

## **SECTION IV**

### **MEASUREMENT AND PAYMENT**

#### **95<sup>th</sup> Avenue North Public Utility Renewal DESCRIPTION**

- A. This section describes the method used to determine quantities of Work performed or materials supplied for which a price is given in the Bid. It establishes the basis upon which payment will be made for Payment Items.
- B. Subject to the provisions in General Conditions, all Work and payment for the Work is represented by Payment Items and associated unit prices.

#### **PAYMENT**

- A. Subject to all other contract requirements, the Contractor shall be paid for "as built" quantities of Work for which a price is given in the bid.
- B. Quantities on the Bid Schedule are estimated and may be increased or decreased without limit.
- C. No separate payment will be made for one Payment Item as Work incidentally required to complete the Work of another.
- D. Payment for Work performed shall be made in accordance with the unit prices in the Bid.

#### **MEASUREMENT FOR PAYMENT**

- A. Methods of Measurement:
  - 1. Measurements of lengths, widths, slope angles, and depths or elevations shall be made to determine "as-built" quantities of lengths, areas and volumes pertinent to Payment Items.
    - a. Unless otherwise specified, all lengths shall be horizontal distances.
    - b. Slope angles and elevations shall be measured using land surveying equipment.
  - 2. Graphic representations of measured quantities shall be drafted to scale using the Drawings where convenient and appropriate. Additional drawings shall be drafted if required.
    - a. Irregular shapes representing areas and volumes shall be measured using a compensating polar planimeter or a computer digitizer.
    - b. Regular shapes shall be scaled.
  - 3. Use of Drawings:
    - a. Unless otherwise agreed upon between the Contractor and Owner, the Drawings shall be used as the basis to establish existing grades and other existing topographic features.

## PAYMENT ITEMS

- A. No separate payment will be made for the following Work, and its cost shall be included in the Bid Price of the Payment Item to which it is associated:
1. Trench excavation, sheeting, shoring and bracing.
  2. Dewatering.
  3. Erosion and sedimentation control and turbidity screening.
  4. Clearing and grubbing.
  5. Excavation, fill, backfill, pipe bedding (including 57 stone), compaction, and grading, including furnishing and installing imported material as required.
  6. Excavation of all material encountered, including rock, organic, inorganic, and unsuitable material and all material transportation and disposal.
  7. Right-of-way, site, and all disturbed area restoration including the removal, replacement and restoration of sod, mulch, plantings, trees, landscape, etc. Sod type shall be determined by the type of sod that constitutes 50% or more of the property to be restored.
  8. Removal and temporary replacement of driveways and roadways disturbed during construction to maintain usable condition until permanent restoration is completed.
  9. Tree trimming.
  10. Temporary restoration.
  11. Removal, repair, and replacement of existing irrigation located within the ROW.
  12. Removal, replacement, and restoration of mailboxes (including new).
  13. Removal and disposal of existing water main and associated appurtenances (other than AC water main piping).
  14. Removal and disposal of existing vitrified clay sanitary sewer, associated manholes, and service laterals.
  15. Removal and disposal of existing stormwater pipes, culverts, miter ends, headwalls, and associated structures.
  16. Proposed/existing swale grading/re-grading and grading between all existing and proposed structures.
  17. Vibration monitoring during all compaction activities.
  18. Cleanup and daily site dust control.
  19. Testing, including all materials, fees, certifications, and equipment.
  20. Maintenance of utility service.
  21. Appurtenant work.
  22. Removal and replacement of fencing and other structures within the ROW.
  23. Attendance of all public meetings.
  24. Saw cutting.
  25. Coordination with other contractors.
  26. All transportation, storage, and labor.
  27. Notifications to property owners of construction schedule and service interruptions.
- B. Measurement and Payment Items as listed in the Bid Schedule:

## **SECTION 1: GENERAL REQUIREMENTS**

### **1.1 Mobilization/Demobilization**

- A. Measurement for various items covered under Mobilization/Demobilization will not be made for payment, and all items shall be included in the contract lump sum price.
- B. Payment for mobilization and demobilization will be made at the Contract lump sum price and shall include all necessary meetings for the project, including but not limited to: meetings with property owners, home owners associations, and other interested parties, all meetings deemed necessary by Collier County, the attendance of the Contractor's field superintendent(s) at all progress meetings, and all other public meetings required to complete the project in accordance with the contract documents, preparatory work and operations in mobilizing for beginning work on the Project and demobilizing for ending work on the Project. Additionally, this item shall include potholing all existing utilities (including existing sanitary sewer laterals at the ROW line) a minimum of one week prior to beginning work and one week before any connections to existing utilities, providing notification to the Engineer of Record and County of any discrepancies found; the establishment of safety equipment, first aid supplies, sanitary and other facilities, as required by these specifications, State and local laws and any other preconstruction expense necessary for the state of the Work, insurance and bonds, the cost of field engineering, including permits and fees, construction schedules (updated schedules are required monthly), shop drawings, temporary facilities, lay down storage area, construction aids, work associated with Contractor support during Owner/Engineer testing, reviews and inspection, re-inspection and any rework resulting from same, cleaning, and project records documents. The Contractor shall submit invoices substantiating the cost of mobilization with each pay request. Fifteen percent (15%) of the cost for mobilization and demobilization will be withheld until substantial completion acceptance of the entire project. Up to twenty five percent (25%) of the cost of mobilization and demobilization can be billed at the beginning of Phase 1 and up to twenty percent (20%) of the cost of mobilization and demobilization can be billed at the beginning of Phases 2, 3, & 4. This payment item cannot exceed more than 10% of the total base bid.

### **1.2 Maintenance of Traffic**

- A. Measurement for various items covered under Maintenance of Traffic will not be made for payment, and all items shall be included in the contract lump sum price.
- B. Payment for Maintenance of Traffic will be made at the Contract lump sum price for the item, which price and payment shall be full compensation for permitting, construction, and maintenance of any necessary detour facilities; the providing of necessary facilities for access to residences, business, etc., along the project; the furnishing, installing and maintaining of traffic control, barricades, railings, message boards (VMS), warning lights, and other safety devices during construction, the control of dust (daily), providing the services of uniformed off-duty police officers, flag men, watchmen, and other special requirements for the safe and expeditious movements of traffic per County and FDOT standards.

### **1.3 Project Sign**

- A. Measurement for various items covered under Project Sign will be based on the number of project signs installed and accepted.
- B. The Project sign shall be in accordance with Collier County and as specified herein. A proof of the project sign shall be provided to the Engineer of Record and the County for approval prior to the production of the sign.

### **1.4 Survey Layout & Record Drawings**

- A. Measurement for various items covered under Survey Layout & Record Drawings will not be made for payment, and all items shall be included in the contract lump sum price.
- B. Payment for providing all survey and record drawings will be made at the contract lump sum price for the item, which price and payment shall be full compensation for project stake-out, completion of an as-built survey, contractor's hand-drawn redlines, and the delivery of five (5) sets of signed and sealed record drawings and an electronic copy submitted to the County upon Contract close-out per County standards. Electronic (CAD) files shall be provided to the Engineer of Record. Up-to-date Contractor redlines shall be provided with every pay request. Pay requests submitted without up-to-date Contractor redlines shall be rejected.

### **1.5 Pre-Construction Video & Photographs**

- A. Measurement for various items covered under Pre-Construction Video & Photographs will not be made for payment, and all items shall be included in the contract lump sum price.
- B. Payment for providing pre-construction videos and photographs will be made at the full lump sum contract price for the item, which price and payment shall be full compensation for individual property assessments with a minimum of three pictures per lot to document pre-construction conditions, including, but not limited to, sod type, driveway condition, and private irrigation system details; a wet weather video (in addition to a dry weather video) to document flood conditions that will take place during normal business hours.. Pre-construction videos and pictures will be taken individually for each phase (block) a maximum of 30 days prior to commencement of construction in the corresponding phase (block) and provided to the County prior to construction commencement. Up to twenty five percent (25%) of the cost of pre-construction video & photography can be billed for each Phase (1-4).

### **1.6 Remove, Dispose, and Replace Driveway**

- A. Measurement for removing, disposal, and replacing driveway (concrete, decorative concrete, asphalt, or brick pavers) will be based on the area of material actually placed as field measured and shown on as-built drawings.
- B. Payment for removing and replacing driveway (concrete, decorative concrete, asphalt, brick pavers, etc.) will be made at the appropriate Contract Unit price per square yard of concrete, decorative concrete, asphalt, or paver driveway actually removed and replaced for construction. Contractor to replace all concrete driveways with reinforcement as specified herein. Contractor shall confirm the limits and dimensions of all driveway removal and replacements in the field with the County prior to removal and replacement. Replace driveways to match existing elevations and materials of construction (unless shown otherwise on the Drawings or approved by the County),

except dirt and gravel driveways which shall be replaced with concrete. Include surface restoration required for driveway removal and replacement and reinforcement of driveway flares in this item. Should the Contractor choose to jack and bore or directionally drill under driveways, the measurement shall be to the edge of the right of way in these locations. All jack and bores and directional drills must be pre-approved in writing by the County (special circumstances only). No additional measurement or payment will be made for varying driveway thicknesses, subsurface preparation, subgrade, base, limerock, and stabilizing material. All driveways shall be constructed per Collier County Right of Way Standards and per the contract documents.

