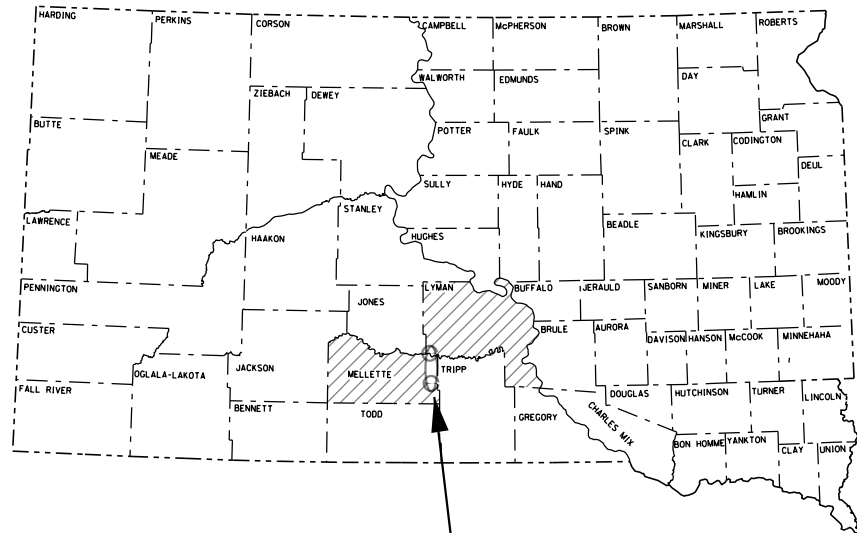


Plot Scale - 1:200

trw1m20

Plotted From -



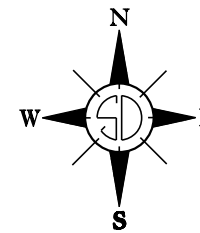
PROJECT

DEPARTMENT OF TRANSPORTATION
PLANS FOR PROPOSED
PROJECT 053 - 391
SD HIGHWAY 53
LYMAN & MELLETTE
COUNTIES

RIDE IMPROVEMENT TO APPROACH SLABS
PCN 14Y1

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	053-391	1	7

Plotting Date: 03/09/2018

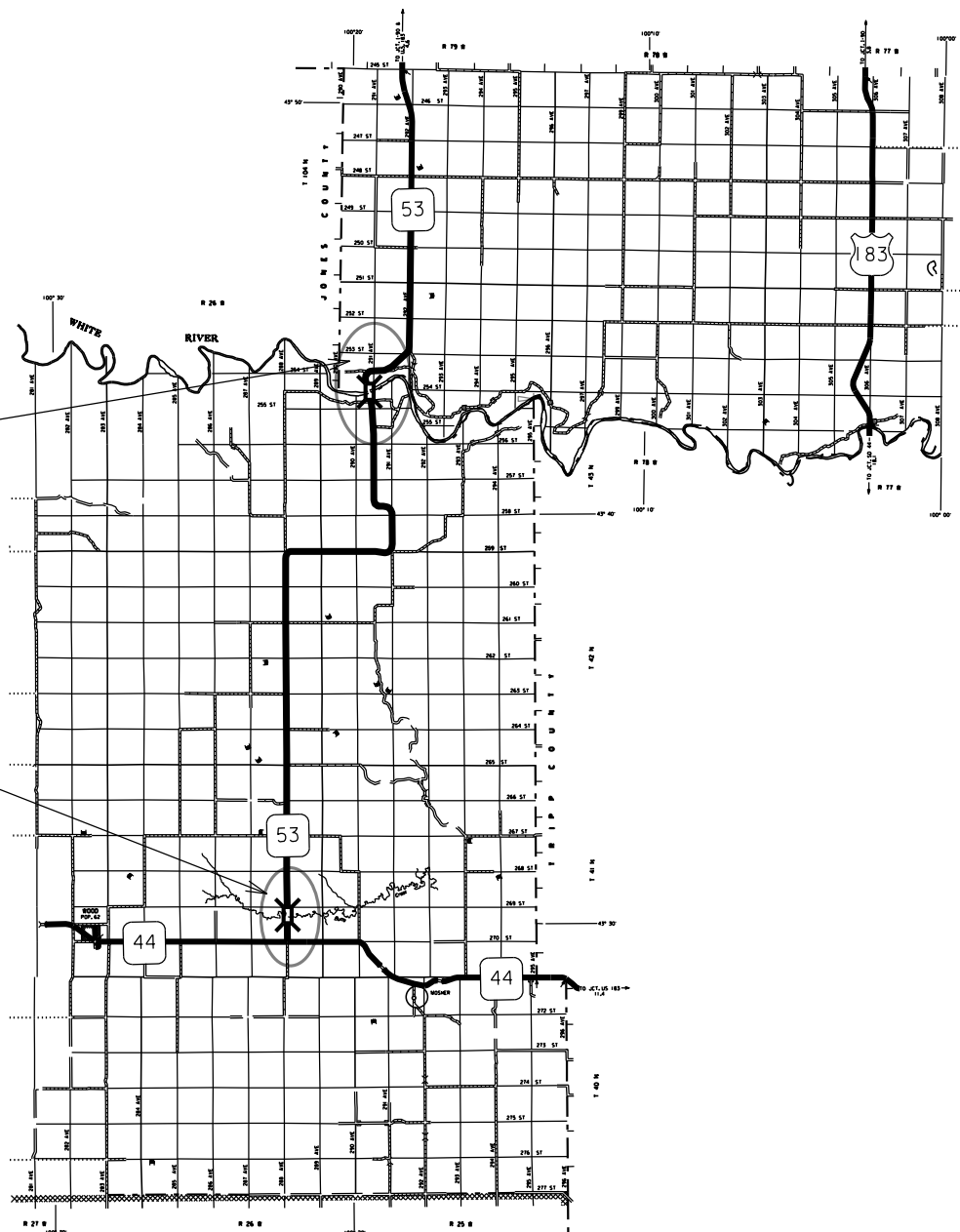


INDEX OF SHEETS

Sheet No. 1	Title Sheet
Sheet No. 2	Project Layout Maps
Sheet No. 3	Estimate of Quantities
Sheet Nos. 3-4	Environment Commitments
Sheet No. 4-5	Plan Notes & Sign Tabulation
Sheet Nos. 6	Typical Sections
Sheet No. 7	Standard Plates

