

STATE OF SOUTH DAKOTA
DEPARTMENT OF TRANSPORTATION
PLANS FOR PROPOSED

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	IM 2291(01)10	1	246

Plotting Date: 11-29-2021
REV 05/11/2021 KAO
REV 08/18/2021 KAO
REV 11/04/2021 KAO
REV 11/23/2021 KAO

INDEX OF SECTIONS

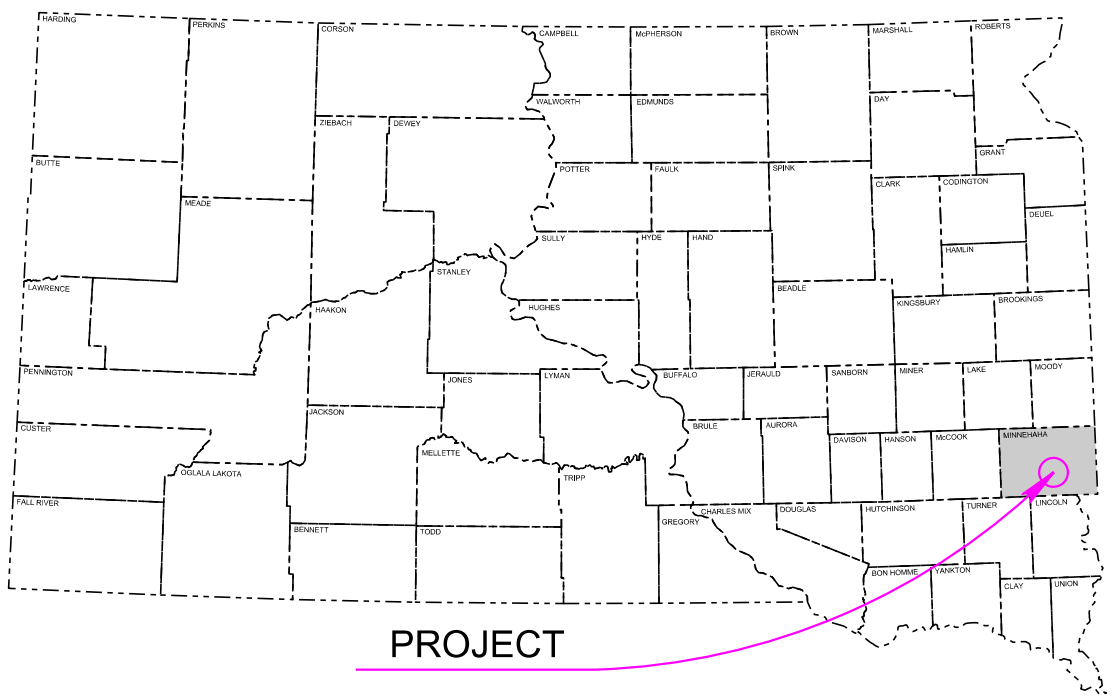
Section A:	Estimate of Quantities and Environmental Commitments
Section B:	Grading Plans
Section C:	Traffic Control Plans
Section D:	Erosion and Sediment Control Plans
Section E:	Structure Plans
Section F:	Surfacing Plans
Section M:	Pavement Marking Plans
Section S:	Permanent Signing Plans
Section X:	Cross Sections
Section Z:	Pipe Sections

PROJECT IM 2291(01)10
60TH STREET N
MINNEHAHA COUNTY

STRUCTURE, APPROACH GRADING,
CURB & GUTTER & AC SURFACING

PCN 01QA

Str No. 50-221-170
Station 26+80.65 to Station 30+12.90



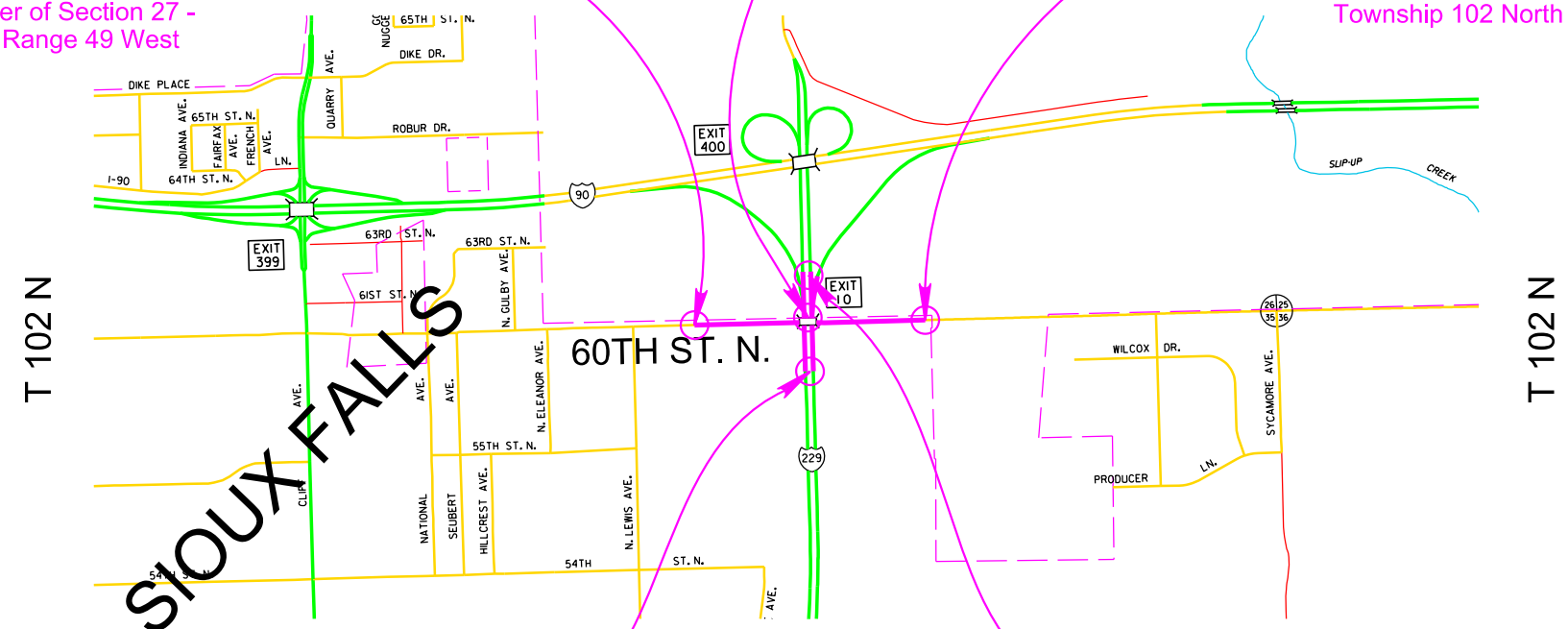
PROJECT

BEGIN IM 2291(01)10

60TH STREET N
Station 15+50.00
1086.61 feet West and 47.74 feet South
of the Southeast Corner of Section 27 -
Township 102 North - Range 49 West

END IM 2291(01)10

60TH STREET N
Station 43+50.00
1710.75 feet East and 73.74 feet North
of the Southeast Corner of Section 27 -
Township 102 North - Range 49 West



SIoux FALLS

BEGIN IM 2291(01)10

I-229
Station 105+50.00

END IM 2291(01)10

I-229
Station 116+50.00

DESIGN DESIGNATION

AAADT (2018)	10,705
AAADT (2045)	27,550
DHV	3,085
D	50%
DHV T%	1.5%
AAADT T%	3.2%
V	50 mph

STORM WATER PERMIT

Major Receiving
Body of Water: Slip-up Creek & Big Sioux River
Area Disturbed: 10,914 acres
Total Project Area: 15,697 acres
Approx. Begin Lat,Long: 43°36'6.94"N, 96°41'26.50"



2

March 16, 2022

Gross Length	2,800 Feet	0.530 Miles
Length of Exceptions	0 Feet	0 Miles
Net Length	2,800 Feet	0.530 Miles

Plot Scale - 1:2000

Plotted From - KODE

File - ...Section A\TitleA.dgn

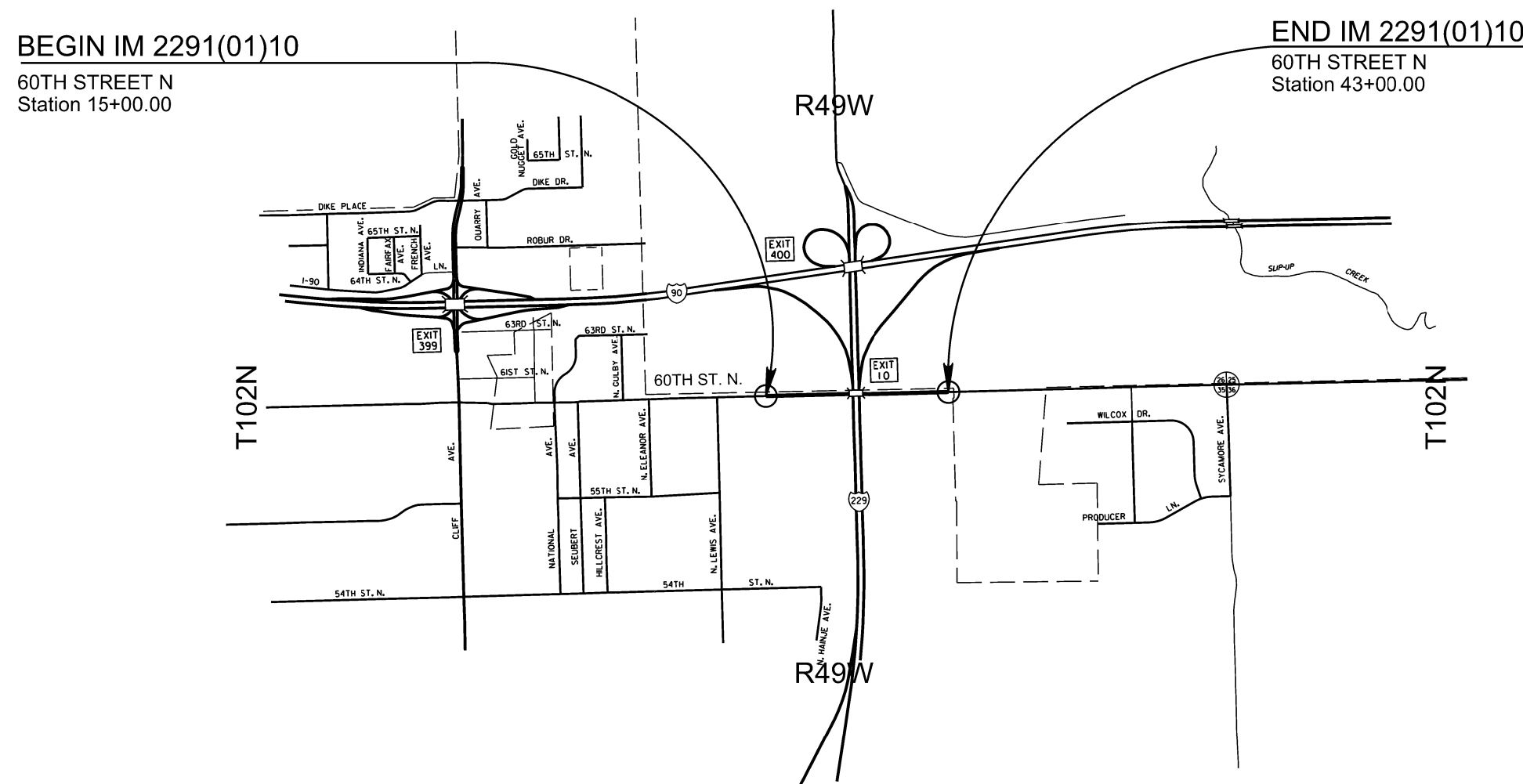
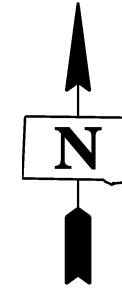
STATE OF	PROJECT	SHEET NO.	TOTAL SHEETS
S.D.	IM 2291(01)10	C1	C20

Plotting Date: 08/11/2021

SECTION C: TRAFFIC CONTROL PLANS

INDEX OF SHEETS

- C1 General Layout
- C2-C7 Notes and Quantity Tables
- C8-C9 60th St Detour
- C10-C13 I-229 Closure
- C14-C15 Temporary Barrier Layout
- C16-C20 Standard Plates



Plot Scale - 1:0.0515357

-Plotted From- TRSF12114

File - ...1010A TRAFFIC CONTROL.dgn

SECTION C ESTIMATE OF QUANTITIES

BID ITEM NUMBER	ITEM	QUANTITY	UNIT
634E0010	Flagging	100.0	Hour
634E0110	Traffic Control Signs	957.0	SqFt
634E0120	Traffic Control, Miscellaneous	Lump Sum	LS
634E0275	Type 3 Barricade	36	Each
634E0420	Type C Advance Warning Arrow Board	4	Each
634E0525	Linear Delineation System Panel, Barrier Mounted	124	Each
634E0640	Temporary Pavement Marking	4,600	Ft
634E0700	Traffic Control Movable Concrete Barrier	124	Each
634E0750	Temporary Concrete Barrier End Protection	2	Each
634E0755	Remove and Reset Temporary Concrete Barrier End Protection	4	Each
634E0760	Temporary Concrete Barrier End Protection Module Set or Repair Kit	2	Each
634E1002	Detour and Restriction Signing	1,829.1	SqFt
634E1020	Temporary Business Signing	25.0	SqFt
634E1215	Contractor Furnished Portable Changeable Message Sign	10	Each
634E1255	Contractor Furnished Speed Monitoring Radar Trailer	2	Each

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.

Refer to the Special Provisions for night closure on I-229.

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 7 feet in urban locations, even when mounted on portable supports.

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.

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.

All haul trucks will be equipped with an additional flashing amber light that is visible from the backside of the haul truck. The costs for the flashing amber lights will be incidental to the various related contract items.

At no time will a vertical drop-off of greater than 3 inches be left overnight adjacent to the traveled way. The Contractor will utilize embankment material to ensure a 3-inch vertical drop-off is not exceeded. The slope of the embankment material will not be steeper than a 4:1 within 30 feet of the traveled way.

