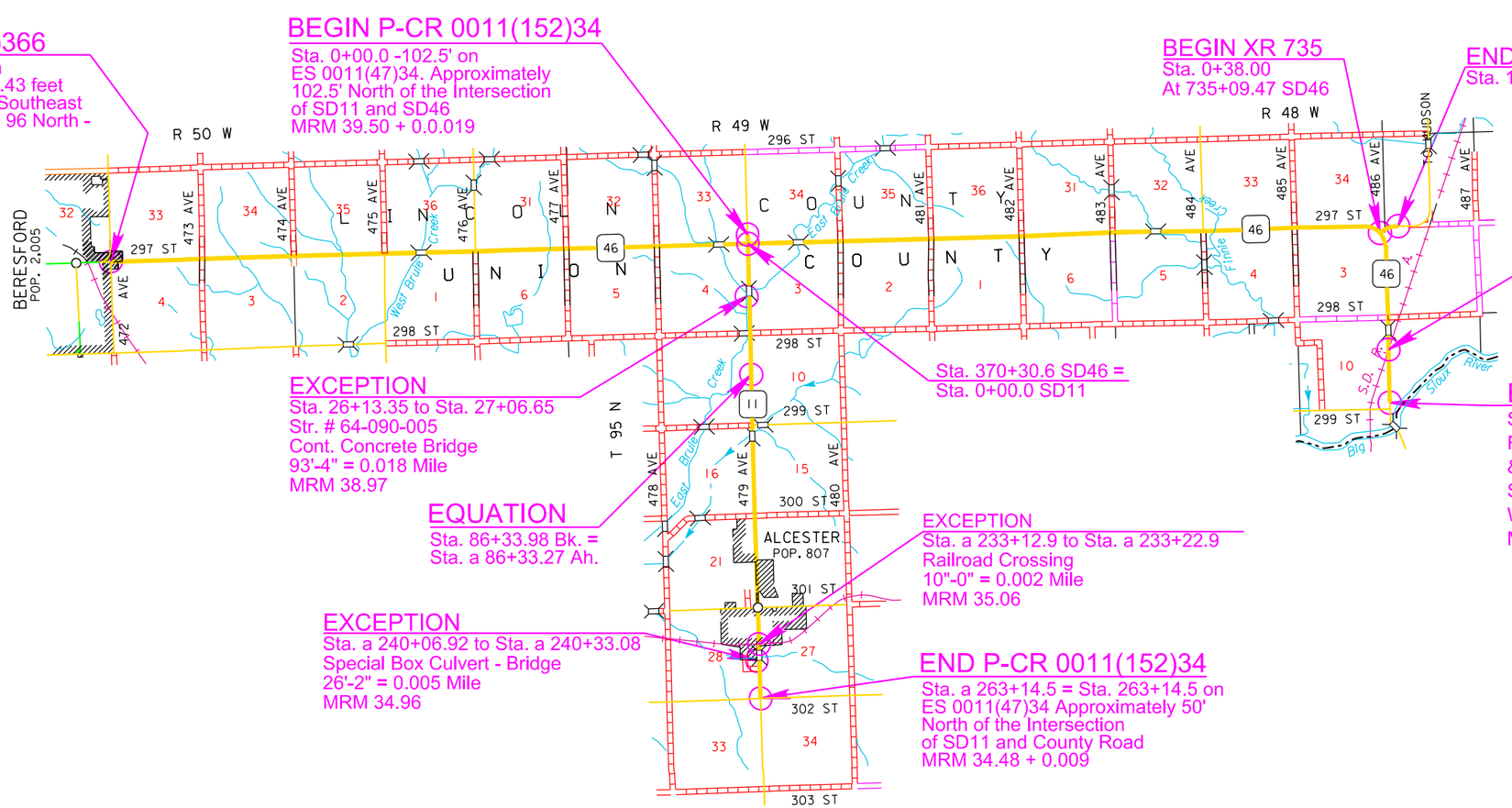
STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	P-CR0011(152)34	C1	C19

SECTION C: TRAFFIC CONTROL PLANS

INDEX OF SHEETS



1

October 1, 2025

SECTION C ESTIMATE OF QUANTITIES

P-CR 0046(73)366 PCN 05J5

BID ITEM NUMBER	ITEM	QUANTITY	UNIT
120E0600	Contractor Furnished Borrow	4,113	CuYd
120E6100	Water for Embankment	0.0	MGal
120E6200	Water for Granular Material	0.0	MGal
260E1080	Base Course, Salvaged, State Furnished	15,150.9	Ton
634E0010	Flagging	500.0	Hour
634E0020	Pilot Car	250.0	Hour
634E0110	Traffic Control Signs	1,047.5	SqFt
634E0120	Traffic Control, Miscellaneous	1	LS
634E0275	Type 3 Barricade	126	Each
634E0600	4" Temporary Pavement Marking Tape Type I	288	Ft
634E0630	Temporary Pavement Marking	2.0	Mile
634E0700	Traffic Control Movable Concrete Barrier	26	Each
634E0750	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	2,228.6	SqFt

P-CR 0011(152)34 PCN 06QY

BID ITEM NUMBER	ITEM	QUANTITY	UNIT
634E0010	Flagging	300.0	Hour
634E0020	Pilot Car	150.0	Hour
634E0110	Traffic Control Signs	478.6	SqFt
634E0120	Traffic Control, Miscellaneous	1	LS
634E0630	Temporary Pavement Marking	15.0	Mile

SEQUENCE OF OPERATIONS

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.

1. The project will be separated into three phases for the purpose of sequencing.
    a. Phase 1: Sta. 0+20 to Sta. 735+00 Mainline PCC Paving
    b. Phase 2: Sta. 735+00 to Sta. 828+60 & XR 735+00.
    c. Phase 3: SD 11 Mainline Asphalt Resurfacing
2. SD Highway 11 Intersection will be completed half intersection at a time, while maintaining traffic at all times.
3. Phase 2 may be completed in conjunction with Phase 1 or independently.
4. Phase 2 will be completed half-roadway width at a time.
5. Phase 3 may be completed in conjunction with Phase 1, Phase 2, or independently.

Phase 1 Sequencing

1. Install fixed location signing and traffic control measures, including Detour Signing.
2. Close Phase 1 to traffic.
3. Remove for reset applicable permanent signing.
4. Maintain cross traffic on SD 11 across SD 46.

SEQUENCE OF OPERATIONS (CONT.)

5. Prepare gravel cushion base, pave and seal PCC pavement and asphalt shoulder surfacing.
6. Complete inslope shaping and final erosion control work.
7. Install permanent pavement markings and applicable permanent signing.
8. Open Phase 1 to thru traffic.
9. Remove applicable detour signing and temporary traffic control.

Phase 2 Sequencing

1. Install fixed location signing and traffic control measures.
2. Construct temporary widening and surfacing.
3. Divert traffic to east half of roadway.
4. Prepare gravel cushion base, pave, and seal PCC pavement on west half of roadway.
5. Divert traffic to newly west paved half of roadway and gravel widening.
6. Prepare gravel cushion base, pave, and seal PCC pavement and gravel shoulders on east half of roadway.
7. Move traffic to new PCC Pavement lanes.
8. Pave asphalt shoulder surfacing and crossroad at Sta. 735+00 Lt.
9. Remove temporary widening, restore inslopes, and ditches.
10. Complete final erosion control work.
11. Install permanent pavement markings and applicable permanent signing.
12. Open Phase 2 to traffic.
13. Remove overwidth temporary traffic control.

Phase 3 Sequencing

1. Install fixed location signing and traffic control measures.
2. Complete miscellaneous work outside of the shoulders
3. Complete cold milling of the roadway surface.
4. Complete asphalt surfacing work.
5. Install rumble strips, permanent pavement markings and applicable permanent signing.
6. Remove fix mounted temporary traffic control.

GENERAL TRAFFIC CONTROL

Mail service and emergency vehicle access will be maintained at all times.

The Contractor will keep businesses and residents informed of construction sequences in areas that have a direct impact on their access.

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.

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.

GENERAL TRAFFIC CONTROL (CONT.)

Existing STOP signs that are removed will be reset prior to the end of each day's work. A stop sign on portable supports must be used whenever a permanent ground mounted stop sign is removed. Cost for this work will be incidental to the contract unit price per square foot for "Traffic Control Signs".

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.

The Contractor will furnish, install, maintain, and remove TRUCK CROSSING (W8-6) signs daily. The TRUCK CROSSING signs will be displayed always when haul vehicles are hauling material. When hauling conditions no longer exist, the signs will be covered or removed from view. The exact number and location will be determined during construction. Payment for additional signs will be based on the contract unit price per square foot for "Traffic Control Signs".

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.

A mobile work operation will be allowed provided the rumble strip or rumble stripe grooving, flush sealing, and pavement marking can be completed satisfactorily by a continuously moving work operation. A mobile work operation will require approval by the Engineer.

