CONTRACT DOCUMENTS
&
SPECIFICATIONS

FOR THE

North Bay Haven
Synthetic Turf

North Bay Haven
1 Buccaneer Drive
Panama City, Florida 32404

McNEIL—CARROLL
ENGINEERING, INC.
PROFESSIONAL ENGINEERING CONSULTANTS

475 Harrison Avenue, Suite 200
Panama City, Florida 32401

NORTH BAY HAVEN – SYNTHETIC TURF
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For Informational Purposes Only - Reliance on the data is strictly up to the reader along with all associated risks therein.

SECTION 00010
ADVERTISEMENT FOR BIDS

NOTICE TO RECEIVE SEALED BIDS

NORTH BAY HAVEN
SYNTHETIC TURF

Sealed bids, subject to conditions contained herein, will be received by the Chief Educational Officer, North Bay Haven, 1 Buccaneer Drive, Panama City, Florida 32404, until Tuesday, November 24, 2026, 2:00 p.m., Central Time and then publicly opened and read at that time for furnishing all labor and materials and performing all work for the following:

North Bay Haven - Synthetic Turf

DESCRIPTION OF WORK: Bid consists of provision of all materials, labor, and equipment to prepare the development area for the football field at North Bay Haven, 1 Buccaneer Drive, Panama City, FL 32404. The project includes installation of synthetic turf; earthwork; removal of unsuitable soils; clearing/grubbing; and filling; installation of stormwater structures, stormwater pipes, synthetic turfing, sodding disturbed areas, seeding disturbed areas, sediment/erosion and turbidity control. Project bids will consist of a base bid in accordance with documents herein.

A non-mandatory pre-bid meeting will be held on Friday, November 6, 2026 at 10:00 a.m., local time, at the North Bay Haven conference room at 1 Buccaneer Drive, Panama City, FL 32404. Bidders are highly encouraged to attend the pre-bid meeting.

The nature and extent of variation and change in the subsurface conditions at the site may not become evident until the course of construction. Construction monitoring by the owner's geotechnical engineer or his representative is therefore considered necessary to verify the subsurface conditions and to check that the soils connected construction phases are properly carried out.

Bidders shall provide with their bid packages a detailed narrative of their planned approach to the project. The narrative should include, but not necessarily be limited to addressing innovative and cost saving means, methods, equipment, labor force levels and experience, materials, work shift schedules and internal quality control procedures. The narrative should include the methods and administration of excavating unsuitable soils and replacing with acceptable suitable soils.

Copies of the Contract Documents are on file at the offices of the Chief Educational Office, North Bay Haven, 1 Buccaneer Drive, Panama City, Florida 32404. The contract documents may be examined at the above address, or electronic (PDF) copies can be provided to the Bidder. Contact Jerry Powell at 850-763-5730; jpowell@mcneilcarroll.com. Printed sets will not be issued.

Guarantee will be required with each bid as follows: At least 5% of the amount of bid in the form of a certified check or bid bond payable to the North Bay Haven.

Bids, accompanied by the Public Entity Crime Statement, Bid Bond, and Tax Savings Agreement must be submitted upon the standard forms included in the Contract Documents. Also, please include the unit prices for any components identified on the bid form; these prices will be used in negotiating additions or deletions in the contract amount.

North Bay Haven (NBH) reserves the right to reject any and all bids or parts of bids, and otherwise award the bid determined to be in the best interest of the NBH. In addition to the discretionary powers vested in the NBH, and not in lieu thereof, the NBH reserves the right to reject a bid based on the absence of adequate budgetary allowances for the Project. NBH reserves the right to negotiate the terms of the Contract, including pricing and changes to the Plans and Specifications, with the lowest and best bidder. Should negotiations with the lowest and best bidder fail to result in a contract, the lowest and best bidder may be deemed disqualified and NBH may enter into negotiations with the next lowest bidder. This process may continue until negotiations with all bidders fail. NBH reserves the right to accept the lowest and best bid for a period of up to ninety (90) days.

Envelopes containing bids must be sealed, addressed as follows, and delivered to the Chief Educational Office, North Bay Haven, 1 Buccaneer Drive, Panama City, FL 32404. Cleary label “NORTH BAY HAVEN SYNTHETIC TURF” and deliver to NBH by Tuesday, November 24, 2026 at 2:00 p.m., local time.

END OF SECTION

SECTION 00020
INFORMATION FOR BIDDERS

BIDS will be received by the NORTH BAY HAVEN (herein called the "OWNER"), at North Bay Haven, 1 Buccaneer Drive, Panama City, Florida 32404, until 2:00 p.m. Central Time, Thursday, November 20, 2026. Bids will be publicly opened and read aloud at the NORTH BAY HAVEN BOARD ROOM at 2:00 p.m., Central Time, Tuesday, November 24, 2026.

Each sealed envelope containing a BID must be plainly marked on the outside as BID for

NORTH BAY HAVEN SYNTHETIC TURF

and the envelope should bear on the outside the BIDDER'S name and address.

All BIDS must be made on the required BID form. All blank spaces for BID prices must be filled in, in ink or typewritten, and the BID form must be fully completed and executed when submitted. Two originals of the bid form are required.

The OWNER may waive any informalities or minor defects or reject any and all BIDS. Any BID may be withdrawn prior to the bid opening. Any BID received after the time and date specified shall not be considered. No BIDDER may withdraw a BID within 90 days after the actual date and time of the opening. Should there be reasons why the contract cannot be awarded within the specified period, the time may be extended by mutual agreement between the OWNER and the BIDDER.

BIDDERS must satisfy themselves as to the accuracy of these Contract Documents and any estimated quantities in the BID Schedules by examination of the site and a review of the drawings and specifications including any ADDENDA. After BIDS have been submitted, the BIDDER shall not assert that there has been any misunderstanding concerning the quantities of WORK or of the nature of the WORK to be done.

The OWNER shall provide to BIDDERS prior to BIDDING if requested, all the information which is pertinent to, and which delineates and describes, the land owned and rights-of-way acquired or to be acquired.

The CONTRACT DOCUMENTS contain the provisions required for construction of the PROJECT. Information obtained from an officer, agent, or employee of the OWNER or any other person shall not affect the risks or obligations assumed by the CONTRACTOR or relieve the CONTRACTOR from fulfilling any of the conditions of the contract.

Each BID must be accompanied by a BID BOND payable to the OWNER for five percent of the total amount of the BID. As soon as the BID prices have been compared, the OWNER will return the BONDS of all except the three lowest responsible BIDDERS.

When the Agreement is executed, the bonds of the two remaining unsuccessful BIDDERS will be returned. The BID BOND of the successful BIDDER will be retained until the PAYMENT BOND and PERFORMANCE BOND have been executed and approved, after which it will be returned. A certified check may be used in lieu of a BID BOND.

The following are items required (two copies each) to be turned in as part of the BID for this project:

1. BID FORM, EXPERIENCE RECORD, TRENCH SAFETY ACT AND TAX SAVINGS AGREEMENT. The Subcontractor Experience Record shall be submitted within 48 hours of bid opening.

2. BID BOND (BIDDER may use the enclosed form or a standard bonding company form. In either case, an approved Power of Attorney form must be attached and countersigned by a Florida Agent).

3. Sworn Statement Pursuant to Section 287.133(3)(a), Florida Statutes, on Public Entity Crimes, Form PUR 7068.

4. Copy of Contractor's Equal Employment Opportunity Plan (EEOP).

5. Certification regarding Drug-Free Work Place.

A PERFORMANCE BOND and a PAYMENT BOND each in the amount of 100 percent of the CONTRACT PRICE, with a corporate surety suitable to the OWNER, will be required for the faithful performance of the contract.

Attorneys-in-fact who sign PAYMENT BONDS and PERFORMANCE BONDS must file with each BOND a certified and effective dated copy of their power of attorney authorizing the execution of the bonds on the date of the execution.

The party to whom the contract is awarded will be required to execute a CONSTRUCTION AGREEMENT ("Agreement") and obtain the PERFORMANCE BOND and PAYMENT BOND within ten (10) calendar days from the date when NOTICE OF AWARD is delivered to the BIDDER. In case of failure of the BIDDER to execute the AGREEMENT, the OWNER may consider the BIDDER in default, in which case the BID BOND accompanying the proposal shall become the property of the OWNER.

The OWNER within ten (10) days of receipt of acceptable PERFORMANCE BOND, PAYMENT BOND and AGREEMENT signed by the party to whom the AGREEMENT was awarded shall sign the AGREEMENT and return to such party an executed duplicate of the AGREEMENT. Should the OWNER not execute the AGREEMENT within such period, the BIDDER may by WRITTEN NOTICE withdraw the signed AGREEMENT. Such notice of withdrawal shall be effective upon receipt of the notice by the OWNER.

The NOTICE TO PROCEED shall be issued within ten (10) days of the execution of the AGREEMENT by the OWNER. Should there be reasons why the NOTICE TO PROCEED cannot be issued within such period; the time may be extended by mutual agreement between the OWNER and CONTRACTOR. If the NOTICE TO PROCEED has not been issued within the ten (10) day period or within the period mutually agreed upon, the CONTRACTOR may terminate the AGREEMENT without further liability on the part of either party.

Bidders are hereby advised that the Owner will only accept bids from bidders who have successfully completed a minimum of three (3) projects during the past 10 years of a similar type as the project being bid.

The OWNER may make such investigations as deemed necessary to determine the ability of each BIDDER to perform the WORK, and each BIDDER shall furnish to the OWNER all such information and data for this purpose as the OWNER may request. The OWNER reserves the right to reject any BID if the evidence submitted by, or investigation of, such BIDDER fails to satisfy the OWNER that such BIDDER is properly qualified to carry out the obligations of the AGREEMENT and to complete the WORK contemplated therein. The Owner has the authority to eliminate any and/or all bids from Contractors or subcontractors that in the opinion of the Owner have performed unsatisfactory work on prior projects.

The award will be made to the lowest responsive and responsible bidder based on the Base Bid deemed in the best interest of North Bay Haven, Contractors Qualifications and financial standing, and Owners ability to fund the work. It is anticipated that the NBH will vote on approval of the lowest responsive and responsible bidder at its December 3, 2026 Board Meeting.

The OWNER may elect to waive the requirements of issuing a Notice of Award, issuing only a Notice to Proceed. In this event, the Contractor shall submit an executed Agreement, Performance Bond and Certificate of Insurance prior to commencing work which must begin within ten (10) calendar days of the Notice to Proceed.

All applicable laws, ordinances, and the rules and regulations of all authorities having jurisdiction over construction of the PROJECT shall apply to the contract throughout construction and post construction to the extent applicable. The OWNER requires the CONTRACTOR to meet all license requirements on this project in accordance with Florida law.

Each BIDDER is responsible for inspecting the site, conducting on-site investigations deemed necessary and being thoroughly familiar with the CONTRACT DOCUMENTS. The failure or omission of any BIDDER to do any of the foregoing shall in no way relieve any BIDDER from any obligation in respect to its BID.

The low BIDDER shall supply the names and addresses of major material SUPPLIERS and SUBCONTRACTORS when required to do so by the OWNER.

The ENGINEER is McNeil Carroll Engineering, Inc. The ENGINEER'S address is 475 Harrison Avenue, Suite 200, Panama City, FL 32401 (telephone 850-763-5730).

END OF SECTION

SECTION 00030
BID

This proposal of _____
(hereinafter called "BIDDER"), organized and existing under the laws of the State of _____ doing business as _____ ("a corporation," "a partnership", or "an individual") is hereby submitted to the North Bay Haven (hereinafter called "OWNER").

In compliance with your Advertisement for Bids, the BIDDER hereby proposes to perform all Work for the construction of **NORTH BAY HAVEN – SYNTHETIC TURF** in strict accordance with the Contract Documents, within the time set forth therein, and at the prices stated below.

By submission of this Bid, each BIDDER certifies, and in the case of a joint Bid each party thereto certifies as to its own organization, that this Bid has been independently arrived at, without consultation, communication or agreement as to any matter relating to this Bid with any other BIDDER or with any competitor.

BIDDER hereby agrees to commence Work under this Agreement on or before a date to be specified in the Notice to Proceed, and to substantially complete the Base Bid portion of the project within **90** consecutive calendar days thereafter, and to fully complete the project within **30** consecutive calendar days thereafter.

The BIDDER further agrees to pay liquidated damages for each consecutive calendar day that expires after the Contract Time to substantial complete and fully complete the project. Liquidated damages for failure to substantially complete the project within the specified time will be set at **$800.00** per day. Liquidated damages for failure to fully complete the project within the specified time will be set at **$800.00** per day. Substantial Completion means that the OWNER can use the project as designed.

The Contractor shall provide an as-built survey from a licensed Florida Surveyor for review by the Engineer of Record. The Engineer of Record must approve the work prior to determining the project has met Substantial Completion.

BIDDER agrees to pay liquidated damages, as described herein.

BIDDER acknowledges receipt of the following Addendum(s):

Addendum No._____, 2026
Addendum No._____, 2026
Addendum No._____, 2026

BASE BID

This is a lump sum bid. It is the Bidders responsibility to carefully review the plans, specifications and to visit the project to determine all necessary materials, equipment, and labor to complete the Work in full, and to reflect this in the Lump Sum Bid.

Bid shall include sales tax and all other applicable taxes and fees.

BIDDER agrees to perform all the Work described in the Contract Documents for the Total Lump Sum Bid Amount of **$**_____ according to the following Bid Schedule:

BID SCHEDULE

1.	Mobilization	$_____
2.	Bond and Insurance	$_____
3.	Layout and Certified Record Drawings "As-Builts" by a Florida-Registered Land Surveyor and Hand Drawn As-Builts by a Contractor's Field Representative	$_____
4.	Demolition and Site Preparation	$_____
5.	Erosion Control/Silt Fence/BMPs	$_____
6.	Earthwork, Drainage System, Synthetic Turf Installation, etc.	$_____

TOTAL LUMP SUM BID **$**_____

ADDITIONAL BID ITEMS:

1.	*Removal of unsuitable soils, price per cubic yard	$_____
2.	*Placement of suitable material, price per cubic yard	$_____

*NOTE: The owner's geotechnical engineer, or his representative, will monitor the removal and replacement of soils. All materials must be approved prior to placement. The geotechnical engineer will also verify all quantities of materials.

ALTERNATE BID ITEMS:

1.	Midfield Logo	$_____
2.	End Zone Letters	$_____
3.	Colored Field Body	$_____

By submitting this Bid, the BIDDER understands that all items specified in these Contract Documents must be included in the Total Lump Sum Bid above, unless noted. The OWNER reserves the right to reject any and all bids received.

Below, please specify the names of the subcontractors to be used as part of your Base Bid:

Company Name

1. Site Demolition and Preparation _____
2. Synthetic Turf Installation _____
3. Concrete _____
4. Stormwater Structures and Pipes _____

NOTES:

1. Bids shall include sales tax and all other applicable taxes and fees. The OWNER may elect to utilize the Sales Tax Exempt Purchasing Agreement (Section 00098) for material at its sole discretion.

2. Bids shall be on the basis of a lump sum price, as noted above, and shall be the total compensation to be paid by OWNER for the complete Work.

3. Bid unit prices and quantities shall be applicable for any revision to the Work (either additions or omissions). In Addition these unit prices and quantities shall be reflected in the Schedule of Values as specified in the General Conditions. All unit prices are understood to include all associated charges for layout, insurance, taxes, field office and supervision, overhead and profit, bonds and miscellaneous items.

4. All bids are understood to include all associated charges for layout, as-built surveys, insurance, taxes, field office and supervision, overhead and profit, bonds and miscellaneous items.

5. The OWNER reserves the right to reject any and all bids received.

6. **Failure to insert a bid amount for any item in the Bid Schedule will be considered grounds for the OWNER to determine the BID is non-responsive.**

7. By submitting this Bid, the BIDDER and the Bid Bond surety, are deemed to have stipulated and agreed that any and all claims, demands, actions or suits whatsoever, arising under this Bid and/or Bid Bonds, shall be subjected to the sole and exclusive jurisdiction and venue of the Circuit Court of Bay County, Florida. The BIDDER and Bid Bond surety do agree, by submittal of this Bid, that the sole and exclusive jurisdiction and venue in said forum is proper and appropriate since performance of the underlying contract to be awarded is to be accomplished within Bay County, Florida.

BIDDER'S CERTIFICATION

BIDDER certifies that it has thoroughly familiarized itself with and inspected the site and has read and is thoroughly familiar with the Contract Documents. Additional site investigation, if deemed necessary by the BIDDER, shall be performed prior to Bid submittal at the BIDDER's sole expense. Bidder certifies that the Bid submitted is complete and is sufficient for the Bidder to provide a fully operational and working system in accordance with the Contract Documents. Furthermore, BIDDER certifies its understanding that neither the OWNER, Project Representative, nor ENGINEER shall provide any labor, equipment or materials of any kind, which may be required for the performance of the Work, unless otherwise specifically directed by OWNER. Likewise, BIDDER certifies that it shall provide all equipment, materials, labor and services necessary to complete the Work in accordance with the Contract Documents whether or not such equipment, material, labor, or service is expressly identified.
Such occurrences are deemed subsidiary obligations of the contract for which complete compensation is made under the Lump Sum. The failure or omission of any BIDDER to do any of the foregoing shall in no way relieve any BIDDER from any obligation in respect to its Bid.

As required, the following documents are submitted with this Bid Proposal (except as otherwise noted):

1. Bid Bond – Section 00040
2. Executed Drug Free Workplace Document – Section 00095
3. Executed Trench Safety Act Compliance Document – Section 00096
4. Executed Public Entity Crimes Statement – Section 00097
5. Copies of all acknowledged Addenda signed by Bidder evidencing receipt prior to bid.

Respectfully Submitted:

_____	_____
Signature	Company Name
_____	_____
Title	Address
_____	_____
Date	Phone Number

SEAL:

(If Bid by Corporation)

END OF SECTION

SECTION 00040
BID BOND

KNOW ALL PERSONS BY THESE PRESENTS, that we, the undersigned

_____,

as Principal, and _____,

as Surety, are hereby held and firmly bound unto the _____,

as the OWNER in the penal sum of _____

for the payment of which, will and truly be made, we hereby jointly and severally bind ourselves, successors and assigns. Signed this _____ day of _____ 2026. The Condition of the above obligation is such that whereas the principal has submitted to the OWNER, a certain Bid, attached hereto and hereby made a part hereof to enter into a Contract in writing, for the construction of the:

NORTH BAY HAVEN SYNTHETIC TURF

NOW THEREFORE:

A. If said Bid shall be rejected, or

B. If said Bid shall be accepted and the Principal shall execute and deliver the Agreement in the form of the contract as set forth in Section 00050 (properly completed in accordance with said Bid) and shall furnish a Bond for faithful performance of said contract, and for the payment of all persons performing labor or furnishing materials in connection therewith, and shall in all other respects perform its obligations created by OWNER's acceptance of said Bid, then this obligation shall be void, otherwise the same shall remain in force and agreed that the liability of the Surety for any and all claims hereunder shall, in no event, exceed the penal amount of this obligation as herein stated.

C. NOW, THEREFORE, if the OWNER shall accept the Bid of the Principal and the Principal shall execute and deliver to the OWNER the required Agreement and within 10 days after the date of a written Notice of Award in accordance with the terms of such Bid, and within said 10 days deliver to the OWNER the required Certificates(s) of Insurance, together with the required Performance and Payment Bonds in an amount of 100% the total Contract Amount as specified in the Bidding Documents or Contract Documents with good and

sufficient surety for the faithful performance of the Agreement and for the prompt payment of labor, materials, and supplies furnished in the prosecution thereof or, in the event of the failure of the Principal to execute and deliver to the OWNER such Agreement or to give such bond or bonds, and deliver to the OWNER the required certificates of insurance, if the Principal shall pay to the OWNER the fixed penal sum of $200.00 noted above as liquidated damages, and not as a penalty, as provided in the Instructions for Bidders, then this obligation shall be null and void, otherwise to remain in full force and effect.

The Surety, for value received, hereby stipulates and agrees that the obligations of said Surety and its Bond shall be in no way impaired or affected by any extension of the time within which the OWNER may accept said Bid; and said Surety does hereby waive notice of any such extension.

IN WITNESS WHEREOF, the Principal and the Surety have hereunto set their hands and seals, and such of them as are corporations have caused their corporate seals to be hereto affixed and these presents to be signed by their proper officers, the day and year first set forth above.

_____

Principal

_____

Surety

By: _____

IMPORTANT - Surety companies executing Bonds must appear on the Treasury Department's most current list (Circular 570 as amended) and be authorized to transact business in the state where the project is located.

END OF SECTION

SECTION 00050
AGREEMENT

THIS AGREEMENT, made this_____day of_____, 2026, by and between, North Bay Haven (hereinafter called "OWNER") and _____, doing business as a_____, having a business address of _____ (hereinafter called "CONTRACTOR"), for the performance of the Work (as that term is defined below) in connection with the construction of the **NORTH BAY HAVEN SYNTHETIC TURF** (Project), to be located in Bay County, Florida, in accordance with the Drawings and Specifications prepared by **McNEIL CARROLL ENGINEERING, INC.**, the Engineer of Record (hereinafter called "ENGINEER") and all other Contract Documents hereinafter specified.

The OWNER and the CONTRACTOR, for the consideration herein set forth, agree as follows:

1. The CONTRACTOR shall furnish, at its sole expense, all supervision, labor, equipment, tools, material, and supplies to properly and efficiently perform all of the Work required under the Contract Documents and shall be solely responsible for the payment of all taxes, permits and license fees, labor fringe benefits, insurance and bond premiums, and all other expenses and costs required to complete such Work in accordance with this Agreement (collectively the "Work"). CONTRACTOR's employees and personnel shall be qualified and experienced to perform the portions of the Work to which they have been assigned. In performing the Work hereunder, the CONTRACTOR shall be an independent contractor, maintaining control over and having sole responsibility for CONTRACTOR's employees and other personnel. Neither CONTRACTOR, nor any of CONTRACTOR's subcontractors or sub-subcontractors, if any, nor any of their respective employees or personnel, shall be deemed servants, employees, or agents of the OWNER.

2. The CONTRACTOR will commence the Work required by the Contract Documents within 10 calendar days after the date of the Notice to Proceed to be issued by OWNER in writing within 10 calendar days from the date of this Agreement and will achieve Substantial Completion of the Work within **90** consecutive calendar days of the required commencement date, except to the extent the period for Substantial Completion is extended pursuant to the terms of the Contract Documents ("Contract Time"). Final Completion of the Work shall be achieved by the CONTRACTOR within the time period set forth in Section 15 of Section 00100, General Conditions.

3. The CONTRACTOR agrees to pay the OWNER, as liquidated damages, the sum of **$800.00** for each calendar day that expires after the Contract Time for Substantial Completion as more fully set forth in Section 15 of Section 00100, General Conditions.

a. The CONTRACTOR agrees to perform all of the Work described in the Contract Documents and comply with the terms therein for the sum of $_____ as shown in the Bid Schedule, included within the Bid Proposal Form, as said amount may be hereafter adjusted pursuant to the terms of the Contract Documents ("Contract Price").

4. The term "Contract Documents" means and includes the following documents, all of which are incorporated into this Agreement by this reference:

1. ADVERTISEMENT FOR BIDS (SECTION 00010)
2. INFORMATION FOR BIDDERS (SECTION 00020)
3. BID (SECTION 00030)
4. BID BOND (SECTION 00040)
5. AGREEMENT (SECTION 00050)
6. PERFORMANCE BOND (SECTION 00060)
7. PAYMENT BOND (SECTION 00070)
8. NOTICE OF AWARD (SECTION 00080)
9. NOTICE TO PROCEED (SECTION 00090)
10. DRUG-FREE WORK PLACE (SECTION 00095)
11. CERTIFICATE OF COMPLIANCE WITH THE FLORIDA TRENCH SAFETY ACT (SECTION 00096)
12. PUBLIC ENTITY CRIMES STATEMENT (SECTION 00097)
13. SALES TAX AGREEMENT (SECTION 00098)
14. CERTIFICATE OF INSURANCE (SECTION 00099)
15. GENERAL CONDITIONS (SECTION 00100)
16. SUBMISSION OF WORK SCHEDULE (SECTION 00801)
17. PREVENTION, CONTROL AND ABATEMENT OF EROSION CONTROL (SECTION 00802)
18. SPECIAL PROVISIONS (SECTION 01046)
19. PERMITS AND FEES (SECTION 01065)
20. REFERENCE STANDARDS (SECTION 01095)
21. SPECIAL PROJECT PROCEDURES (SECTION 01100)
22. ENVIRONMENTAL PROTECTION (SECTION 01110)
23. SUBMITTALS (SECTION 01300)
24. CONSTRUCTION PHOTOGRAPHS (SECTION 01380)
25. MOBILIZATION/DEMOBILIZATION (SECTION 01505)

26. CONTRACT CLOSEOUT (SECTION 01705)

27. SITEWORK (SECTIONS 02110, 02200, 02211, 02222)

28. MECHANICAL (SECTION 33400)

29. APPENDICES (APPENDICES A THROUGH G)

30. PLANS prepared by McNeil Carroll Engineering, Inc.

31. ADDENDA

No.1, dated_____, 2026.

No.2, dated_____, 2026.

No.3, dated_____, 2026.

The Contract Documents also includes any written amendments to any of the above signed by the party to be bound by such amendment. The Contract Documents are sometimes referred to herein as the "Agreement."

5. The OWNER will pay to the CONTRACTOR in the manner and at such times as set forth in the General Conditions (SECTION 00100) such amounts as required by the Contract Documents.

6. This Agreement shall be binding upon all parties hereto and their respective heirs, executors, administrators, successors, and assigns.

7. This Agreement shall be governed by the laws of the State of Florida.

8. All notices required or made pursuant to this Agreement shall be in writing and, unless otherwise required by the express terms of this Agreement, may be given:

   i. By mailing same by United States mail with proper postage affixed thereto, certified, return receipt requested; or

   ii. By sending same by Federal Express, Express Mail, or other expedited mail or package delivery; or,

   iii. By hand delivery to the appropriate address as herein provided. Notices to OWNER required hereunder shall be directed to the following address:

If to OWNER:

North Bay Haven

1 Buccaneer Drive

Panama City, Florida 32404

ATTENTION: Brittany Lewis, Chief Education Officer

If to Contractor:

_____

_____

ATTENTION:_____

Fax No.:_____

Either party may change its above-noted address by giving written notice to the other party in accordance with the requirements of this Section.

9. The CONTRACTOR recognizes that the OWNER is exempt from sales tax and may wish to generate sales tax savings for the Project. Accordingly, to the extent directed by and without additional charge to the OWNER, the CONTRACTOR shall comply with and fully implement the sales tax savings program. As set forth in the Sales Tax Agreement, Section 00098.

10. The failure of the OWNER to enforce at any time or for any period of time any one or more of the provisions of the Agreement shall not be construed to be and shall not be a continuing waiver of any such provision or provisions or of its right thereafter to enforce each and every such provision.

11. Each of the parties hereto agrees and represents that the Agreement comprises the full and entire agreement between the parties affecting the Work contemplated, and no other agreement or understanding of any nature concerning the same has been entered into or will be recognized, and that all negotiations, acts, work performed, or payments made prior to the execution hereof shall be deemed merged in, integrated and superseded by this Agreement.

12. Should any provision of the Agreement be determined by a court with jurisdiction to be unenforceable, such a determination shall not affect the validity or enforceability of any other section or part thereof.

13. Unless the context of this Agreement otherwise clearly requires, references to the plural include the singular, references to the singular include the plural. The term "including" is not limiting, and the terms "hereof," "herein," "hereunder," and similar terms in this Agreement refer to this Agreement as a whole and not to any particular provision of this Agreement, unless stated otherwise. Additionally, the parties hereto acknowledge that they have carefully reviewed this Agreement and have been advised by counsel of their choosing with respect thereto, and that they understand its contents and agree that this Agreement shall not be construed more strongly against any party hereto, regardless of who is responsible for its preparation.

14. For this Project, the OWNER has designated a Project Representative to assist the OWNER with respect to the administration of this Agreement. The Project Representative to be utilized by the OWNER for this Project, shall be Sean McNeil, P.E. of McNeil Carroll Engineering, Inc.

15. The CONTRACTOR acknowledges and agrees that no interruption, interference, inefficiency, suspension or delay in the commencement or progress of the Work from any cause whatever, including those for which the OWNER, Project Representative, or ENGINEER may be responsible, in whole or in part, shall relieve the CONTRACTOR of his/her duty to perform or give rise to any right to damages or additional compensation from OWNER. The CONTRACTOR expressly acknowledges and agrees that it shall receive no damages for delay. CONTRACTOR's sole remedy, if any, against the OWNER will be the right to seek an extension to the Contract Time.

16. INSURANCE - BASIC COVERAGES REQUIRED

The CONTRACTOR shall procure and maintain the following described insurance, except for coverages specifically waived by the OWNER, on policies and with insurers acceptable to the OWNER. Current Insurance Service Office (ISO) policies, forms, and endorsements or equivalents, or broader, shall be used where applicable.

These insurance requirements shall not limit the liability of the CONTRACTOR. The insurance coverages and limits required of CONTRACTOR under this Agreement are designed to meet the minimum requirements of the OWNER and the OWNER does not represent these types or amounts of insurance to be sufficient or adequate to protect the CONTRACTOR's interests or liabilities. The CONTRACTOR alone shall be responsible to the sufficiency of its own insurance program.

The CONTRACTOR and the CONTRACTOR's subcontractors and sub-subcontractors shall be solely responsible for all of their property, including but not limited to any materials, temporary facilities, equipment and vehicles, and for obtaining adequate and appropriate insurance covering any damage or loss to such property. The CONTRACTOR and the CONTRACTOR'S subcontractors and sub-subcontractors expressly waive any claim against the OWNER arising out of or relating to any damage or loss of such property, even if such damage or loss is due to the fault or neglect of the OWNER or anyone for whom the OWNER is responsible. The CONTRACTOR is obligated to include, or cause to be included, provisions similar to this paragraph in all of the CONTRACTOR's subcontracts and its subcontractors' contracts with their sub-subcontractors.

The CONTRACTOR's deductibles/self-insured retention's shall be disclosed to the OWNER and may be disapproved by the OWNER. They may be reduced or eliminated at the option of the OWNER. The CONTRACTOR is responsible for the amount of any deductible or self-insured retention. Any deductible or retention applicable to any claim or loss shall be the responsibility of the CONTRACTOR and shall not be greater than $25,000, unless otherwise agreed to, in writing, by the OWNER.

Insurance required of the CONTRACTOR or any other insurance of the CONTRACTOR shall be considered primary, and insurance of the OWNER shall be considered excess, as may be applicable to claims or losses which arise out of the Hold Harmless, Payment on Behalf of the OWNER, Insurance, Certificates of Insurance and any Additional Insurance provisions of this agreement, contract or lease.

Workers' Compensation and Employers' Liability Insurance Coverage

The CONTRACTOR shall purchase and maintain workers' compensation and employers' liability insurance for all employees engaged in the Work, in accordance with the laws of the State of Florida, and, if applicable to the Work, shall purchase and maintain Federal Longshoremen's and Harbor Workers' Compensation Act Coverage. Limits of coverage shall not be less than:

$1,000,000	Limit Each Accident
$1,000,000	Limit Disease Aggregate
$1,000,000	Limit Disease Each Employee

The CONTRACTOR shall also purchase any other coverage required by law for the benefit of employees.

The CONTRACTOR shall provide to the OWNER an Affidavit stating that he/she meets all the requirements of Florida Statute 440.02 (13) (d).

Commercial General Liability Coverage

The CONTRACTOR shall purchase and maintain Commercial General Liability Insurance on a full-occurrence form. Coverage shall include, but not be limited to, Premises and Operations, Personal Injury, Contractual for this Agreement, Independent Contractors, Broad Form Property Damage, Products and Completed Operation Liability Coverages and shall not exclude coverage for the "X" (Explosion), "C" (Collapse) and "U" (Underground) Property Damage Liability exposures. Limits of coverage shall not be less than:

Bodily Injury, Property Damage & Personal Injury Liability	$1,000,000	Combined Single Limit Each Occurrence, and
	$2,000,000	Aggregate Limit

The General Aggregate Limit shall be specifically applicable to this Project. The Completed Operations Liability Coverages must be maintained for a period of not less than 3 years following OWNER's final acceptance of the Project.

The CONTRACTOR shall add the OWNER as an additional insured through the use of Insurance Service Office Endorsements No. CG 20.10.10.01 and No. CG 20.37.10.01 wording or equivalent, or broader, an executed copy of which shall be attached to or incorporated by reference on the Certificate of Insurance to be provided by the CONTRACTOR pursuant to the requirements of the Contract Documents.

Business Automobile Liability Coverage

The CONTRACTOR shall purchase and maintain Business Automobile Liability Insurance as to ownership, maintenance, use, loading and unloading of all of CONTRACTOR's owned, non-owned, leased, rented or hired vehicles with limits not less than:

Bodily Injury & Property Damage	$1,000,000	Combined Single Limit Each Accident

Excess or Umbrella Liability Coverage

The CONTRACTOR shall purchase and maintain Excess Umbrella Liability Insurance or Excess Liability Insurance on a full-occurrence form providing the same continuous coverages as required for the underlying Commercial General, Business Automobile, and Employers' Liability Coverages with no gaps in continuity of coverages or limits with the OWNER added by endorsement to the policy as an additional insured in the same manner as is required under the primary policies, and shall not be less than $3,000,000,each occurrence and aggregate as required by the OWNER.

IN WITNESS WHEREOF, the parties hereto have executed or caused to be executed by their duly authorized official, this Agreement in **two** copies each of which shall be deemed an original on the date first written above.

(SEAL)

ATTEST:_____

BY_____
(Signature)

NAME_____

TITLE_____

OWNER

NORTH BAY HAVEN

BY _____
(Signature)

NAME Brittany Lewis

TITLE Chief Education Officer

(SEAL)

ATTEST:

BY_____
(Signature)

NAME_____

TITLE_____

CONTRACTOR

BY_____
(Signature)

NAME _____

TITLE _____

ADDRESS: _____

_____

_____
Employer Identification
Number _____

END OF SECTION

SECTION 00060
PERFORMANCE BOND

KNOW ALL PERSONS BY THESE PRESENTS: that

_____
(Name of CONTRACTOR)

_____
(Address of CONTRACTOR)

a_____after called Principal
and
(Corporation, Partnership, or Individual)

_____
(Name of Surety)

_____
(Address of Surety)

hereinafter called Surety, are held and firmly bound unto:

North Bay Haven
(Name of OWNER)

1 Buccaneer Drive, Panama City, Florida 32404
(Address of OWNER)

hereinafter called OWNER in the total aggregate penal sum of_____Dollars &_____/100 cents ($_____) for Contract in lawful money of the United States, for the payment of which sum well and truly to be made, we bind ourselves, our heirs, executors, administrators, successors, and assigns, jointly and severally, firmly by these presents.

THE CONDITION OF THIS OBLIGATION is such that whereas, the Principal entered into a certain contract with the OWNER, dated the_____day of_____, 2026, a copy of which is hereto attached and made a part hereof for the construction of:

NORTH BAY HAVEN SYNTHETIC TURF

NOW, THEREFORE, if the Principal shall well, truly and faithfully perform its duties, all the undertakings, covenants, terms, conditions, and agreements of said Contract during the original term thereof, and any extensions thereof which may be granted by the OWNER, with or without notice to the SURETY and during the 1 year guarantee period and if the PRINCIPAL shall satisfy all claims and demands incurred under such contract, and shall fully indemnify and save harmless the OWNER from all costs and damages which it may suffer by reason of failure to do so, and shall reimburse and repay the OWNER all outlay and expense which the OWNER may incur in making good any default, then this obligation shall be void, otherwise to remain in full force and effect.

