

STATE OF SOUTH DAKOTA
DEPARTMENT OF TRANSPORTATION

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	P 0032(38)	1	13

Plotting Date: 02/04/2021

PLANS FOR PROPOSED
PROJECT P 0032(38)
SD HIGHWAYS 20, 65 & 271
WALWORTH & CORSON
COUNTIES

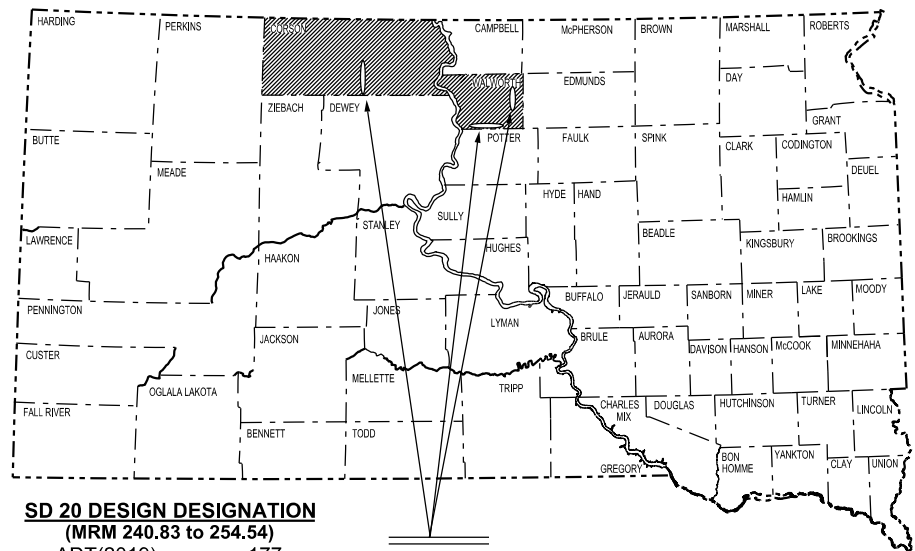
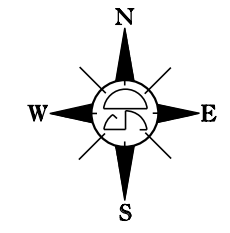
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Sheet 11	Typical Reservoir
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ASPHALT CONCRETE CRACK SEALING

PCN 07KE

SD HIGHWAY 20
WALWORTH COUNTY
LENGTH 13.683 MILES



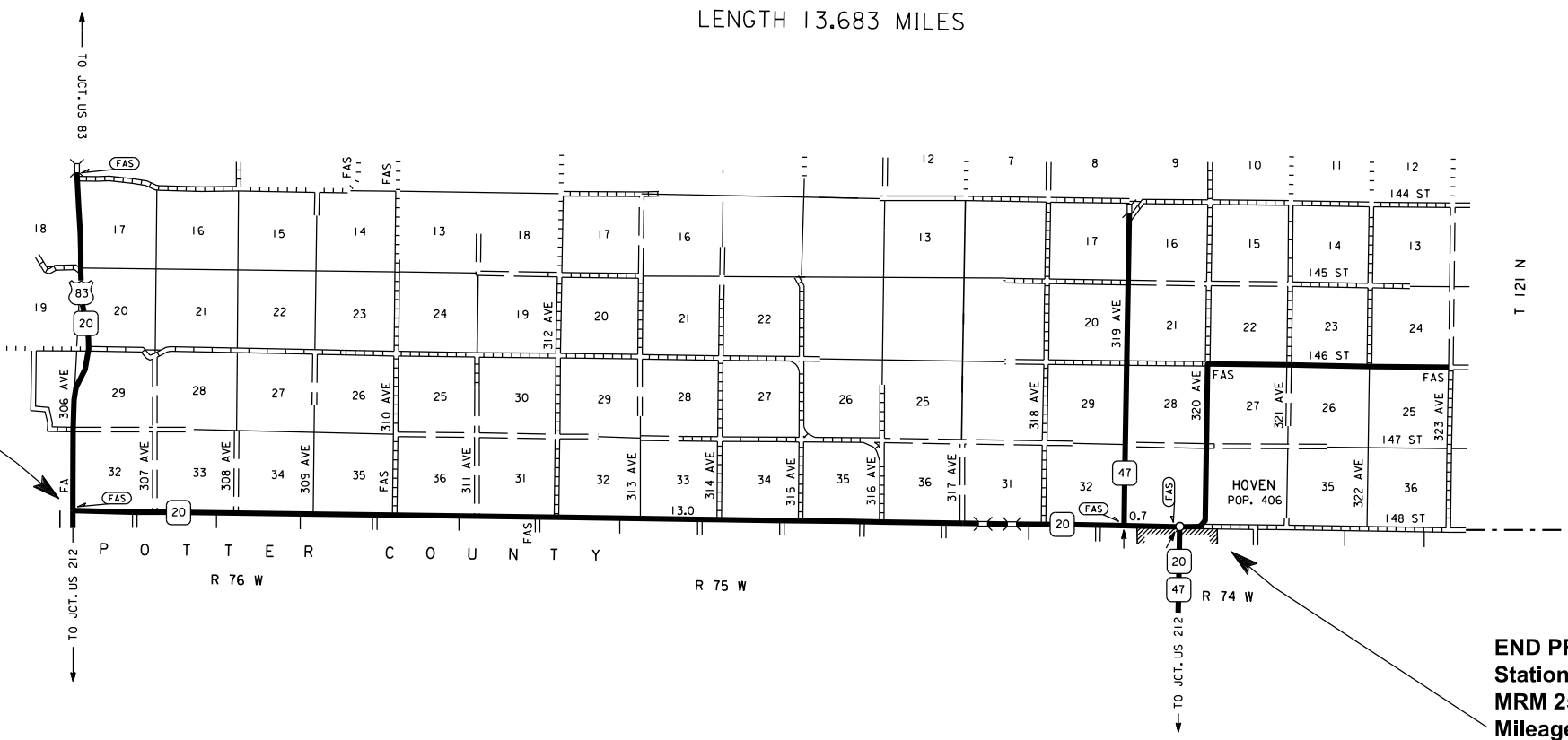
SD 20 DESIGN DESIGNATION

(MRM 240.83 to 254.54)

ADT(2019)	177
ADT(2039)	182
DHV	24
D	51%
T DHV	6.6%
T ADT	14.5%
V	65 MPH

PROJECTS

BEGIN PROJECT P 0032(38)
Station 0+00
MRM 240.83
Mileage 188.739



END PROJECT P 0032(38)
Station 722+46
MRM 254.54
Mileage 202.44

STORM WATER PERMIT

None Required

7

April 14, 2021

PLOT SCALE - 1:33733.4

PLOTTED FROM - TRMOINI13

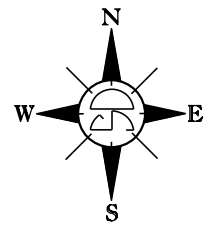
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STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	P 0032(38)	2	13

