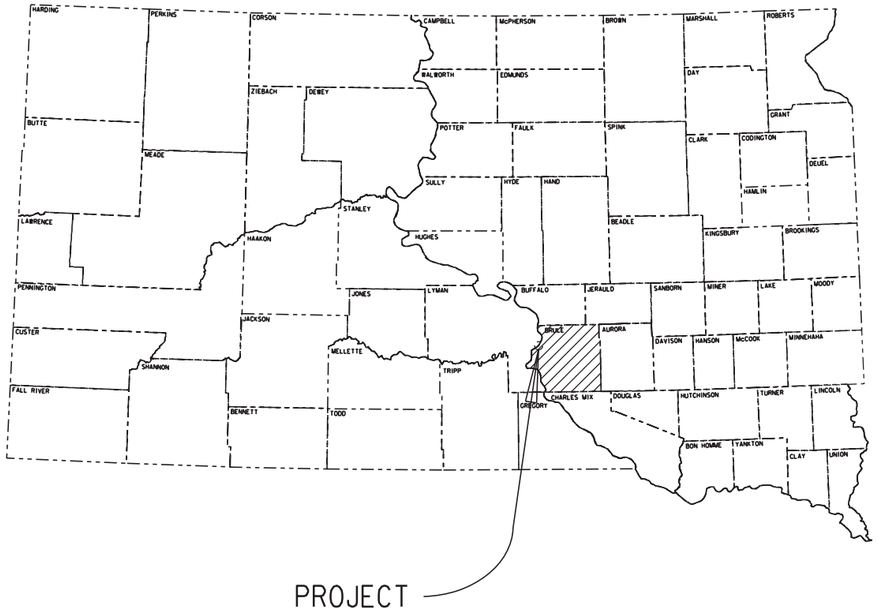
STATE OF	PROJECT	SHEET NO.	TOTAL SHEETS
S.D.	090 W-288	1	13



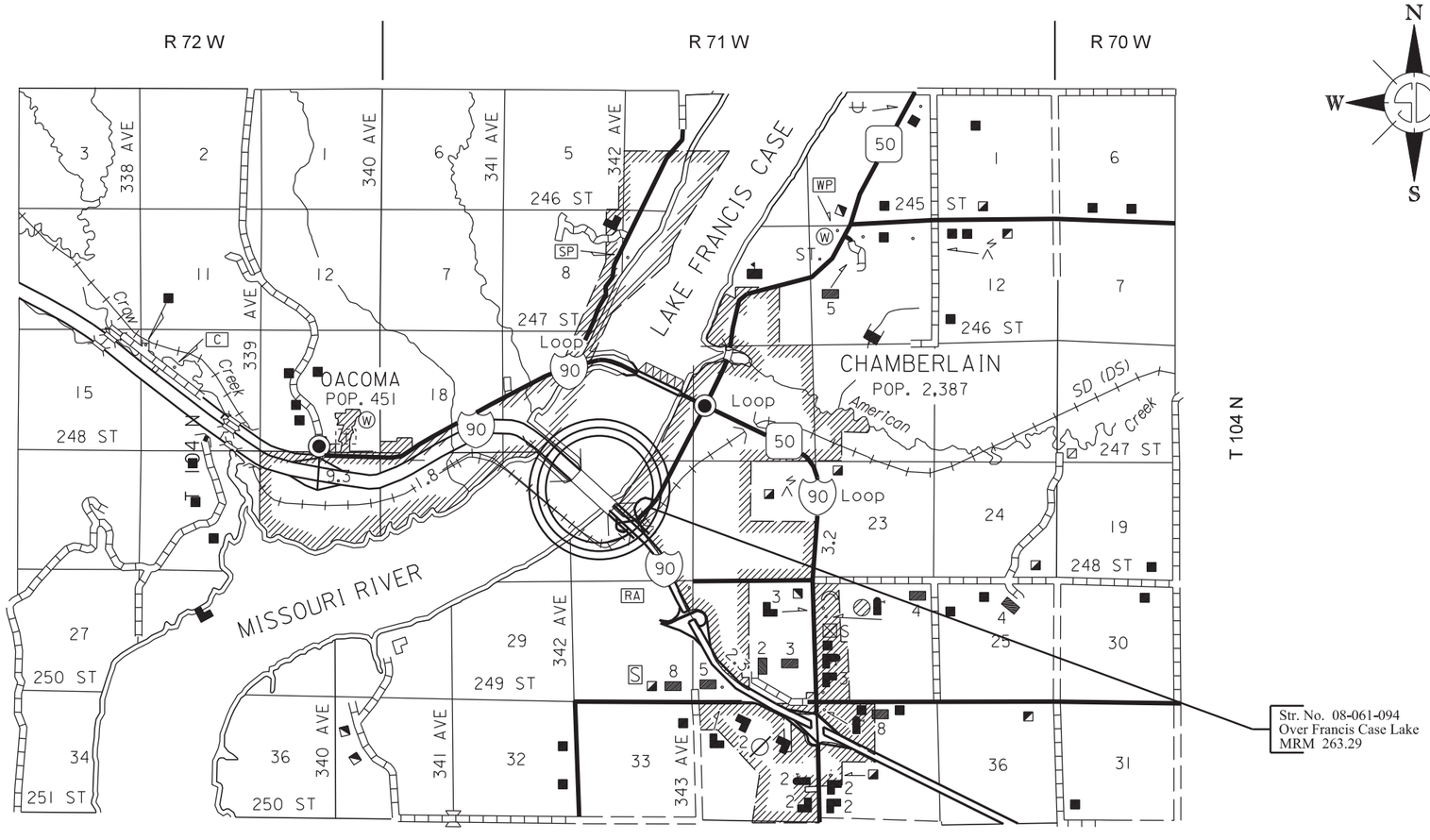
STATE OF SOUTH DAKOTA
DEPARTMENT OF TRANSPORTATION
PLANS FOR PROPOSED

PROJECT
090 W–288
INTERSTATE 90 WBL
BRULE COUNTY

DAMAGE REPAIR

PCN I3KV

INDEX OF SHEETS



08-061-094
DESIGN DESIGNATION

ADT(2014)	3419
ADT(2034)	4128
DHV	788
D	50%
T DHV	11.2%
T ADT	24.6%
V	75 MPH

STORM WATER PERMIT
NONE REQUIRED

STATE OF	PROJECT	SHEET NO.	TOTAL SHEETS
S.D.	090 W-288	2	13

ESTIMATE OF QUANTITIES

090 W-288 PCN I3KV

Bid Item Number	Item	Quantity	Unit
009E0010	Mobilization	Lump Sum	LS
634E0010	Flagging	1	Hour
634E0100	Traffic Control	1,011	Unit
634E0120	Traffic Control, Miscellaneous	Lump Sum	LS
634E0420	Type C Advance Warning Arrow Panel	1	Each
634E0640	Temporary Pavement Marking	1,800	Ft

Str. No. 08-061-094

Bid Item Number	Item	Quantity	Unit
460E0172	Concrete Patching Material, Bridge Deck	72.0	CuFt
460E0300	Breakout Structural Concrete	2.7	CuYd

SPECIFICATIONS:

Standard Specifications for Roads and Bridges, 2004 Edition and Required Provisions, Supplemental Specifications and Special Provisions as included in the Proposal.

ESTIMATE OF TRAFFIC CONTROL ITEMS

Bid Item Number	Item	Quantity	Unit
634E0010	Flagging	1	Hour
634E0100	Traffic Control	1,011	Unit
634E0120	Traffic Control, Miscellaneous	Lump Sum	LS
634E0420	Type C Advance Warning Arrow Panel	1	Each
634E0640	Temporary Pavement Marking	1,800	Ft

GENERAL MAINTENANCE OF TRAFFIC

Removing, relocating, covering, salvaging and resetting of permanent 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 unless otherwise specified in the plans. Any delineators and signs damaged or lost shall be replaced by the Contractor at no cost to the State.

Storage of vehicles and equipment shall be outside the clear zone and as near as possible to the right-of-way line. Contractor's employees should mobilize at a location off the right-of-way and arrive at the work sites in a minimum number of vehicles necessary to perform the work.

