



# Department of Transportation

## Office of Project Development

700 E Broadway Avenue

Pierre, South Dakota 57501-2586 605/773-3268

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April 13, 2016

### ADDENDUM NO. 1

**RE: Item #12, April 20, 2016 Letting - P 0032(30), PCN 05KF, Hughes, Hyde, Potter, Sully County - Crack Leveling**

#### TO WHOM IT MAY CONCERN:

The following addenda to the plans shall be inserted and made a part of your proposal for the referenced project.

**SPECIAL PROVISIONS:** NO CHANGE

**BID ITEM FILE:** *Bidders must log in to retrieve the addendum bid item file that must be loaded into the SDEBS to incorporate the revisions listed here.*

**Bid Item was added:**

Bid Item 634E0410 "Type B Advance Warning Arrow Board"

**Quantities for Bid Items were changed:**

Bid Item 320E0402 "Asphalt Repair Mastic Type 2" changed from 76,328 to 114,097 Lb

Bid Item 634E0010 "Flagging" changed from 300 to 450 Hour

Bid Item 634E0020 "Pilot Car" changed from 150 to 225 Hour

Bid Item 634E0110 "Traffic Control Signs" changed from 212 to 371 SqFt

**PLANS:** Please destroy sheets 1, 3, 5, and 7 and replace with the enclosed sheets, dated 4/11/16. Sheets 2A, 2B, and 5A were added.

**Sheet 1:** Sully County and SD Highway 1804 were added and INDEX OF SHEETS was revised.

**Sheets 2A & 2B:** Layout Maps were added.

**Sheet 3:** **Bid Item was added:**

Bid Item 634E0410 "Type B Advance Warning Arrow Board"

**Quantities for Bid Items were changed:**

Bid Item 320E0402 "Asphalt Repair Mastic Type 2" changed from 76,328 to 114,097 Lb

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Bid Item 634E0020 "Pilot Car" changed from 150 to 225 Hour

Bid Item 634E0110 "Traffic Control Signs" changed from 212 to 371 SqFt

**Sheet 5**: ITEMIZED LISTS FOR TRAFFIC CONTROL for US212 (city of Gettysburg) and SD1804 were added.

**Sheet 5A**: Added sheet to Add Table Quantities for US212 (city of Gettysburg) and SD1804

**Sheet 7**: Standard Plate 634.47 was added.

Sincerely,

Sam Weisgram  
Engineering Supervisor

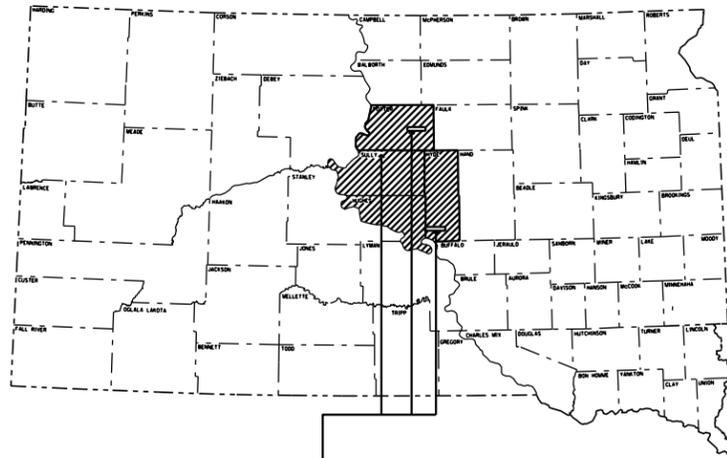
SW/cj

CC: John Forman, Pierre Region Engineer  
Dean VanDeWiele, Pierre Area Engineer

STATE OF SOUTH DAKOTA  
DEPARTMENT OF TRANSPORTATION  
PLANS FOR PROPOSED

|             |            |           |              |
|-------------|------------|-----------|--------------|
| STATE OF SD | PROJECT    | SHEET NO. | TOTAL SHEETS |
|             | P 0032(30) | 1         | 7            |

Revised by *EFM* on 02/22/2016  
Revised by VAM on 04/11/2016



PROJECT

**PROJECT P 0032(30)**  
**SD HIGHWAYS 34 & 1804**  
**& US HIGHWAY 212**  
**HUGHES, HYDE, POTTER,**  
**& SULLY COUNTIES**

ASPHALT CONCRETE CRACK LEVELING  
PCN 05KF

**INDEX OF SHEETS**

|                 |                                       |
|-----------------|---------------------------------------|
| Sheet Nos. 1-2B | Title Sheet & Layout Map              |
| Sheet Nos. 3-5A | Estimate of Quantities and Plan Notes |
| Sheet No. 6     | Typical Reservoir Section             |
| Sheet No. 7     | Traffic Control                       |