### **1.7 Remove, Dispose, and Replace Sidewalk**

- A. Measurement for removing, disposal, and replacing asphalt and concrete sidewalks will be based on the total square yard of material actually placed as field measured and shown on as-built drawings.
- B. Payment for removing, disposal, and replacing asphalt and concrete driveways shall be made at the appropriate Contract unit price which price and payment shall be full compensation for removal and disposal of existing material, adjustment, furnishing subgrade and stabilizing material, furnishing and installing of concrete sidewalk per FDOT Standard Index 310 or the Flexible Pavement Design Manual for bike lanes, per ADA requirements, and testing as specified herein. Pedestrian access and transit shall be provided at all times during construction.

### **1.8 Detectable Warnings**

- A. Measurement for installing detectable warning strips will be based on the total square feet of material actually placed as field measured and shown on as-built drawings.
- B. Payment for installing detectable warning strips shall be made at the appropriate Contract unit price which price and payment shall be full compensation for furnishing and installing detectable warnings per FDOT Standard Index 304, per ADA requirements, and as specified herein. Detectable warnings must be installed in concrete, either cast-in-place or with concrete anchors, per manufactures recommendations.

### **1.9 Private Property Tree Removal**

- A. Measurement for private property tree removal will be based on the number of trees removed as determined by the County, Engineer of Record, and CEI will be based on the number of trees removed, disposed, and accepted.
- B. Payment for removal and disposal of private property trees as determined by the County, Engineer of Record, and CEI shall be made at the appropriate Contract unit price which price and payment shall be full compensation for determination of trees to be removed based on location, species, and potential to impact to utilities within the ROW, coordination with the homeowner, adjustment, filling, and restoring the area disturbed by the tree removal.

### **1.10 Dewatering Vanderbilt Drive & 95<sup>th</sup> Avenue North**

- A. Measurement for dewatering Vanderbilt Drive & 95<sup>th</sup> Avenue North will be made at the contract unit price if deemed necessary by the County, Engineer of Record, and CEI.
- B. Payment for dewatering Vanderbilt Drive & 95<sup>th</sup> Avenue North shall include all costs associated with dewatering operations in conjunction with ongoing construction of Vanderbilt Drive. In the event that a dewatering discharge point at Vanderbilt Drive and 95<sup>th</sup> Avenue North is not available the Contractor shall furnish and install all necessary piping and pumps required to pipe and pump under Vanderbilt drive to the nearest outfall.

### **1.11 Allowance**

- A. An allowance is established to cover unanticipated costs associated with the general requirement, including but not limited to additional landscaping (not covered under a pay item) within the ROW. (No additional payment shall be made for landscaping disturbed outside of the right-of-way). Use of Allowance must be approved by the Collier County prior to the execution of the work. All work must be billed on a time and material, lump sum, or unit price basis as agreed upon by the Contractor, County, Engineer of Record, and CEI.

## **SECTION 2: WATER SYSTEM**

### **2.1 Water Main Pipelines**

- A. Measurement for pipe, except as otherwise specified, will be based on the laying length of the pipe in linear feet actually placed as measured along the centerline of the completed pipe, including length of fittings and specials measured along the centerlines measured to the nearest foot, between the limits shown on the Drawings and restraint of pipe as required by contract documents.
- B. Payment for furnishing and installing water main pipelines will be made at the Contract unit price per linear foot for the pipe in place, which price and payment shall be full compensation for all work associated with the water main installation. Payment shall also include furnishing and installation of all pipe fittings, tree trimming, sidewalk removal and replacement, asphalt removal and replacement, curb and gutter removal and replacement, restraints, detectable tape, pretesting, flushing/filling of main, joint restraints, bacteriological testing and sampling assemblies, silt fencing, insulated conducting wire, connections to existing water main including restraint of existing pipe on all sides of the tie in, support of existing main, keeping existing main in service, hiring of power company to relocate support power pole as required, removal and temporary replacement of driveways and roadways disturbed during construction to maintain usable condition until permanent restoration is completed; including landscape and/or sodding not designated in bid as necessary, coordination with other contractors, stubs and valves for future connections to existing pipes, clean-up, disinfection and sterilization, temporary facilities for blow-offs, all cost to clean, repair new or existing piping and appurtenances, and all equipment and all other work necessary to complete the installation as specified. Contractor to assume all existing

pipe is unrestrained at connection points and restrain existing pipes per Collier County standards.

