

Incidental or Included Items

Items that are necessary to properly complete construction, including work and materials, and are not pay items. The following is a list of items in the SUDAS Specifications that are considered incidental to other work unless specified as a pay item on the plans or in the contract documents. Please note - this list is not all-inclusive.

Section 2010 - Earthwork, Subgrade, and Subbase

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| 2010, 1.08, A, 3 | <u>Clearing and Grubbing (by units)</u>
Placement of backfill in area where roots have been removed, and removal and disposal of all materials. |
| 2010, 1.08, B, 3 | <u>Clearing and Grubbing (by area)</u>
Removal and disposal of all materials and placement of backfill in area where roots have been removed. |
| 2010, 1.08, C, 3 | <u>Clearing and Grubbing (by lump sum)</u>
Removing and disposing all materials and furnishing and placing backfill material in area where roots have been removed. |
| 2010, 1.08, D, 1, c | <u>Topsoil, On-site</u>
Stripping and stockpiling topsoil; preparing the topsoil placement area by tillage or ripping; re-spreading the topsoil; additional tillage to address compaction during placement; and removal of clods, roots, stones, and other undesirable materials. |
| 2010, 1.08, D, 2, c | <u>Topsoil, Compost-amended</u>
Preparing the placement area by tillage or ripping and furnishing, transporting, placing, and incorporating compost. |
| 2010, 1.08, D, 3, c | <u>Topsoil, Off-site</u>
Preparing the placement area by tillage or ripping; furnishing, transporting, and spreading the off-site topsoil; completing tillage to address compaction during placement; and removal of clods, roots, stones, and other undesirable materials. |
| 2010, 1.08, E, 3 | <u>Excavation, Class 10, Class 12, or Class 13</u> <ol style="list-style-type: none"> a. Site preparation for, and the construction of, embankment, fills, shoulder backfill, and backfill behind curbs. b. Overhaul. c. Finishing the soil surface, including roadways, shoulders, behind curbs, side ditches, slopes, and borrow pits. d. Repair or replacement of any fences that have been unnecessarily damaged or removed. |

2010, 1.08, F, 3	<u>Below Grade Excavation (Core Out)</u> Equipment, tools, labor, disposal of unsuitable materials, dewatering, drying, furnishing, and placement of foundation materials as required by the Engineer, compaction and finishing of the excavated area, and all incidental work as may be required.
2010, 1.08, G, 3	<u>Subgrade Preparation</u> Excavating, manipulating, replacing, compacting, and trimming to the proper grade.
2.01, 1.08, H, 3	<u>Granular Stabilization</u> Removal and disposal of unstable material and furnishing, hauling, placing, and compacting granular stabilization material.
2010, 1.08, I, 3	<u>Subgrade Treatment</u> Furnishing, placing, and incorporating the subgrade treatment material (cement, asphalt, fly ash, lime, geogrid, or geotextiles).
2010, 1.08, J, 3	<u>Subbase</u> Furnishing, placing, compacting, and trimming to the proper grade.
2010, 1.08, K, 1, c	<u>Removal of Structures</u> Removal and disposal of structures.
2010, 1.08, K, 2, a, 3)	<u>Removal of Known Box Culverts</u> Removal and disposal of known box culverts.
2010, 1.08, K, 2, c, 3)	<u>Removal of Known Pipe Culverts</u> Removal and disposal of known pipe culverts.
2010, 1.08, K, 3, a, 3)	<u>Removal of Known Pipes and Conduits</u> Removal, disposal, and plugging, if specified, of pipes and conduits.
2010, 1.08, L, 1, c	<u>Filling and Plugging of Known Pipe Culverts, Pipes, and Conduits</u> Furnishing and installing the plug and the flowable mortar as designated by the Engineer.

Section 3010 - Trench Excavation and Backfill

3010, 1.08, A	<u>General</u> <ol style="list-style-type: none"> 1. Standard trench excavation. 2. Removal and disposal of unsuitable backfill material encountered during standard trench excavation. 3. Removal of abandoned private utilities encountered during trench excavation. 4. Furnishing and placing granular bedding material. 5. Placing and compacting backfill material. 6. Dewatering including, but not limited to, all equipment such as generators, pumps, rock for sump pits, discharge piping, and any extra excavation needed to facilitate dewatering according to stormwater regulations, as applicable. 7. Sheet piling, shoring, and bracing. 8. Adjusting the moisture content of excavated backfill material to the range specified for placement and compaction.
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3010, 1.08, B, 3	<u>Rock Excavation</u> Furnishing the equipment and labor to break up, remove, and properly dispose of rock encountered in the trench.
3010, 1.08, C, 3	<u>Trench Foundation</u> Removal and disposal of over-excavated material required to stabilize trench foundation; and furnishing, hauling, and placing stabilization material.
3010, 1.08, D, 3	<u>Replacement of Unsuitable Backfill Material</u> Furnishing, hauling, and placing backfill material.
3010, 1.08, E, 3	<u>Special Pipe Embedment or Encasement</u> Furnishing and placing all required special pipe embedment or encasement materials.
3010, 1.08, F, 3	<u>Trench Compaction Testing</u> All payments associated with retesting resulting from failure of initial tests.

Section 3020 - Trenchless Construction

3020, 1.08	All items of work contained in this section are incidental to the underground utility pipe being installed and will not be paid for separately.
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Section 4010 - Sanitary Sewers

4010, 1.08, A, 1, c	<u>Sanitary Sewer Gravity Main, Trenched</u> Trench excavation; dewatering; furnishing and installing pipe; pipe lining (if specified); furnishing, placing, and compacting bedding and backfill material; wyes and other fittings; pipe joints; pipe connections; testing; and inspection.
4010, 1.08, A, 2, c	<u>Sanitary Sewer Gravity Main, Trenchless</u> Furnishing and installing pipe; pipe lining (if specified); trenchless installation materials and equipment; pit excavation; dewatering; placing and compacting backfill material; pipe connections; testing; and inspection.
4010, 1.08, B, 1, c	<u>Sanitary Sewer Gravity Main with Casing Pipe, Trenched</u> Furnishing and installing both carrier pipe and casing pipe, pipe lining (if specified); trench excavation, dewatering, furnishing bedding material, placing bedding and backfill material, furnishing and installing annular space fill material, casing spacers, pipe connections, testing, and inspection.
4010, 1.08, B, 2, c	<u>Sanitary Sewer Gravity Main with Casing Pipe, Trenchless</u> Furnishing and installing both carrier pipe and casing pipe; pipe lining (if specified); trenchless installation materials and equipment; pit excavation; dewatering; and placing and compacting backfill material; casing spacers; furnishing and installing annular space fill material; pipe connections; testing; and inspection.
4010, 1.08, C, 1, c	<u>Sanitary Sewer Force Main, Trenched</u> Trench excavation; dewatering; furnishing and installing pipe; furnishing, placing, and compacting bedding and backfill; wyes and other fittings; pipe joints; testing; and inspection.

4010, 1.08, C, 2, c	<u>Sanitary Sewer Force Main, Trenchless</u> Furnishing and installing pipe; trenchless installation materials and equipment; pit excavation; dewatering; placing and compacting backfill material; pipe connections; testing; and inspection.
4010, 1.08, D, 1, c	<u>Sanitary Sewer Force Main with Casing Pipe, Trenched</u> Furnishing and installing both carrier pipe and casing pipe; trench excavation; dewatering; furnishing, placing, and compacting bedding and backfill material; furnishing and installing annular space fill material; casing spacers; pipe connections; testing; and inspection.
4010, 1.08, D, 2, c	<u>Sanitary Sewer Force Main with Casing Pipe, Trenchless</u> Furnishing and installing both carrier pipe and casing pipe; trenchless installation materials and equipment; pit excavation; dewatering; placing and compacting backfill material; casing spacers; furnishing and installing annular space fill material; pipe connections; testing; and inspection.
4010, 1.08, E, 3	<u>Sanitary Sewer Service Stub</u> Trench excavation; furnishing and installing pipe; furnishing, placing, and compacting bedding and backfill material; tap; fittings; testing; and inspection.
4010, 1.08, F, 3	<u>Sanitary Sewer Service Relocation</u> Removal of existing pipe, trench excavation, furnishing new pipe and bedding material, placing and compacting bedding and backfill material, connection back to existing service, compaction, testing, and inspection.
4010, 1.08, G, 3	<u>Sewage Air Release Valve and Pit</u> Excavation; furnishing, placing, and compacting bedding and backfill material; and testing.
4010, 1.08, H, 3	<u>Removal of Sanitary Sewer</u> Removal, disposal, and capping (if specified) of pipe; and furnishing, placing, and compacting backfill material.
4010, 1.08, I, 3	<u>Sanitary Sewer Cleanout</u> Plug at the end of the main, fittings, riser pipe, cap with screw plug, casting, and concrete casting encasement.
4010, 1.08, K, 3	<u>Sanitary Sewer Abandonment, Plug</u> Trench excavation (if necessary), cutting pipe (if required), furnishing and placing plug materials, and placing and compacting backfill material.
4010, 1.08, L, 3	<u>Sanitary Sewer Abandonment, Fill and Plug</u> Trench excavation (if necessary), cutting pipe (if required), furnishing and placing pipe fill material, furnishing and placing plug materials, and placing and compacting backfill material.