PROVIDED, FURTHER, that the said SURETY, for value received hereby stipulates and agrees that no change, extension of time, alteration or addition to the terms of the contract or to Work to be performed thereunder or the Specifications accompanying same shall in any way affect its obligation on this Bond, and does hereby waive notice of any such change, extension of time, alteration or addition to the terms of the contract or to Work or to the Specifications.

PROVIDED, FURTHER, that it is expressly agreed that the Bond shall be automatically and immediately amended, without formal and separate amendments hereto, upon amendment to the Contract not increasing the Contract Price more than 20 percent, so as to bind the PRINCIPAL and the SURETY to the full and faithful performance of the Contract as so amended.

The term "Amendment," wherever used in this Bond, and whether referring to this Bond, or the Contract Documents, shall include any alteration, addition, extension or modification of any character whatsoever.

PROVIDED, FURTHER, that no final settlement between the OWNER and the PRINCIPAL shall abridge the right of the other beneficiary hereunder, whose claim may be unsatisfied. The OWNER is the only beneficiary hereunder.

REMAINDER OF PAGE INTENTIONALLY LEFT BLANK

IN WITNESS WHEREOF, this instrument is executed in **two** counterparts, each one of which shall be deemed an original, this the_____day of_____, 2026.

_____
Principal

_____
(Principal) Secretary

(SEAL) BY _____

_____
(Address)

_____

_____
Witness as to Principal

_____
(Address)

_____

_____
(Surety)

ATTEST:

_____ BY _____
Witness to Surety Attorney-In-Fact

_____ _____
(Address) (Address)

_____ _____

NOTE:Date of Bond must not be prior to date of Contract.
CONTRACTOR's Surety shall use this form along with their personal documentation.

If CONTRACTOR is partnership, all partners should execute the Bond.

IMPORTANT: Surety companies executing Bonds must appear on the Treasury Department's most current list (Circular 570 as amended) and be authorized to transact business in the state where the Project is located.

END OF SECTION

SECTION 00070
PAYMENT BOND

KNOW ALL PERSONS BY THESE PRESENTS: that

_____
(Name of CONTRACTOR)

_____
(Address of CONTRACTOR)

a_____, hereinafter called Principal and
(Corporation, Partnership or Individual)

_____
(Name of Surety)

_____
(Address of Surety)

hereinafter called Surety, are held and firmly bound unto:

North Bay Haven
(Name of OWNER)

1 Buccaneer Drive, Panama City, Florida 32404
(Address of OWNER)

hereinafter called OWNER, and unto all persons, firms and corporations who or which may furnish labor, or who furnish materials to perform as described under the contract and to their successors and assigns in the total aggregate penal sum of_____Dollars ($_____.00) for Contract in lawful money of the United States, for the payment of which sum well and truly to be made, we bind ourselves, our heirs, personal representatives, executors, administrators, successors, and assigns, jointly and severally, firmly by these presents.

THE CONDITION OF THIS OBLIGATION is such that whereas, the PRINCIPAL entered into a certain contract with the OWNER, dated the_____day of_____, 2026, a copy of which is hereto attached and made a part hereof for the construction of :

NORTH BAY HAVEN SYNTHETIC TURF

NOW, THEREFORE, if the PRINCIPAL shall properly make payment to all persons, firms, and corporations furnishing materials for or performing labor in the prosecution of the Work provided for in such contract, and any authorized extensions or modification thereof, including all amounts due for materials, lubricants, oil, gasoline, coal and coke, fuel, repairs on machinery, equipment and tools, consumed or used in connection with the construction of such Work, and for all labor cost incurred in such Work including that by a Subcontractor or supplier of any tier, and to any mechanic or material man lienholder whether it acquires its lien by operation of state or federal law; then this obligation shall be void, otherwise to remain in full force and effect.

PROVIDED, that beneficiaries or claimants hereunder shall be limited to the Subcontractors, and persons, firms and corporations having a direct contract with the PRINCIPAL or its Subcontractors.

PROVIDED, FURTHER, that said Surety for value received hereby stipulates and agrees that no change, extension of time, alteration or addition to the terms of the contract or to Work to be performed thereunder or Specifications accompanying the same shall in any way affect its obligation on this Bond, and it does hereby waive notice of any such change, extension of time, alteration or addition to the terms of this contract or to the Work or to the Specifications.

PROVIDED, FURTHER, that no suit or action shall be commenced hereunder by any claimant: (a) Unless claimant, other than one having a direct contract with the PRINCIPAL, shall have given written notice to any two of the following: The PRINCIPAL, the OWNER, or the SURETY above named within 90 days after such claimant did or performed the last of the work or labor, or furnished the last of the materials for which said claim is made, stating with substantial accuracy the amount claimed and the name of the party to whom the materials were furnished, or for whom the work or labor was done or performed. Such notice shall be served by mailing the same by registered mail or certified mail, postage prepaid, in an envelope addressed to the PRINCIPAL, OWNER, or SURETY, at any place where an office is regularly maintained for the transaction of business, or served in any manner in which legal process may be served in the state in which the aforesaid project is located, save that such service need not be made by a public officer. (b) After expiration of 1 year following the date of which PRINCIPAL ceased work on said Contract, is being understood, however, that if any limitation embodied in the Bond is prohibited by any law controlling the construction hereof, such limitation shall be deemed to be amended so as to be equal to the minimum period of limitation permitted by such law.

PROVIDED, FURTHER, that it is expressly agreed that this Bond shall be deemed amended automatically and immediately, without formal and separate amendments hereto, upon amendment to the Contract not increasing the contract price more than twenty percent so as to bind the PRINCIPAL and the SURETY to the full and faithful performance of the Contract as so amended. The term "Amendment," wherever used in this Bond and whether referring to this Bond, or the Contract Documents shall include any alteration, addition, extension or modification of any character whatsoever.

PROVIDED, FURTHER, that no final settlement between the OWNER and the CONTRACTOR shall abridge the right of any beneficiary hereunder, whose claim may be unsatisfied.

WITNESS WHEREOF, this instrument is executed in **two** counterparts, each one of which shall be deemed an original, this the_____day of_____, 2026.

_____
Principal

_____
(Principal) Secretary

(SEAL) BY _____

_____
(Address)

_____

_____
Witness as to Principal

_____
(Address)

_____

_____
(Surety)

ATTEST:

_____ BY _____
Witness as to Surety Attorney-In-Fact

_____ _____
(Address) (Address)

_____ _____

NOTE: Date of Bond must not be prior to date of Contract.

If CONTRACTOR is a partnership, all partners should execute Bond. CONTRACTOR's Surety shall use this form along with their personal documentation.

IMPORTANT: Surety companies executing Bonds must appear on the Treasury Department's most current list (Circular 570 as amended) and be authorized to transact business in the State where the Project is located.

END OF SECTION

SECTION 00080
NOTICE OF AWARD

TO: _____

_____

_____

PROJECT DESCRIPTION:

NORTH BAY HAVEN SYNTHETIC TURF

North Bay Haven (OWNER) has considered the Bid submitted by you for the above-described Work in response to its Advertisement for Bids dated _____ _____, and associated Information for Bidders.

You are hereby notified that your Bid in the amount of $ _____ has been accepted by the OWNER. Provided, however, nothing in this Notice of Award or your delivery to the OWNER of the Agreement executed by you (with the required Bonds and Certificates of Insurance) shall in any manner or way be deemed to create any contract between you and the OWNER. No such contract shall be created unless and until the OWNER signs the Agreement.

You are required by the Information for Bidders to execute the Agreement and furnish the required CONTRACTOR's Performance Bond, Payment Bond, and Certificates of Insurance within 10 calendar days from the date of this Notice of Award.

If you fail to execute said Agreement, together with the required Certificates of Insurance and Bonds, within 10 calendar days from the date of this Notice of Award, the OWNER will be entitled to consider all your rights arising out of OWNER's acceptance of your Bid as abandoned and as a forfeiture of your Bid Deposit. The OWNER will be entitled to all other rights and remedies as may be available to it at law.

You must return an acknowledged copy of this Notice of Award to the OWNER, with the executed Agreement and required Certificates of Insurance and Bonds, within the above-noted 10 calendar day period.

Dated this _____ day of _____, 2026.

[REMAINDER OF THIS PAGE INTENTIONALLY LEFT BLANK]

NORTH BAY HAVEN
OWNER

By: _____

Name: Brittany Lewis

Title: Chief Education Officer

ACCEPTANCE OF NOTICE

Receipt of the above NOTICE OF AWARD is hereby acknowledged

By: _____ (Company Name).

This the _____ day of _____, 2026

By: _____ (Print and Sign Name).

Title: _____.

END OF SECTION

SECTION 00090
NOTICE TO PROCEED
BASE BID

TO: _____
_____
_____

DATE: _____
PROJECT: **NORTH BAY HAVEN SYNTHETIC TURF**

You are hereby notified to commence Work in accordance with the Agreement dated _____, 2026, on or before_____, 2026, and you are to substantially complete the Base Bid Work within **90** consecutive calendar days thereafter, and to fully complete the Work within **30** consecutive calendar days thereafter. The date of substantial completion of all Work is, therefore,_____, 2026. The date of final completion of all Work is, therefore,_____, 2026.

You are required to return an acknowledged copy of this Notice to Proceed to the OWNER.

NORTH BAY HAVEN

By: _____

Name: **Brittany Lewis**

Title: **Chief Education Officer**

ACCEPTANCE OF NOTICE

Receipt of the above Notice to Proceed is hereby acknowledged

By:_____(Company Name).

This the_____day of_____, 2026.

By:_____(Print and Sign Name).

Title:_____.

END OF SECTION

SECTION 00095
STATEMENT UNDER SECTION 287.087
FLORIDA STATUTES, ON PREFERENCE TO BUSINESSES WITH
DRUG-FREE WORKPLACE PROGRAMS

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, quality and service are received by the OWNER for the procurement of commodities or contractual services, a bid received by the State or by any political subdivision for the procurement of commodities or contractual services, a bid received from a business that certifies that it has implemented a drug-free workplace program shall be given preference in the award process.

Established procedures for processing tie bids will be followed if none of the tied vendors have a drug-free workplace program. In order to have a drug-free workplace program, a business shall:

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

2. Inform employees about the dangers of drug abuse in the workplace, the business' policy of maintaining a drug-free workplace, any available drug counseling, rehabilitation, and employee assistance programs, and the penalties that may be imposed upon employees for drug abuse 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 not 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 is such is available in the employee's community, by an 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 this statement, I certify that this firm complies fully with the above requirements.

_____
BIDDER SIGNATURE

END OF SECTION

SECTION 00096
CERTIFICATE OF COMPLIANCE WITH THE FLORIDA TRENCH SAFETY ACT

Bidder acknowledges sole responsibility for complying with the Florida Trench Safety Act (Act) under Section 653.60, Florida Statutes and Occupational Safety and Health Administration's excavation safety standard 29 CFR 1926.650 (Subpart P as amended). Bidder further acknowledges that included in the various items of the proposal and in the Total Lump Sum Bid are costs for complying with the Florida Trench Safety Act (90-96, Laws of Florida) effective October 1, 1990. The bidder further identifies the costs to be summarized below:

	Trench Safety Method (Description)	Units of Measure (LF, SY)	Unit (Quantity)	Extended Cost	Unit Extended Cost
A.	_____	_____	_____	_____	_____
B.	_____	_____	_____	_____	_____
C.	_____	_____	_____	_____	_____
D.	_____	_____	_____	_____	

Total: $_____

Failure to complete the above may result in the bid being declared non-responsive. The costs indicated above are provided to comply with the Act and shall not constitute grounds for any additional compensation to that listed for the separate line items of the Bid Form.

By: _____

Bidder _____

Date _____

_____
Authorized Signature

END OF SECTION

SECTION 00097
SWORN STATEMENT UNDER SECTION 287.133(3)(a), FLORIDA STATUTES, ON PUBLIC ENTITY CRIMES

THIS FORM MUST BE SIGNED AND SWORN TO IN THE PRESENCE OF A NOTARY PUBLIC OR OTHER OFFICIAL AUTHORIZED TO ADMINISTER OATHS

1. This sworn statement is submitted to _____

   by_____

   For_____

   Whose business address is _____

   _____

   _____

   and (if applicable) its Federal Employer Identification Number (FEIN) is _____ (if the entity has no FEIN, include the Social Security Number of the individual signing this sworn statement):_____

   _____

2. I understand that a "public entity crime" as defined in Section 287.133 (1)(g), Florida Statutes, means a violation of any state or federal law by a person with respect to and directly related to the transaction of business with any public entity or with an agency of political subdivision of any other state or with the United States, including, but not limited to, any bid or contract for goods or services to be provided to any public entity or such an agency or political subdivision of any other state or of the United States and involving antitrust, fraud, theft, bribery, collusion, racketeering, conspiracy, or material misrepresentation.

   I understand that "convicted" or "conviction" as defined in Paragraph 287.133 (1)(b), Florida Statutes, means a finding of guilt or a conviction of a public entity crime, with or without an adjudication of guilt, in any federal or state trial court of record relating to charges brought by indictment or information after July 1, 1989, as a result of a jury verdict, non-jury trial, or entry of a plea of guilty or nolo contendere.

3. I understand that "affiliate" as defined in Paragraph 2871.33 (1)(a), Florida Statutes, means:

   a.) A predecessor or successor of a person or a corporation convicted of a public entity crime,

   or

b.) An entity under the control of any natural person who is active in the management of the entity and who has been convicted of a public entity crime. The term "affiliate" includes officers, directors, executives, partners, shareholders, employees, members and agents who are active in the management of an affiliate. The ownership by one person of shares constituting a controlling interest in another person, or a pooling agreement of equipment or income among persons when not for fair market value under an arm's length agreement, shall be a prima facie case that one person controls another person. A person knowingly enters into a joint venture with a person who has been convicted of a public entity crime in Florida during the preceding 36 months shall be considered an affiliate.

4. I understand that a "person" as defined in Paragraph 287.133 (1)(e), Florida Statute, means any natural person or entity organized under the laws of any state or of the United States with the legal power to enter in to a binding contract and which bids or applied to bid on contracts for the provision of goods or services let by a public entity, or which otherwise transacts or applies to transact business with a public entity.

   The term "persons" includes those officers, directors, executives, partners, shareholders, employees, members, and agents who are active in management of an entity.

5. Based on information and belief, the statement which I have marked below is true in relation to the entity submitting this sworn statement. [indicate which statement applies.]

   _____Neither the entity submitting this sworn statement, nor any of its officers, directors, executives, partners, shareholders, employees, members, or agents who are active in the management of the entity, nor any affiliate of the entity has been charged with and convicted of a public entity crime subsequent to July 1, 1989.

   _____The entity submitting this sworn statement, or one or more of its officers, directors, executives, partners, shareholders, employees, members, or agents who are active in the management of the entity, or an affiliate of the entity has been charged with and convicted of a public entity crime subsequent to July 1, 1989.

   _____The entity submitting this sworn statement, or one or more of its officers, directors, executives, partners, shareholders, employees, members, or agents who are active in the management of the entity, or an affiliate of the entity has been charged with and convicted of a public entity crime subsequent to July 1, 1989. However, there has been a subsequent proceeding before a Hearing Office of the State of Florida, Division of Administrative Hearings and the Final Order entered by the Hearing Officer determined that it was not in the public interest to place the entity submitting this sworn statement on the convicted vender list. [Attach a copy of the final order]

6. I understand by my execution of this document, I acknowledge that the entity submitting this sworn statement has informed by North Bay Haven, of the terms of Section 287.133(2)(a) of the Florida Statutes which read as follows:

"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 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 in excess of the threshold amount provided in s. 287.017 for CATEGORY TWO for a period of 36 months from the date of being placed on the convicted vendor list."

7. I UNDERSTAND THAT THE SUBMISSION OF THIS FORM TO THE CONTRACTING OFFICER FOR THE PUBLIC ENTITY IDENTIFIED IN PARAGRAPH 1(ONE) ABOVE IS FOR THE PUBLIC ENTITY ONLY AND, THAT THIS FORM IS VALID THROUGH DECEMBER 31 OF THE CALENDAR YEAR WHICH IT IS FILED. I ALSO UNDERSTAND THAT I AM REQUIRED TO INFORM THE PUBLIC ENTITY PRIOR TO ENTERING INTO A CONTRACT IN EXCESS OF THE THRESHOLD AMOUNT PROVIDED IN SECTION 287.017, FLORIDA STATUTES FOR CATEGORY TWO OF ANY CHANGE IN THE INFORMATION CONTAINED IN THIS FORM.

_____
Signature

Sworn to and subscribed before me this_____day of_____, 2021.

Personally known _____

OR Produced identification_____ Notary Public- State of _____

_____ My commission expires_____

_____
[printed, typed or stamped commissioned name of notary public]

END OF SECTION

SECTION 00098
SALES TAX EXEMPT PURCHASING AGREEMENT

THIS SALES TAX EXEMPT PURCHASING AGREEMENT made as of _____, 2026, between _____ hereinafter called the "CONTRACTOR" and North Bay Haven, hereinafter called the "OWNER."

RECITALS

1. The CONTRACTOR and the OWNER entered into a Contract dated _____, 2026, (the "Contract") for the performance of the Work described therein, to which an executed copy of this Agreement shall be attached thereto and incorporated therein.

2. The CONTRACTOR and the OWNER desire to enter into an arrangement whereby certain purchases under the Contract can be made through the OWNER as a means of taking advantage of the OWNER's status of being exempt from sales and use taxes.

3. The OWNER is exempt from sales and use taxes. As such it is exempt from the payment of sales and use tax on purchases of tangible property, materials, etc., necessary for the performance of Work under construction contracts, provided the OWNER determines it is to its best interest to do so, and provided the purchase of such properties, materials, etc., are handled in the manner hereinafter described.

4. The OWNER has determined it is in its best interest to provide the opportunity to eliminate the payments of sales tax for tangible property, materials, etc., to be used in the construction of this Project, and notifies the CONTRACTOR of its intent to do so.

AGREEMENT

1. The parties intend by this Agreement to comply with the procedures and elements described in Florida Department of Revenue Technical Assistance Advisements 01A-003 (January 8, 2001) and 00A-083 (December 21, 2000), and any conflict or ambiguity in this Agreement shall be resolved in favor of meeting elements necessary to make tax exempt the purchases contemplated by this Agreement.

2. The OWNER shall, at its sole discretion, have the option to directly purchase from the supplier or vendor, any supplies, materials or equipment included in the CONTRACTOR's bid for the Contract. The OWNER reserves the right to require CONTRACTOR to assign to the OWNER agreements with suppliers for such goods. The CONTRACTOR shall, from time to time submit, update and keep current, for consideration by the OWNER, a list of all materials, supplies, and equipment to be purchased, organized by supplier or vendor. Such list shall include a brief description of the materials, supplies and equipment, and the name and address of the supplier or vendor. Suppliers or vendors reasonably anticipated to furnish material, supplies, and equipment with an aggregate purchase value of less than $10,000 need not be listed.

Goods not required for the performance of the Contract shall not be purchased under this Agreement. The OWNER reserves the right to delete or add items from this Agreement when it is in the OWNER's best interest.

3. The OWNER will be liable for the payment of all purchases properly made hereunder.

4. The CONTRACTOR shall notify all suppliers not to make sales to the CONTRACTOR under this Agreement.

5. For each purchase approved by the OWNER to be made under this Agreement, the CONTRACTOR shall furnish the OWNER in writing information sufficient for the OWNER to issue to the supplier its OWNER purchase order for the requested item which shall include as an attachment the OWNER's Certificate of Exemption. Suppliers will render statements for materials purchased to the OWNER in care of the CONTRACTOR. After accepting the goods and reviewing and approving the invoices, the CONTRACTOR will forward the invoices for approval, processing and delivery to the OWNER for payment. The CONTRACTOR will keep and furnish to the OWNER all such records, summaries, reports of purchase orders and invoices, and reports of the status and use of goods handled under this Agreement, as the OWNER may reasonably require.

6. The Contract provides that the CONTRACTOR will perform the Work under the Contract for a total lump sum of $_____, as may be amended from time to time as provided in the Contract. Said amount, as amended, due CONTRACTOR under the Contract shall be reduced by the sum of all amounts paid by the OWNER for materials and equipment purchased under this Agreement, including any shipping, handling, insurance or other, similar charges paid by the OWNER, and all of the savings of sales and use tax on the purchase of such items.

7. The CONTRACTOR shall submit his proposal for the Base Bid a with the inclusion of all required taxes including applicable sales and use tax, the same is if tax were to be paid in the normal manner. Any sales and use tax savings will be affected during the performance of the Contract.

8. The CONTRACTOR shall immediately notify all subcontractors and material and equipment dealers of the OWNER's intent to reduce the construction cost of the project by the purchase of properties, materials, etc., in the manner herein described and the CONTRACTOR shall not withhold his consent to the arrangement.

9. Administrative costs incurred by the CONTRACTOR with this Agreement, including administering the purchases in the name of the OWNER, shall be considered to be included in the base bid proposal for work. No addition shall be added to the Contract amount because of the service provided by the CONTRACTOR in the purchase of property, materials, etc., in the name of the OWNER.

10. All sales and use tax savings on the purchase of property, materials, etc., shall be credited to the OWNER and the amount of the Contract shall be reduced by the full amount of savings which are affected by the omission of payment of sales and use tax.

11. By virtue of its payment of material and equipment invoices, the OWNER further intends to benefit from any discounts offered for timely payment to the extent of one-half of the discount offered, the remaining one-half to accrue to the CONTRACTOR as an incentive for the CONTRACTOR to process invoices well within the discount period. The CONTRACTOR shall pay any late penalties caused by their failure to facilitate the processing of invoices within allotted time.

12. The CONTRACTOR, notwithstanding this special purchase arrangement, shall select, describe, order, obtain approvals, submit samples, coordinate, process, prepare shop drawings, pursue, receive, inspect, store, protect, guarantee and otherwise be responsible for all materials, the same as would have been the case if the tax saving procedures were not implemented. The OWNER shall issue a signed purchase order prior to the CONTRACTOR ordering material.

13. The CONTRACTOR as bailee shall have the obligation of receiving, inspecting, storing and safekeeping all goods and materials purchased on behalf of the OWNER pursuant to this Agreement. Further, the CONTRACTOR shall be responsible for the cost of replacing or repairing any goods or materials lost, stolen, damaged, or destroyed while in the CONTRACTOR's possession or control as bailee, as well as processing all warranty claims for defective goods and materials to the same extent as if such goods had been CONTRACTOR-supplied or purchased in the name of the CONTRACTOR.

14. The CONTRACTOR shall maintain separate accounting records for all transactions carried out under the authority granted to it under this Agreement. Such records shall be open to the OWNER or its authorized agent during normal business hours of CONTRACTOR.

15. As equitable and legal owner of the materials and equipment purchased under this Agreement, the OWNER shall bear the risk of loss thereto and shall have the insurable interest therein. Therefore, the CONTRACTOR shall, at no additional cost to the OWNER, cause the OWNER to be insured or named as an additional insured as its interest may appear against any loss or damage to such goods to the extent of their full insurable value. All such insurance shall be in such form and through such companies as may be reasonably acceptable to the OWNER and the CONTRACTOR shall provide OWNER certificates thereof requiring each insurer to provide the OWNER ten 10 days written notice in advance of cancellation or modification of coverage.

16. CONTRACTOR shall be fully responsible for all matters relating to the procurement of materials and equipment covered by this Agreement, including but not limited to, overseeing that the correct materials and the correct amounts are received timely with appropriate warranties; for inspecting and accepting the goods; and for unloading, handling and storing the materials until installed.

The CONTRACTOR shall inspect the materials when they arrive at the job site, verify that all necessary documentation accompanies the delivery and conforms with the OWNER's purchase order, and forward the invoice to the OWNER for payment if the goods are conforming and acceptable. CONTRACTOR shall verify that the materials conform to plans and specifications and determine before installation that such materials are not defective. CONTRACTOR shall manage and enforce the warranties on all materials and equipment covered by this Agreement. CONTRACTOR shall be responsible to the OWNER for its failure to fully and timely perform its obligations under this paragraph, and this Agreement generally.

17. When title to the materials and equipment covered by this Agreement passes to the OWNER prior to being incorporated into the work, the CONTRACTOR's possession of the goods is a bailment until such time as each of such goods is returned to the OWNER by being incorporated into the work.

18. The OWNER shall not be liable for delays in the work caused by delays in delivery of or defects in the goods covered by this Agreement, nor shall such delays or defects excuse CONTRACTOR in whole or in part from its obligation to timely perform the Contract.

19. In the event CONTRACTOR objects to the payment of any invoice for goods covered by this Agreement, CONTRACTOR shall at no additional cost to the OWNER, provide all assistance, records and testimony necessary or convenient for the OWNER to resolve the supplier's claim for payment.

20. This Agreement and the authority granted to CONTRACTOR hereunder may be revoked by the OWNER at any time upon verbal or written notice to CONTRACTOR at its offices located at_____, during normal business hours.

IN WITNESS WHEREOF the parties have caused these presents to be executed in their names as of the date and year first above written.

CONTRACTOR:

By: _____
(NAME OF CONTRACTOR TO BE INSERTED)

NORTH BAY HAVEN

By: _____
Brittany Lewis, Chief Education Officer

END OF SECTION

SECTION 00099
CERTIFICATE OF INSURANCE

NORTH BAY HAVEN

INSTRUCTIONS TO AGENTS IN COMPLETING THE CERTIFICATE OF INSURANCE

The Florida Department of Insurance has approved the general form and substance of the North Bay Haven (OWNER) Certificate of Insurance form for use in the State of Florida. For further information, please contact North Bay Haven.

In order to prevent unnecessary follow-up work on the Certificate or delay in the start of your insured's activity under its contract with the OWNER, please follow these instructions:

1. Complete the OWNER's Certificate of Insurance as required in your insured's contract with the OWNER.
2. Show the full name of your insured as shown in its contract with the OWNER.
3. Show the full names of the insurance companies providing coverages.
4. Under the General Liability section, show the coverages applicable by checking the appropriate boxes.
5. If required in your insured's contract with the OWNER, the Specific General Aggregate Limit for the Certificate holder's project or location must be included in the Commercial General Liability Policy and must be shown with a description of the project or location on the line beginning near the bottom of the Certificate titled "Specific Aggregate Liability".
6. Automobile Liability Coverage should be shown as applicable to "any auto" and "hired and non-owned autos" by checking the appropriate boxes.
7. Indicate whether Excess Liability is written on a "claims made" or "occurrence" form. If employers' Liability Coverage is not included, please indicate.
8. Include a brief description of the contract involving your insured in the space provided under the Description of Operations.
9. The liability policies must include the OWNER as an additional insured.
10. Complete the signature section, showing the mailing address, telephone number, and fax number of the Authorized Representative. Please also type the Authorized Representative's name under the signature. Facsimile signature is not acceptable; a manual signature of the Authorized Representative is required.
11. If time is of the essence in submitting this document, you may send a facsimile transmittal; however, you must provide a cover sheet for the document stating the Agent's signature was manually produced and not a "stamped" signature and you must follow-up by mailing the original document back to the Department indicated in the lower left corner of the Certificate.

END OF SECTION

SECTION 00100
GENERAL CONDITIONS

1. Definitions
2. Additional Instructions and Detail Drawings
3. Schedules, Reports, and Records
4. Drawings and Specifications
5. Shop Drawings
6. Material, Services, and Facilities
7. Inspection and Testing
8. Substitutions
9. Patents
10. Protection of Work, Property, and Persons
11. Supervision by Contractor
12. Changes in Work
13. Changes in Contract rice
14. Claim Period
15. Regular Working Hours
16. Written Notice
17. Time for Completion and Liquidated Damages
18. Correction of Work
19. Subsurface Conditions
20. Suspension of Work, Termination, and Delay
21. Payments to Contractor
22. Acceptance of Final Payment as Release
23. Insurance
24. Contract Security (Bonds)
25. Assignments
26. Indemnification
27. Subcontracting
28. Engineer's Authority
29. Land and Rights-of-Way
30. Guarantee
31. Arbitration
32. Taxes
33. Execution of Contract
34. Contracts and Cooperation
35. Permits
36. Use of Site
37. Temporary Facilities
38. Precautions
39. Project Layout and Control
40. Testing
41. Disposal of Waste Materials
42. Warranty of Title and Waiver of Lien
43. Ownership of Hidden Valuable Materials
44. As-Built Plans
45. Cleanup
46. Conflict of Interest
47. Gratuities
48. Protection of Lives and Property
49. Audit and Access to Records

1. DEFINITIONS

1.1 Wherever used in the Contract Documents, the following terms shall have the meanings indicated and shall be applicable to both the singular and plural thereof:

1.2 ADDENDA - Written or graphic instruments issued prior to the execution of the Agreement which modify or interpret the Contract Documents, Drawings and Specifications, by additions, deletions, clarifications, or corrections.

1.3 BID - The offer or proposal of the BIDDER submitted on the prescribed form setting forth the prices for the Work to be performed.

1.4 BIDDER - Any person, firm, or corporation submitting a Bid for the Work.

1.5 BONDS - Bid, Performance, and Payment Bonds and other instruments of surety, furnished by the CONTRACTOR and the CONTRACTOR's surety in accordance with the Contract Documents.

1.6 CHANGE ORDER - A written order to the CONTRACTOR authorizing an addition, deletion, or revision in the Work within the general scope of the Contract Documents, or authorizing an adjustment in the Contract Price or Contract Time.

1.7 CONTRACT DOCUMENTS - The contract, including Advertisement for Bids, Information for Bidders, Bid, Bid Bond, Agreement, Payment Bond, Performance Bond, Notice of Award, Notice to Proceed, General Conditions, Special Conditions, Submittals, Measurement and Payment, Project Closeout, Earthwork, Restoration, Polyvinyl Chloride Gravity Sewer Pipe, Lateral Rehabilitation, Cured-in-Place Pipe (CIPP), Manhole Liner System, Poly-Triplex Liner System, and Project Sign, as well as the Appendices Including FDEP Supplemental Conditions, Minority and Women's Business Enterprise Participation and Debarment Certification, Project Plans, Manhole Replacement Details, Pavement Restoration Details and Tax Agreement.

1.8 CONTRACT PRICE - The total monies payable to the CONTRACTOR under the terms and conditions of the Contract Documents.

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

1.10 CONTRACTOR - The person, firm, or corporation with whom the OWNER has executed the Agreement.

1.11 DRAWINGS - The parts of the Contract Documents which show the characteristics and scope of the work to be performed and which have been prepared or approved by the ENGINEER.

1.12 ENGINEER - The person, firm, or corporation named as such in the Contract Documents.

1.13 FIELD ORDER - A written order effecting a change in the Work not involving an adjustment in the Contract Price or an extension of the Contract Time, issued by the ENGINEER to the CONTRACTOR during construction.

1.14 NOTICE OF AWARD - The written notice of the acceptance of the Bid from the OWNER to the successful BIDDER.

1.15 NOTICE TO PROCEED - Written communication issued by the OWNER to the CONTRACTOR authorizing him/her to proceed with the Work and establishing the date for commencement of the Work.

1.16 OWNER - A public or quasi-public body or authority, corporation, association, partnership, or an individual for whom the Work is to be performed.

1.17 PROJECT - The undertaking to be performed as provided in the Contract Documents.

1.18 RESIDENT PROJECT REPRESENTATIVE - The authorized representative of the OWNER who is assigned to the Project site or any part thereof.

1.19 SHOP DRAWINGS - All drawings, diagrams, illustrations, brochures, schedules and other data which are prepared by the CONTRACTOR, a Subcontractor, manufacturer, Supplier or Distributor, which illustrate how specific portions of the Work shall be fabricated or installed.

1.20 SPECIFICATIONS - A part of the Contract Documents consisting of written descriptions of a technical nature of materials, equipment, construction systems, standards and workmanship.

1.21 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.

1.22 SUBSTANTIAL COMPLETION - That date certified by the ENGINEER when the construction of the Project or a specified part thereof is sufficiently completed, in accordance with the Contract Documents, so that the Project or specified part can be utilized for the purposes for which it is intended.

1.23 SUPPLEMENTAL GENERAL CONDITIONS - Modifications to General Conditions required by a State of Florida agency for participation in the Project and approved by the agency in writing prior to inclusion in the Contract Documents, or such requirements that may be imposed by applicable State of Florida laws or by the OWNER's governing regulations.

1.24 SUPPLIER - Any person or organization who supplies materials or equipment for the Work, including that fabricated to a special design, but who does not perform labor at the site.

1.25 WORK - All labor necessary to produce the construction required by the Contract Documents, and all materials and equipment incorporated or to be incorporated in the Project.

1.26 WRITTEN NOTICE - Any notice to any party of the Agreement relative to any part of this Agreement in writing and considered delivered and the service thereof completed, when posted by certified or registered mail to the said party at their last given address, or delivered in person to said party or their authorized representative on the Work.

2. ADDITIONAL INSTRUCTION AND DETAIL DRAWINGS

2.1 The CONTRACTOR may be furnished with additional instructions and detail drawings, by the ENGINEER, as necessary to carry out the Work required by the Contract Documents.

2.2 The additional drawings and instructions thus supplied will become a part of the Contract Documents. The CONTRACTOR shall carry out the Work in accordance with the additional detail drawings and instructions.

3. SCHEDULES, REPORTS, AND RECORDS

3.1 The CONTRACTOR shall submit to the OWNER such schedule of quantities and costs, progress schedules, payrolls, reports, estimates, records and other data where applicable as are required by the Contract Documents for the Work to be performed.

3.2 Prior to the first partial estimate, the CONTRACTOR shall submit construction progress schedules showing the order in which the CONTRACTOR proposes to carry on the Work, including dates at which the various parts of the Work will be started, estimated date of completion of each part and, as applicable:

3.2.1 The dates at which special detail drawings will be required; and,

3.2.2 Respective dates for submission of Shop Drawings, the beginning of manufacture, the testing and the installation of materials, supplies and equipment.

3.3 The CONTRACTOR shall also submit a schedule of payments that the CONTRACTOR anticipates will be earned during the course of the Work.

4. DRAWINGS AND SPECIFICATIONS

4.1 The intent of the Drawings and Specifications is that the CONTRACTOR shall furnish all labor, materials, tools, equipment, and transportation necessary for the proper execution of the Work in accordance with the Contract Documents and all incidental work necessary to complete the Project in an acceptable manner, ready for use, occupancy or operation by the OWNER.

4.2 In case of conflict between the Drawings and Specifications, the Specifications shall govern. Figure dimensions on Drawings shall govern over general Drawings.

4.3 Any discrepancies found between the Drawings and Specifications and site conditions or any inconsistencies or ambiguities in the Drawings or Specifications shall be immediately reported to the ENGINEER, in writing, who shall promptly correct such inconsistencies or ambiguities in writing. Work done by the CONTRACTOR after discovery of such discrepancies, inconsistencies or ambiguities shall be done at the CONTRACTOR's risk.

5. SHOP DRAWINGS

5.1 The CONTRACTOR shall provide Shop Drawings as may be necessary for the prosecution of the Work as required by the Contract Documents. The ENGINEER shall promptly review all Shop Drawings. The ENGINEER's approval of any Shop Drawing shall not release the CONTRACTOR from responsibility for deviations from the Contract Documents. The approval of any Shop Drawing which substantially deviates from the requirement of the Contract Documents shall be evidenced by a Change Order.

