

STATE OF SOUTH DAKOTA
DEPARTMENT OF TRANSPORTATION

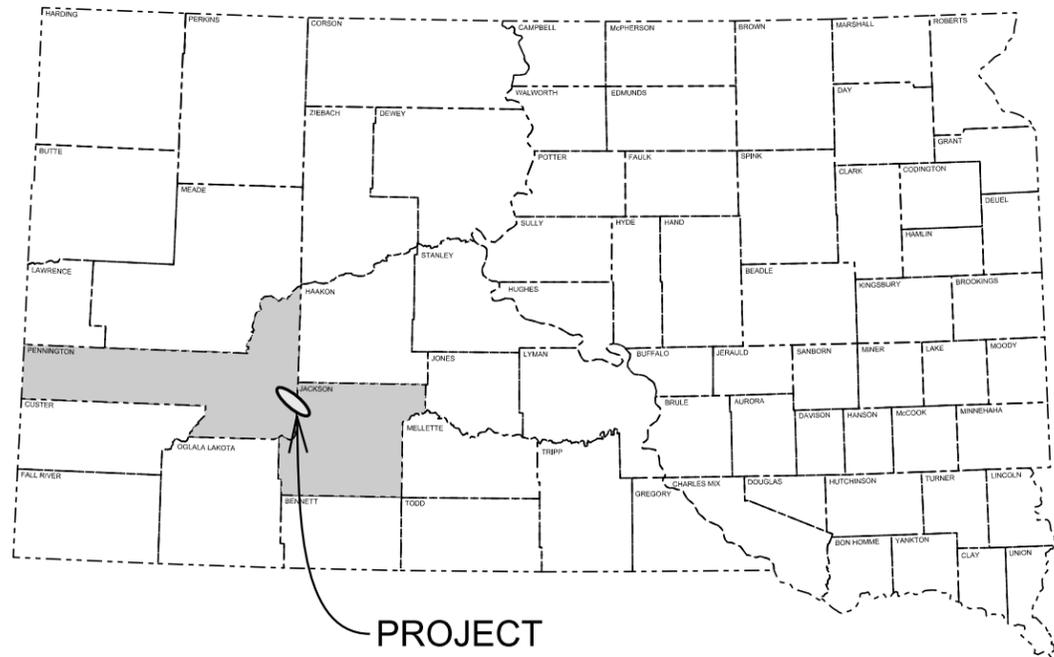
STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	IM 0903(102)112 & NH 0014(216)112	1	82
Plotting Date: 01/25/2016		Revised: 1/25/2016 kh	

PLANS FOR PROPOSED
**PROJECT IM 0903(102)112
& NH 0014(216)112**
**INTERSTATE 90 WBL
& US HIGHWAY 14**
PENNINGTON & JACKSON COUNTIES
COLD MILLING ASPHALT & ASPHALT
CONCRETE RESURFACING
PCN 03W0 & 05EE

INDEX OF SECTIONS

Section A:	Estimate of Quantities and Environmental Commitments
Section C:	Traffic Control Plans
Section D:	Erosion Control Plans
Section F:	Surfacing Plans
Section M:	Pavement Marking Plans