Section 4020 - Storm Sewers

4020, 1.08, A, 1, c	<u>Storm Sewer, Trenched</u> Trench excavation; dewatering; furnishing and installing pipe; furnishing, placing, and compacting bedding and backfill material; joint wrapping; wyes and other fittings; pipe joints; pipe connections; testing; and inspection.
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- 4020, 1.08, A, 2, c Storm Sewer, Trenchless
Furnishing and installing pipe; trenchless installation materials and equipment; pit excavation; dewatering; placing and compacting backfill material; pipe connections; testing; and inspection.
- 4020, 1.08, B, 1, c Storm Sewer with Casing Pipe, Trenched
Furnishing and installing both carrier pipe and casing pipe; trench excavation; dewatering; furnishing, placing, and compacting bedding and backfill material; furnishing and installing annular space fill material; casing spacers; pipe connections; testing; and inspection.
- 4020, 1.08, B, 2, c Storm Sewer with Casing Pipe, Trenchless
Furnishing and installing both carrier pipe and casing pipe; trenchless installation materials and equipment; pit excavation; dewatering; placing and compacting backfill material; casing spacers; furnishing and installing annular space fill material; pipe connections; testing; and inspection.
- 4020, 1.08, C, 3 Linear Trench Drain
Furnishing and installing the linear trench drain including all appurtenances; furnishing and placement of PCC transition; furnishing, excavation, and backfill of discharge pipe; connection to manhole or intake, if required; installation of apron, if required.
- 4020, 1.08, D, 3 Removal of Storm Sewer
Removal, disposal, and capping (if specified) of pipe; and furnishing, placing, and compacting backfill material.
- 4020, 1.08, F, 3 Storm Sewer Abandonment, Plug
Trench excavation (if necessary), cutting pipe (if required), furnishing and placing plug materials, and placing and compacting backfill material.
- 4020, 1.08, G, 3 Storm Sewer Abandonment, Fill and Plug
Trench excavation (if necessary), cutting pipe (if required), furnishing and placing pipe fill material, furnishing and placing plug materials, and placing and compacting backfill material.

Section 4030 - Pipe Culverts

- 4030, 1.08, A, 1, c Pipe Culvert, Trenched
Trench excavation; dewatering; furnishing and installing pipe; furnishing, placing, and compacting bedding and backfill material; connectors; testing; and inspection.
- 4030, 1.08, A, 2, c Pipe Culvert, Trenchless
Furnishing and installing pipe; trenchless installation materials and equipment; pit excavation, dewatering, and placing and compacting backfill material; pipe connections; testing; and inspection.
- 4030, 1.08, B, 3 Pipe Apron
Trench excavation; dewatering; furnishing and installing the apron; furnishing, placing, and compacting bedding and backfill material; connectors; and other appurtenances.

- 4030, 1.08, C, 3 Footing for Concrete Pipe Apron
Excavation; dewatering; reinforcing steel; concrete; furnishing, placing and compacting bedding and backfill material.
- 4030, 1.08, D, 3 Pipe Apron Guard
Furnishing and installing the apron guard and repairing any damage to the apron from the installation process.

Section 4040 - Subdrains and Footing Drain Collectors

- 4040, 1.08, A, 3 Subdrain
Trench excavation, furnishing and placing bedding and backfill material, engineering fabric (when specified), connectors, and elbows and tees. The length of elbows and tees of the pipes installed will be included in the length of pipe measured.
- 4040, 1.08, B, 3 Footing Drain Collector
Trench excavation, pipe, wyes, tap, fittings, and furnishing and placing bedding and backfill material.
- 4040, 1.08, C, 1, c Subdrain Cleanout
Trench excavation; furnishing cleanout and lid; and furnishing, placing, and compacting bedding and backfill material.
- 4040, 1.08, C, 2, c Footing Drain Cleanout
Trench excavation; furnishing cleanout and lid; and furnishing, placing, and compacting bedding and backfill material.
- 4040, 1.08, D, 1, c Subdrain Drain Outlets and Connections
Pipe, non-shrink grout, coupling bands, and rodent guards for pipes 6 inches or smaller.
- 4040, 1.08, D, 2, c Footing Drain Outlets and Connections
Pipe, non-shrink grout, coupling bands, and rodent guards for pipes 6 inches or smaller.
- 4040, 1.08, E, 3 Storm Sewer Service Stub
Trench excavation, furnishing bedding material, placing bedding and backfill material, tap, fittings, and plugs.

Section 4050 - Pipe Rehabilitation

- 4050, 1.08, A, 1, c Pre-Rehabilitation Cleaning and Inspection
Pre-cleaning CCTV inspection, light sewer cleaning, debris removal and transport, post cleaning CCTV inspection for Engineer review, and identification and logging of active service taps. If specified in the contract documents, unit price also includes disposal and associated costs for all debris removed from sewer.
- 4050, 1.08, A, 2, c Additional Sewer Cleaning
Heavy sewer cleaning; root cutting; deposit cutting; and removing, transporting, disposing, paying associated costs for all debris removed from sewer, and post cleaning CCTV inspection for Engineer review.

4050, 1.08, B, 3	<u>Remove Protruding Service Connections</u> Removal of protruding service connections and debris removal.
4050, 1.08, C, 1, c	<u>CIPP Main Lining</u> Furnishing and installing the liner and appurtenances, CCTV inspection immediately prior to lining, bypass pumping unless otherwise specified, sliding foil, post-lining CCTV inspection, and all costs associated with the public information and notification program.
4050, 1.08, C, 2, c	<u>Building Sanitary Sewer Service Reinstatement</u> Reinstating sanitary sewer service connections, removal of debris, and coordination with service owners.
4050, 1.08, C, 3, c	<u>CIPP End Seal</u> End seal and installation.
4050, 1.08, D, 3	<u>CIPP Point Repair</u> Furnishing and placing point repair liner, bypass pumping unless otherwise specified, sewer cleaning, removal of obstructions, debris removal, pipe preparation, and pre and post repair CCTV inspection.
4050, 1.08, E, 1, c	<u>CIPP Service Pipe, Connection</u> Furnishing and placing service connection liner, bypass pumping unless otherwise specified, documentation, and all costs associated with the public information and notification program.
4050, 1.08, E, 2, c	<u>CIPP Service Repair, Partial Pipe</u> Furnishing and installing service repair liner, bypass pumping unless otherwise specified, documentation, and all costs associated with the public information and notification program.
4050, 1.08, F, 1, c	<u>Pressure Testing of Mainline Sewer Joints</u> Bypass pumping unless otherwise specified, control testing, and documentation.
4050, 1.08, F, 2, c	<u>Injection Grouting of Mainline Sewer Joints</u> Bypass pumping unless otherwise specified, material testing, pressure testing after grouting, re-grouting of failed joints, and documentation. Unit price does not include the quantity of chemical grout used.
4050, 1.08, F, 3, c	<u>Pressure Testing of Service Connections</u> Bypass pumping unless otherwise specified, and documentation.
4050, 1.08, F, 4, c	<u>Injection Grouting of Service Connections</u> Bypass pumping unless otherwise specified, material testing, pressure testing after grouting, and documentation. Unit price does not include the quantity of chemical grout used.
4050, 1.08, F, 5, c	<u>Chemical Grout</u> Grout additives; root inhibitor; and supplying, mixing, and measurement of chemical grout.