5.2 When submitted for the ENGINEER's review, Shop Drawings shall bare the CONTRACTOR'S certification that he has reviewed, checked and approved the Shop Drawings, and that they are in conformance with the requirements of the Contract Documents.

5.3 Portions of the Work requiring a Shop Drawing or sample submission shall not begin until the Shop Drawing or submission has been approved by the ENGINEER. A copy of each approved Shop Drawing and each approved sample shall be kept in good order by the CONTRACTOR at the site and shall be available to the ENGINEER.

6. MATERIALS, SERVICES, AND FACILITIES

6.1 It is understood that, except as otherwise specifically stated in the Contract Documents, the CONTRACTOR shall provide and pay for all materials, labor, tools, equipment, water, light, power, transportation, supervision, temporary construction of any nature, and all other services and facilities of any nature whatsoever necessary to execute, complete, and deliver the Work within the specified time.

6.2 Materials and equipment shall be so stored as to ensure the preservation of quality and fitness for the Work. Stored materials and equipment to be incorporated in the Work shall be located so as to facilitate prompt inspection.

6.3 Manufactured articles, materials, and equipment shall be applied, installed, connected, erected, used, cleaned, and conditioned as directed by the manufacturer.

6.4 Materials, supplies, or equipment shall be in accordance with samples submitted by the CONTRACTOR and approved by the ENGINEER.

6.5 Materials, supplies, or equipment to be incorporated into the Work shall not be purchased by the CONTRACTOR or the Subcontractor subject to chattel mortgage or under a conditional sale contract or other agreement by which in interest is retained by the seller.

7. INSPECTION AND TESTING

7.1 All materials and equipment used in the construction of the Project shall be subject to adequate inspection and testing in accordance with generally accepted standards, as required and defined in the Contract Documents.

7.2 The OWNER shall provide all inspection and testing services not required by the Contract Documents.

7.3 The CONTRACTOR shall provide at the CONTRACTOR's expense all testing and inspection services required by the Contract Documents.

7.4 If the Contract Documents, laws, ordinances, rules, regulations, or orders of any public authority having jurisdiction require any Work to specifically be inspected, tested, or approved by someone other than the CONTRACTOR, the CONTRACTOR will give the ENGINEER timely notice of readiness. The CONTRACTOR will then furnish the ENGINEER required certificates of inspection, testing or approval.

7.5 Inspections, tests, or approvals by the ENGINEER or others shall not relieve the CONTRACTOR from the obligations to perform the Work in accordance with the requirements of the Contract Documents.

7.6 The ENGINEER and the ENGINEER's representatives will at all times have access to the Work. In addition, authorized representatives and agents of any participating Federal or State of Florida agency shall be permitted to inspect all work, materials, payrolls, records or personnel, invoices of materials, and other relevant data and records. The CONTRACTOR will provide proper facilities for such access and observation of the Work and also for any inspection or testing thereof.

7.7 If any Work is covered contrary to the written instruction of the ENGINEER, it must, if requested by the ENGINEER, be uncovered for the ENGINEER's observation and replaced at the CONTRACTOR's expense.

7.8 If the ENGINEER considers it necessary or advisable that covered Work be inspected or tested by others, the CONTRACTOR, at the ENGINEER's request, will uncover, expose or otherwise make available for observation, inspection or testing as the ENGINEER may require, that portion of the Work in question, furnishing all necessary labor, materials, tools, and equipment. If it is found that such Work is defective, the CONTRACTOR will bear all the expenses of such uncovering, exposure, observation, inspection and testing, and of satisfactory reconstruction. If, however, such Work is not found to be defective, the CONTRACTOR will 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 an appropriate Change Order shall be issued.

8. SUBSTITUTIONS

In cases where two or more products are identified, then the CONTRACTOR may select from the products identified. Whenever a product is identified on the Drawings or Specifications by reference to a brand name with "or approved equal" appended, then the CONTRACTOR may recommend the substitution of a material, article, or piece of equipment of equal substance and function for those referred to in the Contract Documents, and if, in the opinion of the ENGINEER, such material, article, or piece of equipment is of equal substance and function to that specified, the ENGINEER will allow its substitution and use by the CONTRACTOR.

The CONTRACTOR will be required to identify selected items by brand name at the time of bidding. No substitutions will be allowed for these items, after the bids are opened.

9. PATENTS

The CONTRACTOR shall pay all applicable royalties and license fees, and shall defend all suits or claims for infringement of any patent rights and save the OWNER harmless from loss in account thereof, except that the OWNER shall be responsible for any such loss when a particular process, design, or product of a particular manufacturer or manufacturers is specified. However, if the CONTRACTOR has reason to believe that the design, process, or products specified is an infringement of a patent, the CONTRACTOR shall be responsible for such loss unless the CONTRACTOR promptly gives such information to the ENGINEER.

10. PROTECTION OF WORK, PROPERTY, AND PERSONS

10.1 The CONTRACTOR will be responsible for initiating, maintaining, and supervising all safety precautions and programs in connection with the Work. The CONTRACTOR will take all necessary precautions for the safety of, and will provide the necessary protection to prevent damage, injury or loss to all employees on the Work and other persons who may be affected thereby, all the Work and all materials or equipment to be incorporated therein, whether in storage on- or off-site, and other property at the site or adjacent thereto, including trees, shrubs, lawns, walks, pavements, roadways, structures, and utilities not designated for removal, relocation, or replacement in the course of construction.

10.2 The CONTRACTOR will comply with all applicable law, ordinances, rules, regulations, and orders of any public body having jurisdiction. The CONTRACTOR will erect and maintain, as required by the conditions and progress of the Work, all necessary safeguards for safety and protection.

The CONTRACTOR will notify OWNERs of adjacent utilities when prosecution of the Work may affect them.

The CONTRACTOR will remedy all damage, injury or loss to any property caused, directly or indirectly, in whole or part, by the CONTRACTOR, any Subcontractor or anyone directly or indirectly employed by any of them or anyone of whose acts may be liable, except damage or loss attributable to the fault of the Contract Documents or the acts or omissions of the OWNER, of the ENGINEER or anyone employed by either of them or anyone for whose acts may be liable, and not attributable, directly or indirectly, in whole or in part, to the fault or negligence of the CONTRACTOR.

10.3 In emergencies affecting the safety of persons or the Work or property at the site or adjacent thereto, the CONTRACTOR, without special instructions or authorization from the ENGINEER or OWNER, shall act to prevent threatened damage, injury, or loss. The CONTRACTOR will give the ENGINEER prompt Written Notice of any significant changes in the Work or deviations from the Contract Documents caused thereby, and a Change Order shall thereupon be issued covering the changes and deviations involved.

11. SUPERVISION BY CONTRACTOR

The CONTRACTOR will supervise and direct the Work. He will be solely responsible for the means, methods, techniques, sequences and procedures of construction. The CONTRACTOR will employ and maintain on the Work a qualified supervisor or superintendent who shall have been designated in writing by the CONTRACTOR as the CONTRACTOR'S representative at the site. The supervisor shall have full authority to act on behalf of the CONTRACTOR and all communications given to the supervisor shall be as binding as if given to the CONTRACTOR. The supervisor shall be present on the site at all times as required to perform adequate supervision and coordination of the Work.

12. CHANGES IN THE WORK

12.1 The OWNER may at any time, as the need arises, order changes within the scope of the work without invalidating the Agreement. If such changes increase or decrease the amount due under the Contract Documents, or in the time required for performance of the Work, an equitable adjustment shall be authorized by a Change Order.

12.2 The ENGINEER, also, may at any time, by issuing a Field Order, make changes in the details of the Work. The CONTRACTOR shall proceed with the performance of any changes in the Work so ordered by the ENGINEER unless the CONTRACTOR believes that such Field Order entitles the CONTRACTOR to a change in Contract Price or Time, or both, in which event the CONTRACTOR shall give the ENGINEER Written Notice thereof within seven days after the receipt of the ordered change. Thereafter the CONTRACTOR shall document the basis for the change in Contract Price or Time within 30 days. The CONTRACTOR shall not execute such changes pending the receipt of an executed Change Order or further instruction from the OWNER.

13. CHANGES IN CONTRACT PRICE

13.1 The Contract Price may be changed only by a Change Order. The value of any Work covered by a Change Order or of any claim for increase or decrease in the Contract Price shall be determined by one or more of the following methods in the order of precedence listed below:

13.1.1 Unit prices previously approved.

13.1.2 An agreed lump sum.

14. CLAIM PERIOD

No claim of the CONTRACTOR shall be allowed unless 1) CONTRACTOR has given written notice within 14 days of the incident, and 2) Within thirty days after CONTRACTOR has given the written notice, CONTRACTOR submits to OWNER a detailed claim setting forth CONTRACTOR's right to recover any additional costs and lost time as provided in the General Conditions. No claim by the CONTRACTOR for an equitable adjustment hereunder shall be allowed if asserted after final payment under this contract.

15. REGULAR WORKING HOURS

15.1 Regular working hours are defined as up to 9 hours per day, Monday through Friday, beginning no earlier than 7:30 a.m. and ending no later than 5:00 p.m., excluding 30 minutes for lunch and OWNER holidays. Whenever the CONTRACTOR is performing any part of the work, with the exception of equipment maintenance and cleanup, OWNER's representative and/or inspection will be required. Requests to work other than regular working hours must be submitted to the OWNER's designated representative, at least 48 hours prior to any proposed weekend work or scheduled extended workweeks, to give the OWNER ample time to arrange for representation and/or inspection during those periods. Periodic unscheduled overtime on weekdays will be permitted provided that 24 hours notice is provided to the OWNER's designated representative. Maintenance and cleanup may be performed during hours other than regular working hours with no notice. The CONTRACTOR shall not work on any Federal or OWNER holidays.

15.2 CONTRACTOR shall reimburse the OWNER for additional engineering and/or inspection costs incurred as a result of overtime work in excess of the regular working hours. At OWNER's option, overtime costs may either be deducted from the CONTRACTOR's monthly payment request or deducted from the CONTRACTOR's retainage prior to release of final payment. Engineering/inspection costs shall be calculated at the following rates:

Project Manager	$250.00/hour
Project Engineer	$150.00/hour
Inspector	$100.00/hour

15.3 CONTRACTOR shall work between the hours of 11:00 p.m. and 4:30 a.m. on all tie-ins to existing water mains to minimize utility down times, if applicable.

16. WRITTEN NOTICE

Any claim for an increase or decrease in the contract price shall be based on written notice delivered by the party marking the claim to the other party and to the ENGINEER promptly (but in no event later than fourteen days) after the occurrence of the event giving rise to the claim and stating the general nature of the claim.

Notice of the amount of the claim with supporting data shall be delivered within thirty days after such occurrence.

17. TIME FOR COMPLETION AND LIQUIDATED DAMAGES

17.1 The date of beginning and the time for completion of the Work are essential conditions of the Contract Documents and the Work embraced shall be commenced on a date specified in the Notice to Proceed.

17.2 The CONTRACTOR will proceed with the Work at such rate of progress to ensure full completion within the Contract Time. It is expressly understood and agreed, by and between the CONTRACTOR and the OWNER, that the Contract Time for the completion of the Work described herein is a reasonable time, taking into consideration the average climatic and economic conditions and other factors prevailing in the locality of the Work.

17.3 If the CONTRACTOR shall fail to complete the Work within the Contract Time, or extension of time granted by the OWNER, then the CONTRACTOR will pay to the OWNER the amount for liquidated damages as specified in the Bid for each calendar day that the CONTRACTOR shall be in default after the time stipulated in the Contract Documents.

17.4 The CONTRACTOR shall not be charged with liquidated damages or any excess cost when the delay in completion of the Work is due to the following and the CONTRACTOR has promptly given Written Notice of such delay to the OWNER or ENGINEER.

17.4.1 To any preference, priority, or allocation order duly issued by the OWNER.

17.4.2 To unforeseeable causes beyond the control and without the fault or negligence of the CONTRACTOR, including but not restricted to, acts of God, or of the public enemy, acts of the OWNER, acts of another CONTRACTOR in the performance of a contract with the OWNER, fires, floods, epidemics, quarantine restrictions, strikes, freight embargoes, and abnormal and unforeseeable weather; and

17.4.3 To any delays of Subcontractors occasioned by any of the causes specified in paragraphs 15.4.1 and 15.4.2 of this article.

18. CORRECTION OF WORK

18.1 The CONTRACTOR shall promptly remove from the premises all Work rejected by the ENGINEER for failure to comply with the Contract Documents, whether incorporated in the construction or not, and the CONTRACTOR shall promptly replace and re-execute the Work in accordance with the Contract Documents and without expense to the OWNER and shall bear the expense of making good all Work of other CONTRACTORs destroyed or damaged by such removal or replacement.

18.2 All removal and replacement Work shall be done at the 'CONTRACTOR's expense. If the CONTRACTOR does not take action to remove such rejected Work within 10 days after receipt of Written Notice, the OWNER may remove such Work and store the materials at the expense of the CONTRACTOR.

19. SUBSURFACE CONDITIONS

19.1 The CONTRACTOR shall promptly, and before such conditions are disturbed, except in the event of an emergency, notify the OWNER by Written Notice of:

19.1.1 Subsurface or latent physical conditions at the site differing materially from those indicated in the Contract Documents; or

19.1.2 Unknown physical conditions at the site, of an unusual nature, differing materially from those ordinarily encountered and generally recognized as inherent in Work of the character provided for in the Contract Documents.

19.2 The OWNER shall promptly investigate the conditions, and if it is found that such conditions do so materially differ and cause an increase or decrease in the cost of, or in the time required for, performance of the Work, an equitable adjustment shall be made and the Contract Documents shall be modified by a Change Order. Any claim of the CONTRACTOR for adjustment hereunder shall not be allowed unless the required Written Notice has been given; provided that the OWNER may, if the OWNER determines the facts so justify, consider and adjust any such claims asserted before the date of final payment.

20. SUSPENSION OF WORK, TERMINATION, AND DELAY

20.1 The OWNER may suspend the Work or any portion thereof for a period of not more than 90 days or such further time as agreed upon by the CONTRACTOR, by Written Notice to the CONTRACTOR, and the ENGINEER that shall fix the date on which Work shall resume. The CONTRACTOR will resume that Work on the date so fixed. The CONTRACTOR will be allowed an increase in the Contract Price or an extension of the Contract Time, or both, directly attributable to any suspension.

20.2 If the CONTRACTOR is adjudged as bankrupt or insolvent, or makes a general assignment for the benefit of its creditors, or if a trustee or receiver is appointed for the CONTRACTOR or for any of its property, or if CONTRACTOR files a petition to take advantage of any debtor's act, or to reorganize under the bankruptcy or applicable laws, or repeatedly fails to supply sufficient skilled workmen or suitable materials or equipment, or repeatedly fails to make prompt payments to Subcontractors or for labor, materials or equipment, or disregards laws, ordinances, rules, regulations, or orders of any public body having jurisdiction of the Work or disregards the authority of the ENGINEER, or otherwise violates any provision of the Contract Documents, then the OWNER may, without prejudice to any other right or remedy and after giving the CONTRACTOR and its surety a minimum of ten 10 days from delivery of a Written Notice, terminate the services of the CONTRACTOR and take possession of the Project and of all materials, equipment, tools, construction equipment and machinery thereon owned by the CONTRACTOR, and finish the Work by whatever method the OWNER may deem expedient.

In such case the CONTRACTOR shall not be entitled to receive any further payment until the Work is finished. If the unpaid balance of the Contract Price exceeds the direct and indirect costs of completing the project, including compensation for additional professional services, such excess SHALL BE PAID TO THE CONTRACTOR. If such costs exceed such unpaid balance, the CONTRACTOR will pay the difference to the OWNER. Such costs incurred by the OWNER will be determined by the ENGINEER and incorporated in a Change Order.

20.3 Where the CONTRACTOR's services have been so terminated by the OWNER, said termination shall not affect any right of the OWNER against the CONTRACTOR then existing or which may thereafter accrue. Any retention or payment of monies by the OWNER due the CONTRACTOR will not release the CONTRACTOR from compliance with the Contract Documents.

20.4 After ten 10 days from delivery of a Written Notice to the CONTRACTOR and the ENGINEER, the OWNER may, without cause and without prejudice to any other right or remedy, elect to abandon the Project and terminate the Contract. In such case the CONTRACTOR shall be paid for all Work executed and any expense sustained plus reasonable profit.

20.5 If, through no act or fault of the CONTRACTOR, the Work is suspended for a period of more than 90 days by the OWNER or under an order of court or other public authority, or the ENGINEER fails to act on any request for payment within 30 days after it is submitted, or the OWNER fails to pay the CONTRACTOR substantially the sum approved by the ENGINEER or awarded by arbitrators within 30 days of its approval and presentation, then the CONTRACTOR may after 10 days from delivery of a Written Notice to the OWNER and the ENGINEER terminate the Contract and recover from the OWNER payment for all Work executed and all expenses sustained.

In addition, and in lieu of, terminating the CONTRACT, if the ENGINEER has failed to act on a request for payment or if the OWNER has failed to make any payment as aforesaid, the CONTRACTOR may upon 10 days written notice to the OWNER and the ENGINEER stop the Work until paid all amounts then due, in which event and upon resumption of the Work Change Orders shall be issued for adjusting the Contract Price or extending the Contract Time or both to compensate for the costs and delays attributable to the stoppage of the Work.

20.6 If the performance of all or any portion of the Work is suspended, delayed, or interrupted as a result of a failure of the OWNER or ENGINEER to act within the time specified in the Contract Documents, or if no time is specified, within a reasonable time, an adjustment in the Contract Price or an extension of the Contract Time, or both, shall be made by Change Order to compensate the CONTRACTOR for the costs and delays necessarily caused by the failure of the OWNER or ENGINEER.

21. PAYMENTS TO CONTRACTOR

21.1 At least 10 days before each progress payment falls due (but not more often than once a month), the CONTRACTOR will submit to the ENGINEER a partial payment estimate filled out and signed by the CONTRACTOR covering the Work performed during the period covered by the partial payment estimate and supported by such data as the ENGINEER may reasonably require. If payment is requested on the basis of materials and equipment not incorporated in the Work but delivered and suitably stored at or near the site, the partial payment estimate shall also be accompanied by such supporting data, satisfactory to the OWNER, as will establish the OWNER'S title to the material and equipment and protect the OWNER'S interest therein, including applicable insurance. The ENGINEER will, within 10 days after receipt of each partial payment estimate either indicate in writing approval of payment, and present the partial payment estimate to the OWNER, or return the partial payment estimate to the CONTRACTOR indicating in writing the reasons for refusing to approve payment. In the latter case, the CONTRACTOR may make the necessary corrections and resubmit the partial payment estimate. The OWNER will, within 10 days of presentation of an approved partial payment estimate, pay the CONTRACTOR a progress payment on the basis of the approved partial payment estimate less the retainage. The retainage shall be an amount equal to 5% of said estimate until the work has been completed. Upon substantial completion of the work, any amount retained may be paid to the CONTRACTOR. When the Work has been substantially completed except for Work which cannot be completed because of weather conditions, lack of materials or other reasons that in the judgment of the OWNER are valid reasons for noncompletion, the OWNER may make additional payments, retaining at all times an amount sufficient to cover the estimated cost of the Work still to be completed.

21.2 The request for payment may also include an allowance for the cost of such major materials and equipment which are suitably stored either at or near the site.

21.3 Prior to Substantial Completion, the OWNER, with the approval of the ENGINEER and with the concurrence of the CONTRACTOR, may use any completed or substantially completed portions of the Work. Such use shall not constitute an acceptance of such portions of the Work.

21.4 The OWNER shall have the right to enter the premises for the purpose of doing work not covered by the Contract Documents. This provision shall not be construed as relieving the CONTRACTOR of the sole responsibility for the care and protection of the Work, or the restoration of any damaged Work except such as may be caused by agents or employees of the OWNER.

21.5 Upon completion and acceptance of the Work, the ENGINEER shall issue a certificate attached to the final payment request that the Work has been accepted under the conditions of the Contract Documents. The entire balance found to be due the CONTRACTOR, including the retained percentages, but except such sums as may be lawfully retained by the OWNER, shall be paid to the CONTRACTOR within 30 days of completion and acceptance of the Work.

21.6 The CONTRACTOR will indemnify and save the OWNER or the OWNER's agents harmless from all claims growing out of the lawful demand of Subcontractors, labors, workmen, mechanics, materialmen, and furnishers of machinery and parts thereof, equipment, tools and all supplies, incurred in the furtherance of the performance of the Work. The CONTRACTOR shall, at the OWNER's request, furnish satisfactory evidence that all obligations of the nature designated above have been paid, discharged, or waived. If the CONTRACTOR fails to do so the OWNER may, after having notified the CONTRACTOR, either pay unpaid bills or withhold from the CONTRACTOR's unpaid compensation a sum of money deemed reasonably sufficient to pay any and all such lawful claims until satisfactory evidence is furnished that all liabilities have been fully discharged whereupon payment to the CONTRACTOR shall be resumed in accordance with the terms of the Contract Documents, but in no event shall the provisions of this sentence by construed to impose any obligations upon the OWNER to either the CONTRACTOR, the CONTRACTOR's Surety, or any third party. In paying any unpaid bills of the CONTRACTOR, any payment so made by the OWNER shall be considered as a payment made under the Contract Documents by the OWNER to the CONTRACTOR and the OWNER shall not be liable to the CONTRACTOR for any such payments made in good faith.

21.7 If the OWNER fails to make payment sixty (60) days after approval by the ENGINEER, in addition to other remedies available to the CONTRACTOR, there shall be added to each such payment interest at the maximum legal rate commencing on the first day after said payment is due and continuing until the payment is received by the CONTRACTOR.

22 ACCEPTANCE OF FINAL PAYMENT AS RELEASE

The acceptance by the CONTRACTOR of final payment shall be and shall operate as a release to the OWNER of all claims and all liability to the CONTRACTOR other than claims in stated amounts as may be specifically excepted by the CONTRACTOR for all things done or furnished in connection with this Work and for every act and neglect of the OWNER and others relating to or arising out of this Work. Any payment, however, final or otherwise shall not release the CONTRACTOR or its sureties from any obligations under the Contract Documents or the Performance and Payment Bonds.

23. INSURANCE

23.1. The CONTRACTOR shall purchase and maintain such insurance as will protect it from claims set forth below which may arise out of, or result from the CONTRACTOR's execution of the Work, whether such execution by the CONTRACTOR, any Subcontractor, or by anyone directly or indirectly employed by any of them, or by anyone for whose acts any of them may be liable:

23.1.1. Claims under workman's compensation, disability benefit, and other similar employee benefit acts;

23.1.2. Claims for damages because of bodily injury, occupational sickness, or death of employees;

23.1.3. Claims for damages because of bodily injury, sickness or disease, or death of any person other than employees;

23.1.4. Claims for damages insured by usual personal injury liability coverage which are sustained

23.1.4 .1 By any person as a result of an offense directly or indirectly related to the employment of such person by the CONTRACTOR, or

23.1.4 .2 By any other person; and

23.1.4 .3 Claims for damages because of injury to or destruction of tangible property, including loss of use resulting therefrom.

23.2. Certificates of Insurance acceptable to the OWNER shall be filed with the OWNER prior to commencement of the Work. These Certificates shall contain a provision that coverages afforded under the policies will not be canceled unless at least 15 days prior Written Notice has been given to the OWNER.

23.3. The CONTRACTOR shall procure and maintain, at the CONTRACTOR's own expense, during the Contract Time, Liability Insurance as hereinafter specified:

23.3.1. CONTRACTOR's General Public Liability and Property Damage Insurance including vehicle coverage issued to the CONTRACTOR and protecting the CONTRACTOR from all claims for personal injury, including death, and all claims for destruction of or damage to property, arising out of or in connection with any operations under the Contract Documents, whether such operations by the CONTRACTOR or by any Subcontractor employed by the CONTRACTOR or anyone directly or indirectly employed by the CONTRACTOR or by a Subcontractor employed by the CONTRACTOR. Insurance shall be written with a limit of liability of not less than $1,000,000 for all damages arising out of bodily injury, including death, at any time resulting therefrom, sustained by any one person in any one accident; and a limit of liability of not less than $1,000,000 aggregate for any such damages sustained by two or more persons in any one accident. Insurance shall be written with a limit of liability of not less than $200,000 for all property damage sustained by any one person in any one accident; and a limit of liability of not less than $200,000 aggregate for any such damage sustained by two or more persons in any one accident.

23.3.2. The CONTRACTOR shall acquire and maintain, if applicable, Fire and Extended Coverage Insurance upon the Project to the full insurable value thereof for the benefit of the OWNER, the CONTRACTOR, and Subcontractors as their interest may appear. This provision shall in no way release the CONTRACTOR or CONTRACTOR's surety from obligations under the Contract Documents to fully complete the Project.

23.3.3. The CONTRACTOR shall procure and maintain, at the CONTRACTOR'S own expense, during the Contract Time, in accordance with the provisions of the laws of the State of Florida. Workmen's Compensation Insurance, including occupational disease provisions, for all of the CONTRACTOR's employees at the site of the Project and in case any Work is sublet, the CONTRACTOR shall require such Subcontractor similarly to provide Workmen's Compensation Insurance, including occupational disease provisions for all of the latter's employees unless such employees are covered by the protection afforded by the CONTRACTOR. In case any class of employees engaged in hazardous work under this contract at the site of the Project is not protected under Workman's Compensation statute, the CONTRACTOR shall provide, and shall cause each Subcontractor to provide, adequate and suitable insurance for the protection of its employees not otherwise protected.

23.3.4. The CONTRACTOR shall secure, if applicable, "All Risk" type Builder's Risk Insurance for Work to be performed. Unless specifically authorized by the OWNER, the amount of such insurance shall not be less than the Contract Price totaled in the Bid. The policy shall cover not less than the losses due to fire, explosion, hail, lightning, vandalism, malicious mischief, wind, collapse, riot, aircraft, and smoke during the Contract Time, and until the Work is accepted by the OWNER. The policy shall name as the insured the CONTRACTOR, and the OWNER.

24. CONTRACT SECURITY (BONDS)

The CONTRACTOR shall within 10 days after the receipt of the Notice of Award furnish the OWNER with a Performance Bond and a Payment Bond in penal sums equal to the amount of the Contract Price, conditioned upon the performance by the CONTRACTOR of all undertakings, covenants, terms, conditions, and agreements of the Contract Documents, and upon the prompt payment by the CONTRACTOR to all persons supplying labor and materials in the prosecution of the Work provide by the Contract Documents. Such Bonds shall be executed by the CONTRACTOR and a corporate bonding company licensed to transact such business in the State of Florida and named on the current lists of "Surety Companies Acceptable on Federal Bonds" as published in the Treasury Department Circular Number 570. The expense of these Bonds shall be borne by the CONTRACTOR. If at any time a surety on any such Bond is declared as bankrupt or loses its rights to do business in the State of Florida or is removed from the list of Surety Companies accepted on Federal Bonds, CONTRACTOR shall within 10 days after notice from the OWNER to do so, substitute an acceptable Bond (or Bonds) in such form and sum and signed by such other surety or sureties as may be satisfactory to the OWNER. The premiums on such Bond shall be paid by the CONTRACTOR. No further payment shall be deemed due nor shall be made until the new surety or sureties shall have furnished an acceptable Bond to the OWNER.

25. ASSIGNMENTS

Neither the CONTRACTOR nor the OWNER shall sell, transfer, assign, or otherwise dispose of the Contract or any portion thereof, or of any right, title or interest therein, or any obligations thereunder, without written consent of the other party.

26. INDEMNIFICATION

26.1. The CONTRACTOR will indemnify and hold harmless the OWNER and the ENGINEER and their agents and employees from and against all claims, damages, losses, and expenses including attorney's fees arising out of or resulting from the performance of the Work, provided that any such claims, damage, loss, or expense is attributable to bodily injury, sickness, disease or death, or to injury to or destruction of tangible property including the loss of use resulting therefrom; and is caused in whole or in part by any negligent or willful act or omission of the CONTRACTOR, and Subcontractor, anyone directly or indirectly employed by any of them or anyone for whose acts any of them may be liable.

26.2. In any and all claims against the OWNER or the ENGINEER, or any of their agents or employees, by any employee of the CONTRACTOR, any Subcontractor, anyone directly or indirectly employed by any of them, or anyone for whose acts any of them may be liable, the indemnification obligation shall not be limited in any way by any limitation on the amount or type of damages, compensation or benefits payable by or for the CONTRACTOR or any Subcontractor under workmen's compensation acts, disability benefit acts or other employee benefits acts.

26.3. The obligation of the CONTRACTOR under this paragraph shall not extend to the liability of the ENGINEER, its agents or employees arising out of the preparation or approval of maps, Drawings, opinions, reports, surveys, Change Orders, designs or Specifications.

27. SUBCONTRACTING

27.1. The CONTRACTOR may utilize the services of specialty subcontracts on those parts of the Work which, under normal contracting practices, are performed by specialty Subcontractors.

27.2. The CONTRACTOR shall not award Work to Subcontractor(s), in excess of fifty (50%) percent of the Contract Price, without prior written approval of the OWNER.

27.3. The CONTRACTOR shall be fully responsible to the OWNER for the acts and omissions of its Subcontractors, and of persons either directly or indirectly employed by them, as the CONTRACTOR is for the acts and omissions of persons directly employed by it.

27.4. The CONTRACTOR shall cause appropriate provisions to be inserted in all subcontracts relative to the Work to bind Subcontractors to the CONTRACTOR by the terms of the Contract Documents insofar as applicable to the Work of Subcontractors and give the CONTRACTOR the same power as regards terminating any subcontract that the OWNER may exercise over the CONTRACTOR under any provision of the Contract Documents.

27.5. Nothing contained in this Contract shall create any contractual relation between any Subcontractor and the OWNER.

28. ENGINEER'S AUTHORITY

28.1. The ENGINEER shall act as the OWNER's representative during the construction period, shall decide questions which may arise as to quality and acceptability of materials furnished and Work performed, and shall interpret the intent of the Contract Documents in a fair and unbiased manner. The ENGINEER will make visits to the site and determine of the Work is proceeding in accordance with the Contract Documents.

28.2. The CONTRACTOR will be held strictly to the intent of the Contract Documents in regard to the quality of materials, workmanship, and execution of the Work. Inspections may be at the factory or fabrication plant of the source of material supply.

28.3. The ENGINEER will not be responsible for the construction means, controls, techniques, sequences, procedures, or construction safety.

28.4. The ENGINEER shall promptly make decisions relative to interpretation of the Contract Documents.

29. LAND AND RIGHTS-OF-WAY

29.1. Prior to issuance of Notice to Proceed, the OWNER shall obtain all land and rights-of-way necessary for carrying out and for the completion of the Work to be performed pursuant to the Contract Documents, unless otherwise mutually agreed upon.

29.2. The OWNER shall provide to the CONTRACTOR information which delineates and describes the lands owned and rights-of-way acquired.

29.3. The CONTRACTOR shall provide at its own expense and without liability to the OWNER any additional land and access thereto that the CONTRACTOR may desire for temporary construction facilities, or storage of materials.

30. GUARANTEE

The CONTRACTOR shall guarantee all materials and equipment furnished and Work performed for a period of 1 year from the date of Substantial Completion. The CONTRACTOR warrants and guarantees for a period of 1 year from the date of Substantial Completion of the system that the completed system if free from all defects due to faulty materials or workmanship and the CONTRACTOR shall promptly make such corrections as may be necessary by reason of such defects including the repairs of the damage of other parts of the system resulting from such defects. The OWNER will give notice of observed defects with reasonable promptness. In the event that the CONTRACTOR should fail to make such repairs, adjustments, or other Work that may be made necessary by such defects, the OWNER may do so and charge the CONTRACTOR the cost thereby incurred. The Performance Bond shall remain in full force and effect through the guarantee period.

31. ARBITRATION

31.1. All claims, disputes, and other matters in question arising out of, or relating to, the Contract Documents or the breach thereof, except for claims which have been waived by making an acceptance of final payment as provided by Section 20, shall be decided by arbitration in accordance with the Construction Industry Arbitration Rules of the American Arbitration Association. This agreement to arbitrate shall be specifically enforceable under the prevailing arbitration law. The award rendered by the arbitrators shall be final, and judgment may be entered upon it in any court having jurisdiction thereof.

31.2. Notice of the demand for arbitration shall be filed in writing with the OWNER party to the Contract Documents and with the American Arbitration Association and a copy shall be filed with the ENGINEER. Demand for arbitration shall in no event be made on any claim, dispute, or other matter in question which would be barred by the applicable statute of limitations.

31.3. The CONTRACTOR will carry on the Work and maintain the progress schedule during any arbitration proceedings, unless otherwise mutually agreed upon in writing.

32. TAXES

The CONTRACTOR will pay all sales, consumer, use, and other similar taxes required by the laws of the State of Florida.

33. EXECUTION OF CONTRACT

33.1 The party to who each contract is awarded will be required to execute the Agreement within ten calendar days from the date when Notice of Award is delivered to the Bidder. The Notice of Award shall be accompanied by the necessary Agreement. In case of failure of the Bidder to execute the Agreement, the OWNER may at its option consider the Bidder in default.

33.2 The OWNER within 30 days from receipt of acceptable Agreement signed by the party to whom the Agreement was awarded shall sign the Agreement. Should the OWNER not execute the Agreement within such period, the Bidder may, by written notice, withdraw his signed Agreement. Such notice to withdrawal shall be effective upon by the OWNER's receipt of the notice.

33.3 The Notice to Proceed shall be issued within ten 10 days of the execution of the Agreement by the OWNER. Should there be reasons why the Notice to Proceed cannot be issued within such period; the time may be extended by mutual agreement of the OWNER and the CONTRACTOR. If the Notice to Proceed has not been issued within the 10-day period or within the period mutually agreed upon, the CONTRACTOR may terminate the Agreement without further liability on the part of either party.

34.0 CONTRACTS AND COOPERATION:

34.1 At the same time that work under this contract is being provided at the site, there may be other contractors working on the site. The OWNER reserves the right to award other contracts for work to be constructed at the same time, and in connection with, the work included in this contract.

34.2 The CONTRACTOR shall cooperate with all other contractors in such a manner, and to such extent, as best to facilitate the completion of the entire Project in the shortest time possible, subject to, at all times, the approval of the ENGINEER. It shall be the duty of each contractor to work with the other contractors, render such assistance, and to arrange his work in such a manner that shall allow the entire Project to be delivered complete and in the best possible condition.

34.3 The CONTRACTOR shall keep himself/herself fully informed at all times regarding all details of the work of other contractors working at the site, and he/she shall be responsible for all delays that may result from his failure to install his/her own work in the proper manner and at the proper time.

34.4 The CONTRACTOR shall be responsible for coordinating the relocation of existing utilities (with the respective utility companies) as needed to construct the project.

The OWNER will pay fees charged by the utility company for relocating these utilities.

35.0 PERMITS

35.1 The OWNER will have construction plans approved by all local, city, and state agencies if required. The CONTRACTOR will be responsible for conforming to requirements of these approvals. The CONTRACTOR shall obtain a National Pollutant Discharge Elimination System (NPDES) Stormwater Permit from FDEP before construction commences.

35.2 The CONTRACTOR shall notify all permitting agencies when construction commences.

35.3 The CONTRACTOR will procure and pay for all local permits, all special permits, inspection, and other charges required in connection with the Work.

36.0 USE OF SITE:

36.1 The CONTRACTOR(s) shall confine their use of the site for storage or materials, erection of temporary facilities, and parking of vehicles to areas within his Contract limits as directed by the ENGINEER. The CONTRACTOR shall not unnecessarily encumber the premises at any time.