Plotting Date: 02/04/2021

SD65 DESIGN DESIGNATION
(MRM 198.62 to 214.00)
ADT(2019) 353
ADT(2039) 440
DHV 70
D 50%
T DHV 10.9%
T ADT 23.9%
V 65 MPH

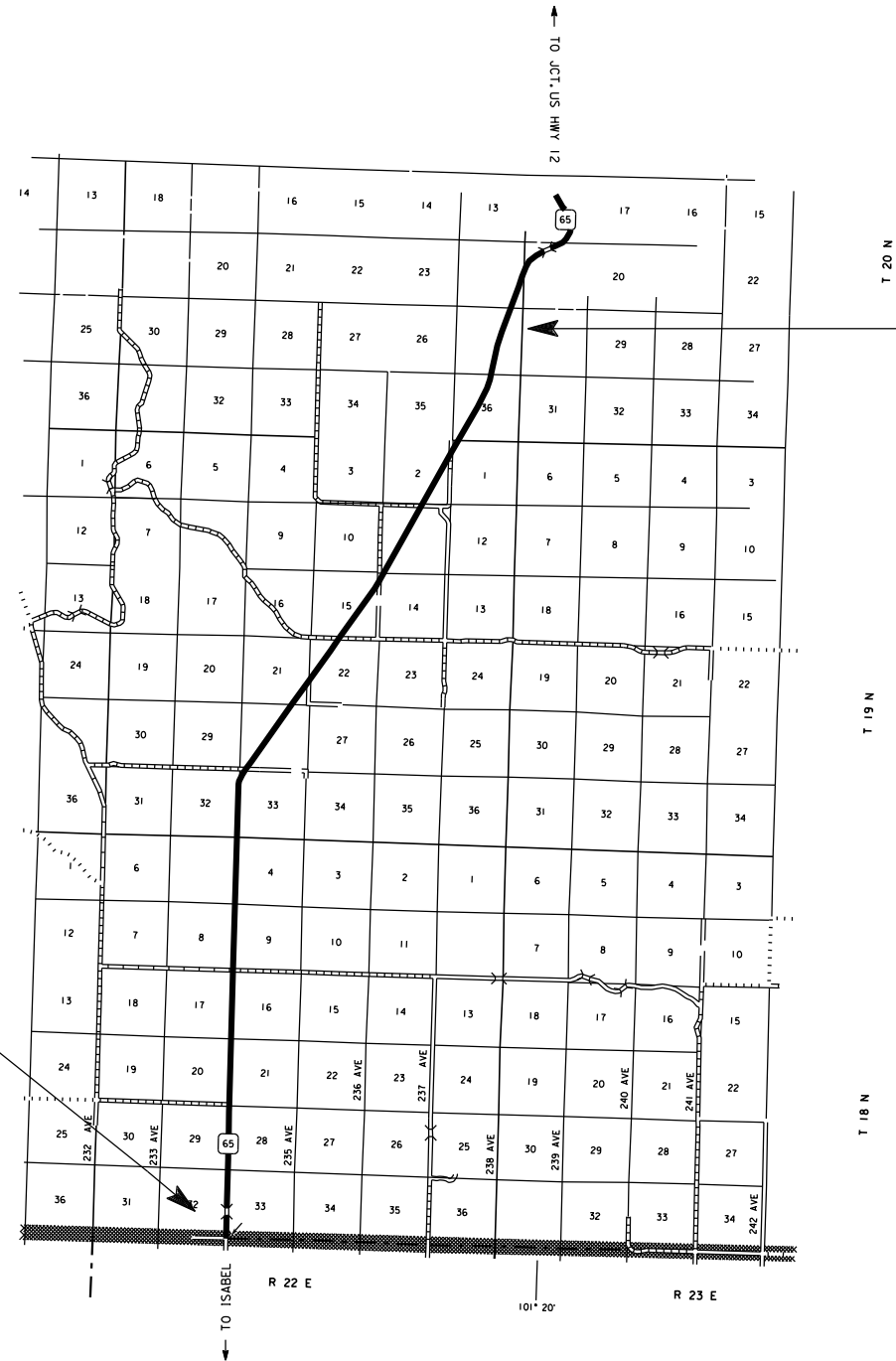
SD HIGHWAY 65
CORSON COUNTY
LENGTH 15.461 MILES



BEGIN PROJECT P 0032(38)
Station 0+00
MRM 198.62
Mileage 30.233

END PROJECT P 0032(38)
Station 914+75
MRM 214.00
Mileage 45.664

STORM WATER PERMIT
None Required



PLOT SCALE - 1:33733.4

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PLOT NAME - 1

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STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	P 0032(38)	3	13

Plotting Date: 02/04/2021

SD 271 DESIGN DESIGNATION

(MRM 166.82 to 173.74)

