

**CONTRACT DOCUMENTS**

**FOR**

**STORMWATER DISCHARGE MAINTENANCE PROGRAM  
BOWLEES CREEK  
(Bradenton, Florida)**

June 2013

**PROJECT OWNER:**

Manatee County Public Works Department  
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# DIVISION 1 - GENERAL REQUIREMENTS

## SECTION 01005 GENERAL REQUIREMENTS

### PART 1 GENERAL

#### 1.01 SCOPE AND INTENT

##### A. Description

The work to be done consists of the furnishing of all labor, materials and equipment, and the performance of all work included in this Contract.

##### B. Work Included

The Contractor shall furnish all labor, superintendence, materials, plant, power, light, heat, fuel, water, tools, appliances, equipment, supplies, shop drawings, working drawings and other means of construction necessary or proper for performing and completing the work. He shall obtain and pay for all required permits necessary for the work. He shall perform and complete the work in the manner best calculated to promote rapid construction consistent with safety of life and property and to the satisfaction of the County, and in strict accordance with the Contract Documents. The Contractor shall clean up the work and maintain it during and after construction until accepted, and shall do all work and pay all costs incidental thereto. He shall repair or restore all structures and property that may be damaged or disturbed during performance of the work.

The cost of incidental work described in these General Requirements, for which there are no specific Contract Items, shall be considered as part of the general cost of doing the work and shall be included in the prices for the various Contract Items. No additional payment will be made.

The Contractor shall be solely responsible for the adequacy of his workmanship, materials and equipment.

##### C. Public Utility Installations and Structures

Public utility installations and structures shall be understood to include all poles, tracks, pipes, wires, conduits, house service connections, vaults, manholes and all other appurtenances and facilities pertaining thereto whether owned or controlled by the County, other governmental bodies or privately owned by individuals, firms or corporations,

The Contractor shall protect all public utility installations and structures from damage during the work. Access across any buried public utility installation or structure shall be made only in such locations and by means approved by the County. All required protective devices and construction shall be repaired by the Contractor at his expense, as approved by the County. No separate payment shall be made for such protection or repairs to public utility installations or structures.

The Contractor shall give written notice to County, other governmental utility departments and other owners of public utilities of the location of his proposed construction operations, at least forty-eight hours in advance of breaking ground in any area or on any unit of the work. This can be accomplished by making the appropriate contact with the "Sunshine State One-Call of Florida, Inc. Call Center ("Call Sunshine") and per all requirements provided for in the Florida Underground Facilities Damage Prevention and Safety Act (Florida Statutes, Title XXXIII, Chapter 556).

## 1.02 PLANS AND SPECIFICATIONS

### A. Plans

When obtaining data and information from the Plans, figures shall be used in preference to scaled dimensions, and large scale drawings in preference to small scale drawings.

### B. Copies Furnished to Contractor

The Contractor shall furnish each of the subcontractors, manufacturers, and material men such copies of the Contract Documents as may be required for their work. Additional copies of the Plans and Specifications, when requested, may be furnished to the Contractor at cost of reproduction.

### C. Supplementary Drawings

When, in the opinion of the County, it becomes necessary to explain more fully the work to be done or to illustrate the work further or to show any changes which may be required, drawings known as Supplementary Drawings, with specifications pertaining thereto, will be prepared by the County and five paper prints thereof will be given to the Contractor.

### D. Contractor to Check Plans and Data

The Contractor shall verify all dimensions, quantities and details shown on the Plans, Supplementary Drawings, Schedules, Specifications or other data received from the County, and shall notify him of all errors, omissions, conflicts, and discrepancies found therein. Failure to discover or correct errors, conflicts or discrepancies shall not relieve the Contractor of full responsibility for unsatisfactory work, faulty construction or improper operation resulting therefrom nor from rectifying such conditions at his own expense. He will not be allowed to take advantage of any errors or omissions, as full instructions will be furnished by the County, should such errors or omissions be discovered. All schedules are given for the convenience of the County and the Contractor and are not guaranteed to be complete. The Contractor shall assume all responsibility for the making of estimates of the size, kind, and quality of materials and equipment included in work to be done under the Contract.

### E. Specifications

The Technical Specifications consist of three parts: General, Products and Execution. The General Section contains General Requirements which govern the work. Products and Execution modify and supplement these by detailed

requirements for the work and shall always govern whenever there appears to be a conflict.

F. Intent

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

The apparent silence of the Specifications as to any detail, or the apparent omission from them of a detailed description concerning any work to be done and materials to be furnished, shall be regarded as meaning that only the best general practice is to prevail and that only material and workmanship of the best quality is to be used, and interpretation of these Specifications shall be made upon that basis.

The inclusion of the Related Requirements (or work specified elsewhere) in the General part of the specifications is only for the convenience of the Contractor, and shall not be interpreted as a complete list of related Specification Sections.

### 1.03 MATERIALS AND EQUIPMENT

A. Manufacturer

All transactions with the manufacturers or subcontractors shall be through the Contractor, unless the Contractor shall request, in writing to the County, that the manufacturer or subcontractor deal directly with the County, Any such transactions shall not in any way release the Contractor from his full responsibility under this Contract.

B. Service of Manufacturers Engineer

The Contract prices for equipment shall include the cost of furnishing (as required by equipment specifications sections) a competent and experienced engineer or superintendent who shall represent the manufacturer and shall assist the Contractor, when required, to install, adjust, test and place in operation the equipment in conformity with the Contract Documents.

### 1.04 INSPECTION AND TESTING

A. General

Inspection and testing of materials will be performed by the Contractor unless otherwise specified.

For tests specified to be made by the Contractor, the testing personnel shall make the necessary inspections and tests and the reports thereof shall be in such form as will facilitate checking to determine compliance with the Contract Documents. Three (3) copies of the reports shall be submitted and authoritative certification thereof must be furnished to the County as a prerequisite for the acceptance of any material or equipment.

If, in the making of any test of any material or equipment, it is ascertained by the County that the material or equipment does not comply with the Contract, the Contractor will be notified thereof and he will be directed to refrain from delivering said material or equipment, or to remove it promptly from the site or from the work and replace it with acceptable material, without cost to the County.

The Contractor shall be fully responsible for the proper operation of equipment during tests and instruction periods and shall neither have nor make any claim for damage which may occur to equipment prior to the time when the Owner formally takes over the operation thereof.

## **1.05 TEMPORARY STRUCTURES**

### **A. Temporary Fences**

If, during the course of the work, it is necessary to remove or disturb any fence or part thereof, the Contractor shall, at his own expense, if so ordered by the County, provide a suitable temporary fence which shall be maintained until the permanent fence is replaced. The County shall be solely responsible for the determination of the necessity for providing a temporary fence and the type of temporary fence to be used.

## **1.06 TEMPORARY SERVICES**

### **A. First Aid**

The Contractor shall keep upon the site, at each location where work is in progress, a completely equipped first aid kit and shall provide ready access thereto at all times when people are employed on the work.

## **1.07 LINES AND GRADES**

### **A. Grade**

All work under this Contract shall be constructed in accordance with the lines and grades shown on the Plans, or as given by the County. The full responsibility for keeping alignment and grade shall rest upon the Contractor.

### **B. Safeguarding Marks**

The Contractor shall safeguard all points, stakes, grade marks, monuments and bench marks made or established on the work, bear the cost of reestablishing them if disturbed, and bear the entire expense of rectifying work improperly installed due to not maintaining or protecting or to removing without authorization such established points, stakes and marks.

The Contractor shall safeguard all existing and known property corners, monuments and marks adjacent to but not related to the work and, if required, shall bear the cost of reestablishing them if disturbed or destroyed.

### **C. Datum Plane**

All elevations indicated or specified refer to the Mean Sea Level Datum of the NAVD 88 datum.

## 1.08 ADJACENT STRUCTURES AND LANDSCAPING

### A. Responsibility

The Contractor shall also be entirely responsible and liable for all damage or injury as a result of his operations to all other adjacent public and private property, structures of any kind and appurtenances thereto met with during the progress of the work. The cost of protection, replacement in their original locations and conditions or payment of damages for injuries to such adjacent public and private property and structures affected by the work, whether or not shown on the Plans, and the removal, relocation and reconstruction of such items called for on the Plans or specified shall be included in the various Contract Items and no separate payments will be made therefore. Where such public and private property, structures of any kind and appurtenances thereto are not shown on the Plans and when, in the opinion of the County, additional work is deemed necessary to avoid interference with the work, payment therefore will be made as provided for in the General Conditions.

Contractor is expressly advised that the protection of buildings, structures, tunnels, tanks, pipelines, etc. and related work adjacent and in the vicinity of his operations, wherever they may be, is solely his responsibility. Conditional inspection of buildings or structures in the immediate vicinity of the project which may reasonably be expected to be affected by the Work shall be performed by and be the responsibility of the Contractor.

Contractor shall, before starting operations, make an examination of the interior and exterior of the adjacent structures, buildings, facilities, etc., and record by notes, measurements, photographs, etc., conditions which might be aggravated by open excavation and construction. Repairs or replacement of all conditions disturbed by the construction shall be made to the satisfaction of the County. This does not preclude conforming to the requirements of the insurance underwriters. Copies of surveys, photographs, reports, etc., shall be given to the County.

Prior to the beginning of any excavations, the Contractor shall advise the County of all buildings or structures on which he intends to perform work or which performance of the project work will affect.

## 1.09 PROTECTION OF WORK AND PUBLIC

### A. Barriers and Lights

During the prosecution of the work, the Contractor shall put up and maintain at all times such barriers and lights as will effectually prevent accidents. The Contractor shall provide suitable barricades, red lights, "danger" or "caution" or "street closed" signs and watchmen at all places where the work causes obstructions to the normal traffic or constitutes in any way a hazard to the public, in accordance with state and local requirements.

### B. Smoke Prevention

A strict compliance with ordinances regulating the production and emission of smoke will be required. No open fires will be permitted.

C. Noise

The Contractor shall eliminate noise to as great an extent as practicable at all times. Air compressing plants shall be equipped with silencers and the exhaust of all engines or other power equipment shall be provided with mufflers. In the vicinity of hospitals and schools, special care shall be used to avoid noise or other nuisances. The Contractor shall strictly observe all local regulations and ordinances covering noise control.

Except in the event of an emergency, no work shall be done between the hours of 7:00 P.M. and 7:00 A.M., or on weekends. If the proper and efficient prosecution of the work requires operations during the night or weekends, the written permission of the County shall be obtained before starting such items of the work.