Indiscriminate driving and parking of vehicles within the right-of-way will not be permitted. Any damage to the vegetation, surfacing, embankment, delineators and existing signs resulting from such indiscriminate use shall be repaired and/or restored by the Contractor, at no expense to the State, and to the satisfaction of the Engineer.

The Contractor shall provide documentation that all breakaway sign supports comply with FHWA NCHRP 350 or MASH crash-worthy requirements. The Contractor shall provide installation details at the preconstruction meeting for all breakaway sign support assemblies.

MAINTENANCE OF TRAFFIC – BRIDGE DECK PATCHING

A Type III Barricade shall be installed at the end of a lane closure taper as detailed in these plans. Additional Type III Barricades shall be installed facing traffic within the closed lane at a spacing of 1/4 mile. Each mainline concrete repair location from which the in place concrete has been removed shall be marked with a minimum of two reflectorized drums.

Lanes should be closed prior to the off ramp at Exit 263. Ramp signing will be per the sheet titled "Traffic Control – Typical Exit Traffic Control". Tabs shall be used for Temporary Pavement Marking. A minimum 16' width shall be maintained for through traffic.

Signs may be mounted on portable supports for a period of 3 days or less.

ITEMIZED LIST FOR TRAFFIC CONTROL

		EXPRESSWAY / INTERSTATE			
SIGN CODE	DESCRIPTION	NUMBER	SIGN SIZE	UNITS PER SIGN	UNITS
R1-2	YIELD	1	60" x 60"	44	44
R2-1	SPEED LIMIT 45	2	36" x 48"	29	58
R2-1	SPEED LIMIT 65	4	36" x 48"	29	116
R2-1	SPEED LIMIT 75	1	36" x 48"	29	29
R2-6aP	FINES DOUBLE (plaque)	1	36" x 24"	20	20
W3-2	YIELD AHEAD (symbol)	1	48" x 48"	34	34
W3-5	SPEED REDUCTION AHEAD (__ MPH)	3	48" x 48"	34	102
W4-1	MERGE (symbol)	1	48" x 48"	34	34
W4-2	LEFT or RIGHT LANE ENDS (symbol)	2	48" x 48"	34	68
W20-1	ROAD WORK AHEAD	3	48" x 48"	34	102
W20-5	LEFT or RIGHT LANE CLOSED AHEAD	2	48" x 48"	34	68
W20-7	FLAGGER (symbol)	1	48" x 48"	34	34
SPECIAL	EXIT ___ with 45º ARROW (3 digits)	1	60" x 48"	38	38
G20-2	END ROAD WORK	1	48" x 24"	24	24
-	TYPE 3 BARRICADE - 8' single sided	6		40	240
				TOTAL UNITS	1011

ENVIRONMENTAL COMMITMENTS

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	090 W-288	4	13

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 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 Highway, Road, and Railway 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.

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 designated option borrow 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: staging areas, borrow sites, waste disposal sites, and all material processing sites.

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.

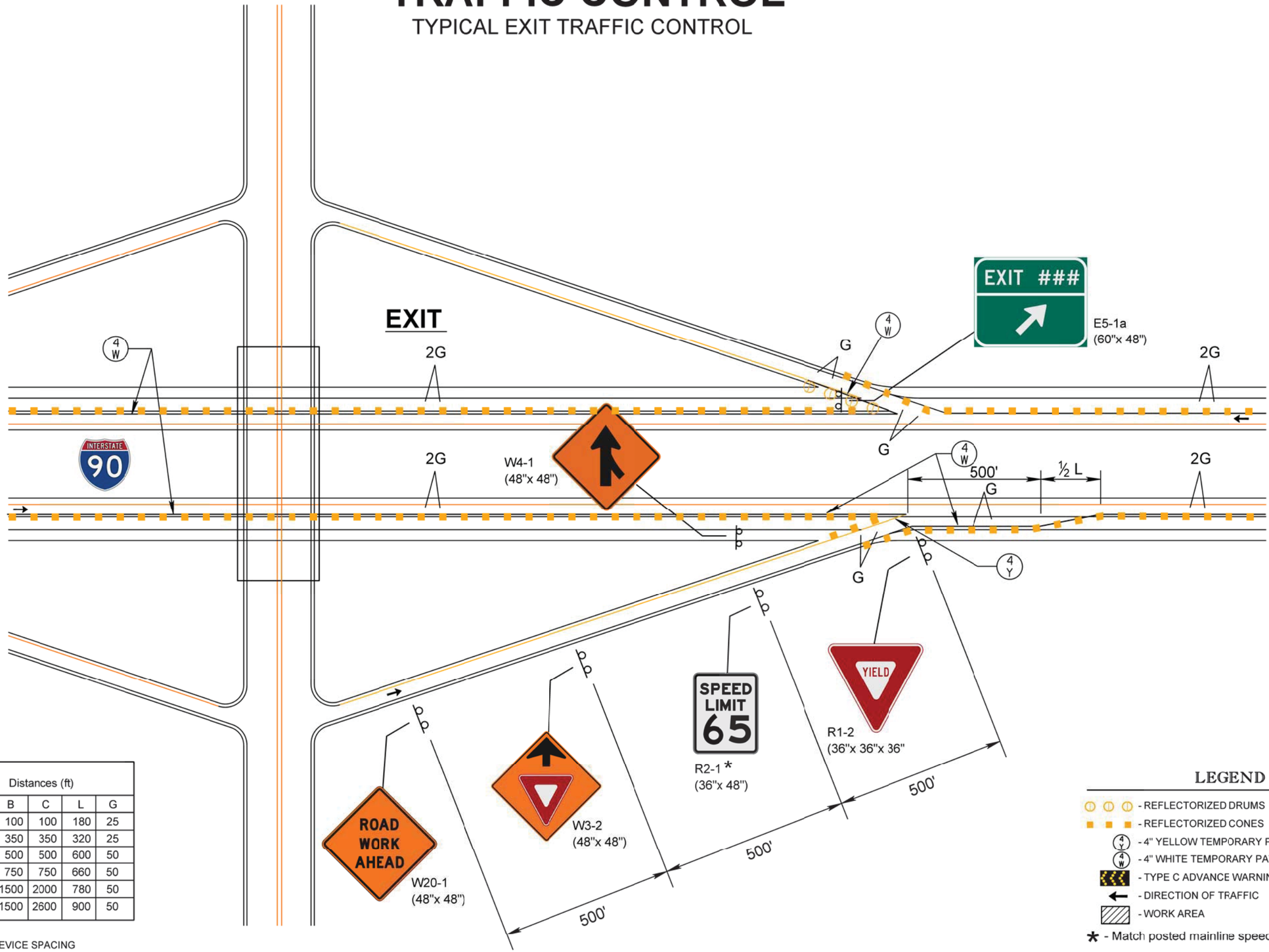
SHPO/THPO review does not relieve the Contractor of the responsibility for obtaining any additional permits and clearances for staging areas, borrow sites, waste disposal sites, or material processing sites that affect wetlands, threatened and endangered species, or waterways. The Contractor shall provide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

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	090 W-288	5	13

TRAFFIC CONTROL

TYPICAL EXIT TRAFFIC CONTROL

NO SCALE



Posted Speed Limit (MPH)	Distances (ft)				
	A	B	C	L	G
0 - 30	100	100	100	180	25
35 - 40	350	350	350	320	25
45 - 50	500	500	500	600	50
55	750	750	750	660	50
60 - 65	500	1500	2000	780	50
75	1000	1500	2600	900	50

L - LENGTH OF TAPER
G - TRAFFIC CONTROL DEVICE SPACING

LEGEND

- REFLECTORIZED DRUMS
- REFLECTORIZED CONES
- 4" YELLOW TEMPORARY PAVEMENT MARKING
- 4" WHITE TEMPORARY PAVEMENT MARKING
- TYPE C ADVANCE WARNING ARROW PANEL
- DIRECTION OF TRAFFIC
- WORK AREA

* - Match posted mainline speed.