36.2 Areas of the site in which work under this contract may be performed will be used by other contractors for storage of materials, erection of temporary facilities, and parking of vehicles. Areas used by other contractors will be vacated, as directed by the ENGINEER to permit work under this Contract, provided reasonable notice is given requesting such, all in accordance with this CONTRACTOR's construction schedule.

36.3 Signs or advertisements shall not be displayed on the site or building except with the written consent of the OWNER.

37.0 TEMPORARY FACILITIES:

37.1 The CONTRACTOR shall provide electric power, water, and other utilities as he may require for his construction purposes, and shall pay all costs incurred unless otherwise provided in the Contract Documents. At completion of the contract, all temporary facilities shall be removed from the site.

37.2 The CONTRACTOR shall provide sanitary facilities for his workmen at all times. Sanitary facilities shall be of an approved chemical type with regular servicing, as approved by the ENGINEER and local, state, and federal Health Authorities (as required).

38.0 PRECAUTIONS:

38.1 Attention is called to the fact that the CONTRACTOR is responsible for contacting all utility companies to obtain locations of all existing utilities or obstructions which he may encounter during construction. After location of utilities by the appropriate utility company, it is the CONTRACTOR's responsibility to protect all such utility lines, including service lines and appurtenances, and to replace at his own expense any which may be damaged by the CONTRACTOR's equipment or other unforeseen forces during construction of the project.

38.2 Barricades, Guards and Safety Provisions: To protect persons from injury and to avoid property damage, adequate barricades, construction signs, torches, red lanterns and guards shall be placed and maintained during progress of construction work and until it is safe for both pedestrians and vehicular traffic. Rules and regulations of local authorities regarding safety provisions shall be observed.

38.3 Traffic Controls: Trenching and earthwork shall be conducted in a manner to cause the least interruption to traffic. Where traffic must cross open trenches, provide suitable bridges.

38.4 Work in Progress: Protect completed work from damage by other work in progress. Maintain such protection as long as work is in progress.

38.5 SPECIAL PRECAUTIONS:

The CONTRACTOR shall at all times during construction activity control turbidity caused by construction related acts, by the placement of containment curtains, hay bales or suitable temporary erosion control barriers. The pumping and discharge of trench water shall be in accordance with all local, State, and Federal agencies which control such activities. Any permits for such activities shall be obtained by the CONTRACTOR and the cost of same be included in the bid price submitted.

39.0 PROJECT LAYOUT AND CONTROL:

39.1 The OWNER has provided suitable benchmarks and horizontal alignment. These items are shown on the construction drawings. Any of these points which are disturbed or destroyed by the CONTRACTOR shall be replaced at the CONTRACTOR's expense.

39.2 The CONTRACTOR shall engage a Professional Surveyor and Mapper registered in the State of Florida to practice land surveying. Said surveyor should carry Professional Liability Insurance. The land surveyor employed for this project must comply with the Minimum Technical Standards for land surveyors in the State of Florida pursuant to Florida Statute 472.027 adopted rule 121HH-29. The CONTRACTOR shall be held responsible for all mistakes that may be caused by the loss of disturbance of the ENGINEER's layout work.

39.3 Should the CONTRACTOR in the course of the work find that the points, grades and levels which are shown upon the Drawings are not conformable to the physical conditions of the locality at the proposed work or structure, he shall immediately inform the ENGINEER of the discrepancy between actual physical conditions of the locality of the proposed work, and the points, grades and levels which are shown on the drawings. No claim shall be made by the CONTRACTOR against the OWNER for compensation or damage by reasons of failure of the ENGINEER to represent upon said drawings, points, grades and levels conformable to the actual physical conditions of the locality of the proposed work.

40.0 TESTING:

The CONTRACTOR will furnish and pay for the services of a qualified independent testing laboratory approved by the ENGINEER to provide project quality control if required. It is the CONTRACTOR's responsibility to notify the ENGINEER and testing laboratory as items become ready for tests. Retesting of all testing failures shall be at the CONTRACTOR's expense. Testing laboratory shall work under direction of the ENGINEER. Copies of reports of all tests shall be sent to the CONTRACTOR, the ENGINEER and the OWNER.

41.0 DISPOSAL OF WASTE MATERIALS:

No burial of waste materials will be permitted on the premises. The CONTRACTOR shall at all times keep the premises free from accumulations of waste material or debris caused by his employees or work and shall remove same when necessary or required by the ENGINEER.

42.0 WARRANTY OF TITLE AND WAIVER OF LIEN:

No material, supplies or equipment for the work shall be purchased by the CONTRACTOR subject to any chattel mortgage or under a conditional sale or other agreement by which an interest therein or any part thereof is retained by the seller or supplier.

The CONTRACTOR warrants good title to all materials, supplies and equipment installed or incorporated in the work and agrees upon completion of all work to deliver the premises, together with all improvements and appurtenances constructed or placed thereon by him, to the OWNER free from any claims, liens or charges and further agrees that neither he nor any person, firm, or corporation furnishing any material or labor for any work covered by this contract shall have any right to a lien upon the premises or any improvements or appurtenances thereon as a result of the CONTRACTOR's failing in his commitment to the OWNER or any person, firm or corporation furnishing any material or labor for any work covered by this contract.

The CONTRACTOR shall not at any time suffer or permit any lien, attachment, or other encumbrances under the law of Florida or otherwise by any person or persons whomsoever to remain on file with the OWNER against any money due or to become due for any work done or materials furnished under the contract or by reason of any other claim or demand against the CONTRACTOR. Such lien, attachment, or other encumbrance, until it is removed, shall preclude any and all claims or demands for any payment under virtue of the contract.

43.0 OWNERSHIP OF HIDDEN VALUABLE MATERIALS:

If the excavation of this project uncovers treasure or valuable materials of any kind buried or hidden within the work, it shall remain the property of the OWNER, other provisions in the documents to the contrary notwithstanding. Guard same until it is turned over to the OWNER.

44.0 AS-BUILT PLANS:

Before final inspection the CONTRACTOR shall turn over to the ENGINEER a set of hand drawn as-builts showing field changes and actual installed conditions. This also includes electrical conduit and valve references with no less than two distances to permanent objects.

The CONTRACTOR shall also provide a digital and hard copy (signed and sealed) of as-builts certified by a Professional Land Surveyor registered in the State of Florida. The as-builts shall include locations of all stormwater structures, pipes, concrete curb, etc. associated with the work. The as-builts shall be in state plane coordinates.

45.0 CLEANUP:

Before final inspection and acceptance of the work, the CONTRACTOR shall clean stormwater structures and pipes, and restore all disturbed areas, including access, grass plots, regrassing if necessary, to as good condition as existed before work started.

46.0 CONFLICT OF INTEREST

The OWNER's officers, employees, or agents shall not engage in the award of administration of the Contract if a conflict of interest, real or apparent, would be involved. Such a conflict would arise when: (a) the employee, officer or agent; (b) any member of their immediate family; (c) their partner or (d) an organization which employs, or is about to employ, any of the above has financial or interest in the CONTRACTOR. The OWNER's officers, employees, or agents shall neither solicit nor accept gratuities, favors or anything of monetary value from the CONTRACTOR or subcontractor.

47.0 GRATUITIES

47.1 If the OWNER finds after a notice and hearing that the CONTRACTOR, or any of the CONTRACTOR's agents or representatives, offered or gave gratuities (in the form of entertainment, gifts (or otherwise) to any official, employee, or agent of the OWNER, the State, or other officials in an attempt to secure this Contract or favorable treatment in awarding, amending, or making any determinations related to the performance of this Contract, the OWNER may, by written notice to the CONTRACTOR, terminate this Contract. The OWNER may also pursue other rights and remedies that the law or this Contract provides. However, the existence of the facts on which the OWNER bases such findings shall be an issue and may be reviewed in proceedings under the Remedies Clause of this Contract.

47.2 In the event this Contract is terminated as provided in paragraph 50.1 above, the OWNER may pursue the same remedies against the CONTRACTOR as it could pursue in the event of a breach of the Contract by the CONTRACTOR. As a penalty, in addition to any other damages to which it may be entitled by law, the OWNER may pursue exemplary damages in an amount (as determined by the OWNER) which shall be not less than three nor more than ten times the costs the CONTRACTOR incurs in providing any such gratuities to any such officer or employee.

48.0 PROTECTION OF LIVES AND PROPERTY

48.1 In order to protect the lives and health of its employees under the Contract, the CONTRACTOR shall comply with all pertinent provisions of the Occupational Safety and Health Administration (OSHA) and any State Safety and Health agency requirements.

48.2 The CONTRACTOR alone shall be responsible for the safety, efficiency, and adequacy of its plant, appliances, and methods, and for any damage which may result from their failure or their improper construction, maintenance or operation.

49.0 AUDIT AND ACCESS TO RECORDS

For all negotiated contracts (except those of $10,000 or less), the OWNER or any of their duly authorized representatives, shall have access to any books, documents, papers and records of the CONTRACTOR, which are pertinent to the Contract, for the purpose of making audits, examinations, excerpts and transcriptions. The CONTRACTOR shall maintain all required records for three years after final payment is made and all other pending matters are closed.

END OF SECTION

SECTION 00801
SUBMISSION OF WORK SCHEDULE

PART 1 – GENERAL

1.1 CONSTRUCTION SCHEDULE

The Construction Schedule to be submitted by the CONTRACTOR within the timeframe set forth in the Contract Documents shall be in CPM schedule format.

The CONTRACTOR shall develop the schedule in Precedence Diagram Method (PDM) format, consistent with Contract milestones, showing activities for each discrete Contract activity to be accomplished within each Maintenance of Traffic (MOT) phase. It shall include activities for deliverables and reviews in the schedule. Sufficient liaison shall be conducted and information provided to indicate coordination with utility owners having facilities within the project limits. The Construction Schedule must reflect the utility requirements included in the Contract Documents, unless changed by mutual agreement of the utility company, the CONTRACTOR, the OWNER and the PROJECT REPRESENTATIVE. The Construction Schedule shall assign calendar day durations to each activity.

Failure to include any element of work or any activity relating to utility relocation will not relieve the CONTRACTOR from completing all Work within the Contract Time at no additional contract time or cost, not withstanding prior acceptance of the schedule.

The CONTRACTOR shall prepare a CPM Network Diagram in time-scale logic diagram, by week starting on Monday, grouped (banded) by work areas and sorted by early start days. The CONTRACTOR shall prominently identify the critical path activities, defined as the longest continuous path of work activities and submit the Network Diagram on D size, 22-inch by 34-inch [559 by 864 mm] or E size, 34-inch by 44-inch [864 by 1,118 mm] paper.

The CONTRACTOR shall submit one copy of schedule reports containing, as a minimum: identification, activity description, estimated total duration, estimated remaining duration, computed or specified early start date, computed or specified late finish date, and total float. Submit all reports on 8.5-inch by 11-inch [216 by 280 mm] paper, sorted as follows:

A. Activity Report:

1. Include activities shown on the Contract.

2. Schedule listed in order of ascending activity number.

B. Float Report:

1. Include activities shown on the Contract.

2. Schedule listed in order of the ascending total float values.

C. Early Start Report:

1. Include activities shown on the Contract.

2. Schedule in chronological order by early start date.

D. Predecessor/Successor Report:

1. Include activities shown on the Contract.

2. Schedule listed in order of ascending activity numbers with the associated predecessor and successor activity numbers.

E. Narrative:

1. Explain, in narrative form, how durations were determined and describe the proposed approach for meeting interim and final completion milestone dates specified in the Contract. Include assumptions made, restraints, critical path activities, means and methods, crews planned for each operation, equipment requirements, activities requiring overtime, additional shifts, permits, coordination requirements, long lead delivery items, or other significant requirements which would affect the ability to meet the interim and final milestone dates.

2. Failure to include in the schedule any element of work shall not excuse the Contractor from completing all Work required to achieve completion.

The PROJECT REPRESENTATIVE will have 30 days to accept the Construction Schedule or to schedule a meeting with the CONTRACTOR to resolve any problems that prevent acceptance of the schedule. The CONTRACTOR shall attend the meeting scheduled by the PROJECT REPRESENTATIVE, and submit a corrected Construction Schedule to the PROJECT REPRESENTATIVE within 7 days after the meeting. The process will be continued until a Construction Schedule is accepted by the PROJECT REPRESENTATIVE.

The Construction Schedule may indicate a completion date in advance of the Contract completion date. However, the OWNER will not be liable in any way for the CONTRACTOR's failure to complete the Project prior to the Contract completion date. Any additional costs, including extended overhead incurred between the CONTRACTOR's schedule completion date and the completion of Contract Time, shall be the responsibility of the CONTRACTOR. The CONTRACTOR shall not be entitled to claim or recover any such cost from the OWNER.

On each Monday prior to the monthly estimate cutoff date, The CONTRACTOR shall submit Contract Schedule, updated to reflect actual start dates, actual finish dates, added activities, changes in sequence and days remaining, to the Projective Representative for acceptance. Include an updated Network Diagram and computer-generated reports and a narrative as herein specified. In the narrative, address changes in duration of any activity and changes to logic of activities which were performed in a sequence different from those shown in the latest accepted Construction Schedule. Also, address activities to be added to the schedule, identification of supplemental agreements and change orders, and the incorporation of accepted schedule revisions.

Any changes to the sequencing must be coordinated with the utility work shown in the plans. If the schedule provided indicates an actual or potential delay to the completion of the Contract include in the narrative a discussion of problems, causes, activities affected and describe the means and methods to be utilized to complete the project in the authorized time. Attend meetings scheduled by the PROJECT REPRESENTATIVE to resolve any problems that prevent acceptance of the updated Construction Schedule, and submit revised schedules as necessary for the PROJECT REPRESENTATIVE's acceptance. By acceptance of the Construction Schedule, the PROJECT REPRESENTATIVE does not endorse or otherwise certify the validity or accuracy of the activity durations or logic utilized.

The PROJECT REPRESENTATIVE will withhold monthly payments due for failure of the CONTRACTOR to meet the requirements for submittal and acceptance of the Construction Schedule, including the monthly updates.

1.2 WEEKLY MEETINGS

Attend weekly meetings scheduled by the PROJECT REPRESENTATIVE to discuss Contract progress, near-term scheduled activities, including utility relocations, problems and their proposed solutions. The CONTRACTOR shall submit a 2-Week Planning Schedule at each weekly meeting, showing the items of work planned for the next 2 weeks. Develop the schedule in Bar Chart format, identifying current and planned activities and related Construction Schedule work activities, including subcontractor work. Designate all activities that are controlling Work items as determined by the currently accepted Construction Schedule.

1.3 FLOAT

Float is not for the exclusive use or benefit of either the OWNER or the CONTRACTOR. The PROJECT REPRESENTATIVE will grant time extensions only to the extent that time adjustments to the affected activities exceed the total float along the affected paths of the currently accepted Construction Schedule at the time of delay. Submit a network diagram, total float report a narrative report to support any request for additional Contract time.

1.4 PERFORMANCE OF WORK

By submitting a schedule the CONTRACTOR is making a positive assertion that the Project will be constructed in the order indicated on the Construction Schedule. The CONTRACTOR shall prosecute the Work in accordance with the latest accepted Construction Schedule. Any costs associated with meeting milestones and completing the Project within the authorized Contract Time will be borne solely by the CONTRACTOR.

1.5 AS-BUILT SCHEDULE

As a condition for the release of any retainage, submittals of as-built schedules which describes the actual order and start and stop times for all activities by the CONTRACTOR is required.

END OF SECTION

SECTION 00802
PREVENTION, CONTROL AND ABATEMENT OF EROSION AND WATER POLLUTION

PART 1 – GENERAL

1.1 PRECONSTRUCTION REQUIREMENTS

At the Preconstruction Conference, the CONTRACTOR shall provide to the PROJECT REPRESENTATIVE an Erosion Control Plan meeting the requirements or special conditions of all permits authorizing project construction and the Contract requirements.

When a Florida Department of Environmental Protection (FDEP) generic permit is issued, the CONTRACTOR's Erosion Control Plan shall be prepared to accompany the Stormwater Pollution Prevention Plan (SWPPP). The CONTRACTOR shall ensure the Erosion Control Plan includes procedures to control off-site tracking of soil by vehicles and construction equipment and a procedure for cleanup and reporting of non-stormwater discharges, such as contaminated groundwater or accidental spills. The CONTRACTOR shall not begin any soil disturbing activities until receipt of PROJECT REPRESENTATIVE's written approval of the CONTRACTOR's Erosion Control Plan, including required signed certification statements.

The CONTRACTOR's failure to sign any required documents or certification statements will be considered a default of the Contract. Any soil disturbing activities performed by the CONTRACTOR or any of its subcontractors without the required signed documents or certification statements may be considered a violation of the FDEP Generic Permit.

When the SWPPP is required, the CONTRACTOR shall prepare the Erosion Control Plan in accordance with the planned sequence of operations and present the Erosion Control Plan in a format acceptable to the PROJECT REPRESENTATIVE. The Erosion Control Plan shall include, but not be limited to, descriptions of the following items or activities:

A. For each phase of construction operations or activities, supply the following information:

1. Locations of all erosion control devices.

2. Types of all erosion control devices.

3. Estimated time erosion control devices will be in operation.

4. Monitoring schedules for maintenance of erosion control devices.

5. Methods of maintaining erosion control devices.

6. Containment or removal methods for pollutants or hazardous wastes.

B. The name and telephone number of the person responsible for monitoring and maintaining the erosion control devices.

C. The Erosion Control Plan submitted to the PROJECT REPRESENTATIVE for the ENGINEER's approval.

The CONTRACTOR shall not begin construction activities until the Erosion Control Plan receives written approval from the ENGINEER. The CONTRACTOR shall comply with the approved Erosion Control Plan.

1.2 BALES

A. The CONTRACTOR shall provide baled hay or straw having minimum dimensions of 14 inches by 18 inches by 36 inches [350 by 450 by 900 mm] at the time of placement.

B. The CONTRACTOR shall construct baled hay or straw dams according to details shown in the plans or as directed by the PROJECT REPRESENTATIVE to protect against downstream accumulations of sediment.

C. The CONTRACTOR shall use natural baled hay or straw or synthetic hay bales as an alternative to natural baled hay or straw. Synthetic hay bales should be interlocking, have pre-made stake holes, made of synthetic fibers (polypropylene, nylon, polyester) that meet the Environmental Protection Agency's (EPA's) Toxicity Characteristic Leaching Procedure (TCLP) standards, and be produced into a filter medium with needle-punches fibers.

D. The CONTRACTOR shall wash out and remove sediment deposits when the deposits reach ½ the height of the reusable synthetic hay bale or as directed by the PROJECT REPRESENTATIVE.

E. The CONTRACTOR shall dispose of the washout in an area approved by the PROJECT REPRESENTATIVE.

F. Synthetic hay bales that have had sediment deposits removed may be reinstalled on the Project as approved by the PROJECT REPRESENTATIVE.

1.3 ARTIFICIAL COVERINGS

A. General:

The CONTRACTOR shall install artificial coverings in locations where temporary protection from erosion is needed.

Two situations occur that require artificial coverings. The two situations have differing material requirements, which are described below.

1. During temporary pauses in construction caused by inclement weather or other circumstances, use artificial coverings composed of natural or synthetic fiber mats, plastic sheeting, or netting as protection against erosion, when directed by the PROJECT REPRESENTATIVE. Remove the material when construction resumes.

2. While permanent grassing is being established, use artificial coverings as erosion control blankets, at locations shown in the plans, to facilitate plant growth, in accordance with the Florida Department of Transportation (FDOT) specification 104-6.4.13.

1.4 MAINTENANCE AND INSPECTION

A. The CONTRACTOR shall provide routine maintenance of permanent and temporary erosion control features, at no additional Contract expense, until the project is complete and accepted.

B. If reconstruction of such erosion control features is necessary due to the CONTRACTOR's negligence or carelessness or, in the case of temporary erosion control features, failure by the CONTRACTOR to install permanent erosion control features as scheduled, the CONTRACTOR shall replace such erosion control features at no additional Contract expense.

C. The CONTRACTOR shall inspect all erosion control features at least once every 7 calendar days and within 24 hours of the end of a storm of 0.50 inches [12 mm] or greater.

D. The CONTRACTOR shall maintain all erosion control features as required in the SWPPP, CONTRACTOR's Erosion Control Plan and as specified in the FDEP Generic Permit for Stormwater Discharge from Large and Small Construction Activities.

1.5 MOWING

A. The PROJECT REPRESENTATIVE may require mowing by the CONTRACTOR of areas within the limits of the Project as deemed necessary by the Project Manager.

B. The CONTRACTOR shall mow these designated areas within 7 days of receiving such order from the PROJECT REPRESENTATIVE.

C. The CONTRACTOR shall remove and properly dispose of all litter and debris prior to the mowing operation.

D. The CONTRACTOR shall use conventional and specialized equipment along with hand labor to mow the entire area including slopes, wet areas, intersections, and around all appurtenances.

E. The CONTRACTOR shall mow all areas to obtain a uniform height of 6 inches [150 mm], unless otherwise directed by the PROJECT REPRESENTATIVE.

END OF SECTION

SECTION 01046
SPECIAL PROVISIONS

PART 1 – GENERAL

1.1 INSTRUCTION AREAS

The CONTRACTOR shall:

A. Limit use of the construction areas for Work and for storage to allow for:

1. Work by other contractors.

2. Utilities use.

3. OWNER use.

4. Public use.

B. Coordinate use of Work site under direction of the PROJECT REPRESENTATIVE.

C. Assume full responsibility for the protection and safekeeping of materials and products under this Contract, stored on- or off-site.

D. Move any stored products, under CONTRACTOR's control, which interfere with operations of the OWNER, utilities, or any separate contractor.

E. Obtain and pay for the use of additional lay down areas needed for operations.

1.2 SPECIFICATIONS

All Work called for in the Specifications applicable to this Contract, but not shown on the plans in its present form, or vice versa, shall be of like effect as if shown or mentioned in both. Work not specified in either the plans or the Specifications, but involved in carrying out intent or in the complete and proper execution of the work is required and shall be performed by the CONTRACTOR as though it were specifically delineated or described.

The apparent silence of the Specifications as to any detail, or the apparent omission from them of a detailed description concerning any Work to be done and materials to be furnished, shall be regarded as meaning that only the best general practice is to prevail and that only material and workmanship of the best quality is to be used, and interpretation of these Specifications shall be made on that basis. The inclusion of the General Requirements (or work specified elsewhere) in the General part of the Specifications is only for the convenience of the CONTRACTOR, and shall not be interpreted as a complete list of related Specification sections.

1.3 WORK PROGRESS

A. The CONTRACTOR shall construct the Work as shown on the Drawings and provide equipment which will be efficient, appropriate, and large enough to secure a satisfactory quality of Work and a rate of progress which will ensure the completion of the Work within the Contract Time.

B. If at any time, Project execution appears to be inefficient, inappropriate, or insufficient for securing the quality of Work required or for producing the necessary rate of progress, the PROJECT REPRESENTATIVE may request the CONTRACTOR to increase the efficiency, change the character or increase the project equipment and the CONTRACTOR shall conform to such request. Failure of the PROJECT REPRESENTATIVE to give such request shall in no way relieve the CONTRACTOR of his/her obligations to secure the quality of the Work and rate of progress required.

1.4 PRIVATE LAND

The CONTRACTOR shall not enter or occupy private land outside of the construction site or easements, except by written permission of the land owner.

1.5 WORK LOCATIONS

Structures, pipelines, and equipment shall be substantially located as indicated on the Drawings, but the ENGINEER through the PROJECT REPRESENTATIVE reserves the right to make such modifications in locations as may be found desirable to avoid interference with existing structures or for other reasons.

1.6 OPEN EXCAVATIONS

A. All open excavations shall be adequately safeguarded by the CONTRACTOR by providing temporary barricades, caution signs, lights, and other appropriate means to prevent accidents to persons and damage to property. The CONTRACTOR shall, at his/her own expense, provide suitable and safe bridges and other crossings for accommodating travel by pedestrians and workmen. Bridges provided for access during construction shall be removed when no longer required. The length or size of excavation will be controlled by the particular surrounding conditions. The PROJECT REPRESENTATIVE may require special construction procedures such as limiting the length of the open trench, prohibiting stacking excavated material in the street or 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 properly signed, appropriately barricaded, and well lighted at all times.

C. The CONTRACTOR shall adhere to the requirements of Chapter 553 Part II of the Florida Statutes entitled Trench Safety Act, and O.S.H.A. Excavation Safety Standards 29 CFRs 1926.650 Subpart P.

1.7 TEST PITS

A. Test pits for the purpose of locating all known and unknown underground pipelines, utilities, or structures in advance of the construction shall be excavated and backfilled by the CONTRACTOR at the direction of the PROJECT REPRESENTATIVE.

B. Test pits shall be immediately backfilled after its purpose has been satisfied and the surface restored and maintained in a manner satisfactory to the PROJECT REPRESENTATIVE.

C. No separate payment will be made for such test pit obligations.

1.8 CARE AND PROTECTION OF PROPERTY

A. The CONTRACTOR shall be responsible for the preservation of all public and private property and shall use every precaution necessary to prevent damage thereto. If any direct or indirect damage is done to public or private property by or on account of any act, omission, neglect, or misconduct in the execution of the Work on the part of the CONTRACTOR, such property shall be restored by the CONTRACTOR, at his/her expense, to a condition similar or equal to that existing before the damage was done, or make good the damage in other manner acceptable to the OWNER and PROJECT REPRESENTATIVE.

B. All sidewalks, mailboxes, and driveways which are disturbed by the CONTRACTOR's operations shall be restored to its original construction or better and in accordance with best practice and the requirements of the Contract Documents.

C. All fences, walks, bushes, trees, shrubbery, and other physical features along the location of this Work shall be protected and restored in a thoroughly workmanlike manner. Fences and other features removed by the CONTRACTOR shall be replaced in the location and by the date indicated by the PROJECT REPRESENTATIVE.

All grass areas beyond the limits of construction which have been damaged by the CONTRACTOR shall be re-graded, sodded, and re-established as before damage. All sod shall match the same type of grass in front of each private "yard" within the right of way.

D. Trees close to the Work shall be boxed or otherwise protected against injury. The CONTRACTOR shall trim all branches that are liable to be damaged because of construction operations, but in no case shall any tree be cut or removed without prior notification or written approval of the PROJECT REPRESENTATIVE. All injuries to bark, trunk, limbs, and roots of trees shall be repaired by dressing, cutting, and painting according to appropriate methods, using only appropriate tools and materials. All landscaping to be removed shall be documented and replaced with like kind or better and re-established as before removal. All palm trees shown on plans shall be spaded out, protected, temporarily stored, and replaced to its same location(s).

E. The protection, removal, and replacement of existing physical features along the line of Work shall be a part of the Work under the Contract, and all costs in connection therewith shall be included in the lump sum prices.

1.9 PROTECTION AND RELOCATION OF EXISTING STRUCTURES AND UTILITIES

A. The CONTRACTOR shall assume full responsibility for the protection of all buildings, structures, and utilities, public or private, including poles, signs, services to buildings, utilities in the street, gas pipes, water pipes, hydrants, sewers, storm drains, as well as electric and telephone cables, whether or not they are shown on the Drawings. The CONTRACTOR shall carefully support and protect all such structures and utilities from injury of any kind. Any damage resulting from the CONTRACTOR's, or any of its subcontractors, operations shall be repaired at his/her expense.

B. The CONTRACTOR shall bear full responsibility for obtaining all locations of underground structures and utilities (including existing water services, drain lines, and sewers). Services to buildings shall be maintained, and all costs or charges resulting from damage thereto shall be paid by the CONTRACTOR.

C. Protection and temporary removal and replacement of existing utilities and structures shall be a part of the Work under the Contract and all costs in connection therewith shall be included in the lump sum price.

D. The CONTRACTOR shall be responsible to maintain water, telephone, power, cable TV, sewer, gas, and other related utilities throughout construction at no additional cost to the OWNER.

E. The CONTRACTOR shall fully cooperate with all private and public utilities during the installation of new facilities, or relocation of existing facilities. The CONTRACTOR shall accordingly coordinate his/her work and shall have no claim except for time extension for delays associated with the proposed utility improvements.

1.10 CLEANUP AND DISPOSAL OF EXCESS MATERIAL

A. During the course of the Work, the CONTRACTOR shall keep the construction site in a reasonably clean and neat condition. The CONTRACTOR shall dispose of all residues resulting from the construction work and, at the conclusion of the work, shall remove and haul away any surplus excavation, broken pavement, lumber, equipment, temporary structures and any other refuse remaining from the construction operations as well as leave the entire site of the Work in a neat, orderly, and restored condition.

B. In order to prevent environmental pollution arising from the construction activities related to the performance of this Contract, the CONTRACTOR and his/her subcontractors shall comply with all applicable federal, state and local laws and regulations concerning waste material disposal, as well as any other specific requirements stated elsewhere in the Specifications or the Contract Documents.

1.11 MAINTENANCE OF ACCESS

Portions of the Work are located in developed areas requiring access for fire, police, emergency, and other city, state, or federal agencies to be provided and at least one free lane must be available at all times for all traffic. The CONTRACTOR shall arrange operations in these areas to meet these requirements and secure approval or operating procedures from the City of Lynn Haven, Bay County, or Florida Department of Transportation (FDOT) as the case may be.

1.12 MAINTENANCE OF TRAFFIC

A. Open pits, trenches, unpaved streets, debris, or other obstructions due to construction that will prevent the normal flow of traffic during an extended construction stoppage, for any reason, shall be minimized. In the event an extended construction stoppage is found to be necessary, the CONTRACTOR shall, at his/her own expense, maintain normal traffic flow during extended construction stoppage.

B. All excavated material shall be placed so that vehicular and pedestrian traffic may be maintained at all times. If construction operations cause traffic hazards, the CONTRACTOR shall repair the road surface, provide temporary roadways, erect wheel guards or fences, or take other satisfactory measures for safety, subject to approval by the PROJECT REPRESENTATIVE.

C. Detours around construction areas will be subject to the approval of the PROJECT REPRESENTATIVE. Where detours are permitted, the CONTRACTOR shall provide all necessary barricades and signs as required by the PROJECT REPRESENTATIVE to divert the flow of traffic.

While traffic is detoured, the CONTRACTOR shall expedite construction operations and the PROJECT REPRESENTATIVE will strictly control periods when traffic is being detoured.

1.13 CONNECTION TO WORK BY OTHERS

If construction by others occurs at the same time and in the same areas as Work being done under this Contract, the CONTRACTOR shall conduct operations as follows:

Force Mains and Water Mains:

A. If shown on the Drawings, pipelines constructed under this Contract may be connected to pipelines to be built by others.

B. Pipelines built under this Contract will be connected to pipelines constructed by others by removing the plugs at both ends of the pipeline segment and making the connection.

C. If the pipelines have not been constructed by others, the pipeline under this Contract shall be laid to the required line and grade, terminated with a plugged connection, precisely at the location of the connection indicated on the Drawings, and then backfilled and marked with a stake and the connection made later as specified in (B) above.

1.14 PROTECTION OF CONSTRUCTION AND EQUIPMENT

A. All newly constructed work shall be carefully protected from any injury or damage. The CONTRACTOR shall not allow any wheeling or walking or placing of heavy loads on any newly constructed Work and all portions injured or damaged shall be reconstructed by the CONTRACTOR at his/her own expense.

B. All structures shall be protected in a manner approved by the PROJECT REPRESENTATIVE. If, in the final inspection of the work, any defects, faults or omissions are found, the CONTRACTOR shall cause the same to be repaired or removed and replaced by proper materials and workmanship without extra compensation by the OWNER for the materials and labor required. Further, the CONTRACTOR shall be fully responsible for the satisfactory maintenance and repair of the construction and other work undertaken herein, for at least the guarantee period described in the Contract.

C. The CONTRACTOR shall take all necessary precautions 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.

D. The CONTRACTOR shall maintain the Work during construction and until the Project is accepted. Such maintenance shall constitute continuous and effective Work prosecuted on a daily basis, with adequate equipment and forces in order that the roads or structures are kept in satisfactory condition at all times. In the case of a contract for the placing of a previously constructed course or subgrade, the CONTRACTOR shall maintain the previous course or subgrade during all construction operations.

All cost of maintenance work during construction and before the Project is accepted shall be included in the Contract Price and the CONTRACTOR will not be paid an additional amount for such Work.

1.15 WORKING HOURS

A. Regular working hours are defined as up to 10 hours per day, Monday through Friday, beginning no earlier than 7:00 a.m. and ending no later than 5:00 p.m. The CONTRACTOR shall not work on city or federal holidays. The Contract Time shall not be extended due to holidays falling within the Contract Time. All Work performed by the CONTRACTOR is subject to observation at all times by the OWNER and its agents, including the PROJECT REPRESENTATIVE. Requests to work outside of the defined regular working hours must be submitted in writing to the PROJECT REPRESENTATIVE, at least 48 hours prior to any proposed weekend work or scheduled extended workweeks. Periodic unscheduled overtime on weekdays will be permitted if 2 hours notice is provided to the PROJECT REPRESENTATIVE. Maintenance of the CONTRACTOR's equipment and cleanup may be performed during hours other than regular working hours.

B. The CONTRACTOR shall reimburse the OWNER for additional engineering and/or inspection costs incurred as a result of overtime work in excess of the regular working hours. At the OWNER'S option, overtime costs may either be deducted from the CONTRACTOR's monthly payment request or deducted from the CONTRACTOR's retention prior to release of final payment.

Engineering/Inspection costs shall be calculated at the following hourly rates:

Professional Engineer (P.E.)	**$250.00**
Project Engineer	**$150.00**
Senior Field Representative	**$125.00**
Field Representative	**$100.00**

1.16 MEETINGS

A. Immediately after awarding the Contract but before construction work begins, the CONTRACTOR shall attend a preconstruction conference as scheduled by the PROJECT REPRESENTATIVE to review construction aspects of the project and to provide required preconstruction submittals and other documentation.

B. In addition, the CONTRACTOR shall attend monthly meetings as requested by the PROJECT REPRESENTATIVE to discuss Contract progress, near-term scheduled activities, including utility relocations, problems and proposed solutions. The CONTRACTOR shall submit a monthly planning schedule at each meeting, showing the Work planned for the next month in bar chart format, identifying current and planned activities and related contract schedule work activities, including subcontractor work. The planning schedule shall designate all activities that are controlling work items as determined by the currently accepted Contract schedule.

C. The CONTRACTOR shall also attend other meetings as may be required by OWNER or PROJECT REPRESENTATIVE from time to time to discuss, coordinate and resolve specific issues, problems, change orders, or disputes.

1.17 APPENDICES

The CONTRACTOR shall follow all permit conditions in the Appendices which are part of the Contract Documents.

PART 2 – PRODUCTS (Not Applicable)

PART 3 – EXECUTION (Not Applicable)

END OF SECTION

SECTION 01065
PERMITS AND FEES

PART 1 – GENERAL

1.1 GENERAL REQUIREMENTS

The CONTRACTOR shall:

A. Obtain and pay for any and all permits and licenses as specified in the General Conditions (Section 00100), except as otherwise provided herein, and in effect at the time of bidding.

B. Schedule all inspections and obtain all written approvals of the agencies required by the permits and licenses.

C. Comply with all construction related conditions specified in each permit and license.

A copy of the permits obtained by the OWNER will be furnished to the CONTRACTOR.