D. Access to Public Services

Neither the materials excavated nor the materials or plant used in the construction of the work shall be so placed as to prevent free access to all fire hydrants, valves or manholes.

### 1.10 CLEANING

A. During Construction

During construction of the work, the Contractor shall, at all times, keep the site of the work and adjacent premises as free from material, debris and rubbish as is practicable and shall remove the same from any portion of the site if, in the opinion of the County, such material, debris, or rubbish constitutes a nuisance or is objectionable. The Contractor shall remove from the site all of his surplus materials and temporary structures when no further need therefore develops.

B. Final Cleaning

At the conclusion of the work, all equipment, tools, temporary structures and materials belonging to the Contractor shall be promptly taken away, and he shall remove and promptly dispose of all water, dirt, rubbish or any other foreign substances.

### 1.11 MISCELLANEOUS

A. Protection against Siltation and Bank Erosion

1. The Contractor shall arrange his operations to minimize siltation and bank erosion on construction sites and on existing or proposed water courses and drainage ditches.
2. The Contractor, at his own expense, shall remove any siltation deposits and correct any erosion problems as directed by the County which results from his construction operations.

B. Protection of Wetland Areas

The Contractor shall properly dispose of all surplus material, including soil, in accordance with Local, State and Federal regulations. Under no circumstances



shall surplus material be disposed of in wetland areas as defined by the Florida Department of Environmental Protection or Southwest Florida Water Management District.

C. Existing Facilities

The work shall be so conducted to maintain existing facilities in operation insofar as is possible. Requirements and schedules of operations for maintaining existing facilities in service during construction shall be as described in the Special Provisions.

D. Use of Chemicals

All chemicals used during project construction or furnished for project operation, whether herbicide, pesticide, disinfectant, polymer, reactant, or of other classification, must show approval of either EPA or USDA. Use of all such chemicals and disposal of residues shall be in strict conformance with instructions.

**PART 2 PRODUCTS (NOT USED)**  
**PART 3 EXECUTION (NOT USED)**

**END OF SECTION**

## SECTION 01010 SUMMARY OF WORK

### PART 1 GENERAL

#### 1.01 WORK COVERED BY CONTRACT DOCUMENTS / REQUIREMENTS INCLUDED

- A. The completed work will provide the dredging within Bowlees Creek. The work shall include the mechanical and/or hydraulic removal of sediment; dewatering, drying, loading of dredge sediment into contractor provided sealed trucks and the transportation and disposal of the dredge sediment to Manatee County Landfill, all erosion and turbidity control, final cleanup, and restoration of any disturbed area within the project.
- B. The Contractor shall furnish all surveying, working drawings, labor, materials, equipment, tools, services and incidentals necessary to complete all work required by these Specifications and as shown on the Contract Drawings.
- C. The Contractor shall perform the work complete, in place and ready for continuous service and shall include any repairs, replacements, and/or restoration required as a result of damages caused prior to acceptance by the County.
- D. The Contractor shall furnish and install all materials, equipment and labor which is reasonably and properly inferable and necessary for the proper completion of the work, whether specifically indicated in the Contract Documents or not.

#### 1.02 CONTRACTS

Construct all the Work under a single contract.

#### 1.03 WORK SEQUENCE

- A. The methods, means, sequences and techniques used for construction of the work are the sole responsibility of the Contractor. The intent of the County is to have construction of this project completed in an orderly manner which meets the following objectives:
  - 1. The Contractor shall develop a work plan that allows for systematic construction of the work while limiting impacts to adjacent residents and public at large. The Contractor's detailed work plan shall be presented to the County at a Pre-Construction Meeting for review and comment and must be approved by the County.
  - 2. The sequence of work plan shall incorporate full restoration of access to public waterways and public boat ramps disturbed by dredge operations in an ongoing manner.
  - 3. The sequence of work plan shall include a process by which the contractor provides advanced notice to residents abutting each stormwater outfall regarding the specific timing of work to be performed; construction activities that may impact access to private property, boating and the short term interruption. The Contractor shall hand deliver a project information document to each area resident who may be impacted by the work. The

Contractor shall provide a draft of the project notice document to the County for review and comment.

- B. The Contractor shall construct the work in stages, and to accommodate the adjacent canal's property owners access to the docking and mooring facilities during the construction period; and coordinate the construction schedule and operations with the County's representative.
- C. The Contractor shall construct the Work in stages to provide for public convenience and not close off public use of any facility until completion of construction to provide alternative usage.

**1.04 CONSTRUCTION AREAS**

- A. The work of this project is to take place within the public waterways of Manatee County within Bowlees Creek. The Contractor shall limit his use of dredging areas for work to allow for:
  - 1. Public Use.
- B. Assume full responsibility for the protection and safekeeping of products under this Contract, stored on site.
- C. The Contractor shall be fully responsible for the security and safekeeping of all materials, equipment and appurtenances required for construction of the work. The Contractor shall not store materials, equipment or appurtenances on the job site except for those items which are under the direct supervision of the Contractor's staff and which are necessary to the work being performed on the specific day in question. Move any stored products under the Contractor's control, which interfere with operations of the County or adjacent residents.
- D. Obtain and pay for the use of additional storage of work areas needed for Contractor operations.

**1.05 OWNER ACCEPTANCE**

- A. The County has the option of not accepting the entire work as a whole until it is completed, and approved by the County.

**PART 2 PRODUCTS (NOT USED)**  
**PART 3 EXECUTION (NOT USED)**

**END OF SECTION**

## SECTION 01012 MANATEE SAFETY MEASURES

### PART 1 GENERAL

#### 1.01 DESCRIPTION

The work specified in this section consists of Manatee Safety Measures. The work shall include provision to educate personnel on water related activities for the presence of manatee(s), proper construction practices and temporary signage during dredging activities.

#### 1.02 EXECUTION

- A. The Contractor shall instruct all personnel associated with the project of the potential presence of manatee(s) and the need to avoid collisions with manatees. All construction personnel are required for observing water-related activities for the presence of manatee(s).
- B. The Contractor shall advise all construction personnel that there are civil and criminal penalties for harming, harassing or killing manatees, which are protected under the Marine Mammal Protection Act of 1972, The Endangered Species Act of 1973, and the Florida Manatee Sanctuary Act of 1978. The Contractor may be held responsible for manatee(s) harmed, harasses or killed as a result of construction activities.
- C. Contractor shall install siltation barriers that are made of material in which manatee(s) cannot become entangled, shall be properly secured, and shall be monitored regularly to avoid manatee(s) entrapment. Barriers shall not block manatee(s) entry or exit from essential habitat.
- D. All Contractor vessels associated with the construction of the project shall operate a "no wake/idle" speed at all times while in the water where the draft of the vessel provides less than 4' clearance from the bottom and that vessels shall follow routes of deep water whenever possible.
- E. If a manatee(s) is sighted within 100 yards of the project area, all appropriate precautions shall be implemented by the Contractor to ensure protection of the manatee(s). These precautions shall include the operation of all moving/equipment no closer than 50 feet of a manatee(s), Operation of any equipment closer than 50' to a manatee(s) shall necessitate immediate shutdown of equipment. Activities will not resume until the manatee(s) has departed the project area.
- F. Any collision with and/or injury to a manatee shall be reported immediately to the Manatee County Project Manager in writing and to the Manatee Hotline at 1-888-404-FWCC (1-800-404-3922). Collision and/or injury should also be reported to the U.S. Fish and Wildlife Service in Jacksonville (1-904-232-2580) for north Florida or Vero Beach (1-561-5623909) for south Florida.
- G. Temporary signs concerning manatee(s) shall be posted prior to and during construction/dredging activities. All signs are to be removed by the Contractor upon completion of the project. A sign measuring at least 3' x 4' which reads

Caution: Manatee Area will be posted in a location prominently visible to water related construction crews. A second sign should be posted if vessels are associated with the construction, and should be placed visible to the vessel operator. The second sign should be at least 8" x 11", which reads:

"Caution: Manatee Habitat. Idle speed is required if operating a vessel in the construction area. All equipment must be shutdown if a manatee(s) comes within 50' of the operation. A collision with and/or injury to a manatee shall be reported immediately to the Florida Marine Patrol at 1-888-404-3922) and the U.S. Fish and Wildlife Service in Jacksonville (1-904-232-2580) for north Florida or Vero Beach (1-561-5623909) in south Florida.

- H. Verification (photos) that signs have been installed at designated locations shall be provided to Manatee County before commencement of dredging operations. Signs and pilings remain the responsibility of the Contractor and are to be maintained for the life of the project.

**PART 2        PRODUCTS (NOT USED)**  
**PART 3        EXECUTION (NOT USED)**

**END OF SECTION**

## SECTION 01015 CONTROL OF WORK

### PART 1 GENERAL

#### 1.01 WORK PROGRESS

The Contractor shall furnish personnel and equipment which will be efficient, appropriate and adequately sized to secure a satisfactory quality of work and a rate of progress which will insure the completion of the work within the time stipulated in the Contract. If at any time such personnel appears to the County to be inefficient, inappropriate, or insufficient for securing the quality of work required for producing the rate of progress aforesaid, he may order the Contractor to increase the efficiency, change the character, or increase the personnel and equipment and the Contractor shall conform to such order. Failure of the County to give such order shall in no way relieve the Contractor of his obligations to secure the quality of the work and rate of progress required.

#### 1.02 PRIVATE LAND

The Contractor shall not enter or occupy private land outside of easements, except by permission of the affected property owner.

#### 1.03 WORK LOCATIONS

Work shall be located substantially as indicated on the drawings, but the County reserves the right to make such modifications in locations as may be found desirable to avoid interference with existing structures or for other reasons.

#### 1.04 CARE AND PROTECTION OF PROPERTY

- A. The Contractor shall be responsible for the preservation of all public and private property and shall use every precaution necessary to prevent damage thereto. If any direct or indirect damage is done to public or private property by or on account of any act, omission, neglect, or misconduct in the execution of the work on the part of the Contractor, such property shall be restored by the Contractor, at his expense, to a condition equal or better to that existing before the damage was done, or he shall make good the damage in another manner acceptable to the County.
- B. Along the location of this work, all fences, walks, bushes, trees, shrubbery and other physical features shall be protected and restored in a thoroughly workmanlike manner unless otherwise shown on the drawings. Fences and other features removed by the Contractor shall be replaced in the location indicated by the County as soon as conditions permit. All grass areas beyond the limits of construction which have been damaged by the Contractor shall be regraded and sodded to equal or exceed original conditions.
- C. Trees close to the work which drawings do not specify to be removed, shall be boxed or otherwise protected against injury. The Contractor shall trim all branches that are liable to damage because of his operations, but in no case shall any tree be cut or removed without prior notification to the County. All injuries to bark, trunk, limbs and roots of trees shall be repaired by dressing, cutting and painting according to approved methods, using only approved tools and materials.

