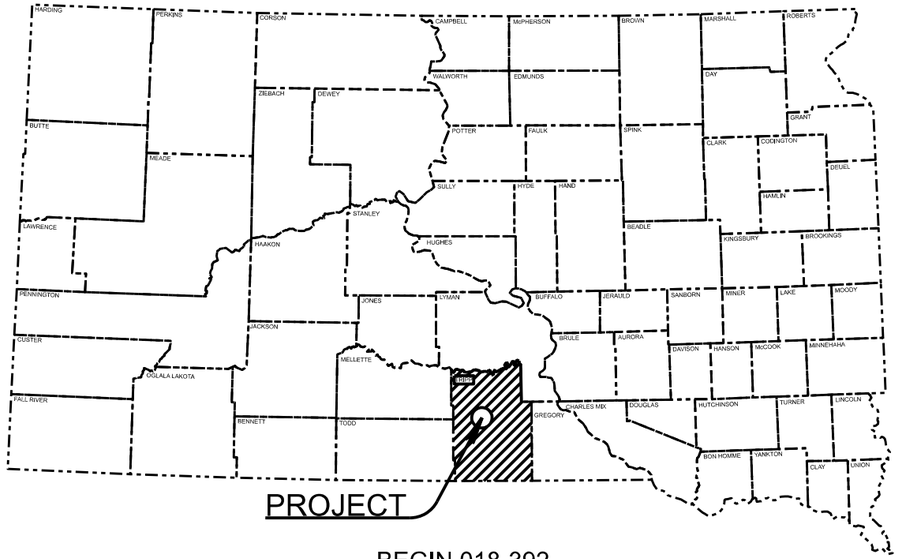


STATE OF SOUTH DAKOTA
DEPARTMENT OF TRANSPORTATION

PLANS FOR PROPOSED

PROJECT 018-392
US HIGHWAY 18
& SD HIGHWAY 44
TRIPP COUNTY

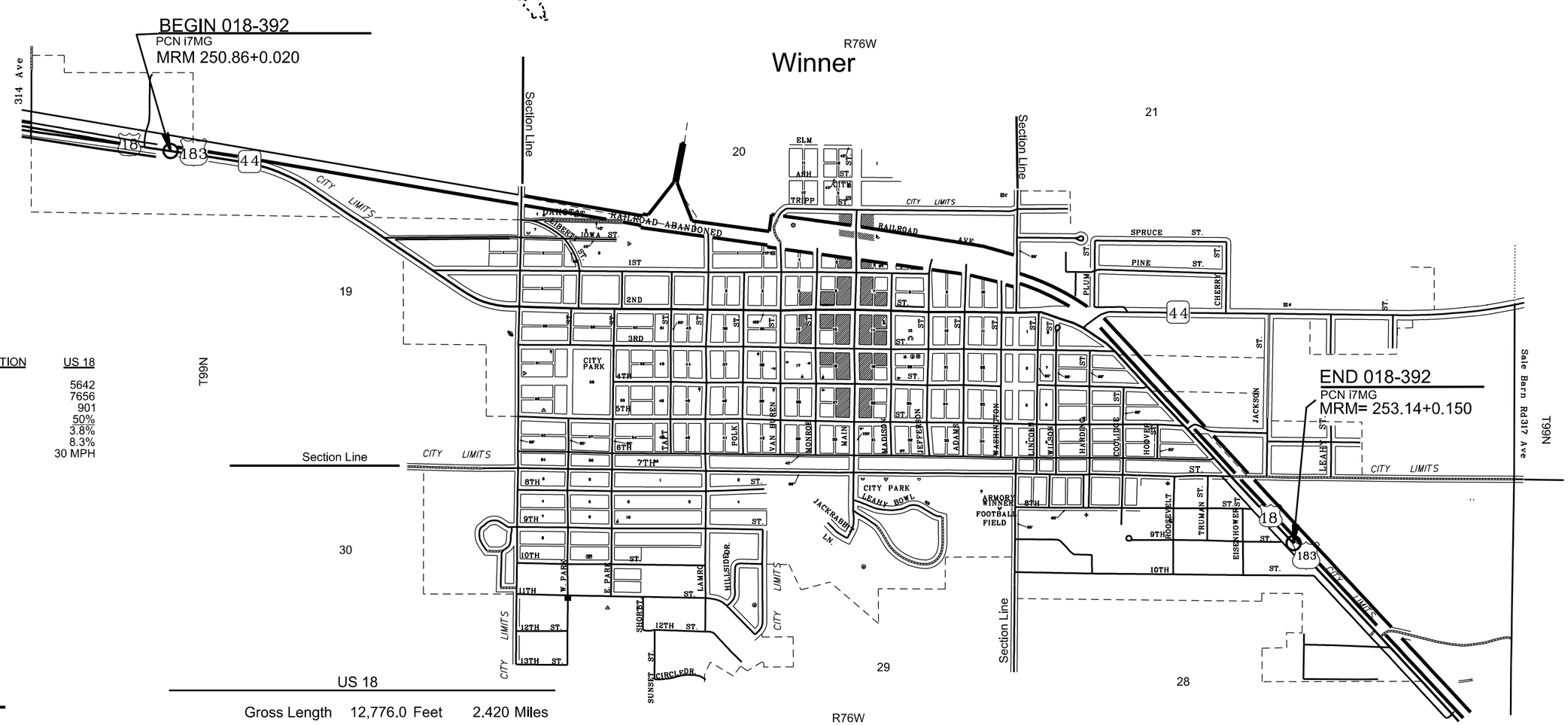
CONCRETE CURB REPAIR

PCN i7MG

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	018-392	1	7

Plotting Date: mmm-ddd-yyy

INDEX OF SECTIONS



DESIGN DESIGNATION	US 18
AADT (2023)	5642
AADT (2043)	7656
DHV	901
D	50%
DHV T%	3.8%
AADT T%	8.3%
V	30 MPH

US 18

Gross Length	12,776.0 Feet	2.420 Miles
Length of Exceptions	0.00 Feet	0.000 Miles
Net Length	12,776.0 Feet	2.420 Miles

STORM WATER PERMIT

NONE REQUIRED

ESTIMATE OF QUANTITIES

PROJECT 018-392 CONCRETE CURB REPAIR

BID ITEM NUMBER	ITEM	QUANTITY	UNIT
009E0010	Mobilization	Lump Sum	LS
634E0110	Traffic Control Signs	188.4	SqFt
634E0120	Traffic Control, Miscellaneous	Lump Sum	LS
634E0275	Type 3 Barricade	2	Each
634E0420	Type C Advance Warning Arrow Board	2	Each
650E9000	Repair Concrete Curb and/or Gutter	91	Ft

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 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:

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

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 Agriculture 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:

1. 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".

2. 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 will 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) will be incidental to the various contract items.

COMMITMENT I: HISTORICAL PRESERVATION OFFICE CLEARANCES

State Historical Preservation Office (SHPO or THPO) concurrence has not been obtained for this project.

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 of 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 will immediately cease and the Project Engineer will be immediately notified. The Project Engineer will contact the SDDOT Environmental Office to determine an appropriate course of action.

The Contractor is responsible 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

There will only be a maximum of two work areas unless approved by the Engineer. No more than two blocks may be worked on at a time, with a minimum spacing of three blocks between work areas. Traffic control will be removed from the work zone within 5 days of pouring the curb in that area.

MAINTENANCE OF TRAFFIC

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.

Portable sign supports will not be located on sidewalks, bicycle facilities, or other areas designated for pedestrian or bicycle traffic.

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.

The Contractor will notify businesses/homeowners a minimum of two weeks prior to construction to inform them of upcoming construction and again a minimum of 48 hours prior to any blocked access to make appropriate arrangements.