## **2.2 Gate Valves/Line Stops**

- A. Measurement for Gate Valves/Line Stops, except as otherwise specified, will be based on the number of actual gate valves/line stops installed and accepted.
- B. Payment for furnishing and installing gate valves/line stops will be made at the appropriate contract unit price per gate valve/line stop installed which price and payment shall be full compensation for all labor and materials associated with furnishing, installing and testing the valve/line stop, valve stem, mechanical restraints (not listed in a separate pay item), restraining of existing mains, valve nut with extension, tie rods, valve box, valve box adjustments or extensions, valve concrete pad, valve disk, valve cover, and required marker balls. This item also includes the installation of base material below the valve/line stop and the removal and reinstallation of line stop as required in accordance with Collier County standards.

## **2.3 Fire Hydrant Assemblies**

- A. Measurement for Fire Hydrant Assemblies, except as otherwise specified, will be based on the number of fire hydrants installed and accepted.
- B. Payment for furnishing and installing the fire hydrant assemblies will be made at the appropriate contract unit price per fire hydrant assembly installed which price and payment shall be full compensation for all labor and materials required to furnish and install the tee on the utility main, all necessary fittings, joint restraint from the valve to the tee, necessary piping from the tee to the hydrant location with the installation of barrel (riser) section to meet finished grade at the locations depicted in the drawings, and deflections under/over existing or proposed utilities, swales, or stormwater improvements; control gate valve, valve box and any concrete work. Contractor is responsible to set the hydrant to grade in accordance with the details shown on the Plans and the Collier County specifications.

## **2.4 Water Services**

- A. Measurement for Water Services, except as otherwise specified, will be based on the number of water services by type actually installed and accepted.
- B. Payment for furnishing and installing water services will be made at the appropriate Contract unit price per each polyethylene short side and long side service (single and double) from the water main to and including the curb stop within the meter box acceptably installed which price and payment shall be full compensation for all labor, materials, and equipment to install all necessary pipe, fittings, connections, conduits/casings, meter stops, tapping sleeves, curb stops, electronic marker at curb stop water main connection, locking curb stops at vacant properties as specified on the drawings, deflecting, water meter/meter box adjustments (not included in a separate pay item), connection to existing meters, protection of existing utilities and facilities, removal of asphalt along utility corridor, removal and replacement of shrubs, pavement, culverts and storm sewers, sidewalks and other surface materials not specifically designated in the Bid, and all other work for a complete installation.

## **2.5 Connection to Existing Water Main**

- A. Measurement for Connections to Existing Water Mains, except as otherwise specified, will be based on the number of connections actually installed and accepted.
- B. Payment for connecting the newly constructed water main to the existing water mains will be made at the appropriate Contract unit price per each connection acceptable installed which price and payment shall be full compensation to furnish and install all fittings, connections, insert valves and line stops (not included in a separate pay item), tapping sleeve and valve with valve box, blow-offs, miscellaneous piping not included under a separate bid item; restraining existing and proposed piping, concrete work, field measurements, protection of existing utilities and facilities, bacteriological sample points testing, and all other work required for a complete installation.

## **2.6 Bacteriological Sample Points**

- A. Measurement for furnishing and installing bacteriological sample points will be based on the number of bacteriological sample points (permanent or temporary) installed and accepted.
- B. Payment for furnishing and installing bacteriological sample points will be made at the appropriate contract unit price per each bacteriological sample point installed and accepted which price and payment shall be full compensation to furnish and install all valves, tubing, fittings, enclosure, all concrete, removal of temporary sample points, and incidentals necessary for a complete installation as shown on the drawings and as specified herein.

## **2.7 Water Meter, Meter Box, and Backflow Device Relocation**

- A. Measurement for Water Meters, Meter Boxes, and Backflow Device Relocations except as otherwise specified, will be based on the number of meters, meter boxes, and backflow devices relocated and accepted.
- B. Payment for relocating existing water meters, meter boxes and backflow devices will be made at the Contract unit price per each meter, meter box, and backflow device relocated to the property corner per Collier County Standards and Details installed and accepted which price and payment shall be full compensation for all labor, material, and furnishing and installing the piping, fittings, conduit/casings, bushings, reducers, and adaptors necessary to connect the relocated meters to the property lines, as depicted on the plans.

