

**IMPLEMENTATION OF BMPs WITHIN THE SUNSET
BEACH WATERSHED (PHASE VI)
(N674)**

**CITY OF TREASURE ISLAND
Bid No. 1718-04**



**CONTRACT DOCUMENTS & TECHNICAL
SPECIFICATIONS**

NOVEMBER, 2017

THE CITY OF TREASURE ISLAND, FLORIDA

Invitation to Bid NO: ITB 1718-04 – November 17,2017

IMPLEMENTATION OF BMPs WITHIN THE SUNSET BEACH WATERSHED (PHASE VI)

Sealed Bids may be hand-delivered or mailed to City of Treasure Island City Hall, 120 – 108th Ave., Treasure Island, FL 33706 to the attention of the Purchasing Coordinator. All Bids, **with original signature, and three (3) additional copy's** must be received **no later than Monday, December 18, 2017 at 2:00 PM.** All bids shall be submitted on the City's official Bid Form. **All envelopes shall be clearly marked "IMPLEMENTATION OF BMPs WITHIN THE SUNSET BEACH WATERSHED (PHASE VI)".**

Immediately thereafter, at the City of Treasure Island Public Works Conference Room, located at 152 – 108th Ave, Treasure Island, FL and immediately following the deadline for receipt of the bids, those bids received will be publicly opened and read aloud. Any Bids received after the specified date and time will not be considered. The public meeting will be held at the City of Treasure Island Public Works Conference Room, located at 152 – 108th Ave, Treasure Island, FL. Persons with disabilities requiring reasonable accommodations to participate in this proceeding/event should call (727) 547-4575, no later than seven (7) days prior to the proceeding.

A **mandatory pre-bid meeting** will be held at the Public Works Conference Room, 152-108th Avenue, Treasure Island on **Tuesday, November 28, 2017 at 9:00AM.**

Any questions should be addressed to Hal Bruce at hbruce@mytreasureisland.org by **Friday, December 8, 2017 at 3:00 PM.** All questions will be answered and posted on the City's website and Vendor Registry by **Tuesday, December 12, 2017.**

Complete specifications and any additional information may be obtained from the City of Treasure Island's website at www.mytreasureisland.org and/or from the Vendor Registry.

All proposals must be accompanied by a certified check, bank money order, or bid bond in the amount of ten percent (10%) of the base bid made payable to the City of Treasure Island. The certified check, bank money order or bid bond shall guarantee that, should the bid be accepted, the bidder will, after the acceptance of his proposal by the City Commission, enter into a contract with the City of Treasure Island for the services proposed to be performed. A performance bond in the amount of 100 percent (100%) of the contract, made payable to the City of Treasure Island, Florida, will also be required which bond shall be adequate to guarantee the faithful performance of the contract. A payment bond will be required for Labor and Materials to ensure the payment of all indebtedness incurred for labor furnished materials, equipment or supplies used or consumed in connection with, or in or about, the construction of this project. A bid may be withdrawn prior to the date of opening, but no bid may be withdrawn after the date of opening bids.

The City of Treasure Island reserves the right to accept or reject any or all bids, to waive any bid informalities and to re-advertise for bids when deemed in the best interest of the City of Treasure Island.

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SECTION 00100

INSTRUCTIONS TO BIDDERS

00100.01 DEFINED TERMS

Terms used in these Instructions to Bidders have the meanings indicated in the General Conditions.

00100.02 PUBLIC RECORDS

All Bidding Documents and submissions by Bidders may be considered a public record under Florida's public records laws, Chapter 119, Florida Statutes. Accordingly, the Bidder understands and acknowledges that the Bidder's bidding documents may be inspected or copied by the public in accordance with applicable Florida law.

00100.03 QUALIFICATIONS OF BIDDERS

Bidders shall have successfully completed two (2) contracts for similar work in an amount not less than one hundred percent (100%) of the amount of the proposal contract during the past three years. The City, in its sole discretion, has the right to determine project equivalence.

Bidders shall have received Contract Documents from the Engineer. The City may make such investigations as it deems necessary to determine the ability of the bidder to perform the work, and the bidder shall furnish to the City any additional information and financial data for this purpose as the City may require. The data shall include a detailed and up-to-date list of equipment the bidder proposes to use, indicating which portions he already possesses and a detailed description of the method and program of the work he proposes to follow.

If such an investigation fails to satisfy the Engineer or City that the bidder is properly qualified to complete the work described in the drawings and specifications or to meet the financial obligations of such a contract, the bid may be rejected. In the event the bidder fails, refuses, or neglects to submit the requested additional information with ten (10) days of the date of any request for submission, the bidder's bid guarantee shall be forfeited to the use of the City, not as a penalty, but as liquidated damages.

A person or affiliate who has been placed on the discriminatory vendor list, may not submit a bid on a contract to provide goods or services to a public entity, may not submit a bid on a contract with a public entity for the construction or repair of a public building or public work, may not submit bids on leases of real property to a public entity, may not be awarded or perform work as a contractor, supplier, sub-contractor, or consultant under a contract with a public entity, and may not transact business with any public entity in excess of the threshold amount as provided in Section 287.017, Florida Statutes, for Category Two for a period of 36 months from the date of being placed on the discriminatory vendor list.

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

No bid will be considered unless the bidder is properly qualified to submit a proposal for this construction in accordance with all applicable laws of the municipality, county, and the State of Florida.

00100.02 BIDDER'S RESPONSIBILITY

Each bidder shall familiarize himself with all the Bidding Documents, as he will be held responsible to fully comply therewith. Each bidder must visit the site of the proposed work and thoroughly acquaint himself with conditions affecting the work, all utilities in existence to which connections are to be made, all other requirements of the contract, and obtain all information necessary for completion of the work on or before the date specified. Each bidder shall also make himself familiar with all Federal, State, Local and Municipal laws, ordinances, rules and regulations which in any manner affect the work, those engaged or employed in the work, or the materials or equipment used in or upon the work. If the bidder or Contractor shall discover any provision in the plan, specification, or other contract documents which is contrary to, or inconsistent with, any such law, ordinance, rule, or regulation, he shall immediately report it to the Engineer in writing. The Contractor shall not at any time after the execution of his contract set up any claims whatever based upon insufficient data or incorrectly assuming conditions, nor shall he claim any misunderstanding in regard to the nature, conditions or character of the work to be done under the contract, and he shall assume all risks resulting from any changes in the conditions which may occur during the progress of this work.

00100.03 SITE CONDITIONS

Any information on site or soil conditions made available to the prospective bidders through data collected by test borings and presented on the Engineer's drawings or available in preliminary reports prepared by the Engineer or obtained verbally from a representative of the City or the Engineer does not guarantee that such site or soil conditions will be as described, and are made available only upon waiver of all responsibility of the City and Engineer. It is the Contractor's sole risk and responsibility to verify such information in order that he may complete the project as specified and shown on the contract documents. Under no condition will a variation in the information obtained by the Engineer on site or soil conditions, including underground soil conditions at the job site, be accepted as a basis in any claim for extra compensation.

It is the responsibility of each Bidder before submitting a Bid to:

- A. examine and carefully study the Bidding Documents, and any data and reference items identified in the Bidding Documents;
- B. visit the Site, conduct a thorough, alert visual examination of the Site and adjacent areas, and become familiar with and satisfy itself as to the general, local, and Site conditions that may affect cost, progress, and performance of the Work;
- C. become familiar with and satisfy itself as to all laws and regulations that may affect cost, progress, and performance of the Work;
- D. carefully study all: (1) reports of explorations and tests of subsurface conditions at or adjacent to the Site and all drawings of physical conditions relating to existing surface or subsurface structures at the Site that have been identified in the General Conditions, especially with respect to Technical Data in such reports and drawings, and (2) reports and drawings relating to Hazardous Environmental Conditions, if any, at or adjacent to the Site that have been identified in the General Conditions, especially with respect to Technical Data in such reports and drawings;
- E. consider the information known to Bidder itself; information commonly known to contractors doing business in the locality of the Site; information and observations obtained from visits to the Site; the Bidding Documents; and the Site-related reports and drawings identified in the Bidding Documents, with respect to the effect of such information, observations, and documents on (1) the cost, progress, and performance of the Work; (2) the means, methods, techniques, sequences, and procedures of construction to be employed by Bidder; and (3) Bidder's safety precautions and programs;
- F. agree, based on the information and observations referred to in the preceding paragraph, that at the time of submitting its Bid no further examinations, investigations, explorations, tests, studies, or data are necessary for the determination of its Bid for performance of the Work at the price bid and within the times required, and in accordance with the other terms and conditions of the Bidding Documents;
- G. become aware of the general nature of the work to be performed by City and others at the Site that relates to the Work as indicated in the Bidding Documents;
- H. promptly give Engineer written notice of all conflicts, errors, ambiguities, or discrepancies that Bidder discovers in the Bidding Documents and confirm that the written resolution thereof by Engineer is acceptable to Bidder;
- I. determine that the Bidding Documents are generally sufficient to indicate and convey understanding of all terms and conditions for the performance and furnishing of the Work; and agree that the submission of a Bid will constitute an incontrovertible representation by Bidder that Bidder has complied with every requirement of this Article, that without exception the Bid and all prices in the Bid are premised upon performing and furnishing the Work required by the Bidding Documents and that the Contract Documents are sufficient in scope and detail to indicate and convey understanding of all terms and conditions of performance of the Work.

00100.04 OMISSIONS AND DISCREPANCIES

Should a bidder find discrepancies in, or omissions from the drawings or other Bidding Documents, or should he be in doubt as to their meaning, he should at once notify the Engineer. All notice of omissions or discrepancies or request for clarification must be forwarded to the Engineer in writing not less than six (6) days before the advertised date of the opening of bids.

Such clarification and corrections as are necessary will be issued in the form of an Addendum to the Bidding Documents and will be forwarded to all prospective bidders. Any addendum so prepared and forwarded shall be a part of the Bidding Documents. Neither the Engineer nor the City will be responsible for any other explanation or clarification of the Bidding Documents.

00100.05 BID ITEMS AND ESTIMATED QUANTITIES

The City may increase, decrease or omit the quantity of the work to be done under any item in the best interests of the project and the unit price as submitted in the proposal shall be the unit price which the Contractor will receive for any work specified to be done under that item.

All work herein specified or implied in anyway in the drawings or specifications shall be done regardless of whether or not the work is specifically defined in any bid item.

The Contractor agrees that the estimated quantities shown in the Bid Schedule are only for the purpose of comparing bids and that he/she is satisfied with, and will at no time dispute, the said estimates as means of comparing the aforesaid bids, that he/she will make no claim for loss of profits or anticipated profits because of any difference between the said estimated quantities and the quantities of various classes of work actually furnished or performed, that the City shall not be held responsible if any of the said estimated quantities should vary by any amount from those actually measured during performance of the work.

00100.06 APPROVED MATERIALS AND EQUIPMENT

Whenever a material, article or piece of equipment is identified on the plans or in the specifications by reference to manufacturers or vendors names, trade names, catalog numbers, etc., it is intended to establish a standard of quality and it will be presumed, unless specifically excepted by the bidder, that the base bid includes the materials or articles so named, and that the Contractor's proposal, if accepted, will constitute a contractual obligation to furnish the standard named materials or articles and no other. To assist the Engineer in making an adequate evaluation, the bidder shall submit with his proposal, at the time bids are received, detailed information and data on the items he proposes to furnish as equally acceptable to the named terms. The data furnished shall include as applicable and needed for evaluation, manufacturer's name, model identification, descriptive brochures, specifications, performance data, guaranteed efficiencies, and list of installations in similar service. Such alternate material, article or piece of equipment shall not be purchased or installed by the Contractor without the Engineer's written approval. Any revisions to the Drawings as a result of alternate equipment shall be at the expense of the Contractor.

00100.07 SAMPLE OF MATERIALS

Before any contract is awarded, the bidder may be required to furnish a complete statement of the origin, composition and manufacture of any or all materials to be used in the work, together with samples, which samples may be subjected to the tests provided for in these specifications to determine their quality and conformity to the plans and specifications.

00100.08 PROPOSAL FORM

All bids must be submitted on photocopies of the proposal form bound within these specifications. No proposal will be considered which is submitted otherwise than on the prepared proposal form and in the designated manner. The blank spaces in the proposal shall be filled in correctly where indicated for each and every item for which a description is given, and the bidder must state the prices for which he proposes to do each part of the work contemplated, and the total amount for all parts included in any or all of the combinations of the work. In case of discrepancy, the written words or "Unit Price", where stated, shall be considered as being the bid price. The bidder shall sign his proposal correctly. If the proposal is made by an individual, in addition to his signature, his post office address must be shown; if made by a firm or partnership, the post office address of each member of the firm or partnership; if made by a corporation, the person signing the proposal must be President or Vice-President of the corporation. No proposal will be considered which is not based upon the complete plans and specifications, or which contains any qualifying letter or written memorandum not permitted in these specifications, or which is not properly made out and signed in writing by the bidder. The proposal shall be submitted in a sealed envelope bearing the name of the Contractor and describing the project for which the proposal is being submitted. Proposals will be accepted by registered mail, and then only if the proposal is enclosed in another sealed envelope contained within the mailing envelope and is delivered to the City prior to the time established for opening bids.

A Bid by a corporation shall be executed in the corporate name by the president or a vice-president or other corporate officer (whose title must appear under the signature), accompanied by evidence of authority to sign. The corporate seal shall be affixed and attested by the corporate secretary or an assistant corporate secretary. The corporate address and state of incorporation shall be shown below the signature.

A Bid by a partnership shall be executed in the partnership name and signed by a partner (whose title must appear under the signature), accompanied by evidence of authority to sign. The partnership's address for receiving notices shall be shown below the signature.

A Bid by a limited liability company shall be executed in the name of the firm by a member or other authorized person and accompanied by evidence of authority to sign. The state of formation of the firm and the firm's address for receiving notices shall be shown below the signature.

A Bid by an individual shall show the Bidder's name and official address for receiving notices.

A Bid by a joint venture shall be executed by an authorized representative of each joint venturer in the manner indicated on the Bid Form. The joint venture's address for receiving notices shall be shown.

All names shall be typed or printed in ink below the signatures.

Bids received after the date and time prescribed for the opening of bids, or not submitted at the correct location or in the designated manner, will not be accepted and will be returned to the Bidder unopened.

More than one Bid received for the same work from an individual, firm, partnership, corporation or joint venture under the same name nor different names will not be considered. Reasonable grounds for believing that any Bidder is interested in more than one Bid for the same work will cause the rejection of all Bids that the Bidder is interested. If there are reasonable grounds for believing collusion exists among Bidders, the Bids of participants will not be considered.

00100.09 WITHDRAWAL OF PROPOSALS

Bidders will be given permission to withdraw any proposal after it has been received by the City, provided the bidder, or his agent duly authorized to act for him, personally appears before the City with a written request prior to the time set for the opening of bids. At the time set for the opening of proposals the withdrawn proposal will be returned unopened to the bidder. No bids may be modified or withdrawn after the opening of the proposal.

00100.10 BID SECURITY

Each proposal must be accompanied by the bidder's bid bond, bank money order or certified check made payable to the City in an amount of ten percent (10%) of Bidder's maximum Bid price (determined by adding the base bid and all alternates) and in the form of a certified check, bank money order, or a Bid bond (on the form included in the Bidding Documents) issued by a surety meeting the requirements of Paragraph 100.27 of this Section. The bid bond shall be issued by a company authorized to conduct business in the State of Florida and having a registered agent in the State of Florida. This sum will serve as bid security and will be forfeited to the City as liquidated damages in the event an award is made and the contract and bonds are not promptly and properly executed as required in the specifications.

All certified checks, except those accompanying the two lowest bids, will be returned by certified mail to the unsuccessful bidders within seven (7) days after the date of the bid opening. (If the signing of the contract is to be deferred for a period exceeding two (2) weeks, and the second low bidder desires to substitute a bid bond for his certified check and the bid bond fully guarantees his bid, he shall be permitted to do so). The certified checks accompanying the two low bids will be returned within three (3) days after the City and the successful bidder have executed the contract. In the event no contract award is made within the time limit specified, each certified check or bid bond will be returned upon the demand of the bidder.

00100.11 OPENING OF PROPOSALS

All proposals will be publicly opened and read, on the date, at the place and commencing at the time stated in the advertisement. Bidders or their authorized agents should be present. The City reserves the right to reject any or all bids or parts thereof. Proposals may be rejected if they show any omissions, alterations of form, additions or deductions not called for, conditional or uninvited alternate bids, or irregularities of any kind. Proposals in which the prices are unbalanced may be rejected. The City reserves the right to accept the responsive responsible bid, which will serve its best interests. The City reserves the right to reject any or all bids on the project. The City will reject a bid that the City finds, after reasonable inquiry and evaluation, to not be responsible. The City also reserves the right to waive all minor and formalities not involving price, time or changes in the work. Bidders are hereby notified that all bids on the project are likely to be rejected if the lowest responsive bid received exceeds the engineer's estimate by more than 10 percent.

00100.12 METHOD OF AWARD

Bids will be compared on the basis of the total costs of estimated quantities established in the proposal form, constructed at the unit or lump sum prices bid for the various items listed. The contract will be awarded to that response responsible bidder whose proposal totals the lowest number of dollars for a complete installation.

The City may conduct such investigations as the owner deems necessary to establish the responsibility, qualifications, and financial ability of the bidders and any proposed subcontractor suppliers and individuals or entities to perform the work in accordance with the contract documents.

The successful bidder will be officially notified in writing by the City of the acceptance of his proposal and award of contract. This notification will be made within the time limit set up in the contract documents.

Whenever two responsible bidders are found to have both submitted the lowest responsive bid, the owner shall give preference to the bidder that certifies it has implemented a drug free workplace program in determining which of the two responsible bidders shall be awarded the contract.

00100.13 EXECUTION OF CONTRACT

The bidder to whom the contract is awarded must, within ten (10) calendar days following Notice of Award, present himself to the place designated in the official Notice of Acceptance, for signing of the contract. All bonds and insurance shall be issued by companies authorized to transact business in the State of Florida.

If the lowest responsible bidder to whom the contract is awarded fails to give bonds or execute the contract within the time specified, the amount of the proposal guarantee shall be forfeited to the City, not as a penalty but as liquidated damages.

00100.14 TIME OF COMPLETION

The successful Contractor shall commence work under his contract on a date to be specified in a written order from the City or his authorized representative, which order will also establish the completion date in accordance with the total number of consecutive calendar days established as a working period in the proposal. The Contractor shall fully complete the work described in these plans and specifications on, or prior to, the completion date. Time is of the essence.

If the Contractor fails to commence work with seven (7) days of the announcement of the official starting date, this shall be just cause for the annulment of the contract.

00100.15 LIQUIDATED DAMAGES

Should the Contractor fail to complete the work on or before the expiration of the date set for completion or as provided in the Contract Documents covering extension of time, then the City may retain as liquidated damages the amount established in the proposal form, which amount is agreed upon as the costs which the City will sustain per diem by the failure of the Contractor to complete the work at the time stipulated and the sum is not to be construed in any sense as a penalty.

00100.16 EXTENSIONS OF TIME

If the Contractor shall be delayed at any time in the progress of the work by any cause beyond the Contractor's control and without his fault or negligence, including but not restricted to any act or neglect of the City, or of his employees, or by any other contractor employed by the City, or by changes ordered in the work, acts of God or of the public enemy, fires, floods, epidemics, quarantines, strikes, lockouts, riots, civil commotions or freight embargoes or by delay authorized by the City, or by any cause which the City shall decide to justify the delay, then the time of completion shall be extended for such reasonable time as the City shall decide.

No such extensions of time shall be deemed a waiver by the City of its right to terminate the contract for abandonment or delay by the Contractor as herein provided or relieve the Contractor from full responsibility for performance of his obligations hereunder.

00100.17 CERTIFICATE OF INSURANCE

The successful bidder shall submit certificates or other documentary evidence to the City for approval, covering Workmen's Compensation Insurance, Public Liability, Property Damage Insurance, and Special Hazard Insurance, in the amounts specified on the "Summary of Information to Bidders."

00100.18 DETAILED BREAKDOWN SHEET AND SCHEDULE OF PRICES

The successful bidder shall submit, in a mutually acceptable form, a detailed breakdown sheet and schedule of prices of the proposed construction work. Until the City approves the breakdown, the City will not be obligated to make any payments to the bidder.

00100.19 EXISTING MATERIALS AND EQUIPMENT

All existing materials and equipment not specified for the complete construction of the project, or shown on the plans to be retained or reused, shall remain the property of the City and shall be placed on the project site as the City may direct.

00100.20 STANDARDS

This project shall be completed in accordance with these specifications unless noted or otherwise directed by the City or its authorized representative. The decision of the City in interpreting these specifications shall be final.

00100.21 LICENSES AND PERMITS

The Contractor shall obtain and pay for all other federal, state, county, city permits, licenses, and other authorizations required for the prosecution of the Work, including the cost of all Work performed in compliance with the terms and conditions of such permits, licenses, and authorizations, whether by himself or others. No construction work shall commence until all applicable licenses and permits have been obtained and copies delivered to the Engineer.

00100.22 CONFLICT OF INTEREST

The bidder certifies that, to the best of his knowledge or belief, no elected/appointed official or employee of the City, a spouse thereof or other person residing in the same household, is financially interested, directly or indirectly, in providing the goods or services specified in this bid. Financial interest includes but is not limited to ownership of more than five percent of the total assets or capital stock or being an officer, director, manager, partner, proprietor, or agent of the business submitting the bid or of any subcontractor or supplier thereof providing goods or services in excess of ten percent of the total bid amount.

In addition, the bidder, on company letterhead, must divulge at the time of bid submittal, any relative, other than those already specified, of an elected/appointed official or employee of the City who has a financial interest, as defined herein, in providing the goods or services specified in the Bid.

The City, at its sole discretion, will determine whether a conflict exists and whether to accept or reject the bid.

00100.23 SUBCONTRACTORS, SUPPLIERS, AND OTHERS

A Bidder shall be prepared to retain specific Subcontractors, Suppliers, or other individuals or entities for the performance of the Work if required by the Bidding Documents (most commonly in the Specifications) to do so. If a prospective Bidder objects to retaining any such Subcontractor, Supplier, or other individual or entity, and the concern is not relieved by an Addendum, then the prospective Bidder should refrain from submitting a Bid.

Subsequent to the submittal of the Bid, City may not require the Successful Bidder or Contractor to retain any Subcontractor, Supplier, or other individual or entity against which Contractor has reasonable objection.

Each Bid must identify the names, and addresses of the Subcontractors. If requested by the City or Engineer, the Successful Bidder, and any other Bidder so requested, shall within five days after Bid opening, submit to the City the following:

- A. If requested by City, an experience statement with pertinent information regarding similar projects and other evidence of qualification for each such Subcontractor, Supplier, or other individual or entity.
- B. If City or Engineer, after due investigation, finds any proposed Subcontractor or supplier is not licensed, qualified, or certified as required by state law City may, before the Start to Work Order is given, request apparent Successful Bidder to submit an acceptable substitute, in which case apparent Successful Bidder shall submit a substitute, Bidder's Bid price will be increased (or decreased) by the difference in cost occasioned by such substitution, and City may consider such price adjustment in evaluating Bids and making the Contract award.

If apparent Successful Bidder declines to make any such substitution, City may award the Contract to the next lowest Bidder that proposes to use acceptable Subcontractors, Suppliers, or other individuals or entities. Declining to make requested substitutions will not constitute grounds for forfeiture of the Bid security of any Bidder. Any Subcontractor, Supplier, individual, or entity so listed and against which City or Engineer makes no written objection prior to the giving of the Start to Work Order will be deemed acceptable to City and Engineer subject to subsequent revocation of such acceptance.

00100.24 REQUIRED DISCLOSURE

With its bid submission bidder shall disclose all material facts pertaining to any felony conviction or any pending felony charges in the last three (3) years in this state or any other state of the United States against (i) bidder, (ii) any business entity related to or affiliated with bidder, or (iii) any present or former executive employee, officer, director, stockholder, partner or owner of bidder or of any such related or affiliated entity. This disclosure shall not apply to any person or entity which is only a stockholder, which person or entity owns 20 percent or less of the outstanding shares of a bidder whose stock is publicly owned and traded.

At its sole discretion the City may reject any bidder the City finds to lack, or whose present or former executive employees, officers, directors, stockholders, partners or owners are found by the City to lack honesty, integrity, or moral responsibility. The discretion of the City may be exercised based on the disclosure required herein. By submitting a Bid, Bidder recognizes and accepts that the City may reject the Bid based upon the exercise of its sole discretion and bidder waives any claim it might have for damages or other relief resulting from the rejection of its Bid based on these grounds.

00100.25 FLORIDA TRENCH SAFETY ACT

Bidders shall be solely responsible for complying with the Florida Trench Safety Act and Occupational Safety and Health Administration excavation safety standards, 29 CFR 1926.650 as amended. All costs associated with complying with these requirements shall be included in the Bid and shall be detailed in the Certificate of Compliance with the Florida Trench Safety Act (Section 330).

00100.26 RESERVED

00100.27 - BONDS AND INSURANCE

In order to be acceptable to the City, a surety company issuing the Bid Security, Performance and Payment Bonds called for in the Bid Documents shall meet and comply with the standards set forth in the General Conditions and the following:

- A. Surety must be licensed or authorized to do business in the State of Florida and shall comply with section 255.05 of the Florida Statutes.
- B. Surety shall have been in business and have a record of successful continuous operations for at least five (5) years.
- C. All bonds must be executed by such sureties as are named in the current list of "Companies Holding Certificates of Authority as Acceptable Sureties on Federal Bonds and as Acceptable Reinsuring Companies" as published in Circular 570 (amended) by the Audit Staff, Bureau of Government Financial Operations, and the U.S. Treasury Department. Surety shall have an A.M. Best Rating of A or better and A.M. Best Financial Size Category of Class VII or greater.
- D. Surety must issue performance and payment bonds in accordance with section 255.05 of the Florida Statutes.

The City reserves the right to reject any Surety. If the Surety or any bond furnished by the Contractor is declared bankrupt or becomes insolvent or its right to do business terminates in any state where any part of the project is located or it ceases to meet the requirements of these Contract Documents, the Contractor shall within five (5) days after notice thereof substitute another bond and Surety, both of which must be acceptable to the City. The General Conditions sets forth City's requirements as to performance and payment bonds and insurance. When the Successful Bidder delivers the Agreement (executed by Successful Bidder) to City, it shall be accompanied by required bonds and insurance documentation.

END OF SECTION

SECTION 00140

SUMMARY OF INFORMATION TO BIDDERS

00140.01 OBTAINING PLANS AND SPECIFICATIONS

Specifications, Proposal Forms, Drawings, and other contract documents may be examined at the City of Treasure Island, 152 108th Avenue, Treasure Island, Florida 33706. A complete set of bidding documents may be obtained at the office of Advanced Engineering & Design, Inc. upon furnishing a \$50.00 payment (non-refundable). Advanced Engineering & Design, Inc.'s office is located at 3931 68th Avenue North, Pinellas Park, Florida 33781.

00140.02 OWNER

The Owner for this project is the City of Treasure Island (City"), 152 108th Avenue, Treasure Island, Florida 33706.

00140.03 CONTRACT

The contract is entitled **Implementation of BMPs within the Sunset Beach Watershed (Phase VI)**.

00140.04 BID SECURITY & PERFORMANCE AND PAYMENT BOND

Each Bidder must deposit with his bid a bid bond in the amount of ten percent (10%) of the bid total, made payable to the City of Treasure Island. All bids may be held for a period of 90 days after receipt.

Once awarded, the Contractor shall provide a performance and payment bond for 100% of the contract amount to the City within ten (10) days of the Notice to Proceed date.

00140.05 TIME OF COMPLETION

The time of completion for this contract is **210** consecutive calendar days from date established in Start to Work Order.

00140.06 INSURANCE REQUIRED

1. Workers' Compensation Insurance

Provide Workers' Compensation Insurance in accordance with the laws of the State of Florida and in amounts sufficient to secure benefits of the Florida Workers' Compensation Law for all employees. If subletting any of the work, ensure that the employees of the subcontractors are covered by similar insurance.

2. Contractors' Public Liability and Property Damage Liability Insurance

Furnish evidence to the City that, with respect to the operations performed, regular Contractors' Public Liability Insurance providing for a limit of not less than \$1,000,000 for all damages arising out of bodily injuries to, or death of, one person and, subject to that limit for each person, a total limit of \$2,000,000 for all damages arising out of bodily injuries to, or death of, two or more persons in any one occurrence; and, regular Contractors' Property Damage Liability Insurance providing for a limit of not less than \$50,000 for all damages arising out of injury to, or destruction of, property in any one occurrence and, subject to that limit per occurrence, a total (or aggregate) limit of \$100,000 for all damages arising out of injury to, or destruction of, property during the policy period is carried.

Cause the City to be an additional insured party on the Contractors' Public Liability and Property Damage Liability Insurance policies that insure the Contractor for the described work that it performs under the Contract.

3. Submission and Approval of Policies; Termination

Furnish two copies of each required policy to the CITY. Provide all insurance policies in such form and with insurers that are acceptable to the City. Keep insurance in force until the City accepts that the Contractor has satisfactorily completed all work required under the Contract.

4. Contractors Commercial Automobile Liability Insurance

Contractors shall provide evidence of Commercial Automobile Liability coverage, with a minimum combined single limit of \$1,000,000. Contractors shall provide general liability with a minimum single limit of \$1,000,000. Coverage shall include owned, non-owned, hired, and rented vehicles.

5. Insurance on Contractors, Subcontractors, and Licensees

If, in connection with the Contract, the contractor, subcontractor, or licensee is to perform work by or on behalf of the Contractor, the Contractor shall require any such contractor, subcontractor, or licensee to provide insurance in the same manner as required by the Contractor.

6. Contractor's Insurance Primary

The insurance provided by the Contractor and its contractors or subcontractors, including that provided to the City as an insured, shall apply on a primary basis. Any insurance maintained by the City shall be excess of and shall not contribute with the insurance provided by the Contractor and its contractors, or subcontractors. Deductible

or self-insurance retention will be permitted in accordance with industry standards, provided that the Contractor has the financial wherewithal to cover the deductible or self-insured retention amounts.

7. Insurance is Additional Remedy

Compliance with these insurance requirements shall not limit the liability of the Contractor or its contractors or subcontractors. Any remedy provided to the City by the insurance provided by the Contractor and its contractors or subcontractors shall be in addition to and not in lieu of any other remedy (including, but not limited to, as an indemnitee of the Contractor) available to the City under contract or otherwise.

8. No Waiver

Neither approval nor failure to disapprove insurance furnished by the Contractor or its contractors or subcontractors shall relieve the Contractor, contractor or subcontractor from responsibility to prove insurance as required.

9. Indemnification Requirements

The Contractor will be required to agree to a provision requiring that it indemnify, defend, and hold harmless the City, any federal, county or municipal funding agency, and all of their officers, agents, and employees from any claim, loss, damage, cost, charge, or expense arising out of any act, error, omission, or negligent act by Contractor, its agents, or employees during the performance of the Contract.

10. City as Additional Insured

On all insurance required by this Section, the City shall be named as an additional insured.

00140.07 SCOPE OF WORK

The work to be performed under this contract shall consist of the furnishing of all labor, materials, and equipment necessary to satisfactorily complete the **Implementation of BMPs within the Sunset Beach Watershed (Phase VI)** including written logs and testing in accordance with these plans and specifications. All workmanship and materials shall be fully guaranteed for a period of one year after date of acceptance by the Owner. All Testing shall be paid by the Contractor. All Professional Surveying shall be paid by the Contractor.

00140.08 BID SUBMITTAL FORMS

Submission of the following forms shall constitute a complete proposal package:

- Bid Proposal (w/ Addenda acknowledged)
- Bid Proposal Forms(s)
- Bid Bond
- Florida Trench Safety Act Acknowledgement
- Public Entity Crimes Statement
- Statement of Surety Company
- Certification of Insurance
- Drug Free Work Place Certificate
- Non-Discriminatory Vendor Statement

END OF SECTION

SECTION 00310

BID PROPOSAL

To: City of Treasure Island

The following proposal is submitted in accordance with your advertisement inviting proposals to be received until **2:00 p.m. on Monday, December 18, 2017** for the construction of the **Implementation of BMPs within the Sunset Beach Watershed (Phase VI) – ITB 1718-04.**

Having carefully examined the contract documents together with all addenda or bulletins, all as prepared by Advanced Engineering & Design, Inc., 3931 68th Avenue North, Pinellas Park, Florida, 33781 and being familiar with the various conditions of the work, the undersigned herein agrees to furnish all materials required and to perform all labor necessary to satisfactorily construct the **Implementation of BMPs within the Sunset Beach Watershed (Phase VI)** in accordance with the plans and specifications for the unit prices stated herein.

Accompanying this proposal is Certified or Cashier's Check or Bid Bond in the amount of ten percent (10%) of the bid total drawn upon the _____ BANK and made payable to the City of Treasure Island to serve as bid security. The undersigned Bidder accepts all of the terms and conditions of the Instructions to Bidders, including without limitation those dealing with the disposition of Bid security.

It is understood that this proposal shall be effective until 90 days after the bid opening and that the sum of \$200.00 per day may be retained by the Owner in the event the contract is not complete within **210** consecutive calendar days after the date established in the Start to Work Order.

The undersigned Bidder hereby certifies that this proposal is genuine and not sham or collusive, or made in the interest or in behalf of any person, firm, or corporation not herein named and that the undersigned has not directly or indirectly induced or solicited any other bidder to submit a sham bid, or any other person, firm or corporation to refrain from bidding, and that the undersigned has not in any manner sought by collusion to secure for himself an advantage over any other bidder.

The undersigned Bidder agrees to accept the unit prices as full compensation for work performed.

In submitting this Bid, Bidder makes all representations required by *Instructions to Bidder* and further warrants and represents:

- A. The Bidder has examined and carefully studied the Bidding Documents, and any data and reference items identified in the Bidding Documents, and hereby acknowledges receipt of the following Addenda, if any:

Addendum#1 _____	Dated: _____
Addendum#2 _____	Dated: _____
Addendum#3 _____	Dated: _____

- B. Bidder has visited the Site, conducted a thorough, alert visual examination of the Site and adjacent areas, and become familiar with and satisfied itself as to the general, local, and Site conditions that may affect cost, progress, and performance of the Work.
- C. Bidder is familiar with, has considered, and has satisfied itself as to federal, state and local Laws and Regulations that may affect cost, progress, and performance of the Work.
- D. Bidder has obtained and carefully studied all: (1) reports of explorations and tests of subsurface conditions at or adjacent to the Site and all drawings of physical conditions relating to existing surface or subsurface structures at the Site that have been identified in the General Conditions, especially with respect to Technical Data in such reports and drawings, and (2) reports and drawings relating to Hazardous Environmental Conditions, if any, at or adjacent to the Site that have been identified in the General Conditions, especially with respect to Technical Data in such reports and drawings.
- E. Bidder has considered the information known to Bidder itself; information commonly known to contractors doing business in the locality of the Site; information and observations obtained from visits to the Site; the Bidding Documents; and any Site-related reports and drawings identified in the Bidding Documents, with respect to the effect of such information, observations, and documents on (1) the cost, progress, and performance of the Work; (2) the means, methods, techniques, sequences, and procedures of construction to be employed by Bidder; and (3) Bidder's safety precautions and programs.
- F. Bidder agrees, based on the information and observations referred to in the preceding paragraph, that no further examinations, investigations, explorations, tests, studies, or data are necessary for the determination of this Bid for performance of the Work at the price bid and within the times required, and in accordance with the other terms and conditions of the Bidding Documents.
- G. Bidder is aware of the general nature of work to be performed by City and others at the Site that relates to the Work as indicated in the Bidding Documents.
- H. Bidder has given Engineer written notice of all conflicts, errors, ambiguities, or discrepancies that Bidder has discovered in the Bidding Documents, and confirms that the written resolution thereof by Engineer is acceptable to Bidder.
- I. The Bidding Documents are sufficient to indicate and convey understanding of all terms and conditions for the performance and furnishing of the Work.
- J. The submission of this Bid constitutes an incontrovertible representation by Bidder that Bidder has complied with every requirement of this Article, and that without exception the Bid and all prices in the Bid are premised upon performing and furnishing the Work required by the Bidding Documents.

- K. Bidder will submit written evidence of its authority to do business in the State of Florida not later than the date of its execution of the Agreement.

By affixing his signature to this Bid, Bidder certifies that:

- A. This Bid is genuine and not made in the interest of or on behalf of any undisclosed individual or entity and is not submitted in conformity with any collusive agreement or rules of any group, association, organization, or corporation;
- B. Bidder has not directly or indirectly induced or solicited any other Bidder to submit a false or sham Bid;
- C. Bidder has not solicited or induced any individual or entity to refrain from bidding; and
- D. Bidder has not engaged in corrupt, fraudulent, collusive, or coercive practices in competing for the Contract. For the purposes of this Paragraph:
1. “corrupt practice” means the offering, giving, receiving, or soliciting of anything of value likely to influence the action of a public official in the bidding process;
 2. “fraudulent practice” means an intentional misrepresentation of facts made (a) to influence the bidding process to the detriment of City, (b) to establish bid prices at artificial non-competitive levels, or (c) to deprive City of the benefits of free and open competition;
 3. “collusive practice” means a scheme or arrangement between two or more Bidders, with or without the knowledge of City, a purpose of which is to establish bid prices at artificial, non-competitive levels; and
 4. “coercive practice” means harming or threatening to harm, directly or indirectly, persons or their property to influence their participation in the bidding process or affect the execution of the Contract.
- E. All required sales and use taxes are included in the stated Bid prices for the Work unless provision is made herein for the Bidder to separately itemize the estimated amount of sales tax.
- F. If awarded a Contract, the Florida Trench Safety Act, (sections 553.60 through 553.64, of the Florida Statutes) and applicable trench safety standards shall be complied with..
- G. Bidder is not currently and has not been on the convicted vendor list within the last 36 months.

- H. Bidder is not currently and has not been on the discriminatory vendor list within the last 36 months.
- I. This Bid is made without previous understanding, agreement, or connection with any person, firm, or corporation making a bid for the same item(s) and is in all respects fair, without outside control, collusion, fraud, or other illegal actor.
- J. Bidder is and will comply with all local, state, federal directives, orders and laws as applicable to this Bid and subsequent contract(s) including but not limited to Equal Employment (EEO), Minority Business Enterprise (MBE), and OSHA as applicable to this Contract.
- K. Bidder accepts the provisions of the Agreement as to liquidated damages in the event of failure to complete the work, within the Contract Time.

This Bid is submitted on ___ day of ____, 2017, by:

- L. If Bidder is an individual:

Name (*Typed or printed*) _____

By (*signature*) _____

Doing Business As: _____

- M. If Bidder is a partnership:

Partnership Name _____ (SEAL)

By (*signature*) _____

(Signature of general partner - attach evidence of authority to sign)

Name (*Typed or printed*): _____

- N. If Bidder is a corporation:

Corporation Name: _____ (SEAL)

State of Incorporation: _____

Type (*General Business, Professional Service, Limited Liability*): _____

By _____

(Signature - attach evidence of authority to sign)

Name (*typed or printed*): _____

Title: _____ (CORPORATE SEAL)

Attest: _____

(Signature of Corporate Secretary)

Date of Qualification to do business is: _____

If Bidder is a Corporation, attach a certified copy of corporate resolutions of the Board of Directors of the Corporation authorizing an officer of the Corporation to execute the Agreement contained within this document on behalf of the Corporation.

O. If Bidder is a Joint Venture

Joint Venturer Name: _____ (SEAL)

By: _____

(Signature of joint venture partner - attach evidence of authority to sign)

Name *(typed or printed)*: _____

Title: _____

Name *(typed or printed)*: _____

Title: _____

Name *(typed or printed)*: _____

Title: _____

(Each joint venturer must sign. The manner of signing for each individual, partnership, and corporation that is a party to the joint venture should be in the manner indicated above.)

1.02 Bidders Particulars

Bidder's Business Address: _____

Phone No.: () _____ FAX No.: _____

Email: _____

Name(s) of Contractor: _____

Job Site Field Representative(s): _____

BID SUBMITTED on _____, 201__

Florida Contractor's License No.: _____

Contractor's License Class (where applicable): _____

END OF SECTION

**Section 00320A
Bid Proposal Form**

No changes shall be made to the Pay Item Quantities contained herein. Any corrections to bidders' entries shall be made in ink and shall be initialed by the bidder

ITEM NUMBER	APPROXIMATE QUANTITIES	ITEM & UNIT PRICES BID (PRICES TO BE WRITTEN IN WORDS)	UNIT PRICE	AMOUNT
IMPLEMENTATION OF BMPs WITHIN THE SUNSET BEACH WATERSHED (PHASE VI)				
BID SCHEDULE A (SWFWMD FUNDED IMPROVEMENTS)				
A-G-1	1 Lump Sum	Mobilization		
		Lump Sum	\$	\$
A-G-2	1 Lump Sum	Maintenance of Traffic		
		Lump Sum	\$	\$
A-G-3	1 Lump Sum	Erosion and Sediment Control		
		Lump Sum	\$	\$
A-G-4	1 Lump Sum	Turbidity Monitoring to Adhere to Permit Conditions		
		Lump Sum	\$	\$
A-DI-1	2 Each	FDOT Type "J-7T" Manhole (4' Dia.)		
		Each	\$	\$
A-DI-2	2 Each	FDOT Type "D" Ditch Bottom Inlet		
		Each	\$	\$
A-DI-3	3 Each	FDOT Type "F" Ditch Bottom Inlet		
		Each	\$	\$
A-DI-4	1 Each	Trench Drain (Tern Lot)		
		Each	\$	\$
A-DI-5	1 Each	Trench Drain (Ring-Billed Gull Lot)		
		Each	\$	\$

**Section 00320A
Bid Proposal Form**

No changes shall be made to the Pay Item Quantities contained herein. Any corrections to bidders' entries shall be made in ink and shall be initialed by the bidder

ITEM NUMBER	APPROXIMATE QUANTITIES	ITEM & UNIT PRICES BID (PRICES TO BE WRITTEN IN WORDS)	UNIT PRICE	AMOUNT
A-DI-6	5 Each	Remove Existing Structure / Plug Outfall Pipes		
		Each	\$	\$
A-DI-7	4 Each	Connect to Existing Structure		
		Per Each	\$	\$
A-DI-8	200 Linear Feet	12" PVC		
		Per Linear Foot	\$	\$
A-DI-9	285 Linear Feet	15" RCP		
		Per Linear Foot	\$	\$
A-DI-10	725 Linear Feet	18" RCP		
		Per Linear Foot	\$	\$
A-UT-1	30 Linear Feet	8" Ductile Iron Sanitary Sewer Removal & Replacement		
		Per Linear Foot	\$	\$
A-UT-2	3 Each	Sanitary Lateral Conflict Structure (4' Diameter Brick) (w/ 10 LF of 4"/6" DIP)		
		Per Each	\$	\$
A-UT-3	100 Linear Feet	Sanitary Lateral Removal & Replacement (4"/6" PVC)		
		Per Linear Foot	\$	\$
A-S-1	1,600 Square Yards	Mill Existing Asphalt (2")		
		Per Square Yard	\$	\$

**Section 00320A
Bid Proposal Form**

No changes shall be made to the Pay Item Quantities contained herein. Any corrections to bidders' entries shall be made in ink and shall be initialed by the bidder

ITEM NUMBER	APPROXIMATE QUANTITIES	ITEM & UNIT PRICES BID (PRICES TO BE WRITTEN IN WORDS)	UNIT PRICE	AMOUNT
A-S-2	1,125 Square Yards	Roadway Reconstruction (Excluding Asphalt)		
		Per Square Yard	\$	\$
A-S-3	325 Square Yards	Roadway Restoration (Excluding Asphalt)		
		Per Square Yard	\$	\$
A-S-4	180 Tons	Type SP-12.5 Asphalt		
		Per Ton	\$	\$
A-S-5	6,550 Square Feet	Concrete Sidewalk Restoration (6")		
		Per Square Foot	\$	\$
A-S-6	45 Square Yards	Asphalt Driveway / Parkway Restoration		
		Per Square Yard	\$	\$
A-S-7	2,500 Square Feet	Shell Driveway / Parkway Restoration		
		Per Square Foot	\$	\$
A-S-8	1,150 Square Feet	Concrete Driveway Restoration		
		Per Square Foot	\$	\$
A-S-9	500 Square Feet	Brick/Paver Driveway Restoration		
		Per Square Foot	\$	\$
A-S-10	400 Square Feet	Gravel / Pebble Driveway / Parkway Restoration		
		Per Square Foot	\$	\$

**Section 00320A
Bid Proposal Form**

No changes shall be made to the Pay Item Quantities contained herein. Any corrections to bidders' entries shall be made in ink and shall be initialed by the bidder

ITEM NUMBER	APPROXIMATE QUANTITIES	ITEM & UNIT PRICES BID (PRICES TO BE WRITTEN IN WORDS)	UNIT PRICE	AMOUNT
A-S-11	1 Lump Sum	Reset Street Signage		
		Lump Sum	\$	\$
A-S-12	1 Lump Sum	Tree Removal & Replacement / Replace Removed Landscaping / Protection of Existing Landscaping		
		Lump Sum	\$	\$
A-S-13	1 Lump Sum	Restore Incidental Parkway Items		
		Lump Sum	\$	\$
A-S-14	2,500 Square Feet	Sodding (Match Existing)		
		Per Square Foot	\$	\$
A-M-1	25 Cubic Yard	Excavation, Unsuitable Material		
		Per Cubic Yard	\$	\$
A-M-2	25 Cubic Yard	Excavation, Rock		
		Per Cubic Yard	\$	\$
A-M-3	25 Cubic Yard	Excavation, Muck		
		Per Cubic Yard	\$	\$

SUBTOTAL
(SCHEDULE A)

\$ _____

**Section 00320B
Bid Proposal Form**

No changes shall be made to the Pay Item Quantities contained herein. Any corrections to bidders' entries shall be made in ink and shall be initialed by the bidder

ITEM NUMBER	APPROXIMATE QUANTITIES	ITEM & UNIT PRICES BID (PRICES TO BE WRITTEN IN WORDS)	UNIT PRICE	AMOUNT
IMPLEMENTATION OF BMPs WITHIN THE SUNSET BEACH WATERSHED (PHASE VI)				
BID SCHEDULE B (CITY FUNDED ROADWAY IMPROVEMENTS)				
B-S-1	4,300 Square Yards	Mill Existing Asphalt (2")		
		Per Square Yard	\$	\$
B-S-4	470 Tons	Type SP-12.5 Asphalt		
		Per Ton	\$	\$
B-S-5A	1,680 Square Feet	Concrete Sidewalk Construction (4")		
		Per Square Foot	\$	\$
B-S-5	685 Square Feet	Concrete Sidewalk Construction (6")		
		Per Square Foot	\$	\$
B-S-15	325 Linear Feet	FDOT Type "D" Curb		
		Per Linear Foot	\$	\$
B-S-16	0.802 Gross Miles	Thermoplastic Striping, Yellow, 6"		
		Per Gross Mile	\$	\$
B-S-17	0.802 Gross Miles	Thermoplastic Striping, White, 6"		
		Per Gross Mile	\$	\$
B-S-18	125 Each	Retro-Reflective Pavement Markers (Yellow)		
		Per Each	\$	\$
SUBTOTAL (SCHEDULE B)				\$

**Section 00320C
Bid Proposal Form**

No changes shall be made to the Pay Item Quantities contained herein. Any corrections to bidders' entries shall be made in ink and shall be initialed by the bidder

ITEM NUMBER	APPROXIMATE QUANTITIES	ITEM & UNIT PRICES BID (PRICES TO BE WRITTEN IN WORDS)	UNIT PRICE	AMOUNT
IMPLEMENTATION OF BMPs WITHIN THE SUNSET BEACH WATERSHED (PHASE VI)				
BID SCHEDULE C (PINELLAS COUNTY UTILITIES - POTABLE)				
C-PW-1	500 Linear Feet	Adjust Potable Water Service (1")		
		Per Linear Foot	\$	\$
C-PW-2	5 Each	Construct New Potable Water Service (1") (Long Side)		
		Per Each	\$	\$
C-PW-3	15 Square Yards	Asphalt Driveway / Parkway Restoration		
		Per Square Yard	\$	\$
C-PW-4	175 Square Feet	Concrete Driveway Restoration		
		Per Square Foot	\$	\$
C-PW-5	125 Square Feet	Brick/Paver Driveway Restoration		
		Per Square Foot	\$	\$
C-PW-6	100 Square Feet	Shell Driveway / Parkway Restoration		
		Per Square Foot	\$	\$
C-PW-7	100 Square Feet	Gravel / Pebble Driveway / Parkway Restoration		
		Per Square Foot	\$	\$
C-PW-8	1 Lump Sum	Tree Removal & Replacement / Replace Removed Landscaping / Protection of Existing Landscaping		
		Lump Sum	\$	\$

**Section 00320C
Bid Proposal Form**

No changes shall be made to the Pay Item Quantities contained herein. Any corrections to bidders' entries shall be made in ink and shall be initialed by the bidder

ITEM NUMBER	APPROXIMATE QUANTITIES	ITEM & UNIT PRICES BID (PRICES TO BE WRITTEN IN WORDS)	UNIT PRICE	AMOUNT
C-PW-9	375 Square Feet	Sodding (Match Existing)		
		Per Square Foot	\$	\$
SUBTOTAL (SCHEDULE C)		_____		\$ _____

**Section 00320D
Bid Proposal Form**

No changes shall be made to the Pay Item Quantities contained herein. Any corrections to bidders' entries shall be made in ink and shall be initialed by the bidder

