night and all lights for this purpose shall be kept burning from sunset to sunrise.

B. Each CONTRACTOR shall provide and maintain such other warning signs and barricades in areas of and around their respective work as may be required for the safety of all those employed in the work, the CITY's operating personnel, or those visiting the site.

1.04 EXISTING UTILITIES AND STRUCTURES

A. The term existing utilities shall be deemed to refer to both publicly owned and privately owned utilities such as electric power and lighting, telephone, water, gas, storm drains, process lines, sanitary sewers and all appurtenant structures.

B. It shall be the responsibility of the CONTRACTOR to ascertain the actual extent and exact location of existing utilities and structures. In every instance, the CONTRACTOR shall notify the proper authority having jurisdiction and obtain all necessary directions and approvals before performing any work in the vicinity of existing utilities.

C. Prior to beginning any excavation work, the CONTRACTOR shall, through field investigations, determine any conflicts or interferences between existing utilities and new utilities to be constructed under this project. This determination shall be based on the actual locations, elevations, slopes, etc., of existing utilities as determined in the field investigations, and locations, elevation, slope, etc. of new utilities as shown on the Drawings. If an interference exists, the CONTRACTOR shall bring it to the attention of the CITY as soon as possible. If the CITY agrees that an interference exists, he shall modify the design as required. Additional costs to the CONTRACTOR for this change shall be processed through a Change Order as detailed elsewhere in these Contract Documents. In the event the CONTRACTOR fails to bring a potential conflict or interference to the attention of the CITY prior to beginning excavation work, any actual conflict or interference which does arise during the Project shall be corrected by the CONTRACTOR, as directed by the CITY, at no additional expense to the CITY.

D. The work shall be carried out in a manner to prevent disruption of existing services and to avoid damage to the existing utilities. Temporary connections shall be provided, as required, to insure there is no interruption of existing services. Any damage resulting from the work of this Contract shall be promptly repaired by the CONTRACTOR at his own expense in a manner approved by the CITY and further subject to the requirements of any authority having jurisdiction. Where it is required by the authority having jurisdiction that they perform their own repairs or have them done by others, the CONTRACTOR shall be responsible for all costs thereof.

E. Where excavations by the CONTRACTOR require any utility lines or appurtenant structures to be temporarily supported and otherwise protected during the construction work, such support and protection shall be provided by the CONTRACTOR. All such work shall be performed in a manner satisfactory to the CITY and the respective authority having jurisdiction over such work. In the event the CONTRACTOR fails to provide proper support or protection to any existing utility, the CITY may, at his discretion, have the respective authority to provide such support or protection as may be necessary to insure the safety of such utility, and the costs of such measures shall be paid by the CONTRACTOR.

PART 2 -- PRODUCTS (Not Used)

PART 3 -- EXECUTION (Not Used)

- END OF SECTION 01530 -

SECTION 01550

SITE ACCESS AND STORAGE

PART 1 -- GENERAL

1.01 THE REQUIREMENT

A. Access Roads

1. The CONTRACTOR shall construct and maintain such temporary access roads on the project site as required to perform the work of this Contract.

2. Access roads, where possible, shall be located over the areas of the future road system.

3. Access roads shall be located within the property lines of the CITY unless the CONTRACTOR independently secures easements for his use and convenience. CONTRACTOR shall submit written documentation to the CITY for any CONTRACTOR secured easements across privately held property. Easement agreement shall specify terms and conditions of use and provisions for site restoration. A written release from the property owner certifying that all terms of the easement agreement have been complied with the CONTRACTOR shall be furnished to the CITY prior to final payment.

4. Existing access roads used by the CONTRACTOR shall be suitably maintained by the CONTRACTOR at his expense during construction. CONTRACTOR shall not be permitted to restrict CITY access to existing facilities. CITY may direct CONTRACTOR to perform maintenance of existing access roads when CITY determines that such work is required to insure all weather access by the CITY.

5. The CONTRACTOR shall obtain and pay all cost associated with any bonds required by the Florida Department of Transportation for the use of State maintained roads.

B. Parking Areas

1. The CONTRACTOR shall construct and maintain suitable parking areas for his construction personnel on the project site where approved by the CITY.

C. Restoration

1. At the completion of the work, the surfaces of land used for material storage, access roads and parking areas shall be restored by each CONTRACTOR to its original condition and to the satisfaction of the CITY. At a minimum, such as restoration shall include establishment of a permanent ground cover adequate to restrain erosion for all disturbed areas.

D. Traffic Regulations

1. CONTRACTOR shall obey all traffic laws and comply with all the requirements, rules and regulations of the Florida Department of Transportation and other local

authorities having jurisdiction to maintain adequate warning signs, lights, barriers, etc., for the protection of traffic on public roadways.

E. Storage of Equipment and Materials

1. CONTRACTOR may store his equipment and materials at the job site in accordance with the requirements of the General Conditions, the Supplemental Conditions, and as hereinafter specified. All equipment and materials shall be stored in accordance with manufacturer's recommendations and as directed by the City, and in conformity to applicable statutes, ordinances, regulations and rulings of the public authority having jurisdiction. Where space or strip heaters are provided within the enclosure for motors, valve operators, motor starters, panels, instruments, or other electrical equipment, the CONTRACTOR shall make connections to these heaters from an appropriate power source and operate the heaters with temperature control as necessary until the equipment is installed and being operated according to its intended use.

2. CONTRACTOR shall enforce the instructions of And CITY regarding the posting of regulatory signs for loadings on structures, fire safety, and smoking areas.

3. CONTRACTOR shall not store materials or encroach upon private property without the written consent of the owners of such private property.

4. CONTRACTOR shall not store unnecessary materials or equipment on the job site, and shall take care to prevent any structure from being loaded with a weight which will endanger its security or the safety of persons.

5. Materials shall not be placed within ten (10) feet of fire hydrants. Gutters, drainage channels and inlets shall be kept unobstructed at all times.

6. CONTRACTOR shall provide adequate temporary storage buildings/facilities, if required, to protect materials or equipment on the job site.

7. CITY shall not be responsible for the unloading or receipt of materials delivered to the project site. CONTRACTOR shall retain full responsibility to coordinate and schedule the delivery, unloading and placement of equipment in storage during the normal time of work.

PART 2 -- PRODUCTS (Not Used)

PART 3 -- EXECUTION (Not Used)

- END OF SECTION 1550 -

SECTION 01560

TEMPORARY ENVIRONMENTAL CONTROLS

PART 1 -- GENERAL

1.01 THE REQUIREMENT

A. Dust Control

1. CONTRACTOR shall take all necessary measures to control dust from his operations, and to prevent spillage of excavated materials on public roads.

2. CONTRACTOR shall remove all spillage of excavated materials, debris or dust from public roads by methods approved by the CITY.

3. CONTRACTOR shall sprinkle water at locations and in such quantities and at such frequencies as may be required by the CITY to control dust and prevent it from becoming a nuisance to the surrounding area.

4. CONTRACTOR shall provide dust control and cleaning during the course of the project work and dust control and cleaning measures shall be provided at no additional cost to the CITY.

PART 2 -- PRODUCTS (Not Used)

PART 3 -- EXECUTION (Not Used)

- END OF SECTION 1560 -

SECTION 01600

MATERIALS AND EQUIPMENT

PART 1 -- GENERAL

1.01 THE REQUIREMENT

A. The word "Products," as used herein is defined to include purchased items for incorporation into the Work, regardless of whether specifically purchased for project or taken from CONTRACTOR's stock of previously purchased products. The word "Materials," is defined as products which must be substantially cut, shaped, worked, mixed, finished, refined, or otherwise fabricated, processed, installed, or applied to form units of Work. The word "Equipment" is defined as products with operational parts, regardless of whether motorized or manually operated, and particularly including products with service connections (wiring, piping, and other like items). Definitions in this paragraph are not intended to negate the meaning of other terms used in Contract Documents, including "specialties," "systems," "structure," "finishes," "accessories," "furnishings," special construction," and similar terms, which are self-explanatory and have recognized meanings in the construction industry.

B. Equipment Specifications may not deal individually with minute items required such as components, parts, controls, and devices which may be required to produce the equipment performance specified or as required to meet the equipment warranties. Where such items are required, they shall be included by the supplier of the equipment, whether or not specifically called for in the Contract Documents.

C. All equipment, materials, instruments or devices incorporated in this project shall be new and unused, unless indicated otherwise in the Contract Documents. Equipment and materials to be incorporated into the work shall be delivered sufficiently in advance of their installation and use to prevent delay in the execution of the work, and they shall be delivered as nearly as feasible in the order required for executing the work.

D. Where the words "furnish", "provide", "supply", "replace", or "install" are used, whether singularly or in combination, they shall mean to furnish and install, unless specifically stated otherwise.

E. In the interest of brevity, the explicit direction "to furnish and install" has sometimes been omitted in specifying materials and/or equipment herein. Unless specifically noted otherwise, it shall be understood that all equipment and/or materials specified or shown on the Drawings shall be furnished and installed under the Contract as designated on the Drawings.

1.02 INSTALLATION OF EQUIPMENT

A. Equipment and materials shall be installed in accordance with the requirements of the General Conditions, Supplemental Conditions and the respective Specification Sections.

B. Concrete foundations for equipment shall be of approved design and shall be adequate in size, suitable for the equipment erected thereon, properly reinforced, and tied into floor slabs by means of reinforcing bars or dowels. Foundation bolts of ample size and strength shall be provided and properly positioned by means of suitable templates and secured during

placement of concrete. Foundations shall be built and bolts installed in accordance with the manufacturer's certified drawings. The CONTRACTOR shall provide all concrete foundations shown, specified or required for all equipment furnished herein. All concrete foundations for equipment shall be treated, by the respective CONTRACTOR, with an approved sealer to prevent oil from seeping into the concrete.

C. Before mounting equipment on a foundation, the CONTRACTOR shall clean the top surface; if necessary, rough it with a star chisel and clean again; and clean out all foundation bolt sleeves. The CONTRACTOR shall provide a sufficient number of stainless steel plate shims about two (2) inches wide and four (4) inches long, and of a varying thickness from 1/8 to 1/2 inch. A combination of these shims shall be placed next to each foundation bolt to bring the bottom of the bedplate or frame about 1/8 inch above the final setting. The equipment shall be lowered by changing the combination of shims. Using stainless steel shim stock of various thicknesses, continue to level the equipment a little at a time and in rotation until it is at the correct elevation in both directions. When the equipment is level, tighten down on the foundation bolts a little at a time in rotation to make certain the equipment remains level and does not shift on the shims. A preliminary alignment check shall be made before grout is placed.

D. Equipment shall be set, aligned and assembled in conformance with manufacturer's drawings or instructions. Run out tolerances by dial indicator method of alignment shall be plus or minus .002 inches, unless otherwise directed by the CITY.

E. All blocking and wedging required for the proper support and leveling of equipment during installation shall be furnished by the CONTRACTOR. All temporary supports shall be removed, except stainless steel wedges and shims, which may be left in place with the approval of the CITY.

F. Each piece of equipment or supporting base, bearing on concrete foundations, shall be bedded in grout. The CONTRACTOR shall provide a minimum of 1-1/2-inch thick grouting under the entire baseplate supporting each pump, motor drive unit and other equipment. Grout shall be non-shrink grout.

G. When motors are shipped separately from driven equipment, the motors shall be received, stored, meggered once a month, and the reports submitted to the CITY. After driven equipment is set, the motors shall be set, mounted, shimmed, millrighted, coupled and connected complete.

1.03 CONNECTIONS TO EQUIPMENT

A. Connections to equipment shall follow manufacturer's recommendations as to size and arrangement of connections and/or as shown in detail on the Drawings or approved Shop Drawings. Piping connections shall be made to permit ready disconnection of equipment with minimum disturbance of adjoining piping and equipment.

B. The Plumbing Contractor or CONTRACTOR (if no Plumbing Contractor exists) shall bring and connect plumbing service to all equipment items requiring same as shown on the Drawings.

1.04 SUBSTITUTIONS

A. Requests for substitutions of equipment or materials shall conform to the requirements of the General Conditions, Supplemental Conditions, and as hereinafter specified.

1. CONTRACTOR shall submit for each proposed substitution sufficient details, complete descriptive literature and performance data together with samples of the materials, where feasible, to enable the CITY to determine if the proposed substitution is equal. The CONTRACTOR shall be responsible for providing all information requested by the CITY to enable the City to determine equal-to status of a proposed substitution.

2. CONTRACTOR shall submit certified tests, where applicable, by an independent laboratory attesting that the proposed substitution is equal.

3. A list of installations where the proposed substitution is equal.

4. Requests for substitutions shall include full information concerning differences in cost, and any savings in cost resulting from such substitutions shall be passed on to the CITY.

B. Where the approval of a substitution requires revision or redesign of any part of the work, including that of other Contracts, all such revision and redesign, and all new drawings and details therefore, shall be provided by the CONTRACTOR at his own cost and expense, and shall be subject to the approval of the CITY.

C. In the event that the CITY is required to provide additional services, then the CITY's charges for such additional services shall be charged to the CONTRACTOR by the CITY in accordance with the requirements of the General Conditions, and the Supplemental Conditions.

D. In all cases the CITY shall be the final judge as to whether a proposed substitution is to be approved. The CONTRACTOR shall abide by CITY's decision when proposed substitute items are judged to be unacceptable and shall in such instances furnish the item specified or indicated. No substitute items shall be used in the work without written approval of the CITY.

E. CONTRACTOR shall have and make no claim for an extension of time or for damages by reason of the time taken by the CITY in considering a substitution proposed by the CONTRACTOR or by reason of the failure of the CITY to approve a substitution proposed by the CONTRACTOR.

G. Acceptance of any proposed substitution shall in no way release the CONTRACTOR from any of the provisions of the Contract Documents.

H. Substitutions will not be permitted on any items specifically identified as available from the CITY's Qualified Products List (QPL) or specified herein or identified on the drawings where two or more manufacturers have been named unless they are followed by the words "or equal". Substitutions will also not be considered on any specified items whenever they are followed by the words "no substitutions". All substitution requests must be made in writing to

the CITY within thirty (30) days of the Contract Date. The City has the right for final determination for any substitution.

I. Submit two copies of request for substitution. Include in request:

1. Complete Data substantiating compliance of proposed substitution with Contract Documents.

2. For Products:
   a. Product identification, including manufacturer's name and address.
   b. Manufacturer's literature:
      (1) Product description.
      (2) Performance and test data.
      (3) Reference standards.
   c. Samples.
   d. Name and address of similar projects on which product was used, and date of installation.

3. For Construction methods
   a. Detailed description of proposed method.
   b. Drawings illustrating methods.

4. Itemized comparison of proposed substitution with product or method specified.

5. Data relating to changes in construction schedule.
6. Relation to separate contracts.

7. Accurate cost data on proposed substitution in comparison with product or method specified.

1.05 PRODUCT DELIVERY-STORAGE-HANDLING

A. The CONTRACTOR shall deliver, handle, and store products in accordance with supplier's written recommendations and by methods and means which will prevent damage, deterioration, and loss including theft. Delivery schedules shall be controlled to minimize long-term storage of products at site and overcrowding of construction spaces. In particular, the CONTRACTOR shall provide delivery/installation coordination to ensure minimum holding or storage times for products recognized to be flammable, hazardous, easily damaged, or sensitive to deterioration, theft, and other sources of loss. Any equipment or materials of whatever kind which may have become damaged or deteriorated from any cause shall be removed and replaced by good and satisfactory items at the CONTRACTOR's expense for both labor and materials.

1.06 TRANSPORTATION AND HANDLING

A. Products shall be transported by methods to avoid product damage and shall be delivered in undamaged condition in supplier's unopened containers or packaging, dry.

B. The CONTRACTOR shall provide equipment and personnel to handle products, materials, and equipment including those provided by CITY, by methods to prevent soiling and damage.

C. The CONTRACTOR shall provide additional protection during handling to prevent marring and otherwise damaging products, packaging, and surrounding surfaces.

1.07 STORAGE AND PROTECTION

A. The CONTRACTOR shall protect all equipment and materials from deterioration and damage, including provisions for temporary storage buildings as needed and as specified in Section 01550 entitled "Site Access and Storage".

B. Products shall be stored in accordance with supplier's written instructions, with seals and labels intact and legible. Sensitive products shall be stored in weather-tight enclosures and temperature and humidity ranges shall be maintained within tolerances required by supplier's written instructions.

C. Storage of equipment and materials shall be in locations completely protected from flooding, standing water, excessive dust, falling rock, brush fire, etc. Storage areas shall be located sufficiently distant from all construction activities and the movement of construction vehicles to minimize the potential for accidental damage.

D. For exterior storage of fabricated products, they shall be placed on sloped supports above ground. Products subject to deterioration shall be covered with impervious sheet covering; ventilation shall be provided to avoid condensation.

E. Loose granular materials shall be stored on solid surfaces in a well drained area and shall be prevented from mixing with foreign matter.

F. Storage shall be arranged to provide access for inspection. The CONTRACTOR shall periodically inspect to assure products are undamaged and are maintained under required conditions.

G. Storage shall be arranged in a manner to provide access for maintenance of stored items and for inspection.

1.08 MAINTENANCE OF STORAGE

A. Stored products shall be periodically inspected on a scheduled basis. The CONTRACTOR shall maintain a log of inspections and shall make said log available to the CITY on request.

B. The CONTRACTOR shall verify that storage facilities comply with supplier's product storage requirements.

C. The CONTRACTOR shall verify that supplier required environmental conditions are maintained continually.

D. The CONTRACTOR shall verify that surfaces of products exposed to the elements are not adversely affected and that any weathering of finishes is acceptable under requirements of Contract Documents.

1.09 MAINTENANCE OF EQUIPMENT STORAGE

A. For mechanical and electrical equipment in long-term storage, the CONTRACTOR shall provide a copy of the supplier's service instructions to accompany each item, with notice on enclosed instruction shown on exterior of package.

B. Equipment shall be serviced on a regularly scheduled basis, and a log of services shall be maintained and submitted as a record document to the CITY.

1.10 LUBRICANTS

A. During testing and prior to acceptance, the CONTRACTOR shall furnish all lubricants necessary for the proper lubrication of all equipment furnished under this Contract.

1.11 SPECIAL TOOLS

A. For each type of equipment furnished by him, the CONTRACTOR shall provide a complete set of all special tools (including calibration and test equipment) which may be necessary for the adjustment, operation, maintenance and disassembly of such equipment.

B. Special tools shall be delivered at the same time as the equipment to which they pertain. The CONTRACTOR shall properly store and safeguard such special tools until completion of the Work, at which time they shall be delivered to the CITY.

1.12 PROTECTION AGAINST ELECTROLYSIS

A. Where dissimilar metals are used in conjunction with each other, suitable insulation shall be provided between adjoining surfaces so as to eliminate direct contact and any resultant electrolysis. The insulation shall be bituminous impregnated felt, heavy bituminous coatings, nonmetallic separators or washers, or other acceptable materials.

1.13 FASTENERS

A. All necessary bolts, anchor bolts, nuts, washers, plates and bolt sleeves shall be furnished by the CONTRACTOR in accordance herewith. Bolts shall have suitable washers and, where so required, their nuts shall be hexagonal.

B. All bolts, anchor bolts, nuts, washers, plates, and bolt sleeves shall be Type 316 stainless steel unless otherwise specifically indicated or specified.

C. Unless otherwise specified, stud, tap, and machine bolts shall be of the best quality refined bar iron. Hexagonal nuts of the same quality of metal as the bolts shall be used.

1.14 SALVAGED AND EXCAVATED MATERIALS

A. In the absence of special provisions in other Sections of the Specifications, salvage materials, equipment or supplies that occur are the property of the CITY and shall be cleaned and stored as directed by the CITY.

B. All excavated materials needed for backfilling operation shall be stored on site. Where additional area is needed for stockpiling, it shall be obtained by the CONTRACTOR.

C. Any excess backfill shall be delivered to the CITY's property as directed by the CITY.

PART 2 -- PRODUCTS (Not Used)

PART 3 -- EXECUTION (Not Used)

- END OF SECTION 01600 -

SECTION 01700

PROJECT CLOSEOUT

PART 1 -- GENERAL

1.01 THE REQUIREMENT

A. Final Cleaning

1. At the completion of each phase of the work and prior to startup, as scheduled the CONTRACTOR shall remove all rubbish from and about the site of the completed work, and all temporary structures, construction signs, tools, scaffolding, materials, supplies and equipment which he or any of his Subcontractors may have used in the performance of the work. CONTRACTOR shall broom clean paved surfaces and rake clean other surfaces of grounds.

2. CONTRACTOR shall thoroughly clean all materials, equipment and structures; all marred surfaces shall be touched up to match adjacent surfaces; dirty filters and burned out lights replaced as required; all glass surfaces cleaned and floors cleaned and polished so as to leave work in a clean and new appearing condition.

3. CONTRACTOR shall maintain cleaning until project, or portion thereof, is occupied by the CITY.

C. Spare Parts and Special Tools

1. As soon as practicable after approval of the list of equipment, the CONTRACTOR shall furnish spare parts data for each different item of equipment listed. The data shall include a complete list of parts and supplies, with current unit prices and source or sources of supply.

2. Prior to equipment startup, CONTRACTOR shall also furnish a list of parts, and supplies that are either normally furnished at no extra cost with the purchase of the equipment or specified to be furnished as part of the Contract and a list of additional items recommended by the manufacturer to assure efficient operation for a period of one-hundred and twenty (120) days for the particular installation.

3. All parts shall be securely boxed and tagged, and clearly marked on the box and individually for identification as to the name of manufacturer or supplier, applicable equipment, part number, description and location in the equipment. All parts shall be protected and packaged for a shelf life of at least ten (10) years.

4. CONTRACTOR shall furnish at no additional cost to the CITY with each piece of equipment as a minimum, one (1) complete set, or the number of sets called for in the Technical Specifications, of suitably marked special tools and appliances which may be needed to adjust, operate, maintain, or repair the equipment prior to equipment startup.

5. CONTRACTOR shall submit, for approval by the CITY, a complete list of the special

tools and appliances to be furnished. Such tools and appliances shall be furnished in approved painted steel cases properly labeled and equipped with good grade cylinder locks and duplicate keys prior to equipment startup.

D. Equipment Start-Up Services

1. Equipment start-up period, for the training of City personnel, shall begin after satisfactory completion and acceptance of the field tests and coincidentally with the completion date for the part of the work for which the equipment is included in accordance with the construction schedule. If the equipment is not covered by a certificate of substantial completion for a part of the work, the period shall begin upon substantial completion of the project.

2. During the equipment start-up period and in accordance with the sequence of construction and schedule, the CONTRACTOR shall furnish, at no additional cost to the CITY the services of factory trained representatives of the equipment manufacturers for the equipment designated in the Specifications to:

   a. Assist in the start-up and operations of the equipment.

   b. Assist in the training of City personnel, designated by the CITY in the proper operation and maintenance of the equipment.

3 The CITY shall:

   a. Provide the necessary personnel to be instructed in the operation and maintenance of the equipment. The CITY's personnel shall operate all equipment.

   b. Pay for all fuel, power and chemicals consumed beyond quantities specified in the Contract Documents. The CONTRACTOR shall pay for fuel, power, and chemicals consumed up to the date of "certified substantial completion" except as otherwise specified herein.

4. CONTRACTOR shall be available to promptly repair all work during the equipment startup so as to cause minimum disruption to the plant operation.

5. Upon completion of a minimum of ten (10) consecutive and continuous days of satisfactory operation, or the number of days called for in the Technical Specifications, the CITY will assume operation and operating cost of the equipment associated with the completed phase of work. If the equipment malfunctions during this start-up period, the start-up period will be repeated until satisfactory operation is achieved.

6. In the event a system, equipment or component proves defective or is unable to meet specified performance criteria, the CONTRACTOR shall replace the defective item and the guarantee period called for in the Contract Documents for the item shall start after satisfactory replacement and testing of the item.

E. Final Cleanup; Site Rehabilitation

1. Before finally leaving the site, the CONTRACTOR shall wash and clean all exposed surfaces which have become soiled or marked, and shall remove from the site of work all accumulated debris and surplus materials of any kind which result from his operation, including construction equipment, tools, sheds, sanitary enclosures, etc. The CONTRACTOR shall leave all equipment, fixtures, and work, which he has installed, in a clean condition. The completed project shall be turned over to the CITY in a neat and orderly condition.

2. The site of the work shall be rehabilitated or developed in accordance with other sections of the Specifications and the Drawings. In the absence of any portion of these requirements, the CONTRACTOR shall completely rehabilitate the site to a condition and appearance equal or superior to that which existed just prior to construction, except for those items whose permanent removal or relocation was required in the Contract Documents or ordered by the CITY.

F. Final Inspection

1. Final cleaning and repairing shall be so arranged as to be finished upon completion of the construction work. The CONTRACTOR will make his final cleaning and repairing, and any portion of the work finally inspected and accepted by the CITY shall be kept clean by the CONTRACTOR, until the final acceptance of the entire work.

2. When the CONTRACTOR has finally cleaned and repaired the whole or any portion of the work, he shall notify the CITY that he is ready for final inspection of the whole or a portion of the work, and the CITY will thereupon inspect the work. If the work is not found satisfactory, the CITY will order further cleaning, repairs, or replacement.

When such further cleaning or repairing is completed, the CITY, upon further notice, will again inspect the work. The "Final Payment" will not be processed until the CONTRACTOR has complied with the requirements set forth, and the CITY has made his final inspection of the entire work and is satisfied that the entire work is properly and satisfactorily constructed in accordance with the requirements of the Contract Documents.

G. Project Close Out

1. As construction of the project enters the final stages of completion, the CONTRACTOR shall, in concert with accomplishing the requirements set forth in the Contract Documents, attend to or have already completed the following items as they apply to his contract:

a. Scheduling equipment manufacturers' visits to site.

b. Required testing of project components.

c. Scheduling start-up and initial operation.

d. Scheduling and furnishing skilled personnel during initial operation.

e. Correcting or replacing defective work, including completion of items previously overlooked or work which remains incomplete, all as evidenced by

the CITY's "Punch" Lists.

f. Attend to any other items listed herein or brought to the CONTRACTOR's attention by the CITY.

2. Just before the CITY's Certificate of Substantial Completion is issued, the CONTRACTOR shall accomplish the cleaning and final adjustment of the various building components as specified in the Specifications and as follows:

a. Clean all finish hardware after adjustment for proper operation.

b. Touch up marks or defects in painted surfaces and touch up any similar defects in factory finished surfaces.

c. Remove bitumen from gravel stops, fascias, and other exposed surfaces.

d. Remove all stains, marks, fingerprints, soil, spots, and blemishes from all finished surfaces, tile, stone, and similar surfaces.

3. In addition, and before the Certificate of Substantial Completion is issued, the CONTRACTOR shall submit to the CITY certain records, certifications, etc., which are specified elsewhere in the Contract Documents. A partial list of such items appears below, but it shall be the CONTRACTOR's responsibility to submit any other items which are required in the Contract Documents:

a. Test results of project components.

b. Performance Affidavits for equipment.

c. Certification of equipment or materials in compliance with Contract Documents.

d. Operation and maintenance instructions or manuals for equipment.

e. One set of neatly marked-up record drawings showing as-built changes and additions to the work under his Contract.

f. Any special guarantees or bonds (Submit to CITY).

4. The CONTRACTOR's attention is directed to the fact that required certifications and information under Item 3 above, must actually be submitted earlier in accordance with the sequence of construction and other Sections of the Specifications.

1.02 RELATED WORK SPECIFIED ELSEWHERE

A. Section 01520 – Maintenance of Utility Operations During Construction.

PART 2 -- PRODUCTS - (Not Used)

PART 3 -- EXECUTION - (Not Used)

- END OF SECTION 1700 -

SECTION 02220

EXCAVATION AND FILL

PART 1 - GENERAL

1.01 DESCRIPTION OF WORK: The extent of excavation and fill is shown on the drawings.

1.02 QUALITY ASSURANCE:

A. Codes and Standards: Perform excavation and fill work in compliance with applicable requirements of City of Port St. Lucie Utility Systems Standards, year 2010, the Florida Trench Safety Act and these specifications. In the event of conflict between the specifications, the more severe standard shall apply.

1.03 SUBMITTALS:

A. The testing laboratory's personnel and testing facilities shall be as directed by the CITY.

B. Submit copies of all field reports, laboratory test reports, recommendations, etc., to the CITY for approval.

C. The CONTRACTOR shall notify the CITY of the off-site sources of bedding and backfill materials, and submit to the City a representative samples weighing approximately fifty (50) pounds. The samples shall be delivered to a designated location on site.

D. Submit selected procedure and design for stabilizing excavated areas where potential undermining of existing piping or structure foundations may occur. Drawings of any proposed sheeting system and design computations shall be submitted to the CITY; however, the review of these Drawings shall in no way relieve the CONTRACTOR of the responsibility to provide a safe and satisfactory sheeting and shoring system. Sheeting and shoring shall be designed by the CONTRACTOR, and the proposed design shall be sealed by a Professional Engineer registered in the State of Florida. If the CITY is of the opinion that at any point sufficient or proper supports have not been provided, he may order additional supports put in at the CONTRACTOR's expense.

E. Submit proposed methods of handling trench water and the locations at which the water will be disposed of. Methods shall be acceptable to the City before starting the excavation. The CONTRACTOR shall pay for and procure all necessary permits for dewatering.

F. All submittals shall be in accordance with the format established in Section 01300.

1.04 JOB CONDITIONS:

A. Existing Utilities:

1. Locate existing underground utilities in the areas of work. If utilities are to remain in place, provide adequate means of protecting during excavation operations.

2. Should uncharted, or incorrectly charted, piping or other utilities be encountered during excavation, consult the utility engineer immediately for directions. Cooperate with

the CITY and public and private utility companies in keeping their respective services and facilities in operation. Repair damaged utilities to the satisfaction of the utility engineer.

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

B. Use of Explosives: The use of explosives is not permitted.

C. Protection of Persons and Property:

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

2. Protect structures, utilities, and other facilities from damages caused by settlement, lateral movement, undermining, washout and other hazards created by excavation operations.

1.05 GROUNDWATER

A. The CONTRACTOR shall be responsible for anticipating groundwater conditions and shall provide positive control measures as required. Such measures shall ensure stability of excavations, groundwater pressure control, prevention of tanks, pipes, and other structures from being lifted by hydrostatic pressures, and avoiding the disturbance of subgrade bearing materials.

PART 2 - PRODUCTS

2.01 SOIL MATERIALS:

A. Backfill and Fill Materials:

1. Satisfactory soil materials for backfill and fill shall be, free of rock or gravel larger than ½ inch in any dimension, debris, waste, vegetable and other deleterious matter. The organic content shall be less than two percent (2%) by weight.

2. Suitable material shall be clean, granular, free draining, fine to medium sandy materials classified as SW or SP according to the Unified Soil Classification System, with no more than fifteen percent (15%) by weight finer than a No. 200 sieve when tested in accordance with ASTM D-2487. The CONTRACTOR shall supply laboratory test results from samples taken at the direction of the CITY from the actual material to be used to confirm compliance with the criteria set forth herein.

B. Unsuitable Material

1. Unsuitable materials, such as calcium carbonate or aluminum hydroxide sludge, peat, muck, roots, logs, debris, brush sod, CL, ML, CH, MH, OL, OH according to the Unified Soil Classification System or other similar materials, shall not be used. The CONTRACTOR shall not utilize rock in pipeline backfill or bedding material (see Section 02610). In addition, any rock measuring more than 1/2-inch in any dimension shall not be used for site fill.

PART 3 - EXECUTION

3.01 INSPECTION: Examine the areas and conditions under which excavation and fill is to be performed and notify the CITY in writing of conditions detrimental to the proper timely completion of the work. Do not proceed with the work until unsatisfactory conditions have been corrected.

Following clearing operations, the proposed area should be proof-rolled. Any soft, yielding soils detected shall be excavated and replaced with clean, compacted backfill. Sufficient passes should be made during the proof-rolling operations to produce dry densities not less than ninety five percent (95%) of the modified Proctor (ASTM D1557) maximum dry densities of the compacted material to depths of two (2) feet below the compacted surface, or two (2) feet below the bottom of footings, whichever is lower. Building and roadway areas should not receive not less than ten (10) overlapping passes, half of them in each of two (2) perpendicular directions. After the exposed surface has been proof-rolled and tested to verify that the desired dry density has been obtained, the building area shall be filled to desired grades.

3.02 EXCAVATION:

A. Excavation consists of the removal and disposal of materials encountered when establishing the required grade elevations.

B. Earth excavation includes the removal and disposal of obstructions visible on the ground surface, underground structures and utilities indicated to be demolished and removed, material of any classification indicated.

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

D. Stability of Excavations:

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

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

3. The CONTRACTOR shall take note that portions of the construction will require excavations adjacent to existing large and small diameter piping, other structures and/or electrical conduits and duct banks. The CONTRACTOR shall employ excavation and compaction techniques that achieve the required final result. Where excavation occurs adjacent to electrical duct banks or structures sheeting or other methods acceptable to the CITY shall be used to protect the integrity of the existing facilities. The CITY's acceptance of a proposed method of protection shall not remove the CONTRACTOR's obligation of liability to properly protect existing facilities. All sheeting installed to support existing facilities shall be removed at the conclusion of the work.

E. Shoring and Bracing:

1. Provide shoring and bracing to comply with local codes and authorities having jurisdiction.

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

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

F. Material Disposal:

1. Roots and clearing and grubbing waste shall be disposed of in a manner approved by the CITY. Burning will not be permitted. The CONTRACTOR shall be responsible for securing appropriate permits and complying with same.

2. Locate and retain fill materials away from edges of excavations.

3. Disposal of unsuitable material shall be provided by the CONTRACTOR off of the project site.

3.03 BACKFILL AND FILL:

A. General:

1. In all excavations, use approved fill material that has been sampled, tested and approved by the soil testing laboratory as conforming to the requirements of this specification.

B. Prior to Backfill Placement:

1. Backfill excavations as promptly as the work permits, but not until completion of the following:

a. Completion of construction below finish grade.

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

c. Removal of shoring and bracing, and backfilling of voids with satisfactory materials.

d. Remove trash and debris.

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

C. Ground Surface Preparation:

1. Remove vegetation, debris, unsatisfactory soil materials, obstructions, and deleterious materials from ground surface prior to placement of fills. Clear the site of any vegetation existing at the time of construction. Thoroughly grub the ground surface to remove tree stumps and roots to a depth of at least twelve (12) inches below the ground surface. Clearing, grubbing and stripping shall extend fifteen (15) feet beyond the perimeter of any proposed structures.

Density control shall be exercised in the upper twelve (12) inches of the proof-rolled subgrade soils. Subgrade materials shall be compacted to at least ninety five percent (95%) of the ASTM D 1557 maximum dry density.

D. Leveling and Backfill for, and adjacent to, all structures, slabs, walkways, etc:

1. Backfill adjacent to structural elements shall be placed, as far practicable, as the adjacent structural elements have been completed and accepted. Backfilling against concrete shall be done only when approved.

E. Fill for Non-Structural Areas: This applies to berms and the general site where no structures, roadways or pipe lines are proposed or exposed below grade.

1. Suitable backfill shall be dozed into place and compacted using routing of equipment and tracking with dozer equipment. Backfill in all areas shall be placed and compacted in twelve (12) inch (loose) lifts, or less.

2. In all areas not accessible to rollers or compactors, or, areas so close to existing structures or piping to cause damage, the fill shall be compacted in six (6) inch thick lifts with manually operated plate tampers.

3. The surface of the layer shall be finished by blading or rolling with a smooth roller, or a combination thereof, and shall be smooth and free from waves and inequalities.

F. Compaction (In-Place Density): This applies to all areas.

1. Maximum Laboratory Density shall be the Modified Proctor Maximum Dry Density as determined in accordance with ASTM D1557, Method B or D, unless otherwise indicated. The CONTRACTOR shall secure Proctor tests whenever the appearance of the fill material changes, solely in the opinion of the CITY.

2. Subgrade beneath and fifteen (15) feet beyond all structures, walkways, slabs, etc. shall be compacted to ninety eight percent (98%) ASTM D1557 maximum laboratory density. Subgrade soils to a depth of twenty four (24) inches shall be densified to an equivalent relative compaction.

3. Fill and/or backfill beneath and fifteen (15) feet beyond all structures, walkways, slabs on grade, pipelines routes, shall be compacted to not less than ninety eight percent (98%) ASTM D1557 maximum laboratory density.

4. Fill and/or backfill beneath shellrock access driveway roads and packing areas and subgrade shall be compacted to a minimum density of ninety eight percent (98%) ASTM D1557 maximum.

5. Fill for non-structural areas shall be compacted to a minimum ninety two percent (92%) ASTM D1557 maximum laboratory density.

6. All fill shall be placed with a moisture content within two percent (2%) of the optimum.

G. Grading:

1. Perform all grading in the areas so indicated and as required.

2. Fill shall be brought to finished grades indicated within a tolerance of .05 of a foot and shall be graded to drain water away from structures, and as otherwise indicated on the plan.

3. Existing grades which are to remain and which are disturbed by the CONTRACTOR's operations shall be graded to provide surfaces suitable for the proper

use of mowing machines. Grades under areas to receive topsoil shall be brought to acceptable elevations.

3.04 FIELD QUALITY CONTROL:

A. Quality Control Testing During Construction: The testing laboratory and CITY shall inspect and approve subgrades and fill layers before subsequent layer or further construction work is performed.

B. In structural areas, including walkways, slabs, trenches, roadways, and other structures, one density test shall be made for every five hundred (500) square feet, or portion thereof, of surface area of compacted material per compacted layer. The first test shall be conducted, at the test locations, twelve (12) inches below subgrade elevation. Subsequent testing at subgrade level and each twelve (12) inch lift shall proceed until final elevation is reached. Specific locations for the tests shall be field established by the CITY. One density test for backfill beneath driveways and walkways shall be made for every seven hundred fifty (750) square feet, or portion thereof in a distinct area, for each compacted layer, starting at subgrade elevation. In non-structural areas one density test for every two thousand five hundred (2,500) square feet, or portion thereof in a distinct area, for each compacted layer shall be made.

C. The CONTRACTOR shall perform sieve analyses and soil classification according to the Unified Soil Classification System on all backfill supplied. A sieve analysis shall be performed on each source and whenever the color, texture or general make-up of the backfill has changed as determined by the CITY. The CONTRACTOR shall supply load tickets on every truck of fill which identify and confirm the source.

3.05 SCHEDULING: The CONTRACTOR shall take note of the scheduling requirements to maintain uninterrupted access to the existing facilities at the project site.

END OF SECTION 02220

SECTION 02260

FINISH GRADING

PART 1 - GENERAL

1.01 DESCRIPTION: To bring to finished elevations all earth materials as called for in the drawings. This general work includes the completion of finish grading so that surfaces of compacted material are correctly oriented with the requirements of the existing structures or other components which rest or will rest on the grade at that point.

PART 2 - PRODUCTS

2.01 MATERIALS: All fill shall be clean sand, free from debris, vegetable matter and other deleterious substances. Refer to Section 02220 for further requirements.

PART 3 - EXECUTION

3.01 GRADING: Fill, backfill and rough grade as necessary to bring entire site level with elevations of undersides of concrete slabs, walks, paving and finished landscaping as indicated on drawings or in specifications.

3.02 FINISH GRADING

A. Where elevations are indicated on plans, obtain such finish elevations, and establish uniform slopes of finish grades between indicated elevations.

B. Where elevations are not indicated, establish and obtain uniform slope from finished spot elevations of the concrete containment areas out to the nearest indicated elevations for finished grades or as required to match the existing grade profile of the site.

C. Finish grade all areas for positive drainage. Leave no high/low areas to accumulate surface water.

D. Achieve final grades as specified on the drawings, inclusive of the required top soil. In some areas, this will require removal of existing materials.

E. Areas to be grassed shall be box bladed for leveling prior to grassing.

END OF SECTION 02260

SECTION 02276

TEMPORARY EROSION AND SEDIMENTATION CONTROL

PART 1 -- GENERAL

1.01 THE REQUIREMENT

A. The CONTRACTOR shall design, provide, maintain and remove temporary erosion and sedimentation controls as necessary.

B. Temporary erosion controls may include, but are not limited to, mulching, netting, and watering, on-site surfaces and spoil and borrow surfaces and providing interceptor ditches at ends of berms and at those locations which will ensure that erosion during construction will be either eliminated or maintained within acceptable limits as established by the CITY.

C. Temporary sedimentation controls include, but are not limited to, silt dams, traps, barriers and appurtenances at the foot of sloped surfaces which will ensure that sedimentation pollution will be either eliminated or maintained within acceptable limits as established by the CITY.

D. CONTRACTOR shall provide effective temporary erosion and sediment control measures during construction or until final controls become effective.

1.02 SUBMITTALS

A. Submit schedule for temporary erosion and sedimentation control.

1.03 PART 2 -- PRODUCTS

PART 2

2.01 EROSION CONTROL

A. Seeding and mulching, fertilization and watering shall be in accordance with Section 570-1 through 570-3 of the FDOT Specifications.

B. Netting: Fabricated of material acceptable to the CITY.

2.02 SEDIMENTATION CONTROL

A. Bales: Clean, seed free cereal hay type.

B. Netting: Fabricated of material acceptable to the CITY.

C. Filter Stone: Crushed stone conforming to FDOT Specifications.

PART 3 -- EXECUTION

3.01 EROSION CONTROL

A. Seeding shall be in accordance with Section 570-4 through 570-5 of the FDOT Specifications. The CONTRACTOR shall insure that all seeded areas have sustained growth prior to acceptance.

B. Mulching shall be in accordance with Section 570-4.6 of the FDOT Specifications.

C. Minimum procedures for mulching and netting are:

1. Apply mulch loosely to a thickness of between 0.75 inches and 1.5 inches.

2. Apply netting over mulched areas on sloped surfaces.

3.02 SEDIMENTATION CONTROL

A. Install and maintain silt dams, traps and barriers as shown on the approved schedule. Hay bales which deteriorate and filter stone which is lodged shall be replaced as required.

3.03 PERFORMANCE

A. Should any of the temporary erosion and sediment control measures employed by the CONTRACTOR fail to produce results which comply with the requirements of the CITY, CONTRACTOR shall immediately take whatever steps are necessary to correct the deficiency at his own expense.

END OF SECTION 02276

SECTION 02485

GRASSING AND MULCHING

PART 1 - GENERAL

1.01 DESCRIPTION: The CONTRACTOR shall furnish all materials and labor necessary for construction. It is the intent of this specification that all existing plant areas damaged by this construction are to be sodded. In general, the CONTRACTOR shall provide and install sod to all areas located within the extents of the existing temporary fencing. Seeding and mulching will only be permitted where approved by the CITY.

1.02 STORAGE OF MATERIALS: The CONTRACTOR shall provide space for storage of sod and mulch prior to placement in a manner that will not endanger or restrict pedestrian or vehicular traffic.

PART 2 - PRODUCTS

2.01 SOD, SEED and MULCHING

A. Sodding shall be in accordance with section 575-1 through 575-2 of the Florida Department of Transportation (DOT) Specifications. Sod in all areas shall be Bahia.

B. Seeding and mulching shall be in accordance with Section 570-1 through 570-3 of the DOT specifications.

PART 3 - EXECUTION

3.01 SOD, SEED, MULCH

A. Sod: All areas to be grassed shall be box bladed for leveling to the satisfaction of the CITY before the grassing operation commences. Hand tool leveling shall be performed in areas adjacent to structures or slopes too steep for box blading. Final grades shall slope away from structures. All sodded areas shall be rolled for leveling with at least four passes on all locations or as required for suitable leveling. The adequacy of the roller (size and weight) and the acceptability of the rolling operation are subject to the CITY's approval. Hand rolling will not generally be considered acceptable. All sod placed on slopes of 3:1, or greater, shall be staked. Stakes shall be removed prior to initial mowing.

B. Sodding shall be in accordance with Section 575-3 of the DOT specifications.

C. Mulching shall be in accordance with Section 570-4.6 of the DOT specifications.

3.02 MAINTENANCE: Maintenance shall be in accordance with Section 575-4.8 and 570-5 of the DOT specifications.

3.03 SPRINKLER SYSTEM: Where sprinkler/irrigation systems require repair or replacement, the CONTRACTOR's sodding operation shall not commence until the CITY has approved the repaired or replaced system.

3.04 IRRIGATION: It shall be the CONTRACTOR's responsibility to supply sufficient irrigation water to develop a growing "stand of grass". The CONTRACTOR shall not contemplate the use of a CITY supplied irrigation system.

3.05 COMPLETION: The grassing operation shall not be considered complete until a good stand of grass has been developed and the first mowing completed. The initial mowing shall be performed by the CONTRACTOR. All debris which may damage a mower shall be removed.

END OF SECTION 02485

SECTION 02510

ASPHALTIC CONCRETE PAVEMENT

PART 1 -- GENERAL

1.01 THE REQUIREMENT

A. CONTRACTOR shall construct paved access road areas for the Prineville WTP Site Upgrades with lines, grades, and typical section as indicated on the drawings, and specified herein. The work shall include fill, subgrade, base, asphalt, compaction, testing, survey work, parking stripes, signage and all other incidentals for a complete and operational access road and in accordance with DOT specifications, these plans and these specifications. It is also the intent of these specifications that the CONTRACTOR shall repair or replace existing pavement where disturbed or damaged by this construction.

1.02 REFERENCE SPECIFICATIONS, CODES AND STANDARDS

A. DOT Specifications: The phrase "DOT Specification" shall refer to the Florida Department of Transportation Standard Specifications for Road and Bridge Construction. The DOT Specifications, are referred to herein and are hereby made a part of this Contract to the extent of such references, and shall be as binding upon the Contract as though reproduced herein in their entirety. The Sections of the DOT Specifications which are referenced herein are as follows:

FDOT	160	Stabilizing
FDOT	200	Rock Base
FDOT	230	Limerock Stabilized Base
FDOT	234	Superpave Asphalt Base
FDOT	285	Optional Base Course
FDOT	300	Prime and Tack Coats for Base Courses
FDOT	320	Hot Bituminous Mixtures – Plant Methods and Equipment
FDOT	330	Hot Bituminous Mixtures – General Construction Requirements
FDOT	331	Type S Asphaltic Concrete
FDOT	337	Asphaltic Concrete Friction Courses
FDOT	902	Fine Aggregate
FDOT	911	Limerock Material for Base and Stabilize Base
FDOT	913A	Shell Rock Material
FDOT	914	Materials for Subgrade Stabilization
FDOT	916	Bituminous Materials

B. American Association of State Highway and Transportation Officials (AASHTO).

C. American Society for Testing Engineers

D. Local City and County Codes

1.03 SUBMITTALS

A. The CONTRACTOR shall submit his proposed formula for the asphaltic concrete paving for

review in accordance with Section 01300 entitled "Submittals".

PART 2 -- PRODUCTS

2.01 MATERIALS

A. STABILIZED SUBGRADE: The Stabilized subgrade shall be constructed as shown on the drawings and in accordance with FDOT Specification Section 160. Materials for stabilizing shall conform to the requirements of Section 914. The stabilized subgrade shall be constructed as Type B with an LBR of not less than forty (40).

B. BASE MATERIAL: The rock base shall be constructed as shown on the drawings and in accordance with FDOT Specification Section 200, Section 230, Section 285, and Section 911 for local limerock. Rock bases shall be constructed with an LBR of not less than one hundred (100). Cemented Coquina Shell material may be used for base material and shall adhere to FDOT Specification Section 915. Asphalt material may be used for base material in accordance with Section 234.

C. ASPHALTIC CONCRETE SURFACE: The asphaltic concrete surface materials and construction thereof shall be constructed as shown on the drawings and shall conform to the requirements of FDOT Specification Section 234, Section 320, Section 330, Section 331, Section 333, Section 337, and Section 916. Prior to the application of asphalt, a prime coat of RC-70 – RC-250 in accordance with FDOT Specification Section 300 shall be applied at a minimum rate of 0.10 gal/sq.yd. All asphalt for roadway and apron areas shall have a final layer as shown on the contract drawings. Reclaimed pavement may be used in accordance with the requirements of Section 234 and Section 283.

D. DAMAGE TO PROJECT ASPHALT LIFTS: Any damage done to the first lift or base shall be repaired prior to placement of the final lift. Existing pavement damaged during construction shall be repaired and overlaid at the same time as the final lift is applied.

PART 3 -- EXECUTION

INSTALLATION

ROADWAY AND APRON EARTHWORK

A. General: The CONTRACTOR shall construct all earthworks necessary to accomplish the access road and parking construction work shown on the drawings and as called for within these specifications. This includes all excavation, embankments, and removal of muck and other unsuitable material in order to attain the required alignment, grade and cross section shown on the drawings, or as directed by the City.

B. Excavation: The CONTRACTOR shall perform all excavation of whatever material encountered necessary to accomplish the access road and parking construction shown on the drawings. All materials to be excavated shall be disposed of offsite by the CONTRACTOR.

C. Compaction: Areas to be compacted shall be moistened and compacted by either rolling, tamping, or any other method approved by the City in order to obtain the specified density. Each layer shall be uniformly compacted to uniform density. Access roadways shall be compacted to the lines, grades, and cross sections shown on the drawings and in

accordance with these specifications, except that the required density shall be as shown on the drawings. All sub-grades shall be constructed of granular material.