1.2 PERMITS BY OWNER

The OWNER will acquire the following permits (when applicable):

A. N.A.

1.3 CONSTRUCTION PERMIT

A. The CONTRACTOR shall be responsible for acquiring all construction permits including local building permits and any permits necessary to comply with the Northwest Florida Water Management District (NWFWMD) dewatering plan and the National Pollutant Discharge Elimination System (NPDES) stormwater discharge from construction site.

B. The dewatering plan shall include sequence of excavation, discharge locations, sediment sump, turbidity control, erosion control, and turbidity monitoring points.

1.4 NPDES GENERAL PERMIT FOR STORMWATER DISCHARGES FROM CONSTRUCTION SITE

A. The CONTRACTOR shall comply with stormwater discharge regulations and Amendments to the Clean Water Act (33 U.S.C. 1251 et seq.).

On September 17, 1992, the State of Florida certified the general permit for stormwater discharges from construction sites for use in Florida. This project is governed by regulations under this general permit and the CONTRACTOR shall comply with all such regulations.

B. Under these regulations, construction projects that disturb more than 5 acres must have and comply with a stormwater pollution prevention plan (SWPPP). The CONTRACTOR shall complete and sign a SWPPP prior to initiation of any construction activities on the site.

C. The CONTRACTOR shall ensure that all employees and subcontractors implement the specified erosion control practices to properly manage stormwater.

PART 2 - PRODUCTS (Not Applicable)

PART 3 – EXECUTION (Not Applicable)

END OF SECTION

SECTION 01100 SPECIAL PROJECT PROCEDURES

PART 1 – GENERAL

1.1 HURRICANE PREPAREDNESS PLAN

A. Within 20 days of the date of Notice to Proceed, the CONTRACTOR shall submit to the PROJECT REPRESENTATIVE a Hurricane Preparedness Plan. The plan shall outline the necessary measures which the CONTRACTOR proposes to perform at no additional cost to the OWNER in case of a hurricane warning. Such measures shall be in accordance with local and state requirements.

B. In the event of inclement weather, the CONTRACTOR will, and will cause Subcontractors to, protect carefully the Work and materials against damage or injury from the weather. If, in the opinion of PROJECT REPRESENTATIVE, any portion of Work or materials are damaged or injured by reason of failure on the part of the CONTRACTOR or Subcontractors to so protect the Work, such Work and materials shall be removed and replaced at the expense of CONTRACTOR.

1.2 CONSTRUCTION CONDITIONS AND SUBSURFACE INVESTIGATION

A. The CONTRACTOR shall strictly adhere to the specific requirements of the government unit(s) or agency(ies) having jurisdiction over the Work. Wherever there is a difference in the requirements of a jurisdictional body and these Specifications, the more stringent shall apply.

B. The CONTRACTOR shall be responsible for having determined, prior to bid submission, 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 conditions, the character of equipment and facilities needed preliminary to and during the prosecution 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 will reflect all costs pertaining to the Work. Any claims for extras based on substrata, groundwater table, and other such conditions will not be allowed.

1.3 PUBLIC NUISANCE

A. The CONTRACTOR shall not create a public nuisance including, but not limited to, encroachment on adjacent lands, flooding of adjacent lands, excessive noise, or odor.

B. No extra charge may be made for time lost due to work stoppage resulting from the CONTRACTOR’s creation of a public nuisance.

1.4 RELOCATIONS

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 Contract Price.

1.5 PUMPING

A. The CONTRACTOR shall accomplish all pumping necessary to prevent flotation of any part of any structures, or pipe/conduit during construction operations.

B. The CONTRACTOR shall, for the duration of the contract pump out water and wastewater which may seep or leak into the excavations or structures. Galleries and other operating areas shall be kept dry at all times. Discharges shall be in conformance with applicable regulations and permits.

1.6 WORK ON PRIVATE PROPERTY

A. The CONTRACTOR shall maintain construction operations within the presently existing road right-of-way and established easements throughout the Project. In the event that it becomes necessary or advisable to operate beyond the limits of the existing right-of-way, established easements and Right of Entry Agreements, the CONTRACTOR shall be responsible for securing written agreements with the property owners. Immediately after contract award, the CONTRACTOR shall submit to the PROJECT REPRESENTATIVE a listing of those areas in which it is deemed necessary to work outside of the road right-of-way, easements, or agreements. The listing shall be subject to the approval of the PROJECT REPRESENTATIVE and as construction areas are secured, copies of all written agreements shall be placed on file with the PROJECT REPRESENTATIVE.

B. The CONTRACTOR shall be responsible for any encroachments on rights-of-way or property of the public or adjoining property owners caused by its operations and shall indemnify, defend and hold the OWNER, ENGINEER and PROJECT REPRESENTATIVE harmless because of any encroachments. In this regard, the CONTRACTOR shall, without extra cost to the OWNER, move any Work or that portion of any Work that encroaches on the property of others, or that is built beyond legal building or setback limits, and the CONTRACTOR shall rebuild the affected Work or portion of Work at the proper location and in full compliance with the Contract Documents.

C. Before final payment will be authorized, the CONTRACTOR will be required to furnish the OWNER with written releases from property owners or public agencies where side agreements or special easements have been made by the CONTRACTOR or when the CONTRACTOR'S operations, for any reason, have not been kept within the construction right-of-way, easements or Right of Entry Agreements by the OWNER.

D. In the event written releases required in the above paragraph cannot be secured, the CONTRACTOR shall inform the PROJECT REPRESENTATIVE of the reasons for failure to do so. The PROJECT REPRESENTATIVE in conjunction with the OWNER, will then examine the Site and direct the CONTRACTOR to complete any Work that may be necessary to satisfy the terms of the permit or easement. Should the CONTRACTOR refuse to do the Work, the OWNER reserves the right to have the Work done by separate contract and deduct the cost of same from moneys due the CONTRACTOR, or require the CONTRACTOR to furnish a bond in a sum satisfactory to the OWNER to cover any legal claims for damages. When the PROJECT REPRESENTATIVE is satisfied that the Work has been completed in accordance with the Contract Documents, permits and/or agreements, the OWNER reserves the right to waive the requirement of obtaining the statement if the CONTRACTOR'S failure to obtain such statement is due to the grantor's refusal to sign and this refusal is not based upon any legitimate claims that the CONTRACTOR has failed to fulfill any contract permit or agreement requirements, or if the CONTRACTOR is unable to contact, or has undue hardship in contacting, the grantors.

1.7 DAILY REPORTS

A. The CONTRACTOR shall submit daily reports of construction activities, including any activities that may occur on non-work days. The report shall include:

1. Weather conditions.

2. Manpower, number of men by craft.

3. Equipment on the project.

4. Major deliveries.

5. Activities work with reference to the CPM schedule activity numbers.

6. New problems.

7. Other pertinent information.

B. A similar report shall be submitted for/by each Subcontractor.

C. The reports shall be submitted to the PROJECT REPRESENTATIVE within 2 days of the respective report date. Each report shall be signed by the CONTRACTOR'S Superintendent or Project Manager.

D. Information provided on the daily report shall not constitute notice of delay or any other notice required by the CONTRACT DOCUMENTS. Notice shall be as required therein.

1.8 EMERGENCIES

A. The CONTRACTOR shall at all times after regular working hours, including weekend and holidays, maintain a telephone where the CONTRACTOR's representative can be reached on an emergency basis. The CONTRACTOR or CONTRACTOR's representative shall be prepared to act to correct conditions on the Site deemed to constitute an emergency by either the OWNER, the PROJECT REPRESENTATIVE, or local authorities and is obligated to act to prevent threatened damage, injury or loss without special instructions from the OWNER, PROJECT REPRESENTATIVE, or ENGINEER. The CONTRACTOR shall give the PROJECT REPRESENTATIVE prompt written notice of all significant changes in the Work or deviations from the Contract Documents caused thereby. If a condition on the Site requires attention after working hours, either the OWNER, PROJECT REPRESENTATIVE, or local authority shall call the CONTRACTOR or representative at the emergency telephone number, identify themselves and describe the emergency condition. The CONTRACTOR is expected to dispatch personnel and equipment to adequately institute corrective measures within 2 hours. If for some reason the CONTRACTOR or representative cannot be reached at the emergency number within two hours, the OWNER shall have the right to immediately initiate corrective measures, and the cost shall be borne by the CONTRACTOR.

B. In the event that the CONTRACTOR fails to maintain safe job conditions and traffic conditions, including, but not limited to, trench settlement and hazardous storage of backfill or construction materials, the OWNER, after failure of the CONTRACTOR to commence substantial steps at the job site to rectify the situation within 2 hours of the time the CONTRACTOR has been notified of the unsafe condition, may hire guards, take such precautions, make such repairs and take any other steps which the OWNER or the PROJECT REPRESENTATIVE, in their sole discretion, consider necessary to protect the property, persons, or the OWNER. The cost of any of these precautions, guards, or steps shall be deducted from the payments due the CONTRACTOR, and the costs for such services, work and material shall be calculated at prevailing market rates.

1.9 PROPERTY DAMAGES

In the event of any indirect or direct damage to public or private property caused in whole or in part by an act, omission or negligence on the part of the CONTRACTOR, any of its Subcontractors, any of its Sub-subcontractors or anyone directly or indirectly employed by any of them or by anyone for whose acts any of them may be liable, the CONTRACTOR shall at no additional cost to OWNER promptly remedy and restore such property to a condition equal to or better than that existing before such damage was done. The CONTRACTOR shall perform such restoration by "underpinning", repairing, rebuilding, replanting, or otherwise restoring as may be required by the PROJECT REPRESENTATIVE, or shall correct such damage in a satisfactory and acceptable manner to the OWNER or the PROJECT EPRESENTATIVE. In case of failure on the part of the CONTRACTOR to promptly restore such property or correct such damage, the OWNER may, upon 5 calendar days written notice, proceed to repair, rebuild or otherwise restore such property as may be necessary and the cost thereof, or a sum sufficient in the judgment of the OWNER to reimburse the owners of the property so damaged, will be deducted from any monies due or to become due the CONTRACTOR under the Contract.

PART 2 – PRODUCTS (Not Applicable)

PART 3 – EXECUTION (Not Applicable)

END OF SECTION

SECTION 01110
ENVIRONMENTAL PROTECTION

1.1 SCOPE OF WORK

A. The Work covered by this Section consists of furnishing all labor, materials and equipment and performing all Work required for the prevention of environmental pollution in conformance with applicable laws and regulations, during and as the result of construction operations under this Contract. For the purpose of this Specification, environmental pollution is defined as the presence of chemical, physical, or biological elements or agents which adversely affect human health or welfare; unfavorable alter ecological balances of importance to human life; affect other species of importance to man; or degrade the utility of the environment for aesthetic and/or recreational purposes; or violate any applicable environmental laws, rules, codes or regulations.

B. The control of environmental pollution requires consideration of air, water and land, and involves management of noise, odor, and solid waste, as well as other pollutants.

C. These Specifications are intended to ensure that construction is achieved with a minimum of disturbance to the existing ecological balance between a water resource and surroundings. These are general guidelines. It is the CONTRACTOR'S responsibility to determine the specific construction techniques to meet these guidelines.

D. The CONTRACTOR shall secure, if required, at its own cost, a surface water management permit from the Northwest Florida Water Management District and approvals from North Bay Haven for any construction dewatering activities associated with this project.

1.2 APPLICABLE REGULATIONS

The CONTRACTOR shall comply with all applicable Federal, State and local laws and regulations concerning environmental pollution control and abatement.

1.3 NOTIFICATIONS

The OWNER through the PROJECT REPRESENTATIVE will notify the CONTRACTOR in writing immediately following identification of any non-compliance with the foregoing provisions or of any environmentally objectionable acts and any required corrective action to be taken by CONTRACTOR. State or local agencies responsible for verification of certain aspects of the environmental protection requirements may notify the CONTRACTOR of any non-compliance with State or local requirements.

The CONTRACTOR shall, after receipt of such notice from the regulatory agency shall immediately notify the PROJECT REPRESENTATIVE in writing and immediately take correction action. If the CONTRACTOR fails or refuses to comply promptly, the OWNER may issue an order stopping all or part of the Work until satisfactory corrective action has been taken. No part of the time lost due to any such stop orders shall be made the subject of a claim for extension of time or for excess costs or damages by the CONTRACTOR unless it is later determined that the CONTRACTOR was in compliance and subject to the other terms of the Contract Documents.

1.4 IMPLEMENTATION

A. Prior to commencement of the Work, the CONTRACTOR shall meet with the PROJECT REPRESENTATIVE to develop mutual understandings relative to compliance with this specification and administration of the environmental pollution control program.

B. The CONTRACTOR shall remove temporary environmental control features, when approved by the PROJECT REPRESENTATIVE, and incorporate permanent control features into the Project at the earliest practicable time, consistent with the approved construction schedule.

1.5 EROSION CONTROL

A. The CONTRACTOR shall ensure sufficient precautions are taken during construction to minimize the run-off of polluting substances such as silt, clay, fuels, oils, bitumens, calcium chloride, or other polluting materials harmful to humans, fish, or other life, into the supplies and surface waters of the State. Control measures must be adequate to assure that turbidity in the receiving water will not be increased more than 10 nephelometric turbidity units (NTU), or as otherwise required by the State or other controlling body, in water used for public water supply or fish unless limits have been established for the particular water. In surface water used for other purposes, the turbidity must not exceed 25 NTU unless otherwise permitted. Special precautions shall be taken in the use of construction equipment to prevent operations which promote erosion.

Erosion evident within the limits of construction shall be the responsibility of the CONTRACTOR during the full term of the Contract and for the full (1) year guarantee period. Areas subject to erosion during this time shall be fully restored to original or design conditions (as applicable) within 10 days of notice to the CONTRACTOR.

B. The CONTRACTOR shall provide positive means of erosion control such as shallow ditches around construction to carry off surface water. Erosion control measures, such as siltation basins, hay check dams, mulching, jute netting and other equivalent techniques, shall be used as appropriate. Flow of surface water into excavated areas shall be prevented.

Ditches around construction area shall be used to carry away water resulting from dewatering of excavated areas. At the completion of the Work, ditches shall be backfilled and the ground surface restored to original condition.

C. The CONTRACTOR shall schedule and conduct all Work in a manner that will minimize the erosion of soils in the area of the Work. Erosion control measures shall be provided such as diversion channels, sedimentation or filtration systems, berms, staked hay bales, seeding, mulching or other special surface treatments as are required by regulatory authorities to prevent silting and muddying of streams, rivers, canals, impoundments, lakes, etc. All erosion control measures shall be in place prior to any construction activity in any area of the Work.

1.6 PROTECTION OF LAND RESOURCES

A. Land resources within the Project boundaries and outside the limits of permanent Work shall be restored by CONTRACTOR to a condition, after completion of construction that will appear to be natural and not detract from the appearance of the project.

B. Outside of areas requiring earthwork for the construction of the new facilities, the CONTRACTOR shall not deface, injure, or destroy trees or shrubs, nor remove or cut them without prior approval. No ropes, cables, or guys shall be fastened to or attached to any existing nearby trees for anchorage unless specifically authorized by the PROJECT REPRESENTATIVE. Where such special emergency use is permitted, first wrap the trunk with a sufficient thickness of burlap or rags over which softwood cleats shall be tied before any rope, cable, or wire is placed. The CONTRACTOR shall in any event be responsible for any damage resulting from such use.

C. Where trees may possibly be defaced, bruised, injured, or otherwise damaged by the CONTRACTOR'S equipment, dumping or other operations, CONTRACTOR shall protect such trees by placing board, planks, or poles around them. Monuments and markers shall be similarly protected by CONTRACTOR before beginning operations near them.

D. Any trees or other landscape feature scarred or damaged by the CONTRACTOR'S equipment or operations shall be restored as nearly as possible to its original condition. The PROJECT REPRESENTATIVE will decide what method of restoration shall be used and whether damaged trees shall be treated and healed or removed and disposed of.

All scars made on trees by CONTRACTOR's equipment, construction operations, or by the removal of limbs by CONTRACTOR larger than 1 inch in diameter shall be coated as soon as possible with an approve tree wound dressing.

All trimming or pruning by CONTRACTOR shall be performed in an approved manner by experienced workmen with saws or pruning shears. Tree trimming with axes will not be permitted.

Climbing ropes shall be used where necessary for safety. Trees that are to remain, either within or outside established clearing limits, that are subsequently damaged by the CONTRACTOR and are beyond saving in the opinion of a certified nurseryman, shall be immediately removed and replace in kind and maintained until growth is assured.

E. The locations of the CONTRACTOR's lay down area, storage and other construction buildings, required temporarily in the performance of the Work, shall require written concurrence of the PROJECT REPRESENTATIVE. The preservation of the landscape and public perception shall be an imperative consideration in the selection of the lay down area and in the provision of any buildings. Drawings showing the lay down area and any buildings shall be submitted by CONTRACTOR for approval of the PROJECT REPRESENTATIVE.

F. If temporary roads or embankments and excavations for plant and/or work areas are proposed, the CONTRACTOR shall submit the following for approval by the PROJECT REPRESENTATIVE at least ten days prior to scheduled start of such temporary work.

1. A layout of all temporary roads, excavations and embankments to be constructed within the work area.

2. Details of temporary road construction.

3. Drawings and cross sections of proposed embankments and their foundations, including a description of proposed materials.

4. A landscaping drawing showing the proposed restoration of the area. Removal of any trees and shrubs outside the limits of existing clearing area shall be indicated. The drawing shall also indicate location of required guard posts or barriers required to control vehicular traffic passing close to trees and shrubs to be maintained undamaged. The drawing shall provide for the obliteration of construction scars as such and shall provide for a natural appearing final condition of the area. Modification of the CONTRACTOR'S approved drawings shall be made only with the written concurrence of the PROJECT REPRESENTATIVE.

   No unauthorized road construction, excavation or embankment construction including disposal areas will be permitted.

G. The CONTRACTOR shall remove all signs of temporary construction facilities such as haul roads, work areas, structures, foundations of temporary structures, stockpiles of excess materials, or any other vestiges of construction as requested by the PROJECT REPRESENTATIVE. Any construction disturbed area shall be restored to near natural conditions.

H. All debris and excess material will be disposed of by CONTRACTOR outside wetland or floodplain areas in an environmentally sound and lawful manner.

1.7 PROTECTION OF AIR QUALITY

A. The use of burning for the disposal of refuse and debris will not be permitted.

B. The CONTRACTOR shall maintain all excavations, embankment, stockpiles, access roads, plant sites, waste areas, borrow areas, and all other work areas within or without the project boundaries free from dust which could cause the standards for air pollution to be exceeded, and which would cause a hazard or nuisance to others.

C. An approved method of stabilization consisting of sprinkling or other similar methods will be permitted to control dust. The use of petroleum products is prohibited. The use of chlorides may be permitted with concurrence from the appropriate regulatory authority.

D. Sprinkling must be repeated at such intervals as to keep all parts of the disturbed area at least damp at all times, and the CONTRACTOR must have sufficient competent equipment on the job to accomplish needed sprinkling. Dust control shall be performed as the work proceeds and whenever a dust nuisance or hazard occurs.

1.8 MAINTENANCE OF POLLUTION CONTROL FACILITIES DURING CONSTRUCTION

During the life of this Contract, CONTRACTOR shall maintain all facilities constructed for pollution control as long as the operations creating the particular pollutant are being carried out or until the material concerned has become stabilized to the extent that pollution is no longer being created. All pollution control devices shall be inspected regularly to ensure they are operating correctly.

1.9 NOISE CONTROL

A. The CONTRACTOR shall make every effort to minimize noises caused by operations. Equipment shall be equipped with silencers or mufflers designed to operate with the least possible noise in compliance with State and Federal Regulations.

B. Sound levels measured by the PROJECT REPRESENTATIVE shall not exceed 55 dBA from 8:00 PM to 7:00 AM or 65 dBA from 7:00 AM to 8:00 PM. This sound level to be measured at the OWNER'S property line. Sound levels of equipment shall not exceed 95 dBA at any time. Sound levels in excess of these values are sufficient cause to have the Work halted until equipment can be quieted to acceptable levels. Work stoppage for excessive noise shall not relieve the CONTRACTOR of the other portions of this specification including, but not limited to Contract Time and Contract Price.

PART 2 – PRODUCTS (Not Applicable)

PART 3 – EXECUTION (Not Applicable)

END OF SECTION

SECTION 01300
SUBMITTALS

1.1 REQUIREMENTS INCLUDED

A. The CONTRACTOR shall submit to the ENGINEER for review such working drawings, shop drawings, test reports and data on materials and equipment (hereinafter in this Section called "Data"), and material samples (hereinafter in this Section called "Samples") as are required for the proper control of work, including but not limited to those working drawings, shop drawings, Data and Samples for materials and equipment specified elsewhere in the Specifications and in the Contract Drawings.

B. The CONTRACTOR shall note that there are specific submittal requirements in other sections of these Specifications.

C. The CONTRACTOR is to maintain an accurate updated submittal log and shall bring this log to each scheduled progress meeting with the PROJECT REPRESENTATIVE and the ENGINEER. This log shall be organized using the 10 character numbering system in Subparagraph 1.6 F. This log should include the following items:

1. Submittal: Description and File Number assigned.

2. Date to ENGINEER.

3. Date returned to CONTRACTOR (from ENGINEER).

4. Status of Submittal

    a. Approved

    b. Approved As Noted

    c. Approved As Noted/Confirm

    d. Not Approved/Resubmit

    e. Not Approved

5. Date of Resubmittal and Return (as applicable).

6. Date material released (for fabrication).

7. Projected date of fabrication.

8. Projected date of delivery to site.

9. Status of O&M submittal.

1.2 SHOP DRAWINGS

A. When used in the Contract Documents, the term “shop drawings” shall be considered to mean CONTRACTOR’s plans for material and equipment which become an integral part of the Project. These drawings shall be complete and detailed. Shop drawings shall consist of fabrication, erection and setting drawings and schedule drawings, manufacturer’s scale drawings, bills of material, wiring and control diagrams, and inspection and test reports including performance curves and certifications as applicable to the Work.

B. All details on shop drawings submitted for approval shall show clearly the elevations of the various parts to the main members and lines of the structure and/or equipment, and where correct fabrication of the Work depends upon field measurements, such measurements shall be made and noted on the shop drawings before being submitted for approval.

C. See Shop Drawing Schedule requirements in Subparagraph 1.7 CONTRACTOR’S RESPONSIBILITY.

1.3 PRODUCT DATA

Product data as specified in individual sections, include, but are not necessarily limited to, standard prepared data for manufactured products (sometimes referred to as catalog data), such as the manufacturer’s product specification and installation instructions, availability of colors and patterns, MANUFACTURER’S printed statements of compliances and applicability, roughing-in diagrams and templates, catalog cuts, product photographs, standard wiring diagrams, printed performance curves and operational-range diagrams, production or quality control inspection and test reports and certifications, mill reports, product operating and maintenance instructions and recommended spare-parts listing storage instructions, and printed product warranties, as applicable to the Work.

1.4 WORKING DRAWINGS

A. When used in the Contract Documents, the term “working drawings” shall be considered to mean the CONTRACTOR’s plans for temporary structures such as temporary bulkheads, support of open cut excavation, support of utilities, ground water control systems, forming and false work; for underpinning; and for such other work as may be required for construction but does not become an integral part of the Project.

B. Working drawings shall be signed and sealed by a registered Professional Engineer, currently licensed to practice in the State and shall convey, or be accompanied by, calculations or other sufficient information to completely explain the structure, machine, or system described and its intended manner of use.

C. Prior to commencing such Work, working drawings must have been reviewed without specific exceptions by the ENGINEER. Such review will be for general conformance and will not relieve the CONTRACTOR in any way from his responsibility with regard to the fulfillment of the terms of the Contract. All risks of error are assumed by the CONTRACTOR; the OWNER and ENGINEER shall have no responsibility therefore.

1.5 SAMPLES

A. The CONTRACTOR shall furnish, for the approval of the ENGINEER, samples required by the Contract Documents or requested by the ENGINEER. Samples shall be delivered to the ENGINEER as specified or requested and in quantities and sizes as specified. A minimum of two samples of each item shall be submitted unless otherwise specified. The CONTRACTOR shall pre-pay all shipping charges on samples. Materials or equipment for which samples are required shall not be used in the Work until approved by the ENGINEER.

B. Samples specified in individual sections, include, but are not necessarily limited to, physical examples of the Work such as sections of manufactured or fabricated work, small cuts or containers of materials, complete units of repetitively-used products, color/texture/pattern swatches and range sets, specimens for coordination of visual effect, graphic symbols, and units of Work to be used by the ENGINEER or PROJECT REPRESENTATIVE for independent inspection and testing, as applicable to the Work.

C. The CONTRACTOR shall prepare a transmittal letter in triplicate for each shipment of samples to the ENGINEER. The CONTRACTOR shall enclose a copy of this letter with the shipment and send a copy of this letter to the PROJECT REPRESENTATIVE. Approval of a sample shall be only for the characteristics or use named in such approval and shall not be construed to change or modify any Contract requirements.

D. Approved samples not destroyed in testing shall be sent to the ENGINEER or stored at the site of the Work. Materials and equipment incorporated in the Work shall match the approved samples. Samples which fail testing or are not approved will be returned to the CONTRACTOR at their expense, if so requested at time of submission.

1.6 SUBMITTAL REQUIREMENTS

A. The CONTRACTOR shall review, approve, and submit, with reasonable promptness and in such sequence as shown on the Shop Drawing Submittal Schedule so as to cause no delay in the Contract Work or in the Work of the OWNER or any separate contractor, all shop drawings, product data, working drawings and samples required by the Contract Documents.

B. The CONTRACTOR shall submit 10 copies of all shop drawings for the ENGINEER to review, of which the ENGINEER will retain eight sets.

C. All submittals shall be directly transmitted to the ENGINEER's office. Submittals to the PROJECT REPRESENTATIVE will not be accepted.

D. Shop drawings, product data, working drawings and Samples shall be furnished with the following information:

1. Number and title of the drawing.

2. Date of drawing or revision.

3. Name of project building or facility.

4. Name of contractor, subcontractor, and manufacturer submitting drawing.

5. Clear identification of contents, location of the work, and the sheet numbers where the product is found in the contract drawings.

6. CONTRACTOR Certification Statement.

7. Submittal Identification Number.

8. Contract Drawing Number Reference.

9. A certification by the CONTRACTOR that states the following: I hereby certify that the (equipment) (material) (article) shown and marked in this submittal is in compliance with the Contract Drawings and Specifications, can be installed in the allocated space, will be stored in accordance with the manufacturers recommendations and the Specifications, and is submitted for approval.

E. In accordance with Subparagraph 1.7 A, each shop drawing, working drawing, Sample, and catalog data submitted by the CONTRACTOR shall have affixed to it the following Certification Statement, signed by the CONTRACTOR: "Certification Statement: By this submittal, I hereby represent that I have determined and verified all field measurements, field construction criteria, materials, dimensions, catalog numbers, and similar data and I have checked and coordinated each item with other applicable approved shop drawings and all contractor requirements."

F. The CONTRACTOR shall utilize a 10-character submittal identification numbering system in the following manner:

1. The first character shall be a D, S, P, M, or R, which represents Shop/Working Drawing and other Product Data (D), Sample (S), Preliminary Submittal (P), Operating/Maintenance Manual (M), or Request for Information (R).

2. The next five digits shall be the applicable Specification Section Number.

3. The next three digits shall be the numbers 001-999 to sequentially number each item or drawing submitted under each specific Section number.

4. The last character shall be a number 1-10, indicating the submission, or resubmission of the same Drawing, i.e., 1=1st submission, 2=2nd submission, 3=3rd submission, etc. A typical submittal number would be as follows:

D-03300-008.2

D	**=**	**Shop Drawing**
03300	**=**	**Specification Section for Concrete**
008	**=**	**The eighth submittal under this specification section**
2	**=**	**The second submission (first resubmission) of that particular shop drawing.**

G. The CONTRACTOR shall submit a copy of each submittal transmittal sheet (for shop drawings, product data, working drawings and Samples) to the PROJECT REPRESENTATIVE simultaneously with the CONTRACTOR's submission of said drawings, Data, Samples or manual packages to the ENGINEER.

H. All items specified are not necessarily intended to be a manufacturer's standard product. Variations from specified items will be considered on an "or equal" basis. If submittals show variations from Contract requirements because of standard shop practice or for other reasons, the CONTRACTOR shall describe such variations in the letter of transmittal and on the shop drawings along with notification of intent to seek contract adjustment. If acceptable, proper adjustment in the Contract shall be implemented where appropriate. If the CONTRACTOR fails to describe such variations, responsibility will not be waived for executing the Work in accordance with the Contract, even though such drawings have been reviewed. Variations submitted but not described may be cause for rejection. Any variations initiated by the CONTRACTOR will not be considered as an addition to the scope of work unless specifically noted and then approved as such in writing by the ENGINEER.

I. Data on materials and equipment shall include materials and equipment lists giving, for each item thereon, the name and location of the supplier or manufacturer, trade name, catalog reference, material, size, finish, and all other pertinent data.

J. For all mechanical and electrical equipment furnished, the CONTRACTOR shall provide a list including the equipment name, and address and telephone number of the manufacturer's representative and Service Company so that service and/or spare parts can be readily obtained. In addition, a maintenance and lubrication schedule for each piece of equipment shall be submitted.

K. The CONTRACTOR shall use the color "green" to make his remarks on the Submittals. Only the ENGINEER will utilize the color "red" in marking submittals.

L. Facsimiles or copies of facsimiles will not be accepted for review.

1.7 CONTRACTOR'S RESPONSIBILITY

A. It is the duty of the CONTRACTOR to check, and coordinate with the work of all trades, all drawings, Data, schedules and Samples before submitting them to the ENGINEER for review. Each and every copy of any drawing or data sheet larger than 11"x17" shall bear CONTRACTOR's stamp showing that they have been so checked and approved. Drawings or data sheets 11"x17" and smaller shall be bound together in an orderly fashion and bear the CONTRACTOR's stamp on the cover sheet. The cover sheet shall fully describe the packaged data and include a list of all sheet numbers within the package. Shop drawings submitted to the ENGINEER without the CONTRACTOR's stamp will be returned to the CONTRACTOR, without review at the ENGINEER's option, for conformance with this requirement.

B. The CONTRACTOR shall review shop drawings, product data, and Samples prior to submission to determine and verify the following:

1. Field measurements.

2. Field construction criteria.

3. Manufacturer's catalog numbers and similar data.

4. Conformance with Specifications.

C. Shop drawings shall indicate any deviations in the submittal from the requirements of the Contract Documents.

D. At a time decided upon at the preconstruction meeting the CONTRACTOR shall furnish the PROJECT REPRESENTATIVE and ENGINEER a Shop Drawing schedule fixing the respective dates for the initial submission of shop and working drawings, the beginning of manufacture, testing and installation of materials, supplies and equipment. This schedule shall be provided as a separate entity and indicate those submittals that are critical to the progress schedule. The CONTRACTOR shall prepare and transmit each submittal sufficiently in advance of performing the related work or other applicable activities, or within the time specified in the individual work sections of the Specifications, so that the installation will not be delayed by processing times including disapproval and resubmittal (if required), coordination with other submittals, testing, purchasing, fabrication, delivery, and similar sequenced activities. No extension of time will be authorized because of the CONTRACTOR's failure to transmit complete and acceptable submittals sufficiently in advance of the Work.

E. The CONTRACTOR shall not begin any Work affected by a submittal returned not approved. Before starting this Work, all revisions must be corrected by the CONTRACTOR. After resubmittal they will be reviewed and returned by the ENGINEER. If approved or approved as noted, then the CONTRACTOR may begin this Work. Any corrections made to the shop drawings are to be followed without exception.

F. The CONTRACTOR shall submit to the ENGINEER all shop drawings and data sufficiently in advance of construction requirements to provide no less than **21** calendar days for review from the time the ENGINEER receives them. No less than **30** calendar days will be required for major equipment that requires review by more than one engineering discipline.

G. The CONTRACTOR shall be responsible for and bear all cost of damages which may result from the ordering of any material or from proceeding with any part of Work prior to the review and approval by ENGINEER of the necessary shop drawings.

H. All shop drawings, product data, working drawings and Samples submitted by subcontractors for approval shall be sent directly to the CONTRACTOR for checking. The CONTRACTOR shall be responsible for their submission according to the approved shop drawing schedule so as to prevent delays in delivery of materials and project completion.

I. The CONTRACTOR shall check all subcontractors' shop drawings, product data, working drawings and Samples regarding measurements, size of members, materials, and details to satisfy himself that they are in conformance to the Contract Documents. Shop drawings found to be inaccurate or otherwise in error shall be returned to the subcontractors for correction before submission to the ENGINEER.

J. Requests for Information (RFI) shall be submitted on a standard form through the PROJECT REPRESENTATIVE. RFIs shall indicate their importance to the timely completion of the project. RFIs will be processed as a shop drawing unless there is an urgent need for immediate response.

1.8 ENGINEER'S REVIEW OF SHOP DRAWINGS, PRODUCT DATA, WORKING DRAWINGS AND SAMPLES

A. The ENGINEER's review is for general conformance with the design concept and contract drawings. Markings or comments shall not be construed as relieving the CONTRACTOR from compliance with the contract plans and specifications or from departures therefrom. The CONTRACTOR remains responsible for details and accuracy, for coordinating the Work with all other associated work and trades, for selecting fabrication processes, for techniques of assembly, and for performing work in a safe manner.

B. The review of shop drawings, Data, and Samples will be general. They shall not be construed:

1. as permitting any departure from the Contract requirements;

2. as relieving the CONTRACTOR of responsibility for any errors, including details, dimensions, and materials;

3. as approving departures from details furnished by the ENGINEER, except as otherwise provided herein.

C. If the shop drawings, Data or Samples as submitted describe variations per Subparagraph (1.6H), and show a departure from the Contract requirements which ENGINEER finds to be in the interest of the OWNER and to be so minor as not to involve a change in Contract Price or Contract Time for performance, the ENGINEER may return the reviewed drawings without noting an exception.

D. Submittals will be returned to the CONTRACTOR under one of the following codes:

Code 1 - "**APPROVED**" is assigned when there are no notations or comments on the submittal. When returned under this code the CONTRACTOR may release the equipment and/or material for manufacture.

Code 2 - "**APPROVED AS NOTED**" is assigned when notations or comments have been made on the submittal pointing out minor discrepancies as compared with the Contract Documents. Resubmittal or confirmation is not necessary prior to release for manufacturing.

Code 3 - "**APPROVED AS NOTED/CONFIRM**" This combination of codes is assigned when a confirmation of the notations and comments is required by the CONTRACTOR. The CONTRACTOR may release the equipment or material for manufacture; however, all notations and comments must be incorporated into the final product. This confirmation is to address the omissions and/or nonconforming items that were noted. Only the items to be "confirmed" need to be resubmitted.

Code 4 - "**NOT APPROVED/RESUBMIT**" This combination of codes is assigned when the submittal is in noncompliance with the Contract Documents and must be corrected and the entire package resubmitted. This code generally means that the equipment or material cannot be released for manufacture unless the CONTRACTOR takes full responsibility for providing the submitted items in accordance with Contract Documents.

Code 5 - "**NOT APPROVED**" is assigned when the submittal does not meet the intent of the Contract Documents. The CONTRACTOR must resubmit the entire package revised to bring the submittal into conformance. It may be necessary to resubmit using a different manufacturer/vendor to meet the Contract Documents.

Code 6 - "**COMMENTS ATTACHED**" is assigned where there are comments attached to the returned submittal which provide additional data to aid the CONTRACTOR.

Code 7 - "**FOR YOUR INFORMATION**" is assigned when the package provides information of a general nature that may or may not require a response.