If inappropriate or conflicting pavement markings exist, the markings will be removed and replaced with applicable temporary pavement markings when the work duration is more than 3 days. When the work duration is less than 3 days, the channelizing devices in the area where the pavement markings conflict will be placed at one-half of the normal channelizing device spacing. Contractor will need to remove and cover white edge line on blotter surface, using an approved method not to damage the in place surface. Pavement marking removals will be incidental to the contract unit price per foot for "Remove Pavement Marking, 4" or equivalent". Temporary pavement marking will be paid for at the contract unit price per mile/foot for "Temporary Pavement Marking". The additional channelizing devices will be incidental to the contract lump sum price for "Traffic Control, Miscellaneous".

Intersecting roads located throughout the project will be maintained for cross traffic except for when paving operations are occurring in the immediate area. No more than two consecutive intersections will be closed at a given time. Sufficient traffic control signs have been included in these plans to sign two crossroad closures (See Typical Intersecting Road Closure) and four crossroad pass-throughs (See Standard Plate 634.37).

OVERWIDTH RESTRICTION AND DETOUR SIGNING

The Contractor will furnish and install the overwidth restriction and 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. Overwidth restriction and 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 overwidth restriction and detour signs.

An overwidth detour route will be used due to limited lane width on the designated County Road detour route. Route will consist of Interstate 29 South to SD48 and SD48 to Iowa.

Special “WIDTH RESTRICTION 12 FT WIDE 46 EAST”, “WIDTH RESTRICTION 12 FT WIDE 46 WEST”, and “NO VEHICLES OVER 12FT WIDE” signs will be placed as shown in the plans.

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

TEMPORARY WIDENING

During Phase 2, temporary widening will be constructed from Sta. 735+00 to 828+60 to maintain 26’ of roadway width. The 26’ roadway width will be measured starting 5’ east of centerline and ending 31’ east of centerline. A typical section is shown below.

The temporary widening typical section will consist of 12” (4” lifts) of Temporary Gravel Surfacing (Travel Gravel) with the top of the surface elevation constructed to match the existing roadway and roadway crown.

42” cones will be installed marking the edge of travel surface on the temporary widening section, spaced 100’ alternating (200’ per side). 42” cones will be incidental to the contract lump sum price for Traffic Control, Miscellaneous.

An estimated **12,273.0** cubic yards of Contractor Furnished Borrow Excavation will be needed to construct the temporary widening. The material will be obtained by the Contractor. After completion of the project the excess materials will be removed and disposed of by the Contractor. See Section F for quantity of materials.

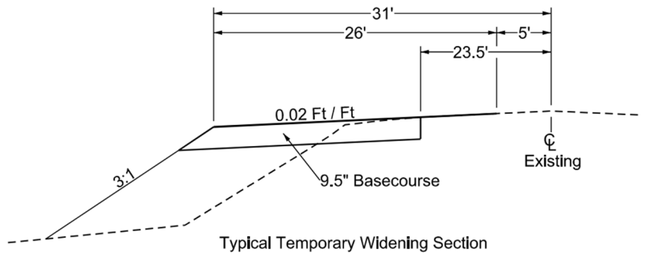
Compaction of the embankment will be to the satisfaction of the Engineer. Water needed to achieve compaction will be incidental to the contract unit price per cubic yard of Contractor Furnished Borrow Excavation.

Cost for hauling, placing, compaction, removing and wasting this material will be incidental to the contract unit price per cubic yard for of Contractor Furnished Borrow Excavation.

Cost for furnishing, hauling, placing, compacting, removing, and reusing of the surfacing materials and embankment will be paid for at their respective contact unit prices.

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 3:1 within 30 feet of the traveled way.

TEMPORARY WIDENING (CONT.)



Typical Temporary Widening Section

TEMPORARY GRAVEL SURFACING (TRAVEL GRAVEL)

An estimated **15,150.9** tons of Temporary Gravel Surfacing may be used on this project on the temporary widening or as determined necessary by the Engineer. See Section F for quantity of materials.

An additional 500 tons of Temporary Gravel Surfacing have been provided for the traffic control purposes to maintain traffic during construction. When directed by the Engineer, the Temporary Gravel Surfacing will be salvaged and reused during various phases of construction. Cost to remove, dispose, and/or reuse of this material will be incidental to the contract unit price per ton for Temporary Gravel Surfacing.

The Temporary Gravel Surfacing will be obtained from Base Course, Salvaged from Section F and may be used without further gradation testing.

The Contractor will be required to salvage as much of the Temporary Gravel Surfacing as possible prior to resuming construction. The salvaged Temporary Gravel Surfacing may be used again on the project as Base Course, Salvaged and will be paid for per ton. The material that is not salvaged will be incorporated into the existing subgrade by a method approved by the Engineer.

Compaction to a specified density is not required.

Temporary gravel surfacing will be paid for at the contract unit price per ton for Temporary Gravel Surfacing. Measurement of the Temporary Gravel Surfacing will be by use of scale or as approved by the Engineer. The contract unit price will include all costs associated with hauling, placing, compacting, maintaining, salvaging and stockpiling the material.

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 WAIT FOLLOW PILOT CAR signs for use on low volume intersecting roads as determined by the Engineer. WAIT FOLLOW PILOT CAR signs 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”.

TEMPORARY PAVEMENT MARKING P-CR 0011(152)34

Temporary flexible vertical markers (tabs) will be installed on one side of the centerline rumble for the temporary pavement marking. No passing zones will be marked in accordance with Specifications. DO NOT PASS (R4-1) and PASS WITH CARE (R4-2) signs will also be used in addition to the temporary flexible vertical markers (tabs) placed per Specifications to mark no passing zones.

The total length of no passing zone on this project is estimated to be 4.8 miles.

It is estimated that 9 DO NOT PASS and 10 PASS WITH CARE signs will be required.

Temporary flexible vertical markers (tabs) will be required on the top lift of asphalt concrete surfacing.

Temporary pavement marking paint will not be allowed on the final lift of asphalt surfacing. Temporary pavement marking paint will not be allowed on the flush seal. Temporary flexible vertical markers (tabs) must be used on the final lift of asphalt surfacing. The Contractor may use tabs with covers and uncovering them for the flush seal. As an alternative, the Contractor may install new tabs for the flush seal.

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 after each installation as detailed below at no additional cost to the State.

TEMPORARY PAVEMENT MARKING (CONT.)

Quantities of Temporary Pavement Markings consist of:

One pass on top of the milled surface
One pass on the first lift of asphalt.
One pass on top of the final lift of asphalt concrete

TEMPORARY PAVEMENT MARKING TAPE, TYPE I

Temporary pavement marking for stop lines will consist of 4” Temporary Pavement Marking Tape Type I. Placement of each 24” white stop line will be accomplished by placing six pieces of 4” x 12’ tape adjacent to one another. Each workspace requires two stop lines which is an equivalent of approximately 144’ of 4” tape (2 workspaces at 144’ = 288’). Temporary Pavement Marking Tape Type I will be required for centerline markings shown on standard plate 634.25. Temporary tape will be removed upon completion of the project.

Temporary stop lines will be placed at the railroad crossing and at the intersection of SD Highway 46 and SD Highway 11.

TEMPORARY RAISED PAVEMENT MARKERS

Temporary raised pavement markers will be used for marking edge lines, lane lines, and centerlines. Temporary raised pavement markers will be used on all new permanent surfacing sections of roadway and on existing surfacing where temporary marking locations are different than existing marking locations, unless noted or as directed by the Engineer.

Temporary raised pavement markers will be attached to the roadway surface with a flexible non-permanent bituminous adhesive capable of being removed from the roadway surface or with an adhesive approved by the Engineer.

All costs to furnish, install, replace if necessary, and remove the markers will be incidental to the contract unit price per foot or mile for “Temporary Raised Pavement Markers”.

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 Union County and Lincoln County Sheriffs 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.

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.

TRAFFIC CONTROL MOVABLE CONCRETE BARRIERS

Concrete barriers will be provided by the State and are available for pickup from the SDDOT yard at 5316 W 60th St N. Sioux Falls 57107. Upon completion of the project, the Contractor will return the Traffic Control Movable Concrete Barriers to the same location, as directed by the Engineer.

Each movable concrete barrier section is to have an end to end connection. The barriers will be pinned and bolted together as directed by the Engineer. The cost to anchor the movable concrete barriers will be incidental to contract unit price per each for “Traffic Control Movable Concrete Barrier”.

Barriers to be adjusted or moved will be disconnected from adjacent barriers to minimize damage to connecting pins. Pins damaged by the Contractor will be replaced at no cost to the Department.

Concrete barriers will, at all times, be set on a flat surface for a minimum of 3.5 feet behind the barrier.

All costs associated with picking the barriers up from the SDDOT Yard, transporting, setting, connecting, and hauling them back to the SDDOT Yard will be incidental to the contract unit price per each for “Traffic Control Movable Concrete Barrier”.