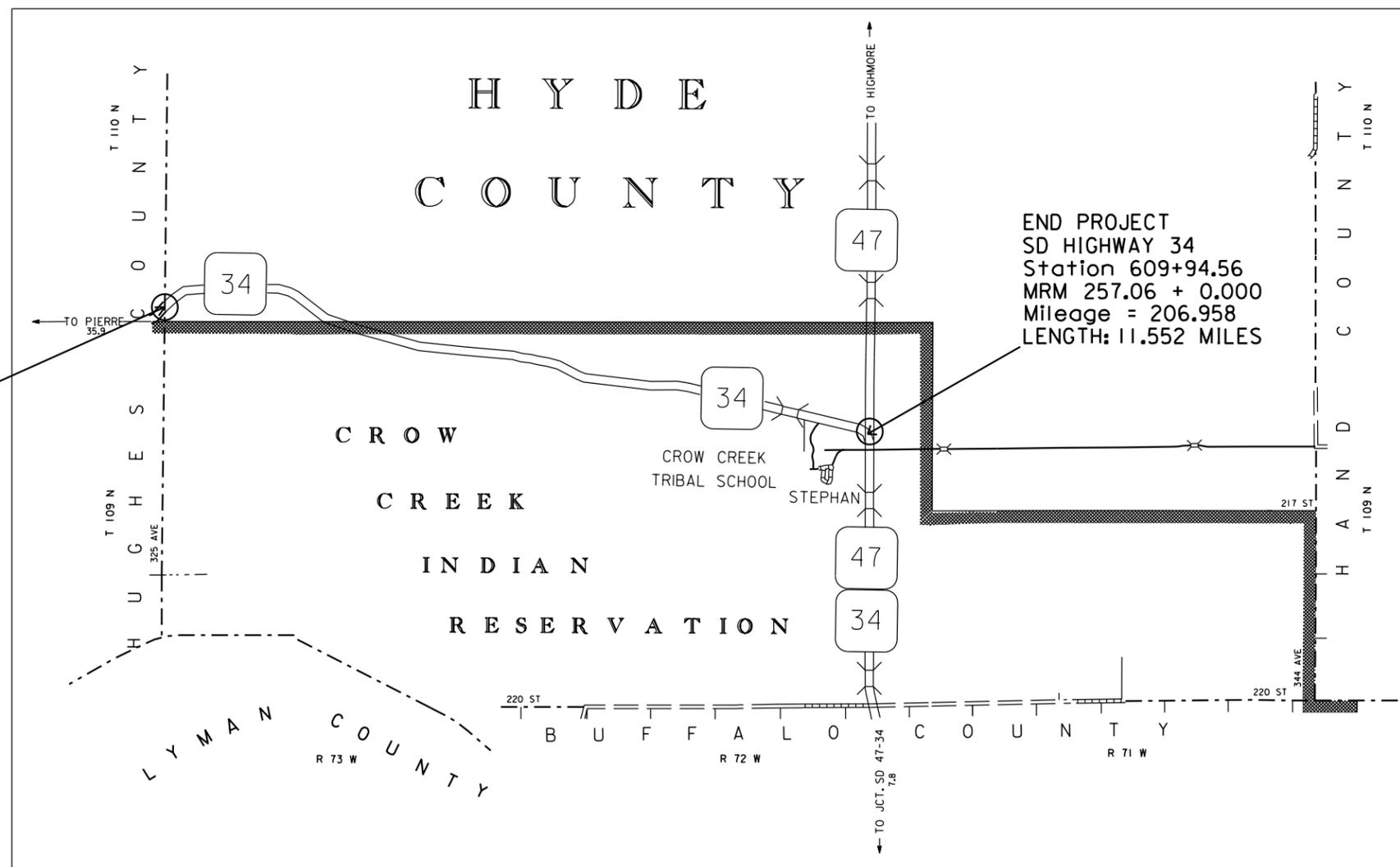
BEGIN PROJECT  
SD HIGHWAY 34  
Station 0+00  
MRM 245.00 + 0.498  
Mileage = 195.406

END PROJECT  
SD HIGHWAY 34  
Station 609+94.56  
MRM 257.06 + 0.000  
Mileage = 206.958  
LENGTH: 11.552 MILES

