

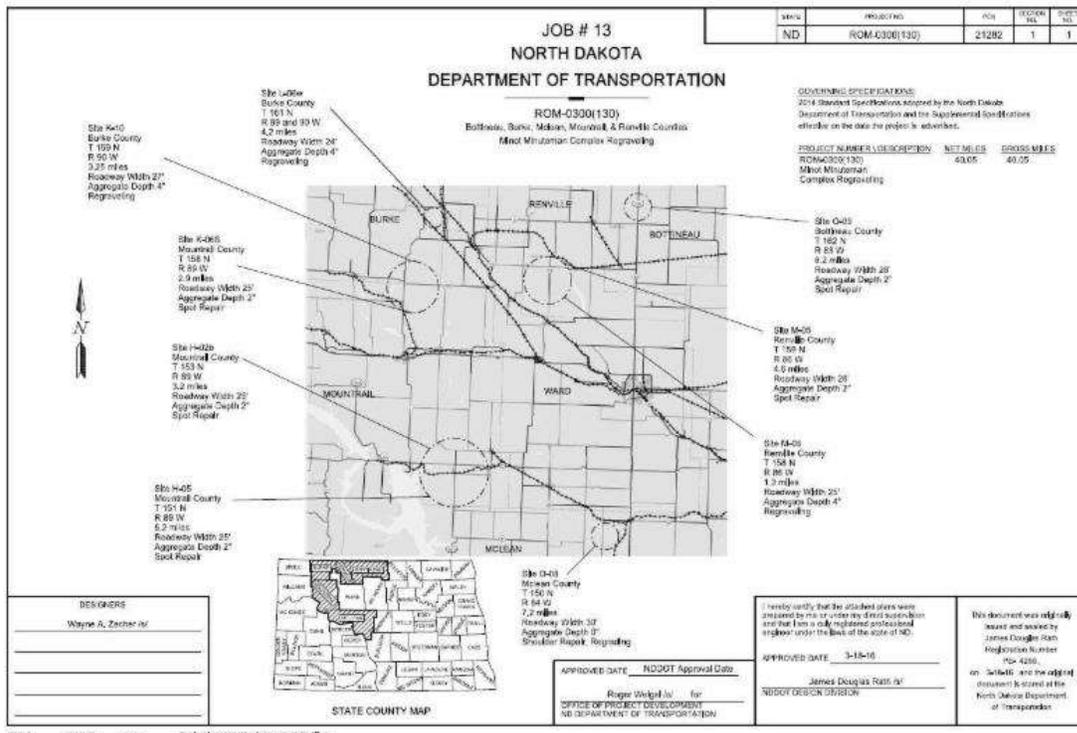


Better Gravel = Better Roads



Submitted by Dale Heglund, PE/PLS

Aggregate surfacing specifications remain a focus item for NDLTAP's technology transfer efforts to build a better roadway network in North Dakota. Since nearly 60,000 miles of local roadway miles in the state are gravel surfaced, it makes sense to develop a statewide standard for gravel that improves the roadway surface at a reduced life-cycle cost, all with a focus to save the tax payers money and to improve roadway safety. Poor gravel washboards, ruts, has excess float, is dusty and does not work well with chloride and other stabilizing and dust control agents. Combined with a good roadway section that has 4% cross-slope, good gravel provides a tight, water-resistant surface that provides a quality driving surface.



Missile Roads to the Rescue! Mark Schrader, FHWA Engineer, is the project lead for the current missile road regraveling project. Keeping nuclear missile trucks upright and on the road is mission critical. Good roads are key to the success of missile movements via special 134k# GVW trucks. With just over 300 miles of missile roads in eight counties (i.e., Mountrail, McLean, Ward, McHenry, Renville, Burke, Bottineau and Sheridan), North Dakota's missile roads provide the perfect opportunity and need for improved gravel surfacing. DOD funding is funneled through the FHWA office to the NDDOT for design work and bidding. Mark and Bryon Fuchs, NDDOT Local Government Engineer, were able to add a PI specification onto this year's missile regraveling project. To insure that the new spec is meeting project needs, Mark set-up a field review of the production, laydown and roadway review. Curt Glasoe and I were able to join the group - FHWA, Air Force Engineering, Wold Engineering, Farden Construction, Aggregate Industries, NDDOT Local Government, Ward County, NDDOT Minot District, and Bottineau County representatives. Overwhelmingly, the group supported the need to improve aggregate surfacing quality and the need for clay as the binder of choice. I was impressed by the ideas that were tossed out as ways to further advance the gravel surfacing through section testing and maintenance modifications.



North Dakota is one step closer to locking into an aggregate surfacing specification that includes a clay binder specification.

Better Roads = Safer Roads



NOTES

STATE	PROJECT NO.	SECTION NO.	SHEET NO.
ND	ROM-0300(130)	6	1

302-P04 AGGREGATE SURFACE COURSE CL 13: Provide a Class 13 Aggregate with a Plasticity Index (PI) ranging from 4 to 9 and meet the requirements of Section 816.02, "Miscellaneous Aggregates". The PI is to be determined in accordance with test ND T 90, "Determining the Plastic Limit and Plasticity Index."

A contract adjustment will be administered if the PI is not within the specified range. The Engineer will determine the PI adjustment factor if the limits for PI are exceeded, as calculated:

$$PI \text{ Adjustment Factor} = 5 \text{ percent} \times (\text{Average of 3 Samples} - \text{Allowable PI})$$

If the PI is determined to be greater than 12, the material will be rejected.

***NEW* NDLTAP TRAINING**

NDLTAP has developed in partnership with TrueNorth Steel 2 pilot workshops - **Local Roads Corrugated Metal Pipe (CMP)**.



This training will empower a public agency with the ability to install/replace small culverts with their own assets, which stretches budgets and increases project opportunities. The training will consist of approximately 2 hours classroom instruction and 5 hours of hands-on training in the field.

Workshop dates:

Sept. 20, 2016 - Morton County Highway Department, 2916 37th St. NW, Mandan, ND
8:00 AM to 3:00 PM (CT)

Registration deadline Sept.15, 2016

\$50.00 (entities will be invoiced after the training session)

Sept. 27, 2016 - Lake Region State College, 1801 College Dr., Devils Lake, ND
8:00 AM to 3:00 PM (CT)

Registration deadline Sept.20, 2016

\$50.00 (entities will be invoiced after the training session)

Class will be limited to 30 participants

Target Audience: County, township and small community personnel.

[Click here for registration details](#)



[Click here for bus trip and conference registration](#)

Don't miss any training opportunities - check out [NDLTAP Training Schedule and Conferences](#) for 2016 - 2017.

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