

STATE OF SOUTH DAKOTA
 DEPARTMENT OF TRANSPORTATION
 PLANS FOR PROPOSED

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	083-368 & 183-368	1	5

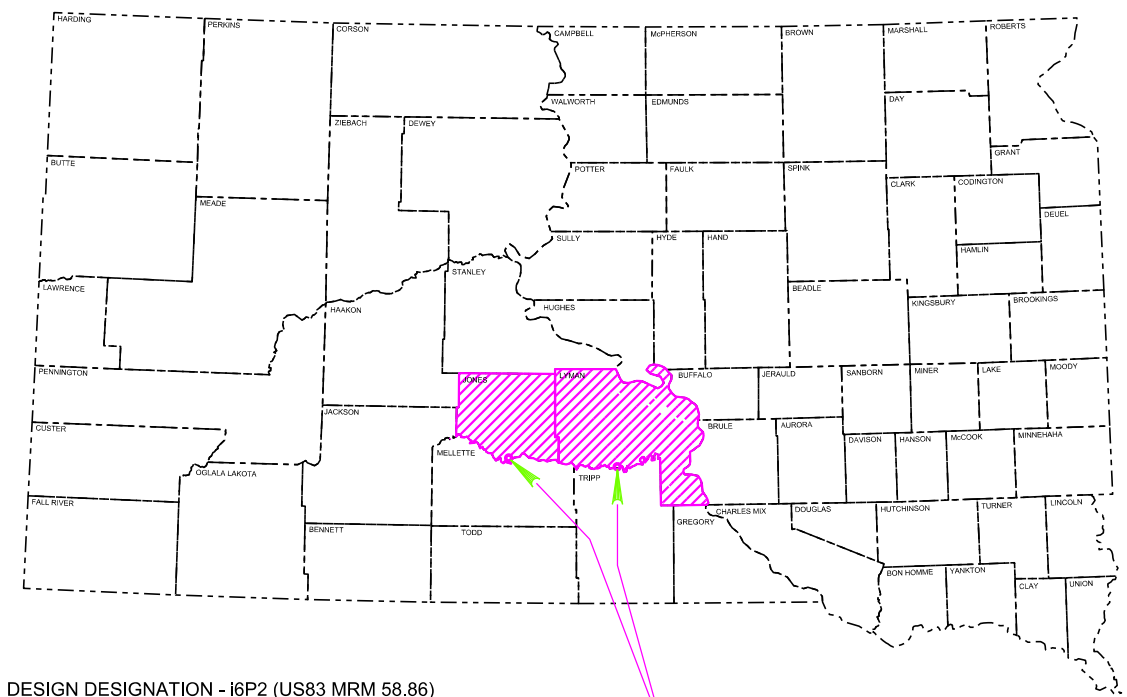
Plotting Date: 06/17/2022

PROJECT 083-368 & 183-368 HIGHWAYS US83 AND US183 JONES AND LYMAN COUNTIES

INDEX OF SHEETS

SHEET 1	Title Sheet
SHEETS 2-4	Estimates and Notes
SHEET 5	Standard Plates

SLAB JACKING
 PCN i6P2 AND i6P3



DESIGN DESIGNATION - i6P2 (US83 MRM 58.86)