SD 34  
HYDE COUNTY  
MRM 245.56 to 257.04

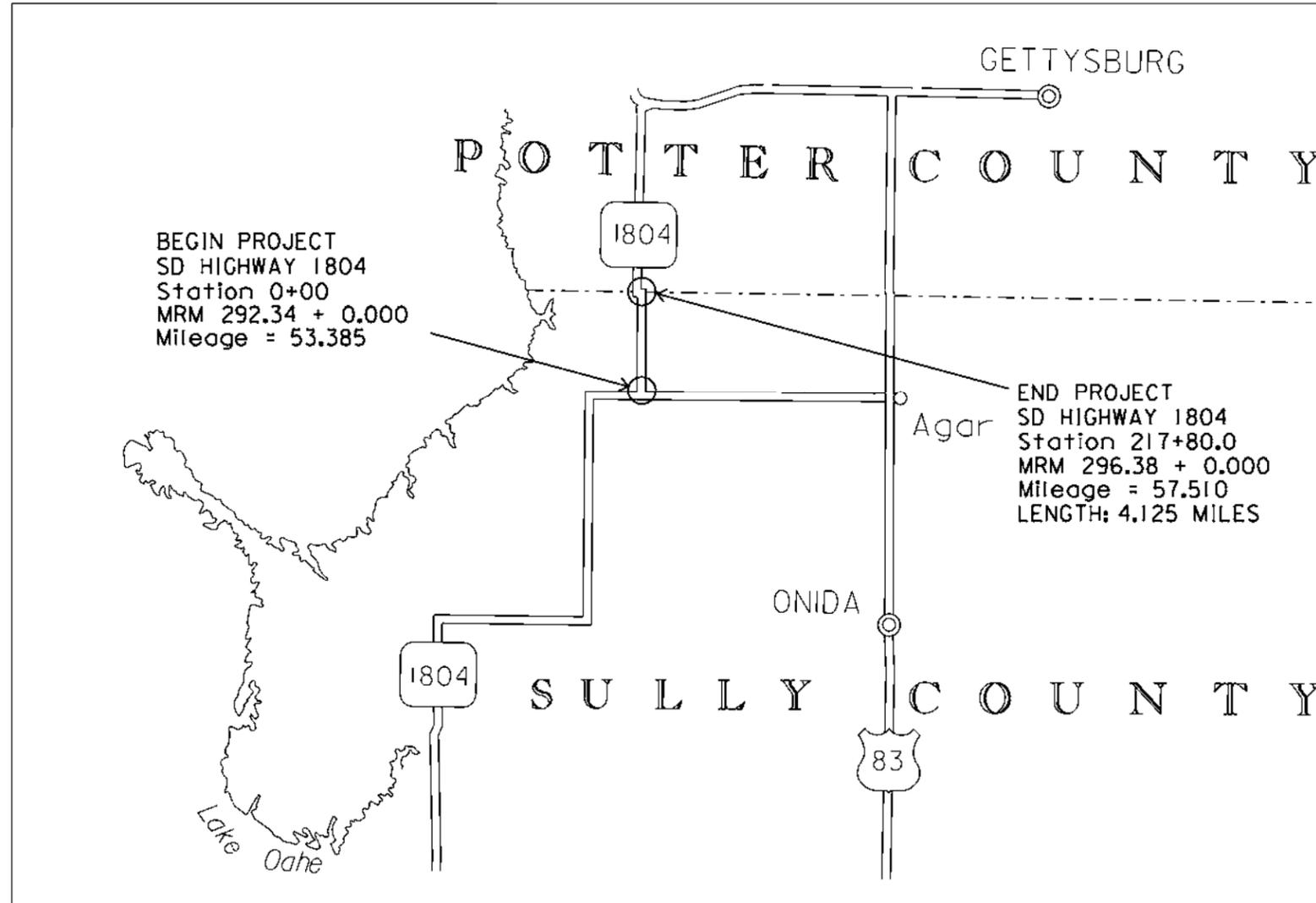
DESIGN DESIGNATION

|            |       |
|------------|-------|
| ADT (2014) | 540   |
| ADT (2034) | 691   |
| DHV        | 58    |
| D          | 51%   |
| T DHV      | 2.8%  |
| T ADT      | 18.8% |



STORM WATER PERMIT  
No Permit Required

# Sully County Layout Map



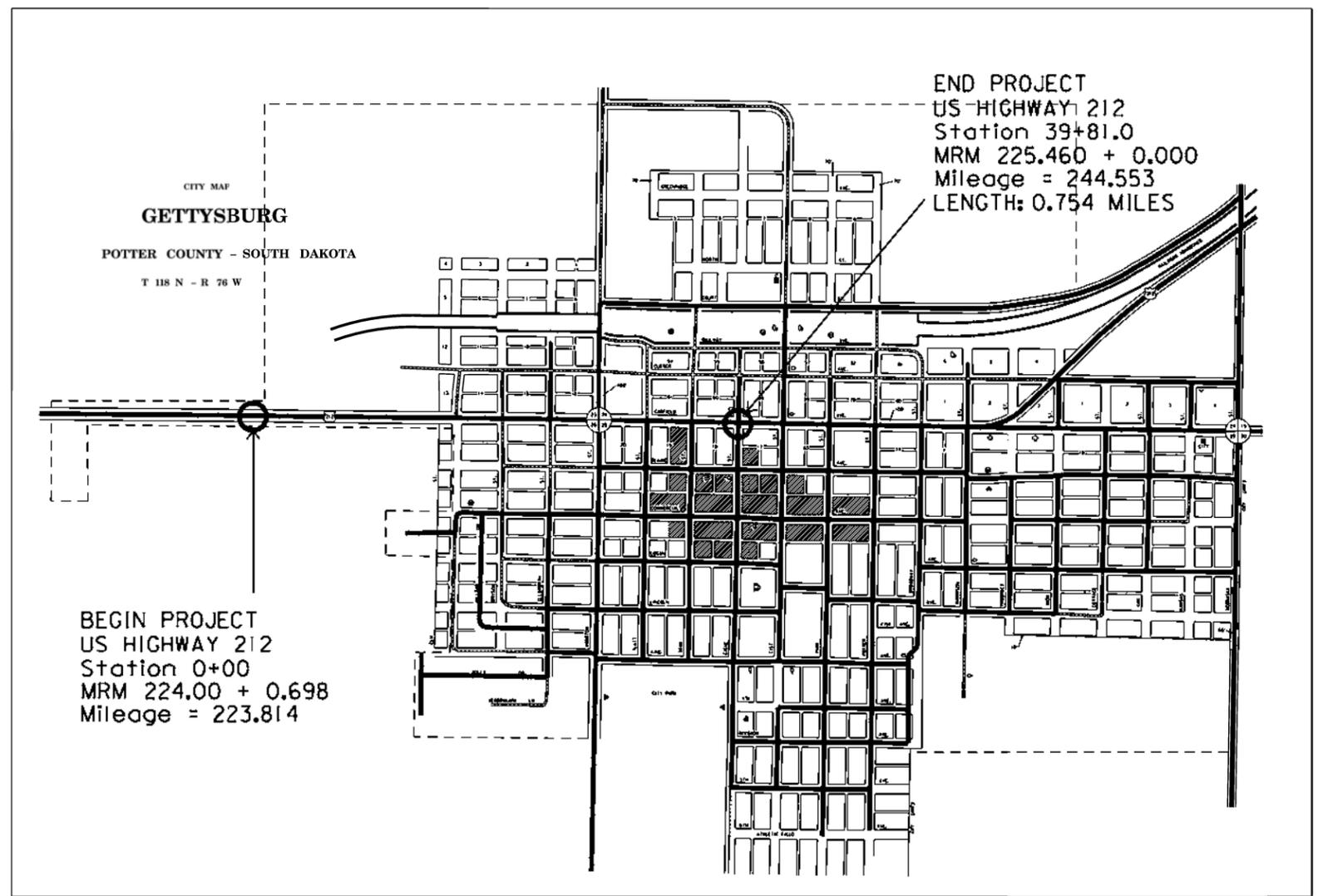
SD 1804  
SULLY COUNTY  
MRM 292.34 to 296.38