CURB REPAIR

All costs to remove broken curb concrete, furnish, install, drill and epoxy rebar, furnish and install expansion joint material, cleaning of surface area prior to concrete placement, sandblast, etc… will be incidental to the contract unit price per foot for Repair Concrete Curb and/or Gutter. The Concrete placed will be protected and cured in accordance with Section 460.3, except the minimum curing time wil be 72 hours. Cleaning of the existing surface will be to the satisfaction of the Engineer. Grout will be used on all surfaces prior to placement of new concrete. Grout will consist of: 2 parts cement to 1 part sand and add approximately 1 part water to make a creamy consistency. Grout will not be allowed to dry before it's covered with concrete. The front of the curb joint line will have grout applied to help promote bonding of the new and old concrete. Epoxy coated deformed steel bars will be inserted on 12 inch centers. The first steel bar will be placed a minimum of 3 inches and a maximum of 6 inches from the outside edge of the existing curb and gutter. Epoxy resin adhesive will be from the type intended for horizontal applications, and will conform to the requirements of ASTM C 881, Type IV, Grade 3 (equivalent to AASHTO M235, Type IV, Grade 3). The finished concrete curb repair will match the existing curb on both sides of the curb repair.

The concrete used for the curb repair will conform to one of the following: Class M6 section 462, Class M6 section 462 utilizing a size #3 coarse aggregate, or a Type III concrete patch material as per section 390.

TABLE OF CURB REPAIR

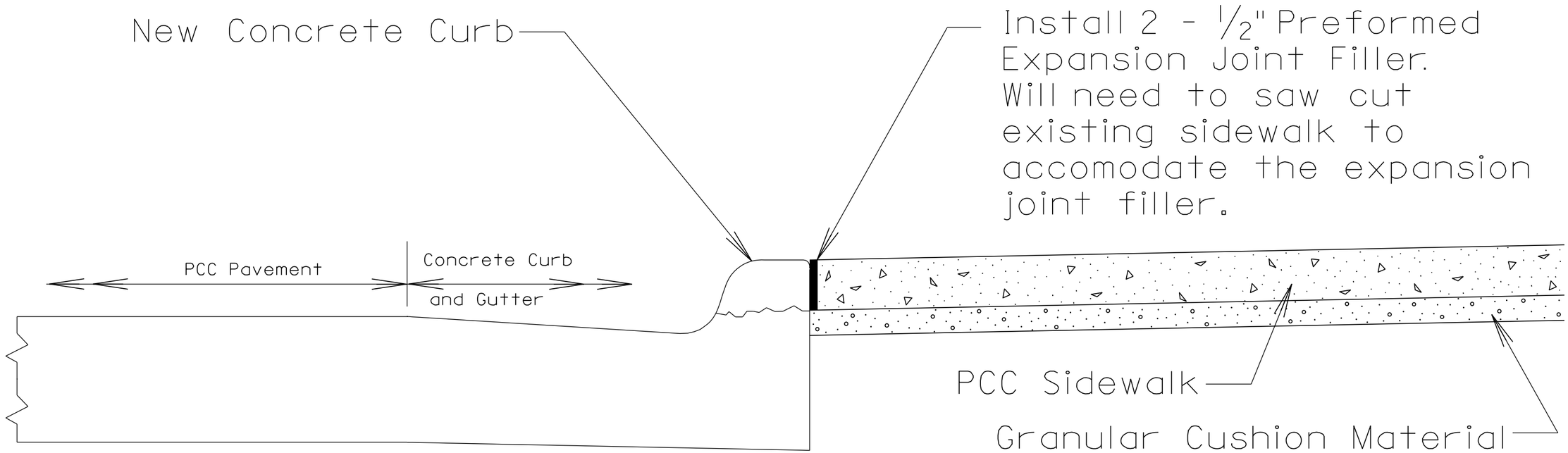
	Location	Length (FT)	Details
1	NW Quadrant of Hwy 18 and Monroe St.	11	
2	SE Quadrant of Hwy 18 and Monroe St.	4	
3	SE Quadrant of Hwy 18 and Madison St.	6	ADA Ramp
4	NW Quadrant of Hwy 18 and Madison St.	14	Radius
5	SE Quadrant of Hwy 18 and Adams St.	8	Radius
6	SE Quadrant of Hwy 18 and Adams St.	7	Radius
7	SW Quadrant of Hwy 18 and Washinton St.	9	Radius
8	NE Quadrant of Hwy 18 and Washington St.	4	Radius
9	NE Quadrant of Hwy 18 and Washington St.	4	Radius
10	N Quadrant of Hwy 18 and 3rd St.	4	Radius
11	SW Quadrant of Hwy 18 and 5th St.	3	Next to ADA Ramp
12	EB Next to Subway	4	
13	EB Next to Subway	4	
14	WB next to Subway	3	
15	Junction of Hwy 18 and Hwy 44	3	
16	Junction of Hwy 18 and Hwy 44	3	
	Total =	91	