D. Finishing: The CONTRACTOR shall shape all roadway and parking areas to the neat lines, grades and cross section outside paved areas within the section roadway in such a manner as to receive grassing or sod without additional work.

E. Stabilizing: Roadway subgrades shall be stabilized to the minimum depth shown on the drawings to a Limerock Bearing Ration (LBR) of not less than forty (40). Stabilizing shall be Type B as defined in Section 160 of the FDOT Specifications. Stabilization may require the addition and thorough mixing of crushed limerock, course limerock screenings, or any other stabilizing material acceptable to the City. The stabilizing material shall be applied in such quantities that after mixing and blending, the subgrade shall have a LBR of not less than forty (40).

F. At least three (3) density determinations shall be made on the final compaction operations on each course, each day, and the density determinations shall be made at more frequent intervals if deemed necessary by the City.

G. Base: The limerock base shall be constructed in accordance with Section 200 of the FDOT Specifications to the thickness and width indicated on the Drawings. After spreading of the base material is completed, the entire surface shall be scarified and shaped so as to produce the exact grade and cross section after compaction. When the material does not have the proper moisture content to insure the required density, wetting or drying shall be required. If material is deficient in moisture, water shall be added and uniformly mixed by disking the base course to its full depth. If material contains excess of moisture, it shall be allowed to dry before being compacted. As soon as proper conditions of moisture are attained, the material shall be compacted to an average density not less than ninety eight percent (98%) of maximum density as determined in more than one (1) course. The density shall be obtained in each lift on the finished base. Unless otherwise directed by the City, CONTRACTOR shall remove cracks, If cracks appear in the base, as directed by the City.

H. Structural Coat and Final Coat: The asphaltic coat material and rate of application shall be per FDOT standards.

3.02 PAVEMENT REPAIR

A. All damage to pavement as a result of Work under this Contract shall be repaired in a manner satisfactory to the City and at no additional cost to the CITY. The repair shall include the preparation of the subgrade, the placing and compacting of the limerock base, the priming of the base and the placing and maintaining of the surface treatment, all as specified herein.

B. The width of all repairs shall extend at least twelve (12) inches beyond the limit of the damage. The edge of the pavement to be left in place shall be cut to a true edge with a saw or other acceptable method so as to provide a clean edge to abut the repair. The line of the repair shall be reasonably uniform with no unnecessary irregularities.

END OF SECTION 02510

SECTION 2825
GATE SYSTEM

1.0 GENERAL

1.1 SCOPE OF WORK

Replace existing gate with an automated ready, structural, aluminum, picket-type, horizontal, cantilevered, slide gate installation that is fully compliant with UL 325, ASTM F2200 and ASTM F1184, Type II, Class 2 gates. It is the intent of these specifications that the CONTRACTOR shall furnish and install a complete and operable horizontal slide gate system including gate, cantilever, support posts, internal rollers, roller covers, pickets, tension members, sensors, wiring, hardware, and all other miscellaneous hardware stated or implied for a complete and operational gate system. Chain-link gate system shall not be acceptable.

1.2 GATE LOCATION

Prineville Water Treatment Plant site, Gate No. 5 (Prineville Street North), St. Lucie County Florida. Gate design shall be sufficient for operation during hurricane conditions.

1.3 GATE SERVICE

This location is industrial use, and this gate location is used by industrial type traffic with regular use by heavy City vehicles. Pedestrian traffic and the general public are not allowed at this gate site and are not directed to this gate site. Pedestrian traffic is provided a separate gate at a different location.

1.4 GATE USE DUTY CYCLES

A cycle is one full opening and one full closing.
Average daily Use: 200 Cycles
Pre-Hurricane Use: 300 Cycles

1.5 GATE OPERATION

Gate shall be suitable for automated operation by a hydraulic type operator, Hy-Security 22 SS ST. Gate operator system and gate operator safety equipment will be installed by others. CONTRACTOR shall coordinate all construction activities with the gate operator CONTRACTOR and the City.

1.6 GATE PRODUCT

It is the intent of these specifications that the entire gate system including top member, bottom member, pickets guide assemblies, support posts, hanger assemblies, catch assemblies, tracks, frames, brackets and hardware for both gates be supplied by a single gate manufacturing company whose regular business is the manufacturing of commercial and industrial type automated gate systems. The gate shall be a standard product of the gate manufacturing company. The gate manufacturer shall provide documentation that it has successfully constructed five horizontal slide gate systems similar in size and application to this project in the past five (5) years.

1.7 GATE PRODUCT MANUFACTURERS

Acceptable gate manufacturers include Tymetal Corporation, Sharon Fence Company, Ameristar Fence Products, Iron World Manufacturing, LLC, or equal.

1.8 WARRANTY SERVICE

Submittals package shall include the name, location, phone number, e-mail address

of personnel responsible for servicing gate during warranty period.

1.9 WARRANTY

Provide a gate warranty. Minimum acceptable gate warranty, including all working parts, five (5) Years.

1.10 EQUAL TO

The City reserves the right to make the sole and final determination of or-equal-to status of a substitute product proposed by a CONTRACTOR. It is the responsibility of the CONTRACTOR to provide all information to the City as requested, in a timely manner, to determine the equal-to status of a proposed substitute product.

2.0 QUALITY ASSURANCE

3.0 STANDARDS

3.1 All fieldwork shall be performed in a neat and professional workmanship manner
3.2 ASTM F 2200 Standard Specification for Automated Vehicular Gate Construction.
3.3 ASTM F 1184 Standard Specification for Industrial and Commercial Horizontal Slide Gates, Type II, Class 2.
3.4 American Welding Society AWS D1.2 Structural Welding Code.
3.5 ASTM F2200 Automated Gates
3.6 ASTM F1184 Aluminum Cantilever Slide Gates
3.7 American Fence Association (AFA)
3.8 Door & Access System Manufacturers Association (DASMA)
3.9 American Welding Society (AWS)

4.0 SUBMITTALS

4.1 PRODUCT DATA

4.1.1 Name and gate information of five (5) similar projects. Information shall include name of project, client name address and phone number, date of installation, gate clear opening length, gate height, gate style (i.e. picket, chain-link, etc.).

4.1.2 Provide manufacturer's catalog cuts with printed specifications and installation instructions.

4.1.3 Furnish two (2) copies of operation and maintenance data covering the installed products, including lubrication schedules and a drawing showing lubrication points.

4.2 SHOP DRAWINGS

4.2.1 Supply shop drawings showing the relationship of operating systems with gate components, including details of all major components.

4.2.2 Supply shop drawings showing the complete gate system, including fully dimensioned details of all major gate components, roller data sheets, trucks, post size and spacing, post depth, and dimensioned drawings of the assembled gate system.

4.2.3 Supply component materials data sheets.

4.2.4 Supply complete details of gate construction, gate height and post spacing dimensions.

4.2.5 Shop drawings shall show the location of the gate operator relative to the assembled gate and support posts. Dimensions shall be given showing the distance from various major components including the gate frame face.

4.3 CERTIFICATION OF COMPLIANCE

4.3.1 Supply certificates of compliance attesting to the gate system complies with ASTM F2200 Standard Specification for Automated Vehicular Gate Construction criteria and these specifications. Certificates shall be signed and notarized by the gate manufacturer.

4.3.2 Gate manufacturer shall provide independent certification as to the use of a documented Welding Procedure Specification and Procedure Qualification Record to insure conformance to the AWS D1.2 welding code. Individual Certificates of Welder Qualification documenting successful completion of the requirements of the AWS D1.2 code shall also be provided.

4.4 CERTIFICATION OF GATE INSTALLER EXPERIENCE

CONTRACTOR shall submit a certification of the gate installer qualifications. Gate installers shall have a minimum of five (5) years experience installing automated horizontal slide gate systems similar in size and service, i.e. industrial. Gate installer documentation shall include five (5) similar projects including: Information shall include name of project, client name address and phone number, date of installation, gate clear opening length, gate height, gate style (i.e. picket, chain-link, etc.), gate operator type and manufacturer.

5.0 GATE CONSTRUCTION

5.1 GENERAL

5.1.1 It is the intent of these specifications that the whole gate system including top member, bottom member, pickets guide assemblies, support posts, hanger assemblies, catch assemblies, tracks, frames, brackets and hardware be supplied by a single gate manufacturing company.

5.1.2 CONTRACTOR shall construct the gate system such that the maximum width of any on-gate gap is not greater than two and a quarter (2 ¼) inches and the maximum gap between the support posts and the precast concrete wall is two and a quarter (2 ¼) inches. For all location on the gate with a gap of greater than two and a quarter (2 ¼) inches a secondary gate filler shall be used and shall extend to a minimum height of seventy two (72) inches above grade and shall be sized to prevent a two and a quarter (2¼) inches diameter sphere from passing through openings anywhere along the length of the gate frame.

5.1.3 CONTRACTOR shall construct the gate system such that, in the event the gate frame assembly falls off the rollers and track, its maximum possible angle of repose is less than forty five (45) degrees from vertical.

5.1.4 Gates shall have smooth bottom edges, with vertical top and bottom edged protrusions not exceeding one half (0.5) inches.

5.1.5 Gate protrusions at the leading and trailing vertical gate edges shall not exceed one half (0.5) inches and shall be smooth on all surfaces with no sharp edges.

5.1.6 All weight bearing exposed rollers above grade shall be covered. Gate rollers shall be covered. Rollers shall be easily accessible for lubrication and replacement.

5.2 GATE FRAME

The gate frame shall be fabricated from 6063-T6 aluminum alloy extrusions. The top member shall be constructed of aluminum structural channel or tube weighing not less than 3.0 lb/lf. The top member shall be "keyed" to interlock with the "keyed" track member. The horizontal bottom member shall fabricated from aluminum structural tube weighing not less than 2.65 lb/lf. All gate components shall be completely factory assembled. The vertical members at the ends of the opening portion of the frame shall be "P" type shaped in cross sections with a normal base dimension and weighing not less than 1.6 lb/lf (2.3kg/m). The spacing for the vertical intermediates shall be less than 50% of the gate frame height. The gate frame shall be fabricated in one (1) or multiple sections depending on size requirements or constraints. See submittal drawings for details.

5.3 WELDING

All welds on the gate frame shall conform to Welding Procedure Specification and Procedure Qualification Record to insure conformance to the AWS D1.2 Structural Welding Code. All individual welders shall be certified to AWS D1.2 welding code

5.4 GATE TRACK

The gate track shall be semi-enclosed "keyed" type tracks, and shall be extruded from 6005A-T61 or 6105-T5 aluminum alloy weighing not less than 2.9 lb/lf. Track members to be located on each side of the top member. When interlocked and welded to the "keyed" top member, it forms a composite structure with the top of the gate frame.

5.5 GATE TRUCKS

The gate frame is to be supported from the tracks by a minimum of four (4), swivel-type, self-aligning, 4-wheeled, sealed lubricant ball-bearing truck assemblies. Each truck is to be attached to a hot dipped, galvanized steel hanger bracket which in turn is to be attached to a four (4) inch O.D. support post. The bottom of each inside support post is to be equipped with a pair of three (3) inch diameter minimum UHMW guide wheels. Bearings shall be pre-lubricated and contained in shock resistant outer races and captured seals. Truck assemblies shall be tested and rated for continuous duty.

5.6 CROSS TENSIONING

C Diagonal "X" bracing of 3/16" (5mm) minimum diameter stainless steel aircraft cable shall be installed to brace the gate panels and to provide a ready means of vertical adjustment.

5.7 SUPPORT POSTS

All posts shall be minimum four (4) inch O.D. round or four (4) inch square galvanized steel in accordance with ASTM F 1184. All posts shall be supported in concrete footings to a minimum depth as recommended by the gate manufacturer. Under no circumstances shall the embedment depth be less than three (3) feet.

5.8 INTERNAL PICKETS

Internal Ornamental Picket: Picket sizes shall be one (1) inch square. Pickets shall extend through the entire length of the gate as required. Picket spacing edge to edge shall not be greater than two and a quarter (2 ¼) inches. The secondary gate filler shall extend to a minimum height of seventy two (72) inches above grade and shall be sized to prevent a two and a quarter (2¼) inches diameter sphere from passing through openings anywhere along the length of the gate frame.

5.9 GATE LOCK

Gate system shall be furnished with a secure gate catcher. The catcher shall be designed and fabricated to prevent the gate panel from being pried open while the gate is in the closed and locked position

5.10 GATE SYSTEM FINISH AND COLOR

Gate system shall be powder coated black. CONTRACTOR shall submit a color selection chart to the City for final color determination and selection, during the shop drawing submittal process, prior to fabrication. Gate shall be color coated with polyester powder as specified by the design team. Powder coating shall be applied to all components including track member. All components and accessories shall be cleaned of all oils and other deleterious materials and pretreated chemically by sand blasting or other acceptable method prior to application of any finish coating system to ensure proper coating adherence. Coating systems shall be applied in strict conformance with the manufacturer's recommendations. Gate support posts shall be coated with a coating system matching in color to the gate system. CONTRACTOR shall submit color selection samples for the support post coating system. Coating systems shall be suitable for industrial outdoor South Florida environments and shall be by Tnemec, Sherwin-Williams or equal.

6.0 GATE INSTALLATION

6.1 CONTRACTOR shall verify final grades and installation conditions prior to installation of the gate system. Gate installation shall not begin until all unsatisfactory conditions are corrected.

6.2 CONTRACTOR shall locate concrete mounting pad in accordance with the recommendations of the gate manufacturer.

6.3 CONTRACTOR shall verify that the gate is level and operating smoothly under manual conditions prior to releasing of the gate for installation of the automated gate operators. CONTRACTOR shall not proceed with releasing the gate panel until the panel is aligned properly and operates smoothly and freely without binding at any location.

6.4 CONTRACTOR shall replace defective gate components in accordance with the recommendations of the manufacturer and approval of the City.

6.5 Gate systems shall be installed in strict accordance with the company's printed instructions, current at the time of installation (unless otherwise shown on the contract drawings).

6.6 CONTRACTOR shall coordinate locations of gate operators with shop drawings, the City and the gate operator CONTRACTOR.

6.7 The gate and installation shall conform to:

1. ASTM F 1184 standards for aluminum cantilever slide gates, Type II, Class 2.
2. ASTM F 2200 standard specification for automated vehicular gate construction.
3. UL325 standards.

END OF SECTION 02825

SECTION 04060

MORTAR

PART 1 - GENERAL

1.01 SCOPE OF WORK:

A. Mortar shall conform to the property or proportion requirements of ASTM C270, latest edition. Non-load bearing and load-bearing concrete masonry shall be laid in mortar Type M.

B. All concrete work shall be constructed in accordance with all of the applicable provisions of Section 03300.

1.02 STANDARDS

A. National Concrete Masonry Association Specifications for the Design and Construction of Load Bearing Concrete Masonry.

B. American National Standard Building Code requirements for reinforced masonry.

C. National Concrete Masonry Association, T.E.K. Series.

D. Florida Building Code; current edition.

1.03 RELATED SECTIONS

A. Section 03300 - Cast-In-Place Concrete, Reinforcing and Formwork.

1.04 SUBMITTALS

A. The CITY shall be supplied with shop drawings consisting of product data and samples. Include design mix, required environmental conditions, and admixture limitations.

B. Submit reports to the CITY on mortar indicating conformance of mortar to property requirements of ASTM C270

1.05 QUALITY ASSURANCE

A. Perform Work in accordance with ACI 530 and ACI 530.1.

B. Where references are made to standards, the latest edition of the listed standard shall apply.

1.06 DELIVERY, STORAGE, AND HANDLING

A. Deliver, store, protect, and handle products in conformance with manufacturer's recommendations

B. Maintain packaged materials clean, dry, and protected against dampness, freezing, and foreign matter.

PART 2 - DOCUMENTS

2.01 MATERIALS

A. Portland cement: ASTM C150. Portland Cement shall be Type II where exposed to sewage. Otherwise, Type I shall be used.

B. Masonry cement: ASTM C91, Type II, white or gray.

C. Hydrated Lime: ASTM C207, Type S.

D. Sand: ASTM C144, sharp, natural sand mined in fresh water, hard durable grains, free of soft, flaky particles, salt, alkalis and organic material. Salt water sand strictly prohibited.

E. Water: Potable.

F. Waterproofing additive: Omicron mortar-proofing as manufactured by the Master Builders Co.

G. Mortar: Mortar for above ground masonry shall conform to ASTM Standard C270, latest edition, "Mortar for Unit Masonry" and the following requirements:

1) Use no antifreeze ingredient in the mortar.
2) Color shall be natural.
3) Submit data indicating proportions and materials to be used.

PART 3 - EXECUTION

3.01 PREPARATION & MIXING

A. Mortar for Masonry Walls and Partitions: Cement mortar mix for all unit masonry work shall be according to ASTM C270, Type M, two thousand five hundred (2,500) psi minimum compressive strength at twenty eight (28) days.

B. Mortar For Glass Unit Masonry: ASTM C270, Type S, using the Property specification.

C. Mortar Mix proportions:

1) One (1) part Portland cement.
2) One quarter (1-1/4) part hydrated lime (Lime putty shall not exceed ten percent (10%) of the cement used).
3) Three (3) to four (4) parts of damp loose sand.
4) Water: Sufficient for workable mix. Re-tempering not permitted.

5) Waterproofing additive: add to mix for all exterior walls. Use a waterproofing admix equal to "Omicron OM" by Master Builders or "Mortarite" by Lambco, or approved equal, in all mortar for exterior use if the masonry cement has not been water proofed by the addition of a waterproofing agent by the manufacturer. Proportion and use in accordance with the manufacturers printed directions.

D. Colors: natural.

E. Mixing:

1) Measurement of materials shall be such that the specified proportions are controlled and accurately maintained.
2) Initially, sand and cement shall be thoroughly dry mixed, hydrated lime then added to the mix and then water to obtain a proper working consistency. Materials shall be evenly distributed and dry as good workability will allow.
3) Workability or consistency of mortar on the board shall be sufficiently wet to be worked under the trowel. Water for tempering shall be available on the scaffold at all times.
4) Mortar which has begun to set or has stood for more than one hour shall be discarded and in no event shall an unbalanced or stale mix be re-tempered or used.
5) Mix all cementitious materials and sand in mechanical batch mixer for minimum of five (5) minutes. Adjust consistency of mortar to satisfaction of mason but add only as much water as is compatible with convenience in using mortar. If mortar begins to stiffen from evaporation or from absorption of part of mixing water, re-temper mortar immediately by adding water, and remix mortar to restore its workability. Re-temper only within two (2) hours of mixing.

3.02 All mortar shall be used and placed in final position within two (2) hours after mixing when air temperature is 80° F or higher and within three hours when air temperature is less than 80° F. Discard all mortar not used within these limits.

END OF SECTION 04060

SECTION 05140

ALUMINUM FABRICATIONS

PART 1 - GENERAL

1.01 WORK INCLUDED: The work under this section includes fabrication and erection of various aluminum items.

1.02 QUALITY ASSURANCE:

A. Standards: Unless otherwise specified, all materials, workmanship and practices shall conform to the following Standards:

1. Standard Building Code.

2. Aluminum Construction Manual, 1976 Edition, by the Aluminum Association.

B. Qualifications: Fabrication and erection shall be by a qualified fabricator and erector approved by the CITY. Preparation of shop drawings shall not begin until the fabricator and erector have been approved.

1.03 SUBMITTALS: Complete shop drawings, including material lists, fabrication and erection drawings shall be submitted for approval. Fabrication shall not be approved until the submission has been approved. Submittals shall in accordance with the requirements set forth in Section 01300.

PART 2 - PRODUCTS

2.01 MATERIALS:

A. Standard Shapes, Bars & Plates:

1. ASTM B 209 - Alloy 6061-T6

2. ASTM B 308 - Alloy 6061-T6

B. Standard Threaded Fasteners:

1. Nuts, bolts and washers shall be 316 stainless steel.

C. Welding Electrodes: 4043 filter metal.

PART 3 - EXECUTION

3.01 FABRICATION

A. Fabrication shall be in accordance with the specified standards. Splices not indicated on the drawings will not be permitted.

B. Surface Treatment: Treatment is required where indicated on the drawings.

C. Access ladders, platforms, and grating shall be continuously supported from underneath by continuous beams, angles and channels. Access ladders and plat forms shall be fabricated with handrails on all sides. Access ladders and platforms shall be fabricated to conform with OSHA requirements, Florida Building Code, City of Port St. Lucie Building Code, Florida Building Code, and these Contract Documents.

3.02 ERECTION

A. Erection shall be in accordance with the specified standards and as indicated on the drawings.

B. No painting required, unless otherwise noted.

C. Welding: Welding of aluminum shall be performed by the Gas Metal Arc (MIG) or Gas Tungsten ARC (TIG) process, per AWS Welding handbook. All welding shall be performed by an AWS certified welder.

END OF SECTION 05140

SECTION 09850
PAINTING

PART 1 -- GENERAL

1.01 THE REQUIREMENT

A. The CONTRACTOR shall furnish all labor, tools, materials, supervision and equipment necessary to do all the work specified herein and as required for a complete installation.

1.02 GENERAL INFORMATION AND DESCRIPTION

A. The term "paint," as used herein, includes emulsions, enamels, paints, stains, varnishes, sealers, cement filler, cement-latex filler and other coatings, whether used as prime, intermediate, or finish coats.

B. All paint for concrete and metal surfaces shall be especially adapted for use around water treatment plants and shall be applied in conformance with the manufacturer's published specifications.

C. All paint for final coats shall be fume resistant, compounded with pigments suitable for exposure to sewage gases, especially to hydrogen sulfide and to carbon dioxide. Pigments shall be materials which do not tend to darken, discolor, or fade due to the action of sewage gases. If a paint manufacturer proposes use of paint which is not designated "fume resistant" in its literature, it shall furnish full information concerning the pigments used in this paint.

D. Coatings used in conjunction with potable water supply piping and systems shall have NSF Certification for use with potable water and shall not impart a taste or odor to the water.

E. Baked-on enamel finishes and items with standard shop finishes such as graphic panels, electrical equipment, toilet partitions, lockers, instrumentation, etc., shall not be field painted unless the finish is damaged during shipment or installation. Aluminum, stainless steel, fiberglass and bronze work shall not be painted unless color coding and marking is required or otherwise specified. A list of surfaces not to be coated is included in Article 1.09.

F. The CONTRACTOR shall obtain all permits, licenses and inspections and shall comply with all laws, codes, ordinances, rules and regulations promulgated by authorities having jurisdiction which may bear on the work. This compliance will include Federal Public Law 91-596 more commonly known as the "Occupational Safety and Health Act of 1970".

1.03 MANUFACTURERS

A. All painting materials shall be as manufactured by Tnemec, Ameron, Carboline, or DuPont.

1.04 SUBMITTALS

A. The CONTRACTOR shall submit paint manufacturer's data sheets, application instructions, and samples of each finish and color to the CITY for review, before any work is started in accordance with Section 01300 entitled "Submittals."

B. Submitted samples of each finish and color shall be prepared so that the area of each sample indicates the appearance of the various coats. For example, where a three (3) coat system is specified, the sample shall be divided into three areas indicating one (1) coat only, two (2) coats and all three (3) coats. The CITY will provide written authorization constituting a standard, as to color and finish only, for each coating system.

C. The CONTRACTOR shall prepare a complete schedule of surfaces to be coated and shall identify the surface preparation and paint system he proposes to use. The Paint Schedule shall be in conformance with Article 3.03. The schedule shall contain the name of the paint manufacturer, and the name, address and telephone number of the manufacturer's representative that will inspect the Work. The schedule shall be submitted to the CITY for review as soon as possible following the Notice to Proceed so that the schedule may be used to identify colors and to specify shop painting systems on order for fabricated equipment.

1.05 SERVICES OF MANUFACTURER'S REPRESENTATIVE

A. The CONTRACTOR shall purchase paint from an acceptable manufacturer. The manufacturer shall assign a representative to inspect the application of his product both in the shop and field. The CONTRACTOR, through the manufacturer's representative, shall submit his report to the CITY at the completion of his Work identifying the products used and verifying that said products were properly applied and that the paint systems were proper for the exposure and service.

B. Services shall also include, but not be limited to, inspecting prior coatings of paint, determination of best means of surface preparation, inspection of complete work, and re-inspection of painted work to be performed six (6) months after the job is completed.

1.06 MANUFACTURER'S INSTRUCTIONS

A. The manufacturer's published instructions for use as a guide in specifying and applying the manufacturers proposed paint shall be submitted to the CITY. Paint shall not be delivered to the job before acceptance of the manufacturer's instructions is given by the CITY.

B. A manufacturer's paint will not be considered for use unless that manufacturer's published instructions meet the following requirements:

1. The instructions must have been written and published by the manufacturer for the purpose and with the intent of giving complete instruction for the use and application of the proposed paint in the locality and for the conditions for which the paint is specified or shown to be applied under this Contract.

2. All limitations, precautions, and requirements that may adversely affect the paint; that may cause unsatisfactory results after the painting application; or that may cause the paint not to serve the purpose for which it was intended; that is, to protect the covered material from corrosion, shall be clearly and completely stated in the instructions. These limitations and requirements shall, if they exist, include, but not be limited to the following list:

a. Methods of application
b. Number of coats

c. Thickness of each coat
d. Total thickness
e. Drying time of each coat, including primer
f. Primer required to be used
g. Primers not permitted
h. Use of a primer
i. Thinner and use of thinner
j. Temperature and relative humidity limitations during application and after application
k. Time allowed between coats
l. Protection from sun
m. Physical properties of paint including solids content and ingredient analysis
n. Surface preparation
o. Touch up requirements and limitations

C. Concrete surfaces specified by the paint manufacturer to be acid etched shall be etched in accordance with the manufacturer's instructions. The surface shall then be thoroughly scrubbed with clean water, rinsed, and allowed to dry. The surface shall be tested with a moisture meter to determine when dry before coating.

1.07 QUALITY ASSURANCE

A. The CONTRACTOR shall give the CITY a minimum of three (3) days advance notice of the start of any field surface preparation work of coating application work. Before application of the prime coat and each succeeding coat, all surfaces to be coated shall be subject to inspection by the CITY. Any defects or deficiencies shall be corrected by the CONTRACTOR before application of subsequent coating.

B. All such Work shall be performed only in the presence of the CITY, unless the CITY has specifically allowed the performance of such Work in his absence.

C. Review by the CITY, or the waiver of review of any particular portion of the Work, shall not relieve the CONTRACTOR of his responsibility to perform the Work in accordance with these Specifications.

D. Where special coatings are to be performed by a subcontractor, the CONTRACTOR shall provide five (5) references which show that the painting subcontractor has previous successful experience with the specified or comparable coating systems. Include the name, address, and the telephone number for the CITY of each installation for which the painting subcontractor provided the protective coating.

1.08 SAFETY AND HEALTH REQUIREMENTS

A. In accordance with requirements of OSHA Safety and Health Standards for Construction (29CFR1926) and the applicable requirements of regulatory agencies having jurisdiction, as well as manufacturer's printed instructions, appropriate technical bulletins, manuals, and material safety data sheets, the CONTRACTOR shall provide and require use of personnel protective and safety equipment for persons working in or about the project site.

B. All paints must comply with the requirements of the National Ambient Air Quality Standards.

1.09 SURFACES NOT TO BE COATED

A. The following list of items shall not be coated unless otherwise noted.

1. Stainless steel work.

2. Galvanized checkered plate.

3. Aluminum handrails, walkways, windows, louvers, grating and checkered plate.

4. Flexible couplings, lubricated bearing surfaces, insulation.

5. Packing glands and other adjustable parts of mechanical equipment.

6. Finish hardware.

7. Plastic switch plates and receptacle plates.

8. Signs and nameplates.

1.10 ADDITIONAL PAINT

A. At the end of the project, the CONTRACTOR shall turn over to the CITY a gallon can of each type and color of paint, primer, thinner or other coating used in the field painting. If the manufacturer packages the material concerned in gallon cans, then it shall be delivered in unopened labeled cans as it comes from the factory. If the manufacturer does not package the material in gallon cans, and in the case of special colors, the materials shall be delivered in new gallon containers, properly closed with type labels indicating brand, type, color, etc. The manufacturer's literature described the materials and giving directions for their use shall be furnished in three bound copies. A type-written inventory list shall be furnished at the time of delivery.

1.11 SHIPPING, HANDLING AND STORAGE

A. All painting materials shall be brought to the job site in the original sealed labeled containers of the paint manufacturer and shall be subject to review by the CITY. Where thinning is necessary, only the product of the manufacturer furnishing the paint shall be used. All such thinning shall be done strictly in accordance with the manufacturer's instructions, and with the full knowledge of the CITY.

B. Materials and their storage shall be in full compliance with the requirements of pertinent codes and fire regulations. Receptacles shall be placed outside buildings for paint gates and containers. Paint waste shall not be disposed of in plumbing fixtures, process drains or other plant systems or process units.

C. All painting material shall be stored in a clean, dry, well-ventilated place, protected from sparks, flame, and direct rays of the sun or from excessive heat. Paint susceptible to damage from low temperatures shall be kept in a heated storage space when necessary.

PART 2 -- PRODUCTS

2.01 MATERIALS

A. Table 09850-1 depicts the coatings referenced in Article 3.03, "Paint Schedule". Table 09850-1 lists Tnemec products as a reference. Equivalent products by the manufacturers listed in Article 1.03 of this Section may be submitted for review.

TABLE 09850-1

PRODUCT LISTING

Ref. No.	Description	MANUFACTURERS REFERENCE Tnemec
100	Alkyd, primer for wood	10-99W
101	Alkyd (High Gloss)	2H - Color
102	Water Based Epoxy Block Filler	1254 Concrete & Masonry Filler
103	Polyamidoamine Epoxy	N69-Color
104	Epoxoline Primer	N69-1255
108	Aliphatic Acrylic Polyurethane	1075 - Color
109	Modified Waterborne Acrylate	156 Envirocrete
113	Epoxy Tie-Coat	27 F.C. Typoxy

2.02 TRAFFIC PAINT

A. Paint for marking pavement shall be Sherwin-Williams PRO-MAR traffic marking paint, or equal. Color shall be white. Paint shall be applied in accordance with the manufacturer's recommendations. Striped areas shall be as specified in Section 02580 entitled "Pavement Marking and Traffic Signs" and as indicated on the Plans.

PART 3 -- EXECUTION

3.01 SURFACE PREPARATION

A. Surfaces to be painted shall be clean and dry, and free of dust, rust, scale and all foreign matter. No solvent cleaning, power or hand tool cleaning shall be permitted unless acceptable to the CITY or specified herein.

B. Except as otherwise provided, all preparation of metal surfaces shall be in accordance with Specifications SP-1 through SP-10 of the Steel Structures Painting Council (SSPC). Where Steel Structures Painting Specifications are referred to in these Contract Documents, the corresponding Pictorial Surfaces Preparation Standard shall be used to define the minimum final surface conditions to be supplied. Grease and oil shall be removed and the surface prepared by hand tool cleaning, power tool cleaning or blast cleaning in accordance with the appropriate Specification SP-1 through SP-10.

C. Weld flux, weld spatter and excessive rust scale shall be removed by power tool cleaning as per SSPC-SP-3-63.

D. Threaded portions of valve and gate stems, machined surfaces which are limited for sliding contact, surfaces which are to be assembled against gaskets, surfaces or shafting on which sprockets are to fit, or which are intended to fit into bearings, machined surfaces of bronze trim on slide gates and similar surfaces shall be masked off to protect them from the sandblasting of adjacent surfaces. Cadmium-plated or galvanized items shall not sandblasted unless hereinafter specified, except that cadmium-plated, zinc-plated, or sherardized fasteners used in assembly of equipment to the sandblasted shall be sandblasted in the same manner as the unprotected metal. All installed equipment, mechanical drives, and adjacent painted equipment shall be protected from sandblasting. Protection shall prevent any sand or dust from entering the mechanical drive units or equipment where damage could be caused.

E. Hardware accessories, machined surfaces, plates, lighting fixtures, and similar items in place prior to cleaning and painting, and not intended to be painted, shall be protected or removed during painting operations and repositioned upon completion of painting operations.

F. Any abraded areas of shop or field applied coating shall be touched up with the same type of shop or field applied coating, even to the extent of applying an entire coating, if necessary. Touch-up coating and surface preparations shall be in addition to and not considered as the first field coat.

G. Sand from sandblasting shall be thoroughly removed, using a vacuum cleaner if necessary. No surface which has been sandblasted shall be painted until inspected by the CITY.

H. Exposed Pipe

1. Bituminous coated pipe shall not be used in exposed locations. Pipe which shall be exposed after project completion shall be primed in accordance with the requirements herein. Any bituminous coated ferrous pipe which is inadvertently installed in exposed locations shall be sandblasted to SSPC-SP-5 White Metal before priming and painting.

2. After installation, all exterior, exposed flanged joints shall have the gap between adjoining flanges and the gap between threaded-on flanges and the pipe barrel sealed with a single component Thiokol caulking prior to painting to prevent rust stains.

I. Ferrous Metal Surfaces

1. All ferrous metal surfaces not required to be galvanized shall be cleaned of all oil grease, dirt, rust and tight and loose mill scale by blasting in accordance with the following: SSPC-SP-5, White Metal Blast Cleaning and comply with the visual standard NACE 1, for submerged metal. SSPC-SP-10 Near White Metal Blast Cleaning, and comply with the visual standard NACE 2 for all other locations. Pickling, complying with SSPC-SP-8, may be substituted for Near White Blast in areas as determined by the CITY. Priming shall follow sandblasting before any evidence of corrosion occurs, before nightfall and before any moisture is on the surface.

2. Existing painted ferrous metal surfaces shall be cleaned of all oil, grease and dirt by blasting with a minimum 2500 psi high pressure blast. All rust shall be removed in accordance with SSPC-SP-3 and spot primed with the applicable primer.

J. Field surface preparation of small, isolated areas such as field welds, repair of scratches, abrasions or other marks to the shop prime or finish shall be cleaned by power tools in accordance with SSPC-SP-3, or in difficult and otherwise inaccessible areas by hand cleaning in accordance with SSPC-SP-2 and spot primed.

K. Primed or Coated Surfaces and Non-Ferrous Surfaces

1. All coated surfaces shall be cleaned prior to application of successive coats. All non-ferrous metals not to be coated shall be cleaned. This cleaning shall be done in accordance with SSPC-SP-1, Solvent Cleaning.

L. Shop Finished Surfaces

1. All shop coated surfaces shall be protected from damage and corrosion before and after installation by treating damaged areas immediately upon detection. Abraded or corroded spots on shop coated surfaces shall be prepared in accordance with SSPC-SP-2, Hand Tool Cleaning and then touched up with the same materials as the shop coat.

2. All shop coated surfaces which are faded, discolored, or which require more than minor touch-up, in the opinion of the CITY, shall be repainted. Cut edges of galvanized sheets, electrical conduit, and metal pipe sleeves, not to be finish painted, shall be cleaned in accordance with SSPC-SP-1, Solvent Cleaning and primed with zinc dust-zinc oxide metal primer.

M. Galvanized and Copper Alloy Surfaces

1. All copper, or galvanized metal surfaces shall be given one (1) coat of epoxy primer.

N. Concrete and Masonry Surfaces

1. Concrete and masonry surfaces to be painted shall be prepared by removing efflorescence, chalk, dust, dirt, grease, oil, form coating, tar and by roughening to remove glaze. All surfaces shall be repaired prior to commencement of the coating operation.

2. Concrete and masonry surfaces are to be cured for at least twenty eight (28) days prior to coating them.

O. Wood Surfaces

1. Wood surfaces to be painted shall be cleaned of dirt, oil, and other foreign substances with mineral spirits, scrapers, and/or sandpaper. Finish surfaces exposed to view shall be made smooth by sandpapering. All wood items to be painted and in contact with or built into concrete, masonry or plaster shall be primed. Small, dry, seasoned knots shall be surface scraped and thoroughly cleaned, and shall be given a thin coat of knot sealer before application of the primer coat. Pitch on large, open, unseasoned knots and all other beads or streaks of pitch shall be scraped off, or if still soft, shall be removed with mineral spirits or turpentine and the resinous are thinly coated with no sealer.

2. After priming, all holes and imperfections in finish surfaces shall be filled with putty or plastic wood-filler colored to match the finish coat, allowed to dry, and sandpapered smooth. Unless otherwise authorized, painting shall proceed only when the moisture content of the wood does not exceed 12 percent as measured by a moisture meter.

P. PVC Pipe Surfaces

1. All pipe surfaces shall be lightly sanded before painting.

3.02 SHOP PAINTING

A. All fabricated steel work and equipment shall receive at the factory at least one (1) shop coat of prime paint compatible with the paint system required by these Specifications. The CONTRACTOR shall coordinate all shop priming to ensure compatibility with paint system specified. Surface preparation prior to shop painting shall be as specified. Finish coats may be applied in the shop if acceptable to the CITY. All shop painted items shall be properly packaged and stored until they are incorporated in the Work. Any painted surfaces that are damaged during handling, transporting, storage or installation shall be cleaned, scraped, and patched before field painting begins so that Work shall be equal to the original painting received at the shop. Equipment or steel Work that is to be assembled on the site shall likewise receive a minimum of one shop coat of paint at the factory. Surfaces of exposed members that will be inaccessible after erection shall be prepared and painted before erection.

B. The CONTRACTOR shall specify the shop paints to be applied when ordering equipment in order to assure compatibility of shop paints with field paints. The paints and surface preparation used for shop coating shall be identified on shop drawings submitted to the CITY for review. Shop paint shop drawings will not be reviewed until the final project paint system has been submitted by the CONTRACTOR and reviewed by the CITY.

C. Shop finish coats may be the standard finish as ordinarily applied by the manufacturer if it can be demonstrated to the CITY that the paint system is equal to and compatible with the paint system specified. However, all pumps, motors and other equipment shall receive at least one field applied finish coat after installation.

3.03 PAINT SCHEDULE

A. The CONTRACTOR shall adhere to this paint schedule, providing those paints named or equal. DFT shall mean the minimum dry film thickness per application measured in mils. Products are referenced by numbers listed in Article 2.01 Materials. The paint schedule identifies the minimum DFT required per coat. If the CONTRACTOR does not achieve the specified DFT range in a single coat, he shall provide additional coats as necessary at no additional cost to the CITY.

B. Metal Surfaces, Atmospheric (Exterior) Exposure

1. Metal surfaces exposed to the atmosphere that does not come into contact with water or corrosive atmosphere including the following types of surfaces shall be painted as described below:

a. Gate

2. FERROUS METAL

Application	No.	Description	DFT
First - 1 coat	104	Epoxoline Primer	3.0 - 5.0
Second - 1 coat	103	Polyamidoamine Epoxy	2.0 - 3.0
Finish - 1 coat	108	Endura Shield	2.0 - 3.0
		Min. Total	9.0 Mils

3. NON-FERROUS METAL

Application	No.	Description	DFT
First - 1 coat	103	Polyamidoamine Epoxy	2.0 - 3.0
Second - 1 coat	108	Endura Shield	2.0 - 3.0
		Min. Total	5.0 Mils

4. GALVANIZED

Application	No.	Description	DFT
First - 1 coat	103	Polyamidoamine Epoxy	2.0 - 4.0
Second - 1 coat	108	Endura Shield	2.0 - 4.0
		Min. Total	5.0 Mils

I. Exterior of All New Concrete, Stucco and Masonry Surface

Application	No.	Description	DFT
First - 1 coat	109	Modified Waterborne Acrylate	5.0 - 6.0
Finish - 1 coat	109	Modified Waterborne Acrylate	5.0 - 6.0
		Min. Total	10.0 Mils

3.04 PAINTING

A. All paint shall be applied by experienced painters with brushes or other applicators acceptable to the CITY.

B. Paint shall be applied without runs, sags, thin spots, or unacceptable marks. Paints shall be applied at the rate specified by the manufacturer to achieve the minimum dry mil thickness required. Additional coats of paint shall be applied, if necessary, to obtain thickness specified.

C. Paint shall be applied with spraying equipment only on those surfaces approved by the CITY. If the material has thickened or must be diluted for application by spray gun, each coat shall be built up to the same film thickness achieved with undiluted brushed-on

material. Where thinning is necessary, only the products of the particular manufacturer furnishing the paint shall be used; and all such thinning shall be done in strict accordance with the manufacturer's instructions, as well as with the full knowledge of the CITY.

D. Surfaces not accessible to brushes or rollers may be painted by spray by dauber or sheepskins and paint mitt. If any of these methods is to be used, it shall be done in strict accordance with the manufacturer's instructions, as well as with the full knowledge of the CITY.

E. Drying Time

1. A minimum of twenty four (24) hours drying time shall elapse between applications of any two (2) coats of paint on a particular surface unless shorter time periods are a requirement of the manufacturer or specified herein. Longer drying times shall be required for abnormal conditions as defined by the manufacturer.

F. Weather Restrictions

1. No painting whatsoever shall be accomplished in rainy or excessively damp weather when the relative humidity exceeds eighty five (85) percent, or when the general air temperature cannot be maintained at fifty (50) degrees F or above throughout the entire drying period. No paint shall be applied when it is expected that the relative humidity will exceed eighty five (85) percent or that the air temperature will drop below fifty (50) degrees F within eighteen (18) hours after the application of the paint.

2. No painting shall be performed unless the surface temperature is a minimum of five (5) degrees above dew point and the temperature must be maintained for the complete duration of curing.

G. Inspection of Surfaces

1. Each and every field coat of priming and finishing paint shall be inspected by the CITY or his authorized representative before the succeeding coat is applied. The CONTRACTOR shall follow a system of tinting successive paint coats so that no two coats for a given surface are exactly the same color. Areas to receive black protective coatings shall in such cases be tick-marked with white or actually gaged as to thickness when finished.

H. Before application of the prime coat and each succeeding coat, any defects or deficiencies in the prime coat or succeeding coat shall be corrected by the CONTRACTOR before application of any subsequent coating.

I. Samples of surface preparation and of painting systems shall be furnished by the CONTRACTOR to be used as a standard throughout the job, unless omitted by the CITY.

J. When any appreciable time has elapsed between coatings, previously coated areas shall be carefully inspected by the CITY, and where, in his opinion, surfaces are damaged or contaminated, they shall be cleaned and recoated at the CONTRACTOR's expense. Recoating times of manufacturer's printed instructions shall be adhered to.

K. Coating thickness shall be determined by the use of a properly calibrated "Nordson-

Mikrotest" (or equal) dry mil thickness gauge.

L. The CONTRACTOR shall provide free of charge to the CITY two (2) new "Nordson-Mikrotest" dry film gauges to be used to inspect coating by CITY and CONTRACTOR. One (1) gauge may be used by CONTRACTOR and returned each day to the CITY. CITY will return gauges to CONTRACTOR at completion of job.

M. Special Areas

1. All surfaces which are to be installed against concrete, masonry etc., and will not be accessible for field priming and/or painting shall be back primed and painted as specified herein, before erection. Anchor bolts shall be painted before the erection of equipment and then the accessible surfaces repainted when the equipment is painted.

N. Special attention shall be given to insure that edges, corners, crevices, welds and rivets receive a film thickness equivalent to that of the adjacent painted surfaces.

O. Safety

1. Respirators shall be worn by persons engaged or assisting in spray painting. The CONTRACTOR shall provide ventilating equipment and all necessary safety equipment for the protection of the workmen and the Work.

P. Quality Workmanship

1. The CONTRACTOR shall be responsible for the cleanliness of his painting operations and shall use covers and masking tape to protect the Work whenever such covering is necessary, or if so requested by the CITY. Any unwanted paint shall be carefully removed without damage to any finished paint or surface. If damage does occur, the entire surface, adjacent to and including the damaged area, shall be repainted without visible lapmarks and without additional cost to the CITY.

Q. Painting found defective shall be scraped or sandblasted off and repainted as the CITY may direct. Before final acceptance of the Work, damaged surfaces of paint shall be cleaned and repainted as directed by the CITY.

R. Any pipe scheduled to be painted and having received a coating of a tar or asphalt compound shall be painted with two coats or "Intertol Tar Stop", "Tnemec Tar Bar" or equal before successive coats are applied in accordance with the paint schedule.

3.05 SCHEDULE OF COLORS

A. All colors shall be as designated by the CITY at the shop drawing review. The CONTRACTOR shall submit color samples as required to the CITY as specified in Article 1.04. Color choices shall be selected by the CITY based on the manufacturer's entire range of color samples available and not just the manufacturer's standard color charts. The CONTRACTOR shall submit suitable samples of all colors and finishes for the surfaces to be painted, or on portable surfaces when required by the CITY. The CITY shall decide upon the choice of colors and other finishes when alternates exist. No variation shall be made in colors without the acceptance from the CITY. Color names and/or numbers shall be

identified according to the appropriate color chart issued by the manufacturer of the particular product in question.

3.06 COLOR CODING AND LETTERING OF PIPING

A. The CONTRACTOR shall paint all piping, valves, equipment, exposed conduits and all appurtenances which are integral to a complete functional mechanical pipe and electrical conduit system. In general, the pumps and equipment shall be painted the same color as the piping system to which it is connected unless otherwise directed by the CITY.

B. Lettering of Piping

1. The CONTRACTOR shall apply identification titles and arrows indicating the direction of flow of liquids to all types and sections of all new and existing plant piping. Titles shall be as directed by the CITY. Identification titles shall be located midway between color coding bands where possible. Identification lettering and arrows shall be placed as directed by the CITY, but shall generally be located each fifteen (15) feet in pipe length and shall be properly inclined to the pipe axis to facilitate easy reading. Titles shall also appear directly adjacent to each side of any wall or slab the pipeline passes through.

C. The titles shall be painted by use of stencils and shall identify the contents by complete names at least once in each area through which it passes and thereafter be abbreviated. Stencils shall be provided for titles and abbreviations listed in Table 09850-3.

D. Title color shall be black or white as directed and shall have an overall height in inches in accordance with Table 09850-4. Letter type shall be Helvetica Medium upper case. The manufacturer's instructions shall be followed in respect to storage, surface preparation and application. For piping less than 3/4-inch diameter (as identified in Table 09850-3), the CONTRACTOR shall furnish and attach corrosion resistant color tags with the required lettering.

E. Banding

1. Where bands are indicated in the Pipe Color Coding Schedule, the pipe is to be painted for its full circumference with a band of the color indicated. The bands shall be six (6) inches wide, neatly made by masking, and spaced eight (8) feet apart. The CONTRACTOR may substitute precut prefinished bands on piping subject to acceptance by the CITY. Where banded pipes are running concurrently in a space, bands shall be located so that on adjacently located pipes, bands will be grouped beside each other.

3.07 OSHA SAFETY COLORS

A. Items listed in ANSI Z53.1-1971, Section 2.1 shall be painted ANSI Red. In general, these items shall include fire protection equipment and apparatus; wall mounted breathing apparatus, danger signs and locations; and stop bars, buttons or switches. In addition all hose valves and riser pipes, fire protection piping and sprinkler systems, and electrical stop switches shall be painted ANSI Red.

B. Items listed in ANSI Z53.1-1971, Section 2.3 shall be painted ANSI Yellow. Yellow shall be

the basic color for designating caution and for marking physical hazards such as striking against, stumbling, falling, tripping, and "caught in between". In addition, an eight (8) inch wide strip on the top and bottom tread of stairways shall be coated.

3.08 WORK IN CONFINED SPACES

A. The CONTRACTOR shall provide and maintain safe working conditions for all employees. Fresh air shall be supplied continuously to confined spaces through the combined use of existing openings, forced-draft fans, or by direct air supply to individual workers. Paint fumes shall be exhausted to the outside from the lowest level in the contained space.

B. Electrical fan motors shall be explosion proof if in contact with fumes. No smoking or open fires will be permitted in, or near, confined spaces where painting is being done.

3.09 CLEANING

A. The buildings and all other Work area shall be at all times kept free from accumulation of waste material and rubbish caused by the Work. At the completion of the painting, all tools, equipment, scaffolding, surplus materials, and all rubbish around the inside the buildings shall be removed and the Work left broom clean unless otherwise specified.

- END OF SECTION 09850-

SECTION 10426
ACCESS ROAD MARKERS

PART 1 – GENERAL

1.01 DESCRIPTION

A. Scope of Work: Provide and install edge of pavement markers as described herein and as located by the CITY.

1.02 QUALITY ASSURANCE

A. All work required under this Section shall be in accordance with the requirements of the following associations: *National Association of* Architectural Manufacturer's and the National Ornamental Manufacturer's Association.

1.03 SUBMITTALS

A. Submit shop drawings in accordance with Section 01300. Submit an accurate, scaled, and detailed shop drawing showing layout, borders, letter size, and dimensions. Submittals shall include manufacturer's installation instructions and proposed adhesive specification.

PART 2 – PRODUCT'S

2.01 MATERIALS

ACCESS ROAD EDGE POST MARKERS

A. Access road edge post markers shall consist of pre-assembled reflectors on a square, semi flexible, PVC post. Two (2) reflectors shall be fixed to each post such that they are visible from directions.

B. Reflectors shall be prismatic, shatter proof, water proof; UV-resistant, self-cleaning, and interchangeable. Reflectors shall be three (3) inches by four and a half (4.5) inches and shall be fixed to the top of the posts.