Codes 1 through 5 designate the status of the reviewed submittal with Code 6 showing there has been an attachment of additional data.

Code 7 is used as may be necessary.

E. Resubmittals will be handled in the same manner as first submittals. On resubmittals the CONTRACTOR shall direct specific attention, in writing on the letter of transmittal and on resubmitted shop drawings by use of revision triangles or other similar methods, to revisions other than the corrections requested by the ENGINEER on previous submissions. Any such revisions which are not clearly identified shall be made at the risk of the CONTRACTOR. The CONTRACTOR shall make corrections to any Work done because of this type revision that is not in accordance to the Contract Documents as may be required by the ENGINEER.

F. If the CONTRACTOR considers any correction indicated on the shop drawings to constitute a change to the Contract Documents, the CONTRACTOR shall give written notice thereof to the PROJECT REPRESENTATIVE at least 7 working days prior to release for manufacture.

G. The ENGINEER will review a submittal a maximum of two times, after which cost of review will be borne by the CONTRACTOR. The cost of engineering shall be equal to the ENGINEER's charges to the OWNER under the terms of the ENGINEER's agreement with the OWNER.

H. When the shop drawings have been completed to the satisfaction of the ENGINEER, the CONTRACTOR shall carry out the construction in accordance therewith and shall make no further changes therein except upon written instructions from the ENGINEER.

I. Partial submittals may not be reviewed. The ENGINEER will be the only judge as to the completeness of a submittal. Submittals not complete will be returned to the CONTRACTOR, and will be considered "Not Approved" until resubmitted. The ENGINEER may, but is not required to, provide a list or mark the submittal directing the CONTRACTOR to the areas that are incomplete

PART 2 – PRODUCTS (Not Applicable)

PART 3 – EXECUTION (Not Applicable)

END OF SECTION

SECTION 01380
CONSTRUCTION PHOTOGRAPHS

1.1 REQUIREMENTS

The CONTRACTOR shall employ a competent photographer to take construction record photographs or perform video taping, including providing all labor, materials, equipment and incidentals necessary to obtain specified photographs and/or video tapes.

1.2 QUALIFICATIONS

A. All photography shall be accomplished by a competent camera operator who is fully experienced and qualified with the specified equipment.

B. For the video tape recording, the audio portion should be accomplished by a person qualified and knowledgeable in the specifics of the Contract, who shall speak with clarity and diction so as to be easily understood.

1.3 PROJECT PHOTOGRAPHS

A. Provide photographs of the entire work area prior to any construction for the purpose of records of conditions prior to construction. Photographs should be spaced at approximately 100-foot intervals. In addition, all special features shall be photographed prior to construction.

B. Photographs shall be submitted each month with Request for Payment. A minimum of 10 photographs will be required each month for processing of Request of Payment.

C. Provide three prints of each photograph to the PROJECT REPRESENTATIVE.

D. Negatives:

1. All negatives shall remain the property of photographer.

2. The CONTRACTOR shall require that photographer maintain negatives for a period of 2 years from date of Substantial Completion of the Project. Negatives shall be conveyed to OWNER, free of charge, at the end of the two year period.

3. CONTRACTOR shall require Photographer to agree to furnish additional prints to OWNER and PROJECT REPRESENTATIVE at commercial rates applicable at the time of purchase. CONTRACTOR shall require Photographer to agree to participate in any litigation requiring, in the sole discretion of the OWNER, the photographer to appear as an expert witness.

E. The CONTRACTOR shall pay all cost associated with the required photography and prints. Any parties requiring additional photography or prints will pay the photographer directly.

F. All project photographs shall be a single weight, color image. All finishes shall be smooth surface and glossy, and all prints shall be 5 inches by 7 inches.

G. Each print shall have clearly marked on the back the name of the project, the orientation of view, the date and time of exposure, name and address of photographer and the photographers numbered identification of exposure.

H. All project photographs shall be taken from locations to adequately illustrate conditions prior to construction, or conditions of construction and state of progress or particular construction activities or problems. The CONTRACTOR shall consult with the PROJECT REPRESENTATIVE for instructions concerning views required.

I. The CONTRACTOR shall provide photographs of the sites of the proposed ditch crossings and jack and bore crossings prior to the beginning of construction. Views shall be as required by the PROJECT REPRESENTATIVE.

J. The CONTRACTOR shall deliver prints in conformance with the above requirements to the PROJECT REPRESENTATIVE. No construction shall start until pre-construction photographs are completed and submitted to the PROJECT REPRESENTATIVE.

1.4 VIDEO TAPE RECORDINGS

A. Videotaping shall be accomplished along all routes that are scheduled for Construction in addition to required construction photographs. All videotaping shall be in full color. Videotaping shall include full taping of both sides of all streets on which construction is to be performed.

B. The taping shall, when viewed, show the image, ¼ of the roadway fronting all property and ¾ of the image shall be of the property. The taping shall be accomplished so as to show the roadway and property in an oblique view (30 degrees).

C. A complete view, in sufficient detail, of all existing facilities with audio description of the exact location shall be provided.

D. The construction plans shall be used as a reference for stationing in the audio portion of the tapes for easy location identifications. If visible, house or business numbers shall be mentioned on the audio.

E. Two complete sets of video tapes shall be delivered to the PROJECT REPRESENTATIVE for the permanent and exclusive use of the PROJECT REPRESENTATIVE prior to the start of any construction on the project.

F. All video tapes shall contain the name of the project, the date and time of the videotaping, the name and address of the photographer and any other identifying information required.

1.5 DIGITAL PROJECT PHOTOGRAPHS

A. Digital cameras and photographs may be used in lieu of conventional photography mentioned in Section 1.03 above. Provide photographs of the entire work area prior to any construction for the purpose of recording conditions prior to construction. Photographs should be spaced at approximately 100-foot intervals along improved areas. In addition, all special features shall be photographed prior to construction.

B. CONTRACTOR shall provide 5-inch by 7-inch hard copies in color to the PROJECT REPRESENTATIVE for approval on clarity and quality of photographs prior to start of construction. Photographs shall be submitted each month with Request for Payment. A minimum of 10 photographs will be required each month for processing of Request of Payment. The CONTRACTOR shall also copy the photographs to a CD-ROM(s) and then submit the CD-ROM(s) to the PROJECT REPRESENTATIVE.

C. Provide three prints of each photograph to the PROJECT REPRESENTATIVE.

D. CD-ROM(s) will be used in lieu of negatives. Photographer shall agree to participate as required in any litigation requiring the photographer as an expert witness.

E. The CONTRACTOR shall pay all cost associated with the required photography, CD-ROM(s) and prints. Any parties requiring additional photography or prints will pay the photographer directly.

F. All project hard copy photographs shall be a single weight, color image. All finishes shall be smooth surface and glossy, and all prints shall be 5 inches x 7 inches.

G. Each hard copy shall have clearly marked on the back or adjacent to, the name of the project, the orientation of view, the date and time of photograph, name and address of photographer and the photographers numbered identification of photograph. Each CD-ROM(s) shall be clearly marked with the name of the project, the date, name and address of the photographer and the number of photographs, along with a brief description of the area(s) taken, i.e., name of road and station locations.

H. All project photographs shall be taken from locations to adequately illustrate conditions prior to construction, or conditions of construction and state of progress or particular construction activities or problems. The CONTRACTOR shall consult with the PROJECT REPRESENTATIVE for instructions concerning views required.

I. The CONTRACTOR shall deliver hard copies of photographs and CD-ROM(s) in conformance with the above requirements to the PROJECT REPRESENTATIVE. No construction shall start until pre-construction photographs are completed and submitted to the PROJECT REPRESENTATIVE.

J. All storm piping to be videoed after installation and copy provided for review.

PART 2 – PRODUCTS (Not Applicable)

PART 3 – EXECUTION (Not Applicable)

END OF SECTION

SECTION 01505
MOBILIZATION/DEMOBILIZATION

PART 1 - GENERAL

1.1 DEFINITION AND SCOPE

As required for the proper performance and completion of the Work, mobilization shall include, but not be limited to, the following principal items:

A. Move onto the site all CONTRACTOR's plant and equipment required for the first month's operation.

B. Install temporary construction power, wiring, telephone, and lighting facilities.

C. Establish a fire protection plan and safety program.

D. Secure construction water supply.

E. Provide field office trailers for CONTRACTOR and PROJECT REPRESENTATIVE.

F. Provide on-site sanitary facilities and potable water facilities.

B. Arrange for and erect CONTRACTOR'S lay down and storage yard and employee's parking facilities.

H. Submit all required insurance certificates and bonds.

I. Obtain all required permits.

J. Post all OSHA, FDEP, Department of Labor, and all other required notices.

C. Have CONTRACTOR'S project manager and/or superintendent at the job site full time.

L. Submit a detailed construction schedule acceptable to the PROJECT REPRESENTATIVE.

M. Submit a Schedule of Values of the Work in an approved format acceptable to the PROJECT REPRESENTATIVE.

N. Submit a hurricane preparedness plan acceptable to the PROJECT REPRESENTATIVE.

O. Erect all required Project signs.

1.2 PAYMENT FOR MOBILIZATION

Payment for all mobilization/demobilization work will be made at the lump sum price bid for mobilization and demobilization of all labor, equipment, materials and appurtenances necessary for construction of the project. Mobilization shall include all items listed in the above paragraph. Also included, but not limited to, as part of this bid item is the cost for project performance indemnification's, shop drawings, working drawings, schedules, record drawings and documents, coordination, and phasing and other miscellaneous items associated with the work. Measurement and payment for this bid item will be lump sum. The lump sum price for mobilization/demobilization will be limited to 5.0 percent of the total contract amount. Eighty percent (80%) of the lump sum amount will be payable upon mobilization. The remaining 20% will be payable upon demobilization.

PART 2 – PRODUCTS (Not Applicable)

PART 3 – EXECUTION (Not Applicable)

END OF SECTION

SECTION 01705
PROJECT CLOSEOUT

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

Drawings and general provisions of Contract apply to work of this section.

1.2 DESCRIPTION OF REQUIREMENTS

Definitions:

A. Closeout is hereby defined to include general requirements near the end of Contract Time, in preparation for final acceptance, final payment, normal termination of Contract, and similar actions evidencing completion of the Work. Specific requirements for individual units of work are specified elsewhere in these Specifications.

B. Time of closeout is directly related to "Substantial Completion," and therefore; may be either a single time period for entire Work or a series of time periods for individual parts of the Work which have been certified as substantially complete at different dates. That time variation (if any) shall be applicable to other provisions of this section.

1.3 PREREQUISITES FOR SUBSTANTIAL COMPLETION

C. General:

Prior to requesting ENGINEER's inspection for certification of Substantial Completion (for either entire work or portions thereof), complete the following and list known exceptions in request:

1. In progress payment request, coincident with or first following date claimed, show either 100% completion for portion of Work claimed as "substantially complete" or list incomplete items, value of incompletion, and reasons for being incomplete.

2. Include supporting documentation for completion as indicated in these Contract Documents.

3. Submit statement showing accounting of changes to the Contract Sum.

4. Advise OWNER of pending insurance change-over requirements.

5. Submit special warranties, workmanship/maintenance bonds, maintenance agreements, final certifications, and similar documents.

6. Obtain and submit releases enabling OWNER's full and unrestricted use of the work and access to services and utilities, including (where required) operating certificate, and similar releases.

7. Submit record drawings, maintenance manuals, and similar final record information.

8. Deliver tools, spare parts, extra stocks of materials, and similar physical items to the OWNER.

9. Make final change-over of locks and transmit keys to OWNER, and advise OWNER's personnel to change-over in security provisions, applicable.

10. Complete start-up testing of systems, and instructions of OWNER's operating/maintenance personnel. Discontinue (or change over) and remove from Project site temporary facilities and services, along with construction tools and facilities, mock-ups, and similar elements.

11. Complete final cleaning up requirements, including touch-up painting of marred surfaces.

D. Inspection Procedures:

Upon receipt of CONTRACTOR's request, the ENGINEER will either proceed with inspection or advise CONTRACTOR of prerequisites not fulfilled. Following initial inspection, the ENGINEER will either prepare certificate of Substantial Completion, or advice the CONTRACTOR of work which must be performed prior to issuance of certificate; and repeat inspection when requested and assured that work has been substantially completed. Results of completed inspection will form initial "punch-list" for final acceptance.

1.4 PREREQUISITES FOR FINAL ACCEPTANCE

A. General:

Prior to requesting ENGINEER's final inspection for certification of final acceptance and final payment, as required by General Conditions (Section 00100), complete the following and list known exceptions (if any) in request:

1. Submit final payment request with final releases and supporting documentation not previously submitted and accepted. Include certificates of insurance for products and completed operations where required.

2. Submit updated final statement, accounting for additional (final) changes to the Contract Sum.

3. Submit consent of surety.

4. Submit final liquidation damages settlement statement, acceptable to the OWNER.

5. Revise and submit evidence of final continuing insurance coverage complying with insurance requirements.

B. Reinspection Procedure:

Upon receipt of CONTRACTOR's notice that the work has been completed, including punch-list items resulting from earlier inspections, and excepting incomplete items delayed because of acceptable circumstances, the ENGINEER will reinspect the Work. Upon completion of reinspection, the ENGINEER will either prepare a certificate of final acceptance or advise the CONTRACTOR of Work not completed or obligations not fulfilled as required for final acceptance. If necessary, procedure will be repeated.

1.5 RECORD DOCUMENT SUBMITTALS

A. General:

Specific requirements for record documents are indicated in individual sections of these specifications. Other requirements are indicated in General Conditions. General submittal requirements are indicated in Section 01300 (Submittals).

Do not use record documents for construction purposes; protect from deterioration and loss in a secure fire-resistive location; provide access to record documents for ENGINEER's reference during normal working hours.

B. Record Drawings:

1. Maintain a set of contract drawings and shop drawings in clean, undamaged condition, with mark-up of actual installations which very substantially from the work as originally shown.

2. Mark whichever drawing is most capable of showing "field" condition fully and accurately; however, where shop drawings are used for mark-up, record a cross-reference at corresponding location on working drawings.

3. Mark with red erasable pencil and, where feasible, use other colors to distinguish between variations in separate categories of work.

4. Mark-up new information which is recognized to be of importance to the OWNER, but was for some reason not shown on either the Drawings or Shop Drawings. Give particular attention to concealed work, which would be difficult to measure and record at a later date.

5. Note related Change Order numbers where applicable.

C. Record Specifications:

1. Maintain one copy of specifications, including Addenda, Change Orders and similar modifications issued in printed form during construction, and mark-up variation (of substance) in actual work in comparison with text of Specifications and modifications as issued.

2. Give particular attention to substitutions, selection of options, and similar information on Work where it is concealed or cannot otherwise be readily discerned at a later date by direct observation.

3. Note related Record Drawing information and product data, where applicable. Upon completion of mark-up, submit to ENGINEER for OWNER's records.

D. Maintenance Manuals:

1. Organize maintenance-and-operating manual information into suitable sets of manageable size, and bind into individual binders properly identified and indexed (thumb tabbed). Four sets will be required.

2. Include emergency instructions, spare parts listing, warranties' copies, wiring diagrams, recommended "turn-around" cycles, inspection procedures, shop drawings, product data, and similar applicable information.

PART 2 - PRODUCTS (Not Applicable)

PART 3 - EXECUTION

3.1 CLOSEOUT PROCEDURES

A. General Operating/Maintenance Instructions:

1. Arrange for each installer of work requiring continuing maintenance or operating to meet with OWNER's personnel, at Project site, to provide basic instructions needed for proper operation and maintenance of entire Work.

2. Include instructions by manufacturer's representatives where installers are not expert in the required procedures.

3. Review maintenance manuals, record documentation, tools, spare parts and materials, lubricants, fuels, identification systems, control sequences, hazards, cleaning, and similar procedures and facilities.

4. Demonstrate start-up, shut-down, emergency operations, noise and vibration adjustments, safety, economy/efficiency adjustments, energy effectiveness, and similar operations for operational equipment.

5. Review maintenance and operations in relation with applicable warranties, agreements to maintain, bonds, and similar continuing commitments.

3.2 FINAL CLEANING

A. General:

Special cleaning for specific units of work is specified in other sections. The following are examples, but not by way of limitation, of cleaning levels required:

1. Remove labels which are not required as permanent labels.

2. Wipe surfaces of mechanical and electrical equipment clean and remove excess lubrication and other substances.

3. Clean Project site (yard and grounds), including landscape development areas, of litter and foreign substances.

4. Sweep paved areas to a broom-clean condition; remove stains, petro-chemical spills and other foreign deposits.

5. Rake grounds which are neither planted nor paved, to a smooth, even-textured surface.

B. Compliances:

1. Comply with safety standards and governing regulations for cleaning operations.

2. Do not burn waste materials at site, or bury debris or excess materials on OWNER's property, or discharge volatile or other harmful or dangerous materials into drainage systems.

3. Remove waste materials from site and dispose of in a lawful manner.

4. Dispose of extra materials of value remaining after completion of the associated Work has become the OWNER's property, to OWNER' best advantage as directed.

END OF SECTION

SECTION 02110
SITE CLEARING

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

Drawings and general provisions of Contract, including General and Special Conditions, apply to work of this section.

1.2 DESCRIPTION OF WORK

A. Extent of site clearing is shown on drawings.

B. Site clearing work includes, but is not limited to:

1. Protection of existing trees.
2. Removal of trees and other vegetation.
3. Topsoil stripping.
4. Clearing and grubbing.
5. Removing above-grade improvements.
6. Removing below-grade improvements.

1.3 JOB CONDITIONS

A. Traffic:

1. Conduct site clearing operations to ensure minimum interference with roads, streets, walks, and other adjacent occupied or used facilities.
2. Do not close or obstruct streets, walks or other occupied or used facilities without permission from authorities having jurisdiction.

B. Protection of Existing Improvements:

1. Provide protection necessary to prevent damage to existing improvements indicated to remain in place.
2. Protection improvements on adjoining properties and on OWNER's property.
3. Restore damaged improvements to their original condition, as acceptable to parties having jurisdiction.

C. Protection of Existing Trees and Vegetation:

1. Protect existing trees and other vegetation indicated to remain in place, against unnecessary cutting, breaking or skinning of roots, skinning and bruising of bark, smothering of trees by stockpiling construction materials or excavated materials within drip line, excess foot or vehicular traffic, or parking of vehicles within drip line.

2. Provide temporary guards to protect trees and vegetation to be left standing.

D. Salvable Improvements:

1. Carefully remove items indicated to be salvaged, and store on OWNER's premises where indicated or directed.

PART 2 - PRODUCTS

Not applicable to work of this section.

PART 3 - EXECUTION

3.1 SITE CLEARING

A. General:

1. Remove trees, shrubs, grass and other vegetation, improvements, or obstructions interfering with installation of new construction.

2. Remove such items elsewhere on the site or premises as specifically indicated. Removal includes digging out stumps and roots.

3. Carefully and cleanly cut roots and branches of trees indicated to be left standing, where such roots and branches obstruct new construction.

B. Topsoil:

1. Topsoil is defined as friable clay loam surface soil found in a depth of not less than 4 inches.

2. Satisfactory topsoil is reasonably free of topsoil, clay lumps, stones, and other objects over 2 inches in diameter, and without weeds, roots, and other objectionable material.

3. Remove heavy growths of grass from areas before stripping.

4. Stop topsoil stripping a sufficient distance, where trees are indicated to be left standing, to prevent damage to main root system.

5. Stockpile topsoil in storage piles in areas shown, or where directed. Construct storage piles to freely drain surface water. Cover storage piles if required to prevent wind-blown dust.

6. Dispose of unsuitable or excess topsoil same as waste material, herein specified.

C. Clearing and Grubbing:

1. Clear site of trees, shrubs and other vegetation, except for those indicated to be left standing.

2. Completely remove stumps, roots, and other debris protruding through the ground surface.

3. Use only hand methods for grubbing inside drip line of trees indicated to be left standing.

4. Fill depressions caused by clearing and grubbing operations with satisfactory soil material, unless further excavation or earthwork is indicated.

5. Place fill material in horizontal layers not exceeding 6-inch loose depth, and thoroughly compact to a density equal to adjacent original ground.

D. Removal of Improvements:

1. Remove existing above-grade and below-grade improvements necessary to permit construction, and other work as indicated.

3.2 DISPOSAL OF WASTE MATERIALS

A. Burning on OWNER's Property: Burning is not permitted on OWNER's property unless OWNER's approval is obtained and proper authorities are notified.

B. Removal from OWNER's Property: Remove waste materials and unsuitable materials from OWNER's property and dispose of off site in legal manner.

END OF SECTION

SECTION 02200
EARTHWORK

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and general provisions of Contract, including General and Special Conditions, apply to work of this section.

1.2 DESCRIPTION OF WORK

A. Definition: "Excavation" consists of removal of material encountered to subgrade elevations indicated and subsequent disposal of materials removed.

1.3 QUALITY ASSURANCE

A. Codes and Standards:

1. Perform excavation work in compliance with applicable requirements of governing authorities having jurisdiction.

B. Testing and Inspection Service:

1. Employ, at CONTRACTOR's expense, a testing laboratory subject to approval by the ENGINEER to perform soil testing and inspection service for quality control during earthwork operations.

1.4 SUBMITTALS

A. Test Reports-Excavating: Submit following reports directly to ENGINEER from the testing services; with copy to CONTRACTOR:

1. Test reports on fill material. (Modified Proctor Tests)

2. Field density test reports. (Modified Proctor Tests)

3. Report of actual unconfined compressive strength and/or results of bearing tests of each stratum tested.

1.5 JOB CONDITIONS

A. Existing Utilities:

1. Locate existing underground utilities in areas of work. If utilities are to remain in place, provide adequate means of support and protection during earthwork operations.

2. Should uncharted, or incorrectly charted, piping or other utilities be encountered during excavation, consult utility owner immediately for directions. Cooperate with OWNER and utility companies in keeping respective services and facilities in operation. CONTRACTOR shall bear all costs of repairing damaged utilities to the satisfaction of utility owner.

3. Do not interrupt existing utilities serving facilities occupied and used by OWNER or others, during occupied hours, except when permitted in writing by ENGINEER and then only after acceptable temporary utility services have been provided.

4. Provide minimum of 48-hour notice to engineer, and receive notice to proceed before interrupting any utility.

5. Demolish and completely remove from site existing underground utilities indicated to be removed. Coordinate with utility companies for shut-off of services if lines are active.

B. Use of explosives:

1. The use of explosives is not permitted.

C. Protection of Persons and Property:

1. Barricade open excavations occurring as part of this work and post with warning lights.

2. Operate warning lights as recommended by authorities having jurisdiction.

3. Protect structures, utilities, sidewalks, pavements, and other facilities from damages caused by settlement, lateral movement, undermining, washout, and other hazards created by earthwork operations.

4. Perform excavation within drip-line of large trees to remain by hand, and protect the root system from damage or dryout in the manner prescribed in sections under "Sitework."

PART 2 - PRODUCTS

2.1 SOILS MATERIALS

A. Subbase Material:

1. Naturally or artificially graded mixture of natural or crushed gravel, crushed stone, crushed slag, natural or crushed sand.

B. Backfill and Fill Materials:

1. Satisfactory soil materials free of clay, rock or gravel larger than 2 inches in any dimension, debris, waste, frozen materials, vegetation and other deleterious matter. The fill material should be sand containing little fines.

2. Prior to placing the fill material, the existing material shall be stripped of all soils containing a significant percentage of organics and all loose soils which cannot be readily compacted.

3. If existing materials do not meet these requirements, it may be necessary to backfill with select materials other than those on the job site.

PART 3 - EXECUTION

3.1 EXCAVATION

A. Excavation:

1. Excavation is Unclassified, and includes excavation to subgrade elevations indicated, regardless of character of materials and obstructions encountered.

2. Unauthorized excavation consists of removal of materials beyond indicated subgrade elevations or dimensions without specific direction of ENGINEER. Unauthorized excavation, as well as remedial work directed by ENGINEER, shall be at CONTRACTOR's expense.

3. Under footings, foundation bases, or retaining walls, fill unauthorized excavation by extending indicated bottom of elevation of footing or base to excavation bottom, without altering required top elevation. Lean concrete fill may be used to bring elevations to proper position, when acceptable to ENGINEER.

4. Elsewhere, backfill and compact unauthorized excavations as specified for authorized excavations of same classifications, unless otherwise directed by engineer.

B. Additional Excavation:

1. When excavation has reached required subgrade elevations, notify ENGINEER who will make an inspection of conditions.

2. If unsuitable bearing materials are encountered at required subgrade elevations, notify ENGINEER who will make an inspection of conditions.

3. If unsuitable bearing materials are encountered at required subgrade elevations, carry excavations deeper and replace excavated material as directed by the ENGINEER.

4. Removal of unsuitable material and its replacement as directed will be paid on basis of contract conditions relative to changes in work.

C. Stability of Excavations:

1. Slope sides of excavations to comply with local codes and ordinances having jurisdiction. Shore and brace where sloping is not possible because of space restrictions or stability of material excavated.

2. Maintain sides and slopes of excavations in safe condition until completion of backfilling.

3.4 SHORING AND BRACING

A. Provide materials for shoring and bracing, such as sheet piling, uprights, stringers and cross-braces, in good serviceable condition.

B. Establish requirements for trench shoring and bracing to comply with local codes and authorities having jurisdiction.

C. Maintain shoring and bracing in excavations regardless of time period excavations will be open. Carry down shoring and bracing as excavation progresses.

D. Dewatering:

1. Prevent surface water and subsurface or ground water from flowing into excavations and from flooding project site and surrounding area. The cost of all dewatering operations including well pointing and "sock pipe" shall be the responsibility of the CONTRACTOR. The ENGINEER may direct the CONTRACTOR to provide dewatering if deemed necessary.

2. 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 subgrades 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.

3. Establish and maintain temporary drainage ditches and other diversions outside excavation limits to convey rain water and water removed from excavations to collecting or run-off areas. Do not use trench excavations as temporary drainage ditches.

E. Material Storage:

1. Stockpile satisfactory excavated materials where directed, until required for backfill or fill. Place, grade, and shape stockpiles for proper drainage.

2. Locate and retain soil materials away from edge of excavations. Do not store within drip line of trees indicated to remain.

3. Dispose of excess soil material and waste materials as herein specified.

F. Excavation for Structures:

1. Conform to elevations and dimensions shown within a tolerance of plus or minus 0.10', and extending a sufficient distance from footings and foundations to permit placing and removal of concrete formwork, installation of service, other construction, and for inspection.

2. In excavating for footings and foundations, take care not to disturb bottom of excavation. Excavate by hand to final grade just before concrete reinforcement is places. Trim bottoms to required lines and grades to leave solid base to receive other work.

G. Excavation for Trenches:

1. Dig trenches to the uniform width required for particular item to be installed, sufficiently wide to provide ample working room. Provide 6" to 9" clearance on both sides of pipe or conduit and a maximum of 30" total width.

2. Excavate trenches to depth indicated or required. Carry depth of trenches for piping to establish indicated flow lines and invert elevations. Beyond building perimeter, keep bottoms of trenches sufficiently below finish grade to avoid freeze-ups.

3. Where rock is encountered, carry excavation 6" below required elevation and backfill with a 6" layer of crushed stone or gravel prior to installation of pipe.

4. For pipes or conduit 5" or less in nominal size and for flat-bottomed multiple-duct conduit units, do not excavate beyond indicated depths. Hand excavate bottom cuts to accurate elevations and support pipe or conduit on undisturbed soil.

5. For pipes or conduit 6" or larger in nominal size, tanks and other mechanical/electrical work indicated to receive subbase, excavate to subbase depth indicated, or, if not otherwise indicated, to 6" below bottom of work to be supported.

6. Except as otherwise indicated, excavate for water bearing piping so top of piping is not less that 3'-0" below finished pavement grade, but no less than 2'-6" below finish grade.

7. Grade bottoms of trenches as indicated, notching under pipe bells to provide solid bearing for entire body of pipe.

8. Backfill trenches with concrete where trench excavations pass within 18" of column or wall footings and which are carried below bottom of such footings, or which pass under wall footings. Place concrete to level of bottom of adjacent footing.

9. Use care in backfilling to avoid damage or displacement of pipe systems.

3.2 COMPACTION

A. General:

1. Control soil compaction during construction, providing minimum percentage of density specified for each area classification indicated below.

2. All compaction requirements for this section are specified on the construction plans.

B. Moisture Control:

1. Where subgrade of layer of soil material must be moisture conditioned before compaction, uniformly apply water to surface of subgrade, or layer of soil material, to prevent free water appearing on surface during subsequent to compaction operations.

2. Remove and replace, or scarify and air dry, soil material that is too wet to permit compaction to specified density.

3. Soil material that has been removed because it is too wet to permit compaction may be stockpiled or spread and allowed to dry. Assist drying by dicing, harrowing or pulverizing, until moisture content is reduced to a satisfactory value.

3.3 BACKFILL AND FILL

A. General: Place acceptable soil material in layers to required subgrade elevations, for each area classification listed below:

1. In excavations, use satisfactory excavated or borrow material.

2. Under grassed areas, use satisfactory excavated or borrow material.

3. Under walks and pavements, use subbase material, or satisfactory excavated or borrow material, or combination of both.

4. Under piping and conduit, use subbase material where subbase is indicated under piping or conduit; shape to fit bottom 90 degrees of cylinder.

B. Backfill excavation as promptly as work permits, but not until completion of the following;

1. Acceptance of construction below finish grade.

2. Inspection, testing, approval, and recording locations of underground utilities.

3. Removal of concrete formwork.

4. Removal of shoring and bracing, and backfilling of voids with satisfactory materials. Cut off temporary sheet piling driven below bottom of structures and remove in manner to prevent settlement of the structure or utilities, or leave in place if required.

5. Removal of trash and debris.

6. Permanent or temporary horizontal bracing is in place on horizontally supported walls.

C. Ground Surface Preparation:

1. Remove vegetation, debris, unsatisfactory soil materials, obstructions, and deleterious materials from ground surface prior to placement of fills. Plow, strip, or break-up sloped surfaces steeper than 1 vertical to 4 horizontal so that fill material will bond with existing surface.

2. When existing ground surface has a density less than that specified under "Compaction" for particular area classification, break-up ground surface, pulverize, moisture-condition to optimum moisture content, and compact to required depth and percentage of maximum density.

D. Placement and Compaction:

1. The lower portion of backfill, to a compacted level of one foot above the top of the pipe, shall be hand placed in layers of lifts not to exceed six inches of compacted depth and each layer compacted individually by means of hand tampers. Above that level, place lifts in layers not to exceed twelve inches of compacted depth and machine filling and tamping may be used.

2. Before compaction, moisten or aerate each layer as necessary to provide optimum moisture content. Compact each lift to required percentage of minimum soil density for each area classification as designated herein. Do not place backfill or fill material on surfaces that are muddy, frozen, or contain frost or ice.

3. Place backfill and fill materials evenly adjacent to structures, piping or conduit to required elevations. Take care to prevent wedging action of backfill against structures or displacement of piping or conduit by carrying material uniformly around structure, piping or conduit to approximately same elevation in each lift.

3.4 GRADING

A. General:

1. Uniformly grade areas within limits of grading under this section, including adjacent transition areas.

2. Smooth finished surfaces within specified tolerances, compact with uniform levels or slopes between points where elevations are indicated, or between such points and existing grades.

B. Grading Outside Building Lines:

1. Grade areas adjacent to building lines to drain away from structures and to prevent ponding.

C. Finish surfaces free from irregular surface changes, and as follows:

1. Lawn or Unpaved Ares: Finish areas to receive topsoil to within not more than 0.10’ above or below required subgrade elevations.

2. Walks: Shape surface of areas under walks to line, grade and cross-section, with finish surface not more than 0.10’ above or below required subgrade elevation.

3. Pavements: Shape surface of areas under pavement to line, grade and cross-section, with finish surface not more than 1/2” above or below requires subgrade elevations.

D. Grading Surface of Fill Under Building Slabs:

1. Grade smooth and even, free from voids, compacted as specified, and to required elevation.

2. Provide final grades within a tolerance of 1/2” when tested with a 10’ straightedge.

3. Compaction: After grading, compact subgrade surfaces to the depth and indicated percentage for each area classification.

3.5 FIELD QUALITY CONTROL

A. Quality Control Testing During Construction:

1. Provide testing service by a qualified soil testing firm, subject to ENGINEER’s approval, to inspect and approve subgrades and fill layers before further construction work is performed.

B. Paved Areas:

1. Make at least one field density test of subgrade for every 2000 square feet of paved area but in no case less than 3 tests, nor less than 1 per driveway or crossing. In each compacted fill layer, make one field density test for every 2,000 square feet of paved area but in no case less than 3 tests, nor less than 1 per driveway or crossing.

C. Non-Paved Areas:

1. Perform at least 1 field density test per 3,000 square feet of fill per every vertical foot of height, and perform at least 1 field density test per 1,000 feet of pipe installed per every 2 feet of vertical trench depth.

D. If in opinion of ENGINEER, based on testing service reports and inspection, subgrade or fills which have been placed below are specified density, provide additional compaction and testing at no additional expense.

3.6 MAINTENANCE

A. Protection of Graded Areas:

1. Protect newly graded areas from traffic and erosion. Keep free of trash and debris.

B. Repair and re-establish grades in settled, eroded, and rutted areas to specified tolerances.

C. Reconditioning Compacted Areas:

1. Where completed compacted areas are disturbed by subsequent construction operations or adverse weather, scarify surface, re-shape, and compact to required density prior to further construction.

3.7 DISPOSAL OF EXCESS AND WASTE MATERIALS

A. Disposal of all spoil material resulting from construction shall be the responsibility of the CONTRACTOR.

END OF SECTION

SECTION 02211
SODDING

PART 1 - GENERAL

1.1 WORK INCLUDED

A. Sod Installation

1.2 REFERENCES

A. ASPA - American Sod Producers Association - Guideline Specifications to Sodding.

B. FS O-F-241 - Fertilizers, Mixed, Commercial.

1.3 DEFINITIONS

A. Weeds: Dandelion, Jimsonweed, Quackgrass, Horsetail, Morning Glory, Rush Grass, Mustard, Lambsquarter, Chickweed, Cress, Crabgrass, Canadian Thistle, Nutgrass, Poison Oak, Blackberry, Tansy Ragwort, Bermuda Grass, Johnson Grass, Poison Ivy, Nut Sedge, Nimble Hill, Bindweed, Bent Grass, Wild Garlic, Perennial Sorrel, and Brome Grass.

1.4 DELIVERY, STORAGE, AND HANDLING

A. Deliver sod on pallets. Protect exposed roots from dehydration.

B. Do not deliver more sod that can be laid within 24 hours.

PART 2 - PRODUCTS

2.1 ACCEPTABLE SOD GROWERS

A. Nurseries and Sod Growers in the surrounding area who have a five-year record are acceptable.

2.2 MATERIALS

A. Sod:

1. ASPA approved, field grown grade; cultivated grass sod; for low maintenance and traffic durability, with strong fibrous root system, free of stone, burned or bare spots; containing no more than 5 weeds per 1000 square feet.

B. Approved Sods:

1. Bermuda, (Cynodon Dactylon).

2.3 HARVESTING SOD

A. Machine cut sod and load on pallets in accordance with ASPA guidelines.

B. Cut sod in area not exceeding one square yard, with minimum 1/2 inch and maximum one-inch topsoil base.

PART 3 - EXECUTION

3.1 INSPECTION

A. Verify that prepared soil base is ready to receive the work of this Section.

B. Beginning of installation means acceptance of existing site conditions.

3.2 PREPARATION OF SUBSOIL

A. Prepare subsoil to eliminate uneven areas and low spots. Maintain lines, levels, profiles and contours. Make changes in grade gradual. Blend slopes into level areas.