Posted Speed Prior to Work (M.P.H.)	Spacing of Advance Warning Signs (Feet) (A) (B) (C)
0 - 30	200
35 - 40	350
45 - 50	500
55	750
60 - 65	1000
	(A) (B) (C)
70 - 75	1000 1500 2640

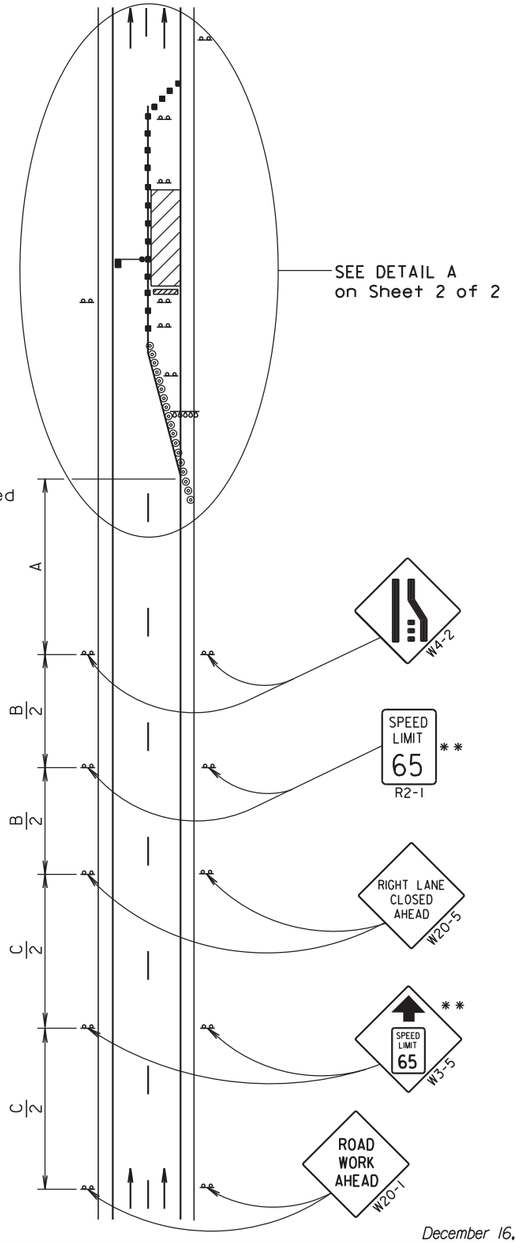
** Speed appropriate for location.

◎ Reflectorized Drum

■ Channelizing Device

ROAD WORK AHEAD sign is only required in advance of the first lane closure.

High speed is defined as having a posted speed limit greater than 45 mph.



December 16, 2014

Published Date: 4th Qtr. 2014	SDDOT	WORK ZONE SPEED REDUCTION FOR INTERSTATE AND HIGH SPEED MULTI-LANE HIGHWAYS	PLATE NUMBER 634.63
			Sheet 1 of 2

Posted Speed Prior to Work (M.P.H.)	Spacing of Channelizing Devices (Feet) (G)	Taper Length (Feet) (L)
0 - 30	25	180
35 - 40	25	320
45 - 50	50 *	600
55	50 *	660
60 - 65	50 *	780
70 - 75	50 *	900

* Spacing is 40' for 42" cones.

**Speed appropriate for location.

***Use speed limit designated for the condition when workers are present in the work space. Signs shall be covered or removed when workers are not present.

Flagger (As Necessary)

◎ Reflectorized Drum

■ Channelizing Device

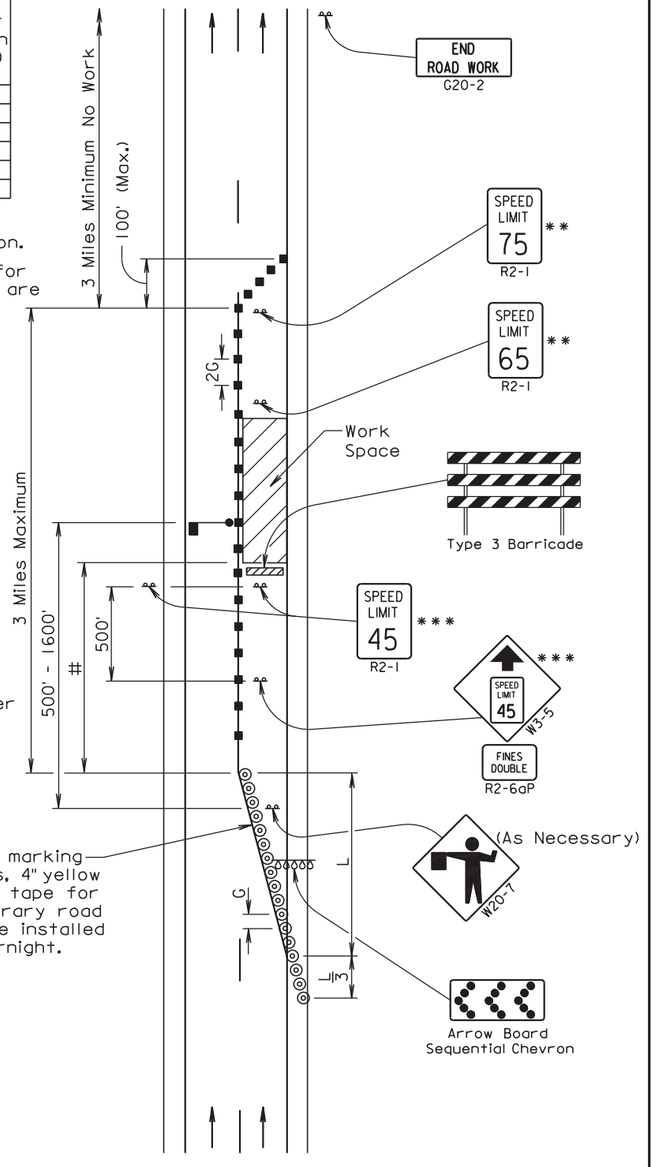
The Work Space shall be a minimum of 500' from the end of the taper.

The FLAGGER sign shall be used whenever there is a Flagger present.

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.

4" white temporary pavement marking tape for right lane closures, 4" yellow temporary pavement marking tape for left lane closures, or temporary road markers at 5' spacing shall be installed when the lane is closed overnight.

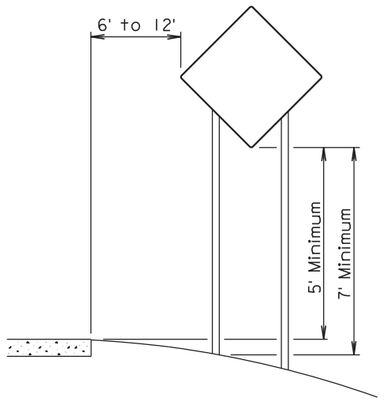


DETAIL A

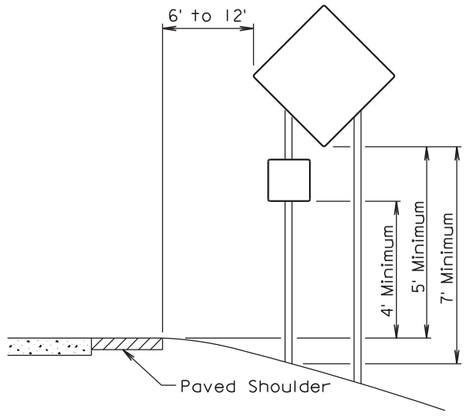
December 16, 2014

Published Date: 4th Qtr. 2014	SDDOT	WORK ZONE SPEED REDUCTION FOR INTERSTATE AND HIGH SPEED MULTI-LANE HIGHWAYS	PLATE NUMBER 634.63
			Sheet 2 of 2

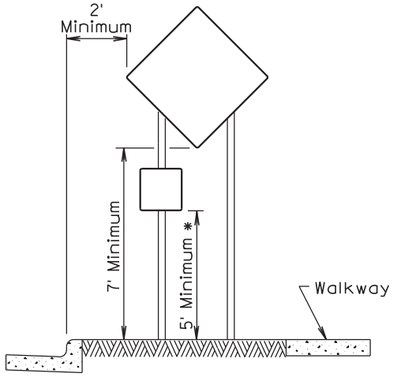
STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	090 W-288	7	13



