

SECTION 01270
MEASUREMENT AND PAYMENT

PART 1 GENERAL

1.01 SUMMARY

- A. The Unit Price Work shall include CONTRACTOR provided labor, materials, equipment, overhead, profit, insurance, incidentals, etc. to cover the finished Work. Cost of all applicable taxes, permits, etc. shall be included in the cost of construction of this Project. Even though an item of the Work is included in the Contract Documents, if it is not both covered herein and specifically itemized on the Unit Price Schedule of Section 00330, Bid Form, payment for it shall not be separately made. Such Work shall be considered a necessary part of or incidental to its related Work. The CONTRACTOR shall be paid only for quantities installed and approved by Resident Project Representative (RPR). Measurement for payment on a unit price basis shall be as described below. Payment for each unit installed shall be made according to the unit price bid, as listed in the Bid Form. Only those items appearing in the Bid Form will be considered for payment on a unit price basis.
- B. Applications for payment shall be submitted in accordance with Section 01290, Applications for Payment, Section 00700 - General Conditions, Section 00800 - Supplementary Conditions, and Section 00514 - Agreement. Cost of all applicable taxes, permits, etc., shall be included in the cost of construction of this Project.

1.02 MEASUREMENT

- A. General: Measuring, and metering devices used to measure quantity of materials for the Work shall be suitable for purpose intended and conform to tolerances and specifications as specified in National Institute of Standards and Technology, Handbook 44.
- B. Where measurement of quantities depends on elevation of existing ground, elevations obtained during construction will be compared with those shown on Drawings. Variations of 1 foot or less will be ignored, and profiles shown on Drawings will be used for determining quantities.
- C. Units of measure shown on Unit Price Schedule included with Bid Form shall be as follows, unless specified otherwise.

Item	Method of Measurement
AC	Acre—Field Measure by OWNER
CY	Cubic Yard—Field Measure in-place by OWNER within limits specified or shown

<u>Item</u>	<u>Method of Measurement</u>
EA	Each—Field Count by OWNER
LF	Linear Foot—Horizontal Field Measure by OWNER
LS	Lump Sum—by OWNER
SF	Square Foot – Field Measure by OWNER
SY	Square Yard—Field Measure by OWNER
VF	Vertical Feet—Field Measure by OWNER
WK	Week—by OWNER

D. Definitions:

1. Acre (AC): Field measured and calculated OWNER. Measurement shall be horizontal distances measured to the nearest foot, calculated in square feet, converted to acres, and rounded to the nearest acre by OWNER.
2. Cubic Yard (CY): Field measured and calculated by OWNER. In-place yards prior to excavation or after placement and compaction. Measured to the nearest 0.5 foot, calculated in cubic feet, converted to cubic yards, and rounded to the nearest cubic yard.
3. Each (EA): Field counted by the OWNER as installed and accepted.
4. Linear Foot (LF): Field measured horizontally by the OWNER. Measured centerline to centerline of manhole or fitting. Manhole diameter and fitting length shall be included in the linear measurement.
 - a. Depth for Linear Foot:
 - 1) If the calculated depth exactly equals a number in two consecutive depths, i.e. 6, 8, 10, it shall be assumed that the lower depth category shall be used for calculating payment.
 - 2) Manhole, Drop Manhole, Conflict Manhole, and Manhole Removal: Distance measured from manhole rim to lowest pipe invert.
 - 3) Gravity Sewers: Average distance between manholes measured from manhole rim to lowest pipe invert for the specific sewer reach under consideration.
 - 4) Force Mains: Average distance between surface grade and pipe invert measured at 100-foot intervals along the pipe route between pipe elbows 45 degrees or greater.
 - 5) Backfill, Native and Stone: Average distance between surface grade and the top of the pipe envelope (12-inch cover over the pipe) measured between manholes for gravity sewers and 100-foot increments for force mains.
5. Lump Sum (LS): Field verified by OWNER.
6. Square Foot (SF): Field measured and calculated by OWNER. Measurement shall be horizontal distances measured to the nearest 0.1 foot and calculated to the nearest square foot.

7. Square Yard (SY): Field measured and calculated by OWNER. Measurement shall be horizontal distances measured to the nearest 0.5 foot, calculated in square feet, converted to square yards, and rounded to the nearest square yard by the OWNER.
8. Vertical Foot (VF): Field measured by OWNER in accordance with Paragraph D.4.a.2, above.
9. Week (WK): Field determined by OWNER as seven consecutive 24-hour days, rounded to the nearest week. A 1-day allowance for equipment set up and relocation shall be allowed. Multiple location times shall be added together to determine total time in weeks.

1.03 STORED MATERIALS AND EQUIPMENT

- A. No applications shall be processed by Owner which includes amounts for stored materials. Owner shall not pay Contractor for stored materials.
 1. For unit price contracts or components Contractor's application for payment shall be based upon installed units identified on the bid form.
 2. For lump sum price contracts or components Contractor's application for payment shall be based upon approved schedule of values.

1.04 ITEMS NOT CONSIDERED AS PAY ITEMS

- A. Unless explicitly stated in this Contract Document, the following items are not considered as pay items:
 1. **Clearing and Grubbing** (Section 02230)
 2. **Finish Grading** (Section 02310)
 3. **Control Blasting** (Section 02311)
 4. **General Excavation** (Section 02315)
 5. **Excavation, Bedding, and Backfill for Utilities** (Section 02321)
 6. **Waterlines – Disinfection and Testing** (Section 02516)
 7. **Sanitary Sewers – Air Testing Guidelines** (Section 02533)
 8. **Concrete for Utility Lines** (Section 03303)
 9. **Storage, Handling, and Transportation of Plastic Pipe** (Section 15101)
 10. **Tracer Wire Installation for Non-Electrically Conductive Pipe** (Section 15105)
 11. **Static Electric Discharge Procedure for Polyethylene Pipe** (Section 15265)
 12. **Natural Gas Polyethylene Pipe Joining Procedures** (Section 15350)
- B. **Unclassified excavation** for utilities is not a pay item unless explicitly stated in this Contract Document. Unclassified excavation shall be considered and designated a necessary part of the construction for trench depths as defined by the individual unit price for the line installation and as required by the Project Drawings. Unit prices bid for utilities with which unclassified excavation is connected shall be full compensation for this item.

- C. **Rock Excavation** is not a pay item unless explicitly stated in this Contract Document. Rock excavation shall be considered and designated a necessary part of the construction, and unit prices bid for items which rock excavation is connected shall be full compensation for this item.
- D. Payment will not be made for rejected or unused products. Payment will not be made for the following:
 - 1. Loading, hauling, and disposing of rejected material.
 - 2. Quantities of material wasted or disposed of in manner not called for under Contract Documents.
 - 3. Rejected loads of material, including material rejected after it has been placed by reason of failure of Contractor to conform to provisions of Contract Documents.
 - 4. Material not unloaded from transporting vehicle.
- E. **Site Cleanup** is not a separate pay item unless explicitly stated in this Contract Document. It includes the equipment, material, and labor to maintain the Site on a daily and weekly basis in a clean environment, removing debris, unused material, cleaning, raking, general restoration of disturbed areas to a condition equal to or better than prior to construction. All debris and material shall be removed from the Site and properly disposed of offsite in an approved permitted manner. Site Cleanup is **not** a pay item and shall be considered and designated a necessary part of the construction and unit prices bid for utilities which unclassified excavation is connected shall be full compensation for this item. See Sections 01740, Surface Restoration Special Provisions and 01770, Contract Closeout.
- F. **Erosion and Pollution Control – Routine Maintenance and Removal** is not a separate pay item but shall be completed for items that have been installed, including the establishment/replacement of damaged items, removal of accumulated “silt” behind the temporary structures as well as final removal once construction is complete and accepted by the OWNER. See Section 01570, Erosion Control.

1.05 BID ITEM PAYMENT

- A. Payment for unit price items covers all the labor, materials, overhead, and services necessary to furnish and install the following items.
- B. Payment for the bid items will be as follows:

Pay Item No. 1000 Mobilization to the job site is a lump sum pay item. One time cost to include all CONTRACTOR- incurred mobilization costs associated with such site. **Payment for Mobilization is Limited to Unit Price Bid or 8.25 % of Project Bid Total, Whichever is Less.** Demobilization is not a pay item

and shall be considered a necessary part of the work and the cost of such included herein. If the CONTRACTOR had to pull all men and equipment off the job at the request of the OWNER and subsequently had to re-mobilize then he would be paid the lump sum price for mobilization a second time.

Pay Item No(s). 1005a, b – Erosion Prevention and Sediment Control – Type A and C Silt Fence are linear foot unit price pay items. Unit price items include material, labor, installation complete, and all measures and controls required per Section 01570 and shall include, but are not limited to, those shown on the plans. All measures shall be monitored and maintained per specifications and shall not be removed until all associated permits or approvals have been obtained.

Pay Item No(s). 1005c-g - Erosion and Pollution Control - Rock Check Dam, Curb Inlet Protection, Grate Inlet Protection, Storm Drain Pipe Inlet, and Straw Bales are per each unit price pay items. Unit price items include all material, labor, and installation complete. See Section 01570, Erosion Control. All measures shall be monitored and maintained per specifications and shall not be removed until all associated permits or approvals have been obtained.

Pay Item No. 1005h - Erosion Control Plan and Implementation (Including SWPPP and ARAP) is a lump sum pay item and includes all erosion control devices required by OWNER and/or agency having jurisdiction. This includes all material, labor, and installation complete. See Section 01570, Erosion Control. All measures shall be monitored and maintained per specifications and shall not be removed until all associated permits or approvals have been obtained.

Pay Item No. 1005i – 8” Sediment Filter Tube is a linear foot (LF) pay item and includes all material, labor, and installation complete. All measures shall be monitored and maintained per specifications and shall not be removed until all associated permits or approvals have been obtained.