DESIGN DESIGNATION

|            |       |
|------------|-------|
| ADT (2015) | 175   |
| ADT (2035) | 205   |
| DHV        | 26    |
| D          | 50%   |
| T DHV      | 5.7%  |
| T ADT      | 12.5% |

STORM WATER PERMIT  
No Permit Required

# US Hwy 212 City of Gettysburg Potter County Layout Map



US 212  
POTTER COUNTY  
MRM 224.00+0.698 to 225.46

DESIGN DESIGNATION

|            |       |
|------------|-------|
| ADT (2015) | 1848  |
| ADT (2034) | 1883  |
| DHV        | 237   |
| D          | 50%   |
| T DHV      | 6.4%  |
| T ADT      | 14.1% |

BEGIN PROJECT  
US HIGHWAY 212  
Station 0+00  
MRM 224.00 + 0.698  
Mileage = 223.814

END PROJECT  
US HIGHWAY 212  
Station 39+81.0  
MRM 225.460 + 0.000  
Mileage = 244.553  
LENGTH: 0.754 MILES

STORM WATER PERMIT  
No Permit Required

|          |            |           |              |
|----------|------------|-----------|--------------|
| STATE OF | PROJECT    | SHEET NO. | TOTAL SHEETS |
| SD       | P 0032(30) | 3         | 7            |

**ESTIMATE OF QUANTITIES**

| BID ITEM NUMBER | ITEM                               | QUANTITY | UNIT |
|-----------------|------------------------------------|----------|------|
| 009E0010        | Mobilization                       | Lump Sum | LS   |
| 320E0402        | Asphalt Repair Mastic Type 2       | 114,097  | Lb   |
| 634E0010        | Flagging                           | 450.0    | Hour |
| 634E0020        | Pilot Car                          | 225.0    | Hour |
| 634E0110        | Traffic Control Signs              | 371.0    | SqFt |
| 634E0120        | Traffic Control, Miscellaneous     | Lump Sum | LS   |
| 634E0410        | Type B Advance Warning Arrow Board | 1        | Each |

**SPECIFICATIONS**

Standard Specifications for Roads & Bridges, 2015 Edition and Required Provisions, Supplemental Specifications and Special Provisions as included in the Proposal.

**ENVIRONMENTAL COMMITMENTS**

An Environmental Commitment is a measure that SDDOT commits to implement in order to avoid, minimize, and/or mitigate a real or potential environmental impact. Environmental commitments to various agencies and the public have been made to secure approval of this project. An agency mentioned below with permitting authority can influence a project if perceived environmental impacts have not been adequately addressed. Unless otherwise designated, the Contractor's primary contact regarding matters associated with these commitments will be the Project Engineer. These environmental commitments are not subject to change without prior written approval from the SDDOT Environmental Office. The environmental commitments associated with this project are as follows:

**COMMITMENT B: FEDERALLY THREATENED, ENDANGERED, AND PROTECTED SPECIES**

**COMMITMENT B2: WHOOPING CRANE**

The Whooping Crane is a spring and fall migratory bird in South Dakota that is about 5 feet tall and typically stops on wetlands, rivers, and agricultural lands along their migration route. An adult Whooping Crane is white with a red crown and a long, dark, pointed bill. Immature Whooping Cranes are cinnamon brown. While in flight, their long necks are kept straight and their long dark legs trail behind. Adult Whooping Cranes' black wing tips are visible during flight.