C. PVC support Posts shall be forty seven (47) inches in height and shall be break-away type, fixed to plastic bases.

D. Plastic bases shall have an anchor spike and protective plastic cap integrally molded to the base.

E. Access road edge of post markers bases and reflectors shall be as manufactured by US Reflector or equal.

EDGE OF PAVEMENT MARKERS

F. On the portion of the access road that is asphalt paved aluminum body edge of pavement markers, in pairs, shall also be installed, on either side of the roadway, every fifteen (15) feet. Aluminum body pavement markers shall be embedment type with a stem. Reflectors shall have twenty one (21) reflective elements on either side of the marker

body. Tire action keeps the surface clean and brilliant. Marker bodies shall be 4-inches x 4-inches x 0.78-inches. Access road edge of pavement markers shall be model TCB-2A as manufactured by US Reflector or equal.

PART 3 – EXECUTION

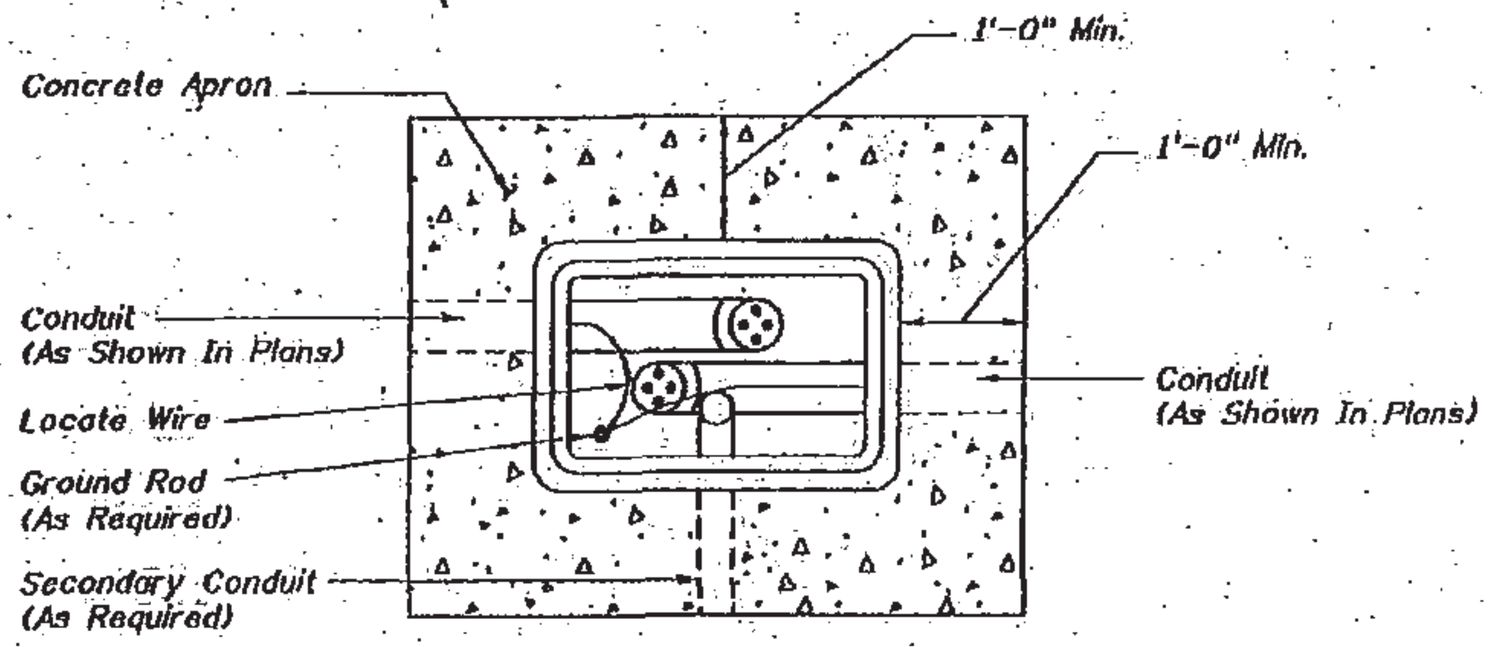
3.01 INSTALLATION

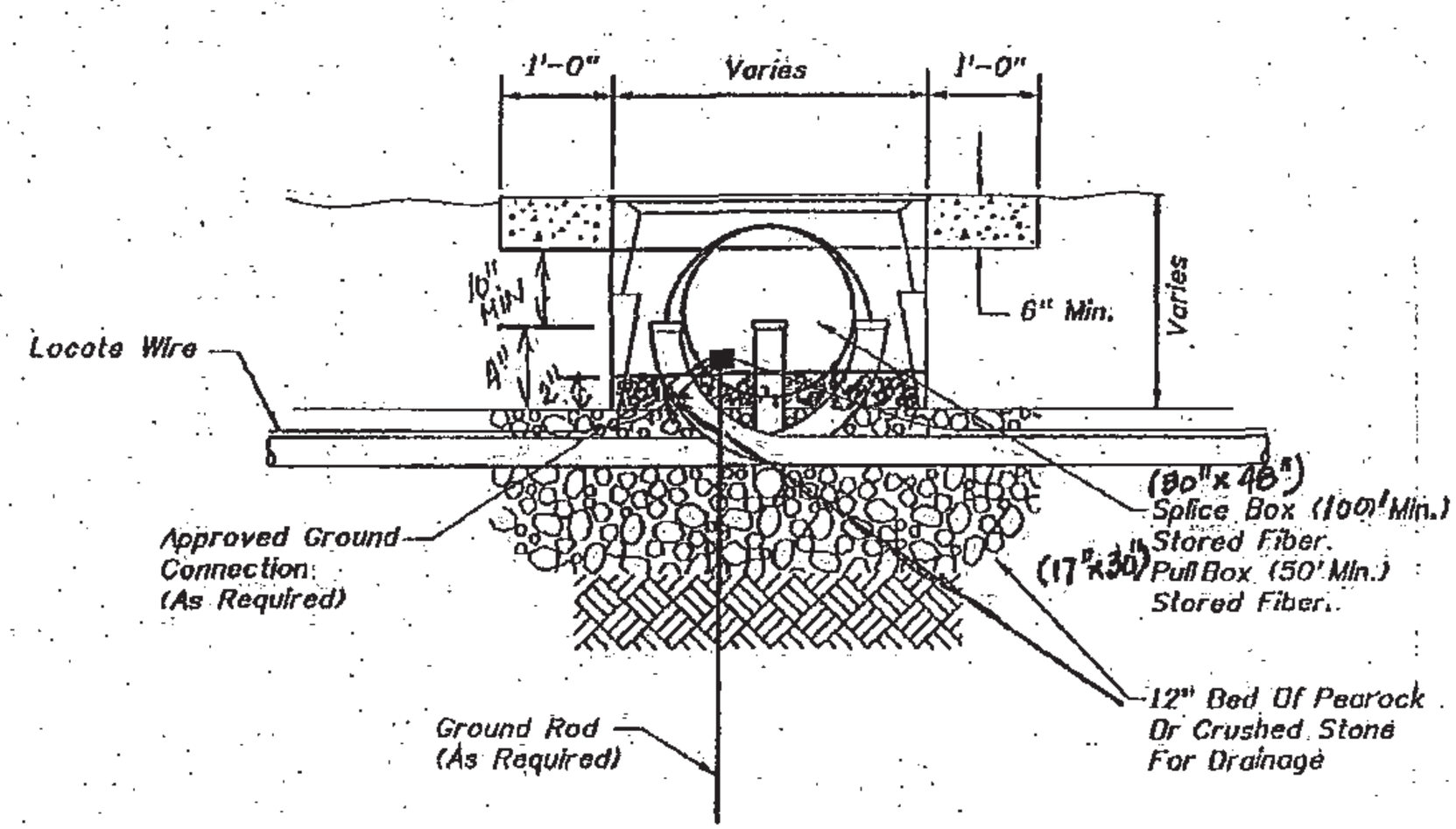
A. CONTRACTOR shall install the markers at the locations shown on the Drawings or as directed in the field by the CITY. The markers shall be installed in accordance with the manufacturer's instructions subject to review by the City. Roadway surfaces shall be cleaned and prepared in strict accordance with the manufacturer's recommendations.

END OF SECTION 10426

CITY OF PORT ST. LUCIE
PRINEVILLE WATER TREATMENT PLANT SITE UPGRADES

APPENDIX D – FIBER OPTIC PULL BOX





FIBER OPTIC BOX

1. Fiber optic boxes shall not be installed in roadways or driveways.
2. The fiber optic box shall be one of the products included on the FDOT Approved Product List.
3. Fiber optic boxes shall be installed flush with the finished grade surface.
4. Fiber optic box length (long side) shall be parallel to the roadwy.
5. Kevlar pull (mule) tape shall be installed in the empty conduits for future use.
6. Fiber optic boxes shall contain only Fiber Optic Cable, Conduit and Locate Wire. Fiber Optic boxes shall not contain electrical conduit or conductor. Electrical conduit and conductors shall be installed in separate boxes from each other.
7. Conduit center line shall be aligned to top edge of box to facilitate cable pulling.
8. All fiber optic boxes shall have 1'-0" wide (min) x 6" deep concrete aprons sloped away from box. Apron concrete shall be Class NS with a minimum strength of 28 days of f'c= 2.5 ksi. Apron is to be included in the cost of each box.
9. Fiber optic boxes shall meet FM 5-539 test procedure.
10. Fiber optic boxes shall be equipped with a nonskid cover secured by self-cleaning auger bolts and any other miscellaneous stainless steel hardware required for installation or as shown in the plans. All hardware will be stainless steel.
11. Fiber optic boxes shall be made of polymer concrete and be designed, tested and certified to meet a 20 klp vertical test load. The fiber optic boxes shall be marked "Fiber Optic" and identify the "20 K" load.
12. All splices shall be properly weatherproofed by approved method.
13. The size and type of fiber optic communications conduit shall be shown on the plans.
14. The use of ground rods shall be shown in the plans.
15. Refer to the PSLUSD Design Standards Section 11 for splice requirements, box requirements, fiber optic cable, ground rods and other pertinent information.

ATTACHMENT B

CONSTRUCTION PLANS

CITY OF PORT ST. LUCIE
UTILITY SYSTEMS DEPARTMENT
PRINEVILLE WTP SITE UPGRADES

INDEX OF SHEETS

CIVIL

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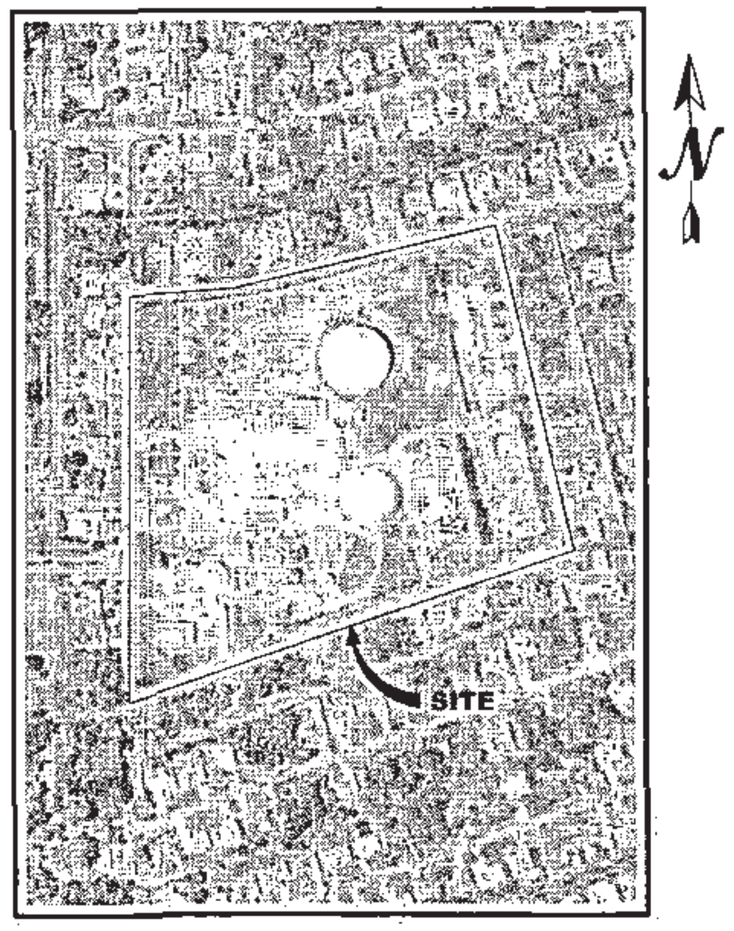
C9	DROP BOCX PAVEMENT DETAIL
C10	EROSION CONTROL DETAILS
C11	GENERAL NOTES

"A City for All Ages"



VICINITY MAP
NOT TO SCALE

SUBCONSULTANTS

NODARSE & ASSOCIATES, INC. (SOILS)

SVI SYSTEMS, INC. (SECURITY)

PREPARED BY

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UTILITY SYSTEMS DEPARTMENT
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JESUS MEREJO ..... DIRECTOR
BRAD MACEK ..... ASSISTANT DIRECTOR

PSLUSD PROJECT # 29.0005

ENGINEER OF RECORD

RICHARD M. SCHOENBORN, P.E.
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RICHARD M. SCHOENBORN, P.E.# 40236
ISSUE DATE:

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E-BID #20120058

ATTACHMENT B
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PRINEVILLE SITE PLAN
DEMOLITION
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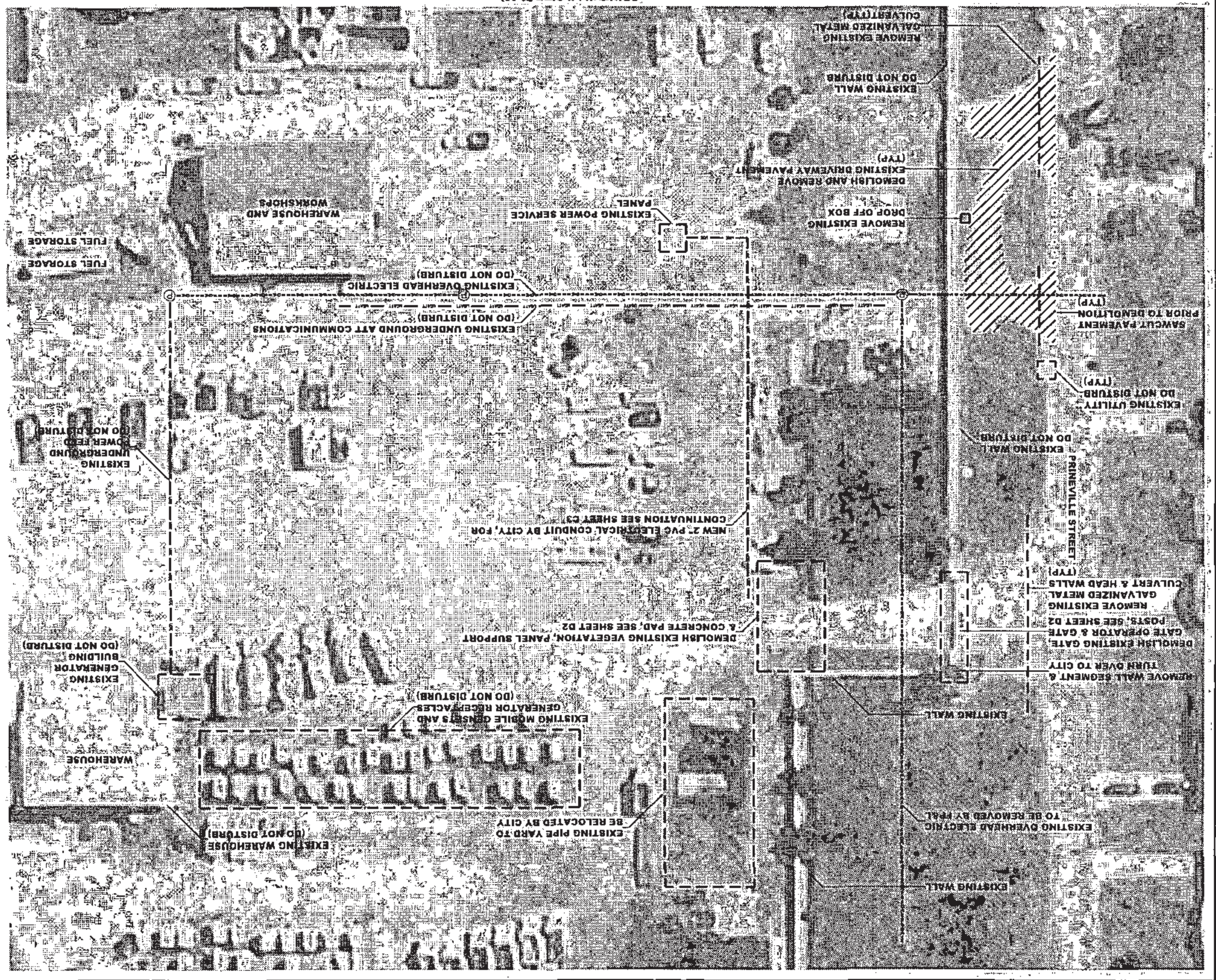

LEGEND

(P)	POWER POLE
	UNDERGROUND AT&T
	OVERHEAD ELECTRIC
	UNDERGROUND ELECTRIC

PRINEVILLE WTP
SITE UPGRADES
DEMOLITION

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SHEET D1

ATTACHMENT B
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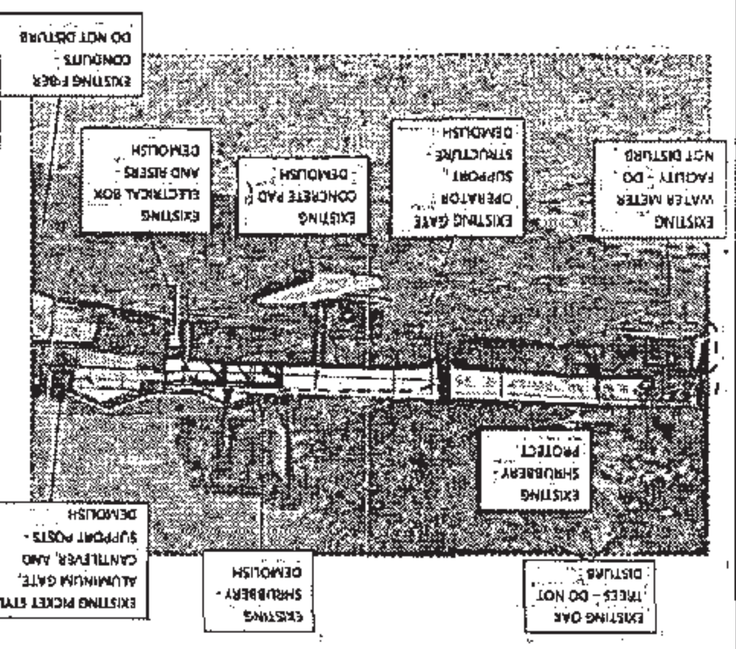
PRINEVILLE WTP
SITE UPGRADES
DEMOLITION PHOTO DETAILS

SHEET
D2

PHOTO 5
GATE 5 DEMOLITION



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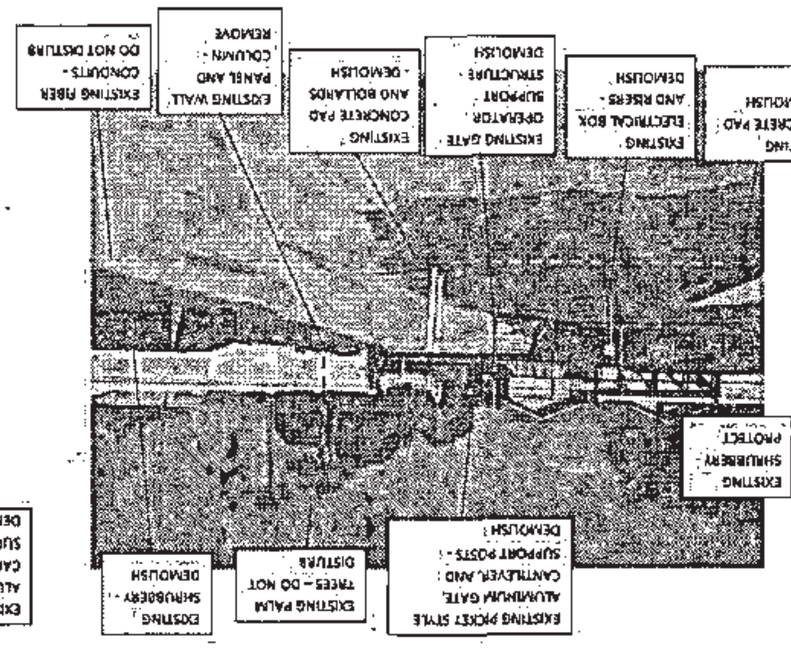

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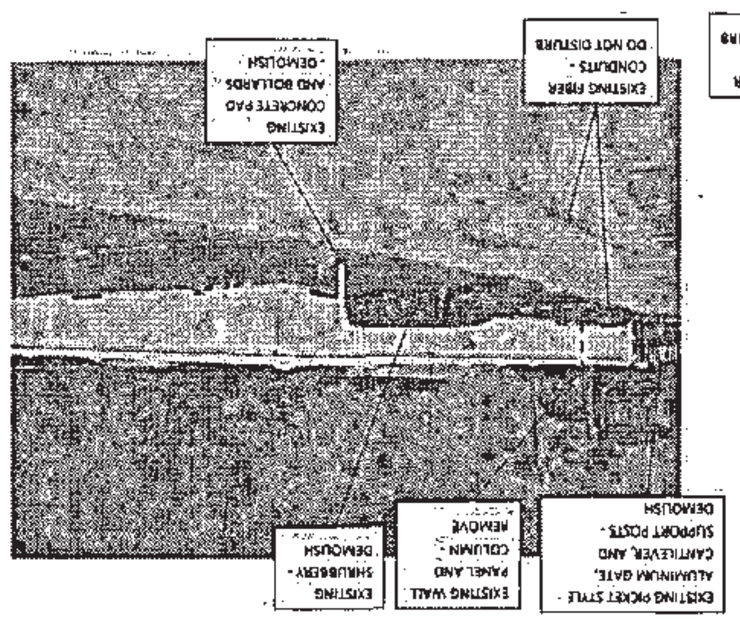

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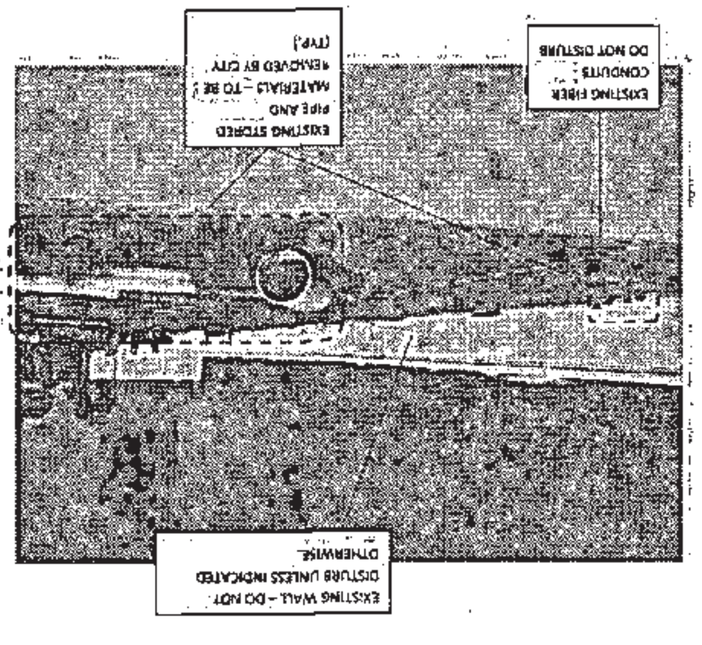

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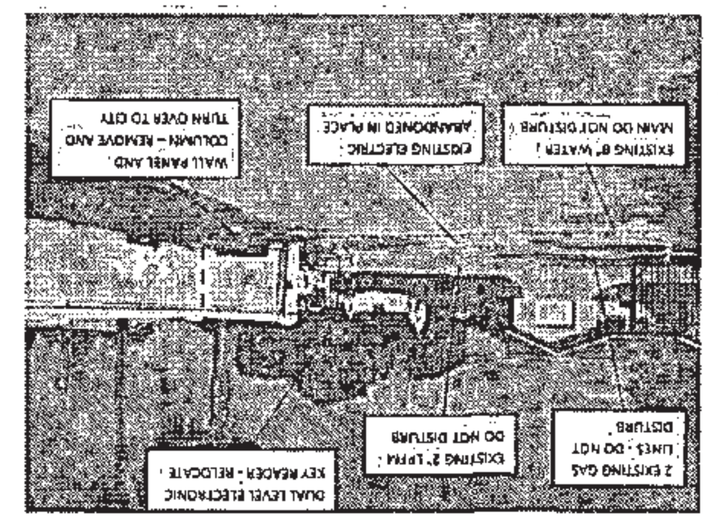

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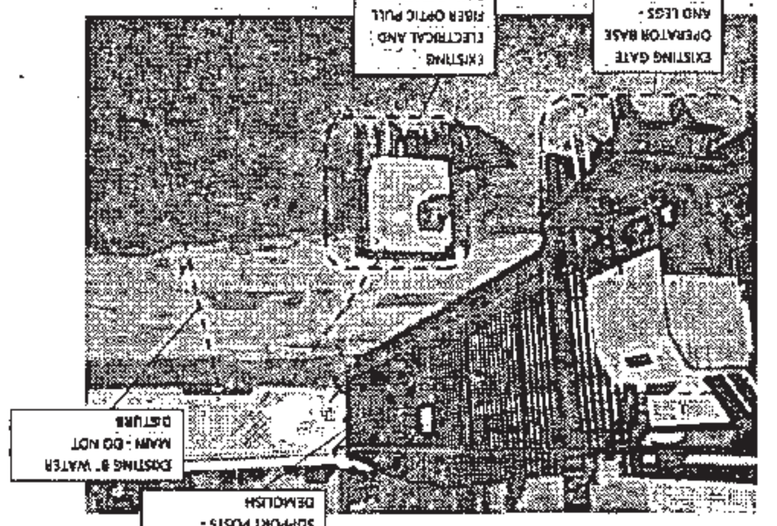

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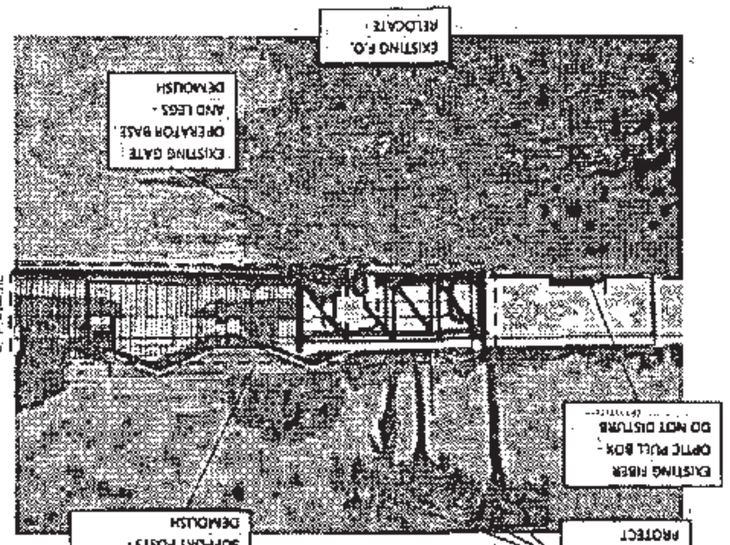

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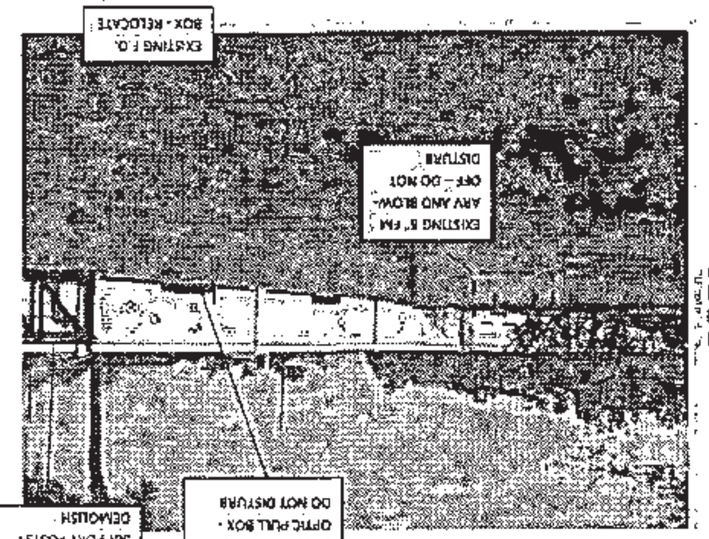

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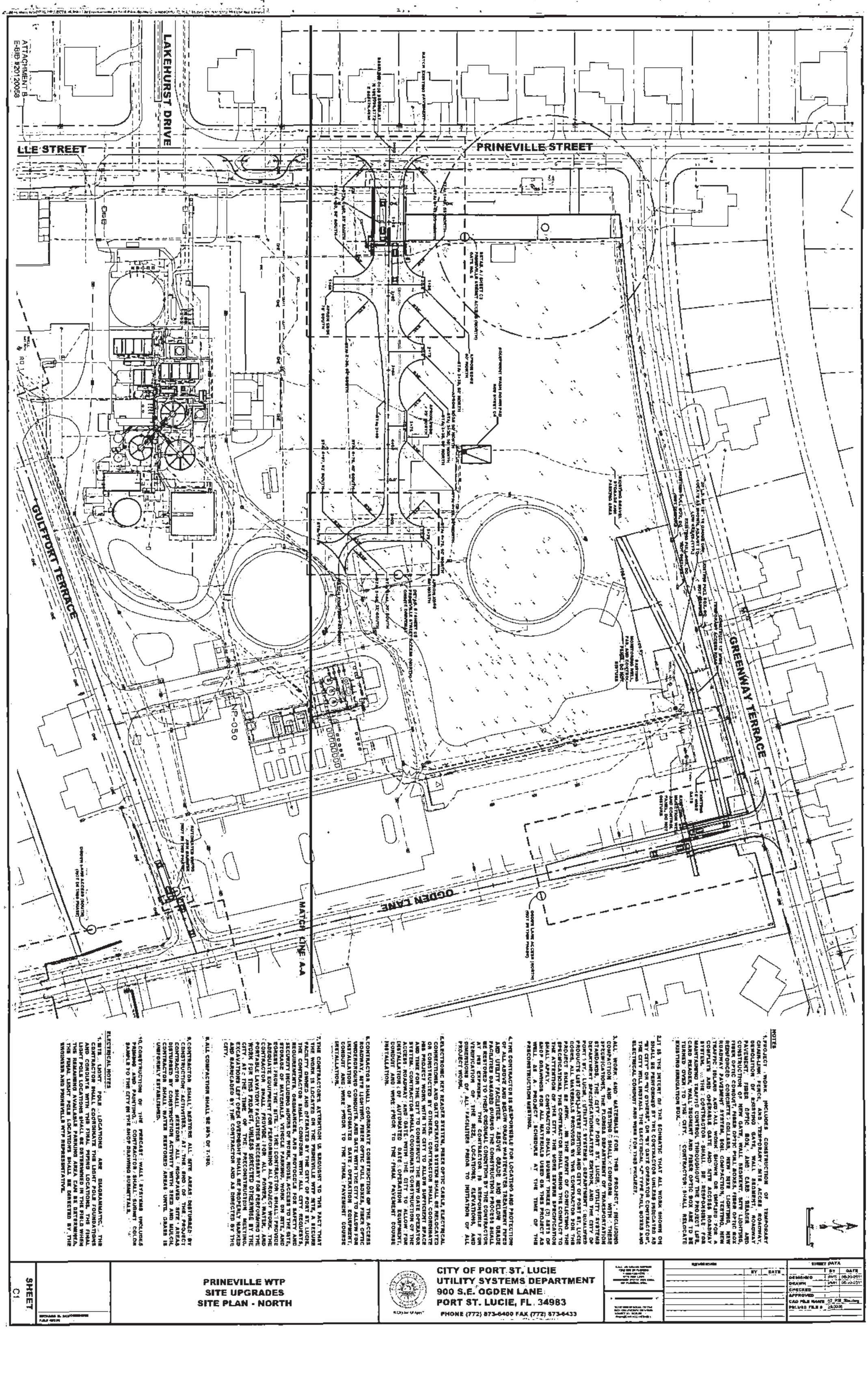
	BY	DATE

ATTACHMENT B
E-BID #20120058



NOTES

1. PROJECT WORK INCLUDES CONSTRUCTION OF TEMPORARY CHAIN-LINK FENCE, AND TEMPORARY SITE ACCESS ROADWAY; DEMOLITION OF EXISTING GATE, WALL SEGMENT, ROADWAY PAVEMENT, FIBER OPTIC BOX, AND CARD READER GATE ARM; CONSTRUCTION OF NEW GATE, WALL SEGMENT, GATE LIGHTING, FIBER OPTIC CONDUIT, FIBER OPTIC PULL BOXES, FIBER OPTIC BOX REINFORCED CONCRETE COLLARS, NEW SITE LIGHTING, ROADWAY PAVEMENT SYSTEM, SOIL COMPACTION, TESTING, NEW TRAFFIC ISLAND AND OPERABLE GATE AND SITE ACCESS ROADWAY COMPLETE AND OPERABLE GATE AND SITE ACCESS ROADWAY SYSTEM. THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING TRAFFIC CONTROL THROUGHOUT THE PROJECT LIFE. CARD READER, WALL SEGMENT AND FIBER OPTIC BOX ARE TO BE TURNED OVER TO THE CITY. CONTRACTOR SHALL RELOCATE EXISTING IRRIGATION BOX.

2. IT IS THE INTENT OF THE SCHEMATIC THAT ALL WORK SHOWN ON SHALL BE PERFORMED BY THE CONTRACTOR UNLESS INDICATED AS "BY CITY" OR "BY OTHERS" OR "BY GATE OPERATOR CONTRACTOR". THE CITY WILL INSTALL THE ELECTRICAL "J" TYPE PULL BOXES AND ELECTRICAL CONDUIT AND WIRE FOR THIS PROJECT.

3. ALL WORK AND MATERIALS FOR THIS PROJECT, INCLUDING COMPACTION AND TESTING SHALL CONFORM WITH THESE SPECIFICATIONS, THE FLORIDA DEPARTMENT OF TRANSPORTATION STANDARDS, THE CITY OF PORT ST. LUCIE UTILITY SYSTEMS DEPARTMENT SPECIFICATIONS-LATEST EDITION, AND THE CITY OF PORT ST. LUCIE UTILITY SYSTEMS DEPARTMENT QUALIFIED PRODUCTS LIST (QPL)-LATEST EDITION AND CITY OF PORT ST. LUCIE CODES. ALL MATERIALS PROVIDED BY THIS CONTRACTOR FOR THIS PROJECT SHALL BE NEW. IN THE EVENT OF CONFLICTING THE SPECIFICATIONS, THE CONTRACTOR SHALL BRING THIS CONFLICT TO THE ATTENTION OF THE CITY. THE MORE SEVERE SPECIFICATION SHALL APPLY. CONTRACTOR SHALL SUBMIT THREE (3) SETS OF SHOP DRAWINGS FOR ALL MATERIALS USED ON THIS PROJECT AS WELL AS A PROJECT SCHEDULE AT THE TIME OF THE PRECONSTRUCTION MEETING.

4. THE CONTRACTOR IS RESPONSIBLE FOR LOCATING AND PROTECTION OF ALL ABOVE AND BELOW GRADE WASTEWATER TREATMENT PIPES AND UTILITY FACILITIES. ABOVE GRADE AND BELOW GRADE FACILITIES DAMAGED DURING THE CONSTRUCTION PROCESS SHALL BE RESTORED TO THEIR ORIGINAL CONDITION BY THE CONTRACTOR AT HIS EXPENSE. THE CONTRACTOR IS RESPONSIBLE FOR VERIFICATION OF THE SIZE, LOCATIONS, ELEVATIONS, AND DIMENSIONS OF ALL FACILITIES PRIOR TO INITIATION OF ALL PROJECT WORK.

5. ELECTRONIC KEY READER SYSTEM, FIBER OPTIC CABLE, ELECTRICAL CONNECTIONS, AND GATE OPERATOR SYSTEM SHALL BE RELOCATED OR CONSTRUCTED BY OTHERS. CONTRACTOR SHALL COORDINATE HIS PROJECT WORK WITH THE CITY TO ALLOW SUFFICIENT SPACE AND TIME FOR THE CITY TO CONSTRUCT THE NEW GATE OPERATOR SYSTEM. CONTRACTOR SHALL COORDINATE CONSTRUCTION OF THE ACCESS ROADWAY AND GATE WITH THE CITY TO ALLOW FOR INSTALLATION OF AUTOMATED GATE OPERATION EQUIPMENT, CONDUIT AND WIRE PRIOR TO THE FINAL PAVEMENT COURSE INSTALLATION.

6. CONTRACTOR SHALL COORDINATE CONSTRUCTION OF THE ACCESS ROADWAY, SITE LIGHTING, FIBER OPTIC PULL BOXES, FIBER OPTIC UNDERGROUND CONDUITS, AND GATE WITH THE CITY TO ALLOW FOR INSTALLATION OF AUTOMATED GATE OPERATION EQUIPMENT, CONDUIT AND WIRE PRIOR TO THE FINAL PAVEMENT COURSE INSTALLATION.

7. THE CONTRACTOR'S ATTENTION IS BROUGHT TO THE FACT THAT THE WORK IS LOCATED ON THE PRINEVILLE WTP SITE, A SECURE FACILITY OWNED AND OPERATED BY THE CITY OF PORT ST. LUCIE. THE CONTRACTOR SHALL CONFORM WITH ALL CITY REQUESTS, REQUIREMENTS, ORDINANCES, AND PROTOCOLS FOR SAFETY AND SECURITY INCLUDING HOURS OF WORK, NOISE, ACCESS TO THE SITE, STORAGE OF MATERIALS, VEHICLE PARKING, WORK ON SITE, AND FORCES FROM THE SITE. THE CONTRACTOR SHALL PROVIDE ADEQUATE EQUIPMENT FOR PERFORMING ALL PROJECT WORK. THE CONTRACTOR SHALL PROVIDE FOR ALL POWER, WATER, AND PORTABLE LAVATORY FACILITIES NECESSARY FOR PERFORMING THE WORK FOR THIS PROJECT, UNLESS DIRECTED OTHERWISE BY THE CITY. AT THE TIME OF THE PRECONSTRUCTION MEETING, EXCAVATIONS LEFT OPEN OVERNIGHT SHALL BE PROPERLY MARKED AND BARRICADED BY THE CONTRACTOR AND AS DIRECTED BY THE CITY.

8. ALL COMPACTION SHALL BE 98% OF T-180.

9. CONTRACTOR SHALL RESTORE ALL SITE AREAS DISTURBED BY CONSTRUCTION ACTIVITIES. AT THE END OF THE PROJECT CONSTRUCTION SHALL RESTORE ALL ROADWAY SITE AREAS DISTURBED BY CONSTRUCTION ACTIVITY WITH SEED AND MULCH. CONTRACTOR SHALL WATER RESTORED AREAS UNTIL GRASS IS UNIFORMLY ESTABLISHED.

10. CONSTRUCTION OF THE PRECAST WALL SYSTEMS INCLUDES FINISHING AND PAINTING. CONTRACTOR SHALL SUBMIT COLOR SAMPLE TO THE CITY IN THE SHOP DRAWING SUBMITTALS.

ELECTRICAL NOTES

1. SITE LIGHT POLE LOCATIONS ARE DIAGRAMMATIC. THE CONTRACTOR SHALL COORDINATE THE LIGHT POLE FOUNDATIONS AND CONDUITS WITH THE FINAL PIPING LOCATIONS. THE FINAL LIGHT POLE LOCATIONS SHALL BE DETERMINED IN THE FIELD WHEN THE REMAINING AVAILABLE PARKING AREA CAN BE DETERMINED. THE FINAL LIGHT POLE LOCATIONS SHALL BE DIRECTED BY THE ENGINEER AND PRINEVILLE WTP REPRESENTATIVE.

PRINEVILLE WTP
SITE UPGRADES
SITE PLAN - NORTH

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REVISIONS	BY	DATE

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ATTACHMENT B
E-BID #20120036

PRINEVILLE STREET

IRST DRIVE

PRINEVILLE STREET

GULFPORT TERRACE

HURON TERRACE

OGDEN LANE

O'DONNELL LANE

MATCH LINE A-A

PRINEVILLE WTP
SITE UPGRADES
SITE PLAN - SOUTH

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UTILITY SYSTEMS DEPARTMENT
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SHEET
C2

ATTACHMENT B
E-BID #20120058

DETAIL A
PRINEVILLE STREET GATE 5
SCALE: 1" = 10'

NOTES:

1. PROJECT WORK INCLUDES CONSTRUCTION OF TEMPORARY CHAIN-LINK FENCE, AND TEMPORARY SITE ACCESS ROADWAY, DEMOLITION OF EXISTING GATE, WALL SEGMENT, ROADWAY PAVEMENT, FIBER OPTIC BOX, AND CARD READER AND CONSTRUCTION OF NEW GATE, WALL SEGMENT, SITE LIGHTING, FIBER OPTIC CONDUIT, FIBER OPTIC PULL BOXES, FIBER OPTIC BOX REINFORCED CONCRETE COLLARS, NEW SITE LIGHTING, NEW ROADWAY PAVEMENT SYSTEM, SOIL COMPACTION, TESTING, NEW TRAFFIC ISLAND AND ALL WORK SHOWN OR IMPLIED FOR A COMPLETE AND OPERABLE GATE AND SITE ACCESS ROADWAY SYSTEM. THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING TRAFFIC CONTROL THROUGHOUT THE PROJECT LIFE. CARD READER, WALL SEGMENT AND FIBER OPTIC BOX ARE TO BE TURNED OVER TO THE CITY. CONTRACTOR SHALL RELOCATE EXISTING IRRIGATION BOX.

2. IT IS THE INTENT OF THE SCHMATIC THAT ALL WORK SHOWN ON SHALL BE PERFORMED BY THE CONTRACTOR UNLESS INDICATED AS "BY CITY" OR "BY OTHERS", OR "BY GATE OPERATOR CONTRACTOR". THE CITY WILL INSTALL THE ELECTRICAL "J" TYPE PULL BOXES AND ELECTRICAL CONDUIT AND WIRE FOR THIS PROJECT.

3. ALL WORK AND MATERIALS FOR THIS PROJECT, INCLUDING COMPACTION AND TESTING SHALL CONFORM WITH THESE SPECIFICATIONS, THE FLORIDA DEPARTMENT OF TRANSPORTATION STANDARDS, THE CITY OF PORT ST. LUCIE, UTILITY SYSTEMS DEPARTMENT SPECIFICATIONS-LATEST EDITION, AND THE CITY OF PORT ST. LUCIE, UTILITY SYSTEMS DEPARTMENT QUALIFIED PRODUCTS LIST (QPL)-LATEST EDITION AND CITY OF PORT ST. LUCIE CODES. ALL MATERIALS PROVIDED BY THE CONTRACTOR FOR THE PROJECT SHALL BE NEW. IN THE EVENT OF CONFLICTING THE SPECIFICATIONS, THE CONTRACTOR SHALL BRING THE CONFLICT TO THE ATTENTION OF THE CITY. THE MORE SEVERE SPECIFICATION SHALL APPLY. CONTRACTOR SHALL SUBMIT THREE (3) SETS OF SHOP DRAWINGS FOR ALL MATERIALS USED ON THIS PROJECT AS WELL AS A PROJECT SCHEDULE AT THE TIME OF THE PRECONSTRUCTION MEETING.

4. THE CONTRACTOR IS RESPONSIBLE FOR LOCATING AND PROTECTION OF ALL ABOVE AND BELOW GRADE WASTEWATER TREATMENT PIPES AND UTILITY FACILITIES. ABOVE GRADE AND BELOW GRADE FACILITIES DAMAGED DURING THE CONSTRUCTION PROCESS SHALL BE RESTORED TO THEIR ORIGINAL CONDITION BY THE CONTRACTOR AT HIS EXPENSE. THE CONTRACTOR IS RESPONSIBLE FOR VERIFICATION OF THE SIZE, LOCATIONS, ELEVATIONS, AND DIMENSIONS OF ALL FACILITIES PRIOR TO INITIATION OF ALL PROJECT WORK.

5. ELECTRONIC KEY READER SYSTEM, FIBER OPTIC CABLE, ELECTRICAL CONNECTIONS, AND GATE OPERATOR SYSTEM SHALL BE RELOCATED OR CONSTRUCTED BY OTHERS. CONTRACTOR SHALL COORDINATE HIS PROJECT WORK WITH THE CITY TO ALLOW SUFFICIENT SPACE AND TIME FOR THE CITY TO CONSTRUCT THE NEW GATE OPERATOR SYSTEM. CONTRACTOR SHALL COORDINATE CONSTRUCTION OF THE ACCESS ROADWAY AND GATE WITH THE CITY TO ALLOW FOR INSTALLATION OF AUTOMATED GATE OPERATION EQUIPMENT, CONDUIT AND WIRE PRIOR TO THE FINAL PAVEMENT COURSE INSTALLATION.

6. CONTRACTOR SHALL COORDINATE CONSTRUCTION OF THE ACCESS ROADWAY, SITE LIGHTING, FIBER OPTIC PULL BOXES, FIBER OPTIC UNDERGROUND CONDUITS, AND GATE WITH THE CITY TO ALLOW FOR INSTALLATION OF AUTOMATED GATE OPERATION EQUIPMENT, CONDUIT AND WIRE PRIOR TO THE FINAL PAVEMENT COURSE INSTALLATION.

7. THE CONTRACTOR'S ATTENTION IS BROUGHT TO THE FACT THAT THE WORK IS LOCATED ON THE PRINEVILLE WTP SITE, A SECURE FACILITY OWNED AND OPERATED BY THE CITY OF PORT ST. LUCIE. THE CONTRACTOR SHALL CONFORM WITH ALL CITY REQUESTS, REQUIREMENTS, ORDINANCES, AND PROTOCOLS FOR SAFETY AND SECURITY INCLUDING HOURS OF WORK, NOISE, ACCESS TO THE SITE, STORAGE OF MATERIALS, VEHICLE PARKING, WORK ON SITE, AND EGRESS FROM THE SITE. THE CONTRACTOR SHALL PROVIDE ADEQUATE EQUIPMENT FOR PERFORMING ALL PROJECT WORK. THE CONTRACTOR SHALL PROVIDE FOR ALL POWER, WATER, AND PORTABLE LAVATORY FACILITIES NECESSARY FOR PERFORMING THE WORK FOR THIS PROJECT, UNLESS DIRECTED OTHERWISE BY THE CITY AT THE TIME OF THE PRECONSTRUCTION MEETING. EXCAVATIONS LEFT OPEN OVERNIGHT SHALL BE PROPERLY MARKED AND BARRICADED BY THE CONTRACTOR AND AS DIRECTED BY THE CITY.

8. ALL COMPACTION SHALL BE 98% OF T-180.

9. CONTRACTOR SHALL RESTORE ALL SITE AREAS DISTURBED BY CONSTRUCTION ACTIVITIES. AT THE END OF THE PROJECT CONTRACTOR SHALL RESTORE ALL NON-PAVED SITE AREAS DISTURBED BY CONSTRUCTION ACTIVITY WITH SEED AND MULCH. CONTRACTOR SHALL WATER RESTORED AREAS UNTIL GRASS IS UNIFORMLY ESTABLISHED.

10. CONSTRUCTION OF THE PRECAST WALL SYSTEMS INCLUDES PRIMING AND PAINTING. CONTRACTOR SHALL SUBMIT COLOR SAMPLE TO THE CITY IN THE SHOP DRAWING SUBMITTALS.

ELECTRICAL NOTES

1. SITE LIGHT POLE LOCATIONS ARE DIAGRAMMATIC. THE CONTRACTOR SHALL COORDINATE THE LIGHT POLE FOUNDATIONS AND CONDUITS WITH THE FINAL PIPING LOCATIONS. THE FINAL LIGHT POLE LOCATIONS SHALL BE DETERMINED IN THE FIELD WHEN THE REMAINING AVAILABLE PARKING AREA CAN BE DETERMINED. THE FINAL LIGHT POLE LOCATIONS SHALL BE DIRECTED BY THE ENGINEER AND PRINEVILLE WTP REPRESENTATIVE.