After the initial placement, the concrete barriers may need to be adjusted. Adjustment of the barriers, where they do not need to be loaded on a truck for transport, will be incidental to the contract unit price per each for “Traffic Control Movable Concrete Barrier”.

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”. End protection devices will be installed in accordance with manufacturer’s installation instructions. Manufacturer’s installation requirements may include a concrete pad.

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.

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	P-CR0011(152)34	C5	C19

ITEMIZED LIST FOR TRAFFIC CONTROL SIGNS

P-CR 0046(73)366 PCN 05J5

SIGN CODE	SIGN DESCRIPTION	CONVENTIONAL ROAD NUMBER	SIGN SIZE	SQFT PER SIGN	SQFT
R1-1	STOP	2	30"	5.2	10.4
R11-2	ROAD CLOSED	26	48" x 30"	10.0	260.0
R11-3a	ROAD CLOSED __ MILES AHEAD LOCAL TRAFFIC ONLY	6	60" x 30"	12.5	75.0
R11-4	ROAD CLOSED TO THRU TRAFFIC		60" x 30"	12.5	
W1-4b	REVERSE CURVE (two lanes shift) (L or R)	1	48" x 48"	16.0	16.0
W3-1	STOP AHEAD (symbol)	2	48" x 48"	16.0	32.0
W3-4	BE PREPARED TO STOP	2	48" x 48"	16.0	32.0
W8-1	BUMP	2	48" x 48"	16.0	32.0
W8-6	TRUCK CROSSING	3	48" x 48"	16.0	48.0
W13-1P	ADVISORY SPEED (plaque)	2	30" x 30"	6.3	12.6
W20-1	ROAD WORK AHEAD	12	48" x 48"	16.0	192.0
W20-3	ROAD CLOSED AHEAD	4	48" x 48"	16.0	64.0
W20-4	ONE LANE ROAD AHEAD	2	48" x 48"	16.0	32.0
W20-7	FLAGGER (symbol)	4	48" x 48"	16.0	64.0
W21-1	WORKERS (symbol)	2	48" x 48"	16.0	32.0
W21-5	SHOULDER WORK	4	48" x 48"	16.0	64.0
W21-6	SURVEY CREW	2	48" x 48"	16.0	32.0
G20-2	END ROAD WORK	11	36" x 18"	4.5	49.5
		CONVENTIONAL ROAD TRAFFIC CONTROL SIGNS SQFT			1047.5

P-CR 0011(152)34 PCN 06QY

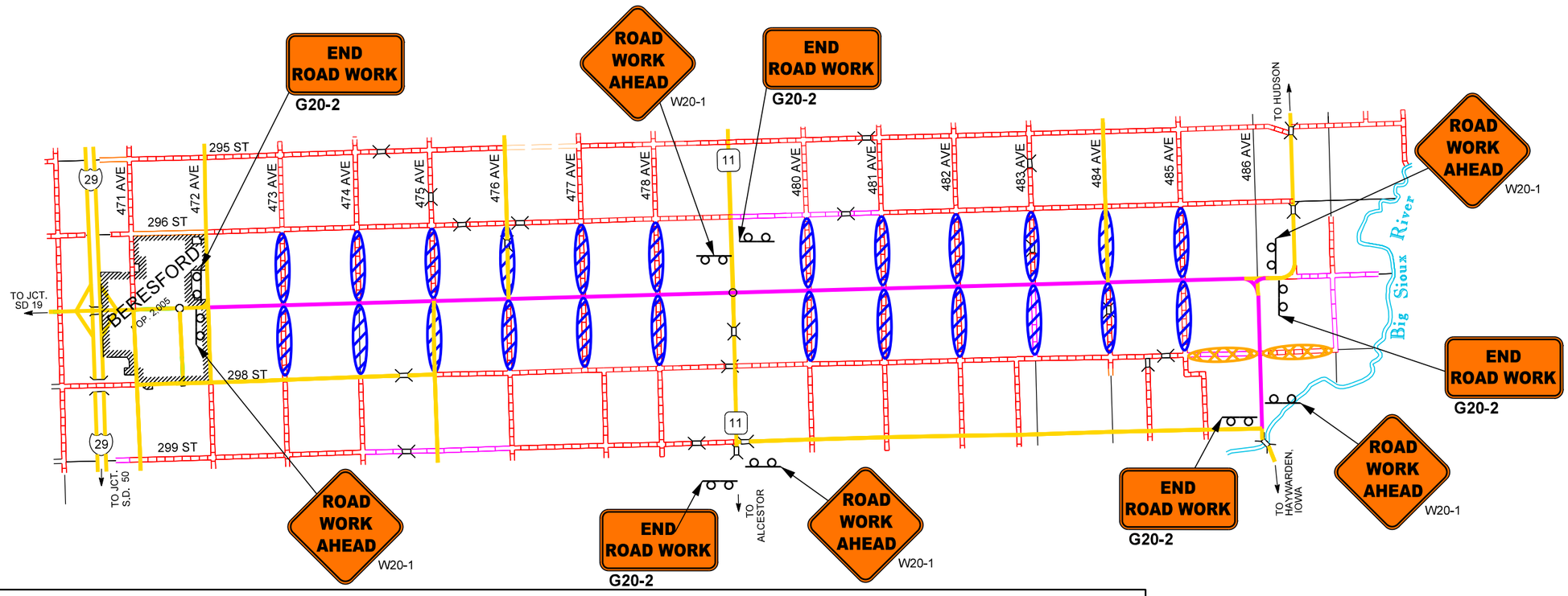
SIGN CODE	SIGN DESCRIPTION	CONVENTIONAL ROAD NUMBER	SIGN SIZE	SQFT PER SIGN	SQFT
R1-1	STOP	2	30"	5.2	10.4
W1-4	REVERSE CURVE (L or R)	1	48" x 48"	16.0	16.0
W3-1	STOP AHEAD (symbol)	2	48" x 48"	16.0	32.0
W3-4	BE PREPARED TO STOP	2	48" x 48"	16.0	32.0
W8-1	BUMP	2	48" x 48"	16.0	32.0
W8-6	TRUCK CROSSING	3	48" x 48"	16.0	48.0
W8-7	LOOSE GRAVEL	2	48" x 48"	16.0	32.0
W8-11	UNEVEN LANES	2	48" x 48"	16.0	32.0
W13-1P	ADVISORY SPEED (plaque)	2	30" x 30"	6.3	12.6
W16-2P	___ FEET (supplemental distance plaque)	2	30" x 24"	5.0	10.0
W20-1	ROAD WORK AHEAD	4	48" x 48"	16.0	64.0
W20-4	ONE LANE ROAD AHEAD	4	48" x 48"	16.0	64.0
W20-7	FLAGGER (symbol)	2	48" x 48"	16.0	32.0
G20-1	ROAD WORK NEXT XX MILES	6	36" x 18"	4.5	27.0
G20-2	END ROAD WORK	6	36" x 18"	4.5	27.0
SPECIAL	WAIT FOR PILOT CAR	2	30" x 18"	3.8	7.6
		CONVENTIONAL ROAD TRAFFIC CONTROL SIGNS SQFT			478.6