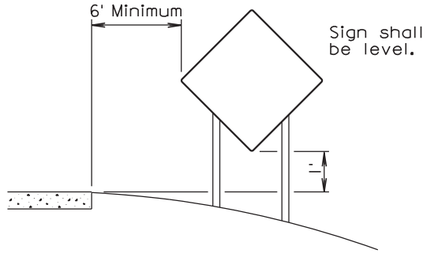
RURAL DISTRICT



RURAL DISTRICT WITH SUPPLEMENTAL PLATE



URBAN DISTRICT

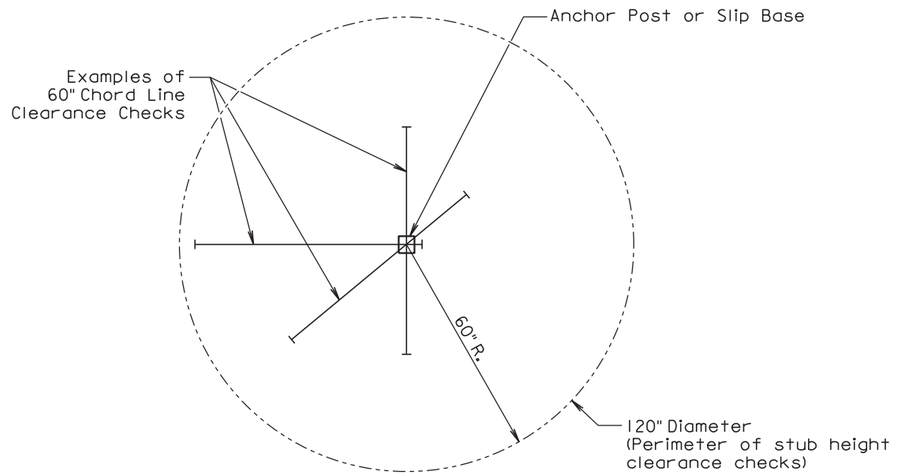


RURAL DISTRICT
3 DAY MAXIMUM
(Not applicable to regulatory signs)

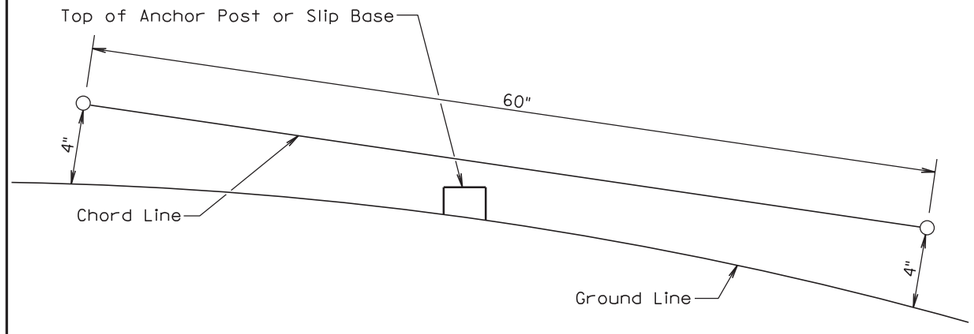
* If the bottom of supplemental plate is mounted lower than 7 feet above a pedestrian walkway, the supplemental plate should not project more than 4" into the pedestrian facility.

September 22, 2014

Published Date: 4th Qtr. 2014	SDDOT	CRASHWORTHY SIGN SUPPORTS (Typical Construction Signing)	PLATE NUMBER 634.85
			Sheet 1 of 1



PLAN VIEW
(Examples of stub height clearance checks)



ELEVATION VIEW

GENERAL NOTES:

The top of anchor posts and slip bases SHALL NOT extend above a 60" chord line within a 120" diameter circle around the post with ends 4" above the ground.

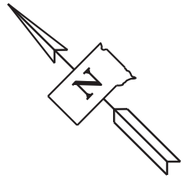
At locations where there is curb and gutter adjacent to the breakaway sign support, the stub height shall be a maximum of 4" above the ground line at the localized area adjacent to the breakaway support stub.

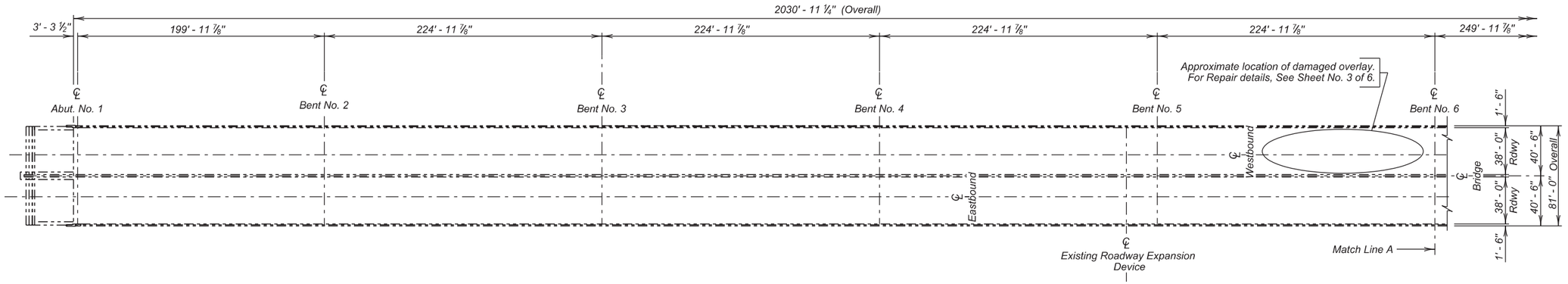
The 4" stub height clearance is not necessary for U-channel lap splices where the support is designed to yield (bend) at the base.

July 1, 2005

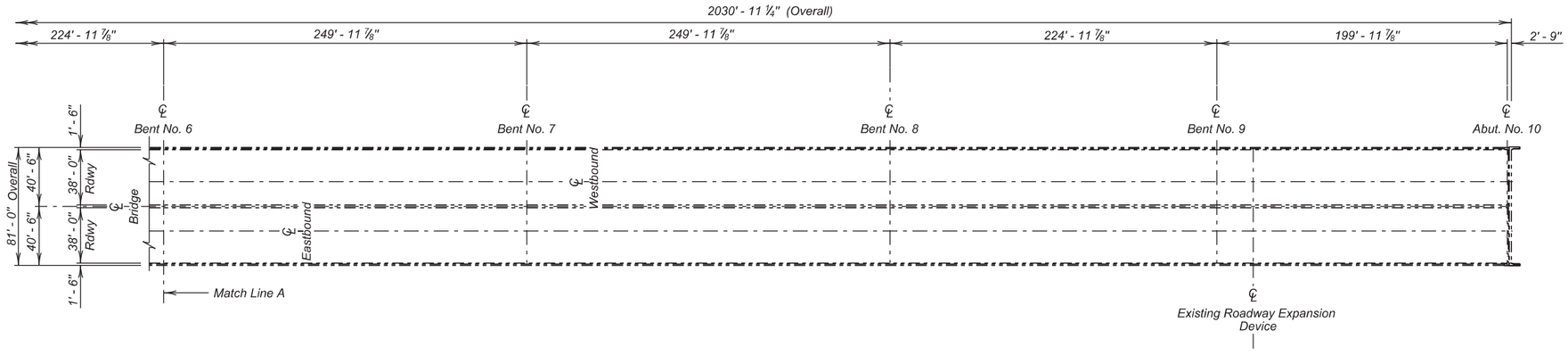
Published Date: 4th Qtr. 2014	SDDOT	BREAKAWAY SUPPORT STUB CLEARANCE	PLATE NUMBER 634.99
			Sheet 1 of 1

STATE OF	PROJECT	SHEET NO.	TOTAL SHEETS
S.D.	090 W-288	8	13





PLAN



PLAN

INDEX OF BRIDGE SHEETS -

LAYOUT FOR REPAIR

FOR

2030' - 11¼" WELDED PLATE GIRDER BRIDGE

TWO - 38' - 0" ROADWAYS — 0° SKEW

OVER FRANCIS CASE LAKE — SEC. 21-T104N-R71W

STR. NO. 08-061-094 — 090 W-288

PCN I3KV

BRULE COUNTY

S. D. DEPT. OF TRANSPORTATION

OCTOBER 2014

1 OF 6

PLANS BY :
OFFICE OF BRIDGE DESIGN, SOUTH DAKOTA DEPARTMENT OF TRANSPORTATION

DESIGNED BY	CK. DES. BY	DRAFTED BY	
NP	MM	NP	Kevin N. Goeden BRIDGE ENGINEER
BRULI3KV	I3KVPA01		

ESTIMATE OF STRUCTURE QUANTITIES

ITEM NO.	DESCRIPTION	QUANTITY	UNIT
460E0172	Concrete Patching Material, Bridge Deck	72.0	CuFt
460E0300	Breakout Structural Concrete	2.7	CuYd

SPECIFICATIONS

Construction Specifications: South Dakota Standard Specifications for Roads and Bridges, 2004 Edition and Required Provisions, Supplemental Specifications and Special Provisions as included in the Proposal.