ITEM NUMBER	APPROXIMATE QUANTITIES	ITEM & UNIT PRICES BID (PRICES TO BE WRITTEN IN WORDS)	UNIT PRICE	AMOUNT
IMPLEMENTATION OF BMPs WITHIN THE SUNSET BEACH WATERSHED (PHASE VI)				
BID SCHEDULE D (PINELLAS COUNTY UTILITIES - RECLAIMED)				
D-RW-1	385 Linear Feet	Adjust Reclaimed Water Service (1")		
		Per Linear Foot	\$	\$
D-RW-2	6 Each	Construct New Reclaimed Water Service (1") (Long Side)		
		Per Each	\$	\$
D-RW-3	5 Each	4" Ductile Iron Reclaimed Water Main Adjustment		
		Per Each	\$	\$
D-RW-4	300 Linear Feet	4" Ductile Iron Reclaimed Water Main Installation		
		Per Linear Foot	\$	\$
D-RW-5	16 Each	4" Restrained Joints		
		Per Each	\$	\$
D-RW-6	0.25 Tons	Ductile Iron Fittings (C153)		
		Per Ton	\$	\$
D-RW-7	4 Each	4" Gate Valve		
		Per Each	\$	\$
D-RW-8	450 Linear Feet	Remove 4" Pipe		
		Per Linear Foot	\$	\$
D-RW-9	15 Square Yards	Asphalt Driveway / Parkway Restoration		
		Per Square Yard	\$	\$

**Section 00320D
Bid Proposal Form**

No changes shall be made to the Pay Item Quantities contained herein. Any corrections to bidders' entries shall be made in ink and shall be initialed by the bidder

ITEM NUMBER	APPROXIMATE QUANTITIES	ITEM & UNIT PRICES BID (PRICES TO BE WRITTEN IN WORDS)	UNIT PRICE	AMOUNT
D-RW-10	175 Square Feet	Concrete Driveway Restoration		
		Per Square Foot	\$	\$
D-RW-11	125 Square Feet	Brick/Paver Driveway Restoration		
		Per Square Foot	\$	\$
D-RW-12	100 Square Feet	Shell Driveway / Parkway Restoration		
		Per Square Foot	\$	\$
D-RW-13	100 Square Feet	Gravel / Pebble Driveway / Parkway Restoration		
		Per Square Foot	\$	\$
D-RW-14	1 Lump Sum	Tree Removal & Replacement / Replace Removed Landscaping / Protection of Existing Landscaping		
		Lump Sum	\$	\$
D-RW-15	375 Square Feet	Sodding (Match Existing)		
		Per Square Foot	\$	\$

**SUBTOTAL
(SCHEDULE D)**

\$ _____

**Section 00320E
Bid Proposal Form**

No changes shall be made to the Pay Item Quantities contained herein. Any corrections to bidders' entries shall be made in ink and shall be initialed by the bidder

ITEM NUMBER	APPROXIMATE QUANTITIES	ITEM & UNIT PRICES BID (PRICES TO BE WRITTEN IN WORDS)	UNIT PRICE	AMOUNT
IMPLEMENTATION OF BMPs WITHIN THE SUNSET BEACH WATERSHED (PHASE VI)				
BID SCHEDULE E (TERN LOT - PERVIOUS CONCRETE OPTION)				
E-G-1	1 Lump Sum	Mobilization		
		Lump Sum	\$	\$
E-G-2	1 Lump Sum	Maintenance of Traffic		
		Lump Sum	\$	\$
E-G-3	1 Lump Sum	Erosion and Sediment Control		
		Lump Sum	\$	\$
E-PL-1	1 Lump Sum	Demolition / Clearing & Grubbing		
		Lump Sum	\$	\$
E-PL-2	1 Lump Sum	Tree Barricades / Tree Protection / Tree Removal		
		Lump Sum	\$	\$
E-PL-3	1,300 Linear Feet	Header Curb		
		Per Linear Foot	\$	\$
E-PL-4	19,250 Square Feet	Parking Lot Subgrade Preparation		
		Per Square Foot	\$	\$
E-PL-5	360 Cubic Yards	FDOT No. 57 Stone Base		
		Per Cubic Yards	\$	\$
E-PL-6	19,250 Square Feet	Pervious Concrete		
		Per Square Foot	\$	\$

**Section 00320E
Bid Proposal Form**

No changes shall be made to the Pay Item Quantities contained herein. Any corrections to bidders' entries shall be made in ink and shall be initialed by the bidder

ITEM NUMBER	APPROXIMATE QUANTITIES	ITEM & UNIT PRICES BID (PRICES TO BE WRITTEN IN WORDS)	UNIT PRICE	AMOUNT
E-PL-7	2,600 Square Feet	Fine Grading (Landscape Bed Preparation)		
		Per Square Foot	\$	\$
E-PL-8	3,250 Square Feet	Shell Gore Area		
		Per Square Foot	\$	\$
E-PL-9	450 Square Feet	Concrete Sidewalk Construction (4")		
		Per Square Foot	\$	\$
E-PL-10	175 Square Feet	Concrete Sidewalk Construction (6")		
		Per Square Foot	\$	\$
E-PL-11	265 Linear Feet	6" PVC Drain		
		Per Linear Foot	\$	\$
E-PL-12	2 Each	8" PVC Drainage Structure		
		Per Each	\$	\$
E-PL-13	56 Each	Recycled Plastic Wheel Stop		
		Per Each	\$	\$
E-PL-14	1 Lump Sum	Signage & Striping		
		Lump Sum	\$	\$
E-M-1	5 Cubic Yard	Excavation, Unsuitable Material		
		Per Cubic Yard	\$	\$

**Section 00320E
Bid Proposal Form**

No changes shall be made to the Pay Item Quantities contained herein. Any corrections to bidders' entries shall be made in ink and shall be initialed by the bidder

ITEM NUMBER	APPROXIMATE QUANTITIES	ITEM & UNIT PRICES BID (PRICES TO BE WRITTEN IN WORDS)	UNIT PRICE	AMOUNT
E-M-2	5 Cubic Yard	Excavation, Rock		
		Per Cubic Yard	\$	\$
E-M-3	5 Cubic Yard	Excavation, Muck		
		Per Cubic Yard	\$	\$
SUBTOTAL (SCHEDULE E)		_____		\$ _____

**Section 00320F
Bid Proposal Form**

No changes shall be made to the Pay Item Quantities contained herein. Any corrections to bidders' entries shall be made in ink and shall be initialed by the bidder

ITEM NUMBER	APPROXIMATE QUANTITIES	ITEM & UNIT PRICES BID (PRICES TO BE WRITTEN IN WORDS)	UNIT PRICE	AMOUNT
IMPLEMENTATION OF BMPs WITHIN THE SUNSET BEACH WATERSHED (PHASE VI)				
BID SCHEDULE F (TERN LOT - ASPHALT OPTION)				
F-G-1	1 Lump Sum	Mobilization		
		Lump Sum	\$	\$
F-G-2	1 Lump Sum	Maintenance of Traffic		
		Lump Sum	\$	\$
F-G-3	1 Lump Sum	Erosion and Sediment Control		
		Lump Sum	\$	\$
F-PL-1	1 Lump Sum	Demolition / Clearing & Grubbing		
		Lump Sum	\$	\$
F-PL-2	1 Lump Sum	Tree Barricades / Tree Protection / Tree Removal		
		Lump Sum	\$	\$
F-PL-3	1,300 Linear Feet	Header Curb		
		Per Linear Foot	\$	\$
F-PL-4	2,140 Square Yards	Asphalt Parking Lot Construction		
		Per Square Yard	\$	\$
F-PL-5	2,600 Square Feet	Fine Grading (Landscape Bed Preparation)		
		Per Square Foot	\$	\$

**Section 00320F
Bid Proposal Form**

No changes shall be made to the Pay Item Quantities contained herein. Any corrections to bidders' entries shall be made in ink and shall be initialed by the bidder

ITEM NUMBER	APPROXIMATE QUANTITIES	ITEM & UNIT PRICES BID (PRICES TO BE WRITTEN IN WORDS)	UNIT PRICE	AMOUNT
F-PL-6	3,250 Square Feet	Shell Gore Area		
		Per Square Foot	\$	\$
F-PL-7	450 Square Feet	Concrete Sidewalk Construction (4")		
		Per Square Foot	\$	\$
F-PL-8	175 Square Feet	Concrete Sidewalk Construction (6")		
		Per Square Foot	\$	\$
F-PL-9	325 Linear Feet	15" RCP		
		Per Linear Foot	\$	\$
F-PL-10	2 Each	FDOT Type "F" Ditch Bottom Inlet		
		Per Each	\$	\$
F-PL-11	56 Each	Recycled Plastic Wheel Stop		
		Per Each	\$	\$
F-PL-12	1 Lump Sum	Signage & Striping		
		Lump Sum	\$	\$
F-M-1	5 Cubic Yard	Excavation, Unsuitable Material		
		Per Cubic Yard	\$	\$
F-M-2	5 Cubic Yard	Excavation, Rock		
		Per Cubic Yard	\$	\$

**Section 00320F
Bid Proposal Form**

No changes shall be made to the Pay Item Quantities contained herein. Any corrections to bidders' entries shall be made in ink and shall be initialed by the bidder

ITEM NUMBER	APPROXIMATE QUANTITIES	ITEM & UNIT PRICES BID (PRICES TO BE WRITTEN IN WORDS)	UNIT PRICE	AMOUNT
F-M-3	5 Cubic Yard	Excavation, Muck		
		Per Cubic Yard	\$	\$
SUBTOTAL (SCHEDULE F)		<hr/> <hr/>		<hr/> \$ <hr/>

**Section 00320G
Bid Proposal Form**

No changes shall be made to the Pay Item Quantities contained herein. Any corrections to bidders' entries shall be made in ink and shall be initialed by the bidder

ITEM NUMBER	APPROXIMATE QUANTITIES	ITEM & UNIT PRICES BID (PRICES TO BE WRITTEN IN WORDS)	UNIT PRICE	AMOUNT
IMPLEMENTATION OF BMPs WITHIN THE SUNSET BEACH WATERSHED (PHASE VI)				
BID SCHEDULE G (RING-BILLED GULL LOT)				
G-G-1	1 Lump Sum	Mobilization		
		Lump Sum	\$	\$
G-G-2	1 Lump Sum	Maintenance of Traffic		
		Lump Sum	\$	\$
G-G-3	1 Lump Sum	Erosion and Sediment Control		
		Lump Sum	\$	\$
G-PL-1	1 Lump Sum	Demolition / Clearing & Grubbing		
		Lump Sum	\$	\$
G-PL-2	1 Lump Sum	Tree Barricades / Tree Protection / Tree Removal		
		Lump Sum	\$	\$
G-PL-3	1,000 Linear Feet	Header Curb		
		Per Linear Foot	\$	\$
G-PL-4	15,800 Square Feet	Parking Lot Subgrade Preparation		
		Per Square Foot	\$	\$
G-PL-5	300 Cubic Yards	FDOT No. 57 Stone Base		
		Per Cubic Yards	\$	\$
G-PL-6	15,800 Square Feet	Pervious Concrete		
		Per Square Foot	\$	\$

**Section 00320G
Bid Proposal Form**

No changes shall be made to the Pay Item Quantities contained herein. Any corrections to bidders' entries shall be made in ink and shall be initialed by the bidder

ITEM NUMBER	APPROXIMATE QUANTITIES	ITEM & UNIT PRICES BID (PRICES TO BE WRITTEN IN WORDS)	UNIT PRICE	AMOUNT
G-PL-7	4,250 Square Feet	Fine Grading (Landscape Bed Preparation)		
		Per Square Foot	\$	\$
G-PL-8	600 Square Feet	Shell Gore Area		
		Per Square Foot	\$	\$
G-PL-9	43 Each	Recycled Plastic Wheel Stop		
		Per Each	\$	\$
G-PL-10	1 Lump Sum	Signage & Striping		
		Lump Sum	\$	\$
G-M-1	5 Cubic Yard	Excavation, Unsuitable Material		
		Per Cubic Yard	\$	\$
G-M-2	5 Cubic Yard	Excavation, Rock		
		Per Cubic Yard	\$	\$
G-M-3	5 Cubic Yard	Excavation, Muck		
		Per Cubic Yard	\$	\$
SUBTOTAL (SCHEDULE G)				\$

**Section 00320T
Bid Proposal Form**

The City reserves the right to utilize Option 1 or Option 2 as the basis of bid evaluation.

IMPLEMENTATION OF BMPs WITHIN THE SUNSET BEACH WATERSHED (PHASE VI)

SUMMARY OF BID SCHEDULES (OPTION 1 - PERVIOUS CONCRETE OPTION)

SUBTOTAL (SCHEDULE A)	_____	\$ _____
SUBTOTAL (SCHEDULE B)	_____	\$ _____
SUBTOTAL (SCHEDULE C)	_____	\$ _____
SUBTOTAL (SCHEDULE D)	_____	\$ _____
SUBTOTAL (SCHEDULE E)	_____	\$ _____
SUBTOTAL (SCHEDULE G)	_____	\$ _____
TOTAL (SCHEDULE A-E & G)	_____	\$ _____

SUMMARY OF BID SCHEDULES (OPTION 2 - ASPHALT OPTION)

SUBTOTAL (SCHEDULE A)	_____	\$ _____
SUBTOTAL (SCHEDULE B)	_____	\$ _____
SUBTOTAL (SCHEDULE C)	_____	\$ _____
SUBTOTAL (SCHEDULE D)	_____	\$ _____
SUBTOTAL (SCHEDULE F)	_____	\$ _____
SUBTOTAL (SCHEDULE G)	_____	\$ _____
TOTAL (SCHEDULE A-D & F-G)	_____	\$ _____

SECTION 00330

FLORIDA TRENCH SAFETY ACT ACKNOWLEDGEMENT

PROJECT: Implementation of BMPs within the Sunset Beach Watershed (Phase VI) – ITB 1718-04

BIDDER’S NAME: _____

The Occupational Safety and Health Administration excavation safety standards, 29 CFR 1926.650 Subpart P trench safety standards will be in effect during the period of construction of the Project.

Bidder acknowledges and issues this sworn statement that included in the various items of the proposal in the Total Bid Price are costs for complying with Chapter 553 of the Florida Statutes, Florida Trench Safety Act. The bidder further identifies the costs to be summarized below:

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

THIS IS NOT A PAY ITEM: The purpose of this form is to gather information on the costs associated with trench safety measures and to insure that the Bidder has considered these costs and included them in the Total Estimated Bid Company will not receive additional payment if actual quantities differ from those estimated or if the Company uses a safety measure different than those listed.

The undersigned, in submitting this Bid, represents that he has reviewed and considered all available geotechnical information and made such other investigations and tests as he may deem necessary to adequately design the trench safety system he will utilize on this project.

The undersigned assures that the entity will comply with the applicable Trench Safety Standards and agrees to indemnify and hold harmless the City and Project Engineer, and any of their agents or employees from any claims arising from the failure to comply with said standard.

FAILURE TO COMPLETE THE ABOVE MAY RESULT IN THE BID BEING DECLARED NON-RESPONSIVE.

COMPANY NAME: _____

DATE: _____

BY: _____

TITLE: _____

STATE OF FLORIDA
COUNTY OF _____

Personally appeared before me, the undersigned authority _____, who, after first being sworn by me, affixed his /her signature in the space provided above on this _____ day of _____ 201 .

NOTARY Public

My Commission expires: _____

END OF SECTION

1. Bidder and Surety, jointly and severally, bind themselves, their heirs, executors, administrators, successors, and assigns to pay to Owner upon default of Bidder the penal sum set forth on the face of this Bond. Payment of the penal sum is the extent of Bidder's and Surety's liability. Recovery of such penal sum under the terms of this Bond shall be Owner's sole and exclusive remedy upon default of Bidder.
2. Default of Bidder shall occur upon the failure of Bidder to deliver within the time required by the Bidding Documents (or any extension thereof agreed to in writing by Owner) the executed Agreement required by the Bidding Documents and any performance and payment bonds required by the Bidding Documents.
3. This obligation shall be null and void if:
 - 3.1 Owner accepts Bidder's Bid and Bidder delivers within the time required by the Bidding Documents (or any extension thereof agreed to in writing by Owner) the executed Agreement required by the Bidding Documents and any performance and payment bonds required by the Bidding Documents, or
 - 3.2 All Bids are rejected by Owner, or
 - 3.3 Owner fails to issue a Notice of Award to Bidder within the time specified in the Bidding Documents (or any extension thereof agreed to in writing by Bidder and, if applicable, consented to by Surety when required by Paragraph 5 hereof).
4. Payment under this Bond will be due and payable upon default of Bidder and within 30 calendar days after receipt by Bidder and Surety of written notice of default from Owner, which notice will be given with reasonable promptness, identifying this Bond and the Project and including a statement of the amount due.
5. Surety waives notice of any and all defenses based on or arising out of any time extension to issue Notice of Award agreed to in writing by Owner and Bidder, provided that the total time for issuing Notice of Award including extensions shall not in the aggregate exceed 120 days from the Bid due date without Surety's written consent.
6. No suit or action shall be commenced under this Bond prior to 30 calendar days after the notice of default required in Paragraph 4 above is received by Bidder and Surety and in no case later than one year after the Bid due date.
7. Any suit or action under this Bond shall be commenced only in a court of competent jurisdiction located in the state in which the Project is located.
8. Notices required hereunder shall be in writing and sent to Bidder and Surety at their respective addresses shown on the face of this Bond. Such notices may be sent by personal delivery, commercial courier, or by United States Registered or Certified Mail, return receipt requested, postage pre-paid, and shall be deemed to be effective upon receipt by the party concerned.
9. Surety shall cause to be attached to this Bond a current and effective Power of Attorney evidencing the authority of the officer, agent, or representative who executed this Bond on behalf of Surety to execute, seal, and deliver such Bond and bind the Surety thereby.
10. This Bond is intended to conform to all applicable statutory requirements. Any applicable requirement of any applicable statute that has been omitted from this Bond shall be deemed to be included herein as if set forth at length. If any provision of this Bond conflicts with any applicable statute, then the provision of said statute shall govern and the remainder of this Bond that is not in conflict therewith shall continue in full force and effect.
11. The term "Bid" as used herein includes a Bid, offer, or proposal as applicable.

SECTION 00520

CONTRACTOR'S AFFIDAVIT

STATE OF FLORIDA
PINELLAS COUNTY

Before me, the undersigned authority, personally appeared _____, who, being duly sworn, deposes and says of his or her personal knowledge that:

1. He or She is the _____ of _____, which does business in the State of Florida, hereinafter referred to as the Contractor.

2. Contractor, pursuant to contract with the **CITY OF TREASURE ISLAND**, hereinafter referred to as "City", has furnished or caused to be furnished labor, materials, and services for the construction of certain improvements to real property located in Pinellas County, Florida as more particularly set forth in said contract.

3. Said improvements have been fully completed and the Contract and General Conditions for Construction Services ("Construction Contract") entirely performed to the final stage of pay out as prescribed in the Construction Contract between Contractor and City, and that all lienors as defined by Chapter 713, Florida Statutes, have been paid all sums due them up to the date of this Affidavit except the following ones who are due the respective amounts set opposite their respective names:

Name

Amount

4. There is now due Contractor a Final Payment for the payout stage mentioned above under the Construction Contract in the amount of \$_____, leaving the amount of \$_____ to be paid upon completion of all punch list items; that Contractor has in no way assigned, pledged, or hypothecated the Construction Contract or any amount due or to become due thereunder; that payment to Contractor of said sum shall constitute a full release by Contractor of any and all claims arising out of the Construction Contract.

5. Contractor has not entered into any agreement by which any security interest under the Uniform Commercial Code has attached to the above described property.

6. Affiant is an officer of the Contractor having personal knowledge of the foregoing facts and duly authorized to execute this Affidavit.

7. This Affidavit is made for the purpose of inducing City to pay and disburse the Final Payment for the final stage of pay out of the Construction Contract hereinabove mentioned.

CONTRACTOR

BY: _____

FOR: _____

Sworn to and acknowledged before me this _____ day of _____, 20__, by _____ of _____, a Florida corporation, on behalf of the corporation. He/she is personally known to me or has produced a Florida driver's license as identification.

_____, Notary Public, Commission No. _____

_____, Name of Notary type, printed or stamped

SECTION 00530

CONTRACTOR'S RELEASE

KNOW ALL MEN BY THESE PRESENTS that _____,
A Contractor in the County of _____ and State of _____, do hereby
acknowledge that _____ (Contractor) this day has had and
received of and from the _____, the sum of One Dollar and other valuable
consideration in full satisfaction and payment of all sums of money owing, payable and belonging
to _____ (Contractor) by any means whatsoever, for
on account of a certain agreement between the said _____ and
_____ (Contractor) dated _____.

NOW THEREFORE, the said _____ (Contractor) (for myself,
my heirs, executors and administrators) (for itself, its successor and assigns) do by these presents
remise, release, quitclaim and forever discharge the said _____, its
successors and assigns, of and from all claims and demands arising from or in connection with the
said agreement dated _____, and of and from all, and all manner of
action and actions, cause and causes of action and actions, suits, debts, dues, sums and sums of
money, accounts, reckonings, bonds, bills, specialties, covenants, contracts, agreements,
promises, variances, damages, judgments, extents, executions, claims and demand, whatsoever in
law or equity, or otherwise which against the said _____, its successors or
assigns, the Contractor, its heirs, successors assigns ever had, now have, or which (I, my heirs,
executors, or administrators) (it, its successors and assigns) hereafter can, shall or may have, for,
upon or by reason of any matter cause or thing whatsoever, from the beginning of the world to the
date of these presents.

IN WITNESS WHEREOF, _____ (Contractor) has
caused these presents to be duly executed the _____ day of _____, 20__.

Signed, Sealed and Delivered in the presence of:

(Individual Contractor) (SEAL)

ATTEST; _____ (SEAL)
(Partnership Contractor)

(Secretary) By _____ (SEAL)
(Partner)

(Corporation)

AFFIX CORPORATE SEAL,
If a corporation By _____
(President or Vice President)

SECTION 00610

PAYMENT BOND

CONTRACTOR *(name, address, and telephone number):*

SURETY *(name, address of principal place of business, and telephone number):*

OWNER *(name, address, and telephone number):*

City of Treasure Island ("City")
152 108th Avenue
Treasure Island, FL 33706
(727) 547-4575

CONSTRUCTION CONTRACT

Effective Date of the Agreement:

Amount:

Description *(name and location):* **IMPLEMENTATION OF BMPS WITHIN THE SUNSET BEACH WATERSHED (PHASE VI) - ITB 1718-04**

BOND

Bond Number:

Date *(not earlier than the Effective Date of the Agreement of the Construction Contract):*

Amount:

Surety and Contractor, intending to be legally bound hereby, subject to the terms set forth below, do each cause this Payment Bond to be duly executed by an authorized officer, agent, or representative.

CONTRACTOR AS PRINCIPAL

SURETY

_____ *(seal)*

_____ *(seal)*

Contractor's Name and Corporate Seal

Surety's Name and Corporate Seal

By: _____

By: _____

Signature

Signature *(attach power of attorney)*

Print Name

Print Name

Title

Title

Attest: _____

Attest: _____

Signature

Signature

Title

Title

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 of Florida.

Notes: (1) Provide supplemental execution by any additional parties, such as joint venturers. (2) Any singular reference to Contractor, Surety, Authority, or other party shall be considered plural where applicable.

1. The Contractor and Surety, jointly and severally, bind themselves, their heirs, executors, administrators, successors, and assigns to the Owner to pay for labor, materials, and equipment furnished for use in the performance of the Construction Contract, which is incorporated herein by reference, subject to the following terms.
2. If the Contractor promptly makes payment of all sums due to Claimants, and defends, indemnifies, and holds harmless the Owner from claims, demands, liens, or suits by any person or entity seeking payment for labor, materials, or equipment furnished for use in the performance of the Construction Contract, then the Surety and the Contractor shall have no obligation under this Bond.
3. If there is no Owner Default under the Construction Contract, the Surety's obligation to the Owner under this Bond shall arise after the Owner has promptly notified the Contractor and the Surety (at the address described in Paragraph 13) of claims, demands, liens, or suits against the Owner or the Owner's property by any person or entity seeking payment for labor, materials, or equipment furnished for use in the performance of the Construction Contract, and tendered defense of such claims, demands, liens, or suits to the Contractor and the Surety.
4. When the Owner has satisfied the conditions in Paragraph 3, the Surety shall promptly and at the Surety's expense defend, indemnify, and hold harmless the Owner against a duly tendered claim, demand, lien, or suit.
5. The Surety's obligations to a Claimant under this Bond shall arise after the following:
 - 5.1 Claimants who do not have a direct contract with the Contractor,
 - 5.1.1 have furnished a written notice of non-payment to the Contractor, stating with substantial accuracy the amount claimed and the name of the party to whom the materials were, or equipment was, furnished or supplied or for whom the labor was done or performed, within ninety (90) days after having last performed labor or last furnished materials or equipment included in the Claim; and
 - 5.1.2 have sent a Claim to the Surety (at the address described in Paragraph 13).
 - 5.2 Claimants who are employed by or have a direct contract with the Contractor have sent a Claim to the Surety (at the address described in Paragraph 13).
6. If a notice of non-payment required by Paragraph 5.1.1 is given by the Owner to the Contractor, that is sufficient to satisfy a Claimant's obligation to furnish a written notice of non-payment under Paragraph 5.1.1.
7. When a Claimant has satisfied the conditions of Paragraph 5.1 or 5.2, whichever is applicable, the Surety shall promptly and at the Surety's expense take the following actions:
 - 7.1 Send an answer to the Claimant, with a copy to the Owner, within sixty (60) days after receipt of the Claim, stating the amounts that are undisputed and the basis for challenging any amounts that are disputed; and
 - 7.2 Pay or arrange for payment of any undisputed amounts.
 - 7.3 The Surety's failure to discharge its obligations under Paragraph 7.1 or 7.2 shall not be deemed to constitute a waiver of defenses the Surety or Contractor may have or acquire as to a Claim, except as to undisputed amounts for which the Surety and Claimant have reached agreement. If, however, the Surety fails to discharge its obligations under Paragraph 7.1 or 7.2, the Surety shall indemnify the Claimant for the reasonable attorney's fees the Claimant incurs thereafter to recover any sums found to be due and owing to the Claimant.
8. The Surety's total obligation shall not exceed the amount of this Bond, plus the amount of reasonable attorney's fees provided under Paragraph 7.3, and the amount of this Bond shall be credited for any payments made in good faith by the Surety.
9. Amounts owed by the Owner to the Contractor under the Construction Contract shall be used for the performance of the Construction Contract and to satisfy claims, if any, under any construction performance bond. By the Contractor furnishing and the Owner accepting this Bond, they agree that all funds earned by the Contractor in the performance of the Construction Contract are dedicated to satisfy obligations of the Contractor and Surety under this Bond, subject to the Owner's priority to use the funds for the completion of the work.
10. The Surety shall not be liable to the Owner, Claimants, or others for obligations of the Contractor that are unrelated to the Construction Contract. The Owner shall not be liable for the payment of any costs or expenses of any Claimant under this Bond, and shall have under this Bond no obligation to make payments to or give notice on behalf of Claimants, or otherwise have any obligations to Claimants under this Bond.
11. The Surety hereby waives notice of any change, including changes of time, to the Construction Contract or to related subcontracts, purchase orders, and other obligations.
12. No suit or action shall be commenced by a Claimant under this Bond other than in a court of competent jurisdiction in the state in which the project that is the subject of the Construction Contract is located or after the expiration of one year from the date (1) on which the Claimant sent a Claim to the Surety pursuant to Paragraph 5.1.2 or 5.2, or (2) on which the last labor or service was performed by anyone or the last materials or equipment were furnished by anyone under the Construction Contract, whichever of (1) or (2) first occurs. If the provisions of this paragraph are void or prohibited by law, the minimum period of limitation available to sureties as a defense in the jurisdiction of the suit shall be applicable.
13. Notice and Claims to the Surety, the Owner, or the Contractor shall be mailed or delivered to the address shown on the page

on which their signature appears. Actual receipt of notice or Claims, however accomplished, shall be sufficient compliance as of the date received.

14. When this Bond has been furnished to comply with a statutory or other legal requirement in the location where the construction was to be performed, any provision in this Bond conflicting with said statutory or legal requirement shall be deemed deleted herefrom and provisions conforming to such statutory or other legal requirement shall be deemed incorporated herein. When so furnished, the intent is that this Bond shall be construed as a statutory bond and not as a common law bond.

15. Upon requests by any person or entity appearing to be a potential beneficiary of this Bond, the Contractor and Owner shall promptly furnish a copy of this Bond or shall permit a copy to be made.

16. Definitions

16.1 **Claim:** A written statement by the Claimant including at a minimum:

1. The name of the Claimant;
2. The name of the person for whom the labor was done, or materials or equipment furnished;
3. A copy of the agreement or purchase order pursuant to which labor, materials, or equipment was furnished for use in the performance of the Construction Contract;
4. A brief description of the labor, materials, or equipment furnished;
5. The date on which the Claimant last performed labor or last furnished materials or equipment for use in the performance of the Construction Contract;
6. The total amount earned by the Claimant for labor, materials, or equipment furnished as of the date of the Claim;
7. The total amount of previous payments received by the Claimant; and

8. The total amount due and unpaid to the Claimant for labor, materials, or equipment furnished as of the date of the Claim.

16.2 **Claimant:** An individual or entity having a direct contract with the Contractor or with a subcontractor of the Contractor to furnish labor, materials, or equipment for use in the performance of the Construction Contract. The term Claimant also includes any individual or entity that has rightfully asserted a claim under an applicable mechanic's lien or similar statute against the real property upon which the Project is located. The intent of this Bond shall be to include without limitation in the terms of "labor, materials, or equipment" that part of the water, gas, power, light, heat, oil, gasoline, telephone service, or rental equipment used in the Construction Contract, architectural and engineering services required for performance of the work of the Contractor and the Contractor's subcontractors, and all other items for which a mechanic's lien may be asserted in the jurisdiction where the labor, materials, or equipment were furnished.

16.3 **Construction Contract:** The agreement between the Owner and Contractor identified on the cover page, including all Contract Documents and all changes made to the agreement and the Contract Documents.

16.4 **Owner Default:** Failure of the Owner, which has not been remedied or waived, to pay the Contractor as required under the Construction Contract or to perform and complete or comply with the other material terms of the Construction Contract.

16.5 **Contract Documents:** All the documents that comprise the agreement between the Owner and Contractor.

17. If this Bond is issued for an agreement between a contractor and subcontractor, the term Contractor in this Bond shall be deemed to be Subcontractor and the term Owner shall be deemed to be Contractor.

SECTION 610

PERFORMANCE BOND

CONTRACTOR *(name, address, and telephone number):*

SURETY *(name, address of principal place of business, and telephone number):*

OWNER *(name, address, and telephone number):*

City of Treasure Island ("City")
152 108th Avenue
Treasure Island, FL 33706
(727) 547-4575

CONSTRUCTION CONTRACT

Effective Date of the Agreement:

Amount:

Description *(name and location):* **IMPLEMENTATION OF BMPS WITHIN THE SUNSET BEACH WATERSHED (PHASE VI) – ITB 1718-04**

BOND

Bond Number:

Date *(not earlier than the Effective Date of the Agreement of the Construction Contract):*

Amount:

Surety and Contractor, intending to be legally bound hereby, subject to the terms set forth below, do each cause this Performance Bond to be duly executed by an authorized officer, agent, or representative.

CONTRACTOR AS PRINCIPAL

SURETY

Contractor's Name and Corporate Seal *(seal)*

Surety's Name and Corporate Seal *(seal)*

By: _____
Signature

By: _____
Signature *(attach power of attorney)*

Print Name

Print Name

Title

Title

Attest: _____
Signature

Attest: _____
Signature

Title

Title

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 of Florida.

Notes: (1) Provide supplemental execution by any additional parties, such as joint venturers. (2) Any singular reference to Contractor, Surety, Authority, or other party shall be considered plural where applicable.

1. The Contractor and Surety, jointly and severally, bind themselves, their heirs, executors, administrators, successors, and assigns to the Owner for the performance of the Construction Contract, which is incorporated herein by reference.

2. If the Contractor performs the Construction Contract, the Surety and the Contractor shall have no obligation under this Bond, except when applicable to participate in a conference as provided in Paragraph 3.

3. If there is no Owner Default under the Construction Contract, the Surety's obligation under this Bond shall arise after:

3.1 The Owner first provides notice to the Contractor and the Surety that the Owner is considering declaring a Contractor Default. Such notice shall indicate whether the Owner is requesting a conference among the Owner, Contractor, and Surety to discuss the Contractor's performance. If the Owner does not request a conference, the Surety may, within five (5) business days after receipt of the Owner's notice, request such a conference. If the Surety timely requests a conference, the Owner shall attend. Unless the Owner agrees otherwise, any conference requested under this Paragraph 3.1 shall be held within ten (10) business days of the Surety's receipt of the Owner's notice. If the Owner, the Contractor, and the Surety agree, the Contractor shall be allowed a reasonable time to perform the Construction Contract, but such an agreement shall not waive the Owner's right, if any, subsequently to declare a Contractor Default;

3.2 The Owner declares a Contractor Default, terminates the Construction Contract and notifies the Surety; and

3.3 The Owner has agreed to pay the Balance of the Contract Price in accordance with the terms of the Construction Contract to the Surety or to a contractor selected to perform the Construction Contract.

4. Failure on the part of the Owner to comply with the notice requirement in Paragraph 3.1 shall not constitute a failure to comply with a condition precedent to the Surety's obligations, or release the Surety from its obligations, except to the extent the Surety demonstrates actual prejudice.

5. When the Owner has satisfied the conditions of Paragraph 3, the Surety shall promptly and at the Surety's expense take one of the following actions:

5.1 Arrange for the Contractor, with the consent of the Owner, to perform and complete the Construction Contract;

5.2 Undertake to perform and complete the Construction Contract itself, through its agents or independent contractors;

5.3 Obtain bids or negotiated proposals from qualified contractors acceptable to the Owner for a contract for performance and completion of the Construction Contract, arrange for a contract to be prepared for execution by the Owner and a contractor selected with the Owners concurrence, to be secured with performance and payment bonds executed by a qualified surety equivalent to the bonds issued on the Construction Contract, and pay to the Owner the amount of damages as described in Paragraph 7 in excess of the Balance of

the Contract Price incurred by the Owner as a result of the Contractor Default; or

5.4 Waive its right to perform and complete, arrange for completion, or obtain a new contractor, and with reasonable promptness under the circumstances:

5.4.1 After investigation, determine the amount for which it may be liable to the Owner and, as soon as practicable after the amount is determined, make payment to the Owner; or

5.4.2 Deny liability in whole or in part and notify the Owner, citing the reasons for denial.

6. If the Surety does not proceed as provided in Paragraph 5 with reasonable promptness, the Surety shall be deemed to be in default on this Bond seven days after receipt of an additional written notice from the Owner to the Surety demanding that the Surety perform its obligations under this Bond, and the Owner shall be entitled to enforce any remedy available to the Owner. If the Surety proceeds as provided in Paragraph 5.4, and the Owner refuses the payment or the Surety has denied liability, in whole or in part, without further notice the Owner shall be entitled to enforce any remedy available to the Owner.

7. If the Surety elects to act under Paragraph 5.1, 5.2, or 5.3, then the responsibilities of the Surety to the Owner shall not be greater than those of the Contractor under the Construction Contract, and the responsibilities of the Owner to the Surety shall not be greater than those of the Owner under the Construction Contract. Subject to the commitment by the Owner to pay the Balance of the Contract Price, the Surety is obligated, without duplication for:

7.1 the responsibilities of the Contractor for correction of defective work and completion of the Construction Contract;

7.2 additional legal, design professional, and delay costs resulting from the Contractor's Default, and resulting from the actions or failure to act of the Surety under Paragraph 5; and

7.3 liquidated damages, or if no liquidated damages are specified in the Construction Contract, actual damages caused by delayed performance or non-performance of the Contractor.

8. If the Surety elects to act under Paragraph 5.1, 5.3, or 5.4, the Surety's liability is limited to the amount of this Bond.

9. The Surety shall not be liable to the Owner or others for obligations of the Contractor that are unrelated to the Construction Contract, and the Balance of the Contract Price shall not be reduced or set off on account of any such unrelated obligations. No right of action shall accrue on this Bond to any person or entity other than the Owner or its heirs, executors, administrators, successors, and assigns.

10. The Surety hereby waives notice of any change, including changes of time, to the Construction Contract or to related subcontracts, purchase orders, and other obligations.

11. Any proceeding, legal or equitable, under this Bond may be instituted in any court of competent jurisdiction in the location in which the work or part of the work is located and shall be instituted

within two years after a declaration of Contractor Default or within two years after the Contractor ceased working or within two years after the Surety refuses or fails to perform its obligations under this Bond, whichever occurs first. If the provisions of this paragraph are void or prohibited by law, the minimum periods of limitations available to sureties as a defense in the jurisdiction of the suit shall be applicable.

12. Notice to the Surety, the Owner, or the Contractor shall be mailed or delivered to the address shown on the page on which their signature appears.

13. When this Bond has been furnished to comply with a statutory or other legal requirement in the location where the construction was to be performed, any provision in this Bond conflicting with said statutory or legal requirement shall be deemed deleted herefrom and provisions conforming to such statutory or other legal requirement shall be deemed incorporated herein. When so furnished, the intent is that this Bond shall be construed as a statutory bond and not as a common law bond.

14. Definitions

14.1 Balance of the Contract Price: The total amount payable by the Owner to the Contractor under the Construction Contract after all proper adjustments have been made including allowance for the Contractor for any amounts received or to be received by the Owner in settlement of insurance or other claims for damages to which the Contractor is entitled, reduced by all valid and proper payments made to or on behalf of the Contractor under the Construction Contract.

14.2 Construction Contract: The agreement between the Owner and Contractor identified on the cover page, including all Contract Documents and changes made to the agreement and the Contract Documents.

14.3 Contractor Default: Failure of the Contractor, which has not been remedied or waived, to perform or otherwise to comply with a material term of the Construction Contract.

14.4 Owner Default: Failure of the Owner, which has not been remedied or waived, to pay the Contractor as required under the Construction Contract or to perform and complete or comply with the other material terms of the Construction Contract.

14.5 Contract Documents: All the documents that comprise the agreement between the Owner and Contractor.

15. If this Bond is issued for an agreement between a contractor and subcontractor, the term Contractor in this Bond shall be deemed to be Subcontractor and the term Owner shall be deemed to be Contractor.

SECTION 00700
CITY OF TREASURE ISLAND



**CONTRACT AND GENERAL CONDITIONS FOR
CONSTRUCTION SERVICES**

**PROJECT: IMPLEMENTATION OF BMPs WITHIN THE
SUNSET BEACH WATERSHED (PHASE VI)
Bid No. 1718-04**

Engineer: Advanced Engineering & Design, Inc.

This **AGREEMENT** made on the ____ day of _____, 20__, **BETWEEN** the CITY, **CITY OF TREASURE ISLAND**, 152 108th Avenue, Treasure Island, FL **33706** (“CITY”) and the CONTRACTOR, _____, a Florida Corporation, FEIN _____ (“CONTRACTOR”) who agree as follows:

SECTION 00700

CONTRACT AND GENERAL CONDITIONS FOR CONSTRUCTION SERVICES

ITB 1718-04 – Implementation of BMPs within the Sunset Beach Watershed (Phase VI)

ARTICLE 1 – DEFINITIONS

Allowance - An amount included in the contract amount to be used exclusively for equipment, materials or some other purpose specified in the Contract Documents and whose use is under the control of the CITY.

Application for Payment - A formal written request for payment submitted by the CONTRACTOR to the Engineer for payment for work performed pursuant to this Contract.

Bid - A formal solicitation issued by the City of Treasure Island, identifying the scope, terms, conditions, and specifications of goods and services procured from private CONTRACTORS.

Bid Documents - The documents either provided or incorporated by reference defining and documenting the scope of services, conditions under which services are to be provided, conditions under which a CONTRACTOR will be selected and the work will be performed, and the technical specifications for the equipment, goods, or services being procured.

Certificate for Payment - An application for payment which has been signed by the Engineer, who certifies that the pay request is proper and all representations made by the CONTRACTOR are correct.

Certificate of Substantial Completion - A form signed by the Engineer certifying that the work, or a designated portion of the work, has been completed to such an extent that it may be occupied by the CITY for its intended purpose.

Change Order - A form documenting the CONTRACTOR and CITY's agreement to modify the work where the modification involves a change in Contract Amount, Contract Time, or the intent of the Contract Documents.

CITY – The City of Treasure Island, or the City of Treasure Island's authorized representatives.

Claim - A demand or assertion by one of the parties to the Contract for an adjustment or interpretation of contract terms, Contract amount, Contract time, or other relief with respect to the terms of the Contract. Claims may also include other disputes between the CITY and CONTRACTOR concerning the manner in which work is being performed.

Construction Change Directive - An order signed by the Engineer instructing the CONTRACTOR to change the Work.

Construction Schedule - An action plan summarizing how the CONTRACTOR proposes to complete the entire work in the Contract Documents within the established Contract Time. The Construction Schedule should identify key tasks and activities necessary to complete the project within the Contract Time.

Contract/Agreement - The agreement between the CITY and the CONTRACTOR as defined by the Contract Documents. This Contract represents the entire agreement between the parties hereto and supersedes any prior negotiations, representations, agreements, or understandings, either written or oral.

CONTRACTOR - The person or entity identified in the Contract Documents as being responsible for performing the work under the Contract.

Contract Amount - The stipulated sum to which the CITY agrees to pay the CONTRACTOR for performing the work described in the Contract Documents, as modified by Change Order.

Contract Documents - Individual documents which collectively comprise the Contract between the CITY and CONTRACTOR, including 1) The Contract between the CITY and CONTRACTOR, 2) Bid Documents including the invitation to bid, instructions to bidders and CONTRACTOR bid package, 3) Drawings, Specifications, Plans, Project Manual contained in bid ITB 1718-04, 4) Addenda issued prior to execution of the Contract, 5) Other documents listed in the Contract, and 6) Modifications issued after execution of the Contract, including: 1) Written amendments to the Contract signed by both parties, 2) Construction Change Orders, and Construction Change Directives.

Contract Time - The period of time, including authorized adjustments, allotted in the Contract Documents for Substantial Completion of the work. Contract Time is the time between the Date of Commencement identified in the Notice to Proceed issued by the CITY and the date established in the Contract for Substantial Completion.

Date of Commencement - The date specified in the Notice to Proceed issued by the CITY specifying when the CONTRACTOR may begin work on the Project.

Day - As referenced in this Contract “Day” includes all calendar days including weekends, holidays, and days of inclement weather. The word “Day” means a calendar day of 24 hours measured from midnight to the next midnight.

Defective - The word “defective,” when modifying the word “Work,” refers to Work that is unsatisfactory, faulty, or deficient in that it:

- a. does not conform to the Contract Documents; or
- b. does not meet the requirements of any applicable inspection, reference standard, test, or approval referred to in the Contract Documents; or
- c. has been damaged prior to Engineer’s recommendation of final payment.

Drawings & Plans - Graphic and pictorial portions of the Contract Documents, showing the design, location and dimensions of the work generally including plans, elevations, sections, details, schedules and diagrams.

Engineer - The design professional retained by the CITY responsible for designing the facilities to be constructed and/or the design professional responsible for providing contract administration during construction services and to assess whether construction services are provided in accordance with the Contract Documents.

Final Acceptance - The CITY's final acceptance of the work performed by the CONTRACTOR as recognized by making final and complete payment for all Work intended by the Contract Documents.

Furnish, Install, Perform, Provide - The word "furnish," when used in connection with services, materials, or equipment, shall mean to supply and deliver said services, materials, or equipment to the Project Site (or some other specified location) ready for use or installation and in usable or operable condition. The word "install," when used in connection with services, materials, or equipment, shall mean to put into use or place in final position said services, materials, or equipment complete and ready for intended use. The words "perform" or "provide", when used in connection with services, materials, or equipment, shall mean to furnish and install said services, materials, or equipment complete and ready for intended use. If the Contract Documents establish an obligation of CONTRACTOR with respect to specific services, materials, or equipment, but do not expressly use any of the four words "furnish", "install", "perform", or "provide", then CONTRACTOR shall furnish and install said services, materials, or equipment complete and ready for intended use.

Liens – Charges, security interest or encumbrances upon Contract related funds, real property, or personal property.

Lump Sum - The Contractor under the Lump Sum Contract is responsible for completing the project within the agreed fixed cost set forth in the Contract.

Non-Substantial Deviation - A change in the work or deviation from the plans, specifications, or other Contract Documents which does not change the Contract Amount, Contract Time, or the intent of the Contract Documents.

Notice of Claim - A memorandum or letter presented to the Engineer detailing a Claim for additional compensation. The memorandum or letter must be labeled "Notice of Claim" and specifically identify the conditions giving rise to the Claim and the amount of additional compensation being requested.

Notice to Proceed - A letter issued by the CITY officially communicating the date when the CONTRACTOR may begin work on the Project or a designated portion of the Project.

Principal Portion of the Work - Work or equipment provided by a Subcontractor with which the CONTRACTOR has a direct Contract; and Subcontractors or other material or equipment providers as designated by the Engineer or Project Manager.

Project - All physical improvements planned for a defined site. Work performed under the Contract Documents may comprise the whole work, or part of the work planned for the Project Site.

Product Data - Illustrations, standard schedules, performance charts, instructions, brochures, diagrams, and other information furnished by the CONTRACTOR to illustrate materials or equipment for some portion of the work.

Project Manual - A volume or volumes usually assembled to describe with work that may include bidding requirements, sample forms, the Contract, and specifications.

Project Manager - The CITY's authorized agent for communication with the Engineer and CONTRACTOR and making decisions on the CITY's behalf as provided in the Contract Documents.

Project Site - The physical location identified in the Contract Documents where work is to be accomplished.

Samples -Physical examples that illustrate the materials, equipment, workmanship, or application methods by which the work will be judged.

Schedule of Values - The amount of money and percentage of the Contract Amount attributable to various components or portions of the work, where prepared in such a form and supported by such data to substantiate its accuracy.

Shop Drawings - Drawings, diagrams, schedules and other data specially prepared for the work by the CONTRACTOR or Subcontractor, manufacturer, supplier, or distributor to illustrate some portion of the work in general detail than is provided in the plans or specifications.

Specifications - That portion of the Contract Documents comprising written standards and requirements for materials, equipment, construction systems, and workmanship for the work, and performance of related systems.

Subcontractor - A person or entity that has a direct Contract with the CONTRACTOR to perform a portion of the work.

Submittal - Shop drawings, material data, samples and product data required by the Engineer of Record for approval.

Substantial Completion - The stage of construction where the work or designated portion thereof is sufficiently complete so that the CITY can occupy or use the work for its intended purpose.

Substantial Completion of a Designated Portion - Declaration by the CITY that a designated portion of the work has been completed.

Substantial Deviation - A change in the work that deviates from the intent of the Contract Documents, Contract Amount, or Contract Time.

Superintendent - The CONTRACTOR's authorized representative on the Project Site.

Supplier - A person or entity who provides equipment, material, or other resources required by the CONTRACTOR or Subcontractors to perform the Work.

Work - The construction and services required by the Contract Documents, whether completed or partially completed, including all labor, materials, equipment and services provided or to be provided by the CONTRACTOR in fulfillment of obligations under the Contract. The work may constitute the whole Project or part of the Project.

Unit Price Work – Work to be paid on the bases of unit prices.

ARTICLE 2 – PRELIMINARY MATTERS

1. **Delivery of Documents**
When the CONTRACTOR delivers the signed Contract to the CITY, the CONTRACTOR shall also deliver to the CITY such bonds and insurance policies, certificates or other documents as the CONTRACTOR may be required to furnish in accordance with the Contract Documents.
2. **Copies of Documents**
The CITY shall furnish to the CONTRACTOR three copies (unless otherwise specified in the Supplementary Conditions) of the Contract Documents including one fully executed counterpart of the Contract, and one copy in electronic portable document format (PDF). Additional printed copies will be furnished upon request at the cost of reproduction.
3. **Commencement of Contract Times; Notice to Proceed**
The Commencement Date shall be established by the CITY and communicated to the CONTRACTOR in a Notice to Proceed (NTP) sent by registered mail to the CONTRACTOR's place of business not later than 30 calendar days following execution of the Contract, or receipt of proper permits from regulatory agencies having jurisdiction over the project, whichever is later.
4. **Starting the Project**
The CONTRACTOR shall start to perform the Work on the date when the Contract Time commences to run, but no Work shall be done at the site prior to the date on which the Contract Time commences to run.
5. **Before Starting Construction**
 - a. **Preliminary Schedules**
Within 10 days after the Effective Date of the Contract (or as otherwise specifically required by the Contract Documents), CONTRACTOR shall submit to Engineer for timely review:

- i. a preliminary Construction Schedule indicating the times (numbers of days or dates) for starting and completing the various stages of the Work, including any milestones specified in the Contract and identifying the times/dates of required submittals and time requirements for Engineer's review of the submittals and the performance of related construction activities; and
- ii. a preliminary Schedule of Values for all of the Work which includes quantities and prices of items which when added together equal the Contract Amount and subdivides the Work into component parts in sufficient detail to serve as the basis for progress payments during performance of the Work. Such prices will include an appropriate amount of overhead and profit applicable to each item of Work.
- iii. As provided for in Article 8, the Schedule of Values shall be reviewed by the Engineer and approved by the CITY, and shall be used as the basis for reviewing the CONTRACTOR's Applications for Payment. The Schedule of Values shall include a cost breakdown indexed per the Sections of the Specifications, which shall clearly set forth labor as distinct from materials and from equipment.

6. Preconstruction Conference

Before any Work at the Project Site is started, a conference attended by the CITY, CONTRACTOR, Engineer, and others as appropriate will be held to establish a working understanding among the parties as to the Work and to discuss the schedules referred to in Paragraph 5, procedures for handling Shop Drawings, Samples, and other submittals, processing Applications for Payment, electronic or digital transmittals, and maintaining required records.

At this conference the CITY and CONTRACTOR each shall designate, in writing, a specific individual to act as its authorized representative with respect to the services and responsibilities under the Contract. Such individuals shall have the authority to transmit and receive information, render decisions relative to the Contract, and otherwise act on behalf of each respective party.

7. Finalizing Schedules

At least ten days before submission of the first Application for Payment a conference attended by the CONTRACTOR, CITY, ENGINEER and others as appropriate will be held to finalize the schedules submitted in accordance with the Contract. The finalized progress schedule will be acceptable to the CITY as providing an orderly progression of the Work to completion within the Contract Time, but acceptance will neither impose on the CITY responsibility for the progress or scheduling of the Work nor relieve the CONTRACTOR from full responsibility therefor. The finalized schedule of values will be acceptable to the CITY as to form and substance.