B. Remove foreign materials and undesirable plants and their roots. Do not bury foreign material beneath areas to be sodded. Remove contaminated subsoil.

3.3 LAYING SOD

A. Moisten prepared surface immediately prior to laying sod.

B. Lay sod immediately on delivery to site and within 24 hours after harvesting to prevent deterioration.

C. Lay sod tight with no open joints visible, and no overlapping; stagger end joints 12-inches overlapping; minimum. Do not stretch or overlap sod pieces.

D. Lay smooth. Align with adjoining grass areas. Place top elevation of sod 1/2 inch below adjoining paving or curbs.

E. On slopes 6 inches per foot and steeper, lay sod perpendicular to slope and secure every row with wooden pegs at maximum 2 feet on center. Drive pegs flush with soil portion of sod.

F. Prior to placing sod, on slopes exceeding 8 inches per foot or where indicated, place wire mesh over topsoil. Securely anchor in place with wood pegs sunk firmly into the ground.

G. Water sodded areas immediately after installation. Saturate sod to 4 inches of soil.

H. After sod and soil have dried, roll sodded areas to ensure good bond between sod and soil and to remove minor depressions and irregularities.

I. Sod shall be laid in all ditch areas and slopes that are equal to or steeper than 1 vertical to 3 horizontal or in areas determined by the Engineer to “erosion problem” areas. Sod shall be pinned down for stabilization in these areas.

END OF SECTION

SECTION 02220
GRASSING (BY SEEDING)

1.1 INTENT

It is the intent of these specifications to provide supplemental information to the contents of the construction drawings on the quality of materials, execution, measurement, etc. Theses specifications are general in nature and may contain products and requirements which are not applicable to the project. Discrepancies between these specifications and the construction drawings, either imagined or real, shall be brought to the attention of the Owner's Engineer for clarification.

1.2 DESCRIPTION OF WORK

The extent of the work is shown on the drawings.

Seeding includes, but is not limited to: Ground preparation, fertilization, seeding, erosion control, rolling, watering.

1.3 QUALITY ASSURANCE

Codes and Standards: Perform all work in compliance with applicable requirements of governing authorities having jurisdiction.

Testing and Inspection: Testing and inspection shall be performed by the Owner's Engineer.

It will be the responsibility of the Contractor to coordinate all testing and inspections. The Contractor shall notify the Owner's Engineer, testing service and applicable agency inspectors 48 hours in advance of testing and inspections.

1.4 SUBMITTAL

The following shall be submitted to the Owner's Engineer for approval:

Proposed seed mixes.

Manufacturer's data and installation procedures on erosion control blanket.

1.5 SEED

General: All seed shall meet the requirements of State Department of Agriculture and Consumer Services and all applicable State laws and shall be approved by the Engineer before being sown. The seed shall have been harvested from the previous year's crop.

When a low percentage of grass seed or native seed germination causes the quality of the seed to fall below the minimum pure live seed percentage as specified below, the Contractor may elect, subject to the approval of the Engineer, to increase the rate of application sufficiently to obtain the minimum germination rate specified. No payment will be made for the added seed.

Grass Seed: Each of the species or varieties of seed shall be furnished and delivered in separate labeled bags. During handling and storage, the seed shall be cared for in such a manner that it

will be protected from damage by heat, moisture, rodents and other causes.

All permanent and temporary grass seed shall have been tested within a period of six months of the date of planting.

All permanent and temporary grass seed shall have a minimum percent of purity and germination as follows:

Argentine Bahia Grass Seed shall have a minimum pure seed content of 95% with a minimum germination of 80%.

Pensacola Bahia Grass Seed shall have a minimum pure seed content of 95% with a minimum active germination of 40% and a total germination of 80% including firm seed.

Bermuda Grass Seed shall be of common variety with a minimum pure seed content of 95% with a minimum germination of 85%.

Annual Type Rye Grass Seed shall have a minimum germination of 90%.

Millet Seed shall be of the Brown Top variety with a minimum pure seed content of 90% with a minimum germination of 85%.

1.6 MIXTURE

Grass seed shall be a mixture of 15 parts of rye or millet, depending on season, and 85 parts of Bahia or Bermuda, as shown on the plans, selected by Owner, or to match existing. The separate types of seed used shall be thoroughly dry mixed immediately before sowing. Seed which has become wet shall not be used. The Contractor may submit for approval by the Owner's Engineer alternative mix designs if so desired.

1.7 MULCH

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.

Only un-deteriorated mulch which can be readily cut into the soil shall be used.

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.

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.

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.

1.8 EROSION CONTROL BLANKET

Erosion control blanket shall be "Curlex" as manufactured by American Excelsior, Type SC15 as manufactured by North American Green, or approved equal, unless noted otherwise on the plans.

1.9 COMMERCIAL FERTILIZER

Commercial fertilizers shall comply with the state fertilizer laws.

The numeral designations for fertilizer indicate the minimum percentages (respectively) of (1) total nitrogen, (2) available phosphoric acid and (3) water soluble potash, contained in the fertilizer.

Type I fertilizer (as hereinafter specified) shall be used unless Type II fertilizer or another designation is specifically called for on the Drawings or authorized by the Engineer. Liquid fertilizer will not be permitted.

Type I Fertilizer: The chemical designation of this fertilizer shall be 12-8-8 with at least 50% of the nitrogen from a non-water-soluble organic source. The nitrogen source may be a urea-formaldehyde source provided it is not derived from a waste product of the plastic industry.

Type II Fertilizer: The chemical designation of this fertilizer shall be 12-12-8 with at least 50% of the nitrogen shall be from a urea-formaldehyde source and at least 50% of the phosphoric acid shall be from regular superphosphate.

1.10 WATER FOR GRASSING

The water used in the grassing operations may be obtained from any approved spring, pond, lake, stream or metered municipal water system. The water shall be free of excess and harmful chemicals, acids, alkalies or any substance which might be harmful to plant growth or obnoxious to traffic. Saltwater shall not be used.

1.11 EQUIPMENT

Fertilizer Spreader: The device for spreading fertilizer shall be capable of uniformly distributing the material at the specified rate.

Seed Spreader: The seed spreader shall be an approved mechanical hand spreader or other approved type of spreader.

Equipment for Cutting Mulch into Soil: The mulching equipment shall be capable of cutting the specified materials uniformly into the soil and to the required controlled depth. Harrows will not be allowed.

Rollers: A cultipacker, traffic roller or other suitable equipment will be required for rolling the grassed areas.

1.12 CONSTRUCTION

General: 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. No seeding shall be done when the ground is unduly wet or otherwise not in a tillable condition.

Sequence of Operations: The several operations involved in the Work shall proceed in the following sequence: Fertilizing and preparation of the ground, seeding, erosion control and rolling. Erosion control shall consist of spreading and cutting in of mulch or application of erosion control blanket.

Preparation of Area to be Seeded: The ground to be seeded shall be prepared by disc harrowing and thoroughly pulverizing the soil reasonably smooth. It shall be reasonably free of large clods, roots and other material which will interfere with the Work and subsequent mowing and maintenance operations. No subsequent operations shall be commenced until the Owner's Engineer has approved the condition of the prepared areas.

Application of Fertilizer: The fertilizer shall be spread uniformly over the area to be seeded, at the rate of 500 to 600 pounds per acre. On steep slopes or other areas where machine spreading may not be practicable, the spreading may be done by hand. Immediately after the fertilizer is spread it shall be mixed with the soil to a depth of approximately four inches.
Seeding: While the soil is still loose and moist, the seed shall be scattered uniformly over the grassing area at a rate of 80 pounds per acre.

The seed shall be immediately mixed into the seed bed to a depth of one-half inch. The contractor may mix the fertilizer and seed into the seed bed in one operation.

When so directed by the Engineer, seed of an approved quick growing species of grass, such as rye, Italian rye, millet or other cereal grass, shall be spread at a rate of 30 pounds per acre in conjunction with the permanent type seed mixture.

Mulching: Approximately two inches, loose thickness, of the mulch material shall be applied uniformly over the seeded area, and the mulch material cut into the soil with the equipment specified so as to produce a loose mulched thickness of three inches to four inches. Care shall be exercised so the materials are not cut too deeply into the soil.
When green mulch is used it shall be incorporated into the soil not later than two days after being harvested and no artificial watering of the mulch shall be done before it is applied.

Erosion Control Blanket: For slopes 4:1 or greater an erosion control blanket will be used in lieu of mulching unless noted otherwise on the plans or at the discretion of the Owner's Engineer. Blankets shall be laid and stapled in accordance with the manufacturer's recommendations.

Rolling: Immediately after completion of the seeding, the entire seeded and mulched area shall be rolled thoroughly with the equipment specified. At least two trips over the entire area will be required. For areas which will receive an erosion control blanket in lieu of mulch areas shall be rolled prior to installation of blanket.

Watering: The seeded areas shall be watered so as to provide optimum growth conditions for the establishment of the grass. In no case, however, shall the period of maintaining such moisture be less than two weeks after the planting.

1.13 MAINTENANCE

The Contractor shall at his expense maintain the planted areas in a satisfactory condition until final acceptance of the project. Such maintenance shall include the filling, leveling and repairing of any washed or eroded areas, as may be necessary. The Contractor is responsible for watering and mowing during the period established by the Engineer. The Engineer, at any time, may require

replanting of areas in which the establishment of the grass stand does not appear to be developing satisfactorily.

If a planted area must be replanted due to the Contractor's negligence, carelessness or failure to provide routine maintenance of such area, such replacement shall be at the Contractor's expense. If replanting is necessary due to factors determined to be beyond the control of the Contractor, payment for replacement will be made under the appropriate contract pay items.

1.14 GUARANTEE

The Contractor shall guarantee all seeded areas for a period of 90 days after the date of provisional acceptance. During the guarantee period, the Contractor shall replace at no cost to the Owner, any grass required under the Contract that dies or is not established 90 days after seeding, if the causes for such defects are traced to negligence or poor workmanship (including maintenance) by the Contractor.

Any grass missing or defective due to the Contractor's negligence shall be furnished or replaced in a manner satisfactory to the engineer. In case of any doubt as to the condition and satisfactory establishment of the grass, the Engineer may allow the seeded area to remain through another 90 day establishment period, after which time the grass in question, if found to be dead or in an unhealthy or badly impaired condition, shall be replaced by the Contractor at no cost to the Owner.

1.15 TESTING AND INSPECTION REQUIREMENTS

Areas to receive seed will be subject to a visual inspection by the Owner's Engineer upon completion of ground preparation and prior to placement of seed and mulch or erosion control blanket.

Upon completion of the grassing and prior to commencement of the guarantee period, the area will be subject to a visual inspection by the Owner's Engineer.

At the end of the guarantee period, final inspection of the grassed area will be made by the Engineer upon written notice requesting such inspection submitted by the Contractor at least three days before the anticipated inspection. All defects discovered shall be repaired or replaced by the Contractor before final acceptance.

1.16 MEASUREMENT AND PAYMENT

General: The contract unit price for the various items shall be compensation in full for furnishing all materials, labor, equipment, tools and incidentals necessary for the installation of the item complete in every detail in accordance with the plans and specifications. There will be no direct payment for clearing, grubbing, excavating, de-watering, bracing, backfilling, clean-up and restoration of property. Payment for the Work of this section may be by areal measure, or lump sum as shown on the proposal.

Areal Payment: When payment is on an areal basis the quantities to be paid for shall be the areal extent of Work as calculated by the method coordinates, unless the Engineer determines that another method of calculation will provide a more accurate result. The Work in-place shall be measured by field survey and payment based on the calculations by the Engineer, unless otherwise specified herein. Payment shall only include Work to the lines and grades shown on the plans or directed by the Engineer. Quantities shown on the proposal form are the Engineer's

estimate of the Work in-place. Differences in the actual measure of the material and the estimated measure of the material will not constitute a change in the scope of the Work or be a basis for claim by the Contractor.

Lump Sum Payment: When payment is on a lump sum basis, Engineer estimated in-place quantities of the Work may be provided on the proposal form for the benefit of the Contractor. Differences between actual quantities and estimated quantities will not be a basis for claim by the Contractor. It shall be the responsibility of the Contractor to familiarize himself with the scope of Work and necessary requirements thereto.

Seeding: The contract unit price shall be compensation in full for one acre of grassing for erosion control complete in place including ground preparation, fertilizing, seeding, watering and maintenance. Measurement will be made to the nearest tenth of an acre of the area actually grassed, except that grassing areas outside of the construction easement will be considered the responsibility of the Contractor and will not be measured for payment.

Mulching: The contract unit price shall be compensation in full for one acre of mulching complete in place including ground preparation and maintenance. Measurement will be made to the nearest tenth of an acre of the area actually mulched, except that mulching of areas outside of the construction easements will be considered the responsibility of the Contractor and will not be measured for payment.

Seeding and Mulching: The contract unit price shall be compensation in full for one acre of seed and mulch for erosion control complete in place including ground preparation, fertilizing, seeding, mulching, watering and maintenance. Measurement will be made to the nearest tenth of an acre of the area actually grassed, except that grassing areas outside of the construction easement will be considered the responsibility of the Contractor and will not be measured for payment.

Erosion Control Blanket: The contract unit price shall be compensation in full for one square yard of erosion control blanket complete in place where specified.

END OF SECTION 02920

SECTION 02222
TRENCHING, BACKFILLING AND COMPACTING

PART 1 - GENERAL

1.1 DESCRIPTION OF WORK

A. The extent of trenching, backfilling and compacting is shown on the drawings.

B. This section includes furnishing equipment, labor and materials, and performing all operations necessary and incidental to perform the required work.

PART 2 – PRODUCTS NOT USED

PART 3 - EXECUTION

3.1 CLEARING THE SITE

A. The site of the work shall be cleared of all trees, shrubs, paving and objectionable material which interfere with the prosecution of the proposed work. Trees and shrubs which will not interfere with construction shall be protected from damage. Clearing shall be considered as an incidental item of excavation.

3.2 EXCAVATION

A. General:

1. Perform excavation described of whatever substance encountered to the dimensions and depths specified or shown on the drawings.

2. Undercutting will not be permitted, except when ordered by the ENGINEER. Material suitable for backfill shall be stockpiled near the site.

3. Rock or other material undesirable for backfill shall be spoiled outside the area in a neat manner, as directed by the ENGINEER.

4. Where it is necessary to cut roots projecting into an excavation or where it is necessary to trim branches for equipment clearance, all severed root ends or cuts to branches over 1/2-inch diameter shall be treated with an asphalt base pruning paint.

5. Backfill over exposed roots as soon as possible.

B. Rock:

1. Where encountered in the trench bed, rock shall be excavated to a depth of 1/4 of the pipe diameter below the bottom of the pipe but in no case less than 4-inches.

2. All undercut trench excavation shall be backfilled and tamped with materials as specified in the following paragraphs under Unstable Subgrade.

C. Unstable Subgrade:

1. In the event that unsuitable material is encountered at or below the excavation depth specified or shown on the drawings, the ENGINEER shall be notified.

2. Such material shall be removed and replaced with suitable material. Methods and materials used for replacement shall be one of the following as directed by the ENGINEER in writing.

a. Suitable earth or sand, compacted in the trench. Materials shall be furnished as a part of the Bid Proposal item covering excavation and backfill.

b. Gravel or crushed lime rock, compacted in the trench and paid for under the appropriate item.

c. Existing materials, stabilized after removal and then replaced and compacted in the trench at no additional cost to the OWNER.

2. The Engineer shall determine the methods and materials to be used, based upon the condition of the excavation, the pipe structure to be supported, and the availability and character of stabilizing materials.

D. Trenches:

1. Keep pipe laying operation as close to the excavation operation as possible during the prosecution of the work. The ENGINEER reserves the right to stop the excavation at any time when, in his opinion, the excavation is opened too far in advance of the pipe laying.

2. Pipe trenches shall be excavated to a depth that will insure a minimum of 36-inches of cover for ductile iron and PVC pipe and 54-inches of cover for polyethylene pipe, except service laterals.

a. Trenches shall be only of sufficient width to provide a free working space on each side of the pipe.

b. To prevent excess pressure on the pipe, the maximum width of trench at the top of the pipe and at the bottom of the trench shall not be greater than 2-feet more than the greatest exterior diameter of the pipe.

c. If this maximum width is exceeded, it shall be the CONTRACTOR's responsibility to provide, at no additional cost to the OWNER, such additional bedding or select backfill materials as the ENGINEER may require.

d. The excavation below the spring line shall be made to conform as near as possible to the shape of the lower third of the pipe.

e. To protect the pipelines from unusual stresses, all work shall be done in open trenches.

f. Excavation shall be made for bells of all pipes and of sufficient depth to permit access to the joint for construction and inspections. In no case will the bells be used to support the body of the pipe.

3. In order to avoid existing utilities, at times it may be necessary for the pipe to be laid deeper than the minimum cover specified in the preceding paragraph. At such time the CONTRACTOR will not be allowed extra compensation for additional excavation involved.

4. In case excavation has been made deeper than necessary, a layer of concrete, fine gravel or other material satisfactory to the ENGINEER shall be placed, at no extra cost, to secure a firm foundation for the lower third of each pipe.

a. Where possible, excavated material shall be placed so as not to interfere with public travel.

b. Bridging shall be provided to afford necessary access to public or private premises.

c. Bridging shall be considered as part of the excavation operation and shall be supplied at no additional cost to the OWNER.

E. Structural: (For inlets, manholes, valve pits and similar structures)

1. Remove sufficient material to allow proper space for erecting and removing forms. The elevations of the bottoms of footings, if shown on the drawings, shall be considered as approximate only, and the ENGINEER may order, in writing, such changes in dimensions or elevations of footings as may be deemed necessary to secure a satisfactory foundation. Excavation for structures shall be sufficient to leave at least 12-inches in the clear between their outer surfaces and the embankment of timber that may be used to protect them. Backfill of earth under structures will not be permitted. Excess excavation for structures shall be filled with thoroughly compacted sand, gravel, or concrete at the expense of the CONTRACTOR.

2. After excavation for a structure is completed, the CONTRACTOR shall notify the ENGINEER to that effect. No concrete or reinforcing steel shall be placed until the ENGINEER has approved the depth of the excavation and the character of the foundation material.

F. Sheeting and Shoring:

1. The CONTRACTOR shall provide all trench and structural bracing, sheeting or shoring necessary to construct and protect the excavation, existing utilities, structures and private property of all types and as required for the safety of the employees. Sheeting shall be removed or cut off by the CONTRACTOR during backfilling operations as directed by the ENGINEER. Sheeting which is left in place by order of the ENGINEER will be paid for under the item, Lumber left in Place. Removal of shoring for structures shall be done in such a manner as not to disturb or mar finished masonry or concrete surfaces.

3.3 DRAINAGE

A. Grading shall be controlled in the vicinity of excavations so that the surface of the ground will be properly sloped to prevent water from running into trenches or other excavated areas. Any water which accumulates in the excavations shall be removed promptly by well point or by other means satisfactory to the ENGINEER in such a manner as to not create a nuisance to adjacent property or public thoroughfare. Trenches shall be kept dry while pipe is being laid. Bridging of dewatering pipe shall be provided where necessary. Pumps and engines for well point systems shall be operated with mufflers, and at a minimum noise level suitable to a residential area. The CONTRACTOR will not be allowed to discharge water into the OWNER’s storm drainage system without the written approval of the ENGINEER. Approval will be subject to the condition that the storm sewer be returned to its original condition.

B. The CONTRACTOR is responsible for carrying the water to the nearest ditch or body of water and for obtaining the necessary permission to use same. The CONTRACTOR shall be financially responsible for any nuisance created due to carrying off water from his drainage system.

3.4 BACKFILL

A. Trenches:

1. Trenches shall be backfilled immediately after the pipe is laid unless other protection for the pipeline is provided. Clean earth, sand, crushed limerock or other material approved by the ENGINEER shall be used for backfill. Backfill material shall be selected, deposited and compacted (simultaneously on both sides of the pipe) so as to eliminate the possibility of lateral displacement of the pipe. Backfill material shall solidly tamped around the pipes in layers to a level at least 1-foot above the top of the pipe. Each layer shall be compacted to a maximum thickness of 6-inches.

2. In unpaved areas, the remainder of the backfill shall be deposited and then compacted by puddling, water flooding or mechanical tampers. Mechanical tamping of layers in unpaved areas shall be to a maximum thickness of 12-inches. In areas to be paved or repaved, the entire depth of backfill shall be deposited in layers and compacted by hand or mechanical tampers to a maximum thickness of 6-inches. Compaction shall be carried out to achieve a density of at least 98% of the maximum density as determined by AASHTO, Method T-180. Under areas to be paved, puddling may be used for backfill consolidation after tamping to 1-foot over the pipe, as specified, provided the method is first approved by the ENGINEER and the density requirements are met.

3. In areas to be paved, density tests for determination of the specified compaction shall be made by a testing laboratory and spaced one in every 300-feet of trench cut. It is the intent of this specification to secure a condition where no further settlement of trenches will occur. When backfilling is completed, the roadway base for pavement replacement may be placed immediately. It will be the responsibility of the CONTRACTOR to restore the surface to the original grade wherever settlement occurs.

B. Wet Trenches (CONTRACTOR's Option):

1. Backfill for the pipe bed in wet trenches shall be crushed, graded limerock, compacted in the trench. After the pipe is laid, a graded limerock backfill shall be placed and worked in around the haunches to a point 6-inches above the pipe. The width of the limerock material around the pipe shall not be less than the outside diameter of the pipe plus 6-inches on each side of the pipe. Material shall be carefully distributed along the pipe so as to provide full and uniform support under and around the pipe. Six inches above the top of the pipe and up to the water level, material from the excavations with no rock or earth exceeding 4-inches in any one dimension shall then be lifted to the trench and released at the water level. Material shall be uniformly distributed for the full width of the trench. Backfill and compaction above the eater level in the trench shall be as specified above. All costs for graded lime rock placed in wet trenches shall be included in the cost of stage excavation and backfill for the various sizes of pipe.

C. Bedding and Backfill - Flexible Pipe:

1. For polyvinyl chloride pipe, the bedding and backfill materials shall be such as to limit the vertical ring deflection to 5% of the inside pipe diameter. A deflection greater than 5% of the inside diameter shall be cause for rejection of the pipe.

2. Class IV or Class V materials as defined in ASTM D2321-74 shall not be used for bedding, haunching or initial backfill for flexible pipes.

3. For polyvinyl chloride plastic pipe, bedding shall be in accordance with ASTM D2321-74, using Class I, II or III materials, except under wet conditions. In any area where the pipe will be installed below existing or future groundwater levels or where the trench could be subject to inundation, Class I material shall be placed to the spring line of the pipe.

4. A minimum of effort is needed to compact the material. However, in the initial stage of placing this type of material, take care to ensure that sufficient material has been worked under the haunch of the pipe to provide adequate side support. Take precautions to prevent movement of the pipe during placing of the material under the pipe haunch. Except for the protection of the pipe from large particles of backfill material, little care need be taken and no compaction is necessary in placing backfill material in the balance of the initial backfill area above the pipe. Where unstable trench wall exists because of migratory materials, such as water- bearing silts or fine sand, take care to prevent the loss of side support through the migratory action.

5. All bedding requirements for flexible pipe specified in the preceding paragraphs shall be included in the price bid for the applicable pipe material and no additional compensation for bedding material will be allowed.

D. Structural:

1. After completion of foundation footings and walls and other construction below the elevation of the final grades, and prior to backfilling, forms shall be removed and the excavation shall be cleared of all trash and debris.

2. Material for backfilling shall consist of the excavation, borrow sand or other approved materials, and shall be free of trash, lumber or other debris.

3. Backfill shall be placed in horizontal layers not in excess of 9-inches in thickness, and have a moisture content such that a density may be obtained to prevent excessive settlement or shrinkage.

4. Each layer shall be compacted by hand or approved machine tampers with extreme care being exerted not to damage pipe or structures.

5. Backfill shall be placed and compacted evenly against the exposed surfaces to prevent undue stress on any surface.

3.5 RESTORATION OF SURFACE IMPROVEMENTS

A. Roadways, including shoulders, alleys and driveways of shell, lime rock, stabilized soil or gravel, grass plots, sod, shrubbery, ornamental trees, signs, fences, or other surface improvements on public or private property which have been damaged or removed in excavation, shall be restored to conditions equal to or better than conditions existing prior to beginning work.

1. Restoration of shoulders shall consist of seeding and mulching or stabilizing with lime rock as selected by the ENGINEER.

2. The cost of doing this work shall be included in the cost of the various applicable items.

3. General Quality Control will be used as an aid in determining conditions prior to construction.

B. Materials for unpaved roadways, road shoulders, alleys, or driveways, shall be compacted as described in the plans. The cost of this work and furnishing new materials shall be included in the cost of the applicable items of work as no separate payment will be made, unless a separate bid item is provided.

3.6 FINE GRADING

A. Finished areas around structures shall be graded smooth and hand raked and shall meet the elevations and contours shown on the drawings. Lumber, earth clods, rocks and other undesirable materials shall be removed from the site.

3.7 DISPOSAL OF MATERIALS

A. Such portions of the excavated materials as needed and as suitable, shall be used for backfilling and grading about the completed work to the elevations as shown of the drawings or as directed. Excavated material in excess of the quantity required for this purpose shall be disposed of by the CONTRACTOR in those areas designated by the OWNER and as shown on the drawings. The CONTRACTOR shall leave the earth over the trenches or other excavations in a neat and uniform condition acceptable to the OWNER.

3.8 PAVEMENT REPLACEMENT

A. Asphalt pavement shall be removed by saw cutting on a straight line with edges as vertical as possible. Concrete pavement or asphalt surfaced concrete shall be removed by cutting with a concrete saw in as straight a line and vertically as possible. Materials to replace State Highway paving shall conform to the specifications required by the Florida Department of Transportation Specifications for Type S-I asphaltic concrete surface course, or as specifically shown in the plans.

B. Prior to replacing concrete or asphalt pavement replacement, a lime rock base shall be laid. The base for concrete pavement shall be 6-inches of compacted thickness, and that for asphalt pavement shall be 8-inches of compacted thickness. The base course for each shall be compacted to a minimum of 98% of the maximum density as determined by AASHTO, Method T-180. The OWNER will have tests made by an independent testing laboratory to verify compaction results. One test will be made for each block of continuous trench cut.

C. Non-asphalt pavement replacement shall be replaced of like material and thickness. Asphalt or built-up asphalt pavement shall be replaced with like material or concrete as directed by the ENGINEER. Where asphalt or built-up asphalt pavement is replaced by concrete, the concrete shall have a minimum of 6-inches in thickness and be reinforced with 6 by 6 no. 6 gage welded wire fabric. Concrete for paving shall be 3,000 psi design strength. Where the pavement replacement is of like material, it shall be replaced in thickness equal to or better than that existing at the time of removal.

D. Unless the base is sealed or other temporary paving applied over areas to be repaved, pavement shall be replaced not later than 3-weeks after completion of backfill.

3.9 TESTS

A. The CONTRACTOR shall furnish facilities for making all density tests and make such restorations as may be necessary due to test operations. All density tests on backfill or base replacement will be made by a commercial testing laboratory employed by the CONTRACTOR and at such locations as may be recommended by the ENGINEER. If the densities as determined by the specified tests fall below the required minimums, the CONTRACTOR shall pay for all retests.

3.10 SIDEWALK, CURB AND GUTTER REMOVAL AND REPLACEMENT

A. Sidewalk, curb and gutter removal and replacement required in the construction of this work shall be done by the CONTRACTOR. Reasonable care shall be exercised in removing sidewalk and curb and gutter, and the CONTRACTOR shall either stockpile or dispose of this material as directed by the ENGINEER. Brick, concrete or built-up asphalt sidewalk replacement and curb and gutter replacement shall be replaced of like material in a manner and condition equal to or better than that existing at the time of removal. Materials and methods of replacing State Highway sidewalks or curbs shall conform to the Department of Transportation specifications.

END OF SECTION

SECTION 32100
INFILLED SYNTHETIC TURF SYSTEM

PART I – GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions, apply to this Section.

1.2 SUMMARY

A. The work under this section shall consist of furnishing all labor, materials, and equipment necessary to install, in place, all synthetic turf and other materials as indicated on the plans and as specified herein. The installation of all new materials shall be performed in strict accordance with these specifications, the turf provider's instructions and in accordance with all details and shop drawings.

1.3 SUBMITTALS

A. Substitutions: ***Rootzone 3D3 Blend 52*** has been identified as the 'base' product. Other products are acceptable if in compliance with all requirements of these specifications. Submit alternate products with the bid proposal and provide the following:
    1. Provide all specifications, product data, certification and required information for proposed alternate. It is the responsibility of the bidder to prove that the product specified is equivalent to or greater than the product specified.
    2. Provide a sample copy of insured warranty and insurance policy information
    3. Provide a sample (8.5" x 11") of the product

B. Product Data: For each type of product indicated.
    1. Submit catalog cuts, material safety data sheets (MSDS), brochures, specifications, preparation and installation instructions and recommendations.
    2. All supplied and installed materials and products will meet or exceed the minimum specifications designated in this section. Sufficient data must be submitted to indicate compliance with the Contract Documents.
    3. Submit instructions for installation.

C. Test Results: The following test results, certified by a licensed independent testing laboratory, shall be submitted as outlined below
    1. With the bid – Mandatory and minimum specifications as shown in Part 2. Bids not meeting the minimum specifications will be rejected.
    2. Upon completion of the installation of the infill (including anti-static applications)— Installer must measure and record infill depth using a depth tester with analog or digital readout. At ten separate field locations, three data points should be recorded by measuring the infill depth in a triangular pattern approximately 12” – 18” apart. At each of the ten testing locations, the three data points should be averaged. Any location that does not measure 1.2” in depth or more must be corrected.
    3. At completion of project – Dynamic Cushioning Test according to ASTM F-355-95, Procedure A and Standard F-1936-98.
D. Shop Drawings: Show fabrication and installation details for synthetic turf including, but not limited to:
    1. Proposed locations of all seams in fabric surfacing. Show installation methods and construction.
    2. Field lining and marking - Submit a complete scale and dimensional drawing of inlaid or tufted-in field lines and marking boundaries. Include graphics for end zones and center logo artwork for approval as well.
    3. All submittals shall be provided within 14 days after Notice to Proceed
E. The Turf Manufacturer shall provide the following samples of the artificial turf selected for this project
    1. An 8.5” x 11” minimum sample of the exact synthetic turf and infill system that is specified for this project.
    2. Infill mix in accordance with product specifications
F. Turf Manufacturer Certificates: Certified list of fifty (50) existing installations of a synthetic turf and infill system within the last three years, including Owner Representative and telephone number, attesting compliance with quality assurance information. All must be located within the continental United States.
G. With the bid - Proof that the Turf Manufacturer is a member, in good standing, of the Synthetic Turf Council
H. With the bid – Sample Warranty: Provide a sample pre-paid third party insured warranty with the bid. Policy must be in force at the time of the bid.
    1. The Contractor shall provide a warranty to the Owner that covers defects in materials and installation workmanship of the turf for a

period of eight (8) years from the date of substantial completion. The turf provider must verify that their representative has inspected the installation and that the work conforms to the turf provider's requirements and any written directives. The warranty shall include general wear and damage caused from UV degradation. Other items that must be addressed include the following:

a. Acceptable uses for the field
b. Fading
c. Color match within specifications
d. Excessive fiber wear
e. Wrinkling and panel movement
f. Shock absorbency (Gmax)
g. Seam integrity
h. Drainage (through the turf only)

2. Exclusions shall include the following:
    a. Vandalism
    b. Acts of God
3. The warranty shall be fully third-party insured for the entire 8-Year term and be non-prorated. Warranties that include language which pro-rates benefits shall cause the provider's bid to be rejected. Prior to final payment for the synthetic turf, the Contractor shall submit to the Owner, this policy guaranteeing the warranty to the Owner. Insurance must reflect the following values:
    a. $5,000,000 per each insured warranty
    b. $5,000,000 annual aggregate for all warranties issued during each 12-month period of the 8-Year warranty
    c. Policies that are backed by a Letter of Credit are not acceptable
    d. Policy must be issued by an A- rated or greater A.M. Best Rating
    e. Policies that include self-insurance or self-retention clauses shall not be considered. Policy can not include any form of deductible amount. Policy must be in force at the time of the bid.

I. With the bid – Turf Manufacturer must attest that their submitted products infringe on no known patents.
J. Maintenance and Operations Data: At the completion and acceptance of the project submit 3 complete sets, in manual and electronic form, of all the turf provider's recommended procedures and materials for, but not limited to general maintenance, line/marking installation, small repair procedures, cleaning, etc.

K. Project Record Documents: Record actual locations of seams, drains, and other pertinent information in accordance with the General Requirements (as-built surveys shall be provided – see project plans and specifications).

1.4 QUALITY ASSURANCE

A. Turf Manufacturer Qualifications
   1. Shall be experienced in the installation of synthetic infill grass for a minimum of five (5) years.
   2. Shall have a minimum of 500 full sized tall fiber infilled type field installations using the specified system. Field size to be a minimum of 65,000 square feet to qualify.
   3. Shall provide a list, with the bid, of all the installations in Florida for the past five (5) years. This list is to be provided with the bid.
   4. Shall provide third party certification confirming compliance with referenced standards.
   5. Turf Manufacture must formulate and produce its own fiber master batch.

B. Installer Qualifications:
   1. Installation team shall be an established, insured installation firm experienced as a premium turf installer with suitable equipment and supervisory personnel, with a minimum of five years' experience with 15-foot-wide tufted materials.
   2. Installation team shall be trained and certified, in writing, by the turf manufacturer, as competent in the installation of the specified material, including seaming and proper installation of the infill mixture.
   3. Site superintendent shall have at least 10 installations that are similar to this type of tall fiber synthetic turf system.

C. All components and their installation method shall be designed and manufactured for use on outdoor athletic fields. The materials as hereinafter specified, should be able to withstand full climatic exposure, be resistant to insect infestation, rot, fungus and mildew; to ultra-violet light and heat degradation, and shall have the basic characteristic of flow-through drainage allowing free movement of surface run-off through the turf and directly into prepared granular base and into the field drainage system. The turf fabric shall be installed by factory-authorized and certified technicians.

1.5 PROJECT CONDITIONS

A. Weather Limitations: Proceed with installation only when existing and forecasted weather conditions permit synthetic turf work to be performed according to Contractor or Turf Manufacturer's written instructions and warranty requirements.
B. Field Measurements: Indicate measurements on Shop Drawings.

1.6 WARRANTY – Special warranty for American Football: Turf must maintain an ASTM F 355 Gmax of less than 165 for the life of the warranty. This is for the entire warranty period of eight (8) years.

1.7 MAINTENANCE SERVICE – Turf Installation Contractor shall train maintenance staff and/or contracted maintenance staff in the use of the recommended maintenance equipment and provide maintenance guidelines to the facility maintenance staff.

PART TWO – PRODUCTS

2.1 ACCEPTABLE TURF MANUFACTURERS

A. Pre-Approved turf manufacturer:
    1. AstroTurf Corporation – AstroTurf® Rootzone 3D3 Blend 52
       2680 Abutment Road, SE
       Dalton, GA 30721
    2. Alternate provider is acceptable and must be equivalent to, or exceed, all listed requirements, qualifications, and specifications.