ITEMIZED LIST FOR TRAFFIC CONTROL SIGNS

SIGN CODE	SIGN DESCRIPTION	CONVENTIONAL ROAD NUMBER	SIGN SIZE	SQFT PER SIGN	SQFT
R1-1	STOP	2	30"	5.2	10.4
W4-2	LEFT or RIGHT LANE ENDS (symbol)	2	48" x 48"	16.0	32.0
W20-1	ROAD WORK AHEAD	6	48" x 48"	16.0	96.0
W20-5	LEFT or RIGHT LANE CLOSED AHEAD	2	48" x 48"	16.0	32.0
G20-2	END ROAD WORK	4	36" x 18"	4.5	18.0
		CONVENTIONAL ROAD TRAFFIC CONTROL SIGNS SQFT			188.4

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	018-392	4	7

CURB REPAIR DETAILS



ELEVATION VIEW
(Pre-formed Expansion Joint Detail)

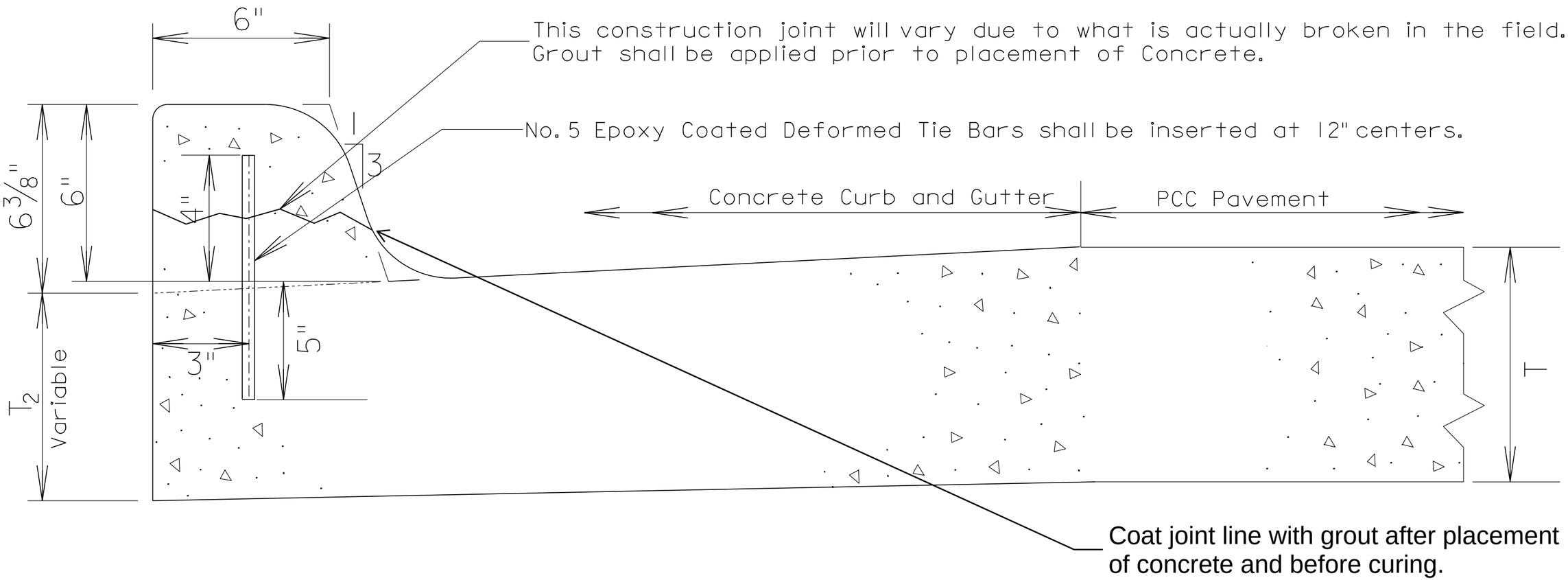
NOTES: Expansion joints between NEW CONCRETE CURB & exisiting PCC sidewalk shall consist of 2 - ½ inch thick preformed expansion joint filler material placed full depth and width of the NEW CONCRETE CURB replacement.