STRUCTURE NO. 43-018-330
MRM 68.97+0.000
WHITE RIVER

STRUCTURE NO. 48-440-253
MRM 50.71+0.000
BUTTE CREEK



STORM WATER PERMIT:
NO PERMIT NEEDED

DESIGN DESIGNATION

ADT (2016)	99
ADT (2036)	142
DHV	17
D	51%
T DHV	6.2%
T ADT	13.6%
V	55 MPH

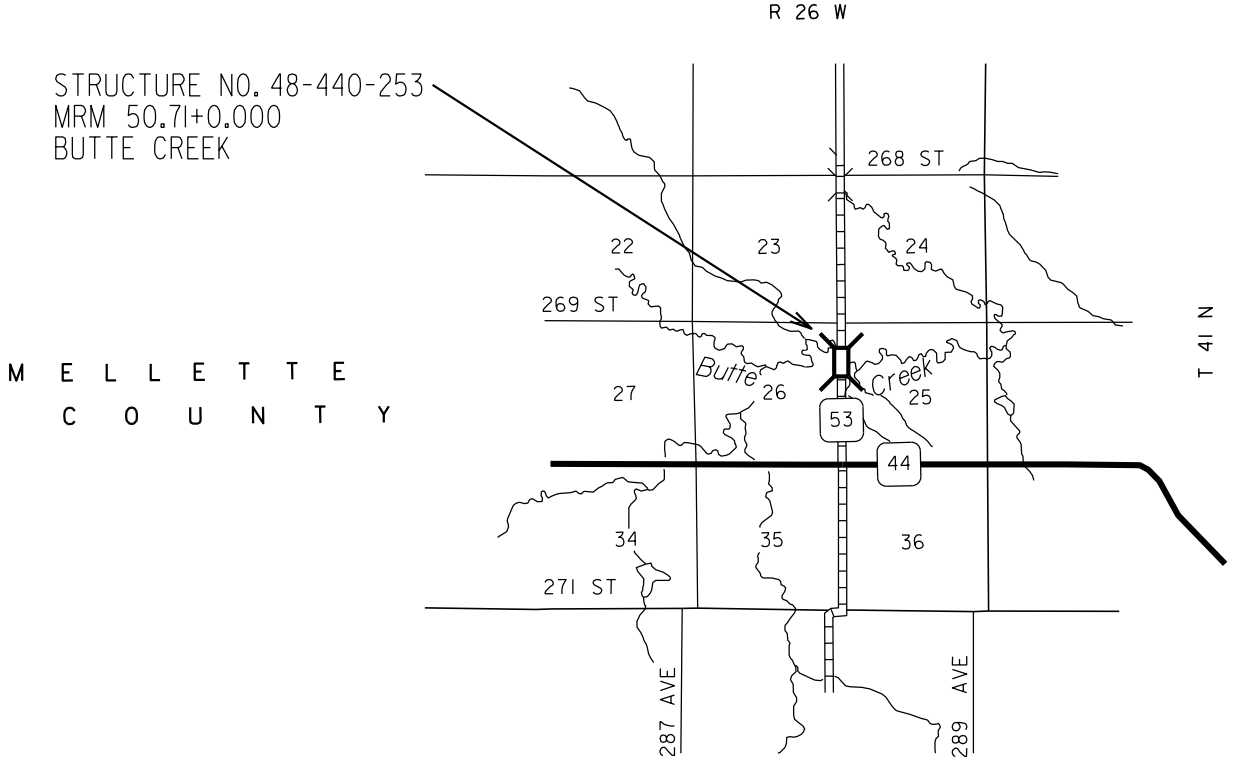
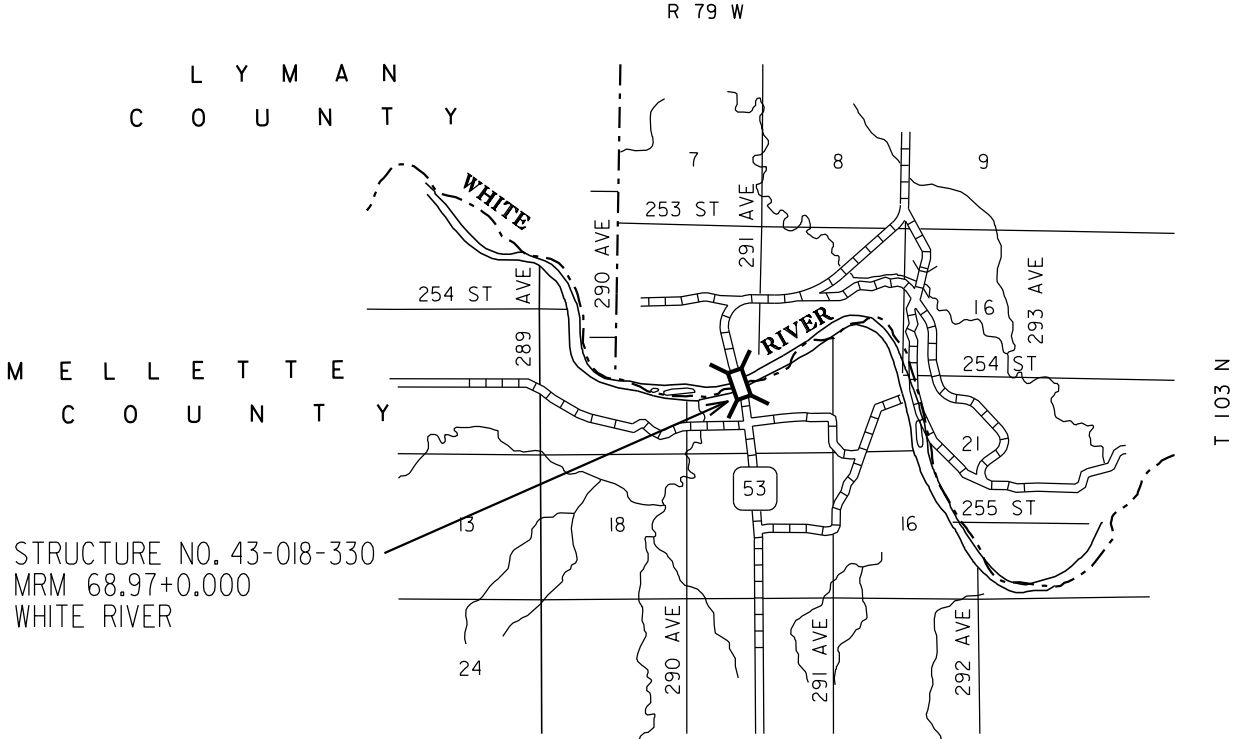
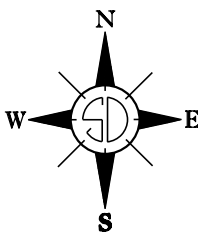
Plot Scale - 1:200