ARTICLE 3 - CONTRACT DOCUMENTS

1. Intent of Contract Documents

Execution of the Contract by the CONTRACTOR is a representation that the CONTRACTOR has become familiar with the Contract Documents and field conditions under which the Work is to be performed within the requirements of Work specified by the Contract Documents, all of which are incorporated herein by reference.

It is the intent of the Contract to describe a functionally complete project (or part thereof) to be constructed in accordance with the Contract. CONTRACTOR shall be responsible for the construction and coordination of the parts of the Project, and all systems provided shall be completely compatible and fully functional without additional cost to the CITY.

Unless otherwise stated in the Contract, if there is a discrepancy between the electronic or digital versions of the Contract (including any printed copies derived from such electronic or digital versions) and the printed record version, the printed record version shall govern.

Engineer will issue clarifications and interpretations of the Contract as provided herein.

Each and every provision of law and clause required by law to be inserted in this Contract shall be deemed to be inserted herein, and they shall be read and enforced as though they were included herein, and if through mistake or otherwise, any such provision is not included, or if not correctly inserted, then upon the application of either party, the Contract Documents shall forthwith be physically amended to make such insertion.

2. Reuse of Documents

Neither CONTRACTOR nor any Subcontractor or Supplier or other person or organization performing or furnishing any of the Work under a direct or indirect contract with the CITY shall have or acquire any title to or ownership rights in any of the Drawings, Specifications, or other documents (or copies of any thereof) prepared by or bearing the seal of Engineer or its consultants, including electronic media editions, or reuse any such Drawings, Specifications, other documents, or copies thereof on extensions of the Project or any other project without written consent of CITY and Engineer and specific written verification or adaptation by Engineer; or have or acquire any title or ownership rights in any other Contract Documents, reuse any such Contract Documents for any purpose without CITY's express written consent, or violate any copyrights pertaining to such Contract Documents.

The prohibitions of this Paragraph will survive final payment, or termination of the Contract. Nothing herein shall preclude CONTRACTOR from retaining copies of the Contract Documents for record purposes.

3. References and Manuals

Reference in the Contract Documents to standard specification manuals, reference standards, or codes of any technical society, organization, or association, to the laws or regulations, whether such reference be specified or by implication, shall mean the standard specification, manual, reference standards, codes, law, or regulation in effect at the time of

the opening of bids or on the effective date of the Contract, except as may be otherwise specifically stated in the Contract Documents.

No provision of any such standard specification, manual, reference standard, or code, or any instruction of a Supplier, shall be effective to change the duties or responsibilities of CITY, CONTRACTOR, or Engineer, or any of their Subcontractors, consultants, agents, or employees, from those set forth in the part of the Contract Documents prepared by or for Engineer. No such provision or instruction shall be effective to assign to CITY, Engineer, or any of their officers, directors, members, partners, employees, agents, consultants or subcontractors, any duty or authority to supervise or direct the performance of the Work or any duty or authority to undertake responsibility inconsistent with the provisions of the part of the Contract Documents prepared by the Engineer.

ARTICLE 4 - SCOPE OF WORK

The CONTRACTOR shall execute the entire Work described in the Contract Documents.

ARTICLE 5 - SUBSTANTIAL COMPLETION DATE AND DELAYS

The CONTRACTOR shall commence work within 15 days from the date of Notice to Proceed. The CONTRACTOR shall achieve Substantial Completion of Work not later than 210 consecutive calendar days after the date specified by the Notice to Proceed, subject to adjustments of the Contract Time as provided in the Contract Documents. The CONTRACTOR shall achieve Final Completion of the Work not later than 60 days after reaching Substantial Completion.

Time limits herein stated in the Contract Documents are of the essence of the Contract. By executing the Contract the CONTRACTOR confirms that the Contract Time is a reasonable period for performing the Work.

CONTRACTOR shall carry on the Work and adhere to the Construction Schedule during all disputes or disagreements with CITY. No Work shall be delayed or postponed pending resolution of any disputes or disagreements, or during any appeal process, except as may be permitted herein, or as CITY and CONTRACTOR may otherwise agree to in writing.

If CONTRACTOR's performance or progress is delayed, disrupted, or interfered with by unanticipated causes not the fault of and beyond the control of CITY, CONTRACTOR, and those for which they are responsible, then CONTRACTOR may be entitled to an equitable adjustment in Contract Times. CONTRACTOR's entitlement to an adjustment of the Contract Times is conditioned on such adjustment being essential to CONTRACTOR's ability to complete the Work within the Contract Times. Such an adjustment shall be CONTRACTOR's sole and exclusive remedy for the delays, disruption, and interference described in this paragraph. Causes of delay, disruption, or interference that may give rise to an adjustment in Contract Times under this paragraph include, but are not limited to, the following:

1. Severe and unavoidable natural catastrophes such as fires, floods, epidemics, and earthquakes;
2. Abnormal weather conditions;
3. Acts or failures to act of utility; and
4. Acts of war or terrorism.

No delay shall entitle the CONTRACTOR to an increase of the Contract Amount except where the CITY or Engineer acted in bad faith to prevent the progress of Work. The CONTRACTOR acknowledges that in agreeing to the Contract Amount, it has assessed the potential impact of the limitations of this section on its ability to recover additional compensation in connection with a Work delay or interference and the CONTRACTOR agrees that the limitations will apply, regardless of the accuracy of the CONTRACTOR's assessment or actual costs incurred by the CONTRACTOR in connection with any such delays or interference.

ARTICLE 6 - CONTRACT AMOUNT

The CITY shall pay the CONTRACTOR the sum of \$_____, subject to additions and deductions as provided in the Contract Documents for all Work described in Article 4.

ARTICLE 7 - LIQUIDATED DAMAGES/SPECIAL DAMAGES

1. Liquidated Damages.

The CONTRACTOR and CITY mutually agree that said work shall be prosecuted regularly, diligently, and uninterruptedly at such rate of progress as will ensure full completion thereof within the time specified. It is expressly understood and agreed, by and between the CONTRACTOR and CITY, that the time for the completion of the Work described herein is a reasonable time for the completion of the same, taking into consideration the average climatic range and usual industrial conditions prevailing. CONTRACTOR and CITY recognize that time is of the essence.

If the said CONTRACTOR shall neglect, fail or refuse to complete the work within the time specified, or any proper extension thereof granted in accordance with this Contract, then the CONTRACTOR does hereby agree, as a part of consideration for the award of this contract, to pay the CITY the amount of \$200 for each calendar day beyond the Substantial Completion date, not as a penalty, but as liquidated damages for such breach of Contract. Furthermore, the CONTRACTOR agrees to pay the CITY the amount of \$100 for each calendar day the Work remains incomplete after the date established for Final Completion.

The said amount is fixed and agreed upon by and between the CONTRACTOR and CITY because of the impracticability and extreme difficulty of fixing and ascertaining the actual damages the CITY would in such event sustain, and said amount is agreed to be the amount of damages which the CITY would sustain. However said liquidated damages shall not be construed to limit the CITY's damages for any claim for CONTRACTOR's negligence, defective performance or their other breach of this contract. Also, failure to meet requirements for substantial or final completion shall subject the CONTRACTOR to reinspection fees as set forth in Article 9, (c)(18), Testing and Inspections.

Both Liquidated Damages and Reinspection Fees shall be implemented using a Deductive Change Order or Construction Change Directive.

2. Special Damages.

In addition to the amount provided for liquidated damages, CONTRACTOR shall reimburse CITY: (1) for any fines or penalties imposed on CITY as a direct result of the CONTRACTOR's failure to attain Substantial Completion according to the Contract Times, and (2) for the actual costs reasonably incurred by CITY for engineering, construction observation, inspection, and administrative services needed after the time for Substantial Completion (as duly adjusted pursuant to the Contract), until the Work is substantially complete.

After CONTRACTOR achieves Substantial Completion, if CONTRACTOR shall neglect, refuse, or fail to complete the remaining Work within the Contract Times, CONTRACTOR shall reimburse CITY for the actual costs reasonably incurred by CITY for engineering, construction observation, inspection, and administrative services needed after the time specified for Work to be completed and ready for final payment (as duly adjusted pursuant to the Contract), until the Work is completed and ready for final payment.

ARTICLE 8 - PAYMENTS

1. Progress Payments

The Schedule of Values will serve as the basis for progress payments and will be incorporated into a form of Application for Payment acceptable to the Engineer. Any progress payments on account of Unit Price Work will be based on the number of units completed.

Based upon Applications for Payment submitted to the Engineer by the CONTRACTOR and Certificates for Payments issued by the Engineer, the CITY shall make progress payments on account of the Contract Amount to the CONTRACTOR as provided below and elsewhere in the Contract Documents.

The period covered by each Application for Payment shall be one calendar month ending on the last day of the month.

Provided an Application for Payment is received by the Engineer not later than the 15th day of the month, the CITY shall make payment to the CONTRACTOR not later than the last day of the month. If a valid Application for Payment is received by the Engineer after the Application date fixed above, payment shall be made 30 days after the Engineer received the Application for Payment.

Applications for Payment shall indicate the percentage of completion of each portion of the Work as of the end of the period covered by the Application for Payment.

Subject to the provisions of the Contract Documents, the amount of each progress payment shall be computed as follows:

Take that portion of the Contract Amount properly allocable to completed Work as determined by multiplying the percentage completion of each portion of the Work by the share of the total Contract Amount allocated to that portion of the Work in the Schedule of Values, less retainage of 10%.

Subtract the aggregate of previous payments made by the CITY.

The progress payment shall be further modified under the following circumstances:

Add, upon Substantial Completion of the Work, a sum sufficient to increase the total payments to 90% of the Contract Amount less such amounts as the Engineer and CITY shall be determined for incomplete Work and unsettled claims.

Please note that some portion of the Contract Amount may be paid from the proceeds of a grant, loan or revenue bonds (hereinafter "funding") obtained by the CITY for this Work and the funding documents may impose certain conditions, limitations, procedures and restrictions. The CONTRACTOR shall coordinate with the CITY and the Engineer in order to comply with the conditions, limitations, procedures and restrictions that related to the delivery of materials, the Work, applications for payment and other matters concerning the administration of the Contract.

2. Final Inspection and Payment

Final Inspection. Upon written notice from CONTRACTOR that the entire Work or an agreed portion thereof is complete, Engineer will promptly make a final inspection with CITY and CONTRACTOR and will notify CONTRACTOR in writing of all particulars in which this inspection reveals that the Work, or agreed portion thereof, is incomplete or defective. CONTRACTOR shall immediately take such measures as are necessary to complete such Work or remedy such deficiencies.

Final Payment.

Final payment, comprising the entire unpaid balance of the Contract Amount, shall be made by the CITY to the CONTRACTOR when the Contract has been fully performed and accepted by the CITY. Furthermore, payment shall be made within 30 days of the CITY receiving a final Certificate of Payment from the Engineer. CONTRACTOR's acceptance of final payment from the CITY shall constitute a full waiver and release by CONTRACTOR of all claims against the CITY arising out of or related to the Project.

3. CONTRACTOR Applications for Payment

By the 15th of each month the CONTRACTOR shall submit to the CITY's Engineer of Record an itemized Application for Payment in accordance with the Schedule of Values. Such application shall be supported by data substantiating the CONTRACTOR's right to

payment as the CITY or Engineer may require. Payment shall be made on account of materials and equipment delivered and suitably stored at the site for subsequent incorporation into work. If approved in writing by the CITY, payment may similarly be made for materials and equipment suitably stored off the site.

Applications for Payment not include:

- Payments on account of changes in the Work which have not been approved by the CITY in a Change Order; and
- Payment of amounts the CONTRACTOR does not intend to pay to a Subcontractor or Supplier because of a dispute or other reason.

The Application for Payment shall also be accompanied by a bill of sale, invoice or other documentation warranting the CITY has received the materials and equipment free and clear of all Liens (in the form of a waiver and release as contemplated in Chapter 713 of the Florida Statutes), and evidence that the materials and equipment are covered by appropriate property insurance, warehouse bond, or other arrangements to protect the CITY's interest therein, all of which must be satisfactory to the CITY.

CONTRACTOR shall furnish evidence that payment received on the basis of materials and equipment not incorporated and suitably stored on Project Site has in fact been paid to the respective supplier(s) in the form of a waiver and release as contemplated by Chapter 713 of the Florida Statutes within 30 days of payment by the CITY. Failure to provide such evidence of payment may result in the withdrawal of previous approval(s) and removal of the cost of related materials and equipment from the next submitted Application for Payment.

4. Certification of Payment Requests

Within seven (7) days after receipt of a CONTRACTOR's Application for Payment, the Engineer, in consultation with the CITY, will issue a Certificate for Payment for an amount the Engineer and CITY determines is due, or notify the CONTRACTOR in writing of the reasons for withholding certification. A Certificate of Payment shall not constitute acceptance of Work not in accordance with the Contract Documents.

5. Criteria for Withholding a Certificate for Payment

The Engineer or CITY may withhold a Certificate for Payment in whole or in part if in the CITY's opinion, the CONTRACTOR representations to the CITY are not supported. If the CONTRACTOR and the CITY cannot agree on a revised amount, the CITY will promptly issue a Certificate of Payment for the amount to which the CITY are able to certify payment. Certification may be withheld for these reasons:

- Defective Work not corrected;
- Reasonable evidence that the Work cannot be completed for the unpaid balance of the Contract Amount;
- Damages owed to the CITY or others;

- Evidence that the Work will not be completed within the Contract Time, and that the unpaid balance would not be adequate to cover actual or estimated Liquidated Damages;
- Persistent failure to carry out the Work in accordance with the Contract Documents;
- CONTRACTOR failed to provide and maintain required bond or insurance;
- CONTRACTOR has failed to take reasonable and customary measures to avoid damage, delay, disruption, and interference with other work at or adjacent to the Project Site;
- CITY has incurred extra charges or engineering costs related to submittal reviews, evaluations of proposed substitutes, tests and inspections, or return visits to manufacturing or assembly facilities;
- An event that would constitute a default by CONTRACTOR and therefore justify a termination for cause has occurred; or
- Liens have been filed in connection with the Work, except where CONTRACTOR has delivered a specific bond satisfactory to CITY to secure the satisfaction and discharge of such Liens.

When reasons for withholding certification are corrected, the Engineer and CITY will certify amounts previously withheld.

6. CONTRACTOR's Warranty of Title

CONTRACTOR warrants and guarantees that title to all Work, materials, and equipment furnished under the Contract will pass to CITY free and clear of (1) all Liens and other title defects, and (2) all patent, licensing, copyright, or royalty obligations, no later than the time of payment by the CITY.

No material or supplies for Work shall be purchased by CONTRACTOR or Subcontractor subject to any title mortgage or under any conditional sale contract or any other agreement by which an interest is retained by the Seller. CONTRACTOR warrants that CONTRACTOR has good title to all materials and supplies used by CONTRACTOR in the Work, free from all liens, claims, or encumbrances.

CONTRACTOR shall defend, indemnify, and save CITY and Engineer harmless from all claims (including but not limited to expert fees, and attorneys' fees and costs) growing out of the lawful demand of the Subcontractors, Suppliers, laborers, workman, mechanics, material men and furnishers and machinery and parts thereof, equipment, power tools, and all supplies incurred in the furtherance of the performance of this Contract. CONTRACTOR shall, at CITY's request, furnish satisfactory evidence that all applications of the nature here and above designated have been paid, discharged, or waived. If CONTRACTOR fails to do so, then CITY may, after having served written notice on said CONTRACTOR, either pay unpaid bills in which CITY has written notice direct, or withhold from CONTRACTOR's unpaid compensation a sum of money deemed reasonable 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, but in no event shall the provisions of this sentence be construed to impose any obligations upon the

CITY to either CONTRACTOR or CONTRACTOR Surety. In paying any unpaid bills of the CONTRACTOR, CITY shall be deemed the agent of the CONTRACTOR and any payment so made by the CITY shall be considered a payment made under the Contract by CITY to CONTRACTOR and CITY shall not be liable to CONTRACTOR for any such payment made in good faith.

7. Substantial Completion of a Designated Portion

The CITY may release a designated portion of the Work under this Contract upon the issuance of a Certificate of Substantial Completion for the Designated Portion. Subsequent to said release, the CITY may make payment to the CONTRACTOR up to the pro-rated amount of the Contract Amount that is allocable to the value of the Designated Portion of the Work under the Contract. Payment under this provision may be made in full with no retainage, or a lesser retainage, at the sole discretion of the CITY.

Further, the parties agree that in the event the CITY releases a Designated Portion of the Work, whether or not retainage is released for the Designated Portion of the Work, the CONTRACTOR agrees that all insurance required by the Contract Documents will remain in full force and effect until final acceptance of the entire Work by the CITY.

8. Substantial Completion

When the CONTRACTOR considers that the Work or a portion thereof, which the CITY agrees to accept separately, is Substantially Complete, the CONTRACTOR shall prepare and submit to the Engineer a comprehensive list of items to be completed and corrected. The CONTRACTOR shall proceed promptly to complete and correct items on the list. Failure to include an item on the list does not relieve the CONTRACTOR of the responsibility to complete all Work in accordance with the Contract Documents.

Upon receipt of the CONTRACTOR's list, the Engineer will make an inspection, and with the approval of the CITY, determine whether the Work, or designated portion thereof, is Substantially Complete. If the Engineer's inspection discloses any item, whether or not included on the CONTRACTOR's list, which is not in accordance with the requirements of the Contract Documents, the CONTRACTOR shall, before issuance of the Certificate of Substantial Completion, complete or correct such item upon notification by the Engineer.

The CONTRACTOR may request additional inspections by the Engineer as may be reasonable to determine when Substantial Completion has been achieved. When the Work or designated portion thereof, is Substantially Complete, the Engineer will prepare a Certificate of Substantial Completion that shall establish the date of Substantial Completion and shall establish responsibilities of the CITY and CONTRACTOR for:

- Security;
- Maintenance;
- Water, sewer, electric and other utilities;
- Damages to the Work; and
- Insurance Responsibilities

The Certificate shall also establish the time within which the CONTRACTOR shall finish all items on the list of incomplete Work or corrections otherwise necessary to meet the requirements of the Contract Documents.

Warranties required by the Contract Documents shall commence on the date of Substantial Completion, or designated portion thereof, unless otherwise provided in the Certificate of Substantial Completion. The Certificate of Substantial Completion shall be submitted to the CITY and CONTRACTOR for their written acceptance of responsibilities assigned to each.

Upon Substantial Completion of the Work, or designated portion thereof, and upon application by the CONTRACTOR, certification by the Engineer, and approval by the CITY, the CITY shall make payment, reflecting adjustment in retainage, if any, for such Work or portion thereof as provided in the Contract Documents.

9. Final Acceptance and Payment

Upon receipt of written notice that the Work is ready for Final Inspection and upon receipt of a Final Application for Payment, the Engineer shall promptly inspect the Work. When the Engineer and CITY find the Work acceptable under the Contract Documents and the Contract fully performed, the Engineer shall issue a Certificate for Final Payment.

Neither final payment or any remaining retainage shall become due until the CONTRACTOR submits to the Engineer all information required in the Contract Documents, including, but not limited to, warranties, as-built plans, and operation and maintenance manuals.

Furthermore, neither final payment nor any remaining retainage, shall become due until the CONTRACTOR executes and presents to the CITY a "Certificate of Claims Paid" and "Release of all Claims" form in such a form as may be acceptable to the CITY. Acceptance of final payment by the CONTRACTOR shall comprise a release of all claims under the Contract, and receipt of which acknowledges full and complete payment for all Work done, materials and equipment furnished, and damages or claims arising under this Contract.

Application for Final Payment:

- (a) After CONTRACTOR has, in the opinion of Engineer, satisfactorily completed all corrections identified during the final inspection and has delivered, in accordance with the Contract Documents, all maintenance and operating instructions, schedules, guarantees, bonds, certificates or other evidence of insurance, certificates of inspection, annotated record documents (as provided in Article 10,(c)(10)), and other documents, CONTRACTOR may make application for final payment.
- (b) The final Application for Payment shall be accompanied (except as previously delivered) by:
 - i. All documentation called for in the Contract Documents;
 - ii. Consent of the surety, if any, to final payment;

- iii. Satisfactory evidence that all title issues have been resolved such that title to all Work, materials, and equipment has passed to CITY free and clear of any liens or other title defects, or will so pass upon final payment;
 - iv. A list of all disputes that CONTRACTOR believes are unsettled; and
 - v. Complete and legally effective releases or waivers (satisfactory to CITY) of all lien rights arising out of the Work, and of liens filed in connection with the Work.
- (c) CONTRACTOR must furnish receipts or releases in full and an affidavit of CONTRACTOR that: (a) the releases and receipts include all labor, services, material, and equipment for which a lien could be filed; and (b) all payrolls, material and equipment bills, and other indebtedness connected with the Work for which CITY might in any way be responsible, or which might in any way result in liens or other burdens on CITY's property, have been paid or otherwise satisfied. If any Subcontractors or Supplier fails to furnish such a release or receipt in full, CONTRACTOR may furnish a bond or other collateral satisfactory to CITY to indemnify CITY against any lien, the CITY at its option may issue joint checks payable to CONTRACTOR and specified Subcontractors and Suppliers.

10. Corrective Period

If within one year from the date of final Completion (or such longer period of time as may be prescribed by the terms of any applicable special guarantee required by the Contract Documents, or by any specific provision of the Contract Documents), any Work that is found to be defective, or if the repair of any damages to the Project Site, adjacent areas that CONTRACTOR has arranged to use through construction easements or otherwise, and other adjacent areas used by CONTRACTOR as permitted by laws and regulations, is found to be defective, then CONTRACTOR shall promptly, without cost to CITY and in accordance with CITY's written instructions:

- (a) Correct the defective repairs to the Project Site or such other adjacent areas;
- (b) Correct the defective Work;
- (c) If the defective Work has been rejected by the CITY, remove it from the Project and replace it with Work that is not defective; and
- (d) Satisfactorily correct or repair or remove and replace any damage to other Work, to the work of others, or to other land or areas resulting therefrom.

If CONTRACTOR does not promptly comply with the terms of CITY's written instructions, or in an emergency where delay would cause serious risk of loss or damage, CITY may have the defective Work corrected or repaired or may have the rejected Work removed or replaced. CONTRACTOR shall pay all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to such correction or repair or such removal and replacement (including but not limited to all costs of repair or replacement of work of others).

Where defective Work (and damage to other Work resulting therefrom) has been corrected or removed and replaced under this paragraph, the corrective period hereunder with respect

to such Work will be extended for an additional period of one year after such correction or removal and replacement has been satisfactorily completed.

CONTRACTOR's obligations under this paragraph are in addition to all other obligations and warranties. The provision of this paragraph shall not be construed as a substitute for, or a waiver of, the provisions of any applicable statute of limitation or repose.

ARTICLE 9 - TERMINATION OR SUSPENSION OF THE CONTRACT

1. CITY May Suspend Work

At any time and without cause the CITY may suspend the Work or any portion thereof for a period of not more than 90 consecutive days by written notice to CONTRACTOR and Engineer. Such notice will state Work is suspended and will fix the date on which Work will be resumed. CONTRACTOR shall resume the Work on the date so fixed. CONTRACTOR shall be entitled to an adjustment in the Contract Amount for an extension of the Contract Time, or both, directly attributable to any such suspension. Any Change Proposal seeking such adjustments shall be submitted no later than 30 days after the date fixed for resumption of Work.

2. Termination by the CONTRACTOR

The CONTRACTOR may terminate the Contract if the Work is stopped for a period of 90 days or longer only for the following reasons:

- Issuance of a Stop Work Order by a court or regulatory agency having jurisdiction over the project; or
- An act of government making materials or labor unavailable.

If any one of the reasons stated above exists, the CONTRACTOR shall be compensated as provided in this Contract only for Work executed in accordance with the Contract Documents.

3. Termination by CITY For Cause

The occurrence of any one or more of the following will constitute a default by CONTRACTOR and justify the CITY's termination for cause:

- CONTRACTOR's refusal or failure to supply properly skilled workers or materials;
- CONTRACTOR's disregard of the laws, ordinances, or regulations of public authorities having jurisdiction over the Work;
- CONTRACTOR substantially breaching provisions of the Contract Documents;
- CONTRACTOR's repeated disregard of the authority of the CITY or Engineer;
- CONTRACTOR becomes insolvent such that CONTRACTOR is unable to meet its debts as they mature, unable to pay its debts generally, or institutes or has instituted against it under any law relating to bankruptcy, insolvency, or reorganization or relief of debtor, a proceeding which seeks the adjustment

protection or composition of CONTRACTOR or its debts or an Order providing for appointment of a receiver, trustee, or other similar official for Subcontractor part of its property;

- CONTRACTOR fails to comply with the public records requirements of this Contract; or
- If the CONTRACTOR abandons the Work or sublets this Contract or any portion thereof, without the previous written consent of the CITY, or if the Contract or any claim thereunder shall be assigned by the CONTRACTOR otherwise than as herein specified.

If any such conditions exist, the CITY may, without prejudice of any other rights or remedies of the CITY, after having given the CONTRACTOR and the CONTRACTOR's surety seven days written notice, terminate the Contract and, subject to any prior rights or the surety:

- Enforce its rights under any applicable performance bond;
- Take possession of the Work.
- Incorporate in the Work all materials, equipment, tools, and machinery stored at the Project Site or for which the CITY has paid CONTRACTOR but which are stored elsewhere;
- Accept assignment of Subcontracts; and
- Finish the Work by whatever means are available to the CITY.

Should the Work be terminated according to this section the CONTRACTOR shall not be entitled to receive further payment until the Work is finished.

If the unpaid balance of the Contract Amount exceeds the costs of finishing the work, such excess shall be used to pay the CONTRACTOR amounts due for materials and equipment stored on site and Work completed in accordance with the Contract Documents which has been certified by the Engineer and accepted by the CITY. If such costs exceed the unpaid balance, the CONTRACTOR shall pay the difference to the CITY, which obligation for payment shall survive the termination of the Contract.

The costs of finishing the Work include, without limitation, all reasonable attorney's fees, additional title costs, insurance, additional interest because of delay in completing the Work, and all other direct, indirect, and consequential costs incurred by the CITY by reason of the termination of the CONTRACTOR as stated herein. The CITY shall be entitled to hold all amounts due the CONTRACTOR at the date of termination until all of the CITY's costs have been established, and to apply such amounts to such costs.

Where CONTRACTOR's services have been so terminated by CITY, the termination will not affect any rights or remedies of CITY against CONTRACTOR then existing or which may thereafter accrue, or any rights or remedies of CITY against CONTRACTOR or any surety under any payment bond or performance bond. Any retention or payment of money due CONTRACTOR by CITY will not release CONTRACTOR from liability.

Additionally, in the event that the CITY budgeted funds are not available for a new fiscal period, the CITY shall notify the CONTRACTOR of such occurrence and the Contract shall terminate on the last day of the current fiscal period without penalty or expense to the CITY.

Should the CITY's termination of the CONTRACTOR for Cause be challenged, and should such challenge prevail, then the CITY's termination of the CONTRACTOR shall be deemed to have been a termination for Convenience.

4. Termination by the CITY for Convenience

The CITY may, without cause, order the CONTRACTOR in writing to delay or terminate the Work in whole or in part for such period of time the CITY may determine.

In the event of termination for convenience by the CITY, the CONTRACTOR shall only be entitled to and paid compensation earned through the date of termination and Termination Expenses. Termination Expenses are those directly attributable to termination (such as demobilization costs). CONTRACTOR shall not be entitled to direct, indirect, or consequential damages, or other damages for loss from and including, but not limited to economic loss, loss of anticipated profits, idle equipment expenses, interest or carrying costs, overhead expenses, loss of efficiency, or loss of productivity.

ARTICLE 10 - EXECUTION OF THE PROJECT

A. OBLIGATIONS OF THE ENGINEER

1. Engineer as CITY's Representative

The Engineer will provide project management services as described in the Contract Documents, and will serve as the CITY's representative during construction, and until final payment is certified. The Engineer will consult with and advise the CITY. The Engineer will have the authority to act on behalf of the CITY only to the extent as provided in the Contract documents.

The Engineer specifically assumes no duty or responsibility which may be construed as being for the benefit of and thereby enforceable by other parties providing labor, materials or services in connection with the Work such as, though not limited to, CONTRACTOR, Subcontractor, Sub-subcontractors, their agents, employees, or any of their bonding companies, it being understood that the Engineer's obligations are to the CITY, and in performing such obligations the Engineer may consequently alter the burdens and expense of such other parties. CONTRACTOR is not entitled to additional costs associated with the Engineer's performance of his/her duties unless otherwise provide herein. The CITY and CONTRACTOR shall communicate through the Engineer, communications by and with the Engineer and Engineer's consultants shall be through the Engineer. Communications by and with Subcontractors and Suppliers shall be through the CONTRACTOR. Communication by and with other contractors working on the site which are not parties to this Contract shall be through the CITY.

2. Monitoring Progress, Quality and Compliance with Contract Requirements

The Engineer will perform site inspections as various and critical stages of construction to become generally familiar with progress and quality of completed Work to determine if, in general, the Work is performed in accordance with the Contract Documents. The Engineer will have authority to reject work that does not comply with the Contract Documents. Wherever considered necessary, the Engineer may require additional inspection or testing of the Work whether the Work is fabricated, installed or completed.

The Engineer will not have control over or change of and will not be responsible for construction means, methods, techniques, sequences or procedures, or for safety precautions and programs in connection with the Work, since these are solely the CONTRACTOR's responsibility. The Engineer will not be responsible for the CONTRACTOR's failure to carry out the Work, since these are solely the CONTRACTOR's responsibility. The Engineer will not be responsible for the CONTRACTOR's failure to carry out the Work in accordance with the Contract Documents. The Engineer will not have control over, or charge of, and will not be responsible for, acts or omissions of the CONTRACTOR, Subcontractors, or their agents or employees, or of any other persons performing portions of the Work.

Actions of the Engineer undertaken while providing administration of the Contract shall not be construed as either supervision or coordination, since these are solely the CONTRACTOR's responsibility.

3. Review and Approval of CONTRACTOR's Submittals

The Engineer will review and approve the CONTRACTOR's Submittals, such as Shop Drawings and product Samples, for the limited purpose of checking for compliance with the Contract Documents. The Engineer's review does not relieve the CONTRACTOR of his obligations under the Contract to comply with the plans and specifications.

The Engineer's approval of a submittal which contains a deviation which has not been specifically called to the Engineer's attention excludes approval of that deviation and shall not serve as a waiver of the rights of the Engineer or CITY unless the Engineer makes specific written acceptance of said deviation on the Engineer's letterhead or the CITY makes specific written acceptance of said deviation on the CITY's letterhead.

Engineer has the authority to reject work.

4. Interpret Plans

The Engineer will provide interpretations of the plans and Specifications for compliance with the Contract Documents. The Engineer's response to interpretation requests shall be made with reasonable promptness, or a maximum of 15 calendar days from the date of written request.

Interpretations of the Engineer will be consistent with the intent of the Contract Documents and will be documented in writing or in the form of plans and drawings.

The Engineer may, as the Engineer deems desirable, issue additional drawings or information indicating in greater detail the construction or design of the various parts of the Work; such drawings or information may be affected by field order or other notice to the CONTRACTOR, and provided such drawings or information may be affected by field order or other notice to the CONTRACTOR, and provided such drawings or information are reasonable consistent with the previously existing Contract Documents, the Work shall be executed in accordance with such additional drawings or information without additional cost or extension of the Contract Time. If the CONTRACTOR claims additional cost or time on account of such additional drawings or information, the CONTRACTOR shall give the notice provided in Article 13.

5. Approving Non-Substantial Deviations

The Engineer will have the authority to order minor changes in the Work not involving adjustments of Contract Amount or Contract Time, and which is not inconsistent with the intent of the Contract Documents. Such changes shall be implemented by issuing a Construction Change Directive that shall be immediately binding on the CONTRACTOR upon receipt.

6. Certifying Applications for Payment

Based on the Engineer's observations and evaluations of the CONTRACTOR's Applications for Payment, the Engineer will review amounts due the CONTRACTOR and will, upon approval by the CITY, issue Certificates for Payments.

7. Preparing Change Orders

The Engineer will prepare Change Orders for approval by the CITY.

8. Substantial Completion and Acceptance Reviews

The Engineer will conduct inspections, and if the CITY and Engineer find Work substantially complete, establish the date or dates of Substantial Completion and the date of Final Completion. The Engineer will receive and forward to the CITY for the CITY's review, project records, written documents required by the Contract and assembled by the CONTRACTOR. The Engineer will issue a Final Certificate for Payment upon compliance with requirements of the Contract Documents and acceptance by the CITY.

B. OBLIGATIONS OF THE CITY

1. Project Manager

The CITY will designate a Project Manager, through which the CITY will communicate with the Engineer and CONTRACTOR.

2. Information Provided by CITY

The CITY shall furnish surveys describing physical characteristics of the site, and utility locations, except those utilities that are not owned by the CITY.

Information or services under the CITY's control shall be promptly supplied to the CONTRACTOR in order to promote orderly progress of the Work. Such information and

services will be provided to the CONTRACTOR free, unless otherwise provided in the Contract Documents.

The CITY will furnish the CONTRACTOR, free of charge, a maximum of ten sets of Construction Documents.

3. Permits

Unless otherwise provided in the Contract Documents, the CITY shall secure and pay for any and all Permits necessary to construct the facilities described by the Contract Documents.

4. CITY's Right to Stop Work

If the CONTRACTOR fails to correct Work that is not in accordance with requirements of the Contract Documents or persistently fails to carry out Work in accordance with the Contract Documents, the CITY may order the CONTRACTOR to stop work or any portion thereof until the cause of such order has been eliminated. Such an order must be in writing. CONTRACTOR is not entitled to a change in Contract Amount or Contract Time related to a Stop Work Order.

5. CITY's Right to Carry Out Work

If the CONTRACTOR defaults or neglects to carry out the Work in accordance with the Contract Documents, after giving seven (7) days written notice, the CITY may without prejudice to other remedies, correct such deficiencies. In such a case, a Change Order shall be issued deducting from the Contract Amount the cost of correcting such deficiencies, including additional design and administrative costs as may be necessary by default, neglect, or failure.

6. Interpretation of Contract Documents and Performance

In all matters concerning performance under this Contract and requirements of the Contract Documents, the CITY's interpretation will prevail.

7. Approving Substantial Deviations

The CITY's written approval is required for all changes in the Work involving:

- Adjustments to the Contract Amount;
- Contract Time; or
- Work that is inconsistent with the intent of the Contract Documents.

A Change Order signed by the CONTRACTOR, Engineer, and the CITY shall effect such changes.

8. Replacement of Engineer

The CITY may at its discretion appoint an engineer to replace the Engineer. The replacement engineer's status under the Contract Documents shall be that of the former Engineer.

9. Limitations on CITY's Responsibilities

The CITY shall not supervise, direct, or have control or authority over, nor be responsible for, CONTRACTOR's means, methods, techniques, sequences, or procedures of construction, or the safety precautions and programs incident thereto, or for any failure of CONTRACTOR to comply with laws and regulations applicable to the performance of the Work. The CITY will not be responsible for CONTRACTOR's failure to perform the Work in accordance with the Contract Documents.

C. OBLIGATIONS OF THE CONTRACTOR

1. Superintendent

The CONTRACTOR shall employ a competent Superintendent and necessary assistants who shall be in attendance at the Project Site during performance of the Work. The Superintendent shall represent the CONTRACTOR, and communications given to the Superintendent shall be as binding as if given to the CONTRACTOR.

2. Review of Contract Documents

The CONTRACTOR shall carefully review Contract Documents and information provided by the CITY, and shall at once report to the Engineer any errors, omissions, or inconsistencies discovered.

If the CONTRACTOR performs any construction activities with knowledge of an error, omission or inconsistencies in the Contract Documents without such notice to the Engineer, the CONTRACTOR shall assume responsibility for such performance.

3. Review of Field conditions

The CONTRACTOR shall take field measurements and verify field conditions and carefully compare such with the Contract Documents before commencing the Work. Errors, omissions or inconsistencies discovered shall be reported to the Engineer at once.

4. Supervision and Construction Procedures

The CONTRACTOR shall perform the Work in accordance with the Contract Documents and Submittals approved by the Engineer.

The CONTRACTOR shall supervise and direct the Work, using the CONTRACTOR's best skill and attention. The CONTRACTOR shall be solely responsible for and have control over construction means, methods, techniques, sequences and procedures; and for coordinating all portions of the Work, unless otherwise specified in the Contract Documents.

The CONTRACTOR shall be responsible to the CITY for acts and omissions of the CONTRACTOR's employees, Subcontractors, Suppliers, and their agents and employees, and other persons performing portions for the Work under a contract with the CONTRACTOR or his Subcontractors.

The CONTRACTOR shall not be relieved of obligations to perform the Work in accordance with the Contract Documents either by activities or duties of the Engineer, or the CITY's Project Manager, in administration of the Contract, or by tests, inspections or approvals required or performed by persons other than the CONTRACTOR.

5. Inspection of Work

The CONTRACTOR shall be responsible for inspection of portions of the Work already performed under this Contract to determine if such portions are in proper condition to receive subsequent Work.

6. Labor and Materials

CONTRACTOR shall provide competent, suitably qualified personnel to survey and lay out the Work and perform construction as required by the Contract Documents. CONTRACTOR shall at all times maintain good discipline and order at the Project Site.

Except as otherwise required for the safety or protection of persons or the Work or property at the Project Site or adjacent thereto, and except as otherwise stated in the Contract Documents, all Work at the Project Site shall be performed during regular working hours, Monday through Friday. CONTRACTOR will not perform Work on a Saturday or Sunday, or any legal holiday. CONTRACTOR may perform Work outside regular working hours or on Saturdays, Sundays or legal holidays only with the CITY's written consent.

(a) Regular working hours will be 8:00 AM to 5:00 PM.

(b) CITY's legal holidays are New Year's Day, Martin Luther King, Jr. Day, President's Day, Memorial Day, Independence Day, Labor Day, Thanksgiving Day, day after Thanksgiving, Christmas Eve and Christmas Day.

CONTRACTOR shall be responsible for the cost of any overtime pay or other expense incurred by the CITY for Engineer's or CITY's Project Services, and construction observation services, occasioned by the performance of Work on Saturday, Sunday or any legal holiday, or as overtime on any regular work day. If CONTRACTOR is responsible but does not pay, or if the parties are unable to agree as to the amount owed, then CITY may impose a reasonable set-off against payments due under Article 8. Overtime costs for personnel employed by the Engineer or CITY's consultant shall be calculated in accordance with the terms of their respective contracts with the CITY.

Unless otherwise provided in the Contract Documents, the CONTRACTOR shall provide and pay for labor, materials, equipment, tools, water, electric, other utilities, transportation, taxes and other facilities and services necessary for proper execution and completion of the Work. It is the CONTRACTOR's responsibility to provide these resources whether temporary or permanent, and whether or not incorporated or to be incorporated in the Work.

All materials and equipment incorporated into the Work shall be of good quality and new, except as otherwise provided in the Contract Documents. All special warranties and guarantees required by the Specifications shall expressly run to the benefit of the CITY. If required by the CITY or Engineer, CONTRACTOR shall furnish satisfactory evidence

(including reports of required tests) as to the source, kind, and quality of materials and equipment. The use of asbestos or asbestos-based fiber materials is prohibited in this Project.

All materials and equipment shall be stored, applied, installed, connected, erected, protected, used, cleaned, and conditioned in accordance with instructions of the applicable Supplier, except as otherwise may be provided in the Contract Documents.

The CONTRACTOR shall enforce strict discipline and good order among the CONTRACTOR's employees and other persons carrying out the Contract. The CONTRACTOR shall not permit employment of unfit persons or persons not skilled in tasks assigned to them.

7. Warranty

The CONTRACTOR warrants to the CITY that materials, equipment, and skilled labor will be provided in accordance with the Contract Documents, and that the Work, including all work and products provided by CONTRACTOR's Subcontractors, will be free from all defects for a period of one year from final acceptance. Work not conforming to all Contract Document requirements, including substitutions not properly approved and authorized, will be considered defective and a breach of CONTRACTOR's warranty.

The CONTRACTOR shall obtain the following guarantee/warranty from the manufacturer of all major pieces of equipment furnished and installed on this Project. Such guarantee/warranty shall be for the benefit of the CITY and be furnished in writing by the manufacturer. The CONTRACTOR's and manufacturer's obligations under this provision are in addition to other express or implied warranties under the Contract Documents and under the law and in no way diminish any other right that the CITY may have against CONTRACTOR or manufacturer for faulty material, equipment, or work. The warranty period shall not be interpreted as a limitation on the time in which the CITY can enforce such other duties, obligations, rights, or remedies.

The manufacturer warrants and guarantees for a period of one year from the date of Final Completion, or such longer period that may be specified in the Contract Documents, that all materials and equipment furnished and installed shall be free from flaws, defects in material and workmanship and shall be in conformance with the Contract Documents.

8. Indemnification, Insurance and Bonds.

The CONTRACTOR shall be responsible for providing the CITY with Indemnification, Insurance and Bonds as required under Article 14 of this Contract.

9. Construction Schedule

Prior to issuance of a Notice to Proceed, the CONTRACTOR shall prepare and submit to the Engineer a Construction Schedule for the Work. The Schedule shall not exceed the time limits established in the Contract Documents. The Construction Schedule shall document major construction activities and tasks, identifying the estimated beginning and ending dates for each identifiable component of the Work. The Construction Schedule

shall also identify time critical activities or events that would most greatly affect the Construction Schedule. The Construction Schedule will be prepared in sufficient detail as may be acceptable to the Engineer. The Construction Schedule shall be revised at appropriate intervals as required by conditions of the Work.

10. Project Records

The CONTRACTOR shall maintain the following project records in a safe place at the project site:

- Construction Schedule;
- Plans and Drawings;
- Specifications;
- Addenda;
- Change Orders;
- Construction Change Directives;
- Shop Drawings;
- Product Data;
- Samples;
- Required Submittals; and
- Superintendent's Log.

Records shall be maintained in good order, and marked to reflect current changes and selections made during the construction process.

Records shall be available to the Engineer and CITY and, with the exception of the Superintendent's Log, shall be delivered to the Engineer for submittal to the CITY upon completion of the Work.

Additionally, the Superintendent's Log shall be delivered to the Engineer for submittal to the CITY upon completion of the Work. Additionally, the Superintendent's Log shall at a minimum document the dates and times of critical inspections; instructions received from the Engineer; and weather conditions including dates, times and amount of rainfall received.

Upon completion of the WORK, Contract shall deliver these record documents to Engineer.

11. Approval of Shop Drawings and Other Submittals

The CONTRACTOR shall review, approve and submit to the Engineer, Shop Drawings, Product Data, Samples, and other Submittals required by the Contract Documents for approval by the Engineer prior to their implementation. The CONTRACTOR shall perform no portion of the Work requiring submittal and review of these or similar data until approved by the Engineer. Such Work shall be accomplished in accordance with approved Submittals.

The CONTRACTOR shall not submit any shop drawing or other submittal that is merely a tracing or other copy of any of the Contract Documents. Each submittal item must be prepared by the CONTRACTOR, or for the CONTRACTOR by a Subcontractor or Supplier of the CONTRACTOR. The Engineer shall have the authority to reject any submittal items that violate this provision, and no extension of Contract Time shall be given on account of such rejection. Engineer's review and action on any such Submittals shall not serve as a basis for or give rise to any claim in favor of CONTRACTOR or any third party against the CITY or Engineer.

By submitting the materials described above to the Engineer for approval, the CONTRACTOR represents that he has determined and verified:

- All field measurements;
- Field construction criteria related to the Submittals and has checked and verified their compliance with requirements of the Contract Document;
- Suitability of all materials and equipment;
- All information relative to CONTRACTOR's responsibility for means, methods, techniques, sequences, and procedures of construction and safety precautions; and
- The CONTRACTOR shall not be relieved of responsibility for errors or omissions in Shop Drawings, Product Data, Samples or other Submittals. The CONTRACTOR shall not be relieved of responsibility for deviations from the requirements of the Contract Documents unless the Engineer makes specific written acceptance of said deviations on the Engineer's letterhead.

If CONTRACTOR requests a change of a previously approved submittal item, CONTRACTOR shall be responsible for Engineer's charges to CITY for its review time, and CITY may impose a set-off against payments due to CONTRACTOR to secure reimbursement for such charges, unless the need for such change is beyond the control of the CONTRACTOR.

12. Use of the Project Site

The CONTRACTOR shall confine operations to the Project Site as designated by the CITY, and shall confine operations and activities to those permitted by law, ordinances, permits, and the Contract Documents; and should not unreasonably encumber the site with materials or equipment. The CONTRACTOR is specifically prohibited from the storage of materials, equipment, or supplies not related to the Work on the Project Site.

The CITY will be responsible for resolving disputes between the CONTRACTOR and other contractors with which the CITY has a separate Contract concerning use of the Project Site.

13. Limitation on Use of Project Site and Other Areas:

CONTRACTOR shall confine construction equipment, temporary construction facilities, the storage of materials and equipment, and the operations of workers to the Project Site, adjacent areas that CONTRACTOR has arranged to use through construction easements or otherwise, and other adjacent areas permitted by laws and regulations, and shall not

unreasonably encumber the Project Site and such other adjacent areas with construction equipment or other materials or equipment. CONTRACTOR shall assume full responsibility for (a) damage to the Project Site; (b) damage to any such other adjacent areas used for CONTRACTOR's operations; (c) damage to any other adjacent land or areas; and (d) for injuries and losses sustained by the owners or occupants of any such land or areas; provided that such damage or injuries result from the performance of the Work or from other actions or conduct of the CONTRACTOR or those for which CONTRACTOR is responsible.

If a damage or injury claim is made by the owner or occupant of any such land or area because of the performance of the Work, or because of other actions or conduct of the CONTRACTOR or those for which CONTRACTOR is responsible, CONTRACTOR shall (a) take immediate corrective or remedial action as required by paragraph 25 below, or otherwise; (b) promptly attempt to settle the claim as to all parties through negotiations with such owner or occupant, or otherwise resolve the claim by arbitration or other dispute resolution proceeding, or at law; and (c) to the fullest extent permitted by laws and regulations, indemnify and hold harmless CITY and Engineer, and the officers, directors, members, partners, employees, agents, consultants and subcontractors of each and any of them from and against any such claim, and against all costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to any claim or action, legal or equitable, brought by any such CITY or occupant against CITY, Engineer, or any other party indemnified hereunder to the extent caused directly or indirectly, in whole or in part by, or based upon, CONTRACTOR's performance of the Work, or because of other actions or conduct of the CONTRACTOR or those for which CONTRACTOR is responsible.

14. Cleanup of Project Site

The CONTRACTOR shall keep the premises and surrounding area reasonably free or rubbish, waste materials, or debris caused by operations of the Contract. At completion of the Work, the CONTRACTOR shall remove from and about the Project Site, waste materials, rubbish, tools, construction equipment, machinery, and surplus materials to the CITY's satisfaction. Should the CONTRACTOR fail to clean up as provided in the Contract Documents, the CITY may do so and the cost charged to the CONTRACTOR though a deductive Change Order or Construction Change Directive.

15. Observations and Inspections

The CONTRACTOR shall provide CITY and Engineer access to the Work, wherever located and in whatever stage of construction for the purpose of providing inspections and observations necessary to assess compliance with applicable codes and to identify the quality and quantity of Work performed.

If a portion of the Work is covered contrary to the Engineer's request or to the requirements expressed in the Contract Documents, it must be uncovered to allow the requested inspection or observation and replaced at the CONTRACTOR's expense without change in Contract Time.

If a portion of the Work has been covered for which the CITY or Engineer has not specifically requested prior to observation, the Engineer may request to see such Work and the CONTRACTOR shall uncover it. If such Work has been completed in accordance with the Contract Documents, the cost for uncovering and replacement shall be born by the CITY and implemented through a Change Order recommended by the Engineer and approved by the CITY. If such Work was inspected and found not to be in conformance with the Contract Documents, the CONTRACTOR shall pay the cost of uncovering and replacement without a change in Contract Time.

16. Correcting Rejected Work

The CONTRACTOR shall promptly correct Work rejected by the Engineer for failing to conform to the requirements of the Contract Documents, whether observed before or after Substantial Completion and whether or not fabricated, installed, or completed. The CONTRACTOR shall bear the costs of correcting such Work, including costs for additional testing and inspections, compensation for any additional design or necessary administrative costs, fines levied against the CITY by governmental authorities because the Work is defective, and the costs of repair or replacement of Work of others resulting from defective Work. Prior to final payment, if CITY and CONTRACTOR are unable to agree as to the measure of such claims, costs, losses and damages resulting from defective Work, then the CITY may impose a reasonable set-off against payments due under Article 8.

If, within one year after the date of Final Acceptance, or before the expiration of warranties provided by the CONTRACTOR, Subcontractor, or Suppliers, whichever is greater, or by the terms of a special warranty required by the Contract Documents; any of the Work is found to not be in accordance with the Documents, the CONTRACTOR shall correct it promptly after receipt of a written notice from the CITY. This obligation shall survive acceptance of the Work under the Contract and termination of the Contract, if the CITY has exercised such Termination.

If the CONTRACTOR fails to correct nonconforming Work, within a reasonable time, the CITY may complete the work in accordance with the provisions in Article 10(B)(5) of this Contract.

In exercising the rights and remedies under this paragraph 10(C)(16), CITY shall proceed expeditiously. In connection with such corrective or remedial action, CITY may exclude CONTRACTOR from all or part of the Project Site, take possession of all or part of the Work and suspend CONTRACTOR's services related thereto, and incorporate in the Work all materials and equipment stored at the Project Site or for which CITY has paid CONTRACTOR but which are stored elsewhere. CONTRACTOR shall allow CITY, CITY's representatives, agents and employees, CITY's other contractors, and Engineer and Engineer's consultants access to the Project Site to enable CITY to exercise the rights and remedies under this paragraph.

All claims, costs, losses, and damages incurred or sustained by CITY in exercising the rights and remedies under this paragraph 10(C)(16) will be charged against

CONTRACTOR has set-offs against payments due under Article 8. Such claims, costs, losses and damages will include but not be limited to all costs of repair, or replacement of work of others destroyed or damaged by correction, removal, or replacement of CONTRACTOR's defective Work.