ADT(2019)	122
ADT(2039)	125
DHV	17
D	51%
T DHV	7.6%
T ADT	16.6%
V	55 MPH

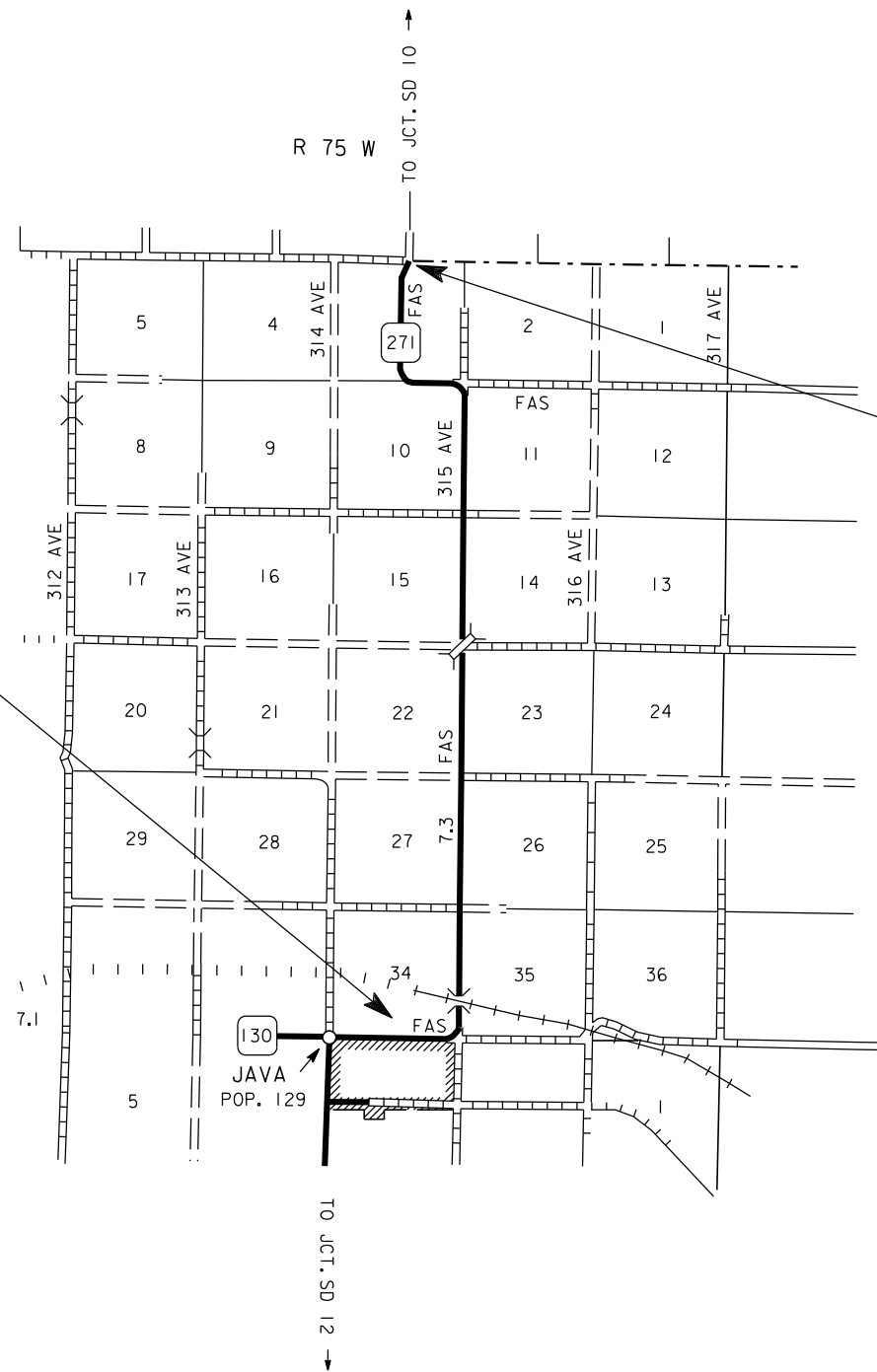
SD HIGHWAY 271
WALWORTH COUNTY
LENGTH 6.942 MILES

PLOT SCALE - 1:33733.4

PLOT NAME - 1

BEGIN PROJECT P 0032(38)
Station 0+00
MRM 166.82
Mileage 4.360

END PROJECT P 0032(38)
Station 366+54
MRM 173.74
Mileage 11.302



STORM WATER PERMIT

None Required

PLOTTED FROM - IRMOINT13

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ESTIMATE OF QUANTITIES

BID ITEM NUMBER	ITEM	QUANTITY	UNIT
009E0010	Mobilization	Lump Sum	LS
350E0010	Asphalt Concrete Crack Sealing	47,770	Lb
634E0010	Flagging	220.0	Hour
634E0020	Pilot Car	110.0	Hour
634E0110	Traffic Control Signs	495.0	SqFt
634E0120	Traffic Control, Miscellaneous	Lump Sum	LS

SPECIFICATIONS

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

ENVIRONMENTAL COMMITMENTS

The SDDOT is committed to protecting the environment and uses Environmental Commitments as a communication tool for the Engineer and Contractor to ensure that attention is given to avoid, minimize, and/or mitigate an environmental impact. Environmental commitments to various agencies and the public have been made to secure approval of this project. An agency with permitting authority can delay a project if identified 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. During construction, the Project Engineer will verify that the Contractor has met Environmental Commitment requirements. These environmental commitments are not subject to change without prior written approval from the SDDOT Environmental Office.

Additional guidance on SDDOT's Environmental Commitments can be accessed through the Environmental Procedures Manual found at: <https://dot.sd.gov/media/documents/EnvironmentalProceduresManual.pdf>

For questions regarding change orders in the field that may have an effect on an Environmental Commitment, the Project Engineer will contact the Environmental Engineer at 605-773-3180 or 605-773-4336 to determine whether an environmental analysis and/or resource agency coordination is necessary.

Once construction is complete, the Project Engineer will review all environmental commitments for the project and document their completion.

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 pits, or staging areas associated with the project, cease construction activities in the affected area until the Whooping Crane departs and immediately 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 will furnish a site(s) for the disposal of construction and/or demolition debris generated by this project.

Action Taken/Required:

The waste disposal site(s) will 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) will 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 Environmental Office and the Project Engineer.

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

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

- Concrete and asphalt concrete debris may be stockpiled within view of the ROW for a period 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.

Revised 2/12/21 EHS

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) will be incidental to the various contract items.

COMMITMENT I: HISTORICAL PRESERVATION OFFICE CLEARANCES

The SDDOT has obtained concurrence with the State Historic 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 a cultural resource review prior to scheduling the pre-construction meeting. 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 will arrange and pay for a record search and when necessary, a cultural resource survey. 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 if the site was previously surveyed; however, a cultural resources survey may need to be conducted by a qualified archaeologist.

The Contractor will provide ARC with the following: a topographical map or aerial view in 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 will submit the cultural resources survey report to SDDOT Environmental Office, 700 East Broadway Avenue, Pierre, SD 57501-2586. 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.

In the event of an inadvertent discovery of human remains, funerary objects, or if evidence of cultural resources is identified during project construction activities, then such activities within 100 feet of the inadvertent discovery will immediately cease and the Project Engineer will be immediately notified. The Project Engineer will contact the SDDOT Environmental Office, who will contact the appropriate SHPO/THPO within 48 hours of the discovery 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 will not utilize a site known or suspected of having contaminated soil or water. The Contractor will provide the required permits and clearances to the Project Engineer at the preconstruction meeting.

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 pre-construction meeting.

GENERAL TRAFFIC CONTROL

Existing guide, route, informational logo, regulatory, and warning signs will be temporarily reset and maintained during construction. Removing, relocating, covering, salvaging, and resetting of existing traffic control devices, including delineation, will be the responsibility of the Contractor. Cost for this work will be incidental to the contract unit prices for the various items unless otherwise specified in the plans. Any delineators and signs damaged or lost will be replaced by the Contractor at no cost to the State.

All temporary traffic control sign locations will be set in the field by the Contractor and verified by the Engineer prior to installation.

All construction operations will be conducted in the general direction of traffic movement.

If there is a discrepancy between the traffic control plans, standard plates, and the MUTCD, whichever is more stringent will be used, as determined by the Engineer.

Unless otherwise stated in these plans, work will not be allowed during hours of darkness.

Traffic Control Signs, as shown in the Estimate of Quantities, are estimates. Contractor's operation may require adjustments in quantities, either more or less. Payment will be for those signs used on the project, in accordance with the Specifications.

Fixed location signing placed more than 4 calendar days prior to the start of construction will be covered or laid down until the time of construction. The covers must be approved by the Engineer prior to installation. The cost of materials, labor, and equipment necessary to complete this work will be incidental to other contract items. No separate payment will be made.

All fixed location signs, sign posts, and breakaway bases will be removed within 7 calendar days following pavement marking.

Traffic will be maintained on the driving lanes. Use of the shoulder as a driving lane will not be permitted. Any damage to the shoulder due to rerouted traffic or Contractor's equipment will be repaired at no expense to the Department.