Pay Item No. 1005j - Erosion Control Matting (ECM) is a square yard (SY) pay item and includes all material, labor, and installation complete. ECM shall be placed at locations depicted in drawings or as directed by Owner in all areas where disturbed areas are graded at slopes exceeding 3(h):1(v). ECM shall be installed immediately after temporary or permanent seeding has been applied and inspected and maintained as required as part of SWPPP requirements. See Section 0290, Seeding for approved materials.

Pay Item No. 1006 – Construction Entrance is a lump sum price pay item. Lump sum price includes all material, labor, installation complete and, upon completion of project construction, removal complete. See Section 01570, Erosion Control. All measures shall be monitored and maintained per specifications and shall not be removed until all associated permits or approvals have been obtained.

Pay Item No. 1007 – Temporary Construction Access Road is a lump sum pay item. Lump Sum item includes, but is not limited to clearing and grubbing, stripping topsoil to a 4-inch depth from existing ground elevations, storing topsoil, placement of geogrid matting under the access road, and placement of crushed stone at locations and dimensions as depicted in the project drawings. The pay item is to include any additional stone needed to maintain access to the site during construction activities, the removal of stone and erosion control matting once construction is complete, full site restoration to pre-existing conditions, including, but not limited to pavement, concrete, seed, sod, and landscaping. See Special Conditions in Section 01110, Summary of Work; Section 02321, Excavation, Bedding, and Backfill for Utilities; Section 02770, Concrete for Utilities and Concrete Pavement Construction; and Section 02740, Pavement Repair for installation of construction access road.

Pay Item No. 1010a - Traffic Control – Plan is a lump sum pay item once the CONTRACTOR has received back from OWNER all approved traffic control plans, as required for Work, which have been prepared, and stamped by a registered professional engineer and submitted to OWNER for approval. Payments for this lump sum item will be made based on percentage of work complete for the entire project. See Section 01550, Work Zone Traffic Control and Appendix, Policy on Work Zone Traffic Control and Temporary Traffic Control Permit.

Pay Item No. 1010b - Traffic Control – Implementation is a lump sum pay item, which includes temporary facilities, maintenance, relocation, removal, personnel, police officers, signage, and routine coordination with permitting agencies. Item also include installation, maintenance, relocation, and removal of temporary chain link fencing, as required by traffic permits. Payments for this lump sum item will be made based on percentage of work complete for the entire project. See Section 01550, Work Zone Traffic Control and Appendix, Policy on Work Zone Traffic Control and Temporary Traffic Control Permit.

Pay Item No. 1015 - Pre-Construction Site Video Recording is a lump sum pay item. Video recording shall include all materials, equipment, and labor to record the sewer route at the beginning of the project as specified in Section 01380.

Pay Item No. 1016 - Temporary Guying of Utility Poles is a per each pole unit price item. Unit price item includes materials, equipment and labor to guy, anchor, brace, or mechanically hold the utility pole and associated anchors throughout the excavation process and until the excavated area can be properly backfilled and compacted to prevent movement of the pole and anchor(s). Includes CONTRACTOR'S notification of OWNER not less than seven (7) calendar days prior to excavation within twenty (20) feet of any pole and CONTRACTOR'S provision of information to OWNER pertaining to the method that is to be used to stabilize the pole and the name of the licensed electrical contractor responsible for performing the work described.

Pay Item No(s). 2005a-f - Gravity Sewer Pipe, PVC, 8 Inches, Unpaved are linear foot unit price items. Unit price items include trench excavation, dewatering if needed, pipe material as shown on the Unit Price Schedule, pipe zone material, backfill, compaction, testing, and inspection. See Section 02321, Excavation, Bedding, and Backfill for Utilities and Section 02532, Sanitary Sewers.

Pay Item No(s). 2010a-f - Gravity Sewer Pipe, PVC, 10 Inches, Unpaved are linear foot unit price items. Unit price items include trench excavation, dewatering if needed, pipe material as shown on the Unit Price Schedule, pipe zone material, backfill, compaction, testing, and inspection. See Section 02321, Excavation, Bedding, and Backfill for Utilities and Section 02532, Sanitary Sewers.

Pay Item No(s). 2015a-f - Gravity Sewer Pipe, PVC, 12 Inches, Unpaved are linear foot unit price items. Unit price items include trench excavation, dewatering if needed, pipe material as shown on the Unit Price Schedule, pipe zone material, backfill, compaction, testing, and inspection. See Section 02321, Excavation, Bedding, and Backfill for Utilities and Section 02532, Sanitary Sewers.

Pay Item No(s). 2020a-f - Gravity Sewer Pipe, PVC, 15 Inches, Unpaved are linear foot unit price items. Unit price items include trench excavation, dewatering if needed, pipe material as shown on the Unit Price Schedule, pipe zone material, backfill, compaction, testing, and inspection. See Section 02321, Excavation, Bedding, and Backfill for Utilities and Section 02532, Sanitary Sewers.

Pay Item No(s). 2025a-f - Gravity Sewer Pipe, PVC, 18 Inches, Unpaved are linear foot unit price items. Unit price items include trench excavation, dewatering if needed, pipe material as shown on the Unit Price Schedule, pipe zone material, backfill, compaction, testing, and inspection. See Section 02321, Excavation, Bedding, and Backfill for Utilities and Section 02532, Sanitary Sewers.

Pay Item No(s). 2030a-f - Gravity Sewer Pipe, PVC, 21 Inches, Unpaved are linear foot unit price items. Unit price items include trench excavation, dewatering if needed, pipe material as shown on the Unit Price Schedule, pipe zone material, backfill, compaction, testing, and inspection. See Section 02321, Excavation, Bedding, and Backfill for Utilities and Section 02532, Sanitary Sewers.

Pay Item No(s). 2035a-f - Gravity Sewer Pipe, PVC, 24 Inches, Unpaved are linear foot unit price items. Unit price items include trench excavation, dewatering if needed, pipe material as shown on the Unit Price Schedule, pipe

zone material, backfill, compaction, testing, and inspection. See Section 02321, Excavation, Bedding, and Backfill for Utilities and Section 02532, Sanitary Sewers.

Pay Item No(s). 2040a-i - Gravity Sewer Pipe, CCFMP, 24 Inches, Unpaved are linear foot unit price items. Unit price items include trench excavation, dewatering if needed, pipe material as shown on the Unit Price Schedule, pipe zone material, backfill, compaction, testing, and inspection. See Section 02321, Excavation, Bedding, and Backfill for Utilities and Section 02532, Sanitary Sewers.

Pay Item No(s). 2045a-i - Gravity Sewer Pipe, CCFMP, 30 Inches, Unpaved are linear foot unit price items. Unit price items include trench excavation, dewatering if needed, pipe material as shown on the Unit Price Schedule, pipe zone material, backfill, compaction, testing, and inspection. See Section 02321, Excavation, Bedding, and Backfill for Utilities and Section 02532, Sanitary Sewers.

Pay Item No(s). 2050a-i - Gravity Sewer Pipe, CCFMP, 36 Inches, Unpaved are linear foot unit price items. Unit price items include trench excavation, dewatering if needed, pipe material as shown on the Unit Price Schedule, pipe zone material, backfill, compaction, testing, and inspection. See Section 02321, Excavation, Bedding, and Backfill for Utilities and Section 02532, Sanitary Sewers.

Pay Item No(s). 2055a-i - Gravity Sewer Pipe, CCFMP, 42 Inches, Unpaved are linear foot unit price items. Unit price items include trench excavation, dewatering if needed, pipe material as shown on the Unit Price Schedule, pipe zone material, backfill, compaction, testing, and inspection. See Section 02321, Excavation, Bedding, and Backfill for Utilities and Section 02532, Sanitary Sewers.

Pay Item No(s). 2060a-i - Gravity Sewer Pipe, CCFMP, 48 Inches, Unpaved are linear foot unit price items. Unit price items include trench excavation, dewatering if needed, pipe material as shown on the Unit Price Schedule, pipe zone material, backfill, compaction, testing, and inspection. See Section 02321, Excavation, Bedding, and Backfill for Utilities and Section 02532, Sanitary Sewers.

Pay Item No(s). 2065a-i - Gravity Sewer Pipe, DIP, 8 Inches, Unpaved are linear foot unit price items. Unit price items include trench excavation, dewatering if needed, pipe material as shown on the Unit Price Schedule, pipe zone material, backfill, compaction, testing, and inspection. See Section 02321, Excavation, Bedding, and Backfill for Utilities and Section 02532, Sanitary Sewers.

Pay Item No(s). 2070a-i - Gravity Sewer Pipe, DIP, 10 Inches, Unpaved are linear foot unit price items. Unit price items include trench excavation, dewatering if needed, pipe material as shown on the Unit Price Schedule, pipe zone material, backfill, compaction, testing, and inspection. See Section 02321, Excavation, Bedding, and Backfill for Utilities and Section 02532, Sanitary Sewers.

Pay Item No(s). 2075a-i - Gravity Sewer Pipe, DIP, 12 Inches, Unpaved are linear foot unit price items. Unit price items include trench excavation, dewatering if needed, pipe material as shown on the Unit Price Schedule, pipe zone material, backfill, compaction, testing, and inspection. See Section 02321, Excavation, Bedding, and Backfill for Utilities and Section 02532, Sanitary Sewers.

Pay Item No(s). 2080a-i - Gravity Sewer Pipe, DIP, 16 Inches, Unpaved are linear foot unit price items. Unit price items include trench excavation, dewatering if needed, pipe material as shown on the Unit Price Schedule, pipe zone material, backfill, compaction, testing, and inspection. See Section 02321, Excavation, Bedding, and Backfill for Utilities and Section 02532, Sanitary Sewers.

