



INDIANA DEPARTMENT OF TRANSPORTATION

100 North Senate Avenue
Room N925 CM
Indianapolis, Indiana 46204


PHONE: (317) 232-5502
FAX: (317) 232-5551

Eric Holcomb, Governor
Joe McGuinness, Commissioner

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CONSTRUCTION MEMORANDUM 18-04

TO: District Deputy Commissioners
District Construction Directors
District Technical Services Directors
District Area Engineers
District Project Management Director
Project Management Director
District LPA Coordinators
Project Engineers/Supervisors
Field Engineers
Technical Service Directors
Maintenance Personnel

FROM: John Leckie, Director 
Division of Construction Management and District Support

SUBJECT: Maintenance of Impact Attenuator & Guardrail End Treatments

SUPERSEDES: Construction Memo 01-08

The purpose of this memorandum is to notify field personnel of the updated procedure for installing impact attenuators and guardrail end treatments. The procedure includes the certification process, how to verify if an installer is certified, who to contact once the unit is installed, and some basic unit installation points to be aware of.

The Department coordinates with the manufacturers of the different units every two years and works with them to implement a training program so that contractors and Department's maintenance personnel are trained in the proper methods for installation and repair. It's up to each District to determine whom will be certified for different units.

Once a person is trained and certified, the manufacturer sends the name of the employee to Construction Management to be added to the Department's website. The website states what units the individual is certified for and when their certification expires. This information can be found at <http://www.in.gov/indot/2739.htm>.

The following outlines the procedure for installing impact attenuators and guardrail end treatments:

1. The Department's certified personnel are responsible for visual inspections on new unit installation and leading maintenance personnel that are required to rebuild and repair damaged units.

2. PE/S's that have units to be installed on their projects are required to check to see if the crew's foreman is certified to install the end treatment selected from the approved materials list and in accordance with the contract documents for installation. The PE/S should record the individual's name before installation, to claim responsibility and to verify if the individual is certified for that specific unit, via the Department's website above.
3. Once a unit is installed, replaced, or repaired on an active construction contract, the PE/S should immediately notify the sub-district office in the area of the project, via email or phone, that a new unit has been installed, along with the type of unit and its location.
4. After the PE/S notifies the sub-district that a new unit has been installed in their area, the sub-district manager should make arrangements for a certified maintenance worker to go to the site of the new unit and perform a visual inspection to insure that the unit was indeed installed correctly. This visual inspection should be performed within 15 calendar days of the PE/S's notice.
5. If it's determined that there is a problem with the installation, the sub-district personnel should notify the project PE/S and AE. The contractor should then be notified of any deficiencies found during the visual inspection. The contractor will be required to remobilize to the site, provide proper traffic controls, and fix the problems at their own expense.

The following fundamental observation points should aid the PE/S's when witnessing the installation or post installation of a specific unit before a certified maintenance worker performs their visual inspection.

Guardrail End Treatments

- Cables taugth with brackets properly engaged
- Blockouts and posts not damaged
- All bolts and nuts snug
- Ground under and in front of unit free of damaging or disruptive debris
- Delineation panel securely attached and free of damage

Gravel Barrels

- Barrels show no sign of cracks
- All lids locked down and secured
- Ground under and in front of unit free of damaging or disruptive debris

Impact Attenuators

- Cables taugth and not sagging
- Diaphragms and bays aligned straight
- All rail panels tight and not damaged
- Cartridge/rip plates not damaged
- Cylinders show no signs of cracking
- All bolts and nuts snug
- Ground under and in front of unit free of damaging or disruptive debris
- Delineation panel securely attached and free of damage

Any questions or comments should be directed to your Construction Management Field Engineer.

JL/ddh