Plotted From - tw11n120

PROJECT LAYOUT MAPS

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	053-391	2	7

Plotting Date: 03/09/2018



1:200
Plot Scale -
...FULL SIZE/lay1_full size.dgn
File -
...FULL SIZE/lay1_full size.dgn
Plotted From -
tw11m20

SPECIFICATIONS

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

BID ITEM NUMBER	ITEM	QUANTITY	UNIT
009E0010	Mobilization	Lump Sum	LS
110E1010	Remove Asphalt Concrete Pavement	320.0	SqYd
260E1010	Base Course	54.0	Ton
320E1200	Asphalt Concrete Composite	150.0	Ton
410E0030	Structural Steel, Miscellaneous	Lump Sum	LS
634E0010	Flagging	160.0	Hour
634E0110	Traffic Control Signs	262.0	SqFt
634E0120	Traffic Control, Miscellaneous	Lump Sum	LS

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 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 B4: BALD EAGLE

Bald eagles are known to occur in this area.

Action Taken/Required:

If a nest is observed within one mile of the project site, notify the Project Engineer immediately so that he/she can consult with the Environmental Office for an appropriate course of action.

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 Public 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 Public 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 Public 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.

1:200
Plot Scale -
Inv1m20
- Plotted From -
File - ...\\FULL SIZE\\dwg1_full_size.dgn

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	053-391	4	7

Plotting Date: 03/09/2018
Revised: 04/30/2018 TMS

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.

SCOPE OF WORK

The work required for this project includes, but is not limited to, the following items, not listed in order of execution.

Remove Asphalt Concrete Pavement and Patch Bridge Approach Slabs

1. Install Traffic Control Signing Prior to Construction Activities Commencing
2. Remove Asphalt Concrete Pavement (Through traffic must be maintained at all times)
3. Excavation of Unstable Material & Compaction Operations
4. Install Steel Traffic Bearing Plates
5. Asphalt Concrete Paving Operations
6. Remove Project Temporary Signing
7. Complete Any Remaining Project Cleanup

The Contractor is encouraged to inspect the project site prior to bidding to evaluate the extent of work that will be required for construction.

SEQUENCE OF OPERATIONS

The Contractor shall submit a proposed sequence of operations for the Engineer's review and approval at least two weeks prior to the preconstruction meeting.

Traffic shall be maintained through the project at ALL times. The Contractor shall maintain access on and off the highway for local residences and county roads. The Contractor may perform work on the roadway during daylight hours only, unless additional hours are approved by the Engineer. Traffic shall be returned to normal driving lanes during non-working hours & prior to nightfall. The Contractor shall accommodate all over width traffic for the duration of the project.

GENERAL NOTES

Removing, relocating, covering, salvaging and resetting of existing traffic control devices, including delineation, shall be the responsibility of the Contractor. Cost for this work shall be incidental to the contract unit prices for the various items. Any delineators, signs, guardrail, and markers that are damaged or lost shall be replaced by the Contractor at no cost to the State.

PROTECTION OF BRIDGE JOINTS

The joints shall be protected throughout completion of the work. Any loose material shall be cleaned from the joint. Any damage to the expansion joints shall be repaired by the Contractor to the satisfaction of the Engineer at no cost to the State.