Plot Scale - 1:200

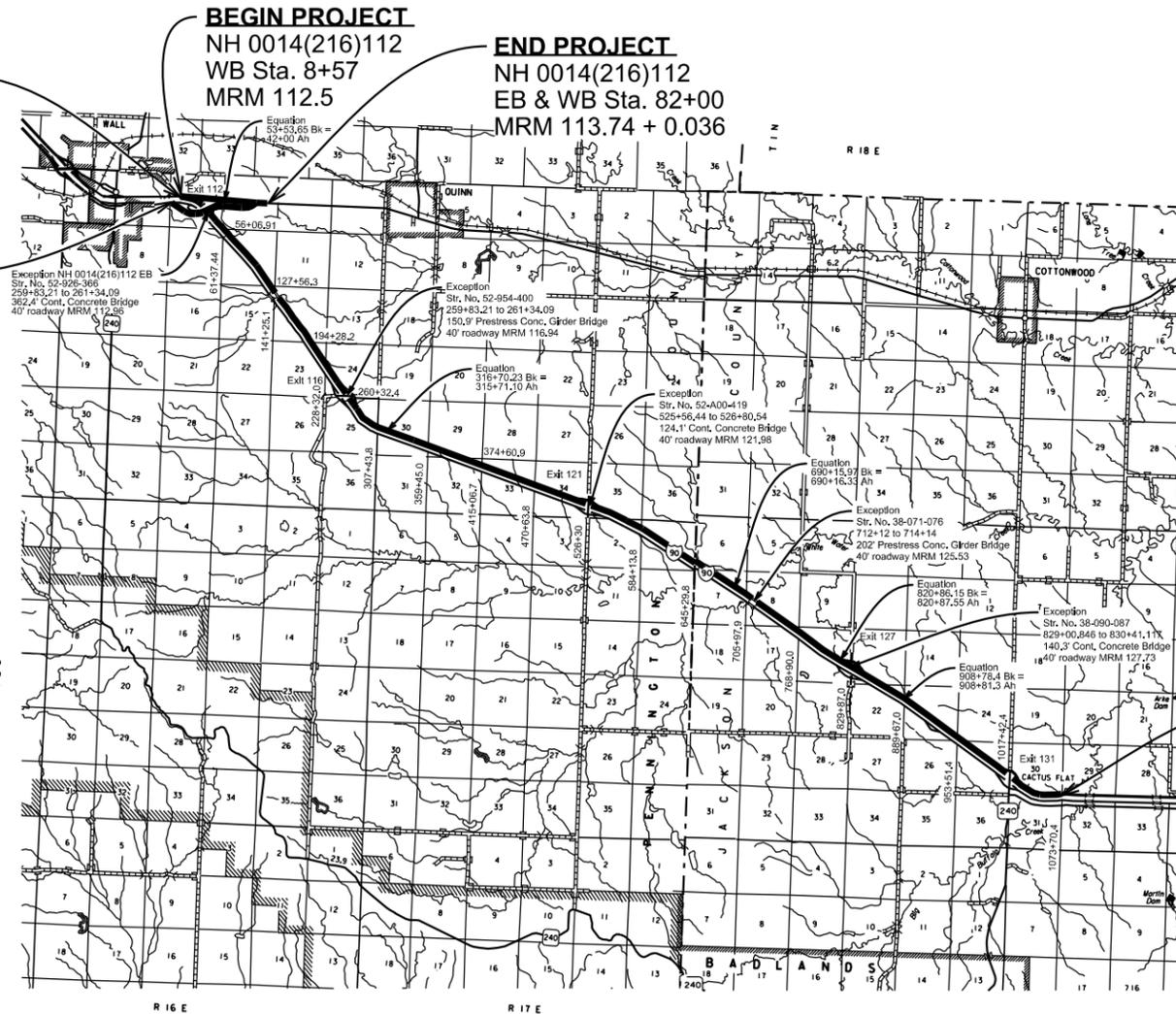


BEGIN PROJECT
IM 0903(102)112
Sta. 8+04.61
MRM 112.12 + 0.180

BEGIN PROJECT
NH 0014(216)112
WB Sta. 8+57
MRM 112.5

END PROJECT
NH 0014(216)112
EB & WB Sta. 82+00
MRM 113.74 + 0.036

BEGIN PROJECT
NH 0014(216)112
EB Sta. 8+02.81
MRM 112.3



**IM 0903(102)112 PCN 03W0
DESIGN DESIGNATION**

ADT (2014)	2813
ADT (2034)	3769
DHV	720
D	100 %
T DHV	12.6 %
T ADT	27.7 %
V	80 MPH

**NH 0014(216)112 PCN 05EE
DESIGN DESIGNATION**

ADT (2014)	1110
ADT (2034)	1610
DHV	248
D	51 %
T DHV	7.4 %
T ADT	16.3 %
V	65 MPH

STORM WATER PERMIT

Major Receiving
Body of Water: None
Area Disturbed: 46 acres
Total Project Area: 150 acres
Approx. Begin Lat,Long:

END PROJECT
IM 0903(102)112
Sta. 1063+89
MRM 132.0 + 0.165

	PCN 03W0		PCN 05EE	
Gross Length	109031 Feet	20.6498 Miles	Gross Length	16351 Feet 3.0967 Miles
Length of Exceptions	618 Feet	0.1171 Miles	Length of Exceptions	363 Feet 0.0687 Miles
Net Length	108413 Feet	20.5327 Miles	Net Length	15988 Feet 3.0280 Miles