SHEET DATA	BY	DATE
DESIGNED	RMS	06-20-2011
DRAWN	RMH	06-20-2011
CHECKED		
APPROVED		
CAD FILE NAME	57_PS_Street-g	
PSLUSD FILE #	280008	

REVISIONS	BY	DATE

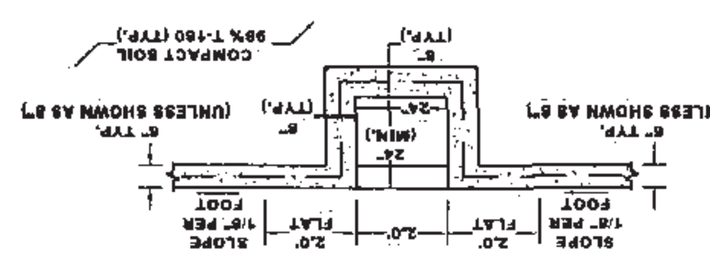
CITY OF PORT ST. LUCIE
UTILITY SYSTEMS DEPARTMENT
900 S.E. OGDEN LANE
PORT ST. LUCIE, FL 34983
PHONE (772) 873-6400 FAX (772) 873-6433

PRINEVILLE WTP
SITE UPGRADES
PRINEVILLE STREET GATE 5

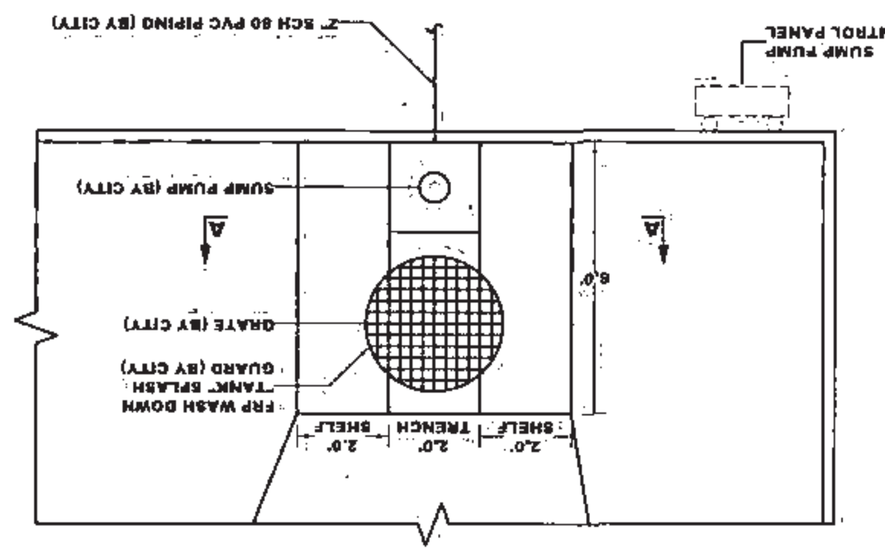
SHEET
C3

ATTACHMENT B
E-BID #2012058

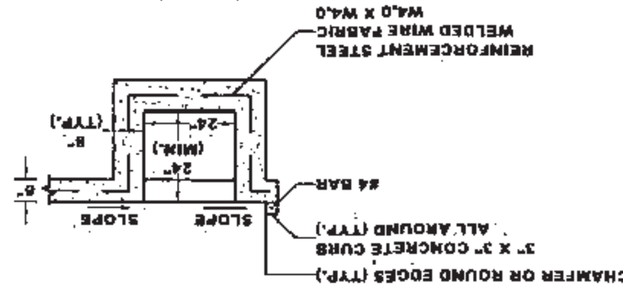
SECTION A-A
SCALE: 1" = 2'-0"



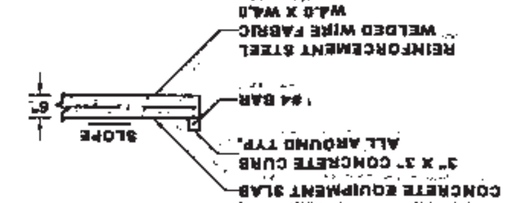
DETAIL D
WASH DOWN TANK PLAN
SCALE: 1" = 2'-0"



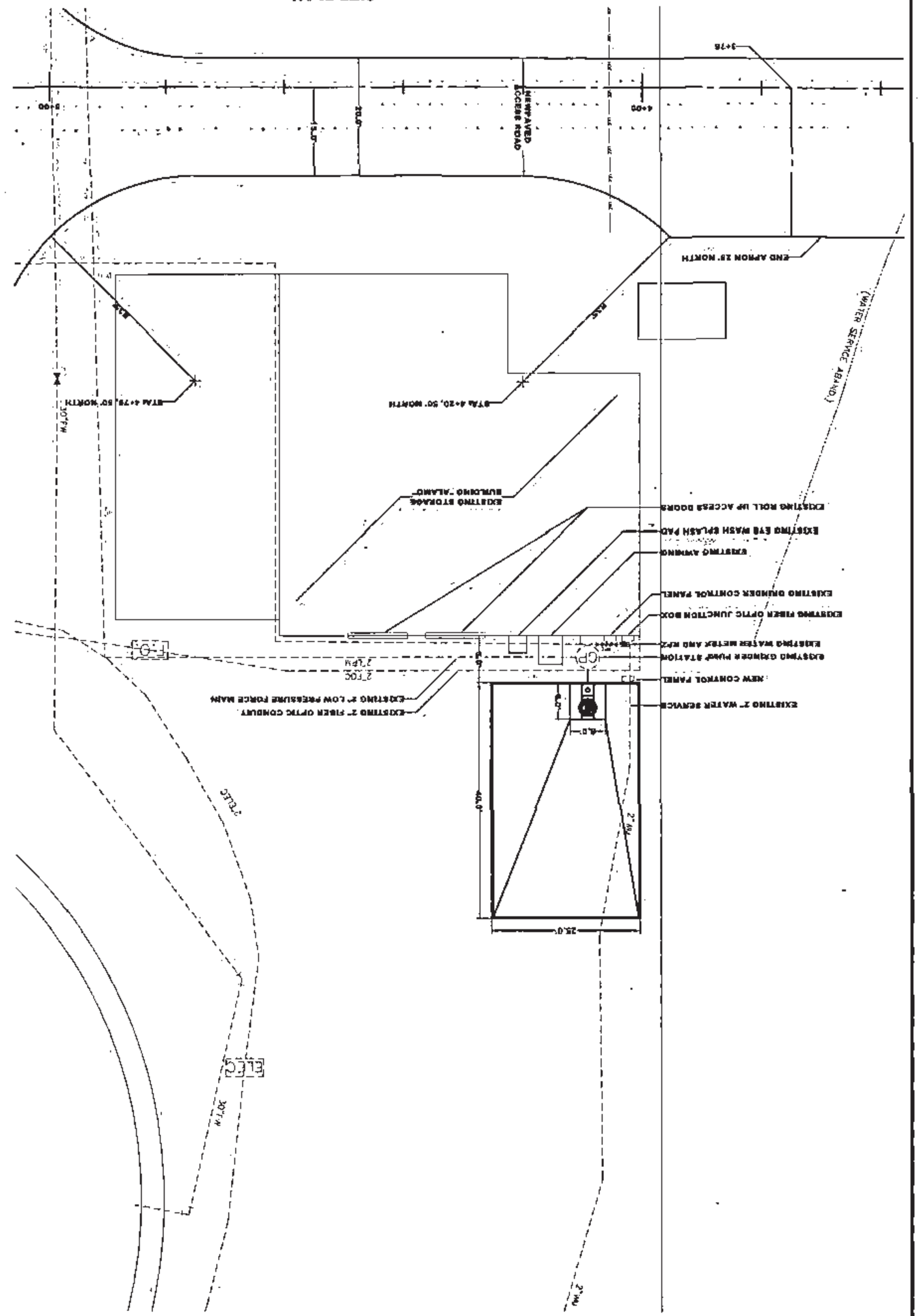
DETAIL C
EQUIPMENT SLAB AND SUMP
SCALE: 1" = 2'-0"



DETAIL B
EQUIPMENT SLAB AND CURB
SCALE: 1" = 2'-0"



SITE PLAN
NEW EQUIPMENT WASH DOWN PAD
SCALE: 1" = 10'-0"



NOTES

1. WORK PERFORMED BY CONTRACTOR INCLUDES ALL LABOR AND MATERIALS FOR THE PLACEMENT OF BARRICADES COMPLETELY AROUND THE CONSTRUCTION SITE. PREPARATION OF PAD SITE INCLUDING REMOVAL OF UNSUITABLE SOIL, PLACEMENT OF CLEAN SOIL, BACKFILL AND COMPACTION OF PAD SITE. PAD SLAB FOUNDATION FORM WORK, CURB, PLACEMENT OF REINFORCEMENT STEEL, PLACEMENT OF CONCRETE, SHOP DRAWING SUBMITTALS AND ALL OTHER WORK NECESSARY FOR A COMPLETE AND OPERATIONAL PAD. CONTRACTOR IS RESPONSIBLE FOR CALLING ALL UTILITY LOCATES IN A TIMELY MANNER.

2. ALL WORK AND MATERIALS FOR THIS PROJECT, INCLUDING COMPACTION AND TESTING SHALL COMPLY WITH THE CITY OF PORT ST. LUCIE UTILITY SYSTEMS DEPARTMENT (PSL) LATEST EDITION AND CITY OF PORT ST. LUCIE CODES, ALL UTILITY SYSTEMS DEPARTMENT QUALIFIED PRODUCTS LIST (QPL) LATEST EDITION AND CITY OF PORT ST. LUCIE CODES. ALL MATERIALS PROVIDED BY THE CONTRACTOR FOR THE PROJECT SHALL BE NEW. CONTRACTOR SHALL SUBMIT THREE (3) SETS OF SHOP DRAWINGS FOR ALL MATERIALS USED ON THIS PROJECT AS WELL AS A PROJECT SCHEDULE AT THE TIME OF THE PRECONSTRUCTION MEETING.

3. THE CONTRACTOR'S ATTENTION IS BROUGHT TO THE FACT THAT THE WORK IS LOCATED ON THE PRINEVILLE WTP SITE, A SECURE FACILITY OWNED AND OPERATED BY THE CITY OF PORT ST. LUCIE. THE CONTRACTOR SHALL COMPLY WITH ALL CITY REQUESTS, REQUIREMENTS, ORDINANCES, AND PROTOCOLS FOR SAFETY AND SECURITY INCLUDING HOURS OF WORK, WORK ACCESS TO THE SITE, STORAGE OF MATERIALS, VEHICLE PARKING, WORK ON SITE, AND ADEQUATE EQUIPMENT FOR PERFORMING ALL PROJECT WORK.

NOTES CONTINUED:

4. THE CONTRACTOR SHALL PROVIDE FOR ALL POWER, WATER, AND PORTABLE LAVATORY FACILITIES NECESSARY FOR PERFORMING THE WORK FOR THIS PROJECT, UNLESS DIRECTED OTHERWISE BY THE CITY. AT THE TIME OF THE PRECONSTRUCTION MEETING, EXCAVATIONS LEFT OPEN OVERNIGHT SHALL BE PROPERLY MARKED AND BARRICADED BY THE CONTRACTOR AND AS DIRECTED BY THE CITY.

5. WORK PERFORMED BY THE UTILITY SYSTEMS DEPARTMENT INCLUDES REMOVING TRAFFIC AROUND THE CONSTRUCTION SITE, CLEARING OF ALL EQUIPMENT AND MISCELLANEOUS STORAGE ITEMS FROM THE PROPOSED SITE, CONSTRUCTION OF ELECTRICAL CONNECTIONS, CONTROL PANEL AND SUMP PUMP.

6. CONCRETE SHALL BE 4,000 PSI WITH SLUMP NOT GREATER THAN 6 INCHES. STEEL REINFORCEMENT SHALL BE WELDED WIRE FABRIC W 4.0 X W 4.0, 6X6X4.

7. CONTRACTOR SHALL BE RESPONSIBLE FOR THE RESTORATION OF ALL PAVED, NON-PAVED AND GRASS AREAS OF THE SITE DISTURBED DURING CONSTRUCTION. GRASS AREAS SHALL BE RESTORED WITH SOD. ANY THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE LOCATION AND MARKING OF ALL EXISTING UTILITIES ABOVE AND BELOW GRADE AT THE WORK SITE. EXISTING STRUCTURES AND UTILITIES, ABOVE GRADE OR BELOW GRADE, DAMAGED DURING ANY PHASE OF CONSTRUCTION SHALL BE REPORTED IMMEDIATELY TO THE UTILITY SYSTEMS DEPARTMENT AND RESTORED TO ORIGINAL CONDITION BY THE CONTRACTOR AT HIS EXPENSE.

8. CONTRACTOR SHALL PROVIDE CONSTRUCTION JOINTS BY SAW-CUT AS DIRECTED BY THE CITY.

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PRINEVILLE WTP
SITE UPGRADES
EQUIPMENT WASH DOWN PAD

SHEET
C4

DETAIL F
BOLLARD
NOT TO SCALE

SECTION

CATCH ASSEMBLY

ENLARGED SECTION

FREE STANDING FIXTURE "B" DETAIL
N.T.S.

GATE DETAIL
ELEVATION

GATE DETAIL
PLAN

NOTES:
1. ALL FITTINGS FOR 4" O.D. POSTS.
2. FOR GATES THAT REQUIRE TWO PIECE FABRICATION, A 5" ALUMINUM CHANNEL WILL BE SUBSTITUTED FOR THE 2" x 5" ALUM. TUBE.

GATE DETAIL
ELEVATION

CRITICAL DIMENSION CHART

NOMINAL GATE SIZE						
21' x 8'	A	CLEAR OPENING	21'-0"	D	NOMINAL GATE HEIGHT	8'-0"
	B	POST SPACING C/C	11'-0"	E	POST HEIGHT	8'-4"
	C	OVERALL GATE LENGTH	31'-0"	G	POST HEIGHT	N/A

GATE OPERATOR PLAN AND POST LAYOUT

OPERATOR FRONT ELEVATION

OPERATOR SIDE ELEVATION

NOTES:

1. SEE TECHNICAL SPECIFICATIONS FOR ADDITIONAL DETAILS FOR GATE AND GATE OPERATOR.
2. CONTRACTOR TO COORDINATE PAD DIMENSIONS WITH FINAL OPERATOR SELECTION.
3. CONTRACTOR SHALL CONSTRUCT ALL PORTIONS OF THE GATE SYSTEM TO FULLY CONFORM WITH ASTM F2200.
4. PICKETS SHALL EXTEND ENTIRE LENGTH OF GATE, INCLUDING CANTILEVER PORTION OF GATES.
5. FULLY ASSEMBLED AND INSTALLED GATE SYSTEMS SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR.
6. CONTRACTOR SHALL COORDINATE ALL PHASES OF THE GATE LAYOUT AND CONSTRUCTION WITH THE CITY AND GATE OPERATOR CONTRACTOR.

ATTACHMENT B
E-BID #20120058

CITY OF PORT ST. LUCIE
UTILITY SYSTEMS DEPARTMENT
900 S.E. OGDEN LANE
PORT ST. LUCIE, FL 34983
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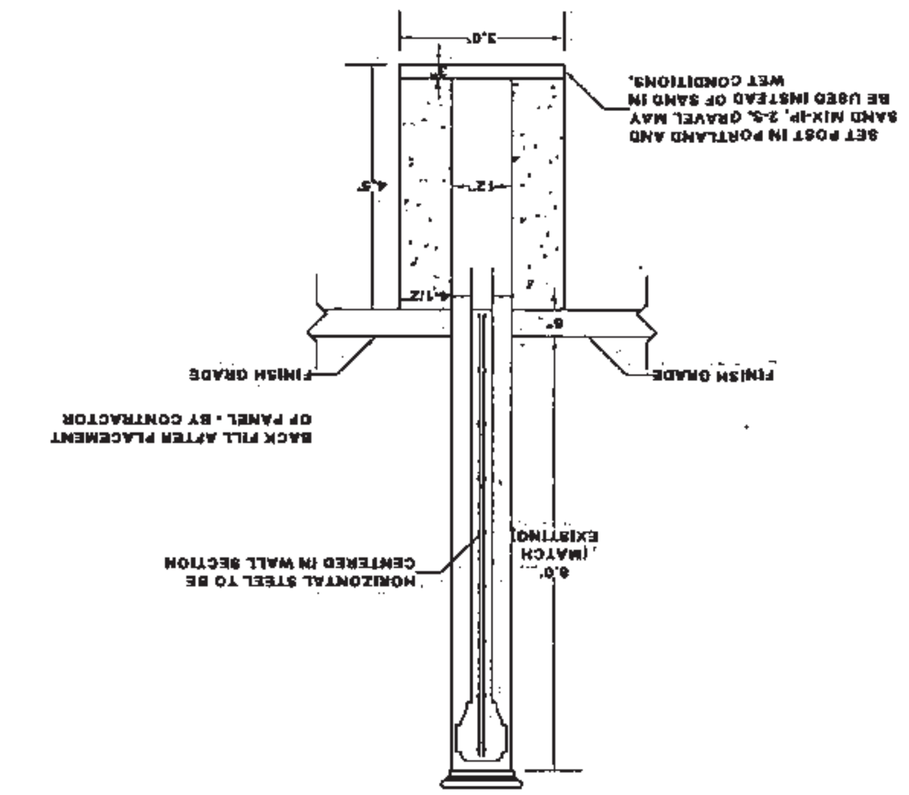
PRINEVILLE WTP
SITE UPGRADES
GATE DETAILS

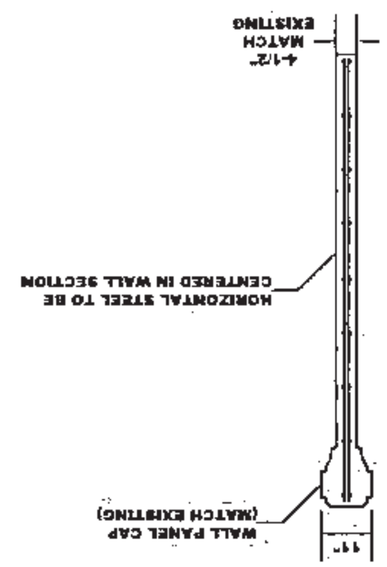
SHEET
C5

ATTACHMENT B)
E-BID #20120058

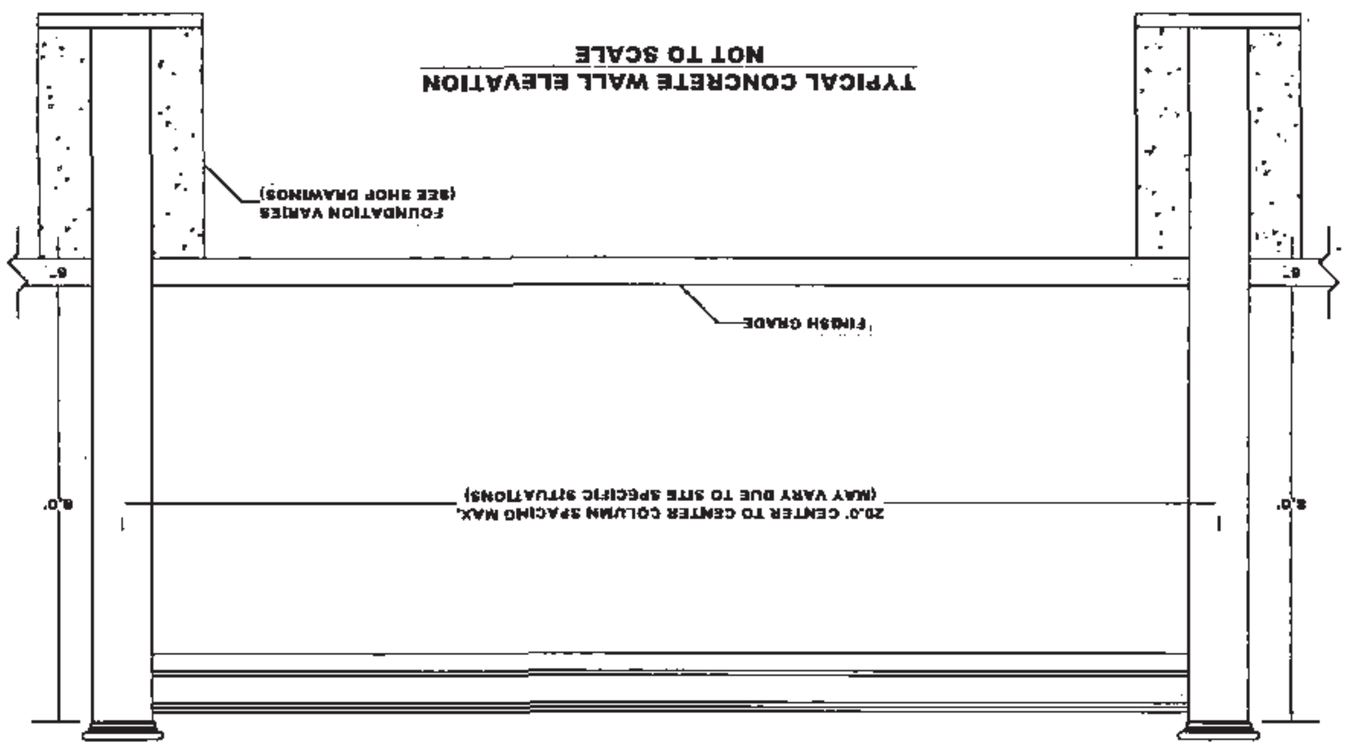
TYPICAL FOUNDATION
NOT TO SCALE



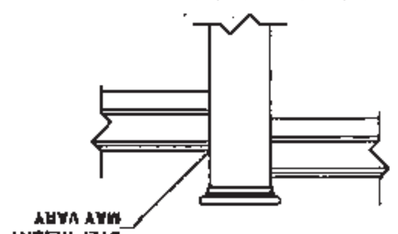
TYPICAL WALL SECTION
NOT TO SCALE



TYPICAL CONCRETE WALL ELEVATION
NOT TO SCALE



TYPICAL STEP IN WALL
NOT TO SCALE



PRECAST WALL NOTES

1. CONTRACTOR SHALL PROVIDE ALL LABOR AND MATERIALS TO CONSTRUCT THE PRECAST WALL SEGMENTS AS SHOWN ON THE CONTRACT DOCUMENTS, INCLUDING PERMITTING, EXCAVATION, BACKFILL, COMPACTION, GRAVEL LAYER, CONSTRUCTION OF COLUMNS, FOUNDATIONS, REINFORCEMENT STEEL, PRECAST WALL PANELS, GROUTING, PRESSURE CLEANING, PRIMING AND PAINTING OF EXPOSED EXTERIOR AND INTERIOR WALL SURFACES AND ALL OTHER INCIDENTALS AND WORK REQUIRED FOR A COMPLETE AND OPERABLE PRECAST CONCRETE WALL SYSTEM.
2. SHOP DRAWING SUBMITTALS SHALL CONFORM WITH SPECIFICATION SECTION 1300 "SUBMITTALS" AND SHALL INCLUDE NAME OF MANUFACTURER, WARRANTY, PULL DIMENSIONED DRAWINGS OF WALL PANELS AND COLUMNS, CAPS SHOWING PROFILE AND CUTAWAY PLANS AND DETAILS OF THE PANELS, COLUMNS AND FOUNDATIONS, WINDLOAD CALCULATIONS, WALL HEIGHT, FOUNDATION DIMENSIONS, AND PAINT SCHEDULE. PAINT SCHEDULE SHALL INCLUDE MANUFACTURER'S PRODUCT CLEANING, PRIMER COAT AND THICKNESS, PROPOSED INTERMEDIATE COAT AND THICKNESS AND PROPOSED FINAL COAT AND THICKNESS. PRECAST WALL SUBMITTALS SHALL BE SIGNED AND SEALED BY AN ENGINEER CURRENTLY REGISTERED IN THE STATE OF FLORIDA.
3. PAINT SYSTEM SHALL INCLUDE A MINIMUM WARRANTY OF 5 YEARS. COLORED CONCRETE SHALL NOT BE ACCEPTABLE.
4. Construction PRECAST WALL SYSTEMS SHALL MATCH EXISTING SITE WALL AND SHALL INCLUDE PRECAST WALL COLUMNS AND WALL PANELS. COLUMN CAPS AND WALL PANEL CAPS AND SEPARATE CAPS AND ARTICULATIONS SHALL BE INTEGRAL TO THE PRECAST WALL PIECES. COLUMN PIECES SHALL NOT BE ALLOWED. WALLS SHALL BE EIGHT (8) FEET IN HEIGHT FROM FINISHED GRADE TO TOP OF WALL CAP. MATCH EXISTING. CONSTRUCTION SHALL ONSIST WALL PANELS AND COLUMN, BACKFILL SHOULD BE SPREAD EVEN.
5. Reinforcement steel BAR, SIZE AS KSI, BITEL, DEFORMED BARS, CONFORMING WITH ASTM A615.
6. PRECAST WALL SYSTEMS SHALL CONFORM WITH Florida Building CODE, LATEST EDITION, AND Wind load CALCULATION SHALL BE ASCE-7-05 FOR EXPOSURE "B", 140 MPH AND 3 SECOND GUST.
7. WALL SYSTEM SUBMITTALS SHALL BE signed and sealed by an engineer WITH A CURRENT registration within the state of Florida
8. Concrete FOUNDATIONS 3,000 PSI CONCRETE MINIMUM WITH ¾-INCH COARSE AGGREGATE. COLUMNS AND WALL PANELS 4,000 PSI CONCRETE MINIMUM WITH ¼-INCH COARSE AGGREGATE.
9. PRECAST WALL SYSTEM MANUFACTURER SHALL BE PRECAST WALL SYSTEMS, INC. OF POMPANO BEACH, FLORIDA, OR EQUAL.

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PRINEVILLE WTP
SITE UPGRADES
PRECAST CONCRETE WALL DETAILS

SHEET C6

ATTACHMENT B
E-BID #20120058

SITE ACCESS ROAD PAVEMENT ALTERNATIVE 1 DESIGN TABLE

PAVEMENT LAYER	THICKNESS	FDOT PAVEMENT DESIGN	LOCATIONS
SURFACE COURSE	2-1/4"	9-9.5 ASPHALT SECTION 331	ALL
BASE COURSE	6"	BLACK BASE (ABC-3) OPTIONAL BASE GROUP 9 TYPE B - 12.5	ALL
SUBGRADE	12"	SUBGRADE (40 LBR) 98% OF MAXIMUM DENSITY COMPACTION PER ASHTO T-180	ALL

NOTE:
1. ALL PAVEMENT CONSTRUCTION AND MATERIALS SHALL BE PER FDOT STANDARDS LATEST EDITION.
2. SEE TECHNICAL SPECIFICATIONS FOR ADDITIONAL INFORMATION.

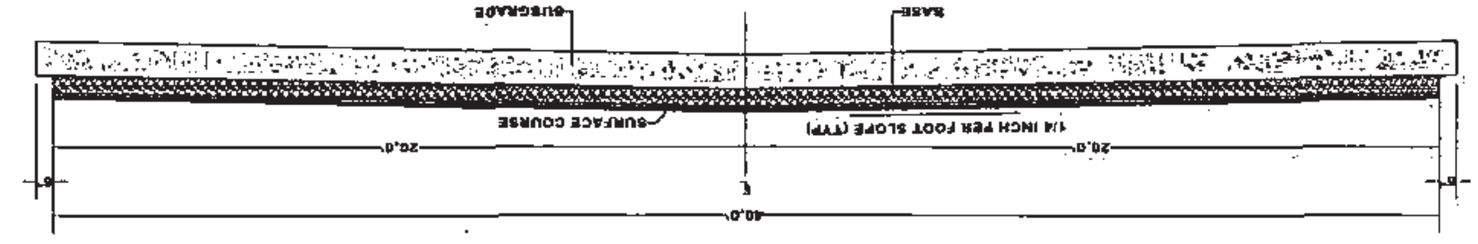
SITE ACCESS ROAD PAVEMENT BASE BID DESIGN TABLE

PAVEMENT LAYER	THICKNESS	FDOT PAVEMENT DESIGN	LOCATIONS
SURFACE COURSE	1-1/4"	9-1 ASPHALT SECTION 331	ALL
	1"	9-9.5 ASPHALT SECTION 331	ALL
BASE COURSE	6"	BLACK BASE (ABC-3) OPTIONAL BASE GROUP 9 TYPE B - 12.5	ALL
SUBGRADE	12"	SUBGRADE (40 LBR) 98% OF MAXIMUM DENSITY COMPACTION PER ASHTO T-180	ALL

NOTE:
1. ALL PAVEMENT CONSTRUCTION AND MATERIALS SHALL BE PER FDOT STANDARDS LATEST EDITION.
2. SEE TECHNICAL SPECIFICATIONS FOR ADDITIONAL INFORMATION.

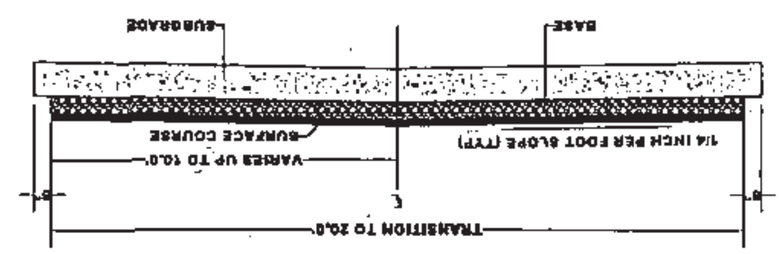
SITE ACCESS ROAD
STA# 0+10 TO 1+85
NOT TO SCALE

NOTE
SEE PAVEMENT DESIGN TABLE, THIS SHEET

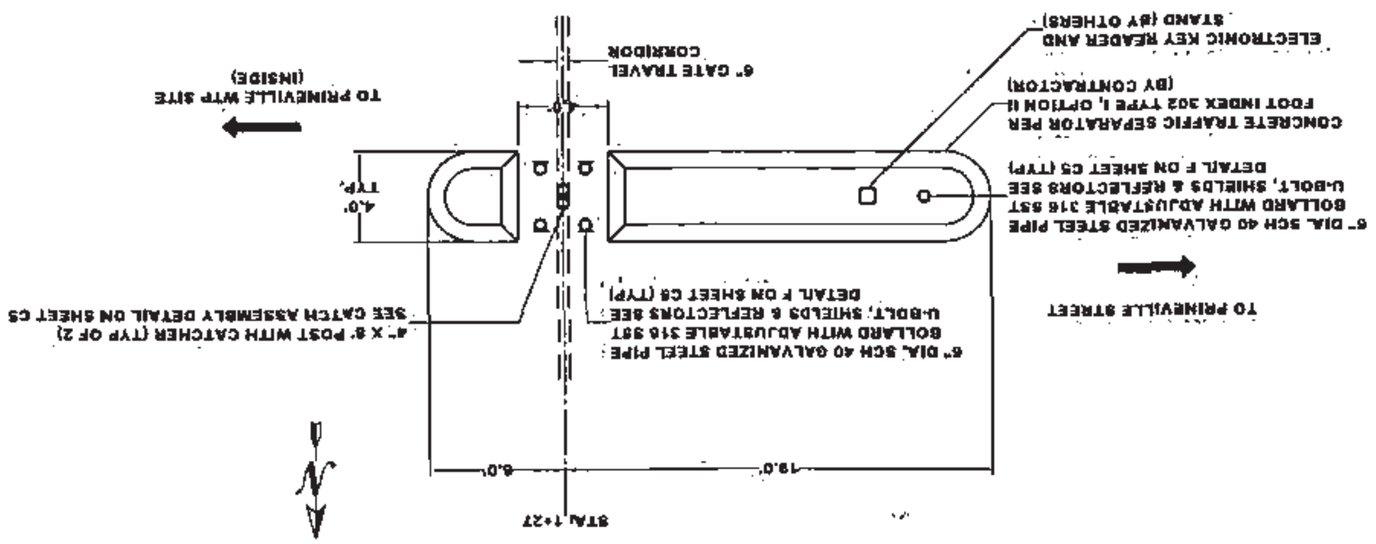


SITE ACCESS ROAD
ALL OTHER LOCATIONS
NOT TO SCALE

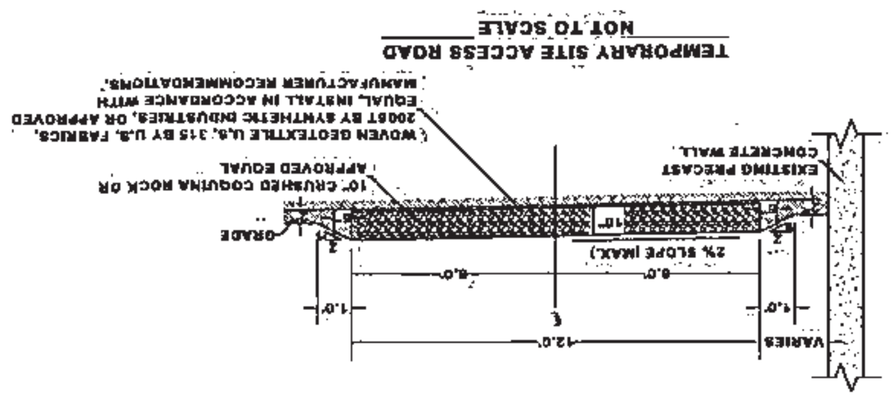
NOTE
SEE PAVEMENT DESIGN TABLE, THIS SHEET



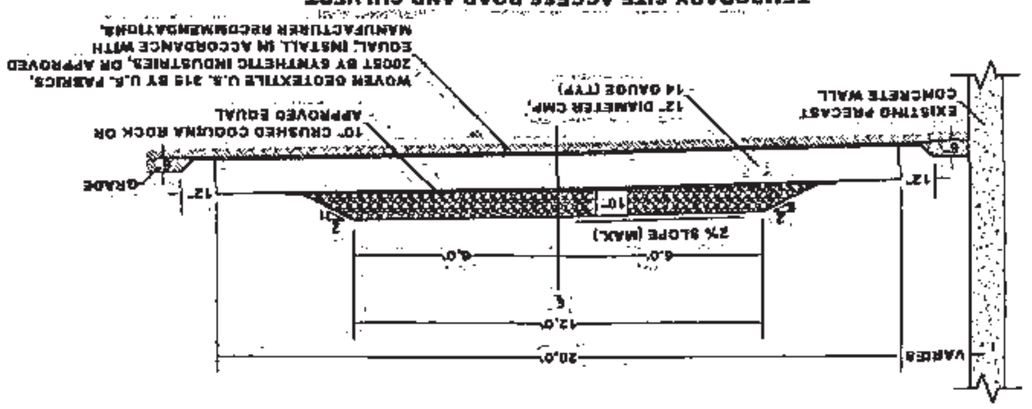
PLAN
PRINEVILLE STREET - NORTH GATE
STA# 1+27
SCALE: 1" = 4'-0"



TEMPORARY SITE ACCESS ROAD
NOT TO SCALE



TEMPORARY SITE ACCESS ROAD AND CULVERT
NOT TO SCALE



SHEET C7

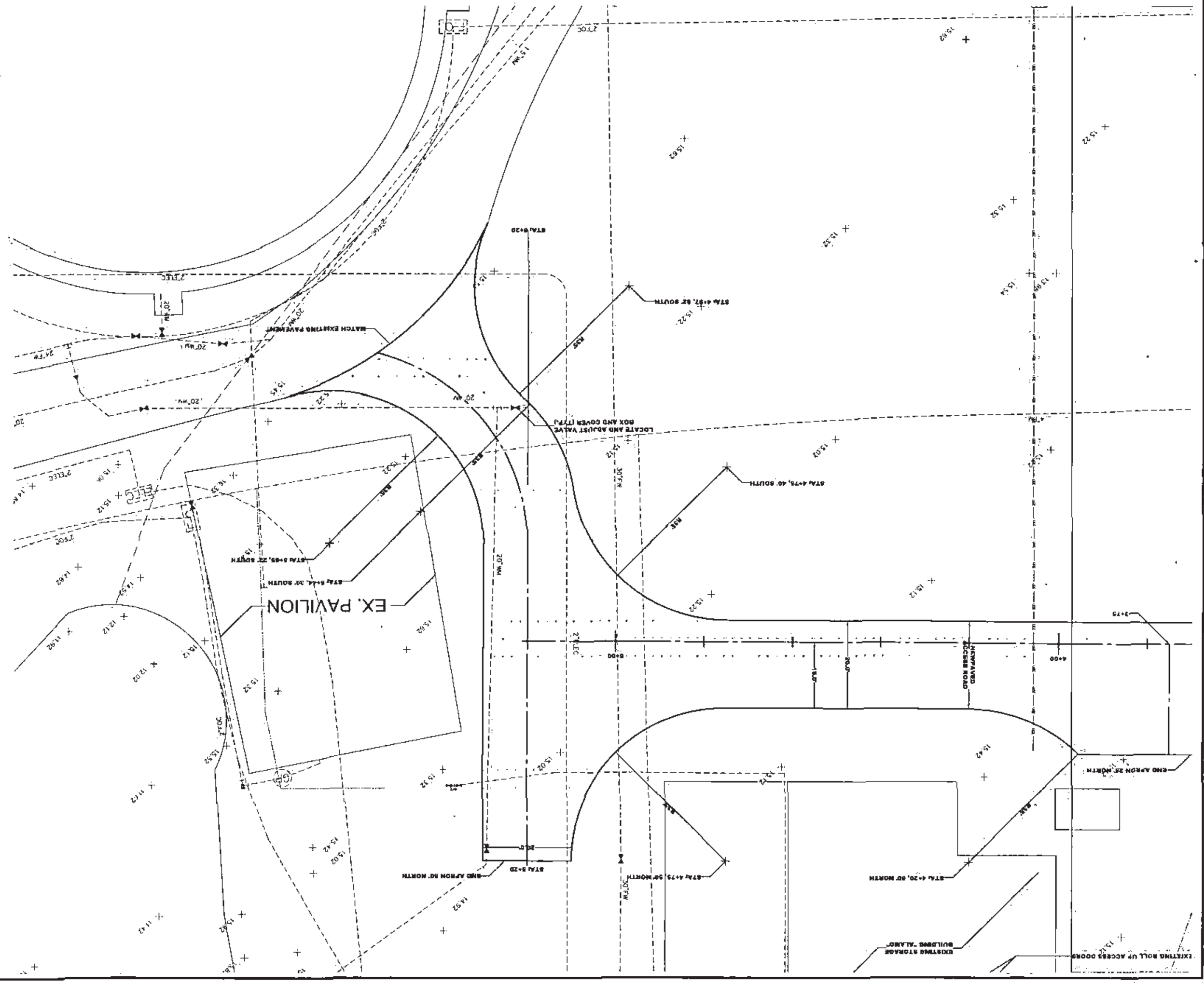
PRINEVILLE WTP
SITE UPGRADES
ROADWAY AND PAVEMENT DETAILS

CITY OF PORT ST. LUCIE
UTILITY SYSTEMS DEPARTMENT
900 S.E. OGDEN LANE
PORT ST. LUCIE, FL. 34983
PHONE (772) 873-6400 FAX (772) 873-6433

NO.	DATE	REVISIONS

PROJECT DATA
DESIGNED BY: MARK
DRAWN BY: CHECKED BY: CAD FILE NAME: PHILIPPS FIRM #: 28300

ATTACHMENT B
E-BID #201200S8



NOTES

1. PROJECT WORK INCLUDES CONSTRUCTION OF TEMPORARY CHAINLINK FENCE, AND TEMPORARY MPE ACCES ROADWAY PAVEMENT, FIBER OPTIC BOX. AND CABLE READY \, AND DEMOLITION OF EXISTING GATE, WALL, ASPHALT ROADWAY AND TIMES FOR NEW GATE, WALL, SIDEWALK, LITE LIGHTING, FIBER OPTIC CONDUIT, FIBER OPTIC PULL BOXES, FIBER OPTIC BOX CONSTRUCTION OF NEW GATE, WALL, SIDEWALK, LITE LIGHTING, ROADWAY PAVEMENT SYSTEM, SOIL COMPACTION, TESTING, NEW REINFORCED CONCRETE COLLARS, NEW SITE LIGHTING, NEW TRAFFIC ISLAND AND ALL WORK SHOWN ON IMPLIED FOR A COMPLETE AND OPERABLE GATE AND SITE ACCESS ROADWAY SYSTEM. THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING TRAFFIC CONTROL THROUGHOUT THE PROJECT LIFE. CARE MADE, WALL SIDEWALK AND FIBER OPTIC BOX ARE TO BE TURNED OVER TO THE CITY. CONTRACTOR SHALL RELOCATE EXISTING MRI LATION BOX.

2.IT IS THE INTENT OF THE SCHMATIC THAT ALL WORK SHOWN ON SHALL BE PERFORMED BY THE CONTRACTOR UNLESS INDICATED AS -W CITY OF -W OTHERS-, ON -W DATE OPERATED CONTRACTOR. THE CITY WILL INSTALL THE ELECTRICAL -F TYPE PULL BOXES AND ELECTRICAL CONDUIT AND WIRE FOR THIS PROJECT.

3.ALL WORK AND MATERIALS FOR THIS PROJECT, INCLUDING COMPACTION, AND TESTING SHALL CONFORM WITH THESE SPECIFICATIONS, THE FLORIDA DEPARTMENT OF TRANSPORTATION DEPARTMENT SPECIFICATIONS LATEST EDITION, AND THE CITY OF STANDARDS, THE CITY OF PORT ST. LUCIE, UTILITY SYSTEMS PORT ST. LUCIE, UTILITY, SYSTEMS, DEPARTMENT. QUALIFIED PRODUCTS LIST (QPL/LAYER EDITION AND CITY OF PORT ST. LUCIE CODES. ALL MATERIALS PROVIDED BY THE CONTRACTOR FOR THE PROJECT SHALL BE NEW. IN THE EVENT OF CONFLICTING THE ATTENTION OF THE CITY. THE MORE STRINGENT SPECIFICATION SHALL APPLY. 3. CONTRACTOR SHALL SUBMIT THREE (3) SETS OF SHOP DRAWINGS FOR ALL MATERIALS USED ON THIS PROJECT AS WELL AS A PROJECT SCHEDULE AT THE TIME OF THE PRECONSTRUCTION MEETING.

4.THE CONTRACTOR IS RESPONSIBLE FOR LOCATING AND PROTECTION OF ALL ABOVE AND BELOW GRADE WASTEWATER TREATMENT PIPES AND UTILITY FACILITIES. ABOVE GRADE AND BELOW GRADE FACILITIES DAMAGED DURING THE CONSTRUCTION PROCESS SHALL BE RESTORED TO FINISH ORIGINAL CONDITION BY THE CONTRACTOR VARIFICATION OF THE SIZE, LOCATIONS, ALIGNATIONS, AND AT THIS EXPENSE. THE CONTRACTOR IS RESPONSIBLE FOR DIMENSIONS OF ALL FACILITIES PRIOR TO INITIATION OF ALL PROJECT WORK.

5.ELECTRONIC KEY READER SYSTEM, FIBER OPTIC CABLE, ELECTRICAL CONNECTIONS, AND DATA OPERATION SYSTEM SHALL BE RELOCATED ON CONSTRUCTED BY OTHERS. CONTRACTOR SHALL COORDINATE ACCESS ROADWAY, AND DATE WITH THE CITY TO ALLOW FOR INSTALLATION OF AUTOMATED GATE OPERATION EQUIPMENT, SYSTEM. CONTRACTOR SHALL COORDINATE CONSTRUCTION OF THE AND TIME FOR THE CITY TO CONSTRUCT THE NEW GATE OPERATION HAS PROJECT WORK WITH THE CITY TO ALLOW SUFFICIENT SPACE FOR CONSTRUCTION AND DATA WITH. FIBER OPTIC PULL BOXES, CONDUIT, AND WIRE PRIOR TO THE FINAL PAVEMENT COURSE INSTALLATION.

6.CONTRACTOR SHALL COORDINATE CONSTRUCTION OF THE ACCESS ROADWAY, SITE LIGHTING, FIBER OPTIC PULL BOXES, FIBER OPTIC UNDERGROUND CONDUITS, AND GATE WITH THE CITY TO ALLOW FOR INSTALLATION OF AUTOMATED GATE OPERATION EQUIPMENT, CONDUIT, AND WIRE PRIOR TO THE FINAL PAVEMENT COURSE INSTALLATION.

7.THE CONTRACTOR'S ATTENTION IS BROUGHT TO THE FACT THAT THE WORK IS LOCATED ON THE PINEVILLE WTP SITE, A SECURE FACILITY OWNED AND OPERATED BY THE CITY OF PORT ST. LUCIE. THE CONTRACTOR SHALL COORDINATE WITH ALL CITY REQUIRE SECURITY INCLUDING HOURS OF WORK, NOISE, ACCESS TO THE SITE, REQUIREMENTS, ORDINANCES, AND PROTOCOLS FOR SAFETY AND SITE SECURITY OF MATERIALS, VEHICLE PARKING, WORK ON SITE, AND ASSOCIATE EQUIPMENT FOR PERFORMING ALL PROJECT WORK. THE CONTRACTOR SHALL PROVIDE, FOR ALL POWER, WATER, AND TEMPORARY FACILITIES NECESSARY FOR PERFORMING THE WORK FOR THIS PROJECT, UNLESS DIRECTED OTHERWISE BY THE CITY AT THE TIME OF THE PRECONSTRUCTION MEETING. EXCAVATIONS LEFT OPEN OVERNIGHT SHALL BE PROPERLY MARKED AND BARRICADED BY THE CONTRACTOR AND AS DIRECTED BY THE CITY.

8.ALL COMPACTION SHALL BE 98% OF T-180.

9.CONTRACTOR SHALL RESTORE ALL SITE AREAS DISTURBED BY CONSTRUCTION ACTIVITY. AT THE END OF THE PROJECT CONSTRUCTION SHALL, REMOVE ALL NON-PAVED SITE AREAS DISTURBED BY CONSTRUCTION ACTIVITY WITH SOD AND MULCH. CONTRACTOR SHALL WATER RESTORED AREAS UNTIL GRASS IS UNIFORMLY ESTABLISHED.

10. CONSTRUCTION OF THE PRECAST WALL SYSTEMS INCLUDES PAINTING AND PAINTING. CONTRACTOR SHALL SUBMIT COLOR SAMPLE TO THE CITY IN THE SHOP DRAWING SUBMITTALS.

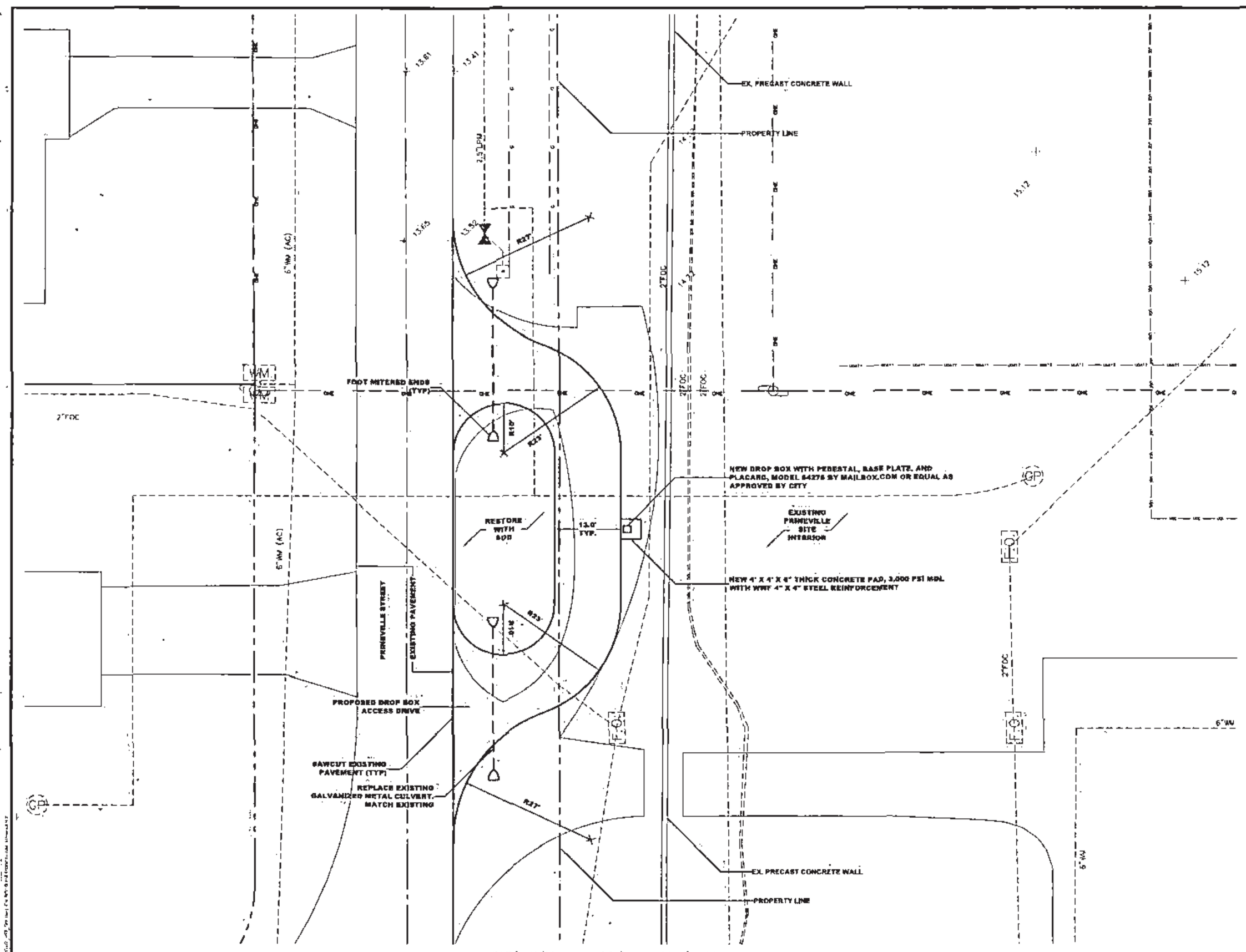
ELECTRICAL NOTES:

1.SITE LIGHT POLE LOCATIONS ARE DIAGRAMMATIC. THE CONTRACTOR SHALL COORDINATE THE LIGHT POLE FOUNDATIONS AND CONDUITS WITH THE FINAL PIPING LOCATIONS. THE FINAL LIGHT POLE LOCATIONS SHALL BE DETERMINED IN THE FIELD WHEN THE REMAINING AVAILABLE PARKING AREA CAN BE DETERMINED. THE FINAL LIGHT POLE LOCATIONS SHALL BE DIRECTED BY THE ENGINEER AND PINEVILLE WTP REPRESENTATIVE.