**Action Taken/Required:**

Harassment or other measures to cause the Whooping Crane to leave the site is a violation of the Endangered Species Act. If a Whooping Crane is sighted roosting in the vicinity of the project, borrow pit, or staging site associated with the project, cease construction activities in the affected area until the Whooping Crane departs and contact the Project Engineer. The Project Engineer will contact the Environmental Office so that the sighting can be reported to USFWS.

**COMMITMENT E: STORM WATER**

Construction activities constitute less than 1 acre of disturbance.

**Action Taken/Required:**

At a minimum and regardless of project size, appropriate erosion and sediment control measures must be installed to control the discharge of pollutants from the construction site.

**COMMITMENT H: WASTE DISPOSAL SITE**

The Contractor shall furnish a site(s) for the disposal of construction and/or demolition debris generated by this project.

**Action Taken/Required:**

Construction and/or demolition debris may not be disposed of within the State ROW.

The waste disposal site(s) shall be managed and reclaimed in accordance with the following from the General Permit for Construction/Demolition Debris Disposal Under the South Dakota Waste Management Program issued by the Department of Environment and Natural Resources.

The waste disposal site(s) shall not be located in a wetland, within 200 feet of surface water, or in an area that adversely affects wildlife, recreation, aesthetic value of an area, or any threatened or endangered species, as approved by the Project Engineer.

If the waste disposal site(s) is located such that it is within view of any ROW, the following additional requirements shall apply:

1. Construction and/or demolition debris consisting of concrete, asphalt concrete, or other similar materials shall be buried in a trench completely separate from wood debris. The final cover over the construction and/or demolition debris shall consist of a minimum of 1 foot of soil capable of supporting vegetation. Waste disposal sites provided outside of the State ROW shall be seeded in accordance with Natural Resources Conservation Service recommendations. The seeding recommendations may be obtained through the appropriate County NRCS Office. The Contractor shall control the access to waste disposal sites not within the State ROW through the use of fences, gates, and placement of a sign or signs at the entrance to the site stating "No Dumping Allowed".

2. Concrete and asphalt concrete debris may be stockpiled within view of the ROW for a period of time not to exceed the duration of the project. Prior to project completion, the waste shall be removed from view of the ROW or buried and the waste disposal site reclaimed as noted above.

The above requirements will not apply to waste disposal sites that are covered by an individual solid waste permit as specified in SDCL 34A-6-58, SDCL 34A-6-1.13, and ARSD 74:27:10:06.

Failure to comply with the requirements stated above may result in civil penalties in accordance with South Dakota Solid Waste Law, SDCL 34A-6-1.31.

Revised by VAM on 4/11/16

**ITEMIZED LISTS FOR TRAFFIC CONTROL**

**US Highway 212 (Rural Section)**

| SIGN CODE   | SIGN DESCRIPTION    | CONVENTIONAL ROAD |           |               |            |
|---|---------------------|-------------------|-----------|---------------|------------|
|   |                     | NUMBER            | SIGN SIZE | SQFT PER SIGN | SQFT       |
| W20-1   | ROAD WORK AHEAD     | 2                 | 48" x 48" | 16            | 32         |
| W20-4   | ONE LANE ROAD AHEAD | 2                 | 48" x 48" | 16            | 32         |
| W20-7   | FLAGGER (symbol)    | 2                 | 48" x 48" | 16            | 32         |
| G20-2   | END ROAD WORK       | 2                 | 36" x 18" | 5             | 10         |
| <b>CONVENTIONAL ROAD TRAFFIC CONTROL SIGNS SQFT</b> |                     |                   |           |               | <b>106</b> |

**SD Highway 34**

| SIGN CODE   | SIGN DESCRIPTION    | CONVENTIONAL ROAD |           |               |            |
|---|---------------------|-------------------|-----------|---------------|------------|
|   |                     | NUMBER            | SIGN SIZE | SQFT PER SIGN | SQFT       |
| W20-1   | ROAD WORK AHEAD     | 2                 | 48" x 48" | 16            | 32         |
| W20-4   | ONE LANE ROAD AHEAD | 2                 | 48" x 48" | 16            | 32         |
| W20-7   | FLAGGER (symbol)    | 2                 | 48" x 48" | 16            | 32         |
| G20-2   | END ROAD WORK       | 2                 | 36" x 18" | 5             | 10         |
| <b>CONVENTIONAL ROAD TRAFFIC CONTROL SIGNS SQFT</b> |                     |                   |           |               | <b>106</b> |