A Type 3 Barricade will be installed at the end of a lane closure taper as detailed in these plans. Additional Type 3 Barricades will be installed facing traffic within the closed lane at a spacing of 1/4 mile.

Construction vehicles will exit or enter the construction work zone at locations identified by the Engineer. At no time will construction vehicles utilize the maintenance crossovers or the Interstate median to exit or enter Interstate traffic.

I-229 Northbound and Southbound will have two lanes maintained at all times except during times allowed by special provisions and barrier locations noted in the plans.

I-90 on and off ramps to I-229 will be open and maintained at all times except during times allowed by special provisions.

Included in the estimate of quantities are Type III Barricades and Traffic Control Signs for the closure of Sycamore Ave for use as a borrow pit. Closure of Sycamore Avenue will be from just south of East Producer Lane to the south approximately 1700' south near the Sioux Falls Water Reclamation approach. Traffic Control Details are shown on the sheet labeled Traffic Control for North Sycamore Avenue Borrow Pit.

FLAGGING

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

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".

WORK ZONE SPEED REDUCTION

Revised CM on 01/04/22

The Department is required to obtain a speed reduction resolution prior to the installation of any SPEED LIMIT (R2-1) signs shown on standard plate 634.63. To provide adequate time for the resolution to be enacted, the Contractor will inform the Engineer a minimum of 3 weeks prior to the scheduled installation of any work zone speed reduction signs on the project. The information provided by the Contractor will include the anticipated date of sign installation, the newly reduced speed limit, the location of the work zone, and the anticipated completion date of work requiring the speed reduction.

CONTACTOR FURNISHED PORTABLE CHANGEABLE MESSAGE SIGN

One week prior to starting work affecting the traveling public, portable changeable message signs (PCMS) will be installed at locations detailed in the plans to notify drivers of the upcoming construction. The Contractor will program the portable changeable message signs with the following message:

ROAD WORK
BEGINS
(DATE)

USE
ALT
ROUTE

When work begins that will affect traffic patterns, the Contractor will re-program the PCMS with the messages as detailed below:

I-229 CLOSED
AT BENSON
ROAD

STARTING
DATE

FOLLOW
DETOUR

The Contractor will coordinate with the Project Engineer for location and the programming of messages depending on the sequence of operations.

INCIDENTS

An incident is an emergency road user occurrence, a natural disaster, or other unplanned event that affects or impedes the normal flow of traffic such as a crash, hazardous materials spill, or other event.

The Contractor will set up a meeting prior to start of work to plan and coordinate responses to an incident. The Contractor will invite the Department of Transportation, the South Dakota Highway Patrol, the Minnehaha County Sheriff and local emergency response entities to the meeting.

The Contractor will assist to maintain traffic as required by these plan notes and as agreed to at that meeting.

STATE OF	PROJECT	SHEET NO.	TOTAL SHEETS
S.D.	IM 2291(01)10	C3	C20

Revised CM on 09/28/21

INCIDENTS (CONTINUED)

Emergency vehicle access through the project will be considered and discussed at the meeting.

The Contractor may be required to modify messages on portable changeable message signs or relocate portable changeable message signs, and to provide flaggers to direct or detour traffic. The Contractor should be prepared to relocate advance warning signs if determined to be necessary for a major traffic incident lasting more than two hours. Fixed location ground mounted signs may be covered and additional portable signs provided.

No additional payment will be made for the modification of portable changeable message sign messages or the relocation of portable changeable message signs. Cost for the relocation of an advance warning sign due to an incident will be 50% of the designated sign rate. Flaggers will be paid for at the contract unit price per hour for "Flagging".

PRESS RELEASE ANNOUNCEMENTS

The SDDOT will prepare a press release to be released 5 days prior to any phase change or any other major change that affects traffic flow. The SDDOT will be responsible to keep law enforcement, emergency services, and the traveling public notified of changes in project access. The Contractor will provide the Engineer with pertinent information 7 days prior to any phase change or any other major change that affects traffic flow.

LIGHTING FOR NIGHTTIME WORK

Flagger stations, working construction equipment and active workspaces will be lighted between sunset and sunrise. Non-glare light sources will be provided.

Light levels are as defined in Section 2.9.2 of NCHRP 476.

Light in conformance with Level I will be provided at the active workspaces.

Light in conformance with Level II will be provided at the locations of working construction equipment.

Light in conformance with Level III is to be provided where labor intensive work is being completed such as during hand work, pavement sawing, project inspection and materials testing.

Acceptable light sources will be Contractor furnished stand-alone lights or vehicle/equipment mounted lights. Stand-alone units will be marked with a minimum of two reflectorized drums on an approaching traffic side.

Cost for this lighting will be included in the contract lump sum price for "Traffic Control, Miscellaneous".

CONTROL OF DEBRIS

No damage of the existing lanes, traffic or adjacent infrastructure will be allowed.

The Contractor will cushion mainline and use debris nets or falsework to protect the roadway apparatuses and mainline interstate traffic.

TRAFFIC CONTROL MOVEABLE CONCRETE BARRIER

124 traffic control movable concrete barriers will be obtained from the Department of Transportation Sioux Falls Area Complex, located at 5316 W 60th St N in Sioux Falls, hauled, used on the project, and returned to the Sioux Falls Area Complex upon completion of the project.

Cost to pick up the traffic control movable concrete barriers from the Sioux Falls Area Complex, place barriers for traffic control and return the traffic control moveable barrier to the yard will be paid for at the contract unit price for "Traffic Control Moveable Concrete Barrier". No additional payment will be made for shifting barrier between lane closures.

BARRIER MOUNTED LINEAR DELINEATION SYSTEM PANELS

A linear delineation system (LDS) panel will be attached to each barrier section. The color will be the same as the nearest pavement marking, white along outside edgelines or yellow for the left side on one-way traffic sections. The LDS will be 34 inches long and 6 inches in height and be constructed of aluminum formed into a shape to provide retroreflective properties across a wide range of angles. It will be sheeted with sheeting meeting the requirements of ASTM D4956 Type XI. The panels will be evenly spaced, with the top of the panel 4 inches below the top of the barrier. Installation will be as per the manufacturer's recommendations. This will allow for easy removal for replacement of damaged panels or to replace with an alternate color. The Contractor will furnish and install one panel along each side of the barrier if any panels are missing from the barriers. Replacement of damaged linear delineation system panels will be furnished and replaced by the Contractor. All costs associated with furnishing, installing, and replacing if needed the LDS will be incidental to the contract unit price per each for Linear Delineation System Panel, Barrier Mounted.

All LDS panels will remain attached to the barrier sections and will become the property of the State of South Dakota upon completion of the project.

The Contractor will verify the number of LDS panels that will need to be installed or replaced on the Traffic Control Movable Concrete Barriers. The contract amount of LDS panels is an estimate and the full contract amount may not be needed.

Maintaining the linear delineation system, including moving LDS panels from one side of the barrier to the other side of the barrier to match the applicable color of the nearest pavement marking will be incidental to the contract lump sum price for Traffic Control, Miscellaneous.

TEMPORARY CONCRETE BARRIER END PROTECTION

Crash attenuators meeting the requirements of NCHRP 350 or MASH TL-3 will be furnished and installed by the Contractor. Attachment of the attenuators to the concrete barriers will be by approved methods.

All costs associated with furnishing, transporting, initial setup, connecting, maintaining, and removing the crash attenuators will be incidental to the contract unit price per each for Temporary Concrete Barrier End Protection.

Crash attenuators that need to be moved and reset to accommodate traffic flows after initial setup will be paid for at the contract unit price per each for Remove and Reset Temporary Concrete Barrier End Protection. All costs associated with removing from initial placement and resetting at a new location will be incidental to the contract unit price per each. No additional payment will be made for crash attenuators that are not immediately reset at a new location on the project and will be stored onsite until they are either reset or removed from the project as determined by the Engineer. No payment will be made for minor adjustments.

The Contractor will have replacement hardware available so that in the event the crash attenuator is hit and made unusable, the crash attenuator can be made functional within 24 hours. The cost of replacement is included in the contract unit price per each for Temporary Concrete Barrier End Module Set or Repair Kit. No payment will be made for the Concrete Barrier End Module Set or Repair Kit in the event that no repairs are necessary. Upon completion of the project, crash attenuators will remain property of the Contractor.

DETOUR SIGNING

The Contractor will furnish and install the detour signs as shown in these plans. Prior to installing the signs, the Contractor will mark the sign locations and review them with the Engineer. Detour signs will be installed on fixed location, ground mounted, breakaway supports. It will be the responsibility of the Contractor to maintain and reinstall these signs during the project as required by the construction progress. Upon completion of the project, the Contractor will remove the detour signs.

All costs for furnishing the signs, posts, and mounting hardware, and for installing, maintaining, covering, and removing the detour signs will be incidental to the contract unit price per square foot for "Detour and Restriction Signing".

TEMPORARY PAVEMENT MARKING

Temporary Flexible Vertical Markers (Tabs) will be used for lane closures in accordance with standard plates.

Temporary flexible vertical markers (tabs) will be used as detailed in the specifications.

TEMPORARY PAVEMENT MARKING (CONTINUED)

Covers on the tabs will be sufficiently secured to prevent traffic from dislodging the cover and when removed, the covers will be properly disposed of. The Contractor will remove and properly dispose of the tabs after permanent pavement marking is applied. Method of removal will be nondestructive to the road surface and will be accomplished within one week of completion of the permanent pavement marking.

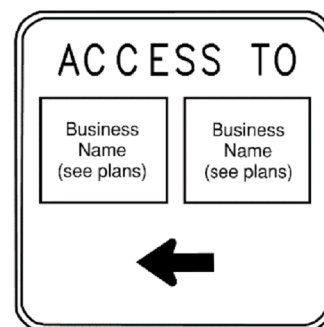
Full reflectivity of all temporary flexible vertical markers (tabs) is required at all times. The Contractor will be required to replace any missing or non-reflective tabs at no additional cost to the State.

All costs for the ACCESS TO business signs will be included in the contract unit price per square foot for "Temporary Business Signing". This will include any changing, removing or adding of business names after the sign has been erected in the field.

Type	Closure Location	Quantity (ft)
White Tabs	I-229 near Benson	2,020
White Tabs	I-229 near 60 th St.	2,080
White Tabs	I-90 near I-229 Interchange	500
	Total	4,600

ACCESS TO BUSINESS SIGNS

The Contractor will install the ACCESS TO business signs per the details and at the locations shown on the plans. Below is an example of this sign.



Business names shown on the ACCESS TO business signs may be requested to be changed or removed after the sign has been erected in the field. The business name lettering on the signs will be of material that easily allows for these changes.

At locations on the signs where a square on the sign has been left blank, it is intended that a business name can be added to this square after the sign has been erected in the field. The business name lettering on the signs will be of material that easily allows for these additions.

The current business names for ACCESS TO business signs are as follows:

1. Nolz Poor Farm Bison
2. Nolz Dragline & Construction, Inc.

DETOUR QUANTITIES

ITEMIZED LIST FOR DETOUR SIGNING (60th St.)

SIGN CODE	SIGN DESCRIPTION	CONVENTIONAL ROAD				EXPRESSWAY / INTERSTATE			
		NUMBER	SIGN SIZE	SQFT PER SIGN	SQFT	NUMBER	SIGN SIZE	SQFT PER SIGN	SQFT
R11-3a	ROAD CLOSED 2 MILES AHEAD LOCAL TRAFFIC ONLY	1	60" x 30"	12.5	12.5				
R11-3a	ROAD CLOSED 1 MILES AHEAD LOCAL TRAFFIC ONLY	1	60" x 30"	12.5	12.5				
W20-2	DETOUR AHEAD	4	48" x 48"	16.0	64.0	2	48" x 48"	16.0	32.0
M3-2	DIRECTION MARKER - EAST	9	24" x 12"	2.0	18.0	9	36" x 18"	4.5	40.5
M3-4	DIRECTION MARKER - WEST	10	24" x 12"	2.0	20.0	9	36" x 18"	4.5	40.5
M4-8	DETOUR	13	24" x 12"	2.0	26.0	16	30" x 15"	3.1	49.6
M4-8a	END DETOUR	2	24" x 18"	3.0	6.0		36" x 24"	6.0	
M5-1	ADVANCE TURN ARROW 90° (L or R)	1	21" x 15"	2.2	2.2	1	30" x 21"	4.4	4.4
M5-2	ADVANCE TURN ARROW 45° (L or R)	3	21" x 15"	2.2	6.6	3	30" x 21"	4.4	13.2
M6-1	DIRECTION ARROW - Horizontal Single Head (L or R)	1	21" x 15"	2.2	2.2	1	30" x 21"	4.4	4.4
M6-2	DIRECTION ARROW - 45° Single Head (L or R)	3	21" x 15"	2.2	6.6	3	30" x 21"	4.4	13.2
M6-3	DIRECTION ARROW - Vertical Single Head	5	21" x 15"	2.2	11.0	8	30" x 21"	4.4	35.2
SPECIAL	60th Street North	19	36" x 24"	6.0	114.0	18	60" x 42"	17.5	315.0
DETOUR SIGNING TOTAL 850 SQFT		CONVENTIONAL ROAD DETOUR SIGNING SQFT 301.6				EXPRESSWAY / INTERSTATE DETOUR SIGNING SQFT 548.0			

ITEMIZED LIST FOR DETOUR SIGNING (I-229 NIGHT CLOSURE)