- D. The protection, removal and replacement of existing physical features along the line of work shall be a part of the work under the Contract and all costs in connection therewith shall be included in the unit and/or lump sum prices established under the items in the Bid.

**1.05 MAINTENANCE OF TRAFFIC**

Obstructions due to construction that will prevent the normal flow of boat traffic during an extended construction stoppage, for any reason, shall be minimized. In the event an extended construction stoppage is found to be necessary, Contractor shall, at his own expense, provide normal boat traffic flow during extended construction stoppage. Extended stoppage will be defined by the County.

**1.06 CLEANUP**

During the course of the work, the Contractor shall keep the site of his operations in as clean and neat a condition as is possible. He shall dispose of all residue resulting from the construction work and at the conclusion of the work, he shall remove and haul away any surplus excavation, broken pavement, lumber, equipment, temporary structures and any other refuse remaining from the construction operations and shall leave the entire site of the work in a neat and orderly condition.

**1.07 COOPERATION WITHIN THIS CONTRACT**

All firms or person authorized to perform any work under this Contract shall cooperate with the General Contractor and his subcontractors or trades and shall assist in incorporating the work of other trades where necessary or required.

**1.08 PROTECTION OF CONSTRUCTION AND EQUIPMENT**

All structures shall be protected in a manner approved by the County. Should any of the floors or other parts of the structures become heaved, cracked, or otherwise damaged, all such damaged portions of the work shall be completely repaired and made good by the Contractor, at his own expense and to the satisfaction of the County. If, in the final inspection of the work, any defects, faults, or omissions are found, the Contractor shall cause the same to be repaired or removed and replaced by proper materials and workmanship without extra compensation for the materials and labor required. Further, the Contractor shall be fully responsible for the satisfactory maintenance and repair of the construction and other work undertaken herein, for at least the warranty period described in the Contract.

**PART 2      PRODUCTS (NOT USED)**  
**PART 3      EXECUTION (NOT USED)**

**END OF SECTION**

## SECTION 01030 SPECIAL PROJECT PROCEDURES

### PART 1 GENERAL

#### 1.01 PERMITS

Upon notice of award, the Contractor shall immediately apply for all applicable permits not previously obtained by the County to do the work from the appropriate governmental agency or agencies. No work shall commence until all applicable permits have been obtained and copies delivered to the County. The costs for obtaining all permits shall be borne by the Contractor.

#### 1.02 SUSPENSION OF WORK DUE TO WEATHER

Refer to FDOT Standards and Specifications Book, Section 8.

#### 1.03 HURRICANE PREPAREDNESS PLAN

- A. Within 30 days of the date of Notice to Proceed, the Contractor shall submit to the County a Hurricane Preparedness Plan. The plan should outline the necessary measures which the Contractor proposes to perform at no additional cost to the County in case of a hurricane warning.
- B. In the event of inclement weather, or whenever County shall direct, Contractor shall insure that he and his Subcontractors shall carefully protect work and materials against damage or injury from the weather. If, in the opinion of the County, any portion of work or materials is damaged due to the failure on the part of the Contractor or Subcontractors to protect the work, such work and materials shall be removed and replaced at the expense of the Contractor.

#### 1.04 POWER SUPPLY

Electricity as may be required for construction and permanent power supply shall be secured and purchased by the Contractor.

#### 1.05 ADDITIONAL PROVISIONS

- A. Before commencing work, the Contractor shall notify the County, in writing, at least 10 calendar days in advance of the date he proposes to commence such work.
- B. The Contractor shall provide, at his own expense, all necessary temporary facilities for access to and for protection of, all existing facilities. The Countys' personnel must have ready access at all times to the existing facilities. The Contractor is responsible for all damage to existing structures, equipment and facilities caused by his construction operations and must repair all such damage when and as ordered by the County.

#### 1.06 CONSTRUCTION CONDITIONS

The Contractor shall strictly adhere to the specific requirements of the governmental unit(s) and/or agency(ies) having jurisdiction over the work. Wherever there is a



difference in the requirements of a jurisdictional body and these Specifications, the more stringent shall apply.

#### **1.07 PUBLIC NUISANCE**

- A. The Contractor shall not create a public nuisance including but not limited to encroachment on adjacent lands, flooding of adjacent lands, excessive noise or dust.
- B. Sound levels must meet Manatee County Ordinance #87-34, (which amends Ordinance 81-3, The Manatee County Noise Control Ordinance). Sound levels in excess of such ordinance are sufficient cause to have the work halted until equipment can be quieted to these levels. Work stoppage by the County for excessive noise shall not relieve the Contractor of the other portions of this specification including, but not limited to contract time and contract price.
- C. No extra charge may be made for time lost due to work stoppage resulting from the creation of a public nuisance.

#### **1.08 FUEL STORAGE & FILLING**

- A. If the contractor is storing fuel on site, or doing his own fuel filling of portable equipment (other than hand-held equipment), he is responsible for any required response, clean-up or reporting required, at no additional cost to the county.
- B. The Contractor shall prepare and submit a fuel storage / spill abatement plan prior to start of construction if required.

#### **1.09 WARRANTIES**

- A. All material supplied under these Specifications shall be warranted by the Contractor and the manufacturers for a period of three (3) years. Warranty period shall commence on the date of County acceptance.
- B. The material shall be warranted to be free from defects in workmanship, design and materials. If any part of the system should fail during the warranty period, it shall be replaced at no expense to the County.

**PART 2 PRODUCTS (NOT USED)**  
**PART 3 EXECUTION (NOT USED)**

**END OF SECTION**

## SECTION 01050 FIELD ENGINEERING AND SURVEYING

### PART 1 GENERAL

#### 1.01 REQUIREMENTS INCLUDED

- A. The Contractor shall provide and pay for field surveying service required for the project.
- B. The Contractor shall furnish and set all necessary stakes to establish the lines and grades as shown on the Contract Drawings and layout each portion of the Work of the Contract.
  - 1. All survey work required in execution of Project.
  - 2. All costs of construction layout shall be included in the unit and lump sum prices contained in the respective divisions of the Contract Bid Form.
  - 3. Civil, structural or other professional engineering services specified or required to execute Contractor's construction methods.

#### 1.02 QUALIFICATIONS OF SURVEYOR AND ENGINEER

All construction staking shall be conducted by or under the supervision of a Florida Registered Professional Surveyor and Mapper. The Contractor shall be responsible for the layout of all such lines and grades, which will be subject to verification by the County.

#### 1.03 SURVEY REFERENCE POINTS

- A. Existing basic horizontal and vertical control points for the Project are designated on the Contract Drawings.
- A. Locate and protect all survey monumentation, property corners and project control points prior to starting work and preserve all permanent reference points during construction. All costs associated with the replacement of all survey monumentation, property corners and project control points shall be borne by the Contractor.
  - 1. Make no changes or relocations without prior written notice to County.
  - 2. Report to County when any reference point is lost or destroyed, or requires relocation because of necessary changes in grades or locations.
  - 3. Require surveyor to replace project control points which may be lost or destroyed.
  - 4. Establish replacements based on original survey control.

#### 1.04 PROJECT SURVEY REQUIREMENTS

The Contractor shall establish temporary bench marks as needed, referenced to data established by survey control points.

- A. The Contractor shall prepare a pre-dredge survey (survey of existing conditions). The survey shall be prepared by a Florida registered land surveyor. The pre-dredge survey shall be based on the design baseline and bench mark(s) established for this project. The contractor shall add the design dredge template and calculate dredge quantities for proposed dredge operations. Six (6) certified copies shall be provided to the County prior to beginning of dredge activities.
- B. The Contractor shall immediately notify the County of any discrepancies between the permit drawings and permitted dredge volumes and the existing conditions.
- C. The Contractor shall prepare post-dredge surveys prepared by a Florida registered land surveyor. The Contractor shall add the dredge template to a post-dredge surveys. Three (3) certified copies shall be provided to the County with each monthly pay request and six (6) certified copies shall be provided prior to project closeout.
- D. The Certified Surveys provided with each partial pay request shall show the area for which payment is requested. Contractor shall not remove any equipment from dredge area until such time as the partial pay request and post dredge survey have been approved by the County.
- E. Canal bottom elevations shall be obtained through use of conventional survey rod with a minimum of 8-inch diameter rod stop/plate. Digitally obtained depth information through use of electronic depth sounder will not be accepted.
- F. The County shall keep a daily updated progress survey as the project progresses.
- G. It is intended that the canal will remain open to two way boat traffic during the duration of construction.
- H. PVC stakes shall be placed at the limits of dredging.

**1.05 PROJECT SURVEY REQUIREMENTS**

Maintain a complete, accurate log of all control and survey work as it progresses.

The Contractor shall employ a Professional Engineer or Surveyor registered in the State of Florida to verify survey data and properly prepare record drawings per Section 01720.

**1.06 SUBMITTALS**

- A. Submit name and address of Professional Surveyor and Mapper to Engineer for Owner's approval.
- B. Submit certificate signed by the Professional Surveyor and Mapper certifying that elevations and locations of improvements are in conformance, or nonconformance, with Contract Documents.

**PART 2 PRODUCTS (NOT USED)**  
**PART 3 EXECUTION (NOT USED)**

**END OF SECTION**

## SECTION 01150 MEASUREMENTS AND PAYMENT

### PART 1 GENERAL

#### 1.01 DESCRIPTION OF WORK

- A. Payment for the work to be completed under this project will be based upon the unit prices bid by the Contractor and shown in the Contractor's Schedule of Quantities and Unit Price Bid Form provided with the Contractor's Bid.
- B. It is the intent of the County to make payment for construction associated with the project using the Pay items in the Proposal, and specify method of measurement and payment for all listed pay items. As may be noted below, incidental work which may be associated with a specific Pay item is to be included in the cost proposed by the bidding contractor for that Pay item. It is not the intent of the County to allow for additional compensation beyond those Pay items included in the Schedule of Quantities and Unit Prices Bid Form submitted by the Contractor. It is therefore important that all bidders fully acquaint themselves with all Plan Specifications, County standard details and other details pertaining to the Work.
- C. Work not shown or called out in either plans or specifications, but necessary in carrying out the intent of the project or in the complete and proper execution of the Work is required and shall be performed by the Contractor as though it were specifically delineated or described. No additional compensation will be considered for the associated and necessary work.
- D. Damage caused by the construction activities to existing facilities including docks, boat ramps, piling, seawalls and all other infrastructure shall be the sole responsibility of the Contractor. No additional payment will be made for replacement of restoration of these components.