CITY OF PORT ST. LUCIE
UTILITY SYSTEMS DEPARTMENT
900 S.E. OGDEN LANE
PORT ST. LUCIE, FL. 34983
PHONE (772) 873-6400 FAX (772) 873-6433

PINEVILLE WTP
SITE UPGRADES
PAVEMENT DETAIL STA: 3+75 TO END

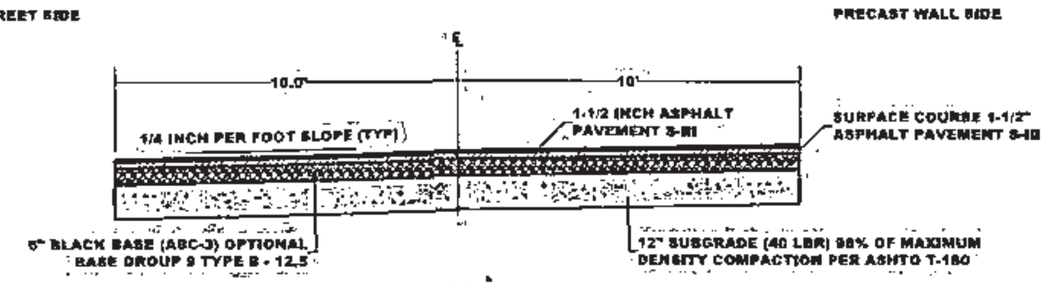
SHEET
C8



PROPOSED DROP BOX ACCESS IMPROVEMENTS
SCALE: 1" = 10'

NOTES

1. RESTORE ALL AREAS DISTURBED BY CONSTRUCTION ACTIVITIES WITH SOD. CONTRACTOR SHALL WATER UNTIL ESTABLISHED.
2. WORK INCLUDES SAW CUTS, COMPLETE DEMOLITION OF EXISTING PAVEMENT, COMPACTION, CONSTRUCTION OF NEW PAVEMENT SYSTEM, NEW DROP BOX AND PAD, ANCHORS, RESTORATION, SOD, AND EARTHWORK.



TYPICAL DROP BOX PAVEMENT DETAIL
NOT TO SCALE

ATTACHMENT B
E-BID #20120058

CITY OF PORT ST. LUCIE
UTILITY SYSTEMS DEPARTMENT
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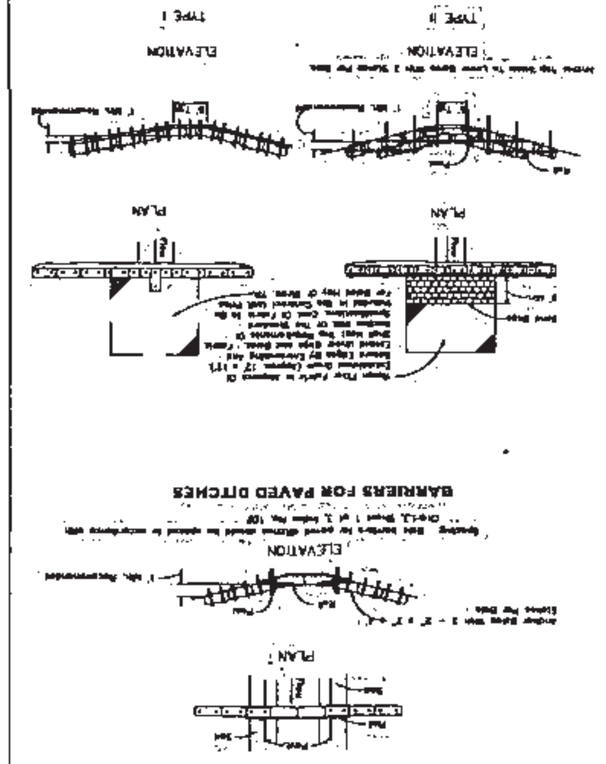
PRINEVILLE WTP
SITE UPGRADES
DROP BOX PAVEMENT DETAIL

SHEET
C9

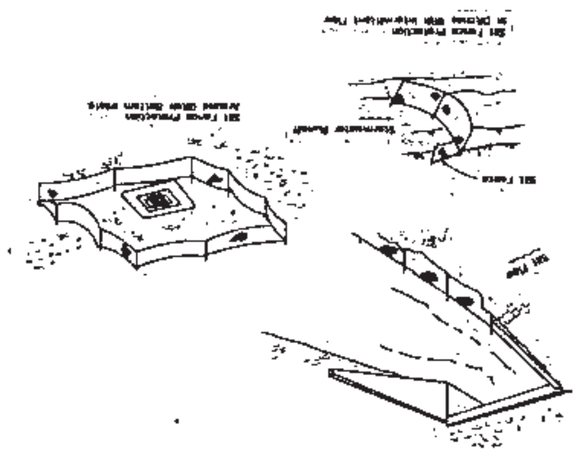
ATTACHMENT B \
E-BID #20120058

BARRIERS FOR UNPAVED DITCHES



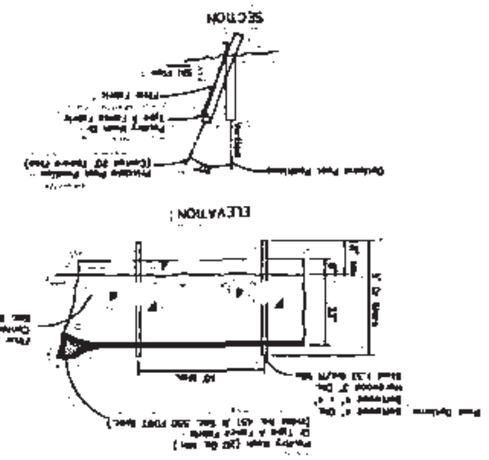
BARRIERS FOR PAVED DITCHES

SILT FENCE APPLICATIONS
SEE NOTES



TYPE III SILT FENCE

TYPE IV SILT FENCE



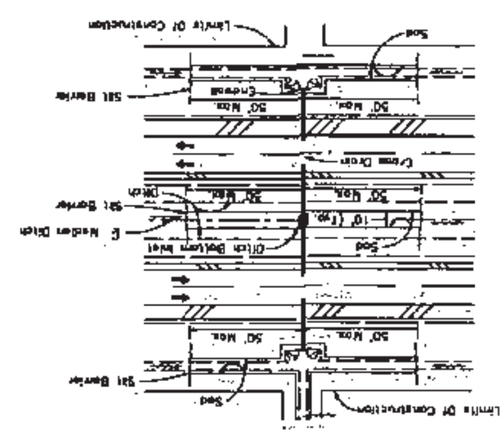
NOTES FOR SILT FENCES

1. TYPE III SILT FENCE TO BE USED AT MOST LOCATIONS, WHERE USED IN DITCHES, THE SPACING FOR TYPE III SILT FENCE SHALL BE IN ACCORDANCE WITH CHART 1.
2. HAY BALES SHALL BE TIEDWIRED 3 TO 4 AND ANCHORED WITH 2 - 1"X 2" (ONE TOWN) 4' WOOD STAKES. STAKES OF OTHER MATERIAL OR SHAPE PREVIOUSLY EQUIVALENT MAY BE USED IF APPROVED BY THE ENGINEER. STAKES OTHER THAN WOOD SHALL BE REMOVED UPON COMPLETION OF THE PROJECT.
3. RAILS AND POSTS SHALL BE 2" x 4" WOOD, OTHER MATERIAL PROVIDING EQUIVALENT STRENGTH MAY BE USED IF APPROVED BY THE ENGINEER.
4. ADJACENT BALES SHALL BE BUTTED FIRMLY TOGETHER. UNAVOIDABLE GAPS SHALL BE PLUGGED WITH HAY OR STRAW TO PREVENT SILT FROM PASSING.
5. WHERE USED IN CONJUNCTION WITH SILT FENCE, HAY BALES SHALL BE PLACED ON THE UPRIGHT SIDE OF THE FENCE.
6. SILT FENCES TO BE PAID UNDER THE CONTRACT UNIT PRICE PER LINEAR FOOT. THE REMAINING PROSION CONTROL COMPONENT WILL BE INCIDENTAL COSTS TO THE PROJECT.

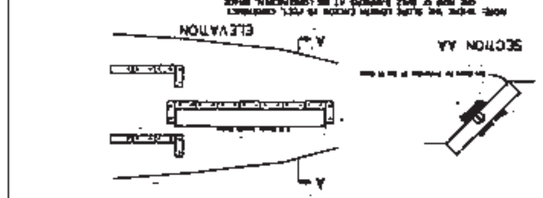
NOTES FOR BALED HAY OR STRAW BARRIERS

1. TYPE I AND II BARRIERS SHOULD BE SPACED IN ACCORDANCE CHART 1.
2. HAY BALES SHALL BE TIEDWIRED 3 TO 4 AND ANCHORED WITH 2 - 1"X 2" (ONE TOWN) 4' WOOD STAKES. STAKES OF OTHER MATERIAL OR SHAPE PREVIOUSLY EQUIVALENT MAY BE USED IF APPROVED BY THE ENGINEER. STAKES OTHER THAN WOOD SHALL BE REMOVED UPON COMPLETION OF THE PROJECT.
3. RAILS AND POSTS SHALL BE 2" x 4" WOOD, OTHER MATERIAL PROVIDING EQUIVALENT STRENGTH MAY BE USED IF APPROVED BY THE ENGINEER.
4. ADJACENT BALES SHALL BE BUTTED FIRMLY TOGETHER. UNAVOIDABLE GAPS SHALL BE PLUGGED WITH HAY OR STRAW TO PREVENT SILT FROM PASSING.
5. WHERE USED IN CONJUNCTION WITH SILT FENCE, HAY BALES SHALL BE PLACED ON THE UPRIGHT SIDE OF THE FENCE.
6. SILT FENCE TO BE PAID FOR UNDER THE CONTRACT UNIT PRICE FOR STAND SILT FENCE, FT.

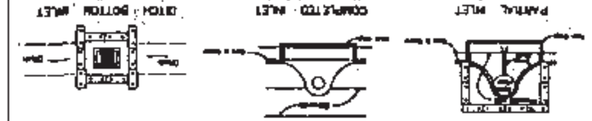
DITCH INSTALLATIONS AT DRAINAGE STRUCTURES



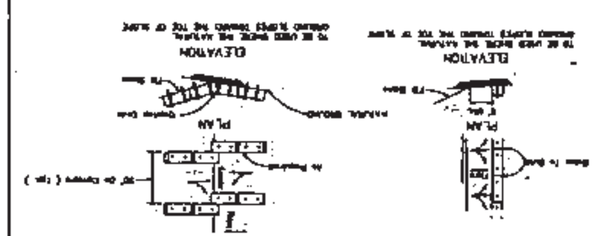
ALONG FILL SLOPE



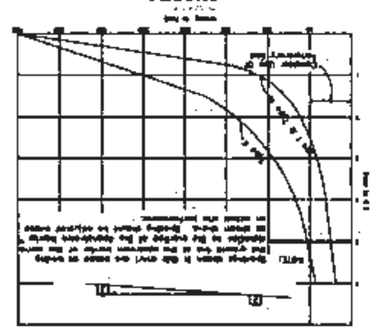
PROTECTION AROUND INLETS OR SIMILAR STRUCTURES



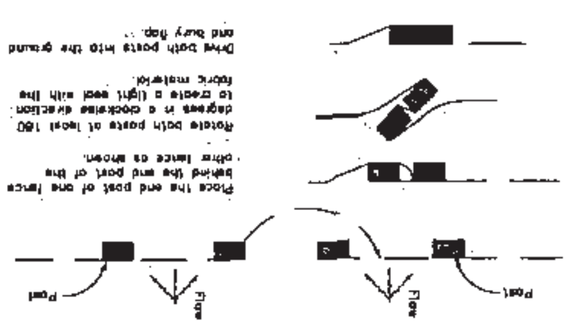
AT TOE OF SLOPE
BARRIERS FOR FILL SLOPES



RECOMMENDED SPACING FOR BALED HAY BARRIERS AND TYPE III SILT FENCE
CHART I



JOINING TWO SILT FENCES
PLAN VIEW



Place the end post of one fence behind the end post of the other fence as shown.

Route both posts at least 160 degrees in a counterclockwise direction to create a tight seal with the fabric material.

Drive both posts into the ground and bury flap.

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900 S.E. OGDEN LANE
PORT ST. LUCIE, FL. 34983
PHONE (772) 873-6400 FAX (772) 873-6433

NO.	DATE	REVISIONS	BY

DESIGNED	RBS
DRAWN	MW/DJ
CHECKED	RBS
APPROVED	
DATE	04/2012
SCALE	AS NOTED

PRINEVILLE WTP
SITE UPGRADES
EROSION CONTROL DETAILS

SHEET C10

1. General Notes

A. Mobilization: Mobilization shall meet the requirements of FDOT Section 101. This work shall include, but is not limited to, operations necessary for the movement of personnel, equipment, supplies, and incidentals to the project site, and for the establishment of temporary offices, buildings, safety equipment and first aid supplies, sanitary and other facilities, as required by state and local laws and regulations. The costs of bonds and any required insurance and any other preconstruction expense necessary for the start of work, excluding the cost of construction materials, shall be included in this section. This section also includes any and all work related to final clean up.

B. Horizontal Control: The baseline of construction shall be based on the survey baseline as shown.

C. Construction Surveying: Construction surveying and layout shall be based on the baseline of construction as defined in Item B listed above. The Contractor is responsible for all construction surveying. The Contractor is responsible for protecting any construction staking throughout the job and shall bear the cost of any necessary restaking.

D. The Contractor shall create a pre-construction video to properly document the existing conditions within the limits of construction. No construction will be allowed until the Engineer approves the pre-construction video. The pre-construction video shall include, but not be limited to, the following items: swale conditions, driveway material type, driveway finishing, mail box locations, sod type, landscaping, driveway features, etc.

E. The Contractor shall properly and safely maintain traffic at all times where work is in progress. Traffic control shall follow the Florida Department of Transportation (FDOT) Index 603 "Two-Lane, Two-Way Rural Operations One Daylight Period or Less", latest edition. Two flaggers shall be in use at all times, per FDOT Index 603 and the City of Port St. Lucie Engineering Department Standards. At all times, at least one lane of traffic shall remain open and complete lane closure will not be allowed. It is the responsibility of the Contractor to gain approval from the City of Port St. Lucie Engineering Department and the Engineer prior to any changes to the approved FDOT Index 603.

F. No pollution or erosion caused by this project will be allowed in the storm water drainage system. The Contractor shall follow FDOT Index 102 "Temporary Erosion and Sediment Control", latest edition. The Contractor shall gain approval from the Engineer prior to any changes to the approved FDOT Index 102. The Contractor shall utilize silt fences and hay bales per Index 102. The cost of pollution and erosion control shall be incidental to the cost of construction, with the exception for silt fencing (cost per linear foot).

G. All driveway removal and replacement, while shown on the plans as best as possible, should be extended to the nearest existing driveway expansion joint for aesthetic purposes. Driveway work may also require repainting or other finishing to match pre-construction conditions. Driveway features and mailboxes, including, brick or other aesthetic / ornamental structures, should be protected at all times. It is the responsibility of the Contractor to remove and replace any driveway features, mailboxes, or other ornamental features. The cost of driveway feature and mailbox removal and replacement shall be incidental to the cost of construction. This requirement must be taken into consideration and included in the bid submittal.

H. Contractor shall remove and replace existing bushes and trees where possible. Costs associated with this task shall be included in the bid. Where a tree or bush is too large to remove and replace, the Contractor shall notify the Engineer. The Contractor shall identify such landscaping during the pre-construction video making or earlier such that there are no construction delays once construction has begun.

2. Earthwork and Grading Notes

A. Materials and construction methods for earthwork, excavation, embankment and grading shall meet the requirements of FDOT Section 120, the project specifications and shall be performed to acquire final grades, elevations, and typical sections as shown on the plans for the proposed work.

B. Clearing and Grubbing: Clearing and Grubbing shall meet the requirements of FDOT Section 110 and shall be performed within the limits of the project work. This work shall include, but is not limited to, the removal of existing trees, brush, stumps, roots, and other objectionable material to a depth of 18" below the natural ground or design grade whichever is lower. The areas to be cleared and grubbed generally consist of right-of-ways, utility easements, water management tracts, and portions of the lots as detailed on the plans. The Contractor shall confirm with the Owner the removal of any trees on the lots for possible preservation. All material shall be removed from the site of the project and shall be disposed of in accordance with local, regional, state, and federal laws, regulations and ordinances.

C. Rough Grade: The Contractor shall grade the project site to meet the requirements of FDOT Sections 110 and 120 and shall conform to the lines, grades, and typical sections as shown on the plans.

D. Fine Grade: The Contractor shall fine grade the pavement areas to meet the requirements of FDOT Sections 110 and 120 and shall conform to the lines, grades, and typical sections as shown on the plans.

E. The Contractor shall restore all swale areas, including pre-existing invert elevations, such that the drainage system patterns and flow rates are equal to pre-construction conditions.

3. Potable Water Notes

A. The Contractor is herein advised that an As-Built Survey will be performed on the project which will reflect the elevation and location of all structures and improvements on the project. This survey will be utilized by the Engineer to determine conformance of the project to required tolerances as set forth by permitting and / or approving public agencies. Tolerances established by these agencies must be met in order for the project to be accepted for final certification and approval. As-Builts shall be in accordance with Section 01200 of the City of Port St. Lucie Utility Systems Department "Minimum Technical Specifications and Construction Standards". All costs associated shall be the responsibility of the Contractor.

B. All construction shall be in accordance with applicable Florida Department of Environmental Protection, Florida Department of Transportation and the City of Port St. Lucie Utility Systems Department requirements and specifications. The City of Port St. Lucie Utility Systems Department "Minimum Technical Specifications and Construction Standards" latest edition, is hereby incorporated into the contract documents by reference. If any conflicts exist between the standards, the more stringent shall apply.

C. No field changes or deviations from the design are to be made without prior written approval of the Engineer of Record and the City of Port St. Lucie Utility Systems Department.

D. The Contractor shall coordinate service grades and location with the Engineer.

E. All valves, pipes, appurtenances and materials, construction methods, testing, and disinfection shall conform to the requirements of the City of Port St. Lucie Utility Systems Department year 2010 standards and AWWA current standards. Above grade piping shall be ductile iron, flanged. Below grade piping shall be ductile iron, fully restrained.

F. Water main where specified as Polyvinyl Chloride, shall conform to AWWA C-900, pressure Class 150, DR(18).

G. Water main shall be blue in color.

H. Flanged fittings shall be ductile iron, conforming to AWWA C-153 and ANSI A21.53-84, with minimum pressure of 350 psi. Mechanical joint fittings shall receive an exterior asphaltic coating and shall be cement mortar lined and bituminous sealed in accordance with AWWA C-151 and ANSI A21.51.

I. Gate valves shall be in accordance with the City of Port St. Lucie Utility Systems Department Qualified Products list. Valves shall conform to AWWA C-509.

J. High Density Polyethylene (HDPE) pressure pipe and fittings shall conform to AWWA C-906, latest revision, and all material, manufacturing and testing requirements listed in the City of Port St. Lucie Utility Systems Department "Minimum Technical Specifications and Construction Standards".

K. Water / Sewer lines shall be laid on undisturbed ground, or ground compacted to 98% of maximum density in accordance with AASHTO T-180. Backfill shall be compacted to 95% of maximum density in accordance with AASHTO T-180. The Contractor shall submit certified density tests on each 12" lift as deemed necessary by the Engineer and the City of Port St. Lucie Utility Systems Department.

L. The Contractor shall contact the Engineer of Record, the appropriate governmental jurisdictional agency and all utility companies 48 hours prior to commencement of construction for coordination of any utilities. The Contractor shall schedule a pre-construction meeting with the Engineer and the City of Port St. Lucie Utility Systems Department a minimum of ten working days prior to starting construction.

M. Minimum cover shall be 36" for water mains and 48" for sewer and sewer force mains.

N. The Contractor shall repair or replace any damage to pavement, access roads, drainage systems, utilities, structures, above grade and below grade caused by construction activity for this project. Disturbed areas shall be restored to their original condition at no expense to the City. Any disturbed areas within the Right-of-Way, shall be sodded. All other unpaved and unsodded areas disturbed during the construction shall be seeded and mulched in accordance with Section 570 of the Florida Department of Transportation specifications. All fence damaged by the contractor shall be replaced immediately at his expense.

O. Existing utilities shall be field verified and protected by the Contractor.

P. The Contractor shall tap existing lines under the supervision of the City of Port St. Lucie Utility Systems Department only after preliminary testing and disinfection has been completed and approved.

Q. Contractor shall develop and maintain an access plan for review and approval by the City.

R. Water main shall be marked by the use of continuous, blue, multi-strand, insulated 10 gauge THHN copper wire.

S. Service taps (Bacteria Sample Points (BSP)) shall be placed approximately ten feet away from gate valves, as shown, for testing. Following testing and sterilization of waterline, the Contractor shall place a brass plug in all corporation stops which were used as BSP's and remove the tubing and curb stops.

T. Contractor shall locate air release valves as shown and at all high points as they may occur during the construction of the water main system. Air release valves shall be in accordance with the City of Port St. Lucie year 2010 standards and AWWA current standards.

U. Mechanical restraints to be used on all fittings. No thrust blocks are to be utilized within the system.

V. All water mains, including the feed line from the meter to the building, shall be tested at 150 psi for two hours. Testing methods shall conform to AWWA C-600 requirements.

Allowable leakage formula:

$$L = \frac{ND(P)^{1/2}}{7,400}$$

L = Leakage in GPH
N = Number of joints in length of pipe
D = Diameter in inches
P = Pressure in psi

W. Water main shall be disinfected and approved in accordance with the latest applicable Florida Department of Environmental Protection and AWWA requirements (AWWA C-601).

X. All gravity sewers shall have infiltration or exfiltration tests performed as follows:

a. Where the ground water elevation is at least 2 feet above the highest invert, infiltration shall be observed / measured to determine leakage.

b. When the ground water elevation is less than 2 feet above the highest invert, exfiltration tests shall be performed. The system shall be filled to a minimum of 2 feet above the highest invert and the loss in water recorded. Incremental testing is acceptable.

c. Utility company requirements: 50 gallon / inch diameter / mile / day

Y. Prior to any work, the Contractor shall confirm the location and number of existing water services and notify the Engineer of any deviations to the plans.

Z. All HDPE pipe shall be tested prior to installation and checked for leaks. All HDPE pipe shall be tested again after installation.

Standard Separation Statement for Water / Sewer Conflicts

1. Sanitary sewers, force mains, and storm sewers should cross under water mains whenever possible. Sanitary sewers, force mains, and storm sewers crossing water mains shall be laid to provide a minimum vertical distance of 18 inches between the invert of the upper pipe and the crown of the lower pipe whenever possible.

   All crossings shall be arranged so that the sewer pipe joints and the water main pipe joints are equidistant from the point of crossing (pipes centered on crossing).

2. A minimum of 10 feet horizontal separation shall be maintained between any type of sewer and water main in parallel installations whenever possible.

   In cases where it is not possible to maintain 10 feet of horizontal separation, the water main must be laid in a separate trench or on an undisturbed earth shelf located on one side of the sewer or force main at such an elevation that the bottom of the water main is at least 18 inches above the top of the sewer.

3. Minimum obtainable separation of reclaimed water lines and domestic water lines shall be practiced. A minimum horizontal separation of five feet (center to center) or three feet (outside to outside), shall be maintained between reclaimed water lines and either potable water mains or sewage collection lines. A minimum vertical clearance of 18 inches must be maintained between reclaimed water lines and potable water mains or sewage collection lines. At crossings, provisions of FAC Rule 17-604 and 10 States Standards shall apply.

Supplementary Conditions

General

Scope of Work:

The Contractor shall furnish all materials, labor, equipment, tools, transportation and incidentals necessary to construct water system improvements in accordance with the provisions of these Supplementary Conditions, General Notes, and the drawings issued and prepared by the City of Port St. Lucie Utility Systems Department (Owner and Engineer).

It is the objective of these documents to assure the total completion of the work required to provide functional, operable and efficient water main improvements.

Permits:

All construction dewatering (well points, sumps, etc.) will require a dewatering permit from the South Florida Water Management District (SFWMD). This shall be obtained by the Contractor at the Contractor's expense.

Reference to Design Documents:

For brevity, reference may be made to other specifications or documents which will be used to specify or control the materials placed in the work, the construction methods to be used, the tolerances that will be acceptable, and contractual or legal obligations. The specifications or documents shall include:

1. "Standard General Conditions of the Construction Contract", latest edition, prepared by the Engineer's Joint Contract Documents Committee and published by the National Society of Professional Engineers. Reference shall be made: "General Conditions".

2. "Florida Department of Transportation Standard Specifications for Road and Bridge Construction", latest edition, published by the Florida Department of Transportation. Reference shall be made: "FDOT Specifications".

3. "Florida Department of Transportation Roadway and Traffic Design Standards", latest edition, published by the Florida Department of Transportation. Reference shall be made: "FDOT Index".

4. "American Water Works Association Standards", latest edition, prepared by the American Water Works Association. Reference shall be made: "AWWA Standards".

5. "American Society for Testing and Materials Specifications", latest edition. Reference shall be made: "ASTM".

   By reference, the documents cited above are made part of these Supplementary Conditions. The Contractor shall have copies of each in his possession for use throughout this project work.

   Additionally, the work shall be performed in accordance with all other applicable local, regional, state, and federal laws, regulations and codes including, but not limited to, the Federal Occupational Safety and Health Act.

6. "Minimum Technical Specifications and Construction Standards", latest edition, prepared by the City of Port St. Lucie Utility Systems Department. Reference shall be made: "PSLUSD Construction Standards".

The Drawings

Errors or Omissions in the Drawings or Specifications:

Prior to initiation of the work, the Contractor shall check dimensions, grades, and elevations shown on the Drawings and the Schedule of Values to assure himself that they are correct and that the work can be accomplished as intended. The Contractor shall take no advantage of any apparent error or omission which he might discover, but will immediately notify the Engineer who will then make such corrections and interpretations as he deems necessary for reflecting the actual spirit and intent of the Drawings and Specifications.

The Work

Pre-Construction Conference:

Immediately after the Agreement has been awarded, the Engineer shall call a Pre-Construction Conference prior to initiation of the work at a place designated by him to review the construction aspects of the project. The meeting will be between the Engineer and Contractor. The Contractor shall present his tentative detailed working schedule for the project so that it may be reviewed by the Engineer. Additionally, it will afford the Contractor an opportunity to have any questions he may have on the work clarified by the Engineer. No work under the Agreement shall be commenced until after the Notice to Proceed has been issued.

Commencement and Completion of the Work:

The Contractor shall commence work under the Agreement within ten (10) calendar days after the day of receipt by him of the Notice to Proceed and shall complete the work ready for use not later than the time indicated in the Agreement. The time stated for completion shall include final cleanup of the premises.

Schedule of Values:

The quantities estimated for various items listed in the "Schedule of Values" are only estimates, and may not reflect all the items of work or the final quantities needed to complete the project. These quantities are subject to increase or decrease by the Owner to make them conform to the program of work and to furnish and install all improvements shown on the Drawings, whether they are shown in the estimated quantities, or whether the final quantities are more or less than those estimated. Payment of all unit price work shall be on the basis stated in the General Conditions.

Coordination or Work with Others:

The Contractor shall coordinate his work with the work or improvements of others with regard to new construction, or for the need of removal, relocation or alteration of existing facilities. This includes, but is not limited to, Florida Power and Light, BellSouth, Adelphia Cable and other utility companies, contractors, subcontractors, or agents.

Standards of Quality and Workmanship:

All materials, equipment, and supplies furnished by the Contractor for permanent incorporation in the work shall be new and of quality standards specified. Workmanship shall be first-class and the finished product equal to the best accepted standards of the trade for the category of work performed.

Power and Water:

All arrangements and costs for temporary power and water during the construction shall be the responsibility of the Contractor. Temporary construction water meters may be obtained by contacting the City of Port St. Lucie Utility's Customer Service Division at (772) 871-5300.

Existing Utilities and Structures:

Existing utilities, structures, and facilities shown on the Drawings were located as accurately as possible from the records examined. No guarantee is made that all existing facilities are shown or that those shown are entirely accurate. The Contractor shall assure himself of the actual location of the utilities, structures, or facilities prior to performance of any work in the vicinity. The utility companies or utility agencies will cooperate with the Contractors operations. Prior to start of the work, the Contractor shall request each utility agency to advise him of the location of their facilities in the vicinity. The Owner will assume no liability for damages sustained or cost incurred because of the Contractor's operation in the vicinity of existing utilities or structures, or to the temporary bracing, and shoring of same. In the event that it is necessary to shore, brace, or swing a utility, the utility company or department affected should be contacted and their permission secured as to the method used for any such work.

Restoration to Damaged Structures or Utilities:

It shall be the responsibility of the Contractor to repair, rebuild, or restore to its former condition, any and all portions of existing utilities, structures, equipment, appurtenances, or facilities, other than those to be paid for under this contract, which may be disturbed or damaged due to this construction operation, at no cost to the Owner.

Final Cleanup:

Upon completion of the work, but before final payment will be made, the Contractor shall clear and remove from the project area, all false work, equipment, surplus, and discarded materials, rubbish, and temporary structures which result from the work under this Agreement, and shall restore in an acceptable manner, all property which has been damaged during the prosecution of the work.

As-Built Survey:

Upon completion of the work, but prior to submittal of the request for final payment, the Contractor shall obtain and submit an "As-Built Survey" to the Engineer. This information shall include the following:

1. Water Systems:

   a. Horizontal and vertical location and size of all water mains, meters, services, valves, fittings, and hydrants.

2. Drainage System:

   a. High points and low points of swales.

   b. Location of grates and invert elevations of all structures.

   c. Location, size, type, length, and invert of all culverts.

3. Paving and Grading:

   Location of high and low points in roadway and any other changes in grade.

The "As-Built Survey" shall be certified by a Florida Professional Land Surveyor. Locations shall be made by reference to centerline stationing and offset or by other means acceptable to the Engineer. Elevations shall be according to North American Vertical Datum (NAVD). The information shall be submitted on a clean set of construction drawings which can be obtained from the Engineer. Plans must be labeled "As-Built Survey" on each sheet.

Guarantee:

All materials and the installation thereof which are furnished and installed by the Contractor under the terms of the Agreement, shall be guaranteed by the Contractor against defective workmanship, mechanical and physical defects, leakage, breakage, and other damages and failure under normal operation for a period of one (1) year from the date of final payment, said date to constitute the commencement of the one (1) year warranty period. All materials and installations proving to be defective within the specified period of the guarantee shall be replaced, without cost to the Owner, by the Manufacturer or the Contractor. The period of guarantee of each such replacement shall be from and after the date of installation thereof.

ATTACHMENT B
E-BID #20120058

CITY OF PORT ST. LUCIE
UTILITY SYSTEMS DEPARTMENT
900 S.E. OGDEN LANE
PORT ST. LUCIE, FL 34983
PHONE (772) 873-6400 FAX (772) 873-6435

PRINEVILLE WTP
SITE UPGRADES
GENERAL NOTES

SHEET
C11

ATTACHMENT C
E-BID #20120058

Geotechnical Engineering Report

Prineville WTP Site Upgrades
1001 SE Prineville Street
City of Port St. Lucie, Florida

May 17, 2012
Project No. H5125005

Prepared for:
City of Port St. Lucie
Utility Systems Department
900 SE Ogden Lane
Port St. Lucie, Florida

Prepared by:
Nodarse & Associates
A Terracon Company
West Palm Beach, Florida

Offices Nationwide
Employee-Owned
nodarse.com
terracon.com

NODARSE
A Terracon COMPANY

Geotechnical ■ Environmental ■ Construction Materials ■ Facilities

ATTACHMENT C
E-BID #20120058

NODARSE
A Terracon COMPANY

May 17, 2012

City of Port St. Lucie
Utility Systems Department
900 SE Ogden Lane
Port St. Lucie, Florida

Attention: Mr. Richard M. Schoenborn, P.E.

Re: Geotechnical Engineering Report
Prineville WTP Site Upgrades
1001 SE Prineville Street, City of Port St. Lucie, Florida
N&A Project No. H8125005

Dear Mr. Schoenborn:

Nodarse, A Terracon Company has completed geotechnical engineering services for the above referenced project. This study was performed in general accordance with our Proposal dated March 21, 2012. This report presents the findings of the subsurface exploration and provides geotechnical recommendations concerning pavement design and construction.

We appreciate the opportunity to be of service to you on this project. If you have any questions concerning this report, or if we may be of further service, please contact us.

Yours sincerely,
Nodarse & Associates, A Terracon Company
(Certificate of Authorization No. 6174)

Rutugandha H. Nulkar, P.E.
Project Manager/Senior Associate
Florida License No. 70625

Julio De Blas, P.E
Senior Project Engineer
Florida License No. 64653

Vijay Mishra, E.I.
Project Engineer

Enclosures
cc: PDF – Client
1 – File

ATTACHMENT C
PSL/20120058
A Terracon COMPANY

EXECUTIVE SUMMARY

A geotechnical investigation has been performed for the pavement improvements at the Prineville Water Treatment Plant in the City of Port St. Lucie, Florida. The services were performed in accordance with the proposal dated March 21, 2012. As proposed, six (6) borings (designated B-1 through B-6) were performed to a depth of 10 feet below the existing ground surface at the proposed paved access road from the Prineville street gate. Additionally, two (2) bulk soil samples were collected for Limerock Bearing Ratio (LBR) testing.

Based on the information obtained from our subsurface exploration, the following geotechnical considerations were identified:

- **Site Soils:** The site surface soils generally consisted of approximately 3 to 6 inch of limerock base (A-1-b) followed by granular soils with varying amounts of silt (A-3/A-2-4) to the boring termination depths. At boring B-1, a layer of sand with few organics (A-8) was found from the depth of 4 to 5 feet below the existing ground surface. The groundwater level at the time of the drilling was encountered in the range of 4.5 to 6 feet below existing grade. The existing subsurface conditions appear suitable for proposed pavement section.

- **Pavement Sections**: We recommend that the pavement section be designed conforming to the latest edition of the FDOT Standard Specifications for Road and Bridge Construction and/or any other local municipal requirements. Based on our experience and the assumed pavement design criteria we suggest the following: Standard duty areas – 1½" asphaltic concrete (AC) over 6" limerock base underlain by 12" of stabilized subgrade or 5" Portland Cement Concrete (PCC) over 4" limerock material; Heavy Duty – 2½" AC over 8" limerock base or 7" PCC over 4" limerock material.

Earthwork on the project should be observed and evaluated by N&A. The evaluation of earthwork should include observation and testing of engineered fill, subgrade preparation and other geotechnical conditions exposed during construction.

This summary should be used in conjunction with the entire report for design purposes. It should be recognized that details were not included or fully developed in this section, and the report must be read in its entirety for a comprehensive understanding of the items contained herein. The section titled **GENERAL COMMENTS** should be read for an understanding of the report limitations.

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Exhibit A-6 Soil Survey Descriptions

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Plots of Grain Size Distribution Curves
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ATTACHMENT C
E-BID #20120058

GEOTECHNICAL ENGINEERING REPORT
PRINEVILLE WTP SITE UPGRADES
1001 SE PRINEVILLE STREET
CITY OF PORT ST. LUCIE, FLORIDA

Project No. H5125005

May 17, 2012

1.0 INTRODUCTION

A geotechnical engineering report has been completed for the proposed Prineville WTP site upgrades, located at 1001 SE Prineville Street, City of Port St. Lucie, Florida as shown on the Site Vicinity Map included as Exhibit A-1 in Appendix A. Specifically, the geotechnical engineer services were performed for the proposed paved access road from the Prineville street gate. As proposed, six (6) soil borings (designated B-1 through B-6) were performed to a depth of 10 feet below the existing ground surface at the proposed pavement areas. Additionally, two (2) bulk soil samples were collected from boring locations B-1 and B-6 for Limerock Bearing Ratio (LBR) testing. Logs of the borings and a Boring Location Plan (Exhibit A-2) are included in Appendix A of this report. A description of the field exploration procedures (Exhibit A-5) is included in Appendix A. The laboratory testing including the LBR test results are presented in Appendix B. The purpose of these services is to provide information and geotechnical engineering recommendations relative to:

- Subsurface soil conditions
- Groundwater conditions
- Site Preparation
- Pavement design and construction

2.0 PROJECT INFORMATION

2.1 Project Description

ITEM	DESCRIPTION
Site layout	See Appendix A, Exhibit A-2: Boring Location Plan
Description	This project is part of overall development of the Prineville WTP. The project consists of site upgrades. As part of the site upgrades, the access road (Station 0+00 to Station 5+50, about 550 linear feet) from the Prineville street gate will be paved.
Pavement Design Criteria (Assumed)	Standard Duty: 30,000 18-kip ESAL for 20 year design period Limited Heavy Duty: 50,000 18-kip ESAL for 20 year design period

2.2 Site Location and Description

ITEM	DESCRIPTION
Location	The site is located 1001 Prineville St. Lucie County, Florida.
Existing improvements	Unpaved access road
Current ground cover	Generally covered with Limerock base material

3.0 LABORATORY TESTING

Soil samples recovered from the soil borings were visually using the American Association of State Highway and Transportation Officials (AASHTO) Soil Classification System in general accordance with the American Society of Testing and Materials (ASTM) test designation D-3282, titled "Classification of Soils and Soils-Aggregate Mixtures for Highway Construction Purposes". The tests included were natural moisture content, organic content, grain size distribution analyses and Limerock Bearing Ratio. These tests were performed as follows:

Natural moisture content tests were performed in general accordance ASTM Test Designation D 2216, titled "Laboratory Determination of Water [Moisture] Content of Soil, Rock and Soil-Aggregate Mixtures".

Organic content tests were performed in general accordance with FDOT Test Designation FM1-T267 (ASTM Test Designation D 2974, titled "Moisture, Ash, and Organic Matter of Peat and other Organic Soils").

Grain-size distribution analyses were performed in general accordance ASTM Test Designation D 422, titled "Particle-Size Analysis of Soils". The grain size distribution analysis also measures the percentage of soils particles passing the No. 200 sieve. The percentage by weight passing the No. 200 sieve is the amount of silt and clay sized particles reported.

Bulk soil samples from the near surface subgrade material were obtained for Limerock Bearing Ratio (LBR) value determination. The tests were performed in accordance with AASHTO T-180 and FM5-151.

Summary of laboratory test results is presented in Exhibit B-1 of Appendix B. In addition, plots of grain-size distribution analyses and LBR test results are also included in Appendix B.

4.0 SUBSURFACE CONDITIONS

4.1 Regional Geology

St Lucie County Area can be divided into three major physiographic regions – the Eastern Valley, the Osceola Plain, and the Atlantic Coastal ridge. The Green Ridge and the southern end of Ten Mile Ridge are minor geographic areas within the Eastern Valley. The Eastern Valley lies between the Atlantic Coastal Ridge to the east and the Osceola Plain to the southwest. It is by far the largest physiographic region and ranges from about 15 to 30 feet above sea level. These ridges are low, narrow, and long. Allapattah Flats lies to the west of Green Ridge, and St. Johns River Marsh lies to the west of Ten Mile Ridge. These areas are mostly hammocks, and clusters of cypress trees. The soils generally have a sandy surface layer and loamy subsoil; however, organic soil is common in the Allapattah Flats. Most of the soils in these areas have a sandy surface layer and weakly cemented subsoil. Much of the Eastern Valley is used for range or has been planted to citrus or improved pasture grasses.

The Osceola Plain is in the southwestern part of the survey area. Elevations range from about 30 feet to as much as 60 feet above sea level. There are a few areas of broad grassy sloughs, depressions, and poorly defined drainageways. Generally, the soils are nearly level, wet, and sandy. The sandy subsoil has organic matter and is weakly cemented. Vegetation consists mostly of flatwoods pine and sawpalmetto. Large areas of this region are used for range and improved pasture grasses. The Atlantic Coastal Ridge is bordered on the west by the Eastern Valley and on the east by the Atlantic Ocean. It is composed of relic beach ridges formed by wind and wave action along the shore. The Indian River separates the present day Barrier Islands from the mainland.

The part of the Atlantic Coastal Ridge on the mainland is an elongated ridge that extends the entire length of the county. It is ¼ to ½ mile wide. Elevations range from sea level up to 60 feet, the highest elevation in the county. The main ridge on the Barrier Islands ranges from a few hundred feet to three-fourths of a mile wide. This ridge consists of beach, primary dune, trough, inland dune, and the back dune next to the bay. Elevations range from sea level along the shore to 17 feet along the crest of the dune ridges. Most of the St. Lucie County Area is drained through intermittent streams, creeks, rivers, closed depressions, and grassy sloughs. Ten Mile Creek, which is the headwaters of the North Fork of the St. Lucie River, drains the northern part of Allapattah flats around the northern end of Green Ridge. Five Mile Creek drains the area between the Atlantic coastal ridge and Ten Mile ridge and flows into the North fork of the St. Lucie River.

4.2 USDA – NRCS Soil Survey

The Web Soil Survey, as maintained by the United States Department of Agriculture (USDA), Soil Conservation Service (SCS; later renamed the Natural Resource Conservation Service - NRCS), identifies three soil types at the subject site: Arents and Urban land complex. It should be noted that the Soil Survey is not intended as a substitute for site-specific geotechnical exploration; rather it is a useful tool in planning a project scope in that it provides information on soil types likely to be encountered. Boundaries between adjacent soil types on the Soil Survey maps are approximate.

4.3 General Subsurface Conditions

Based on the results of the soil borings, subsurface conditions on the project site can be generalized as follows:

Stratum Number	Material Encountered	Relative Density/Consistency
1	Limerock Base Material (A-1-b)	Medium Dense to Dense
2	Tan to Brown Fine to Medium SAND, Trace to Few Silt (A-3/A-2-4)	Loose to Dense (8 to 44 bpf) (1)
3	Dark Brown to Brown Fine to Medium SAND, Trace Organic Stain (A-3)	Medium Dense (11 to 24 bpf) (1)
4 (2)	Black Fine to Medium SAND, Few Organics (A-8)	Medium Dense (26 bpf) (1)

(1) Range of Standard Penetration Test (SPT) resistance values or "N-values", blows per foot (Automatic Hammer)
(2) Only found at boring B-1 from the depth of 4 to 5 feet below the existing ground surface

Stratification boundaries on the boring logs represent the approximate location of changes in soil types; in-situ, the transition between materials may be gradual. Details for each of the borings can be found on the test boring logs in Appendix A of this report.

4.4 Groundwater

The borings were monitored while drilling for the presence and level of groundwater. Water levels observed at these times are indicated on the test boring records. During the subsurface exploration, the groundwater level at the boring locations (measured in April) was observed at a depth ranging from 4.5 to 6 feet below the existing ground surface.

The water level observation provides an approximate indication of the groundwater conditions existing on the site at the time the borings were drilled. It should be noted that fluctuations in

the groundwater table can occur due to seasonal variations, recent and other site specific conditions. Therefore, at the time of the year different from the time of drilling, there is a possibility of a change in the recorded level.

We estimate that during the peak of the wet season, with rainfall and recharge at a maximum, groundwater level at the site could be found about 1 to 2 feet above the groundwater recorded during our the field exploration. This possibility should be considered when developing design and construction plans and specifications for the project. Long term monitoring in cased holes or piezometers would be necessary to accurately evaluate the potential range of groundwater conditions at the site.

5.0 PAVEMENT DESIGN AND CONSTRUCTION RECOMMENDATIONS

5.1 Geotechnical Considerations

Based on the results of the subsurface exploration and our engineering analyses, we consider the site suitable from a geotechnical engineering perspective for the proposed construction. The general profile of project site consisted of approximately 3 to 6 inch of Limerock base (A-1-b) followed by granular soils with varying amounts of silt (A-3/A-2-4) to the boring termination depths. At boring B-1, a layer of sand with few organics (A-8) was found from the depth of 4 to 5 feet below the existing ground surface. This stratum consisted mainly of granular soils with an organic content of 6 percent. We believe this material is not compressible and given its relatively low organic content will not decay significantly overtime.

The LBR values of existing subgrade materials are suitable as per FDOT Standards. There is need of no further stabilization of existing material. If any material is brought in as fill, has to be stabilized as per recommendation in section 5.3. Earthwork operations and excavations should be checked by a representative of N&A. The following sections present our recommendations for site preparation and pavement.

5.2 Site Preparation

Site preparation for the roadway improvements will generally involve removal of existing topsoil/grassy areas along the sides of the roadway, removal of any existing asphalt and relocating existing features along widening areas. We recommend that the site preparation for this project be performed per Florida Department of Transportation (FDOT) specifications. The following are our discussions regarding the utilization and the site preparation requirements of the subsurface soils.

- The topsoil (A-8) shall be removed by clearing and grubbing in accordance with Section 110

of the FDOT Standard Specifications.

- The existing asphaltic pavement shall be removed, as required.

- The materials from strata number 1, 2 and 3 can be classified as select (S). This material is satisfactory for use in the embankment when utilized in accordance with FDOT Standard Index 505. However, for stratum 2, certain types of A-2-4 materials are likely to retain excess moisture and be difficult to dry and compact. Therefore, this material should be used in the embankment above the water level existing at the time of construction. A-2-4 material placed below the existing water level must be non-plastic and contain less than 15% passing the No. 200 U.S. Standard sieve.

- The material from Stratum 4 is organic (A-8). This material can remain in place given it consists mainly of granular material with a relatively low organic content.

5.3 Fill Material

The roadway embankment fill should consist of select material, meeting the requirements of Standard Index 505 and shall be constructed in general accordance with Section 120-8 of the latest FDOT Standard Specifications for Road and Bridge Construction.

5.4 Pavements

We recommend the subgrades supporting pavements be prepared in accordance with the recommendations in the site preparation section of this report. Pavements sections should conform to the latest edition of the FDOT Standard Specifications for Road and Bridge Construction and/or any other local municipal requirements. The following sections represent minimum design thicknesses based on our assumed pavement design criteria.

5.4.1 Flexible Pavements

In order for a conventional flexible asphalt pavement to perform satisfactorily, the subgrade soils must have sufficient strength and stability to support construction traffic loading and design traffic loading. Our flexible asphalt pavement thickness recommendations are based on the following assumptions

- The upper 1 foot of pavement subgrade soils have been compacted to at least 98 percent of the Modified Proctor maximum dry density (ASTM D-1557). This would require stabilizing the subgrade soils to minimum Limerock Bearing Ratio (LBR; Florida Method of Test Designation FM 5-515) value of 40 if the subgrade does not already meet this criterion, or replacing the in-place soils with new compacted fill that meets the minimum

LBR value. The existing fill and native soils appear to meet this criterion; however, further testing should be conducted to verify the LBR value during construction.

- The subgrade and the pavement surface have a minimum ¼ inch per foot slope to promote proper surface drainage.

- The base course should be limerock fill. Limerock base courses should be mined from a Florida Department of Transportation (FDOT) approved source and should have a minimum LBR value of 100 and be compacted to a minimum of 98 percent of the maximum dry density as determined by the Modified Proctor test. Limerock should be placed in equivalent thickness lifts not to exceed 6 inches loose thickness. The existing Limerock base appears to meet this criterion; however, further testing should be conducted to verify the LBR value during construction.

- In lieu of Limerock LBR 100, Superpave Asphalt Base (B-12.5, section 234) can be used as per FDOT Design Standards Index No, 514.

- For light duty sections, surface courses should have a minimum stability of 1,500 pounds while for heavy duty sections; surface courses should have a minimum stability of 1,500 pounds. Asphalt should be compacted to a minimum of 95 percent of the Marshall Design density. Asphalt surface courses should be Type S-3 or other suitable mix design according to FDOT.

- All curbing should be full depth. Use of extruded curb sections which lie on top of asphalt surface courses can allow migration of water between the surface and base courses, leading to rippling and pavement deterioration.

- All surface water should be directed away from the edges of the pavement.

Detailed vehicle loading information was not available at the time of this report. However, we have assumed that flexible pavement traffic will consist of cars and light and heavy trucks. We have estimated the 18-kip equivalent single axle load (E_{18}SAL) applications for the standard-duty and heavy-duty pavement sections are less than or equal to 30,000 and 50,000 E_{18}SAL's, respectively over a 20 year design period. Based on our experience and the site conditions, we recommend the following flexible pavement thicknesses.

MATERIAL	Standard-Duty (Automobiles Only) (≤30,000 E_{18}SALs)	Heavy-Duty (≤50,000 E_{18}SALs)	FDOT Specification
Stabilized Subgrade	12 inches	12 inches	Section 160
Base	6 inches	8 inches	Limerock: Section 200 Soil-Cement: Section 270
Asphalt Surface Course	1½ inches	2½ inches	[1] Section 331

[1] Type S asphalt mixes (Section 331) are no longer included in the current FDOT Standards and Specifications for Road and Bridge Construction. See paragraph below for explanation.