Sawing for expansion joint filler material shall be incidental to the contract unit price per foot for "Repair Concrete Curb and/or Gutter".

Any damaged sidewalk shall be repaired by the Contractor at no cost to the State.

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	018-392	5	7

CURB REPAIR DETAILS



NOTES: Length of #5 Epoxy coated rebar shall be 9" long and installed at depth shown in detail above. 2" clearance is required between top of rebar and top of new curb.

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

* Spacing is 40' for 42" cones.

◎ Reflectorized Drum

■ Channelizing Device

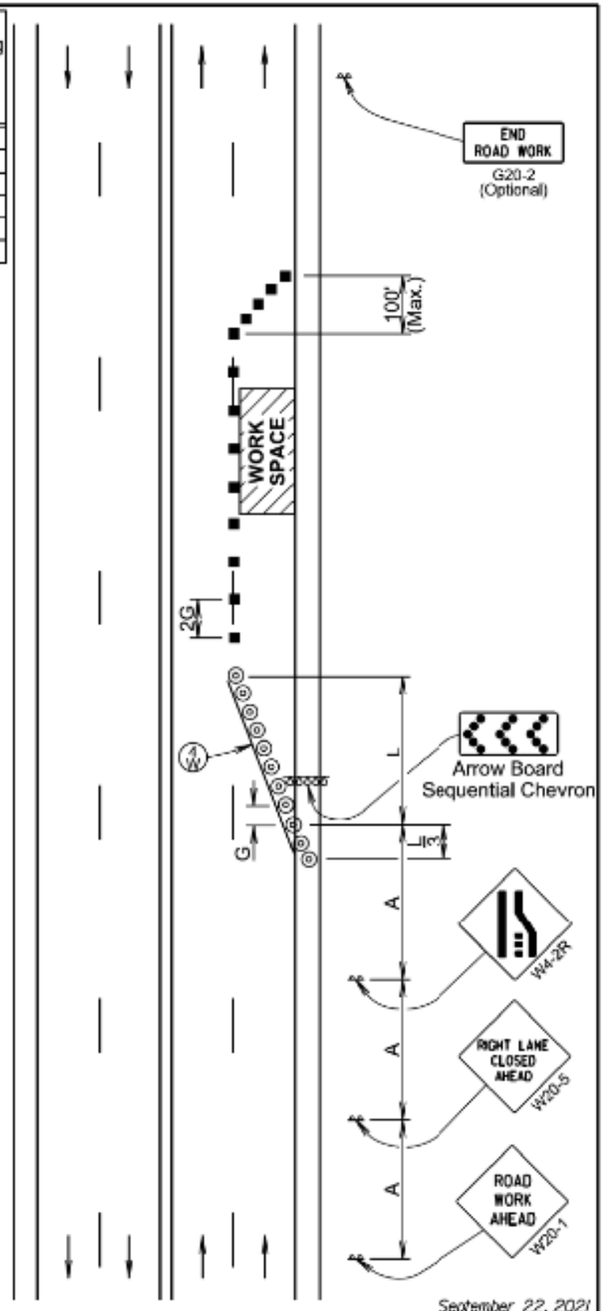
(4W) 4" White Temporary Pavement Marking

The channelizing devices will be 42" cones or drums.