- 4050, 1.08, G, 3 Bypass Pumping
Development and submittal of the bypassing plan, all staffing, equipment, and appurtenances necessary to accomplish the approved bypassing plan, including reserve equipment.
- 4050, 1.08, H, 1, c Spot Repairs by Pipe Replacement (by count)
Uncovering and removing existing pipe and furnishing and placing bedding and backfill material for replacement pipe.
- 4050, 1.08, H, 2, c Spot Repairs by Pipe Replacement (by linear foot)
Furnishing and installing replacement pipe and connections.

Section 4060 - Cleaning, Inspection, and Testing of Sewers

- 4060, 1.08 Cleaning, inspecting, and testing sanitary sewers, storm sewers, pipe culverts, and rehabilitated pipes (including video inspection) are incidental to other project costs and will not be paid for separately.

Section 5010 - Pipe and Fittings

- 5010, 1.08, A, 1, c Water Main, Trenched
Trench excavation; dewatering; furnishing and installing pipe; furnishing, placing, and compacting bedding and backfill material; tracer system; testing; disinfection; and polyethylene wrap for ductile iron pipe and for fittings.
- 5010, 1.08, A, 2, c Water Main, Trenchless
Furnishing and installing pipe; trenchless installation materials and equipment; pit excavation; dewatering; placing and compacting backfill material; tracer system; testing; and disinfection.
- 5010, 1.08, B, 1, c Water Main with Casing Pipe, Trenched
Furnishing and installing both carrier pipe and casing pipe; trench excavation; dewatering; furnishing and installing pipe; furnishing, placing, and compacting bedding and backfill material; casing spacers; furnishing and installing annular space fill material; tracer system; testing; and disinfection.
- 5010, 1.08, B, 2, c Water Main with Casing Pipe, Trenchless
Furnishing and installing both carrier pipe and casing pipe; trenchless installation materials and equipment; pit excavation; dewatering; placing and compacting backfill material; casing spacers; furnishing and installing annular space fill material; tracer system; testing; and disinfection.
- 5010, 1.08, C, 1, c Fitting (by count)
Restrained joints and thrust blocks.
- 5010, 1.08, C, 2, c Fitting (by weight)
Restrained joints and thrust blocks.
- 5010, 1.08, D, 3 Water Service Stub (by each)
Water service corporation; service pipe; curb stop; stop box; trench excavation; dewatering; furnishing and installing pipe; furnishing, placing, and compacting bedding and backfill material; and installation of tracer wire system for non-metallic service pipe.

5010, 1.08, E, 1, c	<u>Water Service Pipe</u> Trench excavation; dewatering; furnishing and installing pipe; furnishing, placing, and compacting bedding and backfill material; and installation of tracer wire system for non-metallic service pipe.
5010, 1.08, E, 2, c	<u>Water Service Corporation</u> Trench excavation (if necessary); furnishing and installing the water service corporation; and furnishing, placing, and compacting bedding and backfill material.
5010, 1.08, E, 3, c	<u>Water Service Curb Stop and Box</u> Trench excavation (if necessary); furnishing and installing the curb stop and box; and furnishing, placing, and compacting bedding and backfill material.
5010, 1.08, F, 3	<u>Water Main Abandonment, Cap</u> Trench excavation (if necessary); closing valves; removing valve boxes; installing thrust blocks; cutting pipe; installing MJ caps; and furnishing, placing, and compacting backfill material.
5010, 1.08, G, 3	<u>Water Main Abandonment, Fill and Plug</u> Trench excavation (if necessary); closing valves; removing valve boxes; installing thrust blocks; cutting and removing the specified section of pipe; furnishing and pumping flowable material to fill the pipe to be abandoned; installing MJ caps; and furnishing, placing, and compacting backfill material.
5010, 1.08, H, 3	<u>Water Main Removal</u> Trench excavation (if necessary); closing valves; installing thrust blocks; cutting pipe; installing MJ caps; removal and disposal of all valves and pipe specified for removal; furnishing, placing, and compacting backfill material.

Section 5011 - Fusible PVC and HDPE Pipe

5011, 1.08, A, 1, c	<u>Fusible Water Main, Trenched</u> Trench excavation, dewatering, furnishing bedding material, performing fusion jointing, placing bedding and backfill material, tracer system, testing, and disinfection.
5011, 1.08, A, 2, c	<u>Fusible Water Main, Trenchless</u> Furnishing and installing pipe; performing fusion jointing, trenchless installation materials and equipment; pit excavation, dewatering, and placing backfill material; tracer system; testing; and disinfection.
5011, 1.08, B, 1, c	<u>Water Main with Casing Pipe, Trenched</u> Furnishing and installing both fusible carrier pipe and casing pipe, performing fusion jointing, trench excavation, dewatering, furnishing bedding material, placing bedding and backfill material, casing spacers, furnishing and installing annular space fill material, tracer system, testing, and disinfection.
5011, 1.08, B, 2, c	<u>Water Main with Casing Pipe, Trenchless</u> Furnishing and installing both fusible carrier pipe and casing pipe; performing fusion jointing, trenchless installation materials and equipment; pit excavation, dewatering, and placing backfill material; casing spacers; furnishing and installing annular space fill material; tracer system; testing; and disinfection.

Section 5020 - Valves, Fire Hydrants, and Appurtenances

5020, 1.08, A, 3	<u>Valve</u> All components attached to the valve or required for its complete installation, including underground or above ground operator, square valve operating nut, valve box and cover, valve box extension, and valve stem extension.
5020, 1.08, B, 3	<u>Tapping Valve Assembly</u> Tapping sleeve, tapping valve, the tap, valve box and cover, valve box extension, and valve stem extension.
5020, 1.08, C, 3	<u>Fire Hydrant Assembly</u> The fire hydrant, barrel extensions sufficient to achieve proper bury depth of anchoring pipe and height of fire hydrant above finished grade, and components to connect the fire hydrant to the water main, including anchoring pipe, fittings, thrust blocks, pea gravel or porous backfill material, and fire hydrant gate valve and appurtenances, except tapping valve assembly if used.
5020, 1.08, D, 3	<u>Alternate Fire Hydrant Assembly</u> The fire hydrant, barrel extensions sufficient to achieve proper bury depth of anchoring pipe and height of fire hydrant above finished grade, and components to connect the fire hydrant to the water main, including anchoring pipes, 90 degree bend; fittings, thrust blocks, pea gravel or porous backfill material, and fire hydrant gate valve and appurtenances, except tapping valve assembly if used.
5010, 1.08, E, 3	<u>Flushing Device (Blowoff)</u> Trench excavation; furnishing, installing, and removing the flushing device (if designated by the Engineer); and furnishing, placing, and compacting bedding and backfill material.
5020, 1.08, F	Measurement and payment for minor adjustment of an existing valve box by raising or lowering the adjustable valve box is incidental.
5020, 1.08, G, 3	<u>Valve Box Extension</u> Furnishing and installing the valve box extension and replacing the valve box lid.
5020, 1.08, H, 3	<u>Valve Box Replacement</u> Removal of existing valve box; excavation; furnishing and installing new valve box; backfill; compaction; and all other necessary appurtenances.
5020, 1.08, I, 3	<u>Fire Hydrant Adjustment</u> Removal and reinstallation of the existing fire hydrant; furnishing and installing the extension barrel section and stem; and all other necessary appurtenances.
5020, 1.08, J, 3	<u>Fire Hydrant Assembly Removal</u> Excavation, removal of the fire hydrant, hydrant valve, thrust block, delivery of the fire hydrant assembly to the Contracting Authority (if specified), capping of the pipe, backfill, compaction, and surface restoration to match the surrounding area.

- 5020, 1.08, K, 3 Valve Removal
Excavation, removal of each valve, replacing the removed valve with pipe and connections if required or capping the former valve connection, delivery of the valve to the Contracting Authority (if specified), backfill, compaction, and surface restoration to match the surrounding area.
- 5020, 1.08, L, 3 Valve Box Removal
Excavation, removal of each valve box, delivery of the valve box to the Contracting Authority (if specified), backfill, compaction, and surface restoration to match the surrounding area.