DETAILS AND DIMENSIONS OF EXISTING BRIDGE

All details and dimensions of the existing bridge, contained in these plans, are based on the original construction plans and shop plans and are provided as information only. It is the Contractor's responsibility to inspect and verify the actual field conditions and any necessary as-built dimensions affecting the satisfactory completion of the work required for this project.

SCOPE OF BRIDGE WORK & SEQUENCE OF OPERATIONS

All work on this structure shall be accomplished with the traffic control shown in the plans. Alternate sequence of operations may be submitted by the Contractor for approval by the Engineer a minimum of two weeks prior to the pre-construction meeting.

Breakout and replace the damaged portions of the LSDC Overlay as shown in the plans.

CONCRETE BREAKOUT

1. The damaged LSDC Overlay shall be broken out to the limits shown on the plans. Breakout limits shall be defined with a 2" deep sawcut (unless specified otherwise in these plans), where practical, as approved by the Engineer. Care shall be taken not to damage the existing LSDC Overlay adjacent to the removal limits during concrete breakout. Any overlay that is damaged during concrete breakout shall be replaced or repaired, as approved by the Engineer, by the Contractor at no cost to the Department.

2. All broken out concrete shall be disposed of by the Contractor. Any disposal of discarded material shall be in accordance with the Environmental Commitments.

3. The contract unit price per cubic yard for "Breakout Structural Concrete" shall include breaking out concrete and disposal of all broken out material.

CONCRETE PATCHING MATERIAL, BRIDGE DECK

1. Concrete patching material shall be used to repair the damaged portions of the LSDC Overlay.

2. Concrete patching material shall be packaged, dry, cementitious mortar or concrete material conforming to the requirements of ASTM C 928, Type R-3 and to the requirements below.

   a. The concrete patching material shall be low shrinkage and shall contain no chlorides, magnesium or phosphates.

   b. Initial set shall not occur until the entire patch has been placed and finished.

   c. The concrete patching material shall either contain a bonding agent or the Contractor shall use a bonding agent conforming to the requirements of ASTM C 1059.

3. Water used for the concrete patching material shall be in conformance with Section 790 of the Construction Specifications.

4. Upon completion of the concrete removal and immediately prior to placing any concrete patching material into the concrete removal areas, the removal areas shall be thoroughly cleaned of loose and foreign material by abrasive blasting. The surface profile of the area to receive the patching material shall be in accordance with the manufacturer's recommendations. The abrasive blasting shall be to the extent that all surface laitance is removed. Abrasive blast cleaning shall expose the coarse aggregate and remove rust from any exposed reinforcing steel. After abrasive blasting, the surface shall be cleaned by the use of compressed air to the satisfaction of the Engineer. The air compressor used for cleaning shall be equipped with trap devices capable of providing moisture-free and oil-free air at a recommended pressure of 90 psi.

5. The existing surface at the time of placement of the concrete patching material shall be at least 40° F (4° C), measured by a thermometer placed against the concrete surface and covered with an insulating blanket. The concrete patching material shall be mixed and placed in accordance with the manufacturer's technical data sheet. The Contractor shall provide a manufacturer's technical data sheet to the Engineer prior to performing the work. The concrete patching material shall be maintained at or above 45° F (7° C) for at least 72 hours after placement.

6. Immediately after finishing the concrete patching material, the surface of the concrete patching material shall be covered with a double layer of wet burlap. Within one hour of covering with wet burlap, polyethylene sheeting shall be placed on the wet burlap. The surface shall be wet cured for a minimum of 48 hours or in accordance with the manufacturer's recommendations, whichever is more stringent. Following the wet cure, the burlap and polyethylene sheeting shall be removed and the surface allowed to air dry for a minimum of 48 hours after removal of the burlap and polyethylene sheeting.

7. Concrete Patching Material, Bridge Deck will be measured to nearest 0.1 cubic feet as determined from the theoretical yield per bag of Concrete Patching Material, Bridge Deck. Concrete Patching Material, Bridge Deck will be paid for at the contract unit price per cubic foot. Payment will be full compensation for all labor, equipment, materials, and all incidental work required to abrasive blast clean the removal areas, and furnish, place and cure the concrete patching material within the removal areas.

ESTIMATE OF STRUCTURE QUANTITIES AND NOTES

FOR

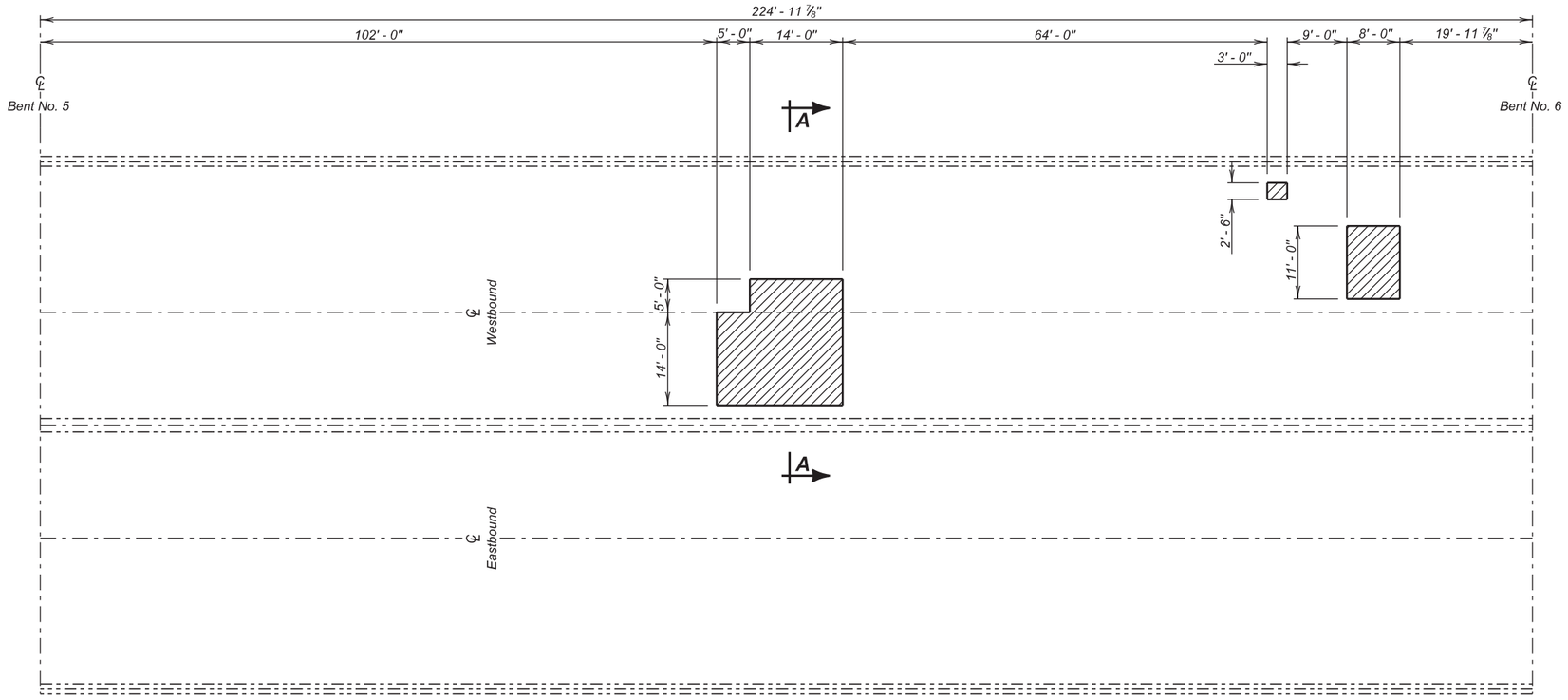
2030' - 11¼" WELDED PLATE GIRDER BRIDGE

STR. NO. 08-061-094

OCTOBER 2014

DESIGNED BY	CK. DES. BY	DRAFTED BY	
NP	MM	NP	Kevin N. Goeden
BRULI3KV	I3KVPA02		BRIDGE ENGINEER

STATE OF	PROJECT	SHEET NO.	TOTAL SHEETS
S.D.	090 W-288	10	13

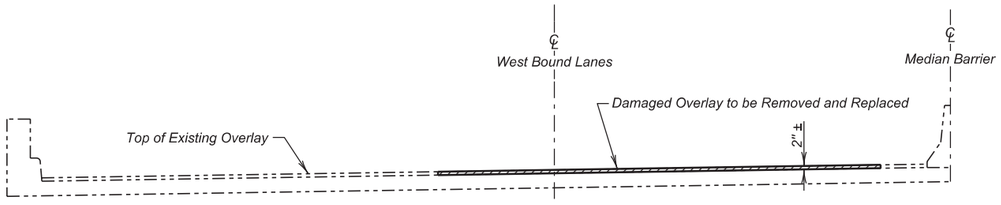


PARTIAL PLAN
(Span 5)