SIGN CODE	SIGN DESCRIPTION	CONVENTIONAL ROAD				EXPRESSWAY / INTERSTATE			
		NUMBER	SIGN SIZE	SQFT PER SIGN	SQFT	NUMBER	SIGN SIZE	SQFT PER SIGN	SQFT
R3-1	RIGHT TURN PROHIBITION (symbol)	2	24" x 24"	4.0	8.0		36" x 36"	9.0	
R3-2	LEFT TURN PROHIBITION (symbol)	3	24" x 24"	4.0	12.0		36" x 36"	9.0	
R11-2	ROAD CLOSED	10	48" x 30"	10.0	100.0		48" x 30"	10.0	
W20-2	DETOUR AHEAD		48" x 48"	16.0		5	48" x 48"	16.0	80.0
W20-3	ROAD CLOSED AHEAD	1	48" x 48"	16.0	16.0		48" x 48"	16.0	
R3-27	STRAIGHT LANE PROHIBITED	2	24" x 24"	4.0	8.0		" x "		
M1-1	INTERSTATE ROUTE MARKER (3 digits)	31	30" x 24"	5.0	155.0	13	45" x 36"	11.3	146.9
M3-1	DIRECTION MARKER - NORTH	12	24" x 12"	2.0	24.0	4	36" x 18"	4.5	18.0
M3-3	DIRECTION MARKER - SOUTH	18	24" x 12"	2.0	36.0	10	36" x 18"	4.5	45.0
M4-5	TO	11	24" x 12"	2.0	22.0	13	36" x 18"	4.5	58.5
M4-8	DETOUR	11	24" x 12"	2.0	22.0	13	30" x 15"	3.1	40.3
M4-8a	END DETOUR	2	24" x 18"	3.0	6.0		36" x 24"	6.0	
M5-1	ADVANCE TURN ARROW 90° (L or R)		21" x 15"	2.2		3	30" x 21"	4.4	13.2
M5-2	ADVANCE TURN ARROW 45° (L or R)		21" x 15"	2.2		3	30" x 21"	4.4	13.2
M6-1	DIRECTION ARROW - Horizontal Single Head (L or R)	4	21" x 15"	2.2	8.8	2	30" x 21"	4.4	8.8
M6-2	DIRECTION ARROW - 45° Single Head (L or R)		21" x 15"	2.2		3	30" x 21"	4.4	13.2
M6-3	DIRECTION ARROW - Vertical Single Head	7	21" x 15"	2.2	15.4	2	30" x 21"	4.4	8.8
SPECIAL	CLOSED					10	60" x 24"	10.0	100.0
DETOUR SIGNING TOTAL 979.1 SQFT		CONVENTIONAL ROAD DETOUR SIGNING SQFT 433.2				EXPRESSWAY / INTERSTATE DETOUR SIGNING SQFT 545.9			

TRAFFIC CONTROL QUANTITIES

ITEMIZED LIST FOR TRAFFIC CONTROL SIGNS

SIGN CODE	SIGN DESCRIPTION	CONVENTIONAL ROAD				EXPRESSWAY / INTERSTATE			
		NUMBER	SIGN SIZE	SQFT PER SIGN	SQFT	NUMBER	SIGN SIZE	SQFT PER SIGN	SQFT
R2-1	SPEED LIMIT 45		24" x 30"	5.0		6	36" x 48"	12.0	72.0
R2-1	SPEED LIMIT 55		24" x 30"	5.0		2	36" x 48"	12.0	24.0
R2-6aP	FINES DOUBLE (plaque)		24" x 18"	3.0		8	36" x 24"	6.0	48.0
R11-2	ROAD CLOSED	2	48" x 30"	10.0	20.0		48" x 30"	10.0	
R11-3a	ROAD CLOSED 0.3 MILES AHEAD LOCAL TRAFFIC ONLY	2	60" x 30"	12.5	25.0				
W3-5	SPEED REDUCTION AHEAD (45 MPH)		48" x 48"	16.0		6	48" x 48"	16.0	96.0
W4-2	LEFT or RIGHT LANE ENDS (symbol)		48" x 48"	16.0		8	48" x 48"	16.0	128.0
W20-1	ROAD WORK AHEAD		48" x 48"	16.0		10	48" x 48"	16.0	160.0
W20-3	ROAD CLOSED AHEAD	4	48" x 48"	16.0	64.0	2	48" x 48"	16.0	32.0
W20-5	LEFT or RIGHT LANE CLOSED AHEAD		48" x 48"	16.0		8	48" x 48"	16.0	128.0
TRAFFIC CONTROL SIGNS TOTAL 957 SQFT		CONVENTIONAL ROAD TRAFFIC CONTROL SIGNS SQFT 109.0				EXPRESSWAY / INTERSTATE TRAFFIC CONTROL SIGNS SQFT 848.0			

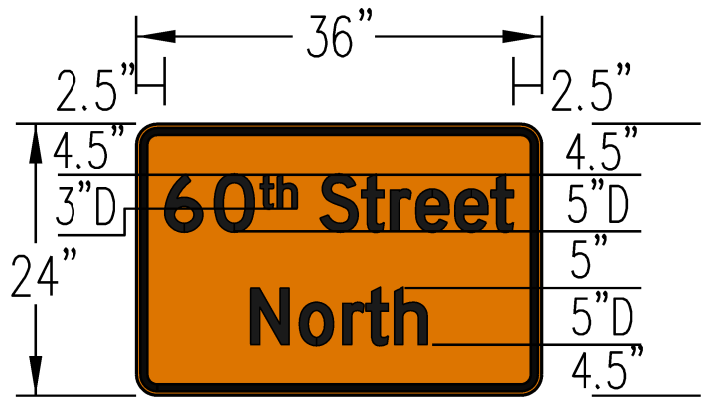
ITEMIZED LIST FOR TEMPORARY BUSINESS SIGNS

SIGN CODE	SIGN DESCRIPTION	CONVENTIONAL ROAD			
		NUMBER	SIGN SIZE	SQFT PER SIGN	SQFT
SPECIAL	ACCESS TO (2 Business Entries)	1	60" x 60"	25.0	25.0
		CONVENTIONAL ROAD BUSINESS SIGNS 25.0			

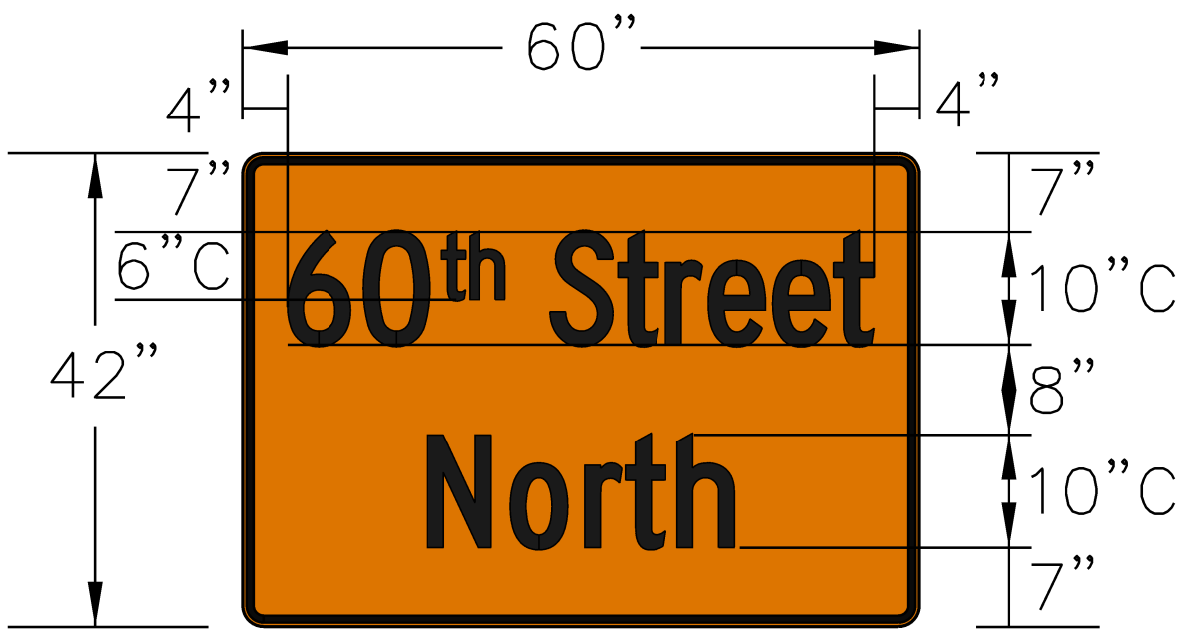
SPECIAL SIGN DETAILS



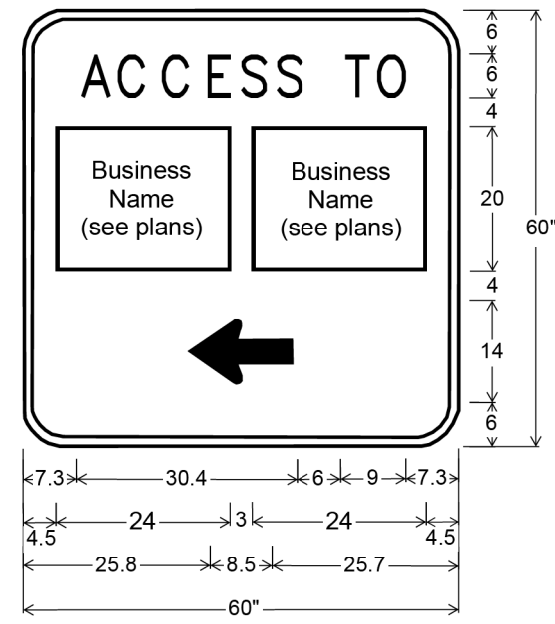
BORDER
3" CORNER RADII
WIDTH 2"



BORDER
1 1/2" CORNER RADII
WIDTH 5/8"
INSET 3/8"



BORDER
3" CORNER RADII
WIDTH 1 1/4"
INSET 3/4"



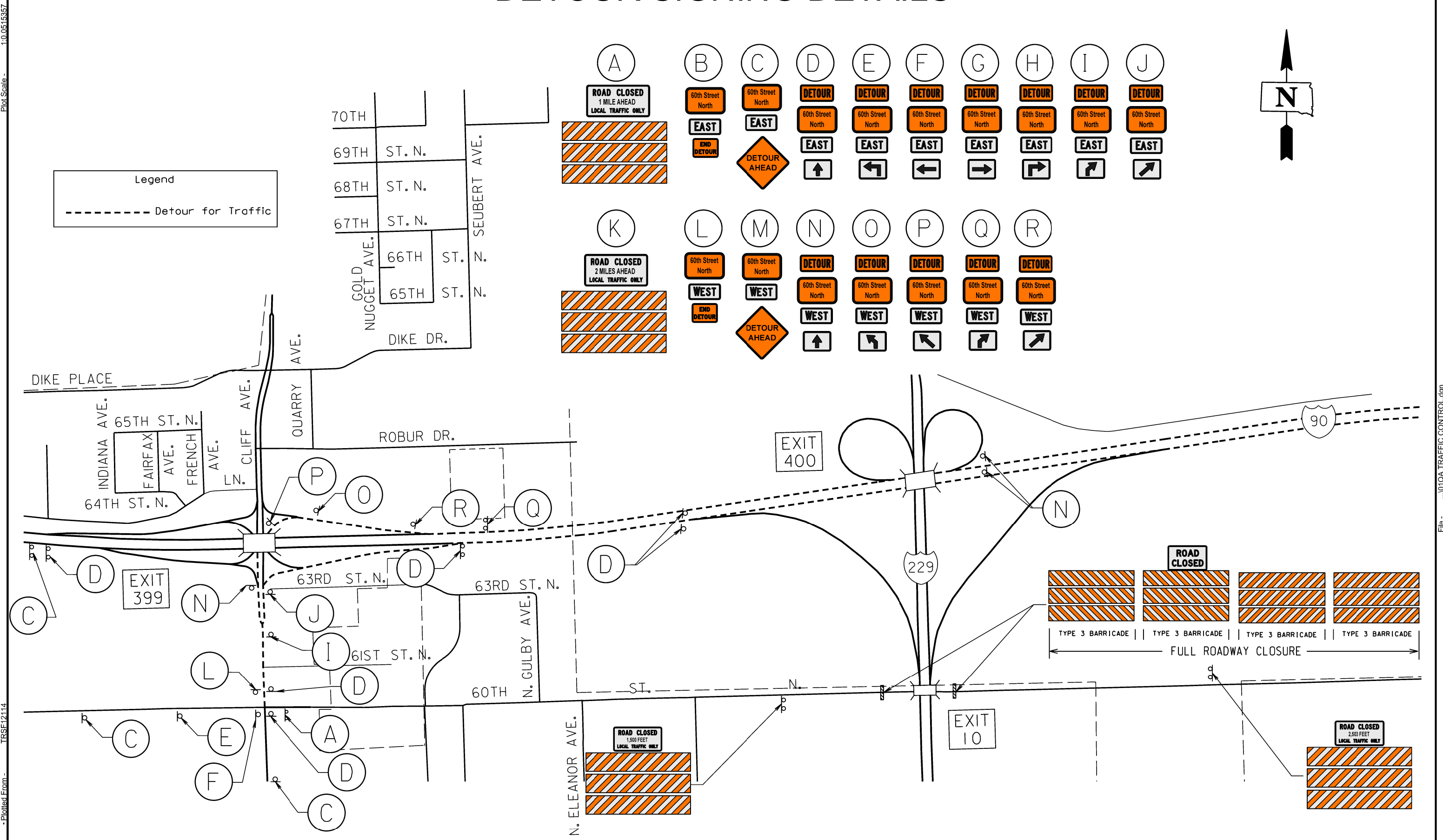
6.0" Radius, 1.3" Border, White on Blue;
"ACCESS TO" White Type D Font;
0.5" White Outline for Rectangles;
4" White Type C Font within Rectangles;
White Standard Arrow Custom 14.0" X 8.5";

DETOUR SIGNING DETAILS



Legend
 ----- Detour for Traffic

A ROAD CLOSED 1 MILE AHEAD LOCAL TRAFFIC ONLY	B 60th Street North EAST END DETOUR	C 60th Street North EAST DETOUR AHEAD	D 60th Street North EAST ↑	E 60th Street North EAST ↙	F 60th Street North EAST ←	G 60th Street North EAST →	H 60th Street North EAST ↘	I 60th Street North EAST ↗	J 60th Street North EAST ↘
K ROAD CLOSED 2 MILES AHEAD LOCAL TRAFFIC ONLY	L 60th Street North WEST END DETOUR	M 60th Street North WEST DETOUR AHEAD	N 60th Street North WEST ↑	O 60th Street North WEST ↙	P 60th Street North WEST ←	Q 60th Street North WEST →	R 60th Street North WEST ↘		