TRAFFIC CONTROL SIGNS

Sufficient traffic control signs have been included in these plans to sign one workspace on each route. If the Contractor elects to work on additional locations simultaneously, the cost for additional traffic control signs will be incidental to the contract unit price per square foot for "Traffic Control Signs".

FLAGGING

Operations will be conducted so that the traveling public will not have to wait longer than 15 minutes at the flagger station.

Additional flagger warning signs and flagger hours have been included in the Estimate of Quantities for use on intersecting roads. These flaggers will be used as directed by the Engineer and will be used primarily during daytime hours. Also included in the Estimate of Quantities are 4 STOP FOLLOW PILOT CAR WHEN GOING YOUR WAY signs for use on intersecting roads. STOP FOLLOW PILOT CAR WHEN GOING YOUR WAY will not block the view of the stop sign.

It is required that the flaggers and pilot car operators be able to communicate with one another. If an emergency vehicle needs to pass through the project, the Contractor will be required to expedite traffic movement. All costs associated with this will be incidental to the contract unit price per hour for "Flagging".

BLOCKING MEDIUM MATERIAL

All costs for furnishing and placing the blocking material medium shall be incidental to the contract unit price per pound for Asphalt Concrete Crack Sealing.

BLOTTING MATERIAL

Blotting material shall be placed over the sealant material immediately following placement of sealant on all cracks.

ESTIMATED CRACK SEALING

All work shall meet the construction requirements of Section 350, unless otherwise stated in plan notes.

The actual quantity used in the field will be the basis for payment, with no adjustment in contract unit price allowed.

QUANTITY SUBTOTALS

Bid Item Number	Item	SD 20	SD 65	SD 271	Total	Unit
009E0010	Mobilization	Lump Sum	Lump Sum	Lump Sum	Lump Sum	LS
350E0010	Asphalt Concrete Crack Sealing	26863	7755	13152	47770	LB
634E0020	Flagging	120	40	60	220	Hour
634E0020	Pilot Car	60	20	30	110	Hour
634E0110	Traffic Control Signs	171	162	162	495	SqFt
634E0120	Traffic Control, Miscellaneous	Lump Sum	Lump Sum	Lump Sum	Lump Sum	LS

ITEMIZED LIST FOR TRAFFIC CONTROL

Hwy 20

SIGN CODE	SIGN DESCRIPTION	NUMBER	SIGN SIZE	SQFT PER SIGN	SQFT
W20-1	ROAD WORK AHEAD	2	48" x 48"	16.0	32.0
W20-4	ONE LANE ROAD AHEAD	2	48" x 48"	16.0	32.0
W20-7	FLAGGER (symbol)	2	48" x 48"	16.0	32.0
SPECIAL	STOP FOLLOW PILOT CAR WHEN GOING YOUR WAY	4	48" x 36"	12.0	48.0
G20-1	ROAD WORK NEXT ___ MILES	3	36" x 18"	4.5	13.5
G20-2	END ROAD WORK	3	36" x 18"	4.5	13.5
CONVENTIONAL ROAD TRAFFIC CONTROL SIGNS SQFT					171.0

Hwy 65

SIGN CODE	SIGN DESCRIPTION	NUMBER	SIGN SIZE	SQFT PER SIGN	SQFT
W20-1	ROAD WORK AHEAD	2	48" x 48"	16.0	32.0
W20-4	ONE LANE ROAD AHEAD	2	48" x 48"	16.0	32.0
W20-7	FLAGGER (symbol)	2	48" x 48"	16.0	32.0
SPECIAL	STOP FOLLOW PILOT CAR WHEN GOING YOUR WAY	4	48" x 36"	12.0	48.0
G20-1	ROAD WORK NEXT ___ MILES	2	36" x 18"	4.5	9.0
G20-2	END ROAD WORK	2	36" x 18"	4.5	9.0
CONVENTIONAL ROAD TRAFFIC CONTROL SIGNS SQFT					162.0

Hwy 271

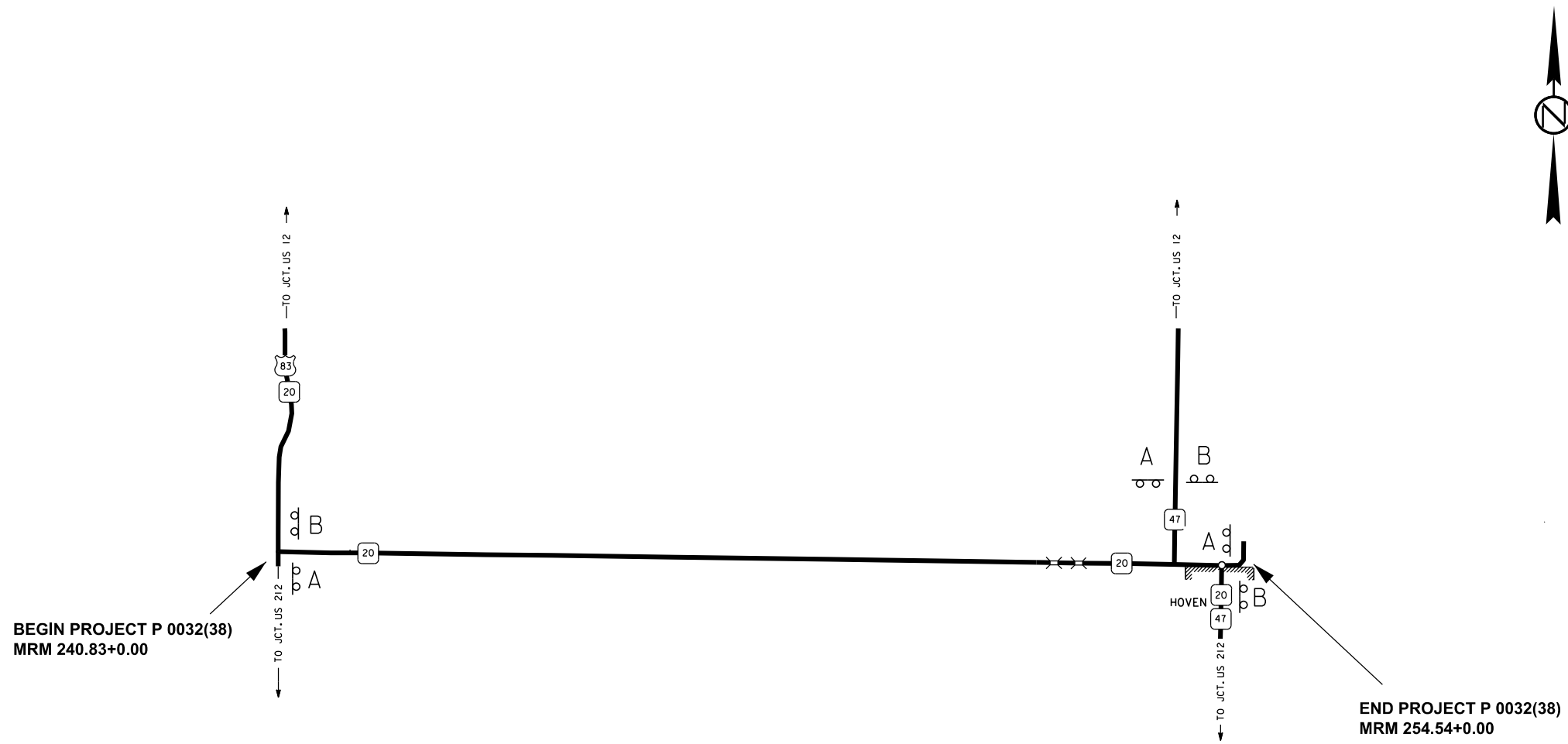
SIGN CODE	SIGN DESCRIPTION	NUMBER	SIGN SIZE	SQFT PER SIGN	SQFT
W20-1	ROAD WORK AHEAD	2	48" x 48"	16.0	32.0
W20-4	ONE LANE ROAD AHEAD	2	48" x 48"	16.0	32.0
W20-7	FLAGGER (symbol)	2	48" x 48"	16.0	32.0
SPECIAL	STOP FOLLOW PILOT CAR WHEN GOING YOUR WAY	4	48" x 36"	12.0	48.0
G20-1	ROAD WORK NEXT ___ MILES	2	36" x 18"	4.5	9.0
G20-2	END ROAD WORK	2	36" x 18"	4.5	9.0
CONVENTIONAL ROAD TRAFFIC CONTROL SIGNS SQFT					162.0

