



MBEAT - MASH BEAT - Box Beam System



Road
Systems
Inc.

SEB05b

SHEET NO.

DATE

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10-12-18

INTENDED USE

The **MBEAT** (MASH BEAT) is a roadside energy-absorbing terminal used to protect the ends of 6" x 6" (150 x 150) box beam barriers that has been designed and tested under MASH criteria. It is supported by two steel breakaway end posts connected by a strut and standard 3" x 5.7# (75 x 8.5) I beam weak posts. The MBEAT is approximately 15 feet (4.6m) long and has a rail height of 2'-4" (710 mm). The additional energy absorbing capacity is achieved as the impact head activates the standard downstream box beam sections.

During end-on impacts, the vehicle forces the mandrel portion of the MBEAT impact head into the end of the box beam section causing the tube to burst. The four walls of the tube are then peeled back. The end tube wall thickness is 1/8" (3mm), which is thinner than the 3/16" (5mm) downstream box beam.

The MBEAT is a cable-anchored system. When impacted on the traffic side within the length of need and within design limits, the MBEAT contains and redirects the errant vehicle back toward its original travel path. A gusset plate is welded to the end tube section to anchor the downstream end of the cable. The cable is bolted into place for traffic face redirection impacts. The tension in the cable is released for end-on impacts when breakaway post #1 is fractured.

ACCEPTANCE

FHWA Letter CC-xx, x x, 2018 - MBEAT Test Level 3

CONTACT INFORMATION

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