CONTRACTOR shall not be allowed an extension of the Contract Times because of any delay in the performance of the Work attributable to the exercise by CITY of Authority's rights and remedies under this paragraph 10(C)(16).

17. Acceptance of Non Conforming Work

The CITY may at its option accept Work that is not in accordance with the requirements of the Contract Documents instead of requiring its removal and correction. In such cases the Contract Amount will be reduced as appropriate and equitable. If the parties are unable to agree as to the decrease in Contract Amount, reflecting the diminished value of Work accepted, then the CITY may impose a reasonable set-off against payments due under Article 8. Such adjustment shall be effected whether or not final payment has been made. If acceptance of defective Work occurs after Final Payment, CONTRACTOR shall pay an appropriate amount to the CITY.

18. Tests & Inspections

Tests, inspections and approvals of portions of the Work required by law, ordinance, rules, regulations, or other orders of public authorities having jurisdiction shall be made at the appropriate time. Unless otherwise provided, the CONTRACTOR will make arrangements for such tests, inspections and approvals, and shall be responsible for paying testing, inspection and reinspection fees.

Other tests, inspections, and approvals required by the Contract Documents shall also be made at the appropriate times. The CONTRACTOR shall make arrangements for such tests, inspections and approvals within the independent testing laboratories or entities designated by the CITY. The CITY shall bear the costs related to these tests, inspections and approvals.

For all tests and inspections conducted under this section, the CONTRACTOR shall give the Engineer timely notice of when and where tests and inspections are to be made so that observations may be made.

If tests or inspections reveal failure of portions of the Work to comply with the Contract Documents, or approval is not secured from a public authority having jurisdiction over the project for a portion of the Work covered by the Contract Documents, the CONTRACTOR shall bear all costs made necessary by such failure.

Certificates of testing, inspection or approval shall be secured by the CONTRACTOR and promptly delivered to the Engineer.

19. Equal Opportunity Employer

The CONTRACTOR is an Equal Opportunity Employer and will comply with all equal opportunity employment laws. The CONTRACTOR will further ensure that all sub-contractors it utilizes in providing the services required hereunder will comply with all equal opportunity employment laws.

20. Taxes

CONTRACTOR shall pay all sales, consumer, use, and other similar taxes required to be paid by CONTRACTOR in accordance with the laws and regulations of the place of the Project which are applicable during the performance of the Work.

CONTRACTOR shall pay all license fees and royalties and assume all costs incident to the use in the performance of the Work or the incorporation in the Work of any invention, design, process, product, or device which is the subject of patent rights or copyrights held by others. If a particular invention, design, process, product, or device is specified in the Contract Documents for use in the performance of the Work and if, to the actual knowledge of CITY or Engineer, its use is subject to patent rights or copyrights calling for the payment of any license fee or royalty to others, the existence of such rights shall be disclosed by CITY in the Contract Documents.

To the fullest extent permitted by laws and regulations, CONTRACTOR shall indemnify and hold harmless CITY and Engineer, and the officers, directors, members, partners, employees, agents, consultants and subcontractors of each and any of them from and against all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to any infringement of patent rights or copyrights incident to the use in the performance of the Work or resulting from the incorporation in the Work of any invention, design, process, product, or device not specified in the Contract Documents. This obligation shall survive acceptance of the Work under this Contract and termination of the Contract.

21. Laws and Regulations

CONTRACTOR shall give all notices required by and shall comply with all laws and regulations applicable to the performance of the Work. Except where otherwise expressly required by applicable laws and regulations, neither CITY nor Engineer shall be responsible for monitoring CONTRACTOR's compliance with any laws or regulations. CONTRACTOR agrees to comply with all applicable Federal, State, and local laws, regulations, and ordinances, including, but not limited to, the following:

- Title VI of the 1964 Civil Rights Act.
- Title VII of the 1964 Civil Rights Act, as amended by the Equal Employment Opportunity that prohibits discrimination in employment.
- Age Discrimination Act of 1973
- Contract Work Hours and Safety Standards Act.
- Section 504 of the Rehabilitation Act prohibiting discrimination in the employment of the handicapped.

- Fair Labor Standards Act.
- Chapter 112, Florida Statutes, prohibiting conflicts of interest in the procurement of contracts with a governmental agency.
- Chapter 119, the Public Records Act.
- Trench Excavation System & Shoring standards adopted by the Department of Labor and Employment Security and related trenching regulations.
- Construction Work Hours and Safety Act (Construction Safety Act)

The CONTRACTOR, at its sole expense, shall comply with all laws, ordinances, judicial decisions, orders, and regulations of federal, state, county, and CITY, as well as their respective departments, commissions, boards, and officers, which are in effect at the time of execution of this Contract or are adopted at any time following the execution of his Contract.

If CONTRACTOR performs any Work or takes any other action knowing or having reason to know that it is contrary to laws or regulations, CONTRACTOR shall bear all resulting costs and losses, and shall indemnify and hold harmless CITY and Engineer, and the officers, directors, members, partners, employees, agents, consultants, and subcontractors of each and any of them from and against all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to such Work or other action.

22. Applicable Licensing

The CONTRACTOR, at its sole expense, shall obtain all required federal, state, and local licenses, occupational and otherwise, required to successfully providing the services set forth herein.

23. Safety of Employees and Property

The CONTRACTOR shall be solely responsible for initiating, maintaining, and supervising all safety precautions and programs in connection with the Work. The CONTRACTOR shall take reasonable precautions for safety of, and shall provide reasonable protection to prevent damage, injury or loss to:

- Employees on the Project Site and other persons who may be affected thereby;
- The Work and materials and equipment to be incorporated therein, whether in storage on or off the site, under care, custody or control of the CONTRACTOR or the CONTRACTOR's Subcontractors or sub-Subcontractors; and
- Other property at the site or adjacent thereto, such as trees, shrubs, lawns, walks, pavements, roadways, structures and utilities not designated for removal, relocation or replacement in the course of construction.

The CONTRACTOR shall not load or permit any part of the construction or Project Site to be loaded so as to endanger its safety. The CONTRACTOR shall comply with applicable laws, ordinances, rules, regulations and lawful orders of public authorities bearing on safety of persons or property or their protection from damage, injury or loss.

The CONTRACTOR shall notify CITY, owners of adjacent property, utilities, other contractors performing work at or adjacent to the Project Site, when the prosecution of work may affect them, and shall cooperate with them in the protection, removal, relocation, and replacement of their property or Work in progress.

When use or storage of explosives or other hazardous materials or equipment or unusual methods is necessary for execution of the Work, the CONTRACTOR shall exercise utmost care and carry on such activities under supervision of properly qualified personnel. The CONTRACTOR shall be responsible for coordinating any exchange of material safety data sheets or other hazard communication information required to be made available to or exchanged between or among employers at the Project Site in accordance with laws or regulations.

The CONTRACTOR shall promptly remedy the damage and loss (other than damage or loss insured under requirements of the Contract Documents) to property referred in this Section caused in whole or in part by the CONTRACTOR, Subcontractor, Sub-Subcontractor, or anyone directly or indirectly employed by any of them or by anyone for whose acts they may be liable and for which the CONTRACTOR is responsible, except damage or loss attributable to acts or omissions of the CITY or Engineer or anyone directly or indirectly employed by any of them, or by anyone for whose acts wither of them may be liable and not attributable to the fault or negligence of the CONTRACTOR.

The CONTRACTOR shall designate a qualified and experienced safety representative who is a responsible member of the CONTRACTOR's organization at the Project Site whose duties and responsibilities shall be the prevention of accidents and the maintaining and supervising of safety precautions and programs. This person shall be the CONTRACTOR's Superintendent unless otherwise designated by the CONTRACTOR in writing to the CITY and Engineer.

CONTRACTOR's duties and responsibilities for safety and protection shall continue until such time as all the Work is completed and Engineer has issued a notice to CITY and CONTRACTOR in accordance with Article 8(4) that the Work is acceptable (except as otherwise expressly provided in connection with Substantial Completion).

CONTRACTOR's duties and responsibilities for safety and protection shall resume whenever CONTRACTOR or any Subcontractor or Supplier returns to the Project Site to fulfill warranty or correction obligations, or to conduct other tasks arising from the Contract Documents.

26. Emergencies

In an emergency affecting safety of persons or property, the CONTRACTOR shall act, at the CONTRACTOR's discretion, to prevent threatened damage, injury or loss. Additional compensation or extension of time claimed by the CONTRACTOR on account of an emergency shall be determined as provided in this Contract.

ARTICLE 11 – SUBCONTRACTORS/SUPPLIERS

1. Reporting of Proposed Subcontractors

As soon as practical after the issuance of a Notice to Proceed, or as otherwise provided in the Contract Documents, the CONTRACTOR will furnish in writing to the Engineer the names of persons or entities, including Subcontractors, material suppliers, equipment, Suppliers, and fabricators proposed for principal portions of the Work. After conferring with the CITY, the Engineer will promptly inform the CONTRACTOR in writing whether or not there are reasonable objections to any of the proposed persons or entities unto which the CONTRACTOR proposes to enter into an agreement. Reasonable objections include a Subcontractor or Supplier who is not licensed, qualified or certified as required by State Law.

- A. No acceptance by CITY of any such Subcontractor, Supplier, or other individual or entity, whether initially or as a replacement, shall constitute a waiver of the right of CITY to the completion of the Work in accordance with the Contract Documents.
- B. CONTRACTOR shall be fully responsible to CITY and Engineer for all acts and omissions of the Subcontractors, Suppliers, and other individuals or entities performing or furnishing any of the Work just as CONTRACTOR is responsible for CONTRACTOR's own acts and omissions.
- C. CONTRACTOR shall be solely responsible for scheduling and coordinating the work of Subcontractors, Suppliers, and all other individuals or entities performing or furnishing any of the Work.
- D. CONTRACTOR shall restrict all Subcontractors, Suppliers, and such other individuals or entities performing or furnishing any of the Work from communicating with Engineer or CITY, except through CONTRACTOR or in case of an emergency, or as otherwise expressly allowed herein.
- E. CITY may furnish to any Subcontractor or Supplier, to the extent practicable, information about amounts paid to CONTRACTOR on account of Work performed for CONTRACTOR by the particular Subcontractor or Supplier.
- F. Nothing in the Contract Documents:
 - i. shall create for the benefit of any such Subcontractor, Supplier, or other individual or entity any contractual relationship between CITY or Engineer and any such Subcontractor, Supplier, or other individual or entity; or
 - ii. shall create any obligation on the part of CITY or Engineer to pay or to see to the payment of any money due any such Subcontractor, Supplier, or other individual or entity except as may otherwise be required by laws and regulations.

2. Rejection of Subcontractors

Neither the CONTRACTOR nor the CITY shall be required to Contract with anyone to whom either party has made a reasonable objection; exception instances where the Contract Documents require use of a material, equipment, or other produce for which there is no acceptable alternate supplier or installer.

3. Removal of Subcontractors

The CONTRACTOR shall not change a Subcontractor, person or entity previously selected unless the CITY makes reasonable objection to such change.

4. Subcontractors Bound by Contract Documents

By appropriate agreement, the CONTRACTOR shall require each Subcontractor, to the extent of the Work to be performed by the Subcontractor, to be bound to the CONTRACTOR by the terms of the Contract Documents, and to assume toward the CONTRACTOR all obligations and responsibilities which the CONTRACTOR, under this Contract, assumes toward the CITY.

Each subcontract shall preserve and protect the right of the CITY under the Contract Documents with respect to the Work to be performed by the Subcontractor so the subcontracting thereof will not prejudice such rights and shall allow the Subcontractor, to the extent provided in the Contract Documents, the benefit of all rights, remedies and redress against the CONTRACTOR that the CONTRACTOR has against the CITY.

In all Contracts between the CONTRACTOR and Subcontractor(s), Suppliers, or fabricators, the CITY will be named as third party beneficiary. The CONTRACTOR will provide CITY with a copy of each such sub-Contract prior to beginning the Work, and will further automatically provide CITY with copies of all subcontract warranties and invoices for materials and services for the Work. Failure to timely provide these documents will be considered a material breach of the Contract.

The CONTRACTOR agrees that it shall be deemed to automatically assign all rights to subcontract warranties to the CITY, and CONTRACTOR will ensure that all such subcontract warranties specifically provide for such warranties to extend to the CITY. Additionally, the CONTRACTOR assigns each Subcontract for a portion of the Work to the CITY as follows:

- Assignment is effective only after termination of the Contract by the CITY for cause pursuant to Article 9(3) of this Contract.
- Assignment is subject to the prior rights of the surety, if any, obligated under bond relating to the Contract.

5. Subcontractor Payment

Unless otherwise provided by law, within 10 days after the CONTRACTOR's receipt of payment, the CONTRACT shall remit payment due to Subcontractor for labor, services, and material furnished.

If Subcontractor receives payment from CONTRACTOR for labor, service, or material furnished by Subcontractors and Suppliers hired by the Subcontractor, Subcontractor shall remit payment due to those subcontractors and Suppliers within 7 days of subcontractor's receipt of payment.

ARTICLE 11 - CONSTRUCTION BY CITY OR SEPARATE CONTRACTORS

1. CITY's Right to Perform Construction

The CITY reserves the right to perform construction or operations related to the Project outside the scope of this Contract with CITY's own forces and to award separate Contracts in connection with other portions of the Project not covered under the scope of this Contract.

2. CITY to Provide Coordination

The CITY shall provide for coordination of activities of the CITY's own forces and for the other contractor's under a separate agreement to provide construction services on the Project Site. If part of the CONTRACTOR's Work depends upon prior Work performed by the CITY or other separate contractors, the CONTRACTOR shall, prior to proceeding with that portion of the Work, promptly report to the Engineer apparent discrepancies or defects in other such construction that would render it unsuitable for the proper execution and results of the CONTRACTOR's Work. Failure of the CONTRACTOR to so report shall constitute an acknowledgment that the CITY's previously completed construction is fit and proper to receive the CONTRACTOR's Work.

ARTICLE 12 – AMENDING THE CONTRACT DOCUMENTS; CHANGES IN THE WORK

1. Contract Held Valid

Changes in the Work may be accomplished after execution of the Contract without invalidating the Contract where they are documented by a Construction Change Directive executed in accordance with this Contract.

2. Construction Change Directive

A Construction Change Directive prepared and signed by the Engineer will direct all changes in the Work. A Construction Change Directive signed by the CONTRACTOR indicates agreement of the CONTRACTOR with the actions specified in the Directive, including the inclusion or absence of an adjustment in Contract Amount or Contract Time or the method for determining them. Construction Change Directives shall be issued using AIA Form G714.

3. Construction Change Order

In addition to a Construction Change Directive, a Construction Change Order will be required wherever the issuance of a Construction Change Directive would involve a change in:

- Contract Amount;
- Contract Time; or
- The intent of the Contract Documents.

In such instances, the Engineer, CONTRACTOR and CITY must sign a Construction Change Order. Construction Change Orders shall be issued using AIA Form G701.

Change Orders may not have typed text altered or additions placed thereon after the signing process has begun. Change Orders with alterations to typed text or additions placed thereon shall not be considered by such, and the original Change Order shall govern. Should alterations or additions to a Change Order be desired, said Change Order shall be re-typed and re-signed, and said Change Order shall be identified as "Revised".

4. Changes in Contract Amount

Only Construction Change Order shall grant changes in Contract Amount. Claims for disputes concerning Contract Amount shall be determined in accordance with Article 13 of this Contract.

5. Cost of Work

A. The term "Cost of Work" or "Direct Cost", for the purpose of Change Orders, means the costs necessarily incurred and paid by the CONTRACTOR in the proper performance of the Change Order Work. Except as may be agreed to in writing by the CITY, such costs shall be in amounts no higher than those prevailing in the area of the project and may include the following categories:

- Labor of CONTRACTOR employees (payroll, taxes, fringe benefits, worker's compensation, health and retirement benefits, sick leave).
- Owned equipment (at lowest applicable equipment manual rate).
- Rented equipment (at actual rental rate).
- Materials.
- Supplies.
- Subcontractor's costs.
- Bonds and insurance.

The CONTRACTOR shall require all Subcontractors and Suppliers to comply with all requirements of, and provide itemizations of all claims in accordance with this Article.

For all changes, the CONTRACTOR shall submit an itemized cost breakdown, together with supporting data in such detail and form as prescribed by the Engineer. When a credit is due, the amount of the credit to be allowed by the CONTRACTOR to the CITY for any such change which results in a net decrease in direct cost will be the amount of the actual net decrease in direct cost as determined by the Engineer plus the actual reduction in overhead and profit. When both additions and credits are involved in any change, the combined overhead and profit shall be calculated on the basis of the net change, whether an increase or decrease. In any event, the minimum detail shall be an itemization of all man hours required by discipline/trade with the unit cost per man hour and total labor price, labor burden equipment hours and rate for each piece of equipment, material by units of measure and price per unit, other costs specifically itemized, plus the overhead and profit allowance.

The allowance for combined overhead and profit included in the total cost to the CITY shall be based upon the following schedule:

- For the CONTRACTOR, for Work performed by the CONTRACTOR's own forces, fifteen percent (15%) of the cost.
- For the CONTRACTOR, for Work performed by the CONTRACTOR's Subcontractor, seven and one-half percent (7½%) of the amount due to the Subcontractor.
- For each Subcontractor or Sub-Subcontractor involved, for Work performed by that Subcontractor's or Sub-Subcontractor's own forces, fifteen percent (15%) of the cost.
- For each Subcontractor, for Work performed by the Subcontractor's Sub-Subcontractor, seven and one-half percent (7½%) of the amount due the Subcontractor.

B. The term "Cost of Work" or "Direct Cost" shall not include any of the following:

- Payroll costs and other compensation of the CONTRACTOR's officers, executives, principals (of partnership or sole proprietorships), general managers, engineers, project managers, estimators, lawyers, auditors, accountants, purchasing and contracting agents, expeditors, timekeepers, clerks, and other personnel employed by the CONTRACTOR whether at the Project Site or in its principal or branch office for general administration of the Change Order Work and not specifically included in the agreed upon schedule of job classifications, all of which are to be considered administrative costs covered by the CONTRACTOR's allowance for overhead and profit.
- Extraordinary fringe benefits not specifically identified, above.
- Expenses of CONTRACTOR's principal and branch offices other than the CONTRACTOR's office at the job site.
- Any part of the CONTRACTOR's capital expenses, including interest on the CONTRACTOR's capital used for the Change Order Work and charges against the CONTRACTOR for delinquent payments.
- Costs due to the negligence of the CONTRACTOR, any Subcontractor, or anyone directly or indirectly employed by any of them or for whose acts any of them may be liable, including, but not limited to, the correction for defective Work, disposal of materials or equipment wrongly supplied, and making good any damage to property.
- Other overhead or general expense costs of any kind and the costs of any item not specifically and expressly included above in Subsection A.

6. Changes in Contract Time

Only construction Change Order shall grant changes in Contract Time. Claims for disputes concerning Contract Time shall be determined in accordance with Article 13 of this Contract.

7. Changes in Contract Time Due to Weather Conditions
The CONTRACTOR shall consider climatic conditions in preparing the Construction Schedule and shall anticipate therein periods where work may not be practical due to adverse weather conditions.

Weather conditions shall not comprise grounds for extension of Contract Time unless the CONTRACTOR is able to demonstrate that the number of rain days during the entire Contract Time exceeded 120% of that for the same period in the prior year. In making such an assertion, the CONTRACTOR shall use rain data recorded in the Superintendent's Log, which must include the date, duration and volume of rain recorded at the Project Site for each day, as compared to that recorded for the area closest to the Project Site, as reported by the National Weather Service. The CITY shall determine the criteria for establishing "rain days".
8. CONTRACTOR's Obligation to Comply with Construction Change Directives
Upon receipt of a Construction Change Directive, the CONTRACTOR shall promptly proceed with the change in the Work. The CONTRACTOR shall promptly comply with the Construction Change Directive whether or not a Change Order has been executed.
9. Effective Date of Change Orders
Change Orders shall become effective immediately upon execution by the CONTRACTOR, Engineer, and CITY.
10. Notification to Surety
If the provisions of any bond require notice to be given to a surety of any change affecting the general scope of the Work or the provisions of the Contract Documents (including, but not limited to, Contract Amount or Contract Times), the giving of any such notice will be CONTRACTOR's responsibility. The amount of each applicable bond will be adjusted to reflect the effect of any such change.

ARTICLE 13 - CLAIMS AND DISPUTES

1. Time Limits on Claims
CONTRACTOR Claims must be made by written notice within 14 calendar days after the occurrence of the event giving rise to such Claim or within 14 calendar days after the CONTRACTOR would have reasonably first recognized the condition giving rise to the Claim, whichever is later. Claims for additional time and additional compensation must be made in accordance with the conditions of this Article.

Such written notice of CONTRACTOR Claims shall be complete. Written notice which is incomplete and only partially identifies a claim with wording such as "(time or cost) impact to be determined at a later date" or "we reserve the right to claim additional (time or cost) at a later date" will not be considered.

2. Continuing Performance on the Contract
Pending resolution of a Claim, unless otherwise agreed to in writing, the CONTRACTOR shall proceed diligently with performance of the Contract and the CITY shall continue to make payments in accordance with the Contract Documents.

3. Claims for Concealed or Unknown Conditions
If conditions are encountered at the Project Site which are subsurface or otherwise concealed physical conditions which differ materially from those indicated in the Contract Documents, or comprise unknown physical conditions of an unusual nature which differ materially from those ordinarily found to exist and are generally recognized as inherent in construction activities of the character provided for in the Contract Documents; then the CONTRACTOR shall inform the Engineer of the materially different field conditions in writing within 14 days after first observance of the conditions, or within 14 days after the CONTRACTOR would have reasonably first recognized the materially different field conditions.

The Engineer will promptly investigate and report to the CITY if field conditions were found to be materially different than those which have been reasonably found given the criteria indicated above. If field conditions are found to be materially different and an adjustment in time is essential to the CONTRACTOR's ability to complete the Work, then the CITY shall prepare a Change Order providing an equitable adjustment in Contract Time.

If the CITY determines that the conditions at the site are not materially different from those indicated in the Contract Documents and that no change in the terms of the contract are justified, the CITY shall so notify the CONTRACTOR in writing stating the reasons.

CONTRACTOR shall not be entitled to any adjustment in the Contract Amount or Contract Times with respect to a subsurface or physical condition if:

- (a) CONTRACTOR knew of the existence of such condition at the time CONTRACTOR made a commitment to CITY with respect to Contract Amount and Contract Times by the submission of a Bid or becoming bound under a negotiated contract, or otherwise; or
- (b) the existence of such condition reasonably could have been discovered or revealed as a result of any examination, investigation, exploration, test, or study of the Project Site and contiguous areas expressly required by the Bidding Requirements or Contract Documents to be conducted by or for CONTRACTOR prior to CONTRACTOR's making such commitment; or
- (c) CONTRACTOR failed to give the written notice as required above.

If CITY and CONTRACTOR agree regarding CONTRACTOR's entitlement to and the amount or extent of any adjustment in the Contract Amount or Contract Times, or both, then any such adjustment shall be set forth in a Change Order.

4. Claims for Additional Time

The CONTRACTOR will make claims for an increase in Contract Time by presenting a "Request for Delay" (RFD) form to the Engineer within 14 days of the occurrence giving rise to the claim. All claims for an increase in the Contract Time are waived if not so presented. Engineer will supply RFD forms to the CONTRACTOR.

The sole and exclusive manner of increasing the Contract Time due to some occurrence giving rise to the representation of an RFD form is by Change Order. Timely presentation of an RFD form is the prerequisite for obtaining a Change Order. The Change Order shall address any and all Claims based on said occurrence. With respect thereto, CONTRACTOR agrees that its exclusive remedy for delays in the performance of the Contract caused by events beyond its control, including delays claimed to be caused by the CITY or the Engineer or attributable to the CITY or the Engineer, and including Claims based on breach of Contract or negligence, shall be an extension of the Contract Time. CONTRACTOR hereby waives any and all Claims based on said occurrence that are not addressed by the Change Order.

Nothing contained herein will prevent the parties from increasing the Contract Time by mutual agreement.

5. Claims for Additional Compensation

CITY's liability to CONTRACTOR for any Claims other than Claims for extension of Contract Time, as described above, arising out of or related to the subject matter of this Contract, whether in Contract or Tort, including but not limited to, claims for payment by CITY of the costs, damages, or losses because of changed condition under which the Work is to be performed or for additional Work, shall be governed by the following provisions:

- All Claims must be submitted as a Request for Change Order in the manner provided herein;
- CONTRACTOR must submit a Notice of Claim to the CITY and to the Engineer within fourteen days (14) of when the CONTRACTOR was, or should have been aware of the occurrence of the event giving rise to the Claim; and
- Within fourteen days (14) of submitting its Notice of Claim, CONTRACTOR shall submit to the Engineer and CITY its Request for Construction Change Order using AIA Form G701, which shall include a written statement of details of the Claim, including a description of the Work affected.

CONTRACTOR agrees that the CITY shall not be liable for any Claim the CONTRACTOR fails to submit as a Request for Change Order or as a timely presented RFD form as provided in this Contract.

After receipt of a Request for Change Order, CITY, in consultation with the Engineer, shall deliver to the CONTRACTOR within thirty (30) days after receipt of request its written determination of the Claim.

CONTRACTOR's exclusive remedy for delays in performance of construction caused by delays claimed to be caused by or attributable to the CITY or the Engineer including claims based on breach of contract or negligence, shall be a Claim or a RFD form submitted in compliance with this Article.

CONTRACTOR expressly agrees that the conditions established by this Article constitutes its sole and exclusive remedies for delays and changes in such Work and eliminates any other remedies for Claim for increase in the Contract Amount, delays, changes in the Work, damages, losses, or additional compensation.

6. Resolution of Disputes by the CITY

If a Claim has not been resolved after consideration under other terms of this Article, the Engineer shall notify the CONTRACTOR in writing that the CITY shall make a determination within seven (7) days, which determination shall be final and binding on the Parties, but subject to litigation in a court having competent jurisdiction. Upon expiration of such time period, the CITY shall render to the parties a written decision relative to the Claim, including any change in Contract Amount and/or Time.

If there is surety and there appears to be a possibility of the CONTRACTOR's default, the CITY may, but is not obligated to, notify the surety and request the surety's assistance in resolving the dispute.

7. Injury or Damage to Person or Property

In any party to the Contract suffers injury or damage to person or property because of an act or omission of the other party, of any of the other party's employees or agents, or for others whose acts such party is legally liable; written notice of such injury or damage, whether or not insured, shall be given to the other party within a reasonable amount of time not exceeding 21 days after first observance. The notice shall provide sufficient detail to enable the other party to investigate the matter. If a Claim for additional cost or time related to the Claim is asserted, it shall be filed as a Claim pursuant to the conditions of the Article.

ARTICLE 14 - INDEMNIFICATION, INSURANCE AND BONDS

1. Indemnification

To the fullest extent permitted by laws and regulations, and in addition to any other obligations of CONTRACTOR under the Contract or otherwise, CONTRACTOR shall indemnify and hold harmless CITY, Pinellas County and Engineer, and the officers, directors, members, partners, employees, agents, consultants and subcontractors of each and any of them from and against all claims, costs, losses, and damages (including but not limited to all fees and charges of engineers, architects, attorneys, and other professionals and all court or arbitration or other dispute resolution costs) arising out of or relating to the performance of the Work, provided that any such claim, cost, loss, or damage is attributable to bodily injury, sickness, disease, or death, or to injury to or destruction of tangible property (other than the Work itself), including the loss of use resulting therefrom but only

to the extent caused by any negligent act or omission of CONTRACTOR, any Subcontractor, any Supplier, or any individual or entity directly or indirectly employed by any of them to perform any of the Work or anyone for whose acts any of them may be liable.

In any and all claims against CITY, Pinellas County or Engineer or any of their officers, directors, members, partners, employees, agents, consultants, or subcontractors by any employee (or the survivor or personal representative of such employee) of CONTRACTORS, any Subcontractor, any Supplier, or any individual or entity directly or indirectly employed by any of them to perform any of the Work, or anyone for whose acts any of them may be liable, the indemnification obligation under shall not be limited in any way by any limitation on the amount or type of damages, compensation, or benefits payable by or for CONTRACTOR or any such Subcontractor, Supplier, or other individual or entity under workers' compensation acts, disability benefit acts, or other employee benefit acts. The indemnification obligations of CONTRACTOR shall not extend to the liability of Engineer and Engineer's officers, directors, members, partners, employees, agents, consultants and subcontractors arising out of:

- (a) The preparation or approval of, or the failure to prepare or approve maps, Drawings, opinions, reports, surveys, Change Orders, designs, or Specifications; or
- (b) Giving directions or instructions, or failing to give them, if that is the primary cause of the injury or damage.

In conformance with the requirements of Section 725.06, Florida Statutes, the specific considerations for CONTRACTOR's promises are:

- (a) Ten dollars (\$10.00) and other valuable consideration, in hand paid by CITY, Engineer, and Engineer's employees to CONTRACTOR, receipt whereof is hereby acknowledged and the adequacy of which CONTRACTOR accepts as completely fulfilling the obligations of CITY, Engineer, and Engineer's employees under the requirements of Section 725.06, Florida Statutes, and;

The entry of CITY and CONTRACTOR into the construction contract because, but for CONTRACTOR's promises as contained in the General Conditions, CITY would not have entered into the construction contract with CONTRACTOR.

2. Waiver of Subrogation

The CITY and CONTRACTOR waive all rights against each other for damages caused by perils coverage by insurance provided under this Contract to the extent covered by such insurance, except such rights as they may have to the proceeds of such insurance held by the CITY and the CONTRACTOR as trustees. The CONTRACTOR shall require similar waivers from all Subcontractors and their Sub-subcontractors and suppliers.

The CITY and the CONTRACTOR waive all rights against each other for loss or damage to equipment used in connection with the Project and covered by any property insurance.

The CONTRACTOR shall require similar from all Subcontractors and their Subcontractors and Suppliers.

The CITY waives subrogation against the CONTRACTOR on all property and consequential loss policies carried by the CITY on adjacent properties and under property and consequential loss policies purchased for the Project after its completion.

If the insurance policies referred to in this Section require an endorsement to provide for continued coverage where there is a waiver of subrogation, the CITY of such policies will cause them to be so endorsed; failure to obtain endorsement nullifies the waiver of subrogation.

3. CONTRACTOR's Insurance

Prior to the commencement of Work governed by this Contract, the CONTRACTOR shall obtain, at his/her own expense, insurance as specified below, which are made part of this Contract. The CONTRACTOR shall ensure that the insurance obtained will extend protection to all Subcontractors engaged by the CONTRACTOR. As an alternative, the CONTRACTOR may require all Subcontractors to obtain insurance consistent with the below requirements. This insurance must name the CITY and Pinellas County as an additional insured, except for with respect to Worker's Compensation Coverage.

The CONTRACTOR will not be permitted to commence work governed by this Contract (including pre-staging of personnel and material) until satisfactory evidence of the required insurance has been furnished to the CITY as specified below. Delays in the commencement of work, resulting from the failure of the CONTRACTOR to provide satisfactory evidence of the required insurance, shall not extend deadlines specified in this Contract and any penalties and failure to perform assessments shall be imposed as if the Work commenced on the specified date and time, except for the CONTRACTOR's failure to provide satisfactory evidence.

All insurance required by this Contract shall be obtained by an insurance company or companies that are duly licensed and/or authorized to do business in the State of Florida. Insurers shall have at least a Policy Holders Rating of A-, and Financial Rating of at least IV as identified in the latest issue of "Bests Key Rating Guide" unless otherwise accepted by the CITY in writing.

The CONTRACTOR's insurance, and the insurance of any other party bound to the CONTRACTOR, shall be considered primary. The CITY's insurance, if any, shall be considered excess, as may be applicable to claims which arise out of indemnification's insurance, certificates of insurance and any additional insurance provisions of this Contract.

The CONTRACTOR shall name "City of Treasure Island" as a certificate holder and/or as additional insured, to the extent of the services to be provided hereunder, on all required insurance policies, and provide the CITY with proof of same.

4. Loss Deductible

The CITY shall be exempt from, and in no way liable for, any sums of money that may represent a deductible in any insurance policy. The payment of deductibles shall be the sole responsibility of the CONTRACTOR.

5. Subcontractor's Insurance

The CONTRACTOR shall ensure that any Subcontractor(s), hired to perform any of the Work, maintain the same Insurance requirements set forth herein. In addition, the CONTRACTOR shall maintain proof of same on file and made readily available upon request by the CITY.

6. Certificate of Insurance

The CONTRACTOR agrees to promptly provide the CITY with proof of insurance coverage as follows:

- The name of the insured CONTRACTOR, the specific job by name and job number, the name of the insurer, the number of the policy, its effective date, and its termination date;
- Statement that the insurer will mail notice to the CITY and a copy to the Engineer at least thirty (30) days prior to any material changes in provisions, cancellation, renewal, or non-renewal of the policy;
- Certification of Insurance shall be in the form as approved by the CITY and such Certificate shall clearly state all the coverage's required in this Article;
- If requested by the CITY, the CONTRACTOR shall promptly furnish complete certified copies of his and his Subcontractor's insurance policies, forms and endorsements; and
- Receipt of certificates or other documentation of insurance or policies or copies of policies by the CONTRACTOR or by any of its representatives that indicate less coverage than required by the Contract Documents does not constitute a waiver of the CONTRACTOR's obligations to fulfill the requirements of this Article.

The CITY, at its sole discretion, has the right to request certified copies of any and all insurance policies required by this Contract and CONTRACTOR agrees to promptly produce such requested documents.

7. Worker's Compensation Insurance

The CONTRACTOR shall take out and maintain, during the life of this Contract, Workers' Compensation and Employer's Liability Insurance for all his employees connected with the Work of this Project, and in case any Work is sublet, the CONTRACTOR shall require the Subcontractor similarly to provide Workers' compensation Insurance for all of the latter's employees, unless such employees are covered by the protection afforded by the CONTRACTOR. Such insurance shall comply with the Florida Workers' compensation Law. In case any class of contract at the Project Site is not protected under the Workers' Compensation Statute, the CONTRACTOR shall provide adequate insurance, satisfactory

to CITY for the protection of employees not otherwise protected. The limits shall be statutory for Worker's Compensation and \$1,000,000.00 for Employer's Liability.

8. Liability Insurance

The CONTRACTOR shall take out and maintain, during the life of this Contract, Commercial General Liability and Commercial Automobile Liability Insurance as shall protect CITY from claims for damages for bodily injury and personal injury, including accidental death, as well as claims for property damages which may arise from operating under this Contract, whether such operations are by himself or by anyone directly or indirectly employed by him, and the amount of such insurance shall be minimum limits as follows:

Commercial General Liability:

- Minimum Coverage is \$1,000,000 including a separate project aggregate limit of \$2,000,000 for the Contract.
- Coverage shall include premises, operations, products, completed operations, independent CONTRACTORS, contractual liability covering this Contract, contracts and leases, broad form property damage coverage's, personal injury and bodily injury.
- The CONTRACTOR is required to continue to purchase products and completed operations coverage for Work performed under this Contract for minimum of three (3) years following Substantial Completion.
- If Umbrella or Excess liability coverage is used to satisfy the requirements of this Section, it shall not be more restrictive than the underlying insurance policy coverage's.

Commercial Automobile Liability:

- Minimum Coverage is \$1,000,000.
- Coverage shall include bodily injury and property damage arising out of ownership, maintenance or use of any auto, including owned, non-owned and hired automobiles and employee non-ownership use.

9. Performance, Payment, and Other Bonds

The CONTRACTOR shall furnish a performance bond and a payment bond, each in an amount at least equal to the Contract Amount, as security for the faithful performance and payment of all of CONTRACTOR's obligations under the Contract. These bonds shall remain in effect until one year after the date when final payment becomes due or until completion of the correction period specified in the Contract, whichever is later, except as provided otherwise by laws or regulations, the Supplementary Conditions, or other specific provisions of the Contract. CONTRACTOR shall also furnish such other bonds as are required herein

All bonds shall be in the form prescribed by the Contract except as provided otherwise by laws or regulations, and shall be executed by such sureties as are named in “Companies Holding Certificates of Authority as Acceptable Sureties on Federal Bonds and as Acceptable Reinsuring Companies” as published in Circular 570 (as amended and supplemented) by the Financial Management Service, Surety Bond Branch, U.S. Department of the Treasury. A bond signed by an agent or attorney-in-fact must be accompanied by a certified copy of that individual’s authority to bind the surety. The evidence of authority shall show that it is effective on the date the agent or attorney-in-fact signed the accompanying bond.

CONTRACTOR shall obtain the required bonds from surety companies that are duly licensed or authorized in the jurisdiction in which the Project is located to issue bonds in the required amounts.

If the surety on a bond furnished by CONTRACTOR is declared bankrupt or becomes insolvent, or its right to do business is terminated in any state or jurisdiction where any part of the Project is located, or the surety ceases to meet the requirements above, then CONTRACTOR shall promptly notify CONTRACTOR and Engineer and shall, within 20 days after the event giving rise to such notification, provide another bond and surety, both of which shall comply with the bond and surety requirements above.

If CONTRACTOR has failed to obtain a required bond, CONTRACTOR may exclude the CONTRACTOR from the Project Site and exercise CONTRACTOR’s termination rights under Article 9.

Upon request, the CITY shall provide a copy of the payment bond to any Subcontractor, Supplier, or other person or entity claiming to have furnished labor or materials used in the performance of the Work.

ARTICLE 15 - COMMENCEMENT OF STATUTORY LIMITATION PERIOD

1. The Commencement of Statutory Limitation Periods Between the CITY, CONTRACTOR and assignees are as follows:
 - **Before Substantial Completion.** As to acts or failures to act occurring prior to the relevant date of Substantial Completion, any applicable statute of limitations shall commence to run and any alleged cause of action shall be deemed to have accrued in any and all events not later than the date of issuance of the final Certificate for Payment; and
 - **After Final Certificate for Payment.** As to acts or failures to act occurring after the relevant date of issuance of the final Certificate for Payment, any applicable statute of limitations shall commence to run and any alleged cause of action shall be deemed to have accrued in any and all events not later than the act or failure to act by the CONTRACTOR, pursuant to any warranty provided under the Contract Documents, the date of any correction of the Work or failure to correct the Work by the CONTRACTOR or date of actual commission of any other act or failure to

perform any duty or obligation by the CONTRACTOR or CITY, whichever occurs last.

2. Concerning Latent Defects and Fraud

As to latent defects and fraud, the applicable statute of limitations shall commence upon the date of discovery or the date discovery of the defect should reasonably have occurred.

3. Sovereign Immunity

The CITY expressly retains all rights, benefits and immunities of sovereign immunity in accordance with Section 768.28, Florida Statutes. Notwithstanding anything set forth in any section, article or paragraph of this Contract to the contrary, which may have been adopted by the Florida Legislature or may be adopted by the Florida Legislature, and the cap on the amount and liability of the CITY for damages, attorney fees and costs, regardless of the number or nature of claims in tort, equity or contract, shall not exceed the dollar amount set by the Florida Legislature for tort. Nothing in this Contract shall inure to the benefit of any third party for the purpose of allowing any claim against the CITY which would otherwise be barred under the Doctrine of Sovereign Immunity or operation of law.

ARTICLE 16 - MISCELLANEOUS PROVISIONS

1. Governing Law

This Contract shall be governed by the laws of the State of Florida.

2. Interest on Judgments

In the event of any disputes between the parties to this Contract occurs, including without limitation to their assignee and or assigns arising out of or relating in any way to this Contract which results in litigation and a subsequent adjustment award or decree against either party, it is agreed that an entitlement post judgment interests to either party and/or their attorneys shall be fixed by the proper Court at a rate of 5% per annum, simple interest. Under no circumstances shall either party be entitled to pre-judgment interest. The parties' expressly acknowledge and to the extent allowed by law, hereby opt out of any provision of Federal or State Statutes not in agreement with this.

3. Successors and Assigns

The CITY and CONTRACTOR respectively bind themselves, their partners, successors, assigns and legal representatives to the other party hereto and to partners, successors, assigns and legal representatives of such other party in respect to covenants, agreements and obligations contained in the Contract Documents. Neither party to the Contract shall assign the Contract as whole without the written consent of the other. If either party attempts to make such an assignment without such written consent, that party shall nevertheless remain legally responsible for all obligations under the Contract.

4. Written Notice

Written notice shall be deemed to have been duly served if delivered in person to the individual or a member of the firm or entity or to an officer of the corporation for which it

was intended, or if delivered at or sent by registered or certified mail to the last business address known to the party giving notice.

Both the addresses given in the Bid Form upon which this Contract is founded and the CONTRACTOR's office at or near the site of work are hereby designated as places to either of which notices, letters and other communication to CONTRACTOR shall be certified mailed or delivered. The delivering at the above named place or depositing of a postage paid communication or directed to the first name, place, in any post office box, regularly maintained by the post office department of any notice, letter, or other communication to the CONTRACTOR shall be deemed sufficient service thereupon the CONTRACTOR; and the date of said service shall be the date of such delivery or mailing.

5. Limitation of Liability

The CITY shall be liable only to the extent of its interest in the Project; and no elected official, officer, agent, or employee of the CITY shall ever be personally or individually liable with respect to this Contract or the Work. Each Subcontract shall include foregoing limitation, which shall be effective if the CITY ever succeeds to the CONTRACTOR's rights or obligations under a Subcontract.

The Engineer shall be liable to CONTRACTOR only to the extent of its interest in the Project; and no officer, director, partner, agent, or employee of the Engineer (or any partner of a partner or any agent or employee of a partner) shall ever be personally or individually liable to CONTRACTOR with respect to this Contract or the Work. Each Subcontract shall include the foregoing limitation. Nothing contained in this agreement shall be construed as a waiver of the CITY's rights to sovereign immunity or any other defense under Section 768.28, Florida Statutes.

6. Validity, Severability and Reformation

The validity, interpretation, construction, and effect of this Contract shall be in accordance with and be governed by the laws of the State of Florida. Any provision or part of this Contract held to be void or unenforceable under any law shall be deemed stricken, and all remaining provisions shall continue to be valid and binding upon the parties. The parties agree that this Contract shall be reformed to replace such stricken provision or part thereof with a valid and enforceable provision which comes as close as possible to expressing the intention of the stricken provision.

7. Public Records

The CONTRACTOR agrees to comply with the Florida Public Records Act, as applicable, including, but not limited to Section 119.0701 of the Florida Statutes. Documents which are considered public records herein under Florida law include, but are not limited to: records related to the entry, management and implementation of the contract itself; emails/correspondence between the CITY and the CONTRACTOR related to the contract; emails or correspondence from all other entities related to the contract (i.e., subcontractors, suppliers, vendors, etc.); billing and related documents; plans or other documents that may be necessary, reports, etc.; subcontracts; and all vendor invoices. The CONTRACTOR agrees, to the extent required by law, to:

- A. Keep and maintain public records that ordinarily and necessarily would be required by the public agency in performing the services of the Contract;
- B. Provide the public with access to the public records under the same terms and conditions that the CITY would provide the records and at a cost that does not exceed the cost provided for by law;
- C. Ensure that the public records that are exempt or confidential, and exempt from public record disclosure requirements, are not disclosed, except as authorized by law; and
- D. Meet all requirements where retained public records and transfer, at no cost, to the CITY, all public records in possession of the CONTRACTOR, upon termination or completion of the Contract and destroy any duplicate public records that are exempt or confidential, or exempt from public record disclosure requirements.

Furthermore, the CONTRACTOR agrees that all records stored electronically shall be provided to the CITY in a format that is compatible with the information technology systems of the CITY. The CONTRACTOR shall promptly provide the CITY with a copy of any request to inspect or copy public records that CONTRACTOR receives and a copy of the CONTRACTOR'S response to each request. The CONTRACTOR understands and agrees that failure to provide access to the public records shall be a material breach of the Contract and grounds for termination.

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

**City Clerk, City of Treasure Island
120 – 108th Avenue
Treasure Island, Florida 33706
Phone: (727)-547-4575
Fax: (727)-547-4582
tmakras@mytreasureisland.org**

THE CONTRACTOR ACKNOWLEDGES THAT THE CITY OF TREASURE ISLAND CANNOT AND WILL NOT PROVIDE LEGAL OR BUSINESS ADVICE TO THE CONTRACTOR WITH RESPECT TO ITS OBLIGATIONS PURSUANT TO THIS SECTION RELATED TO PUBLIC RECORDS. THE CONTRACTOR ACKNOWLEDGES THAT IT WILL NOT RELY ON THE CITY OF TREASURE ISLAND OR ITS CITY ATTORNEY TO PROVIDE SUCH BUSINESS OR LEGAL ADVICE AND THAT CONTRACTOR HAS BEEN ADVISED

TO SEEK PROFESSIONAL ADVICE WITH REGARD TO PUBLIC RECORDS MATTERS ADDRESSED BY THIS AGREEMENT.

8. Cumulative Remedies

The duties and obligations imposed by these General Conditions and the rights and remedies available hereunder to the parties hereto are in addition to, and are not to be construed in any way as a limitation of, any rights and remedies available to any or all of them which are otherwise imposed or available by laws or regulations, by special warranty or guarantee, or by other provisions of the Contract. The provisions of this paragraph will be as effective as if repeated specifically in the Contract Documents in connection with each particular duty, obligation, right, and remedy to which they apply.

9. Limitation of Damages

With respect to any and all Claims, disputes subject to final resolution, and other matters at issue, neither CITY nor Engineer, nor any of their officers, directors, members, partners, employees, agents, consultants, or subcontractors, shall be liable to CONTRACTOR for any claims, costs, losses, or damages sustained by CONTRACTOR on or in connection with any other project or anticipated Project.

10. No Waiver

A party's non-enforcement of any provision shall not constitute a waiver of that provision, nor shall it affect the enforceability of that provision or of the remainder of this Contract.

11. Survival of Obligations

All representations, indemnifications, warranties, and guarantees made in, required by, or given in accordance with the Contract, as well as all continuing obligations indicated in the Contract, will survive final payment, completion, and acceptance of the Work or termination or completion of the Contract or termination of the services of CONTRACTOR.

12. Headings

Article and paragraph headings are inserted for convenience only and do not constitute parts of these General Conditions.

IN WITNESS WHEREOF the parties have executed the Contract on the day and date first above written.

CONTRACTOR:

CITY: The City of Treasure Island

By: _____

City Manager

Title: _____

WITNESS:

ATTEST:

Tiffany Makras, City Clerk

Reviewed for Legal Form and Content by:

Jennifer Cowan, City Attorney

SECTION 00710

NON-DISCRIMINATORY VENDOR STATEMENT

**SWORN STATEMENT UNDER SECTION 287.134(3)(a) OF THE FLORIDA STATUTES
REGARDING DISCRIMINATION**

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

1. This sworn statement is submitted to _____
(Print name of the public entity)
by _____
(Print individual's name and title)
for _____
(Print name of entity submitting sworn statement)

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 "discrimination" as defined in Section 287.134(1)(b) of the Florida Statutes means a determination of liability by a state circuit court or federal district court for a violation of any state or federal law prohibiting discrimination on the basis of race, gender, national origin, disability, or religion by an entity; if an appeal is made, the determination of liability does not occur until the completion of any appeals to a higher tribunal.
3. I understand that an "affiliate" as defined in Section 287.134(1)(a) of the Florida Statutes means:
1. A predecessor or successor of an entity that discriminated; or
 2. An entity under the control of any natural person who is active in the management of the entity that discriminated. The term "affiliate" includes those officers, directors, executives' partners, shareholders employees, members and agents who are active in the management of an affiliate. The ownership by one entity of shares constituting a controlling interest in another entity, or a pooling equipment or income among entities when not for fair market value under an arm's length agreement, shall be a prima facie case that one entity controls another entity.
4. I understand that "entity" as defined in Section 287.134(1)(e) of the Florida Statutes means any natural person or any entity organized under the laws of any state or of the United States with the legal power to enter into a binding contract and which bids or applies to bid on

contracts let by a public entity, or which otherwise transacts or applies to transact business with a public entity.

- 5. Based on information and belief, the statements that I have marked below is true in relation to the entity submitting the sworn statement. (Please check all that apply)

___ Neither the entity submitting this sworn statement, nor any officers, directors, executives, partners, shareholders, employees, members, or agents who are active in management of the entity, nor any affiliate of the entity have been placed on the discriminatory vendor list for any period during the last 36 months prior to submitting this bid.

___ The entity submitting this sworn statement is **not** under the same, or substantially the same control as an entity whose name appears on the discriminatory vendor list.

___ The entity submitting this sworn statement, or any of its officers, directors, executives, partners, shareholders, employees, members, or agents who are active in management of the entity, or any affiliate of the entity **have** been placed on the discriminatory vendor list for any period during the last 36 months prior to submitting this bid **but** that entity or affiliate has been removed from the list.

I UNDERSTAND THAT THE SUBMISSION OF THIS FORM TO THE CONTRACTING OFFICER FOR THE PUBLIC ENTITY IDENTIFIED IN PARAGRAPH 1 (ONE) ABOVE IS FOR THAT PUBLIC ENTITY ONLY AND, THAT THIS FORM IS VALID THROUGH DECEMBER 31 OF THE CALANDAR YEAR IN 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 _____, 20__.

Personally known _____

OR Produced Identification _____ Notary Public – State of Florida

(Type of identification) My Commission Expires _____

(Printed, typed or stamped
commissioned name of notary public)

SECTION 00715

PUBLIC ENTITY CRIMES STATEMENT

SWORN STATEMENT UNDER SECTION 287.133(3)(a) OF THE FLORIDA STATUTES ON PUBLIC ENTITY CRIMES.

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

1. This sworn statement is submitted to _____
(Print name of the public entity)
by _____
(Print individual's name and title)
for _____
(Print name of entity submitting sworn statement)

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) of the 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 or 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 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.
3. I understand that “convicted” or “conviction” as defined in Section 287.133(1)(b) of the 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.
4. I understand that an “affiliate” as defined in Paragraph 287.133.(1)(a) of the Florida Statutes, means:
1. A predecessor or successor of a person convicted of a public entity crime: or
 2. 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 those 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 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 who 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.