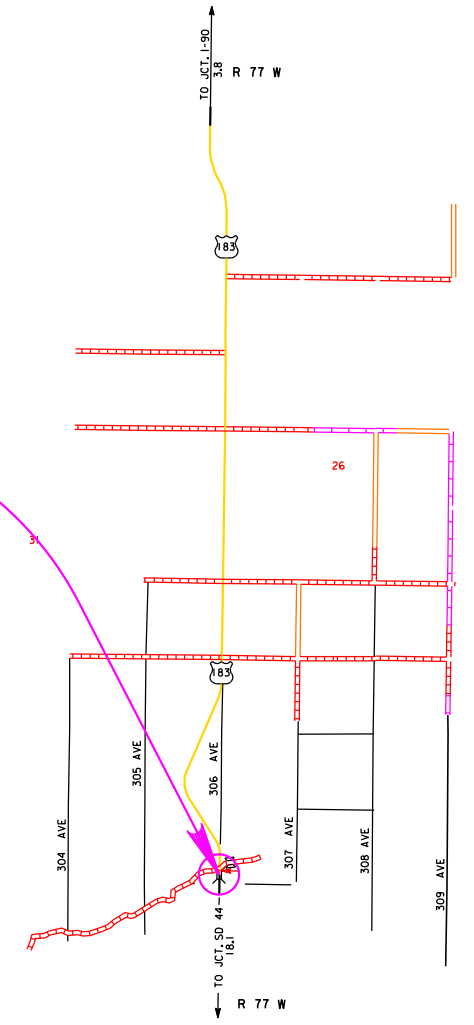
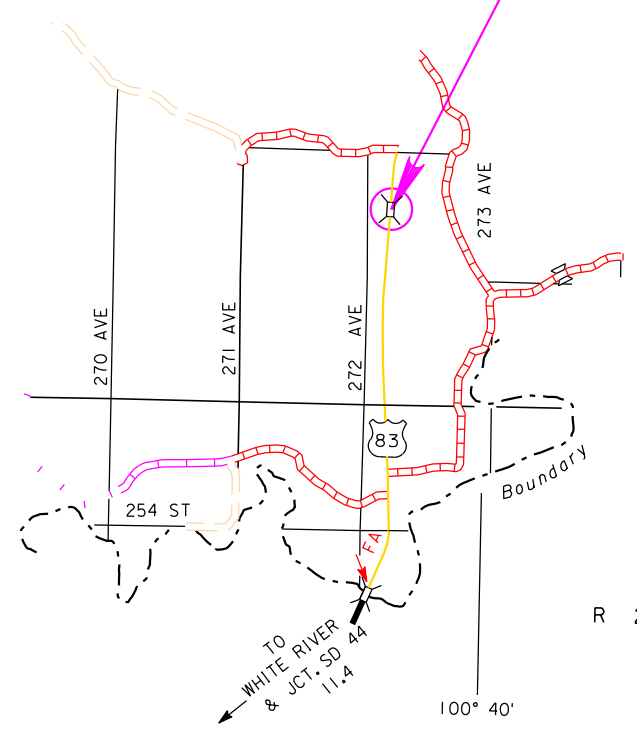
AADT (2021)	1455
AADT (2041)	1826
DHV	215
D	50%
DHV T%	6.7%
AADT T%	14.7%
V	65 mph

DESIGN DESIGNATION - i6P3 (US183 MRM 61.53)

AADT (2021)	747
AADT(2041)	1014
DHV	119
D	50%
DHV T%	9.7%
AADT T%	21.3%
V	65 mph

STRUCTURE #38-192-284
 i6P2
 NORTH SLAB

STRUCTURE #43-160-339
 i6P3
 NORTH + SOUTH SLABS



Plot Scale - 1:200

Plotted From - trp25289

File - ...Title Sheet.dgn

ESTIMATE OF QUANTITIES

i6P2 – US83 #1

BID ITEM NUMBER	ITEM	QUANTITY	UNIT
009E0010	Mobilization	Lump Sum	LS
320E1200	Asphalt Concrete Composite	26	Ton
332E0010	Cold Milling Asphalt Concrete	234	SqYd
392E0210	PCC Pavement Jacking Foam	265	Lb
634E0010	Flagging	40	Hour
634E0120	Traffic Control, Miscellaneous	Lump Sum	LS

i6P3 – US183 #2

BID ITEM NUMBER	ITEM	QUANTITY	UNIT
009E0010	Mobilization	Lump Sum	LS
392E0210	PCC Pavement Jacking Foam	360	Lb
634E0010	Flagging	80	Hour
634E0120	Traffic Control, Miscellaneous	Lump Sum	LS

i6P3 – US183 #3

392E0210	PCC Pavement Jacking Foam	25	Lb
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SPECIFICATIONS

Standard Specifications for Roads and 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 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 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: HISTORIC PRESERVATION OFFICE CLEARANCES

State Historic 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.

COMMITMENT I: HISTORIC PRESERVATION OFFICE CLEARANCES (CONT.)

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.

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.

SCOPE OF WORK

Work on this project involves correcting the pavement profile with Pavement Jacking Foam.

SEQUENCE OF OPERATIONS

The Contractor will submit a sequence of operations for approval two weeks prior to the preconstruction meeting. If changes to the sequence of operations are proposed during the project, these must be submitted for review a minimum of one week prior to potential implementation. Approval for changes to the sequence of operations will only be allowed when the proposed changes meet with the Department's intent for traffic control and sequencing of the work.