Pay Item No(s). 2085a-i - Gravity Sewer Pipe, DIP, 20 Inches, Unpaved are linear foot unit price items. Unit price items include trench excavation, dewatering if needed, pipe material as shown on the Unit Price Schedule, pipe zone material, backfill, compaction, testing, and inspection. See Section 02321, Excavation, Bedding, and Backfill for Utilities and Section 02532, Sanitary Sewers.

Pay Item No(s). 2090a-h - Gravity Sewer Pipe, DIP, 24 Inches, Unpaved are linear foot unit price items. Unit price items include trench excavation, dewatering if needed, pipe material as shown on the Unit Price Schedule, pipe zone material, backfill, compaction, testing, and inspection. See Section 02321, Excavation, Bedding, and Backfill for Utilities and Section 02532, Sanitary Sewers.

Pay Item No(s). 2095a-g - Gravity Sewer Pipe, DIP, 30 Inches, Unpaved are linear foot unit price items. Unit price items include trench excavation, dewatering if needed, pipe material as shown on the Unit Price Schedule, pipe zone material, backfill, compaction, testing, and inspection. See Section 02321, Excavation, Bedding, and Backfill for Utilities and Section 02532, Sanitary Sewers.

Pay Item No(s). 2100a-g - Gravity Sewer Pipe, DIP, 36 Inches, Unpaved are linear foot unit price items. Unit price items include trench excavation, dewatering if needed, pipe material as shown on the Unit Price Schedule, pipe zone material, backfill, compaction, testing, and inspection. See Section 02321,

Excavation, Bedding, and Backfill for Utilities and Section 02532, Sanitary Sewers.

Pay Item No(s). 2105a-g - Gravity Sewer Pipe, DIP, 42 Inches, Unpaved are linear foot unit price items. Unit price items include trench excavation, dewatering if needed, pipe material as shown on the Unit Price Schedule, pipe zone material, backfill, compaction, testing, and inspection. See Section 02321, Excavation, Bedding, and Backfill for Utilities and Section 02532, Sanitary Sewers.

Pay Item No(s). 2110a-g - Gravity Sewer Pipe, DIP, 48 Inches, Unpaved are linear foot unit price items. Unit price items include trench excavation, dewatering if needed, pipe material as shown on the Unit Price Schedule, pipe zone material, backfill, compaction, testing, and inspection. See Section 02321, Excavation, Bedding, and Backfill for Utilities and Section 02532, Sanitary Sewers.

Pay Item No(s). 2115a-f - Gravity Sewer Pipe, PVC, 8 Inches, Paved are linear foot unit price items. Unit price items include trench excavation, dewatering if needed, pipe material as shown on the Unit Price Schedule, pipe zone material, backfill, compaction, testing, and inspection. See Section 02321, Excavation, Bedding, and Backfill for Utilities and Section 02532, Sanitary Sewers.

Pay Item No(s). 2120a-f - Gravity Sewer Pipe, PVC, 10 Inches, Paved are linear foot unit price items. Unit price items include trench excavation, dewatering if needed, pipe material as shown on the Unit Price Schedule, pipe zone material, backfill, compaction, testing, and inspection. See Section 02321, Excavation, Bedding, and Backfill for Utilities and Section 02532, Sanitary Sewers.

Pay Item No(s). 2125a-f - Gravity Sewer Pipe, PVC, 12 Inches, Paved are linear foot unit price items. Unit price items include trench excavation, dewatering if needed, pipe material as shown on the Unit Price Schedule, pipe zone material, backfill, compaction, testing, and inspection. See Section 02321, Excavation, Bedding, and Backfill for Utilities and Section 02532, Sanitary Sewers.

Pay Item No(s). 2130a-f - Gravity Sewer Pipe, PVC, 15 Inches, Paved are linear foot unit price items. Unit price items include trench excavation, dewatering if needed, pipe material as shown on the Unit Price Schedule, pipe zone material, backfill, compaction, testing, and inspection. See Section 02321, Excavation, Bedding, and Backfill for Utilities and Section 02532, Sanitary Sewers.

Pay Item No(s). 2135a-f - Gravity Sewer Pipe, PVC, 18 Inches, Paved are linear foot unit price items. Unit price items include trench excavation,

dewatering if needed, pipe material as shown on the Unit Price Schedule, pipe zone material, backfill, compaction, testing, and inspection. See Section 02321, Excavation, Bedding, and Backfill for Utilities and Section 02532, Sanitary Sewers.

Pay Item No(s). 2140a-f - Gravity Sewer Pipe, PVC, 21 Inches, Paved are linear foot unit price items. Unit price items include trench excavation, dewatering if needed, pipe material as shown on the Unit Price Schedule, pipe zone material, backfill, compaction, testing, and inspection. See Section 02321, Excavation, Bedding, and Backfill for Utilities and Section 02532, Sanitary Sewers.

Pay Item No(s). 2145a-f - Gravity Sewer Pipe, PVC, 24 Inches, Paved are linear foot unit price items. Unit price items include trench excavation, dewatering if needed, pipe material as shown on the Unit Price Schedule, pipe zone material, backfill, compaction, testing, and inspection. See Section 02321, Excavation, Bedding, and Backfill for Utilities and Section 02532, Sanitary Sewers.

Pay Item No(s). 2150a-i - Gravity Sewer Pipe, CCFMP, 24 Inches, Paved are linear foot unit price items. Unit price items include trench excavation, dewatering if needed, pipe material as shown on the Unit Price Schedule, pipe zone material, backfill, compaction, testing, and inspection. See Section 02321, Excavation, Bedding, and Backfill for Utilities and Section 02532, Sanitary Sewers.

Pay Item No(s). 2155a-i - Gravity Sewer Pipe, CCFMP, 30 Inches, Paved are linear foot unit price items. Unit price items include trench excavation, dewatering if needed, pipe material as shown on the Unit Price Schedule, pipe zone material, backfill, compaction, testing, and inspection. See Section 02321, Excavation, Bedding, and Backfill for Utilities and Section 02532, Sanitary Sewers.

Pay Item No(s). 2160a-i - Gravity Sewer Pipe, CCFMP, 36 Inches, Paved are linear foot unit price items. Unit price items include trench excavation, dewatering if needed, pipe material as shown on the Unit Price Schedule, pipe zone material, backfill, compaction, testing, and inspection. See Section 02321, Excavation, Bedding, and Backfill for Utilities and Section 02532, Sanitary Sewers.

Pay Item No(s). 2165a-i - Gravity Sewer Pipe, CCFMP, 42 Inches, Paved are linear foot unit price items. Unit price items include trench excavation, dewatering if needed, pipe material as shown on the Unit Price Schedule, pipe zone material, backfill, compaction, testing, and inspection. See Section 02321, Excavation, Bedding, and Backfill for Utilities and Section 02532, Sanitary Sewers.

Pay Item No(s). 2170a-i - Gravity Sewer Pipe, CCFMP, 48 Inches, Paved are linear foot unit price items. Unit price items include trench excavation, dewatering if needed, pipe material as shown on the Unit Price Schedule, pipe zone material, backfill, compaction, testing, and inspection. See Section 02321, Excavation, Bedding, and Backfill for Utilities and Section 02532, Sanitary Sewers.

Pay Item No(s). 2175a-i - Gravity Sewer Pipe, DIP, 8 Inches, Paved are linear foot unit price items. Unit price items include trench excavation, dewatering if needed, pipe material as shown on the Unit Price Schedule, pipe zone material, backfill, compaction, testing, and inspection. See Section 02321, Excavation, Bedding, and Backfill for Utilities and Section 02532, Sanitary Sewers.

Pay Item No(s). 2180a-i - Gravity Sewer Pipe, DIP, 10 Inches, Paved are linear foot unit price items. Unit price items include trench excavation, dewatering if needed, pipe material as shown on the Unit Price Schedule, pipe zone material, backfill, compaction, testing, and inspection. See Section 02321, Excavation, Bedding, and Backfill for Utilities and Section 02532, Sanitary Sewers.

Pay Item No(s). 2185a-i - Gravity Sewer Pipe, DIP, 12 Inches, Paved are linear foot unit price items. Unit price items include trench excavation, dewatering if needed, pipe material as shown on the Unit Price Schedule, pipe zone material, backfill, compaction, testing, and inspection. See Section 02321, Excavation, Bedding, and Backfill for Utilities and Section 02532, Sanitary Sewers.

Pay Item No(s). 2190a-i - Gravity Sewer Pipe, DIP, 16 Inches, Paved are linear foot unit price items. Unit price items include trench excavation, dewatering if needed, pipe material as shown on the Unit Price Schedule, pipe zone material, backfill, compaction, testing, and inspection. See Section 02321, Excavation, Bedding, and Backfill for Utilities and Section 02532, Sanitary Sewers.

Pay Item No(s). 2195a-i - Gravity Sewer Pipe, DIP, 20 Inches, Paved are linear foot unit price items. Unit price items include trench excavation, dewatering if needed, pipe material as shown on the Unit Price Schedule, pipe zone material, backfill, compaction, testing, and inspection. See Section 02321, Excavation, Bedding, and Backfill for Utilities and Section 02532, Sanitary Sewers.

Pay Item No(s). 2200a-h - Gravity Sewer Pipe, DIP, 24 Inches, Paved are linear foot unit price items. Unit price items include trench excavation, dewatering if needed, pipe material as shown on the Unit Price Schedule, pipe zone material, backfill, compaction, testing, and inspection. See Section 02321,

Excavation, Bedding, and Backfill for Utilities and Section 02532, Sanitary Sewers.

Pay Item No(s) 2205a-g - Gravity Sewer Pipe, DIP, 30 Inches, Paved are linear foot unit price items. Unit price items include trench excavation, dewatering if needed, pipe material as shown on the Unit Price Schedule, pipe zone material, backfill, compaction, testing, and inspection. See Section 02321, Excavation, Bedding, and Backfill for Utilities and Section 02532, Sanitary Sewers.