STEEL BEARING PLATE

The dead end approach slab joints on the White River Bridge, Structure #: 43-018-330, shall be paved over with Asphalt Concrete Composite and will require Steel Bearing Plates. The Plates shall be A-36 Steel and shall be 0.25 inches thick with a width of 8.0 inches and shall be long enough to cover the length of the joint. The Bearing Plate shall be welded to the joint on the side closest to the bridge. All costs associated with this work shall be incidental to the lump sum contract price for "Structural Steel, Miscellaneous".

1:200
Plot Scale -
trw1m20
• Plotted From -

SURFACING THICKNESS DIMENSIONS

Asphalt Composite will be placed in two equal lifts of not more than 3.0 inches.

At those locations where material must be placed to achieve a required elevation, quantities may be varied to achieve the required elevations, as approved by the Engineer.

The Contractor is expected to adhere to a final minimum compacted thickness of 1 inch at all sites unless otherwise directed by the Engineer. All edges are to be raked and tapered to ensure no uneven lanes or vertical lips exist after final rolling is complete.

EXCAVATION OF UNSTABLE MATERIAL

The locations and extent of digout areas, if any, will be determined in the field by the Engineer. The backfilling material for the digouts shall be Base Course. Base Course shall be furnished by the Contractor and be utilized for repairs to the approach slabs if necessary. Excavation of Unstable Material and Base Course Furnish and Place shall be paid for at the contract unit price per ton for “Base Course”.

Asphalt Concrete and Base Course material shall become the property of the Contractor for their disposal.

Compaction shall be to the satisfaction of the Engineer.

REMOVE ASPHALT CONCRETE PAVEMENT

The approximate area of removal is estimated to be 320.0 SqYd and is detailed in the typical sections. The Asphalt Concrete Pavement surface shall be removed the minimum amount necessary, as determined by the Engineer in the field.

All costs associated with this work shall be incidental to the contract unit price per square yard for “Remove Asphalt Concrete Pavement”.

Removing asphalt concrete pavement shall be done by sawing and according to the direction of the Engineer in the field. The depth or width of removal may need to be adjusted due to roadway irregularities. Care shall be taken to not disturb the existing pavement near the guardrail and to maintain the proper pavement height where the roadway meets the guardrail. Alternate removal methods shall be approved by the Engineer.

After completion of the Remove Asphalt Concrete Pavement operation, the Contractor shall clean up and dispose of any remaining debris to the satisfaction of the Engineer.

TRAFFIC CONTROL

Portable signs may be used due to the short duration of the work.

Two additional Road Work Ahead signs are provided to be used at the White River bridge. These signs shall be placed so that advanced warning may be provided in areas of short sight distance.

		STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
			053-391	5	7
Plotting Date: 03/09/2018					
ITEMIZED LIST FOR TRAFFIC CONTROL SIGNS					
		CONVENTIONAL ROAD			
SIGN CODE	SIGN DESCRIPTION	NUMBER	SIGN SIZE	SQFT PER SIGN	SQFT
W16-2P	___ FEET (supplemental distance plaque)	4	30" x 24"	5.0	20.0
W20-1	ROAD WORK AHEAD	6	48" x 48"	16.0	96.0
W20-4	ONE LANE ROAD AHEAD	4	48" x 48"	16.0	64.0
W20-7	FLAGGER (symbol)	4	48" x 48"	16.0	64.0
G20-2	END ROAD WORK	4	36" x 18"	4.5	18.0
		CONVENTIONAL ROAD TRAFFIC CONTROL SIGNS SQFT			
		262.0			