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	P 0032(38)	7	13

Plotting Date: 02/04/2021

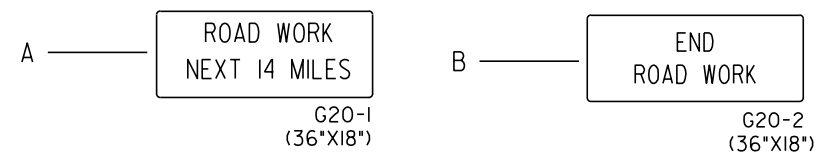
FIXED LOCATION SIGN LAYOUT

SD HIGHWAY 20



BEGIN PROJECT P 0032(38)
MRM 240.83+0.00

END PROJECT P 0032(38)
MRM 254.54+0.00



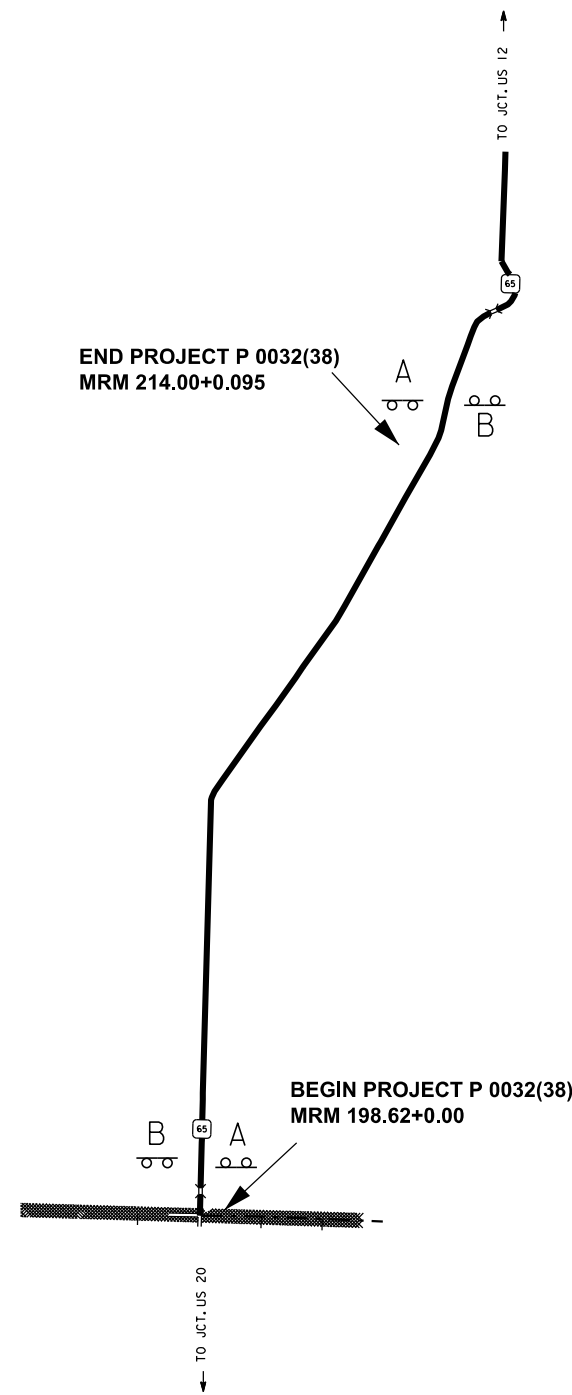
Notes:
Sign locations will be verified in the field by the
Engineer prior to installation.

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	P 0032(38)	8	13

Plotting Date: 02/04/2021

FIXED LOCATION SIGN LAYOUT

SD HIGHWAY 65



A ——— ROAD WORK
NEXT 15 MILES
G20-1
(36"X18")

B ——— END
ROAD WORK
G20-2
(36"X18")

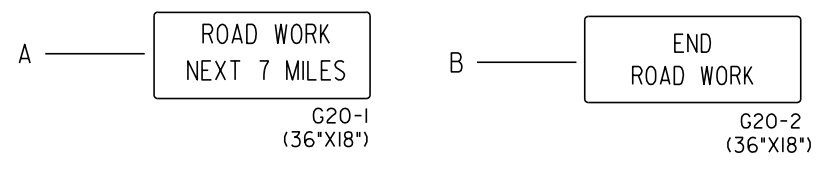
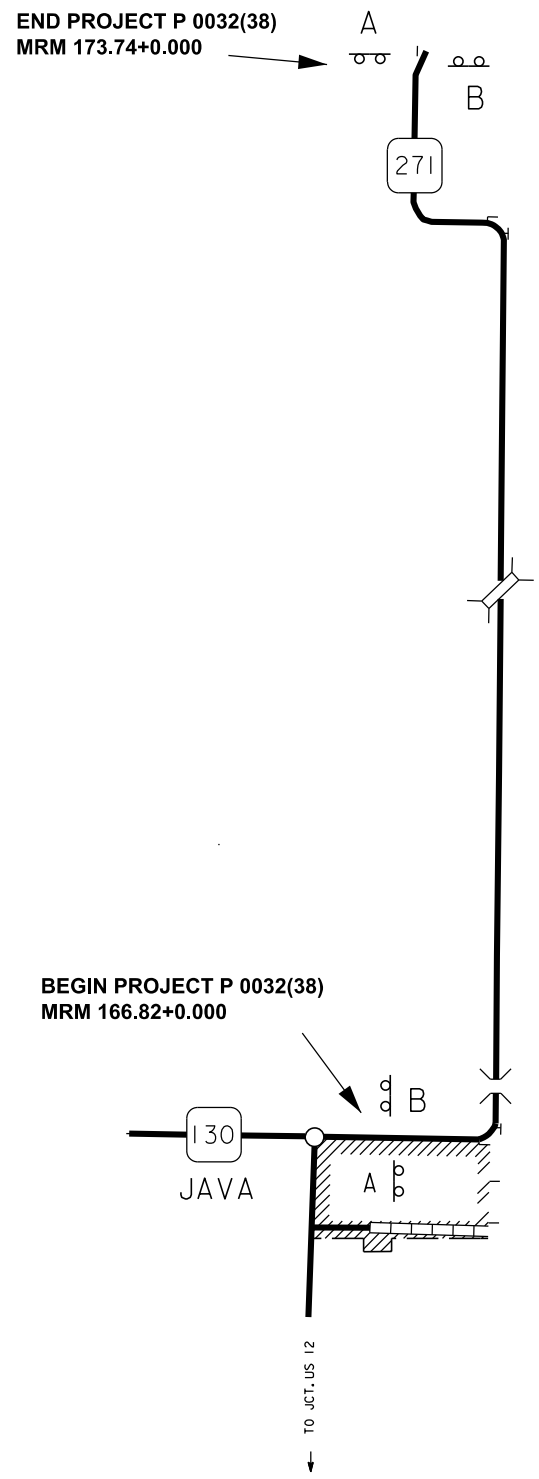
Notes:
Sign locations will be verified in the field by the
Engineer prior to installation.