Pay Item No(s). 2210a-g - Gravity Sewer Pipe, DIP, 36 Inches, Paved are linear foot unit price items. Unit price items include trench excavation, dewatering if needed, pipe material as shown on the Unit Price Schedule, pipe zone material, backfill, compaction, testing, and inspection. See Section 02321, Excavation, Bedding, and Backfill for Utilities and Section 02532, Sanitary Sewers.

Pay Item No(s). 2215a-g - Gravity Sewer Pipe, DIP, 42 Inches, Paved are linear foot unit price items. Unit price items include trench excavation, dewatering if needed, pipe material as shown on the Unit Price Schedule, pipe zone material, backfill, compaction, testing, and inspection. See Section 02321, Excavation, Bedding, and Backfill for Utilities and Section 02532, Sanitary Sewers.

Pay Item No(s). 2220a-g - Gravity Sewer Pipe, DIP, 48 Inches, Paved are linear foot unit price items. Unit price items include trench excavation, dewatering if needed, pipe material as shown on the Unit Price Schedule, pipe zone material, backfill, compaction, testing, and inspection. See Section 02321, Excavation, Bedding, and Backfill for Utilities and Section 02532, Sanitary Sewers.

Pay Item No. 2224 – Water Stop Grouting Ring is a per each unit price item which includes trench excavation if needed, dewatering if needed, piping components, backfill if needed, compaction if needed, testing, and inspection as depicted in the project drawings or as designated by Owner. See Section 02321, Excavation, Bedding, and Backfill for Utilities, Section 02530, Manholes, and Section 02534, Waste Water Force Main.

Pay Item No(s). 2225a-b - Force Main Pipe, PVC, 4 Inches are linear foot unit price items. Unit price items include trench excavation, dewatering if needed, pipe material as shown on the Unit Price Schedule, fittings, pipe zone material, backfill, compaction, testing, and inspection. See Section 02321, Excavation, Bedding, and Backfill for Utilities and Section 02534, Waste Water Force Main.

Pay Item No(s). 2230a-b - Force Main Pipe, PVC, 6 Inches are linear foot unit price items. Unit price items include trench excavation, dewatering if needed, pipe material as shown on the Unit Price Schedule, fittings, pipe zone material,

backfill, compaction, testing, and inspection. See Section 02321, Excavation, Bedding, and Backfill for Utilities and Section 02534, Waste Water Force Main.

Pay Item No(s). 2235a-b - Force Main Pipe, PVC, 8 Inches are linear foot unit price items. Unit price items include trench excavation, dewatering if needed, pipe material as shown on the Unit Price Schedule, fittings, pipe zone material, backfill, compaction, testing, and inspection. See Section 02321, Excavation, Bedding, and Backfill for Utilities and Section 02534, Waste Water Force Main.

Pay Item No(s). 2240a-b - Force Main Pipe, PVC, 10 Inches are linear foot unit price items. Unit price items include trench excavation, dewatering if needed, pipe material as shown on the Unit Price Schedule, fittings, pipe zone material, backfill, compaction, testing, and inspection. See Section 02321, Excavation, Bedding, and Backfill for Utilities and Section 02534, Waste Water Force Main.

Pay Item No(s). 2245a-b - Force Main Pipe, PVC, 12 Inches are linear foot unit price items. Unit price items include trench excavation, dewatering if needed, pipe material as shown on the Unit Price Schedule, fittings, pipe zone material, backfill, compaction, testing, and inspection. See Section 02321, Excavation, Bedding, and Backfill for Utilities and Section 02534, Waste Water Force Main.

Pay Item No(s). 2250a-c - Force Main Pipe, PVC, 16 Inches are linear foot unit price items. Unit price items include trench excavation, dewatering if needed, pipe material as shown on the Unit Price Schedule, fittings, pipe zone material, backfill, compaction, testing, and inspection. See Section 02321, Excavation, Bedding, and Backfill for Utilities and Section 02534, Waste Water Force Main.

Pay Item No(s). 2255a-c - Force Main Pipe, PVC, 20 Inches are linear foot unit price items. Unit price items include trench excavation, dewatering if needed, pipe material as shown on the Unit Price Schedule, fittings, pipe zone material, backfill, compaction, testing, and inspection. See Section 02321, Excavation, Bedding, and Backfill for Utilities and Section 02534, Waste Water Force Main.

Pay Item No(s). 2260a-c - Force Main Pipe, PVC, 24 Inches are linear foot unit price items. Unit price items include trench excavation, dewatering if needed, pipe material as shown on the Unit Price Schedule, fittings, pipe zone material, backfill, compaction, testing, and inspection. See Section 02321, Excavation, Bedding, and Backfill for Utilities and Section 02534, Waste Water Force Main.

Pay Item No(s). 2265a-b - Force Main Pipe, HDPE, 4 Inches are linear foot unit price items. Unit price items include trench excavation, dewatering if needed, pipe material as shown on the Unit Price Schedule, fittings, pipe zone material, backfill, compaction, testing, and inspection. See Section 02321, Excavation, Bedding, and Backfill for Utilities and Section 02534, Waste Water Force Main.

Pay Item No(s). 2270a-b - Force Main Pipe, HDPE, 6 Inches are linear foot unit price items. Unit price items include trench excavation, dewatering if needed, pipe material as shown on the Unit Price Schedule, fittings, pipe zone material, backfill, compaction, testing, and inspection. See Section 02321, Excavation, Bedding, and Backfill for Utilities and Section 02534, Waste Water Force Main.

Pay Item No(s). 2275a-b - Force Main Pipe, HDPE, 8 Inches are linear foot unit price items. Unit price items include trench excavation, dewatering if needed, pipe material as shown on the Unit Price Schedule, fittings, pipe zone material, backfill, compaction, testing, and inspection. See Section 02321, Excavation, Bedding, and Backfill for Utilities and Section 02534, Waste Water Force Main.

Pay Item No(s). 2280a-b - Force Main Pipe, HDPE, 10 Inches are linear foot unit price items. Unit price items include trench excavation, dewatering if needed, pipe material as shown on the Unit Price Schedule, fittings, pipe zone material, backfill, compaction, testing, and inspection. See Section 02321, Excavation, Bedding, and Backfill for Utilities and Section 02534, Waste Water Force Main.

Pay Item No(s). 2285a-b - Force Main Pipe, HDPE, 12 Inches are linear foot unit price items. Unit price items include trench excavation, dewatering if needed, pipe material as shown on the Unit Price Schedule, fittings, pipe zone material, backfill, compaction, testing, and inspection. See Section 02321, Excavation, Bedding, and Backfill for Utilities and Section 02534, Waste Water Force Main.

Pay Item No(s). 2290a-c - Force Main Pipe, HDPE, 16 Inches are linear foot unit price items. Unit price items include trench excavation, dewatering if needed, pipe material as shown on the Unit Price Schedule, fittings, pipe zone material, backfill, compaction, testing, and inspection. See Section 02321, Excavation, Bedding, and Backfill for Utilities and Section 02534, Waste Water Force Main.

Pay Item No(s). 2295a-c - Force Main Pipe, HDPE, 20 Inches are linear foot unit price items. Unit price items include trench excavation, dewatering if needed, pipe material as shown on the Unit Price Schedule, fittings, pipe zone material, backfill, compaction, testing, and inspection. See Section 02321, Excavation, Bedding, and Backfill for Utilities and Section 02534, Waste Water Force Main.

Pay Item No(s). 2300a-c - Force Main Pipe, HDPE, 24 Inches are linear foot unit price items. Unit price items include trench excavation, dewatering if needed, pipe material as shown on the Unit Price Schedule, fittings, pipe zone material, backfill, compaction, testing, and inspection. See Section 02321, Excavation, Bedding, and Backfill for Utilities and Section 02534, Waste Water Force Main.

Pay Item No(s). 2305a-c - Force Main Pipe, HDPE, 30 Inches are linear foot unit price items. Unit price items include trench excavation, dewatering if needed, pipe material as shown on the Unit Price Schedule, fittings, pipe zone material,

backfill, compaction, testing, and inspection. See Section 02321, Excavation, Bedding, and Backfill for Utilities and Section 02534, Waste Water Force Main.

Pay Item No(s). 2310a-c - Force Main Pipe, HDPE, 36 Inches are linear foot unit price items. Unit price items include trench excavation, dewatering if needed, pipe material as shown on the Unit Price Schedule, fittings, pipe zone material, backfill, compaction, testing, and inspection. See Section 02321, Excavation, Bedding, and Backfill for Utilities and Section 02534, Waste Water Force Main.

Pay Item No(s). 2315a-c - Force Main Pipe, HDPE, 42 Inches are linear foot unit price items. Unit price items include trench excavation, dewatering if needed, pipe material as shown on the Unit Price Schedule, fittings, pipe zone material, backfill, compaction, testing, and inspection. See Section 02321, Excavation, Bedding, and Backfill for Utilities and Section 02534, Waste Water Force Main.

Pay Item No(s). 2320a-c - Force Main Pipe, HDPE, 48 Inches are linear foot unit price items. Unit price items include trench excavation, dewatering if needed, pipe material as shown on the Unit Price Schedule, fittings, pipe zone material, backfill, compaction, testing, and inspection. See Section 02321, Excavation, Bedding, and Backfill for Utilities and Section 02534, Waste Water Force Main.

Pay Item No(s). 2325a-d - Force Main Pipe, HDPE, 54 Inches are linear foot unit price items. Unit price items include trench excavation, dewatering if needed, pipe material as shown on the Unit Price Schedule, fittings, pipe zone material, backfill, compaction, testing, and inspection. See Section 02321, Excavation, Bedding, and Backfill for Utilities and Section 02534, Waste Water Force Main.

Pay Item No(s). 2329a-b - Force Main Pipe, DIP, 6 Inches are linear foot unit price items. Unit price items include trench excavation, dewatering if needed, pipe material as shown on the Unit Price Schedule, fittings, pipe zone material, backfill, compaction, testing, and inspection. See Section 02321, Excavation, Bedding, and Backfill for Utilities and Section 02534, Waste Water Force Main.