LEGEND -

Shaded areas indicate approximate location of damaged concrete requiring removal and replacment.

ESTIMATED QUANTITIES		
ITEM	UNIT	QUANTITY
Concrete Patching Material, Bridge Deck	Cu Ft	72.0
Breakout Structural Concrete	Cu Yd	2.7



SECTION A - A

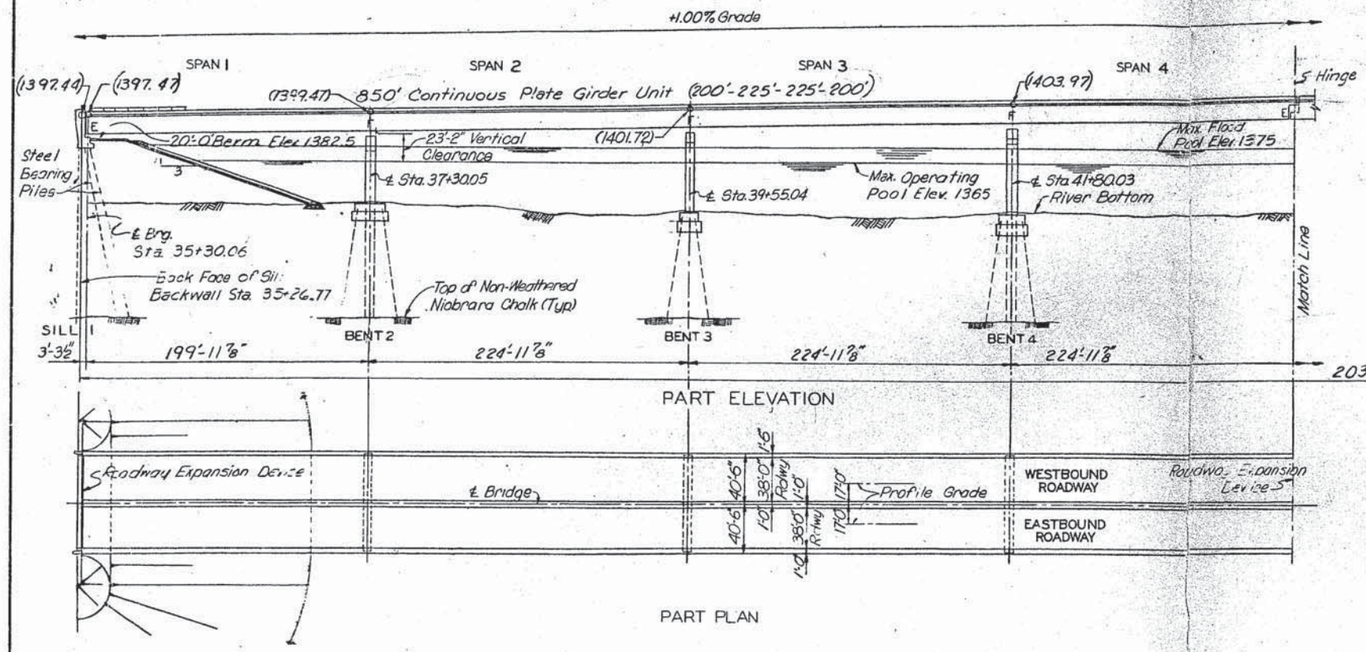
OVERLAY REPAIR DETAILS
FOR
2030' - 11¼" WELDED PLATE GIRDER BRIDGE

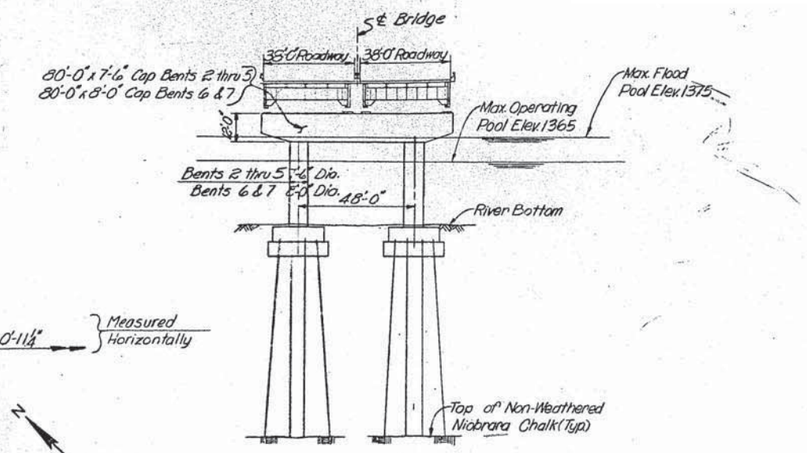
TWO - 38' - 0" ROADWAYS — 0° SKEW
OVER FRANCIS CASE LAKE — SEC. 21-T104N-R71W
STR. NO. 08-061-094 — 090 W-288

BRULE COUNTY
S. D. DEPT. OF TRANSPORTATION
OCTOBER 2014

DESIGNED BY	CK. DES. BY	DRAFTED BY	
NP	MM	NP	Kevin N. Goeden BRIDGE ENGINEER
BRULI3KV	I3KVPA03		

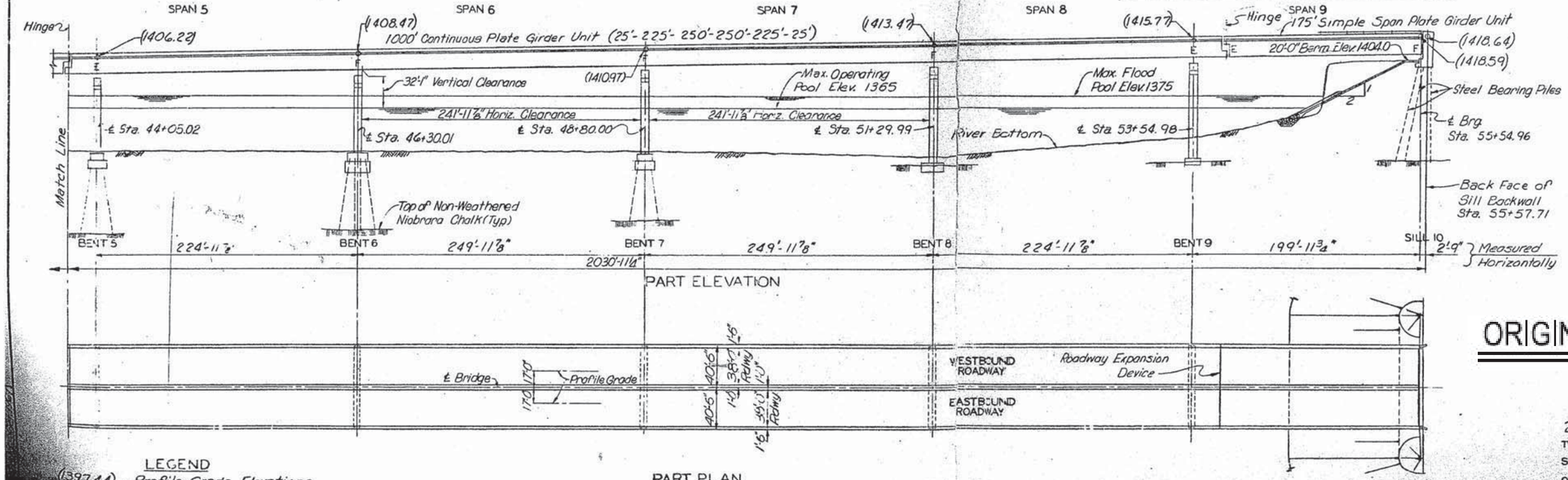
STATE OF	PROJECT	SHEET NO.	TOTAL SHEETS
S.D.	090 W-288	11	13





BENTS 2 THRU 7

Note: Dimensions for Bents 8 and 9 same as Bents 6 and 2 respectively.