Section 5030 - Testing and Disinfection

- 5030, 1.08 Testing and disinfection of water systems is incidental to the construction of pipe and fittings.

Section 6010 - Structures for Sanitary and Storm Sewers

- 6010, 1.08, A, 3 Manhole
Excavation; furnishing and installing pipe; lining (if specified); furnishing, placing, and compacting bedding and backfill material; base; structural concrete; reinforcing steel; precast units (if used); concrete fillets; pipe connections; infiltration barriers (sanitary sewer manholes only); castings; and adjustment rings.
- 6010, 1.08, B, 3 Intake
Excavation; furnishing and installing pipe; furnishing, placing, and compacting bedding and backfill material; base; structural concrete; reinforcing steel; precast units (if used); concrete fillets; pipe connections; castings; and adjustment rings.
- 6010, 1.08, C, 1, c Internal Drop Connection
Cutting the hole and installing a flexible watertight connector, providing and installing the receiving bowl, flexible coupler between the bowl and the drop pipe, the PVC drop pipe, pipe brackets and bolts, the bottom elbow, repair of fillet if required, and a splash guard if required.
- 6010, 1.08, C, 2, c External Drop Connection
The connection to the manhole and all pipe; fittings; concrete encasement; and furnishing, placing, and compacting bedding and backfill material.
- 6010, 1.08, D, 3 Casting Extension Rings
Furnishing and installing each casting extension ring and reinstalling the casting lid.
- 6010, 1.08, E, 1, c Manhole Adjustment, Minor
Removing existing casting and existing adjustment rings, furnishing and installing adjustment rings, furnishing and installing new casting, and installing new infiltration barrier (sanitary sewer manholes only).
- 6010, 1.08, E, 2, c Intake Adjustment, Minor
Removing existing casting and existing adjustment rings, furnishing and installing adjustment rings, and furnishing and installing new casting.

- 6010, 1.08, F, 1, c Manhole Adjustment, Major
Removal of existing casting, adjustment rings, top sections, and risers; excavation; concrete and reinforcing steel or precast sections; furnishing and installing new casting; installing new infiltration barrier (sanitary sewer manholes only); placing backfill material; and compaction.
- 6010, 1.08, F, 2, c Intake Adjustment, Major
Removal of existing casting, adjustment rings, top sections, and risers; excavation; concrete and reinforcing steel or precast sections; furnishing and installing new casting; placing backfill material; and compaction.
- 6010, 1.08, G, 1, c Connection to Existing Manhole
Coring or cutting into the existing manhole or intake, pipe connections, grout, and waterstop (when required).
- 6010, 1.08, G, 2, c Connection to Existing Intake
Coring or cutting into the existing manhole or intake, pipe connections, grout, and waterstop (when required).
- 6010, 1.08, H, 1, c Remove Manhole
Removal of casting, concrete, and reinforcement; plugging pipes; filling remaining structure with flowable mortar; and placing compacted fill over structure to finished grade.
- 6010, 1.08, H, 2, c Remove Intake
Removal of casting, concrete, and reinforcement; plugging pipes; filling remaining structure with flowable mortar; and placing compacted fill over structure to finished grade.

Section 6020 - Rehabilitation of Existing Manholes

- 6020, 1.08, A, 1, c Rubber Chimney Seal
All necessary compression or expansion bands and extension sleeves as necessary to complete chimney seal.
- 6020, 1.08, A, 2, c Molded Shield
Sealant.
- 6020, 1.08, A, 3, c Urethane Chimney Seal
Preparing the surface of the manhole and furnishing and applying primer and urethane chimney seal according to the manufacturer's requirements.
- 6020, 1.08, B, 3 In-situ Manhole Replacement, Cast-in-place Concrete
Handling of sewer flows as required to properly complete the installation, invert overlay as recommended by the manufacturer, replacement of existing casting with a new casting, and testing the manhole upon completion.
- 6020, 1.08, C, 3 In-situ Manhole Replacement, Cast-in-place Concrete with Plastic Liner
Handling of sewer flows as required to properly complete the installation, invert overlay as recommended by the manufacturer, replacement of existing casting with a new casting, sealing at the frame and cover, sealing pipe penetrations as recommended by the manufacturer, and testing the manhole upon completion.

- 6020, 1.08, D, 3 Manhole Lining with Centrifugally Cast Cementitious Mortar Liner with Epoxy Seal
Handling of sewer flows during lining operations as required to properly complete the installation, and replacement of the existing casting with a new casting.

Section 6030 - Cleaning, Inspection, and Testing of Structures

- 6030, 1.08 Cleaning, inspection, and testing of structures are incidental to construction of structures and will not be paid for separately.

Section 7010 - Portland Cement Concrete Pavement

- 7010, 1.08, A, 3 Pavement, PCC
Final trimming of subgrade or subbase, integral curb, bars and reinforcement, joints and sealing, surface curing and pavement protection, safety fencing, concrete for rigid headers, boxouts for fixtures, and pavement smoothness testing.
- 7010, 1.08, E, 3 Curb and Gutter
Final subgrade/subbase preparation, bars and reinforcement, joints and sealing, surface curing and pavement protection, and boxouts for fixtures.
- 7010, 1.08, F, 3 Beam Curb
Final subgrade/subbase preparation, bars and reinforcement, joints and sealing, surface curing and pavement protection, and boxouts for fixtures.
- 7010, 1.08, G, 3 Concrete Median
Final subgrade/subbase preparation, bars and reinforcement, joints and sealing, surface curing and pavement protection, and boxouts for fixtures.
- 7010, 1.08, H, 3 PCC Railroad Crossing Approach
Excavation for modified subbase and subdrain, furnishing and installing subdrain, furnishing and installing subdrain outlet or connection to storm sewer, furnishing and installing porous backfill material, furnishing and placing modified subbase material, furnishing and installing reinforcing steel and tie bars, furnishing and placing concrete, furnishing, placing, and compacting asphalt.
- 7010, 1.08, I, 3 PCC Pavement Samples and Testing
Certified plant inspection, pavement thickness cores, pavement smoothness measurement (when required by the contract documents), and maturity testing.
- 7010, 1.08, K, 3 PCC Pavement Widening
Final subgrade/subbase preparation, integral curb, bars and reinforcement, joints and sealing, surface curing and pavement protection, safety fencing, concrete for rigid headers, boxouts for fixtures, and pavement smoothness.

Section 7011 - Portland Cement Concrete Overlays

- 7011, 1.08, A, 1, c PCC Overlay, Furnish Only
Furnishing the concrete mixture and delivery to the project site.
- 7011, 1.08, A, 2, c PCC Overlay, Place Only
Integral curb, bars and reinforcement, joints and sealing, finishing and texturing, surface curing and pavement protection, safety fencing, concrete for rigid headers, boxouts for fixtures, and pavement smoothness testing.
- 7011, 1.08, A, 3, c Surface Preparation for Bonded PCC Overlay
Sandblasting, shot blasting, scarification, and surface cleaning.
- 7011, 1.08, A, 4, c Surface Preparation for Unbonded PCC Overlay
Scarification and surface cleaning.
- 7011, 1.08, A, 5, c Asphalt Separation Layer for Unbonded PCC Overlay
Asphalt mix, including asphalt binder.
- 7011, 1.08, A, 6, c Geotextile Fabric Separation Layer for Unbonded PCC Overlay
Cleaning surface and furnishing, placing, and securing the geotextile fabric separation layer.
- 7011, 1.08, A, 7, c Liquid Curing Compound Separation Layer on PCC Surface Patches for Unbonded PCC Overlay
Cleaning PCC surface patches and furnishing and placing the liquid curing compound.