Plot Scale - 1:0.0515357

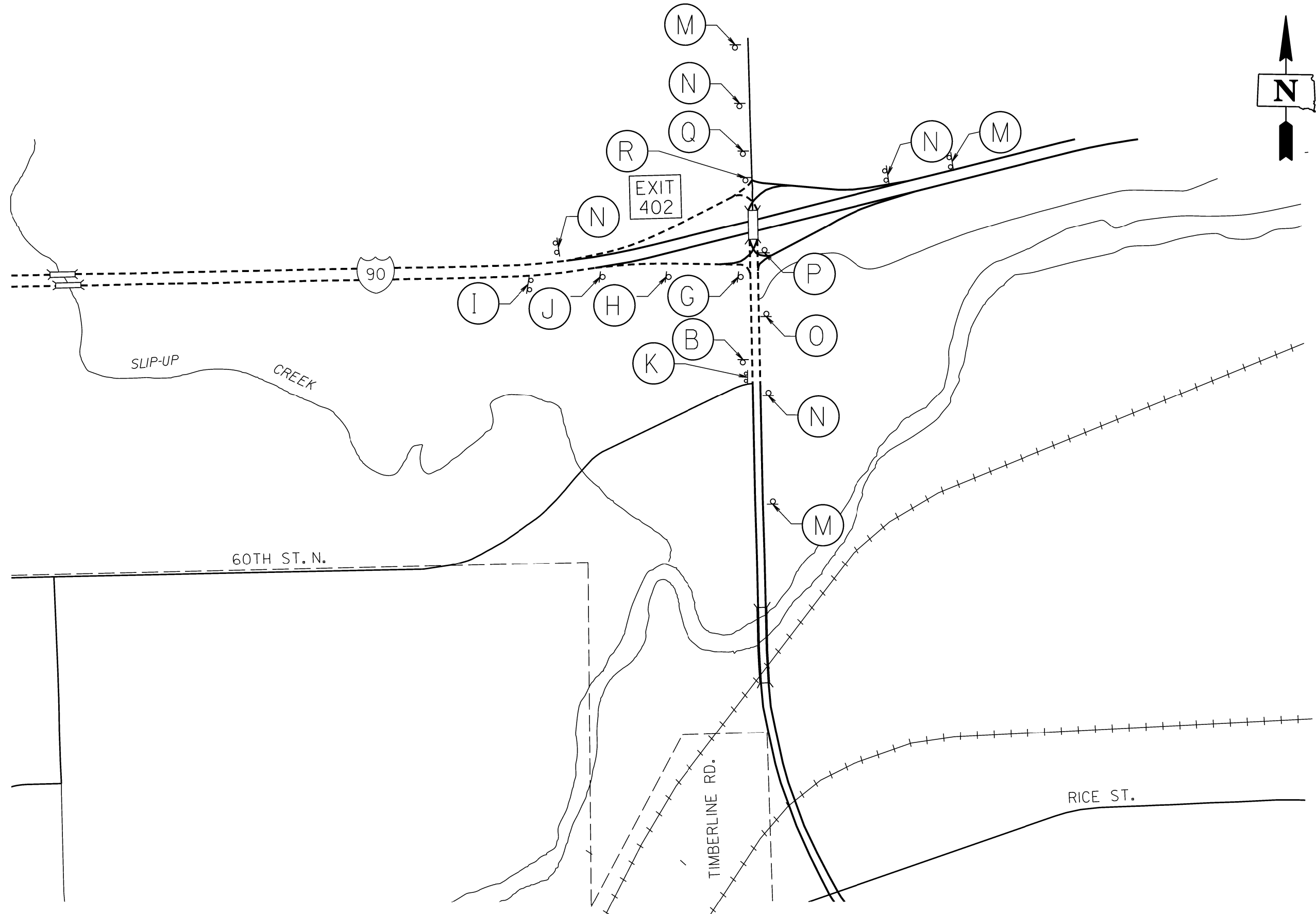
-Plotted From- TRSE12114

File - ...1010A TRAFFIC CONTROL.dgn

STATE OF	PROJECT	SHEET NO.	TOTAL SHEETS
S.D.	IM 2291(01)10	C9	C20

Plotting Date: 08/11/2021

DETOUR SIGNING DETAILS



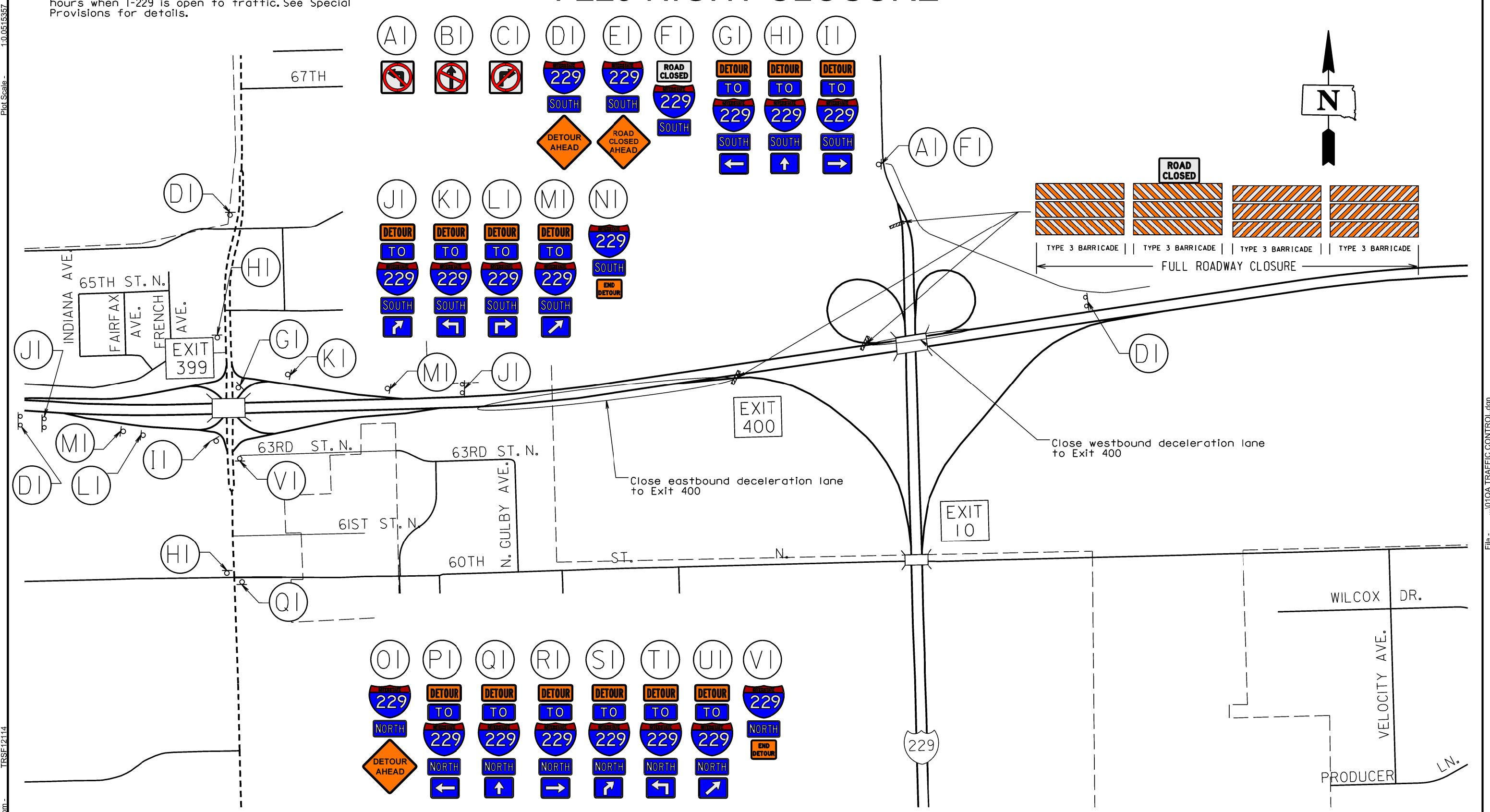
Plot Scale - 1:0.0515357

-Plotted From- TRSE12114

File - ...1010A TRAFFIC CONTROL.dgn

Detour signs will be covered up during daytime hours when I-229 is open to traffic. See Special Provisions for details.

I-229 NIGHT CLOSURE

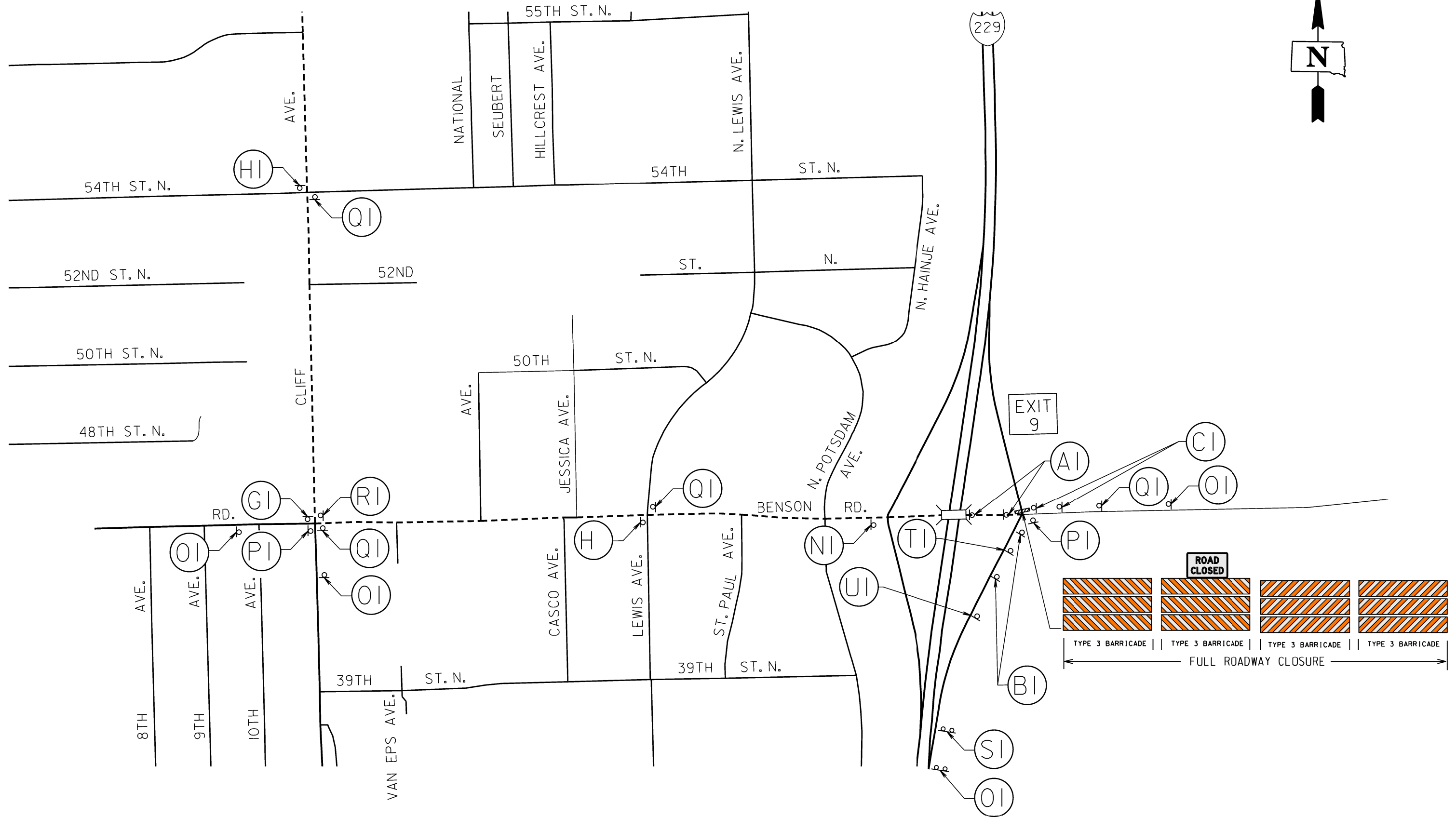


Exact locations will be approved by the Engineer.

STATE OF	PROJECT	SHEET NO.	TOTAL SHEETS
S.D.	IM 2291(01)10	C11	C20

Plotting Date: 08/11/2021

I-229 NIGHT CLOSURE



Plot Scale - 1:0.0515357

-Plotted From- TRSE12114

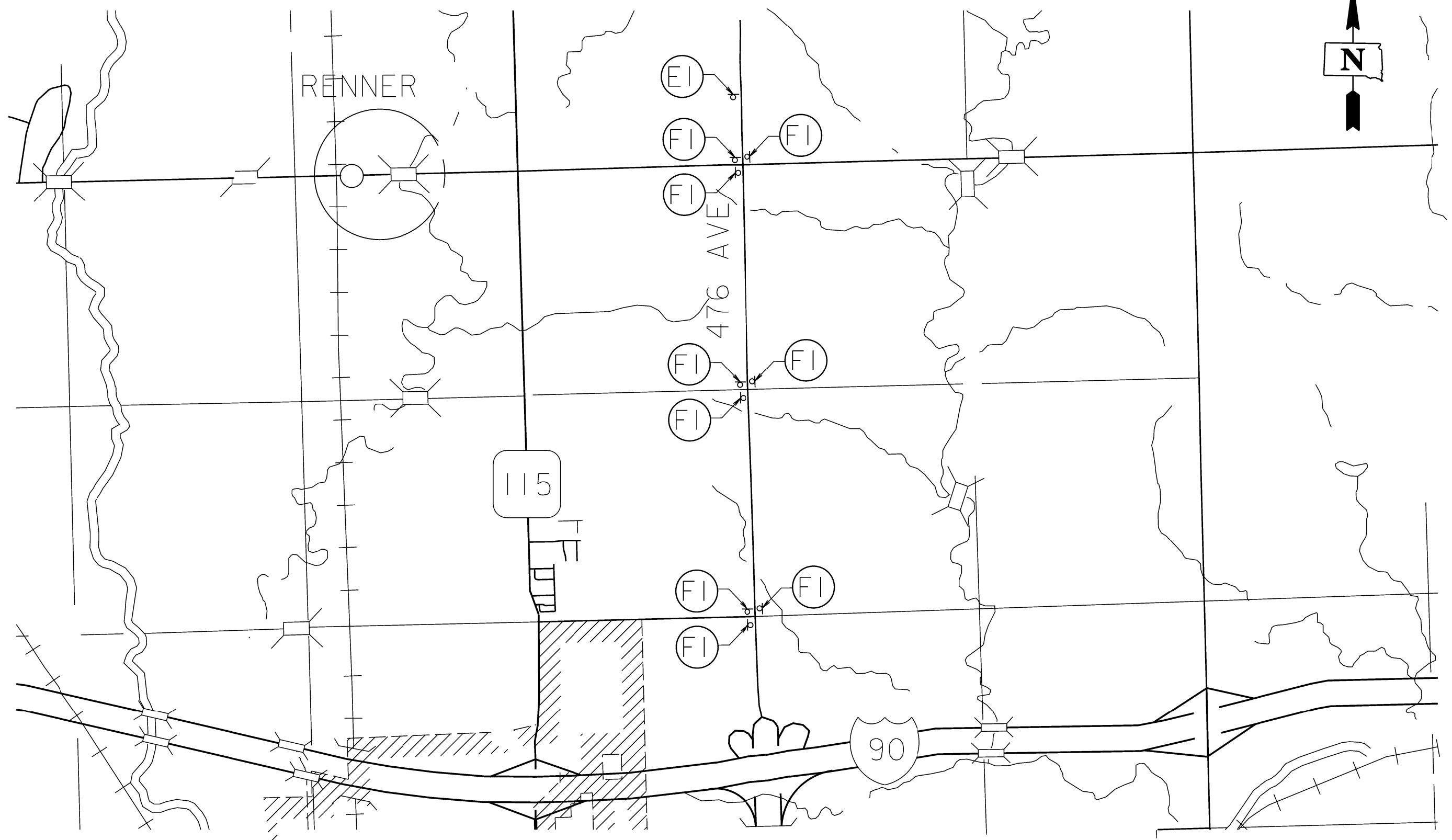
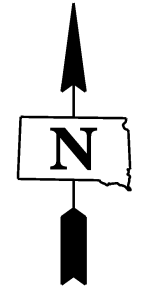
-Plotted From- TRSE12114