#### 1.02 MEASUREMENT - GENERAL

- A. Materials that are specified for measurement by the cubic yard measured in the vehicle shall be hauled in vehicles of such type and size that actual contents may be readily and accurately determined. Unless all vehicles are of uniform capacity, each vehicle must bear a plainly legible identification mark indicating its water level capacity. Vehicles shall be loaded to at least their water level capacity. Loads hauled in vehicles not meeting above requirements or loads of a quantity less than the capacity of the vehicle, measured after being leveled off as above provided, will be subject to rejection, and no compensation will be allowed for such material.
- B. Quantities to be paid will be based on field measurements made by the contractor and verified by the County. If field surveys are required to verify field measurements, they shall be at the cost of the Contractor.

#### 1.03 ESTIMATED QUANTITIES

The quantities shown are approximate and are given only as a basis of calculation upon which the award of the contract is to be made. The County does not assume any responsibility for the final quantities, nor shall the contractor claim misunderstanding because of such estimate of quantities. Final payment will be made only for satisfactorily completed quantity of each item

#### 1.04 WORK OUTSIDE AUTHORIZED LIMITS.

No payment will be made for work constructed outside of authorized limits of the work.

#### 1.05 AREA MEASUREMENTS

In the measurement of items to be paid for on the basis of area of finished work, the lengths and/or widths to be used in the calculations shall be the final dimensions measured along the surface of the completed work within the neat lines shown or designated.

#### 1.06 MEASUREMENTS AND PAYMENTS

##### A. General

1. The Contractor shall receive and accept the compensation provided in his Proposal and defined in the agreement as full payment for furnishing all materials and all labor, tools and equipment, for performing all operations necessary to complete the work under the project. It is the intent of these contract documents that any cost for which compensation is not directly provided by a bid item shall be prorated and included in the bid item for which they are required.
2. The prices stated in the Contractors Schedule of Quantities and Unit Prices Bid Form includes all costs and expenses for taxes, labor, materials, equipment, commissions, transportation charges and expenses, patent fees and royalties, labor for handling material during inspection together with any and all other costs and expenses for performing and completing the work as shown on the plans and specified herein. The basis for payment of any item at a unit price shown in the bid form shall be in accordance with the description of that item in said section, All work performed shall be in strict accordance with these specifications.
3. No separate payment will be made for the following items; the cost of such work shall be included in the applicable contract pay items of work including compliance with requirements of FDEP or any other agency.
  - a. Shop drawings, working drawings or other documentation
  - b. Clearing and grubbing, including removal of sidewalks, driveways, curbs, curb and gutter, pavement and pavement base
  - c. Excavation, including shoring, sheeting and bracing as required by OSHA trench excavation safety standards.
  - d. Dewatering and proper disposal of all water.
  - e. Backfill and proper compaction, including suitable fill and all grading.
  - f. Traffic and pedestrian control as required to complete the work and described in Section 01570.
  - g. Protection, repair, replacement or relocation of existing utilities, including service laterals, not designated in the Contract documents for relocation.
  - h. Replacement or restoration of paved or unpaved roadways, grass and shrubbery plots outside of established pay items or specifically provided for in a pay item.
  - i. Removing and disposing of waste material due to construction, including but not limited to valve boxes and hydrants that need to be removed from abandoned watermains.

- j. Cleanup and restoring the job site to its original condition, which includes but is not necessarily limited to restoring ground surface to its original grade.
  - k. Any material and equipment required to be installed and used for tests.
  - l. Coordination with all Federal, State and Local agencies and utilities.
  - m. Tree trimming as required by Manatee County or any other agency.
  - n. Furnishing and installing suitable temporary fences, as directed by the County, to adequately secure areas protected by a permanent fence when that permanent fence must be removed. The temporary fence shall remain in place until the permanent fence is replaced.
  - o. Maintaining red-line drawings of changes to construction plans to be submitted to the County.
  - p. Separate payment will be made for the items of work described herein and listed on the Bid Form. Any related work not specifically listed, but required for satisfactory completion of the work shall be considered to be included in the scope of the appropriate listed work items.
- B. The Contractor's attention is again called to the fact that the quotations for the various items of work are intended to establish a total price for completing the work in its entirety. Should the contractor feel that the cost for any item of work has not been established by the proposal or contract pay items, he shall include the cost for that work in some other applicable bid item, so that his proposal for the project does reflect his total price for completing the work in its entirety.
- C. The quantities for payment under this Agreement shall be determined by actual measurement of the completed items, in place, ready for service and accepted by the Owner, in accordance with the applicable method of measurement, thereof. A representative of the Contractor shall witness all field measurements.

## 1.07 BID ITEM DESCRIPTIONS

### A. BID ITEM 1 - MOBILIZATION - DEMOBILIZATION

1. Description: The Contractor shall furnish all labor, materials, equipment and services to perform those operations necessary for the movement of personnel, equipment, supplies and incidentals to and from the project site. Also include the costs of bonds, maintenance of boat traffic and other pre-construction and post-construction expenses necessary for the start and conclusion of the Work under this Contract Item. The cost of all other work as shown, specified, directed or required for the expressed intent of the project that is not specifically included under other Contract Items shall also be included under this Contract Item. The value of Bid Item 1 shall not exceed 10% of the total value of the project.
2. Measurement and Payment for mobilization/demobilization: Shall be made at the Contract Lump Sum Bid Price.

### B. BID ITEM 2 - EROSION AND SEDIMENTATION CONTROL

1. Description: Under this contract Pay Item, the Contractor shall furnish all labor, equipment and materials required measurements to control erosion on the project and in areas outside the project area where work is

accomplished in conjunction with the project, so as to prevent pollution of water, detrimental effects of public or private property adjacent to the project area and damage to work on the project. These measures will consist of construction and maintenance of temporary erosion control features or, where practical, the construction and maintenance of permanent erosion control features.

2. Measurement and Payment for Erosion and Sedimentation Control: Shall be made at the Contract Lump Sum Bid Price.

**C. BID ITEM 3 - MANATEE SAFETY MEASURES**

1. Description: Under this contract Pay item, the Contractor shall furnish all labor, equipment and materials for Manatee safety measures. The work shall include provisions to educate personnel on water related activities for the presence of manatee (s), proper construction practices and temporary signage during dredging activities.
2. Measurement and Payment for Manatee Safety Measures: Shall be made at the Contract Lump Sum Bid Price

**D. BID ITEM 4 - DREDGING**

1. Description: Under this contract Pay Item, the Contractor shall furnish all labor, equipment and materials to mechanically and/or hydraulically dredge sediment to a pre-determined depth and width as indicated on the plans, dewatering, loading, transport and disposal of dredge sediment to the Manatee County Landfill and turbidity installation of sediment barriers or devices to control turbidity and monitoring.
2. Measurement and Payment for Dredging: Shall be made at the unit price bid per cubic yard of dredge, measured and accepted.

**E. BID ITEM 5 - SURVEYING**

1. Description: Under this contract Pay Item, the Contractor shall furnish all labor, equipment and materials to perform surveying prior, during, and after dredging operations at each of the outfall areas. The work shall include required pre and post dredge surveys, construction layout survey, monumentation and final record survey.

Measurement and Payment for Survey: Shall be made at the Contract Lump Sum Bid Price

**F. BID ITEM - DISCRETIONARY WORK**

Payment for all work under this Bid Item and listed in the Bid Form shall be made only at the County's discretion in order to satisfactorily complete the project in accordance with the Plans and Specifications.

**PART 2 PRODUCTS (NOT USED)**  
**PART 3 EXECUTION (NOT USED)**

**END OF SECTION**

## SECTION 01152 REQUESTS FOR PAYMENT

### PART 1 GENERAL

#### 1.01 REQUIREMENTS INCLUDED

Submit Applications for Payment to the Project Manager or as directed at the preconstruction meeting, in accordance with the schedule established by Conditions of the Contract and Agreement between County and Contractor.

#### 1.02 FORMAT AND DATA REQUIRED

- A. Submit payment requests in the form provided by the County with itemized data typed in accordance with the Bid Form.
- B. Provide construction photographs in accordance with Contract Documents.

#### 1.03 SUBSTANTIATING DATA FOR PROGRESS PAYMENTS

- A. When the County requires substantiating data, Contractor shall submit suitable information with a cover letter.
- B. Submit one copy of data and cover letter for each copy of application.

#### 1.04 PREPARATION OF APPLICATION FOR FINAL PAYMENT

Fill in application form as specified for progress payments.

#### 1.05 SUBMITTAL PROCEDURES

- A. Submit applications for payment at the times stipulated in the Agreement.
- B. Number: Three (3) copies of each application; all signed and certified by the Contractor.

**PART 2 PRODUCTS (NOT USED)**  
**PART 3 EXECUTION (NOT USED)**

END OF SECTION



## SECTION 01153 CHANGE ORDER PROCEDURES

### PART 1 GENERAL

#### 1.01 DEFINITION

- A. Change Order: Major change in contract scope or time that must be approved and executed by the Board before it becomes effective.
- B. Administrative Change Adjustment: Minor change order under 10% of project cost or 20% time, does not have to be Board approved.
- C. Field Directive Change: Change to contract quantity that does not require a change of scope or time extension.

#### 1.02 REQUIREMENTS INCLUDED

- A. The Contractor shall promptly implement change order procedures:
  - 1. Provide full written data required to evaluate changes.
  - 2. Maintain detailed records of work done on a time-and-material/force account basis.
  - 3. Provide full documentation to County on request.
- B. The Contractor shall designate a member of the Contractor's organization who:
  - 1. Is authorized to accept changes to the Work.
  - 2. Is responsible for informing others in the Contractor's employ of the authorized changes into the Work.
- C. The Board of County Commissioners executes all Change Orders.

#### 1.03 PRELIMINARY PROCEDURES

- A. Project Manager may initiate changes by submitting a Request to Contractor. Request will include:
  - 1. Detailed description of the change, products, costs and location of the change in the Project.
  - 2. Supplementary or revised Drawings and Specifications.
  - 3. The projected time extension for making the change.
  - 4. A specified period of time during which the requested price will be considered valid.
  - 5. Such request is for information only and is not an instruction to execute the changes, nor to stop work in progress.
- B. Contractor may initiate changes by submitting a written notice to the Project Manager, containing:
  - 1. Description of the proposed changes.
  - 2. Statement of the reason for making the changes.
  - 3. Statement of the effect on the Contract Sum and the Contract Time.
  - 4. Statement of the effect on the work of separate contractors.
  - 5. Documentation supporting any change in Contract Sum or Contract Time, as appropriate.