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trc11610

Plotted From -

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ESTIMATE OF QUANTITIES AND ENVIRONMENTAL COMMITMENTS

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	IM 0903(102)112 & NH 0014(216)112	A1	A4

Revised: 1-7-16 klh

Section C - Traffic Control

PCN 03W0

BID ITEM NUMBER	ITEM	QUANTITY	UNIT
634E0010	Flagging	2,000.0	Hour
634E0110	Traffic Control Signs	1,196	SqFt
634E0120	Traffic Control, Miscellaneous	Lump Sum	LS
634E0135	Traffic Control Supervisor	Lump Sum	LS
634E0285	Type 3 Barricade, 8' Double Sided	3	Each
634E0320	Temporary Flexible Vertical Markers (Tabs)	19.9	Mile
634E0420	Type C Advance Warning Arrow Board	3	Each
634E0630	Temporary Pavement Marking	19.9	Mile
634E1215	Contractor Furnished Portable Changeable Message Sign	2	Each
634E1255	Contractor Furnished Speed Monitoring Radar Trailer	2	Each

PCN 05EE

BID ITEM NUMBER	ITEM	QUANTITY	UNIT
634E0010	Flagging	200.0	Hour
634E0110	Traffic Control Signs	436	SqFt
634E0120	Traffic Control, Miscellaneous	Lump Sum	LS
634E0135	Traffic Control Supervisor	Lump Sum	LS
634E0285	Type 3 Barricade, 8' Double Sided	2	Each
634E0320	Temporary Flexible Vertical Markers (Tabs)	1.8	Mile
634E0630	Temporary Pavement Marking	1.8	Mile

Section D - Erosion Control

PCN 03W0

BID ITEM NUMBER	ITEM	QUANTITY	UNIT
230E0020	Placing Contractor Furnished Topsoil	2,677	CuYd
230E0100	Remove and Replace Topsoil	Lump Sum	LS
730E0210	Type F Permanent Seed Mixture	1,035	Lb
731E0200	Fertilizing	30.00	Ton
732E0100	Mulching	80.0	Ton
734E0154	12" Diameter Erosion Control Wattle	1,500	Ft
734E0165	Remove and Reset Erosion Control Wattle	750	Ft

PCN 05EE

BID ITEM NUMBER	ITEM	QUANTITY	UNIT
230E0020	Placing Contractor Furnished Topsoil	1,918	CuYd
230E0100	Remove and Replace Topsoil	Lump Sum	LS
730E0210	Type F Permanent Seed Mixture	156	Lb
731E0200	Fertilizing	5.00	Ton
732E0100	Mulching	12.0	Ton
734E0154	12" Diameter Erosion Control Wattle	500	Ft
734E0165	Remove and Reset Erosion Control Wattle	250	Ft