Pay Item No(s). 2330a-b - Force Main Pipe, DIP, 8 Inches are linear foot unit price items. Unit price items include trench excavation, dewatering if needed, pipe material as shown on the Unit Price Schedule, fittings, pipe zone material, backfill, compaction, testing, and inspection. See Section 02321, Excavation, Bedding, and Backfill for Utilities and Section 02534, Waste Water Force Main.

Pay Item No(s). 2335a-b - Force Main Pipe, DIP, 10 Inches are linear foot unit price items. Unit price items include trench excavation, dewatering if needed, pipe material as shown on the Unit Price Schedule, fittings, pipe zone material, backfill, compaction, testing, and inspection. See Section 02321, Excavation, Bedding, and Backfill for Utilities and Section 02534, Waste Water Force Main.

Pay Item No(s). 2340a-b - Force Main Pipe, DIP, 12 Inches are linear foot unit price items. Unit price items include trench excavation, dewatering if needed, pipe material as shown on the Unit Price Schedule, fittings, pipe zone material, backfill, compaction, testing, and inspection. See Section 02321, Excavation, Bedding, and Backfill for Utilities and Section 02534, Waste Water Force Main.

Pay Item No(s). 2345a-c - Force Main Pipe, DIP, 16 Inches are linear foot unit price items. Unit price items include trench excavation, dewatering if needed, pipe material as shown on the Unit Price Schedule, fittings, pipe zone material, backfill, compaction, testing, and inspection. See Section 02321, Excavation, Bedding, and Backfill for Utilities and Section 02534, Waste Water Force Main.

Pay Item No(s). 2350a-c - Force Main Pipe, DIP, 20 Inches are linear foot unit price items. Unit price items include trench excavation, dewatering if needed, pipe material as shown on the Unit Price Schedule, fittings, pipe zone material, backfill, compaction, testing, and inspection. See Section 02321, Excavation, Bedding, and Backfill for Utilities and Section 02534, Waste Water Force Main.

Pay Item No(s). 2355a-c - Force Main Pipe, DIP, 24 Inches are linear foot unit price items. Unit price items include trench excavation, dewatering if needed, pipe material as shown on the Unit Price Schedule, fittings, pipe zone material, backfill, compaction, testing, and inspection. See Section 02321, Excavation, Bedding, and Backfill for Utilities and Section 02534, Waste Water Force Main.

Pay Item No(s). 2360a-c - Force Main Pipe, DIP, 30 Inches are linear foot unit price items. Unit price items include trench excavation, dewatering if needed, pipe material as shown on the Unit Price Schedule, fittings, pipe zone material, backfill, compaction, testing, and inspection. See Section 02321, Excavation, Bedding, and Backfill for Utilities and Section 02534, Waste Water Force Main.

Pay Item No(s). 2365a-c - Force Main Pipe, DIP, 36 Inches are linear foot unit price items. Unit price items include trench excavation, dewatering if needed, pipe material as shown on the Unit Price Schedule, fittings, pipe zone material, backfill, compaction, testing, and inspection. See Section 02321, Excavation, Bedding, and Backfill for Utilities and Section 02534, Waste Water Force Main.

Pay Item No(s). 2370a-c - Force Main Pipe, DIP, 42 Inches are linear foot unit price items. Unit price items include trench excavation, dewatering if needed, pipe material as shown on the Unit Price Schedule, fittings, pipe zone material, backfill, compaction, testing, and inspection. See Section 02321, Excavation, Bedding, and Backfill for Utilities and Section 02534, Waste Water Force Main.

Pay Item No(s). 2375a-c - Force Main Pipe, DIP, 48 Inches are linear foot unit price items. Unit price items include trench excavation, dewatering if needed, pipe material as shown on the Unit Price Schedule, fittings, pipe zone material,

backfill, compaction, testing, and inspection. See Section 02321, Excavation, Bedding, and Backfill for Utilities and Section 02534, Waste Water Force Main.

Pay Item No. 2376 - Quick Valve Assembly is a per each unit price pay item which includes trench excavation, dewatering if needed, piping components, valve box, concrete pad, pipe zone material, backfill, compaction, testing, and inspection as depicted in the project drawings or as designated by Owner. See Section 02321, Excavation, Bedding, and Backfill for Utilities, Section 02534, Waste Water Force Main, and Section 2770, Concrete for Utilities and Pavement Construction.

Pay Item No. 2377 - Flushing Port Assembly is a per each unit price pay item which includes trench excavation, dewatering if needed, precast concrete manholes, aluminum hatch, piping components, pipe zone material, backfill, compaction, testing, and inspection as depicted in the project drawings or as designated by Owner. See Section 02321, Excavation, Bedding, and Backfill for Utilities, Section 02530, Manholes, and Section 02534, Waste Water Force Main.

Pay Item No. 2378 - Tapping Tee, 6 Inch, with Gate Valve is a per each unit price pay item which includes trench excavation, dewatering if needed, valve box, piping sleeve, gate valve, pipe zone material, backfill, a 2 foot by 2 foot concrete pad, compaction, testing, and inspection at location shown depicted in the Plans or as designated by Owner. See Section 02321, Excavation, Bedding, and Backfill for Utilities, Section 02534, Waste Water Force Main, and Section 02770, Concrete for Utilities and Pavement Construction.

Pay Item No. 2379 - Air Release/Vacuum Valve Assembly is a per each unit price pay item which includes trench excavation, dewatering if needed, precast concrete manholes, manhole frame, either standard or watertight manhole cover, piping components, pipe zone material, backfill, compaction, testing, and inspection as depicted in the project drawings or as designated by Owner. See Section 02321, Excavation, Bedding, and Backfill for Utilities, Section 02530, Manholes, and Section 02534, Waste Water Force Main.

Pay Item No(s). 2380a-p - Pipe Lining, CIPP are linear foot unit price pay items. Unit price items include pre- and post-CCTV inspections, high-velocity cleaning, lining, installing, curing, cutting out to connections, required testing (excluding laboratory testing), end sealing, and debris collection and disposal and is paid per linear foot. See Section 02540, Sewer Cleaning, Section 02541, Sewer Television Inspection and Section 02546, Cured-in Place Pipe Liner (CIPP).

Pay Item No. 2385 - CIPP Laboratory testing is a per each unit price pay item. Unit price items include all materials, labor and costs required for the collection and laboratory testing of CIPP samples. One sample from each CIPP liner installation, or as other specified by the OWNER shall be sent to an independent laboratory and tested for modulus of elasticity and flexural strength. Unit prices

for this item shall be per each test. See Section 02546, 3.07, B Cured-in-Place (Liner Process).

Pay Item No(s). 2390a-b - Service Lateral Lining, CIPP are linear foot unit price pay items. Unit price items include cleaning, temporary plugging, CCTV inspection, lining, and all required testing. See Section 02541, Sewer Television Inspection and Section 02548, Cured-In-Place Pipe Lateral Liner.

Pay Item No. 2395 - Closed Circuit Television (CCTV) Inspections (as directed by OWNER) is a linear foot unit price pay item. Unit price item includes closed circuit television of 6-, 8-, 10-, and 12- inch diameter sanitary sewers. Item shall be paid for additional CCTV inspections and associated high-velocity cleaning as directed by the OWNER. This item does not include Pre- and Post- Construction CCTV inspections. See Section 02540, Sewer Cleaning, and Section 02541, Sewer Television Inspection.

Pay Item No. 2396 - Gravity Sewer Smoke Testing is a linear foot unit price pay item. Unit price item includes completed smoke testing inspection work. This unit price pay item does not include the collection / reporting of GPS data during Smoke Testing Work. See Section 02544, wastewater collection system smoke testing.

Pay Item No. 2397 – Gravity Sewer Manhole Inspection is a per each unit price pay item. Unit price item includes completed inspection of sanitary sewer manholes. This pay item does not include the collection / reporting of GPS data during Manhole Inspection Work. See Section 02535, Sewer Manhole Inspection.

Pay Item No. 2398 - Gravity Sewer Smoke Testing - GPS is a linear foot unit price pay item. Unit price item includes only the collection / reporting of GPS data during Smoke Testing Inspection Work. See Section 02544, Wastewater Collection System Smoke Testing.

Pay Item No. 2399 – Gravity Sewer Manhole Inspection– GPS Data is a per each unit price pay item. Unit price pay item includes only the collection / reporting of GPS data for Gravity Sewer Manhole Inspection. See Section 02535, Sewer Manhole Inspection.

Pay Item No(s). 2400a-p - Pipe Heavy Cleaning are linear foot unit price pay items. Unit price items include mechanical cleaning required when high-velocity cleaning is not effective. See Section 02540, Sewer Cleaning.

Pay Item No. 2405 - Point Repair in Roadway is a linear foot unit price pay item. Unit price item includes excavation, pipe removal, disposal, pipe bedding, pipe installation, and compacted backfill, either as shown on Construction Drawings or as directed by OWNER.

Pay Item No. 2410 - Point Repair in Easement is a linear foot unit price pay item. Unit price item includes excavation, pipe removal, disposal, pipe bedding, pipe installation, and compacted backfill, either as shown on Construction Drawings or as directed by OWNER.

Pay Item No(s). 2415a-k - Pipe Bursting are linear foot unit price pay items. Unit price items include mobilization/demobilization of specialty equipment for pipe bursting, operation of equipment, HDPE replacement pipe sizes per Unit Price Schedule, excavation as necessary to carry out pipe bursting operations, pipe testing, and connection to manholes and cutting outs for service laterals. See Section 02955, Pipe Bursting and Section 02321, Excavation, Bedding, and Backfill for Utilities.