File - ...1010A TRAFFIC CONTROL.dgn

STATE OF	PROJECT	SHEET NO.	TOTAL SHEETS
S.D.	IM 2291(01)10	C12	C20

Plotting Date: 08/11/2021

I-229 NIGHT CLOSURE



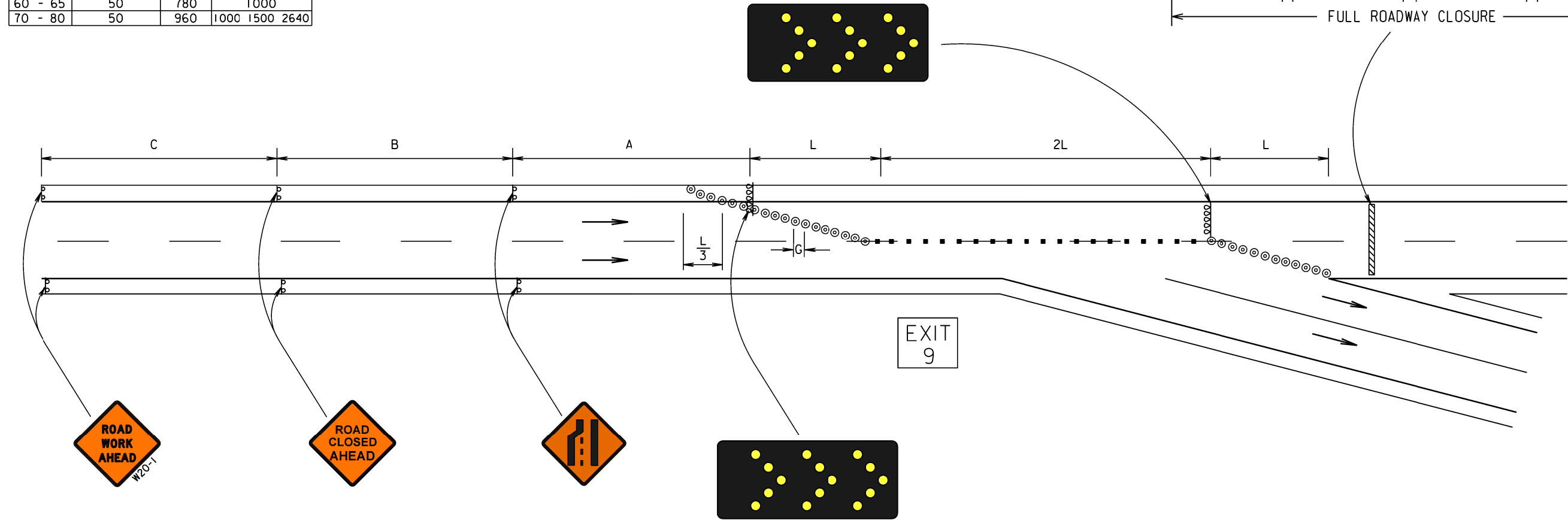
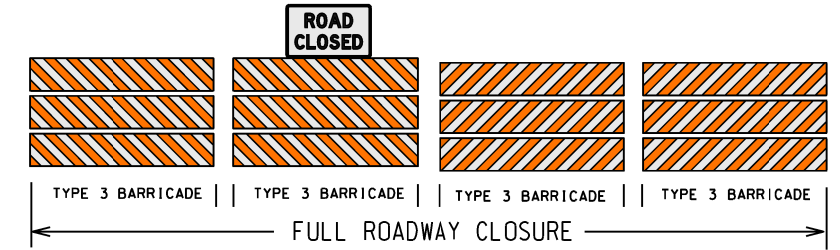
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-Plotted From- TRSE12114

File - ...1010A TRAFFIC CONTROL.dgn

I-229 NIGHT CLOSURE

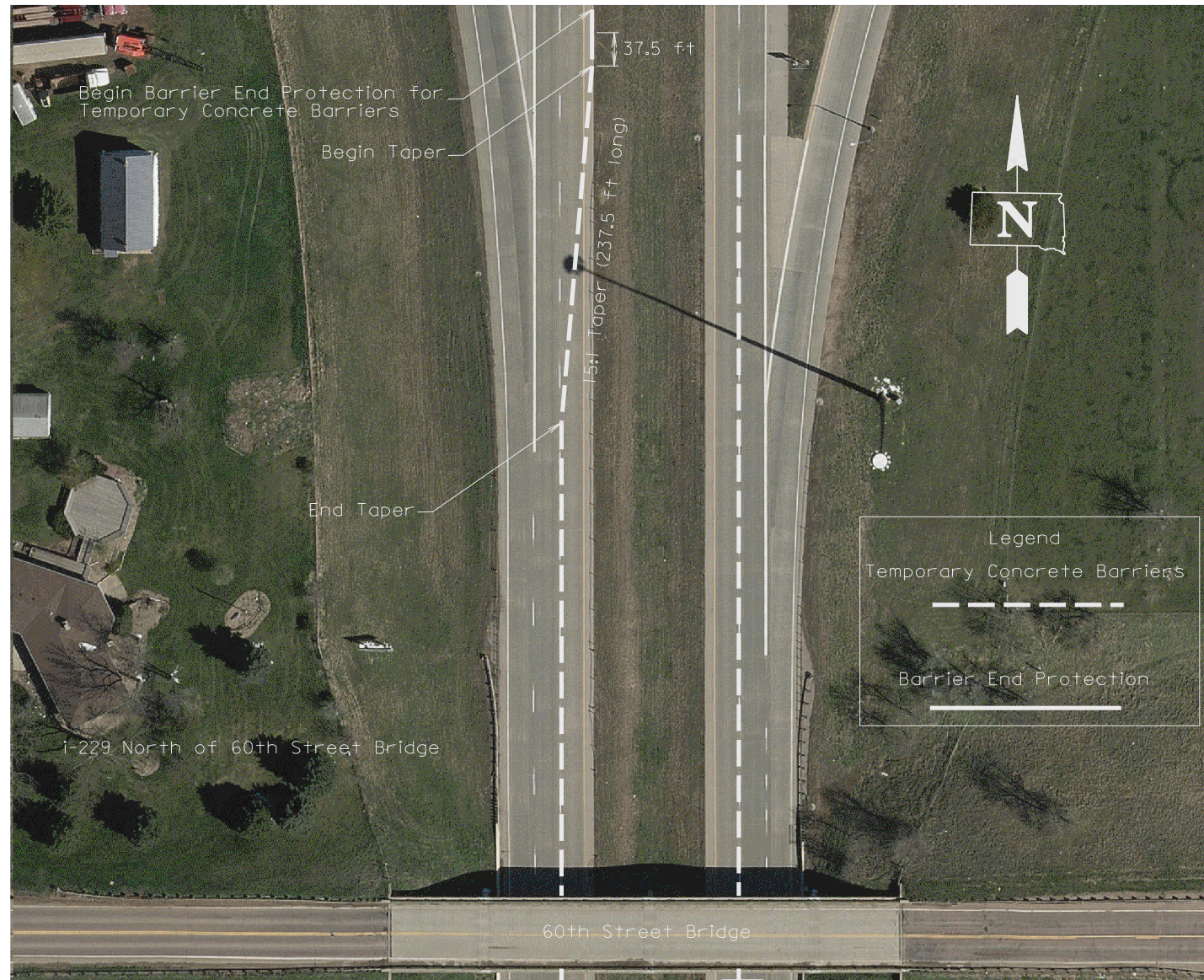
Posted Speed Prior to Work (M.P.H.)	Spacing of Channelizing Devices (Feet) (G)	Taper Length (Feet) (L)	Spacing of Advanced Warning Signs (Feet) (A) (B) (C)		
0 - 30	25	180	200		
35 - 40	25	320	350		
45	25	600	500		
50 - 55	50	660	750		
60 - 65	50	780	1000		
70 - 80	50	960	1000	1500	2640