Contractor requests to deviate from the sequence of operations will be submitted in writing to the Engineer for review. Approval of an alternate sequence of operations will only be allowed when the proposed changes meet with the Department's intent for traffic control and sequencing of the work. An alternate sequence will be submitted for review a minimum of one week prior to potential implementation.

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 temporary speed limit signs will have a minimum mounting height of 5 feet in rural locations, even when mounted on portable supports.

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 will be maintained across the bridge throughout the duration of the work. 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.

The Contractor will maintain and accommodate all over width loads through the project areas.

Due to the expected short duration of the work, the Contractor may utilize either fixed or portable sign supports for all temporary traffic control setups.

TRAFFIC CONTROL, MISCELLANEOUS

All costs for traffic control, including signs, will be incidental to the contract lump sum price for "Traffic Control, Miscellaneous".

Two sets of signs, one for northbound traffic and one for southbound traffic, will be required to warn motorists of the one lane road and stop condition at the bridge site on US183. These signs will be set in the field at or near the top of the hills prior to the bridge site, as determined by the Engineer.

Each set of additional signs will consist of: One (1) W20-1 ROAD WORK AHEAD sign, one (1) W20-4 ONE LANE ROAD AHEAD sign, one (1) W3-1 STOP AHEAD, and one (1) W8-1 BUMP sign.

The contractor may elect to use a supplemental 1 MILE plaque (W16-3P or W16-3aP) for the advance warning signs.

All costs for these additional signs will be incidental to the contract lump sum price for "Traffic Control, Miscellaneous".

SLAB JACKING/FOAM QUANTITIES

The Contractor shall use a high-density polyurethane foam as described in the Standard Specifications for Roads and Bridges (Section 392, Pavement Jacking) for all slab jacking locations. Variations from plan estimate quantities will not be considered cause for renegotiations of the contract unit prices.

Indiscriminate driving and parking of vehicles on the slopes and in the structure areas will not be permitted. Any damage done 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.

The SDDOT reserves the right to inspect the work by way of a profilograph. The Contractor will be responsible for fixing any deficiencies at their own expense.

Due to the dollar amount budgeted for this work; the locations of pavement jacking will be done in the order of the priority number provided in the tables, starting with #1. The Engineer reserves the right to eliminate locations once the budgeted dollar amount is exceeded. The Engineer reserves the right to stop the job if one or both locations meet or exceed the plan quantity of foam jacking.

Values for PCC pavement jacking foam were calculated under the unit weight value of 7 lb/ft³. Values were calculated in order to restore the slabs to relative elevations of other slabs as they exist today in order to create a smoother driving experience.

TABLE OF PCC PAVEMENT JACKING (I6P2, 083-368), #1

LOCATION	FOAM QUANTITY
US Highway 83 over Horse Creek (North approach slab)	265 lbs.

TABLE OF PCC PAVEMENT JACKING (I6P3, 183-368), #2

LOCATION	FOAM QUANTITY
US183 over White River (South approach slab)	150 lbs. (2A)
US183 over White River (North approach slab)	210 lbs. (2B)

TABLE OF PCC PAVEMENT JACKING (I6P3, 183-368), #3***

US183 over White River (North sleeper slab)	25 lbs.
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*** The SDDOT wishes to elevate the North sleeper slab on the US183 bridge over White River due to the presence of a small bump. The SDDOT recognizes that foam-jacking a sleeper slab is a more complex process and is open to Contractor alternatives to accomplish the adjustment. Bid item 392E0210, PCC Pavement Jacking Foam may be bid at a separate rate for Table #3 and Tables #1 and 2. ***

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	083-368 & 183-368	4	5

US 83 North Slab; PCN i6P2 - Str# 38-192-284

Upon completion of the slab jacking on the north side of the structure, the contractor will cold mill from the raised concrete out 75' long x 28' wide x 2" deep to accommodate 2" of new asphalt composite to provide for a smooth transition from the newly slab jacked concrete to the existing asphalt or as directed by the Engineer. The contractor will take care as to not affect the guardrail heights in this area when performing this work.

Cold Milling and Asphalt Composite work will be completed within 14 Calendar Days after the slab jacking has been completed.

The contractor will place a temporary ramp transition if the slab jacked concrete exceeds 1" above the existing asphalt, or as directed by the Engineer.

If determined that the slab jacking did not affect the transition from the existing asphalt to the concrete section of the bridge, this work may be altered or eliminated, as determined by the Engineer.

COLD MILLING ASPHALT CONCRETE

Cold milling asphalt is estimated to produce 26 tons of cold milled asphalt concrete material.