5. I understand that a "person" as defined in paragraph 287.133(1)(e) of the Florida Statutes, means any natural person or entity organized under the laws of any state or of the United States with the legal power to enter into a binding contract in which bids or applies 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 "person" includes those officers, directors, executives, partners, shareholders, employees, members and agents who are active in management of an entity.
6. Based on information and belief, the statement that I have marked below is true in relation to the entity submitting the sworn statement. (Please indicate which statement(s) applies.)

____ Neither the entity submitting this sworn statement, nor any officers, directors, executives, partners, shareholders, employees, members, or agents who are active in management of the entity, nor any affiliate of the entity have 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 the officers, directors, executives, partners, shareholders, employees, members, or agents who are active in the management of the entity, nor any affiliate of the entity have 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, shareholder, 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 Officer and 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 vendor list (attach a copy of the final order).

I UNDERSTAND THAT THE SUBMISSION OF THIS FORM TO THE CONTRACTING OFFICER FOR THE PUBLIC ENTITY IDENTIFIED IN PARAGRAPH 1 (ONE) ABOVE IS FOR THAT PUBLIC ENTITY ONLY AND, THAT THIS FORM IS VALID THROUGH DECEMBER 31 OF THE CALANDAR YEAR IN 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 OF THE 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 _____, 20__.

Personally known _____

OR Produced Identification _____ Notary Public – State of Florida

(Type of identification) My Commission Expires _____

(Printed, typed or stamped
commissioned name of notary public)

SECTION 00720

DRUG-FREE WORK PLACE CERTIFICATE

IDENTICAL TIE BIDS: Pursuant to Section 287.087, Florida Statutes, preference shall be given to businesses with Drug-Free Work Place Programs. Whenever two or more bids which are equal with respect to price, quality, and service are received for the procurement of commodities or contractual services, a bid received from a business that certifies that it has implemented a Drug-Free Work Place Program shall be given preference in the award process. Established procedures for processing tie bids will be followed in the event that none of the tied bidders have a Drug-Free Work Place Program. In order to have a Drug-Free Work Place 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 work place 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 work place, the company's policy of maintaining a Drug-Free Work Place, 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 of the Florida Statutes, or of any controlled substance law of the United States or any state, for a violation occurring in the work place no later than five (5) days after such conviction or plea.
- 5) Impose a sanction on, or require the satisfactory participation in, a drug abuse assistance or rehabilitation program if such is available in the employee's community, by any employee who is so convicted or who has pled.
- 6) Make a good faith effort to continue to maintain a drug-free work place through implementation of this section.

AS THE PERSON AUTHORIZED TO SIGN THE STATEMENT, I CERTIFY THAT THIS FIRM COMPLIES FULLY WITH THE ABOVE REQUIREMENTS.

Signature

Printed Name

SECTION 00800
SUPPLEMENTARY CONDITIONS

00800.01 SUPPLEMENTARY CONDITIONS PREVAIL

The provisions of this section amplify, amend, change and/or to all other provisions of the Contract Documents. In the event of a conflict between the Supplementary Conditions, the plans, and any other Sections of the Contract Documents, the Supplementary Conditions shall apply.

00800.02 MATERIALS AND EQUIPMENT

A. All materials, equipment and supplies furnished and permanently incorporated into the project shall be of first quality in every respect and shall be constructed and finished to high standards of workmanship. Material shall be suitable for the service intended, shall reflect modern design and engineering and shall be fabricated in a first class workman like manner. All material, equipment and supplies shall be new and shall not have been in service at any time previous to installation except as required in tests incident to this installation.

B. Record Drawings:

The contractor shall provide six sets of certified record drawings, signed and sealed by a surveyor registered in the State of Florida. The record drawings shall show final grades, locations and elevations of utilities. All grades, locations, and elevations shall be determined by the surveyor. All valves, fittings and other appurtenances shall have a minimum of two swing ties.

C. The several unit or lump sum prices shall include the cost for all transportation, labor, equipment, verifying location of existing utilities (horizontal and vertical) trenching, backfilling, backfill material, tamping, testing, densities, dewatering, trench stabilization, record drawings, clean up, restoration, fittings, miscellaneous parts, and all appurtenances within to make complete and ready for operation the work as shown on the drawings and specified herein.

00800.03 NOTIFICATIONS

A. By the use of approved door hangers, the Contractor shall notify all businesses and residents within a 100-foot radius of the construction activities within fourteen (14) days of commencing work. As a minimum, the door hanger shall include dates of construction activities, the name and telephone number for questions or comments and a general description of work to be performed.

**00800.04 SOUTHWEST FLORIDA WATER MANAGEMENT DISTRICT (SWFWMD)
COOPERATIVE FUNDING INITIATIVE (CFI) REQUIREMENTS**

- A. A project sign, measuring 5' (wide) by 4' (tall), shall be erected in a visible location near the project area (final location to be determined by City). The sign shall list the following in large visible text:

Implementation of BMPs within the Sunset Beach Watershed (Phase VI)
City of Treasure Island

Contractor: _____

Engineer: Advanced Engineering & Design, Inc.

Emergency Contact: _____ (To be determined)

This project received funding from the Southwest Florida Water Management District's Cooperative Funding Initiative Program

SWFWMD Logo

- B. The CONTRACTOR shall make all reasonable efforts to utilize minority owned, woman owned and small business enterprises, both as prime and subcontractors. The CONTRACTOR shall provide a list of minority owned, woman owned and small business enterprises proposed for the work at the time of proposal submission. The CITY has identified a 5% participation goal.

Upon completion of the project, the CONTRACTOR shall complete a form (provided by the CITY) documenting the actual contract amount of work that was performed using woman owned, minority owned and small business enterprises.

00800.05 NPDES TRAINING

- A. All NPDES-related training identified in the plans shall be completed by the CONTRACTOR prior to the commencement of the work.

END OF SECTION

TECHNICAL SPECIFICATIONS
FOR
CITY OF TREASURE ISLAND, FLORIDA

IMPLEMENTATION OF BMPs WITHIN THE
SUNSET BEACH WATERSHED (PHASE VI)

ADVANCED ENGINEERING & DESIGN INC.

3931 68th Ave. North
Pinellas Park, Florida 33781

Section 01000
General

Part 1 General

1.01 Scope

- A. The plans, specifications, and bid items are for the full execution and completion of the work proposed. Bid units and items shall cover all related materials and labor to complete that specific unit or item. Payment shall be based on the actual quantities installed, based on unit or item price bid.

1.02 Shop Drawings

- A. The CONTRACTOR shall submit for the approval of the CITY, prior to the start of construction, detailed or shop drawings of equipment and materials he contemplates furnishing under this Contract. Equipment shall not be fabricated or materials shipped until shop drawings have been approved. Seven (7) copies of shop drawings or a reproducible sepia shall be submitted. Shop drawings shall be checked and signed or stamped by the CONTRACTOR before submission to the CITY.

1.03 Operation or Use Requirement

- A. Equipment and materials described in these specifications shall be installed in complete accord with the manufacturer's recommendations and, except where otherwise specified, proof must be given by the manufacturer that similar equipment or materials of this make have been in operation or use under comparable conditions for a period of at least two (2) years.

1.04 Material Approval

- A. All materials furnished by the Contractor shall be new and as specified and shown on the drawings. The CONTRACTOR shall, if required, furnish satisfactory evidence for the approval of the CITY as to the kind and quality of materials. Copies of the specific tests called for in the specifications shall be furnished in three (3) copies. Before beginning work, the CONTRACTOR shall advise and shall obtain approval of the CITY in writing for any optional materials allowable under the various headings that he proposes to use.

1.05 Storage of Materials

- A. The CONTRACTOR shall furnish suitable storage facilities. All materials, supplies, and equipment intended for use in the work shall be stored by the CONTRACTOR to prevent damage from exposure, admixture with foreign substances, or vandalism. The CITY will refuse to accept, or sample for testing, materials, supplies, or equipment that have been improperly stored. Materials found unfit for use shall not be incorporated in the work and shall immediately be removed from the construction

or storage site. Delivered materials shall be stored in a manner acceptable to the CITY before any payment for same will be made.

1.06 Salvaged Equipment and Materials

- A. In the absence of special provisions to the Contract, salvaged materials, equipment, or supplies that occur are the property of the CITY and shall be cleaned and stored as directed by the CITY. Surplus suitable excavated materials remain the property of the CITY and shall be spoiled in an area designated by the CITY.

1.07 Progress of Work

- A. If at any time the materials and appliances to be used appear to the CITY as insufficient or improper for securing the quality of work required or the required rate of progress, he may order the CONTRACTOR to increase his efficiency or to improve the character of his work and the CONTRACTOR shall conform to such an order, but the failure of the CITY to demand any increase of such efficiency or any improvement shall not release the CONTRACTOR from his obligation to secure the quality of work or the rate of progress necessary to complete the work within the limits imposed by the Contract. Reference shall be made to General Conditions.

1.08 Preservation of Property

- A. The CONTRACTOR shall preserve from damage all property including sprinkler systems along the line of the work, or which is in the vicinity of or is in any way affected by the work, the removal or destruction of which is not called for in the plans. Where such property is damaged due to the activities of the CONTRACTOR, it shall be immediately restored to its original condition by the CONTRACTOR at no cost to the CITY.
- B. In case of failure on the part of the CONTRACTOR to restore such property, or make good such damage or injury, the CITY may, after forty-eight (48) hours notice to the CONTRACTOR, proceed to repair, rebuild, or otherwise restore such property as may be deemed necessary, and the cost thereof will be deducted from any moneys due or which may become due the CONTRACTOR under this contract.

1.09 Clean Up

- A. The CONTRACTOR shall keep the construction site free of rubbish and waste materials and restore to their original condition those portions of the site not designated for alteration by the Contract Documents. Clean up and restoration shall be accomplished on a continuing basis throughout the contract period and in such a manner as to maintain a minimum of nuisance and interference to the residents and workers in the vicinity of the project. The CONTRACTOR shall also remove, when no longer needed, all temporary structures, earthen material and equipment used in his operations. The CONTRACTOR shall clear the site of all debris, rubbish, and litter of all types on a daily basis and shall clean the site thoroughly to a condition acceptable to the CITY before final payment will be made. It is the intent of this specification that the construction areas and those other areas not designated for alteration by the Contract Documents shall be restored to their original condition or better.

- B. Upon request of the CITY, the CONTRACTOR shall remove any debris, litter or excess materials within 24-hours after written notification.
- C. These provisions shall also apply to any staging or storage areas.

1.10 Traffic Control

- A. The CONTRACTOR shall provide all work zone traffic control. All work zone traffic control shall comply with the latest FDOT standards.

1.11 Public Safety and Convenience

- A. The CONTRACTOR shall, at all times, so conduct his work as to ensure the least possible obstruction to traffic and inconvenience to the general public and the residents in the vicinity of the work and to ensure the protection of persons and property in a manner satisfactory to the CITY. No road or street shall be closed to the public, except with the permission of the CITY and proper governmental authority. Fire hydrants, on or adjacent to the work, shall be kept accessible to fire-fighting equipment at all times. Temporary provisions shall be made by the CONTRACTOR to ensure the use of sidewalks and the proper functioning of all gutters, sewer inlets, drainage ditches, and irrigation ditches. All storm sewers, including those installed by the CONTRACTOR, must be kept free of debris and silt by the CONTRACTOR.

1.12 As-Built Data

- A. The CONTRACTOR shall maintain continuous "as-built" data for the project, including accurate records of the location, length, and elevation of all pipelines and piping installed and all architectural, mechanical, or structural features of the Contract. A set of drawings will be provided to the CONTRACTOR to be kept at the job site for this purpose. Within thirty (30) days after completion of any portion of this work for which he has requested payment, the CONTRACTOR shall deliver to the CITY the drawings with accurate notations recorded thereon as necessary to revise the drawings for record purposes. Information to be shown shall include the horizontal and vertical location of all stormwater, potable water and sanitary sewer systems (new and existing if encountered during construction activity). The CONTRACTOR will be held responsible for the accuracy of such data and shall bear any costs incurred in finding utilities as a result of incorrect data furnished by the CONTRACTOR. All projects involving computer-generated drafting will require record data submitted on diskettes compatible with AutoCAD™, Release 2004 or later.

1.13 Video of Projects

- A. The CONTRACTOR shall make provision, at his expense, for video recordings to be taken just prior to construction and for unusual conditions during construction in accordance with the requirements of the specification. The video will show pertinent physical features along the line of construction prior to the start of construction. Two (2) copies of all videos shall be furnished to the CITY.

- B. The CONTRACTOR shall include all locations used for material and equipment storage in this video recording.

1.14 Schedules

- A. The CONTRACTOR shall submit to the CITY for its review schedules of time and dates for the removal and relocation of the existing water and sewer lines and other utilities as shown on the drawings, and shall coordinate all work in this regard to ensure a minimum of inconvenience to the area served by these services. See also *General Conditions*.

1.15 Protection of Property

- A. The CONTRACTOR shall be responsible for the protection of property in the areas in the vicinity of the construction project and for the protection of his own equipment, supplies, materials, and work against damage resulting from the elements, such as flooding, wind damage, or other cause as a result of the configuration of the construction project. The CONTRACTOR shall take all precautions against any such damage resulting from same. The CONTRACTOR shall provide adequate drainage facilities, tie-downs, or other protection throughout the life of the Contract for the protection of his, the CITY's, and other properties from such damage.

1.16 Codes

- A. The CONTRACTOR shall be responsible for the performance of each craft or trade being accomplished within, and to the satisfaction of the prevailing codes or ordinances for that particular craft or trade on this project.

1.17 Guarantees, Operating And Maintenance Instructions

- A. The CONTRACTOR shall furnish to the CITY two (2) sets of brochures containing spare parts data and operating and maintenance instruction on all major equipment furnished for the project and copies of all manufacturer's guarantees and warranties. This material shall be furnished before the completion of the project and before final payment is made to the CONTRACTOR.

1.18 Protection Of Existing Water And Sanitary Sewer Services

- A. The CONTRACTOR shall preserve from damage any existing water and sanitary sewer service along the line of work, or which is in the vicinity of, or is in any way affected by the work, the removal or destruction of which is not called for by the plans. Where such water and/or sanitary sewer service is damaged due to the activities of the CONTRACTOR, it shall be immediately restored to its original condition by the CONTRACTOR at no cost to the CITY or service entity.

1.19 Restoration

- A. The CITY reserves the right to stop work if, in the opinion of the CITY, the construction operation is too far in advance of restoration and cleanup. The CONTRACTOR is to cease all operations except restoration until the CITY is satisfied that the restoration is acceptable.

End of Section

**Section 01025A
Measurement and Payment (City)**

Part 1 General

1.01 Scope of Payment

This Section covers pay items associated with City of Treasure Island stormwater, roadway and parking lot improvements. Pinellas County Utilities pay items identified in Section 01025B.

Payment to the CONTRACTOR will be made for actual quantities and work completed and accepted in accordance with the Contract.

The CONTRACTOR shall accept in compensation provided herein full payment for furnishing all materials, labor, tools, equipment, and incidentals necessary to complete all work included in the Contract; also for all loss or damage arising from the nature of the work, inclement weather, action of the elements or from any unforeseen difficulties which may be encountered during the execution of the work or except as provided herein. The CITY will make no allowances for Items not included in the proposal.

1.02 Procedure for Measurement

- A. For lump sum items, payment shall be based on the lump sum prices set forth in the Bid Proposal and based on the amount of completed work.
- B. For field measured unit-price items, payment shall be based on the actual amount of work accepted and the actual amount of materials in place, as will be determined by measurements.

1.03 Estimated Quantities

All estimated field measure quantities stipulated in the Bid Proposal or other Contract Documents are approximate and are to be used only (a) as a basis for estimating the probable cost of the WORK and (b) for purpose of comparing the bids submitted for the WORK. The actual amounts of WORK done under field measured unit price items may differ from the estimated quantities. The basis of payment for WORK will be the actual amount of WORK performed and field measured.

Should the quantities of unit price items listed in the original Bid Proposal increase or decrease, the prices for these items must be at the unit price quoted by the CONTRACTOR on his original Bid Proposal.

1.04 Incidental Work

All work shown on the plans and referenced in the specifications as being part of the contract for which no separate pay item is provided is considered incidental to the contract. Incidental items are to be incorporated into the pay items provided. Claims for separate payment of incidental items will not be considered.

1.05 Items Included but Not Specified

The unit or lump sum prices designated in the Bid Proposal shall include all profit, taxes, labor, overhead, material, equipment, tools, survey staking, utility notification and coordination,

protection of existing utilities, temporary support of existing utilities, shoring, sheeting and slope protection (proprietary and non-proprietary), backfill, dewatering, extra backfill material as required, resetting of mailboxes, irrigation removal and repair, expansion joint material, excavation materials, protection and preservation of existing structures, salvaging of items as shown on the drawings, coordination with City staff, securing a City Building Permit (if needed) and other work incidental thereto and specified in these specifications and on the drawings.

If unsuitable material is found in any location it shall be removed, transported offsite, properly disposed of and replaced (if needed) at no additional cost to the City.

1.06 Description of Pay Items

The following describes the measurement of and payment for the work to be done under the respective items listed in the Bid Proposal.

Each field measure unit or lump sum item stated in the Bid Proposal shall constitute full compensation for each items of work completed.

- Mobilization (ITEM A-G-1)**
- Mobilization (ITEM E-G-1)**
- Mobilization (ITEM F-G-1)**
- Mobilization (ITEM G-G-1)**

The work specified under this Section consists of preparatory work and operation in mobilizing to begin work on the project, including but limited to those operations necessary for the movement of personnel, equipment, supplies and incidentals to the project site(s), and for the establishment of temporary offices, buildings, safety equipment, project sign and first aid supplies, sanitary and other facilities as required by these specifications, special provisions, and state and local laws and regulations. Mobilization costs shall also include the costs of preconstruction videotaping, coordination with residents throughout the project’s duration, coordination with City representatives throughout the project’s duration, project signs, insurance, bonds, permits (including NPDES & dewatering) and other Contract materials. The contract unit price will be on a lump sum unit price. Partial payments will be allowed as outlined below.

PERCENT OF ORIGINAL CONTRACT AMOUNT EARNED	ALLOWABLE PERCENT OF THE LUMP SUM PRICE FOR MOBILIZATION (*)
5	25
10	50
25	75
100	100

It shall be noted that the Mobilization pay item included in Bid Schedule A covers all work proposed in Bid Schedules B, C & D.

- Maintenance of Traffic (ITEM A-G-2)**
- Maintenance of Traffic (ITEM E-G-2)**
- Maintenance of Traffic (ITEM F-G-2)**
- Maintenance of Traffic (ITEM G-G-2)**

This Section consists of the maintaining vehicular and pedestrian traffic within limits of the project for the duration of the construction period, in accordance with the requirements of FDOT

Section 102 of the "Standard Specifications", as amended herein.

The Contractor will not be permitted to close access to residences or places of business. Provisions shall be made to provide access to large trucks for pick-up and delivery of materials during the construction period. The Contractor shall furnish, erect, and maintain all necessary traffic control and safety devices, in accordance with the Florida Department of Transportation "ROADWAY AND TRAFFIC DESIGN STANDARDS", applicable edition, and State of Florida's "MANUAL OF TRAFFIC CONTROL AND SAFE PRACTICES FOR STREET AND HIGHWAY CONSTRUCTION MAINTENANCE AND UTILITY OPERATIONS", applicable edition, and shall take all necessary precautions for the protection of the work and the safety of the public for duration of the construction period.

A Maintenance of Traffic (MOT) plan shall be submitted to the City, by the Contractor, and approved prior to implementation. This plan shall include all necessary signage and dimensions.

The work specified under this Section shall include the furnishing, erection, and maintenance of all temporary traffic barricades of whatever type required, and for such duration as may be required, and shall include all materials and construction necessary for temporary connections and driveway maintenance. The Contractor will also be responsible for coordinating with adjacent property owners regarding changes and/or alterations to the MOT plan. The Contract unit price for this item will be a lump sum unit price. Partial payments for maintenance of traffic will be limited to the overall percent of the work completed by the Contractor.

It shall be noted that the Maintenance of Traffic pay item included in Bid Schedule A covers all work proposed in Bid Schedules B, C & D.

Erosion & Sediment Control (ITEM A-G-3)
Erosion & Sediment Control (ITEM E-G-3)
Erosion & Sediment Control (ITEM F-G-3)
Erosion & Sediment Control (ITEM G-G-3)

Price shall include payment for all installation, maintenance, removal, and all other incidentals necessary to provide erosion and sediment control (within the project boundaries) and control turbidity as notated on the plans and as required by any local, state or Federal code, statute or ordinance. Daily debris removal from right of ways, easements and vehicle use areas shall be included in this pay item. This pay item shall also cover all equipment, material and labor required to adhere to the dewatering requirements and conditions stated on the plans. Payment for this item shall be on a lump sum basis and shall include all necessary equipment, labor and materials to complete this pay item. The Contractor shall receive compensation for this item as stipulated in the below table.

PERCENT OF ORIGINAL CONTRACT AMOUNT EARNED	ALLOWABLE PERCENT OF THE LUMP SUM PRICE FOR EROSION AND SEDIMENT CONTROL
5	25
10	50
25	75
100	100

It shall be noted that the Erosion & Sediment Control pay item included in Bid Schedule A covers all work proposed in Bid Schedules B, C & D.

Turbidity Monitoring to Adhere to Permit Conditions (ITEM A-G-4)

Price shall include payment for turbidity monitoring required throughout the duration of the project as required on the Southwest Florida Water Management District (SWFWMD) permit. The price paid shall be payment in full for the initial sampling, record keeping, sampling at the frequencies required in the permit, revising the work plan if needed to achieve the required turbidity levels, coordination with the SWFWMD as needed, acquisition of a professional sampling company if needed to perform the sampling and all other incidentals needed to complete the work. Payment for this item shall be on a lump sum basis and shall include all necessary equipment, labor and materials to complete this pay item. Partial payments for this task will be limited to the overall percent of the work completed by the Contractor.

This work shall be performed for the northern and southern systems throughout the duration of work identified in Bid Schedules A-D.

- FDOT Type "J-7T" Manhole (4' Dia.) (ITEM A-DI-1)**
- FDOT Type "D" Ditch Bottom Inlet (ITEM A-DI-2)**
- FDOT Type "F" Ditch Bottom Inlet (ITEM A-DI-3)**
- Trench Drain (Tern Lot) (ITEM A-DI-4)**
- Trench Drain (Ring-Billed Gull Lot) (ITEM A-DI-5)**
- Remove Existing Structure / Plug Outfall Pipes (ITEM A-DI-6)**
- Connect to Existing Structure (ITEM A-DI-7)**
- 8" PVC Drainage Structure (E-PL-12)**
- FDOT Type "F" Ditch Bottom Inlet (ITEM F-PL-10)**

The above pay items shall include payment for furnishing and installing stormwater structures. Payment for this item shall include, but not be limited to, the following: acquisition of field dimensions, dewatering, excavation, the removal and proper disposal of existing piping to be replaced and/or shown to be removed in the plans, the disposal of excess material, transportation, sheeting, shoring, slope stabilization, protection / support of existing utilities, bedding material, structure modifications, additional piping as needed to extend existing piping and perform a connection, construction of concrete support (trench drains), incorporation of sanitary sewer piping, frame and grate adjustments (as necessary), access covers & grating, grouting, sealing, formwork, reinforcement, connection of new/existing piping, connections to existing structures, masonry bulkhead construction, masonry bulkhead demolition, structure opening repairs when pipes are removed, backfilling, backfill material, compaction, grading, testing, protection of work, clean up and any other incidentals required to perform this task.

Payment for this item shall be on a per each stormwater structure furnished and installed basis and shall include all necessary equipment, labor and materials to complete this pay item.

- 12" PVC (ITEM A-DI-8)**
- 15" RCP (ITEM A-DI-9)**
- 18" RCP (ITEM A-DI-10)**
- 6" PVC Drain (ITEM E-PL-11)**
- 15" RCP (ITEM F-PL-9)**

Payment for PVC and reinforced concrete storm piping (sizes stated above) will be paid for at the Contract Unit Price per linear foot for the size pipe installed, based on field measurements. The price paid shall be payment in full for the pipe, gaskets, joint material, external joint wrap, filter fabric, dewatering, all excavation, coffer dam construction, the disposal of excess material,

existing pipe removal and disposal, demolition of surfaces and other features as needed to construct the piping, protection of property, transportation, sheeting, bedding material, backfill, grading, compaction, testing, equipment, labor, materials, protection of work, trench safety precautions, concrete collar construction (per FDOT Index No. 280), clean up, resetting of existing fences (wood & chain link), furnishing and installing new posts (wood and metal) if needed to facilitate fence resetting and all other incidentals necessary to complete each item.

The quantity of storm pipe to be paid for shall be based on the laying length of the pipe in linear feet actually placed as measured along the long side of the satisfactorily installed pipe (measured from the outside wall of structures).

All excess material shall be transported offsite at the expense of the Contractor.

Pay Items E-PL-11 (6" PVC Drain) and F-PL-9 (15" RCP) shall include the connection to existing structure shown on the plans.

8" Ductile Iron Sanitary Sewer Removal & Replacement (ITEM A-UT-1)

Payment for the removal & replacement of ductile iron sanitary sewer (gravity) shall be made at the Contract Unit Price per linear foot and shall include payment for furnishing and installing sanitary sewer piping as specified in the Drawings. Payment for this item shall include, but not be limited to, the following: resident coordination, bypassing of sewage flows, field layout of the sanitary sewer alignment, excavation, dewatering, preparation and placement of bedding material, slope stabilization, sheeting, shoring, protection of existing utilities, installation of ductile iron sanitary sewer main including all gaskets and required appurtenances, performance testing, backfill, compaction of backfill, grading, compaction testing and shall include all necessary equipment, labor and materials to complete this pay item.

Mains routed through conflict structures shall be ductile iron.

Sanitary Lateral Conflict Structure (4' Diameter Brick) (w/10 LF of 4"/6" DIP) (ITEM A-UT-2)

Payment for sanitary conflict structures will be paid for at the Contract Unit Price bid per each structure installed. The price paid shall be payment in full for the structure, dewatering, all excavation, the disposal of excess material, transportation, sheeting, bedding material, bedding preparation, structure construction, backfill, compaction, testing, structure modifications, furnishing and installing new ductile iron piping (4"/6") (10 LF), connection of existing piping, frame and grate adjustments (as necessary), covers, grouting, sealing, formwork, reinforcement, incorporation of sanitary sewer piping, equipment, labor, protection of work, clean up and all other incidentals necessary to complete these items.

Measurement for payment will be the actual number of each type of sanitary main conflict structures installed and accepted. Laterals routed through conflict structures shall be ductile iron.

No direct payment will be made for the removal or plugging of existing structures.

Sanitary Lateral Removal & Replacement (4"/6" PVC) (ITEM A-UT-3)

Payment for the relocation of sanitary laterals shall be made at the Contract Unit Price per linear foot of lateral relocated. The price paid shall be payment in full for all labor, equipment and

materials necessary to relocate sanitary laterals, as needed, in order to facilitate storm drain installation and/or roadway reconstruction. This item shall include all survey staking, utility & homeowner coordination, excavation, disposal of excess material, dewatering, sheeting, trench stabilization, protection of existing utilities, installation of sanitary lateral piping to avoid conflicts (as needed), fittings, appurtenances, adaptors, removal and disposal of conflicting sanitary laterals, temporary plugs, connections to existing laterals, backfill and all other incidental items required to relocate the sanitary laterals (as needed).

The sizes of existing sanitary laterals are unknown. The Contractor shall replace adjusted laterals size in-kind (4" to 6" anticipated).

Laterals routed through conflict structures shall not be paid using this pay item.

Mill Existing Asphalt (2") (ITEM A-S-1)

Mill Existing Asphalt (2") (ITEM B-S-1)

Payment for milling existing asphalt shall be paid for at the unit price per square yard which price will be full compensation for removal (milling) of existing asphaltic concrete wearing surface (as shown on the Plans) to the depth of 2", survey, leveling, dewatering, transportation, testing, labor, equipment, and other incidentals necessary to complete this item.

The Contractor shall take ownership of all millings.

Roadway Reconstruction (Excluding Asphalt) (ITEM A-S-2)

Payment for roadway reconstruction shall be paid for a per square yard of roadway reconstructed basis and shall include all labor, equipment and materials required to perform the work. Payment shall include, but not be limited to, the following: demolition of existing roadway, protection of adjacent roadway sections proposed to remain, restoration of adjacent roadway sections proposed to remain but damaged by the Contractor, disposal of demolished roadway material, protection of property, excavation, dewatering, rough grading, preparation of subgrade, furnishing and installing base material as identified in the plans, fine grading, compaction, testing and any other incidentals required to complete the work.

It shall be noted that asphalt for segments of reconstructed roadway shall be paid for in a separate pay item.

Roadway Restoration (Excluding Asphalt) (ITEM A-S-3)

Asphalt Driveway / Parkway Restoration (ITEM A-S-6)

Asphalt Driveway / Parkway Restoration (ITEM C-PW-3)

Asphalt Driveway / Parkway Restoration (ITEM D-RW-9)

Payment for the restoration of asphalt roadways and parkways shall be made on a per square yard restored basis and shall include all necessary equipment, materials and labor required to complete this item. Work activities to be covered under this pay item shall include, but not be limited to, the following: saw cutting of asphalt, furnishing fill, subgrade and base material, placement of fill, subgrade and base material per the specifications, compaction of fill, subgrade, and base in accordance with the specifications, stabilization of subgrade, grading as needed to restore preconstruction stormwater flow patterns and match existing pavement elevations, testing and all incidental items required to complete this pay item.

It shall be noted that asphalt for segments of restored roadway under Pay Item A-S-3 shall be paid for in a separate pay item.

It shall be noted that asphalt for segments of restored driveway / parkway shall be paid for in this pay item. The application of prime and tack coats and furnishing and placing asphalt are components of Pay Item A-S-6.

Type SP-12.5 Asphalt (ITEM A-S-4)

Type SP-12.5 Asphalt (ITEM B-S-4)

Payment for FDOT Type SP-12.5 asphalt shall be paid for at the unit price per ton of asphalt furnished and installed which price will be full compensation for placement and compaction of 2" of asphaltic concrete wearing surface, prime coat, bituminous tack coat material, dewatering, transportation, compaction, testing, labor, equipment, and other incidentals necessary to complete this item.

Concrete Sidewalk Restoration (6") (ITEM A-S-5)

Concrete Driveway Restoration (ITEM A-S-8)

Concrete Sidewalk Construction (4") (ITEM B-S-5A)

Concrete Sidewalk Construction (6") (ITEM B-S-5)

Concrete Driveway Restoration (ITEM C-PW-4)

Concrete Driveway Restoration (ITEM D-RW-10)

Concrete Sidewalk Construction (4") (ITEM E-PL-9)

Concrete Sidewalk Construction (6") (ITEM E-PL-10)

Concrete Sidewalk Construction (4") (ITEM F-PL-7)

Concrete Sidewalk Construction (6") (ITEM F-PL-8)

Payment for concrete driveways and sidewalks of the thickness specified (sidewalk varies; driveways 6") will be paid for at the Contract Unit Price per square foot, based on field measurements. The price paid shall be payment in full for the removal and disposal of existing driveways and sidewalks (saw cut), dewatering, grading, formwork, reinforcement, curing the concrete, detectable warning surface installations where shown on the plans, providing protection against rain and cold weather, removing forms, compaction, furnishing and placement of all driveway and sidewalk materials, transportation, equipment, labor, jointing, reinforcement, finishing, material testing and all other incidentals necessary to complete this item.

Expansion joint material, where called for on the plans or required, shall be included in this pay item.

Shell Driveway / Parkway Restoration (ITEM A-S-7)

Shell Driveway / Parkway Restoration (ITEM C-PW-6)

Shell Driveway / Parkway Restoration (ITEM D-RW-12)

Shell Gore Area (ITEM E-PL-8)

Shell Gore Area (ITEM F-PL-6)

Shell Gore Area (ITEM G-PL-8)

Payment for shell parkway restoration (of a thickness matching the existing thickness plus 2") and shell gore area construction (4") will be paid for at the Contract unit price per square foot of shell parkway restored, based on field measurements. The price paid shall be payment in full for the removal and disposal of existing driveway materials, field confirmation of shell depth, dewatering, grading, furnishing and placement of shell materials of a quality matching the

existing material (if salvaging is not feasible), placement of woven filter fabric, transportation, equipment, labor, subgrade stabilization, compaction, jointing, finishing, material testing and all other incidentals necessary to complete this item.

Brick / Paver Driveway Restoration (ITEM A-S-9)
Brick / Paver Driveway Restoration (ITEM C-PW-5)
Brick / Paver Driveway Restoration (ITEM D-RW-11)

Payment for the restoration of brick/paver driveways of the thickness observed in the field will be paid for at the Contract unit price per square foot, based on field measurements. The price paid shall be payment in full for the removal, storage (of materials to be reused) and disposal of existing driveway materials, protection of removed bricks and/or pavers, dewatering, grading, furnishing and placement of all driveway materials, transportation, equipment, labor, subgrade stabilization, compaction, jointing, finishing, material testing and all other incidentals necessary to complete this item.

Gravel/Pebble Driveway / Parkway Restoration (ITEM A-S-10)
Gravel/Pebble Driveway / Parkway Restoration (ITEM C-PW-7)
Gravel/Pebble Driveway / Parkway Restoration (ITEM D-RW-13)

Payment for gravel/pebble parkways / driveways of the thickness specified will be paid for at the Contract unit price per square foot, based on field measurements. The price paid shall be payment in full for the removal and disposal of existing driveway materials, dewatering, grading, furnishing and placement of all driveway materials, placement of woven filter fabric, transportation, equipment, labor, subgrade stabilization, compaction, jointing, finishing, material testing and all other incidentals necessary to complete this item.

It shall be noted that this pay item shall not be used when gravel /pebble restoration is a component of a landscaping bed.

Reset Street Signage (ITEM A-S-11)

The work specified under this Section consists of the resetting of existing traffic control signs that are necessary for the installation of the proposed drainage. The costs also include the costs of temporary storage and /or relocation of the traffic control signs. Payment for the replacement of items deemed damaged or unusable by the CITY will be included in the cost of relocating and resetting traffic control signs. The contract unit price will be on a lump sum basis.

Tree Removal & Replacement / Replace Removed Landscaping / Protection of Existing Landscaping (ITEM A-S-12)
Tree Removal & Replacement / Replace Removed Landscaping / Protection of Existing Landscaping (ITEM C-PW-8)
Tree Removal & Replacement / Replace Removed Landscaping / Protection of Existing Landscaping (ITEM D-RW-14)

The above pay items shall include payment for the replacement of removed landscaping including trees, shrubs, plantings and ground cover and the protection of landscaping shown to remain. Payment for this item shall include, but not be limited to, the following: removal of landscaping, temporary stabilization of bare earth, temporary support of trees, furnishing and installing replacement landscaping, protection of existing landscaping any other incidentals

required to perform this task. Payment for this item shall be on lump sum basis and shall include all necessary equipment, labor and materials to complete this pay item.

Restore Incidental Parkway Items (ITEM A-S-13)

The above pay item shall include payment for the replacement, temporary stockpiling and restoration of parkway features present at the time of construction but not specifically quantified in a pay item (decorative concrete paver stones, decorative boulders/rocks, public art displays, etc.). Payment for this item shall be on lump sum basis and shall include all necessary equipment, labor and materials to complete this pay item.

Sodding (Match Existing) (ITEM A-S-14)

Sodding (Match Existing) (ITEM C-PW-9)

Sodding (Match Existing) (ITEM D-RW-15)

Payment for sod (match existing) will include furnishing all equipment, labor and materials to replace sod damaged or removed during construction activities, including rolling sod, erosion protection, and watering until final acceptance by the Engineer. Sod installation shall be accordance with the specifications. The Contractor shall only receive compensation for sod placed within the project area. Payment will be per square foot of sod replaced and shall include all other incidental items required to successfully complete this pay item, including watering.

Excavation, Unsuitable Material (ITEM A-M-1)

Excavation, Rock (ITEM A-M-2)

Excavation, Muck (ITEM A-M-3)

Excavation, Unsuitable Material (ITEM E-M-1)

Excavation, Rock (ITEM E-M-2)

Excavation, Muck (ITEM E-M-3)

Excavation, Unsuitable Material (ITEM F-M-1)

Excavation, Rock (ITEM F-M-2)

Excavation, Muck (ITEM F-M-3)

Excavation, Unsuitable Material (ITEM G-M-1)

Excavation, Rock (ITEM G-M-2)

Excavation, Muck (ITEM G-M-3)

Payment for the work involved under these pay items shall be paid for on a per cubic yard price, which payment will be full compensation for all labor, materials, fittings, appurtenances, and equipment necessary to install the work elements which include the following: testing to determine quality of material proposed to be removed, coordination with City officials, removal and disposal of material, replacement of with suitable material, compaction of suitable material as required in the Specifications, compaction testing as required in the Specifications and grading, as necessary, to restore all surficial drainage features.

FDOT Type "D" Curb (ITEM B-S-15)

Header Curb (ITEM E-PL-3)

Header Curb (ITEM F-PL-3)

Header Curb (ITEM G-PL-3)

Payment for FDOT Type "D" Concrete Curb and header curb will be paid for at the Contract Unit Price per linear foot, based on field measurements. The price paid shall be payment in full for

the removal and disposal of existing curbs, dewatering, grading, furnishing and placing of all curb materials, transportation, equipment, labor, subgrade stabilization, compaction, formwork, transitions, reinforcement, jointing, finishing, providing protection against rain and cold weather, material testing, protection of work and all other incidentals necessary to complete these items.

The quantity of concrete curb to be paid for shall be determined from field measurements of the amount satisfactorily constructed, measured in linear feet along the front face of the curb.

Expansion joint material, where called for on the plans or required, shall be included in this pay item.

No direct payment will be made for the removal and disposal of existing curb and gutter. Payment for curb transitions shall be provided under FDOT Type "D" curb.

Thermoplastic Striping, Yellow, 6" (ITEM B-S-16)

Thermoplastic Striping, White, 6" (ITEM B-S-17)

Payment for thermoplastic striping will be paid for at the contract unit price per gross mile as measured in the field (excluding unmarked gaps at intersections). Payment shall include, but not be limited to, the following: cleaning and preparation of surface, furnishing materials, application, curing, protection of traffic and all incidentals required to complete the work.

Thermoplastic striping shall be furnished and installed in accordance with FDOT Specification Section 711.

Retro-Reflective Pavement Markers (Yellow) (ITEM B-S-18)

Payment for RRPMS will be paid for at the contract unit price per each RRPM installed basis. Payment shall include, but not be limited to, the following: field measurements and layout, cleaning and preparation of surface, furnishing materials, application, curing, protection of traffic and all incidentals required to complete the work.

RRPMs shall be furnished and installed in accordance with FDOT Specification Section 706.

Demolition / Clearing & Grubbing (ITEM E-PL-1)

Demolition / Clearing & Grubbing (ITEM F-PL-1)

Demolition / Clearing & Grubbing (ITEM G-PL-1)

Payment for demolition of the existing parking lots and clearing and grubbing shall be provided on a lump sum basis and shall include all necessary labor, equipment and material to perform the work. Payment shall include, but not be limited to, the following: removal of existing structures, protection of property and newly constructed features, removal of existing fencing, removal of existing piping (including exfiltration trench and media envelope), concrete surface demolition, existing parking lot demolition to the depth shown on the plans, protective barrier installation to protect dune vegetation, salvaging of existing signage, protection of wooden bollards, dewatering, excavation, sheeting, shoring, disposal of all demolished material, transportation and any incidentals required to complete the work.

Tree Barricades / Tree Protection / Tree Removal (ITEM E-PL-2)

Tree Barricades / Tree Protection / Tree Removal (ITEM F-PL-2)

Tree Barricades / Tree Protection / Tree Removal (ITEM G-PL-2)

Payment for tree-related activities shall be provided on a lump sum basis. Payment shall include, but not be limited to, the following: erection and maintenance of tree barricades, protection of trees throughout construction, removal of trees where identified or needed to construction the proposed improvements, disposal of removed trees, removal of tree barricades and any incidentals required to complete the work.

Parking Lot Subgrade Preparation (ITEM E-PL-4)
Parking Lot Subgrade Preparation (ITEM G-PL-4)

Payment for pervious concrete parking lot subgrade preparation shall be provided on a per square foot of parking lot subgrade prepared basis. Payment shall include, but not be limited to, the following: rough grading of insitu soils, scarifying of existing soils, compaction of existing soils, importing of additional material as needed, dewatering, excavation, protection of property, testing any incidentals required to complete the work.

FDOT No. 57 Stone Base (ITEM E-PL-5)
FDOT No. 57 Stone Base (ITEM G-PL-5)

Payment for FDOT No. 57 stone base beneath pervious concrete parking lots shall be provided on a per cubic yard of stone base furnished, installed and prepared basis. Payment shall include, but not be limited to, the following: placement of geotextile fabric, furnishing and installing rock base, overlapping of geotextile fabric, dewatering, excavation, protection of property, testing, fine grading any incidentals required to complete the work.

Pervious Concrete (ITEM E-PL-6)
Pervious Concrete (ITEM G-PL-6)

Payment for pervious concrete shall be provided on a per square foot of pervious concrete furnished at the plan-defined thickness, installed and accepted basis. Payment shall include, but not be limited to, the following: surface preparation, mix design preparation, confirmation of qualifications, providing the required supervision, test panel construction, forming, placement of concrete, infiltrometer placement, finishing, compaction, jointing, curing per the specification requirements, testing, dewatering, traffic management and any incidentals required to complete the work.

Asphalt Parking Lot Construction (ITEM F-PL-4)

Payment for the construction of asphalt parking lots shall be made on a per square yard of parking lot constructed basis and shall include all necessary equipment, materials and labor required to complete this item. Work activities to be covered under this pay item shall include, but not be limited to, the following: removal of excess material, furnishing fill, subgrade and base material, placement of fill, subgrade and base material per the roadway specifications, compaction of fill, subgrade, and base in accordance with the roadway specifications, stabilization of subgrade, grading as needed to achieve proposed stormwater flow patterns, application of prime and tack coats, placement of asphalt, compaction, testing and all incidental items required to complete this pay item.

Fine Grading (Landscape Bed Preparation) (ITEM E-PL-7)
Fine Grading (Landscape Bed Preparation) (ITEM F-PL-5)
Fine Grading (Landscape Bed Preparation) (ITEM G-PL-7)

Payment for fine grading associated with landscape beds shall be provided on a per square foot of area graded basis. Payment shall include but, but not be limited to, the following: grading to achieve plan elevations, protection of newly constructed features, topsoil placement, dewatering, excavation, moderate compaction, testing and all incidental items required to complete this pay item.

Recycled Plastic Wheel Stop (ITEM E-PL-13)
Recycled Plastic Wheel Stop (ITEM F-PL-11)
Recycled Plastic Wheel Stop (ITEM G-PL-9)

Payment for constructing recycled plastic wheels stops, dimensionally similar to the wheel stops depicted within FDOT Index No. 300, shall be provided on a per each wheel stop furnished and installed basis. Payment shall include, but not be limited to, the following: furnishing recycled plastic wheels stops, securing wheels stops to surface and all other incidentals necessary to complete this item.

Signage & Striping (ITEM E-PL-14)
Signage & Striping (ITEM F-PL-12)
Signage & Striping (ITEM G-PL-10)

Payment for constructing signage and striping, as shown on the plans, shall be provided on a lump sum basis. Payment shall include, but not be limited to, the following: construction of painted (pervious concrete) / thermoplastic (asphalt) striping where shown on the plans, signage construction as shown on the plans, construction of reflective markings on sign posts and all other incidentals necessary to complete this item.

End of Section

**Section 01025B
Measurement and Payment (County)**

Part 1 General

1.01 Scope of Payment

This Section covers pay items associated with Pinellas County Utilities (Potable & Reclaimed Water). Restoration-related pay items associated with Pinellas County work are identified in Section 01025A.

Payment to the CONTRACTOR will be made for actual quantities and work completed and accepted in accordance with the Contract.

The CONTRACTOR shall accept in compensation provided herein full payment for furnishing all materials, labor, tools, equipment, and incidentals necessary to complete all work included in the Contract; also for all loss or damage arising from the nature of the work, inclement weather, action of the elements or from any unforeseen difficulties which may be encountered during the execution of the work or except as provided herein. The CITY will make no allowances for Items not included in the proposal.

1.02 Procedure for Measurement

- A. For lump sum items, payment shall be based on the lump sum prices set forth in the Bid Proposal and based on the amount of completed work.
- B. For field measured unit-price items, payment shall be based on the actual amount of work accepted and the actual amount of materials in place, as will be determined by measurements.

1.03 Estimated Quantities

All estimated field measure quantities stipulated in the Bid Proposal or other Contract Documents are approximate and are to be used only (a) as a basis for estimating the probable cost of the WORK and (b) for purpose of comparing the bids submitted for the WORK. The actual amounts of WORK done under field measured unit price items may differ from the estimated quantities. The basis of payment for WORK will be the actual amount of WORK performed and field measured.

Should the quantities of unit price items listed in the original Bid Proposal increase or decrease, the prices for these items must be at the unit price quoted by the CONTRACTOR on his original Bid Proposal.

1.04 Incidental Work

All work shown on the plans and referenced in the specifications as being part of the contract for which no separate pay item is provided is considered incidental to the contract. Incidental items are to be incorporated into the pay items provided. Claims for separate payment of incidental items will not be considered.

1.05 Items Included but Not Specified

The unit or lump sum prices designated in the Bid Proposal shall include all profit, taxes, labor, overhead, material, equipment, tools, survey staking, utility notification and coordination, protection of existing utilities, temporary support of existing utilities, shoring, sheeting and slope protection (proprietary and non-proprietary), backfill, dewatering, extra backfill material as required, resetting of mailboxes, irrigation removal and repair, expansion joint material, excavation materials, protection and preservation of existing structures, salvaging of items as shown on the drawings, coordination with City staff, securing a City Building Permit (if needed) and other work incidental thereto and specified in these specifications and on the drawings.

If unsuitable material is found in any location it shall be removed, transported offsite, properly disposed of and replaced (if needed) at no additional cost to the City.

1.06 Description of Pay Items

The following describes the measurement of and payment for the work to be done under the respective items listed in the Bid Proposal.

Each field measure unit or lump sum item stated in the Bid Proposal shall constitute full compensation for each items of work completed.

SERVICE CONNECTIONS

Description: This work consists of installing/adjusting long side service connections for potable and reclaimed water mains in order to avoid conflict with proposed stormwater improvements. Required service casings shall be included in the service pay item. The construction of new 1" service connections shall be made with a CC threaded corporation stop mounted on a service saddle. The unit price shall include installing saddles, corporation stops, ball corporations and pack-joint couplings; color coded water service tubing (potable and reclaimed), HDPE or SCH 80 service casing by directional bore (long side services only), color coded tracer wire, tubing inserts, brass nipples, brass bushings, SCH 80 plugs; connections to existing potable and reclaimed water services, exploratory excavation, existing service removal, excavation, backfill, bracing, sheeting, shoring, dewatering, clearing, grubbing, stripping, and trenching; launching pits and receiving pits; bedding and backfill; disposal of spoil; surface grading, pressure testing, offline disinfection, and cleaning and all other related and incidental materials, work and equipment required to construct a complete, operable potable or reclaimed service assembly as shown in the plan details. Authorized materials listed can be retrieved from: <https://www.pinellascounty.org/utilities/PDF/spec-manual.pdf>

It shall be noted that service adjustment pay items shall be utilized when a new tapping saddle is not installed and newly installed service tubing is connected to the existing service on either end (outside of the paved roadway's limits). New service pay items shall be utilized when a new tapping saddle is installed and newly installed service tubing is connected to the existing service on one end (outside of the paved roadway's limits).

Payment will not be provided for existing services that are able to be physically altered (horizontally or vertically) to allow for the stormwater improvements to be installed.

Measurement: The quantity of service connections adjusted to be paid for under this item shall be the linear footage (LF) of service in place, tested, accepted and placed into service.

The quantity of newly constructed service connections paid for under this item shall be made per each (EA) service in place, tested, accepted and placed into service.

Payment shall be made under:

ITEM D-RW-1	Adjust Reclaimed Water Service (1") Per LF
ITEM D-RW-2	Construct New Reclaimed Water Service (1") (Long Side) Per EA
ITEM C-PW-1	Adjust Potable Water Service (1") Per LF
ITEM C-PW-2	Construct New Potable Water Service (1") (Long Side) Per EA

PIPE – RECLAIMED WATER (ADJUSTMENT ASSEMBLY)

Description: This work consists of furnishing all labor, equipment, and materials and adjusting reclaimed water pipe that would otherwise be in conflict with new construction, as determined by the plans or as directed by the Engineer.

The unit price shall include all costs necessary to adjust reclaimed water pipes including: survey layout and "as-built" drawing preparation, advanced dig up and verification of potable and reclaimed water main locations (horizontal and vertical), advance written notification of shutdown to all affected customers, coordination and scheduling of valve operation by the County for shutdown, protection of property, protection / support of existing utilities, mailboxes and service connections; materials, dewatering, pavement cutting, extra pipe fitting material, shoring and sheeting, bracing; clearing; grubbing and stripping of the right-of-way; trenching including exploratory excavation; bedding and backfilling (including roadway base material when work is done outside of plan-defined roadway restoration and roadway reconstruction limits); thrust restraint of existing pipes by constructing reverse deadmen at connection points (2 per assembly); cutting and plugging existing pipes, furnish and installation of solid sleeves at connection to existing mains (including glandular joint restraints), construction of four (4) 45-degree bends (including glandular restraints), construction of fifty (50) horizontal linear feet of pipe (including glandular restraints); flushing, pigging and cleaning, tracing wire and tracing wire testing, polyethylene encasement and any other operations required to make a complete connection on both sides of the adjustment. Authorized materials listed can be retrieved from: <https://www.pinellascounty.org/utilities/PDF/spec-manual.pdf>.

Where connections are made to existing HDPE mains, costs for furnishing and installing a fused mechanical joint adaptor and stainless steel stiffeners shall be included in this pay item.

All new pipes shall be restrained as called for in the plans and plan details. No payment will be made under this Pay Item when a section of pipe is installed beginning at a tapping sleeve and valve or when adjustment is part of new pressure pipe construction.

