



# North Dakota Department of Transportation

Grant Levi, P.E.  
Director

Doug Burgum  
Governor

March 13, 2017

## ADDENDUM 1 – JOB 29

TO: All prospective bidders on project SS-8-032(040)011, Job No. 29 scheduled for the March 17, 2017 bid opening.

The following plan revisions shall be made:

Plan Revisions:

**Remove and replace sheet 6-1 with the enclosed sheet revised 3/13/17.**

Sheet 6-1:

Note 704-P01 PORTABLE RUMBLE STRIPS was revised.

This addendum is to be incorporated into the bidder's proposal for this project.

*For*   
CAL J. GENDREAU – CONSTRUCTION SERVICES ENGINEER  
80:plm  
Enclosure

**NOTES**

|          |       |                  |             |           |
|----------|-------|------------------|-------------|-----------|
| 03/13/17 | STATE | PROJECT NO.      | SECTION NO. | SHEET NO. |
|          | ND    | SS-8-032(040)011 | 6           | 1         |

**GENERAL NOTES**

107-111 RAILROAD PROTECTIVE LIABILITY INSURANCE: This project crosses the Dakota, Missouri Valley & Western Railroad Company at RP 12.152. The type of work that will be performed within the railroad right of way is Chip Seal. Direct inquiries regarding protective liability insurance to:

JEFF WOOD  
 Executive Vice President  
 Dakota, Missouri Valley & Western Railroad, Inc.  
 3501 East Rosser Avenue  
 Bismarck, ND 58501  
 701-223-9282 off.  
 jwood@dmvwr.com

Obtain information regarding crossing number 690399D from the Federal Railroad Administration website: <http://safetydata.fra.dot.gov/Officeofsafety/>

107-710 HAUL ROADS: Before submitting a proposal, contact the appropriate State, County, Township, or City officials to determine if there are any roadways that will be designated as "no haul routes".

401-P01 FOG SEAL: Apply a fog seal to the sloughs a minimum of 1 day before applying seal oil and chips. Apply the fog seal using emulsified asphalt at a rate of 0.12 gallons per square yard.

420-P01 BLOTTER MATERIAL CL 44: In addition to preventing bleeding on the roadway etc., apply blotter material to all major intersections for maintenance, bleeding, and protection of the chips/asphalt from turning movements. An estimated 40 ton is provided.

420-P02 BITUMEN: Apply the bituminous material at a rate such that residue bituminous binder would embed 70% of the aggregate height used for cover coat material.

420-P03 COVER COAT MATERIAL CL 41-M: Within one minute following the application of the bitumen, spread the cover coat material uniformly over the bituminous material with an aggregate spreader. All aggregate used for cover coat should be tightly bound/packed and any small voids caused by the irregular shapes of the aggregate filled with residue asphalt. Produce bituminous seal coat free from bleeding and poor aggregate embedment.

The acceptance of the cover coat material will be as follows:  
 The Engineer will collect and test three samples for each lot of material. A lot is defined as 96,000 SY. If the final lot is less than 48,000 SY, the Engineer will include it in the previous lot, if greater than 48,000 SY, the Engineer will sample it as a separate lot. If the average of the three samples does not meet the gradation specified, the Engineer will either reduce the contract unit price, as specified in Section 420.06, "Basis of Payment", or reject the material. Do not incorporate the additional material if two consecutive lots deviate from the

gradation. Restart placement operations after taking corrective actions and passing a gradation test.

420-P04 EMULSIFIED ASPHALT: Use an Emulsified Asphalt that meets the following requirements:

| Test   | CHFRS-2P Specification |         | AASHTO Method |
|--|------------------------|---------|---------------|
|  | Minimum                | Maximum |               |
| Viscosity, Saybolt Furol @ 122°F, Sec                      | 100                    | 400     | T-59          |
| Storage Stability Test, 1Day, %                            | ---                    | 1       | T-59          |
| Demulsibility, 35 ml 0.8% Sodium Dioctyl Sulfosuccinate, % | 60                     | ---     | T-59          |
| Sieve Test, %  | ---                    | 0.10    | T-59          |
| Particle Charge Test                                       | Positive               |         | T-59          |

| Test                                     | Specification |         | AASHTO Method |
|--|---------------|---------|---------------|
|  | Minimum       | Maximum |               |
| Distillation Test: (1)                   |               |         |               |
| Oil Distillate, By Volume of Emulsion, % | ---           | 0.5     | T-59          |
| Residue, % by Wt                         | 65            | ----    | T-59          |
| Test on Distillation Residue:            |               |         |               |
| Polymer Content, wt. % (solids base)     | 3.0           | ----    | TEX-533-C     |
| Softening Point, °F                      | 130           |         | T-53          |
| Float Value at 140°F, Sec                | 1800          | ----    | T-50          |
| Penetration 77°F, 100G, 5 Sec.           | 90            | 160     | T-49          |
| Viscosity @ 140°F, Poise                 | 1300          | ----    | T-202         |
| Solubility in Trichloroethylene, %       | 95            | ----    | T-44          |
| Elastic Recovery @ 10°C(50°F), % (2)     | 55            | ----    | T-301         |

(1) Exception to AASHTO T-59: Bring the temperature on the lower thermometer to 350°F plus or minus 10°F. Maintain at this temp. for 20 minutes. Complete total distillation in 60 plus or minus 5 minutes from first application of heat.  
 (2) Elastic Recovery @ 10°C(50°F): Hour glass sides, pull 20 cm, hold 5 minutes then cut, let sit 1 hour.

704-P01 PORTABLE RUMBLE STRIPS: Provide rumble strips made of rubber or engineered polymers. Rumble strips may be composed of interlocking segments, have a hinge at the midpoint, or consist of a single piece. Meet the following criteria for the rumble strips:

- Use a minimum of 3 strips in each array.
- Have no adhesives or fasteners required for placement.
- Manufacturer speed rating shall meet or exceed the posted speed.

Move rumble strips with the flagging operation. Do not place rumble strips on horizontal curves. The Engineer will count and measure each array as one. Include the cost of obtaining, installing, maintaining, and relocating the portable rumble strips in the unit price bid for "Portable Rumble Strips".

This document was originally issued and sealed by Duane Carlstrom, Registration Number PE-5832, on 03/13/17 and the original document is stored at the North Dakota Department of Transportation.