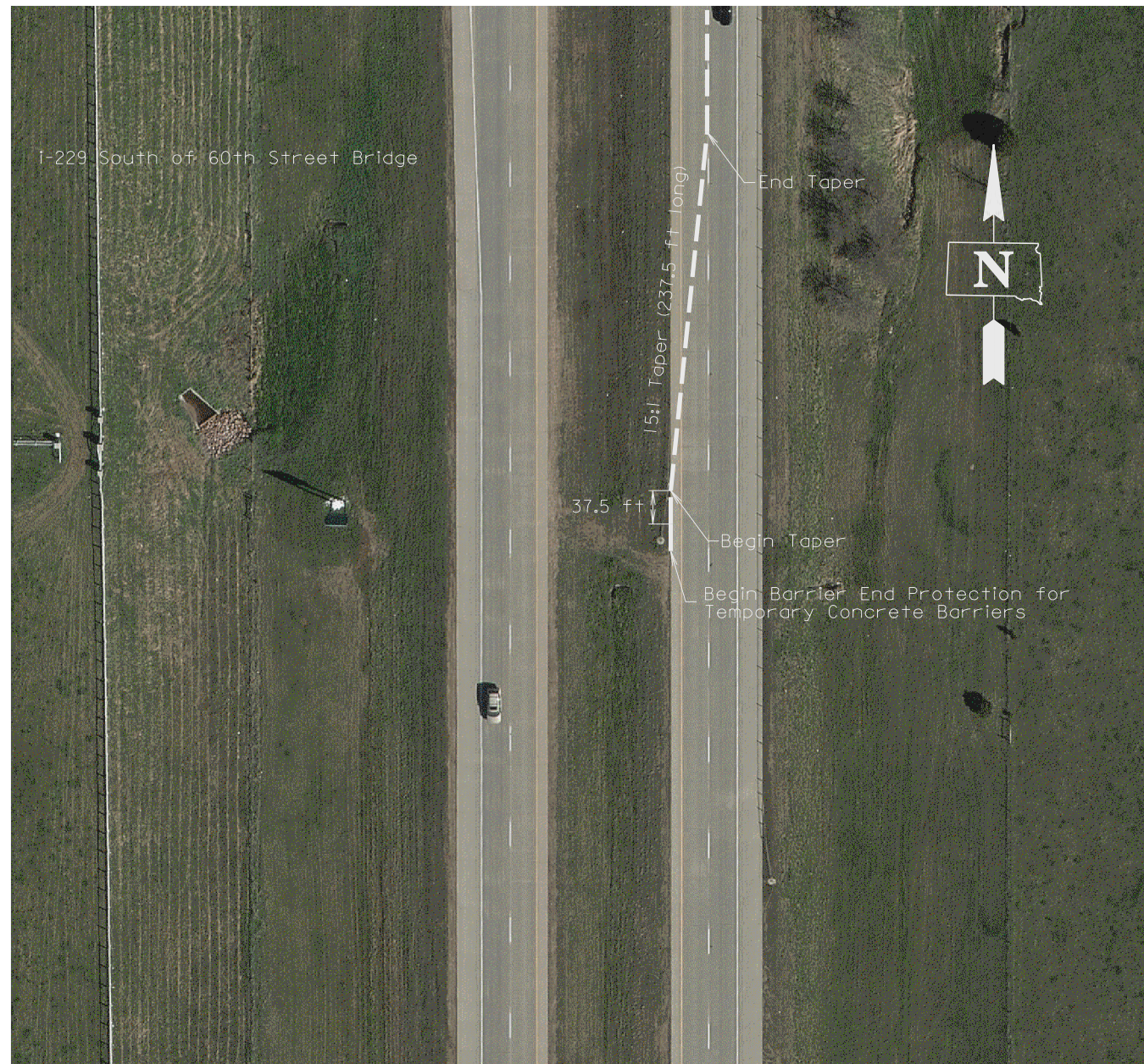
⊙ Reflectorized Drum

■ Channelizing Device will be 42" cones or drums

TEMPORARY BARRIER LAYOUT



TEMPORARY BARRIER LAYOUT



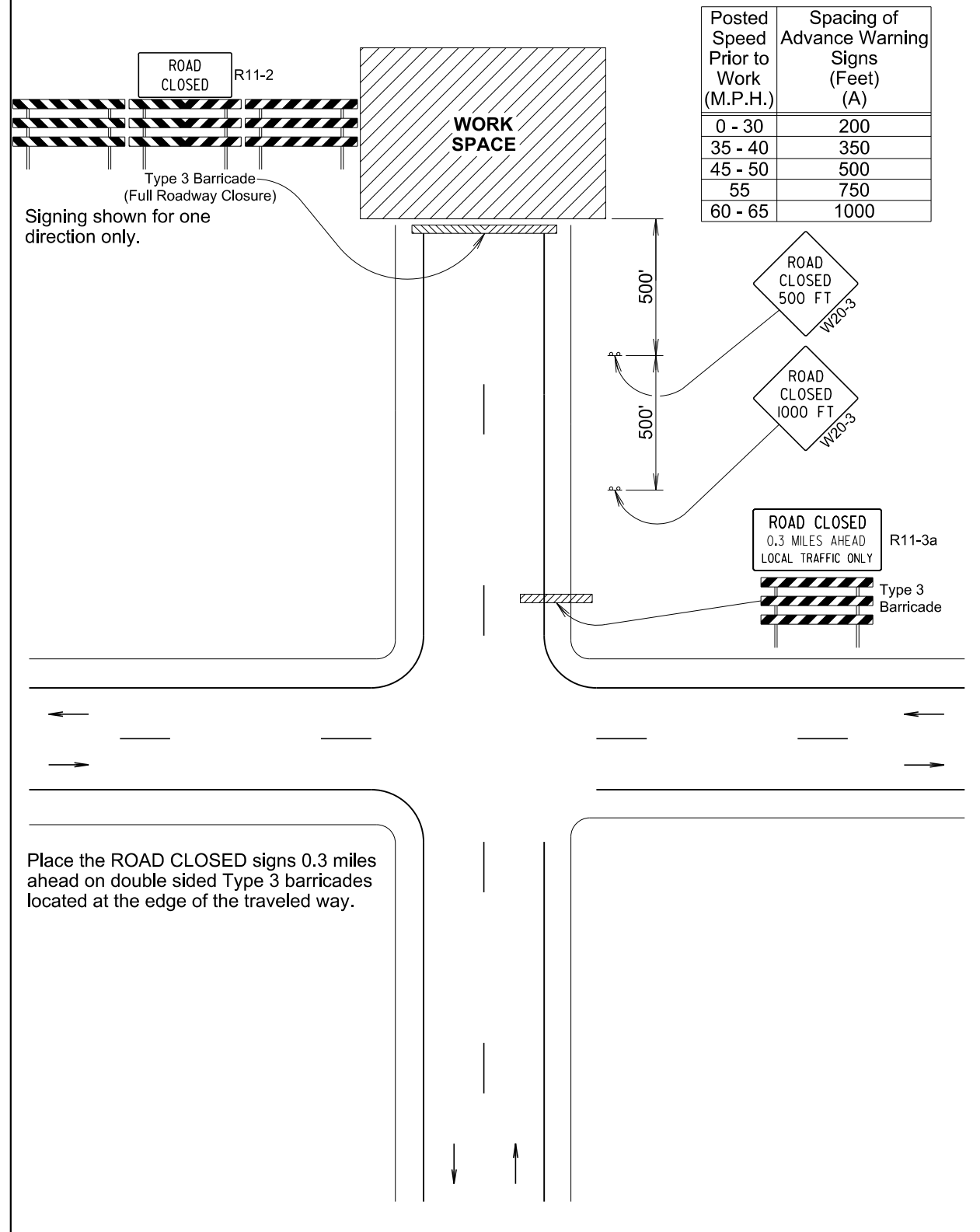
Barrier Information for I-229

Northbound Lanes: Taper = 19 Barriers
Straight = 65 Barriers

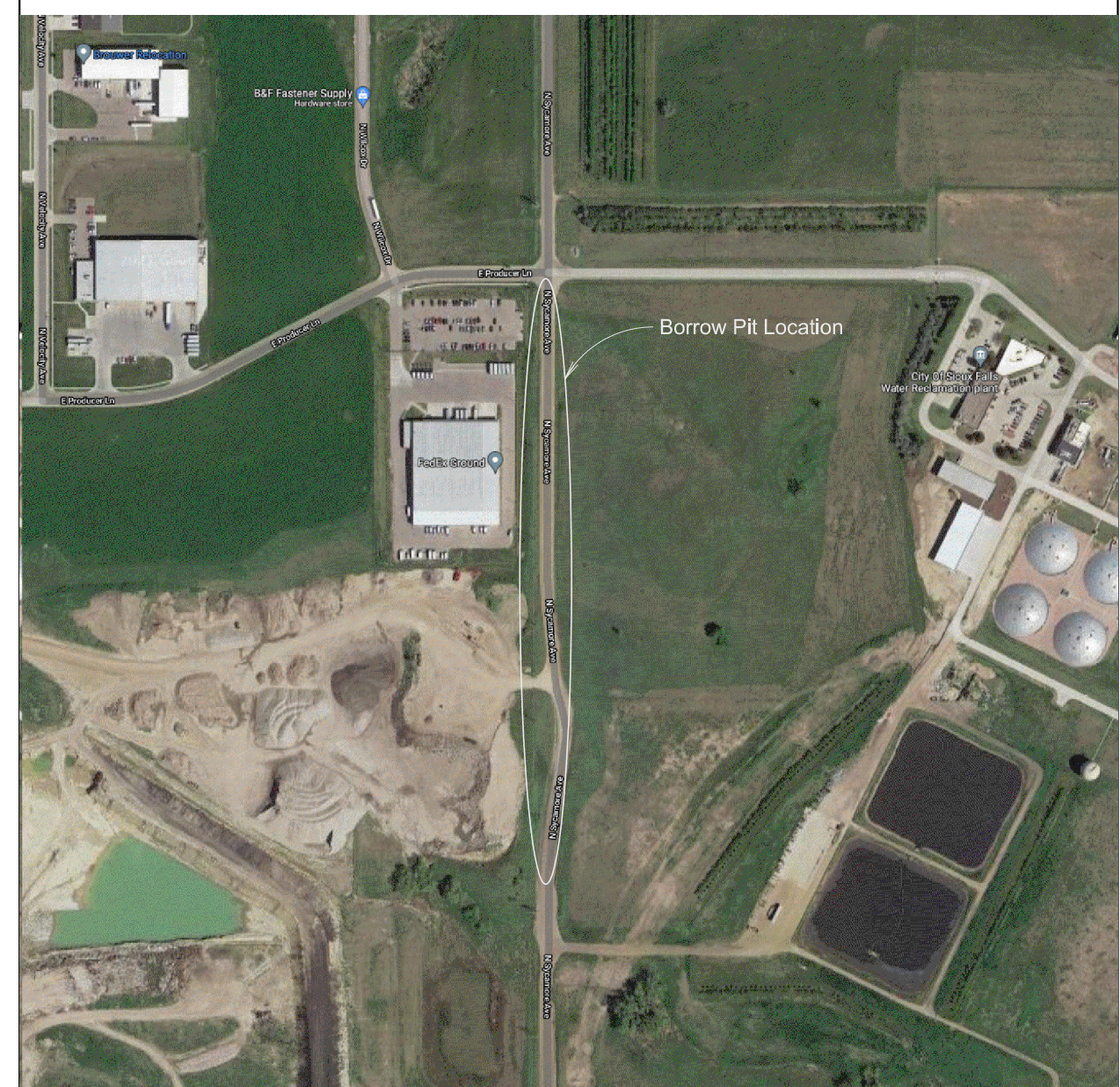
Southbound Lanes: Taper = 19 Barriers
Straight = 21 Barriers

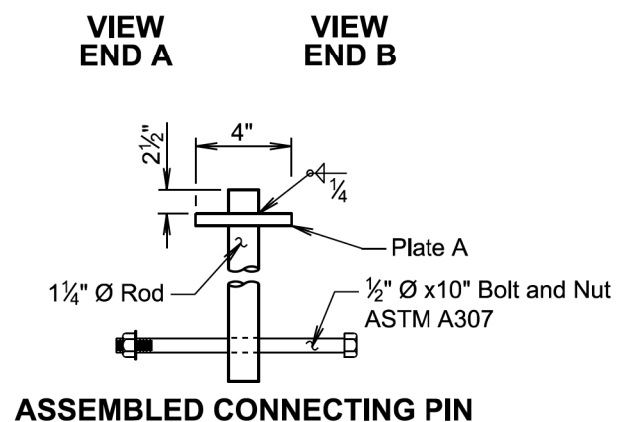
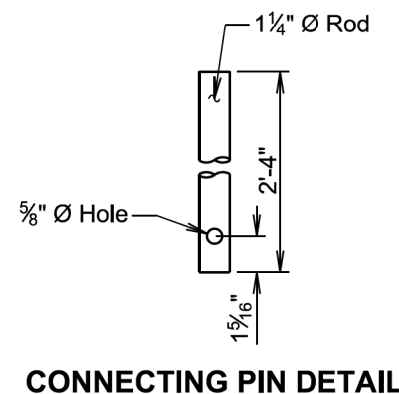
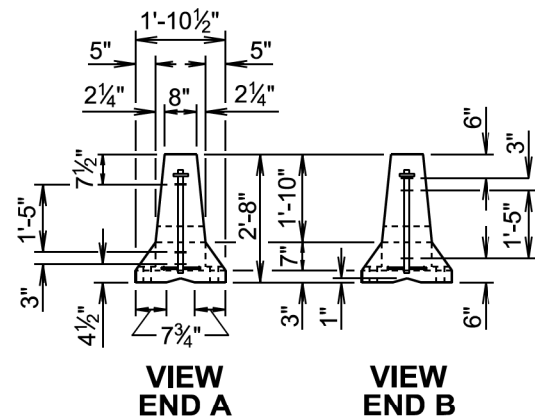
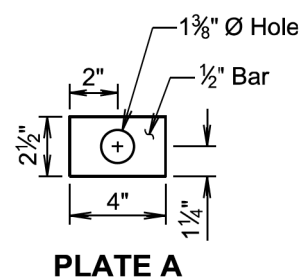
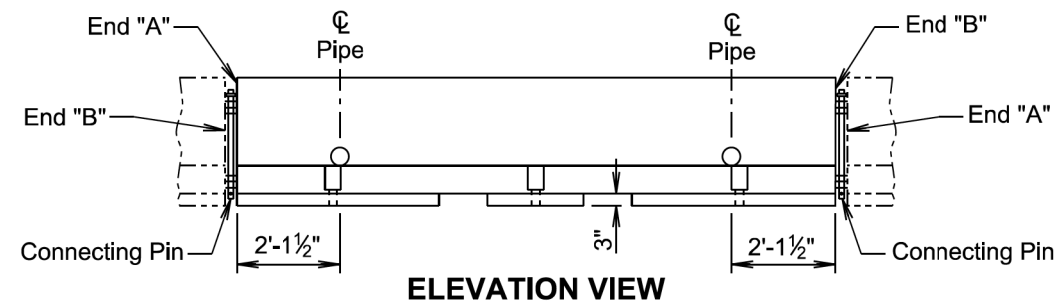
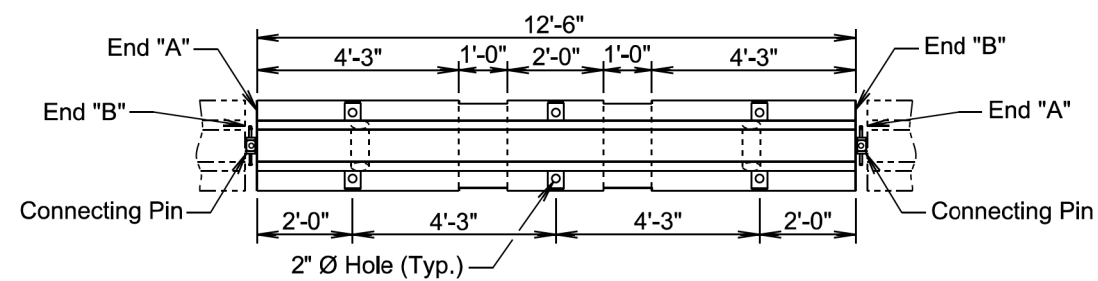
Total = 124 Barriers

TRAFFIC CONTROL FOR NORTH SYCAMORE AVENUE BORROW PIT



LOCATION FOR BORROW PIT





September 14, 2018

Published Date: 3rd Qtr. 2021	S D D O T	TRAFFIC CONTROL MOVABLE CONCRETE BARRIERS (F SHAPE INTERIOR SECTION)	PLATE NUMBER 628.01
			Sheet 1 of 2

GENERAL NOTES:

The detailed drawings are for illustrative purpose and depicts the current version of the F shape concrete barrier. If new movable concrete barriers are requested on a project, they will be constructed according to the F shape movable concrete barrier details on standard plate 628.10.

Each movable concrete barrier section weighs 5030 ± pounds.

Each movable concrete barrier section is detailed to provide end "A" to end "B" connection by insertion of a pin through steel loops.

The Jersey shape or any version of the F shape traffic control movable concrete barriers may be used on a project, however, only the same type or version will be used for each run of barriers.

Movable concrete barrier sections will be placed to provide uniform bearing of the sections with the paved surface as approved by the Engineer.

Movable concrete barrier sections will never be moved or lifted using the end loops.

Movable concrete barrier sections that have been damaged will not be used. Barrier sections are considered damaged if the loops are end welded onto existing damaged loops, loops are fractured, or there is exposed rebar from fractured concrete.