Pay Item No. 2420 - PVC Sewer Lateral Appurtenances is a per each unit price pay item. Unit price item includes connection fitting to sewer, PVC stack pipe, two-way cleanout with cap, 6-inch by 4-inch PVC reducer, cast-iron box and lid, connection to existing private lateral and excavation, bedding, and backfill. See Section 02532, Sanitary Sewers.

Pay Item No. 2421 – Additional Cleanout on Sewer Lateral is a per each unit price pay item. Unit price item includes PVC stack pipe, two-way cleanout with cap, 6-inch by 4-inch PVC reducer, cleanout, connection to existing private lateral and excavation, bedding, and backfill. See Section 02532, Sanitary Sewers.

Pay Item No(s). 2425a-b - PVC Sewer Lateral, 6-Inch Diameter are linear foot unit price pay items. Unit price items include excavation, bedding, backfill, compaction, PVC pipe and fittings, connection to private lateral, testing, and inspection. See Section 02321, Excavation, Bedding, and Backfill for Utilities, and Section 02532, Sanitary Sewers.

Pay Item No. 2430 - Trim Protruding Service Lateral is a per each unit price pay item. Unit price item includes removal and replacement of protruding laterals in the sewer by use of a saw, removal of debris, and disposal. See Section 02546, Cured-In-Place-Pipe (Liner Process).

Pay Item No. 2431 - Cut and Buff Service Lateral Connections is a per each unit price pay item. Unit price item includes cutting and buffing service lateral connections. This item is to be paid only on services that have been called out on the construction drawings to cut and buff or where the OWNER has given prior approval.

Pay Item No(s). 2435a-i - Manhole, Concrete, 4-Foot Diameter are per each unit price pay items. Unit price items include, clearing and grubbing, removal of existing manhole, base, precast sections, concrete riser rings, gaskets, steps, cast-in or core drilled pipe openings, necessary pipe and pipe fittings, grout, vacuum testing, frame and either standard or watertight cover as depicted in project drawings or as designated by Owner. See Section 02530, Manholes.

Pay Item No(s). 2440a-i - Manhole, Concrete, 5-Foot Diameter are per each unit price pay items. Unit price items include, clearing and grubbing, removal of existing manhole, base, precast sections, concrete riser rings, gaskets, steps, cast-in or core drilled pipe openings, necessary pipe and pipe fittings, grout, vacuum testing, frame and either standard or watertight cover as depicted in project drawings or as designated by Owner. See Section 02530, Manholes.

Pay Item No(s). 2445a-i - Manhole, Concrete, 6-Foot Diameter are per each unit price pay items. Unit price items include, clearing and grubbing, removal of existing manhole, base, precast sections, concrete riser rings, gaskets, steps, cast-in or core drilled pipe openings, necessary pipe and pipe fittings, grout, vacuum testing, frame and either standard or watertight cover as depicted in project drawings or as designated by Owner. See Section 02530, Manholes.

Pay Item No(s). 2450a-i - Manhole, Concrete, 8-Foot Diameter are per each unit price pay items. Unit price items include, clearing and grubbing, removal of existing manhole, base, precast sections, concrete riser rings, gaskets, steps, cast-in or core drilled pipe openings, necessary pipe and pipe fittings, grout, vacuum testing, frame and either standard or watertight cover as depicted in project drawings or as designated by Owner. See Section 02530, Manholes.

Pay Item No(s). 2455a-i - Manhole, Concrete, FRP, 4-Foot Diameter are per each unit price pay items. Unit price items include, clearing and grubbing, removal of existing manhole, base, precast sections, concrete riser rings, gaskets, steps, cast-in or core drilled pipe openings, necessary pipe and pipe fittings, grout, vacuum testing, frame and either standard or watertight cover as depicted in project drawings or as designated by Owner. See Section 02530, Manholes.

Pay Item No(s). 2460a-i - Manhole, Concrete, FRP, 5-Foot Diameter are per each unit price pay items. Unit price items include, clearing and grubbing, removal of existing manhole, base, precast sections, concrete riser rings, gaskets, steps, cast-in or core drilled pipe openings, necessary pipe and pipe fittings, grout, vacuum testing, frame and either standard or watertight cover as depicted in project drawings or as designated by Owner. See Section 02530, Manholes.

Pay Item No(s). 2465a-i - Manhole, Concrete, FRP, 6-Foot Diameter are per each unit price pay items. Unit price items include, clearing and grubbing, removal of existing manhole, base, precast sections, concrete riser rings, gaskets, steps, cast-in or core drilled pipe openings, necessary pipe and pipe fittings, grout, vacuum testing, frame and either standard or watertight cover as depicted in project drawings or as designated by Owner. See Section 02530, Manholes.

Pay Item No(s). 2470a-i - Manhole, Concrete, FRP, 8-Foot Diameter are per each unit price pay items. Unit price items include, clearing and grubbing, removal of existing manhole, base, precast sections, concrete riser rings, gaskets, steps, cast-in or core drilled pipe openings, necessary pipe and pipe fittings, grout,

vacuum testing, frame and either standard or watertight cover as depicted in project drawings or as designated by Owner. See Section 02530, Manholes.

Pay Item No(s). 2475a-i - Conflict Manhole, Concrete, 4-Foot Diameter are per each unit price pay items. Unit price items include, clearing and grubbing, removal of existing manhole, base, precast sections, concrete riser rings, gaskets, steps, cast-in or core drilled pipe openings, necessary pipe and pipe fittings, grout, vacuum testing, frame and either standard or watertight cover as depicted in project drawings or as designated by Owner. See Section 02530, Manholes.

Pay Item No(s). 2480-i - Conflict Manhole, Concrete, 5-Foot Diameter are per each unit price pay items. Unit price items include, clearing and grubbing, removal of existing manhole, base, precast sections, concrete riser rings, gaskets, steps, cast-in or core drilled pipe openings, necessary pipe and pipe fittings, grout, vacuum testing, frame and either standard or watertight cover as depicted in project drawings or as designated by Owner. See Section 02530, Manholes.

Pay Item No(s). 2485a-i - Conflict Manhole, Concrete, 6-Foot Diameter are per each unit price pay items. Unit price items include, clearing and grubbing, removal of existing manhole, base, precast sections, concrete riser rings, gaskets, steps, cast-in or core drilled pipe openings, necessary pipe and pipe fittings, grout, vacuum testing, frame and either standard or watertight cover as depicted in project drawings or as designated by Owner. See Section 02530, Manholes.

Pay Item No(s). 2490a-i - Conflict Manhole, Concrete, 8-Foot Diameter are per each unit price pay items. Unit price items include, clearing and grubbing, removal of existing manhole, base, precast sections, concrete riser rings, gaskets, steps, cast-in or core drilled pipe openings, necessary pipe and pipe fittings, grout, vacuum testing, frame and either standard or watertight cover as depicted in project drawings or as designated by Owner. See Section 02530, Manholes.

Pay Item No(s). 2495a-i - Drop Manhole, 4-Foot Diameter are per each unit price pay items. Unit price items include, clearing and grubbing, removal of existing manhole, base, precast sections, drop connections, drop encasements, concrete riser rings, gaskets, steps, cast-in or core drilled pipe openings, necessary pipe and pipe fittings, grout, and vacuum testing, frame and either standard or watertight cover as depicted in project drawings or as designated by Owner. See Section 02530, Manholes.

Pay Item No(s). 2500a-i - Drop Manhole, 5-Foot Diameter are per each unit price pay items. Unit price items include, clearing and grubbing, removal of existing manhole, base, precast sections, drop connections, drop encasements, concrete riser rings, gaskets, steps, cast-in or core drilled pipe openings, necessary pipe and pipe fittings, grout, and vacuum testing, frame and either standard or watertight cover as depicted in project drawings or as designated by Owner. See Section 02530, Manholes.

Pay Item No(s). 2505a-i - Drop Manhole, 6-Foot Diameter are per each unit price pay items. Unit price items include, clearing and grubbing, removal of existing manhole, base, precast sections, drop connections, drop encasements, concrete riser rings, gaskets, steps, cast-in or core drilled pipe openings, necessary pipe and pipe fittings, grout, and vacuum testing, frame and either standard or watertight cover as depicted in project drawings or as designated by Owner. See Section 02530, Manholes.

Pay Item No(s). 2510a-i - Drop Manhole, 8-Foot Diameter are per each unit price pay items. Unit price items include, clearing and grubbing, removal of existing manhole, base, precast sections, drop connections, drop encasements, concrete riser rings, gaskets, steps, cast-in or core drilled pipe openings, necessary pipe and pipe fittings, grout, and vacuum testing, frame and either standard or watertight cover as depicted in project drawings or as designated by Owner. See Section 02530, Manholes.

Pay Item No(s). 2515a-i - Lined Manhole, 4-Foot Diameter are per each unit price pay items. Unit price items include, clearing and grubbing, removal of existing manhole, base, precast sections, concrete riser rings, gaskets, steps, cast-in or core drilled pipe openings, necessary pipe and pipe fittings, grout, vacuum testing, frame and either standard or watertight cover as depicted in project drawings or as designated by Owner. See Section 02530, Manholes.

Pay Item No(s). 2520a-i - Lined Manhole, 5-Foot Diameter are per each unit price pay items. Unit price items include, clearing and grubbing, removal of existing manhole, base, precast sections, concrete riser rings, gaskets, steps, cast-in or core drilled pipe openings, necessary pipe and pipe fittings, grout, vacuum testing, frame and either standard or watertight cover as depicted in project drawings or as designated by Owner. See Section 02530, Manholes.

Pay Item No(s). 2525a-i - Lined Manhole, 6-Foot Diameter are per each unit price pay items. Unit price items include, clearing and grubbing, removal of existing manhole, base, precast sections, concrete riser rings, gaskets, steps, cast-in or core drilled pipe openings, necessary pipe and pipe fittings, grout, vacuum testing, frame and either standard or watertight cover as depicted in project drawings or as designated by Owner. See Section 02530, Manholes.