Note: Profile Grade for the Structure is 13" above top of Select Granular Subgrade Topping on approach roadway.

NOTES

For General Notes, see Sheet 3.

LEGEND

(1397.44) – Profile Grade Elevations
E – Expansion Bearing
F – Fixed Bearing

ORIGINAL CONSTRUCTION PLANS

GENERAL PLAN AND ELEVATION
FOR
2,030'-11¼" WELDED PLATE GIRDER BRIDGE

TWO 38'-0" ROADWAYS — 2'-0" MEDIAN
STA. 35+26.77 TO 55+57.71 — I 90-6(17)-236
OVER FRANCIS CASE LAKE — SEC. 21 - T104N - R71W
STR. NO. 08-061-094 — BRULE COUNTY
SOUTH DAKOTA
DEPARTMENT OF HIGHWAYS — HS20-44 & ALT.

APPROVED _____ BRIDGE ENGINEER

4 OF 6

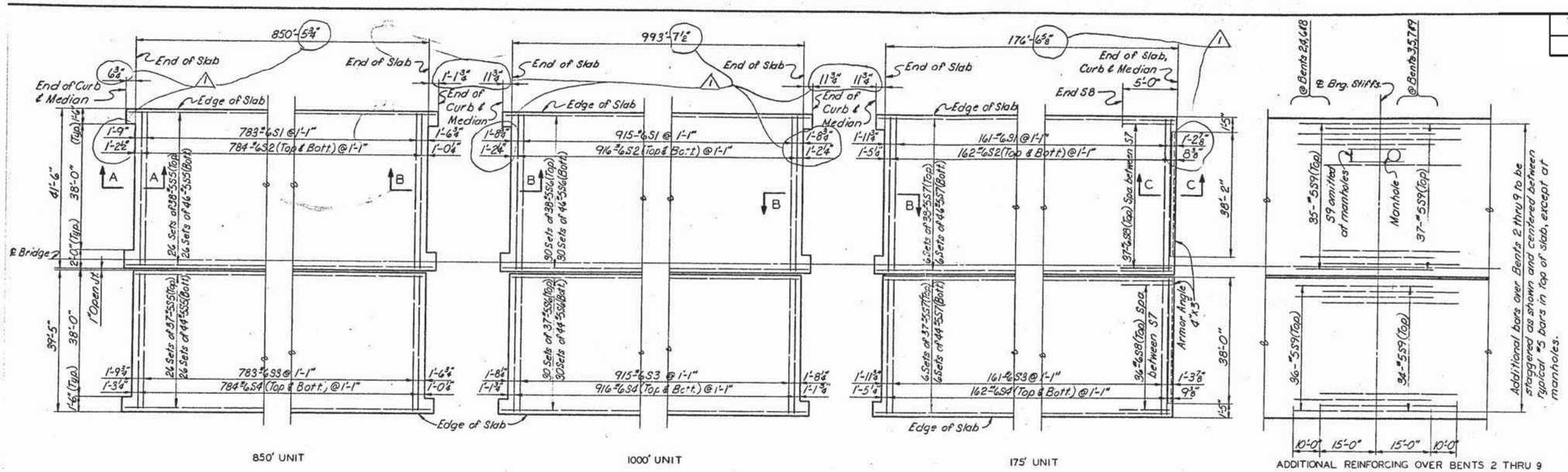
PREPARED BY
SVERDRUP & PARCEL AND ASSOCIATES, INC.
CONSULTING ENGINEERS
ST. LOUIS, MISSOURI

NOTE: DO NOT SCALE THIS DRAWING, FOLLOW DIMENSIONS.

08 007

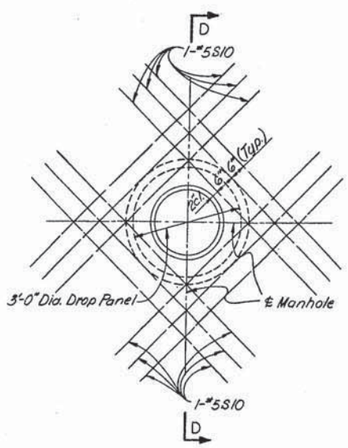
R1762

STATE OF	PROJECT	SHEET NO.	TOTAL SHEETS
S.D.	090 W-288	12	13

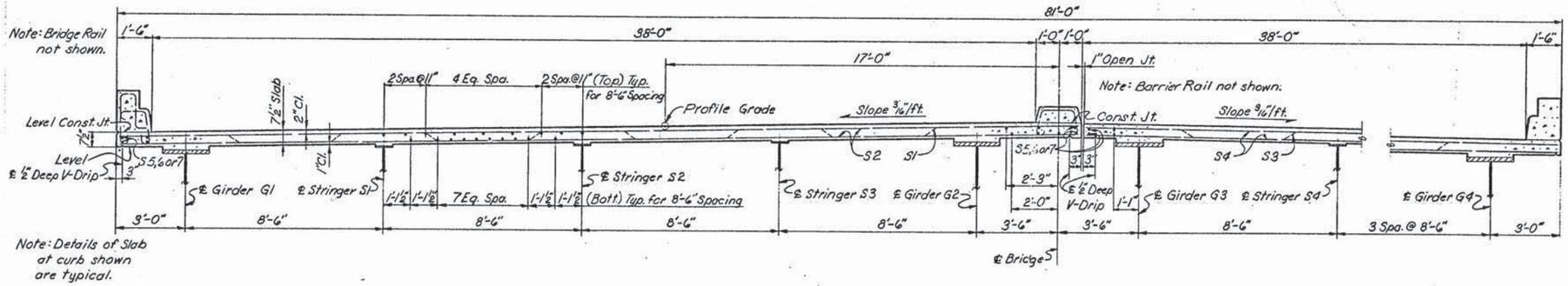


PLAN

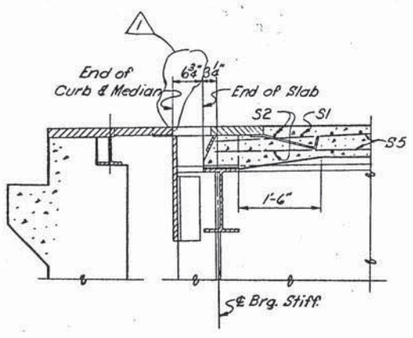
ADDITIONAL REINFORCING OVER BENTS 2 THRU 9
Note: Shown for Bent 2, other Bents similar.



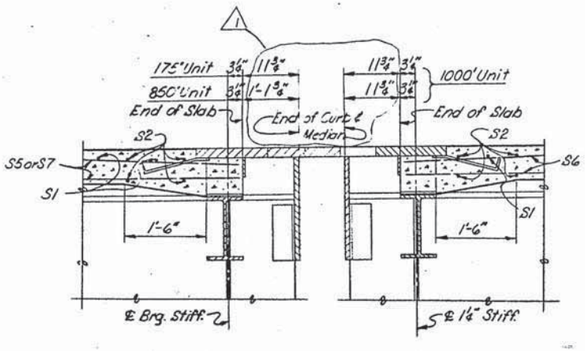
REINFORCING AT MANHOLE
Note: For Location of Manholes, see Sheet 14. Normal Slab reinforcement shall be cut or bent as required to clear manhole frame.