Section F - Surfacing

PCN 03W0

BID ITEM NUMBER	ITEM	QUANTITY	UNIT
009E0010	Mobilization	Lump Sum	LS
009E3320	Checker	Lump Sum	LS
110E0300	Remove Concrete Curb and Gutter	183	Ft
110E0320	Remove Concrete Gutter	54	Ft
110E0740	Remove 3 Cable Guardrail Anchor Assembly	8	Each
110E4100	Salvage 3 Cable Guardrail	150	Ft
110E4290	Salvage Beam Guardrail	950.0	Ft
110E4350	Salvage Beam Guardrail Trailing End Terminal	1	Each
110E4370	Salvage W Beam Guardrail Flared End Terminal	4	Each
110E4380	Salvage W Beam Guardrail Tangent End Terminal	3	Each
110E6000	Remove 3 Cable Guardrail for Reset	1,718	Ft
110E6200	Remove Double Thrie Beam Guardrail for Reset	100.0	Ft
110E6230	Remove W Beam Guardrail for Reset	675.0	Ft
110E6240	Remove W Beam to Thrie Beam Guardrail Transition for Reset	8	Each
110E6250	Remove Beam Guardrail Trailing End Terminal for Reset	1	Each
110E6260	Remove W Beam Guardrail Breakaway Cable Terminal for Reset	3	Each
120E0100	Unclassified Excavation, Digouts	1,026	CuYd
120E0600	Contractor Furnished Borrow Excavation	1,525	CuYd
260E1050	Base Course, Salvaged Asphalt Mix	9,089.7	Ton
320E0008	PG 64-34 Asphalt Binder	1,754.9	Ton
320E1080	Class S Asphalt Concrete	30,195.1	Ton
320E3000	Compaction Sample	3	Each
320E3100	Stabilizing Additive for Asphalt Concrete	84.8	Ton
320E7012	Grind 12" Rumble Strip or Stripe in Asphalt Concrete	41.0	Mile
330E0100	SS-1h or CSS-1h Asphalt for Tack	253.7	Ton
330E0210	SS-1h or CSS-1h Asphalt for Flush Seal	14.0	Ton
332E4000	Micro-Milling Asphalt Concrete	339,185	SqYd
600E0300	Type III Field Laboratory	1	Each
629E0100	3 Cable Guardrail	1,632	Ft
629E0110	NCHRP 350 Test Level 3 High Tension Cable Guardrail	1,502	Ft
629E0200	Reset 3 Cable Guardrail	1,718	Ft
629E0290	NCHRP 350 Test Level 3 High Tension Cable Guardrail Anchor Assembly	6	Each
629E0300	3 Cable Guardrail Slip Base Anchor Assembly	9	Each
629E0400	3 Cable Guardrail Anchor Assembly	7	Each
* 629E1109	Furnish High Tension Cable Guardrail Post and Sleeve	25	Each
630E2030	W Beam Guardrail Breakaway Cable Terminal	6	Each
630E2110	Beam Guardrail Post and Block	188	Each
630E5130	Reset Double Thrie Beam Rail	100.0	Ft
630E5160	Reset W Beam Rail	675.0	Ft
630E5180	Reset W Beam Guardrail Breakaway Cable Terminal	3	Each
630E5190	Reset W Beam to Thrie Beam Guardrail Transition	8	Each
630E5210	Reset Beam Guardrail Trailing End Terminal	1	Each

ESTIMATE OF QUANTITIES AND ENVIRONMENTAL COMMITMENTS

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	IM 0903(102)112 & NH 0014(216)112	A2	A4

Revised: 1-7-16 klh

Section F – Surfacing (Cont.) PCN 03W0 (Cont)

BID ITEM NUMBER	ITEM	QUANTITY	UNIT
632E2220	Guardrail Delineator	67	Each
632E2510	Type 2 Object Marker Back to Back	4	Each
632E2520	Type 2 Object Marker	5	Each
900E5840	Permanent Vehicle Classification System	1	Each

* - Denotes Non-Participating

PCN 05EE

BID ITEM NUMBER	ITEM	QUANTITY	UNIT
009E0010	Mobilization	Lump Sum	LS
009E3320	Checker	Lump Sum	LS
110E0740	Remove 3 Cable Guardrail Anchor Assembly	6	Each
110E0745	Remove 3 Cable Guardrail Slip Base Anchor Assembly	1	Each
110E4100	Salvage 3 Cable Guardrail	75	Ft
110E4290	Salvage Beam Guardrail	12.5	Ft
110E6000	Remove 3 Cable Guardrail for Reset	1,332	Ft
110E6200	Remove Double Thrie Beam Guardrail for Reset	25.0	Ft
110E6230	Remove W Beam Guardrail for Reset	125.0	Ft
110E6240	Remove W Beam to Thrie Beam Guardrail Transition for Reset	2	Each
110E6260	Remove W Beam Guardrail Breakaway Cable Terminal for Reset	2	Each
120E0100	Unclassified Excavation, Digouts	155	CuYd
120E0600	Contractor Furnished Borrow Excavation	35	CuYd
260E1050	Base Course, Salvaged Asphalt Mix	708.9	Ton
320E0008	PG 64-34 Asphalt Binder	179.9	Ton
320E1080	Class S Asphalt Concrete	3,110.7	Ton
320E3100	Stabilizing Additive for Asphalt Concrete	10.2	Ton
320E7012	Grind 12" Rumble Strip or Stripe in Asphalt Concrete	6.2	Mile
330E0100	SS-1h or CSS-1h Asphalt for Tack	30.5	Ton
330E0210	SS-1h or CSS-1h Asphalt for Flush Seal	2.3	Ton
332E4000	Micro-Milling Asphalt Concrete	52,220	SqYd
629E0200	Reset 3 Cable Guardrail	223	Ft
629E0300	3 Cable Guardrail Slip Base Anchor Assembly	6	Each
629E0400	3 Cable Guardrail Anchor Assembly	1	Each
630E2110	Beam Guardrail Post and Block	38	Each
630E5130	Reset Double Thrie Beam Rail	25.0	Ft
630E5160	Reset W Beam Rail	125.0	Ft
630E5180	Reset W Beam Guardrail Breakaway Cable Terminal	2	Each
630E5190	Reset W Beam to Thrie Beam Guardrail Transition	2	Each
632E2220	Guardrail Delineator	31	Each
632E2510	Type 2 Object Marker Back to Back	5	Each
632E2520	Type 2 Object Marker	1	Each