File - ...IFULL SIZE\trw1_full size.dgn

Plot Scale - 1:200

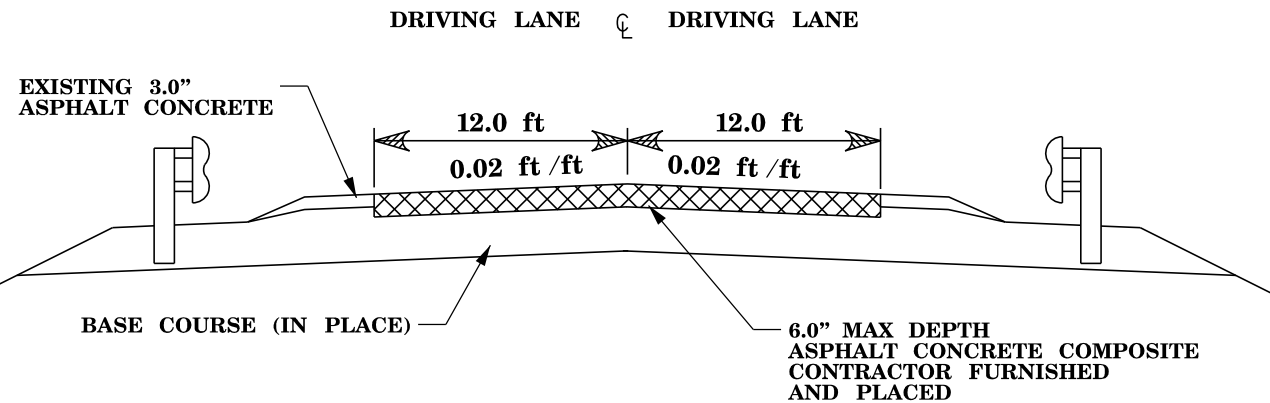
Plotted From - tw11n120

TYPICAL SECTIONS

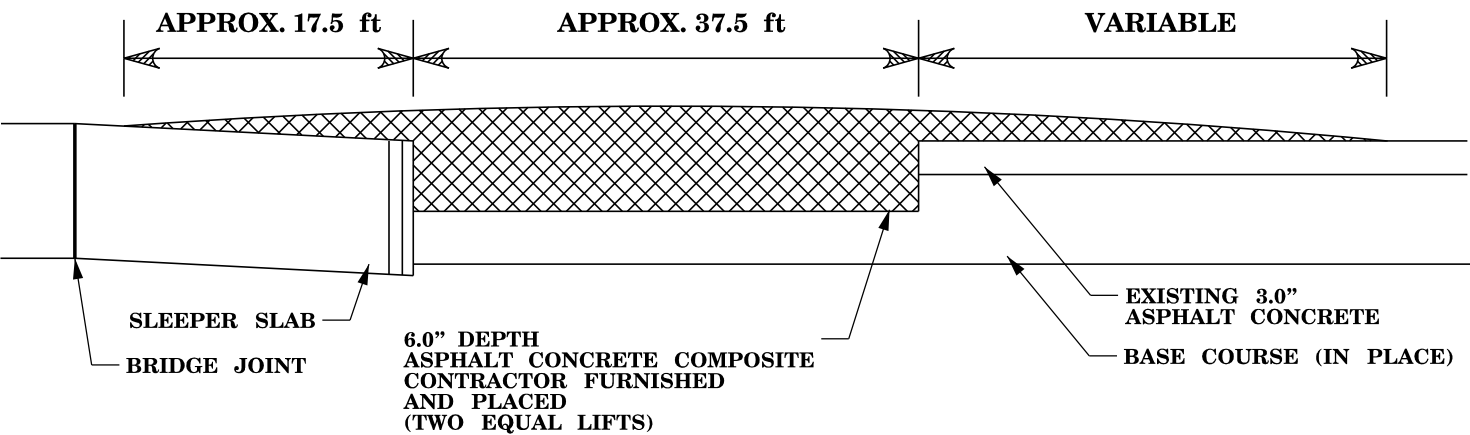
STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	053-391	6	7