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

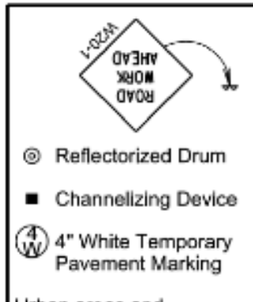
Temporary pavement markings will be used if traffic control must remain overnight.

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



September 22, 2021

Published Date: 2025	SDDOT	4-LANE UNDIVIDED, RIGHT LANE CLOSED	PLATE NUMBER 634.47 Sheet 1 of 1



◎ Reflectorized Drum

■ Channelizing Device

(4W) 4" White Temporary Pavement Marking

Urban areas and intersecting streets may limit sign spacing.

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

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

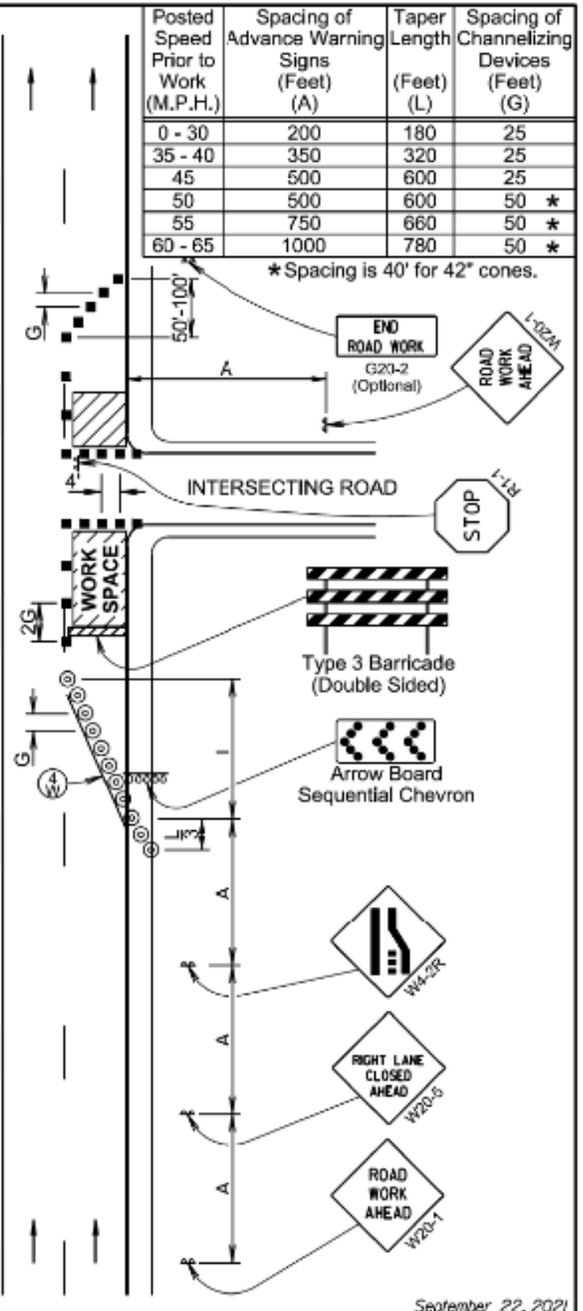
The channelizing devices will be 42" cones or drums.

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

Additional channelizing devices at 4' spacing may be needed to control traffic entering and leaving intersections.

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

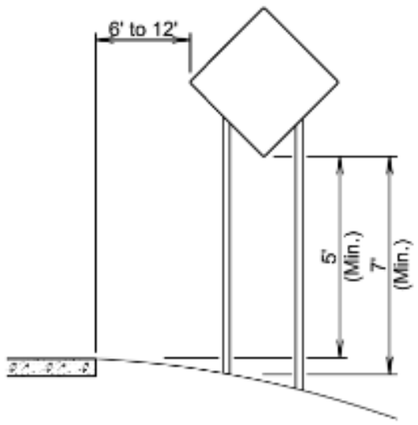
* Spacing is 40' for 42" cones.