#### **1.04 FIELD DIRECTIVE CHANGE**

- A. In lieu of a Change Order, the Project Manager may issue a Field Directive change for the Contractor to proceed with additional work within the original intent of the Project.
- B. Field Directive change will describe changes in the work, with attachments of backup information to define details of the change.
- C. Contractor must sign and date the Field Directive change to indicate agreement with the terms therein.

#### **1.05 DOCUMENTATION OF PROPOSALS AND CLAIMS**

- A. Support each quotation for a lump sum proposal and for each unit price which has not previously been established, with sufficient substantiating data to allow the County to evaluate the quotation.
- B. On request, provide additional data to support time and cost computations:
  - 1. Labor required.
  - 2. Equipment required.
  - 3. Products required.
    - a. Recommended source of purchase and unit cost.
    - b. Quantities required.
  - 4. Taxes, insurance and bonds.
  - 5. Credit for work deleted from Contract, similarly documented.
  - 6. Overhead and profit.
  - 7. Justification for any change in Contract Time.
- C. Support each claim for additional costs and for work done on a time-and-material/force account basis, with documentation as required for a lump-sum proposal, plus additional information.
  - 1. Name of the County's authorized agent who ordered the work and date of the order.
  - 2. Date and time work was performed and by whom.
  - 3. Time record, summary of hours work and hourly rates paid.
  - 4. Receipts and invoices for:
    - a. Equipment used, listing dates and time of use.
    - b. Products used, listing of quantities.
    - c. Subcontracts.

#### **1.06 PREPARATION OF CHANGE ORDERS**

- A. Project Manager will prepare each Change Order.
- B. Change Order will describe changes in the Work, both additions and deletions, with attachments as necessary to define details of the change.
- C. Change Order will provide an accounting of the adjustment in the Contract Sum and in the Contract Time.

#### **1.07 LUMP SUM/FIXED PRICE CHANGE ORDER**

- A. Project Manager initiates the form, including a description of the changes involved

and attachments based upon documents and proposals submitted by the Contractor, or requests from the County, or both.

- B. Once the form has been completed, all copies should be sent to Contractor for approval. After approval by Contractor, all copies should be sent to County for approval. The County will distribute executed copies after approval by the Board of County Commissioners.

**1.08 UNIT PRICE CHANGE ORDER**

- A. Contents of Change Orders will be based on, either:
  - 1. County's definition of the scope of the required changes.
  - 2. Contractor's Proposal for a change, as approved by the County.
  - 3. Survey of completed work.
- B. The amounts of the unit prices to be:
  - 1. Those stated in the Agreement.
  - 2. Those mutually agreed upon between County and Contractor.

**1.09 TIME AND MATERIAL/FORCE ACCOUNT CHANGE ORDER/CONSTRUCTION CHANGE AUTHORIZATION**

- A. At completion of the change, Contractor shall submit itemized accounting and supporting data as provided in the Article "Documentation of Proposals and Claims" of this Section.
- B. County will determine the allowable cost of such work, as provided in General Conditions and Supplementary Conditions.
- C. County will sign and date the Change Order to establish the change in Contract Sum and in Contract Time.
- D. County and Contractor will sign and date the Change Order to indicate their agreement therewith.

**1.10 CORRELATION WITH CONTRACTOR'S SUBMITTALS**

- A. Periodically revise Schedule of Values and Application for Payment forms to record each change as a separate item of work, and to record the adjusted Contract Sum.
- B. Periodically revise the Construction Schedule to reflect each change in Contract Time. Revise sub schedules to show changes for other items of work affected by the changes.
- C. Upon completion of work under a Change Order, enter pertinent changes in Record Documents.

**PART 2 PRODUCTS (NOT USED)**  
**PART 3 EXECUTION (NOT USED)**

**END OF SECTION**

## SECTION 01200 PROJECT MEETINGS

### PART 1 GENERAL

#### 1.01 REQUIREMENTS INCLUDED

- A. The County shall schedule the pre-construction meeting, periodic progress meetings and special meetings, if required, throughout progress of work.
- B. Representatives of contractors, subcontractors and suppliers attending meetings shall be qualified and authorized to act on behalf of the entity each represents.
- C. The Contractor shall attend meetings to ascertain that work is expedited consistent with Contract Documents and construction schedules.

#### 1.02 PRE-CONSTRUCTION MEETING

- A. Attendance:
  - 1. County's Engineer.
  - 2. County's Project Manager
  - 3. Contractor.
  - 4. Resident Project Representative.
  - 5. Related Labor Contractor's Superintendent.
  - 6. Major Subcontractors.
  - 7. Major Suppliers.
  - 8. Others as appropriate.
- B. Suggested Agenda:
  - 1. Distribution and discussion of:
    - a. List of major subcontractors.
    - b. Projected Construction Schedules.
    - c. Coordination of Utilities
  - 2. Critical work sequencing.
  - 3. Project Coordination.
    - a. Designation of responsible personnel.
    - b. Emergency contact persons with phone numbers.
  - 4. Procedures and processing of:
    - a. Field decisions.
    - b. Submittals.
    - c. Change Orders.
    - d. Applications for Payment.
  - 5. Procedures for maintaining Record Documents.
  - 6. Use of premises:
    - a. Office, work and storage areas.
    - b. County's Requirements
  - 7. Temporary utilities.
  - 8. Liquidated damages.
  - 9. Equal Opportunity Requirements.
  - 10. Laboratory testing.
  - 11. Project / Job meetings: Progress meeting, other special topics as needed.

PART 2 PRODUCTS (NOT USED)  
PART 3 EXECUTION (NOT USED)

END OF SECTION

## SECTION 01310 CONSTRUCTION SCHEDULE & PROJECT RESTRAINTS

### PART 1 GENERAL

#### 1.01 GENERAL

- A. Construction under this contract must be coordinated with the County and accomplished in a logical order to maintain utilization and flow through existing facilities and public properties and rights-of-way and to allow construction to be completed within the time allowed by Contract Documents and in the manner set forth in the Contract.

#### 1.02 CONSTRUCTION SCHEDULING GENERAL PROVISIONS

- A. No work shall be done between 7:00 p.m. and 7:00 a.m. nor on weekends or legal holidays without written permission of the County. However, emergency work may be done without prior permission.
- B. Night work may be established by the Contractor as regular procedure with the written permission of the County. Such permission, however, may be revoked at any time by the County if the Contractor fails to maintain adequate equipment and supervision for the proper execution and control of the work at night.
- C. Due to potential health hazards and requirements of the State of Florida and the U.S. Environmental Protection Agency, existing facilities must be maintained in operation.
- D. The Contractor shall be fully responsible for providing all temporary piping, plumbing, electrical hook-ups, lighting, temporary structure, or other materials, equipment and systems required to maintain the existing facility's operations. All details of temporary piping and temporary construction are not necessarily shown on the Drawings or covered in the Specifications. However, this does not relieve the Contractor of the responsibility to insure that construction will not interrupt proper facility operations.
- E. The Contractor shall designate an authorized representative of his firm who shall be responsible for development and maintenance of the schedule and of progress and payment reports. This representative of the Contractor shall have direct project control and complete authority to act on behalf of the Contractor in fulfilling the commitments of the Contractor's schedule.

#### 1.03 PROGRESS OF THE WORK

The work shall be executed with such progress as may be required to prevent any delay to the general completion of the work. The work shall be executed at such times and in or on such parts of the project and with such forces, materials and equipment to assure completion of the work in the time established by the Contract and in the manner set forth in the Contract.

### PART 2 PRODUCTS

#### 2.01 GENERAL REQUIREMENTS

- A. The Contractor shall submit a critical path schedule as described herein.
- B. The planning, scheduling, management and execution of the work is the sole responsibility of the Contractor. The progress schedule requirement is established to allow County to review Contractor's planning, scheduling, management and execution of the work; to assist County in evaluating work progress and make progress payments and to allow other contractors to cooperate and coordinate their activities with those of the Contractor.

## **2.02 FORM OF SCHEDULES**

- A. Prepare schedules using the latest version of Microsoft Project, or other County approved software, in the form of a horizontal bar chart diagram. The diagram shall be time-scaled and sequenced by work areas. Horizontal time scale shall identify the first work day of each week.
- B. Activities shall be at least as detailed as the Schedule of Values. Activity durations shall be in whole working days. In addition, man-days shall be shown for each activity or tabulated in an accompanying report.
- C. Diagrams shall be neat and legible and submitted on sheets at least 8-1/2 inches by 11 inches suitable for reproduction. Scale and spacing shall allow space for notations and future revisions.

## **2.03 CONTENT OF SCHEDULES**

- A. Each monthly schedule shall be based on data as of the last day of the current pay period.
- B. Description for each activity shall be brief, but convey the scope of work described.
- C. Activities shall identify all items of work that must be accomplished to achieve substantial completion, such as items pertaining to Contractor's installation and testing activities; items pertaining to the approval of regulatory agencies; contractor's time required for submittals, fabrication and deliveries; the time required by Engineer to review all submittals as set forth in the Contract Documents; items of work required of County to support pre-operational, startup and final testing; time required for the relocation of utilities. Activities shall also identify interface milestones with the work of other contractors performing work under separate contracts with Owner.
- D. Schedules shall show the complete sequence of construction by activities. Dates for beginning and completion of each activity shall be indicated as well as projected percentage of completion for each activity as of the first day of each month.
- E. Submittal schedule for shop drawing review, product data, and samples shall show the date of Contractor submittal and the date approved submittals will be required by the County, consistent with the time frames established in the Specifications.
- F. For Contract change orders granting time extensions, the impact on the Contract

date(s) shall equal the calendar-day total time extension specified for the applicable work in the Contract change orders.

- G. For actual delays, add activities prior to each delayed activity on the appropriate critical path(s). Data on the added activities of this type shall portray all steps leading to the delay and shall further include the following: separate activity identification, activity description indicating cause of the delay, activity duration consistent with whichever set of dates below applies, the actual start and finish dates of the delay or, if the delay is not finished, the actual start date and estimated completion date.
- H. For potential delays, add an activity prior to each potentially delayed activity on the appropriate critical path(s). Data for added activities of this type shall include alternatives available to mitigate the delay including acceleration alternatives and further show the following: separate activity identification, activity description indicating cause of the potential delay and activity duration equal to zero work days.

