



ReDD® PLASTIC INSERT FOR ANCHOR RODS

PINNED CROSS-BOLT F-SHAPED CONCRETE TRAFFIC BARRIER – MASH TEST LEVEL 3

Northern Infrastructure Products

SGR74a



SHEET NO.

DATE:

1 of 2

06/10/22

INTENDED USE

The Pinned Cross-Bolt F-Shape Concrete Traffic Barrier is a MASH TL-3 system intended for installation along roadsides where a traffic barrier system is required, either permanent or temporary. The system consists of 13-ft 1½-in (4-m) long precast concrete f-shape traffic barriers, for a total installation length of 170-ft 7¼-in (52-m). The precast concrete traffic barrier sections are 32-in (813-mm) high and 23.5-in (597-mm) wide at the base. The Barrier was pinned (anchored) to pavement via precast anchor pockets for lateral restraint on asphalt pavement, traffic side only, with three (3) threaded bolts ¾-in (19-mm) diameter, 12-in (305-mm) in length, using a ¾-in (19-mm) nut and a 7/8-in (22-mm) plate washer with a plastic insert (ReDD®) for the ¾-in (19-mm) diameter anchor rods. Each anchor was installed in holes drilled 9 degrees from plumb (vertical), 7-in (178-mm) deep X 3/8-in (10-mm) diameter into 3.5-in (89-mm) thick asphalt pavement and subbase, then secured with an epoxy system as per the manufacturer's instructions. The threaded rod is epoxied 6-in (152-mm) into the asphalt and granular subbase. Test article dynamic deflection is 1-in (25-mm) for 1100C and 2-in (50.8-mm) for 2270P.

Test article exhibited concrete spalling at barrier joints and at toe of barrier, and, scuffing on the traffic face of the precast concrete traffic barrier at the impact site, including spalling of anchor pockets. There was no observed damage to the anchor bolts individually from both MASH crash tests 3-10 or 3-11.

APPROVALS

The Pinned Cross-Bolt F-Shape Concrete Traffic Barrier has been fully tested in compliance with MASH, 2016 Test Level 3 and is determined eligible for reimbursement by the FHWA. FHWA Eligibility Letter B-365 dated June 6, 2022.

CONTACT INFORMATION

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