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| MP-1 | <u>SCOPE</u> |
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This section covers methods of measurement and payment for items of work under this contract.

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| MP-2 | <u>GENERAL</u> |
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The total bid price for each section of the contract shall cover all work required by the Contract Documents. All costs in connection with the proper and successful completion of the work including furnishing all materials, equipment, supplies, appurtenances and performing all necessary labor and supervision to fully complete the work, shall be included in the unit and lump sum prices bid. All work not specifically set forth as a pay item in the Bid Form shall be considered as incidental and all costs in connection therewith shall be included in the unit price(s) bid per linear foot of main line sewer.

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| MP-3 | <u>ESTIMATED QUANTITIES</u> |
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All Estimated Quantities stipulated in the Bid Form or other Contract Documents are approximate and are to be used only as a basis for estimating the probable cost of the work and for the purpose of comparing the bids submitted for the work. The actual amounts of work done and materials furnished under unit price items may differ from the estimated quantities. The basis of payment for work and materials will be the actual amount of work done and materials furnished. The CONTRACTOR agrees that he will make no claim for damages, anticipated profits, or otherwise on account of any difference between the amounts of work actually performed and materials actually furnished and the estimated amounts thereof.

MP-4 MEASUREMENT DEFINITIONS

MP-5 WORK ITEMS

MP-5.01 Mobilization

All work covered by this section will be paid for at the contract lump sum price for "Mobilization". The lump sum bid price shall not exceed 3% of the total project bid.

Partial payments for the item of "Mobilization" will be made with the first and second partial pay estimates paid on the contract, and will be made at the rate of 50% of the lump sum price for "Mobilization" on each of these partial pay estimates.

MP-5.11 Miscellaneous Concrete

Method of Measurement

The quantity of Miscellaneous Concrete material to be paid for shall be the actual cubic yards of approved concrete material, measured to the nearest 1/10 cubic yard, which has been properly incorporated, as per the plans and specifications into the completed and accepted work. No deductions will be made for openings less than 1 square foot, for volume of reinforcing steel, or fillets less than 4 square inches. Concrete shall be Class A unless directed otherwise by the ENGINEER.

Basis of Payment

Payment for Miscellaneous Concrete shall be based on the actual number of cubic yards of Miscellaneous Concrete installed complete and accepted, including but not limited to hauling, placing, forming, shaping, and all other related construction.

MP-5.12 Drainage Rock

Method of Measurement

The quantity of Pipe Embedment Material to be paid for shall be the actual amount of material, by cubic yards, to the nearest 1/10 cubic yard, which has been properly placed, compacted and incorporated into the completed and accepted work, as approved by ENGINEER. Length shall be determined by the ENGINEER; Width shall be as described in Section **MP-4.01** "Trench Excavation"; Depth shall be as approved by the ENGINEER or as shown on the Detail Sheets.

Basis of Payment

The quantity of Pipe Embedment Material shall be paid for at the contract unit price per cubic yard installed, complete including but not limited to hauling, placing, compaction, and other related construction.

MP-5.13 Compacted Aggregate Base Course

Method of Measurement

The quantity of compacted aggregate base course to be paid for shall be the actual cubic yardage, to the nearest 1/10 cubic yard, which has been properly placed, compacted, and incorporated into the completed and accepted work.

For new construction, the quantities shall be computed from the allowable width and required thickness as shown on the plans and the actual horizontal length measured in place. For replacement, the quantities shall be computed from the approved trench width, the required thickness, and the actual horizontal length measured in place.

Basis of Payment

The quantity of compacted aggregate base course shall be paid for at the contract unit price per cubic yard installed, complete including but not limited to hauling, subgrade compaction, placing, compaction, shaping, and other related construction.

MP-5.14 Select Backfill Material

Method of Measurement

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The quantity of Select Backfill Material to be paid for shall be the actual cubic yards, to the nearest 1/10 cubic yard of approved select backfill material which has been properly incorporated, as per plans and specifications into the completed and accepted work. When existing trench materials are unsuitable for use as backfill material, or cannot be dewatered to an acceptable material on site, the ENGINEER will authorize payment for "Select Backfill Material". When authorized in writing by the ENGINEER, select backfill materials will be measured for payment. Basis of depth shall be as requested by the ENGINEER. Trench width shall be measured as described in Section **MP-4.01** "Trench Excavation".

Basis of Payment

The quantity of Select Backfill Material shall be paid for at the contract unit price for each cubic yard, complete including but not limited to providing select backfill material, including all excavation, hauling, furnishing, placing and compacting of backfill material, and all other related construction.

MP-5.15 Rock Excavation

Method of Measurement

The quantity of Rock Excavation to be paid for will be by cubic yard measured in place by the average end area method for rock excavation, based upon measurements made prior to and following excavation. Basis of cut shall be as shown on DISTRICT Standard Details, basis of depth shall be as determined by the ENGINEER. Trench width shall be measured as described under Section **MP-4.01** "Trench Excavation".