## 2.04 SUPPORTING NARRATIVE

- A. Status and scheduling reports identified below shall contain a narrative to document the project status, to explain the basis of Contractor's determination of durations, describe the Contract conditions and restraints incorporated into the schedule and provide an analysis pertaining to potential problems and practical steps to mitigate them.
- B. The narrative shall specifically include:
  - 1. Actual completion dates for activities completed during the monthly report period and actual start dates for activities commenced during the monthly report period.
  - 2. Anticipated start dates for activities scheduled to commence during the following monthly report period.
  - 3. Changes in the duration of any activity and minor logic changes.
  - 4. The progress along the critical path in terms of days ahead or behind the Contract date.
  - 5. If the Monthly Status Report indicates an avoidable delay to the Contract completion date or interim completion dates as specified in the Agreement, Contractor shall identify the problem, cause and the activities affected and provide an explanation of the proposed corrective action to meet the milestone dates involved or to mitigate further delays.
  - 6. If the delay is thought to be unavoidable, the Contractor shall identify the problem, cause, duration, specific activities affected and restraints of each activity.
  - 7. The narrative shall also discuss all change order activities whether included or not in the revised/current schedule of legal status. Newly introduced change order work activities and the CPM path(s) that they affect, must be specifically identified. All change order work activities added to the schedule shall conform with the sequencing and Contract Time requirements of the applicable Change Order.
  - 8. Original Contract date(s) shall not be changed except by Contract change order. A revision need not be submitted when the foregoing situations arise unless required by County. Review of a report containing added activities will not be construed to be concurrence with the duration or

restraints for such added activities; instead the corresponding data as ultimately incorporated into the applicable Contract change order shall govern.

9. Should County require additional data, this information shall be supplied by Contractor within 10 calendar days.

## **2.05 SUBMITTALS**

- A. Contractor shall submit estimated and preliminary progress schedules (as identified in the Terms and Conditions of the Contract and the General Conditions), monthly status reports, a start-up schedule and an as-built schedule report all as specified herein.
- B. All schedules, including estimated and preliminary schedules, shall be in conformance with the Contract Documents.
- C. The finalized progress schedule discussed in the Contract Documents shall be the first monthly status report and as such shall be in conformance with all applicable specifications contained herein.
- D. Monthly Status Report submittals shall include three copies of a time-scaled (days after notice to proceed) diagram showing all contract activities and supporting narrative. The initial detailed schedule shall use the notice to proceed as the start date. The finalized schedule, if concurred with by County, shall be the work plan to be used by the contractor for planning, scheduling, managing and executing the work.
- E. The schedule diagram shall be formatted as above. The diagram shall include (1) all detailed activities included in the preliminary and estimated schedule submittals, (2) calendar days prior to substantial completion, (3) summary activities for the remaining days. The critical path activities shall be identified, including critical paths for interim dates, if possible.
- F. The Contractor shall submit monthly progress schedules with each month's application for payment.

## **2.06 MONTHLY STATUS REPORTS**

- A. Contractor shall submit detailed schedule status reports on a monthly basis with the Application for Payment. The first such status report shall be submitted with the first Application for Payment and include data as of the last day of the pay period. The Monthly Report shall include a "marked-up" copy of the latest detailed schedule of legal status and a supporting narrative including updated information as described above. The Monthly Report will be reviewed by County and Contractor at a monthly schedule meeting and Contractor will address County's comments on the subsequent monthly report. Monthly status reports shall be the basis for evaluating Contractor's progress.
- B. The "marked-up" diagram shall show, for the latest detailed schedule of legal status, percentages of completion for all activities, actual start and finish dates and remaining durations, as appropriate. Activities not previously included in the latest detailed schedule of legal status shall be added, except that contractual dates will not be changed except by change order. Review of a marked-up diagram by Engineer will not be construed to constitute concurrence with the time



frames, duration, or sequencing for such added activities; instead the corresponding data as ultimately incorporated into an appropriate change order shall govern.

## **2.07 STARTUP SCHEDULE**

- A. At least 60 calendar days prior to the date of substantial completion, Contractor shall submit a time-scaled (days after notice to proceed) diagram detailing the work to take place in the period between 60 days prior to substantial completion, together with a supporting narrative. County shall have 10 calendar days after receipt of the submittal to respond. Upon receipt of County's comments, Contractor shall make the necessary revisions and submit the revised schedule within 10 calendar days. The resubmittal, if concurred with by County, shall be the Work Plan to be used by Contractor for planning, managing, scheduling and executing the remaining work leading to substantial completion.
- B. The time-scaled diagram shall use the latest schedule of legal status for those activities completed ahead of the last 60 calendar days prior to substantial completion and detailed activities for the remaining 60-day period within the time frames outlined in the latest schedule of legal status.
- C. Contractor will be required to continue the requirement for monthly reports, as outlined above. In preparing this report, Contractor must assure that the schedule is consistent with the progress noted in the startup schedule.

## **2.08 REVISIONS**

- A. All revised Schedule Submittals shall be made in the same form and detail as the initial submittal and shall be accompanied by an explanation of the reasons for such revisions, all of which shall be subject to review by County. The revision shall incorporate all previously made changes to reflect current as-built conditions. Minor changes to the approved submittal may be approved at monthly meetings; a minor change is not considered a revision in the context of this paragraph.
- B. A revised schedule submittal shall be submitted for review when required by County.

## **PART 3 EXECUTION (NOT USED)**

**END OF SECTION**

## SECTION 01370 SCHEDULE OF VALUES

### PART 1 GENERAL

#### 1.01 REQUIREMENTS INCLUDED

- A. The Contractor shall submit to the County a Schedule of Values allocated to the various portions of the work, within 10 days after date of Notice to Proceed.
- B. Upon request of the County, the Contractor shall support the values with data which will substantiate their correctness.
- C. The Schedule of Values shall be used only as the basis for the Contractor's Applications for Payment.

#### 1.02 FORM AND CONTENT OF SCHEDULE OF VALUES

- A. Schedule of Values will be considered for approval by County upon Contractor's request. Identify schedule with:
  - 1. Title of Project and location.
  - 2. Project number.
  - 3. Name and address of Contractor.
  - 4. Contract designation.
  - 5. Date of submission.
- B. Schedule of Values shall list the installed value of the component parts of the work in sufficient detail to serve as a basis for computing values for progress payments during construction.
- C. The sum of all values listed in the schedule shall equal the total Contract sum.

PART 2 PRODUCTS (NOT USED)  
PART 3 EXECUTION (NOT USED)

END OF SECTION

## SECTION 01380 CONSTRUCTION PHOTOGRAPHS

### PART 1 GENERAL

#### 1.01 REQUIREMENTS INCLUDED

- A. The Contractor shall employ a competent photographer to take construction record photographs or perform video, recording including furnishing all labor, materials, equipment and incidentals necessary to obtain photographs and/or video recordings of all construction areas.
- B. Preconstruction record information shall consist of video recordings on digital video disks (DVD).
- C. Construction progress information shall consist of photographs and digital photographs on a recordable compact disc (CD-R).

#### 1.02 QUALIFICATIONS

- A. All photography shall be done by a competent camera operator who is fully experienced and qualified with the specified equipment.
- B. For the video recording, the audio portion should be done by a person qualified and knowledgeable in the specifics of the Contract, who shall speak with clarity and diction so as to be easily understood.

#### 1.03 PROJECT PHOTOGRAPHS

- A. Provide one print of each photograph with each pay application.
- B. Provide one recordable compact disc with digital photographs with each pay application.
- C. Negatives:
  - 1. All negatives shall remain the property of photographer.
  - 2. The Contractor shall require that photographer maintain negatives or protected digital files for a period of two years from date of substantial completion of the project.
  - 3. Photographer shall agree to furnish additional prints to County at commercial rates applicable at time of purchase. Photographer shall also agree to participate as required in any litigation requiring the photographer as an expert witness.
- D. The Contractor shall pay all costs associated with the required photography and prints. Any parties requiring additional photography or prints shall pay the photographer directly.
- E. All project photographs shall be a single weight, color image. All finishes shall be smooth surface and glossy and all prints shall be 8 inches x 10 inches.
- F. Each print shall have clearly marked on the back, the name of the project, the

orientation of view, the date and time of exposure, name and address of the photographer and the photographers numbered identification of exposure.

- G. All project photographs shall be taken from locations to adequately illustrate conditions prior to construction, or conditions of construction and state of progress. The Contractor shall consult with the County at each period of photography for instructions concerning views required.

#### **1.04 VIDEO RECORDINGS**

- A. Video, recording shall be done along all routes that are scheduled for construction. Video, recording shall include full, recording of both sides of all streets and the entire width of easements plus 10 feet on each side on which construction is to be performed. All video recording shall be in full color.
- B. A complete view, in sufficient detail with audio description of the exact location shall be provided.
- C. The engineering plans shall be used as a reference for stationing in the audio portion of the recordings for easy location identification.
- D. Two complete sets of video recordings shall be delivered to the County on digital video disks (DVD) for the permanent and exclusive use of the County prior to the start of any construction on the project.
- E. All video recordings shall contain the name of the project, the date and time of the video, recording, the name and address of the photographer and any other identifying information required.
- F. Construction shall not start until preconstruction video recordings are completed, submitted and accepted by the County. In addition, no progress payments shall be made until the preconstruction video recordings are accepted by the County.

**PART 2 PRODUCTS (NOT USED)**  
**PART 3 EXECUTION (NOT USED)**

**END OF SECTION**

## SECTION 01410 TESTING AND TESTING LABORATORY SERVICES

### PART 1 GENERAL

#### 1.01 REQUIREMENTS INCLUDED

Contractor shall employ and pay for the services of an independent testing laboratory to perform turbidity testing specifically indicted on the Contract documents or call out in the Specifications or permits. Contractor shall cooperate fully with the laboratory to facilitate the execution of its required services.

#### 1.02 LIMITATIONS OF AUTHORITY OF TESTING LABORATORY

- A. Laboratory is not authorized to:
  - 1. Release, revoke, alter or enlarge on requirements of Contract Documents.
  - 2. Approve or accept any portion of the Work.
  - 3. Perform any duties of the Contractor.

#### 1.03 CONTRACTOR'S RESPONSIBILITIES

- A. Employ and pay for the services of a qualified independent testing laboratory to perform, sampling and testing required.