P-CR 0046(73)366 PCN 05J5 DETOUR

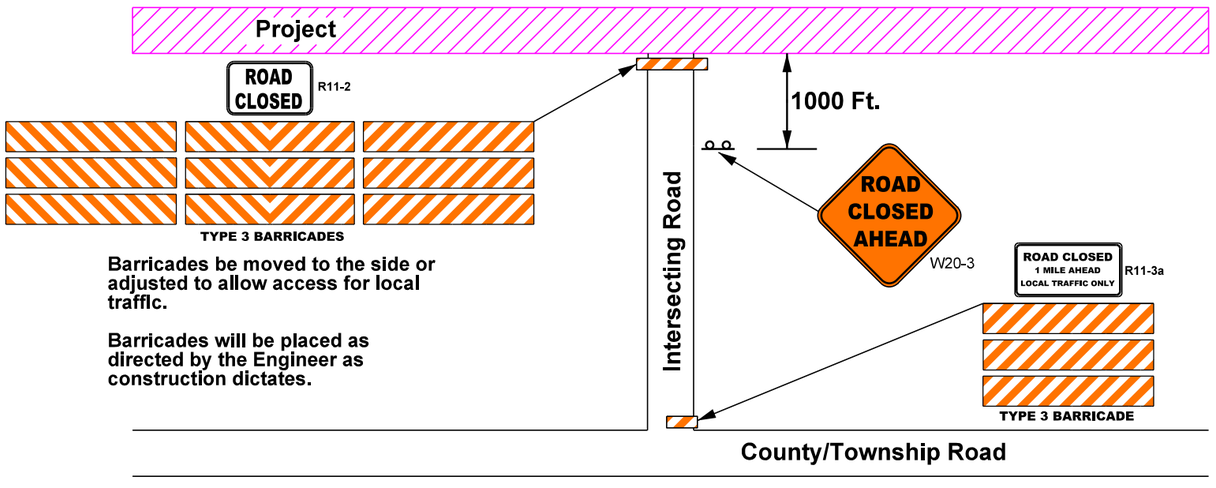
SIGN CODE	SIGN DESCRIPTION	CONVENTIONAL ROAD NUMBER	SIGN SIZE	SQFT PER SIGN	SQFT
R11-3a	ROAD CLOSED __ MILES AHEAD LOCAL TRAFFIC ONLY	2	60" x 30"	12.5	25.0
R11-4	ROAD CLOSED TO THRU TRAFFIC	4	60" x 30"	12.5	50.0
W20-2	DETOUR AHEAD	8	48" x 48"	16.0	128.0
W20-3	ROAD CLOSED AHEAD	22	48" x 48"	16.0	352.0
M1-5	SD ROUTE MARKER (1 or 2 digits)	98	24" x 24"	4.0	392.0
M3-2	DIRECTION MARKER - EAST	51	24" x 12"	2.0	102.0
M3-4	DIRECTION MARKER - WEST	42	24" x 12"	2.0	84.0
M4-8	DETOUR	91	24" x 12"	2.0	182.0
M4-8a	END DETOUR	4	24" x 18"	3.0	12.0
M4-10	DETOUR ARROW (L or R)	2	48" x 18"	6.0	12.0
M5-1	ADVANCE TURN ARROW 90° (L or R)	23	21" x 15"	2.2	50.6
M5-2	ADVANCE TURN ARROW 45° (L or R)	6	21" x 15"	2.2	13.2
M6-1	DIRECTION ARROW - Horizontal Single Head (L or R)	23	21" x 15"	2.2	50.6
M6-3	DIRECTION ARROW - Vertical Single Head	37	21" x 15"	2.2	81.4
M6-4	DIRECTION ARROW - Horizontal Double Head	2	21" x 15"	2.2	4.4
SPECIAL	OVERWIDTH VEHICLES	38	24" x 18"	3.0	114.0
SPECIAL	NO VEHICLES OVER 12 FT WIDE	3	78" x 30"	16.3	48.9
SPECIAL	WIDTH RESTRICTION 12 FT MAX USE ALT ROUTE	1	114" x 84"	66.5	66.5
SPECIAL	WIDTH RESTRICTION 12 FT MAX FOLLOW DETOUR	5	138" x 96"	92.0	460.0
		CONVENTIONAL ROAD TRAFFIC CONTROL SIGNS SQFT			2228.6

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	P-CR0011(152)34	C6	C19

FIXED LOCATION SIGNS
GROUND MOUNTED, BREAKAWAY SUPPORTS



Typical Intersecting Road Detail



= INTERSECTING ROADS TO RECEIVE TRAFFIC CONTROL DURING PHASE 1, INSTALL ONLY WHEN APPLICABLE

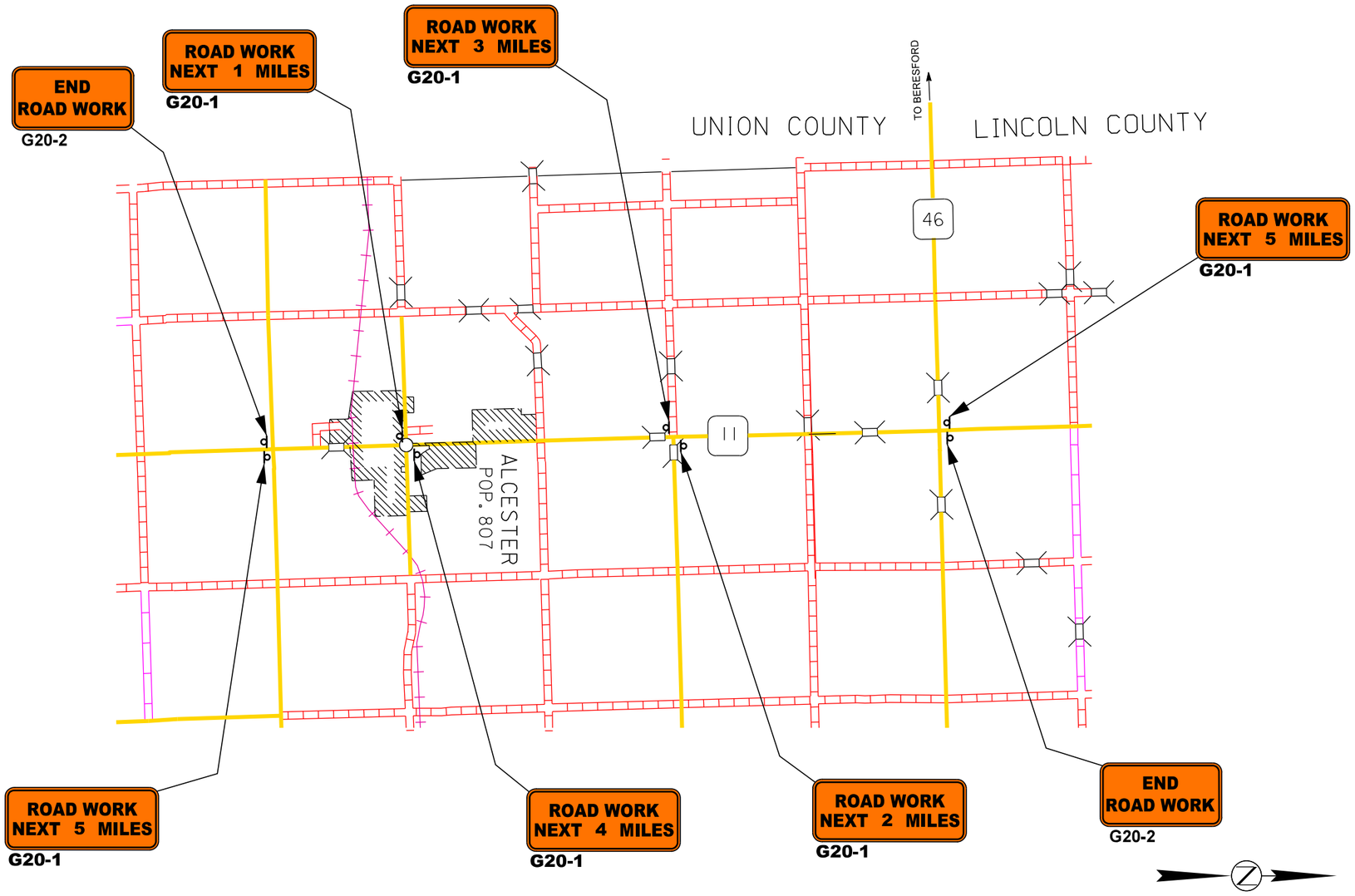
= INTERSECTING ROADS TO RECEIVE TRAFFIC CONTROL DURING PHASE 2, INSTALL ONLY WHEN APPLICABLE

ONLY TWO CONSECUTIVE INTERSECTIONS MAY BE CLOSED AT ANY GIVEN TIME. INTERSECTIONS NOT IN THE IMMEDIATE WORK AREA WILL BE SETUP IN ACCORDANCE WITH STANDARD PLATE 634.37.

ALL TEMPORARY TRAFFIC CONTROL SIGNS WILL BE SPACED 100-150' FROM OTHER SIGNS AND NOT OBSCURE EXISTING SIGNS.

