

**ITEM 0112320**

**Item 0112321 - 3" DUCTILE IRON WATER MAIN**

**Item 0112322 - 4" DUCTILE IRON WATER MAIN**

**Item 0112323 - 6" DUCTILE IRON WATER MAIN**

**Item 0112324 - 8" DUCTILE IRON WATER MAIN**

**Item 0112325 - 12" DUCTILE IRON WATER MAIN**

**DESCRIPTION**

The work specified in this section includes furnishing and installing ductile iron pipe and fittings to the lines and grades shown on the Contract Drawings complete as shown, specified or directed. The work includes transporting materials, clearing, trenching, disposing of unused excavated materials, removing and disposing of sections of the present water mains and concrete anchors, furnishing, installing and field testing the pipelines complete with lacings and harnessing, and utility identification tape, backfilling trenches, and furnishing additional material for backfilling. Also included in this item is temporary pavement surface restoration, miscellaneous grading, permanent unpaved surface restoration, resetting of displaced curbing, bracing, pumping and all incidental work, except as otherwise provided for.

**REFERENCED ITEMS**

Item 0103301 and 0104042

**REQUIRED SUBMITTALS**

Material Certificate of Compliance:

Submit 5 copies of material certificate of compliance for ductile iron pipe in accordance with the contract general requirements.

**MATERIALS**

The materials shall meet the standards required by the Bureau of Public Works of the Metropolitan District (MDC), and in accordance with the Developers Manual for Water Main Design and Installation Standards, Latest Edition.

**CONSTRUCTION METHODS**

The construction methods shall meet the standards required by the Bureau of Public Works of the Metropolitan District (MDC), and in accordance with the Developers Manual for Water Main Design and Installation Standards, Latest Edition.

**METHOD OF MEASUREMENT**

The quantity of ductile iron pipe to be paid for will be the number of linear feet of ductile iron pipe and fittings installed, complete as shown, specified and directed. The length of pipe and fittings to be measured shall be the length of the line after the pipes and fittings have been installed, measured or computed along the center line of the pipe and fittings from the center line of the main line valves or face of the terminal pipe or fitting, as shown on the Contract Drawings.

Pipe installed on hydrant or blow-off assemblies will not be measured for payment.

The bank run gravel from the bottom of the trench to the level 24 inches above the top of the pipe will not be measured for payment, but will be considered as included in the price per foot of ductile iron water main.

Utility identification tape will not be measured for payment, but will be considered as included in the price bid per linear foot of pipeline.

Temporary surface restoration will not be measured for payment, but will be considered as included in the price bid per linear foot of pipeline.

Support of excavation, dewatering, unpaved surface restoration and resetting of curb items will not be measured for payment, but will be considered as included in the price bid per linear foot of ductile iron water main.

Additional excavation and backfilling for the replacement of unsuitable material will be measured in accordance with Item 0103301.

Permanent paved surface restoration will be measured for payment in accord with Item 0104042.

**BASIS OF PAYMENT**

This work will be paid for at the Contract unit price per linear foot for ductile iron pipe and fittings, complete in place.

The price shall include all work as described above and all materials, tools, equipment and labor incidental thereto necessary to complete the pipelines in accord with the Contract Drawings, the Specifications and the requirements of the Engineer thereunder. No claim will be allowed because the number of pipes and joints may be greater than estimated by the Contractor.

No direct payment will be made for any work done or materials used in making the pipeline tight.

No payment will be made under this item for valved, plugged, or blind flanged outlets or branches which contain no pipe.

No direct payment will be made for any labor, materials or equipment required for the pipeline field testing.

Additional excavation for replacement of unsuitable material will be paid for at the appropriate contract unit price.

Permanent paved surface restoration will be paid for at the appropriate Contract unit price.

| <u>PAY ITEM</u> | <u>DESCRIPTION</u>          | <u>PAY UNIT</u> |
|-----------------|-----------------------------|-----------------|
| 0112321         | 3" Ductile Iron Water Main  | LF              |
| 0112322         | 4" Ductile Iron Water Main  | LF              |
| 0112323         | 6" Ductile Iron Water Main  | LF              |
| 0112324         | 8" Ductile Iron Water Main  | LF              |
| 0112325         | 12" Ductile Iron Water Main | LF              |