Apron, <10'		1	Each	Public Works	Contractor Bid
22	425-2-41	Pay Item	Manholes, P-7, <10'		1	Each	Public Works	Contractor Bid
23	425-5-1	Pay Item	Manhole, Adjust, Utilities		1	Each	Public Works	Contractor Bid
24	425-6	Pay Item	Valve Boxes, Adjust		4	Each	Public Works	Contractor Bid
25	425-6-1	Pay Item	Meter Boxes, Adjust		1	Each	Public Works	Contractor Bid
26	430-175-118	Pay Item	Pipe Culvert, Optional Material, Round, 18" S/CD		211	Linear Foot	Public Works	Contractor Bid
27	430-175-130	Pay Item	Pipe Culvert, Optional Material, Round, 30" S/CD		4	Linear Foot	Public Works	Contractor Bid
28	0430-830	Pay Item	Pipe Filling and Plugging - Place Out of Service		3	Cubic Yard	Public Works	Contractor Bid
29	443-70-3	Pay Item	French Drain, 18"		461	Linear Foot	Public Works	Contractor Bid
30	520-1-10	Pay Item	Concrete Curb and Gutter, Type F		590	Linear Foot	Public Works	Contractor Bid
31	520-2-4	Pay Item	Concrete Curb, Type D		314	Linear Foot	Public Works	Contractor Bid
32	520-2-10A	Pay Item	Concrete Curb, Header Curb		176	Linear Foot	Public Works	Contractor Bid
33	522-1	Pay Item	Concrete Sidewalk and Driveways, 4" Thick		104	Square Yard	Public Works	Contractor Bid
34	522-2	Pay Item	Concrete Sidewalk and Driveways, 6" Thick		2672	Square Yard	Public Works	Contractor Bid
35	526-1-1	Pay Item	Pavers, Architectural, Roadway		35	Square Yard	Public Works	Contractor Bid
36	526-1101	Pay Item	Pavers, Architectural, Remove Existing and Reinstall		15	Square Yard	Public Works	Contractor Bid
37	527-2	Pay Item	Detectable Warnings		233	Square Foot	Public Works	Contractor Bid
38	570-1130	Pay Item	Performance Turf, Sodding, St Augustine Floratam		2172	Square Yard	Public Works	Contractor Bid
39	570-1-2	Pay Item	Performance Turf, Sodding, Bahia		1930	Square Yard	Public Works	Contractor Bid
40	0630-2-11	Pay Item	Conduit, Furnish & Install, Open Trench		1065	Linear Foot	Public Works	Contractor Bid
41	0630-2-12	Pay Item	Conduit, Furnish & Install, Directional Bore		536	Linear Foot	Public Works	Contractor Bid
42	0635-2-12	Pay Item	Pull & Splice Box, F&I, 24" X 36" Cover Size		3	Each	Public Works	Contractor Bid
43	0635-2-14	Pay Item	Pull & Splice Box, F&I, 17" X 30" Cover Size		18	Each	Public Works	Contractor Bid
44	1644-800	Pay Item	Fire Hydrant, Relocate		1	Each	Public Works	Contractor Bid
45	SS-1	Pay Item	Sanitary Sewer Lining		1110	Linear Foot	Public Works	Contractor Bid
46	SS-3	Pay Item	Sanitary Sewer Manhole Rehabilitation		5	Each	Public Works	Contractor Bid
47	0700-1-111	Pay Item	Single Post Sign, F&I Ground Mount, Up to 12 SF		20	Each	Public Works	Contractor Bid
48	0700-1-500	Pay Item	Single Post Sign, Relocate		1	Each	Public Works	Contractor Bid
49	0700-1-600	Pay Item	Single Post Sign, Remove		15	Each	Public Works	Contractor Bid
50	0700-2-114	Pay Item	Multi Post Sign, F&I, Ground Mount, 30.1-50.0 SF		3	Each	Public Works	Contractor Bid
51	0706-1-3	Pay Item	Raised Pavement Marker, Type B Without Final Surface Markings (Yellow/Yellow)		96	Each	Public Works	Contractor Bid
52	0706-1-3	Pay Item	Raised Pavement Marker, Type B Without Final Surface Markings (Blue/Blue)		2	Each	Public Works	Contractor Bid
53	0710-11290	Pay Item	Painted Pavement Markings, Standard, Yellow Island Nose		14	Square Foot	Public Works	Contractor Bid
54	0710-90	Pay Item	Painted Pavement Markings, Final Surface		1	Lump Sum	Public Works	Contractor Bid
55	0711-11123	Pay Item	Thermoplastic, Standard, White, Solid, 12" For Crosswalk And Roundabout		296	Linear Foot	Public Works	Contractor Bid
56	0711-11125	Pay Item	Thermoplastic, Standard, White, Solid, 24" For Stop Line And Crosswalk		129	Linear Foot	Public Works	Contractor Bid
57	0711-11130	Pay Item	Thermoplastic, Standard, White, Vertical Deflection Marking		4	Each	Public Works	Contractor Bid
58	0711-11140	Pay Item	Thermoplastic, Standard, White, Vertical Deflection Advance Warning Marking		4	Each	Public Works	Contractor Bid
59	0711-11224	Pay Item	Thermoplastic, Standard, Yellow, Solid, 18" for Diagonal or Chevron		7	Linear Foot	Public Works	Contractor Bid
60	0711-16201	Pay Item	Thermoplastic, Standard-Other Surfaces, Yellow, Solid, 6"		0.432	Gross Mile	Public Works	Contractor Bid
61	RD-1	Pay Item	Utility Allowance	(Fixed Value = \$50,000.00)	1	Allowance	Public Works	Fixed Price
62	RD-2	Pay Item	Video Recordings Allowance	(Fixed Value = \$10,000.00)	1	Allowance	Public Works	Fixed Price
63	RD-3	Pay Item	Removal and Re-Installation of all Irrigation Systems Complete & Operational Allowance	(Fixed Value = \$30,000.00)	1	Allowance	Public Works	Fixed Price
64	RD-4	Pay Item	Landscaping Allowance	(Fixed Value = \$30,000.00)	1	Allowance	Public Works	Fixed Price
65	RD-5	Pay Item	Root Barrier Allowance	(Fixed Value = \$30,000.00)	1	Allowance	Public Works	Fixed Price
66	RD-6	Pay Item	As-Built Drawings Allowance	(Fixed Value = \$20,000.00)	1	Allowance	Public Works	Fixed Price
67	RD-7	Pay Item	Indemnification Allowance	(Fixed Value = \$10.00)	1	Allowance	Public Works	Fixed Price
68	RD-8	Pay Item	Unforeseen Conditions Allowance	(Fixed Value = \$175,000.00)	1	Allowance	Public Works	Fixed Price
69	RD-9	Pay Item	NPDES Permit Allowance	(Fixed Value = \$5,000.00)	1	Allowance	Public Works	Fixed Price
70	SS-2	Pay Item	Sanitary Sewer Repairs Allowance	(Fixed Value = \$50,000.00)	1	Allowance	Public Works	Fixed Price