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	P 0032(38)	9	13

Plotting Date: 02/04/2021

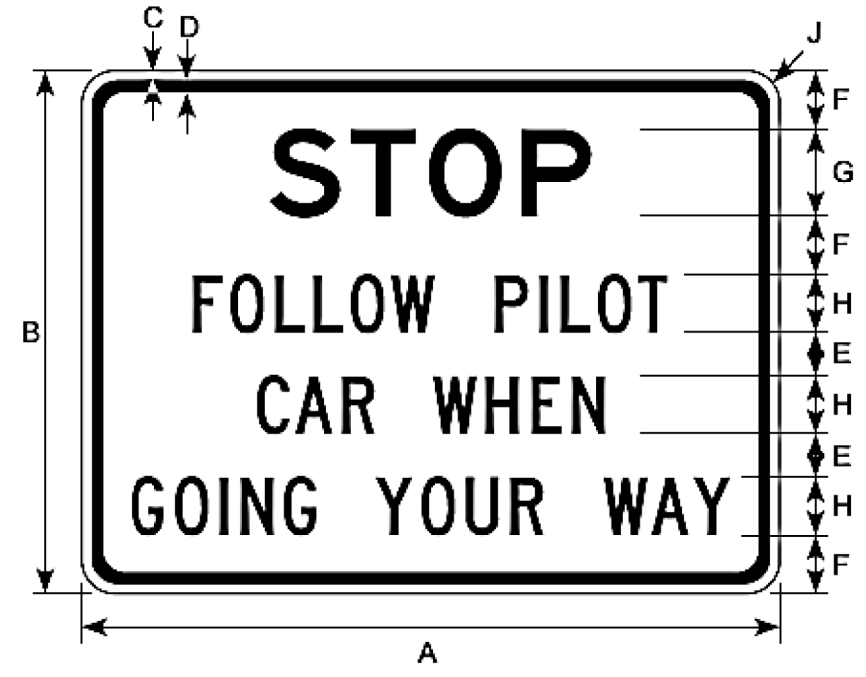
FIXED LOCATION SIGN LAYOUT

SD HIGHWAY 271



Notes:
Sign locations will be verified in the field by the
Engineer prior to installation.

Plot Scale - 1:200



Border and Legend: Black
Background: Fluorescent orange

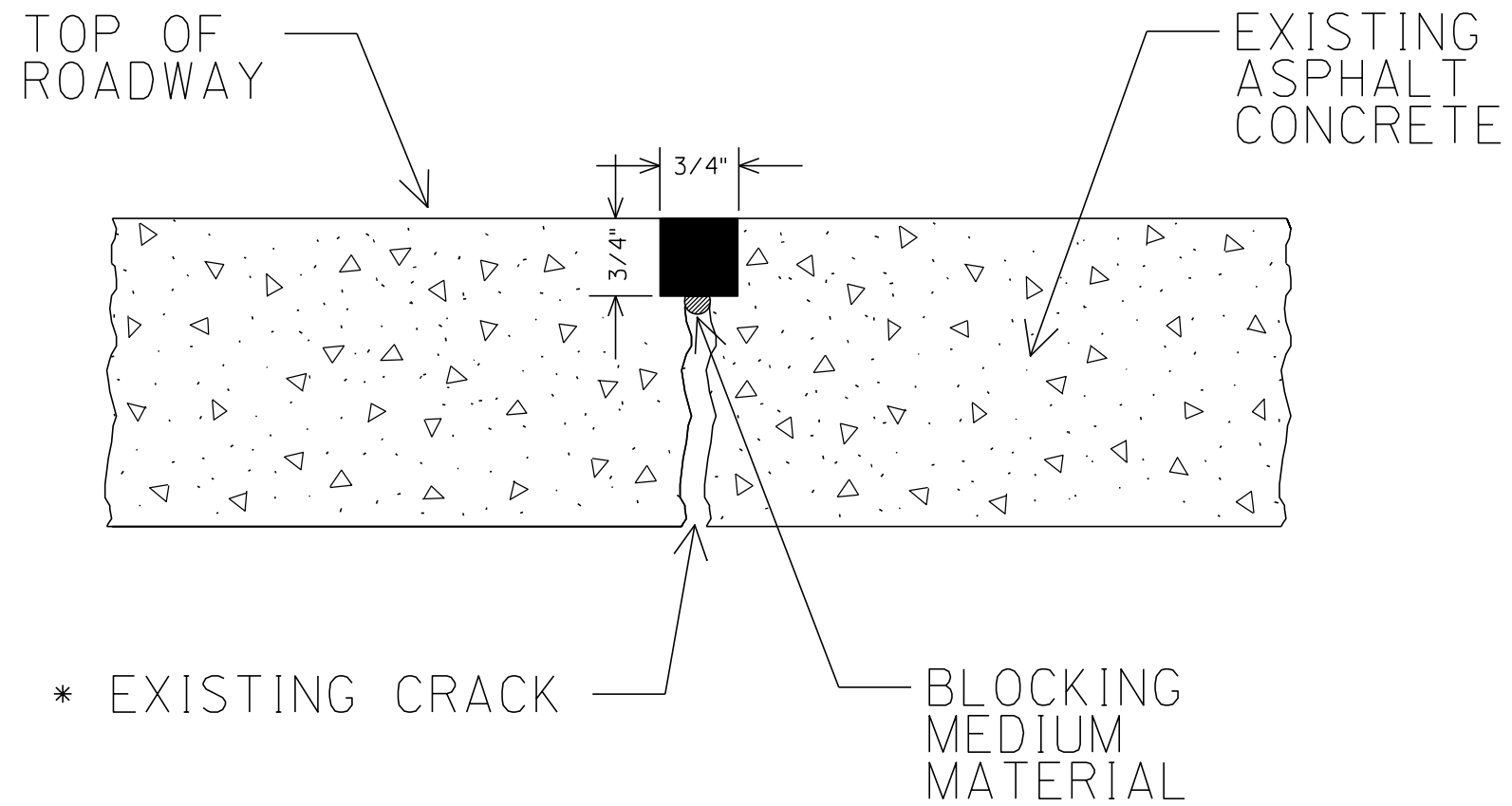
Road Class	Dimensions (inches)								
	A	B	C	D	E	F	G	H	J
All	48	36	0.63	0.88	3	4	6E	4C	2.25

- Plotted From - TRMO:INT13

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STATE OF	PROJECT	SHEET NO.	TOTAL SHEETS
S.D.	P 0032(38)	11	13

TYPICAL RESERVOIR SECTION



* The blocking medium material shall be used in cracks that are 3/8" or more in width.