We recommend all pavement subgrades to be stabilized to a minimum LBR value of 40. Samples of the proposed subgrade soils should be obtained to determine the LBR values. Further observation and testing of subgrade soils is recommended during construction. The subgrade for pavements should be prepared in accordance with the recommendation of this report.

We note that Type S asphalt mixes (Section 331) are no longer included in the current FDOT Standards and Specifications for Road and Bridge Construction. However, Type S mixes are still used in many non-FDOT projects. These mixes were included in the 2000 and prior editions of the Standards and Specifications for Road and Bridge Construction. Current FDOT asphalt surface courses are typically Superpave mixes. It should be noted that Superpave mixes could be used on this project however; they are stiffer and typically require heavier compaction equipment than Type S mixes. If Superpave mixes are selected, the asphalt contractor should have experience working with Superpave mixes in accordance with FDOT specifications. Flexible pavement design shall also conform to any applicable local municipal requirements.

5.4.2 Rigid Pavement

We recommend that the concrete pavement section be designed with a minimum 7 inch thickness for heavy-duty traffic areas and 5 inch thickness for car traffic areas, with an allowable construction tolerance of plus 0.25 inches. We recommend a minimum of 4 inches of limerock base be constructed below the concrete pavement. The concrete should be air-entrained and have a minimum compressive strength of 4,000 psi after 28 days of laboratory curing per ASTM C-31. The concrete slabs designed for this thickness and having the recommended concrete strength will theoretically exhibit a 20-year design period under the required traffic conditions. The following comments should be considered for the indicated concrete pavement design options:

- Control joints should have a maximum spacing of about 30 times the thickness of the slab, as per ACI.

- At construction joints, an adequately designed keyed construction joint or a butt end construction joint is recommended. For a butt end construction joint, an adequate number of deformed tie bars should be provided.

- Tie bars are also recommended along the first longitudinal joint from the pavement edge to keep the outside slab from separating from the pavement.

- Isolation joints are recommended for concrete pavement areas that abut fixed objects such as light poles, curb inlets, etc.

Should there be any changes in the traffic patterns or frequency, Nodarse should be notified to review the design and make supplementary recommendations. The design also assumes that proper subgrade drainage is provided.

The pavement and adjacent areas should be well drained and properly graded. Periodic maintenance should be performed (e.g., sealing cracks in the pavement material to prevent water intrusion through to the base and/or subbase material). Even with periodic maintenance, some movements and related cracking may still occur, requiring maintenance.

On most projects, site grading is accomplished relatively early in the construction phase, and fills are placed and compacted in a uniform manner. As construction proceeds, the subgrade can become disturbed and irregular due to construction traffic, weather, etc. As a result, the pavement subgrades should be carefully evaluated by the geotechnical engineer and repaired as necessary before pavement construction begins.

Related civil design factors such as subgrade drainage, shoulder support, cross-sectional configurations, surface elevations and environmental factors which will significantly affect the service life must be included in the preparation of the construction drawings and specifications. Increased periodic maintenance will be required.

6.0 GENERAL COMMENTS

Nodarse should be retained to review the final design plans and specifications so comments can be made regarding interpretation and implementation of our geotechnical recommendations in the design and specifications. Nodarse also should be retained to provide observation and

testing services during grading, excavation, and other earth-related construction phases of the project.

The analysis and recommendations presented in this report are based upon the data obtained from the borings performed at the indicated locations and from other information discussed in this report. This report does not reflect variations that may occur between borings, across the site, or due to the modifying effects of construction or weather. The nature and extent of such variations may not become evident until during or after construction. If variations appear, we should be immediately notified so that further evaluation and supplemental recommendations can be provided.

The scope of services for this project does not include either specifically or by implication any environmental or biological (e.g., mold, fungi, bacteria) assessment of the site or identification or prevention of pollutants, hazardous materials or conditions. If the owner is concerned about the potential for such contamination or pollution, other studies should be undertaken.

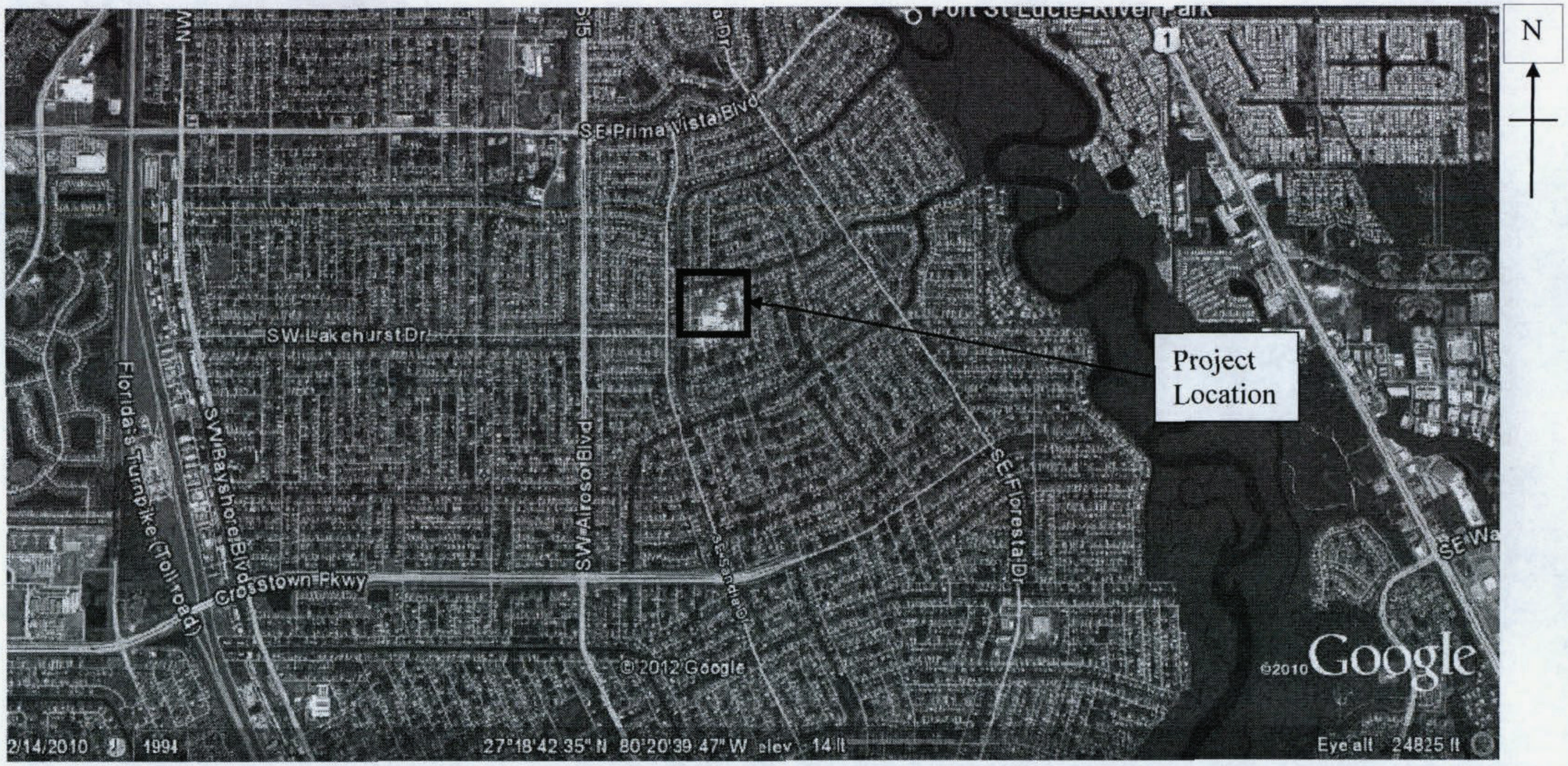
This report has been prepared in accordance with generally accepted geotechnical engineering practices and for the exclusive use and reliance of Utility Engineering Department, City of Port St. Lucie. Use or reliance by any other party is prohibited without the written authorization of Utility Engineering Department and Nodarse, A Terracon Company (Nodarse). No warranties, either expressed or implied, are intended or made. Site safety, excavation support, and dewatering requirements are the responsibility of others. In the event that changes in the nature, design, or location of the project as outlined in this report are planned, the conclusions and recommendations contained in this report shall not be considered valid unless Nodarse reviews the changes and either verifies or modifies the conclusions of this report in writing.

Reliance on the Geotechnical Engineering Report by the client and all authorized parties will be subject to the terms, conditions and limitations stated in the proposal, Geotechnical Engineering Report and Nodarse's Agreement for Services. The limitation of liability defined in the Agreement for Services is the aggregate limit of Nodarse's liability to the client and all relying parties.

ATTACHMENT C
E-BID #20120058

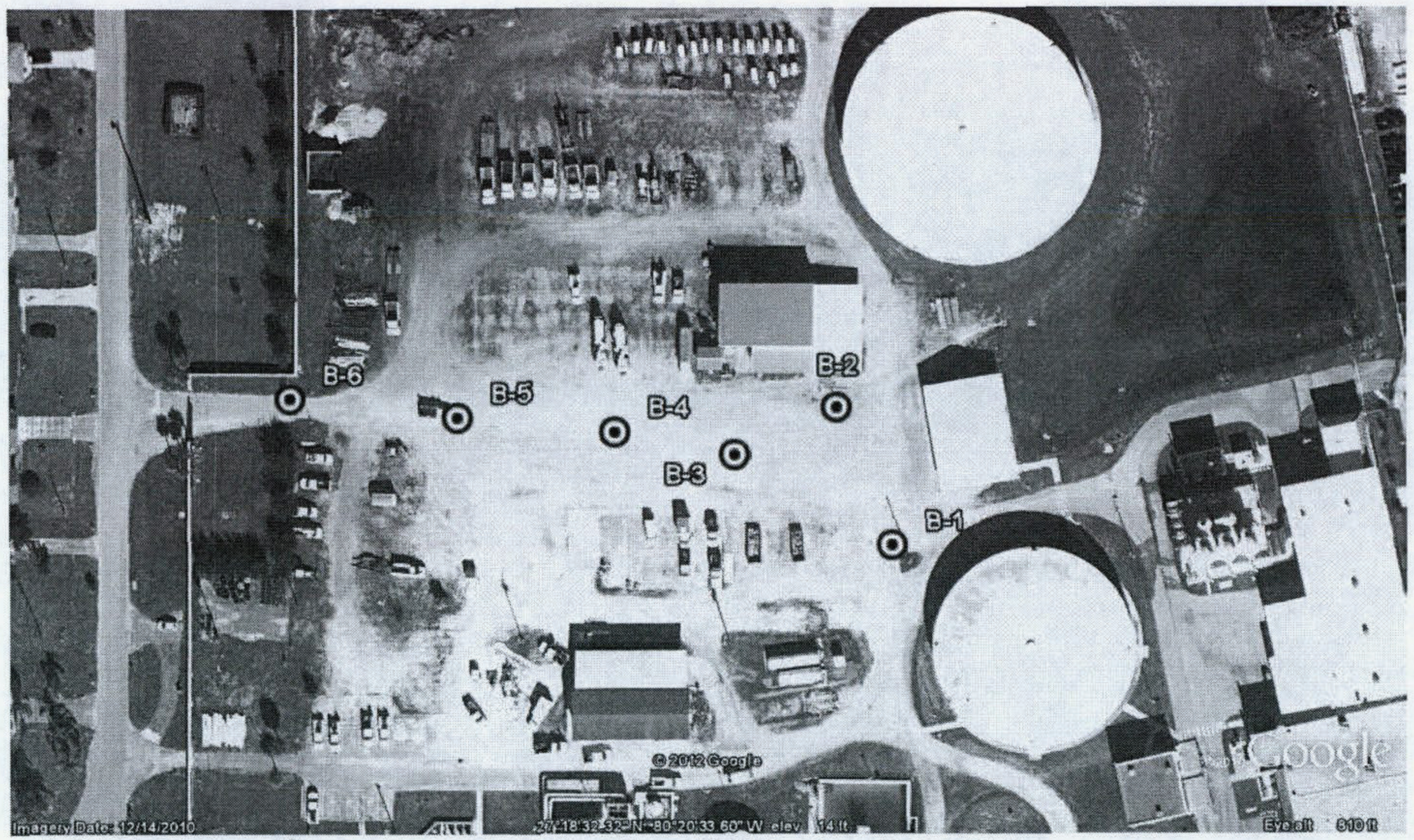
APPENDIX A
FIELD EXPLORATION

ATTACHMENT C
E-BID #20120058



Prineville WTP Site Upgrades **1001 SE Prineville Street** **City of Port St. Lucie, Florida** **N&A Project No. H5125005**	NODARSE A Terracon COMPANY	**SITE VICINITY MAP**	
		Exhibit A-1	**DATE: 05/17/2012**
		CHECKED BY: VM	**SCALE: NTS**

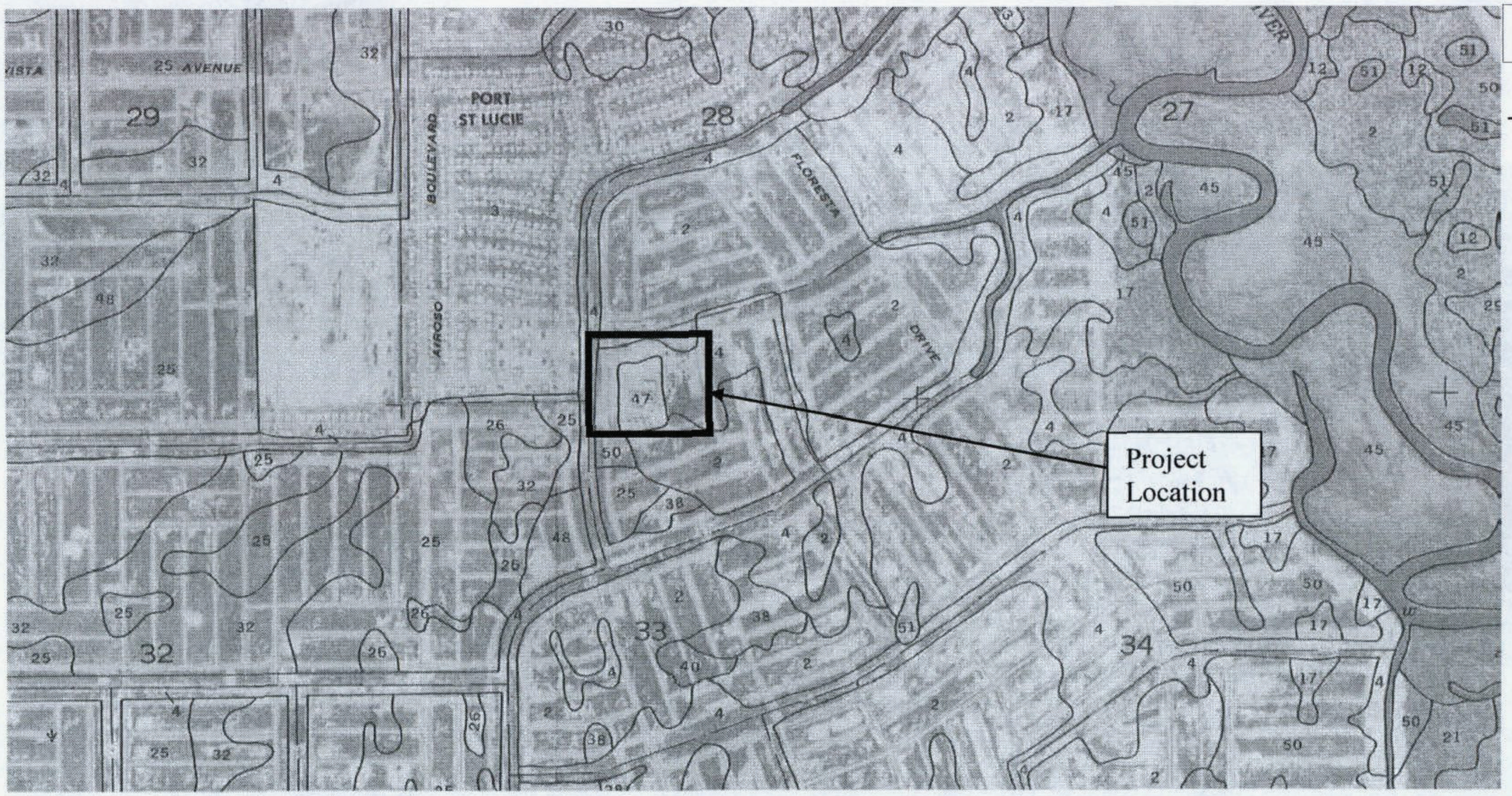
ATTACHMENT C
E-BID #20120058



Approximate Location of SPT Borings (B-1 to B-6)

Prineville WTP Site Upgrades **1001 SE Prineville Street** **City of Port St. Lucie, Florida** **N&A Project No. H5125005**	NODARSE A Terracon COMPANY	**BORING LOCATION PLAN**	
		Exhibit A-2	**DATE: 05/17/2012**
		CHECKED BY: VM	**SCALE: NTS**

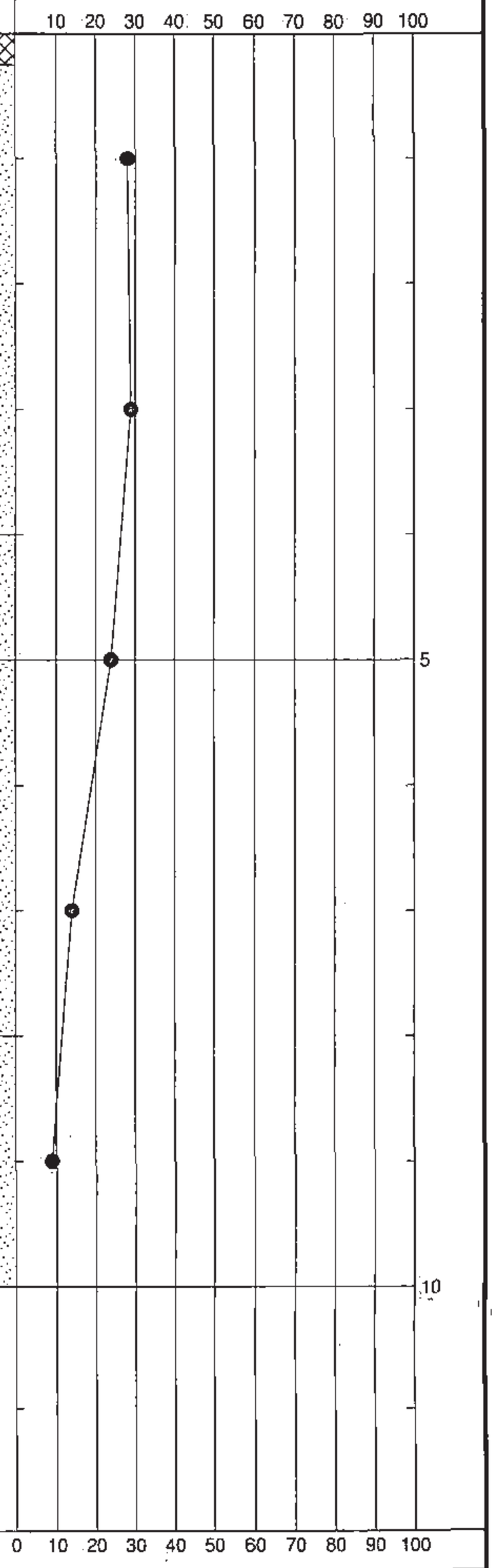
ATTACHMENT C
E-BID #20120058



Prineville WTP Site Upgrades **1001 SE Prineville Street** **City of Port St. Lucie, Florida** **N&A Project No. H5125005**	NODARSE A Terracon COMPANY	**USDA Soil Map**	
		Exhibit A-3	**DATE: 05/17/2012**
		CHECKED BY: VM	**SCALE: NTS**

ATTACHMENT C
E-BID #20120058

DEPTH (ft)	ELEV (ft)	SAMPLES TYPE	N-COUNT 1st 6" 2nd 6" 3rd 6" 4th 6" / RQD % REC	N-VALUE	SOIL CLASSIFICATION AND REMARKS	LEGEND
0	NATURAL GROUND SURFACE ELEVATION NOT AVAILABLE AT TIME OF DRILLING				Limerock Base Material (3" thick) (A-1-b)	
1			16-12-16-19	28	Tan to Brown Fine to Medium SAND, Trace to Few Silt (A-3/A-2-4)	
2						
3			17-13-16-19	29		
4					Black Fine to Medium SAND, Few Organics (A-8)	
5			13-12-12-13	24	Dark Brown to Brown, Fine to Medium SAND, Trace Organic Stain (A-3) ▽	
6						
7			7-7-7-7	14		
8					Tan to Brown Fine to Medium SAND, Trace to Few Silt (A-3/A-2-4)	
9			5-5-4-6	9		
10					Boring terminated @ 10ft	
11						
12						



DRILLER: Doug
EQUIPMENT: CME 45 (Automatic Hammer)
METHOD: SplitSpoon
HOLE DIA.: 2.0
GROUND WATER LEVEL: 5.5'
REMARKS: Exhibit A-4

THIS RECORD IS A REASONABLE INTERPRETATION OF SUBSURFACE CONDITIONS AT THE EXPLORATION LOCATION. SUBSURFACE CONDITIONS AT OTHER LOCATIONS AND AT OTHER TIMES MAY DIFFER. INTERFACES BETWEEN STRATA ARE APPROXIMATE. TRANSITIONS BETWEEN STRATA MAY BE GRADUAL.

TEST BORING RECORD

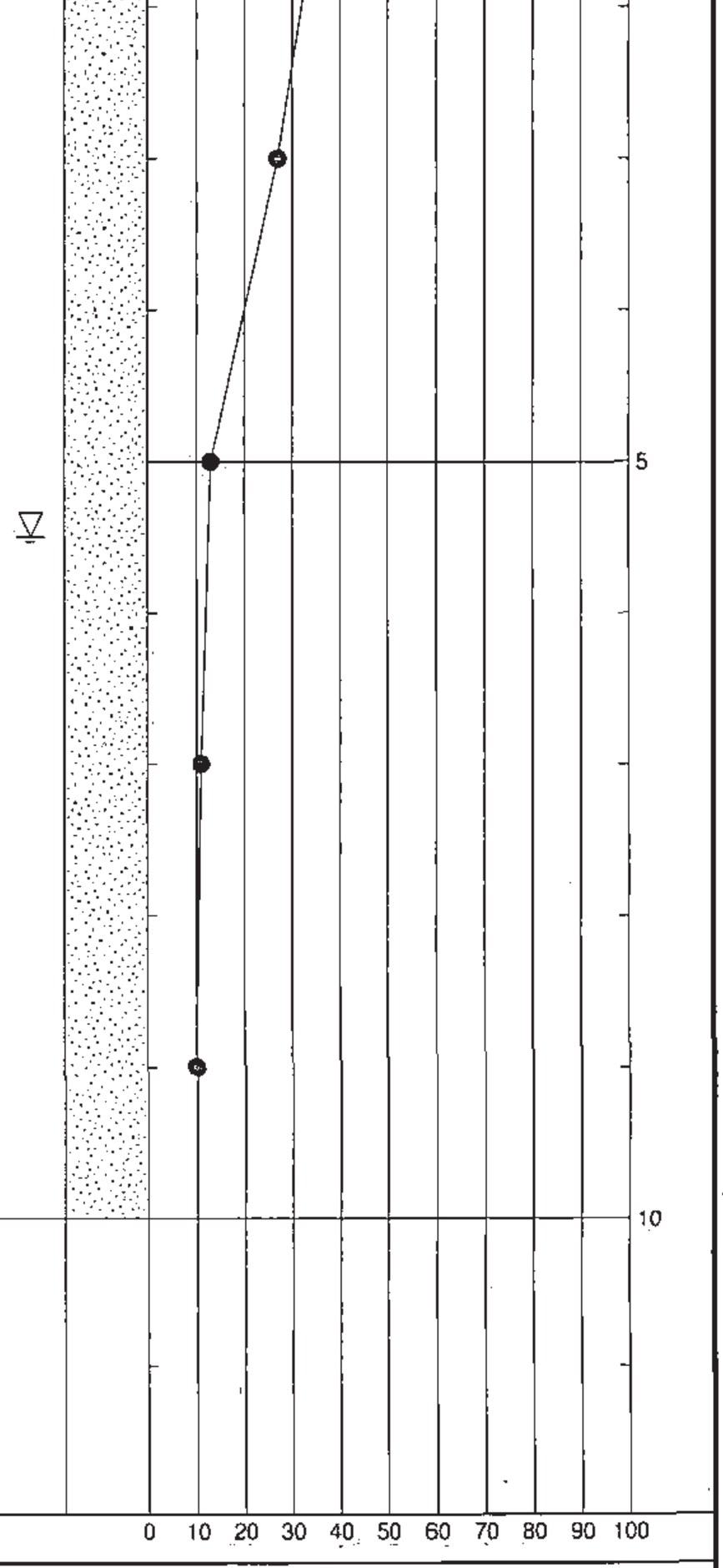
Project Name:	Prineville WTP Site Upgrades
Project Loc.:	1001 Prineville Street, City of Port St. Lucie
Project No:	H5125005
Drilled:	4/12/12
Boring No.:	B-1

NODARSE & ASSOCIATES, INC.

TEST BORING RECORD PRINEVILLE.GPJ NODARSE.GDT 5/2/12

ATTACHMENT C
E-BID #20120058

DEPTH (ft)	ELEV (ft)	TYPE	N-COUNT 1st 6" 2nd 6" 3rd 6" 4th 6" / RQD % REC	N-VALUE	SOIL CLASSIFICATION AND REMARKS	LEGEND
0	NATURAL GROUND SURFACE ELEVATION NOT AVAILABLE AT TIME OF DRILLING				Limerock Base Material (6" thick) (A-1-b)	
1			32-21-16-15	37	Tan to Brown Fine to Medium SAND, Trace to Few Silt (A-3/A-2-4)	
2						
3			14-15-12-13	27		
4						
5			6-6-7-8	13		
6						
7			4-5-6-5	11		
8						
9			4-5-5-6	10		
10					Boring terminated @ 10ft	
11						
12						



DRILLER: Doug
EQUIPMENT: CME 45 (Automatic Hammer)
METHOD: SplitSpoon
HOLE DIA:: 2.0
GROUND WATER LEVEL: 5.5'
REMARKS: Exhibit A-4

THIS RECORD IS A REASONABLE INTERPRETATION OF SUBSURFACE CONDITIONS AT THE EXPLORATION LOCATION. SUBSURFACE CONDITIONS AT OTHER LOCATIONS AND AT OTHER TIMES MAY DIFFER. INTERFACES BETWEEN STRATA ARE APPROXIMATE. TRANSITIONS BETWEEN STRATA MAY BE GRADUAL.

TEST BORING RECORD

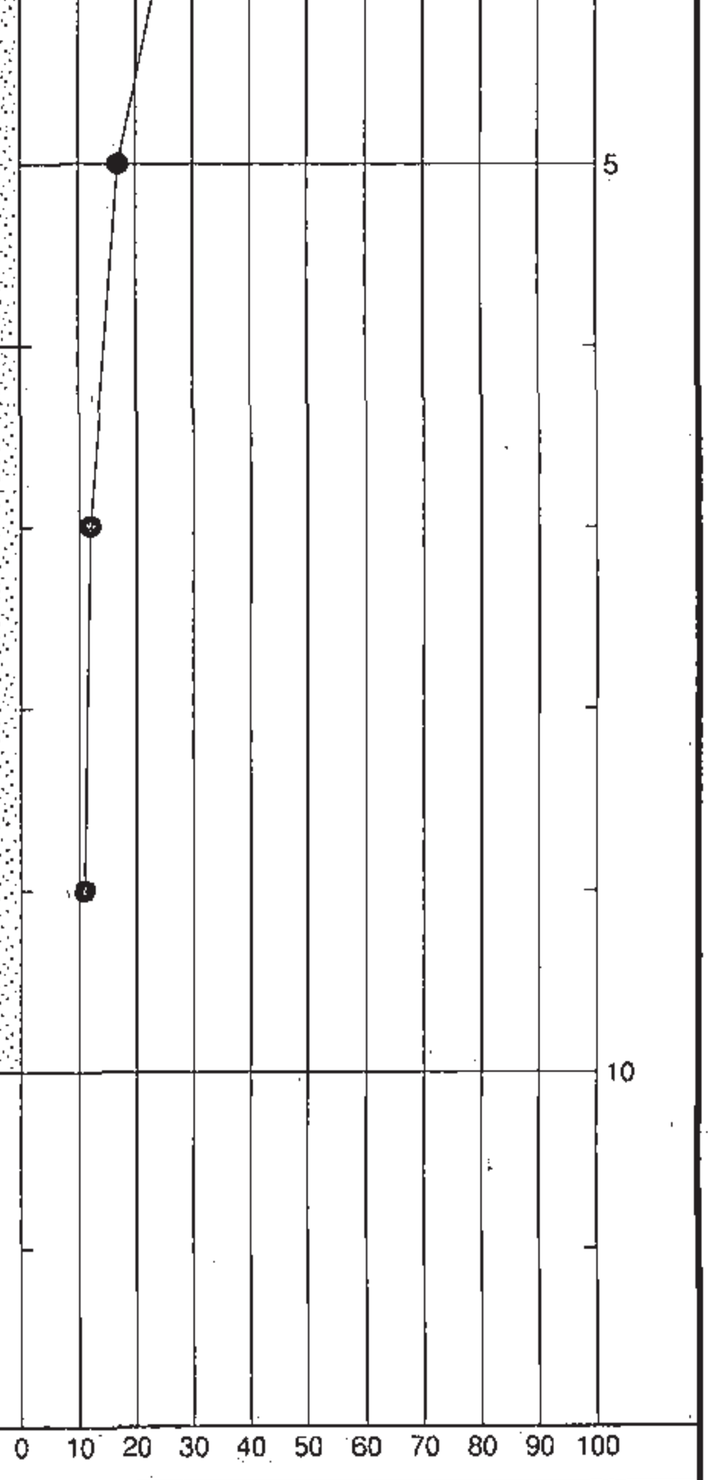
Project Name:	Prineville WTP Site Upgrades
Project Loc.:	1001 Prineville Street, City of Port St. Lucie
Project No:	H5125005
Drilled:	4/12/12
Boring No.:	B-2

NODARSE & ASSOCIATES, INC.

TEST BORING RECORD PRINEVILLE.GPJ NODARSE.GDT 5/2/12

ATTACHMENT C
E-BID #20120058

DEPTH (ft)	ELEV (ft)	SAMPLES TYPE	N-COUNT 1st 6" 2nd 6" 3rd 6" 4th 6" / RQD % REC	N-VALUE	SOIL CLASSIFICATION AND REMARKS	LEGEND
0	NATURAL GROUND SURFACE ELEVATION NOT AVAILABLE AT TIME OF DRILLING				Limerock Base Material (6" thick) (A-1-b)	
1			21-19-14-15	33	Tan to Brown Fine to Medium SAND, Trace to Few Silt (A-3/A-2-4)	
2						
3			11-14-16-17	30		
4					Dark Brown to Brown, Fine to Medium SAND, Trace Organic Stain (A-3) ▽	
5			10-12-5-7	17		
6					Tan to Brown Fine to Medium SAND, Trace to Few Silt (A-3/A-2-4)	
7			5-6-6-5	12		
8						
9			4-5-6-5	11		
10					Boring terminated @ 10ft	
11						
12						



DRILLER: Doug
EQUIPMENT: CME 45 (Automatic Hammer)
METHOD: SplitSpoon
HOLE DIA.: 2.0
GROUND WATER LEVEL: 4.5'
REMARKS: Exhibit A-4

THIS RECORD IS A REASONABLE INTERPRETATION OF SUBSURFACE CONDITIONS AT THE EXPLORATION LOCATION. SUBSURFACE CONDITIONS AT OTHER LOCATIONS AND AT OTHER TIMES MAY DIFFER. INTERFACES BETWEEN STRATA ARE APPROXIMATE. TRANSITIONS BETWEEN STRATA MAY BE GRADUAL.

TEST BORING RECORD

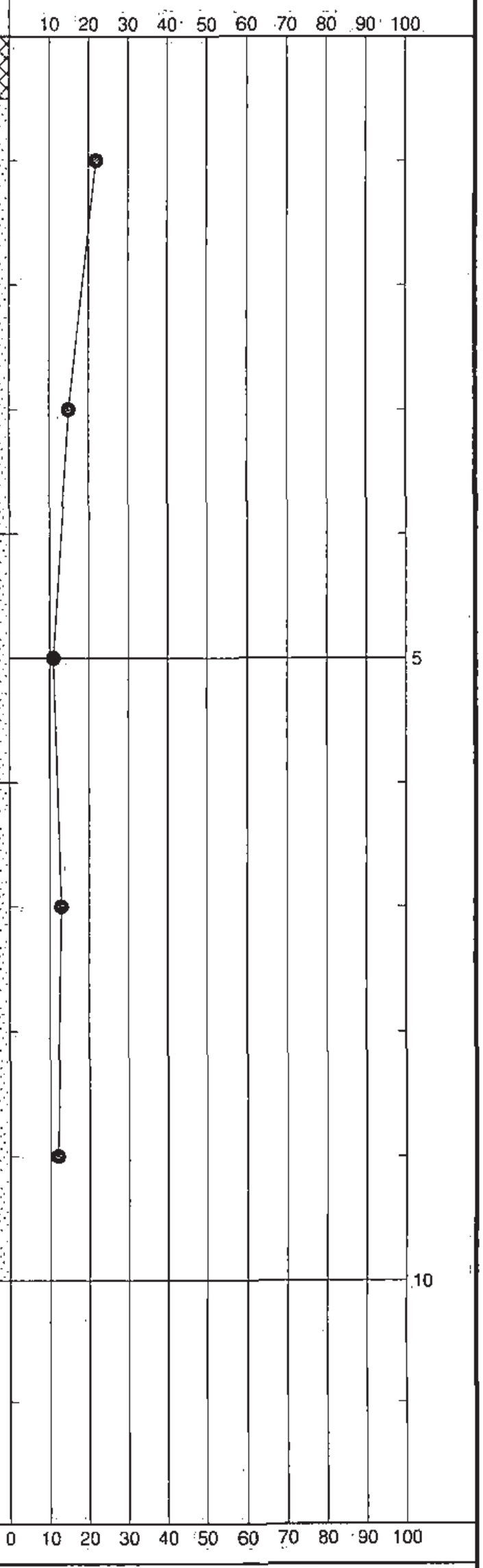
Project Name:	Prineville WTP Site Upgrades
Project Loc.:	1001 Prineville Street, City of Port St. Lucie
Project No:	H5125005
Drilled:	4/12/12
Boring No.:	B-3

NODARSE & ASSOCIATES, INC.

TEST BORING RECORD PRINEVILLE.GPJ NODARSE.GDT 5/2/12

ATTACHMENT C
E-BID #20120058

DEPTH (ft)	ELEV (ft)	TYPE	N-COUNT 1st 6" 2nd 6" 3rd 6" 4th 6" / RQD / % REC	N-VALUE	SOIL CLASSIFICATION AND REMARKS	LEGEND
0	NATURAL GROUND SURFACE ELEVATION NOT AVAILABLE AT TIME OF DRILLING				Limerock Base Material (4" thick) (A-1-b)	
1			17-12-10-6	22	Tan to Brown Fine to Medium SAND, Trace to Few Silt (A-3/A-2-4)	
2						
3			5-6-9-11	15		
4					Dark Brown to Brown, Fine to Medium SAND, Trace Organic Stain (A-3)	
5			9-7-4-6	11	▽	
6					Tan to Brown Fine to Medium SAND, Trace to Few Silt (A-3/A-2-4)	
7			5-6-7-9	13		
8						
9			4-6-6-7	12		
10					Boring terminated @ 10ft	
11						
12						



DRILLER: Doug
EQUIPMENT: CME 45 (Automatic Hammer)
METHOD: SplitSpoon
HOLE DIA.: 2.0
GROUND WATER LEVEL: 5'
REMARKS: Exhibit A-4

THIS RECORD IS A REASONABLE INTERPRETATION OF SUBSURFACE CONDITIONS AT THE EXPLORATION LOCATION. SUBSURFACE CONDITIONS AT OTHER LOCATIONS AND AT OTHER TIMES MAY DIFFER. INTERFACES BETWEEN STRATA ARE APPROXIMATE. TRANSITIONS BETWEEN STRATA MAY BE GRADUAL.

TEST BORING RECORD

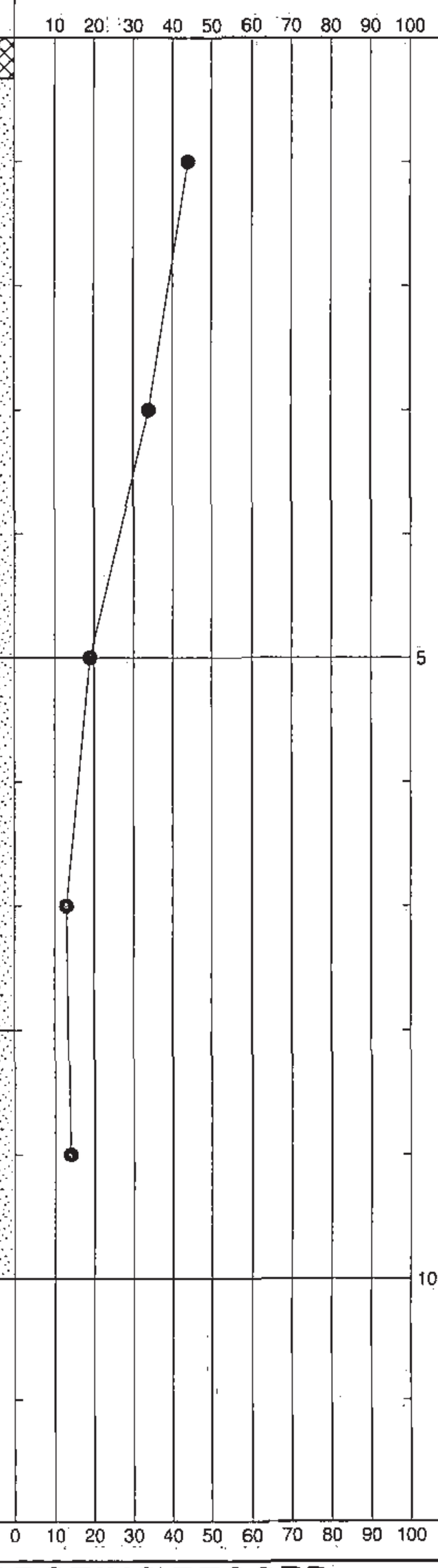
Project Name:	Prineville WTP Site Upgrades
Project Loc.:	1001 Prineville Street, City of Port St. Lucie
Project No:	H5125005
Drilled:	4/12/12
Boring No.:	B-4

NODARSE & ASSOCIATES, INC.

TEST BORING RECORD PRINEVILLE.GPJ NODARSE.GDT 5/2/12

ATTACHMENT C
E-BID #20120058

DEPTH (ft)	ELEV (ft)	SAMPLES TYPE	N-COUNT 1st 6" 2nd 6" 3rd 6" 4th 6" / RQD % REC	N-VALUE	SOIL CLASSIFICATION AND REMARKS	LEGEND
0	NATURAL GROUND SURFACE ELEVATION NOT AVAILABLE AT TIME OF DRILLING				Limerock Base Material (4" thick) (A-1-b)	
1			16-21-23-21	44	Tan to Brown Fine to Medium SAND, Trace to Few Silt (A-3/A-2-4)	
2						
3			19-14-20-24	34		
4						
5			13-10-9-13	19	Dark Brown to Brown, Fine to Medium SAND, Trace Organic Stain (A-3) ▽	
6						
7			5-6-7-7	13		
8					Tan to Brown Fine to Medium SAND, Trace to Few Silt (A-3/A-2-4)	
9			6-7-7-8	14		
10					Boring terminated @ 10ft	
11						
12						



DRILLER: Doug
EQUIPMENT: CME 45 (Automatic Hammer)
METHOD: SplitSpoon
HOLE DIA.: 2.0
GROUND WATER LEVEL: 5.5'
REMARKS: Exhibit A-4

THIS RECORD IS A REASONABLE INTERPRETATION OF SUBSURFACE CONDITIONS AT THE EXPLORATION LOCATION. SUBSURFACE CONDITIONS AT OTHER LOCATIONS AND AT OTHER TIMES MAY DIFFER. INTERFACES BETWEEN STRATA ARE APPROXIMATE. TRANSITIONS BETWEEN STRATA MAY BE GRADUAL.

TEST BORING RECORD

Project Name:	Prineville WTP Site Upgrades
Project Loc.:	1001 Prineville Street, City of Port St. Lucie
Project No:	H5125005
Drilled:	4/12/12
Boring No.:	B-5

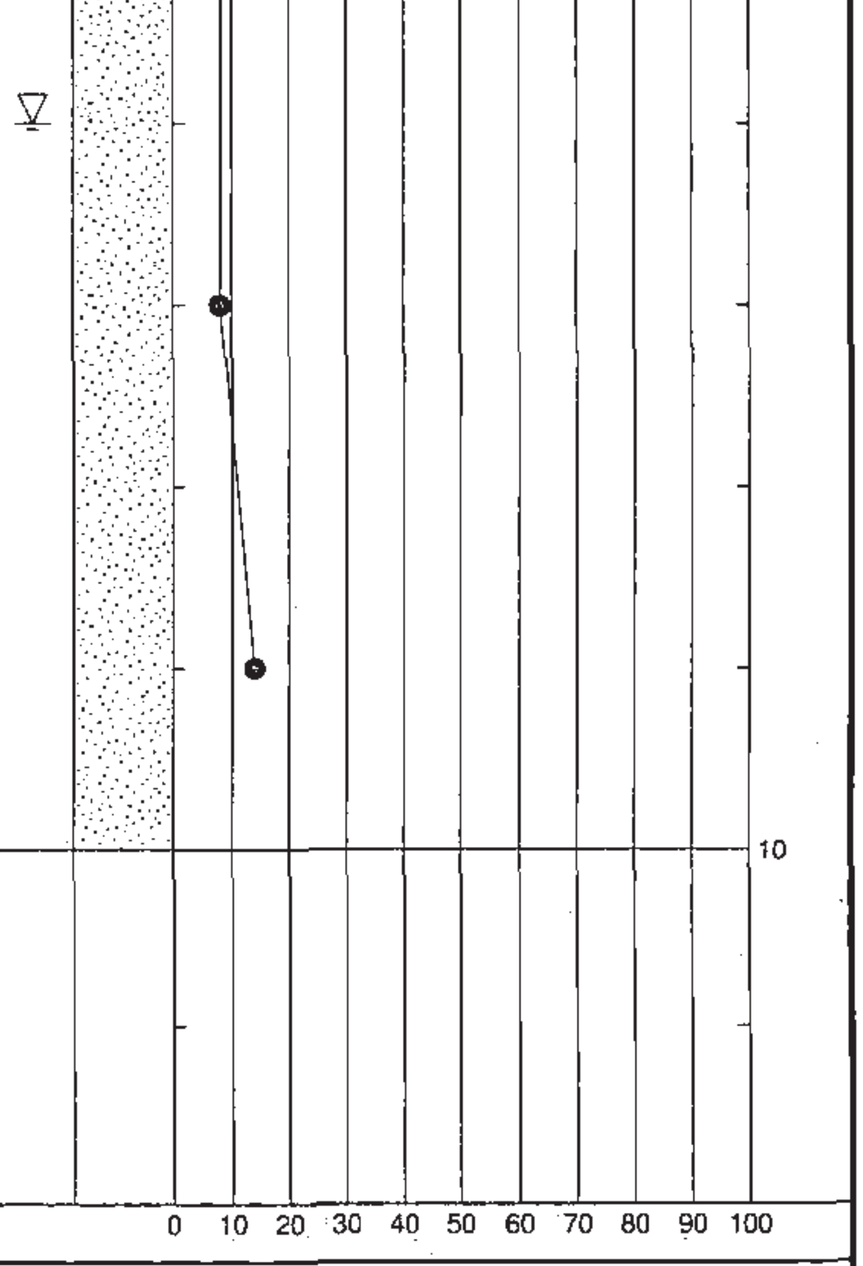
Page 1 of 1

NODARSE & ASSOCIATES, INC.

TEST BORING RECORD PRINEVILLE.GPJ NODARSE.GDT 5/2/12

ATTACHMENT C
E-BID #20120058

DEPTH (ft)	ELEV (ft)	SAMPLES TYPE	N-COUNT 1st 6" 2nd 6" 3rd 6" 4th 6" / RQD % REC	N-VALUE	SOIL CLASSIFICATION AND REMARKS	LEGEND
0	NATURAL GROUND SURFACE ELEVATION NOT AVAILABLE AT TIME OF DRILLING				Topsoil (2" thick) (A-8)	
1			17-9-7-7	16	Tan to Brown Fine to Medium SAND, Trace to Few Silt (A-3/A-2-4)	
2						
3			9-10-10-10	20		
4						
5			3-4-4-4	8		
6						
7			5-4-4-4	8		
8						
9			6-8-6-10	14		
10					Boring terminated @ 10ft	
11						
12						



DRILLER: Doug
EQUIPMENT: CME 45 (Automatic Hammer)
METHOD: SplitSpoon
HOLE DIA.: 2.0
GROUND WATER LEVEL: 6'
REMARKS: Exhibit A-4

THIS RECORD IS A REASONABLE INTERPRETATION OF SUBSURFACE CONDITIONS AT THE EXPLORATION LOCATION. SUBSURFACE CONDITIONS AT OTHER LOCATIONS AND AT OTHER TIMES MAY DIFFER. INTERFACES BETWEEN STRATA ARE APPROXIMATE. TRANSITIONS BETWEEN STRATA MAY BE GRADUAL.

TEST BORING RECORD

Project Name:	Prineville WTP Site Upgrades
Project Loc.:	1001 Prineville Street, City of Port St. Lucie
Project No:	H5125005
Drilled:	4/12/12
Boring No.:	B-6

NODARSE & ASSOCIATES, INC.

TEST BORING RECORD PRINEVILLE.GPJ NODARSE.GDT 5/2/12

ATTACHMENT C
E-Mail 20120058
A Terracon company

Field Exploration Description

The field exploration consisted of performing six SPT borings (Borings B-1 through B-6) to depth of feet below the existing ground surface. The boring locations were laid out at the project site by Nodarse personnel. The locations indicated on the attached diagram are approximate and were measured by pacing distances and estimating right angles. The locations of the borings should be considered accurate only to the degree implied by the means and methods used to define them.

The SPT soil borings were drilled using a track mounted rotary drill rig with a safety hammer. Published correlations between the SPT values and soil properties are based on the cathead and rope method. The boreholes were advanced using drilling mud (bentonite) techniques.

Soil samples were obtained by the split spoon sampling procedure in general accordance with the American Society of Testing and Materials (ASTM) test designation D 1586 titled "Standard Practice for Penetration Test and Split-Barrel Sampling of Soils". In the split spoon sampling procedure, the number of blows required to advance the sampling spoon the last 12 inches of an 18-inch penetration or the middle 12 inches of a 24-inch penetration by means of a 140-pound hammer with a free fall of 30 inches, is the standard penetration resistance value (N). This value is used to estimate the in-situ relative density of cohesionless soils and the consistency of cohesive soils. The sampling depths and penetration distance, plus the standard penetration resistance values, are shown on the boring logs.

Portions of the samples from the borings were sealed in glass jars to reduce moisture loss, and then the jars were taken to our laboratory for further observation and classification. Upon completion, the boreholes were backfilled with the site soil.

Field logs of each boring were prepared by the drill crew. These logs included visual classifications of the materials encountered during drilling as well as the driller's interpretation of the subsurface conditions between samples. The boring logs included with this report represent an interpretation of the field logs and include modifications based on laboratory observation of the samples.

Soil Survey Descriptions

4- Arents This soil unit is used as fill for area as low sloughs, marches, shallow depression and swamps. This soil unit is consists of soil material dug from several area with different properties. Depth of the fill material varies from 20 to 50 inch followed by several kind of soil below that. Mostly Arents soil is made of loose sand material mixed with loamy sail and occasionally cementations sand. Water table in this soil unit is between depths of 20 to 50 ft. all year. The general slope in this soil unit is 0 to 5 percent.