**US Highway 212 (City of Gettysburg)**

| SIGN CODE   | SIGN DESCRIPTION                 | CONVENTIONAL ROAD |           |               |           |
|---|----------------------------------|-------------------|-----------|---------------|-----------|
|   |                                  | NUMBER            | SIGN SIZE | SQFT PER SIGN | SQFT      |
| W4-2  | LEFT or RIGHT LANE ENDS (symbol) | 1                 | 48" x 48" | 16            | 16        |
| W20-1   | ROAD WORK AHEAD                  | 1                 | 48" x 48" | 16            | 16        |
| W20-5   | LEFT or RIGHT LANE CLOSED AHEAD  | 1                 | 48" x 48" | 16            | 16        |
| G20-2   | END ROAD WORK                    | 1                 | 36" x 18" | 5             | 5         |
| <b>CONVENTIONAL ROAD TRAFFIC CONTROL SIGNS SQFT</b> |                                  |                   |           |               | <b>53</b> |

**ARROW BOARDS**

| ITEM DESCRIPTION   | QUANTITY |
|--------------------|----------|
| Type B Arrow Board | 1 Each   |

Revised by VAM on 04/11/2016

**SD Highway 1804**

| SIGN CODE   | SIGN DESCRIPTION    | CONVENTIONAL ROAD |           |               |            |
|---|---------------------|-------------------|-----------|---------------|------------|
|   |                     | NUMBER            | SIGN SIZE | SQFT PER SIGN | SQFT       |
| W20-1   | ROAD WORK AHEAD     | 2                 | 48" x 48" | 16            | 32         |
| W20-4   | ONE LANE ROAD AHEAD | 2                 | 48" x 48" | 16            | 32         |
| W20-7   | FLAGGER (symbol)    | 2                 | 48" x 48" | 16            | 32         |
| G20-2   | END ROAD WORK       | 2                 | 36" x 18" | 5             | 10         |
| <b>CONVENTIONAL ROAD TRAFFIC CONTROL SIGNS SQFT</b> |                     |                   |           |               | <b>106</b> |

**TABLES OF ASPHALT REPAIR MASTIC TYPE 2**

| SD HWY 34 MRM 245.00+0.498 TO 257.06+0.000 |               |              |           |
|--|---------------|--------------|-----------|
| West to East                               | NO. OF CRACKS | CU FT/ MILE: | LBS/MILE: |
| 1 <sup>st</sup> Mile                       | 58            | 57           | 6612      |
| 2 <sup>nd</sup> Mile                       | 58            | 71           | 8236      |
| 3 <sup>rd</sup> Mile                       | 30            | 36           | 4176      |
| 4 <sup>th</sup> Mile                       | 28            | 41           | 4756      |
| 5 <sup>th</sup> Mile                       | 28            | 25           | 2900      |
| 6 <sup>th</sup> Mile                       | 18            | 9            | 1044      |
| 7 <sup>th</sup> Mile                       | 6             | 3            | 348       |
| 8 <sup>th</sup> Mile                       | 22            | 11           | 1276      |
| 9 <sup>th</sup> Mile                       | 38            | 26           | 3016      |
| 10 <sup>th</sup> Mile                      | 74            | 58           | 6728      |
| 11 <sup>th</sup> Mile                      | 98            | 80           | 9280      |
| 11.552 Mile                                | 22            | 27           | 3132      |

**SUBTOTAL POUNDS PER SD 34 = 51,504 LBS (Conversion factor of 116 lbs/Cu. Ft.)**

**TABLES OF ASPHALT REPAIR MASTIC TYPE 2 (Continued)**

**US HWY 212 MRM 235.00+0.816 TO 244.94+0.000**

| West to East         | NO. OF CRACKS | CU FT/MILE: | LBS/MILE: |
|----------------------|---------------|-------------|-----------|
| 1 <sup>st</sup> Mile | 9             | 2           | 232       |
| 2 <sup>nd</sup> Mile | 23            | 7           | 812       |
| 3 <sup>rd</sup> Mile | 57            | 24          | 2784      |
| 4 <sup>th</sup> Mile | 53            | 25          | 2900      |
| 5 <sup>th</sup> Mile | 40            | 17          | 1972      |
| 6 <sup>th</sup> Mile | 55            | 19          | 2204      |
| 7 <sup>th</sup> Mile | 40            | 12          | 1392      |
| 8 <sup>th</sup> Mile | 64            | 39          | 4524      |
| 9 <sup>th</sup> Mile | 71            | 48          | 5568      |
| 9.1 Mile             | 28            | 21          | 2436      |

SUBTOTAL POUNDS PER US 212 = 24,824 LBS (Conversion factor of 116 lbs/Cu. Ft.)

**SD HWY 1804 MRM 292.34+0.000 TO 296.38+0.000**

| West to East         | NO. OF CRACKS | CU FT/ MILE: | LBS/MILE: |
|----------------------|---------------|--------------|-----------|
| 1 <sup>st</sup> Mile | 92            | 42           | 4837      |
| 2 <sup>nd</sup> Mile | 89            | 40           | 4675      |
| 3 <sup>rd</sup> Mile | 92            | 42           | 4837      |
| 4 <sup>th</sup> Mile | 88            | 40           | 4628      |
| 5 <sup>th</sup> Mile | 54            | 25           | 2842      |

SUBTOTAL POUNDS PER SD 1804 = 21,819 LBS (Conversion factor of 116 lbs/Cu. Ft.)