Plotting Date: 03/09/2018

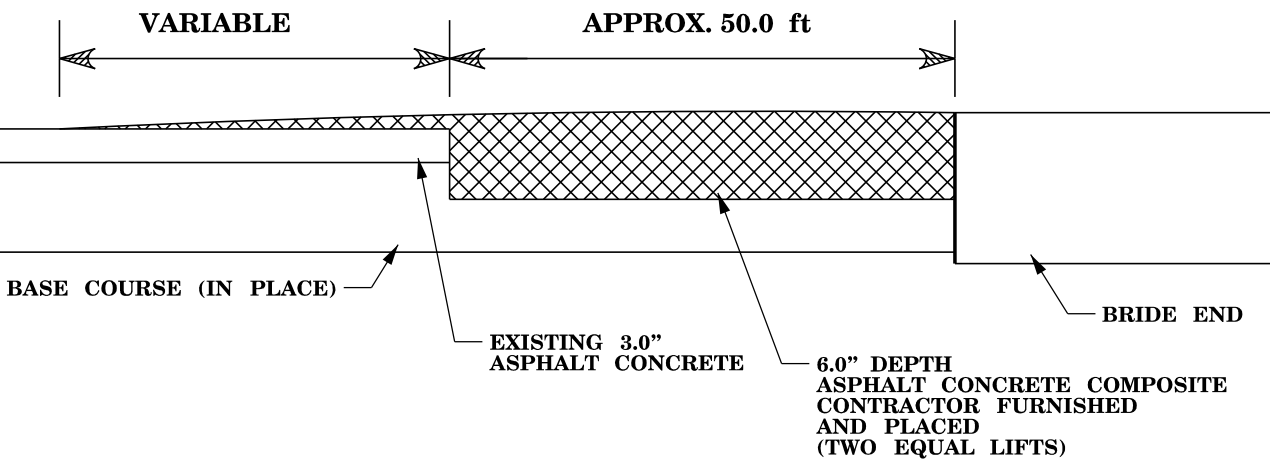
ASPHALT CONCRETE COMPOSITE
SD 53 CROSS SECTION FOR
STRUCTURES 43-018-330 & 48-440-253



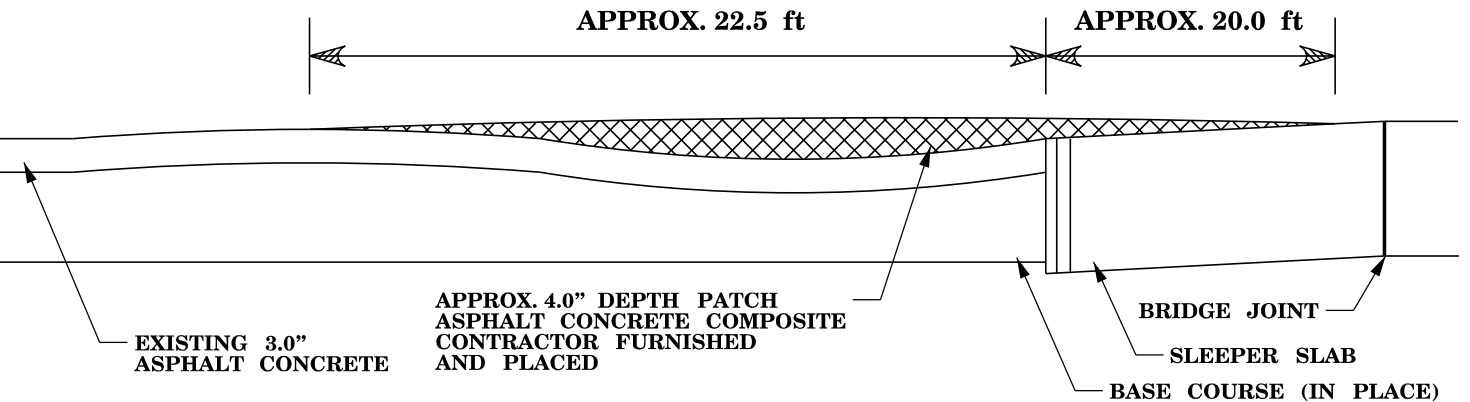
SD 53 WHITE RIVER
SIDE VIEW FOR
STRUCTURE 43-018-330
NORTH APPROACH



SD 53 BUTTE CREEK
SIDE VIEW FOR
STRUCTURE 48-440-253
SOUTH APPROACH



SD 53 WHITE RIVER
SIDE VIEW FOR
STRUCTURE 43-018-330
SOUTH APPROACH



Drawings Not to Scale

All Existing Asphalt Concrete is 3.0" Thick on a Basecourse Subgrade

File - ...FULL SIZE\dw1_full size.dgn

Plot Scale - 1:200

Plotted From - tw1m20

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	053-391	7	7

Plotting Date: 03/09/2018

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	500	25
50	500	50
55	750	50
60 - 65	1000	50

- 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.