Cold Milling Material will become the property of the Contractor for disposal and may not be reused on the project.

ASPHALT CONCRETE COMPOSITE

Section 324 will apply except that Class Q3R Hot Mixed Asphalt Concrete may be used as Asphalt Concrete Composite.

Plans specified locations for Asphalt Concrete Composite will be paid for at the contract unit price per ton for Asphalt Concrete Composite regardless of the class of asphalt concrete used at such locations.

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.

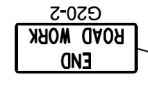
The ROAD WORK AHEAD and the END ROAD WORK signs may be omitted for short duration operations (1 hour or less).

For tack and/or flush seal operations, when flaggers are not being used, the FRESH OIL sign (W21-2) will 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 will 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.

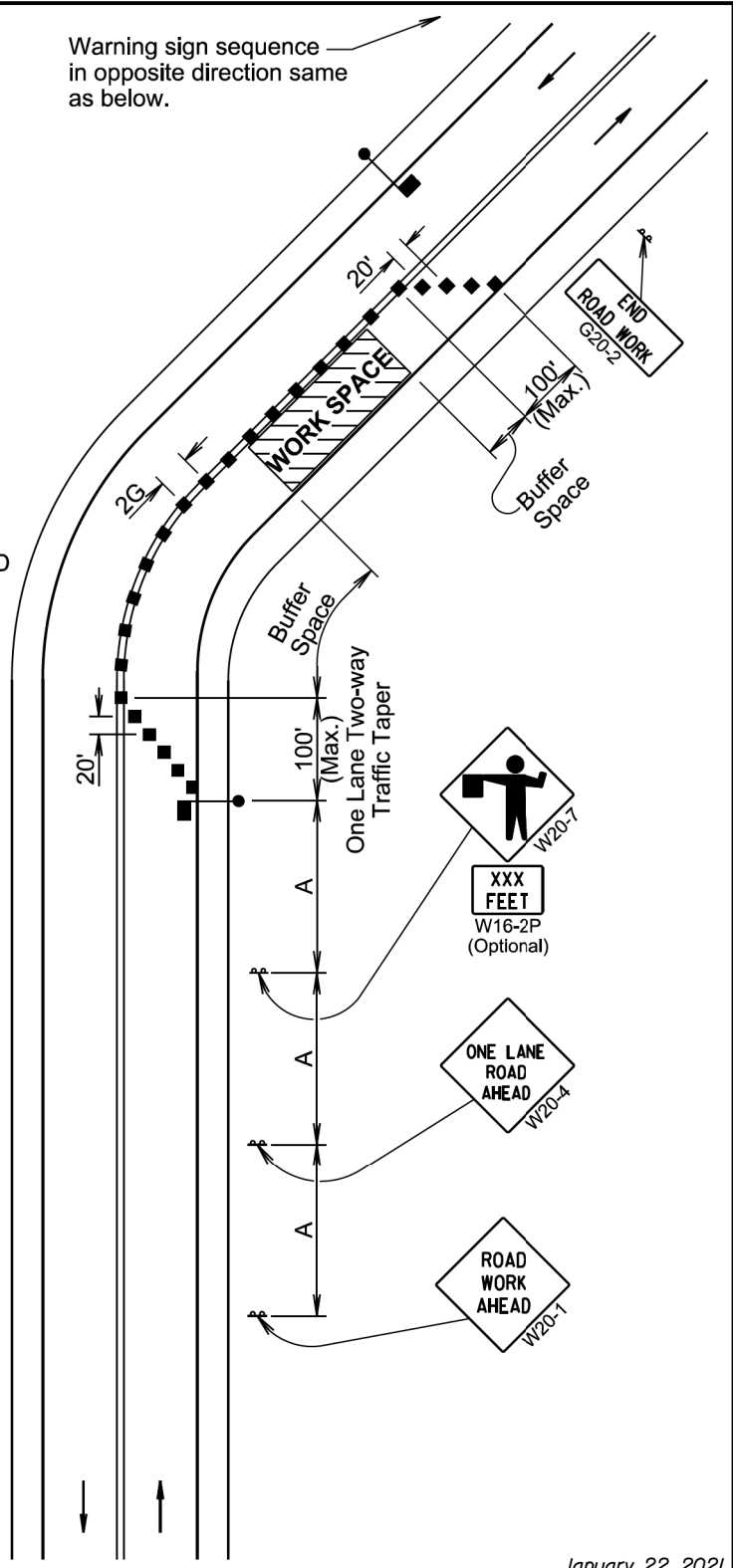


Channelizing devices and flaggers will be used at intersecting roads to control intersecting road traffic as required.