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	P-CR0011(152)34	C7	C19

TRAFFIC CONTROL
FIXED LOCATION SIGNS (GROUND MOUNTED SUPPPORT)
PHASE 3



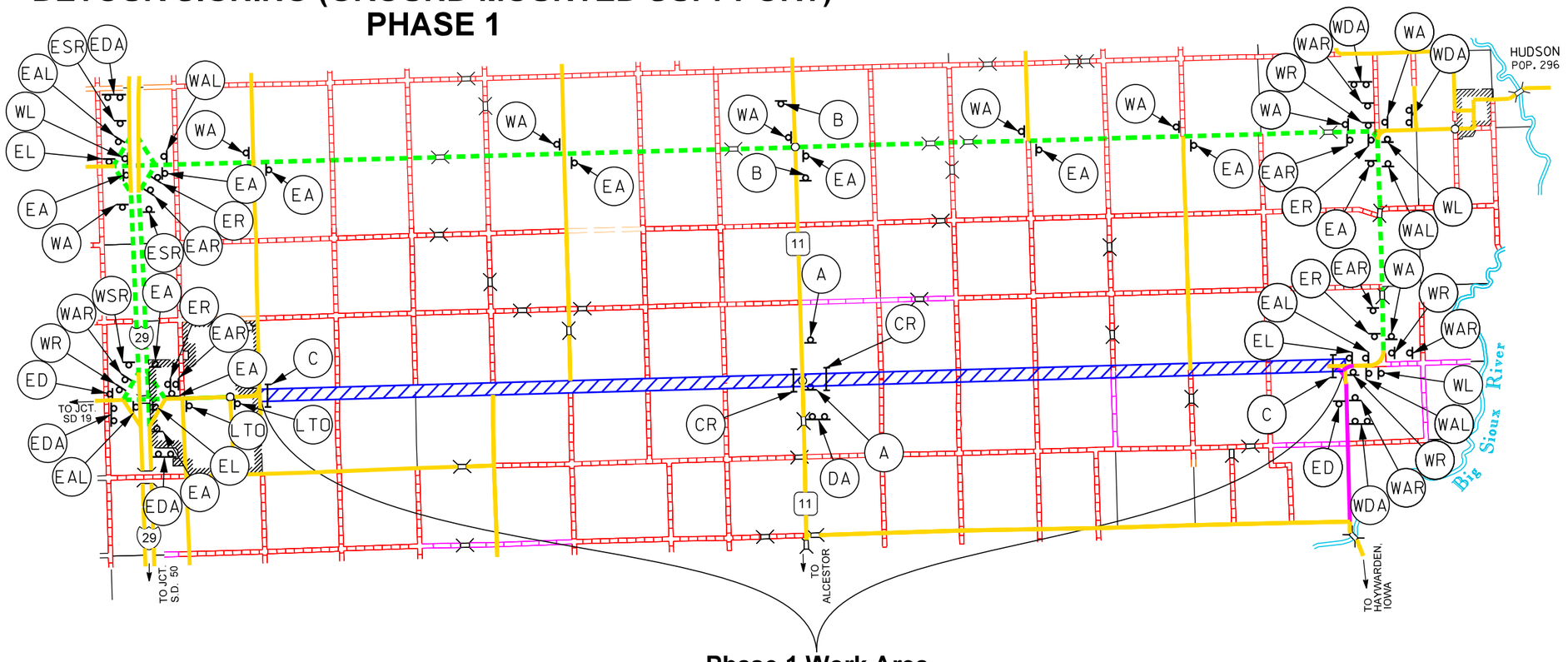
ALL FIXED LOCATION SIGNS WILL REMAIN IN PLACE UNTIL PAVEMENT MARKING IS COMPLETE.

SIGNS WILL BE PLACED 50' TO 150' FROM INTERSECTION. EXACT LOCATION TO BE APPROVED BY THE ENGINEER.

ALL TEMPORARY TRAFFIC CONTROL SIGNS WILL BE SPACED 100-150' FROM OTHER SIGNS AND NOT OBSCURE EXISTING SIGNS.

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	P-CR0011(152)34	C8	C19

TRAFFIC CONTROL
DETOUR SIGNING (GROUND MOUNTED SUPPPORT)
PHASE 1



EDA

EAST M3-2

46 M1-5

DETOUR AHEAD W20-2

WDA

WEST M3-4

46 M1-5

DETOUR AHEAD W20-2

DA

46 M1-5

DETOUR AHEAD W20-2

LTO

ROAD CLOSED ✳ MILES AHEAD LOCAL TRAFFIC ONLY R11-3a

TYPE 3 BARRICADE

ED

END DETOUR M4-8a

C

ROAD CLOSED TO THRU TRAFFIC R11-4

TYPE 3 BARRICADE

DETOUR M4-10

OR

DETOUR M4-10

CR

ROAD CLOSED TO THRU TRAFFIC R11-4

TYPE 3 BARRICADE

EL

DETOUR M4-8

EAST M3-2

46 M1-5

M6-1

EAL

DETOUR M4-8

EAST M3-2

46 M1-5

M5-1

EA

DETOUR M4-8

EAST M3-2

46 M1-5

M6-3

ESR

DETOUR M4-8

EAST M3-2

46 M1-5

M5-2

EAR

DETOUR M4-8

EAST M3-2

46 M1-5

M5-1

ER

DETOUR M4-8

EAST M3-2

46 M1-5

M6-1

A

DETOUR M4-8

46 M1-5

M6-3

B

DETOUR M4-8

46 M1-5

M6-4

WL

DETOUR M4-8

WEST M3-4

46 M1-5

M6-1

WAL

DETOUR M4-8

WEST M3-4

46 M1-5

M5-1

WA

DETOUR M4-8

WEST M3-4

46 M1-5

M6-3

WSR

DETOUR M4-8

WEST M3-4

46 M1-5

M5-2

WAR

DETOUR M4-8

WEST M3-4

46 M1-5

M5-1

WR

DETOUR M4-8

WEST M3-4

46 M1-5

M6-1

= Phase 1 Work Area

= Detour Route

DETOUR SIGNS WILL BE SPACED 100-150' FROM OTHER SIGNS.

DETOUR SIGNS WILL NOT OBSCURE EXISTING SIGNS.

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	P-CR0011(152)34	C9	C19

TRAFFIC CONTROL
OVERWIDTH DETOUR SIGNING (GROUND MOUNTED SUPPORT)

EWR

WIDTH RESTRICTION
12 FT MAX
46 EAST
FOLLOW DETOUR

WWR

WIDTH RESTRICTION
12 FT MAX
46 WEST
FOLLOW DETOUR

UAR

WIDTH RESTRICTION
12 FT MAX
46 EAST
USE ALT ROUTE

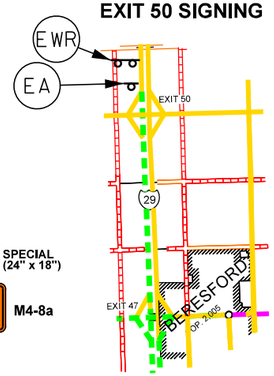
NV

NO VEHICLES
OVER 12 FT WIDE

ED

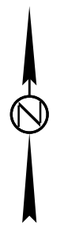
OVERWIDTH VEHICLES SPECIAL (24" x 18")
END DETOUR M4-8a

EXIT 50 SIGNING



EL	EAL	EA	ESR	EAR	ER
OVERWIDTH VEHICLES SPECIAL (24" x 18")					
DETOUR M4-8					
EAST M3-2					
46 M1-5					
M6-1	M5-1	M6-3	M5-2	M5-1	M6-1

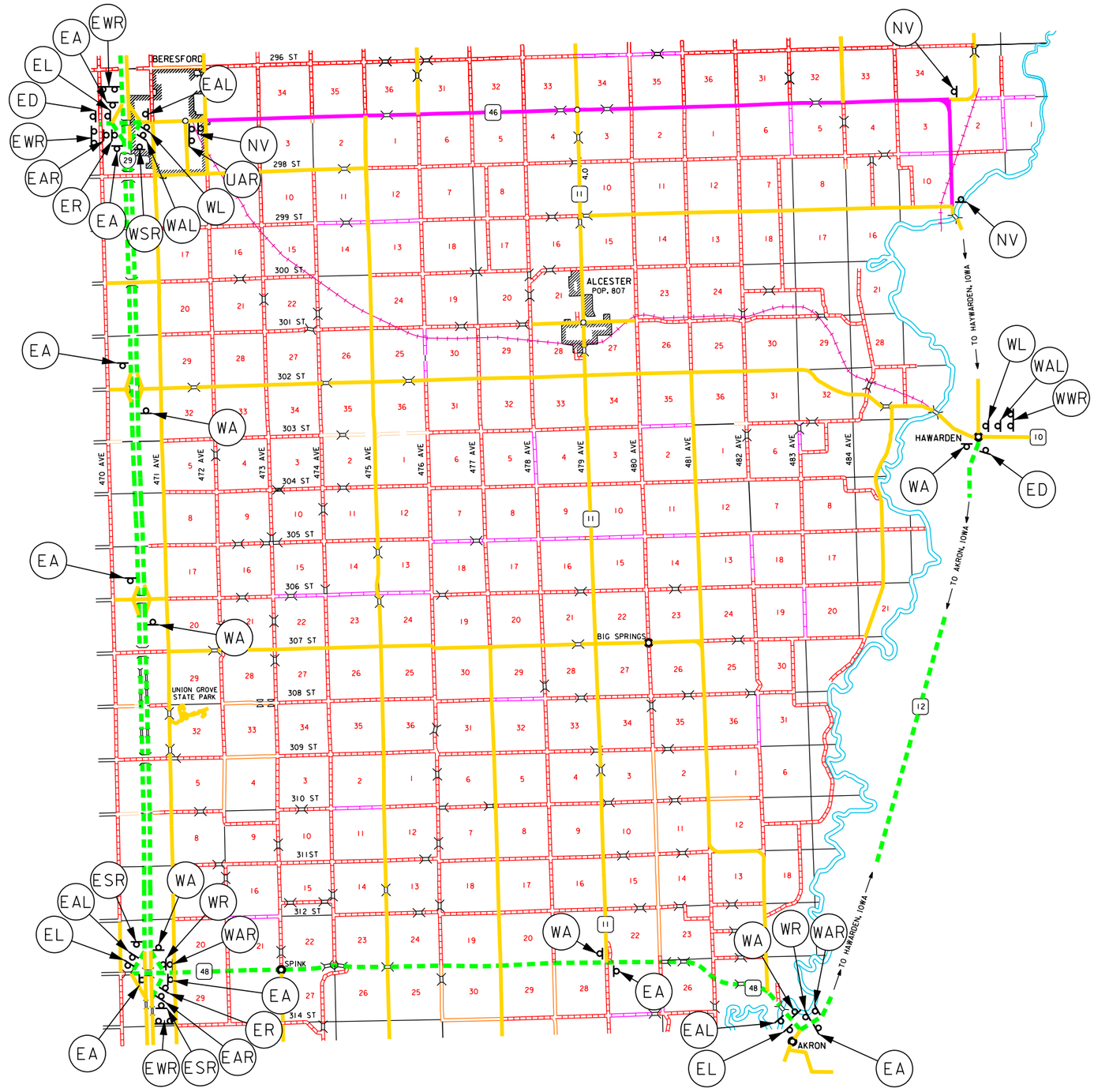
WL	WAL	WA	WSR	WAR	WR
OVERWIDTH VEHICLES SPECIAL (24" x 18")					
DETOUR M4-8					
WEST M3-4					
46 M1-5					
M6-1	M5-1	M6-3	M5-2	M5-1	M6-1