## **2.8 Water Meter Box (vacant property)**

- A. Measurement for Water Boxes, except as otherwise specified, will be based on the number of meter boxes installed and accepted.
- B. Payment for installing County provided meter boxes to vacant properties will be made at the Contract unit price per meter box installed and accepted, which price and payment shall be full compensation for all labor, furnishing and installing all material (meter box furnished by County) fittings, conduit/casings, bushings, reducers, and adaptors necessary to connect the service to the proposed meter boxes and curb stop as depicted on the plans. For material pickup, it will be the responsibility of the contractor to pick up parts at the distribution warehouse on 4370 Progress Avenue as needed and will need to sign the parts request form upon pickup to confirm that all parts are



received. All parts requests should be made in writing at least three (3) business days in advance before request for pick up. Parts requests can be emailed to the project manager. The County shall provide all the necessary paperwork associated with the meter boxes. All existing meter boxes removed shall be returned to the County or disposed of by the Contractor (at no additional cost) at the County's discretion.

## **2.9 Back Flow Device**

- A. Measurement for Back Flow Devices, except as otherwise specified, will be based on the number of back flow devices installed and accepted.
- B. Payment for installing County provided back flow devices will be made at the appropriate Contract unit price per each back flow device installed and accepted which price and payment shall be full compensation for all labor and material (back flow device furnished by County) as depicted on the plans. For material pickup, the water division will provide all parts and direction on which backflow meters to be replaced. It will be the responsibility of the contractor to pick up parts at the distribution warehouse on 4370 Progress Avenue as needed and will need to sign the parts request form upon pickup to confirm that all parts are received. All parts requests should be made in writing at least three (3) business days in advance before request for pick up. Parts requests can be emailed to the project manager. The County shall provide all the necessary paperwork associated with the back flow device replacements. All existing back flow devices removed shall be returned to the County or disposed of by the Contractor (at no additional cost) at the County's discretion.

## **2.10 Air Release Valves**

- A. Measurement for Air Release Valves, except as otherwise specified, will be based on the number of air release valves installed and accepted on the potable water main.
- B. Payment for furnishing and installing air release valves will be made at the appropriate contract unit price per each air release valve installed and accepted which price and payment shall be full compensation to furnish and install the valve, complete with tapping saddle, ballcorp, curb stop, supports, vents, vault, footing, frame, cover, access lid, piping, fitting and bends, enclosures, deflections under/over existing or proposed utilities, swales, or stormwater improvements, and other appurtenances. Air release valves shall be placed at the ROW line unless otherwise directed by the County.

## **2.11 Conflict Avoidance (Deflection)**

- A. Measurement for each conflict avoidance constructed (deflection) will be based on the number of each conflict avoidance of existing utilities and drainage installed and accepted.
- B. Payment for conflict avoidance not included in a separate pay item will be made at the appropriate contract unit price per each deflection installed and accepted which price and payment shall be full compensation to furnish and install pipe, fittings, joint restraints, concrete work, existing utility protection and restraining, and any other incidentals necessary for a complete installation as shown on the Drawings and specified therein.

## **2.12 Temporary Connection to Existing Water Main**

- A. Measurement for installing a temporary connection to the existing water main will be based on the number of each temporary connection installed and accepted.
- B. Payment for temporary water main connections will be made at the appropriate contract unit price per each temporary connection installed and accepted which price and payment shall be full compensation to furnish and install pipe, valves, fittings, joint restraints, existing utility protection, bacteriological sampling, abandonment once clearance is obtained, and all other work for a complete installation.

## **2.13 Remove and Dispose Asbestos Concrete Water Main**

- A. Measurement for removal and disposal of the existing asbestos concrete water main will be based on the laying length of the pipe in linear feet actually removed and disposed of as measured along the centerline of the pipe, including length of fittings and specials measured along the centerlines, between the limits shown on the Drawings and restraint of pipe as required by contract documents.
- B. Payment of removing and disposing asbestos concrete pipe will be made at the appropriate contract unit price per linear foot in accordance with Collier County Standard and as specified herein. Each individual section (20' max) of asbestos concrete water main removed shall be individually wrapped and marked for disposal. One copy of the waste manifest from the disposal site shall be provided to Collier County within 48 hours of receipt. The Collier County landfill will not accept loads after 3pm (Monday through Friday) or on Saturday, Sunday, or Collier County recognized holidays.

