

April 9, 2021

Re: Project P 016A(08)59, PCN 04FU – US16A Keystone Wye Pre-Bid Meeting

To Whom It May Concern,

A pre-bid meeting for the Keystone Wye Bridge Rehabilitation project is being held on April 22<sup>nd</sup>, 2021 at 3:00 PM CST via Microsoft Teams. Interested contracting parties are invited to attend virtually via the Microsoft Teams Meeting Link provided below.

This meeting will include a presentation of the project covering topics such as the overall scope of work, design aspects, traffic control, and contract time. There will be an opportunity for contractors to present questions to Department staff, consultants, and project stakeholders.

Attendance is not a requirement, but all interested contracting parties are strongly encouraged to attend.

If attending the meeting you must join the meeting via the link provided. In order to reduce sound feedback please mute the microphone on your computer. Due to the meeting being virtual we are requesting that you please enter the name of your company followed by the individuals from your company attending the meeting into the chat feature of Microsoft Teams.

### [Join Pre-Bid Meeting](#)

Date: April 22, 2021

Time: 3:00 – 4:30 (CST)

Video Conference ID: 118 401 985 2

Additional instructions regarding the meeting format will be provided at the beginning of the meeting.

Sincerely,

SD DOT

# SECTION M: PAVEMENT MARKING PLANS

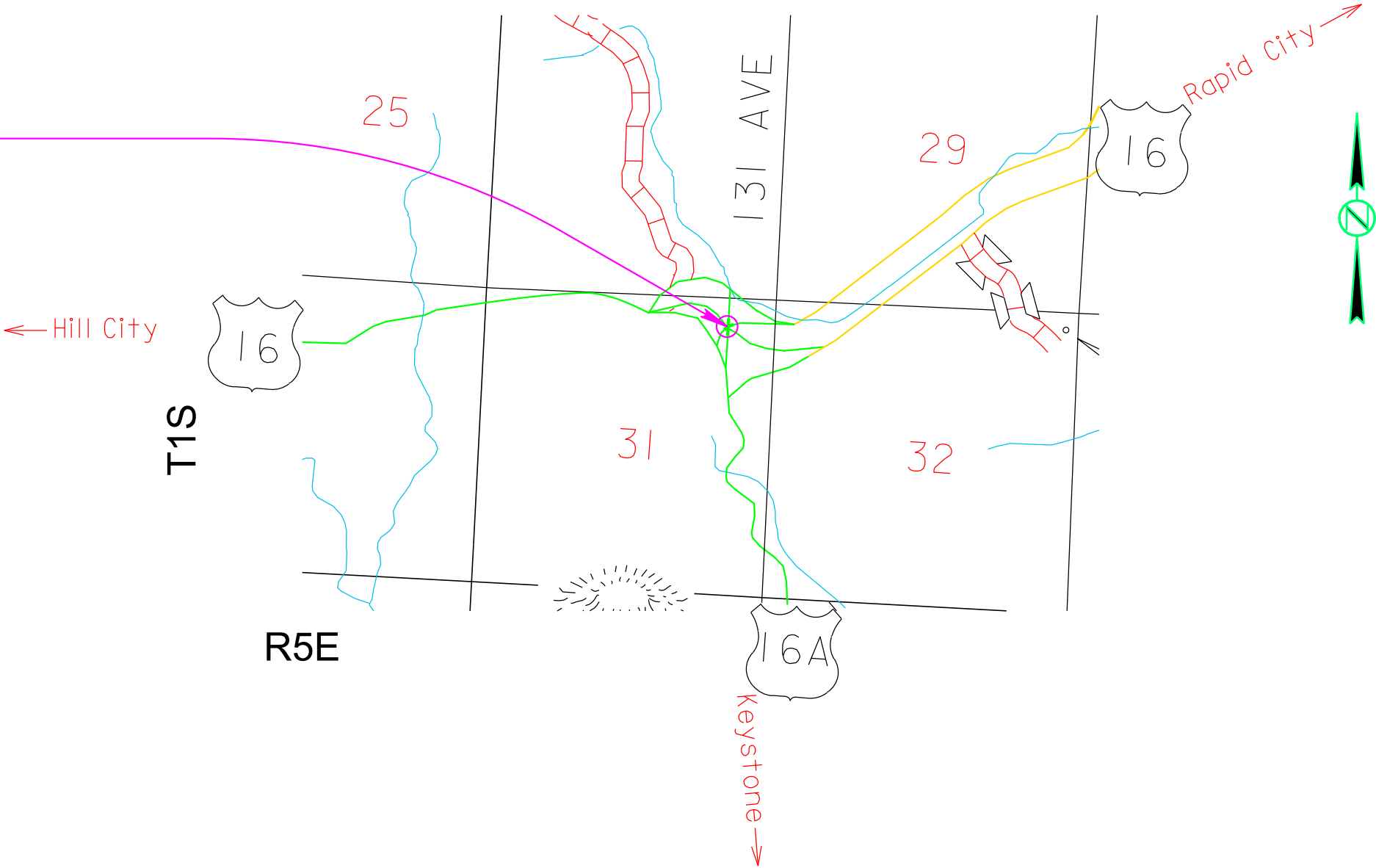
STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	P 016A(08)59	M1	M2