**US HWY 212 MRM 224.00+0.698 TO 225.46+0.000**

| West to East                        | NO. OF CRACKS | CU FT/MILE: | LBS/MILE: |
|-------------------------------------|---------------|-------------|-----------|
| 1 <sup>st</sup> Mile (Transverse)   | 51            | 78          | 9060      |
| 1 <sup>st</sup> Mile (Longitudinal) | -             | 59          | 6890      |

SUBTOTAL POUNDS PER US 212 = 15,950 LBS (Conversion factor of 116 lbs/Cu. Ft.)

**QUANTITIES BY ROUTE (FOR INFORMATION ONLY)**

Revised by VAM on 4/11/16

| Location              | Cracks       | Cubic Feet/Mile | Pounds         |
|-----------------------|--------------|-----------------|----------------|
| SD 34                 | 480          | 444             | 51,504         |
| US 212 (Rural)        | 440          | 214             | 24,824         |
| SD1804                | 415          | 189             | 21,819         |
| US 212 (City)         | 51           | 137             | 15,950         |
| <b>Project Totals</b> | <b>1,386</b> | <b>984</b>      | <b>114,097</b> |

Only joints in driving lanes will be repaired. Repairs shall be performed on transverse cracks from white line to white line.

The average width of repair locations varies from 16 to 24 inches but some locations may be wider. The average depth of the repair locations is 1/2", but some locations are over 1/2" deep. The use of a 3' squeegee may be required to ensure the entire depression is filled. The size of squeegee needed will be determined in the field.

It is estimated there are 38,956 feet of joints to be repaired. The quantity of Asphalt Repair Mastic Type 2 may vary from the plans. No adjustment in the contract unit price for Asphalt Repair Mastic Type 2 will be made due to variation in quantities.

Revised by VAM on 4/11/16

| Posted Speed Prior to Work (M.P.H.) | Spacing of Advance Warning Signs (Feet) (A) | Spacing of Channelizing Devices (Feet) (G) |
|-------------------------------------|---|--|
| 0 - 30                              | 200   | 25   |
| 35 - 40                             | 350   | 25   |
| 45 - 50                             | 500   | 50   |
| 55                                  | 750   | 50   |
| 60 - 65                             | 1000  | 50   |

Warning sign sequence in opposite direction same as below.

- Flagger
- Channelizing Device

For low-volume traffic situations with short work zones on straight roadways where the flagger is visible to road users approaching from both directions, a single flagger may be used.

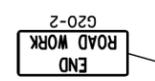
The ROAD WORK AHEAD and the END ROAD WORK signs may be omitted for short duration operations (1 hour or less).

For tack and/or flush seal operations, when flaggers are not being used, the FRESH OIL sign (W21-2) shall be displayed in advance of the liquid asphalt areas.

Flashing warning lights and/or flags may be used to call attention to the advance warning signs.

The channelizing devices shall be drums or 42" cones.

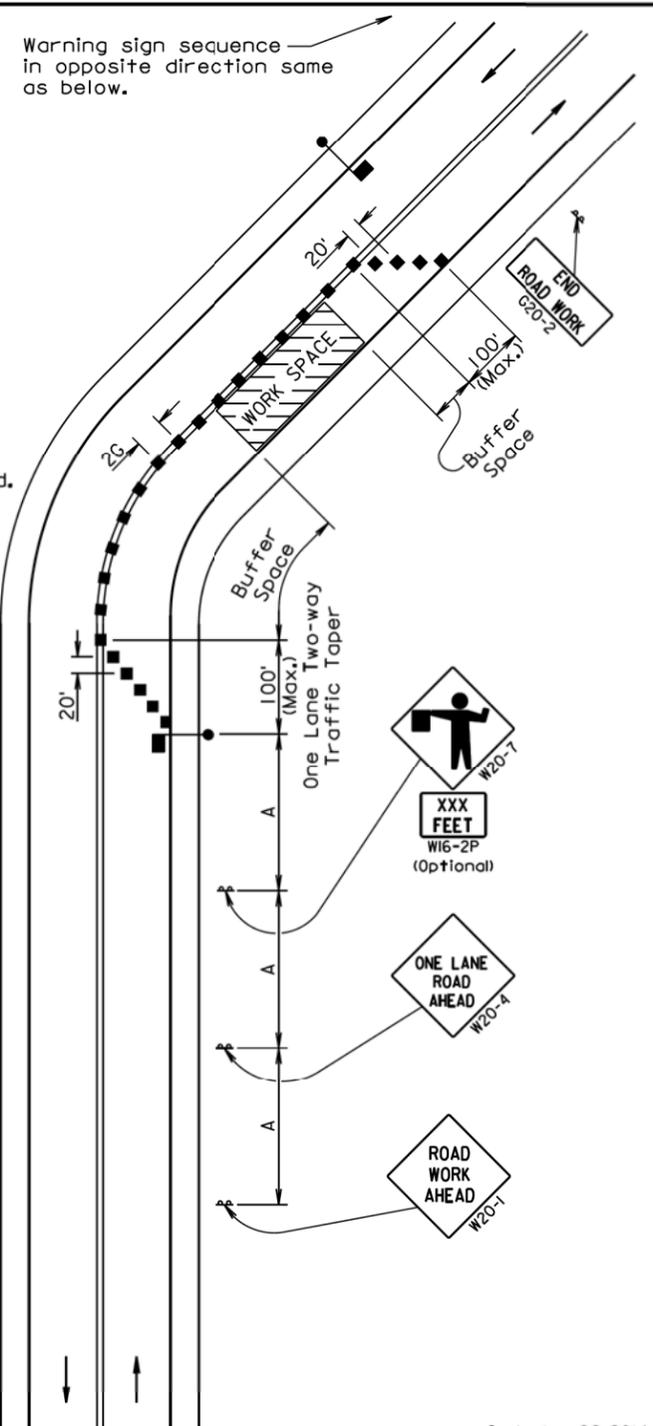
Channelizing devices are not required along the centerline adjacent to work area when pilot cars are utilized for escorting traffic through the work area.



