

# Guardrail Committee Minutes

October 16, 2007

10:30 AM

Roadway Design Conference Room

## **I. Quick items to address from the last meeting's "To Do" List**

- ◆ Amount of Prime Coat called for on Standard Drawing 862.01 (Joel Howerton)

*Joel Howerton spoke with Clark Morrison in regards to this issue. Clark recommended a straight seal (CRS-2P Emulsion Sec. 660 of the Spec. Book). The Guardrail committee agreed that Standard Drawing 862.01 (sheet 10 of 11) should be revised to reflect this change for the Prime Coat Rate on Concrete Paved Shoulders. Furthermore, Jay Bennett recommended that the Standard Drawing for both Flexible Paved Shoulders and Concrete Paved Shoulders be modified to show the surface course and prime coat extending to the back of the guardrail posts. Making this change will aid with addressing the vegetative maintenance issue of grass growing between the guardrail posts.*

- ◆ New Field Inspection Question to address if a non-gating impact attenuator should be specified for a temporary traffic pattern when the final traffic pattern warrants a gating impact attenuator.

*This new Field Inspection Question was labeled as Attachment 1 and reviewed by the Guardrail Committee. There were no comments.*

- ◆ Potential issues with the recent release of AASHTO Chapter 6 Update; specifically to the 6.6.1 Terrain Effects section.

*This item was tabled. Still need to discuss this issue with the AG's Office. Due to current median cable guiderail placement research, we may want to delay our response until we have the opportunity to review the results.*

## **II. Follow up to Depressed Median Guardrail Issues with Divided Highways of 6 Lanes or more**

A Sub-committee met on August 23, 2007. The members consisted of Mr. Jeff Barfield, Geotech; Clark Morrison, Pavement Management; Cynthia Perry and Garry Lee, Project Services; and Roger Thomas, Roadway Design. The sub-committee met to discuss the concerns we were having with the placement of Cable Guiderail in areas with a high rate of superelevation and 10 to 12 foot wide full depth paved median shoulders. In these areas, the median ditch elevation may not be deep enough to meet the general guidelines for positive pavement drainage. The sub-committee agreed to meet again once a determination has been made on what barrier treatment to use on a freeway facility with this typical section.

A research project request has been submitted to the Research & Analysis Group to investigate what type of median barrier should be used with the subject typical section. A copy of the New Research Idea Application was passed out as Attachment 2.

### **III. Guardrail for Headwalls on Large Pipes in Shallow Fills**

Warren Walker displayed pictures to the Guardrail Committee of project where the pipe headwalls were in close proximity to the edge of travel lane. It was noted that in some instances these areas of concern could have been avoided if the cross pipe would have been extended to the toe of the slope as noted in the Roadway Design Manual in section 5-20. It was noted that this topic would be addressed at a Roadway Design Staff Meeting to bring these areas of concern the project designers' attention.

### **IV. Median protection on I-95**

The Guardrail Committee was asked to brainstorm and make a determination if there is a median barrier solution to close off a couple of emergency crossovers along I-95 in Robeson County. These crossovers are required if the girders on the adjacent grade separations, which have substandard vertical clearance over I-95 are struck. These grade separations are often hit. A picture of one of the emergency crossovers was passed out as Attachment 3. It was the general consensus of the Guardrail Committee that these openings should be closed off if a viable solution could be reached.

### **V. Reuse of cable guiderail hardware**

Brian Murphy furnished pictures in regards to this topic. The pictures showed a location where cable guiderail was struck and repaired. He questioned if it's standard practice to reuse cable guiderail hardware after its been struck. The pictures showed reused hardware. In some instances "J" hooks were bent and not installed correctly. Also, there was a photo that showed where there was a wedge seating issue with the Anchorage Housing Assembly. Each Division District Office is responsible for inspecting cable guiderail after its been repaired. ITRE may be able to provide training to our maintenance personal to assist with improving on repairing cable guiderail.

### **VI. Oregon State experiment to reduce crossover collisions in a narrow median**

FYI. Oregon State has a pilot project where they are installing high-tension cable in a median, which is only 8 feet wide. Although this placement does not meet our current guidelines, Oregon DOT Officials initiated this installation to reduce median crossover accidents. A copy of a newspaper article was provided as Attachment4.

### **VII. Miscellaneous**

FYI. There is a research project (Titled - Finite Element Evaluation of Two Retrofit Options to Enhance the Performance of Cable Median Barriers) in progress. The options consist of 1) adjusting the cable height of the two bottom cables and 2) adding a fourth cable.

### **To Do List**

- Joel Howerton will develop a new special detail for Standard Drawing 862.01 (sheet 10 of 11). Once approved, Jay Bennett will send out a letter noting when the new detail will be required for usage.

- Roger Thomas and Garry Lee will further investigate possible solutions to closing off the median crossovers on I-95. Other Guardrail Committee Members may be called upon to assist with the review and further development viable solutions.
- Concerning the Reuse of Cable Guiderail, Roger Thomas will initiate contact with Mr. Bruce Jacobs. Mr. Jacobs is responsible for the training of Guardrail Installation and Repair for the Operations Branch of the Department. He provides this training through ITRE. Roger will make Mr. Jacobs aware that there appears to be a need in regards to additional training for the reuse of cable guiderail hardware.

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