Plotting Date: 05/01/2020

## INDEX OF SHEETS

M1	General Layout with Index
M2	Estimate with General Notes & Tables

PROJECT 016A(08)59  
16A EB, MRM 59.44, Str. No. 52-308-412  
16A WB, MRM 59.46, Str. No. 52-308-411



SECTION M ESTIMATE OF QUANTITIES

BID ITEM NUMBER	ITEM	QUANTITY	UNIT
633E0010	Cold Applied Plastic Pavement Marking, 4" Yellow	154	Ft
633E0020	Cold Applied Plastic Pavement Marking, 8" White	147	Ft
633E0025	Cold Applied Plastic Pavement Marking, 12" White	154	Ft
633E1220	High Build Waterborne Pavement Marking Paint, 4" White	1009	Ft
633E1222	High Build Waterborne Pavement Marking Paint, 4" Yellow	1255	Ft
633E5050	Surface Preparation for Pavement Marking	910	Ft

PERMANENT PAVEMENT MARKING – GENERAL NOTES

Paint edge lines to match existing pavement marking at the beginnings and ends of the newly paved sections of the bridge decks. Yellow edge line is approximately 2' from edge of pavement; white edge line is approximately 10' from edge of pavement; the single traffic lane across each bridge is 14' wide.

Re-paint edge lines or re-apply cold-applied plastic pavement marking to match existing pavement marking where edge lines have been removed once use of the traffic diversion turning locations has been discontinued.

COLD APPLIED PLASTIC PAVEMENT MARKING

All materials will be applied as per the manufacturer’s recommendations.

Cold Applied Plastic Pavement Markings will be 3M Series 380 AW or an approved equal.

HIGH BUILD WATERBORNE PAVEMENT MARKING PAINT

All materials will be applied as per manufacturer’s recommendations.

This material will consist of a durable high build, low VOC, fast drying, waterborne traffic paint with a 100% acrylic polymer (Arkema DT-400, Dow HD-21A, or equivalent). The Contractor will provide certification that the material is one of the following products or an equivalent as approved by the Operations Traffic Engineer:

- Diamond Vogel's Waterborne High Build Polymer Marking Paint
- Ennis-Flint’s High Build Polymer Marking Paint

No further testing of this material will be required. Reflective media will consist of glass beads.

RATES OF MATERIALS FOR HIGH BUILD WATERBORNE PAVEMENT MARKING PAINT

Solid 4” line = 22.5 Gals/Mile  
Glass Beads = 8 Lbs/Gal.

All cost for materials, labor and equipment necessary to furnish and install the pavement markings will be incidental to the contract unit price for the respective High Build Waterborne Pavement Marking Paint items.

RETROREFLECTIVITY FOR PAVEMENT MARKING PAINT

The Department may take retroreflectivity readings on the pavement marking lines after 2 days and within 30 days of the line application using either a portable or mobile retroreflectometer that conforms to 30-meter geometry. If the Department chooses to take retroreflectivity readings, three retroreflectivity readings will be taken on each line at each test location. The three readings will be averaged and become the reading for that test location.

If the Department chooses to take retroreflectivity readings, three readings will be taken on the edge lines and lane lines in the direction of application. For combination solid yellow and skip yellow lines for turn lanes and for centerline markings on two-way roadways, three readings will be taken in one direction, the reflectometer will be turned 180 degrees and three more readings will be taken. The six readings for the centerline markings will be averaged and become the test reading for that test location.

If the Department chooses to take readings, the minimum retroreflectivity values will be 275 mc/m²/lux for white and 170 mc/m²/lux for yellow.

TABLE OF PERMANENT PAVEMENT MARKING QUANTITIES

LOCATION	4” WHITE, FT	4” YELLOW, FT	4” YELLOW TAPE, FT	8” WHITE TAPE, FT	12” WHITE TAPE, FT
16A WB (MRM 59.46) Str. No. 52-308-411	554	553			
16A EB (MRM 59.44) Str. No. 52-308-412	401	389			
Northeast Traffic Diversion Turning Location		112	154	147	154
South Traffic Diversion Turning Location	54	201			
Total:	1009	1255	154	147	154

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	P 016A(08)59	M2	M2

SURFACE PREPARATION FOR PAVEMENT MARKING

The Contractor will prepare the pavement surface prior to applying the durable pavement marking in accordance with the following.

In areas where the existing groove meets the required depth and existing markings are still in place, the Contractor will clean the existing groove without adding additional depth beyond the required depth for the new pavement marking, including reflective media as noted below.

Description	Specification	Tolerance
Depth of Groove	Marking Thickness <sup>1</sup> + 15 mils	+ 5 mils

<sup>1</sup> Marking thickness will include the thickness of marking material and reflective media.

The cleaning will result in the existing pavement marking being adequately scuffed, abraded, and removed by light grinding or abrasive blasting or both to allow proper adhesion of the new durable pavement marking as per the manufacturer’s recommendations to comply with product warranties.

Existing grooves not meeting the required depth will be re-grooved to the required depth for the new pavement marking, including reflective media. Equipment for grooving will be capable of the following:

- Grooving the total width of the groove in one pass or uniform depths with multiple passes.
- Grooving without causing damage to the pavement joints or joint sealant material.
- Provide uniform alignment and depth.
- Moving continuously to permit a mobile traffic work operation.

All costs associated with cleaning of the existing groove, including re-grooving, if needed, will be included in the contract unit price per foot for “Surface Preparation for Pavement Marking”. Surface preparation will be measured as 4” equivalent.