Section F – Surfacing Alt A PCN 03W0

BID ITEM NUMBER	ITEM	QUANTITY	UNIT
* 260E6000	Granular Material, Furnish	592.0	Ton
* 270E0200	Blend, Haul, and Stockpile Granular Material	1,184.0	Ton
320E0005	PG 58-34 Asphalt Binder	516.4	Ton
320E1070	Class HR Asphalt Concrete	13,196.9	Ton
320E4000	Hydrated Lime	124.0	Ton

* - Denotes Non-Participating

Section F – Surfacing Alt A PCN 05EE

BID ITEM NUMBER	ITEM	QUANTITY	UNIT
* 260E6000	Granular Material, Furnish	1,908.0	Ton
* 270E0200	Blend, Haul, and Stockpile Granular Material	3,816.0	Ton
320E0005	PG 58-34 Asphalt Binder	93.7	Ton
320E1070	Class HR Asphalt Concrete	2,302.0	Ton
320E4000	Hydrated Lime	21.1	Ton

* - Denotes Non-Participating

Section F – Surfacing Alt B PCN 03W0

BID ITEM NUMBER	ITEM	QUANTITY	UNIT
* 260E6000	Granular Material, Furnish	504.0	Ton
* 270E0200	Blend, Haul, and Stockpile Granular Material	1,008.0	Ton
320E0005	PG 58-34 Asphalt Binder	479.2	Ton
320E1070	Class HR Asphalt Concrete	13,445.7	Ton
320E4000	Hydrated Lime	124.0	Ton

* - Denotes Non-Participating

Section F – Surfacing Alt B PCN 05EE

BID ITEM NUMBER	ITEM	QUANTITY	UNIT
* 260E6000	Granular Material, Furnish	1,996.0	Ton
* 270E0200	Blend, Haul, and Stockpile Granular Material	3,992.0	Ton
320E0005	PG 58-34 Asphalt Binder	86.4	Ton
320E1070	Class HR Asphalt Concrete	2,345.0	Ton
320E4000	Hydrated Lime	22.3	Ton

* - Denotes Non-Participating

INDEX OF SHEETS

A1 and A2 Estimate of Quantities for Sections C, D, F, and M
A3 and A4 Environmental Commitments

Section M - Pavement Marking PCN 03W0

BID ITEM NUMBER	ITEM	QUANTITY	UNIT
633E0010	Cold Applied Plastic Pavement Marking, 4"	28,203	Ft
633E0025	Cold Applied Plastic Pavement Marking, 12"	3,150	Ft
633E1200	Waterborne Pavement Marking Paint with High Grade Polymer, White	571	Gal
633E1205	Waterborne Pavement Marking Paint with High Grade Polymer, Yellow	571	Gal
633E5000	Grooving for Cold Applied Plastic Pavement Marking, 4"	28,203	Ft
633E5010	Grooving for Cold Applied Plastic Pavement Marking, 12"	3,150	Ft
633E5100	Grooving for Durable Pavement Marking, 4"	216,826	Ft

PCN 05EE

BID ITEM NUMBER	ITEM	QUANTITY	UNIT
633E1200	Waterborne Pavement Marking Paint with High Grade Polymer, White	86	Gal
633E1205	Waterborne Pavement Marking Paint with High Grade Polymer, Yellow	86	Gal
633E5100	Grooving for Durable Pavement Marking, 4"	32,702	Ft

SPECIFICATIONS

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

ESTIMATE OF QUANTITIES AND ENVIRONMENTAL COMMITMENTS

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	IM 0903(102)112 & NH 0014(216)112	A3	A4

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 1 acre or more of earth disturbance.