= Project Area
= Detour Route

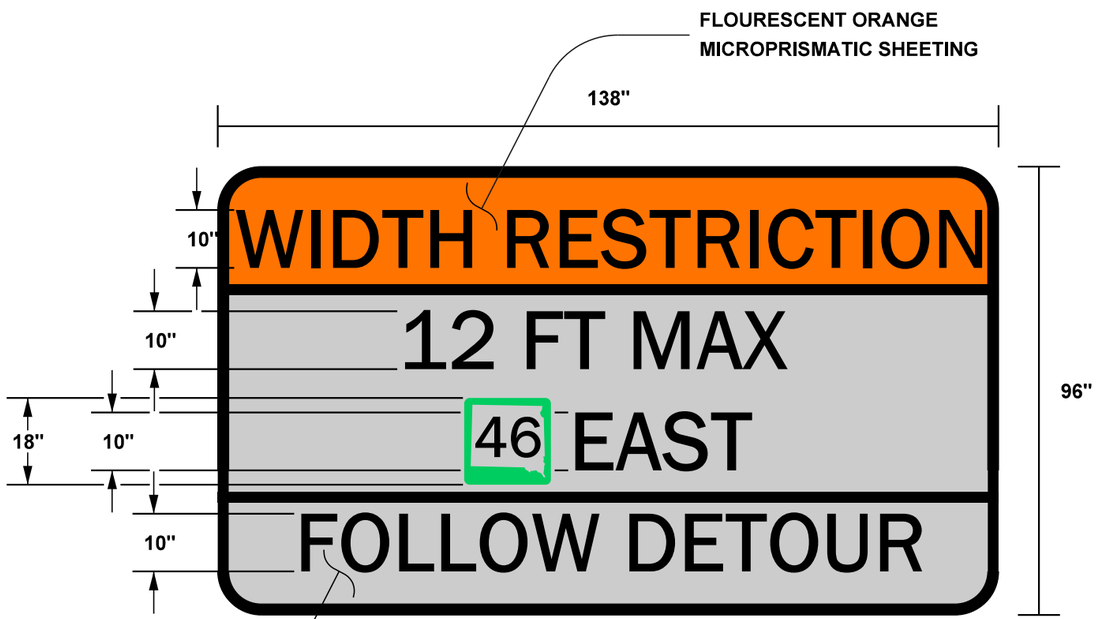
DETOUR SIGNS WILL BE SPACED 100-150' FROM OTHER SIGNS.

DETOUR SIGNS WILL NOT OBSCURE EXISTING SIGNS.

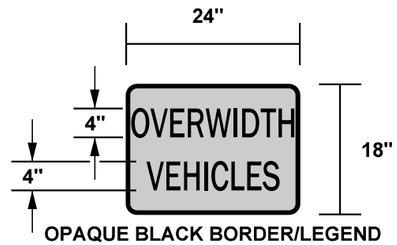


STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	P-CR0011(152)34	C10	C19

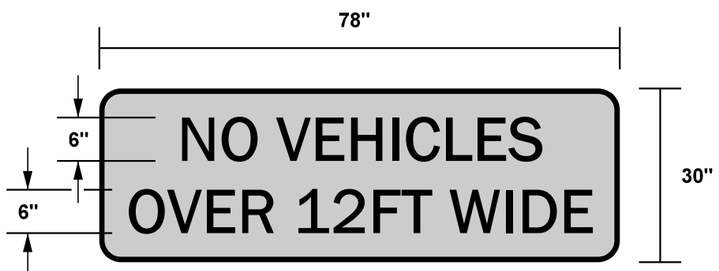
SPECIAL SIGN DETAILS
OVERWIDTH DETOUR SIGNING (GROUND MOUNTED SUPPORT)



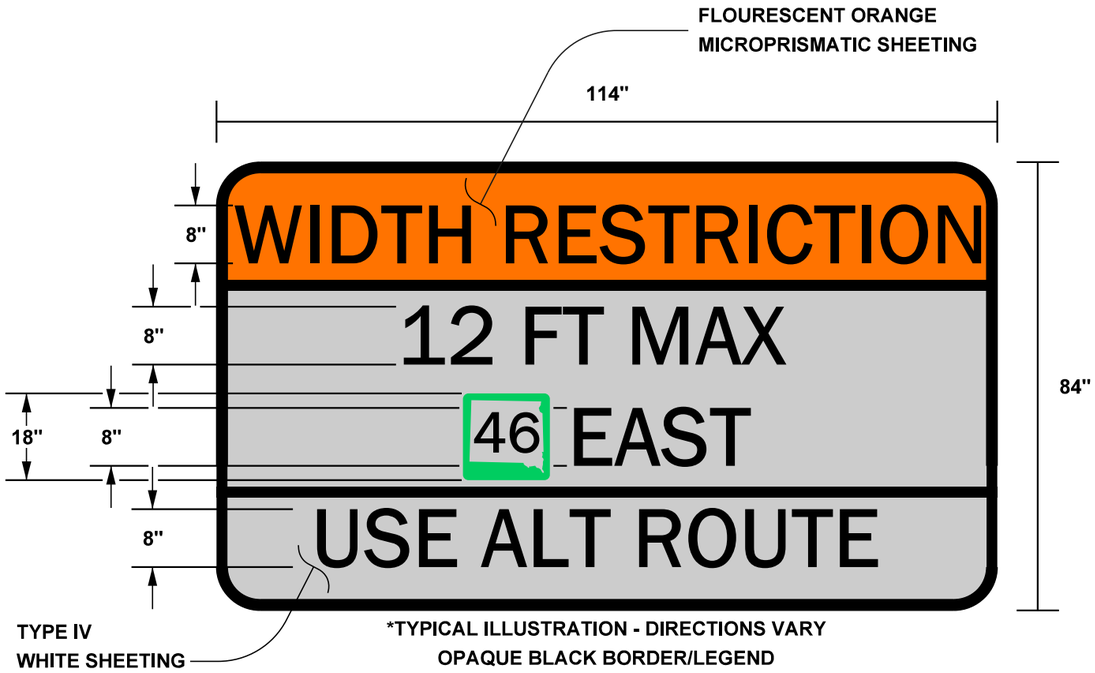
*TYPICAL ILLUSTRATION - DIRECTIONS VARY
OPAQUE BLACK BORDER/LEGEND
1 1/2" BORDER, 9" CORNER RADII
TYPE D FONT
(NOT DRAWN TO SCALE)



OPAQUE BLACK BORDER/LEGEND
ON WHITE TYPE IV SHEETING
1/2" BORDER, 1 1/2" CORNER RADII
TYPE D FONT
(NOT DRAWN TO SCALE)



OPAQUE BLACK BORDER/LEGEND
ON WHITE TYPE IV SHEETING
3/4" BORDER, 3" CORNER RADII
TYPE D FONT
(NOT DRAWN TO SCALE)



*TYPICAL ILLUSTRATION - DIRECTIONS VARY
OPAQUE BLACK BORDER/LEGEND
1 1/2" BORDER, 9" CORNER RADII
TYPE D FONT
(NOT DRAWN TO SCALE)