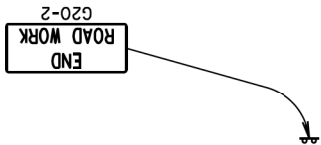
The ROAD WORK AHEAD and the END ROAD WORK signs may be omitted for short duration operations (1 hour or less).

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.

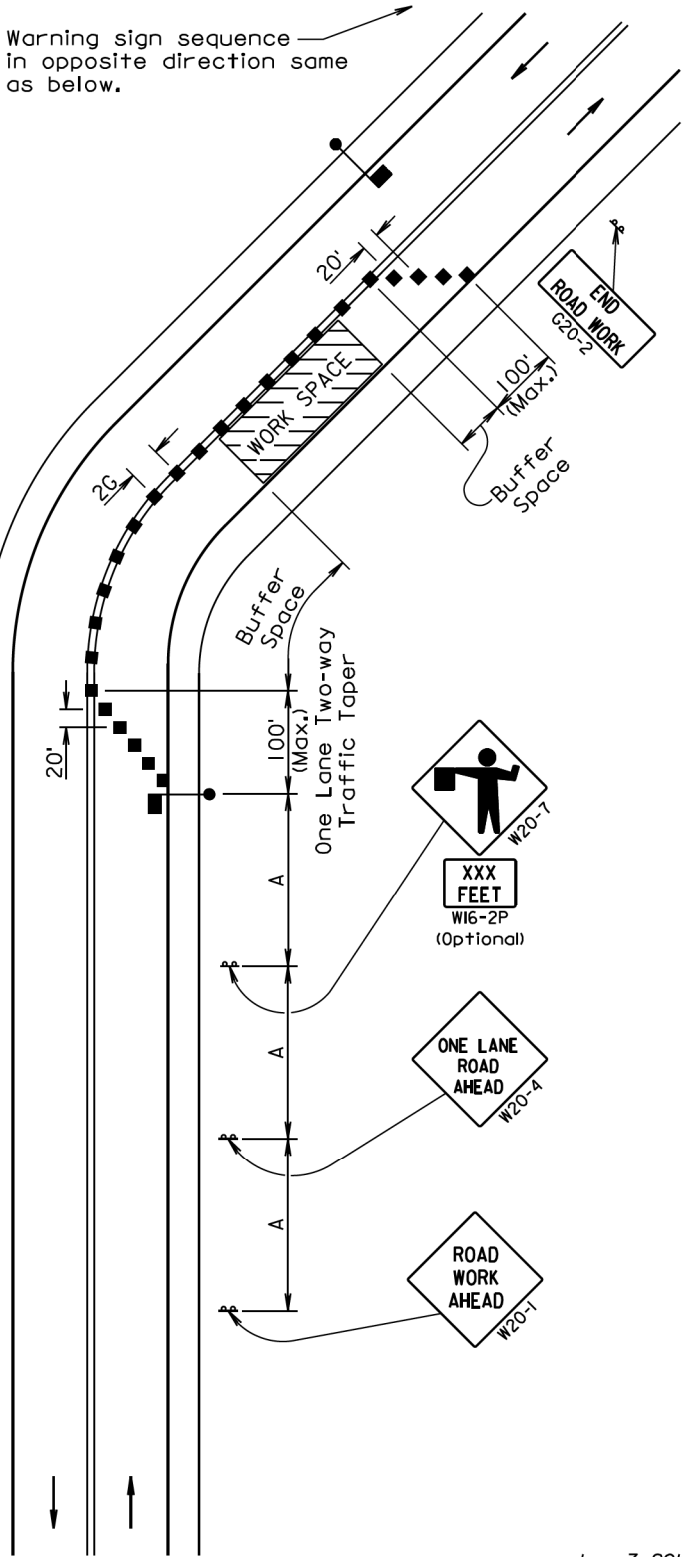


Channelizing devices and flaggers shall be used at intersecting roads to control intersecting road traffic as required.

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.

Warning sign sequence in opposite direction same as below.



June 3, 2016

Published Date: 1st Qtr. 2018	S D D O T	GUIDES FOR TRAFFIC CONTROL DEVICES LANE CLOSURE WITH FLAGGER PROVIDED	PLATE NUMBER 634.23
			Sheet 1 of 1

File - ...FULL SIZE\dw1_full size.dgn