

**2016 MnROAD/NCAT Cracking Group Construction
Weekly Construction Update
For the week of August 8, 2016**

Tolerancing of subbase was completed on Friday, August 5, allowing for hauling and placement of Class 6 aggregate base material to begin on Monday, August 8. The base is being constructed in two 6 inch lifts in both passing and driving lanes. Samples for MnROAD research purposes were taken from the first lift of Cell 16, which consisted of 5, 5 gallon pails. The first lift of base in Cells 16-19 was completed on Monday, followed by placement of the first lift in the driving lane of Cell 16. Base samples taken by WSB & Associates were sent to the MnDOT St. Cloud lab for gradations.



Figure 1: Hauling of Class 6 Aggregate Base



Figure 2: Grading of Passing Lane Class 6 Aggregate Base



Figure 3: Compaction of Class 6 Aggregate Base with Rubber Tire Roller

Hauling continued on Tuesday, August 9. Grading and compaction of the passing lane in Cells 16-19 was completed, allowing MnROAD staff to locate and extend conduit in Cells 17 and 19. Conduit will be used during the sensor installation process in the coming weeks of construction.



Figure 4: Locating and Uncovering Conduit in Cell 17



Figure 5: Uncovered Conduit Cap in Cell 17



Figure 6: Installation of Conduit Riser

Samples were taken from the first lift in the passing lane in Cells 17-19 on Tuesday, totaling in 5, 5 gallon pails from each cell.

Operations on Wednesday, August 10 focused on identifying a rolling pattern to obtain satisfactory compaction. A steel and rubber tire roller were used to attempt to gain acceptable compaction in the first 6 inch lift of aggregate base in the driving lane. The tentative plan was to resume hauling material on Thursday, August 11, permitting test results were passing.

Two meetings were held on Thursday, August 11. In addition to the weekly construction meeting, a discussion on bituminous density requirements was also held. At this meeting it was decided that the mean adjusted density for the first lift of asphalt pavement to be greater than 91.5% of maximum density, and the second lift to be greater than 92.0%. Trial mix paving is set to begin on Wednesday, August 17, with sensor installation happening at this time as well. A pre-activity meeting for test section paving will also be held on Wednesday, August 17 as those involved with paving will be on-site during this time. As 3 days are reserved for sensor installation, paving of Cells 16-19 is set to begin on Monday, August 22.

On Friday, August 12, moisture tests were conducted on the first lift of base in the driving lane by American Engineering Testing (AET) and DCPs were taken by WSB & Associates, Inc. It was found that the material was passing and that New Look would continue to haul and place Class 6 on Saturday, August 13. This material would be the second lift on the driving lane of Cells 16-19.

On Saturday, hauling and placement of Class 6 was completed. Samples from the second lift of the driving lane were taken in Cells 16-19 for future MnDOT research purposes. Amounts taken from each cell consisted of 5, 5 gallon buckets.