## **2.14 Allowance**

- A. An allowance is established to cover unanticipated costs including, but not limited to, un-located utilities and unforeseen site conditions. (No additional payment shall be made for rock excavation, replacement of fill material or dewatering). Use of Allowance must be approved by the Collier County prior to the execution of the work. All work must be billed on a time and material, lump sum, or unit price basis as agreed upon by the Contractor, County, Engineer of Record, and CEI.

# **SECTION 3: WASTEWATER SYSTEM**

## **3.1 8-inch PVC Gravity Sewer**

- A. Measurement for pipe, except as otherwise specified, will be based on the horizontal laying length of the pipe in linear feet as measured to the nearest foot, including the lengths of manholes, valves, and fittings, as installed and accepted. Measure cuts from proposed grade to the invert elevation of the pipe.
- B. Payment for furnishing and installing SDR 26 PVC gravity sewer will be made at the Contract unit price per linear foot for the pipe in place, laying of the pipe, maintaining the wastewater collection system in operation at all times, bypass pumping, plugs, and pumper/vacuum trucks as necessary; support of existing sanitary sewer components, support of existing and proposed utility components including potable water service laterals and conduits; connections not specified elsewhere, coordination with other contractors, and temporary facilities for testing and tests.

### **3.2 Sanitary Sewer Service Lateral**

- A. Measurement for furnishing and installing sanitary sewer services will be based on the number of each sanitary sewer lateral removed, replaced, and connected to the new sanitary sewer.
- B. Payment for furnishing and installing sanitary sewer services will be made at the appropriate Contract unit price per PVC sewer service acceptably installed, including all necessary pipe, fittings, connections, solvent welded sleeves and adaptors, flexible coupling (existing clay to new PVC connections only), cleanouts, two-way cleanouts where specified, protection of existing utilities and facilities, locating existing sewer laterals, maintaining sanitary sewer service at all times, service markers, plugs, removal and replacement of landscaping, pavement, sidewalks and other surface materials not specifically designated in the another pay item, and all other work required for a complete installation. All sanitary sewer laterals that are clay at the property line shall be viewed by the Contractor, County, and CEI (via a Contractor provided portable push camera system) to determine where the existing clay lateral transition to PVC is located. The location shall be marked in the Contractor provided red line as-builts. Portable push camera system shall have a 1 Inch diameter tip, 50 foot (min) insertion probe, flexible video camera head with bright LED lighting, and a 6" (min) TFT LCD color monitor. Cleanouts allowed within a driveway shall have an epoxy coated rim and cover.

### **3.3 Private Property Sewer Service Lateral Replacement**

- A. Measurement for private property service lateral replacement shall be based on the number of linear feet of sanitary service lateral replaced and accepted.
- B. Payment for replacing the private property sanitary service lateral further than the right-of-way (into private property) as determined on a case by case basis by the County, Engineer of Record, and CEI, will be made at the appropriate Contract unit price per linear foot of PVC sewer service lateral replaced, acceptably installed, including all necessary pipe, fittings, connections, solvent welded sleeves and adaptors, flexible coupling (existing clay to new PVC connections only where approved by the County, Engineer of Record, and CEI), cleanouts, protection of existing utilities and facilities, removal and disposal of existing lateral pipe, maintaining sanitary sewer service at all times, service markers, plugs, removal and replacement of landscaping, including private property landscaping and restoration, pavement, sidewalks and other surface materials not specifically designated in the another pay item, and all other work required for a complete installation.

### **3.4 Relocate Driveway Sanitary Service Lateral**

- A. Measurement for relocating each sanitary service lateral located in a driveway will be based on the number of sanitary service laterals relocated to the property corner and accepted.
- B. Payment for relocating sanitary service laterals located in the driveway (up to the house cleanout line, into private property) will be made at the appropriate Contract unit price per PVC sewer service lateral relocate to the property corner, acceptably installed, including all necessary pipe, fittings, connections, solvent welded sleeves and adaptors,

flexible coupling (existing clay to new PVC connections only), cleanouts, two-way cleanouts where specified, protection of existing utilities and facilities, locating existing sewer laterals, maintaining sanitary sewer service at all times, service markers, plugs, removal and replacement of landscaping, including private property landscaping and restoration, pavement, sidewalks and other surface materials not specifically designated in the another pay item, and all other work required for a complete installation. Sanitary sewer service laterals within driveways shall be adjusted per the Clean-out Adjustment detail. Only one connection to the sanitary main shall be allowed per sanitary service which shall be in a straight line, perpendicular to the sanitary sewer main, from the final location of the County owned ROW cleanout. Temporary piping is acceptable during construction to connect the existing sanitary sewer lateral to the final location of the lateral to main connection. Temporary lateral to main connections are not allowed. If the relocation of a sanitary sewer service lateral outside of a driveway is not possible due to existing site conditions, the Contractor shall request written permission from the County to install a sanitary sewer lateral within a driveway. Cleanouts allowed within a driveway shall have an epoxy coated rim and cover.