45- Urban Land. This map unit consists of areas that are more than 70% covered by urban infrastructure like airports, shooping centers buildings, streets sidewalks etc. Other areas that fall under this soil unit are lawns vacant lots and playground are made up of Ankona, Lawnwood, Nettles, Pendarvis, Pepper, Tantile, St. Lucie and Waveland soils. The surface of this this soil unit to 12 inch is fill material consisting of sand or loamy material with lime stone and shell fragments

ATTACHMENT C
E-BID #20120058

APPENDIX B
LABORATORY TESTING

ATTACHMENT C
E-BID #20120058

NODARSE
A Terracon COMPANY

EXHIBIT B-1: SUMMARY OF LABORATORY TEST RESULTS FOR PRINEVILLE WTP SITE UPGRADES

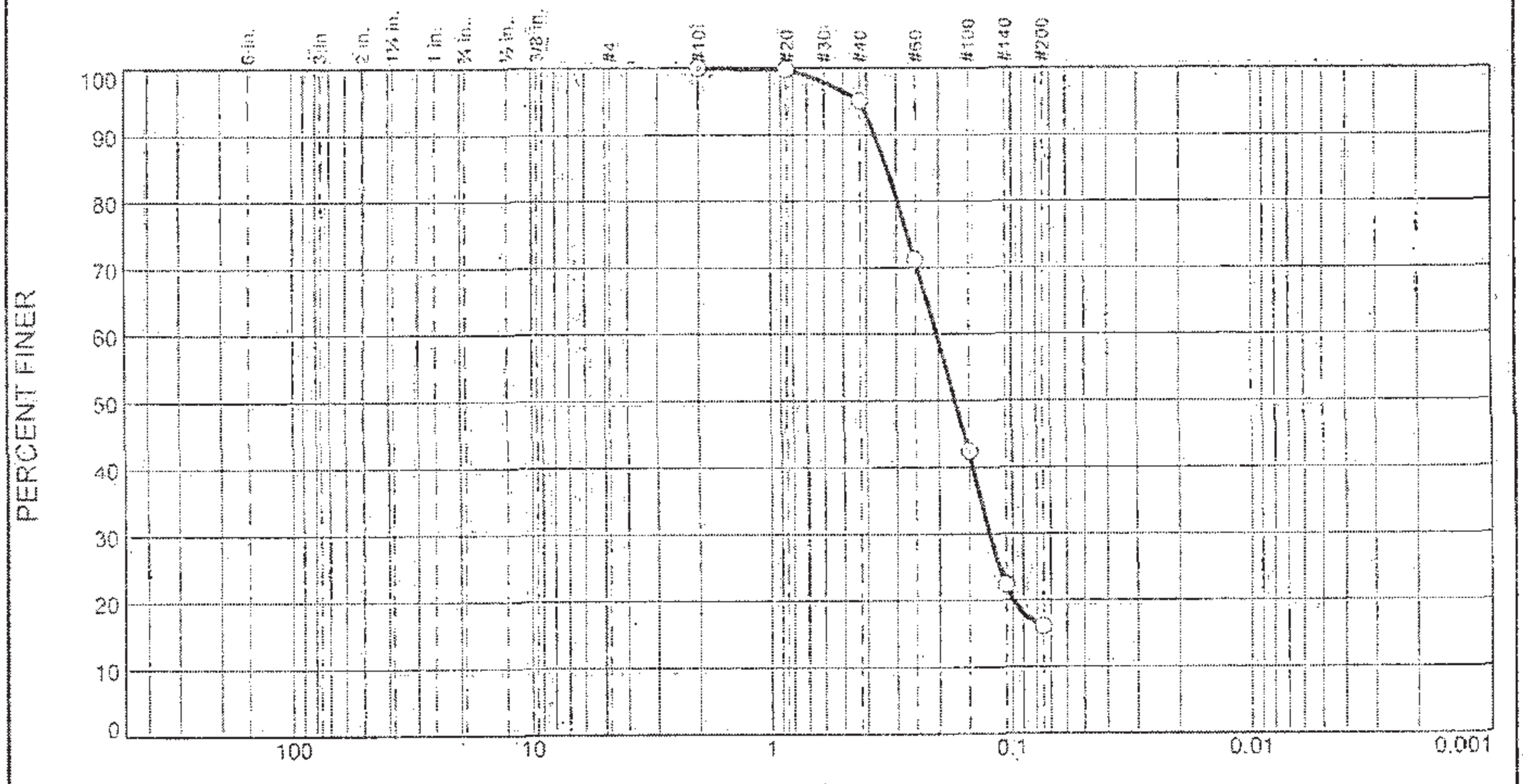
PRINEVILLE WTP SITE UPGRADES

1001 SE PRINEVILLE STREET
CITY OF PORT ST. LUCIE, FLORIDA

Boring No	Approximate Sample Depth	Passing Sieve Number (%)					Moisture Content (%)	Organic Content (%)	AASHTO Classification	Stratum Number
		10	40	60	100	200				
B-1	4'-6'	-	-	-	-	-	16	6	A-8	4
B-2	8'-10'	100	95	71	43	16	13	-	A-2-4	2
B-3	6'-8'	100	93	67	37	13	11	-	A-2-4	3
B-4	4'-6'	-	-	-	-	-	18	3	A-2-4	3
B-6	6'-8'	-	-	-	-	-	14	2	A-2-4	2

ATTACHMENT C
E-BID #20120058

Particle Size Distribution Report



% +3"	% Gravel		% Sand			% Fines	
	Coarse	Fine	Coarse	Medium	Fine	Silt	Clay
0.0	0.0	0.0	0.0	4.8	79.1	16.1	

TEST RESULTS

Opening Size	Percent Finer	Spec.* (Percent)	Pass? (X=Fail)
#10	100.0		
#20	99.9		
#40	95.2		
#60	71.3		
#100	42.5		
#140	22.4		
#200	16.1		

* (no specification provided)

Material Description

Brown to tan fine to medium sand, few silt

Atterberg Limits (ASTM D 4318)

PL= LL= PI=

Classification

USCS (D 2487)= AASHTO (M 145)= A-2-4

Coefficients

D_{90}= 0.3659 D_{85}= 0.3266 D_{60}= 0.2025
D_{50}= 0.1697 D_{30}= 0.1232 D_{15}=
D_{10}= C_u= C_c=

Remarks

Moisture content 13%

Date Received: Date Tested: 4-16-12

Tested By: C.F.

Checked By: V.M.

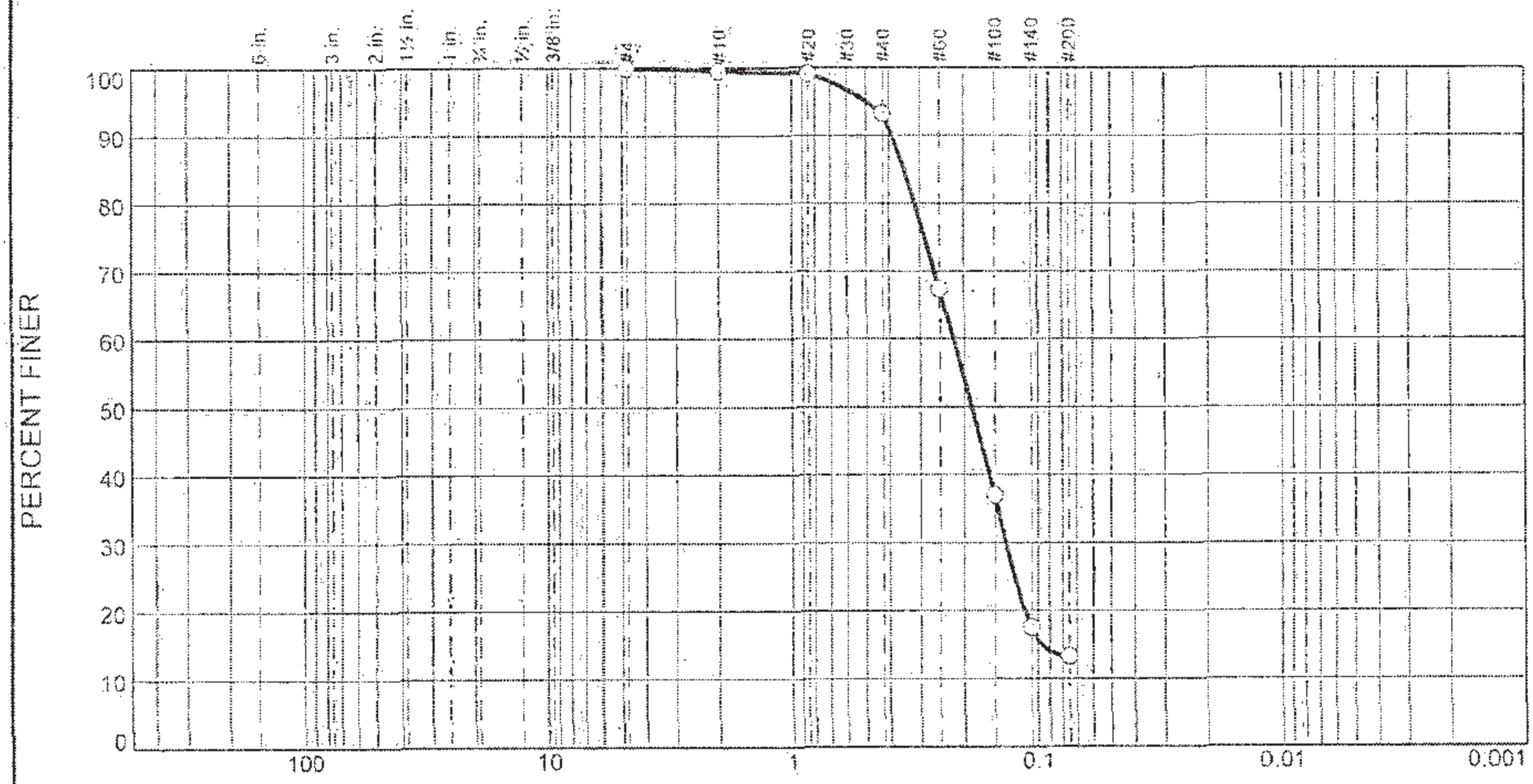
Title:

Sample Number: B-2 Depth: 8'-10' Date Sampled: 4-16-2012

Nodarse & Associates, Inc. **West Palm Beach, FL**	**Client:** City of Port St. Lucie Utilities System Dept. **Project:** Prineville WTP Site Upgrades Project No: H5125005 Figure

ATTACHMENT C
E-BID #20120058

Particle Size Distribution Report



% +3"	% Gravel		% Sand			% Fines	
	Coarse	Fine	Coarse	Medium	Fine	Silt	Clay
0.0	0.0	0.0	0.4	6.3	79.9	13.4	

TEST RESULTS

Opening Size	Percent Finer	Spec.* (Percent)	Pass? (X=Fail)
#4	100.0		
#10	99.6		
#20	99.3		
#40	93.3		
#60	67.4		
#100	37.0		
#140	17.6		
#200	13.4		

* (no specification provided)

Sample Number: B-3 Depth: 6'-8' Date Sampled: 4-16-12

Material Description

Brown to tan fine to medium sand, few silt

Atterberg Limits (ASTM D 4318)

PL= LL= PI=

Classification

USCS (D 2487)= AASHTO (M 145)= A-2-4

Coefficients

D_{90}= 0.3875 D_{85}= 0.3457 D_{60}= 0.2197
D_{50}= 0.1852 D_{30}= 0.1345 D_{15}= 0.0960
D_{10}= C_u= C_c=

Remarks

Moisture Content 11%

Date Received: Date Tested: 4-16-12
Tested By: C.F.
Checked By: V.M.
Title:

Nodarse & Associates, Inc.
West Palm Beach, FL

Client: City of Port St. Lucie Utilities System Dept.
Project: Prineville WTP Site Upgrades
Project No: H5125005 Figure

ATTACHMENT C
E-BID #20120058

NODARSE & ASSOCIATES, INC.

LIMEROCK BEARING RATIO
- FM5-515

TESTED BY: Nodarse and Associates
West Palm Beach, Florida

PROJECT: Prineville WTP Site Upgrades

PROJECT NO: H5125005

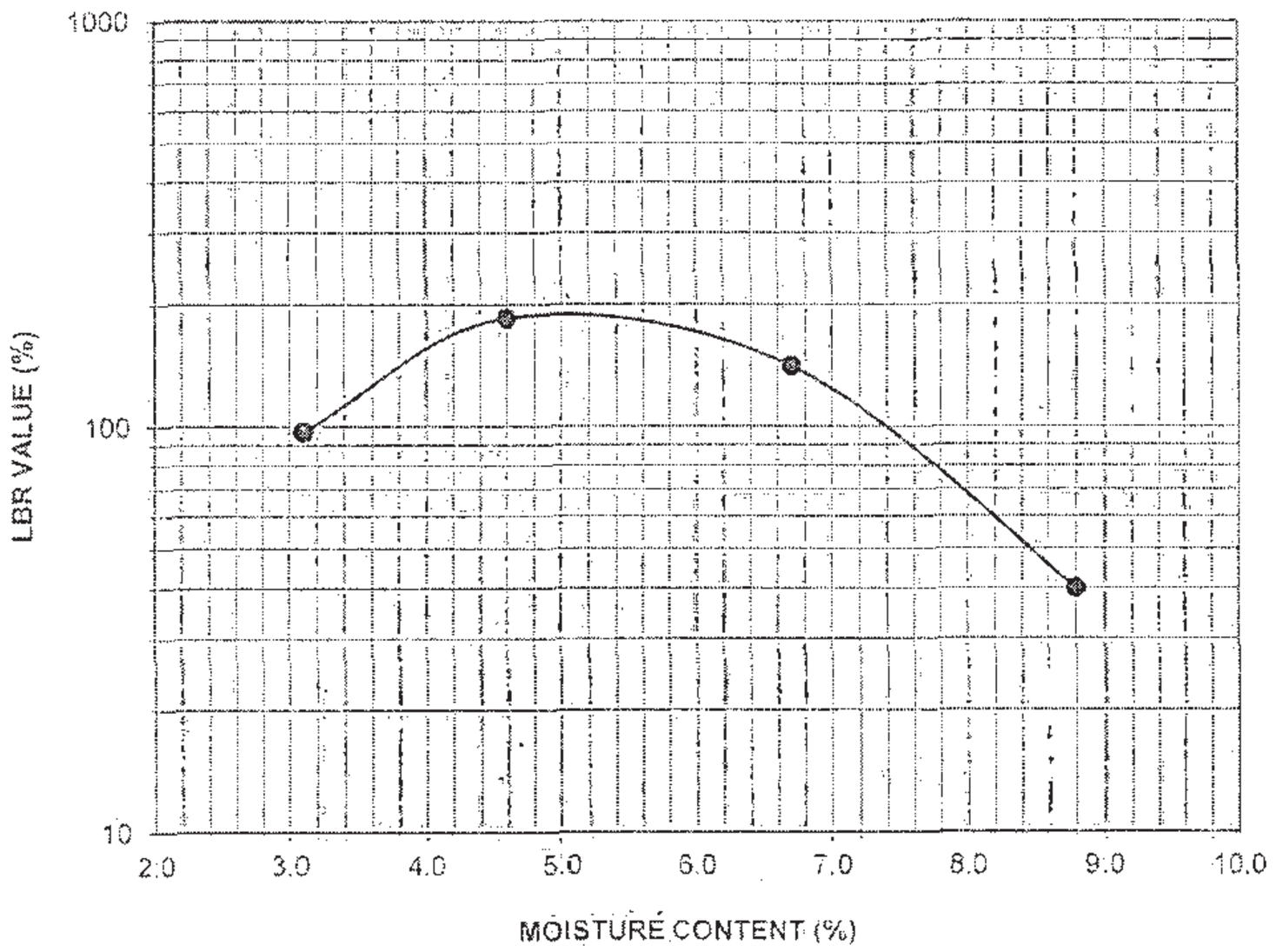
SAMPLE # LBR # 1 #5075

DATE TESTED: April 16, 2012

TEST METHOD: FM 5-515

SAMPLE LOCATION: Sample boring location B-1 top 9 inches

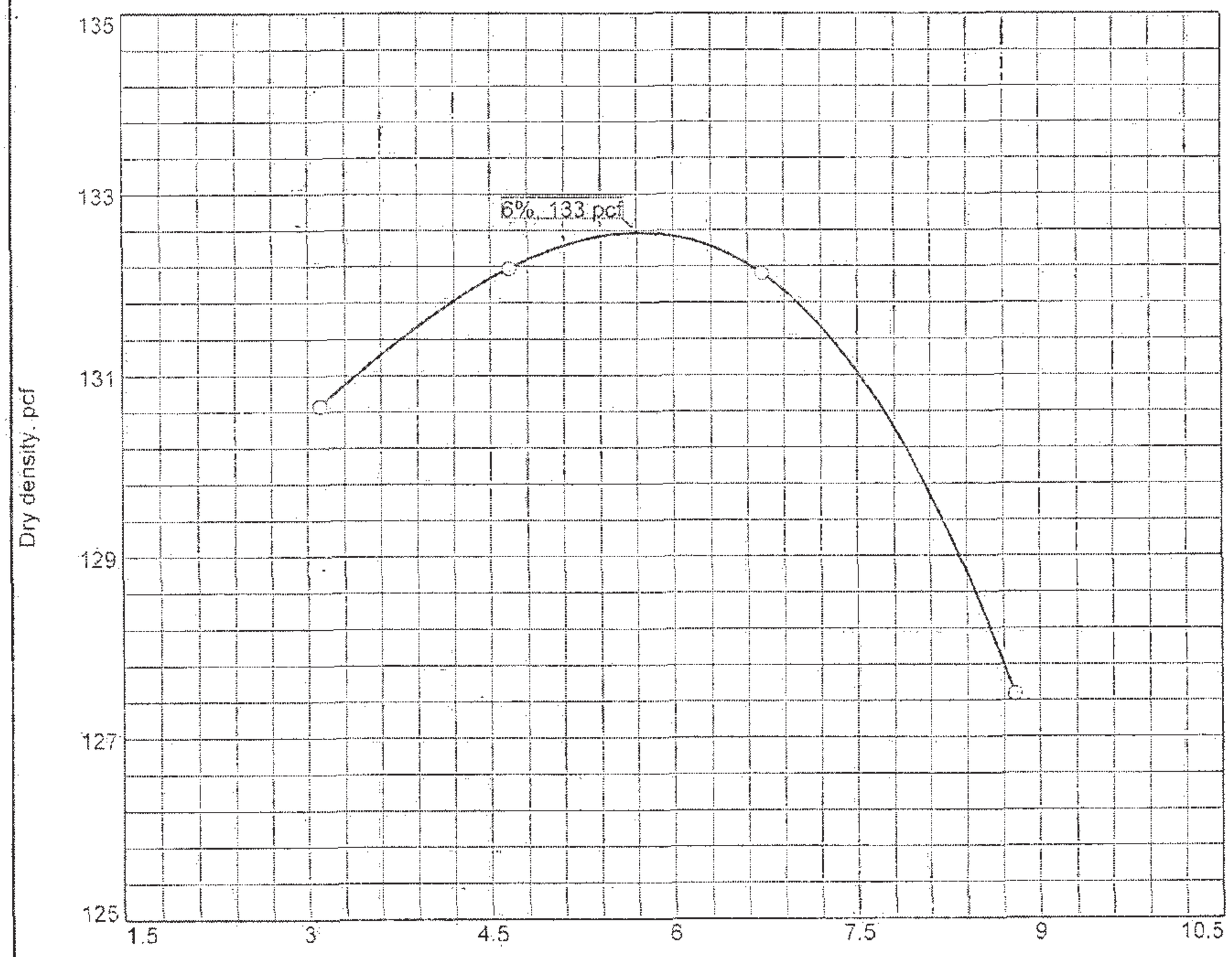
SOIL DESCRIPTION: Tan to brown fine to medium sand,some limerock,trace to few silt.



LBR Value: 185.00

ATTACHMENT C
E-BID #20120058

COMPACTION TEST REPORT



Test specification: AASHTO T 180-01 Method D Modified

Elev/ Depth	Classification		Nat. Moist.	Sp.G.	LL	PI	% > 3/4 in.	% < No.200
	USCS	AASHTO						
-	-	A-1-b	-		-	-		

TEST RESULTS	MATERIAL DESCRIPTION
Maximum dry density = 133 pcf Optimum moisture = 6%	Tan to brown fine to medium sand,some limerock,trace to few silt.
Project No. H5125005 **Client:** City of Port St. Lucie Utility Systems Dept. **Project:** Prineville WTO Site,Upgrades 1001 SE Prineville Street **Date:** 4-16-12 **Location:** Boring B-6 **Sample Number:** 5075	**Remarks:** Sample boring location B-1 top 9 inches. LBR #1
Nodarse & Associates, Inc. West Palm Beach, FL	Figure

Tested By: DT Checked By: VM

ATTACHMENT C
E-BID #20120058

NODARSE & ASSOCIATES, INC.

LIMEROCK BEARING RATIO
- FM5-515

TESTED BY: Nodarse and Associates
West Palm Beach, Florida

PROJECT: Prineville WTP Site Upgrades

PROJECT NO: H5125005

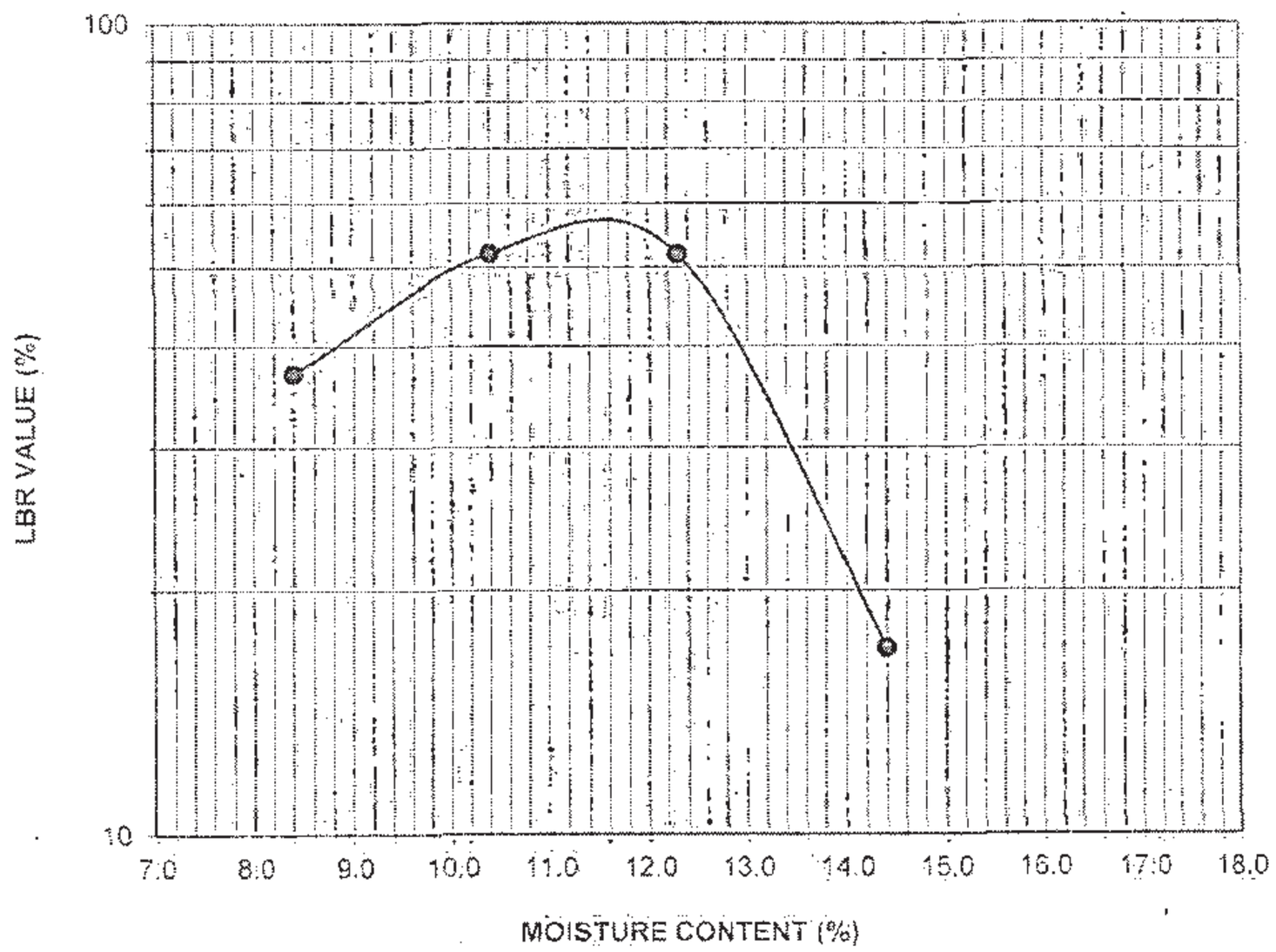
SAMPLE # LBR #2

DATE TESTED: April 16, 2012

TEST METHOD: FM 5-515

SAMPLE LOCATION: Sample boring location B-1 /B-6 1'-2'

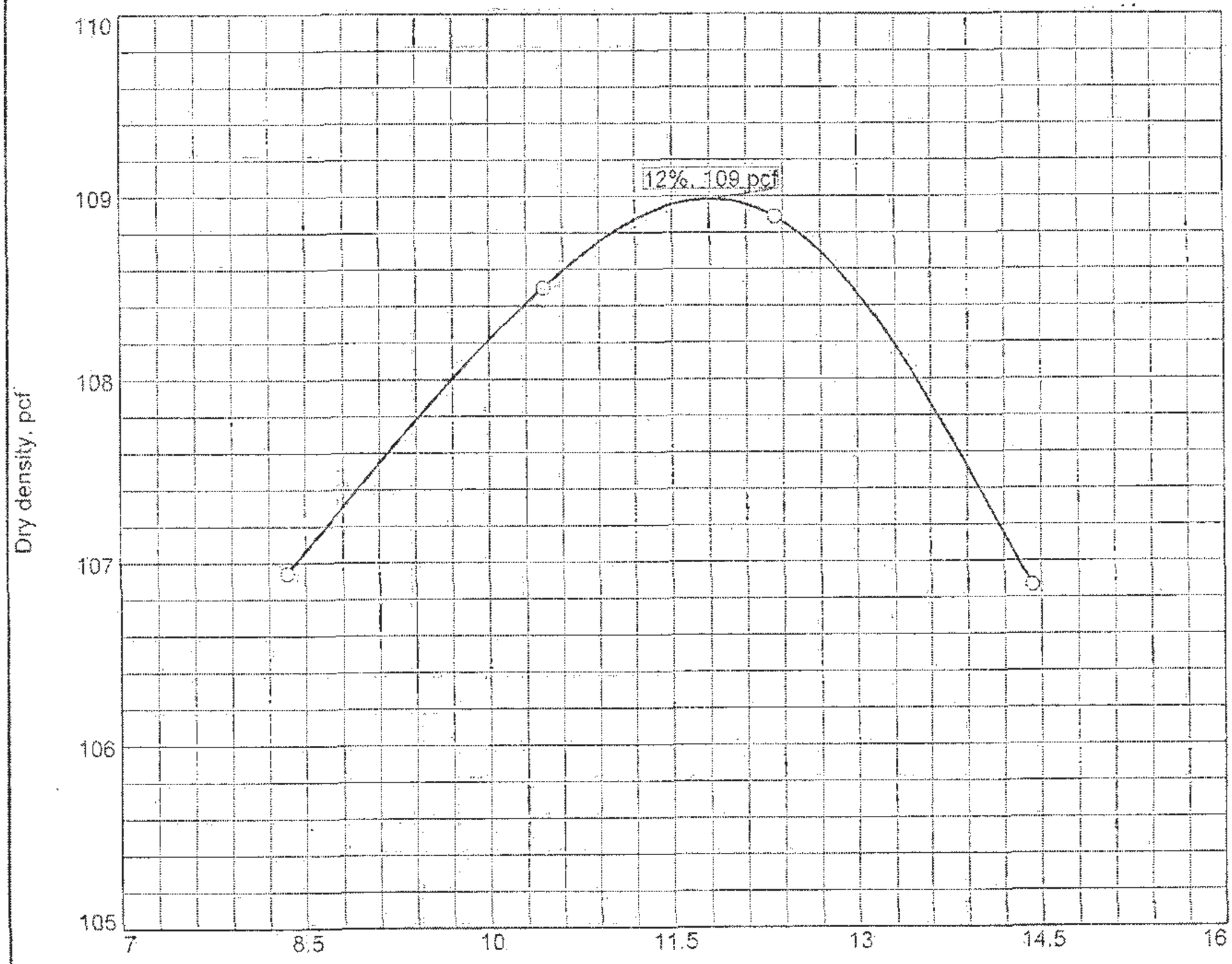
SOIL DESCRIPTION: Tan to brown fine to medium sand,trace to few silt.



LBR Value: 58.00

ATTACHMENT C
E-BID #20120058

COMPACTION TEST REPORT



Test specification: AASHTO T 180-01 Method D Modified

Elev/ Depth	Classification		Nat. Moist.	Sp.G.	LL	PI	% > 3/4 in.	% < No.200
	USCS	AASHTO						
-	-	A-2-4	-		-	-		

TEST RESULTS

Maximum dry density = 109 pcf

Optimum moisture = 12 %

MATERIAL DESCRIPTION

Tan to Brown fine to medium sand,trace to few silt.

Project No. H5125005 **Client:** City of Port St. Lucie Utility Systems Dept.

Project: Prineville WTO Site Upgrades

1001 SE Prineville Street **Date:** 4-16-12

Location: Boring B-6 **Sample Number:** 5074

Remarks:

Sample boring location B-1/B-6 1'-2'.

LBR #2

Nodarse & Associates, Inc.

West Palm Beach, FL

Figure

Tested By: DT Checked By: VM

ATTACHMENT C
E-BID #20120058

APPENDIX C

SUPPORTING DOCUMENTS

GENERAL NOTES

ATTACHMENT C
E-BID #20120058

DRILLING & SAMPLING SYMBOLS:

SS:	Split Spoon – 1-$^3/_8$" I.D., 2" O.D., unless otherwise noted	HS:	Hollow Stem Auger
ST:	Thin-Walled Tube - 2" O.D., unless otherwise noted	PA:	Power Auger
RS:	Ring Sampler - 2.42" I.D., 3" O.D., unless otherwise noted	HA:	Hand Auger
DB:	Diamond Bit Coring - 4", N, B	RB:	Rock Bit
BS:	Bulk Sample or Auger Sample	WB:	Wash Boring or Mud Rotary

The number of blows required to advance a standard 2-inch O.D. split-spoon sampler (SS) the last 12 inches of the total 18-inch penetration with a 140-pound hammer falling 30 inches is considered the "Standard Penetration" or "N-value".

WATER LEVEL MEASUREMENT SYMBOLS:

WL:	Water Level	WS:	While Sampling	N/E:	Not Encountered
WCI:	Wet Cave in	WD:	While Drilling	ESH	Estimated Seasonal High Groundwater
DCI:	Dry Cave in	BCR:	Before Casing Removal	ESL	Estimated Seasonal Low Groundwater
AB:	After Boring	ACR:	After Casing Removal		

Water levels indicated on the boring logs are the levels measured in the borings at the times indicated. Groundwater levels at other times and other locations across the site could vary. In pervious soils, the indicated levels may reflect the location of groundwater. In low permeability soils, the accurate determination of groundwater levels may not be possible with only short-term observations.

DESCRIPTIVE SOIL CLASSIFICATION: Soil classification is based on the Unified Classification System. Coarse Grained Soils have more than 50% of their dry weight retained on a #200 sieve; their principal descriptors are: boulders, cobbles, gravel or sand. Fine Grained Soils have less than 50% of their dry weight retained on a #200 sieve; they are principally described as clays if they are plastic, and silts if they are slightly plastic or non-plastic. Major constituents may be added as modifiers and minor constituents may be added according to the relative proportions based on grain size. In addition to gradation, coarse-grained soils are defined on the basis of their in-place relative density and fine-grained soils on the basis of their consistency.

CONSISTENCY OF FINE-GRAINED SOILS

Unconfined Compressive Strength, Qu, psf	Standard Penetration or N-value (SS) Blows/Ft.	Consistency
< 500	0 – 1	Very Soft
500 – 1,000	2 – 4	Soft
1,001 – 2,000	4 – 8	Medium Stiff
2,001 – 4,000	8 – 15	Stiff
4,001 – 8,000	15 – 30	Very Stiff
8,000+	> 30	Hard

RELATIVE DENSITY OF COARSE-GRAINED SOILS

Standard Penetration or N-value (SS) Blows/Ft.	Relative Density
0 – 3	Very Loose
4 – 9	Loose
10 – 29	Medium Dense
30 – 49	Dense
> 50	Very Dense

RELATIVE PROPORTIONS OF SAND AND GRAVEL

Descriptive Term(s) of other Constituents	Percent of Dry Weight
Trace	< 15
With	15 – 29
Modifier	> 30

GRAIN SIZE TERMINOLOGY

Major Component of Sample	Particle Size
Boulders	Over 12 in. (300mm)
Cobbles	12 in. to 3 in. (300mm to 75 mm)
Gravel	3 in. to #4 sieve (75mm to 4.75 mm)
Sand	#4 to #200 sieve (4.75mm to 0.075mm)
Silt or Clay	Passing #200 Sieve (0.075mm)

RELATIVE PROPORTIONS OF FINES

Descriptive Term(s) of other Constituents	Percent of Dry Weight
Trace	< 5
Few	5 – 10
Little	15 – 25
Some	30 – 45

PLASTICITY DESCRIPTION

Term	Plasticity Index
Non-plastic	0
Low	1 – 10
Medium	11 – 30
High	> 30

Exhibit C-1

Addendum #1

Pre-Bid Meeting

E-Bid #20120058

Prineville Water Treatment Plant Site Upgrades
June 13, 2012 at 1:30 pm

This meeting is being recorded. During the question & answer period please clearly state your name and firm you are associated with before asking your questions. Thank you.

1. Sign-In Sheet
2. Introduction of key personnel
3. **Reminder**: Bid opening date is July 12, 2012 at 3:00 pm.

   All Bids are to be submitted electronically. No hard copies will be accepted.

   No Bid will be accepted after that date and time.

4. Review of Specifications requirements:
   - 5% Bid bond is required. This is to be scanned and uploaded and submitted with the required documents. Immediately after the opening, the Bid Bond is to be mailed to the City. If the **original** Bid Bond is not received within 3 days after the opening; the bid may not be considered.
   - Last date for questions is July 3, 2012. All questions must be submitted in writing to Robyn Holder at rholder@cityofpsl.com.
   - Refer to Item #7 on Page 6 of 50 for the e-bid submittal requirements.

The bid reply is an electronic spread sheet that is already formatted with formulas. Please submit on the electronic bid sheet only. Hand written sheets should not be submitted.

An Addendum will be issued after this meeting with all the questions and comments listed.

5. Turn over to: Rich Schoenborn from the Utilities Department.

Rich begins by laying out the scope of the project required by the contractor.

There are some existing facilities that have to be demolished. The work includes reconstruction of an extension of the pre-cast wall system, temporary construction fence and a man-entry gate from that construction fence. The work also includes the installation of a slide gate, that's the furnishing and installing of the slide gate. Also included is a pre-cast wall extension, a traffic island, the roadway itself, and construction of a drop-off box access drive. There are several alternatives that are detailed on the plan set. The top of crown elevation on the roadway is not shown on the plan, but that's going to be 16.0. That top of crown elevation is going to be 16.0 and matching existing pavement at either end of the roadway. Then there'll be a transition that

includes construction of a transition, a crushed rock transition from the apron over to the existing grade at each of the aprons. The drop-off box access drive includes the reconstruction of the drive after demolition of the existing pavement and also installation/construction of a new drop off box. Prineville Street is a residential street and will require a Maintenance of Traffic (MOT) plan. You cannot obstruct or totally close off that street, maybe temporarily as far as getting some vehicles in, but you cannot permanently close it off. There shouldn't be any reason for doing that. This work is going to occur on an active water treatment plant site, so we do want dust control during the construction process. The work also includes putting on a couple of new street lighting systems. The contractor's work will include construction of fiber optic boxes, and the specs for the fiber optic boxes are in the technical specifications, in fact, in the back you'll see there is a kind of a recipe for the box, that's attached at the end. Your work also includes the construction of the fiber optic conduits and whatever restoration work that has to happen there. Anything that's disturbed during construction has to be restored to its original state so there will be some sodding there.

Work by others will include pulling the fiber optic cable, terminating that fiber optic cable, installing the gate operator system, and electrical work for the gate operator system. Coordination is important.

There will be City staff involved in this project. There will be other City contractors involved in this project and so part of your work is to make sure you are coordinating with the City electrical staff, coordinating with the City fiber optic staff, coordinating with the City staff that will be responsible for the fiber optic cable terminations and of course, coordinating with the City's contractor for installing the gate operator system. This will also be the same contractor who will be activating the electronic key access system and other security systems that revolve around the gate operator system. There will be some in the pavement and I think it is indicated there on the plans.

The specifications for this project include the plans sets that are on Demand Star and the technical specifications that are on Demand Star. Those same technical specifications also reference City standards, by City standards I mean City Utility System Department standards that are found on-line and also the FDOT standards, latest edition.

All utilities must be provided by the contractor. A construction water meter permit must be pulled by the Contractor. The forms are available on-line at the Utilities Systems Department portion of the City's website. Use of the City's restrooms that are on the water treatment plant site are prohibited, We also ask to make sure that your works and subcontractors are not relieving themselves on City property.

As far as site security, again this is an active water treatment plant, so we are drawing water from Surficial Aquifer which is from 0 to 100 feet in depth in this area and also from the Floridan Aquifer which is 2000 feet in depth. Access of the site will be from designated gates only. Whatever gates that you install with respect to your construction fencing, there's a temporary construction fence shown on plans, must be locked at the end of each working day. The gates must be double locked so that the City can have access at all times. Construction personnel have to adhere to security protocols that we have for the site and that your activities must be confined

to the construction area. No one should be found wandering around the site. Again, this is an active site and we have heavy vehicles of our own that are going to be on the site and plus we are the facility for producing potable water for the City. Having unauthorized personnel wandering around the facility is prohibited and it could lead to someone being asked to leave the site and never to return or even arrested.

We also ask that you all periodically police around the construction site as far as keeping it neat and orderly by picking up trash.

The floor was opened for questions.

Again, if you have any questions later on, you must direct these questions to Robyn Holder, no one can answer any questions from you or from your vendors or from your subcontractors. They may be sent via email to rholder@cityofpsl.com or via fax to 772-871-7337.

Question: So submit them directly to you, not through Demand Star?

Answer: Do not submit them through Demand Star, directly to me, and then we will post all the questions and answers on Demand Star so everybody will have access to that.

I'd like to remind everybody that the opening is July 12 at 3:00 pm, we suggest that you start loading your documents in advance; because once the clock strikes 3:00 pm Demand Star will lock you out and you will not be able to upload any more documents. Sometimes that does take a little bit of time, so we suggest that you do that as soon as possible. Again, 5% bid bond that must be an original submitted to us after the opening within three (3) business days or your bid may not be considered. We do want you to scan it and upload it at the same time that you upload all your other documents that we are requesting. If nobody else has any questions, we'll adjourn the meeting.

One time only site visit will be held **Wednesday, June 20, 2012 at 2:00 pm.** All Contractors are to meet in the lobby of the RO/Administration building to receive visitor passes. The address for the site visit is 900 SE Ogden Lane, Port St. Lucie, Florida 34983.

NOTE: The bid opening date has not been changed.

Instructions to Bidder:
Each bidder must acknowledge receipt of any addenda on the Bid Reply Sheet in order to have his/her bid or proposal to be accepted.

AGENDA

Pre-Bid Meeting
E-Bid #20120058
Prineville Water Treatment Plant Site Upgrades
June 13, 2012 at 1:30 pm

This meeting is being recorded. During the question & answer period please clearly state your name and firm you are associated with before asking your questions. Thank you.

1. Sign-In Sheet

2. Introduction of key personnel

3. **Reminder**: Bid opening date is July 12, 2012 at 3:00 pm.

   All Bids are to be submitted electronically. No hard copies will be accepted.

   No Bid will be accepted after that date and time.

4. Review of Specifications requirements:
   - 5% Bid bond is required. This is to be scanned and uploaded and submitted with the required documents. Immediately after the opening, the Bid Bond is to be mailed to the City. If the **original** Bid Bond is not received within 3 days after the opening, the bid may not be considered.
   - Last date for questions is July 3, 2012. All questions must be submitted in writing to Robyn Holder at rholder@cityofpsl.com.
   - Refer to Item #7 on Page 6 of 50 for the e-bid submittal requirements.

The bid reply is an electronic spread sheet that is already formatted with formulas. Please submit on the electronic bid sheet only. Hand written sheets should not be submitted.

An Addendum will be issued after this meeting with all the questions and comments listed.

5. Turn over to: Rich Schoenborn from the Utilities Department.

6. Additional questions from Prospective Bidders.

7. Adjourn

Pre Bid Meeting
E-BID #20120058
Prineville Water Treatment Plant Site Upgrades
June 13, 2012 @ 1:30 pm

	Name (Please PRINT legibly)	Company Name	E-Mail Address	Telephone # & FAX #
1.	Robyn Holder	City of PSL. Com	RholderO City of PSL.com	T 871-5223
				F 871-7337
2.	CL. FFORD WRIGHT	WAVEGUIDE COMM	CL.FFORD_W@WGC-USA.COM	T 954-782-9995 x1761
				F 954-782-9812
3.	JOEY BENSON	AG SCAPE SERVICE INC	~~SHA~~ Shaneb2055@AOL.com	T 772-473-1072 772-778-5196
				F 772 778-5196
4.	RICHARD SCHOENBOEN	CITY OF PSL Utility Systems Dept	rschoenborn@cityofpsl.com	T 772-873-6435
				F
5.	Pierre Vignier	City of Port St. Lucie	PVignier@cityofPSL.com	T 772-871-5434
				F
6.	SCOTT PORCARO	MANCILS TRACTOR	ESTIMATING@MANCILS.COM	T 772 288-0951
				F
7.				T
				F
8.				T

Addendum #2
Site Visit
Prineville Water Treatment Plant Site Upgrades
E-Bid #20120058-RH
June 20, 2012 @ 2:00 PM

Attendees:

Robyn Holder, City of PSL – OMB
Rich Schoenborn, City of PSL – USD
Scott Porcaro, Mancils Tractor Service
Cliff Martin, Florida Mechanical

We just concluded the one time only site visit and we are back in the office for questions and answers. It's 2:18 pm on June 20, 2012. Robyn opens the floor for any comments.

This is a recap of the project work: it includes a pavement that ties into the existing on-site paved roadway that is in front of that 2 million gallon crom tank and then heads to the west over to what we call Gate #5 and ties into Prineville Street as shown on the plans.

The overall work by the contractor includes

- pavement,
- it includes installation of a gate and the gate is a new slide gate. In fact, it's a double gate, there will be two leaves, one for each side of the road and is to be independently operable.

The gate operators are to be supplied by the City's contractor – SVI, who does other gate work and security work. Other work that is to be done by City contractors/City personnel will include the electrical work, as far as conduit and wiring and the fiber optic cable pull.

The contractor's work, includes the pavement, includes installation of the gate, includes installation of the fiber optic conduit, not the cable, but the conduit, the fiber optic pull boxes, and the lighting poles and fixtures.

7.5

So there will be some coordination that's going to have to take place between you and your subcontractor; we are counting on you all, the contractors and the City. With that, yes we can open up to questions.

The site and the work did include the furnishing of a new gate, also.

Correct, it's the furnishing and installation of the gate and we'll install the gate operators.

Any questions?
(No Questions From Bid Plan Holders Attending Meeting.)
If you do think of any questions between now and seven (7) days prior to the bid opening date *(July 12th)*, I believe the last day of questions is July 3rd, please submit them in writing to me and we will get those addressed and issue the answers in the form of an addendum.

With no further business, the meeting is adjourned.

NOTE: The bid opening date has not been changed.

Instructions to Bidder:
Each bidder must acknowledge receipt of any addenda on the Bid Reply Sheet in order to have his/her bid or proposal to be accepted.

Site Visit
E-BID #20120058
Prineville Water Treatment Plant Site Upgrades
June 20, 2012 @ 2:00 pm

	Name (Please PRINT legibly)	Company Name	E-Mail Address	Telephone # & FAX #
1.	SCOTT PORCARO	MANCILS	ESTIMATING@MANCILS.COM	T 772 288-0951
				F 772 288-0983
2.	CLIFF MARTIN	FIA. Mechanical		T
				F 561-722-1315
3.	Robyn Holder	City of PSL-OMB		T 871-5223
				F 871-7337
4.	RICH SCHOENBORN	CITY OF PSL 450		T
				F
5.				T
				F
6.				T
				F
7.				T
				F
8.				T

NOTICE

E-Bid #20120058

Prineville Water Treatment Plant Site Upgrades
June 15, 2012

There will be a one-time only site visit on **Wednesday, June 20, 2012 at 2:00 PM**. The location of the site visit is 900 SE Ogden Lane, Port St. Lucie, Florida 34983. All Bidders are to meet in the lobby of the RO/Administration building to receive visitor passes.

Addendum #3
E-Bid #20120058

City of Port St. Lucie

Prineville WTP Site Upgrades
Addendum No. 3
June 27, 2012

Corrections and clarifications:

TECHNICAL SPECIFICATIONS

1. Section 01010, Summary of Work; Page 48 of 141, Item 24. New Roadway Culverts: DELETE "...new galvanized metal" and replace with "elliptical reinforced concrete pipe (ERCP)...".

2. Section 01010, Summary of Work, Page 48 of 141, item 22, after "...earthwork, grading..."ADD the following: "...all swales on-site, all swales off-site,..."

3. Revised plans are issued as Addendum #3A. Acknowledgment of all Addenda must be listed on the E-Bid Reply Sheet #20120058.

4. Revised E-Bid Reply Excel Spreadsheets are issued as Addendum #3B and #3C. Line 24 quantity has been changed to 340 LF. These are the only forms to be used for the submittal of this project.

NOTE: The bid opening date has not been changed.

Instructions to Bidder:
Each bidder must acknowledge receipt of any addenda on the Bid Reply Sheet in order to have his/her bid or proposal to be accepted.

ADDENDUM #3A

"REVISED" CONSTRUCTION PLANS

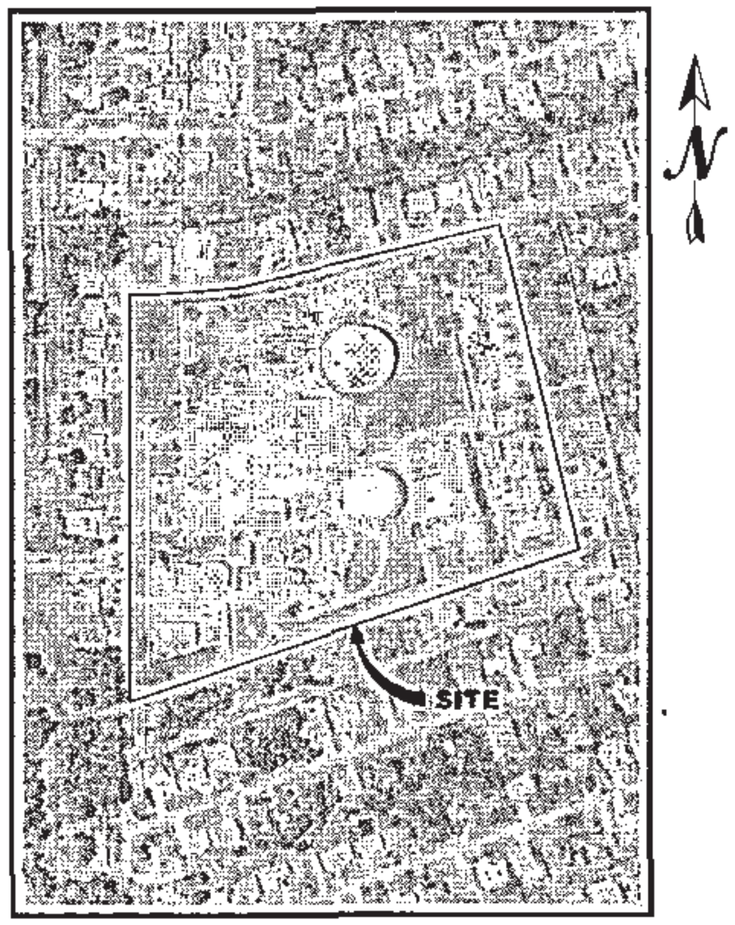
CITY OF PORT ST. LUCIE
UTILITY SYSTEMS DEPARTMENT
PRINEVILLE WTP SITE UPGRADES

INDEX OF SHEETS

CIVIL

G1	COVER SHEET
D1	DEMOLITION
D2	DEMOLITION PHOTO DETAILS
C1	SITE PLAN - NORTH
C2	SITE PLAN - SOUTH
C3	PRINEVILLE STREET GATE 5
C4	EQUIPMENT WASH DOWN PAD
C5	GATE DETAILS
C6	PRECAST CONCRETE WALL DETAILS
C7	ROADWAY AND PAVEMENT DETAILS
C8	PRINEVILLE STREET ONSITE DRIVEWAY
C9	DROP BOX PAVEMENT DETAIL
C10	EROSION CONTROL DETAILS
C11	GENERAL NOTES

"A City for All Ages"



VICINITY MAP
NOT TO SCALE

PSLUSD PROJECT # 29.0005

ENGINEER OF RECORD

RICHARD M. SCHOENBORN, P.E.
CITY OF PORT ST. LUCIE
UTILITY SYSTEMS DEPARTMENT
900 S.E. OGDEN LANE
PORT ST. LUCIE, FLORIDA 34983
PHONE (772) 873-6400
FAX (772) 873-6433

ADDENDUM #1

PREPARED BY

CITY OF PORT ST. LUCIE
UTILITY SYSTEMS DEPARTMENT
900 S.E. OGDEN LANE
PORT ST. LUCIE, FLORIDA 34983
PHONE (772) 873-6400
FAX (772) 873-6433

JESUS MEREJO ..... DIRECTOR
BRAD MACEK ..... ASSISTANT DIRECTOR

SUBCONSULTANTS

NODARSE & ASSOCIATES, INC. (SOILS)

SVI SYSTEMS, INC. (SECURITY)

RICHARD M. SCHOENBORN, P.E.# 40236
ISSUE DATE:

NOTES

1. PROJECT WORK INCLUDES CONSTRUCTION OF TEMPORARY CHAIN-LINK FENCE, AND TEMPORARY SITE ACCES ROADWAY, DEMOLITION OF EXISTING GATE, WALL SEGMENT, ROADWAY PAVEMENT, FIBER OPTIC BOX, AND CARD READER AND CONSTRUCTION OF NEW GATE, WALL SEGMENT, SITE LIGHTING, FIBER OPTIC CONDUIT, FIBER OPTIC PULL BOXES, FIBER OPTIC BOX REINFORCED CONCRETE COLLARS, NEW SITE LIGHTING, NEW ROADWAY PAVEMENT SYSTEM, SOIL COMPACTION, TESTING, NEW TRAFFIC ISLAND AND ALL WORK SHOWN OR IMPLIED FOR A COMPLETE AND OPERABLE GATE AND SITE ACCESS ROADWAY SYSTEM. THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING TRAFFIC CONTROL THROUGHOUT THE PROJECT LIFE. CARD READER, WALL SEGMENT AND FIBER OPTIC BOX ARE TO BE TURNED OVER TO THE CITY. CONTRACTOR SHALL RELOCATE EXISTING IRRIGATION BOX.