2.2 TURF MATERIALS

A. Synthetic Turf System: A complete synthetic turf system consisting of a combination of 10,800 denier monofilament fibers made from a singularly extruded combination of stabilized polyethylene and nylon polymers with proper compatibilizers and 10,000 denier parallel slit film fibers along with an in-house factory extruded monofilament. Pile height shall be nominal 2.0". Fibers shall be tufted to a primary backing and a mechanically applied adhesive secondary backing.
    1. The tufted fiber's face weight shall not weigh less than 50 ounces per square yard. The tufted rows of fiber are to be spaced no more than 3/8" apart. ASTM tests proving the fiber meets these qualifications must be provided with the bid. Turf systems that do not meet this specification will be disqualified.
    2. The carpet's primary backing shall have a minimum weight of 6.7 oz per square yard. The carpet shall then be coated with a secondary backing of polyurethane synthetic coating material with a minimum application rate of 20 ounces per square yard and then perforated for adequate drainage. Carpets that are not perforated for adequate drainage shall not be acceptable.
    3. The carpet shall be delivered in 15' wide rolls. The rolls shall be of sufficient length to go from sideline to sideline. Head seams, other than at sidelines, will not be acceptable.
B. The infilled pile surface shall provide good traction in all types of weather with the use of conventional sneaker type shoes, composition molded sole athletic shoes, and screw- in style football cleats.
C. The pile surface shall be suitable for both temporary and permanent line markings using acrylic paint, as per the turf provider's recommendations.
D. All adhesives used in bonding the seams shall be resistant to moisture, freeze/thaw, bacteria and fungus attacks, and resistant to ultraviolet radiation. The adhesive shall be made especially for the adhesion of synthetic turf seams and inlaid field markings and graphics.
E. The seam specific adhesive system shall have been utilized on at least 25 full installations. Provide this information with the bid. It shall consist of a factory-made adhesive bed applied to a non-woven fabric seaming tape. The adhesive bed shall be a metered amount suitable for the application. It shall be heat and pressure activated. A special heat application machine and pressure application using weighted rollers is mandatory.
F. Supply field groomer and sweeper or single maintenance apparatus that performs both basic maintenance functions.

G. Perimeter edge details required for the system shall be as detailed and recommended by the turf provider, and as approved by the turf provider.

2.3 TURF FABRIC SURFACE

A. The pile surface shall resemble freshly mown natural grass in appearance, texture and color.
B. The pile surface shall be nominally uniform in length.
C. The pile fiber angle shall be 90 degrees ± 15 degrees, measured from the horizontal after installation of the infill material.
D. The entire system shall be resistant to weather, insects, rot, mildew and fungus growth and will be non-allergic and non-toxic.
E. The synthetic turf system shall have a nominal fiber length of 2.0”.
F. Each roll shall be minimum 15’ wide
G. The entire system shall be constructed for porous standards as specified. Synthetic turf system shall be perforated at 4 – 6” on center. Systems that are not perforated for maximum drainage shall not be acceptable.
H. All markings shall be tufted in-place, inlaid or glued. It is recommended that the maximum amount of markings be factory-prefabricated into the turf system prior to shipment to site. At a minimum all football and soccer markings (with the exception of hash marks) shall be factory prefabricated.

2.4 PRODUCT SPECIFICATIONS – TURF

A. Face yarns shall be a proven athletic quality, outdoor stabilized monofilament made from a singularly extruded combination of stabilized polyethylene and nylon polymers with proper compatibilizers.
B. The fabric shall possess the following minimum physical characteristics. ASTM testing shall be provided with the bid and any products not meeting the minimum physical characteristics will be rejected:

Average Pile Yarn Face Weight	ASTM D 5848	50 oz/square yard
Average Total Weight	ASTM D 5848	78.7 oz/square yard
Secondary Backing Weight	ASTM D 5848	20 oz/square yard
Primary Backing	ASTM D 5848	6.7 oz/square yard
Minimum Tuft Length	ASTM D 5823	2.0”
Tufting Gauge	ASTM D 5793	3/8” maximum
Tuft Bind	ASTM D 1335	> 8 lbs
Yarn Denier (monofilament fiber)	ASTM D 1577	10,800/6
Yarn Denier (slit film fiber)	ASTM D 1577	10,000/1
Yarn Denier (root area fiber)	ASTM D 1577	5,600/8

Fiber Thickness (Mono/slit-film)	ASTM D 3218	330/115 microns
Surface Flammability	ASTM D 2859	TEST PASSED
Permeability	ASTM F 1551	>30 in/hr, minimum
Melt Point	ASTM D 789	248 deg Fahrenheit
Gmax System	ASTM F 355	<125 at installation <165 over life of warranty

2.5 Infill Material

A. Infill composition shall consist of a ballast layer of silica sand topped by ambient SBR (styrene-butadiene rubber) performance infill in a ratio by weight of 65% rubber / 35% sand.
B. Silica sand infill:
    1. Must be clean, sub-angular silica sand
    2. Must be a 20-40 sieve size.
C. SBR infill:
    1. Must be ambient SBR Rubber
    2. Must be a 10-20 sieve size.
D. Immediately after infill layers are installed, infill depth must be measured per testing protocol detailed in Section 1.3 C. 2 above to ensure that infill layer is at least 1.2” deep.

PART 3 - EXECUTION

3.1 EXAMINATION

A. Prior to installation of the synthetic turf, examine substrates and conditions, with Installer present, for compliance with requirements for visual installation tolerances. Proceed with installation only after unsatisfactory conditions have been corrected.
B. Certification of prior work: The synthetic turf manufacturer and/or certified installation contractor shall perform a visual inspection of the field base onto which the synthetic turf system is to be installed and to examine the finished surface for required compaction, and grade tolerances (through string line testing). After any discrepancies between the required materials, application and tolerance requirements noted have been corrected, the synthetic turf installer should submit a written certification of VISUAL acceptance of the base for installation of the synthetic turf system. Prior to installing the synthetic turf, the installation contractor shall have the acceptance, in writing, of the Owner’s representative (engineer of record, geotechnical engineer, etc.).
C. Installation of all materials shall be performed in full compliance with approved project shop drawings. Only factory trained and certified

technicians skilled in the installation of athletic caliber synthetic turf systems, shall undertake the placement of the turf system. The designated supervisory personnel on the project must be certified, in writing by the turf provider as competent in the installation of these materials, including proper seaming and proper installation of the infill mixture. The turf provider shall certify the installation and warranty compliance.

3.2 PREPARATION

A. Inspect delivered field surface fabric and components immediately prior to installation. Any damaged or defective items shall be rejected. Installed synthetic turf system shall be inspected for, but not limited to, the following:
    1. Uniformity of product and color
    2. Surface wrinkles
    3. Field markings
    4. Field Edge installation
    5. Pile height of each roll shall be measured. Any material(s) that does not meet minimum height and thickness specifications shall be rejected. Pile height shall be measured in its finished positions.

B. Environmental Conditions: Weather conditions are important for the successful installation of the systems. No work under this section will proceed when:
    1. Ambient temperatures are below 45 degrees F.
    2. Material temperatures are below 45 degrees F.
    3. Surfaces are wet or damp
    4. Rain is imminent or falling.
    5. Conditions exist or are imminent, which will be unsuitable to installation requirements of the systems specified herein. Humidity levels will be inside the limits recommended by the adhesive manufacturer to obtain optimal bonding characteristics of the surfaces.

3.3 INSTALLATION OF THE SYNTHETIC TURF

A. The full width rolls shall be laid out across the field. When all of the rolls of the playing surface have been installed, the sideline areas will be installed at right angles to the playing field turf. All seam widths are to be held to a minimum and shall be traverse to the field direction. Seams shall be flat, tight, and permanent with no separation or fraying. All seams shall remain as required for the duration of the warranty period.

B. The perimeter of the field shall be firmly secured to the edge anchors for the life of the warranty and in accordance to project details.
C. Resilient Infill
    1. The sand ballast infill material shall be spot inspected and tested for conformance to sieve specifications.
    2. Sand ballast Infill must be placed in such a way as to minimize fiber entrapment.
    3. The rubber infill must be uniformly applied so as to ensure uniform, predictable surface.
    4. After infill layers are installed, infill depth must be measured to ensure that infill depth is at least 1.2” deep.

3.4 Field Lining and Markings

A. All markings shall be installed in accordance with prior approved project Shop Drawings.
B. Inlays shall conform to the turf manufacturer’s specifications, directions, and recommendations for the best results.
C. Striping layouts shall be accurately measured by the Contractor before installation of inlaid field markings
D. Install inlays only when the surface is completely dry. Adhere all inlays securely into place. Never loose-lay and sew an inlay into place.

3.5 FIELD QUALITY CONTROL—Testing Agency: Owner will engage a qualified independent testing and inspecting agency to perform field tests and inspections and prepare test reports.
A. Testing Services: Testing and inspecting of completed applications of synthetic turf system shall take place in suggestive states, in areas of extent and using methods that are industry standard. Do not proceed with application of next stages until test results for previously completed applications show compliance.
B. Remove and replace items where test results indicate that it does not comply with specified requirements.

3.6 FINAL ACCEPTANCE

A. Upon final acceptance, the Manufacturer shall submit to the Owner three (3) copies of Maintenance Manuals, which will include all necessary instructions for the proper care and preventative maintenance of the synthetic turf system,

including painting and striping. The Manufacturer shall provide an electronic copy of the manual.

B. The Manufacturer shall ensure that the turf can be plowed with Manufacturer approved snow removal equipment as detailed in the provided Maintenance Manuals.
C. The finished playing surface shall appear as mowed grass with no irregularities and shall afford excellent traction for conventional athletic shoes of all types. The finished surface shall resist abrasion and cutting from normal use.

3.7 CLEANING

A. To the satisfaction of the Owner, Contractor shall provide the labor, supplies and equipment as necessary for final cleaning of surfaces and installed items. All usable remnants of new material shall become the property of the Owner. The Contractor shall keep the area clean throughout the project and clear of debris. Surfaces, recesses, enclosures, etc. shall be cleaned, as necessary, to leave the work area in a clean, immaculate condition ready for immediate occupancy and use by the Owner.
B. To the satisfaction of the Owner, Contractor shall provide the labor, supplies and equipment as necessary for final cleaning of the underground drainage system. All debris, sediments, materials, etc. shall be removed from all inlets, pipes, etc. that are incorporated into the system.

END OF SECTION

SECTION 33400
STORM DRAINAGE UTILITIES

PART 1 - GENERAL

1.01 INTENT

It is the intent of these specifications to provide supplemental information to the contents of the construction drawings on the quality of material, execution, measurement, etc. These specifications are general in nature and may contain products and requirements which are not applicable to the project. Discrepancies between these specifications and the construction drawings either imagined or real shall be brought to the attention of the Owner's Engineer for clarification.

1.02 DESCRIPTION OF WORK

Extent of storm sewer collection system work is shown on drawings.

Storm sewer collection system work includes, but is not limited to, the following:

Storm sewer piping; manholes, frames and gratings; grate inlets, frames and gratings; outfall structures; junction boxes; end walls; mitered end sections; rip-rap; skimmer.

Comply with the requirements of applicable Division-2 sections for excavation and backfilling required in connection with a storm sewer system work.

Comply with requirements of applicable Division-2 sections for concrete work required in connection with storm sewer collection system work.

1.03 QUALITY ASSURANCE

Codes and Standards: Perform all work in compliance with applicable requirements of governing authorities having jurisdiction.

Testing and Inspection: Testing and inspection shall be performed by the Owner's Engineer and the Contractor's Geotechnical Engineer at the Contractor's expense.

It will be the responsibility of the Contractor to coordinate all testing and inspections. The Contractor shall notify the Owner's Engineer, testing service and applicable agency inspectors 48 hours in advance of testing and inspections.

1.04 SUBMITTALS

Prior to construction commencement, the Contractor shall submit for approval by the Owner's Engineer manufacturer's certifications and cut sheets for the following applicable items: Precast items; outfall structure; skimmer; grates; lids; frames; stone for rip-rap.

PART 2 - PRODUCTS

1.05 CONDUIT MATERIALS

Reinforced Concrete Pipe (RCP): ANSI/ASTM C 76, Class III, Wall 'B', with modified tongue-and-groove compression gasket joints complying with ANSI/ASTM C 443. All Reinforced Concrete Pipe (RCP) installed under paved areas to have tongue and groove compression gasket installed with filter fabric wrap around exterior of each pipe joint.

1.06 CONCRETE STRUCTURES

Concrete Base: Precast or cast-in-place, at Contractor's option. Use concrete which will attain a 28-day compressive strength of not less than 3000 psi. Refer to applicable Division 2 Specifications. Use reinforcing steel with a yield strength of 60,000 psi in accordance with ASTM A 615.

Precast Concrete Structures: ANSI/ASTM C 478, size and modifications as indicated.

Cast-In-Place Concrete Structures: Use concrete with a minimum 28-day compressive strength of not less than 3000 psi. Refer to applicable Division 2 Specifications. Use reinforcing steel with a yield strength of 60,000 psi in accordance with ASTM A 615.

1.07 MASONRY MATERIALS

Concrete Masonry Units:	ANSI/ASTM C 139.
Manhole Brick:	ANSI/ASTM C 32, Grade MS.
Sewer Brick:	ANSI/ASTM C 32, Grade SS.
Masonry Mortar:	ANSI/ASTM C 270, Type M.

For minor amounts of mortar, packaged materials complying with ANSI/ASTM C 387, Type M, will be acceptable.

1.08 METAL ACCESSORIES

Manhole Frames and Covers: Grey cast iron in accordance with ANSI/ASTM A 48, Class 30 B. Manhole frames and covers shall be traffic rated.
Manhole Steps: Grey cast iron, ANSI/ASTM A 48, Class 30 B, integrally cast into manhole sidewalls, unless otherwise indicated.

Grates and Frames: Grates and frames for inlets shall be either cast iron or steel as shown on the drawings. Cast iron grates and frames shall be grey cast iron in accordance with ANSI/ASTM A 48, Class 30 B. Steel grates and frames shall be structural steel galvanized in accordance with ASTM A 123. Grates and frames shall be traffic rated.

1.09 RIP-RAP

Sand-Cement: The Portland cement used in sand-cement rip-rap will not be subject to testing provided it is from an approved source and the product of an established and reputable manufacturer.

The fine aggregate shall be clean, sharp builder's sand from an approved source.

The sacks shall be jute sacks or any suitable sacks of any material which will hold the sand-cement mixture without leakage during handling and which is permeable or absorptive enough to permit the passage of water when wetted. The sacks shall be of uniform size and dimensions and free from holes. Only one type and size of sack shall be used on any one structure.

Rubble: Shall consist of either broken stone or broken concrete, as specified on the drawings. Rubble shall be roughly angular and shall be reasonably free from thin, flat or elongated pieces. Rubble shall be of a graded mixture, with individual pieces weighing, in general from 20 to 300 pounds each. Not over 25% of the total volume shall be composed of pieces weighing less than 50 pounds each, and at least 50% of the total volume shall be composed of pieces weighing 100 pounds or more.

Broken stone shall be sound and durable quarry stone material with specific gravity of at least 1.90. The stone shall be free of cracks, soft seams and other structural defects.

PART 3 - EXECUTION

1.10 INSTALLATION OF CONDUIT

General: Install conduit in accordance with governing authorities having jurisdiction, except where more stringent requirements are indicated.

Inspect conduit before installation to detect apparent defects. Mark defective materials and promptly remove from site.

Lay conduit beginning at low point of a system, true to grades and alignment indicated with unbroken continuity of invert.

Place bell ends or groove end of pipe facing upstream.
Install gaskets in accordance with manufacturer's recommendations for use of lubricants, cements and other special installation requirements.

Concrete Pipe: Install in accordance with applicable provisions of American Concrete Pipe Association "Concrete Pipe Field Manual", unless otherwise indicated.

Place circular concrete pipe with elliptical reinforcing so that reference lines indicating top of pipe are not more than 5 degrees from vertical plane through longitudinal axis of pipe.

Cleaning Conduit: Clear interior of conduit of dirt and other superfluous material as work progresses. Maintain swab or drag in line and pull past each joint as it is completed.

In large, accessible conduit, brushes and brooms may be used for cleaning.

Place plugs in ends of uncompleted conduit at end of day or whenever work stops.

Flush lines between manholes if required to remove collected debris.

Closing Abandoned Utilities: Close open ends of abandoned underground utilities which are indicated to remain in place. Provide sufficiently strong closures to withstand hydro-static or earth pressure which may result after ends of abandoned utilities have been closed.

Close open ends of concrete or masonry utilities with not less than eight inches brick masonry bulkheads.

Interior Inspection: Inspect conduit to determine whether line displacement or other damage has occurred.

Make inspections after lines between manholes, or manhole locations, have been installed and approximately two feet of backfill is in place and at completion of project.

If inspection indicates poor alignment, debris, displaced pipe, infiltration or other defects, correct such defects to satisfaction of Engineer.

1.11 UNDERGROUND STRUCTURES

Masonry Construction Structures: Masonry construction will not be allowed unless specified on detail drawings.

At Contractor's option, use either sewer brick or concrete masonry units to construct masonry structures.

Mix mortar with only enough water for workability. Re-tamping of mortar will not be permitted. Keep mortar mixing and conveying equipment clean. Do not deposit mortar upon, or permit contact with the ground.

Lay masonry in mortar so as to form full bed with ends and side joints in one operation, and with full bed and vertical joints, not more than 5/8 inch wide. Protect fresh masonry from freezing and from too rapid drying.

Apply a ½ inch thick mortar coating on both interior and exterior wall surfaces. Where structure occur in pavements, set tops of frames and covers flush with finish surface. Elsewhere, set tops three inches above finish surface, unless otherwise indicated.

Use an epoxy bonding compound where steps are mortared into masonry walls.

Precast Concrete Structures: Place precast concrete sections as shown on drawings. Where structures occur in pavements, set tops of frames and covers flush with finish surface. Elsewhere, set

tops three inches above finish surface, unless otherwise indicated.

Use epoxy bonding compound where steps are mortared into structure walls.

Provide rubber joint gasket complying with ASTM C 443.

Connections: Make connections to existing conduits and underground structures, so that finished work will conform as nearly as practicable to requirements specified for new work.

Take care while making connections to prevent concrete or debris from entering existing conduit or structure. Remove debris, concrete or other extraneous material which may accumulate.

1.12 BACKFILLING

GENERAL: Conduct backfill operations of open-cut trenches closely following laying, jointing and bedding of pipe, and after initial inspection and testing are completed.

Placing Asphalt: The asphalt shall be placed by a machine or other methods which will provide a pavement surface true to line grade and cross sections.

Sand-Cement Rip-Rap: The sand and cement shall be mixed dry, in the proportions of five cubic feet of sand to one bag of cement until the mixture is of uniform color. The mixed material shall be accurately measured into each sack, with care being taken to place the same amount in each sack, and allow the top six inches of the sacks to remain unfilled to allow for proper tying and folding and to insure against breaking of the sack during placing. The sacks shall be laid with broken joints, in a regular pattern with all tied and folded ends in the same direction. The sacks shall be rammed or packed against each other so as to form a close and molded contact after the sand and cement mixture has set up. Sacks ripped or torn shall be removed and replaced. All openings between sacks shall be filled with dry grout composed of one part Portland cement and five parts sand. All sacks shall then be thoroughly saturated with water.

Rubble Rip-Rap: Rubble shall be placed and arranged to form a compact layer conforming to the neat lines called for and to the specified thickness; plus or minus three inches. The rubble shall be placed in such a manner that the small pieces are not segregated but evenly distributed. The voids shall be filled with cement grout composed of one part Portland cement and five parts sand.

Under drains: The various sizes and types of pipe for Under drains shall be bedded firmly on the bottom of the trench, with the perforations down and joints securely made. The influent end of the pipe shall be protected in a manner which will prevent any soil from entering the drain. The trench shall be backfilled with filter material, stone, slag or crushed gravel to the lines indicated on the plans. The filter material shall be placed and compacted around the pipe and for the full width of the trench, in layers not exceeding six inches in thickness. Special care shall be taken to avoid displacement or damage to the pipe. The portion of the trench above the filter material shall be filled with suitable pervious material which shall be placed and tampered in layers not exceeding four inches in thickness.

Ditches and Detention Areas: The construction of ditches and detention areas shall include the removal and disposal of old pavement, curb, gutter, sidewalk, etc. and the removal and disposal of all vegetation. The ditches and detention areas shall be excavated, shaped and sloped in accordance with the line, grade and cross sections indicated on the plans. The excavated material shall be removed and wasted as directed by the Engineer at the Contractor's expense.

1.13 TESTING AND INSPECTION REQUIREMENTS

Flashing Lines: Upon completion and in the presence of the Owner's Engineer, the lines shall be flashed between structures in each straight or working section of the sewer, a round circle of light from the finished or other end of the section shall remain constantly in plain view throughout the entire length of each section and shall show the true character and shape of the interior surface of the sewer. The test shall be applied for each working section after the sewer is completed in all respects and before it is accepted. On completion of the sewer lines, the Contractor may be required to float a ball through any line. In each case, the size of the ball is to be one inch in diameter less than the sewer through which it is to pass.

All components of the system, including structures, shall remain uncovered until a visual inspection has been performed and accepted by the Owner's Engineer and applicable governmental agencies.

PART 4 - MEASUREMENT AND PAYMENT

General: The contract unit price for the various items shall be compensation in full for furnishing all materials, labor, equipment, tools and incidentals necessary for the installation of the item complete in every detail in accordance with the plans and specifications. There will be no direct payment for clearing, grubbing, excavating, de-watering, bracing, caulking, backfilling, clean-up and restoration of property.

Pipe: The contract unit price for the various sizes, types and depths of pipe for culverts and storm drains shall be compensation in full for one linear foot of pipe complete and in place. The length of pipe installed will be measured from end to end and center to center of manhole, junction box or inlet. Mitered end sections will not be included in the length of pipe. When depth of cut classification are shown on the Proposal Form, the classifications will be the vertical distance from natural ground surface or subgrade of roadway, whichever is least, to the pipe invert.

Manholes, Junction Boxes and Inlets: The contract unit price shall be compensation in full for one manhole, junction box, or inlet of the various sizes, types and depths complete with frames and covers or grates, steps, inverts, connections and stub-outs in place. The depth of manhole, junction box or inlet shall be the vertical distance from the top of the manhole, junction box or inlet to the lowest pipe invert.

End walls: The contract unit price for the various sizes and types, including all reinforcing and concrete necessary, shall be compensation in full for one end wall or head wall complete and in place.

Rip-Rap: The contract unit price for the various types shall be compensation in full for one cubic

yard of rip-rap complete and in place.

Under drains: The contract unit price for various sizes, types and depths of Under drains shall be compensation in full for one linear foot of under drain complete and in place. The length of under drain installed will be measured from end to end.

Mitered End Sections: The contract unit price for the various sizes and types, including all pipe, reinforcing, connections, anchors, concrete, sand, sod and incidentals necessary shall be compensation in full for one mitered end section complete and in place.

END OF SECTION 334000

APPENDIX A

CHANGE ORDER FORM

<To Be Provide>

APPENDIX B

PAY REQUEST FORM

<SAMPLE>

Date:

TO (OWNER):
NORTH BAY HAVEN

PROJECT: 240.182
North Bay Haven - Synthetic Turf

APPLICATION NO:

PERIOD FROM/TO:

FROM (CONTRACTOR):

VIA (ENGINEER):

APPLICATION DATE:

CONTRACT DATE:

DISTRIBUTION TO:
- [ ] X OWNER
- [ ] X ENGINEER
- [ ] X CONTRACTOR
- [ ] PCS-FO
- [ ] PCS-AP

CONTRACTOR'S APPLICATION FOR PAYMENT

CHANGE ORDER SUMMARY			
Change Orders approved in		ADDITIONS	DEDUCTIONS
previous months by Owner			
TOTAL			
Number	Date Approved		
	TOTALS	$0.00	$0.00

1	ORIGINAL CONTRACT SUM		
2	NET CHANGE BY CHANGE ORDERS		
3	CONTRACT SUM TO DATE (line 1 + line 2)		$0.00
4	TAX SAVINGS AGREEMENT		
	a. Total Purchase Orders Issued by Owner (To Date)		
	b. Anticipated Tax Savings on Owner Issued PO's		
	c. Total Tax Savings Agreement Deduction (4a and 4b)		$0.00
5	CONTRACT VALUE LESS TAX SAVINGS AGREEMENT (line 3 - line 4c)		$0.00
6	CONTRACTOR EARNED TO DATE (based on Line 5)		$0.00
	(value of work completed excludes county purchased materials)		
7	RETAINAGE: (5% of line 5)		$0.00
8	TOTAL EARNED LESS RETAINAGE (line 6 less line 7)		$0.00
9	LESS PREVIOUS CERTIFICATES FOR PAYMENT (Line 8 from prior Certificate)		
10	CURRENT PAYMENT DUE		$0.00
11	BALANCE TO FINISH INCLUDING RETAINAGE (line 5 - line 9 - line 10)		$0.00

The undersigned Contractor certifies that to the best of the Contractor's knowledge, information, and belief the Work covered by this Application for Payment has been completed in accordancewith the Contract Documents, that all amounts have been paid by the Contractor for Work for for which previous Certificates for Payment were issued and payments received from the Owner, and that the current payment shown herein is now due.

CONTRACTOR

By: Date:

type name here

State of: Florida County of: Bay

Subscribed and sworn to before me this day of

Notary Public:

ENGINEER'S CERTIFICATE FOR PAYMENT

In accordance with the Contract Documents, based on on-site observations and the data comprising the above application the Engineer certifies to the Owner that to the best of the Engineer's knowledge, information and belief the Work has progressed as indicated, the quality of the Work is in accordance with the Contract Documents, and the Contractor is entitled to payment of the AMOUNT CERTIFIED.

ENGINEER:

AMOUNT CERTIFIED $

(Attach explanation if amount certified differs from the amount applied for.)

By: Date:

This Certificate is not negotiable. The AMOUNT CERTIFIED is payable only to the Contractor named herein.

Issuance, payment, and acceptance of payment are without prejudice to any rights of the Owner or Contractor under this Contract.

APPENDIX C

ADDENDA
(TO BE SUBMITTED WITH CONFORMED SET)

APPENDIX D

NORTH BAY HAVEN
AS-BUILT REQUIREMENTS

Minimum Technical Standards Checklist For Utility As-builts

NORTH BAY HAVEN

Surveyors and mappers must meet the following minimum standards of accuracy, completeness, and quality for the North Bay Haven to accept as-builts:

1. Must identify the responsible surveyor and mapper.
2. Shall state the type of survey it depicts and the purpose of the survey.
3. Must bear the name, certificate of authorization number, and street and mailing address of the business entity issuing the as-built survey, along with the name and license number of the surveyor in responsible charge.
4. Must reflect a survey date, which is the date of acquisition. When the graphics of the as-built survey are revised, but the survey date stays the same, the as- built survey must list dates for all revisions.
5. Must be signed and sealed by the surveyor in responsible charge.
6. A designated "north arrow" and either a stated scale or graphic scale shall be shown.
7. Appropriate line types, line weights, and line widths shall be used on the as-built drawing to differentiate existing from proposed and water from sewer, reclaim, and storm. All physical items (i.e. pipes, valves, etc.), surveyed boundaries, and easements should be clearly marked, and dimensioned, and identified by size and material.
8. All utilities in the public right of way and within easements or to the end of the publicly owned portion of the utility (i.e. meter and backflow preventer, cleanout, etc.) shall be shown with associated sizes labeled. This includes, but is not limited to, stub-outs/laterals, meters, bfp's, water mains, force mains, gravity sewer mains, manholes, storm water piping and associated structures, valves, fire hydrants, lift stations, etc. All pipeline work must be connected within the site as well as the connection to existing utilities adjacent to the site (It is the surveyor's responsibility to coordinate with all contractors for locations and sizing). All utility connections to the buildings must be shown.
9. All proposed utility/ingress/egress easements must be shown on the drawing and must have the associated legal description written.
10. Edge of pavement, roads (asphalt shaded), curbs, driveway connections, buildings, parking lots, right-of-way, and street names must be shown in all

applications. All items mentioned above must be field located.

11. If a lift station is to be dedicated to the City the plan must show a detail scaled at 1"=10' showing all improvements including: water and sewer services, manholes, inverts, rims, bfp's, yard hydrants, control panels, fencing, parcel boundary, legal description of parcel boundary, wet well, valve box, force main, flow meter (if applicable), driveway, gate.

12. Property boundary must be clearly labeled and dimensioned.

13. Inverts, grates, tops, rims must be shown for all storm water drainage structures. Inverts (pipes and cleanouts) and rims must be shown for all gravity sewer manholes. Slopes must be shown on each run of pipe for review and approval.

14. "As-Built" profile of all Directional Bores and Jack-and-Bores indicating grade and pipe elevations at 10 foot intervals shall be provided on as-built plan sheets based on bore logs developed by boring contractor during installation. Profiles shall use horizontal stationing which ties to stationing on plans. Profiles shall also show existing surface elevations as well as any proposed surface elevations on the profile. Surface profiles must show any pavement, sidewalks, ditches, swales etc. Note that profiles locating pipe by "depth below existing ground" will be considered unacceptable.

15. Coastal Setback Line or Coastal Construction Control Line should be designated.

16. Elevations and location of any flood zones along the flood hazard boundaries shall be delineated.

17. Nearby wetlands and other environmentally significant resources clearly labeled.

18. Storm water management system features including dimensions of : wet and dry swales, wet and dry ponds, conveyance systems, easements, along with all associated m.e.s. structures and inverts, outfall structures and inverts, skimmers, discharge structures and inverts and slot elevations, top of bank, slope of bank and bottom of all ponds, swales, closed and open conveyances. For FEMA LOMR submittals also provide: finished floor elevations, spot elevations and/or contours showing lowest lot elevations.

19. The engineer of record shall review and approve the as-built prior to submission to the Port Authority for final approval. Written approval by the engineer of record shall be noted on a transmittal with a statement of no exceptions to minimum standards provided herein.

20. Submit three (3) hardcopies and one (1) digital (AutoCAD format and PDF) for review and approval.

APPENDIX E

CERTIFICATE OF INSURANCE FORM <Sample>

Certificate of Insurance

In consideration of the premiums charged for the insurance policies shown in this certificate, this certificate of insurance is issued to the certificate holder shown below. This certificate does not amend, extend or alter the coverage afforded by the policies listed below except as shown below.

NAME AND ADDRESS OF AGENCY	COMPANIES AFFORDING COVERAGES
	COMPANY LETTER **A**
	COMPANY LETTER **B**
NAME AND ADDRESS OF INSURED	COMPANY LETTER **C**
	COMPANY LETTER **D**
	COMPANY LETTER **E**

This is to certify that the insurance policies listed below have been issued to the insured and are in force at this time. It is agreed that none of these policies will be cancelled, non-renewed or reduced in coverage (except in the application of the aggregate liability limits provision) until after 30 days written notice of such action has been delivered to the certificate holder at its address shown below. The policies shown in this certificate are primary to any insurance carried by the certificate holder or any self insurance thereof, with respect to the activities of the insured named above.

COMPANY LETTER	TYPE OF INSURANCE	POLICY NUMBER	POLICY EFFECTIVE DATE (MM/DD/YY)	POLICY EXPIRATION DATE (MM/DD/YY)	ALL LIMITS IN THOUSANDS		
	GENERAL LIABILITY [ ] COMMERCIAL GENERAL LIABILITY [ ] CLAIMS MADE [ ] OCCURRENCE [ ] OWNER'S & CONTRACTORS PROTECTIVE [ ] X.C.U. COVERAGES [ ] _____ [ ] _____				GENERAL AGGREGATE	$	
					PRODUCT COMP. OPS AGGREGATE	$	
					PERSONAL & ADVERTISING INJURY	$	
					EACH OCCURRENCE	$	
					FIRE DAMAGE (ANY ONE FIRE)	$	
					MEDICAL EXPENSE (ANY ONE PERSON)	$	
					SPECIFIC AGGREGATES *(SEE BELOW)	$ AS ABOVE	
	AUTOMOBILE LIABILITY [ ] ANY AUTO [ ] ALL OWNED AUTOS [ ] SCHEDULED AUTOS [ ] HIRED AUTOS [ ] NON-OWNED AUTOS [ ] GARAGE LIABILITY [ ] _____				BODILY INJURY (EACH PERSON)	$	
					BODILY INJURY (EACH ACCIDENT)	$	
					PROPERTY DAMAGE	$	
					BODILY INJURY AND PROPERTY DAMAGE COMBINED	$	
	EXCESS LIABILITY [ ] UMBRELLA FORM [ ] OTHER THAN UMBRELLA FORM [ ] CLAIMS MADE [ ] OCCURRENCE					EACH OCCURRENCE	AGGREGATE
					BODILY INJURY AND PROPERTY DAMAGE COMBINED	$	$
	WORKER'S COMPENSATION and EMPLOYER'S LIABILITY				STATUTORY		
					(EACH ACCIDENT)	$	
					(DISEASE POLICY LIMIT)	$	
					(DISEASE EACH EMPLOYEE)	$	
	OTHER						

The City of Panama City Beach is included as an additional insured as respects the General, Automobile, and Excess Liability Policies described herein.

DESCRIPTION OF OPERATIONS/VEHICLE/SPECIAL ITEMS:

*SPECIFIC AGGREGATE LIABILITY LIMITS APPLY TO:

NAME AND ADDRESS OF CERTIFICATE HOLDER	Date Issued:
	Authorized Representative:
	(Original Signature Required)
	(Print/Type Name)
	Address:
PHONE: (850) 233-5100 FAX: (850) 233-5108	Telephone # FAX #

DA 311 (8/96) THIS IS NOT AN ACORD FORM

North Bay Haven

INSTRUCTIONS TO AGENTS ON COMPLETING THE CERTIFICATE OF INSURANCE

The Florida Department of Insurance has approved the general form and substance of the NBH's Certificate of Insurance form for use in the State of Florida. For further information, please contact North Bay Haven.

In order to prevent unnecessary follow-up work on the Certificate or delay in the start of your Insured's activity under its contract with NBH, please follow these instructions:

1) Complete NBH's Certificate of Insurance as required in your insured's contract with the NBH.

2) Show the full name of your insured as shown in its contract with NBH.

3) Show the full names of the Insurance Companies providing coverages.

4) Under the General Liability section, show the coverages applicable by checking the appropriate boxes.

5) If required in your insured's contract with NBH, the Specific General Aggregate Limit for the Certificate holder's project or location must be included in the Commercial General Liability Policy and must be shown with a description of the project or location on the line beginning near the bottom of the Certificate titled "Specific Aggregate Liability."

6) Automobile Liability Coverage should be shown as applicable to "any auto" and "hired and non-owned autos" by checking the appropriate boxes.

7) Indicate whether Excess Liability is written on a "claims made" or "occurrence" form. If employers' Liability Coverage is not included, please indicate.

8) Included a brief description of the contract involving your Insured in line space provided under the Description of Operations.

9) The liability policies must include North Bay Haven as an additional insured.

10) Complete the signature section, showing the mailing address, telephone number and email address of the Authorized Representative. Please also type the Authorized Representative's name under the signature. Facsimile signature is not acceptable; a manual signature of the Authorized Representative is required.

11) If time is of the essence in submitting this document, you may send a facsimile transmittal; however, you must provide a cover sheet for the document stating the Agent's signature was manually produced and not a "stamped" signature and you must follow-up by mailing the original document back to the Department indicated in the lower left corner of the Certificate.

APPENDIX F

Magnum Engineering, Inc. Geotechnical Report

For Informational Purposes Only

Reliance on the data is strictly up to the reader along with all associated risks therein.