Payment for pipe length (in excess of the 50 LF included in this pay item), valves, fittings (in excess of the four (4) 45-degree deflections and two (2) solid sleeves) and restrained joints (in excess of the glandular restraints required for four (4) 45-degree fittings, two (2) solid sleeves and 50 LF of pipe) will be made under separate Pay Items.

Measurement: Measurement for payment for adjusting pipeline segments shall be made on a per each (EA) basis for each adjustment performed.

Payment shall be made under:

ITEM D-RW-3	4" Ductile Iron Reclaimed Water Main Adjustment Assembly Per EA
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PIPE – RECLAIMED WATER

Description: This work consists of furnishing all labor, equipment, and materials and installing reclaimed water pipe by the open-cut method in accordance with the specifications.

The unit price shall include all costs necessary to adjust reclaimed water pipes including: survey layout and "as-built" drawing preparation, protection of property, protection / support of existing utilities, mailboxes and service connections; materials, dewatering, pavement cutting, extra pipe fitting material, shoring and sheeting, bracing; clearing; grubbing and stripping of the right-of-way; trenching including exploratory excavation; bedding and backfilling (including roadway base material when work is done outside of plan-defined roadway restoration and roadway reconstruction limits); flushing, pigging and cleaning, tracing wire and tracing wire testing, polyethylene encasement and any other operations required to make a complete installation. Authorized materials listed can be retrieved from:

<https://www.pinellascounty.org/utilities/PDF/spec-manual.pdf>.

Payment will only be provided under this pay item when deflection linear footages are greater than fifty (50) linear feet. For example, if an adjustment totaled 75 linear feet, only 25 linear feet would be billed under this pay item. If an adjustment totaled 45 linear feet, no quantities would be billed under this pay item.

Measurement: Measurement for payment for furnishing and installing pipe shall be made on a per linear foot (LF) basis as measured horizontally above the pipe centerline through valves and fittings for all pipe.

Payment shall be made under:

ITEM D-RW-4	4" Ductile Iron Reclaimed Water Main Installation Per LF
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PIPE – RESTRAINED JOINTS

Description: This work consists of furnishing and installing restrained joints for pipe, fittings, and valves, will include all labor and materials to furnish and install mechanical joint retainer glands, lock slip joint gaskets, or other approved harnessed joints. Authorized materials listed can be retrieved from: <https://www.pinellascounty.org/utilities/PDF/spec-manual.pdf>.

Measurement: Measurement for payment for restraining mechanical or slip joints shall be made on a per each (EA) joint restrained basis (in excess of the restraints included in the “adjust” pay items). Restrained joint pipe pay limits shall not exceed the values shown in the restrained joint table.

Payment shall be made under:

ITEM D-RW-5	4” Restrained Joints Per EA
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PIPE – FITTINGS

Description: This work consists of furnishing all labor, equipment and materials for installing ductile iron fittings not included in other items. The unit price includes furnishing and installing all fittings and materials above or below ground along the pipeline alignment; joints and jointing materials; bracing, shoring, and sheeting; dewatering, clearing, grubbing, and stripping; trenching, bedding and backfill; disposal of spoil, color coded polyethylene encasement and all other related and necessary materials, work and equipment required to construct a complete and operational pipeline. Authorized materials listed can be retrieved from: <https://www.pinellascounty.org/utilities/PDF/spec-manual.pdf>.

Measurement: Measurement for payment for ductile iron fittings shall be made on a per ton (TON) of fittings installed basis (in excess of the fittings included in the “adjust” pay items). Weight shall not include the associated gaskets and jointing material. Weights for C153 fittings will be the basis of weight for each fitting.

Payment shall be made under:

ITEM D-RW-6	Ductile Iron Fittings (C153) Per TON
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PIPE – VALVES

Description: This work consists of furnishing all labor, equipment and materials for installing valves not included in other items. The unit price includes furnishing and installing valves, valve box and covers, color coded polyethylene encasement, tracer wire access, filter fabric, valve identification tags, paint reference stripe on curb/roadway, painting of valve cover, concrete valve box pad, extension stems, and incidental construction associated with these items. Authorized materials listed can be retrieved from: <https://www.pinellascounty.org/utilities/PDF/spec-manual.pdf>.

Measurement: Measurement for payment for valves shall be made on a per each (EA) valve installed basis.

Payment shall be made under:

ITEM D-RW-7	4” Gate Valve Per EA
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PIPE REMOVAL – RECLAIMED WATER

Description: This work consists of furnishing all labor and equipment to remove and dispose of out of service mains. The pipe removed becomes property of the Contractor. The unit price shall include all costs necessary to remove the pipe (including fittings, hydrants, reverse deadmen, etc.) including pavement cutting, trenching, replacement of base material, dewatering, sheeting and shoring, bracing, protection of property, backfilling and temporary restoration of surfaces.

Measurement: Measurement for payment for removing pipe shall be made on a per linear foot (LF) of pipe removed basis as measured horizontally above the pipe centerline through valves and fittings that were removed from service.

Payment shall be made under:

ITEM D-RW-8	Remove 4" Pipe Per LF
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End of Section

**Section 01045
Cutting And Patching**

Part 1 - General

1.01 Description Of Work

- A. This Section establishes general requirements pertaining to cutting (including excavating), fitting, and patching of the Work required to:
- B. Make the several parts fit properly.
- C. Remove and replace Work not conforming to requirements of the Contract Documents.
- D. Rework existing items to provide for new construction.

1.02 Quality Assurance

- A. Perform all cutting and patching in strict accordance with pertinent requirements of these Specifications and, in the event no such requirements are determined, in conformance with the CITY's written direction.
- B. Codes and standards for work of this section shall be the same as for the pertinent sections of this specification.

1.03 Submittals

- A. Request for CITY's Consent:
 - 1. Prior to cutting which affects structural safety, submit written request to the CITY for permission to proceed with cutting.
 - 2. Should conditions of the Work, or schedule, indicate a required change of materials or methods for cutting and patching, so notify the CITY and secure his written permission prior to proceeding.
- B. Notice to the CITY: Submit written notice to the CITY designating time the Work will be uncovered, to provide for the CITY's observation.

Part 2 - Products

2.01 Materials

- A. Materials used in the replacement of existing work and the construction of work in conjunction with cutting and patching shall be new unless prior approval from the CITY has been obtained to re-use existing materials.

2.01 Fabrication

- B. The materials and methods used in the fabrication of items required under this section shall comply with the individual sections of this specification that have to do with new construction.

Part 3 - Execution

3.01 Conditions

- A. Examination:
 - 1. Examine existing conditions, including elements subject to movement or damage during cutting, excavating, backfilling, and patching.
 - 2. After uncovering the Work, inspect conditions affecting installation of the new Work.
- B. Discrepancies:
 - 1. If uncovered conditions are not as anticipated, immediately notify the CITY and secure needed directions.
 - 2. Do not proceed in areas of discrepancy until all such discrepancies have been fully resolved.

3.02 Preparation Prior To Cutting

- A. Provide all required protection including, but not necessarily limited to, shoring, bracing, and support to maintain structural integrity of the Work.

3.03 Performance

- A. Perform all required excavating and backfilling as required under pertinent Sections of these Specifications. Perform cutting and demolition by methods, which will prevent damage to other portions of the Work and will provide proper surfaces to receive installation of repair and new work. Perform fitting and adjustment of products to provide finished installation complying with the specified tolerances and finishes.

End Of Section

Section 01300
Submittals

1.01 Construction Schedule

- A. At or before the pre-construction conference, CONTRACTOR shall submit to CITY for review a preliminary schedule of the proposed construction operations. The CITY will review the schedule and provide comments. Within 10 (ten) days of receipt of the CITY's comments, the CONTRACTOR shall provide a construction progress schedule. The construction schedule shall indicate the sequence of the Work, the time of starting and completion of each part, and the installation date for each major item of equipment, and the time for making connections to existing piping, structures, or facilities.
- B. The schedule shall be revised at least every 7 days to reflect changes in the progress of the Work, and copies of the revised construction schedule shall be provided to the CITY.
- C. CITY may require CONTRACTOR to add to his equipment, or construction forces, as well as increase the working hours, if operations fall behind schedule at any time during the construction period.
- D. CONTRACTOR shall meet weekly with the CITY's representative to provide an updated work schedule for the following week's activities.

1.02 Progress Reports

- A. A progress report shall be furnished to CITY with each application for progress payment. If the Work falls behind schedule, CONTRACTOR shall submit additional progress reports at such intervals as CITY may request.
- B. Each progress report shall include sufficient narrative to describe current and anticipated delaying factors, their effect on the construction schedule, and proposed corrective actions. Any Work reported complete, but which is not readily apparent to the CITY, must be substantiated with satisfactory evidence.
- C. Each progress report shall also include three prints of the accepted graphic schedule marked to indicate actual progress.

1.03 Schedule Of Values

- A. After review of the tentative schedule at the preconstruction conference, and before submission of the first application for payment, CONTRACTOR shall prepare and submit to CITY a schedule of values covering each lump sum item. The schedule of values, showing the value of each kind of work, shall be acceptable to CITY before any application for payment is prepared.
- B. The sum of the items listed in the schedule of values shall equal the contract price. Such items as Bond premium, temporary construction facilities, may be listed separately in the schedule of values, provided the amounts can be substantiated. Overhead and profit shall not be listed as separate items.
- C. An unbalanced schedule of values providing for overpayment of CONTRACTOR on items of Work which would be performed first will not be accepted. The schedule of

values shall be revised and resubmitted until acceptable to the CITY. Final acceptance by the CITY shall indicate only consent to the schedule of values as a basis for preparation of applications for progress payments and shall not constitute an agreement as to the value of each indicated item.

1.04 Schedule Of Payment

- A. At or before the pre-construction conference, CONTRACTOR shall furnish to the CITY a schedule of estimated monthly payments. The schedule shall be revised and resubmitted each time an application for payment varies more than 10 percent from the estimated payment schedule.

1.05 Survey Data

- A. All field books, notes, and other data developed by CONTRACTOR in performing surveys required as part of the Work shall be available to the CITY for examination throughout the construction period. All such data shall be submitted to the CITY with the other documentation required for final acceptance of the Work.

1.06 Shop Drawings And Engineering Data

- A. Engineering data covering all equipment and fabricated materials, which will become a permanent part of the Work under this contract shall be submitted to the ENGINEER, for review. This data shall include drawings and descriptive information in sufficient detail to show the kind, size, arrangement, and operation of component materials and devices; the external connections, anchorages, and supports required; performance characteristics; and dimensions needed for installation and correlation with other materials and equipment.
- B. All submittals regardless of origin shall be stamped with the approval of CONTRACTOR and identified with the name and number of this contract, CONTRACTOR's name, and references to applicable specification paragraphs and Contract Drawings. Each submittal shall indicate the intended use of the item in the Work. When catalog pages are submitted, applicable items shall be clearly identified. The current revision, issue number, and date shall be indicated on all drawings and other descriptive data.
- C. CONTRACTOR's stamp of approval is a representation to CITY and CITY that CONTRACTOR accepts full responsibility for determining and verifying all quantities, dimensions, field construction criteria, materials, catalog numbers, and similar data, and that he has reviewed or coordinated each submittal with the requirements of the Work and the Contract Documents.
- D. All deviations from the Contract Documents shall be identified on each submittal and shall be tabulated in CONTRACTOR's letter of transmittal. Such submittals shall, as pertinent to the deviation, indicate essential details of all changes proposed by CONTRACTOR (including modifications to other facilities that may be a result of the deviation).
- E. CONTRACTOR shall accept full responsibility for the completeness of each submission, and, in the case of a resubmission, shall verify that all exceptions previously noted by CITY have been taken into account. In the event that more than one resubmission is required because of failure of CONTRACTOR to account for exceptions previously noted, CONTRACTOR shall reimburse CITY for the charges of CITY for review of the additional resubmissions.

- F. Resubmittals shall be made within seven (7) days of the date of the letter returning the material to be modified or corrected, unless within seven (7) days the CONTRACTOR submits an acceptable request for an extension of the stipulated time period, listing the reasons the resubmittal cannot be completed within that time.
- G. Any need for more than one resubmission, or any other delay in obtaining CITY's review of submittals, will not entitle CONTRACTOR to extension of the Contract Time unless delay of the Work is directly caused by a change in the work authorized by a Change Order or by failure of CITY to return any submittal within 21 days after its receipt at the CITY's office.
- H. CONTRACTOR's letter of resubmittal shall list the date of his original submittal letter, the date of the CITY's letter returning the submittal, and the dates of submission and return of any previous resubmittals. In addition, the CONTRACTOR shall reimburse the CITY in the amount of \$200.00 for review of the second resubmittal and each of any subsequent resubmittals.
- I. CITY's review of drawings and data submitted by CONTRACTOR will cover only general conformity to the drawings and specifications, external connections, and dimensions that affect the layout. The CITY's review does not indicate a thorough review of all dimensions, quantities, and details of the material, equipment, device or item shown. The CITY's review of submittals shall not relieve CONTRACTOR from responsibility for errors, omissions, or deviations, or responsibility for compliance with the Contract Documents.
- J. An electronic copy of each drawing and necessary data shall be submitted to the CITY. The CITY will not accept submittals from anyone but CONTRACTOR. Submittals shall be consecutively numbered in direct sequence of submittal and without division by subcontracts or trades. Resubmittals shall bear the number of the first submittal followed by a letter (A, B, etc.), to indicate the sequence of the resubmittal.
- K. When the drawings and data are returned marked NOT ACCEPTABLE or RETURNED FOR CORRECTION, the corrections shall be made as noted thereon and as instructed by CITY and five corrected copies (or one corrected reproducible copy) resubmitted.
- L. When corrected copies are resubmitted, CONTRACTOR shall in writing direct specific attention to all revisions and shall list separately any revisions made other than those called for by CITY on previous submissions.
- M. When the drawings and data are returned marked EXCEPTIONS NOTED, NO EXCEPTIONS NOTED, or RECORD COPY, no additional copies need be furnished. The CITY shall return an electronic copy for its records.

1.07 Layout Data

- A. CONTRACTOR shall keep neat and legible notes of measurements and calculations made by him in connection with the layout of the Work. Copies of such data shall be furnished to the Resident Project Representative for use in checking CONTRACTOR's layout as provided under Lines and Grades. All such data considered of value to CITY will be transmitted to CITY with other records upon completion of the Work.

End of Section

Section 01385
Audio/Video Construction Records

Part 1 - General

1.1 Description

- A. GENERAL - Audio/Video recordings of all work areas in the Contract will be prepared by the CONTRACTOR. Any area omitted from complete coverage, or areas where the recording is not definitive as to pre-construction conditions, will not be cause for additional compensation by the CONTRACTOR for repairs to damage of private or public property.
- B. CONTRACTOR TO PREPARE AUDIO/VIDEO RECORDING - Prior to commencing work, the CONTRACTOR shall have a continuous color audio/video recording taken along the entire length of the Project including all affected project areas. Streets, easements, rights-of way, lots or construction sites within the Project must be recorded to serve as a record of a pre-construction conditions. Two (2) copies of recordings and video logs will be submitted to the CITY. The CITY shall designate those areas, if any, to be omitted from or added to the audio-visual coverage. All recordings and written records shall become property of the CITY.
- C. SCHEDULING OF AUDIO/VIDEO RECORDINGS - No construction shall begin prior to review and approval of the recordings covering the Project construction area(s) by the CITY. The CITY shall have the authority to reject all or any portion of a recording not conforming to specifications and order that it be redone at no additional charge. The CONTRACTOR shall reschedule unacceptable coverage within seven days after being notified. Recordings shall not be made more than 30 days prior to construction in any area.
- D. PROFESSIONAL VIDEOGRAPHERS - The CONTRACTOR shall engage the services of a professional videographer known to be skilled and regularly engaged in the business of preconstruction color audio-video documentation. The videographer through the CONTRACTOR shall furnish to the CITY a list of all equipment to be used for the audio-video recording, i.e., manufacturer's name, model number, specifications and other pertinent information.
- E. REFERENCES - Additional information to be furnished by the videographer is the names and addresses of two references that the videographer has performed color audio-video recording for on projects of a similar nature within the last 12 months. CITY's approval of the selected videographer is required prior to taking first audio-video recording.
- F. EQUIPMENT - All equipment, accessories, materials and labor to perform this service shall be finished by the CONTRACTOR. The total audio-video system shall reproduce bright, sharp, clear pictures with accurate colors and shall be free from distortion, or any other form of imperfection. The audio portion of the recording shall reproduce the commentary of the camera operator with proper volume, clarity and be free from distortion and interruptions. In some instances, audio-video recording coverage may be required in areas not accessible by conventional wheeled vehicles. Such coverage shall be obtained by walking. The recording shall be compatible for playback with any American TV Standard DVD player.

- G. RECORDED INFORMATION, AUDIO - Each recording shall begin with the current date, project name and be followed by the general location, i.e., viewing side and direction of progress. Accompanying the video recording of each recording shall be a corresponding and simultaneously recorded audio recording. This audio recording, exclusively containing the commentary of the camera operator or aide, shall assist in viewer orientation and in any needed identification, differentiation, clarification, or objective description of the features being shown in the video portion of the recording. The audio recording shall also be free from any conversations.
- H. RECORDED INFORMATION - VIDEO - All video recordings must continuously display transparent digital information to include the date and time of recording. The date information shall contain the month, day and year. The time information shall contain the hour, minutes and seconds. Additional information shall be displayed periodically. Such information shall include, but not be limited to, project name, contract number, direction of travel and the viewing side.
- I. LIGHTING - All taping shall be done during time of good visibility. No taping shall be done during precipitation, mist or fog. The recording shall only be done when sufficient sunlight is present to properly illuminate the subjects of recording and to produce bright, sharp video recordings of those subjects.
- J. SPEED OF TRAVEL - The average rate of travel during a particular segment of coverage shall be directly proportional to the number, size and value of the surface features within that construction areas zone of influence. The rate of speed in the general direction of travel of the vehicle used during taping shall not exceed 44 feet per minute.
- K. AREA OF COVERAGE - Tape coverage shall include all surface features located within the zone of influence of construction supported by appropriate audio coverage. Such coverage shall include, but not be limited to, existing driveways, sidewalks, curbs, pavements, drainage system features, mailboxes, landscaping, culverts, fences, signs, CONTRACTOR staging areas, adjacent structures, etc. within the area covered by the project. Of particular concern shall be the existence of any faults, fractures, or defects. Coverage shall be limited to one side of the site, street, easement or right-of-way at any one time. Staging and storage areas shall also be included within the limits of coverage.
- L. COSTS OF VIDEO SERVICES - The cost to complete the requirements under this section shall be included in the contract items provided in the proposal sheet. There is no separate pay item for this work.

Part 2 - Products (Not Used)

Part 3 - Execution (Not Used)

End of Section

Section 01400
Temporary Facilities

Part 1 - General

1.01 Sanitary Facilities

- A. CONTRACTOR shall furnish temporary separate male and female sanitary facilities at the site, as provided herein, for the needs of all construction workers and others performing work or furnishing services on the Project.
- B. Sanitary facilities shall be of reasonable capacity, properly maintained throughout the construction period, and obscured from public view to the greatest practical extent. If toilets of the chemically treated type are used, at least one toilet will be furnished for each 20 men. CONTRACTOR shall enforce the use of such sanitary facilities by all personnel at the site.

1.02 Maintenance Of Traffic

- A. CONTRACTOR shall conduct his work to interfere as little as possible with public travel, whether vehicular or pedestrian. Whenever it is necessary to cross, obstruct, or close roads, driveways and walks, whether public or private, CONTRACTOR shall provide and maintain suitable and safe bridges, detours, or other temporary expedients for the accommodation of public and private travel, and shall give reasonable notice to CITYs of private drives before interfering with them. Driveway access to commercial properties will be maintained at all times. Such maintenance of traffic will not be required when CONTRACTOR has obtained permission from the owner and tenant of private property, or from the authority having jurisdiction over public property involved, to obstruct traffic at the designated point.
- B. Traffic control shall be in accordance with FDOT Roadway and Traffic Design Standards for Traffic Control Through Work Zones. See Section 01500 for Traffic Control requirements.
- C. In making open cut street crossings, CONTRACTOR shall not block more than one-half of the street at a time. Whenever possible, CONTRACTOR shall widen the shoulder on the opposite side to facilitate traffic flow. Temporary surfacing shall be provided as necessary on shoulders.

1.03 Barricades And Lights

- A. All streets, roads, highways, and other public thoroughfares, which are closed to traffic, shall be protected by effective barricades on which shall be placed acceptable warning signs. Barricades shall be located at the nearest intersecting public highway or street on each side of the blocked section.
- B. All open trenches and other excavations shall have suitable barricades, signs, and lights to provide adequate protection to the public. Obstructions such as material piles and equipment shall be provided with similar warning signs and lights. CONTRACTOR shall be responsible for public safety within the construction area.
- C. All barricades and obstructions shall be illuminated with warning lights from sunset to sunrise. Material storage and conduct of the Work on or alongside public streets and highways shall cause the minimum obstruction and inconvenience to the traveling public. All barricades, signs, lights and other protective devices shall be installed and maintained in conformity with applicable statutory requirements and, where within railroad and highway rights-of-way, as required by the authority having jurisdiction thereof.

- D. Open trenches and other excavations shall not be left open over weekends and holidays, or greater than one calendar day, except during adverse weather conditions.

1.04 Protection Of Public And Private Property

- A. CONTRACTOR shall protect, shore, brace, support, and maintain all underground pipes, conduits, drains, and other underground construction uncovered or otherwise affected by his construction operations. All pavement, surfacing, driveways, curbs, walks, buildings, utility poles, guy wires, fences, and other surface structures affected by construction operations, together with all sod and shrubs in yards and parkings, shall be restored to their original condition, whether within or outside the easement. All replacements shall be made with new materials.
- B. CONTRACTOR shall provide assurances to maintain regular residential services such as postal delivery, solid waste pickup, etc. Mailboxes may be temporarily relocated with approval from the Postmaster and the resident. Mailboxes shall be restored to the original location in original or better condition, including replacement in kind as necessary.

1.05 Parking

- A. CONTRACTOR shall provide and maintain suitable parking areas for the use of all construction workers and others performing work or furnishing services in connection with the Project, as required to avoid any need for parking personal vehicles where they may interfere with public traffic, CITY's operations, or construction activities.

1.06 Dust Control

- A. CONTRACTOR shall take reasonable measures to prevent unnecessary dust. Earth surfaces subject to dusting shall be kept moist with water or by application of a chemical dust suppressant. Dusty materials in piles or in transit shall be covered when practicable to prevent blowing.
- B. Buildings or operating facilities, which may be affected adversely by dust, shall be adequately protected from dust. Existing or new machinery, motors, instrument panels, or similar equipment shall be protected by suitable dust screens. Proper ventilation shall be included with dust screens.

1.07 Sweeping

- A. The CONTRACTOR shall sweep loose material from the pavement at the end of each workday.

1.08 Pollution Control

- A. CONTRACTOR shall prevent the pollution of drains and watercourses by sanitary wastes, sediment, debris and other substances resulting from construction activities. No sanitary wastes will be permitted to enter any drain or watercourse other than sanitary sewers. No sediment, debris or other substance will be permitted to enter sanitary sewers and reasonable measures will be taken to prevent such materials from entering any drain or watercourse.

End of Section

Section 01410
Testing Laboratory Services

Part 1 General

1.01 Description

Provide such other testing and inspecting as are specified to be furnished by the CONTRACTOR in this Section and/or elsewhere in the Contract Documents.

A. Related Work

1. Documents affecting work of this Section include, but are not necessarily limited to, General Conditions, Supplementary Conditions, and Sections in Part B of these Specifications.
2. Requirements for testing may be described in various Sections of these Specifications.
3. Where no testing requirements are described, but the CITY decides that testing is required, the CITY may require such testing to be performed under current pertinent standards for testing. Payment for such testing will be made as described in this Section.

1.02 Quality Assurance

- A. The testing laboratory will be qualified to the CITY's approval in accordance with ASTM E239.
- B. Testing, when required, will be in accordance with all pertinent codes and regulation and with selected standards of the American Society for Testing and Materials.

1.03 Product Handling

- A. Promptly process and distribute required copies of the test reports and related instructions to insure necessary retesting and replacement of materials with the least possible delay in progress of the Work.

Part 2 Products

2.01 Payment For Testing

- A. Initial Services - The CONTRACTOR will pay for the testing services.
- B. Retesting - When initial tests indicate non-compliance with the Contract Documents, subsequent retesting occasioned by the non-compliance shall be performed by the same testing agency, and costs thereof will be borne by the CONTRACTOR.
- C. Additional Testing Requested by CITY - Payment for such testing will be made by CITY. However, the cost of retesting the additional tests requested by CITY that are found to be in non-compliance with the specifications shall be borne by the CONTRACTOR.

2.02 Code Compliance Testing

- A. Inspections and tests required by codes or ordinances, or by a plan approval authority, and which are made by a legally constituted authority, shall be the responsibility of and shall be paid for by the CONTRACTOR, unless otherwise provided in the Contract Documents.

2.03 CONTRACTOR's Convenience Testing

- A. Inspecting and testing performed exclusively for the CONTRACTOR's convenience shall be the sole responsibility of the CONTRACTOR.

Part 3 Execution

3.01 Cooperation With Testing Laboratory

- A. Representatives of the testing laboratory shall have access to the Work at all times and at all locations where the Work is in progress. Provide facilities for such access to enable the laboratory to perform its functions properly.

3.02 Taking Specimens

- A. All specimens and samples for testing, unless otherwise provided in the Contract Documents, shall be taken by the testing personnel. All sampling equipment and personnel will be provided by the testing laboratory. All deliveries of specimens and samples to the testing laboratory will be performed by the testing laboratory.

3.03 Schedules For Testing

- A. Established Schedule:
 1. By advance discussion with the testing laboratory approved by the CITY, determine the time required for the laboratory to perform its tests and to issue each of its findings.
 2. Provide all required testing time within the construction schedule.
 3. CONTRACTOR shall be responsible for coordinating with and providing testing laboratory sufficient notice prior to testing. Charges due to untimely cancellation of any tests shall be the responsibility of the CONTRACTOR.
- B. Revising Schedule - When changes of construction schedule are necessary during construction, coordinate all such changes within the testing laboratory as required.
- C. Adhere to schedule - When the testing laboratory is ready to test according to the established schedule, but is prevented from testing or taking specimens due to incompleteness of the Work, all extra charges for testing attributable to the delay may be back-charged to the CONTRACTOR and shall not be borne by the CITY.

3.04 Results

- A. The testing laboratory shall provide the CITY with two copies of the test results within 5 working days of this test.
- B. Test results shall be signed and sealed by a licensed Professional Engineer.

End of Section

Section 01500
Traffic Control

Part 1 General

1.01 Traffic Maintenance and Control

- A. Road Closing - No street, road or section thereof shall be closed to through traffic unless otherwise provided for on the Plans, Specifications, or authorized by the agency with jurisdiction over the roads. Prior to closing a street, road, or section thereof, the CONTRACTOR shall provide the CITY with a copy of a detour Plan approved by the agency having jurisdiction over the roads.
- B. In the event that roads or streets are to be closed, the CONTRACTOR shall notify the local fire department, police department, local road authority, ambulance and emergency services, the CITY, public transit authority and public school system daily as to what streets will be partly blocked or closed, the length of time the streets will be blocked or closed and when the streets will be reopened to traffic. The CONTRACTOR shall designate one responsible employee to carry out the requirements of this condition.
- C. Maintenance of Traffic - The CONTRACTOR shall provide access for local traffic to property along the Project by means of temporary roads, drives, culverts or other means approved by the CITY. The CONTRACTOR shall grade, add surfacing materials, and dust palliatives to such temporary roads and drives as necessary for the proper maintenance of traffic.
- D. Where the shoulder is used to maintain traffic, the shoulder shall be graded, surfaced, treated for dust, constructed, or reconstructed, as specified herein or as shown on the Plans. If the construction work is suspended due to weather conditions or for any other reason, sufficient labor, materials and equipment shall be ready for immediate use at all times for the proper maintenance of traffic. Surfacing materials and dust palliatives shall be applied at such times and locations and in such amounts as directed by the CITY.
- E. Where shoulders are low, high, soft or rough, adequate provisions shall be taken to inform and protect the traveling public by means such as construction warning signs, barricades, lighted devices, etc. Such shoulder hazards shall be eliminated as soon as practicable.
- F. The CONTRACTOR shall furnish, erect and maintain all signs, barricades, lights, traffic regulators, in accordance with the requirements of the current "Manual of Uniform Traffic Control Devices," (14.15.010, F.A.C.), and all flagmen and watchmen as are necessary to maintain and safeguard traffic along the entire Project. Failure to comply with these requirements may be cause to issue a stop Work order, which shall remain in effect until all necessary devices are in place and operational. The issuance of a stop Work order shall not be reason for granting additional compensation or an extension to the Contract time.
- G. Existing Signs - No stop sign, traffic control or warning device shall be taken down until the agency having jurisdiction over the roads has been notified and arrangements for its immediate reinstallation have been made. The CONTRACTOR shall provide temporary signs, traffic control devices, warning devices, or watchmen continuously from the time the item is removed until it is reinstalled. All signs that have been removed shall be replaced with signs meeting requirements of the agency having jurisdiction over the roads.

1.02 Postal and Newspaper Deliveries

- A. Postal Service - Several or all residents of this Project area may receive their mail at roadside mailboxes. Since the postal service will not deliver mail to a resident without a mailbox or a mailbox that is not in its proper position, the CONTRACTOR shall relocate, replace and repair all mailboxes and posts in a condition and height acceptable to the post office within 24 hours of their removal. If required, the CONTRACTOR shall furnish new posts for the mailboxes if the existing posts are broken or rotted to the extent that they cannot be reused. Any mailbox damaged by the CONTRACTOR while carrying out his operations or by anyone else while the box is down due to the CONTRACTOR's operation, shall be replaced by the CONTRACTOR with a new mailbox meeting the postal officials' specifications and the resident's name and address neatly lettered with paint or other acceptable means to the satisfaction of the resident and postal authorities. The cost shall be incidental to the Project.

Part 2 Products (Not Used)

Part 3 Execution (Not Used)

End of Section

Section 01720
Project Record Documents

Part 1 - General

1.01 Requirements Included

- A. CONTRACTOR shall maintain at the site for the CITY one record copy of:
1. Drawings.
 2. Specifications.
 3. Addenda.
 4. Change Orders and other modifications to the Contract.
 5. CITY's field orders or written instructions.
 6. Approved shop drawings, working drawings and samples.
 7. Field test records.
 8. Construction photographs.
 9. Detailed Progress Schedule.
- B. The CITY shall provide to the CONTRACTOR a CD with electronic files in AutoCAD format (Release 2004 or later) of each contract plan sheet, and associated reference files, for use by the CONTRACTOR in developing Record Drawings.

1.02 Maintenance Of Documents And Samples

- A. Store documents and samples in CONTRACTOR's field office apart from documents used for construction.
1. Provide files and racks for storage of documents.
 2. Provide locked cabinet or secure storage space for storage of samples.
- B. File documents and samples in accordance with CSI format.
- C. Maintain documents in a clean, dry, legible, condition and in good order. Do not use record documents for construction purposes.
- D. Make documents and samples available at all times for inspection by the CITY.
- E. As a prerequisite for monthly progress payments, the CONTRACTOR is to exhibit the currently updated record documents for review by the CITY.

1.03 Marking Devices

- A. Provide permanent ink, felt tip marking pens for recording information in the color code designated by the CITY.

1.04 Recording

- A. Label each document "PROJECT RECORD" in neat large printed letters.
- B. Record information concurrently with construction progress.
 - 1. Do not conceal any work until required information is recorded.
- C. Drawings. Legibly mark to record actual construction, including but not limited to:
 - 1. Elevations of various structure elements in relation to grade.
 - 2. All underground piping with elevations and dimensions. Changes to piping location. Horizontal and vertical locations of underground utilities and appurtenances, referenced to permanent surface improvements. Actual installed pipe material, class, etc.
 - 3. Location of internal utilities and appurtenances concealed in the construction, referenced to visible and accessible features of the structure.
 - 4. Field changes of dimension and detail.
 - 5. Changes made by Field Order or by Change Order.
 - 6. Details not on original contract drawings.
 - 7. Equipment and piping relocations.
 - 8. Intersection details: At least three ties to every valve and fitting, blowoff, fire hydrant, manhole and air release valve.
 - 9. Services based on distance from main line pipe, and property lines.
 - 10. Backflow preventer assemblies locations, with ties to physical features.
 - 11. Potable & reclaimed water facilities shall be provided on a separate drawing layer.
- D. Specifications and Addenda. Legibly mark each Section to record:
 - 1. Manufacturer, trade name, catalog number and supplier of each product and item of equipment actually installed.
 - 2. Changes made by field order or by change order.
- E. Provide certified site survey with line elevations and stationing at 100 foot increments and at locations where the pipe deviated from the normal alignment by a registered land surveyor.

1.05 Submittal

- A. At Final Completion Date, deliver paper Record Documents to the CITY.
- B. Provide certified Record Drawings in electronic format (AutoCAD Release 2004 or later version) and one (1) signed and sealed hardcopy by a Florida Registered Land Surveyor. A PDF copy shall also be provided.
- C. Accompany submittal with transmittal letter containing:
 - 1. Date.
 - 2. Project title and number.
 - 3. CONTRACTOR's name and address.
 - 4. Title and number of each Record Document.
 - 5. Signature of CONTRACTOR or his authorized representative.

Part 2 - Products (Not Used)

Part 3 - Execution (Not Used)

End Of Section

Section 02020
Earthwork

Part 1 General

1.01 General

The work under this section shall be subject to the requirements of all other applicable sections of these specifications and drawings.

1.02 Excavation

- A. Perform all excavation requirements of the approved plans and specifications. Undercutting will not be permitted, except when ordered by the City or the City's Representative. Material suitable for backfill shall be stockpiled near the site. Rock or other undesirable material such as organic material and clay shall be removed from the site to a designated dump site to be determined by the City. Excavation work shall conform to all applicable requirements of FDOT Section 120, Excavation and Embankment, & Section 125, Excavations for Structures and Pipes, except as modified herein.
- B. Rock shall be excavated to a depth of 1/4 of the pipe diameter, but in no case less than four inches below the bottom of the pipe. All undercut trench excavation shall be backfilled and tamped with material approved by the City or the City's Representative.
- C. Unsuitable material shall be removed and replaced with suitable material as described in this Section. Methods and materials used for replacement shall be one of the following as approved by the City or the City's Representative:
 - 1. Suitable earth or sand, compacted in the trench. Materials shall be furnished as a part of the ordinary excavation and backfill.
 - 2. Gravel or crushed concrete shall be compacted in the trench.
 - 3. Existing materials stabilized after removal and then replaced and compacted in the trench.
- D. The City or the City's Representative shall approve the methods and materials to be used, based upon the condition of the excavation, the pipe or structure to be supported, and the availability and character of stabilizing materials.
- E. Keep pipe-laying operations as close to the excavation operation as possible during the execution of the work. The City or the City's Representative reserves the right to stop the excavation at any time when, in his opinion, the excavation is opened too far in advance of pipe laying. Contractor will submit to the City for approval a safety plan for open trenches during periods of non-working hours. The plan will specify the maximum number of linear feet of open trench and will specify the method of safety protection, i.e., portable fences, trench cover, or any method that provides acceptable protection. Contractor will include in his bid adequate cost to cover this safety requirement.
- F. Pipe trenches shall be excavated to a depth that will ensure a minimum of 36 inches of cover, or more if specified, for all types of pipe unless construction plans specify differently. Trenches shall be only of sufficient width to provide a free working space on each side of the pipe. To prevent excess pressure on the pipe, the maximum width of

trench at the top and at the bottom of the trench shall not be greater than two feet more than the greatest exterior diameter of the pipe, or as shown on the Plans. If this maximum width is exceeded, it shall be the Contractor's responsibility to provide such additional bedding or select backfill materials as the City, the City's Representative, or the Florida Trench Safety Act may require. 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. To protect the pipelines from unusual stresses, all work shall be done in open trenches. Excavation shall be made for bells of all pipes and of sufficient depth to permit access to the joint for construction and inspection. In no case will the bells be used to support the body of the pipe.

- G. In case excavation has been made deeper than necessary, a layer of concrete, fine gravel, or other material approved by the City or the City's Representative shall be placed to secure a firm foundation of the lower third of each pipe. Where possible, excavated material shall be placed so as not to interfere with public travel. Bridging shall be provided to afford necessary access to public or private premises.
- H. Where trench walls are to be kept vertical, it is required that sheeting and shoring shall be constructed to conform to Federal, State, local and OSHA materials and engineering requirements. Where wood sheeting or certain designs of steel sheeting are used, the sheeting shall be cut off at a level two (2) feet above the top of the installed pipe, and the portion below that level shall be left in place. If interlocking steel sheeting of a design approved by the City or the City's Representative is used it may be removed, providing removal can be accomplished without disturbing the pipe bedding or alignment of the pipe. Any damage to the pipe bedding, pipe, or alignment of the constructed utility caused by removal of sheeting shall be cause for rejection of the affected portion of the work. Not more than one hundred (100) feet of trench shall be opened ahead of pipe laying operations at one time unless a greater length of open trench is approved by the City or the City's Representative.

Costs for sheeting and/or shoring shall be included in the appropriate work task. Such costs shall be for proprietary and non-proprietary systems.

- I. In areas where trench widths are not limited by right-of-way and/or easement widths, property line restrictions, existing adjacent improvements, including pavements, structures, other utilities, plan-defined allowable restoration limits and maintenance of traffic, the trench sides may be sloped to a stable angle of repose of the excavated material. A substantially and safely constructed movable shield, "box", or "mule" may be used in place of sheeting when the trench is opened immediately ahead of the shield and closed immediately behind the shield as pipe laying proceeds inside the shield.
- J. All trench work on projects is to be kept backfilled or made safe, using methods approved by the City or the City's Representative, at the end of each day's work. The contractor will be made responsible for maintaining all barricades, signs, lights and safety devices as required.
- K. Remove sufficient material to allow proper space for erecting and removing forms. The elevations of the bottoms of footings, if shown on the plans, shall be considered as approximate only and the City or the City's Representative 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 or 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.

- L. After excavation for a structure is completed, the Contractor shall notify the City or the City's Representative to that effect. No concrete or reinforcing steel shall be placed until the City or the City's Representative has approved the depth of the excavation and the character of the foundation material.
- M. The Contractor shall provide all bracing, sheeting, or shoring necessary to construct and protect the excavation, existing utilities, structures of all types and as required for the safety of the employees. The City may direct the Contractor to furnish sheeting and shoring as recommended by the City in accordance with the Florida Trench Safety Act. Sheeting shall be removed or cut off by the Contractor during backfilling operations as approved by the City or the City's Representative.
- N. The Contractor shall be completely responsible for any tanks, manholes, wet wells, or similar structures that may become buoyant during the construction and modification operations due to the ground water or floods and before the structure is put into operation. Should there be any possibility of buoyancy of a structure, the Contractor shall take the necessary steps to prevent consequential damage, either by increasing the structure's weight by filling it with approved material, or other acceptable methods. All tanks and structures shall be installed and equipped in accordance with the manufacturer's specifications. It is the responsibility of the Contractor to see that all required testing is completed and approved and that damage to the structure due to floating or other causes is repaired or replaced.

1.03 Bedding Material

- A. The Contractor shall place bedding material prior to placing pipelines, structures, or slabs. Bedding material shall be either excavated approved native sand, concrete sand, gravel or reclaimed concrete. Please reference the plans for specific requirements.
- B. Off-site bedding material shall be sand or gravel. Sand bedding material shall be a clean concrete sand of uniform gradation between sieve sizes No. 4 and No. 50. All particles shall pass a 3/8-inch sieve and no particles shall pass a No. 100 sieve.
- C. Gravel bedding material shall be FDOT Size No 57 stone or approved equal.
- D. Reclaimed concrete bedding material shall be graded to meet the size requirements as specified for gravel bedding.
- E. Bedding material, where required, shall be placed in lifts and compacted in a manner to achieve the specified density as described elsewhere.

1.04 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 excavating areas. Any water that accumulates in the excavations shall be removed promptly by well point system or by other means satisfactory to the City or the City's Representative, 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 a minimum noise level suitable to a

residential area. The Contractor will not be allowed to discharge water into the City storm drainage system without the written approval of the City. Approval will be subject to the condition that the storm sewer be returned to its original condition. 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, and he shall restore to its original condition any drainage system used for this purpose.

- B. Trenches shall be backfilled immediately after the pipe is laid unless other protection for the pipe line is provided. Clean earth, sand, shell, or other material approved by the City or the City's Representative shall be used for backfill. Backfill material shall be solidly tamped around the pipes in six-inch (6") layers up to a level of at least two feet (2') above the top of the pipe. Backfilling shall be carried out simultaneously on both sides of the pipe.
- C. Embedment materials to be used for PVC gravity sewers as follows, in accordance with ASTM D-2321:
 - 1. Class I - Angular, six to 40 mm (1/2 inch to 1-3/4 inch) graded stone, including a number of fill materials that have regional significance such as coral, slag, cinders, crushed stone and crushed shells.
 - 2. When using Class I material, a depth of from 100 to 150 mm (four to six inches (4-6")) of Class I material is generally sufficient to provide uniform bedding. Class I material, when specified, shall be utilized for haunching to the spring line of the pipe, under dry conditions.
 - 3. Under wet conditions, Class I material shall be brought to the top of the pipe. Wet conditions are considered to be any area where the pipe will be installed below existing or future water levels or where the trench could be subject to inundation.
- D. The remainder of the backfill shall be deposited and compacted by mechanical tampers in a maximum of two-foot (2') lifts except in areas where paving is to be placed over the backfilled trench. In these areas, the entire depth of backfill shall be deposited in six-inch (6") layers and compacted by hand or mechanical tampers. Compaction shall be carried out to achieve a density of at least 98 percent of the maximum density as determined by AASHTO Method T-180. Density tests to be made as required by the City.
- E. In areas to be paved, density test for determination of the specified compaction shall be made by a testing laboratory and spaced one in every 200 feet of trench cut, or as approved by the City. 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 placement may be placed immediately.
- F. After completion of foundation footings and walls and other construction below the elevation of the final grades, and prior to backfilling, all forms shall be removed, and the excavation shall be cleared of all trash and debris. Material for backfilling shall consist of the excavation, borrow sand, or other debris. Backfill shall be placed in horizontal layers not in excess of six inches (6") in thickness, and have a moisture content such that a density may be obtained to prevent excessive settlement or shrinkage. Each layer shall be compacted by hand or approved machine tampers, with extreme care

being exerted not to damage pipe or structures. Backfill shall be placed and compacted evenly against the exposed surfaces to prevent undue stress on any surface.

1.05 Restoration of Surface Improvements

Roadways and driveways of shell, limerock, crushed concrete, 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 excavating, shall be restored to conditions equal to or better than conditions existing prior to beginning work. The pre-construction video will be used as an aid in determining conditions prior to construction.

Materials for roadways or driveways shall be compacted to a minimum of 98 percent of the maximum density as determined by AASHTO Methods T-180.

1.06 Fine Grading

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.

1.07 Disposal of Materials

Such portions of the excavated materials as needed shall be used for backfilling and grading as required. Excavated material in excess of the quantity required for this purpose shall be disposed of by the Contractor (at no additional expense to the City) in those areas designated by the City. The Contractor shall leave the earth over the trenches or other excavations in a neat and uniform condition.

1.08 Pavement Placement

Pavement and pavement base placement shall be per the latest edition of FDOT Standard Specifications for Road and Bridge Construction.

1.09 Removal and Disposal

All materials to be removed shall be removed and disposed of in accordance with all applicable regulations.

1.10 Grading

The Contractor shall re-grade, fill, re-sod, and shape, as required, and/or in the locations as approved by the City or the City's Representative, to provide positive pitch to driveways, inlets, and sidewalks as required for drainage and erosion control.

1.11 Use and Maintenance of Public Streets

- A. The use of public streets and alleys shall be such as to provide a minimum of inconvenience to the public and to other traffic. Any earth or other excavated material spilled from trucks shall be removed immediately by the Contractor and the streets cleaned to the satisfaction of the City or the City's Representative.
- B. The Contractor shall be responsible for the proper maintenance, control, and detour of traffic in the area of construction, during the course of construction. All traffic control

and maintenance procedures for streets open to the public shall be in accordance with the requirements of the Manual of Uniform Traffic Control Devices (MUTCD) as published by the United States Department of Transportation. Appropriate work-zone traffic control devices shall be used for construction activities within City rights-of-way. All traffic control devices shall be designed, placed, operated and maintained according to MUTCD Standards. When work ceases or is interrupted during non-working hours, such as at night or on weekends or holidays, inappropriate signs shall be removed or covered.

- C. Traffic shall be maintained at all times where practical and as more particularly specified hereinafter. No traffic shall be detoured without prior knowledge and approval of the respective traffic control agency having jurisdiction. The Contractor shall obtain written approval from such agencies at least 48 hours in advance of such time he proposes to detour traffic. The Contractor shall keep all law enforcement, fire protection, ambulance agencies, and affected businesses informed, in advance, of his construction schedules, and shall notify all such agencies, 48 hours in advance, in the event of detour of any roadway.

1.12 Dewatering

All pipeline and appurtenances shall be laid entirely in the dry. All foundations and structure walls shall be constructed in the dry. Water discharged from dewatering equipment shall be carried into surface drainage facilities and shall not be discharged into sanitary sewer lines. The Contractor shall prevent water from puddling in streets or on private properties. The depositing of dirt in storm sewers and ditches and staining of existing facilities shall not be permitted. The City reserves the right to require the Contractor to replace noisy equipment in order to keep disturbance to a minimum.

1.13 Backfill Compaction

All backfill shall be compacted as specified herein and shall meet the following minimum compaction requirements as determined by the AASHTO T-180 method for backfill. AASHTO T-180, Method C or D will be used for stabilized subgrade and base compaction test. Method A or B will be used for backfill testing, as modified by the City.

	<u>T-180</u>
Stabilized Subgrade	98%
Base	98%
Curb Base	98%
Sidewalk Base	98%
Driveway Base	98%
Pipe Bedding	98%
Pipe Backfill - Under Pavement	98%
Pipe Backfill - Under Grass	95%
Structure Base Slabs	100%
Structure Backfill	98%

NOTE: Stabilized subgrade and materials for roadways shall meet LBR40 requirements. Base material shall meet LBR100 requirements.

1.14 Adjacent Facilities

The Contractor shall be responsible for the protection, removal, and, when required by plans, replacement of all adjacent structures, utilities, trees, shrubbery, curbs, headwalls, fences, signs, and other miscellaneous structures encountered during the course of the work.

1.15 Tree Protection

Particular care shall be taken by the Contractor to protect trees during construction by erecting approved barricades to prevent unnecessary damage to trunk and roots. Such barriers shall protect the area within the dripline. Temporary soil deposits, concrete block, concrete wash, or solvents shall not be placed within the tree dripline. If adjacent grade is altered, protective measures, such as those described in the Florida State Division of Forestry Tree Protection Manual for Builders and Developers, shall be constructed to protect the tree(s) from deleterious effects of the grade change.

1.16 Gravel Ground Cover

In areas where gravel is to be used as ground cover, the Contractor shall utilize FDOT No. 57 Stone. Where existing gravel ground cover is present, the new material shall have a gradation identical to the existing material.

1.17 Roadway Reconstruction

- A. Preparing Roadway Subgrade - All muck, peat and other unsuitable material within the roadway shall be removed and shall be disposed of at the CONTRACTOR'S expense.

All road surfacing, gravel, crushed stone, or other, non-rigid type, occurring within the area of the roadbed and underlying proposed embankment less than 1-foot in depth, and which is not to be salvaged and incorporated in the new Work, shall be plowed or scarified full depth, spread and compacted to form a uniform foundation, before any new embankment is placed thereon.

Old pavement and other rigid structures, occurring within the area of the roadbed and underlying the proposed embankment less than 1-foot in depth and which are not to be incorporated into the new Work, shall be broken up and removed.

- B. Subgrade - The area to be paved shall be excavated and graded to the line, grade and cross section as indicated on the Plans.

When called for on the Plans or in the Specifications the designated portions of the roadbed shall be stabilized to provide a firm and unyielding subgrade, having the required bearing value specified on the plans. This work shall be accomplished in accordance with FDOT Section 160.

The subgrade shall be compacted to 98% of the maximum unit weight (per AASHTO T-180).

The subgrade shall be completed ahead of placing forms a distance equal to the distance of one (1) day's average paving operation. Prior to the paving operation, the subgrade shall be shaped and compacted to the Plan cross section by approved mechanical means.

- C. Trimming and Finishing Earth Grade - After the earth grade has been constructed to the required grade, all stones and rocks more than three (3) inches in diameter, appearing on the surface of the subgrade shall be removed.

The earth grade and the subgrade shall be trimmed to the grade called for on the Plans. The subgrade shall be trimmed to the established grade within $\pm \frac{3}{4}$ -inch.

The earth grade outside the subgrade shall be trimmed, all irregularities made smooth and the entire site or roadway completed to the required lines, grades, and cross-sections.

Back slopes and fill slopes shall be finished as specified or required.

- D. Testing - During the course of the Work, the CITY may require testing of backfill and subgrade for compaction and moisture, sieve analysis, thickness, and bearing value. Samples shall be taken and tested by a testing laboratory approved by the CITY.

Moisture density (proctor) and sieve analysis shall be determined by AASHTO T-180 for each uniform material.

Bearing values for subgrade material shall be determined per FDOT at road centerline each 400 lf in a staggered pattern and at all changes in soil classifications. Bearing values shall also be determined at curb lines each 400 lf, each side of road. Minimum bearing value shall be as specified per Plans. Thickness of base shall be determined each 300 lf of roadway in a staggered pattern. Minimum thickness shall be per Plans.

Field densities for subgrade shall be tested per AASHTO T-180 each 300 lf of roadway in a staggered pattern and one test each 300 lf at each curb line. Minimum acceptable density shall be 98%.

The testing laboratory shall furnish the CITY with two (2) certified copies of the results of all tests, within five (5) working days from the date of the test. Testing procedures shall conform to current FDOT Standards for Construction. The cost for testing and sampling shall be at the expense of the CONTRACTOR.

