

# 5 MBEAT Inspection Checklist

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State: \_\_\_\_\_

Date: \_\_\_\_\_

Project #: \_\_\_\_\_

Location: \_\_\_\_\_

- The height of the 6" x 6" box beam tubing is in accordance with the contract plans. This should be 28" ±1" above the edge of the finished grade.
- The 6" x 6" x 9'-10<sup>3</sup>/<sub>4</sub>" long end tube rail is the special 1/8" thickness tube as supplied by the manufacturer with the four corners cut at the approach end where the impact head is placed.
- The MBEAT terminal has at least one 18'-0" long (minimum) 6" x 6" x 3/16" standard tube section joining with the special 9'-10<sup>3</sup>/<sub>4</sub>" long 1/8" end tube rail section.
- The 1/8" end tube rail is bolted to the standard tube section with two end splice channels.
- There is a 3" weak post at post location #3 plus at least two more 3" weak posts spaced at 6'-0" within the standard downstream 6" x 6" x 3/16" box beam barrier. The 3" weak posts have the soil plate positioned on the back side away from traffic.
- The 3/4" x 8 1/2" hex bolt connecting the hinge post top and bottom #2 is on the downstream side of the post. Top and bottom post #2 are W6 x 9# (or W6 x 8.5#) material.
- The 5/8" x 9" hex bolt connecting top & bottom post #1 is on the upstream side of the post. Top post #1 is 6" x 6" x 1/8" tubing. Bottom post #1 is W6 x 15# material.
- The stubs at bottom posts #1 and #2 are spaced at 6'-3" and do not protrude more than 4" above the ground line (measured by the AASHTO 5' cord method). Site grading may be necessary to meet this requirement.
- The 6" x 6" box beam tubing is attached to rail support brackets with 5/16" x 7" hex bolts.
- The rail support brackets are attached to posts #1 & #2 with 1/2" x 2" hex bolts.
- The impact head is properly inserted into the end tube rail section with the large triangular gusset plates facing down.
- The ground strut is secured between posts #1 & #2 using a 3/4" x 8 1/2" hex bolt at post #2 and a second 5/8" x 9" hex bolt, nut and two washers at post location #1.
- The 8" x 8" MASH bearing plate at the base of post #1 is correctly positioned with the 5" dimension up and the 3" dimension down and is setting on the extended cap plate of bottom post #1. The 5/8" x 5" retention bolt is secured to the bearing plate with a hex nut and the threads of the bolt extend inside the 6" x 6" top post #1.
- The cable anchor assembly is taut and secured with a 1" hex nut and washer at both ends.
- The post breaker is installed on the traffic side of post #1 and stabilized with a 1/4" x 3" hex bolt and a 5/8" x 3" hex bolt.
- The retention plate channel is bolted to the backside of post #2 with two 1/2" x 2" hex bolts.
- If the posts were augered, be sure the backfill material around the posts is compacted.
- The grading and finished installation is in accordance with all specific State DOT guidelines.

Additional notes:

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Inspection performed by: \_\_\_\_\_

## Inspection (continued)

As with all roadside safety products, guardrail terminals require inspection to be sure they are in working order. The appropriate authorities should have inspection programs in place and track accidents to assure adequate repairs are made. Regular inspections of MBEAT systems should be made based on site conditions, traffic volumes, and crash history.