Section 7020 - Asphalt Pavement

- 7020, 1.08, A, 3 Pavement, Asphalt (by ton)
Asphalt mix with asphalt binder, tack coats between layers, construction zone protection, and quality control.
- 7020, 1.08, B, 3 Pavement, Asphalt (by square yard)
Asphalt mix with asphalt binder, tack coats between layers, construction zone protection, and quality control.
- 7020, 1.08, C, 3 Asphalt Base Widening (by ton)
Asphalt mix with asphalt binder, tack coats between layers, construction zone protection, and quality control.
- 7020, 1.08, D, 3 Asphalt Base Widening (by square yard)
Asphalt mix with asphalt binder, tack coats between layers, construction zone protection, and quality control.
- 7020, 1.08, E, 3 Asphalt Railroad Crossing Approach
Excavation for modified subbase and subdrain, furnishing and installing subdrain, furnishing and installing subdrain outlet, furnishing and installing porous backfill material, furnishing and placing modified subbase material, furnishing and applying tack coat, furnishing, placing, and compacting asphalt.

- 7020, 1.08, I, 3 Asphalt Pavement Samples and Testing
Certified plant inspection, pavement thickness cores, density analysis, pavement smoothness measurement (when required by the contract documents), and air void testing.

Section 7021 - Asphalt Overlays

- 7021, 1.08, A, 3 Asphalt Overlay (by ton)
Asphalt mix with asphalt binder, tack coats between layers, construction zone protection, and quality control.
- 7021, 1.08, B, 3 Asphalt Overlay (by square yard)
Asphalt mix with asphalt binder, tack coat, construction zone protection, and quality control.

Section 7030 - Sidewalks, Shared Use Paths, and Driveways

- 7030, 1.08, A, 1, c Removal of Sidewalk
Sawing, hauling, and disposal of materials removed.
- 7030, 1.08, A, 2, c Removal of Shared Use Path
Sawing, hauling, and disposal of materials removed.
- 7030, 1.08, A, 3, c Removal of Driveway
Sawing, hauling, and disposal of materials removed.
- 7030, 1.08, B, 3 Removal of Curb
Hauling and disposal of materials removed.
- 7030, 1.08, C, 3 Shared Use Path
Subgrade preparation, jointing, sampling, smoothness testing and correction, and testing.
- 7030, 1.08, D, 3 Special Subgrade Preparation for Shared Use Path
Water required to bring subgrade moisture content to within the required limits.
- 7030, 1.08, E, 3 Sidewalk, PCC
Minor grade adjustments at driveways and other intersections, subgrade preparation, formwork, additional thickness at thickened edges, jointing, sampling, smoothness testing and correction, and testing.
- 7030, 1.08, F, 3 Brick/Paver Sidewalk with Pavement Base
Subgrade preparation, pavement base, setting bed, neoprene asphalt adhesive for asphalt setting bed, setting the bricks/pavers, installing weep holes and associated materials, and sand/cement joint filler.
- 7030, 1.08, G, 3 Detectable Warning
Steel bar supports and manufactured detectable warning panels.
- 7030, 1.08, H, 1, c Driveway, Paved
Excavation, subgrade preparation, jointing, sampling, and testing.

- 7030, 1.08, H, 2, c Driveway, Granular (by square yards)
Excavation and preparation of subgrade.
- 7030, 1.08, H, 3, c Driveway, Granular (by tons)
Excavation and preparation of subgrade.

Section 7040 - Pavement Rehabilitation

- 7040, 1.08, A, 3 Full Depth Patches
Sawing, removing, and disposing of existing pavement and reinforcing; restoring the subgrade; furnishing and installing tie bars and dowel bars; furnishing and placing the patch material, including the asphalt binder and tack coat; forming and constructing integral curb; surface curing and pavement protection; joint sawing and filling; and placing backfill and restoring disturbed surfaces.
- 7040, 1.08, B, 3 Subbase Over-excavation
Removal of existing subbase or subgrade, disposal of materials removed, furnishing and placing subbase material, and any additional excavation required for subbase placement.
- 7040, 1.08, C, 3 Partial Depth Patches
Sawing, removing, and disposing of existing pavement; furnishing tack coat or bonding agent; furnishing and placing the patch material; curing; joint filling (PCC patches only); placing backfill; and restoring disturbed surfaces.
- 7040, 1.08, D, 3 Crack and Joint Cleaning and Filling, Hot Pour
Furnishing crack and joint filler material and routing, sawing, cleaning, and filling joints or cracks.
- 7040, 1.08, E, 1, c Crack Cleaning and Filling, Emulsion
Furnishing emulsified crack filler material, cleaning cracks, placing soil sterilant, and filling cracks.
- 7040, 1.08, E, 2, c Asphalt for Crack Filling
Cleaning, applying tack coat, and furnishing and placing asphalt for crack filling.
- 7040, 1.08, F, 3 Diamond Grinding
Diamond grinding pavement, testing for smoothness according to the contract documents, and removal of slurry and residue from the project site.
- 7040, 1.08, G, 3 Milling
Milling pavement; furnishing water; and salvaging, stockpiling, and removing cuttings and debris.
- 7040, 1.08, H, 3 Pavement Removal
Sawing, breaking, removing, and disposing of existing pavement and reinforcing steel.
- 7040, 1.08, I, 3 Curb and Gutter Removal
Sawing, breaking, removing, and disposing of existing curb and gutter.

- 7040, 1.08, J, 3 Dowel Bar Retrofit
Cutting the slots, preparing the slots, placing and grouting the bars, and curing the surface.
- 7040, 1.08, K Core Hole Cutting and Replacement
Cutting the core hole, vacuum excavation, furnishing and placing backfill material and pavement, or replacing the pavement core using waterproof bonding material, if specified.
- 7040, 1.08, L Required sampling and testing for pavement repair and rehabilitation work is incidental to other project costs and will not be paid for separately.

Section 7050 - Asphalt Stabilization

- 7050, 1.08, A, 3 Asphalt Stabilization
Furnishing and spreading imported material, applying and incorporating asphalt stabilization, blending of the materials, grading and compacting the blended materials, and final clean up.

Section 7060 - Bituminous Seal Coat

- 7060, 1.08, A, 3 Bituminous Seal Coat (by area)
Surface preparation including protection of street fixtures; furnishing and placing of materials, including fillets at intersecting streets, driveways, and turnouts; and final clean up.
- 7060, 1.08, B, 1, c Cover Aggregate
Surface preparation including protection of street fixtures; furnishing and placing of materials, including fillets at intersecting streets, driveways, and turnouts; and final clean up.
- 7060, 1.08, B, 2, c Binder Bitumen
Furnishing and placing of materials, including fillets at intersecting streets, driveways, and turnouts; and final clean up.

Section 7070 - Emulsified Asphalt Slurry Seal

- 7070, 1.08, A, 3 Emulsified Asphalt Slurry Seal (by area)
Surface preparation and furnishing and placing of materials, including fillets at intersecting streets, driveways, and turnouts.
- 7070, 1.08, B, 1, c Aggregate
Surface preparation and furnishing and placing of materials, including fillets at intersecting streets, driveways, and turnouts.
- 7070, 1.08, B, 2, c Asphalt Emulsion
Surface preparation and furnishing and placing of materials, including fillets at intersecting streets, driveways, and turnouts.

Section 7080 - Permeable Interlocking Pavers

- 7080, 1.08, B, 3 Engineering Fabric
Placing and securing filter fabric and any overlapped areas.
- 7080, 1.08, C, 3 Underdrain
Furnishing and placing pipe, cleanouts, observation wells, and pipe fittings.
- 7080, 1.08, D, 3 Storage Aggregate
Furnishing, hauling, placing, and compacting storage aggregate.
- 7080, 1.08, E, 3 Filter Aggregate
Furnishing, hauling, placing filter, and compacting aggregate.
- 7080, 1.08, F, 3 Permeable Interlocking Pavers
Testing, furnishing and placing bedding course, furnishing and installing permeable interlocking pavers, furnishing and placing joint/opening fill material, refilling joint after 6 months, and pavement protection.
- 7080, 1.08, G, 3 PCC Edge Restraint
Final trimming of subgrade or subbase, bars and reinforcement, joints and sealing, surface curing and pavement protection, safety fencing, and boxouts for fixtures.

Section 7090 - Cold-in-Place Pavement Recycling

- 7090, 1.08, A, 3 Cold-in-Place Recycling
Milling and sizing of existing asphalt layers; protecting street fixtures; development of a job mix formula; adding and mixing recycling agents and additives, if required; supplying and incorporating water; compacting the reclaimed mix; shaping of the mix; completing secondary compaction, if required; removing any loose or excess material; and final clean up.
- 7090, 1.08, B, 3 Bituminous Recycling Agents
Furnishing and placing of materials and mixing the agent into the recycled mix.
- 7090, 1.08, C, 3 Chemical Recycling Additives
Furnishing and placing of materials and mixing the agent into the recycled mix.