PART 2 PRODUCTS (NOT USED)  
PART 3 EXECUTION (NOT USED)

END OF SECTION

## SECTION 01570 TRAFFIC AND PEDESTRIAN CONTROL

### PART 1 GENERAL

#### 1.01 REQUIREMENTS INCLUDED

- A. The Contractor shall be responsible for providing safe and expeditious movement of traffic through construction zones. A construction zone is defined as the immediate areas of actual construction and all abutting areas which are used by the Contractor and which interfere with the driving or walking public.
- B. The Contractor shall remove temporary equipment and facilities when no longer required, restore grounds to original or to specified conditions.

#### 1.02 TRAFFIC CONTROL

- A. The Contractor shall develop and implement a traffic and pedestrian control plan for the specific requirements of this project. The plan shall provide for the continuous safe passage of boats, pedestrians, access to public property, access by emergency vehicles and other traffic and pedestrian movements with the vicinity of the work site and temporary staging area.
- B. The necessary traffic control shall include, but not be limited to, such items as proper construction warning signs, signals, lighting devices, markings, barricades, channelization and hand signaling devices. The Contractor shall be responsible for installation and maintenance of all devices and detour routes and signage for the duration of the construction period. The Contractor shall utilize the appropriate traffic plan from the FDOT Maintenance of Traffic Standards, Series 600 of the FDOT Roadway & Traffic Design Standards, Latest Edition.
- C. The Contractor shall be responsible for removal, relocation, or replacement of any traffic control devices in the temporary staging area which exists as part of the normal traffic control scheme. Any such actions shall be performed by the Contractor under the supervision and in accordance with the instructions of the applicable highway department unless otherwise specified.
- D. The Engineer will consult with the Owner immediately on any vehicular or pedestrian safety or efficiency problem incurred as a result of construction of the project.
- E. The Contractor shall provide ready access to businesses and homes in the project area during construction. The Contractor shall be responsible for coordinating this work with affected homeowners.
- F. When conditions require the temporary installation of signs, pavement markings and traffic barriers for the protection of workers and traffic, the entire array of such devices shall be depicted on working drawings for each separate stage of work. These drawings shall be submitted to the Engineer for review and approval prior to commencement of work on the site.
- G. Precast concrete traffic barriers shall be placed adjacent to trenches and other excavations deeper than six inches below the adjacent pavement surface.

**PART 2 PRODUCTS (NOT USED)**  
**PART 3 EXECUTION (NOT USED)**

**END OF SECTION**

## SECTION 01700 CONTRACT CLOSEOUT

### PART 1 GENERAL

#### 1.01 REQUIREMENTS INCLUDED

Comply with requirements stated in Conditions of the Contract and in Specifications for administrative procedures in closing out the work.

#### 1.02 SUBSTANTIAL COMPLETION

- A. The Contractor shall submit the following items when the Contractor considers the work to be substantially complete:
  - 1. A written notice that the work, or designated portion thereof, is substantially complete.
  - 2. A list of items to be completed or corrected.
- B. Within a reasonable time after receipt of such notice, the County shall make an inspection to determine the status of completion.
- C. Project record documents and operations and maintenance manuals must be submitted before the project shall be considered substantially complete.
- D. If the County determines that the work is not substantially complete:
  - 1. The County shall notify the Contractor in writing, stating the reasons.
  - 2. The Contractor shall remedy the deficiencies in the work and send a second written notice of substantial completion to the Engineer.
  - 3. The County shall reinspect the work.
- E. When the County finds that the work is substantially complete:
  - 1. The Engineer shall prepare and deliver to the County a tentative Certificate of Substantial Completion (Manatee County Project Management Form PMD-8) with a tentative list of the items to be completed or corrected before final payment.
  - 2. The Engineer shall consider any objections made by the County as provided in Conditions of the Contract. When the Engineer considers the work substantially complete, he will execute and deliver to the Owner and the Contractor a definite Certificate of Substantial Completion (Manatee County Project Management Form PMD-8) with a revised tentative list of items to be completed or corrected.

#### 1.03 FINAL INSPECTION

- A. When the Contractor considers the work to be complete, he shall submit written

certification stating that:

1. The Contract Documents have been reviewed.
  2. The work has been inspected for compliance with Contract Documents.
  3. The work has been completed in accordance with Contract Documents.
  4. The equipment and systems have been tested in the presence of the County's representative and are operational.
  5. The work is completed and ready for final inspection.
- B. The County shall make an inspection to verify the status of completion after receipt of such certification.
- C. If the County determines that the work is incomplete or defective:
1. The County shall promptly notify the Contractor in writing, listing the incomplete or defective work.
  2. The Contractor shall take immediate steps to remedy the stated deficiencies and send a second written certification to County that the work is complete.
  3. The County shall reinspect the work.
- D. Upon finding the work to be acceptable under the Contract Documents, the County shall request the Contractor to make closeout submittals.
- E. For each additional inspection beyond a total of three (3) inspections for substantial and final completion due to the incompleteness of the work, the Contractor shall reimburse the County's fees.

#### **1.04 CONTRACTOR'S CLOSEOUT SUBMITTALS TO COUNTY**

- A. Project Record Documents (prior to substantial completion).
- B. Operation and maintenance manuals (prior to substantial completion).
- C. Warranties and Bonds.
- D. Evidence of Payment and Release of Liens: In accordance with requirements of General and Supplementary Conditions.
- E. Certification letter from Florida Department of Transportation and Manatee County Department of Transportation, as applicable.
- F. Certificate of Insurance for Products and Completed Operations.
- G. Final Reconciliation, Warranty Period Declaration, and Contractor's Affidavit (Manatee County Project Management Form PMD-9).

#### **1.05 FINAL ADJUSTMENT OF ACCOUNTS**

- A. Submit a final statement of accounting to the County.
- B. Statement shall reflect all adjustments to the Contract Sum:
  1. The original Contract Sum.



2. Additions and deductions resulting from:
    - a. Previous Change Orders
    - b. Unit Prices
    - c. Penalties and Bonuses
    - d. Deductions for Liquidated Damages
    - e. Other Adjustments
  3. Total Contract Sum, as adjusted.
  4. Previous payments.
  5. Sum remaining due.
- C. Project Management shall prepare a final Change Order, reflecting approved adjustments to the Contract Sum which were not previously made by Change Orders.

#### **1.06 FINAL APPLICATION FOR PAYMENT**

Contractor shall submit the final Application for Payment in accordance with procedures and requirements stated in the Conditions of the Contract.

**PART 2      PRODUCTS (NOT USED)**  
**PART 3      EXECUTION (NOT USED)**

**END OF SECTION**

## SECTION 01720 PROJECT RECORD DOCUMENTS

### PART 1 GENERAL

#### 1.01 REQUIREMENTS INCLUDED

- A. Contractor shall maintain at the site for the County one record copy of:
  - 1. Drawings.
  - 2. Specifications.
  - 3. Addenda.
  - 4. Change Orders and other modifications to the Contract.
  - 5. Engineer's field orders or written instructions.
  - 6. Approved shop drawings, working drawings and samples.
  - 7. Field test records.
  - 8. Construction photographs.

#### 1.02 MAINTENANCE OF DOCUMENTS AND SAMPLES

- A. Store documents and samples in Contractor's field office apart from documents used for construction.
  - 1. Provide files and racks for storage of documents.
  - 2. Provide locked cabinet or secure storage space for storage of samples.
- B. File documents and samples in accordance with CSI format.
- C. Maintain documents in a clean, dry, legible, condition and in good order. Do not use record documents for construction purposes.
- D. Make documents and samples available at all times for inspection by the Engineer.

#### 1.03 MARKING DEVICES

- A. Provide felt tip marking pens for recording information in the color code designated by the Engineer.

#### 1.04 RECORDING

- A. Label each document "PROJECT RECORD" in neat large printed letters.
- B. Record information concurrently with construction progress.
- C. Do not conceal any work until required information is recorded.
- D. Drawings; Legibly mark to record actual construction:
  - 1. Field changes of dimension and detail.
  - 2. Changes made by Field Order or by Change Order.
  - 3. Details not on original contract drawings.

## **1.05 SUBMITTAL**

- A. Prior to substantial completion and prior to starting the bacteria testing of water lines, deliver signed and sealed Record Documents and Record Drawings to the County. These will be reviewed and verified by the inspector. If there are any required changes or additions, these shall be completed and the entire signed and sealed set resubmitted prior to final pay application.
- B. The Contractor shall employ a Professional Engineer or Surveyor registered in the State of Florida to verify survey data and properly prepare record drawings. Record drawings shall be certified by the professional(s) (Engineer or Surveyor licensed in Florida), as stipulated by the Land Development Ordinance and submitted on signed and dated mylar drawings together with a recordable compact disk (CD).
- C. The CD shall contain media in AutoCad Version 12 or later, or in any other CAD program compatible with AutoCad in DWG or DXF form. All fonts, line types, shape files or other pertinent information used in the drawing and not normally included in AutoCad shall be included on the media with a text file or attached noted as to its relevance and use.
- D. Accompany submittal with transmittal letter, containing:
  - 1. Date.
  - 2. Project title and number.
  - 3. Contractor's name and address.
  - 4. Title and number of each Record Document.
  - 5. Signature of Contractor or his authorized representative.

Note: The data required to properly prepare these record drawings shall be obtained at the site, at no cost to the County by the responsible design professional or his/her duly appointed representative. The appointed representative shall be a qualified employee of the responsible design professional or a qualified inspector retained by the responsible design professional on a project-by-project basis.

## **PART 2 STANDARDS**

### **2.01 MINIMUM RECORD DRAWING STANDARDS FOR ALL RECORD DRAWINGS SUBMITTED TO MANATEE COUNTY**

- A. Record drawings shall be submitted to at least the level of detail in the contract documents. It is anticipated that the original contract documents shall serve as at least a background for all record information. Original drawings in CAD format may be requested of the Engineer.
- B. Drawings shall meet the criteria of paragraph 1.04 D above.

## **PART 3 EXECUTION (NOT USED)**

**END OF SECTION**

## SECTION 01740 WARRANTIES AND BONDS

### PART 1 GENERAL

#### 1.01 REQUIREMENTS INCLUDED

- A. Compile specified warranties and bonds.
- B. Compile specified service and maintenance contracts.
- C. Co-execute submittals when so specified.
- D. Review submittals to verify compliance with Contract Documents.
- E. Submit to County for review and transmittal to Owner.