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.

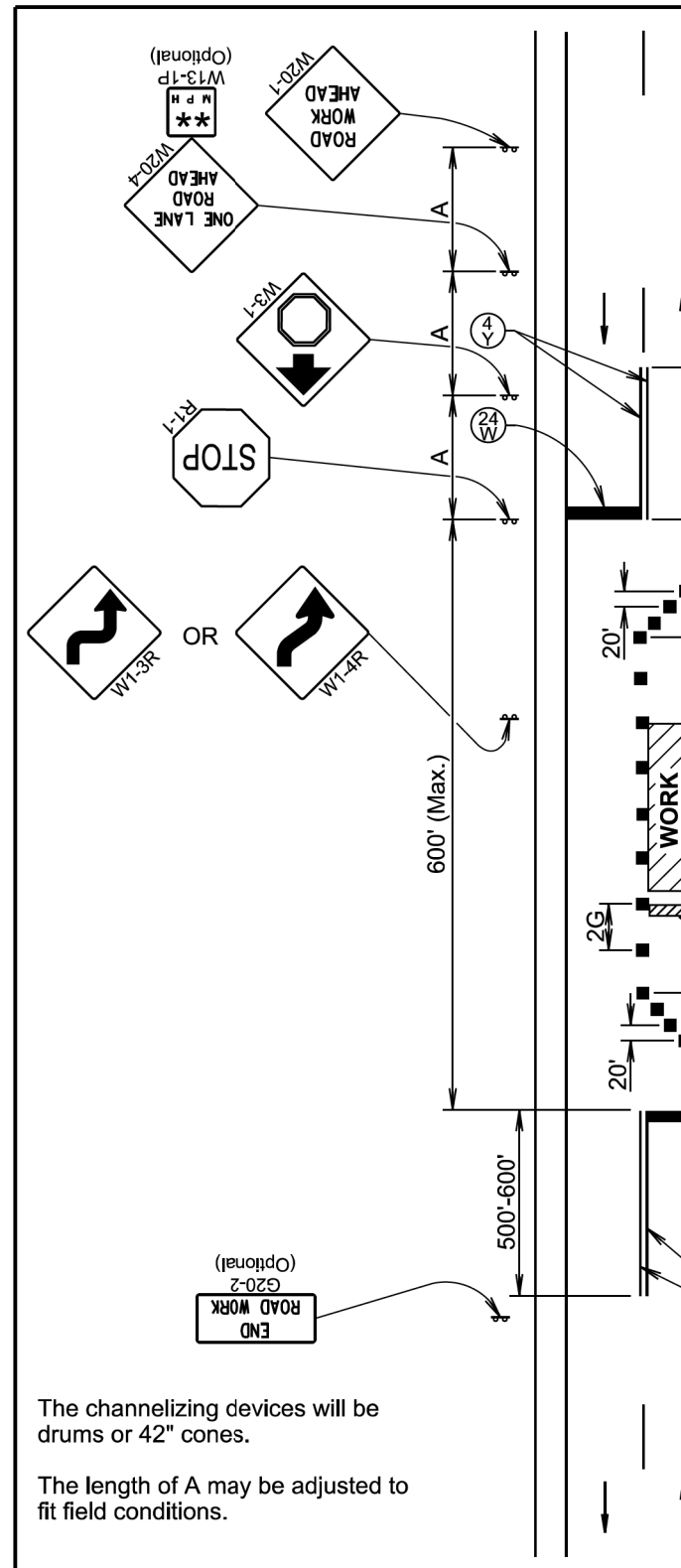


January 22, 2021

S D D O T	LANE CLOSURE WITH FLAGGER PROVIDED	PLATE NUMBER 634.23
	<i>Published Date: 1st Qtr. 2023</i>	Sheet 1 of 1

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

- Ⓜ 24" White Temporary Pavement Marking
- Ⓞ 4" Yellow Temporary Pavement Marking
- Channelizing Device
- ** Need and safe speed to be determined at the site by the Engineer.



January 22, 2021

S D D O T	LANE CLOSURE USING STOP SIGNS	PLATE NUMBER 634.25
	<i>Published Date: 1st Qtr. 2023</i>	Sheet 1 of 1