Section 7091 - Full Depth Reclamation

- 7091, 1.08, A, 3 Full Depth Reclamation
Pulverizing and sizing of existing asphalt layers; incorporating and mixing of existing underlying materials; protecting street fixtures; development of a job mix formula; adding and mixing stabilizing agents and additives, if required; compacting the reclaimed mix; shaping of the mix; removing any loose or excess material; curing; and final clean up.
- 7091, 1.08, B, 3 Mechanical Stabilization Agents
Furnishing and placing of aggregate and blending of the aggregates.

7091, 1.08, C, 3	<u>Bituminous Stabilization Agents</u> Furnishing and placing of materials and mixing the agent into the reclaimed mix.
7091, 1.08, D, 3	<u>Chemical Stabilization Agents</u> Furnishing and placing of materials and mixing the agent into the reclaimed mix.
7091, 1.08, E, 3	<u>Microcracking</u> Furnishing equipment, protecting street fixtures, completing microcracking, and curing.
7091, 1.08, F, 3	<u>Interlayer for Cement Stabilized Base</u> Surface cleaning, furnishing, and placing of the interlayer (if specified).

Section 7092 - Crack and Seat Existing PCC Pavement

7092, 1.08, A, 3	<u>Crack and Seat of PCC Pavement</u> Notifying adjacent properties, providing traffic control and no parking signs; vibration monitoring if specified; cracking and seating of the designated PCC pavement to the specified pattern; watering to verify crack pattern; protecting existing fixtures; cleaning of slab prior to overlay; and final project site cleanup.
7092, 1.08, B, 3	<u>Remove and Replace Curb and Gutter</u> Full depth sawing; removing and disposing removed materials; furnishing and compacting subgrade material to bring to the proper elevation; all form work required; concrete; placing new curb and gutter; and final cleanup and backfill placement behind the new curb.
7092, 1.08, C, 3	<u>Full Depth Saw Cut</u> Providing a concrete saw or other cutting device that will result in a full depth vertical edge and severing all tie or reinforcing steel.
7092, 1.08, G, 3	<u>Intake Adjustment, Major</u> Sawing all three sides of the boxout; removing and replacing the boxout; furnishing and installing a new grate assembly or, if specified, removing and re-setting the existing grate assembly; removing existing open-throat intake grate; adjusting intake walls; furnishing and installing new intake grate or, if specified, re-setting existing intake grate; and furnishing, placing, and compacting backfill.
7092, 1.08, H, 3	<u>Joint Control Fabric</u> Cleaning and preparing the surface, furnishing, placing, and adhering joint control fabric prior to placing surface lift.
7092, 1.08, I, 3	<u>Partial Depth Patch Removal</u> Provide equipment and removing all designated partial depth patches down to the base PCC, cleaning of the former patch area; and disposal of the patch material.
7092, 1.08, J, 3	<u>Rock Interlayer</u> Furnishing and placing the rock interlayer to the thickness specified.

Section 8010 - Traffic Signals

- 8010, 1.08, A, 3 Traffic Signal
Furnishing and installing all pole foundations, poles, wiring, conduit, heads, signs, detection equipment, traffic signal control equipment (including pedestrian equipment), traffic signal controller and cabinet, and associated appurtenances for a complete, fully operation installation.
- 8010, 1.08, B, 3 Temporary Traffic Signal
Furnishing, installing, maintaining, and removing poles; wiring; traffic signal control equipment including pedestrian equipment if specified; implement all modifications of signal timing, signal placement and display due to Contractor initiated changes in the construction staging plan established by the Contracting Authority; relocation of trailer mounted temporary traffic signal systems; placement in another physical location to address changes in construction staging; and all appurtenances.
- 8010, 1.08, C, 3 Traffic Signal Removal
Removal of poles, concrete pads, foundations, wiring, traffic signal cabinet and equipment, pedestrian signal equipment, and handholes; delivery of removed materials to the location specified in the contract documents; furnishing, placing, and compacting backfill in all excavations; and restoring disturbed surfaces.

Section 8020 - Pavement Markings

- 8020, 1.08, B, 3 Painted Pavement Markings, Solvent/Waterborne
Reflectorizing spheres, layout, surface preparation, and application of marking paint.
- 8020, 1.08, C, 3 Painted Pavement Markings, Durable
Layout, surface preparation, and application of marking paint.
- 8020, 1.08, D, 3 Painted Pavement Markings, High-Build
Layout, surface preparation, and application of marking paint.
- 8020, 1.08, E, 3 Permanent Tape Markings
Layout, surface preparation, and application of marking tape.
- 8020, 1.08, F, 3 Wet, Retroreflective Removable Tape Markings
Layout, surface preparation, application, and removal.
- 8020, 1.08, G, 3 Painted Symbols and Legends
Layout, surface preparation, and application of each symbol and legend.
- 8020, 1.08, H, 3 Precut Symbols and Legends
Layout, surface preparation, and application of each symbol and legend.
- 8020, 1.08, I, 3 Temporary Delineators
Installation and removal of delineators.
- 8020, 1.08, J, 3 Raised Pavement Markers
Installation and removal of pavement markers.

8020, 1.08, K, 3	<u>Pavement Markings Removed</u> Pavement marking removal and waste material collection, removal, and disposal.
8020, 1.08, L, 3	<u>Symbols and Legends Removed</u> Symbol and legend marking removal and waste material collection, removal, and disposal.
8020, 1.08, M, 3	<u>Grooves Cut for Pavement Markings</u> Layout, cutting grooves, collection and disposal of removed material, and additional groove width and transition length beyond the pavement marking dimensions.
8020, 1.08, N, 3	<u>Grooves Cut for Symbols and Legends</u> Layout, cutting grooves, and collection and disposal of removed material.

Section 8030 - Temporary Traffic Control

8030, 1.08, A, 3	<u>Temporary Traffic Control</u> Installation, maintenance, and removal of temporary traffic control; total roadway closures with installation and removal of detour signing as shown in the contract documents; removal and reinstallation or covering of permanent traffic control devices that conflict with the temporary traffic control plan; monitoring and documenting traffic control conditions; and flaggers. When required in the contract documents, the following are also included in traffic control unless a separate bid item is provided: portable dynamic message signs, temporary barrier rail, temporary flood lighting, and pilot cars.
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Section 8040 - Traffic Signs and Posts

8040, 1.08, A, 3	<u>Traffic Signs (by each)</u> The sign blank, application of reflective sheeting, application of screened message, all mounting hardware, and erecting the sign according to the traffic control technician's direction.
8040, 1.08, B, 3	<u>Traffic Signs (by area)</u> The sign blank, application of reflective sheeting, application of screened message, all mounting hardware, and erecting the sign according to the traffic control technician's direction.
8040, 1.08, C, 3	<u>Wood Posts</u> Furnishing and erecting the post, including treatment and other details necessary to provide a complete installation.
8040, 1.08, D, 3	<u>Perforated Square Steel Tube Posts</u> Fabricating, furnishing, and erecting the post and other details required to provide a complete installation.
8040, 1.08, E, 3	<u>U-Shaped Rail Steel Posts</u> Fabricating, furnishing, and erecting the post and other details required to provide a complete installation.

8040, 1.08, F, 3	<u>Round Steel Posts</u> Fabricating, furnishing, and erecting the post and other details required to provide a complete installation.
8040, 1.08, G, 3	<u>Perforated Square Steel Tube Post Anchors</u> Furnishing and installing the anchor, coring pavement and filling with concrete, if required, slip base hardware, and other details necessary to provide a complete installation.
8040, 1.08, H, 3	<u>Round Steel Post Anchors</u> Furnishing and installing the anchor, coring pavement and filling with concrete, if required, slip base hardware, and other details necessary to provide a complete installation.
8040, 1.08, I, 3	<u>Remove and Reinstall Traffic Signs</u> Removing the sign and post, filling the post hole, storing and maintaining the sign and post in good condition, and reinstalling the sign and post. Replacing signs and posts designated for reinstallation that have been damaged is the Contractor's responsibility.
8040, 1.08, J, 3	<u>Remove and Salvage Traffic Sign Assembly</u> Removing the sign assembly, removing the post and anchor hardware, filling the post hole, and delivering the traffic sign and post to the site designated by the Contracting Authority. Replacing signs and posts designated for salvage that have been damaged is the Contractor's responsibility.