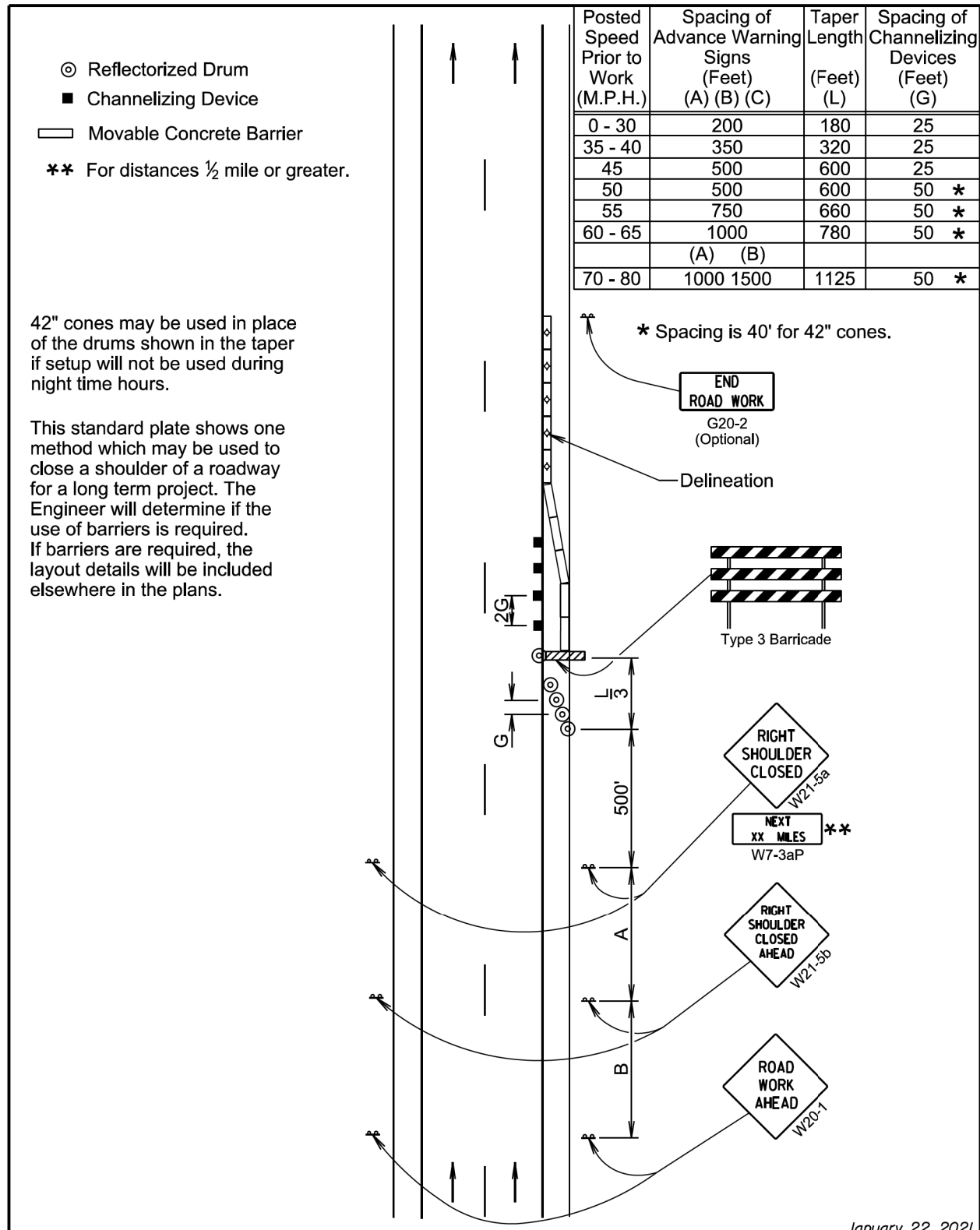
All cost for transporting the barriers from the specified location to the project site, installing, and returning the barriers to the specified location will be incidental to the contract unit price per each for "Traffic Control Movable Concrete Barrier".

If the concrete barriers need to be moved and reset on the project, requiring the barriers to be transported by truck, all cost for removing, transporting, and resetting the barriers will be incidental to the contract unit price per each for "Remove and Reset Traffic Control Movable Concrete Barrier". All cost for small shifts in alignment of the barriers, not requiring the barriers to be transported by truck, will be incidental to various contract items.

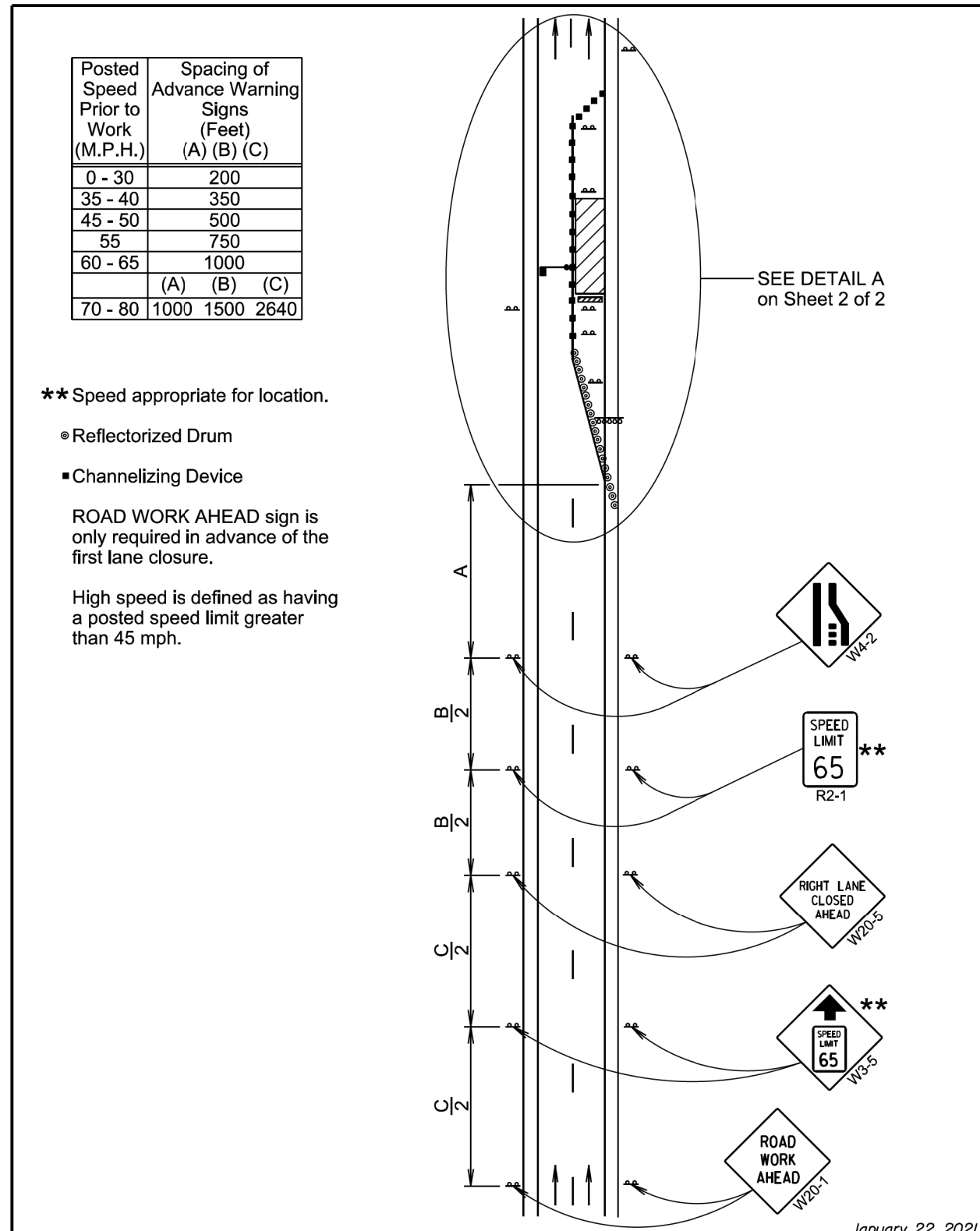
September 14, 2018

Published Date: 3rd Qtr. 2021	S D D O T	TRAFFIC CONTROL MOVABLE CONCRETE BARRIERS (F SHAPE INTERIOR SECTION)	PLATE NUMBER 628.01
			Sheet 2 of 2

Plot Scale - 1:0.16908



S D D O T	SHOULDER CLOSED	PLATE NUMBER 634.61
	Published Date: 3rd Qtr. 2021	Sheet 1 of 1



S D D O T	WORK ZONE SPEED REDUCTION FOR INTERSTATE AND HIGH SPEED MULTI-LANE HIGHWAYS	PLATE NUMBER 634.63
	Published Date: 3rd Qtr. 2021	Sheet 1 of 2

-Plotted From: TRSE12114

File - ...1010A TRAFFIC CONTROL.dgn

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	25	600
50	50 *	600
55	50 *	660
60 - 65	50 *	780
70 - 80	50 *	960

* 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 will be covered or removed when workers are not present.

● Flagger (As Necessary)

⊙ Reflectorized Drum

■ Channelizing Device

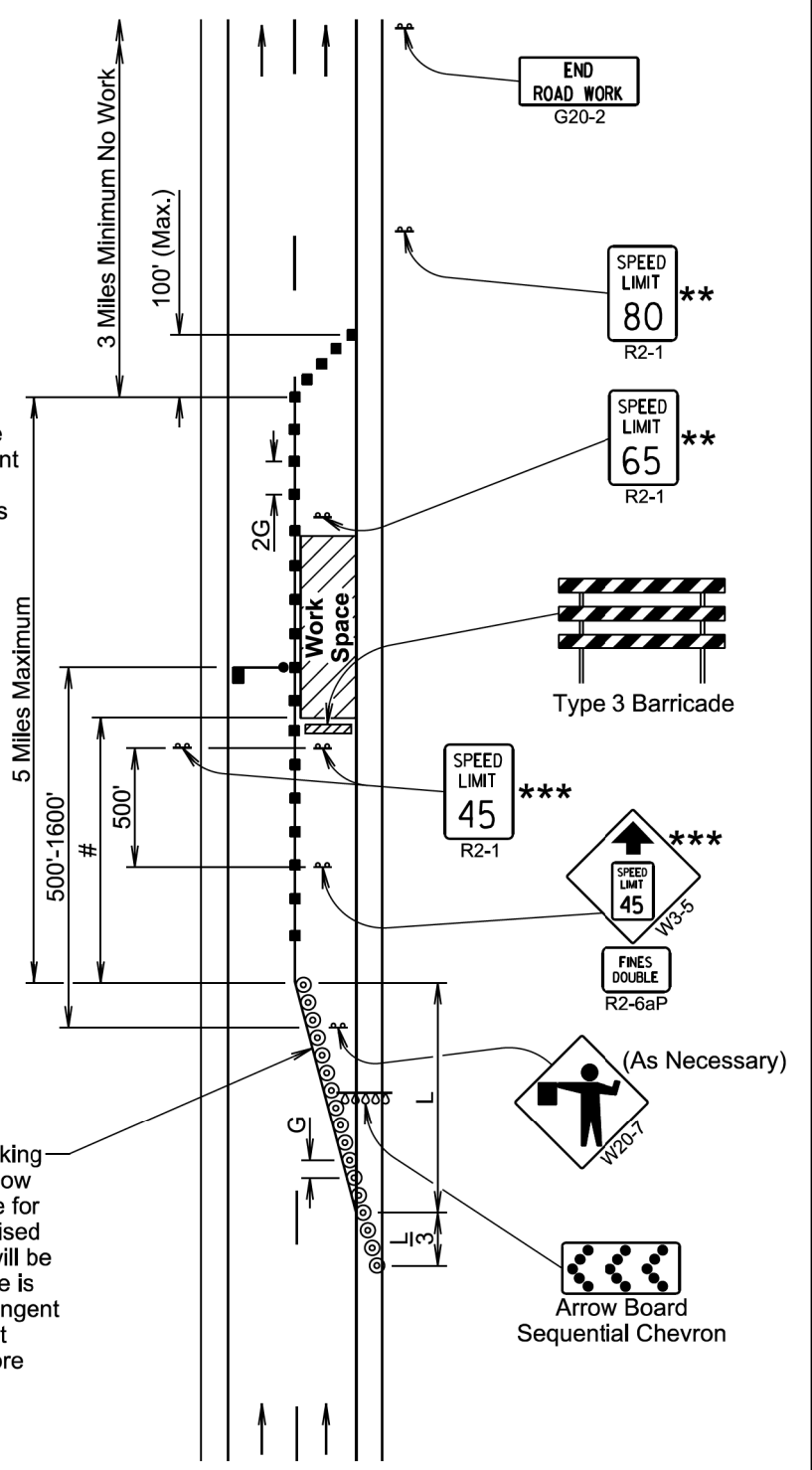
The Work Space will be a minimum of 500' from the end of the taper.

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

The channelizing devices will be 42" cones or drums.

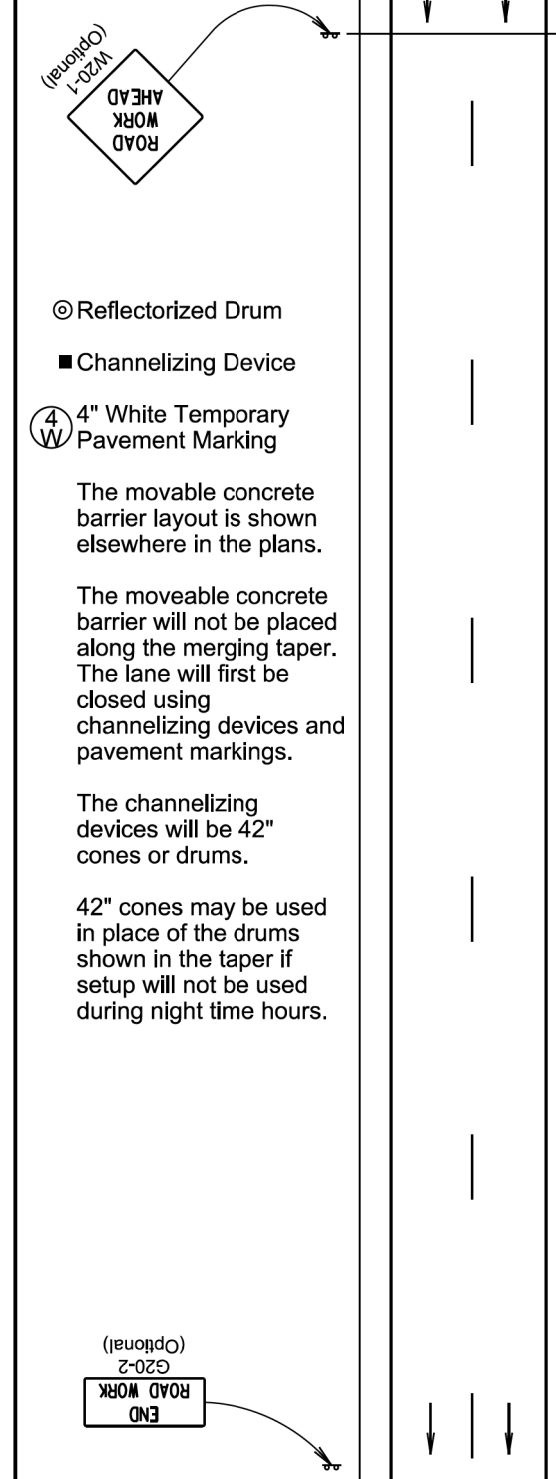
42" cones may be used in place of the drums shown in the taper if setup will not be used during night time hours.