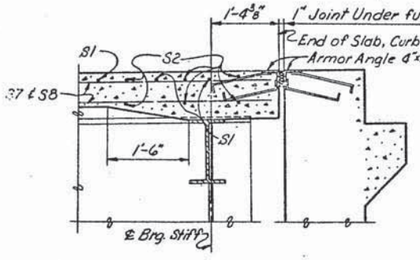
TYPICAL CROSS SECTION



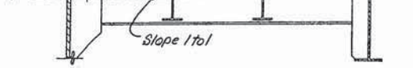
SECTION A-A



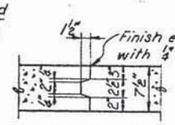
SECTION B-B



SECTION C-C
Note: For Details of Armor Angle see Sheet 4.



SECTION D-D



TRANSVERSE CONST. JT.
Note: Key to extend full length of Joint.

NOTES

For General Notes see Sheet 3.
Longitudinal dimensions are measured along Profile Grade.
For details and reinforcement in curb and median, see Sheet 14.
For Slab Forming Elevations and Slab Placing Sequence, see Sheet 16.
For location and details of Light Standard Supports, see Sheet 14.
Weight of Armor Angle for slab (950#) included in Structural Carbon Steel.
For Bar List, see Sheet 18.

SLAB DETAILS
FOR
2,030'-11¼" WELDED PLATE GIRDER BRIDGE
TWO 38'-0" ROADWAYS 2'-0" MEDIAN
STA. 35+26.77 TO 55+57.71 I 90-6 (17)-266
OVER FRANCIS CASE LAKE SEC. 21 - T104N - R71W
STR. NO. 08-061-094 BRULE COUNTY
SOUTH DAKOTA
DEPARTMENT OF HIGHWAYS HS 20-44 & ALT.

PREPARED BY
SVERDRUP & PARCEL AND ASSOCIATES, INC.
CONSULTING ENGINEERS
ST. LOUIS, MISSOURI

No.	BY	DATE	DESCRIPTION
1	D.A.	8-14-72	Concrete Dimensions

REVISIONS

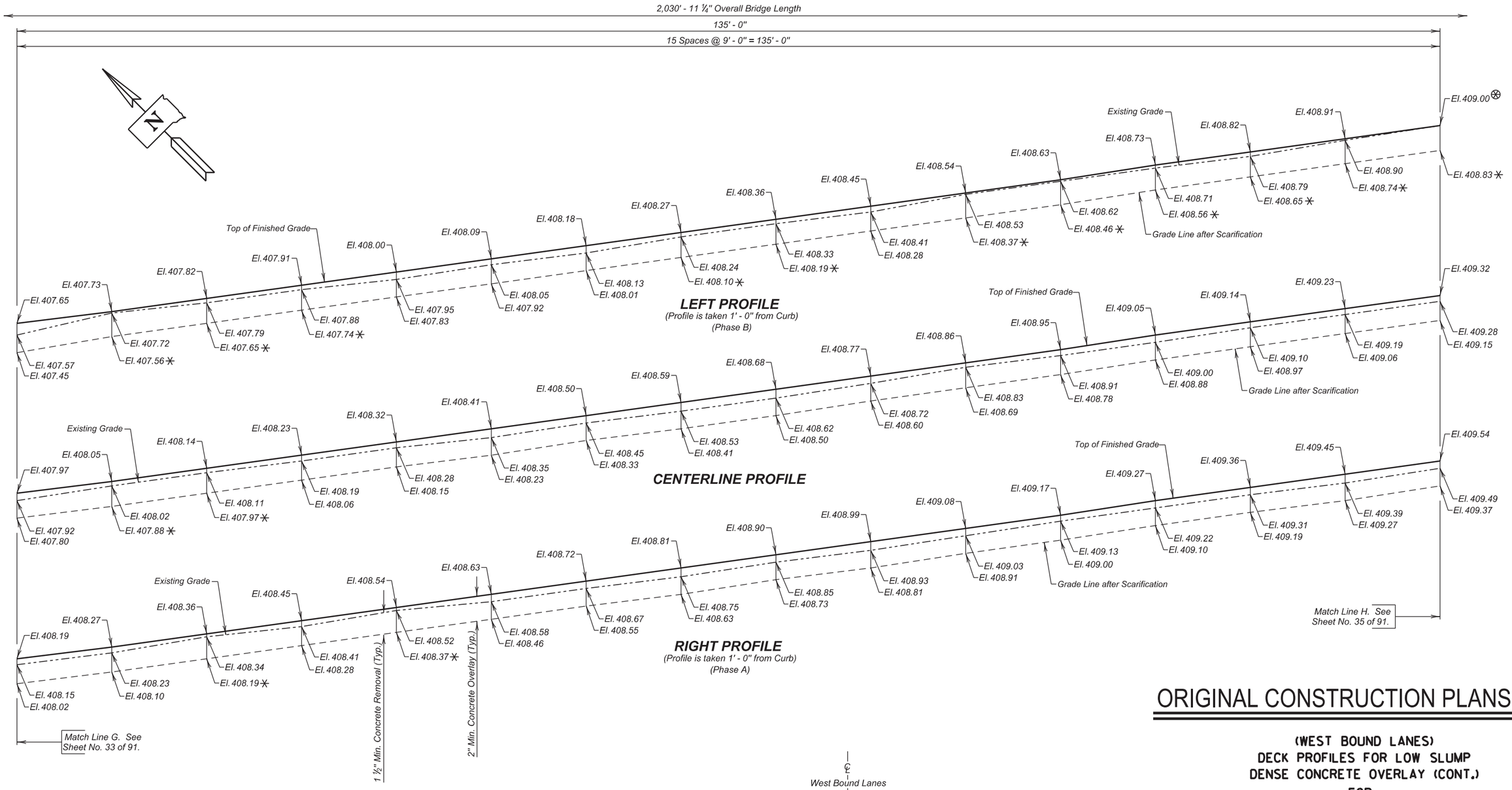
NOTE: DO NOT SCALE THIS DRAWING. FOLLOW DIMENSIONS.

ORIGINAL CONSTRUCTION PLANS

APPROVED 5 OF 6
BRIDGE ENGINEER

MD-019

STATE OF	PROJECT	SHEET NO.	TOTAL SHEETS
S.D.	090 W-288	13	13



ORIGINAL CONSTRUCTION PLANS

(WEST BOUND LANES)
DECK PROFILES FOR LOW SLUMP
DENSE CONCRETE OVERLAY (CONT.)
FOR

2030' - 11¼" WELDED PLATE GIRDER BRIDGE

TWIN 38' - 0" ROADWAYS W/ 2' - 0' MEDIAN — 0° SKEW
OVER FRANCIS CASE LAKE — SEC. 21-T104N-R71W
STR. NO. 08-061-094 — IM 0905(96)258

BRULE COUNTY
S. D. DEPT. OF TRANSPORTATION
JULY 2011

6 OF 6

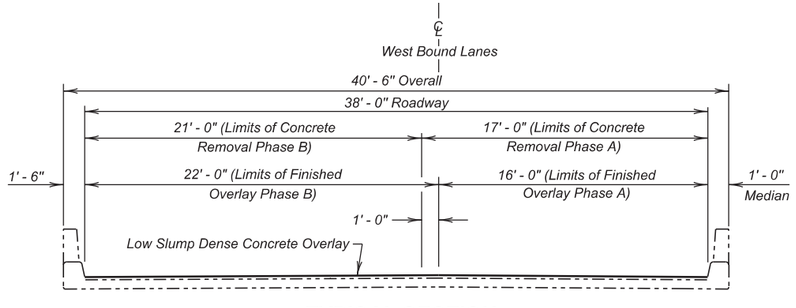
Benchmark Description:

B.M. # : Existing Brass Cap in Top NE Corner Wingwall
MRM : 263.99 CP 10 LT
Elevation: 1419.38
Instr. Hgt : 1423.26

0' .25' .5' 1.00'

VERTICAL SCALE

NOTE :
Add 1000.00 to all elevations shown on profiles.
✳ Scarify in excess of 1 ½" in these areas.
⊛ Existing Elevation is the same as the Finished Surface Elevation.
◈ Existing Elevation is higher than the Finished Surface Elevation.



TYPICAL SECTION

DESIGNED BY	DRAWN BY	CHECKED BY	
BB LYMNOIQR	JWL OIQRLK34	BWS	Kevin N. Goeden BRIDGE ENGINEER