Plotting Date: 02/04/2021

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.

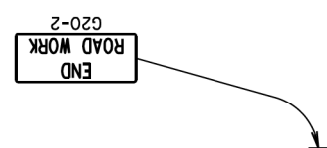
The ROAD WORK AHEAD and the END ROAD WORK signs may be omitted for short duration operations (1 hour or less).

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.

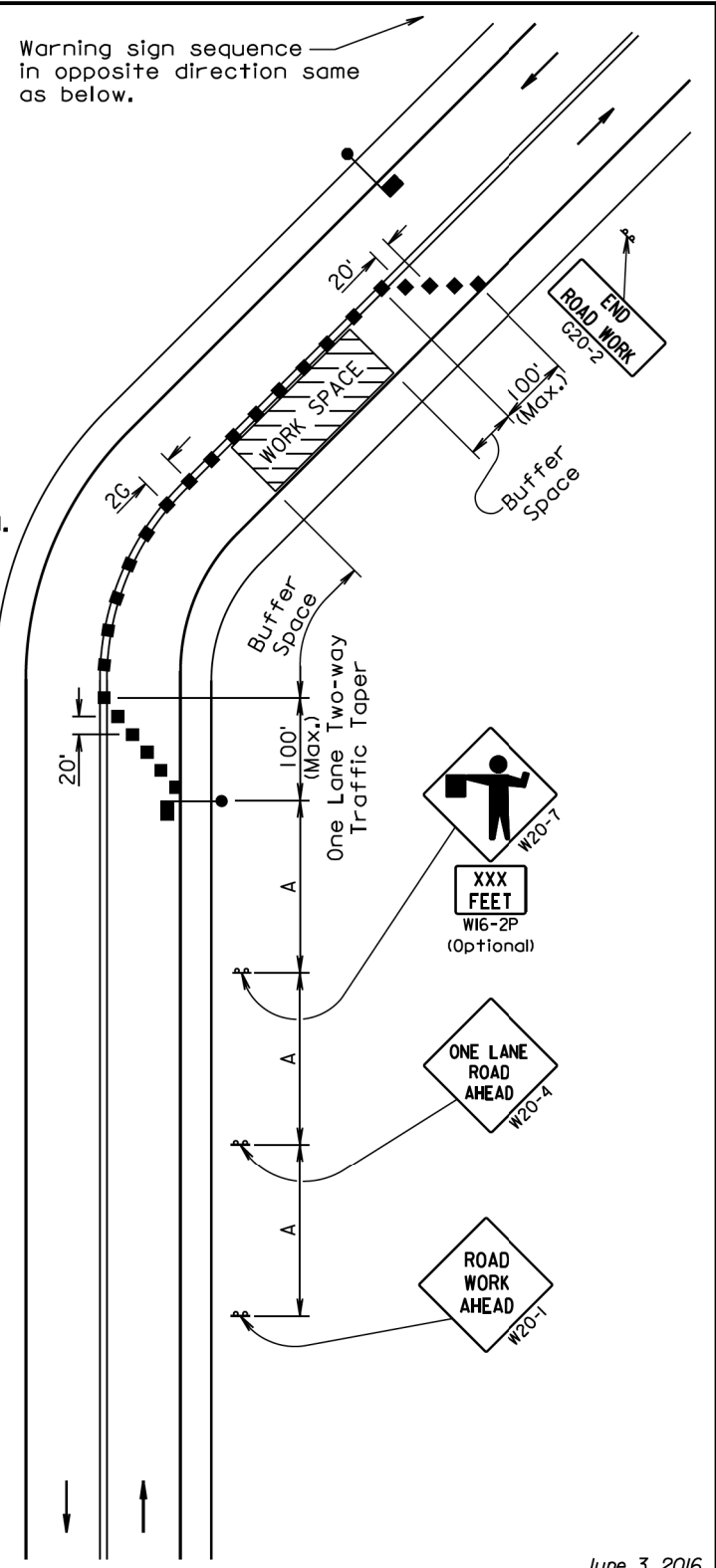
Channelizing devices are not required along the centerline adjacent to work area when pilot cars are utilized for escorting traffic through the work area.



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

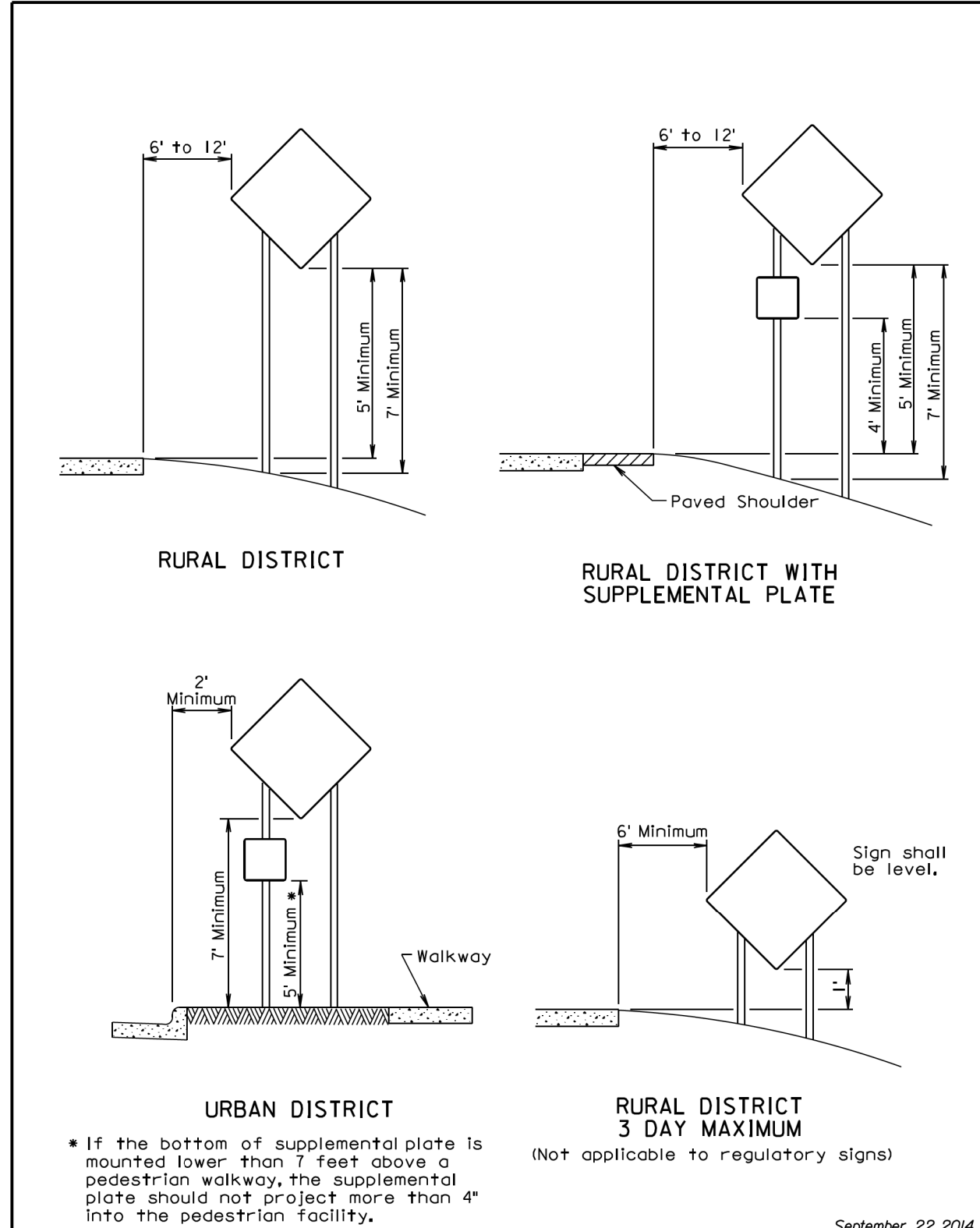
The buffer space should be extended so that the two-way traffic taper is placed before a horizontal or vertical curve to provide adequate sight distance for the flagger and queue of stopped vehicles.