4" white temporary pavement marking tape for right lane closures, 4" yellow temporary pavement marking tape for left lane closures, or temporary raised pavement markers at 5' spacing will be installed in the taper when the lane is closed overnight, and along the tangent section where the skip lines do not exist and the lane is closed for more than 3 days.



DETAIL A January 22, 2021

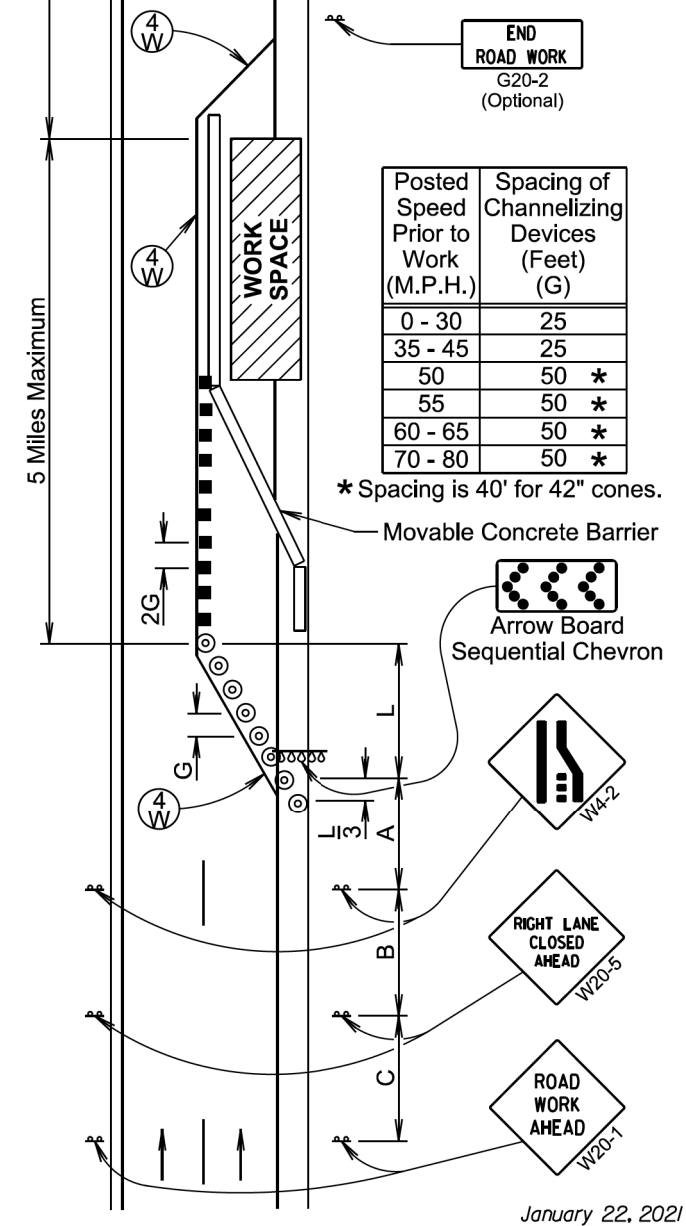
S D D O T	WORK ZONE SPEED REDUCTION FOR INTERSTATE AND HIGH SPEED MULTI-LANE HIGHWAYS	PLATE NUMBER 634.63
	Published Date: 3rd Qtr. 2021	Sheet 2 of 2



S D D O T	LANE CLOSURE WITH BARRIER	PLATE NUMBER 634.65
	Published Date: 3rd Qtr. 2021	Sheet 1 of 1

Posted Speed Prior to Work (M.P.H.)	Spacing of Advance Warning Signs (Feet) (A) (B) (C)	Taper Length (Feet) (L)
0 - 30	200	180
35 - 40	350	320
45 - 50	500	600
55	750	660
60 - 65	1000	780
	(A) (B) (C)	
70 - 80	1000 1500 2640	960

Posted Speed Prior to Work (M.P.H.)	Spacing of Channelizing Devices (Feet) (G)
0 - 30	25
35 - 45	25
50	50 *
55	50 *
60 - 65	50 *
70 - 80	50 *

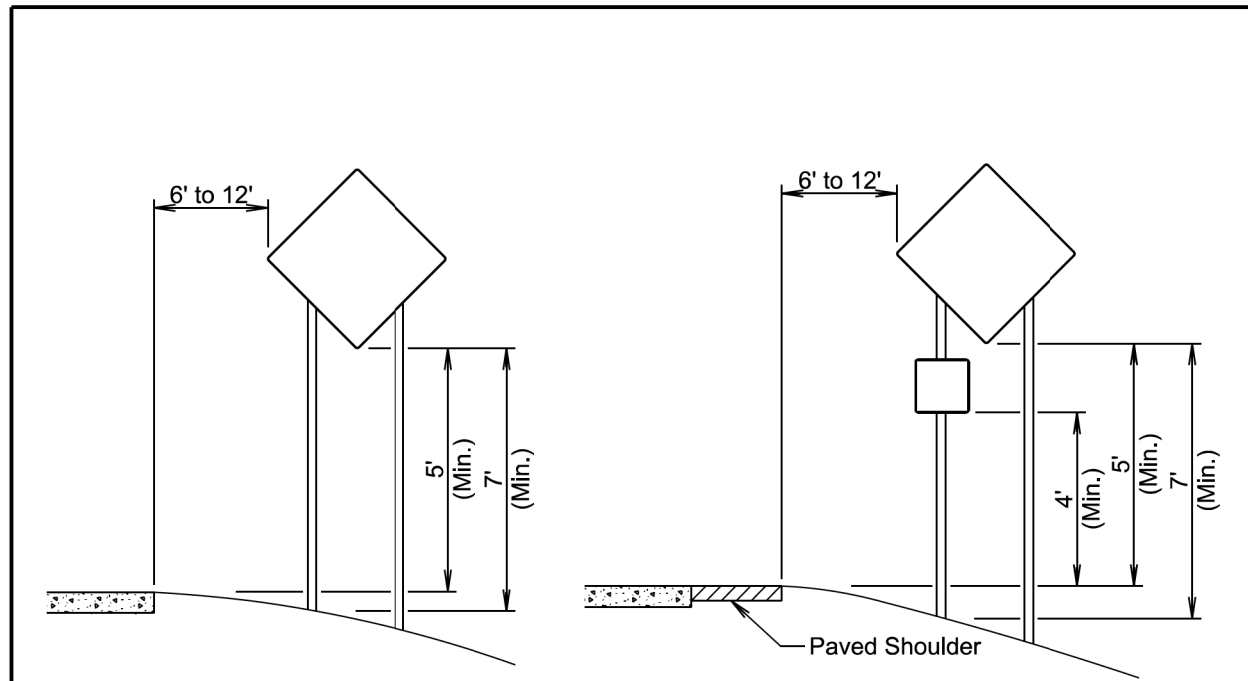


January 22, 2021

Plot Scale - 1:0.16908

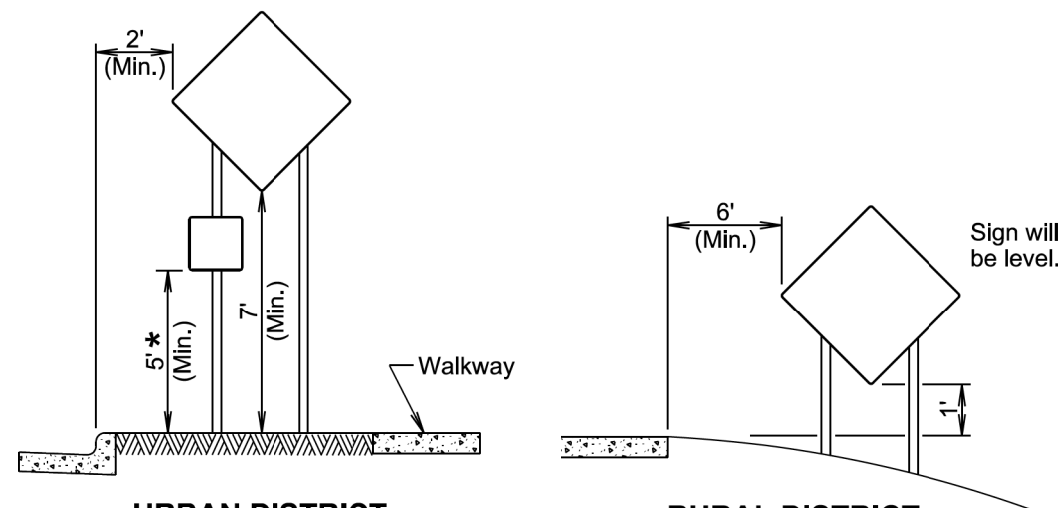
-Plotted From- TRSE12114

File - ...1010A TRAFFIC CONTROL.dgn



RURAL DISTRICT

RURAL DISTRICT WITH SUPPLEMENTAL PLATE



URBAN DISTRICT

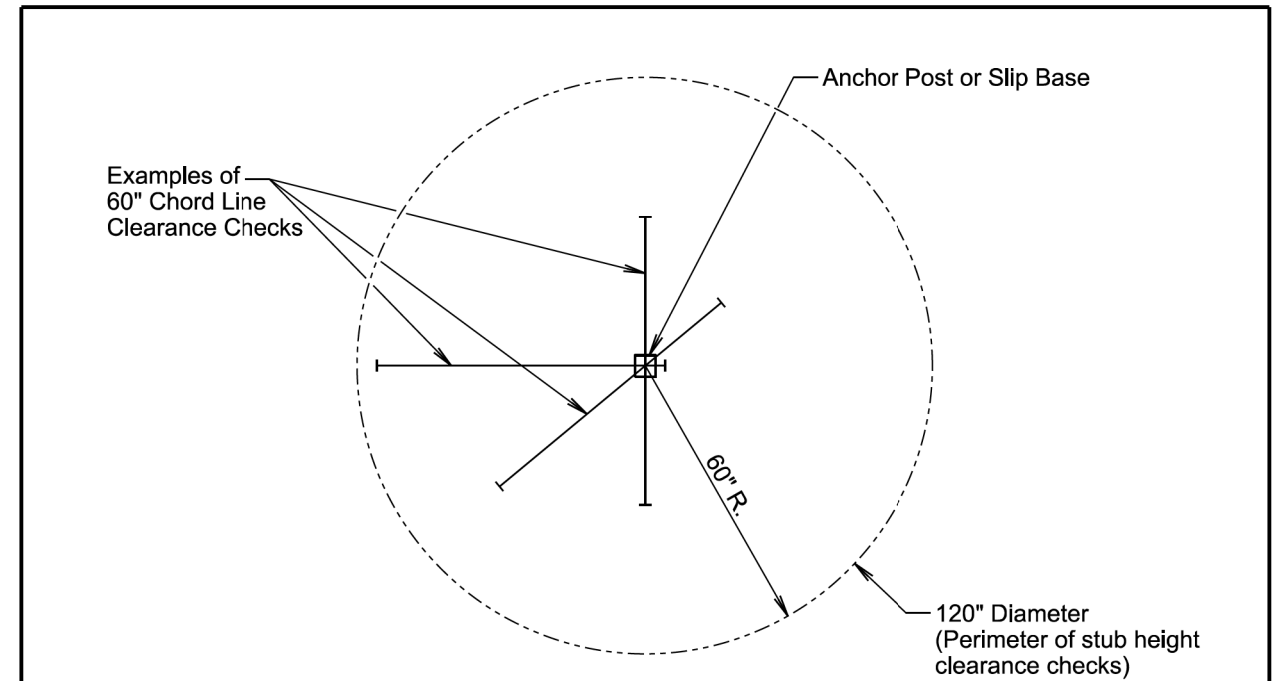
RURAL DISTRICT 3 DAY MAXIMUM
(Not applicable to regulatory signs)

* 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.

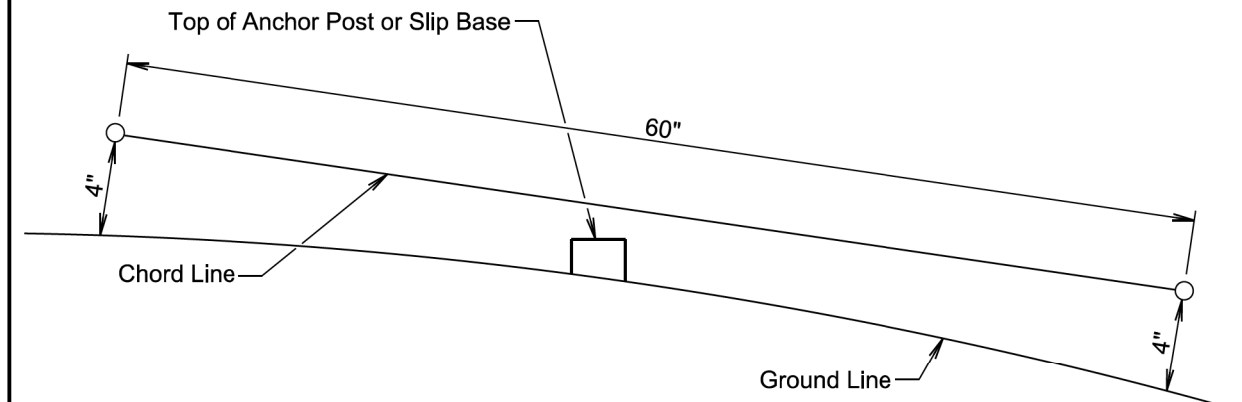
January 22, 2021

S D D O T	CRASHWORTHY SIGN SUPPORTS (Typical Construction Signing)	PLATE NUMBER 634.85
		Sheet 1 of 1

Published Date: 3rd Qtr. 2021



PLAN VIEW
(Examples of stub height clearance checks)



ELEVATION VIEW

GENERAL NOTES:

The top of anchor posts and slip bases WILL 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 will 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.

January 22, 2021

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

Published Date: 3rd Qtr. 2021