2. IT IS THE INTENT OF THE SCHMATIC THAT ALL WORK SHOWN ON SHALL BE PERFORMED BY THE CONTRACTOR UNLESS INDICATED AS "BY CITY" OR "BY OTHERS", OR "BY GATE OPERATOR CONTRACTOR". THE CITY WILL INSTALL THE ELECTRICAL "J" TYPE PULL BOXES AND ELECTRICAL CONDUIT AND WIRE FOR THIS PROJECT.

3. ALL WORK AND MATERIALS FOR THIS PROJECT, INCLUDING COMPACTION AND TESTING SHALL CONFORM WITH THESE SPECIFICATIONS, THE FLORIDA DEPARTMENT OF TRANSPORTATION STANDARDS, THE CITY OF PORT ST. LUCIE, UTILITY SYSTEMS DEPARTMENT SPECIFICATIONS-LATEST EDITION, AND THE CITY OF PORT ST. LUCIE, UTILITY SYSTEMS DEPARTMENT QUALIFIED PRODUCTS LIST (QPL)-LATEST EDITION AND CITY OF PORT ST. LUCIE CODES. ALL MATERIALS PROVIDED BY THE CONTRACTOR FOR THE PROJECT SHALL BE NEW. IN THE EVENT OF CONFLICTING THE SPECIFICATIONS, THE CONTRACTOR SHALL BRING THE CONFLICT TO THE ATTENTION OF THE CITY. THE MORE SEVERE SPECIFICATION SHALL APPLY. CONTRACTOR SHALL SUBMIT THREE (3) SETS OF SHOP DRAWINGS FOR ALL MATERIALS USED ON THIS PROJECT AS WELL AS A PROJECT SCHEDULE AT THE TIME OF THE PRECONSTRUCTION MEETING.

4. THE CONTRACTOR IS RESPONSIBLE FOR LOCATING AND PROTECTION OF ALL ABOVE AND BELOW GRADE WASTEWATER TREATMENT PIPES AND UTILITY FACILITIES. ABOVE GRADE AND BELOW GRADE FACILITIES DAMAGED DURING THE CONSTRUCTION PROCESS SHALL BE RESTORED TO THEIR ORIGINAL CONDITION BY THE CONTRACTOR AT HIS EXPENSE. THE CONTRACTOR IS RESPONSIBLE FOR VERIFICATION OF THE SIZE, LOCATIONS, ELEVATIONS, AND DIMENSIONS OF ALL FACILITIES PRIOR TO INITIATION OF ALL PROJECT WORK.

5. ELECTRONIC KEY READER SYSTEM, FIBER OPTIC CABLE, ELECTRICAL CONNECTIONS, AND GATE OPERATOR SYSTEM SHALL BE RELOCATED OR CONSTRUCTED BY OTHERS. CONTRACTOR SHALL COORDINATE HIS PROJECT WORK WITH THE CITY TO ALLOW SUFFICIENT SPACE AND TIME FOR THE CITY TO CONSTRUCT THE NEW GATE OPERATOR SYSTEM. CONTRACTOR SHALL COORDINATE CONSTRUCTION OF THE ACCESS ROADWAY AND GATE WITH THE CITY TO ALLOW FOR INSTALLATION OF AUTOMATED GATE OPERATION EQUIPMENT, CONDUIT AND WIRE PRIOR TO THE FINAL PAVEMENT COURSE INSTALLATION.

6. CONTRACTOR SHALL COORDINATE CONSTRUCTION OF THE ACCESS ROADWAY, SITE LIGHTING, FIBER OPTIC PULL BOXES, FIBER OPTIC UNDERGROUND CONDUITS, AND GATE WITH THE CITY TO ALLOW FOR INSTALLATION OF AUTOMATED GATE OPERATION EQUIPMENT, CONDUIT AND WIRE PRIOR TO THE FINAL PAVEMENT COURSE INSTALLATION.

7. THE CONTRACTOR'S ATTENTION IS BROUGHT TO THE FACT THAT THE WORK IS LOCATED ON THE PRINEVILLE WTP SITE, A SECURE FACILITY OWNED AND OPERATED BY THE CITY OF PORT ST. LUCIE. THE CONTRACTOR SHALL CONFORM WITH ALL CITY REQUESTS, REQUIREMENTS, ORDINANCES, AND PROTOCOLS FOR SAFETY AND SECURITY INCLUDING HOURS OF WORK, NOISE, ACCESS TO THE SITE, STORAGE OF MATERIALS, VEHICLE PARKING, WORK ON SITE, AND EGRESS FROM THE SITE. THE CONTRACTOR SHALL PROVIDE ADEQUATE EQUIPMENT FOR PERFORMING ALL PROJECT WORK. THE CONTRACTOR SHALL PROVIDE FOR ALL POWER, WATER, AND PORTABLE LAVATORY FACILITIES NECESSARY FOR PERFORMING THE WORK FOR THIS PROJECT, UNLESS DIRECTED OTHERWISE BY THE CITY AT THE TIME OF THE PRECONSTRUCTION MEETING. EXCAVATIONS LEFT OPEN OVERNIGHT SHALL BE PROPERLY MARKED AND BARRICADED BY THE CONTRACTOR AND AS DIRECTED BY THE CITY.

8. ALL COMPACTION SHALL BE 98% OF T-180.

9. CONTRACTOR SHALL RESTORE ALL SITE AREAS DISTURBED BY CONSTRUCTION ACTIVITIES. AT THE END OF THE PROJECT CONTRACTOR SHALL RESTORE ALL NON-PAVED SITE AREAS DISTURBED BY CONSTRUCTION ACTIVITY WITH SEED AND MULCH. CONTRACTOR SHALL WATER RESTORED AREAS UNTIL GRASS IS UNIFORMLY ESTABLISHED.

10. CONSTRUCTION OF THE PRECAST WALL SYSTEMS INCLUDES PRIMING AND PAINTING. CONTRACTOR SHALL SUBMIT COLOR SAMPLE TO THE CITY IN THE SHOP DRAWING SUBMITTALS.

ELECTRICAL NOTES

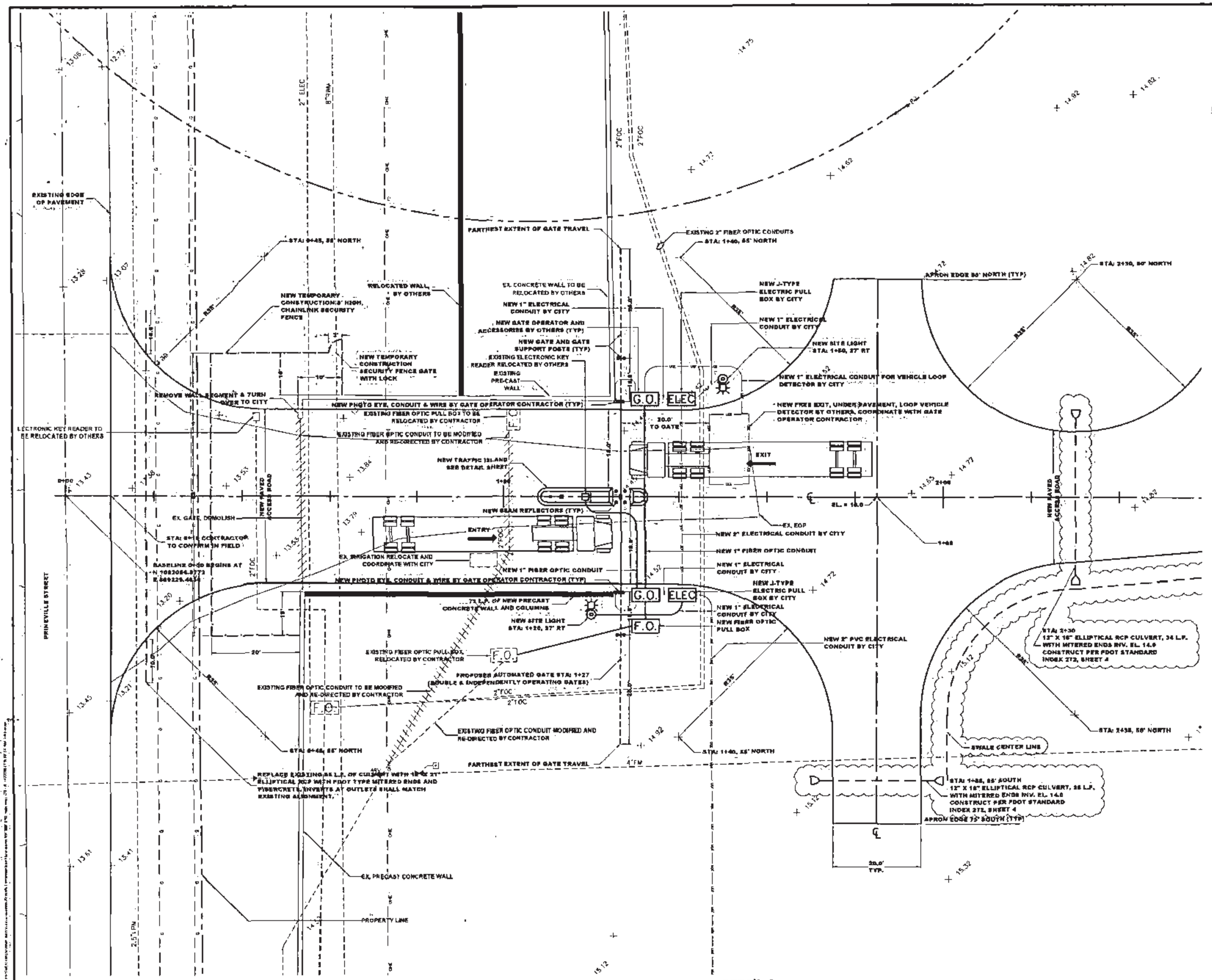
1. SITE LIGHT POLE LOCATIONS ARE DIAGRAMMATIC. THE CONTRACTOR SHALL COORDINATE THE LIGHT POLE FOUNDATIONS AND CONDUITS WITH THE FINAL PIPING LOCATIONS. THE FINAL LIGHT POLE LOCATIONS SHALL BE DETERMINED IN THE FIELD WHEN THE REMAINING AVAILABLE PARKING AREA CAN BE DETERMINED. THE FINAL LIGHT POLE LOCATIONS SHALL BE DIRECTED BY THE ENGINEER AND PRINEVILLE WTP REPRESENTATIVE.

ADDENDUM #1

CITY OF PORT ST. LUCIE
UTILITY SYSTEMS DEPARTMENT
900 S.E. OGDEN LANE
PORT ST. LUCIE, FL 34983
PHONE (772) 873-6400 FAX (772) 873-6433

PRINEVILLE WTP
SITE UPGRADES
SITE PLAN - NORTH

SHEET
C1 - A



DETAIL A
PRINEVILLE STREET GATE 5
SCALE: 1" = 10'

NOTES

1. PROJECT WORK INCLUDES CONSTRUCTION OF TEMPORARY CHAIN-LINK FENCE, AND TEMPORARY SITE ACCESS ROADWAY, DEMOLITION OF EXISTING GATE, WALL SEGMENT, ROADWAY PAVEMENT, FIBER OPTIC BOX, AND CARD READER, AND CONSTRUCTION OF NEW GATE, WALL SEGMENT, SITE LIGHTING, FIBER OPTIC CONDUIT, FIBER OPTIC PULL BOXES, FIBER OPTIC BOX REINFORCED CONCRETE COLLARS, NEW SITE LIGHTING, NEW ROADWAY PAVEMENT SYSTEM, SOIL COMPACTION, TESTING, NEW TRAFFIC ISLAND AND ALL WORK SHOWN OR IMPLIED FOR A COMPLETE AND OPERABLE GATE AND SITE ACCESS ROADWAY SYSTEM. THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING TRAFFIC CONTROL THROUGHOUT THE PROJECT LIFE. CARD READER, WALL SEGMENT AND FIBER OPTIC BOX ARE TO BE TURNED OVER TO THE CITY. CONTRACTOR SHALL RELOCATE EXISTING IRRIGATION BOX.

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3. ALL WORK AND MATERIALS FOR THIS PROJECT, INCLUDING COMPACTION AND TESTING SHALL CONFORM WITH THESE SPECIFICATIONS, THE FLORIDA DEPARTMENT OF TRANSPORTATION STANDARDS, THE CITY OF PORT ST. LUCIE, UTILITY SYSTEMS DEPARTMENT SPECIFICATIONS-LATEST EDITION, AND THE CITY OF PORT ST. LUCIE, UTILITY SYSTEMS DEPARTMENT QUALIFIED PRODUCTS LIST (QPL)-LATEST EDITION AND CITY OF PORT ST. LUCIE CODES. ALL MATERIALS PROVIDED BY THE CONTRACTOR FOR THE PROJECT SHALL BE NEW. IN THE EVENT OF CONFLICTING THE SPECIFICATIONS, THE CONTRACTOR SHALL BRING THE CONFLICT TO THE ATTENTION OF THE CITY. THE MORE SEVERE SPECIFICATION SHALL APPLY. CONTRACTOR SHALL SUBMIT THREE (3) SETS OF SHOP DRAWINGS FOR ALL MATERIALS USED ON THIS PROJECT AS WELL AS A PROJECT SCHEDULE AT THE TIME OF THE PRECONSTRUCTION MEETING.

4. THE CONTRACTOR IS RESPONSIBLE FOR LOCATING AND PROTECTION OF ALL ABOVE AND BELOW GRADE WASTEWATER TREATMENT PIPES AND UTILITY FACILITIES. ABOVE GRADE AND BELOW GRADE FACILITIES DAMAGED DURING THE CONSTRUCTION PROCESS SHALL BE RESTORED TO THEIR ORIGINAL CONDITION BY THE CONTRACTOR AT NO EXPENSE. THE CONTRACTOR IS RESPONSIBLE FOR VERIFICATION OF THE SIZE, LOCATIONS, ELEVATIONS, AND DIMENSIONS OF ALL FACILITIES PRIOR TO INITIATION OF ALL PROJECT WORK.

5. ELECTRONIC KEY READER SYSTEM, FIBER OPTIC CABLE, ELECTRICAL CONNECTIONS, AND GATE OPERATOR SYSTEM SHALL BE RELOCATED OR CONSTRUCTED BY OTHERS. CONTRACTOR SHALL COORDINATE HIS PROJECT WORK WITH THE CITY TO ALLOW SUFFICIENT SPACE AND TIME FOR THE CITY TO CONSTRUCT THE NEW GATE OPERATOR SYSTEM. CONTRACTOR SHALL COORDINATE CONSTRUCTION OF THE ACCESS ROADWAY AND GATE WITH THE CITY TO ALLOW FOR INSTALLATION OF AUTOMATED GATE OPERATION EQUIPMENT, CONDUIT AND WIRE PRIOR TO THE FINAL PAVEMENT COURSE INSTALLATION.

6. CONTRACTOR SHALL COORDINATE CONSTRUCTION OF THE ACCESS ROADWAY, SITE LIGHTING, FIBER OPTIC PULL BOXES, FIBER OPTIC UNDERGROUND CONDUITS, AND GATE WITH THE CITY TO ALLOW FOR INSTALLATION OF AUTOMATED GATE OPERATION EQUIPMENT, CONDUIT AND WIRE PRIOR TO THE FINAL PAVEMENT COURSE INSTALLATION.

7. THE CONTRACTOR'S ATTENTION IS BROUGHT TO THE FACT THAT THE WORK IS LOCATED ON THE PRINEVILLE WTP SITE, A SECURE FACILITY OWNED AND OPERATED BY THE CITY OF PORT ST. LUCIE. THE CONTRACTOR SHALL CONFORM WITH ALL CITY REQUESTS, REQUIREMENTS, ORDINANCES, AND PROTOCOLS FOR SAFETY AND SECURITY INCLUDING HOURS OF WORK, NOISE, ACCESS TO THE SITE, STORAGE OF MATERIALS, VEHICLE PARKING, WORK ON SITE, AND EGRESS FROM THE SITE. THE CONTRACTOR SHALL PROVIDE ADEQUATE EQUIPMENT FOR PERFORMING ALL PROJECT WORK. THE CONTRACTOR SHALL PROVIDE FOR ALL POWER, WATER, AND PORTABLE LAVATORY FACILITIES NECESSARY FOR PERFORMING THE WORK FOR THIS PROJECT, UNLESS DIRECTED OTHERWISE BY THE CITY AT THE TIME OF THE PRECONSTRUCTION MEETING. EXCAVATIONS LEFT OPEN OVERNIGHT SHALL BE PROPERLY MARKED AND BARRICADED BY THE CONTRACTOR AND AS DIRECTED BY THE CITY.

8. ALL COMPACTION SHALL BE 98% OF T-180.

9. CONTRACTOR SHALL RESTORE ALL SITE AREAS DISTURBED BY CONSTRUCTION ACTIVITIES. AT THE END OF THE PROJECT CONTRACTOR SHALL RESTORE ALL NON-PAVED SITE AREAS DISTURBED BY CONSTRUCTION ACTIVITY WITH SEED AND MULCH. CONTRACTOR SHALL WATER RESTORED AREAS UNTIL GRASS IS UNIFORMLY ESTABLISHED.

10. CONSTRUCTION OF THE PRECAST WALL SYSTEMS INCLUDES FINISH AND PAINTING. CONTRACTOR SHALL SUBMIT COLOR SAMPLE TO THE CITY IN THE SHOP DRAWING SUBMITTALS.

ELECTRICAL NOTES

1. SITE LIGHT POLE LOCATIONS ARE DIAGRAMMATIC. THE CONTRACTOR SHALL COORDINATE THE LIGHT POLE FOUNDATIONS AND CONDUITS WITH THE FINAL PIPING LOCATIONS. THE FINAL LIGHT POLE LOCATIONS SHALL BE DETERMINED IN THE FIELD WHEN THE REMAINING AVAILABLE PARKING AREA CAN BE DETERMINED. THE FINAL LIGHT POLE LOCATIONS SHALL BE DIRECTED BY THE ENGINEER AND PRINEVILLE'S WTP REPRESENTATIVE.

~~ADDENDUM #1~~

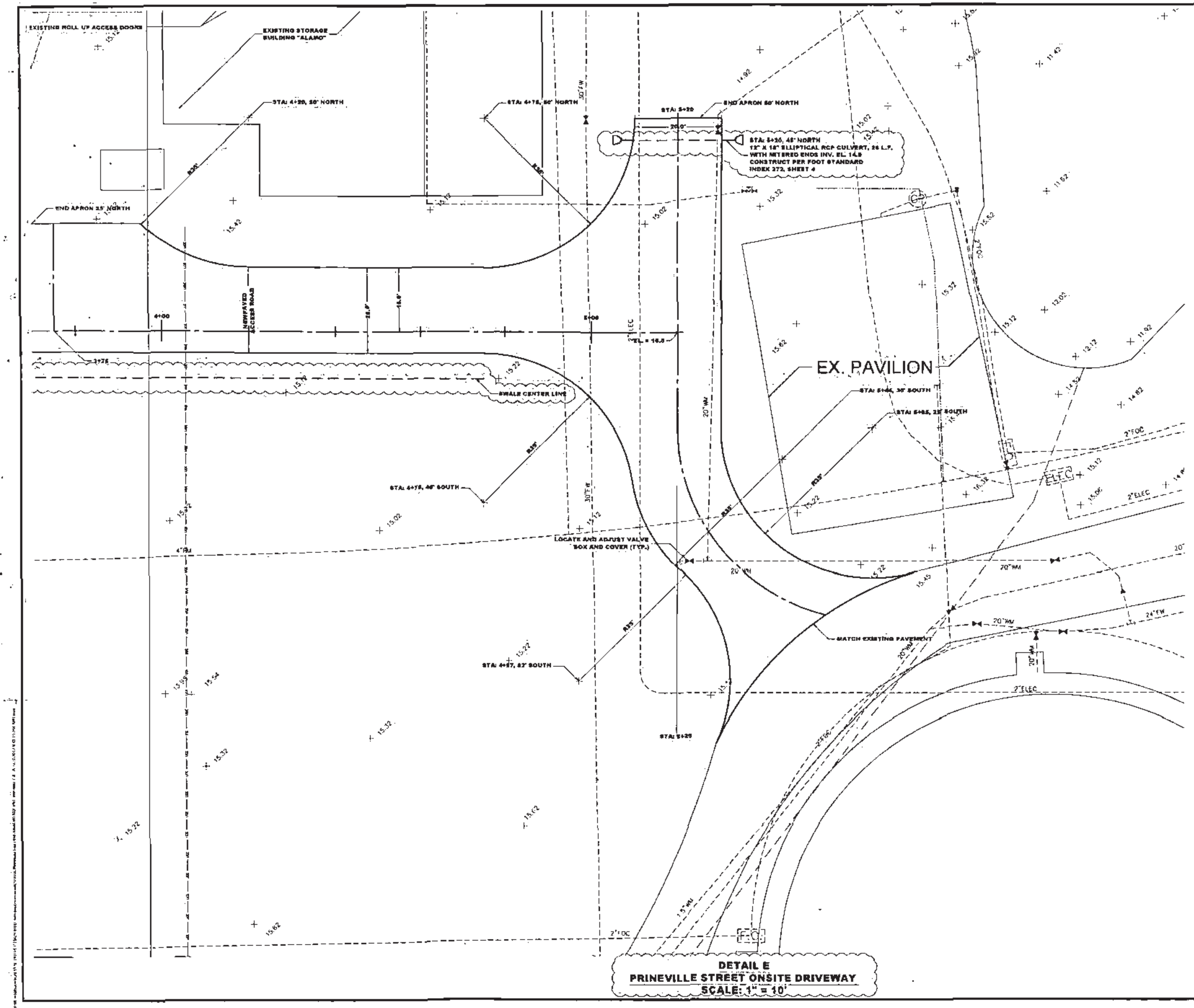
SHEET DATA
BY DATE
DESIGNED KJT 05-20-21
DRAWN PMH 05-20-21
CHECKED
APPROVED
CONTRACT NO.
PUBLISHED FILE #

REVISIONS
NO. BY DATE

CITY OF PORT ST. LUCIE
UTILITY SYSTEMS DEPARTMENT
900 S.E. OGDEN LANE
PORT ST. LUCIE, FL. 34983
PHONE (772) 873-6400 FAX (772) 873-6433

PRINEVILLE WTP
SITE UPGRADES
PRINEVILLE STREET GATE 5

SHEET
C3 - A



DETAIL E
PRINEVILLE STREET ONSITE DRIVEWAY
SCALE: 1" = 10'

NOTES

1. PROJECT WORK INCLUDES CONSTRUCTION OF TEMPORARY CHAIN-LINK FENCE, AND TEMPORARY SITE ACCESS ROADWAY, DEMOLITION OF EXISTING GATE, WALL SEGMENT, ROADWAY PAVEMENT, FIBER OPTIC BOX, AND CARD READER AND CONSTRUCTION OF NEW GATE, WALL SEGMENT, SITE LIGHTING, FIBER OPTIC CONDUIT, FIBER OPTIC PULL BOXES, FIBER OPTIC BOX REINFORCED CONCRETE COLLARS, NEW SITE LIGHTING, NEW ROADWAY PAVEMENT SYSTEM, SOIL COMPACTION, TESTING, NEW TRAFFIC ISLAND AND ALL WORK SHOWN OR IMPLIED FOR A COMPLETE AND OPERABLE GATE AND SITE ACCESS ROADWAY SYSTEM. THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING TRAFFIC CONTROL THROUGHOUT THE PROJECT LIFE. CARD READER, WALL SEGMENT, AND FIBER OPTIC BOX ARE TO BE TURNED OVER TO THE CITY. CONTRACTOR SHALL RELOCATE EXISTING IRRIGATION BOX.

2. IT IS THE INTENT OF THE SCHMATIC THAT ALL WORK SHOWN ON SHALL BE PERFORMED BY THE CONTRACTOR UNLESS INDICATED AS "BY CITY" OR "BY OTHERS", OR "BY GATE OPERATOR CONTRACTOR". THE CITY WILL INSTALL THE ELECTRICAL "J" TYPE PULL BOXES AND ELECTRICAL CONDUIT AND WIRE FOR THIS PROJECT.

3. ALL WORK AND MATERIALS FOR THIS PROJECT, INCLUDING COMPACTION AND TESTING SHALL CONFORM WITH THESE SPECIFICATIONS, THE FLORIDA DEPARTMENT OF TRANSPORTATION STANDARDS, THE CITY OF PORT ST. LUCIE, UTILITY SYSTEMS DEPARTMENT SPECIFICATIONS-LATEST EDITION, AND THE CITY OF PORT ST. LUCIE, UTILITY SYSTEMS DEPARTMENT QUALIFIED PRODUCTS LIST (QPL)-LATEST EDITION AND CITY OF PORT ST. LUCIE CODES. ALL MATERIALS PROVIDED BY THE CONTRACTOR FOR THIS PROJECT SHALL BE NEW. IN THE EVENT OF CONFLICTING THE SPECIFICATIONS, THE CONTRACTOR SHALL BRING THE CONFLICT TO THE ATTENTION OF THE CITY. THE MORE SEVERE SPECIFICATION SHALL APPLY. CONTRACTOR SHALL SUBMIT THREE (3) SETS OF SHOP DRAWINGS FOR ALL MATERIALS USED ON THIS PROJECT AS WELL AS A PROJECT SCHEDULE AT THE TIME OF THE PRECONSTRUCTION MEETING.

4. THE CONTRACTOR IS RESPONSIBLE FOR LOCATING AND PROTECTION OF ALL ABOVE AND BELOW GRADE WASTEWATER TREATMENT PIPES AND UTILITY FACILITIES. ABOVE GRADE AND BELOW GRADE FACILITIES DAMAGED DURING THE CONSTRUCTION PROCESS SHALL BE RESTORED TO THEIR ORIGINAL CONDITION BY THE CONTRACTOR AT HIS EXPENSE. THE CONTRACTOR IS RESPONSIBLE FOR VERIFICATION OF THE SIZE, LOCATIONS, ELEVATIONS, AND DIMENSIONS OF ALL FACILITIES PRIOR TO INITIATION OF ALL PROJECT WORK.

5. ELECTRONIC KEY READER SYSTEM, FIBER OPTIC CABLE, ELECTRICAL CONNECTIONS, AND GATE OPERATOR SYSTEM SHALL BE RELOCATED OR CONSTRUCTED BY OTHERS. CONTRACTOR SHALL COORDINATE HIS PROJECT WORK WITH THE CITY TO ALLOW SUFFICIENT SPACE AND TIME FOR THE CITY TO CONSTRUCT THE NEW GATE OPERATOR SYSTEM. CONTRACTOR SHALL COORDINATE CONSTRUCTION OF THE ACCESS ROADWAY AND GATE WITH THE CITY TO ALLOW FOR INSTALLATION OF AUTOMATED GATE OPERATION EQUIPMENT, CONDUIT AND WIRE PRIOR TO THE FINAL PAVEMENT COURSE INSTALLATION.

6. CONTRACTOR SHALL COORDINATE CONSTRUCTION OF THE ACCESS ROADWAY, SITE LIGHTING, FIBER OPTIC PULL BOXES, FIBER OPTIC UNDERGROUND CONDUITS, AND GATE WITH THE CITY TO ALLOW FOR INSTALLATION OF AUTOMATED GATE OPERATION EQUIPMENT, CONDUIT AND WIRE PRIOR TO THE FINAL PAVEMENT COURSE INSTALLATION.

7. THE CONTRACTOR'S ATTENTION IS BROUGHT TO THE FACT THAT THE WORK IS LOCATED ON THE PRINEVILLE WTP SITE, A SECURE FACILITY OWNED AND OPERATED BY THE CITY OF PORT ST. LUCIE. THE CONTRACTOR SHALL CONFORM WITH ALL CITY REQUESTS, REQUIREMENTS, ORDINANCES, AND PROTOCOLS FOR SAFETY AND SECURITY INCLUDING HOURS OF WORK, NOISE, ACCESS TO THE SITE, STORAGE OF MATERIALS, VEHICLE PARKING, WORK ON SITE, AND EGRESS FROM THE SITE. THE CONTRACTOR SHALL PROVIDE ADEQUATE EQUIPMENT FOR PERFORMING ALL PROJECT WORK. THE CONTRACTOR SHALL PROVIDE FOR ALL POWER, WATER, AND PORTABLE LAVATORY FACILITIES NECESSARY FOR PERFORMING THE WORK FOR THIS PROJECT, UNLESS DIRECTED OTHERWISE BY THE CITY. AT THE TIME OF THE PRECONSTRUCTION MEETING. EXCAVATIONS LEFT OPEN OVERNIGHT SHALL BE PROPERLY MARKED AND BARRICADED BY THE CONTRACTOR AND AS DIRECTED BY THE CITY.

8. ALL COMPACTION SHALL BE 98% OF T-180.

9. CONTRACTOR SHALL RESTORE ALL SITE AREAS DISTURBED BY CONSTRUCTION ACTIVITIES. AT THE END OF THE PROJECT CONTRACTOR SHALL RESTORE ALL NON-PAVED SITE AREAS DISTURBED BY CONSTRUCTION ACTIVITY WITH SOD AND MULCH. CONTRACTOR SHALL WATER RESTORED AREAS UNTIL GRASS IS UNIFORMLY ESTABLISHED.

10. CONSTRUCTION OF THE PRECAST WALL SYSTEMS INCLUDES PRIMING AND PAINTING. CONTRACTOR SHALL SUBMIT COLOR SAMPLE TO THE CITY IN THE SHOP DRAWING SUBMITTALS.

ELECTRICAL NOTES

1. SITE LIGHT POLE LOCATIONS ARE DIAGRAMMATIC. THE CONTRACTOR SHALL COORDINATE THE LIGHT POLE FOUNDATIONS AND CONDUITS WITH THE FINAL PIPING LOCATIONS. THE FINAL LIGHT POLE LOCATIONS SHALL BE DETERMINED IN THE FIELD WHEN THE REMAINING AVAILABLE PARKING AREA CAN BE DETERMINED. THE FINAL LIGHT POLE LOCATIONS SHALL BE DIRECTED BY THE ENGINEER AND PRINEVILLE WTP REPRESENTATIVE.

~~ADDENDUM #1~~

SHEET DATA
DESIGNED BY: RAS DATE: 05/25/2011
DRAWN BY: TMH DATE: 5/25/2011
CHECKED BY:
APPROVED BY:
CAD FILE NAME: 07-29_SW-79_
PWLEAD FILE #: 29'0005

REVISIONS
BY DATE

CITY OF PORT ST. LUCIE
UTILITY SYSTEMS DEPARTMENT
900 S.E. OGDEN LANE
PORT ST. LUCIE, FL 34983
PHONE (772) 873-6400 FAX (772) 873-6413

PRINEVILLE WTP
SITE UPGRADES
PRINEVILLE STREET ONSITE DRIVEWAY

SHEET
C8 - A

Addendum #3B - REVISED E-BID #20120058

City of Port St. Lucie

Utility Systems Department

Prineville WTP Site Upgrades

E-Bid Reply Sheet

06/27/12

Company Name: _____

		Description	Quantity	Units	Unit Cost	Total Cost
1	.	Mobilization	1	LS		$0.00
2	.	Pre-Construction Video	1	LS		$0.00
3	.	Construction Stakeout	1	LS		$0.00
4	.	Maintenance of Traffic	1	LS		$0.00
5	.	Temporary Security Fence	130	LF		$0.00
6	.	Site Preparation and Demolition	1	LS		$0.00
7	.	Construct Temporary Access Road	151	CY		$0.00
8	.	Erosion, Sediment and Dust Control	1	LS		$0.00
9	.	Construct Temporary Access Road Culverts	60	LF		$0.00
10	.	Construct New Precast Wall System	1	LS		$0.00
11	.	Roadway Pavement System - Subgrade	968	CY		$0.00
12		Roadway Pavement System - Base Course	468	CY		$0.00
13	.	Roadway Pavement System - Surface Course S-III	82	CY		$0.00
14	.	Roadway Pavement System - Surface Course S-I	89	CY		$0.00
15	.	Traffic Island	1	LS		$0.00
16	.	Light Poles and Bases	2	EA		$0.00
17	.	New Access Gate	1	EA		$0.00
18	.	Fiber Optic Pull Boxes	2	EA		$0.00
19	.	Fiber Optic Conduit	170	LF		$0.00
20	.	Irrigation System Relocation	1	LS		$0.00
21	.	Temporary Access Road Removal and Restoration	410	LF		$0.00
22	.	Site Restoration	1	LS		$0.00
23	.	New Equipment Wash-Down Pad	23	CY		$0.00
24	.	New Roadway Culverts	340	LF		$0.00
25	.	Indemnification	1	LS	$10.00	$10.00

Total Base Bid Amount (In Numbers): $10.00

NOTES

1. Contractor shall furnish and install bid items 1 through 25 for a complete and operational site access system in accordance with the contract documents.
2. Where a difference occurs between Total Bid Amount in "Numbers" and Total Bid Amount in "Words", words shall be used as the bid.
3. The City reserves the right to award the bid items, listed above, in their entirety or partially. In the event that a partial list is awarded, the City reserves the right to adjust the total bid amount by lessing out those items not included in the award.

Addendum #3C - Revised E-Bid Reply Excel Spreadsheet
City of Port St. Lucie
Utility Systems Department

Prineville WTP Site Upgrades
E-Bid Reply Alternate #1
06/27/12

Company Name: _____

		Description	Quantity	Units	Unit Cost	Total Cost
1	.	Mobilization	1	LS		$0.00
2	.	Pre-Construction Video	1	LS		$0.00
3	.	Construction Stakeout	1	LS		$0.00
4	.	Maintenance of Traffic	1	LS		$0.00
5	.	Temporary Security Fence	130	LF		$0.00
6	.	Site Preparation and Demolition	1	LS		$0.00
7	.	Construct Temporary Access Road	151	CY		$0.00
8	.	Erosion, Sediment and Dust Control	1	LS		$0.00
9	.	Construct Temporary Access Road Culverts	60	LF		$0.00
10	.	Construct New Precast Wall System	1	LS		$0.00
11	.	Roadway Pavement System - Subgrade	968	CY		$0.00
12		Roadway Pavement System - Base Course	468	CY		$0.00
13	.	Roadway Pavement System - Surface Course S-III	171	CY		$0.00
14	.	Roadway Pavement System - Surface Course S-I	0	CY	$0.00	$0.00
15	.	Traffic Island	1	LS		$0.00
16	.	Light Poles and Bases	2	EA		$0.00
17	.	New Access Gate	1	EA		$0.00
18	.	Fiber Optic Pull Boxes	2	EA		$0.00
19	.	Fiber Optic Conduit.	170	LF		$0.00
20	.	Irrigation System Relocation	1	LS		$0.00
21	.	Temporary Access Road Removal and Restoration	410	LF		$0.00
22	.	Site Restoration	1	LS		$0.00
23	.	New Equipment Wash-Down Pad	23	CY		$0.00
24	.	New Roadway Culverts	340	LF		$0.00
25	.	Indemnification Fee	1	LS	$10.00	$10.00

Total Base Bid Amount (In Numbers): $10.00

NOTES

1. Contractor shall furnish and install bid items 1 through 25 for a complete and operational site access system in accordance with the contract documents.

2. Where a difference occurs between Total Bid Amount in "Numbers" and Total Bid Amount in "Words", words shall be used as the bid.

3. The City reserves the right to award the bid items, listed above, in their entirety or partially. In the event that a partial list is awarded, the City reserves the right to adjust the total bid amount by lessing out those items not included in the award.

Addendum #4
E-Bid #20120058

City of Port St. Lucie

Prineville WTP Site Upgrades
July 5, 2012

The bid opening date has been changed to July 19, 2012 at 2:30 PM. The location of the opening has not been changed.

Instructions to Bidder:
Each bidder must acknowledge receipt of any addenda on the Bid Reply Sheet in order to have his/her bid or proposal to be accepted.

City of Port St. Lucie
Utility Systems Department

Prineville WTP Site Upgrades
Contractor's Questions and Responses
Addendum No. 5 - July 10, 2012

1.0 RESPONSES TO BIDDER QUESTIONS

1. **QUESTION:** "I am having a lack of response from electrical contractors to bid on your job, I need to find out who is maintaining the lighting on the Prineville Site currently as they may be bidding this project. There were no electricians at the prebid for me to contact. If you do not have this information, can I contact the plant directly and ask for their current lighting contractor without violating purchasing rules."
   RESPONSE: As stated in Addendums 1 and 2, electrical work will be provided by the City. However, the contractor is expected to coordinate all his work with the City and the City's contractors.

2. **QUESTION:** "I also have a question about the ebid reply sheet, item numbers 11, 12,and 13. I am having a hard time verifying the quantities, we typically bid asphalt, sub grade and rock in square yards, not cubic yards. The two areas of asphalt are 23311 and 1625 sf each respectfully which is not computing to match the cy quantities shown on the bid tab."
   RESPONSE: Please provide bids for the material quantities as shown. Lime rock, LBR 100, is allowed as an alternative base material, Alternative 2, by this addendum.

3. **QUESTION:** "Please confirm that the base course is to be only 6" of asphalt. This seems excessive and costly to provide black base material when 10" of rock can be used as a cheaper alternative."
   RESPONSE: Provide materials as shown in the contract documents.

4. **QUESTION:** "Also please confirm that the detail on sheet C9 is for the drop box circle which shows 1.5" of asphalt and the table on sheet C7 calls for 2 ¼" of asphalt, please confirm."
   RESPONSE: For the Drop Box pavement, provide 1.5" of asphalt surface course as shown on Sheet C9.

5. **QUESTION:** "Please confirm the use for item 7 and 9, is it just a stabilized construction entrance/wheel wash entrance for sediment control purposes? I don't see them in the plan views."
   RESPONSE: Bid item 7 is the temporary construction access road as shown on Sheet C1. Bid item 9 are the culverts shown under the temporary access road.

2.0 Corrections and Clarifications to Technical Specifications

1. Section 01010, Summary of Work, subsection 1.05 Pay Item Descriptions, Page 48 of 141, after pay item 25, Indemnification Fee and its description, and before section 1.06 ADD the following pay item alternative:

12 ALT. Construct Roadway Pavement System – Lime Rock Base Course

The bid price for this item shall include, but not be limited to, the construction of the new roadway pavement system lime rock base course LBR-100 uniformily compacted to 98% of the T-180 maximum dry density and any other incidentals necessary to perform the task specified herein conforming to the PSLUSD Specifications and on the contract drawings. Included in this item is, but not necessarily limited to, all work, materials, and pavement required for the installation of a new an operational roadway pavement system base course. New roadway system construction shall be in accordance with the contract documents and FDOT standards and specifications.

This pay item is to be used with Alternative 2 ONLY.

The basis of payment for **New Roadway Pavement System – Lime Rock Base Course** shall be paid as CUBIC YARDS.

2. Bidders must provide a bid for all Options/Alternatives to be considered for award.

3.0 Corrections and Clarifications to Plans

1. Plan Sheet C7, ADD the following table:

SITE ACCESS ROAD PAVEMENT
ALTERNATIVE 2 DESIGN TABLE

PAVEMENT LAYER	THICKNESS	FDOT PAVEMENT DESIGN	LOCATIONS
SURFACE COURSE	2-1/4"	S-III ASPHALT SECTION 331	ALL
BASE COURSE	10"	LIME ROCK BASE, LBR-100 UNIFORMILY COMPACTED TO 98% OF THE T-180 MAXIMUM DRY DENSITY	ALL
SUBGRADE	12"	SUBGRADE (40 LBR) 98% OF MAXIMUM DRY DENSITY COMPACTION PER ASHTO T-180	ALL

NOTES:

1. ALL PAVEMENT CONSTRUCTION AND MATERIALS SHALL BE PER FDOT STANDARDS LATEST EDITION.
2. SEE TECHNICAL SPECIFICATIONS FOR ADDITIONAL INFORMATION.
3. THE E-BID REPLY EXCEL SPREADSHEETS HAVE BEEN REVISED AND ARE ISSUED AS ADDENDUM #5A AND #5B. AN ADDITIONAL E-BID REPLY EXCEL SPREADSHEET HAS BEEN ADDED AS ADDENDUM #5C.
4. THE BID WILL AWARDED BY THE OPTION SELECTED BY THE CITY THAT WILL PROVIDE THE BEST VALUE. BIDDERS MUST BID ON ALL OPTIONS TO BE CONSIDERED FOR THE AWARD.

NOTE: The bid opening date has not been changed.

Instructions to Bidder:
Each bidder must acknowledge receipt of any addenda on the Bid Reply Sheet in order to have his/her bid or proposal to be accepted.

Addendum #5A - Revised E-Bid Reply Excel Spreadsheet

Prineville WTP Site Upgrades

E-Bid Reply - Base Bid

July 10, 2012

Company Name: _____

		Description	Quantity	Units	Unit Cost	Total Cost
1	.	Mobilization	1	LS		$ -
2	.	Pre-Construction Video	1	LS		$ -
3	.	Construction Stakeout	1	LS		$ -
4	.	Maintenance of Traffic	1	LS		$ -
5	.	Temporary Security Fence	130	LF		$ -
6	.	Site Preparation and Demolition	1	LS		$ -
7	.	Construct Temporary Access Road	151	CY		$ -
8	.	Erosion, Sediment and Dust Control	1	LS		$ -
9	.	Construct Temporary Access Road Culverts	60	LF		$ -
10	.	Construct New Precast Wall System	1	LS		$ -
11	.	Roadway Pavement System - Subgrade	968	CY		$ -
12		Roadway Pavement System - Base Course	468	CY		$ -
13	.	Roadway Pavement System - Surface Course S-III	82	CY		$ -
14	.	Roadway Pavement System - Surface Course S-I	89	CY		$ -
15	.	Traffic Island	1	LS		$ -
16	.	Light Poles and Bases	2	EA		$ -
17	.	New Access Gate	1	EA		$ -
18	.	Fiber Optic Pull Boxes	2	EA		$ -
19	.	Fiber Optic Conduit	170	LF		$ -
20	.	Irrigation System Relocation	1	LS		$ -
21	.	Temporary Access Road Removal and Restoration	410	LF		$ -
22	..	Site Restoration	1	LS		$ -
23	..	New Equipment Wash-Down Pad	23	CY		$ -
24	..	Indemnification Fee	1	EA	$ 10.00	$ 10.00
25	..	New Roadway Culverts	340	LF		$ -

Total Base Bid Amount (In Numbers): $ 10.00

Total Base Bid Amount in Words: _____

NOTES

1. Contractor shall furnish and install bid items 1 through 25 for a complete and operational site access system in accordance with the contract documents.

2. Where a difference occurs between Total Bid Amount in "Numbers" and Total Bid Amount in "Words", words shall be used as the bid.

3. The City reserves the right to award the bid items, listed above, in their entirety or partially. In the event that a partial list is awarded, the City reserves the right to adjust the total bid amount by lessing out those items not included in the award.

Addendum #5B - Revised E-Bid Reply Excel Spreadsheet

Prineville WTP Site Upgrades

E-Bid Reply - Alternate #1

July 10, 2012

Company Name: _____

	Description	Quantity	Units	Unit Cost	Total Cost
1.	Mobilization	1	LS		$ -
2.	Pre-Construction Video	1	LS		$ -
3.	Construction Stakeout	1	LS		$ -
4.	Maintenance of Traffic	1	LS		$ -
5.	Temporary Security Fence	130	LF		$ -
6.	Site Preparation and Demolition	1	LS		$ -
7.	Construct Temporary Access Road	151	CY		$ -
8.	Erosion, Sediment and Dust Control	1	LS		$ -
9.	Construct Temporary Access Road Culverts	60	LF		$ -
10.	Construct New Precast Wall System	1	LS		$ -
11.	Roadway Pavement System - Subgrade	968	CY		$ -
12	Roadway Pavement System - Base Course	468	CY		$ -
13.	Roadway Pavement System - Surface Course S-III	171	CY		$ -
14.	Roadway Pavement System - Surface Course S-I	0	CY		$ -
15.	Traffic Island	1	LS		$ -
16.	Light Poles and Bases	2	EA		$ -
17.	New Access Gate	1	EA		$ -
18.	Fiber Optic Pull Boxes	2	EA		$ -
19.	Fiber Optic Conduit	170	LF		$ -
20.	Irrigation System Relocation	1	LS		$ -
21.	Temporary Access Road Removal and Restoration	410	LF		$ -
22.	Site Restoration	1	LS		$ -
23.	New Equipment Wash-Down Pad	23	CY		$ -
24.	Indemnification Fee	1	EA	$ 10.00	$ 10.00
25.	New Roadway Culverts	340	LF		$ -
				Total Base Bid Amount (In Numbers):	$ 10.00

Total Alternative 1 Bid Items Amount in Words: _____

NOTES

1. Contractor shall furnish and install bid items 1 through 25 for a complete and operational site access system in accordance with the contract documents.

2. Where a difference occurs between Total Bid Amount in "Numbers" and Total Bid Amount in "Words", words shall be used as the bid.

3. The City reserves the right to award the bid items, listed above, in their entirety or partially. In the event that a partial list is awarded, the City reserves the right to adjust the total bid amount by lessing out those items not included in the award.

Addendum #5C - Revised E-Bid Reply Excel Spreadsheet

Prineville WTP Site Upgrades

E-Bid Reply - Alternate #2

July 10, 2012

Company Name: _____

	Description	Quantity	Units	Unit Cost	Total Cost
1.	Mobilization	1	LS		$ -
2.	Pre-Construction Video	1	LS		$ -
3.	Construction Stakeout	1	LS		$ -
4.	Maintenance of Traffic	1	LS		$ -
5.	Temporary Security Fence	130	LF		$ -
6.	Site Preparation and Demolition	1	LS		$ -
7.	Construct Temporary Access Road	151	CY		$ -
8.	Erosion, Sediment and Dust Control	1	LS		$ -
9.	Construct Temporary Access Road Culverts	60	LF		$ -
10.	Construct New Precast Wall System	1	LS		$ -
11.	Roadway Pavement System - Subgrade	968	CY		$ -
12ALT	Roadway Pavement System - Lime Rock Base Course	712	CY		$ -
13.	Roadway Pavement System - Surface Course S-III	171	CY		$ -
14.	Roadway Pavement System - Surface Course S-I	0	CY		$ -
15.	Traffic Island	1	LS		$ -
16.	Light Poles and Bases	2	EA		$ -
17.	New Access Gate	1	EA		$ -
18.	Fiber Optic Pull Boxes	2	EA		$ -
19.	Fiber Optic Conduit	170	LF		$ -
20.	Irrigation System Relocation	1	LS		$ -
21.	Temporary Access Road Removal and Restoration	410	LF		$ -
22.	Site Restoration	1	LS		$ -
23.	New Equipment Wash-Down Pad	23	CY		$ -
24.	Indemnification	1	EA	$ 10.00	$ 10.00
25.	New Roadway Culverts	340	LF		$ -

Total Base Bid Amount (In Numbers): $10.00

Total Alternative 1 Bid Items Amount in Words: _____

NOTES

1. Contractor shall furnish and install bid items 1 through 25 for a complete and operational site access system in accordance with the contract documents.

2. Where a difference occurs between Total Bid Amount in "Numbers" and Total Bid Amount in "Words", words shall be used as the bid.

3. The City reserves the right to award the bid items, listed above, in their entirety or partially. In the event that a partial list is awarded, the City reserves the right to adjust the total bid amount by lessing out those items not included in the award.

Addendum #6
E-Bid #20120058

City of Port St. Lucie

Prineville WTP Site Upgrades
July 12, 2012

Clarifications:

Question: The bid calls for 72' of new wall and removal of a single panel and post that will be turned over to the City. The "relocated wall by others" is what is confusing me at this point. Please clarify.

Answer: The "relocated wall by others" is referring to a potential future project at the Prineville Water Treatment Plant site. It is not part of this project.

The bid opening date has not been changed.

Instructions to Bidder:
Each bidder must acknowledge receipt of any addenda on the Bid Reply Sheet in order to have his/her bid or proposal to be accepted.