

ITEM 15606.46 M - CRASH-CUSHION ATTENUATING TERMINAL 350, CAT 350

ITEM 15606.4650 M - CRASH-CUSHION ATTENUATING TERMINAL 350, CAT 350 (RUSTIC)

DESCRIPTION

Under this work, the Contractor shall furnish and install the Crash-Cushion Attenuating Terminal 350 (hereafter referred to as CAT 350) of the type indicated and at the locations indicated in the Contract Documents, or where directed by the Engineer, in accordance with these specifications and the manufacturer's directions and drawings.

MATERIALS

Crash-Cushion. The crash-cushion shall be the CAT 350, as fabricated by the Syro Steel Company / Trinity Industries Inc., Girard, Ohio. Phone - (800) 321-2755. All parts shall be new, and the configuration of the CAT 350 crash-cushion shall be as indicated in these specifications and on the manufacturer's drawings.

Steel foundation tubes shall meet the requirements of §710-21, Box Beam Guide Railing and Median Barrier. The breakaway wood posts shall be of the dimensions indicated on the manufacturer's drawings, and shall be pressure treated as per §708-31, Wood Preservative - Water Borne. The timber posts and the timber blockouts shall meet the requirements of §710-13, Wood and Timber Posts and Timber Blockouts. Corrugated beam guide rail elements, and the flat beam side plate shall meet the requirements of §710-20, Corrugated Beam Guide Railing and Median Barrier. Steel block-outs, steel posts, soil plates, struts, bearing plates shall meet the requirements of ASTM A36 or ASTM A36 M. The dimensions of steel block-outs shall conform to those given in the manufacturer's drawings. All metal parts and components shall be hot dipped galvanized in accordance with §719-01, Galvanized Coatings and Repair Methods.

The rustic version of CAT 350 crash-cushion shall comply with the above requirements except metal parts exposed to view shall meet the requirements of §710.25, Guide Rail and Median Barrier Systems (Rustic).

Reflectorization, consisting of Class B (High Intensity) sheeting directly applied to aluminum sheeting, shall be affixed to the nose of the CAT 350 crash-cushion. The Class B (High Intensity) sheeting shall conform to §730-05, Reflective Sheeting.

If traffic passing either side of the unit is going in the same direction, the pattern shall be upward pointing chevrons formed with alternating 100 mm reflectorized stripes and black opaque non-reflectorized stripes. If no color is given, then the color shall be yellow. If traffic passing on either side of the CAT 350 is going in opposite directions, the pattern shall be a 45° hatch pattern, with the stripes sloping so that the lower end of them is on the side the approaching traffic is to pass.

Silicone sealant shall be commercially available silicone sealant which will adhere to wood and galvanized steel.

BASIS OF ACCEPTANCE

CAT 350 crash-cushion will be accepted on the basis of its conformance with the approved manufacturer's drawings and the manufacturer's certificate of compliance with these specifications.

CONSTRUCTION DETAILS

A minimum of one week prior to installing any materials required under this item, the Contractor shall submit to the Engineer two (2) copies of the Manufacturer's Drawings, Design Manuals, Installation Manuals, and Maintenance Manuals prepared for the product and one (1) copy of the same manuals intended for the Resident Engineer of the county where the unit is being installed. The contractor shall install the crash-cushion only after receiving authorization from the Engineer to do so.

§606-3.01, General of the Standard Specifications shall apply. Foundation tubes shall be driven

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unless otherwise approved by the Engineer. CAT 350 and CAT 350 (Rustic) shall be installed after grading is completed, at the locations indicated on the Plans, or where directed by the Engineer. They shall be installed in accordance with the manufacturer's instructions and the directions of the Engineer.

The work, including the necessary grading work, shall be coordinated with the installation of the median barrier or transition or removal of existing anchorage units in order to minimize the time the traveling public is exposed to unanchored runs of rail. During periods when the traveling public is exposed to unanchored rail, plastic drums or other devices approved by the Engineer, shall be placed in advance of the unanchored run and beyond the ends of the rail. In addition, the ends of the rail shall be brought to the ground level, twisted over to lay flat, and be pinned to the ground.

Unless a different period is indicated or directed, the Contractor shall be required to complete the crash-cushion installation within five working days after installation of the HPBO median barrier or removal of the anchor or turned down end or installation of the transition, so as to limit the exposure of vehicular traffic to impact with the exposed end of the barrier.

To limit water and dirt infiltration, the space between the wooden posts and the top of the foundation tube shall be sealed with a commercially available silicone sealant. The sealant shall be compatible with both wood and galvanized steel to the satisfaction of the Engineer.

In the event CAT 350 or CAT 350 (Rustic) is damaged, the units shall be promptly repaired. Unless another period is indicated in the contract documents, promptly shall mean fourteen (14) calendar days from the date the original damage occurs.

METHOD OF MEASUREMENT

The work will be measured as the number of CAT 350 crash-cushions or CAT 350 (Rustic) crash-cushions satisfactorily furnished and installed in accordance with the plans, specifications and directions of the Engineer. The pay limits for these units shall extend from the reflectorized sheeting in the front to the center of the eighth post (second steel post) in the tail-end portion of the crash-cushion.

BASIS OF PAYMENT

The unit price bid per CAT 350 or CAT 350 (Rustic) shall include the cost of all labor, materials, and equipment necessary to satisfactorily furnish and install the units between the above described pay limits.

Payment will be made under:

Item No.	Item	Pay Unit
15606.46 M	Crash-Cushion Attenuating Terminal 350, CAT 350	Each
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