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14. Supplementary Notes			
15. Abstract <u>Purpose and Need</u> Improving the ride quality of these pavements is part of the NDDOT Strategic Business Plan Objective 1.3. It is assumed that stop/start operation of the HBP paver can result in rough pavement. Variation in paver speed can be the result of plant production rate, truck delivery, hauling distance, or equipment operator expertise. In addition to improving ride quality, research from (NCHRP 1-31 Smoothness Specification for Pavements) has indicated that pavement life may be extended by improving initial smoothness. <u>Objective</u> The objective of this project is to determine if there is a correlation between paver motion and the ride quality of new hot bituminous pavements. <u>Scope</u> A lightweight inertial profiler evaluated the new asphalt section. A GPS unit was placed on the paver to record its motion during the paving of the asphalt section. After the project was finished, the lightweight inertial profiler obtained the final profile of the roadway. The paver's motion was then compared to the measured profile of the roadway. Using the captured data from the profiler, GPS unit and the project engineer's comments; conclusions and recommendations for optimizing paving operations will be given. <u>Construction</u> The widening and re-grading of the roadway and the first lift of the asphalt section was completed in the 2003, as part of project AC-HPP-4-052(045)058. Project AC-HPP-4-052(045)058 the intermediate and final lifts of HBP was constructed in 2004. Steve Sink from the Minot District the project engineer and Mayo Construction from Cavalier, ND was the prime contractor. <u>Conclusion</u> Attempting to keep the paver motion constant and limiting the number of paver stops would be recommended as a result this project. It may be impossible to eliminate the paver from stopping, but the number of stops may be reduced by altering paving methods. Also, the length of stops may help reduce the size of the bump. Making the base and first asphalt lift as smooth as possible to reduce the bumps from reflecting there the final lifts is also recommended. Trying to improve aspects of paving may help in improving the ride.			
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