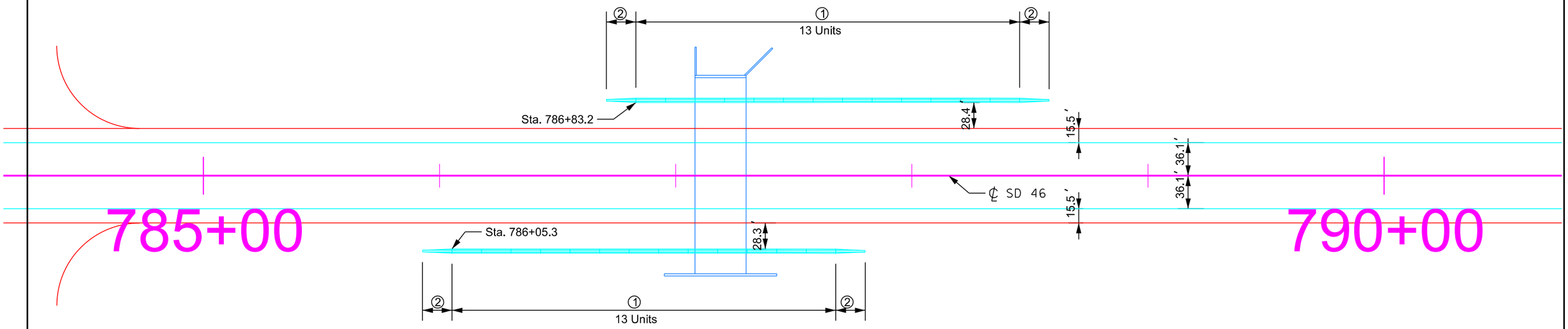
STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	P-CR0011(152)34	C11	C19

BARRIER LAYOUT

①Traffic Control Movable Concrete Barrier

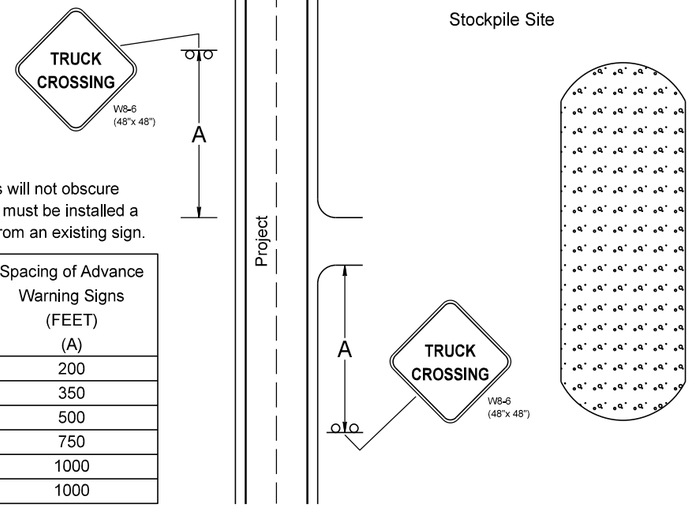
②Temporary Concrete Barrier End Protection

RCBC
Sta. 787+19



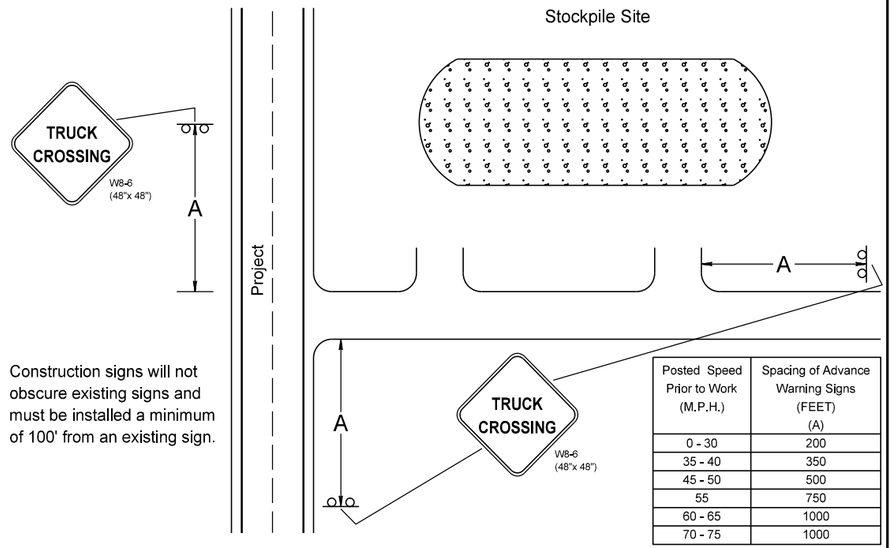
STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	P-CR0011(152)34	C12	C19

STANDARD DETAILS



Construction signs will not obscure existing signs and must be installed a minimum of 100' from an existing sign.

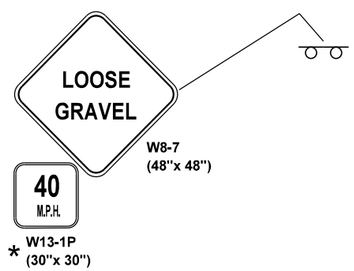
Posted Speed Prior to Work (M.P.H.)	Spacing of Advance Warning Signs (FEET) (A)
0 - 30	200
35 - 40	350
45 - 50	500
55	750
60 - 65	1000
75	1000

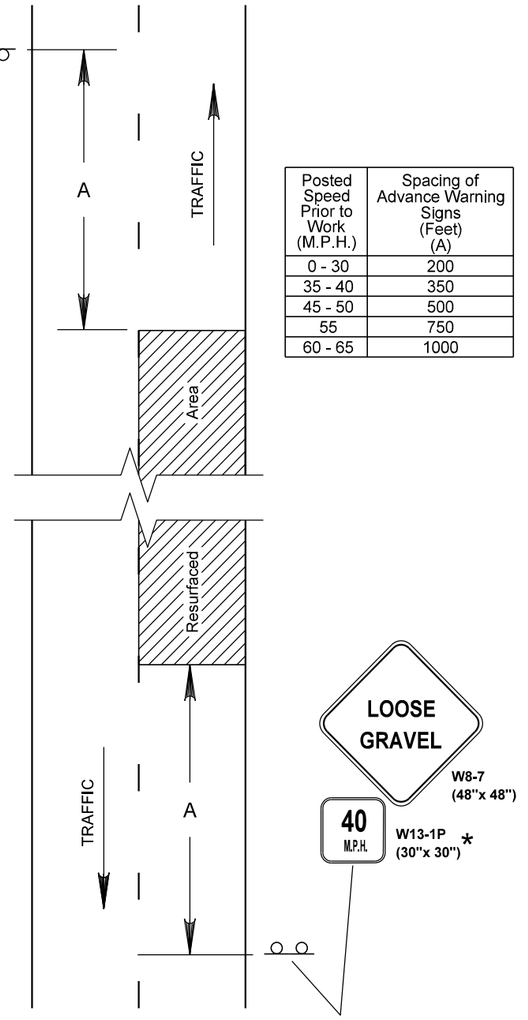


Construction signs will not obscure existing signs and must be installed a minimum of 100' from an existing sign.

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

GUIDES FOR TRAFFIC CONTROL DEVICES TRUCK CROSSING SIGN INSTALLATION





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

* The W13-1P plaque will be used when the asphalt surface treatment is applied to the mainline.

** The special plaque will be used when the asphalt surface treatment is applied only to the shoulders.

NOTES:

The Contractor will provide an additional Flagger at each urban intersection to control side-street traffic whenever the work activities create a hazard or whenever traffic must be restricted from the work area (fresh seal).

Install additional W8-7, LOOSE GRAVEL, signs at 4 mile intervals throughout the entire length of the loose aggregate area and at affected major intersections, edge of towns, etc.

GUIDES FOR TRAFFIC CONTROL DEVICES

Typical Application - Traffic Control Devices to be used on an undivided highway, Asphalt Surface Treatment, when operations have created a driving surface of loose aggregate.

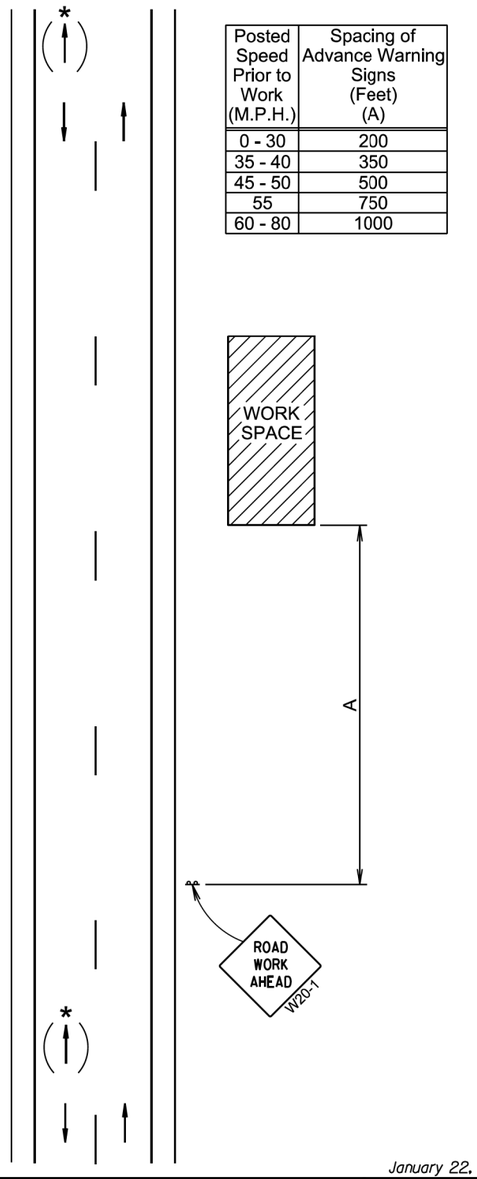
The signs illustrated are not required if the work space is behind a barrier, more than 2 feet behind the curb, or 15 feet or more from the edge of any roadway.