Action Taken/Required:

The DENR and the US Environmental Protection Agency (EPA) have issued separate general permits for the discharge of storm water runoff. The DENR permit applies to discharges on state land and the EPA permit applies to discharges on federal or reservation land. The Contractor is advised this project is regulated under the Phase II Storm Water Regulations and must receive coverage under the General Permit for Construction Activities. A Notice of Intent (NOI) will be submitted to DENR a minimum of 15 days prior to project start by the DOT Environmental Office. A letter must be received from DENR that acknowledges project coverage under this general permit before project start. The Contractor is advised that permit coverage may also be required by off-site activities, such as borrow and staging areas, which are the responsibility of the Contractor.

The Contractor shall adhere to the "Special Provision Regarding Storm Water Discharges to Waters of the State".

A major component of the storm water construction permits is development and implementation of a Storm Water Pollution Prevention Plan (SWPPP), which is a joint effort and responsibility of the SDDOT and the Contractor. Erosion control measures and best management practices will be implemented in accordance with the SWPPP. The SWPPP is a dynamic document and is to be available on-site at all times.

Information on storm water permits and SWPPPs are available on the following websites:

SDDOT:

<http://www.sddot.com/business/environmental/stormwater/Default.aspx>

DENR: <http://www.denr.sd.gov/des/sw/stormwater.aspx>

EPA: http://cfpub.epa.gov/npdes/home.cfm?program_id=6

Contractor Certification Form:

The "Department of Environmental and Natural Resources – Contractor Certification Form" (SD EForm – 2110LDV1-ContractorCertification.pdf) shall be completed by the Contractor or their certified Erosion Control Supervisor after the award of the contract. Work may not begin on the project until this form is signed.

The form certifies under penalty of law that the Contractor understands and will comply with the terms and conditions of the Surface Water Discharge General Permit for Storm Water Discharges Associated with Construction Activities for the Project.

The online form can be found at:

<http://denr.sd.gov/des/sw/eforms/E2110LDV1-ContractorCertification.pdf>

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.

All costs associated with furnishing waste disposal site(s), disposing of waste, maintaining control of access (fence, gates, and signs), and reclamation of the waste disposal site(s) shall be incidental to the various contract items.

ESTIMATE OF QUANTITIES AND ENVIRONMENTAL COMMITMENTS

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	IM 0903(102)112 & NH 0014(216)112	A4	A4

COMMITMENT I: HISTORICAL PRESERVATION OFFICE CLEARANCES

The SDDOT has obtained concurrence with the State Historical Preservation Office (SHPO or THPO) for all work included within the project limits and all department designated sources and designated option material sources, stockpile sites, storage areas, and waste sites provided within the plans.

Action Taken/Required:

All earth disturbing activities not designated within the plans require review of cultural resources impacts. This work includes, but is not limited to: Contractor furnished material sources, material processing sites, stockpile sites, storage areas, plant sites, and waste areas.

The Contractor shall arrange and pay for a cultural resource survey and/or records search. The Contractor has the option to contact the state Archaeological Research Center (ARC) at 605-394-1936 or another qualified archaeologist, to obtain either a records search or a cultural resources survey. A record search might be sufficient for review; however, a cultural resources survey may need to be conducted by a qualified archaeologist.

The Contractor shall provide ARC with the following: a topographical map or aerial view on which the site is clearly outlined, site dimensions, project number, and PCN. If applicable, provide evidence that the site has been previously disturbed by farming, mining, or construction activities with a landowner statement that artifacts have not been found on the site.

The Contractor shall submit the records search or cultural resources survey report and if the location of the site is within the current geographical or historic boundaries of any South Dakota reservation to SDDOT Environmental Engineer, 700 East Broadway Avenue, Pierre, SD 57501-2586 (605-773-3180). SDDOT will submit the information to the appropriate SHPO/THPO. Allow **30 Days** from the date this information is submitted to the Environmental Engineer for SHPO/THPO review.

If evidence for cultural resources is uncovered during project construction activities, then such activities shall cease and the Project Engineer shall be immediately notified. The Project Engineer will contact the SDDOT Environmental Engineer in order to determine an appropriate course of action.

SHPO/THPO review does not relieve the Contractor of the responsibility for obtaining any additional permits and clearances for Contractor furnished material sources, material processing sites, stockpile sites, storage areas, plant sites, and waste areas that affect wetlands, threatened and endangered species, or waterways. The Contractor shall provide the required permits and clearances to the Project Engineer at the preconstruction meeting.