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



June 3, 2016

S D D O T	GUIDES FOR TRAFFIC CONTROL DEVICES LANE CLOSURE WITH FLAGGER PROVIDED	PLATE NUMBER 634.23
	<i>Published Date: 1st Qtr. 2021</i>	Sheet 1 of 1



* 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

S D D O T	CRASHWORTHY SIGN SUPPORTS (Typical Construction Signing)	PLATE NUMBER 634.85
	<i>Published Date: 1st Qtr. 2021</i>	Sheet 1 of 1

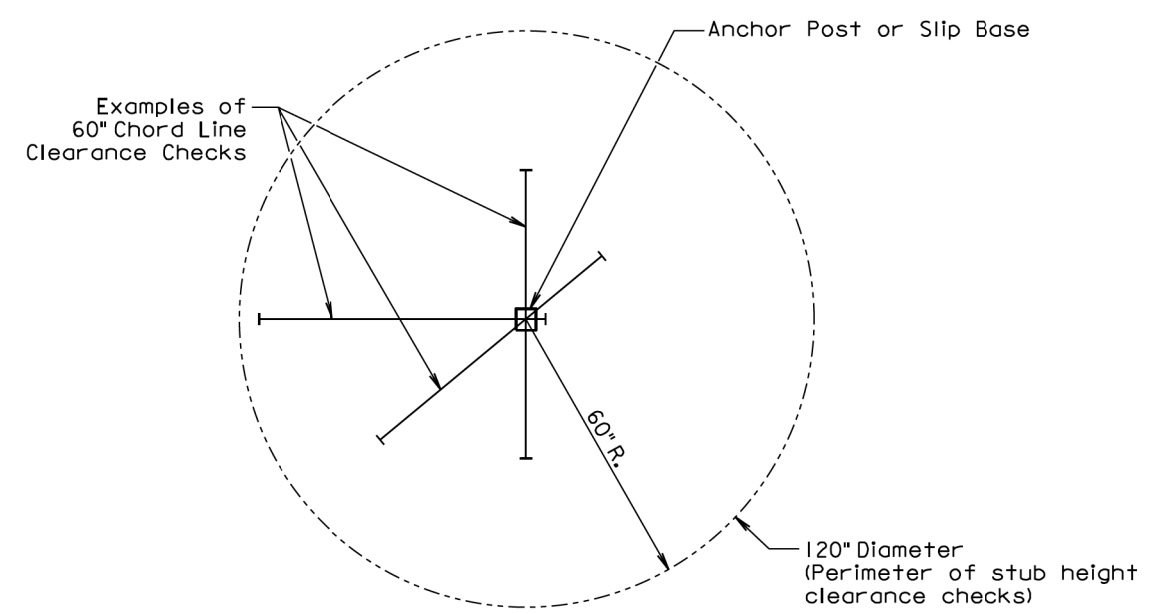
PLOT SCALE - 1:200

PLOTTED FROM - TRM01INT13

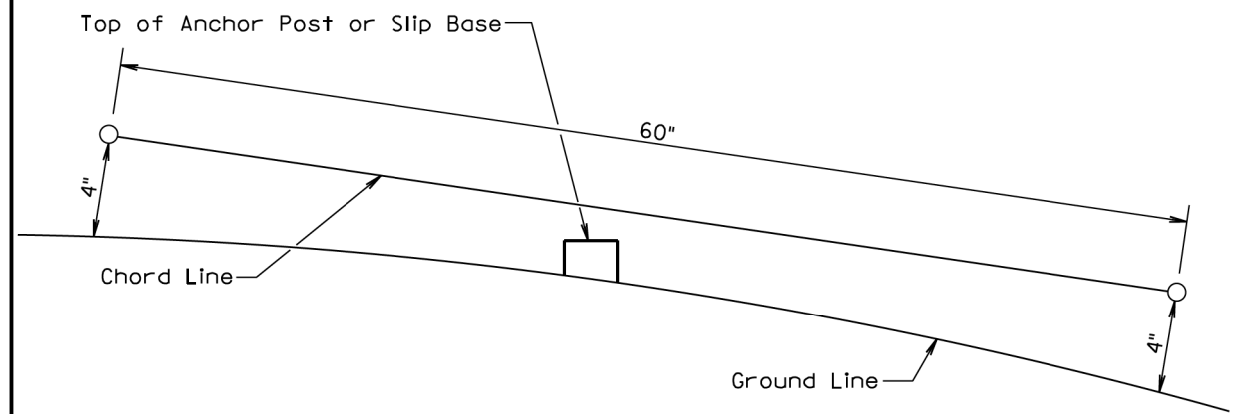
PLOT NAME - 1

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Plotting Date: 02/04/2021



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

S D D O T	BREAKAWAY SUPPORT STUB CLEARANCE	PLATE NUMBER 634.99
		Sheet 1 of 1

Published Date: 1st Qtr. 2021

PLOT SCALE - 1:200

-PLOTTED FROM - TRM01NT13

PLOT NAME - 1

FILE - ... \CORS07KE\07KE-STD_PLATES.DGN