Pay Item No(s). 2530a-i - Lined Manhole, 8-Foot Diameter are per each unit price pay items. Unit price items include, clearing and grubbing, removal of existing manhole, base, precast sections, concrete riser rings, gaskets, steps, cast-in or core drilled pipe openings, necessary pipe and pipe fittings, grout, vacuum testing, frame and either standard or watertight cover as depicted in project drawings or as designated by Owner. See Section 02530, Manholes.

Pay Item No. 2535 - Locate and Excavate Manhole is a per each unit price pay item. Unit price item includes, clearing and grubbing, locating buried manholes and excavating down to the bottom of the frame and cover. Payment shall include

all work necessary and incidental to completion of the work. See Section 02530, Manholes.

Pay Item No. 2540 - Raise Manhole Casting is a vertical foot unit price pay item. Unit price item includes removal of existing frame, lid, and cone section (if necessary), preparation of the existing structure to receive a new cone, riser, or concrete grade rings, as well as labor and material as directed by the OWNER. Payment shall include all work necessary and incidental to completion of the work. See Section 02530, Manholes.

Pay Item No. 2545 - Plug Manhole Lids is a per each unit price pay item. Payment shall include all work necessary and incidental to completion of the work. See Section 02530, Manholes.

Pay Item No(s). 2570a-o - Pipe Connection with Coring to Existing Manhole are per each unit price pay items. Unit price items include core drilling, pipe attachment, removal and offsite disposal of cored material. See Section 02530, Manholes.

Pay Item No. 2571 – Manhole Invert is a per each unit price pay item. Item includes removal of existing manhole invert (if necessary) frame, preparation of the existing structure to receive a new invert, and installation of new concrete invert as directed by the OWNER. See Section 02530, Manholes.

Pay Item No. 2572 – Manhole Invert Repair is a per each unit price pay item. Unit price item includes surface preparation and application of mortar/grouting material to make repair as directed and approved by OWNER if requested.

Pay Item No. 2573 – External Joint Seal is a per each unit price item. Unit price item includes preparation and installation of external joint seals, either as shown on the Construction Drawings or specified by the OWNER. See section 02530, Manholes.

Pay Item No(s). 2575a-d - Manhole Lining, 1-Inch Thick Cementitious Lining are vertical foot unit price pay item. Unit prices bid for this item shall be per each vertical foot of manhole rehabilitated based on manhole diameter. This shall also include vacuum testing, flow control or bypassing if necessary, internal plugging of inactive connections, and horizontally adjusting frame to allow for 48-inch diameter clear opening and subsequent realignment or reinstalling of existing frame and cover unless otherwise specified. If replacement of manhole frames and covers with watertight frames and covers and installation of lid plugs are required, they will be listed as separate pay items in this section. See Section 02530, Manholes.

Pay Item No(s). 2580a-b - Replacement Manhole Frame and Cover are per each unit price pay items. Unit price items include removal of existing frame and cover, and turn over to OWNER, removal and offsite disposal of mortar and other

debris; new manhole frame and cover grouted in place and adjusted. See Section 02530, Manholes.

Pay Item No. 2590 - Abandon Existing Manhole is a per each unit price pay item. Unit price item includes excavating, cutting and plugging pipes, removing and disposing of the frame, cover, grade rings, and exposed riser sections, and filling abandoned manhole. See Section 02530, Manholes.

Pay Item No(s). 2595a-o - Water Main Relocations are linear foot unit price pay items. Unit price items include excavation, removal and offsite disposal of materials, in kind new pipe and fittings, pipe zone backfill, compaction, surface repair, disinfection, and testing. See Section 02321, Excavation, Bedding, and Backfill for Utilities, Section 02513, Water Lines – Installation, and Section 02516, Water Lines – Disinfection and Testing.

Pay Item No. 2596 – Inside Drop Assembly is a per each unit price pay item for the installation of an internal drop assembly to be installed on an existing gravity sewer manhole which includes the appropriately sized drop bowl, pipe, pipe fittings, anchoring brackets, and appurtenances needed for the complete installation as depicted in project drawings or as designated by Owner.

Pay Item No(s). 2600a-c - Storm Sewer Replacement are linear foot unit price pay items. Unit price items include removal and replacement of storm sewer as shown on Drawings or at the direction of OWNER, in accordance with the requirements of the agency having jurisdiction over the facilities.

Pay Item No. 2605 - Catch Basin Replacement is a per each unit price pay item. Unit price pay item includes removal and replacement of catch basin as noted on Drawings, in accordance with the requirements of the agency having jurisdiction over the facilities.

Pay Item No. 2610 - Area Drain Replacement is a per each unit price item. Unit price item includes removal and replacement of area drain as shown on Drawings, in accordance with the requirements of the agency having jurisdiction over the facilities. CONTRACTOR shall take appropriate precautions to protect the existing storm drains in the project area. In the event that damage to a storm drain occurs as a result of the CONTRACTOR'S negligence, the CONTRACTOR shall notify OWNER of such occurrence and shall repair any damage to the satisfaction of the OWNER, at no additional costs to the OWNER.

Pay Item No. 2615 Water service connection (maximum 1”), removal and replacement is a per each unit price item. Unit price includes removal and replacement for water service connections, including installation of fittings, piping, backfill, and cleanup. See Section 02321, Excavation, Bedding, and Backfill for Utilities, Section 02513, Water Lines – Installation, and Section 02516, Water Lines – Disinfection and Testing.

Pay Item No(s). 2620a-p - Abandon Existing Sewers by Grouting in Place are linear foot unit price items. Unit price items include cleaning and pressure grouting. See Section 02540, Sewer Cleaning and Section 02321, Excavation, Bedding, and Backfill for Utilities.

Pay Item No(s). 2625a-p - Pipe Joint Repair by Grouting are per each unit price items. Unit price items include trench excavation, dewatering if needed, pipe zone material, sand, backfill, compaction, testing and inspection, steel pipe, spacers if needed, casing end seals, and all other appurtenances.

Pay Item No. 2630 Sewer Flow Control is a lump sum pay item. Lump sum price bid for sewer flow control shall be full compensation for this item and includes sewer dams, by-pass pumps with standby units, fuel, maintenance, operation, supervision, suction and discharge piping. Payments for this lump sum item will be made based on percentage of work complete for the entire project. See Section 02542, Sewer Flow Control.

Pay Item No(s). 2635a-p - Concrete Encasement are linear foot unit price items. Unit price items include any additional excavation, concrete material, forms if needed, placement, and time for curing. See Section 02321, Excavation, Bedding, and Backfill for Utilities.

Pay Item No. 2640 - Flowable Fill is a cubic yard unit price pay item. Unit price item includes material and placement. See Section 02321, Excavation, Bedding, and Backfill for Utilities.

Pay Item No. 2645 – Grinder Pump Station is a per each unit price pay item. Unit price item includes all materials, equipment, labor, and appurtenances necessary for a complete grinder pump station installation in accordance with the plan details. Work shall include, but not be limited to, clearing and grubbing, excavation, installation of equipment, electrical service modifications and installation of equipment controls and electrical components, installation of force main piping and connection to sewer main, connection to existing sewer service, site restoration, and standard start-up services by equipment supplier.

Pay Item No. 2650a –Pump Station Replacement is a lump sum pay item. Lump Sum item includes all materials, equipment, labor, and appurtenances necessary for a complete pump station installation in accordance with the plan details and specifications. Work shall include, but not be limited to, clearing and grubbing, excavation, formation of fills and grading, installation of structures and equipment, bypass pumping as required, sewer piping, drainage piping, gravel and asphalt paving, fencing, riprap, site restoration, landscaping, and start-up and testing services. Payment shall also include demolition of all items associated with the existing station as shown on the drawings, described in the specifications,

and as required for construction of the new station. Progress payments shall be made for the percentage of work completed as determined by the OWNER using the Schedule of Values submitted for this pay item. The Schedule of Values shall be submitted in accordance with Section 00700, Paragraph 2.05C.2. Schedule of Values.

Pay Item No. 2650b –Pump Station Electrical Work is a lump sum pay item. Lump Sum item includes all materials, equipment, labor, and appurtenances necessary for the complete electrical and instrumentation component installation as shown on Plan sheets **(PUT DRAWING SHEET #'S HERE)** and, as described in Divisions 11000, 15000, and 16000 of the Specifications. Work shall include, but not be limited to, installation of conduits, wires, cables, structures and equipment, electrical service and installation of all equipment controls and electrical components, site restoration, and start-up and testing services. Payment shall also include demolition of existing electrical and control components as required for construction of the new station. Progress payments shall be made for the percentage of work completed as determined by the OWNER using the Schedule of Values submitted for this pay item. The Schedule of Values shall be submitted in accordance with Section 00700, Paragraph 2.05C.2. Schedule of Values.

Pay Item No. 2651 – IPEX Vortex Flow Insert is a lump sum pay item, which includes the labor, materials, and equipment necessary for the complete in-place installation of a prefabricated Vortex Flow Insert into a manhole as depicted in the project drawing or as designated by Owner. The vortex unit shall be installed and fastened to the manhole as recommended by the manufacturer and to the approval of the Owner.

Pay Item No. 2655 – Auger Boring (For a Complete Installation) is a linear foot unit price pay item. Unit price item includes all mobilization, demobilization, labor, materials, and installation of casing and carrier pipe as specified on drawing by augering and excavation of material under public roadways and private driveways for a complete installation. Disposing of excavated materials in appropriate manner is also included. Contractor is responsible for all inspection fees charged by the agency having jurisdiction. Contractor must also maintain appropriate insurance requirements designated by the agency having jurisdiction, if applicable. Dewatering, if necessary, is also included. See Section 2445, Auger Boring and Alternative Tunneling.