Section 9010 - Seeding

9010, 1.08, A, 1, c	<u>Conventional Seeding, Seeding</u> Removal of rock and other debris from the area; repairing rills and washes; preparing the seedbed; furnishing and placing seed, including any treatment required; furnishing and placing fertilizer and mulch; and furnishing water and other care during the care period, unless these items are bid separately.
9010, 1.08, A, 2, c	<u>Conventional Seeding, Fertilizing</u> Furnishing, applying, and incorporating fertilizer to the area to be seeded.
9010, 1.08, A, 3, c	<u>Conventional Seeding, Mulching</u> Furnishing, applying, and incorporating mulch to the area to be seeded.
9010, 1.08, B, 3	<u>Hydraulic Seeding, Seeding, Fertilizing, and Mulching</u> Removal of rock and other debris from the area; repairing rills and washes; preparing the seedbed; furnishing and placing seed, including any treatment required; furnishing and placing fertilizer and mulch; and furnishing water and other care during the care period, unless these items are bid separately.
9010, 1.08, C, 3	<u>Pneumatic Seeding, Seeding, Fertilizing, and Mulching</u> Removal of rock and other debris from the area; repairing rills and washes; preparing the seedbed; furnishing and placing seed, including any treatment required; furnishing and placing fertilizer and mulch; and furnishing water and other care during the care period, unless these items are bid separately.

- 9010, 1.08, D, 3 Watering
Water, pumps, meters, equipment, water tanker/container, transportation, hoses, and sprinklers.
- 9010, 1.08, E, 3 Warranty
All work required to correct any defects in the original placement of the seeding for the period of time designated.

Section 9020 - Sodding

- 9020, 1.08, A, 3 Sod
Preparation of sod and sodbed, stakes, fertilizing, watering, maintenance, and clean-up. Also includes any necessary sod replacements during maintenance period.

Section 9030 - Plant Material and Planting

- 9030, 1.08, A, 3 Plants (by count)
Delivery; excavation; installation; watering; placing backfill material; mulching; tree protection; staking or guying; pre-emergent herbicide, if specified; maintenance during the establishment period; and replacements.
- 9030, 1.08, B, 3 Plants (by count), With Warranty
Delivery; excavation; installation; watering; placing backfill material; mulching; tree protection; staking or guying; pre-emergent herbicide, if specified; maintenance during the establishment and warranty periods; and replacements.
- 9030, 1.08, C, 3 Plants (by lump sum)
Delivery, excavation, installation, watering, placing backfill material, mulching, wrapping, staking or guying, herbicide, maintenance during the establishment period, and replacements.
- 9030, 1.08, D, 3 Plants (by lump sum), With Warranty
Delivery, excavation, installation, watering, placing backfill material, mulching, wrapping, staking or guying, herbicide, maintenance during the establishment and warranty period, and replacements.
- 9030, 1.08, E, 3 Tree Drainage Wells
Excavation, furnishing and placing rock, engineering fabric, and placing backfill material.

Section 9040 - Erosion and Sediment Control

- 9040, 1.07, C When applicable, conduct all operations in compliance with the Iowa DNR NPDES General Permit No. 2. Labor, equipment, or materials not included as a bid item, but necessary to prevent stormwater contamination from construction related sources, are considered incidental. Incidental work related to compliance with the permit may include, but is not limited to: hazardous materials protection, fuel containment, waste disposal, and providing employee sanitary facilities.

9040, 1.08, A, 1, c	<u>SWPPP Preparation</u> Development of a SWPPP by the Contractor meeting local and state agency requirements, filing the required public notices, filing a Notice of Intent for coverage of the project under the Iowa DNR NPDES General Permit No. 2, and payment of associated NPDES permit fees.
9040, 1.08, A, 2, c	<u>SWPPP Management</u> All work required to comply with the administrative provisions of the Iowa DNR NPDES General Permit No. 2; including record keeping, documentation, updating the SWPPP, filing the Notice of Discontinuation, etc. Item also includes weekly inspections required to satisfy the provisions of General Permit No. 2, unless otherwise specified in the contract documents.
9040, 1.08, B, 3	<u>Compost Blanket</u> Furnishing and spreading compost over the designated area.
9040, 1.08, C, 3	<u>Filter Berm</u> Furnishing material and constructing the filter berm, including vegetation if specified.
9040, 1.08, D, 1, c	<u>Filter Sock</u> Anchoring stakes.
9040, 1.08, D, 2, c	<u>Filter Sock, Removal</u> Restoration of the area to finished grade and off-site disposal of filter socks and accumulated sediment.
9040, 1.08, E, 3	<u>Temporary RECP</u> Excavation, staples, anchoring devices, and material for anchoring slots.
9040, 1.08, F, 1, c	<u>Wattle</u> Anchoring stakes.
9040, 1.08, F, 2, c	<u>Wattle, Removal</u> Restoration of the area to finished grade and off-site disposal of wattle and accumulated sediment.
9040, 1.08, G, 1, c	<u>Check Dam, Rock</u> Engineering fabric.
9040, 1.08, G, 2, a, 3)	<u>Check Dam, Manufactured, Installation</u> Anchoring stakes.
9040, 1.08, G, 2, b, 3)	<u>Check Dam, Manufactured, Removal</u> Restoration of the area to finished grade and off-site disposal of manufactured check dam and accumulated sediment.
9040, 1.08, H, 3	<u>Temporary Earth Diversion Structure</u> Removal of the structure upon completion of the project.
9040, 1.08, I, 3	<u>Level Spreader</u> Maintaining the spreader during the period of construction and removal upon completion of the project, unless otherwise specified in the contract documents.

9040, 1.08, J, 3	<u>Rip Rap</u> Engineering fabric.
9040, 1.08, K, 3	<u>Temporary Pipe Slope Drain</u> Excavation, furnishing and installing pipe and pipe aprons, grading, and removal of the slope drain upon completion of the project.
9040, 1.08, L, 1, c	<u>Sediment Basin, Outlet Structure</u> Concrete base, dewatering device, anti-vortex device, outlet pipe, and anti-seep collars (if specified).
9040, 1.08, L, 2, c	<u>Sediment Basin, Removal of Sediment</u> Dewatering and removal and off-site disposal of accumulated sediment.
9040, 1.08, L, 3, c	<u>Sediment Basin, Removal of Outlet Structure</u> Dewatering and off-site disposal of the outlet structure, concrete base, emergency spillway, and accumulated sediment.
9040, 1.08, M, 1, c	<u>Sediment Trap Outlet</u> Engineering fabric.
9040, 1.08, M, 2, c	<u>Sediment Trap Outlet, Removal of Sediment</u> Dewatering and removal and off-site disposal of accumulated sediment.
9040, 1.08, M, 3, c	<u>Sediment Trap Outlet, Removal of Device</u> Dewatering and off-site disposal of sediment trap outlet and accumulated sediment.
9040, 1.08, N, 1, c	<u>Silt Fence or Silt Fence Ditch Check</u> Anchoring posts.
9040, 1.08, N, 2, c	<u>Silt Fence or Silt Fence Ditch Check, Removal of Sediment</u> Anchoring posts.
9040, 1.08, N, 3, c	<u>Silt Fence or Silt Fence Ditch Check, Removal of Device</u> Restoration of the area to finished grade and off-site disposal of fence, posts, and accumulated sediment.
9040, 1.08, O, 1, c	<u>Stabilized Construction Entrance (by Square Yard)</u> Subgrade stabilization fabric.
9040, 1.08, O, 2, c	<u>Stabilized Construction Entrance (by Ton)</u> Subgrade stabilization fabric.
9040, 1.08, P, 1, c	<u>Dust Control, Water</u> Furnishing, transporting, and distributing water to the haul road.
9040, 1.08, P, 2, c	<u>Dust Control Product</u> Furnishing and incorporating the dust control product.
9040, 1.08, Q, 1, c	<u>Erosion Control Mulching, Conventional</u> Furnishing and incorporating mulch in the area designated in the contract documents.