#### 1.02 SUBMITTAL REQUIREMENTS

- A. Assemble warranties, bonds and service and maintenance contracts, executed by each of the respective manufacturers, suppliers and subcontractors.
- B. Number of original signed copies required: Two each.
- C. Table of Contents: Neatly typed, in orderly sequence. Provide complete information for each item.
  - 1. Product or work item.
  - 2. Firm, with name of principal, address and telephone number.
  - 3. Scope.
  - 4. Date of beginning of warranty, bond or service and maintenance contract.
  - 5. Duration of warranty, bond or service maintenance contract.
  - 6. Provide information for Owner's personnel:
    - a. Proper procedure in case of failure.
    - b. Instances which might affect the validity of warranty or bond.
  - 7. Contractor, name of responsible principal, address and telephone number.

#### 1.03 FORM OF SUBMITTALS

- A. Prepare in duplicate packets.
- B. Format:
  - 1. Size 8-1/2 inch x 11 inch punched sheets for standard 3-ring binder. Fold larger sheets to fit into binders.
  - 2. Cover: Identify each packet with typed or printed title "WARRANTIES AND BONDS". List:
    - a. Title of Project.
    - b. Name of Contractor.
- C. Binders: Commercial quality, three-ring, with durable and cleanable plastic covers.

**1.04 TIME OF SUBMITTALS**

- A. Make submittals within ten days after date of substantial completion and prior to final request for payment.
- B. For items of work, where acceptance is delayed materially beyond date of substantial completion, provide updated submittal within ten days after acceptance, listing date of acceptance as start of warranty period.

**1.05 SUBMITTALS REQUIRED**

- A. Submit warranties, bonds, service and maintenance contracts as specified in respective sections of Specifications.
- B. Approval by the Owner of all documents required under this section is a prerequisite to requesting a final inspection and final payment

**PART 2 PRODUCTS (NOT USED)**  
**PART 3 EXECUTION (NOT USED)**

**END OF SECTION**

DIVISION 2 SITE PREPARATION

SECTION 02202 DREDGING  
SECTION 02270 EROSION AND SEDIMENTATION CONTROL

## SECTION 02202 DREDGING

### PART 1 - GENERAL

#### 1.01 DESCRIPTION

The work specified in this Section consists of mechanical and/or hydraulic dredging of sediments to a pre-determined depth and width as indicated on the plans, dewatering, loading, transport and disposal of dredge sediment to Manatee County Landfill, installation of turbidity/sediment barriers or devices to control turbidity, and turbidity monitoring.

#### 1.02 RELATED WORK SPECIFIED ELSEWHERE

Erosion and Sedimentation Control (See Section 02270)

#### 1.03 SUBMITTALS

- A. Shop Drawings on turbidity barriers proposed to be used.
- B. Pre-dredge Survey. Refer to Section 01050.
- C. Post-dredge Survey. Refer to Section 01050.
- D. Required Turbidity Monitoring Reports (Per FDEP/ACOE Permits).
- E. Contractor's Proposed Haul Route.
- F. Testing - Refer to Section 01410.

### PART 2 - PRODUCTS

#### 2.01 DREDGING

- A. All dredging operations shall conform to the requirements listed herein.
- B. The Work specified under this section consists of the excavation of sediment by mechanical and/or hydraulic means as indicated on the plans.
- C. The Contractor shall be responsible for construction activities within the lines and grades as shown on the plans. The Contractor shall take extreme care not to damage existing seawalls, docks, moorings and mangrove trees.
- D. The Contractor shall be responsible to prepare a video recording of the existing conditions. One copy shall be submitted to the Engineer prior to mobilizing to project site.
- E. The Contractor shall not under dredge by greater than 6 inches and over dredge by more than 6 inches beyond the elevations and contours.
- F. The Contractor shall be responsible for damages as a result of direct contact with physical features or as a result of excavating beyond the lines and grades as shown on the plans. All repairs to damaged docks and seawalls shall be made by Contractor within two (2) weeks of the date that damage occurred at no additional expense to the County.

- G. The Contractor shall be responsible for the removal of any material that accumulates in the channel or boat basin after initial establishment of the proposed template at no additional costs, and prior to final acceptance.
- H. The Contractor shall be responsible for the removal of all material and equipment and restore the area to its original condition or better.
- I. The Contractor shall not violate the Water Quality Standards as specified in Chapter 17-3, 17-4 and 17-25 Florida Administrative Codes, including but not limited to: 17-3.02 Minimum Conditions of All Waters, Times and Places; 17-3.05 Water Quality Standards; Specifics; and 17-3.09 Criteria: Class III Waters- Recreation, Propagation and Management of Fish and Wildlife. A contract time extension will not be granted due to turbidity violations.
- J. Within 10 days of the date of Notice to Proceed, but prior to start of construction, the Contractor shall submit to the County a Hurricane Preparedness plan. The plan should outline the necessary measures which the Contractor proposes to perform at no additional cost to the County in case of a hurricane warning.

In the event of hurricane weather or force winds, Contractor shall remove all dredging operation equipment from within the project limits. Contractor shall insure that he and his subcontractors shall carefully protect work and materials against damage or injury from the weather. If, in the opinion of the Engineer, any portion of work or materials is damaged due to the failure on the part of the Contractor or Subcontractor such work shall be redone or replaced at the expense of the Contractor.

## **2.02 HYDRAULIC/MECHANICAL DREDGING**

The Contractor shall dewater the dredged sediment by means of a barge mounted mobile dewatering system and transport it to the Manatee County Landfill.

## **2.03 HAULING AND DISPOSAL**

Hauling shall be in sealed trucks over a Contractor designated, County approved haul route to Manatee County Landfill. Any roadway damage along the haul route from spoil transportation shall be repaired per FOOT or County Standards at no cost to Owner or Engineer. All disposal material placed in landfill shall be in compliance with "Test methods for Evaluating Solid Wastes, Physical Chemical Method" METHOD 9095 (Paint filter Liquids Test) (EPA Publication No.SW-846).

## **2.04 SEDIMENT DEWATERING**

All dredged sediment shall meet Manatee County Landfill requirements for disposal at those facilities. The Contractor shall use sea based operations for drying of sediment prior to transfer to Manatee County Landfill. Devices used for sea based operations may include use of Geotubes, Rotary Fan Press, Belt Press, Hydro Cyclone or other such devices on barges.

## **PART 3 - EXECUTION (NOT USED)**

**END OF SECTION**



**SECTION 02270**  
**EROSION AND SEDIMENTATION CONTROL**

**PART 1 - GENERAL**

**1.01 DESCRIPTION**

The work specified in this Section consists of measures required to control erosion on the project and in areas outside the project area where work is accomplished in conjunction with the project, so as to prevent pollution of water, detrimental effects of public or private property adjacent to the project area and damage to work on the project. These measures will consist of construction and maintenance of temporary erosion control features or, where practical, the construction and maintenance of permanent erosion control features.

**1.02 CONTROL OF CONTRACTOR'S OPERATIONS WHICH MAY RESULT IN WATER POLLUTION**

- A. Take sufficient precautions to prevent pollution of streams, lakes, canals, boat basin, waterways and other water impoundments, with fuels, oils, bitumen, calcium chloride, or other harmful materials. Conduct and schedule operations so as to avoid or otherwise minimize pollution or siltation of such streams, etc. and to avoid interference with movement of migratory fish. Do not dump the residue from dust collectors or washers into any water body.
- B. Construction operations in rivers, streams, lakes, tidal waters, reservoirs, canals, and other impoundments shall be restricted to those areas where it is necessary to perform filling or excavation to accomplish the work shown in the Contract Documents and to those areas which must be entered to construct temporary or permanent structures. As soon as conditions permit, promptly clear rivers, streams, and impoundments of all obstructions placed therein or caused by construction operations.
2. Except as necessary for construction, do not deposit excavated material in rivers, streams, canals, or impoundments, or in a position close enough thereto, to be washed away by high water or runoff.
- B. Where pumps are used to remove highly turbid waters from enclosed construction areas such as cofferdams or forms, treat the water prior to discharge into State waters. Pump the water into grassed swales, appropriate vegetated areas, or sediment basins, or confine it by an appropriate enclosure such as siltation curtains when other methods are not considered appropriate. Do not contaminate state waters.
- C. Do not disturb lands or water outside the limits of construction, except as may be found necessary to complete work.

**1.03 START OF WORK**

Do not start work until erosion control measures are in place.

## **PART 2 - PRODUCTS**

### **2.01 General**

1. No testing of materials used in construction of temporary erosion control features will be required.
2. Materials used for the construction of the temporary erosion and sedimentation control measures not to be incorporated into the completed project may be new or used.

## **PART 3 - EXECUTION**

### **3.01 General**

- A. Temporary erosion control features shall consist of, but not be limited to, temporary grassing, temporary sodding, temporary mulching, sandbagging, slope drains, sediment basins, artificial coverings, berms, baled hay or straw, floating silt barriers, staked silt barriers and staked silt fences. Design details for some of these items may be found in the Water Quality Section of the applicable edition of the FOOT Roadway and Traffic Design Standards, dated 2008.
- B. Incorporate permanent erosion control features into the project at the earliest practical time. Correct conditions, using temporary measures, which develop during construction to control erosion prior to the time it is practical to construct permanent control features.
- C. Construct temporary and permanent erosion and sediment control measures to prevent the pollution of adjacent water ways in conformance with the laws, rules and regulations of Federal, State and local agencies.

### **3.02 INSTALLATION**

- A. Temporary Silt Fences and Staked Silt Barriers: This work shall consist of furnishing, installing, maintaining and removing staked turbidity barriers in accordance with the manufacturer's directions, these specifications and the details as shown in FOOT Roadway and Traffic Design Standards, dated 2008.
- B. Floating Silt Barriers: This work shall consist of installing, maintaining, and removal of floating silt barriers to contain turbidity that may occur as the result of dredging, filling, or other construction activities in waters of the State. The type barrier used, the deployment and maintenance of the barrier will be such as to minimize dispersion of turbid waters from the construction site. Alternate methods or materials may be used provided that compliance with applicable permit conditions and State water quality standards are maintained.

### **3.03 REMOVAL OF TEMPORARY EROSION CONTROL FEATURES**

In general, remove or incorporate into the soil any temporary erosion control features existing at the time of construction of the permanent erosion control features in such a manner that there will be no detrimental effect.

### **3.04 MAINTENANCE OF EROSION CONTROL FEATURES**

General: Provide routine maintenance of permanent and temporary erosion control features until the project is completed and accepted.

**END OF SECTION**