Basis of Payment

The quantity of rock removed shall be paid for at the Contract unit price per cubic yard for rock excavation. Such price and payment will be compensation for all work covered by this section including but not limited to permits, drilling, explosives, loading of drill holes, blasting, removal and disposal of rock.

MP-5.16 Rip Rap Stream Bank Protection

Method of Measurement

The quantity of rip rap stream bank protection to be paid for shall be actual square yards, to the nearest 1/10 square yard of rip rap properly installed and accepted at 18-inch minimum thickness, as field measured by the ENGINEER.

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Basis of Payment

Payment shall be based on the actual number of square yards of rip rap installed and accepted, complete including but not limited to all preparation required, filter fabric, hauling, placing, and restoration of adjoining surfaces, and all other related construction.

MP-5.18 Erosion Control

Method of Measurement

The quantity of Erosion Control methods and devices as listed in bid schedule or shown on Plans to be paid for shall be that quantity as listed, properly installed and accepted.

Basis of Payment

The quantity of the Erosion Control methods and devices as listed in bid schedule or shown on Plans shall be paid for at the contract unit price installed complete, including but not limited to installation, maintenance, removal and disposal of accumulated silt, and final removal of silt fence and restoration of surface. Payment of this item shall include upkeep and maintenance for duration of project.

MP-5.21 Bituminous Pavement Repair and Resurfacing

Method of Measurement

The quantity of Bituminous Pavement Repair, and Bituminous Pavement Resurfacing, (as applicable) to be paid for shall be the square yards of surface area, to the nearest 1/10 square yard. The quantities for repair shall be computed based on the allowable trench width of 4 feet, unless additional width is authorized by the ENGINEER, and the actual horizontal length measured in place. The quantities for resurfacing shall be computed based on existing road widths and required taper as applicable.

Where pavement, driveways, or other asphalt surfacing of whatever nature have been removed by the CONTRACTOR beyond the limits called for in the Plans and Specifications or as set by the ENGINEER, or have been damaged through negligence or carelessness of the CONTRACTOR's forces, they shall be replaced in accordance with these specifications at the CONTRACTOR's expense.

Basis of Payment

The quantity of Bituminous Pavement Repair, and Bituminous Pavement Resurfacing shall be paid for at the contract unit price per square yard at the

Sample

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depth as specified on Plans. The contract price shall be full compensation for Bituminous Pavement Repair and Bituminous Pavement Resurfacing complete, including but not limited to pavement cutting, binder, hauling, tack coat, spreading, compaction, re-striping, replacing traffic control devices, and all related construction.

MP-5.22.1 Concrete Anti-Seep Collar

Method of Measurement

The quantity of concrete anti-seep collars to be paid for shall be the actual number of concrete collars that have been properly installed into the completed and accepted work.

Basis of Payment

The quantity of concrete collars shall be paid for at the contract unit price for each collar installed, complete including, but not limited to, hauling, excavation, forming, placing, finishing, reinforcement, and other related construction.

MP-5.24 Concrete Curb and Gutter Replacement

Method of Measurement

The quantity of concrete curb and gutter to be paid for shall be the number of linear feet properly installed and accepted.

Basis of Payment

The quantity of concrete curb & gutter shall be paid for at the contract unit price per linear foot installed complete, including but not limited to installation, excavation, form work, backfill, compaction, restoration of surfaces and all related items as required.

MP-5.25 Hand Placed Asphalt Curb

Method of Measurement

The quantity of Hand Placed Asphalt Curb to be paid for shall be the actual number of linear feet installed as measured along the centerline of the curb top, and accepted into the completed Work .

Basis of Payment

Payment for Hand Placed Asphalt Curb will be paid for at the contract unit price per linear foot including but not limited to all labor, traffic control,

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materials, preparation, asphalt hauling, placing and finishing work, complete to the satisfaction of the ENGINEER.

MP-5.21.9 Subsurface Excavation and Removal

Method of Measurement

The quantity of subsurface excavation, including rock excavation, to be used in the determination of pay quantities shall be as shown in the Resurfacing Detail and approximate project area on the Project Plans, unless additional area is authorized by the DISTRICT.

Basis of Payment

The quantity of subsurface excavation shall be paid at the contract unit price per square yard specified in the bid schedule.

MP-5.21.10 Geotextile Fabric

Method of Measurement

The quantity of Geotextile Fabric to be paid for shall be the square yards of surface area, to the nearest 1/10 square yard. The quantities shall be computed from the allowable width shown and the actual horizontal length measured in place. Additional width may be allowed when approved in writing by the ENGINEER.

Basis of Payment

The quantity of Geotextile Fabric shall be paid at the contract unit price per square yard specified in the bid schedule. The contract price shall be full compensation for installation of Geotextile Fabric.