

ITEM 272.12

12 INCH TRENCH DRAIN WITH GRATE -  
CAST-IN-PLACE

LINEAR FOOT

### GENERAL

The work under this item shall consist of furnishing and installing cast-in-place trench drains and related items as shown on the Plans and as required by the Engineer.

### Submittals

The Contractor shall submit product specifications and shop drawings indicating all grate dimensions in conformance with the details shown on the Plans for review and approval by the Engineer prior to ordering any material.

### MATERIALS

Trench drains shall be a cast-in-place system that conforms to the design loading requirements of AASHTO H-20 and HS-20 (minimum).

Trench drain grates shall be ADA compliant conforming to ASTM A48. After removal of grates, there shall be uninterrupted access to the trench to aid maintenance.

Trench drain frames shall be Neenah Foundry model no. R-4999-CX with type 'Q' grates or approved equal.

The trench drain grate shall have a locking device that directly connects the grate to the frame.

Cement concrete shall be 4,000 psi, ¾ inch, 610 cement concrete conforming to MassDOT Standard Specifications Division III, M4.02.00.

### CONSTRUCTION

Excavate trench for trench drain to the depth shown on the Plans. Place and compact gravel borrow.

Install trench drain structures per construction details. Construct formwork to ensure that the bottom of the trench drain shall have a 0.5% minimum slope. The bottom shall meet the interior bottom of the curb casting. Place concrete around curb casting to lock casting to trench drain.

### METHOD OF MEASUREMENT

12 Inch Trench Drain with Grate – Cast-in-Place will be measured for payment by the linear foot, complete in place.

### BASIS OF PAYMENT

12 Inch Trench Drain with Grate – Cast-in-Place will be paid for at the Contract unit price per linear foot, which price shall include all labor, materials, equipment, and incidental costs required to complete the work. No separate payment will be made for saw cutting existing sidewalk, excavation, cement concrete and formwork, or cast-iron frames and grates, but all costs in connection therewith shall be included in the Contract unit price bid.

Gravel base will be paid for separately under Item 151.02, Gravel.