9040, 1.08, Q, 2, c	<u>Erosion Control Mulching, Hydromulching</u> Furnishing mulch and tackifier (if applicable), providing equipment specific to hydromulching, and applying the mulch to the specified area.
9040, 1.08, R, 3	<u>Turf Reinforcement Mats</u> Excavation, staples, anchoring devices, and material for anchoring slots.
9040, 1.08, S, 3	<u>Surface Roughening</u> Providing equipment to complete directional tracking or grooving/furrowing and completing surface roughening of slopes specified in the contract documents.
9040, 1.08, T, 1, c	<u>Inlet Protection Device</u> Removal of the device upon completion of the project.
9040, 1.08, T, 2, c	<u>Inlet Protection Device, Maintenance</u> Removal and off-site disposal of accumulated sediment.
9040, 1.08, U, 3	<u>Flow Transition Mat</u> Anchoring devices.
9040, 1.08, V, 3	<u>End of Season Temporary Erosion Control</u> Furnishing, placing, and maintaining the end of season temporary erosion control throughout the winter season.

Section 9050 - Gabions and Revet Mattresses

9050, 1.08, A, 3	<u>Gabions</u> Furnishing and assembling wire mesh baskets, PVC coating (if specified in the contract documents), fasteners, furnishing and placing gabion stone, engineering fabric, and anchor stakes.
9050, 1.08, B, 3	<u>Revet Mattresses</u> Furnishing and assembling wire mesh baskets, PVC coating (if specified in the contract documents), fasteners, furnishing and placing mattress stone, engineering fabric, and anchor stakes.

Section 9060 - Chain Link Fence

9060, 1.08, A, 1, c	<u>Chain Link Fence, Residential</u> Posts, fabric, rails, fitting, ties, PVC coating (if specified in the contract documents), excavation of post holes, and concrete encasement of posts.
9060, 1.08, A, 2, c	<u>Chain Link Fence, Commercial</u> Posts, fabric, rails, braces, truss rods, ties, tension wire, tension bands, tension bars, grounds, fittings, PVC coating (if specified in the contract documents), excavation of post holes, and concrete encasement of posts.
9060, 1.08, B, 3	<u>Gates</u> Gate rails, fabric, stretcher bars, braces, vertical stay, hinges, latches, keepers, drop bar lock, center gate stop, and barbed wire (if specified).
9060, 1.08, C, 3	<u>Barbed Wire</u> Furnishing and installing all necessary strands of barbed wire, anchors, and barbed wire supporting arms.

- 9060, 1.08, D, 3 Removal and Reinstallation of Existing Fence
Removing vegetation; removing all fence fabric, appurtenances, posts, and gates; removal of concrete encasement from posts; storage of the removed fencing materials to prevent damage; reinstallation of the posts, gates, and fabric, including all appurtenances; and replacement of any fence parts that are not able to be salvaged and reinstalled. Replace items damaged from Contractor's operations with new materials, at no additional cost to the Contracting Authority.
- 9060, 1.08, E, 3 Removal of Fence
Off-site disposal of fence (including posts, concrete encasement of posts, gates, grounds, and barbed wire) and placing and compacting backfill material in post holes.
- 9060, 1.08, F, 3 Temporary Fence
Furnishing, installing, and removing posts, fabric, ties, and fittings.

Section 9070 - Landscape Retaining Walls

- 9070, 1.08, A, 3 Modular Block Retaining Wall
Excavation, foundation preparation, furnishing and placing wall units, geogrid (if necessary), leveling pad, subdrain, porous backfill material for subdrain, engineering fabric for subdrain, granular backfill material, suitable backfill material, and shoring as necessary.
- 9070, 1.08, B, 3 Limestone Retaining Wall
Excavation, foundation preparation, furnishing and placing leveling pad, limestone, subdrain, porous backfill material for subdrain, engineering fabric for subdrain, suitable backfill material, and shoring as necessary.
- 9070, 1.08, C, 3 Landscape Timbers
Excavation, foundation preparation, furnishing and placing leveling pad, landscape timbers, spikes, reinforcing bar, subdrain, porous backfill material for subdrain, engineering fabric for subdrain, suitable backfill material, and shoring as necessary.

Section 9071 - Segmental Block Retaining Walls

- 9071, 1.08, A, 3 Segmented Block Retaining Wall
Design by a Licensed Professional Engineer in the State of Iowa, excavation, foundation preparation, furnishing and placing wall units, geogrid, leveling pad, subdrain, porous backfill material for subdrain, engineering fabric for subdrain, suitable backfill material, and shoring as necessary.
- 9071, 1.08, C, 3 Granular Backfill Material
Furnishing, transporting, placing, and compacting material.

Section 9072 - Combined Concrete Sidewalk and Retaining Walls

- 9072, 1.08, A, 3 Combined Concrete Sidewalk and Retaining Wall
Excavation; foundation preparation; furnishing and placing concrete and reinforcing steel; joint material; subdrain; porous backfill material; suitable backfill material; finishing disturbed areas; and shoring as necessary.

Section 9080 - Concrete Steps, Handrails, and Safety Rail

- 9080, 1.08, A, 3 Concrete Steps
Reinforcement, expansion joint material, and preparation of subgrade.
- 9080, 1.08, B, 3 Handrail
Posts, mounting hardware or concrete grout, and finishing (painted, galvanized, or powder coated).
- 9080, 1.08, C, 3 Safety Rail
Posts, concrete for ground mounting, pickets, mounting hardware, epoxy grout, and finishing (painted, galvanized, or powder coated).

Section 10,010 - Demolition

- 10,010, 1.08, A, 3 Demolition Work
Removal of trees, brush, vegetation, buildings, building materials, contents of buildings, appliances, trash, rubbish, basement walls, foundations, sidewalks, steps, and driveways from the site; disconnection of utilities; furnishing and compaction of backfill material; furnishing and placing topsoil; finish grading of disturbed areas; placing and removing safety fencing; removal of fuel and septic tanks and cisterns; seeding; and payment of any permit or disposal fees.
- 10,010, 1.08, B, 3 Plug or Abandon Well
Obtaining all permits; plug or abandon private wells according to local, state, and federal regulations.

Section 11,010 - Construction Survey

- 11,010, 1.08, A, 3 Construction Survey
The costs of resetting project control points, re-staking, and any additional staking requested beyond the requirements of this section.
- 11,010, 1.08, B, 3 Monument Preservation and Replacement
Property research and documentation, locating monuments prior to construction, replacement of disturbed monuments, and preparation and filing of the monument preservation certificate.

Section 11,020 - Mobilization

- 11,020, 1.07, B When the proposal form does not include a bid item for mobilization, all costs incurred by the contractor for mobilization are incidental to other work and no separate payment will be made.
- 11,020, 1.08, A, 3 Mobilization
The movement of personnel, equipment, and supplies to the project site; the establishment of offices, buildings, and other facilities necessary for the project; and bonding, permits, and other expenses incurred prior to construction.

Section 11,030 - Temporary Services During Construction

- 11,030, 1.08, A, 3 Maintenance of Postal Service
Coordinating with USPS and erecting and maintaining temporary mailboxes.
- 11,030, 1.08, B, 3 Maintenance of Solid Waste Collection
Coordinating and maintaining solid waste collection services including establishing alternate collection sites if required.

Section 11,040 - Temporary Sidewalk Access

- 11,040, 1.08, A, 3 Temporary Pedestrian Residential Access
Supplying and placing granular material, continuous maintenance of granular surface, removal of temporary granular sidewalk, and restoring disturbed surfaces to a condition equal to that which existed prior to construction.
- 11,040, 1.08, B, 3 Temporary Granular Sidewalk
Excavation, grading, timber edging, supplying and placing granular material, continuous maintenance of granular surface, removal of temporary granular sidewalk, and restoring disturbed surfaces to a condition equal to that which existed prior to construction.
- 11,040, 1.08, C, 3 Temporary Longitudinal Channelizing Device
Construction, placement, maintenance, and removal of the device.

Section 11,050 - Concrete Washout

- 11,050, 1.08, A, 3 Concrete Washout
Providing concrete washwater containment, collection, and disposal.