END OF SECTION

**Section 02040
Concrete**

Part 1 General

1.01 Scope

The work covered in this section of the specifications includes all reinforced and plain concrete, prestressed concrete and reinforcing steel. All concrete and reinforced concrete shall be furnished, installed, and tested per latest FDOT Standard Specifications.

All concrete mix designs shall be in accordance with the FDOT's latest specifications.

1.02 Portland Cement Concrete

- A. Portland cement concrete shall conform to all the applicable requirements of the latest FDOT Standard Specifications.
- B. Class IV concrete shall be used for all concrete in contact with, or over, salt or brackish water.
- C. Concrete used for structures in contact with sewage shall be mixed from Type II portland cement containing the lowest calcium thiosulfate available as specified in AASHTO M 85.
- D. Concrete shall meet the following minimum 28-day compressive strength:
 - 1. Plain Concrete for Thrust Blocks, Pipe Encasement, M.H. Bench, etc. 2,500 psi
 - 2. Concrete Pavement/Curb 3,000 psi
 - 3. Slabs and Structures 3,000 psi
 - 4. Precast Structures / Pump Pedestals 5,000 psi
 - 5. Prestressed Structures 5,000 psi
 - 6. Headwalls 3,000 psi
- E. Minimum testing requirements for concrete shall be one set of test cylinders per day, or one set of test cylinders per mix design, or one set of test cylinders for every fifty (50) cubic yards of concrete per day, whichever is greater.

1.03 Reinforcing Steel

- A. Reinforcing steel shall conform to ASTM A615, Grade 60 (60,000 psi) deformed bars and to the applicable requirements of FDOT Sections No. 415 and No. 931.
- B. All welded deformed wire fabric shall conform to ASTM A496 and A497-79.

1.04 Placing of Concrete

Unless specific permission is granted by the City Engineer or his representative prior to each occurrence, no concrete shall be delivered to the job site before 8:00 a.m. or after 3:00 p.m.

1.05 Curing of Concrete

Curing of Portland cement concrete shall conform to all applicable requirements of FDOT Article No. 520-8.

1.06 Restoration of Concrete Driveways, Sidewalks and Curbs

Concrete driveways, sidewalks, and curbs shall be restored in accordance with the applicable requirements of the FDOT Standard Specifications and as shown on the Plans.

END OF SECTION

Section 02070 Sewer

Part 1 General

1.01 Scope

The work covered by this section of the specifications consists of providing all labor, material, equipment, and supplies and performing all operations required to install the sewer systems as specified and shown on the drawings.

1.02 Pipe and Fittings

Ductile iron pipe for gravity sewers and force mains shall conform to ANSI Specification A21.51. Pipe shall have a wall thickness designed in compliance with ANSI Specification A21.50. Earth loads shall be based on 100 psi working pressure, Type 2 laying condition, trench width diameter plus 2 feet, and 3 feet minimum depth of cover. Pipe shall have push-on or mechanical joints conforming to ANSI A21.11 and AWWA C153. Joint lubricant shall be furnished by the manufacturer. Fittings shall conform to the requirements of ANSI A21.10. Joints not in direct earth burial shall be 125 lb. flanges with full-faced rubber gaskets in accordance with ANSI A21.15.

The exterior of ductile iron pipe, fittings and specials shall be coated at the factory with an asphaltic coating as specified in AWWA C151, except that the asphaltic coating shall not be applied to the first 6-inches of the exterior of the spigot end of the pipe. All clamps, bolts, nuts, studs and other uncoated parts of joints for underground installation shall be coated with coal tar epoxy prior to backfilling. Coal tar epoxy shall be equal to Kop-Coat Bismastic No. 300-M.

The interior of ductile iron pipe, fittings and specials shall be coated with Protecto 401, a high build multi-component amine cured Novalac epoxy polymeric lining manufactured by Indurall Coatings, Inc., Birmingham, Alabama, or approved equal. The interiors of the ductile iron pipe, fittings and specials shall receive 40 mils DFT of the protective lining. Storage, surface preparation, application and safety precaution shall strictly follow manufacturer's instructions. The gasket area and the exterior of the spigot end up to 6-inches back from the end shall be coated with 6 mils nominal, 10 mils maximum Protecto Joint Compound. Field cuts shall be similarly coated to bare metal.

The applicator firm and personnel shall be certified, experienced and qualified to perform the application of the lining and coating materials specified herein and shall be acceptable to the manufacturer of the coating material. All ductile iron pipe and ductile iron fittings shall have the linings and coatings applied and warranted by the same applicator firm. The applicator firm shall submit certification attesting that it has met the requirements of this specification and the requirements of the lining and/or coating materials manufacturer's application specifications. The pipe lining material shall be applied to new, unused, never lined ductile iron pipe and fittings. The pipe and fitting lining and coatings shall be tested for freedom from holidays and pinholes by use of a Tinker-Razor or K-D Bird Dog Holiday Detector.

All ductile iron force mains shall be laid with a green continuous non-detectable marker tape 12" above and centered on the pipe.

In corrosive soils (i.e., dump areas, swamps, marshes, alkaline soils, cinder beds, etc.), ductile iron pipe shall be protected by encasing it in a polyethylene wrap (8 mil thick) where called for on the drawings or where directed by the City. Poly wrap to be installed in accordance with AWWA C-105.

Joint restraint for newly installed joints shall be provided by installing an external gland such as a MEGALUG Series 1100, as manufactured by Ebaa Iron Sales, Inc. (or approved equal). Restraint of existing piping shall be provided by installing a MEGALUG Series fitting (or approved equal) correlating to the type of joint that is being restrained.

1.03 Valves

A. Gate Valves

Gate valves (3 inches through 14 inches) shall be cast iron bodied, bronze mounted, resilient seat wedge type with non-rising stem and opening counterclockwise. Valves shall be manufactured in accordance with AWWA Standard pressure. Valves for buried service shall have mechanical joint ends and operating nut in accordance with AWWA C-500. One socket valve wrench shall be provided with extensions as required. Valves smaller than 3 inches in diameter shall be all bronze screwed gate valves, meeting the requirements of Federal Specification WW-V-54C. Actuators for gate valves shall be used where shown on the drawings, or as directed by the City. Operators shall be electric.

B. Plug Valves

Plug valves shall be manually actuated straight way valves of the non-lubricated, eccentric type with resilient faced plugs and joint ends to match the pipe. Port areas shall be at least 80 percent of the full pipe area. Bodies shall be semi-steel with raised seats. The face of the seats shall be of nickel or rust resistant alloy. Upper and lower plug stem bushings shall be of stainless steel and permanently lubricated. Valves shall be of the bolted bonnet design. Packing on valves shall be adjustable and valves designed for repacking without removing bonnet from the valve. Exposed nuts, bolts, springs, and washers shall be zinc plated. Operator shall be handwheel or 2-inch square nut. Valves shall be suitable for controlling sewage. Actuators for plug valves shall be used where shown on the drawings, and as directed by the City Engineer. Operators shall be electric.

Plug valves (2 inch and smaller) shall be PVC plug valves made of unplasticized polyvinyl chloride with self-lubricating Teflon bearing buttons.

C. Check Valves

Check valves (3 inches and larger) shall be of the iron body, bronze mounted, full opening type with outside levers and weights. Check valves smaller than three inches shall be all bronze screwed valves suitable for the service required.

D. Shop Drawings

Shop drawings shall be submitted on all valves and valve boxes for approval by the City.

1.04 Installation

- A. All lines shall begin and terminate at the locations shown on the plans. Pipe and fittings shall be strung out along the route of construction with the bells facing upstream. Pipe shall be placed where it will cause least interference with traffic. Excavation trenching and backfilling for all piping systems shall conform to the applicable requirements of Section 02020 - Earthwork.
- B. In construction of gravity line pipe installations, batter boards to support grade lines shall be set over or alongside the ditch at intervals not to exceed 25 feet and closer if, in the opinion of the City, conditions should so warrant. Offsets may be used where approved by the City. The Contractor will be responsible to see that no less than four batter boards on any one grade line, set to correct alignment and grade, are in position at all times during the actual laying of pipe on lines 100 feet long and longer. Laser equipment may be used in lieu of batter boards. Laser settings shall be verified with stakes and previously approved cut sheets at 50-foot intervals.
- C. At least 24 hours in advance of trenching, the Contractor shall submit cut sheets to the City for checking and approval. The cut sheets shall indicate the additional lines or grades or both that have been set. No excavation shall commence until the cut sheets have been approved by the City.
- D. Laying of the pipe shall be commenced immediately after the excavation is started, and every means must be used to keep pipe laying closely behind the trenching. The City may stop the trenching when, in his opinion, the trench is open too far in advance of the pipe-laying operation. The bottom of the sewer trench shall be shaped to give uniform circumferential support to the lower 1/3 of each pipe for the full length of each pipe. Holes shall be scooped out where the bells occur, leaving the entire barrel of the pipe bearing on the pipe bed. Each pipe shall be inspected for defects prior to being lowered into the trench and swabbed or brushed out to insure that no dirt or foreign material gets into the finished line. Water shall be kept out of the pipe, and the pipe kept closed by means of a test plug whenever work is not in progress. Pipe shall be handled carefully to avoid breakage. Pipe may be laid in the best manner adapted to securing speed and good results; however, it shall be laid in accordance with manufacturer's instructions and recommendations. Bell and spigot pipe laying shall proceed upgrade, with spigot ends pointing in direction of flow. If the maximum trench width is exceeded for any reason, other than by order of the City, the Contractor shall install, at his own expense, graded rock, pipe encasement, or other bedding as may be required by the City to support the load of the backfill. Backfill shall be tamped as specified in Section 02020 - Earthwork.

1.05 Connections to Existing Utilities

The sanitary sewer connection to existing facilities shall be made to conform to the requirements and under the direction of the City. Before connections are made to an existing line, the proposed line shall be pressure tested and leakage shall be within allowable limits. The Contractor shall furnish and install all fittings, pipe, casings, and other material that may reasonably be required to make the connection.

1.06 Sewage Force Mains

Where it is necessary to cut the pipe to place special castings, care must be taken not to crack the pipe and to cut straight and true around it. Force mains shall be restrained (if not flanged) at bends to prevent movement of lines under pressure. All joints shall be watertight and any leaks or defects discovered shall be immediately repaired to the satisfaction of the City. Any pipe which has been disturbed after being laid shall be taken up, the joints cleaned, and the pipe properly relaid. Damaged or unsound pipe or fittings will be rejected. Before jointing the pipe, all lumps, blisters, excess coating material, and any dirt or sand shall be removed from the bell and spigot ends of pipes. Any superfluous material inside the pipe shall be removed by means of an approved follower or scraper after joints are made.

Where necessary to deflect the pipe from a straight line at the joints, the deflection shall not exceed that recommended by the manufacturer. If the specified or required alignment requires deflection in excess of those recommended, the Contractor shall either provide special bends as approved by the City, or a sufficient number of shorter lengths of pipe to provide angular deflection within the limits set forth by the manufacturer. All force mains shall be installed to the elevation shown on the profile drawings. The minimum depth of cover is three feet.

All force mains shall be pressure tested at 100 psi for 2 hours using potable water (provided by Contractor). If a pressure drop of more than 5 psi is observed over the test's duration, than the subject line is considered failing.

END OF SECTION

**Section 02090
Landscaping and Sodding**

Part 1 General

1.01 Scope

This section describes materials and installation requirements for sodding within the project limits.

All fertilizers and herbicides shall be in compliance with application Pinellas County ordinances.

1.02 Delivery, Storage and Handling

- A. **Sod delivery shall be scheduled such that sod will be placed within 24 hours after shipping.** Protect sod against drying and breaking of rolled strips.
- B. Shrubs and Ground Covers shall be furnished as container grown shrubs. Shrubs which have been in cold storage or heeled-in or which have been pruned prior to delivery shall not be used. The CONTRACTOR shall not bend or bind-tie shrubs in such manner as to damage bark, break branches or destroy natural shape. Protective covering during delivery shall be provided during delivery.

1.03 Warranties

- A. **Warranties shall be in addition to, and not a limitation of, other rights the owners may have against the contractor under the contract documents.**
- B. Sod and landscaping shall be warranted against defects, including death and unsatisfactory growth, for a period of one year after the date of substantial completion for the entire project. If completion of landscaping work is delayed beyond the date of substantial completion, warranty shall commence on the date of acceptance.
- C. The CONTRACTOR shall provide replacement sod of the same type for any sod to be removed and replaced.
- D. The staff of the City or the City's Representative, shall have the authority to accept or reject sod incorporated into the project and to ascertain whether the sod has met the requirements for survivability.

Part 2 Products

2.01 Trees and Shrubs (If Applicable)

- A. All trees shall be replaced, in kind, with trees of equivalent diameter, per City requirements. The Contractor shall submit a planting plan for approval prior to purchasing any plant stock.
- B. All trees shall be pre-treated with Bio-Algeen Root Concentrate applied according to manufacturer's spec.

* Bio-Algeen Manufactured by Scheelze & Hensen GMBH Gienau 4 2121 Dah

Linburg, W. Germany, Phone: 05851-1564

- C. The CONTRACTOR shall provide Florida #1 grade, healthy, nursery-grown stock free of disease; insects; eggs, and defects such as knots, sun scald, injuries, abrasions, and disfigurement.
- D. Trees shall be Balled and Burlapped (B&B) or Container Grown (CG). Container grown stock is required in lieu of balled and burlapped stock, subject to size limitations.
- E. Substitutions will be permitted only upon submission of proof that a specified plant is not obtainable and with written authorization by the City for the use of the nearest equivalent obtainable size or variety of plant having the same essential characteristics. The unit bid price will be adjusted to reflect the impact of the substitution.

2.02 Miscellaneous Landscape Materials

- A. Sod: Provide strongly rooted sod, not less than 2 years old and free of weeds and undesirable native grasses. Provide only sod capable of growth and development when planted (viable, not dormant) and in strips not more than 18 inches wide x 4 feet long.
- B. Stakes and Guys: (If Applicable) Provide stakes and deadmen of sound new hardwood, or treated softwood, free of knot holes and other defects. Provide wire ties and guys of 2-strand, twisted, pliable galvanized iron wire not lighter than 12 gauge Provide new 2-ply garden hose not less than ½-inch hose size, cut to required lengths to protect tree trunks from damage by wires.
 - 1. Flag all guys.

2.03 Planting Soil Backfill (If Applicable)

- A. Topsoil and amendments shall be mixed thoroughly to provide a uniform mixture, using a drum-type mechanical mixer, powered rotary tiller, or other means acceptable to the City. Provide in all planting pits for trees, shrubs and ground cover.
- B. Planting Soil Backfill Mixture for trees, shrubs and ground covers shall conform to the following:
 - 1. Mix 50% topsoil with 50% soil amendments comprised of 1/3 parts pine bark, with 1/3 parts peat humus and 1/3 sand. Add two pounds of fertilizer per cubic yard.
 - 2. Soil amendments shall be added as recommended by the soil test in quantities necessary to bring the soil mixture to pH rating of between 5.5 and 6.0.
 - 3. Iron sulphate or ground limestone shall be added to the mixture as required by the soil analysis in quantities necessary to bring the soil to pH rating of between 5.5 and 6.0. Minerals used for pH correction shall be commercially produced for this purpose.
 - 4. Water retaining polymer additives shall be added at specified application rates.
 - 5. For general site landscape areas and sodded areas, planting soil shall be mixed prior to planting.

- a.) Mix lime with dry soil prior to mixing of fertilizer.

Part 3 Execution

3.01 Preparation (If Applicable)

- A. Tree locations and areas for multiple plantings shall be staked by the CONTRACTOR and approved by the City before starting planting work. Minor adjustments shall be made where directed.
- B. The CONTRACTOR shall mix specified soil amendments and fertilizers with topsoil at rates specified. Mixing of fertilizer shall be delayed if planting will not follow placing of planting soil within a few days. For pit and trench type backfill, planting soil shall be mixed prior to backfilling and stockpiled at the site.
- C. Pits, beds, and trenches shall be excavated to provide vertical sides, with bottom of excavation slightly raised at the center to provide proper drainage. Hard subsoil at bottom of excavation shall be loosened.
- D. Excavations for balled and burlapped (B&B) trees shall be at least 150 percent of the ball diameter and equal to the ball depth, plus a 3-inch-thick layer of compacted planting soil backfill, with collar set at same grade as in nursery, but 1 inch below finished grade at site.
- E. Excavations for container-grown plants shall be the same as specified for balled and burlapped stock, but using container width (diameter) and depth in place of ball diameter and depth.
- F. Subsoil removed from planting excavations shall not be mixed with planting soil or used as backfill.
- G. The CONTRACTOR shall fine grade lawn areas to a smooth, even surface with loose, uniformly fine texture. Fine finish grading with minor filling to correct grade irregularities of 1 inch or less which occur randomly or infrequently in the rough finished grade shall be accomplished by the CONTRACTOR as a routine part and practice of the Landscape work. All landscaped areas shall be carefully graded and raked to a smooth even finished grade, free from hollows or their inequalities and from sticks or other debris, to conform to the required finish grades and to provide uniform and satisfactory surface drainage without puddling. Fine grading shall be limited to areas that can be planted immediately after grading. Allow for sod thickness in areas to be sodded.
- H. Prepared lawn areas shall be moistened before planting if soil is dry. The CONTRACTOR shall water thoroughly and allow surface moisture to dry, without creating muddy soil, before planting lawns.
- I. Lawn areas shall be restored to specified condition if eroded or otherwise disturbed after fine grading and prior to planting.
- J. Excavations for trees shall be filled with water and the water allowed to percolate out before planting. If excavation does not percolate within 2 hours, the CONTRACTOR shall inform the City or the City's Representative and obtain his instruction before planting.

3.02 Planting Trees, Shrubs and Ground Covers (If Applicable)

- A. A layer of planting soil, the thickness indicated, shall be placed and compacted in the bottom of the excavation.
- B. Balled stock shall be placed in the excavation with the top of the ball to match adjacent finished grade. Soil shall be added as required under the ball to achieve plumb.
- C. Backfill shall be placed in 2- to 3-inch thick layers. Each layer shall be worked by hand to complete backfill and eliminate voids. Trees shall be kept plumb during backfilling. When excavation is approximately 2/3 full, backfill shall be filled with water. Watering shall be repeated until no more water can be absorbed. Remainder of backfill shall be placed and compacted and watered again.
- D. Container-Grown plants shall be placed and backfilled as specified for Balled and Burlapped stock, and the bottom of the container removed immediately before placing. Two sides from the bottom of the can shall be cut within 1 inch of the top, using an approved can cutter. Initial backfill shall be placed and sides of container removed, taking care to avoid damage to root system, while keeping plants plumb.
- E. The top of the backfill shall be dished to allow for mulching and an earthen berm constructed around the rim of the original excavation, of sufficient height and width to hold six inches of water. The berm shall be repaired as required to maintain holding capacity.

3.03 Staking and Guying Trees (If Applicable)

Trees shall be guyed and staked immediately after planting in accordance with the drawings and schedules.

3.04 Sodding

- A. Sod shall be laid within 24 hours from the time of stripping. Dormant sod shall not be laid.
- B. Sod shall be laid to form a solid mass with tightly fitted joints. Ends and sides of sod strips shall abut without overlap. Strips shall be staggered to offset joints in adjacent courses. Work shall be performed from boards to avoid damage to subgrade sod. Sod shall be tamped or rolled lightly to ensure contact with subgrade. Sifted soil shall be worked into minor cracks between pieces of sod with excess removed to avoid smothering of adjacent grass.
- C. Sod on slopes shall be pegged as required to prevent slippage. Use 1" x 1" x 6" wooden pegs with one end sharpened.
- D. Sod shall be watered thoroughly with a fine spray immediately after planting.

3.05 Maintenance

- A. Maintenance shall begin immediately after planting. Trees, shrubs and sod shall be maintained for 60 days after substantial completion of project.
- B. Maintain trees, shrubs and sod by mowing pruning, cultivating and weeding as required for healthy growth. Restore planting saucers. Tighten and repair stake and guy supports and reset trees and shrubs to proper grades or vertical position as required. Restore or replace damage wrappings. Spray as required to keep trees and shrubs free of insects and disease.

3.06 Cleanup and Protection

- A. During landscape work, materials and equipment shall be stored where directed. Pavements shall be kept clean and work areas kept in an orderly condition.
- B. Landscape work and materials shall be protected from damage due to construction operations, operations by other contractors, and trespassers. Protection shall be maintained during installation and the construction period.

3.07 IRRIGATION SYSTEM REPLACEMENT

All components of in-ground irrigation systems damaged during construction shall be replaced in kind. Replacement items shall be approved by the City prior to installation.

3.08 INSPECTION AND ACCEPTANCE

- A. The landscape work may be inspected for acceptance in parts agreeable to the City, provided the work offered for inspection is complete, including maintenance, and the area comprises one complete unit or area of substantial size.
- B. Where inspected landscape work does not comply with the requirements, rejected work shall be replaced and specified maintenance continued until re-inspected by the City or the City's Representative and found to be acceptable. Rejected plants and materials shall be promptly removed from the project site.

END OF SECTION

Section 02110
Site Clearing and Grubbing

Part 1 - General

1.1 Description

A. General:

1. Furnish all labor, materials, tools, equipment, and services for all site clearing, tree protection, stripping topsoil and demolition as indicated, in accord with provisions of Contract Documents.
2. Completely coordinate with work of all other trades.
3. Although such work is not specifically indicated, furnish and install all supplementary or miscellaneous items, appurtenances and devices incidental to or necessary for a sound, secure and complete installation.

- B. The work specified under this section shall include the removal and disposal of all trees indicated to be removed on the plans, the removal and disposal of all brush, stumps, roots, rubbish and debris, and all obstructions resting on or protruding through the surface of existing ground and the surface of excavated areas. The work also includes the removal and disposal of all existing facilities indicated on the Plans to be removed.

1.2 Quality Assurance

- A. Perform work in accordance with OSHA and EPA requirements and State and Local requirements.
- B. Erosion Control Standards: Section 104 of the FDOT "Standard Specifications for Road and Bridge Construction"

PART 2 - Products

NOT USED

PART 3 - Execution

3.1 Protection

- A. Provide barricades, coverings, and other protection necessary to prevent damage to existing improvements.
1. Protect improvements on adjoining properties as well as those on the CITY's property.
 2. Restore any improvements damaged by this work to original condition, as acceptable to the CITY or other parties or authorities having jurisdiction.
- B. Protect existing trees and other vegetation to remain against damage.

1. Do not smother trees by stockpiling construction materials or excavated materials within drip line.
 2. Avoid foot or vehicular traffic or parking of vehicles within drip line.
 3. Provide temporary protection as required.
- C. Repair or replace trees and vegetation damaged by construction operations.
1. Repair to be performed by a qualified tree surgeon.
 2. Remove trees which cannot be repaired and restore to full-growth status.
 3. Replace with new trees of minimum 4-inch caliper.

3.2 Improvements on Adjoining Property

- A. Contact Owner before performing any removal, storage or alteration work on adjoining property.

3.3 Site Clearing - General

- A. Remove trees, shrubs and other vegetation, improvements, or obstructions that interfere with new construction.
1. Removal includes stumps of trees and their roots.
 2. Carefully cut and protect roots and branches of trees indicated to be left standing, where they obstruct new construction. Large roots shall be cleaned before cutting, and cut with a saw or axe.
- B. Remove other items when specifically indicated.

3.4 Topsoil Removal

- A. Strip topsoil to whatever depths encountered, in manner to prevent intermingling with underlying subsoil or objectionable material.
1. Remove heavy growths of grass before stripping.
 2. Where trees are indicated to be left standing, stop topsoil stripping sufficient distance from such trees to prevent damage to main root system.
- B. Stockpile topsoil where directed.
1. Construct storage piles to freely drain surface water.
 2. Seed or cover storage piles to prevent erosion.
- C. Do not strip topsoil in wooded areas where no change in grade occurs.
- D. Borrow topsoil to be reasonably free of subsoil, objects over 2 inches in diameter, weeds and roots.

3.5 Clearing and Grubbing

- A. Clear from surface of existing ground all trees not marked to remain, shrubs, brush, downed timber, rotten wood, heavy growth of grass and weeds, vines, rubbish, structures and debris.
- B. Grub (remove) all stumps, roots, root mats, logs and debris encountered within limits of construction.
 - 1. Grubbing under areas to be paved: Remove all stumps and root mats, buried logs and other debris from within areas.
 - 2. Grubbing in lawn areas: In cut areas, totally grub. In fill areas, where fill is less than 3 feet totally grub ground. Where fill is 3 feet or more in depth, stumps may be left no higher than 6 inches above existing ground surface.

3.6 Disposal of Waste Materials

- A. Do not burn combustible materials on site.
- B. Remove all waste materials from site.
- C. Do not bury organic matter on site.

End of Section

SECTION 02120 - GEOTECHNICAL REPORT

1. GEOTECHNICAL REPORT

- A. Please reference the attached Geotechnical Report.



April 3, 2017
AEI Project No. APGT-17-053

TO: Advanced Engineering and Design, Inc.
3931 68th Avenue North
Pinellas Park, Florida 33781

Attention: Mr. Justin Keller, P.E.

SUBJECT: Geotechnical Investigation, Treasure Island BMPs Phase IV, West Gulf Boulevard, Treasure Island, Florida

Dear Mr. Keller:

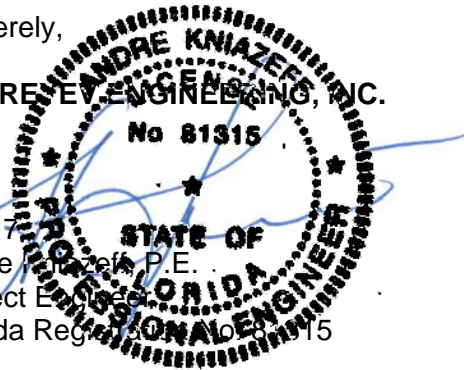
At your request, Andreyev Engineering, Inc. (AEI) has completed a geotechnical investigation for the above referenced project. Our work has been performed in general accordance with the AEI Proposal No: P3872.Pro dated March 16, 2017. This report presents the results of the field explorations performed together with an engineering evaluation of the observed soil and groundwater conditions.

Andreyev Engineering, Inc. appreciates the opportunity to provide our geotechnical engineering services on this project and trust that the information presented herein is sufficient for your current needs. Should you have any questions concerning the contents of this report or if we may be of further service, during the construction phase, please do not hesitate to contact us.

Sincerely,

ANDREYEV ENGINEERING, INC.

4-4-17
Andre Kniazeev, P.E.
Project Engineer
Florida Registered Professional Engineer
No 81315



Jeffery E. Eller, P.E.
Vice President
Florida Registration No. 57434

PROJECT DESCRIPTION

Based on our review of the plans provided to us by Advanced Engineering and Design, Inc., the project includes the installation of stormwater structures and piping. Pavement refurbishment in pipe and parking lot areas is also planned.

PURPOSE AND SCOPE

The purpose of this investigation was to determine the shallow soil and groundwater conditions at the location of the proposed stormwater and pavement improvements in order to provide general recommendations for design and construction.

The specific scope of this investigation included the following:

1. Collected core samples of the existing roadway sections (asphalt and base) within the vicinity of the proposed stormwater structures and piping.
2. Performed nine (9) power auger borings to estimated depths of 4 to 10 feet below land surface (bls) within the vicinity of the proposed stormwater structures and piping.
3. Collected static cone penetrometer readings at each power auger boring location.
4. Measured the depth of the groundwater table at each power auger boring location.
5. Prepared this report detailing the results of our investigation together with bedding recommendations regarding the construction/installation of the proposed stormwater structures and piping.

EXISTING SITE CONDITIONS

The "Soil Survey of Pinellas County, Florida" published by the U.S. Department of Agriculture Soil Conservation Service (S.C.S.) was reviewed. The soils within the study area are classified as Urban Land type soils. Due to the site specific nature of Urban Land type soils, no additional information is available in the soil survey.

The USGS, "Pass-A-Grille, Fla." topographic map dated 1994, showing the area on which the borings are located, was reviewed. Based on this review, the boring locations are estimated to occur at elevations of approximately +5 feet above National Geodetic Vertical Datum (NGVD). The USGS Topographic map showing the subject site location is included as **Figure 1**.

FIELD EXPLORATION & SUBSURFACE CONDITIONS

Field Exploration

The field investigation consisted of drilling nine (9) power auger borings (AB-1 through AB-9) within the vicinity of the proposed stormwater structure and parking improvement areas. The borings were located in the field using a site plan provided by Advanced Engineering and Design, Inc. The approximate boring locations are shown on **Figures 2, 3 and 4**.

Subsurface Conditions

The results of our field exploration program, including the stratification profile and associated field test results, are graphically presented in the form of soil profiles on the attached **Figure 5**. Soil stratification is based on review of recovered soil samples and interpretation of the field boring log by a geotechnical engineer. The soil classification was performed using the Unified Soil Classification System.

In general, the power auger borings encountered fine sands with rock (Stratum 1) and fine sands (Stratum 2) to the termination depths of 4 to 10 feet.

Based on penetration resistance values taken from our power auger borings, the sandy soils to a depth up to 10 feet bls are generally considered to be medium-dense to dense materials. The penetration resistance values are presented adjacent to the soil profiles on **Figure 5**. Correlation of the penetration resistance values and relative density are provided in the following table:

Penetration Resistance	Relative Density of Sand
0-6	Very Loose
7-12	Loose
13-20	Medium-Dense
21-29	Dense
+30	Very Dense

Groundwater levels were recorded following the soil investigation. The measured levels are indicated adjacent to the boring profiles on **Figure 5**. The shallow groundwater table was encountered at depths of 3.2 to 3.9 feet below the ground surface in the power auger borings conducted for this study. The shallow groundwater level should be expected to vary during wet seasons and heavy rainfall events.

Seasonal fluctuations of groundwater levels can be anticipated in response to variations in rainfall. The level recorded during this investigation is estimated to be lower than the normal seasonal high levels. Based on review of the SCS soil survey, boring results, measured groundwater levels, adjacent surface water features and antecedent rainfall, the normal seasonal high groundwater table is expected to occur about 1.5 to 2 feet above the levels measured during our field work.

GEOTECHNICAL RECOMMENDATIONS

Trench Stability

Trench excavations should be made in accordance with recommendations outlined by the Occupational Safety and Health Administrative (OSHA) "Document 2226-Safe Working Practices-Excavating and Trenching" and "Construction Standards for Excavations-29 CFR Part 1926.650- 652, Subpart P". If shoring is required due to deep cuts and/or high groundwater, the trench should be shored in accordance with OSHA 2226 requirements.

The recommendations detailed in the above documents are applicable only when the excavation will not compromise the integrity of existing roadways; that is the top of the excavation is greater than 5 feet from the existing edge of pavement or structures. Any required shoring would be designed in accordance with the above, taking into consideration loadings resulting from equipment, regular road traffic and/or stockpiled fill. The minimum trench width should be taken as the nominal pipe diameter plus 18 inches.

These recommendations assume dewatering measures will be provided where necessary to lower the groundwater table below the trench bottom. The groundwater table measurements presented on the soil profiles should be reviewed for determination of dewatering requirements.

Bedding and Backfill Requirements

The bottom of the excavation and backfill in areas of granular soils should be compacted using small hand-operated equipment. Any organics or unsuitable materials (clay, rock, grout) should be completely removed and backfilled with granular soil. Bedding and backfill should consist of non-cohesive granular material. The granular material may consist of the on-site sandy soil of Strata 1 and 2, or imported fine sand with less than 12% passing the #200 standard sieve. The structures should be laid directly on the excavation bottom provided that the natural soil at the bottom level is granular. The trench bottom should be compacted to 95 percent of its Modified Proctor Density to a minimum depth of one foot. Pumping or disturbed soils should be overexcavated and replaced with dry granular materials. Backfilling should progress as rapidly as the construction and testing of the work will permit. All backfill should be suitable as described above and be free of deleterious material. The initial backfill should be carefully deposited on both sides of the structure at the same time and uniformly compacted. In no case should backfill material be placed in the excavation in a manner that will cause shock to, or unequal pressure on the structure. The backfill should be placed and compacted to 95 percent of maximum density as determined by AASHTO T-180.

In all areas except for those stated above, compaction must equal 90 percent of the maximum density as determined by AASHTO T-180 or as directed by the Geotechnical Engineer. Under no conditions should construction debris, concrete, etc., be included with the backfill. Native soils excavated from below the existing groundwater table may be saturated and difficult to compact. In such cases, sufficient time and adequate drying procedures should be provided to produce soil with a moisture content which is ± 2 percent of optimum. It may be more practical in some cases to bring in dry material from off-site than to dry the excavated soils.

These recommendations assume dewatering measures will be provided where necessary to lower the groundwater table below the trench bottom. The groundwater table measurements presented on the soil profiles should be reviewed for determination of dewatering requirements.


LIMITATIONS

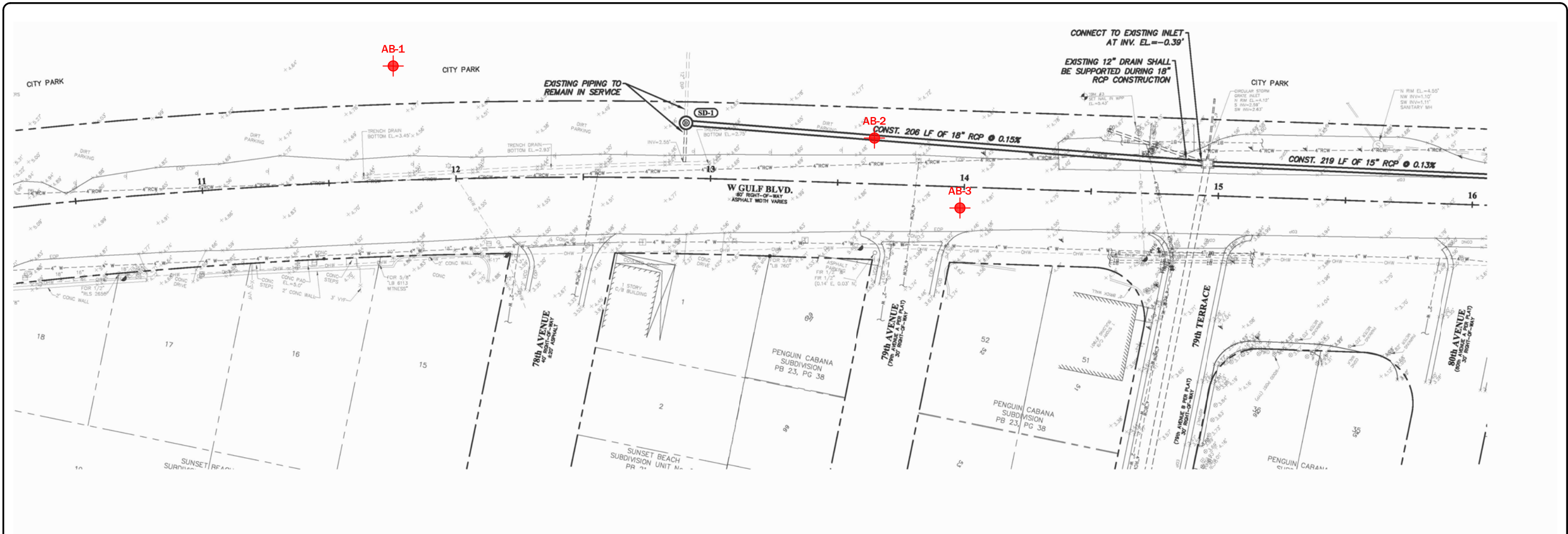
The geotechnical investigation and engineering recommendations submitted herein are based on the data obtained from the soil borings presented on **Figure 5**. This report does not reflect any variations which may occur adjacent to or between the individual borings. Should variations or anomalies then appear evident, it will be necessary for Andreyev Engineering, Inc. to re-evaluate our engineering recommendations after performing additional on-site observations and possible additional soil tests to note the characteristics of reported variations.

FIGURES




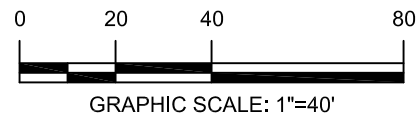
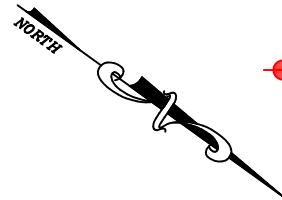
REFERENCE:
 U.S.G.S. PASS-A-GRILLE
 BEACH, FLA.
 QUADRANGLE MAP
 DATED 1994
 SECTION 36
 TOWNSHIP 31 SOUTH
 RANGE 15 EAST

 Andreyev Engineering, Inc.	GEOTECHNICAL INVESTIGATION TREASURE ISLAND BMPs PHASE IV TREASURE ISLAND, PINELLAS COUNTY, FL	
	APPROXIMATE SCALE: 1"=2000'	DATE: 03/31/17 PN: APGT-17-053
ENGINEER: JE DRAWN BY: DLS		



LEGEND:

 APPROXIMATE LOCATION OF POWER AUGER BORING



**Andreyev
Engineering,
Inc.**

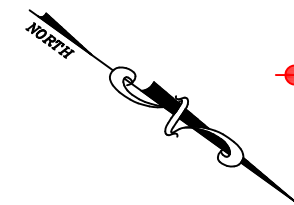
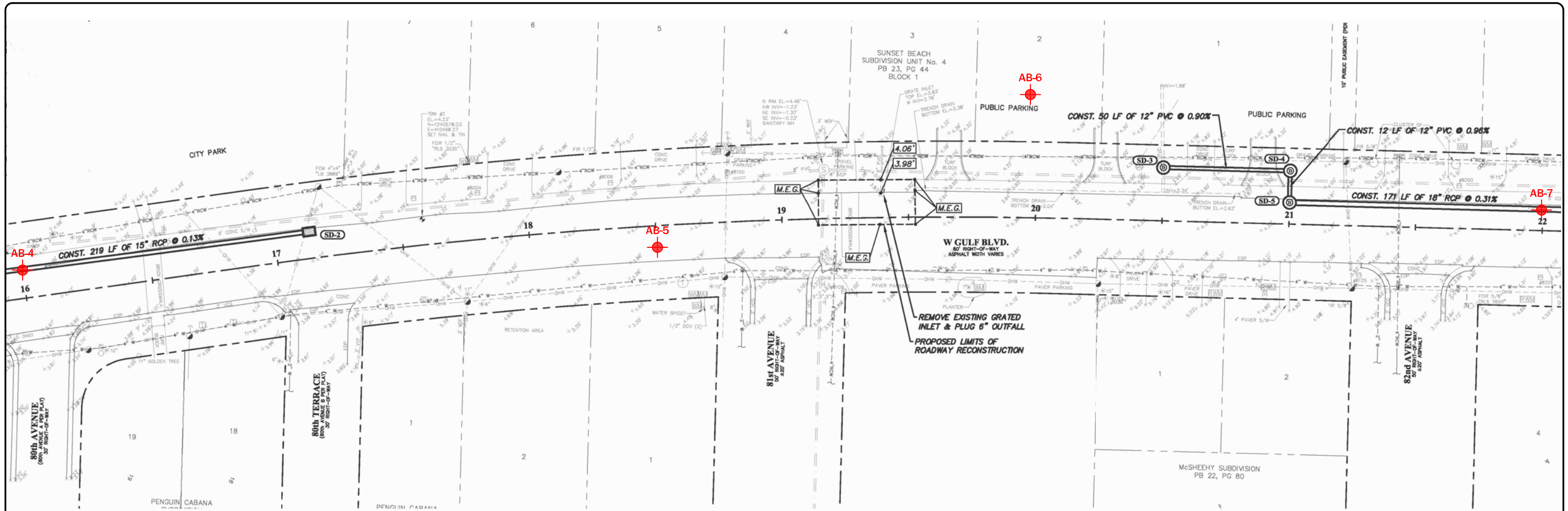
GEOTECHNICAL INVESTIGATION
**TREASURE ISLAND BMPs
PHASE IV**
TREASURE ISLAND, PINELLAS COUNTY, FL

APPROXIMATE SCALE:
1" = 40'

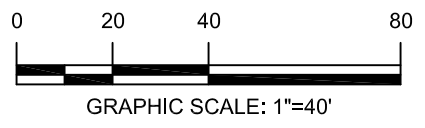
DATE: 03/31/17
PN: APGT-17-053


ENGINEER: JE
DRAWN BY: DLS

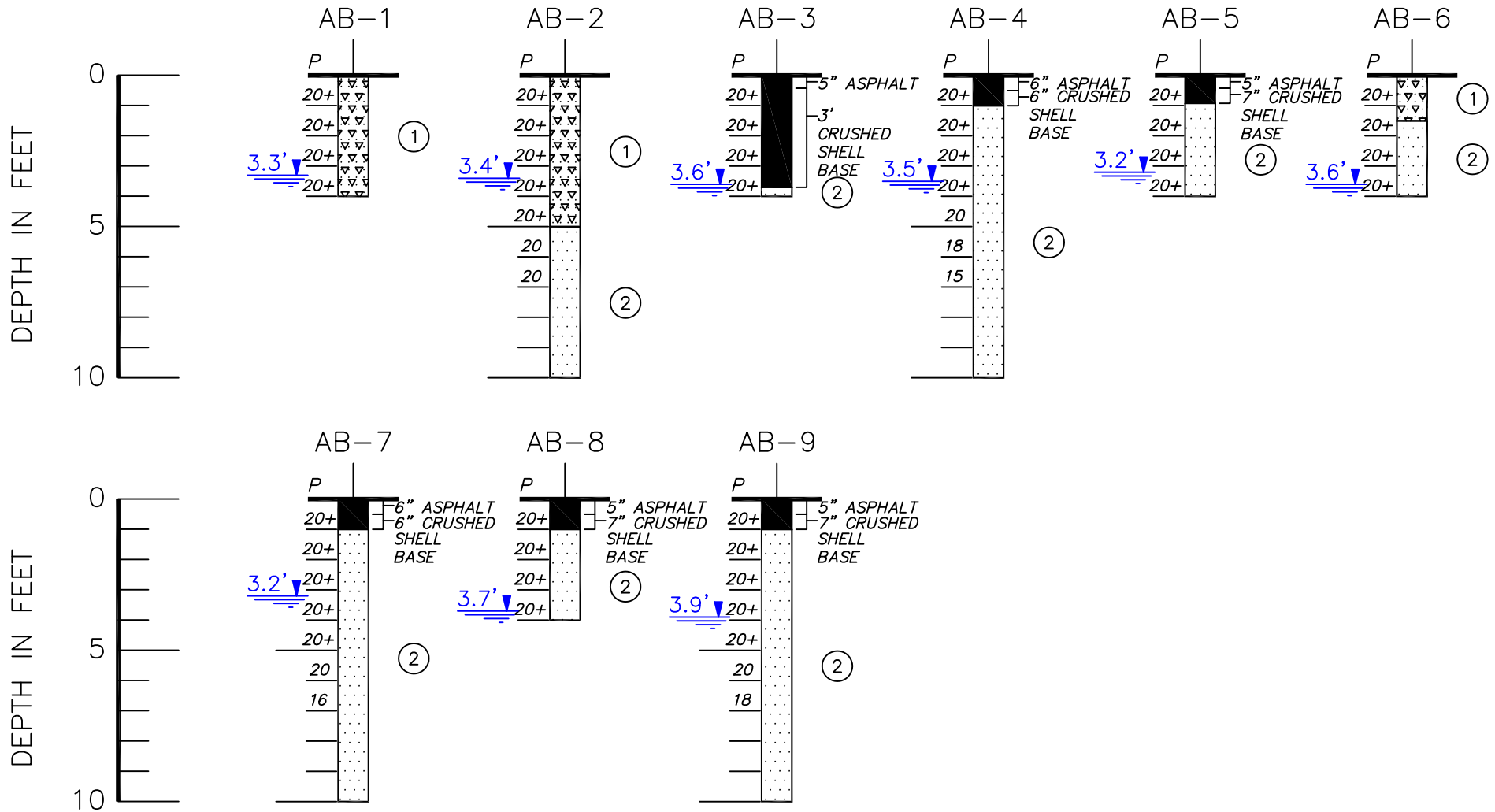
BORING LOCATION PLAN
FIGURE 2



LEGEND:
 APPROXIMATE LOCATION OF POWER AUGER BORING



 Andreyev Engineering, Inc.	GEOTECHNICAL INVESTIGATION TREASURE ISLAND BMPs PHASE IV TREASURE ISLAND, PINELLAS COUNTY, FL	
	BORING LOCATION PLAN FIGURE 3	
APPROXIMATE SCALE: 1" = 40'	DATE: 03/31/17 PN: APGT-17-053	ENGINEER: JE DRAWN BY: DLS



LEGEND:

- (1) GRAY FINE SAND WITH ROCK (SP)
- (2) LIGHT GRAY TO TAN FINE SAND (SP)
- (SP) UNIFIED SOIL CLASSIFICATION SYSTEM GROUP SYMBOL
- 1.0' DEPTH TO GROUNDWATER, MARCH 30, 2017
- P HAND PENETROMER READING



**Andreyev
Engineering,
Inc.**

GEOTECHNICAL INVESTIGATION
**TREASURE ISLAND BMPs
PHASE IV**
TREASURE ISLAND, PINELLAS COUNTY, FL

APPROXIMATE SCALE:

1"=5'

DATE: 03/31/17

ENGINEER: JE

PN: APGT-17-053

DRAWN BY: DLS

SOIL PROFILES

FIGURE 5

Section 02223
Structure Excavation and Backfill

Part 1 General

1.01 Description

- A. Scope - This Section includes excavation for structures, removal and disposal of excavated materials, backfilling, backfill materials and compaction.

1.02 Quality Assurance

- A. Reference Standards - Unless otherwise specified, the Work for this Section shall conform to the applicable portions of the following Standard Specifications:

ASTM - American Society of Testing and Materials

AASHTO-American Association of State Highway Transportation Officials

FDOT - Florida Department of Transportation

1.03 Submittals

A. Test Reports

1. Compaction - The testing laboratory shall provide the CITY with two (2) copies of the test results of the compaction of the backfill. The testing for compaction shall be performed by a testing laboratory approved by the CITY. The test results shall be signed and sealed by a Professional Engineer. Copies of the test result shall be delivered directly to the CITY by the testing laboratory within 5 working days.

Part 2 Products

2.01 Materials

- A. Granular Materials - Granular material shall be material passing a 1-inch sieve and at least 12% retained on a No. 200 sieve and meeting the approval of the CITY.

Part 3 Execution

3.01 Preparation

- A. Dewatering - The area within the vicinity of the new Work shall be dewatered prior to the excavation operation. The depth of the dewatering shall be sufficient to allow the excavation to remain in a dry condition during the construction of the structure, including the excavating, backfilling and compacting operations.

3.02 Performance

- A. Excavation - Excavation shall include the site clearing and grubbing, the excavating and disposing of all materials encountered, the supporting and protecting of all structures and/or utilities encountered above and below the ground surface, and the removal of water from the construction site. Excavation shall also include the removal of existing structures, as shown on the Plans or as directed by the CITY. Rock excavation, if

applicable, shall be performed as a part of the excavation in accordance with specifications contained elsewhere.

The CONTRACTOR shall keep the limits of his excavation operations within a reasonable close conformity with the location and grade, of each structure.

The excavated materials shall be temporarily stored in a manner that will not cause damage to trees, shrubs, fences, improvements, utilities, private property or traffic. The excavated materials shall not be placed at such locations that will endanger the banks of the excavation by imposing loads thereon.

The excavation shall be of sufficient size to allow for the construction of the new Work, the placing and compacting of the backfill and for the dewatering operation.

When concrete is to bear on or against an excavated surface other than rock, special care shall be taken not to disturb the surface. The final removal of the foundation material to grade shall not be made until just prior to the placing of the concrete.

Concrete shall not be placed until the depth of the excavation has been checked and the suitability of foundation material has been reviewed by the CITY.

Excavated material, determined by the CITY as suitable for backfill may be used. All excess materials shall be disposed of by the CONTRACTOR, at his expense.

The elevations for the bottom of footings shall be subject to such changes as are necessary to insure a satisfactory foundation. Any changes required shall be reviewed by the CITY prior to making the change.

The surface of all rock or other hard material upon which concrete is to be placed shall be freed from all loose fragments, cleaned and cut to a firm surface. The surface shall be level, stepped or serrated, as shown on the Plans.

All unsound material underlying proposed structures shall be removed and replaced with material approved by the CITY, in layers not exceeding six (6) inches in depth. Each layer shall be compacted to 98% of maximum unit weight unless indicated otherwise on the Plans, or within these specifications.

- B. Sheeting, Shoring, and Bracing - The CONTRACTOR shall furnish, place and maintain at all times such sheeting, shoring, and bracing of the excavated area as may be required for safety of the workmen and for protection of the new Work or adjacent structures, including pavement, curbs, sidewalks, pipelines and conduits next to, or crossing the excavated area, and for the protection and safety of pedestrian and vehicular traffic.

The CONTRACTOR shall be responsible for the complete design of all the sheeting, shoring, and bracing Work. Prior to installing the sheeting, shoring or bracing, the CONTRACTOR shall submit Plans for this Work to the CITY for his information. At the request of the City, these plans shall be signed and sealed by a licensed Florida Professional Engineer.

Sheeting, shoring, and bracing shall conform to current federal or state regulations for safety.

Where indicated on the Plans and where necessary in the Work, install and leave sheeting, shoring and bracing in place. No extra compensation shall be paid to the CONTRACTOR for sheeting, shoring or bracing left in place.

Supports for pipes, conduits, etc., crossing the excavated area shall conform to the requirements of the owners of such facilities and if necessary, shall be left in place. The furnishing, placing, maintaining and removing of sheeting, shoring and bracing materials shall be at the CONTRACTOR's expense.

The CONTRACTOR shall not remove the sheeting, shoring or bracing until the structure has obtained sufficient strength to support the external loads. The sheeting, shoring and bracing material shall not come in contact with the structure, but shall be installed so that no concentrated loads or horizontal thrusts are transmitted to the structure.

- C. Backfill - Backfill material shall be placed only after the new Work and backfill material have been inspected by the CITY.

Backfill shall not be placed against any portion of the new Work until the required curing, surface finishing and waterproofing of such portions have been completed. Backfill that will place an unequalized horizontal loading on the new Work shall not be placed until the concrete has attained at least 70% of its design strength. To equalize horizontal loadings, the required backfill around the new Work shall be placed on opposite sides at the same time.

