

SP01160 (2015 Specifications: ~~11-13-1408-06-15~~)

(This Section requires SP00440
SP01140, SP01150, SP02480, &
SP02485, SP02560.

~~This Section r~~Requires SP02010 &
&-SP02050 for thrust blocks.)

SECTION 01160 - HYDRANTS AND APPURTENANCES

(Follow all instructions. If there are no instructions above a subsection, paragraph, sentence, or bullet, then include them in the project. The specifications may be modified to include project specific specifications, but all additions, deletions, or modifications must be sent to the ODOT Technical Resource and Senior Specifications Engineer for review and approval.)

~~Comply with~~ Replace Section 01160 of the Standard Specifications ~~with the following~~
Section 01160:

SECTION 01160 - HYDRANTS AND APPURTENANCES

Description

01160.00 Scope - This work consists of furnishing and installing fire hydrants and appurtenances in potable water systems at the locations shown or at other locations as directed.

Materials

01160.10 Materials - Furnish materials meeting the following requirements:

Gate Valves	02480.20
Commercial Grade Concrete in Thrust Blocking.....	00440
End Connections.....	02485.20
Fire Hydrants	02485.10
Bollards.....	00815
Hydrant Extensions	02485.40
Tie Rods	02485.60
Traffic Flange.....	02485.50
Valve Boxes.....	02480.25
Valve Stem Extensions	02480.26

01160.11 Handling of Hydrants:

(a) Loading and Unloading - Handle hydrants to prevent damage to the hydrant, lining or coating. Load and unload hydrants using hoists and slings so as to avoid shock or damage, and under no circumstances allow them to be dropped, skidded, or rolled against other hydrants. Damaged hydrants will be rejected. If damage is confined to the coating or lining, it may be repaired in a manner satisfactory to the Engineer. Immediately place all damaged hydrants apart from the undamaged hydrants and remove the damaged hydrants from the Project Site.

(b) End Caps - Provide factory applied end caps on pipe connection ends. Maintain end caps through shipping, storage, and handling to prevent damage and prevent dirt and moisture from entering the hydrants.

Construction

01160.40 Setting Hydrants - Inspect all hydrants upon delivery in the field to ensure proper working order. Install hydrants as shown or directed.

(a) Touchup Painting - After all installation and testing is complete, paint the exposed portion of the hydrant with one coat of the type and color of coating designated by the Engineer.

(b) Out-of-Service Hydrants - Identify all hydrants not in service by covering with a properly secured burlap or plastic bag.

01160.41 Hydrant Laterals - Install hydrant laterals, consisting of ductile iron pipe, from the auxiliary gate valve at the main to the hydrant, according to Section 01140 and as shown.

01160.42 Hydrant Restraints - Restrain the thrust created in the hydrant lateral as shown.

01160.43 Gate Valves and Valve Boxes - Install gate valves and valve boxes according to Section 01150, except that the end connections shall be provided with lugs for tie rods, or the bells shall provide sufficient clearance between the body of the valve and the hub to permit the installation of tie rods.

01160.44 Hydrant Bollards - Construct hydrant bollards according to Section 00815 at the locations shown. Paint the exposed portion of each hydrant bollard with one coat of the type and color of coating designated by the Engineer.

01160.46 Moving Existing Hydrants - Move existing hydrants where shown. As shown, remove the existing hydrant lateral tee from the main if the main is to remain active, and insert a new section of pipe into the water main in place of the existing hydrant lateral tee. Where the existing main to which the existing hydrant lateral tee is connected is to be abandoned or temporarily activated after the existing hydrant is moved, plug the open end of the hydrant lateral pipeline. Provide temporary thrust restraint if temporarily reactivated.

01160.47 Reconnecting Existing Hydrants - Reconnect existing hydrants where shown. Leave the location and elevation of the existing hydrant unchanged, but change the existing hydrant lateral to connect with a new gate valve and hydrant tee provided in a new main. Install new hydrant lateral according to Section 01140 where the lateral extends to connect to the new main. Where existing hydrants were not restrained, restrain the new connections as shown.

01160.48 Hydrant Extensions - Install hydrant extensions where required.

Field Testing Installations

01160.50 General - After installation, operate hydrants from full open to full closed to ensure that they do not bind during operation. Correct all malfunctions in the operation of the hydrants.

01160.51 Hydrostatic Testing - Perform hydrostatic testing of hydrants according to 01140.51. Correct all defects in materials or workmanship to the satisfaction of the Engineer.

01160.52 Disinfecting - Disinfect hydrants according to 01140.52.

Measurement

01160.80 Measurement - The quantities of work performed under this Section will be measured on the unit basis.

New pipe and tees for hydrant connections will be measured according to 01140.80. Gate valves will be measured according to 01150.80.

Payment

01160.90 Payment - The accepted quantities of work performed under this Section will be paid for at the Contract unit price, per unit of measurement, for the following items:

(Delete pay items from the list that do not apply, but do not change the alpha characters next to the pay items.)

<u>Pay Item</u>	<u>Unit of Measurement</u>
<u>(a) Hydrant Assemblies.....</u>	<u>Each</u>
<u>(b) Resetting Existing Hydrants.....</u>	<u>Each</u>
<u>(c) Moving Existing Hydrants</u>	<u>Each</u>
<u>(d) Reconnecting Existing Hydrants.....</u>	<u>Each</u>
<u>(e) Hydrant Bollards</u>	<u>Each</u>
<u>(f) Hydrant Extensions.....</u>	<u>Each</u>

(Use the following paragraph if pay item (a) is included in the pay item list.)

Item (a) includes thrust restraints, concrete blocks, gravel, and painting.

(Use the following paragraph if pay item (b) is included in the pay item list.)

Item (b) includes thrust restraints, painting, and reconnecting to the main.

(Use the following paragraph if pay item (c) is included in the pay item list.)

Item (c) includes thrust restraints, painting, reconnecting to the main, and plugging abandoned laterals if needed.

(Use the following paragraph if pay item (e) is included in the pay item list.)

Item (e) includes excavation, backfill, and painting.

Payment will be payment in full for furnishing and placing all materials, and for furnishing all equipment, labor, and incidentals necessary to complete the work as specified.

New pipe and tees for hydrant connections will be paid for according to 01140.90. Gate valves will be paid for according to 01150.90.