### **3.5 Precast Polymer Concrete Manholes**

- A. Measurement for installation and furnishing of precast polymer manholes, except as otherwise specified, will be based on the number of precast polymer manholes installed and accepted on the sanitary sewer main.
- B. Payment for furnishing and installing precast polymer manholes will be based on the actual number of manholes installed and accepted, including removal and disposal of all existing concrete manholes unless otherwise specified, all compacted gravel or crushed stone bedding, anti-flotation collars, HDPE or polymer concrete grade rings, sawing, concrete and epoxy work for reinforcements, field adjustments, maintaining the wastewater collection system in operation at all times, bypass pumping, plugs, and pumper/vacuum trucks as necessary; protection of adjacent utilities and facilities, manhole frames and covers, coatings and linings, manhole joints, bottom channels, and sanitary sewer connections. All precast polymer concrete manholes shall have a buoyancy collar at the manhole base.

### **3.6 Connect Existing Gravity Sewer to New Polymer Concrete Manhole**

- A. Measurement for connection of the gravity main to the new polymer concrete manhole, except as otherwise specified, will be based on the number of connections installed and accepted.
- B. Payment for installing the new connection to the manholes will be made at the appropriate contract unit price and shall include all required installation of pipe, collars to protect pipe lining, fittings, boots, maintaining the wastewater collection system in operation at all times, bypass pumping, plugs, and pumper/vacuum trucks as necessary; and all other items necessary to make the connection to the new polymer concrete manholes. All patching shall be per the manufactures recommendation and approved by County, Engineer of Record, and CEI.

### **3.7 Connect New Gravity Sewer to Existing Drop Manhole**

- A. Measurement for connection of the new gravity main to the existing manhole, except as otherwise specified, will be based on the number of connections installed and accepted.
- B. Payment for installing the new connection to the existing manholes will be made at the appropriate contract unit price and shall include all required drop manhole adjustment/removal/replacement, core drilling, sawing, installation of pipe, fittings, boots, maintaining the wastewater collection system in operation at all times, bypass pumping, plugs, and pumper/vacuum trucks as necessary; and all other items necessary to make the connection to the existing manhole.

### **3.8 Conflict Crossing Through Existing Box**

- A. Measurement for conflict crossing through an existing stormwater box shall, except as otherwise specified, will be based on the number of crossings installed and accepted.
- B. Payment for conflict crossing through an existing stormwater box be made at the appropriate contract unit price and shall include all required sawing, coring, concrete work, grouting, including patching; piping, conduit, Link-Seal, spacers, fittings, maintaining the wastewater and stormwater collection systems in operation at all times, bypass pumping, plugs, and pumper/vacuum trucks as necessary; and all other items necessary to make the crossing through an existing stormwater box.

### **3.9 Road Restoration – Stabilized Subgrade**

- A. Measurement for removing and replacing FDOT certified stabilized subgrade will be based on the area of material actually placed as field measured and shown on as-built drawings.
- B. Payment for removing and replacing stabilized subgrade will be made at the appropriate contract unit price per square yard installed including furnishing all material, equipment, and disposal of old material. All activities should be in accordance with the Collier County ROW Standards and as detailed on the Plans.

### **3.10 Road Restoration - Limerock Base (8-Inch)**

- A. Measurement for removing and replacing street base will be based on the area actually placed as field measured and shown on as-built drawings.
- B. Payment for removing and replacing street base will be made at the appropriate Contract unit price per square yard for FDOT certified base installed including furnishing all material, equipment, and disposal of old material. Replace all base in accordance with the Collier County ROW Standards and details shown on the Plans.

### **3.11 Road Restoration – Asphalt**

- A. Measurement for removing and replacing street pavement surface will be based on the area actually placed as field measured and shown on as-built drawings.
- B. Payment for removing, disposing and replacing street pavement surface will be made at the appropriate Contract unit price per square yard for pavement surface installed in the work. Replace all pavement surface in accordance with the Collier County ROW Standard Details and details shown on the Plans. This payment item shall be all encompassing for all asphalt, sign removal and replacements, reflective pavement

markers, and temporary and final (thermoplastic) striping placed. This payment item shall cover both lifts of asphalt. Contractor may apply for fifty percent (50%) payment at the completion of the first lift of asphalt, and the remaining fifty percent (50%) shall be paid at the completion of the second lift.