Granular material acceptable to the CITY shall be used for backfilling the new Work unless otherwise indicated on the Plans or within these specifications.

All spaces excavated and not occupied by the new Work or by the specified backfill material, shall be backfilled with suitable material from the excavation.

After the backfill has been placed and compacted to the flow line elevation of any weepholes indicated on the Plans, the back end of each weephole shall be covered with not less than two (2) cubic feet of No. 6 or 7 coarse aggregate.

Large stones, boulders, broken rocks, concrete, and masonry shall not be used in the backfill.

The backfill shall be carried up to the surface of the adjacent ground or to the elevation of the proposed earth grade, and its top surface shall be neatly graded. Fill around all new Work shall be trimmed to the lines shown on the Plans or as directed by the CITY.

- D. Cleanup - Immediately following the placing and compacting of the backfill, the excess material shall be removed and disposed of by the CONTRACTOR.

The construction area shall be graded and restored as indicated on the drawings.

3.03 Field Quality Control

- A. Testing - During the course of the Work, the CONTRACTOR shall be required to test for compaction or density of the backfill at a minimum of one (1) test per two (2) feet vertical (compacted). Each successive test shall be performed at a different location around the structure to ensure backfill on all sides of the structure receive consistent compaction.

Testing procedures shall conform to AASHTO T-180.

- B. Failed Tests - Any portion of the backfill that is deficient in the specified density shall be re-compacted and re-tested.

Re-compacting and re-testing required because of deficiencies shall be at the CONTRACTOR's expense.

End of Section

**Section 02230
Base Course**

Part 1 General

1.01 Description

- A. Scope - This Section includes base courses constructed by the following method:
1. Crushed Concrete Road Base - The work specified in this Section consists of the construction of a base course composed of crushed concrete. It shall be constructed on the prepared subgrade, in accordance with these specifications and in conformity with the lines, grades, notes and typical cross section shown in the plans.
 2. Asphaltic Base Course - Asphaltic Base Courses included in the Work of this Contract shall be furnished and installed in accordance with the FDOT Standard Specifications for Road and Bridge Structures, latest edition, and all Supplemental Specifications. Except where the Contract Documents include more stringent requirements or noted deviations, the applicable specification sections by reference shall have the same force and effect as if bound directly.
 1. Section 280 (1991 Edition) - Asphalt Base Course
 2. Section 300 - Prime Tack Coats for Base Courses

1.02 Quality Assurance

- A. Reference Standards - Unless otherwise specified, the Work for this Section shall conform to the applicable portions of the following Standard Specifications:

ASTM - American Society of Testing and Materials
AASHTO - American Association of State Highways and Transportation Officials
FDOT - Florida Department of Transportation

- B. Allowable Tolerances

1. Base Courses - The finished surface shall be shaped to conform to within a tolerance of 1/2-inch in ten (10) feet to the cross section and grades called for on the Plans.

1.03 Submittals

- A. Test Reports

1. Thickness - The testing lab shall provide the CITY with two (2) copies of the test results. The sampling and testing shall be performed by a testing laboratory approved by the CITY. Test results shall be signed and sealed by a Professional Engineer, and submitted to the CITY within five (5) working days from the date of the test.

1.04 Product Delivery, Storage, and Handling

The base course material shall be transported to the point where it is to be used, over material previously placed if practicable, and dumped on the end of the preceding spread. Hauling over the subgrade and dumping on the subgrade will be permitted when, in the CITY'S opinion, these operations will not be detrimental to the base.

1.05 Job Conditions

A. Environmental Requirements

1. Temperature - Comply with the requirements for aggregate base course installations due to outside ambient air temperatures specified under Article 3.03 of this Section.

Part 2 Products

2.01 Materials

- A. Crushed Concrete Road Base - The crushed concrete material shall consist of only crushed concrete. Any added materials to facilitate construction and achieve desired characteristics of the finished in-place product must be submitted for approval by the CITY. The road base material shall conform with the gradation requirements for graded aggregate base specified in FDOT Section 911. The minimum LBR value shall be 150.

Part 3 Execution

3.01 CONTRACTOR'S Verification

- A. Excavation - Prior to the placing of any base material, examine the excavation for the grades, lines, and levels required to receive the new work. Ascertain that all excavation and compacted subgrade are adequate to receive the new work. Correct all defects and deficiencies before proceeding with the Work.
- B. Subgrade Conditions - Prior to the placing of any base material, examine the subgrade to ascertain that it is adequate to receive the base to be placed. If the subgrade remains wet after all surface water has been removed, the CITY may require the installation of edge drain.
- C. Existing Improvements - Investigate and verify locations of existing improvements, including structures, to which the new will be in contact.

Necessary adjustments in line and grade, to align the new work with the existing improvements must be approved by the CITY, prior to any changes.

3.02 Preparation

- A. Subgrade - The subgrade shall be fine graded to the cross section indicated on the Plans, and shall be thoroughly compacted prior to the placing of the base material.

3.03 Installation

- A. General - The width, thickness and type of base materials shall be indicated on the Plans or as directed by the CITY.

No base material shall be placed until the CITY has approved the subgrade.

- B. Road Base - The base course shall be placed by a mechanical spreader or other approved means, in uniform layers to such a depth that when compacted, the base course will have the thickness shown on the Plans.

The depth of any one (1) layer, when compacted, shall not be more than six (6) inches. If the required compaction cannot be obtained for the full depth of the base course spread, the thickness of each course shall be reduced or at the approval of the CITY, adequate equipment shall be used to compact the aggregate to the required unit weight.

The subgrade shall be shaped to the specified crown and grade and maintained in a smooth condition. If hauling equipment causes ruts or holes in the subgrade, the hauling equipment will not be permitted on the subgrade, but shall be operated on the base course behind the spreader.

The base course shall be compacted to at least 98% of maximum unit weight as determined by AASHTO T-180, by the use of approved pneumatic-tired compaction equipment or vibratory compactors.

The optimum moisture content shall be maintained until the prescribed unit weight is obtained and each layer shall be compacted until the maximum unit weight is attained before placing the succeeding layer.

When approved by the CITY, additional water may be applied by an approved means, to the base course to aid in the compaction and shaping of the material.

Motor graders or other approved equipment shall be used to shape the base course and maintain it until the surface course is placed.

When hauling material over the base course or subgrade, the CONTRACTOR shall limit the weight and speed of his equipment to avoid damage to the subgrade or base course. If the subgrade or base course becomes rutted due to the CONTRACTOR's operation, the subgrade or base course shall be removed and replaced, acceptable to the CITY, at the CONTRACTOR's expense.

- C. Maintenance During Construction - The base course shall be continuously maintained in a smooth and firm condition during all phases of the construction operation.

The CONTRACTOR, at his expense, shall provide additional materials to fill depressions or bind the aggregate, when directed by the CITY.

- D. Cleanup - Immediately following the compacting of the base course, the voids on both sides of the base course shall be backfilled with sound earth of topsoil quality.

The backfill shall be compacted, leveled and left in a neat, workmanlike condition.

At a seasonally correct time approved by the CITY, the disturbed area shall be raked, have topsoil placed thereon, fertilizer and sodded in accordance with Section 02940, Sodding.

3.04 Field Quality Control

- A. Testing - During the course of the work, the CITY may require testing for compaction or density and for thickness of material. The testing and coring required shall be performed by a testing laboratory approved by the CITY. The cost for testing shall be at the expense of the CONTRACTOR.
1. Thickness - A minimum of one depth (thickness) measurement will be made every 400 linear feet per traffic lane. The lane width shall be as indicated on the Plans or as determined by the CITY. If two (2) lanes are constructed simultaneously, only one (1) test is necessary to represent both lanes. For areas such as intersections, entrances, cross-overs, ramps, widening strips, acceleration and deceleration lanes, at least one depth measurement will be taken for each 1,200 square yards of such areas or fraction thereof. The location of the depth measurement will be at the discretion of the CITY.
 2. Compaction - Testing procedures shall conform to AASHTO T-180 and to current FDOT Specifications. Field density tests (AASHTO T-180) shall be performed each 300 lf per lift at staggered locations. Minimum acceptable density shall be 98%.
 3. Bearing Value - Bearing values for base material shall be determined per FDOT at road centerline each 400 lf in a staggered pattern and at all changes in soil classifications. Bearing values shall also be determined at curb lines each 400 lf, each side of road. Minimum bearing value shall be as specified per Plans.

B. Defective Work

1. Thickness - Measurements of base course thickness will be made to the nearest 1/4-inch. Depths may be 1/2-inch less than the thickness indicated on the Plans provided that the average of all measurements taken at regular intervals shall be equal to or greater than the specified thickness. In determining the average in place thickness, measurements which are more than 1/2-inch in excess of the thickness indicated on the Plans will be considered as the specified thickness plus 1/2-inch.

Locations of the depth measurements will be as specified herein unless otherwise directed by the CITY. Sections found to be deficient in depth shall be corrected by the CONTRACTOR using methods approved by the CITY.

Field compaction tests shall be retested upon re-compaction by the CONTRACTOR. Retesting and re-compaction shall be at the CONTRACTOR'S expense.

End of Section

**Section 02510
Paving**

Part 1 General

1.01 Description

A. Scope

This Section includes bituminous paving complete with bituminous materials; bituminous mixtures and pavement markings.

B. Standard Specifications for Bituminous Paving - All bituminous paving included in the Work of this Contract shall be furnished and installed in accordance with the "Pinellas County Department of Public Works Bituminous Concrete Specifications" dated April, 2013 except as modified below:

1. All testing and re-testing shall be performed at the Contractor's cost.
2. It is recommended that the Contractor confirm the cross slope of the roadway prior to paving.
3. The City has the right to require that a tack coat be placed in accordance with this document.
4. The Contractor shall ensure that prime/tack coats don't enter the City's stormwater collection system. Erosion control measures shall remain in place after prime/tack coat application.
5. Spreader speed shall be determined by the Contractor.
6. The City's shall be the responsible authority for rendering opinions on acceptability of mix segregation.
7. If the City's representative is not present during paving operations, the Contractor shall document the installed thickness of the asphalt using photography.

C. Pavement Markings (Roadways and Parking Areas)- Upon completion and approval of the finish asphaltic surface course, pavement markings shall be installed. Temporary striping shall be painted. All striping shall be thermoplastic and installed once the asphalt has cured.

D. The Contractor shall provide the CITY stormwater piping and structure record drawings as well as the video report of the pipe a minimum of Two (2) weeks prior to paving. All pipe / structure deficiencies shall be corrected at the Contractor's expense prior to paving.

End of Section

Section 02523
Concrete Sidewalks, Driveways, Curbs and Gutters

Part 1 General

1.01 Description

- A. Scope - This section includes sidewalks, sidewalk ramps, driveways, and drive approaches, curbs & gutters complete with concrete materials, concrete curing compounds, joint materials, field quality control and appurtenances.

1.02 Quality Assurance

- A. Reference Standards - Unless otherwise specified, the work for this Section shall conform to the applicable portions of the following Standard Specifications:

ASTM - American Society of Testing and Materials

AASHTO - American Association of State Highway and Transportation Officials

FDOT - Florida Department of Transportation - Standard Specifications for Road and Bridge Construction.

FAC - Florida Accessibility Code

ADAAG - Americans with Disabilities Act Accessibility Guidelines

UFAS - Uniform Federal Accessibility Standards

1.03 Submittals

- A. Reports - Written permission for the use of all local disposal sites shall be obtained and copies shall be furnished to the CITY.

At the request of the CITY, the CONTRACTOR shall provide the CITY with certification that the various materials to be used conform to the ASTM Standards referred in the Specification.

B. Test Reports

1. Thickness and Compressive Strength - The CITY shall be provided with two (2) certified copies of the test results required under Section 3.04. The test shall be performed by a laboratory approved by the CITY.

1.04 Job Conditions

A. Environmental Requirements

1. Temperature - Comply with the requirements for concrete installation due to outside ambient air temperatures as specified under Article 3.03.H. of this Section.

B. Protection

1. Protection Against Rain - Comply with the requirements for protecting new Work against damage from rain, as specified under Article 3.03.H. of this Section.

Part 2 Products

2.01 Materials

- A. Concrete - Concrete shall be in accordance with Section 02040 of these specifications.
- B. Ready-Mixed Concrete - Ready-mixed concrete shall conform to ASTM C94, Alternate 2.
- C. Water - Water to be used for mixing and curing concrete shall be reasonably clean and free from oil, salt, acid, alkali, chlorides, sugar, vegetable, or other substances injurious to the finished product. Waters from sources approved by the local Health Department as potable may be used without test. Water requiring testing shall be tested in accordance with the current Method of Test for Quality of Water to be Used in Concrete, AASHTO T26.
- D. Concrete Curing Compounds - White membrane curing compound for curing concrete shall conform to AASHTO M148, Type 1 clear, or Type 2 white per FDOT Section 925.
- E. Premolded Joint Filler - Joint filler shall conform to ASTM D1751. Filler shall be of the thickness, as specified herein, or on the Plans. or as directed by the CITY.
- F. Steel Hook Bolts - Hook bolts shall conform the ASTM A706, or for Grade 60 of ASTM A615, A616, or A617. Hook bolts shall be 5/8-inch diameter, self tapping.
- G. Joint Sealant - Hot-poured type joint sealant shall conform to ASTM D1190.

Part 3 Execution

3.01 CONTRACTOR'S Verification

- A. Excavation and Forming - Prior to the installation of any concrete, examine the excavation and forms for the proper grades, lines, and levels required to receive the new Work. The CONTRACTOR shall verify that all excavation and compacted subgrade are adequate to receive the concrete to be installed.

Correct all defects and deficiencies before proceeding with the Work.

- B. Existing Improvements – The CONTRACTOR shall investigate and verify location of existing improvements to which the new Work is to be connected.

The CONTRACTOR shall make necessary adjustments in line and grade to align the new Work with the existing improvements. The CITY must approve this work CITY prior to construction.

3.02 Preparation

- A. Forms - The forms shall be of wood or metal, straight and free from warp, clean, and sufficient strength to resist springing during the process of depositing concrete against them.

The forms shall be the full depth of the concrete.

3.03 Installation

- A. Sidewalks, Sidewalk Ramps, Driveways, and Driveway Approaches - All sidewalks and sidewalk ramps shall be four (4) inches thick except at driveways and alleys, where the thickness of the sidewalks shall be six (6) inches (unless shown otherwise). Sidewalks shall be five (5) feet wide unless otherwise noted on the Plans or as directed by the CITY, and shall slope 1/4 inch per foot towards the center of the road (unless shown otherwise). Normally sidewalks will be located within the right-of-way, parallel the property lines, at a distance of 2-foot from the property line.

Alleys, driveways and approaches shall be six (6) inches thick. The width of the driveways and driveway approaches shall be specified on the Plans or as directed by the CITY.

All sidewalks and driveways shall be reinforced as shown on the plans.

- B. Removal of Existing Curb for Sidewalk Ramps and Driveway Approaches - Construction of sidewalk ramps within street intersections where curbed pavement exists shall conform to the current FDOT Roadway and Traffic Design Standards.

Where there is no proper curb drop for the sidewalk ramp or driveway approach, the CONTRACTOR shall saw cut, to full depth of pavement, and remove a minimum of an 18-inch wide curb and gutter section. When mountable curbs are present, the CONTRACTOR shall remove a 24-inch wide curb and gutter section for the construction of sidewalk ramps, as specified above.

The length of curb and gutter removal shall be determined by the CITY in the field but shall be at least as wide as the proposed sidewalk ramp plus 1-foot on each side.

The removed curb and gutter section shall be replaced with material, equal to what was removed and seal joint with hot poured rubber asphalt.

The CONTRACTOR shall install 5/8-inch diameter self tapping hook bolts, in the existing concrete pavement as indicated on the Plans prior to placing concrete for the removed curb and gutter section.

- C. Placement of Forms - Wood forms, straight and free from warp, of nominal depth may be used for sidewalk sections less than 25 feet in length.

Forms shall be staked to line and grade in a manner that will prevent deflection and settlement.

When unit slab areas are to be poured, slab division forms shall be so placed that the slab division joints will be straight and continuous.

Forms shall be set for sidewalk ramps to provide a grade toward the centerline of the right-of-way in accordance with current standards. The grade shall be uniform, except as may be necessary to eliminate short grade changes.

Forms shall be oiled before placing concrete. Forms shall remain in place at least 12 hours after the concrete is placed. There shall be sufficient forms placed ahead of the pouring operations to maintain uninterrupted placement of concrete.

The use of slip form pavers can be allowed when approved by the CITY in lieu of the construction system described above.

- D. Joints - Transverse and longitudinal expansion and control joints shall be constructed at the locations specified herein, or as indicated on the Plans or as directed by the CITY.

The transverse expansion joints shall be placed for the full width and depth of the new Work. The transverse expansion joints placed against any existing pavement shall be a minimum of six (6) inches deep but no less than the thickness of the concrete being placed.

Longitudinal expansion joints shall conform to the same requirements as transverse expansion joints.

Joints shall be constructed true to line with their faces perpendicular to the surface of the sidewalk. The top shall be slightly below the finished surface of the sidewalk. Transverse joints shall be constructed at right angles to the centerline of the sidewalk and longitudinal joints shall be constructed parallel to the centerline or as directed by the CITY.

Unless otherwise specified in the Plans or unless directed by the CITY, when the sidewalk is constructed in partial width slabs, transverse joints in the succeeding slab shall be placed in line with like joints in the adjacent slab. Also in the case of widening existing sidewalks, transverse joints shall be placed in line with like joints in the existing sidewalk.

Transverse expansion joints, 1/2-inch thick, shall be placed through the sidewalk at uniform intervals of not more than 50 feet and elsewhere as shown on the Plans, or as directed by the CITY.

Expansion joints, 1/2-inch thick, shall be so placed between the sidewalk and back of abutting parallel curb, buildings or other rigid structures, concrete driveways and driveway approaches. When directed by the CITY, the expansion joint between sidewalks and buildings shall be placed 1-foot from the property line and parallel to it.

Control joints shall be formed every five (5) feet and shall be produced by use of slab divisions forms extending to the full depth of the concrete or by cutting joints in the concrete, after floating, to a depth equal to 1/4 the thickness on the sidewalk. The cut joints shall not be less than 1/8 inch or more than 1/4 inch in width and shall be finished smooth and shall be at right angles to the centerline on the sidewalk.

- E. Placing and Finishing Concrete - All concrete shall be placed on a prepared smooth, leveled, rolled and properly compacted subgrade as indicated on the Plans. The surface of the subgrade shall be moist with no visible water present prior to placement of the concrete.

The concrete shall be deposited, in a single layer, therein to the depth specified in the Plans or in the Proposal. The concrete shall be thoroughly spaded or vibrated and compacted to fill in all voids along the forms and joints. The concrete shall be struck off with a strike board until all voids are removed and the surface has the required grade and cross section as indicated on the Plans, or as directed by the CITY.

The surface of the concrete shall be floated just enough to produce a smooth surface free from irregularities. All edges and joints shall be rounded with an edger having a 1/4-inch radius.

The surface of sidewalks, driveways and approaches shall be broomed to slightly roughen the surface. The surface of the sidewalk ramps shall be textured with a coarse broom transversely to the ramp slope, and shall be coarser roughened than the remainder of the sidewalk.

- F. Curing - After finishing operations have been completed and immediately after the free water has left the surface, the surface of the concrete (and sides if slip-forming is used) shall be completely coated and sealed with a uniform layer of white membrane curing compound. The curing compound shall not be thinned. The curing compound shall be applied at the rate of one gallon per 200 square feet of surface.
- G. Barricades - Suitable barricades and lights shall be placed around all newly poured sidewalks, sidewalk ramps, driveways, driveway approaches and curb and gutter sections in order to protect the new Work from damage from pedestrians, vehicles and others until the concrete has hardened.

Barricades shall be left in place for a minimum of two (2) days, except for driveway approaches and curb and gutter sections. Barricades shall remain in place for a minimum of three (3) days.

Any concrete that suffers surface or structural damage shall be removed and replaced by the CONTRACTOR at his expense.

H. Protection

- 1. Against Rain - The CONTRACTOR shall adequately protect new concrete from the effects of rain before the concrete has sufficiently hardened. For this Work the CONTRACTOR shall have available on the job site at all times enough burlap or 6-mil thick polyurethane film to cover and protect one day's work. When rain appears imminent, all operations shall stop and personnel shall begin covering. As soon as the rain ceases, the concrete shall be uncovered and the surface burlap dragged where necessary. Curing compound shall be applied to any areas where the compound has been disturbed or washed away.
 - 2. Concrete Temperature Limitations - Concrete shall not be placed when the temperature of the concrete at the point of placement is above 90 degrees F at the start of the pour.
- I. Cleanup - After the concrete has gained sufficient strength, but no sooner than within 12 hours, the fixed forms shall be removed and the spaces on both sides shall be immediately backfilled with sound earth of topsoil quality. The backfill shall be compacted, leveled and left in a neat, workmanlike condition.
 - J. Gutters and Curbs - Gutters and Curbs shall be constructed in accordance with Section 520, FDOT Standard Specifications for Road and Bridge Construction, latest edition, including supplements.

3.04 Field Quality Control

- A. Concrete Delivery Ticket - A ticket system shall be used for recording the transportation of concrete from the batching plant to point of delivery. This ticket shall be issued to the truck operator at the point of loading and given to the CITY upon delivery.

- B. Concrete Delivery Rejection - Concrete not permitted for inclusion in the Work by the CITY shall be removed from the site. Rejection of concrete will be determined through Field Quality Control and elapsed time from mixer charging to delivery.
- C. Concrete Testing at Placement - Tests shall be made of each batch of concrete delivered, each 50 cubic yards, or whenever consistency appears to vary. The sampling and testing of slump, air content and strength will be performed at no additional cost to the CITY.

1. Sampling - Composite samples shall be secured in accordance with the Method of Sampling Fresh Concrete, ASTM C172.
2. Slump Test - Test shall be in accordance with ASTM C143. The CONTRACTOR shall use the least slump possible consistent with workability for proper placing of the various classifications of concrete.

Structural concrete for walls and slabs shall be placed, by means of vibratory equipment, with a slump of four (4) inches.

A tolerance of up to 1-inch above the indicated maximum shall be allowed for individual batches provided the average for all batches or the most recent ten (10) batches tested, whichever is fewer, does not exceed the maximum limit.

3. Air Content - Determine air content of normal weight concrete in accordance with Method of Test for Air Content of Freshly Mixed Concrete by the Pressure Method, ASTM C23 1, or by the volumetric method, ASTM C 173, for each strength test.
4. Compressive Strength - Make two (2) strength tests of three (3) samples each for each 50 cubic yards, or fraction thereof, of each mix design of concrete placed in any one (1) day.
 - a. Handling Samples - Mold and cure three (3) specimens from each sample in accordance with Method of Making and Curing Concrete Test Specimens in the Field, ASTM C31. Any deviations from the requirements of this Standard shall be recorded in the test report.
 - b. Testing - Test specimens in accordance with Method of Test for Compressive Strength of Cylindrical Concrete Specimens, ASTM C39. One (1) specimen shall be tested at seven (7) days for information and two (2) shall be tested at 28 days for acceptance. The acceptance test results shall be the average of the strengths of the two (2) specimens tested at 28 days. If one (1) specimen in a test manifests evidence of improper sampling, molding or testing, it shall be discarded and the strength of the remaining cylinder shall be considered the test result. Should both specimens in a test show any of the above defects, the entire test shall be discarded.
 - c. Acceptance of Concrete - The strength level of the concrete will be considered satisfactory so long as the averages of all sets of three consecutive strength test results equal or exceed the specified 28-day strength and no individual strength test result falls below the specified 28-day strength by more than 500 psi.

If the strength test is not acceptable, further testing shall be performed to qualify the concrete.

- d. Concrete Temperature - Determine the temperature of concrete sample for each strength test.

End of Section

Section 02720 Storm Sewers

Part 1 General

1.01 Description

- A. Scope - This Section includes storm sewer Work indicated on the Plans complete with pipes, joints, structures, pipe bedding, final inspection and appurtenances.

1.02 Quality Assurance

- A. Reference Standards - Unless otherwise specified, the Work for this Section shall conform to the applicable portions of the following Standard Specifications:

ANSI - American National Standard Institute

ASTM - American Society of Testing & Materials

AASHTO - American Association of State Highway Transportation Officials

FDOT - Florida Department of Transportation

1.03 Submittals

- A. Shop Drawings - Complete Shop Drawings for all products and materials shall be submitted to the CITY.

1.04 Product Storage and Handling

A. Storage of Materials

1. Storm Sewer Piping - Piping material shall not be stacked higher than recommended by the manufacturer, whichever is lowest. Suitable racks, chairs, and other supports shall be provided to protect preformed pipe mating surfaces from damage. Store bottom tiers off the ground, alternate tiers and chock tier ends.
2. Gaskets - Jointing and sealing materials used in the storm sewer system shall be protected from sunlight and stored in as cool and clean a place as practical until ready for application.

B. Handling of Material

1. Loading and Unloading - Load and unload materials using suitable approved equipment. Material shall not be dropped, bumped or allowed to impact against itself. Damaged material shall be rejected by the CITY.
2. Lifting Devices - Lifting devices shall be suited to the Work and shall protect surfaces from damage.

Part 2 Products

2.01 Materials

It is the intent of this Section to specify in detail the various types of storm sewer pipe and joints that have been indicated throughout the Plans and Specifications. This Article shall not be construed as allowing any alternate type of material to that which is indicated on the Plans or elsewhere in the Specifications.

A. Reinforced Concrete Pipe

1. See plan requirements.

B. PVC Pipe

2. Scope - Polyvinyl chloride (PVC) storm sewer/drain pipe shall be in accordance with AWWA C 900, with push-on integral bell joints and supplied in standard 20-foot lengths. All pipe shall be pressure class 150 with a minimum DR of 18. Pipe shall be marked as detailed in AWWA C 900 and be furnished with an affidavit that it complies with the requirements of AWWA C 900 and N.S.F. All pipe furnished under this specification will be COLOR CODED BLUE. All pipe shall be clean and ends shall be taped during shipment. APPROVED PRODUCTS: J-M/ Blue Brute, Napco, or equal.

C. HDPE Pipe

1. High density ADS N-12 IB-WT (water tight) polyethylene corrugated pipe with an integrally formed smooth waterway. Nominal sizes for which this specification is acceptable are 100-1500 mm (4 – 60 inch) diameters. Sizes 100 – 1500 mm (4 – 60 inch) shall be AASHTO Type 'S' (N-12) and shall have a full circular cross-section, with an outer corrugated pipe wall and an essentially smooth inner wall (waterway). Pipe manufacturers for this specification shall comply with the requirements for test methods, dimensions and markings found in AASHTO Designations M252, M294 and MP7, and the additional provisions as specified in DOT-SSRBC Section 948-2.3. Pipe and fittings shall be made from virgin PE compounds which conform with the applicable current edition of the AASHTO Material Specifications for cell classification as defined and described in AASHTO D3350. The minimum parallel plate stiffness values when tested in accordance with ASTM D2412 shall be 140 kN/square meter for 42" diameter pipe. The fittings shall not reduce or impair the overall integrity or function of the pipeline. Fittings may be either molded or fabricated. Common corrugated fittings include in-line joint fittings, such as couplers and reducers, and branch or complimentary assembly fittings such as tees, wyes and end caps. These fittings may be installed by various methods such as snap-on, bell and spigot, bell – bell and wrap around couplers. Couplers shall provide sufficient longitudinal strength to preserve pipe alignment and prevent separation at the joints. Only fittings supplied or recommended by the manufacturer shall be used. Where designated on the plans or project specifications, an elastometric gasket meeting the requirements of ASTM F477 shall be supplied. Installation of the pipe specified shall be in accordance with either AASHTO Section 30 or ASTM Recommended Practice D2321 as recommended by the manufacturer.

D. End Sections

1. Precast Concrete End Section

- a. The precast concrete end section shall conform to ASTM C76, Class 11.
- b. The joint for connection to pipe shall be as specified in Section paragraph 2.01.B.I.b. of this Section.

2. Precast Concrete Ring

- a. Precast concrete rings shall consist of a ring of concrete, of the dimensions shown on the Plans, cast around a section of the kind of pipe to be used in the culvert. Rings for concrete pipe culverts may be cast as a monolithic unit with the pipe.

- E. Structures - Material for storm sewer structures shall conform to the requirements below and the details indicated on the Plan.
1. Clay Brick - Brick shall conform to ASTM C32, Grade MS, recessed or cored.
 2. Concrete Brick - Brick shall conform to ASTM C139, Portland cement conforming to ASTM C150, Type II. Bricks shall be solid.
 3. Concrete Block - Block shall conform to ASTM C 139, Portland cement conforming to ASTM C150, Type II. Blocks shall be solid curved blocks with the inside and outside surfaces parallel and curved to the required radii. The blocks shall have a groove or other approved type of joint at the ends. Blocks intended for use in the cones or tops of manholes shall have such shape as may be required to form the structure as indicated on the Plans.
 4. Precast Concrete Units
 - a. Manhole Base and Riser Unit - Precast concrete manhole base and riser units shall conform to ASTM C478, and shall be circular with circular reinforcement. For manhole depths to 32 feet, the wall thickness of the sections shall be six (6) inches. The joints on precast sections shall be the same as the joints on storm sewer.
 - b. Manhole Cone Unit - Precast concrete manhole cone units shall conform to ASTM C478.
 - c. Manhole Tees - Precast concrete manhole tee units shall conform to ASTM C76, Class IV and shall be circular with circular reinforcement. Shop Drawings shall be provided for all manhole tees.
 - d. Concrete Base - Precast concrete base unit shall conform to ASTM C478.
 - e. Concrete Top Slab - Precast concrete top slab unit shall conform to ASTM C478.
 - f. Concrete Grade Rings - Concrete grade rings shall conform to ASTM C478.
 5. Frames and Covers - Frames and covers for manholes, catch basins, and inlets shall conform to ASTM A48, Class 30, gray iron and shall be of the types and sizes as indicated on the Plans. The castings shall be neatly made and free from cracks, holes and other defects. Surfaces of casting shall be ground to assure proper fit and to prevent rocking.
- F. Concrete - In accordance with FDOT Section 346, use ASTM C478; 4,000-psi strength; Type I cement; 6.0 sacks cement per cubic yard; 5 coarse aggregate; silica sand fine aggregate; three (3) percent to six (6) percent air content; 3-inch maximum slump; no admixtures without the CITY'S approval.
- G. Concrete Reinforcement - In accordance with FDOT Section 931, use ASTM A615, Grade 60 for bars and ASTM A185 for welded wire fabric.
- H. Granular Material - Granular material shall be material passing a 1-inch sieve and at least 35% retained on a No. 200 sieve and meeting the approval of the CITY.
- I. Grating - All channel sections shall be equipped with 14 gauge galvanized steel gratings. Grating shall bear evenly on the channel edges and shall provide an intake cross section of

10.2 square inches per lineal foot. Lock down bolts shall be installed to the gratings firmly in place. Grating sections shall be provided in either two (2) foot or four (4) foot lengths to match the channel sections.

For heavy loads all channel sections shall be equipped with cast iron gratings. Gratings shall bear evenly on the channel edges and shall provide an intake cross section of 19.8 square inches per lineal foot. Lock down bolts and bars shall be provided and installed to hold the gratings firmly in place. Grating sections shall be two (2) feet long.

Part 3 Execution

3.01 CONTRACTOR'S VERIFICATION

- A. Excavation and Bedding - Prior to the installation of any storm sewer piping, structures, or materials, examine all trenches and other excavations for the proper grades, lines, levels and clearances required to receive the new Work. Ascertain that all excavation bottoms, compacted subgrade and pipe bedding are adequate to receive the storm sewer materials to be installed. Correct all defects and deficiencies before proceeding with the Work.
- B. Existing Storm Sewers and Drains - Expose the existing storm sewer and structures to which the new Work is to be connected and notify the CITY of same. The CONTRACTOR will verify the vertical and horizontal locations of the existing system and shall inform the CITY as to the necessary adjustments or deviations required to align the new storm sewer Work with the existing system.

3.02 Preparation

- A. Pipe Ends - The outside surface of the spigot end and the inside surface of the bell end of the pipe shall be cleaned and free of any foreign materials, other than the sealant recommended by the manufacturer, prior to installation.
- B. Examination of Material - All pipe, frames, covers, accessories, and appurtenances shall be examined carefully for damage and other defects immediately prior to installation. Defective or damaged material shall be marked and held for inspection by the CITY. Defective or damaged materials are subject to rejection by the CITY.

3.03 Installation

- A. General
 - 1. Pipe Bearing - Each section of pipe, when placed to grade and line, shall have firm bearing on the trench bedding throughout its length.
 - 2. Pipe Cutting - Cutting of pipe shall be done with approved tools and by approved methods suitable for the pipe material. Pipe cutting methods that produce a smooth, square-cut end without damage to the pipe and that minimize air-borne particles, shall be employed. Pipe cutting shall be performed using the recommendations of the manufacturer of the type of the pipe materials being cut and according to the best trade practices. When cutting pipe, care shall be taken to prevent damage to the interior and exterior surfaces. Damage to either shall be cause for rejection of a complete section of pipe.
 - 3. Dewatering - During the preparation of the pipe bedding and until the trench has been satisfactorily backfilled, the trench shall be kept free of water. A dewatering system

shall be provided and maintained by the CONTRACTOR. The dewatering system shall remain in operation as directed by the CITY.

4. Pipe Laying - Installation of pipe shall conform to ASTM C12, and as recommended by the pipe manufacturer.

The pipe shall be protected during handling against impact shocks and free fall. Hooks shall not be permitted to come in contact with premolded joint surfaces.

Pipes having premolded joint rings or attached couplings shall be handled so that no weight, including the weight of the pipe itself, will bear on or be supported by the jointing material. Care shall be taken to avoid dragging any pipe on the ground or allowing it to be damaged by contact with gravel, crushed stone, or other hard objects.

All pipe shall be laid to the line and grade called for on the Plans. Each pipe as laid, shall be checked by the CONTRACTOR with line and grade pole or laser system to insure that this result is obtained. When employing a laser system, the CONTRACTOR shall have an independent and alternate means of checking the line and grade. The finished work shall be straight and shall be sighted through between manholes.

Construction shall begin at the outlet end and proceed upgrade with spigot ends pointing in direction of flow. Bell holes shall be excavated so that the full length of the barrel will bear uniformly on the subgrade.

Lubricants, primers or adhesives as recommended by the pipe or joint manufacturer shall be used immediately prior to jointing.

The pipe shall be centered in the bells or grooves and pushed tight together to form a smooth and continuous invert. After laying of pipe, care shall be taken so as not to disturb its line and grade. Any pipe found off grade or out of line shall be relaid properly by the CONTRACTOR.

Mechanical means shall be used for pulling home all pipe where manual means will not result in pushing and holding the pipe home. Mechanical means shall consist of a cable placed inside of the pipe with a suitable winch, jack, or come along for pulling the pipe home and holding the pipe in position.

Circular concrete pipe shall be installed with the lift holes to the top of the pipe. The manufacturer's marks designating the top and bottom of the pipe shall not be more than five (5) degrees from the vertical plane through the longitudinal axis of the pipe. After the pipe is installed, the lift holes shall be sealed with suitable concrete plugs.

Type HE elliptical pipe shall be installed with the longer axis placed horizontally within a tolerance of \pm five (5) degrees.

5. Pipe Bedding - Pipe bedding shall conform to ASTM C12, except as noted.

Class A - The pipe shall be bedded in crushed stone bedding material placed on the trench bottom. The bedding material shall have 100% passing a $\frac{3}{4}$ -inch sieve and 95% retained on a No. 4 sieve. The bedding shall have a minimum thickness beneath the pipe of four (4) inches or $\frac{1}{4}$ of the outside diameter of the pipe, whichever is greater, and shall extend up the sides of the pipe to the horizontal centerline. The top half of the pipe shall be covered with a monolithic plain concrete arch having a thickness of at least four (4) inches or $\frac{1}{4}$ of the inside diameter of the pipe, whichever is greater, at

the pipe crown and a minimum width equal to the outside diameter of the pipe plus eight (8) inches or 1/4 of the diameter of the pipe, whichever is greater.

Class B - The pipe shall be bedded in crushed stone bedding material placed on the trench bottom. The bedding material shall have 100% passing a 3/4-inch sieve and 95% retained on a No. 4 sieve. The bedding shall have a minimum thickness beneath the pipe of four (4) inches or 1/8 of the outside diameter of the pipe, whichever is greater, and shall extend up the sides of the pipe to the horizontal centerline. Backfill from pipe horizontal centerline to a level not less than 12 inches above the top of the pipe shall be natural bank run sand meeting the requirements of granular material and approved by the CITY. This material shall be placed in 6-inch layers with each layer thoroughly compacted by mechanical means with the finished compacted material a minimum of 12 inches above the top of pipe.

Class C - The pipe shall be bedded in natural bank run sand, approved by the CITY, meeting the requirements of granular material, placed on the trench bottom. The bedding shall have a minimum thickness beneath the pipe of four (4) inches or 1/8 of the outside diameter of the pipe, whichever is greater, and the bedding shall extend to a level not less than 12 inches above the top of the pipe. This material shall be placed in 6-inch layers with each layer thoroughly compacted by mechanical means with the finished compacted material a minimum of 12 inches above the top of pipe.

A continuous and uniform bedding shall be provided in the trench for all buried pipe.

Specific plan requirements supersede the above requirements.

B. Structures - Construct storm sewer manholes, catch basins, inlets and structures to the grades, lines and levels indicated on the Drawings and as specified. Structures shall be complete with concrete bases, reinforcing, frames, covers, adjustment bricks, etc. as shown and as required for a complete installation. Storm sewer structures shall conform to the dimensions indicated on the Plans. Protective coating shall be applied to the outside surfaces of inlets and manholes. The protective coating shall be one coat of coal tar epoxy, Kop-Coat Bitumastic 300-M, or approved equal. The dry film thickness shall be 9 mils.

1. Brick - Prior to laying, all brick shall be thoroughly wetted and the surfaces allowed to dry only sufficiently to prevent slippage on the mortar.

Broken or chipped brick shall not be used on the face of the structure.

Brick shall be laid in neat, even consecutive courses with full and close mortar joints. Courses shall be level throughout, except as shown or otherwise required. Stagger joints in adjoining courses by 1/2 brick as nearly as practicable. Length of brick closure pieces shall be not less than the width of one (1) whole brick and, wherever practicable, shall be made from whole brick.

Unless otherwise indicated, joints shall be not more than 1/2-inch thick and shall be of a uniform thickness throughout the structure. Joints shall be provided as indicated on the Plans. Exposed surfaces shall be true and smooth. Rake all joints to receive plaster coat.

Prior to applying plaster coat, brick shall be thoroughly wetted with water and the surface allowed to dry sufficiently to effect proper bonding.

2. Concrete Block - Construct concrete block structures in the locations and according to the details on the Plans. The first course of concrete blocks shall be placed on the

prepared base or footings in a full bed of mortar. Mortar joints shall be full and close in all courses. Courses shall be level throughout. Stagger joints in adjoining courses by $\frac{1}{2}$ the length of the block as nearly as practicable.

Joints shall be uniform in thickness throughout the structures. Strike all joints and properly point to provide true, smooth surfaces.

3. Precast Concrete Units - Construct as detailed on the Plans. Provide mortar joints struck smooth. Provide three (3) to five (5) courses of 8-inch brick or concrete grade rings at top of structure for future adjustment of castings.
4. Plaster Coat - A cement mortar plaster coat shall be applied to the exterior surfaces of the brick and block sections of all storm structures as indicated on the Plans. Plaster coat shall be $\frac{1}{2}$ -inch thick.
5. Castings - Provide and install to the elevations indicated on the Plans, all cast iron covers, frames, as required.

Castings shall be set in a full bed of cement mortar $\frac{1}{2}$ inch thick, minimum. Mortar joints shall be struck smooth.

3.04 Field Quality Control

- A. General - After all the pipe and structures have been laid, constructed and backfilled, the system shall be final inspected. The storm sewer system shall be ready for the final inspection within two (2) weeks after the completion.

In accordance with FDOT Specification Section 430-4.8, the Contractor shall provide a video report of all proposed piping. Laser profiling will not be required.

The final inspection shall confirm that all lift holes jointed, the channeling of the manhole bottoms completed, all visible or audible leaks stopped, all pipe has been placed straight and true to the proper slopes and elevations, the required brick courses for adjustment, the frame and cover properly installed, the required end section installed, all trenches and structures backfilled in a workmanlike manner and that the system has been thoroughly cleaned of sand and debris.

The final inspection shall be considered complete when all the repairs have been made.

End of Section

Section 03000
Pervious Concrete

Part 1 General

1.01 Description

- A. Scope - This Section includes furnishing and installing pervious concrete paving for vehicular traffic. The Contractor shall be required to submit a proposed concrete mixture complying with the provisions of this section. All testing required within this Section shall be performed at no additional expense to the CITY.

1.02 Quality Assurance

A. Certification

At least one (1) member of the pervious concrete construction crew shall be certified as a "Craftsmen" per the National Ready Mix Concrete Association (NRMCA). Proof of certification shall be provided to the City prior to Contract Award. This certified individual shall be present at the site during all pervious concrete installation activities.

B. Qualifications

The Contractor shall provide a list of at least two (2) reference projects. This list shall include the project's name, location and Owner's contact information. Test results (void content, unit weight, infiltration, etc.) for reference projects shall also be provided.

Each reference project shall consist of a minimum of 2,500 square feet of pervious concrete. Reference projects shall have been completed within the past five (5) years.

1.03 Submittals

The Contractor shall be required to submit a proposed mix design identifying the aggregate type, source and gradation. Cement, fly ash, admixtures (including applicable certifications) shall also be provided. The proposed mix design shall clearly state the concrete mixture proportions.

The Contractor will also be responsible for providing a jointing plan identifying the location of all proposed control, construction and isolation joints.

1.04 Test Panels

Test panels, measuring 12'x 12' (min.), shall be provided by the Contractor prior to construction for inspection and approval. Test panels shall be constructed of a depth matching the plan-defined thickness. A single-ring infiltrometer shall be installed (in accordance with the plans) within this test panel. The Contractor shall perform all specification-required finishing to the panel.

The test panel shall meet all performance specifications (i.e. density, void content, infiltration rate, etc.) required within this section.

Non-compliant test panels shall be removed and disposed of at the Contractor's expense. Additional test panels shall be constructed until the performance specifications are met.

1.05 Performance Requirements

Pervious concrete shall meet the following requirements:

- Void content between 15% and 25% per ASTM C42.
- In-place density within 5 pounds per cubic foot of the design unit weight.
- Water-to-cement ration of 0.35 to 0.45
- Infiltration rate of 1.5 inches / hour.
- Compressive strength of 300 psi.

Part 2 Products

2.01 Materials

A. Cement

1. Cement shall be Portland Cement (Type I or II) per ASTM C150 or Portland Cement (Type IP or IS) per ASTM C595.
2. The Contractor may substitute up to 20% of the required cement with Class F fly ash per ASTM C618.
3. The Contractor may substitute up to 50% of the required cement with Ground iron blast furnace slag per ASTM C989.

B. Aggregates

Course and fine aggregate shall comply with ASTM C33.

Course aggregate gradation shall be Size No. 89 as defined within FDOT Specification Section 901. Alternate gradations may be used if approved by the CITY.

If used, fine aggregate shall not exceed 3 cubic feet per yard.

C. Water

Water shall be per ASTM C1602.

D. Admixtures

Utilize admixtures in accordance with the manufacturer's recommendations.

Part 3 Execution

3.01 Subgrade Preparation

- A. The Contractor shall prepare the subgrade in accordance with plan details and other applicable specification sections. All excess material shall be removed from the site and disposed of at the Contractor's expense.

- B. Permeability testing shall be performed for each ½ acre of prepared (i.e. compacted) subgrade. Permeability testing shall be performed in accordance with ASTM D3385. Testing shall be submitted to the CITY prior to base installation.

3.02 Forms

- A. Forms shall be constructed of reinforced plastic or roll formed steel. Wooden forms will only be permitted for intermediate transition segments (radii, fill-in, etc.). Forms shall be of a suitable strength to support mechanical equipment.
- B. Forms shall be the width and depth of the pavement. Removable spacers (3/8") shall be placed above the forms to support finishing equipment.
- C. Forms shall maintain proper alignment and grade. Base of forms shall be directly in contact with the subgrade.
- D. A release compound shall be placed on the forms prior to pouring pervious concrete. Forms shall not be removed within 24 hours of a pour.
- E. The Contractor may use previously placed concrete in lieu of a form so long as the newly placed concrete has achieved a sufficient split tensile strength.

3.03 Mixing & Hauling

- A. Aggregate used in pervious concrete mix shall be kept wet prior to mixing activities. Manufacture and deliver pervious concrete in accordance with ASTM C94.
- B. Mixtures can be produced in central or truck mixtures. Concrete delivered shall be mixed in the central mixer for 90 seconds. Concrete mixed in truck mixers shall be mixed at the speed designated as mixing speed by the manufacturer for 75 – 100 revolutions.
- C. Whether mixed offsite or onsite, each load shall be used within one (1) hour of introduction of mix water. This duration can be extended to 90-minutes if a hydration stabilizer is used.
- D. Each truckload shall be inspected for consistency of concrete mixture. Water addition is permitted at the point of discharge to obtain the required mix consistency provided a measurable quantity is used before more than 0.5 cubic yard of concrete is discharged, and the design water to cement ratio is not exceeded. A minimum of 30 revolutions at the manufacturer's designated mixing speed shall be required following the addition of any water to the mix. Discharge shall be a continuous operation and completed as quickly as possible. Concrete shall be deposited as close to its final position as practical. Pulling or shoveling pervious concrete to final placement will not be permitted.

3.04 Placement & Finishing

- A. Concrete shall be used while fresh. Re-tempering shall be minimized.
- B. Concrete shall be applied in successive batches to the full width of a parking stall, drive isle or traffic lane. If approved, adjacent traffic lanes or drive isles may be monolithically poured without a construction joint. A longitudinal weakened-plane joint shall be installed at each traffic lane or drive isle.
- C. Successive concrete batches shall not be placed within 30 minutes of one another.

- D. Slip form or vibratory form riding equipment shall be used to place the pervious concrete. Internal vibration will not be permitted. Mechanical vibratory screed shall be used to strike off the pervious concrete 3/8" above the final height.
- E. Embed infiltrometers per plan requirements (one per each 1/2 acre of pervious concrete).
- F. Do not disturb concrete when in its plastic state. Low spots shall be filled and compacted. Finish concrete in a manner to consolidate the concrete without segregation (i.e. through use of hand tools).
- G. Form spacers shall be removed after strike-off and compaction shall commence. Compaction shall be performed through the use of a steel roller with a minimum diameter of 10" (or other approved method). The steel roller shall span the width of the pour and exert a vertical pressure of at least 10 PSI. Caution shall be used during compaction to ensure that sufficient compaction is achieved without the application of excessive force that could minimize porosity of the finished surface.
- H. Compaction along the edges of the pervious slab shall be done using hand tampers. No further finishing shall be performed once compaction efforts are completed.
- I. Pavement slopes shall not deviate greater than 3/8" over 10-feet.

3.05 Joints

Joints shall be longitudinal and traverse construction joints and longitudinal and traverse weakened-plane joints. The faces of all joints shall be constructed in a manner that is normal to the finished surface.

Traverse joints shall be constructed normal to the centerline of the road or drive isle and extend the full width of the pavement. Traverse joints shall be in line with each other across the full width of the road or drive isle. Where curbing is present, control joints in the curbing and pervious concrete shall align.

Longitudinal joints shall be parallel to the centerline of the road or drive isle.

A. Construction Joints

Construction joints shall be made when pervious concrete is poured against hardened concrete at planned locations and at locations when concrete pouring operations are interrupted for longer than 30 minutes.

Traverse construction joints shall not be placed within 10' of another traverse joint. When joint spacing is less than 10' due to concrete pouring operations ceasing, excess material shall be removed and pouring shall commence at the nearest joint.

- B. Control (contraction) joints shall be installed at regular intervals not to exceed 15' or the width of the traffic lane or drive isle. Control joint depth shall be 1/4 of the overall pervious concrete depth but no greater than 1-1/2". These joints shall be installed in the plastic state using a steel "salt roller" with a beveled fin welded circumferentially along the roller (i.e. "pizza cutter").
- C. Control (contraction) joints may be installed in hardened concrete using a wet saw. Saw cuts shall be at the above-specified depth and made as soon as the pavement has hardened. The curing cover shall be removed the surface kept misted to prevent moisture loss. Curing cover shall be replaced with a minimum of 1' overlap on each side of the joint.

- D. Isolation joints shall be installed when pervious concrete abuts fixed vertical surfaces such as a light pole foundation, building foundation, etc. Isolation material shall extend the full depth of the pervious concrete and be placed prior to pouring.

The contractor will be required to submit a jointing plan prior to construction.

3.06 Curing

- A. Within 20 minutes after final placement, curing procedures shall commence. The pervious concrete surface shall be covered with a 6-mil thick polyethylene sheet or other approved material. The cover shall overlap all exposed edges by 1-foot and be secured to prevent movement and/or uplift.
- B. Joints within the covering sheet shall be overlapped to a suitable degree. Overlapped edges shall be protected from soil intrusion.
- C. The surface shall be kept moist after screeding using misting or fogging devices only. Direct water spray is not permitted.
- D. Vehicular traffic shall be kept off of the pervious concrete surface for seven (7) days. Truck traffic shall be kept off of the pervious concrete surface for fourteen (14) days.

3.07 Field Quality Control

- A. Concrete tests shall be performed for each 150 cubic yards of pervious concrete poured or each work day, whichever is less. Concrete tests shall determine the density (unit weight) of the concrete in accordance with ASTM C138.
- B. At locations determined by the City, test cores (4" diameter) shall be obtained at a rate of one core per 1,000 square yard of pervious concrete surface. Cores shall be drilled in accordance with ASTM C42.

The cores shall be tested for compressive strength in accordance with ASTM C39. Cores shall also be tested for density and void content per ASTM C42.

- C. Infiltration rates shall be tested using the embedded infiltrometers.

End of Section