Pay Item No. 6000 - Temporary Pavement Repair: Cold / Hot Mix is a linear foot unit price pay item. Unit price item includes asphalt cold / hot mix pavement material, installation, compaction, and maintenance, or as otherwise directed by OWNER. See KUB Standards Section 02740, Pavement Repair and Section 01740 Surface Restoration Special Provisions.

Pay item 6005a - Pavement Repair (Installed by Contractor): Permanent Patching, Base Course + Surface Course (to be installed as directed) is a linear foot unit price pay item. Unit price item includes excavation of temporary pavement repair, excavation of stone base as needed, material (Base Grade B or B-M and Surface Course Grade D), compaction, cleanup, striping (if needed), milling (as directed), and straight line truing of existing surface as needed. See KUB Standards Section 02321 General Excavation, Bedding and Backfill for Utilities; Section 02740 Pavement Repair; and Section 1740 Surface Restoration Special Provisions. Pay item 6005a shall be paid exclusive of Pay Item Nos. 6005b and 6005c and shall not be priced in combination with pay items 6005b or 6005c for any area(s) of work (payment for any given unit of measure shall be made for either Item Nos. 6005a, 6005b, or 6005c). Payment for this unit price item will be made based on the length of trenches, to the limits of excavation, including manhole excavations, as specified in the bid documents OR as approved in writing by OWNER.

Pay item 6005b - Pavement Repair (Installed by Contractor): Permanent Patching, Base Course is a linear foot unit price pay item. Unit price item includes excavation of temporary pavement repair, excavation of stone base as needed, material (Base Grade B or B-M), compaction, cleanup, striping (if needed), milling (if needed), and straight line truing of existing surface as needed. See KUB Standards Section 02321 General Excavation, Bedding and Backfill for Utilities; Section 02740 Pavement Repair; Section 02770 Concrete for Utilities and Concrete Pavement Construction; and Section 1740 Surface Restoration Special Provisions. Pay item 6005b shall be paid exclusive of Pay Item Nos. 6005a and 6005c and shall not be priced in combination with pay items 6005a or 6005c for any area(s) of work (payment for any given unit of measure shall be made for either Item Nos. 6005a, 6005b or 6005c). Payment for this unit price item will be made based on the length of trenches, to the limits of excavation, including manhole excavations, as specified in the bid documents OR as approved in writing by OWNER.

Pay Item No. 6005c - Pavement Repair (Installed by Contractor): Permanent Patching, Portland Cement Concrete Pavement is a linear foot unit price pay item. Unit price item includes excavation of temporary pavement repair, excavation of stone base as needed, additional compacted stone base as needed, dowelling to existing slab and rebar installation, as required, forming as needed, material (Portland Cement Concrete Pavement), Placement, finishing, and curing, cleanup, striping (if needed), milling (if needed), and straight line truing of existing surface as needed. See KUB Standards Section 02321 General Excavation, Bedding and Backfill for Utilities; Section 02740 Pavement Repair; Section 02770 Concrete for Utilities and Concrete Pavement Construction; and Section 1740 Surface Restoration Special Provisions. Pay item 6005c shall be paid exclusive of Pay Item Nos. 6005a and 6005b and shall not be priced in combination with pay items 6005a or 6005b for any area(s) of work (payment for any given unit of measure shall be made for either Item Nos. 6005a, 6005b or

6005c). Payment for this unit price item will be made based on the length of trenches, to the limits of excavation, including manhole excavations, as specified in the bid documents OR as approved in writing by OWNER.

Pay Item No. 6005d - Pavement Repair (Installed by Contractor): Pavement Cutback is a linear foot unit price pay item. Unit price item includes full depth excavation of required cutback along **both** trench walls as directed by OWNER, excavation of stone base as needed, material (Base Grade B or B-M), compaction, cleanup, milling (if needed), straight line truing of existing surface, as needed, and warranty repairs during warranty period. CONTRACTOR shall be relieved of responsibility if cutbacks are topped by OWNER or other entity prior to expiration of warranty. See KUB Standards Section 02321 General Excavation, Bedding and Backfill for Utilities; Section 02740 Pavement Repair; Section 02770 Concrete for Utilities and Concrete Pavement Construction; and Section 1740 Surface Restoration Special Provisions. Payment for this unit price item shall be made only upon prior written approval of Owner and shall be made based on the length of trenches, as specified in the bid documents OR as approved in writing by OWNER and shall include cutbacks on both sides of the trench for a given trench length measurement.

Pay item 6005e – Alleyway Pavement Repair (Installed by Contractor): Permanent Patching, Base Course is a linear foot unit price pay item. Unit price item includes excavation of temporary pavement repair, excavation of stone base as needed, material (Base Grade B or B-M), compaction, cleanup, striping (if needed), milling (if needed), and straight line truing of existing surface as needed. See KUB Standards Section 02321 General Excavation, Bedding and Backfill for Utilities; Section 02740 Pavement Repair; Section 02770 Concrete for Utilities and Concrete Pavement Construction; and Section 1740 Surface Restoration Special Provisions. Pay item 6005b shall be paid exclusive of Pay Item Nos. 6005a and 6005c and shall not be priced in combination with pay items 6005a or 6005c for any area(s) of work (payment for any given unit of measure shall be made for either Item Nos. 6005a, 6005b or 6005c). Payment for this unit price item will be made based on the length or width of the repair as measured in the direction of travel along the alleyway, to the limits of excavation, including manhole excavations, as specified in the bid documents OR as approved in writing by OWNER. The full width of the alleyway shall be repaired, unless otherwise directed by the OWNER. The CONTRACTOR shall install the repair to match the existing pavement thickness, or three (3) inches of base course, whichever is greater.

Pay Item No(s). 6010 a,b,c & e - Removal and Replacement are square yard unit price pay items. Unit price items include excavation, removal and disposal of material, replacement material to duplicate material type and specification, depth, width, and length of removed materials, cleanup, and 30 days of maintenance. Compensation will be by square yard of repair for Owner approved areas surrounding the work. See Section 02321, Excavation, Bedding, and Backfill for

Utilities, Section 02770, Concrete for Utilities and Concrete Pavement Construction, and Section 02740, Pavement Repair.

Pay Item No(s). 6010d & f - Removal and Replacement are linear foot unit price pay items. Unit price items include excavation, removal and disposal of material, replacement material to duplicate material type and specification, depth, width, and length of removed materials, cleanup, and 30 days of maintenance. Compensation will be per linear foot of repair for Owner approved areas surrounding the work. See Section 02321, Excavation, Bedding, and Backfill for Utilities, Section 02770, Concrete for Utilities and Concrete Pavement Construction, and Section 02740, Pavement Repair.

Pay Item No. 6015 - Formed Reinforced Concrete is a cubic yard unit price pay item. Unit price item includes forming, reinforcement, reinforcement replacement, concrete, concrete placement, form stripping, and concrete finishing. See Section 02770, Concrete for Utilities and Concrete Pavement Construction.

Pay Item No. 6020 - Crushed Rock Surfacing, Roadways and Driveways is a square yard unit price pay item. Unit price item includes excavation, removal and disposal of material, replacement material to duplicate material, depth, width, and length of removed material, cleanup, and 30 days of maintenance. See KUB Standards Section 02321, Excavation, Bedding, and Backfill for Utilities, Section 02770, Concrete for Utilities and Concrete Pavement Construction, and Section 02740, Pavement Repair.

Pay Item No. 6025 – Seeding is a square yard unit price pay item. Unit price bid for site restoration, lawn repair, landscape repair, etc., shall be full compensation for this item and for all labor, materials, water and equipment required to complete the restoration to its original or better condition. Item includes topsoil, reseeding per property owner’s preference and as directed by the OWNER to match existing condition, maintenance for 60 days or until re-established; maintenance includes water, fertilizer, and mowing. Re-establish at no additional compensation. See Section 02920, Seeding.

Pay Item No. 6030 - Sodding is a square yard unit price pay item. Unit price item includes topsoil, sodding per property owner’s preference and as directed by the Resident Project Representative to match property owner’s existing condition, maintenance for 60 days or until re-established; maintenance includes water, fertilizer, and mowing. Re-establish at no additional compensation. See Section 02925, Sodding.

Pay Item No. 6040 - Riprap is a per ton unit price pay item. Unit price item includes geotextile, base, and riprap material, placement and cleanup. See Section 02372, Geotextiles and Section 02371, Riprap.

Pay Item No. 6041 - Riprap Lined Ditch is a square yard unit price pay item. Unit price item includes the excavation and grading, geotextile, and riprap material, placement and cleanup of a riprap lined ditch at locations, grades, and dimensions depicted in the project drawings or as designated by Owner. See Section 02372, Geotextiles and Section 02371, Riprap.

Pay Item No. 6042 - Clay Check Dam is a per each unit price pay item which includes trench excavation, dewatering, clay backfill, compaction, testing, and inspection as depicted in the project drawings or as designated by Owner. Clay Backfill material must meet the Unified Soil Classification System for a CL (Clay) or CH (Clay of high plasticity) by soil gradation and standard proctor testing methods. Additionally, the soil must have a hydraulic conductivity (K) of less than 1×10^{-6} cm/s based on hydraulic conductivity testing methods. All soil tests must be submitted to and approved by the owner before installation of the check dam. See Section 02321, Excavation, Bedding, and Backfill for Utilities.

Pay Item No. 7005 – Tunnel Construction is a lump sum price pay item. Item includes the excavation of sewer sections through tunnels including all mobilization, demobilization, labor, materials, liner plates, piping (casing and carrier), excavation, backfilling, etc. for a complete installation. Support structure to be removed once installation is complete. Disposing of excavated materials in appropriate manner is also included. Contractor is responsible for all inspection fees charged by the agency having jurisdiction. Contractor must also maintain appropriate insurance requirements designated by the agency having jurisdiction, if applicable. See Section 2445, Auger Boring and Alternative Tunneling.

PART 2 PRODUCTS (NOT USED)

PART 3 EXECUTION (NOT USED)

[HOME](#)