### **3.12 Milling & Resurfacing**

- A. Measurement for milling and resurfacing surface will be based on the area actually placed as field measured and shown on as-built drawings.
- B. Payment for removing, disposing and replacing street pavement surface will be made at the appropriate Contract unit price per square yard for pavement milled and resurfaced. Mill and resurface all pavement surface in accordance with the Collier County Standard Details and details as shown on the Plans. This payment item shall be all encompassing for all asphalt, sign removal and replacements, reflective pavement markers, and temporary and final (thermoplastic) striping placed. This payment item shall include 1-inch minimum milling with Type SP-9.5 asphalt (1-inch minimum) placed with the final lift of asphalt.

### **3.13 Allowance**

- A. An allowance is established to cover unanticipated costs including, but not limited to, un-located utilities and unforeseen site conditions. (No additional payment shall be made for rock excavation, replacement of fill material or dewatering). Use of Allowance must be approved by the Collier County prior to the execution of the work. All work must be billed on a time and material basis. All work must be billed on a time and material, lump sum, or unit price basis as agreed upon by the Contractor, County, Engineer of Record, and CEI.

## **SECTION 4: STORMWATER SYSTEM**

### **4.1-4.6 Drainage Pipe (Various Types and Sizes)**

- A. Measurement for drainage pipe shall be based on the horizontal laying length of the pipe in linear feet as measured from inside wall to inside wall of inlets, and accepted in accordance with the Drawings and Specifications, as measured along the center line of the completed pipe.
- B. Payment for furnishing and installing various types and sizes of storm drain pipe will be made at the contract bid for unit price per linear foot and shall include disposal of excess material, gravel trench, installation of pipe and fittings, silt socks, gaskets, all equipment, and all other incidentals necessary to complete the installation as specified. Repair of silt sock shall be per manufactures recommendations and as approved by the County, Engineer of Record, and CEI.

### **4.7-4.8 Type C Catch Basin/Sedimentation Catch Basin**

- A. Measurement for the construction of Type “C” Catch Basin and Type “C” Sedimentation Catch Basin shall be based on the number of catch basins actually installed and accepted.
- B. Payment for furnishing and installing the catch basins will be made at the contract bid unit price per catch basin installed, including, disposal of excess material, inlet bottom, field adjustments, cutting, concrete reinforcement work, riser (if required), frame,

adjustments, grate or cover, any incidental regrading, and all transportation, labor equipment and all other incidentals required to construct the new inlet complete in place.

#### **4.9 Inline Yard Drain**

- A. Measurement for the construction of Yard Drains shall be based on the number of yard drains actually installed and accepted.
- B. Payment for furnishing and installing yard drains shall be made at the unit price for each yard drain furnished and installed. Payment will be full compensation for all incidental regrading, fittings, adaptors, and all transportation, labor, equipment and all other incidentals required to install the yard drains as shown on the Drawings. Yard drain rim elevations depicted in the drawings are approximate, the exact rim elevations shall be field determined per the maximum slopes as defined in the contract documents.

#### **4.10 Connection to Existing Storm Structure**

- A. Measurement for connection of the new stormwater pipe to the existing catch basin, except as otherwise specified, will be based on the number of connections installed and accepted.
- B. Payment for installing the new connection to the existing catch basins will be made at the appropriate contract price and shall include all required structure modifications, sawing, installation of pipe, fittings, and all other items necessary to make the connection to the existing catch basin.

#### **4.11 Concrete Junction Box**

- A. Measurement for the construction of Concrete Junction Box shall be based on the number of yard drains actually installed and accepted.
- B. Payment for furnishing and installing Concrete Junction Boxes shall be made at the unit price for each drainage basin furnished and installed. Payment will be full compensation for all incidental regrading, fittings, adaptors, and all transportation, labor, equipment and all other incidentals required to install the drainage basin as shown on the Drawings.

#### **4.12 Allowance**

- A. An allowance is established to cover unanticipated costs including, but not limited to, un-located utilities and unforeseen site conditions. (No additional payment shall be made for rock excavation, replacement of fill material or dewatering). Use of Allowance must be approved by the Collier County prior to the execution of the work. All work must be billed on a time and material, lump sum, or unit price basis as agreed upon by the Contractor, County, Engineer of Record, and CEI.

**END OF SECTION**