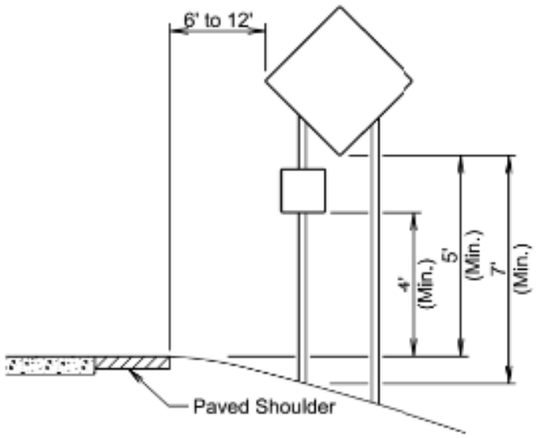
September 22, 2021

Published Date: 2025	SDDOT	5-LANE, OUTSIDE LANE CLOSED	PLATE NUMBER 634.60 Sheet 1 of 1

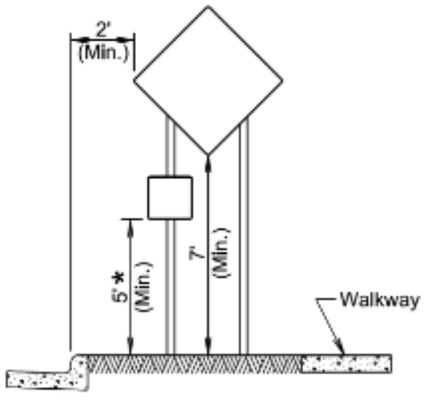
STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	018-392	7	7



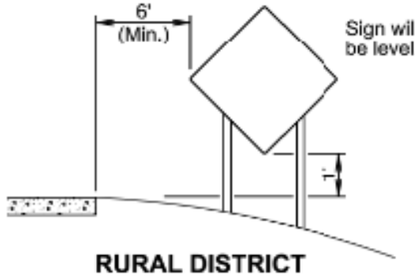
RURAL DISTRICT



RURAL DISTRICT WITH SUPPLEMENTAL PLATE



URBAN DISTRICT

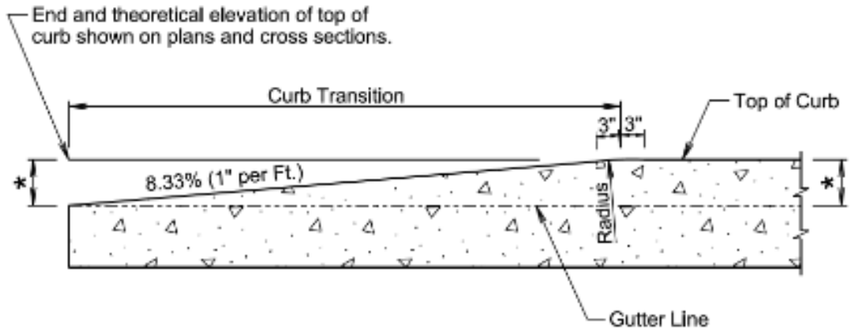


RURAL DISTRICT
3 DAY MAXIMUM
(Not applicable to regulatory signs)

* 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.

January 22, 2021

Published Date: 2025	SDDOT	CRASHWORTHY SIGN SUPPORTS (Typical Construction Signing)	PLATE NUMBER 634.85
			Sheet 1 of 1



* Height of Curb

LONGITUDINAL SECTION
(Concrete Curb Taper)

December 23, 2019

Published Date: 2025	SDDOT	CONCRETE CURB TAPER	PLATE NUMBER 650.35
			Sheet 1 of 1