Channelizing devices and flaggers shall be used at intersecting roads to control intersecting road traffic as required.

The buffer space should be extended so that the two-way traffic taper is placed before a horizontal or vertical curve to provide adequate sight distance for the flagger and queue of stopped vehicles.

The length of A may be adjusted to fit field conditions.



September 22, 2014

| Posted Speed Prior to Work (M.P.H.) | Spacing of Advance Warning Signs (Feet) (A) | Taper Length (Feet) (L) | Spacing of Channelizing Devices (Feet) (G) |
|-------------------------------------|---|-------------------------|--|
| 0 - 30                              | 200   | 180                     | 25   |
| 35 - 40                             | 350   | 320                     | 25   |
| 45 - 50                             | 500   | 600                     | 50 *                                       |
| 55                                  | 750   | 660                     | 50 *                                       |
| 60 - 65                             | 1000  | 780                     | 50 *                                       |

\* Spacing is 40' for 42" cones.

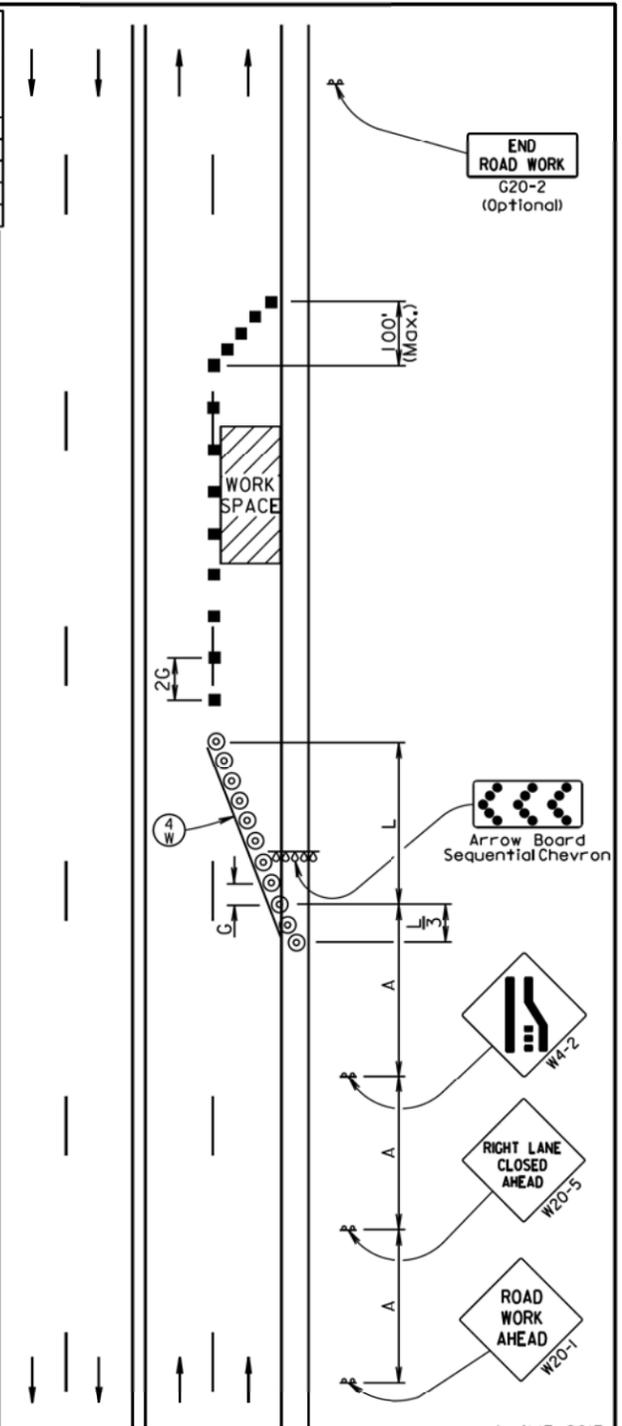
- ⊙ Reflectorized Drum
- Channelizing Device
- Ⓐ 4" White Temporary Pavement Marking

The channelizing devices shall be 42" cones or drums.

42" cones may be used in place of the drums shown in the taper if setup will not be used during night time hours.

Temporary pavement markings shall be used if traffic control must remain overnight.

The length of A and L may be adjusted to fit field conditions.



April 15, 2015