The signs illustrated will be used where there are distracting situations; such as: vehicles parked on shoulder, vehicles accessing the work site via the highway, and equipment traveling on or crossing the roadway to perform work operations.

The ROAD WORK AHEAD sign may be replaced with other appropriate signs, such as the SHOULDER WORK sign. The SHOULDER WORK sign may be used for work adjacent to the shoulder.

* If the work space is on a divided highway, an advance warning sign should also be placed on the left side of the directional roadway.

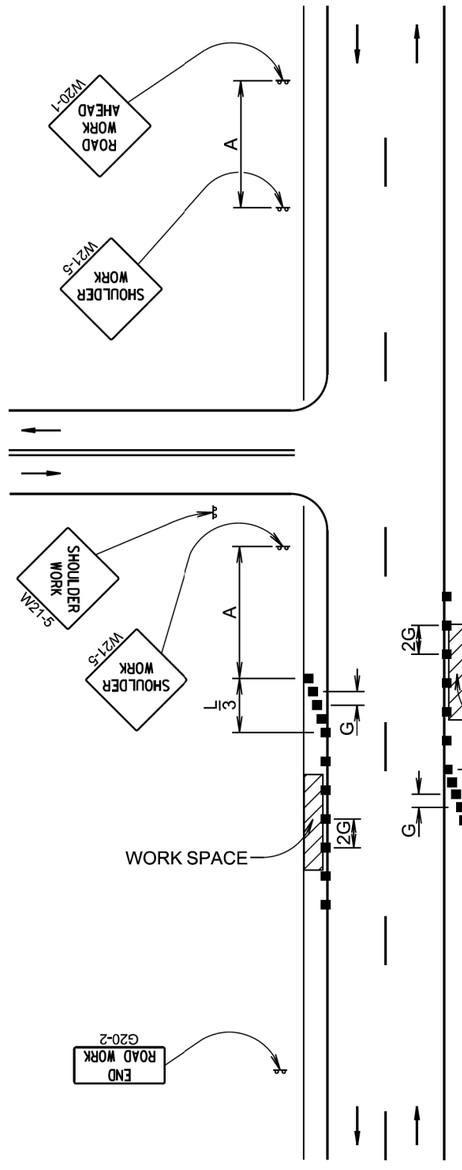
For short term, short duration, or mobile operations, all signs and channelizing devices may be eliminated if a vehicle with an activated flashing or revolving yellow light is used.



Posted Speed Prior to Work (M.P.H.)	Spacing of Advance Warning Signs (Feet) (A)
0 - 30	200
35 - 40	350
45 - 50	500
55	750
60 - 80	1000

January 22, 2021

Published Date: 2024	SDDOT	WORK BEYOND THE SHOULDER	PLATE NUMBER 634.01 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

■ Channelizing Device

The channelizing devices will be drums or 42" cones if traffic control must remain overnight.

For short duration operations (1 hour or less) all channelizing devices may be eliminated if a vehicle with an activated flashing or revolving yellow light is used.

Worker signs (W21-1 or W21-1a) may be used instead of SHOULDER WORK signs.

A SHOULDER WORK sign should be placed on the left side of a divided or one-way roadway only if the left shoulder is affected.

The SHOULDER WORK sign on an intersecting roadway is not required if drivers emerging from that roadway will encounter another advance warning sign before they reach a work activity area.

January 22, 2021

Published Date: 2024	SDDOT	WORK ON SHOULDERS	PLATE NUMBER 634.03 Sheet 1 of 1

* Messages on signs will vary depending on the operation being conducted.

Vehicle-mounted signs will be mounted in a manner such that they are not obscured by equipment or supplies. Sign legends on vehicle-mounted signs will be covered or turned from view when work is not in progress.

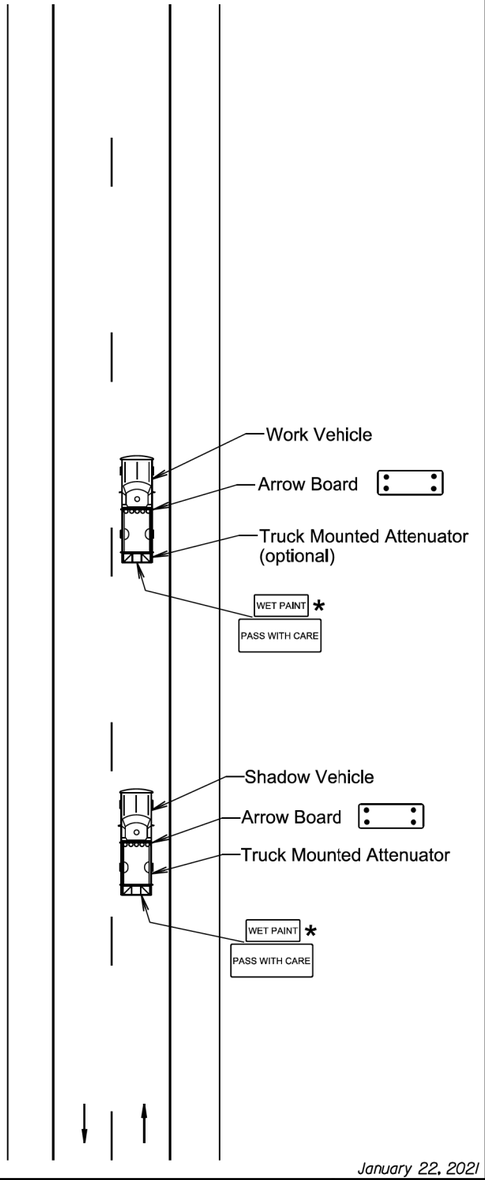
Shadow and Work vehicles will display high-intensity rotating, flashing, oscillating, or strobe lights, flags, signs, or arrow boards.

Vehicle hazard warning signals will not be used instead of the vehicle's high-intensity rotating, flashing, oscillating, or strobe lights.

When an arrow board is used, it will be used in the caution mode. Marching Diamonds are acceptable.

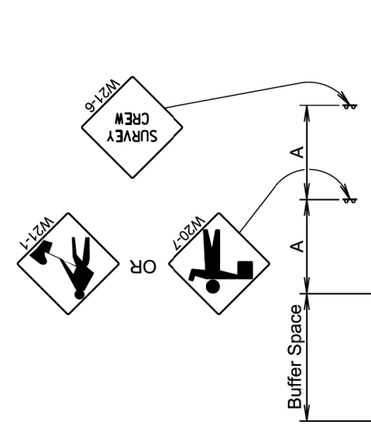
Arrow boards will, as a minimum, be Type B, with a size of 60" x 30".

All costs associated with the traffic control for mobile operation including signs, arrow boards and equipment will be incidental to the contract lump sum price for "Traffic Control, Miscellaneous".



January 22, 2021

Published Date: 2024	SDDOT	MOBILE OPERATIONS ON 2-LANE ROAD	PLATE NUMBER 634.06
			Sheet 1 of 1



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

Posted Speed Prior to Work (M.P.H.)	Spacing of Channelizing Devices (Feet) (G)
0 - 45	25
≥ 50	50

■ Channelizing Device
⊗ Surveyor
■— Flagger

Cones should be placed 6 to 12 inches on either side of center line.

Maximum spacing between cones is 100 feet.

Flags may be used to call attention to the advance warning signs.

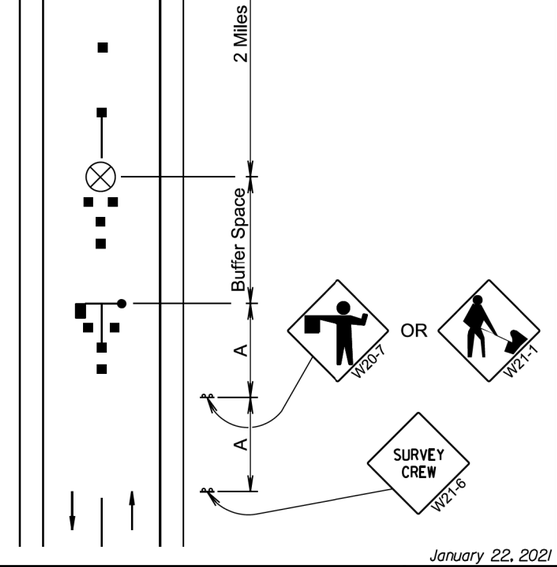
For a survey along the edge of the road or along the shoulder, the advance signing remains the same. For this situation, place cones along the edge line. A flagger is not required for work along the shoulder.

Cones may be omitted for a cross section survey.

For surveying on the center line of a high-volume road, close one lane, using the lane closure procedure. Refer to Standard Plate 634.23 for details.

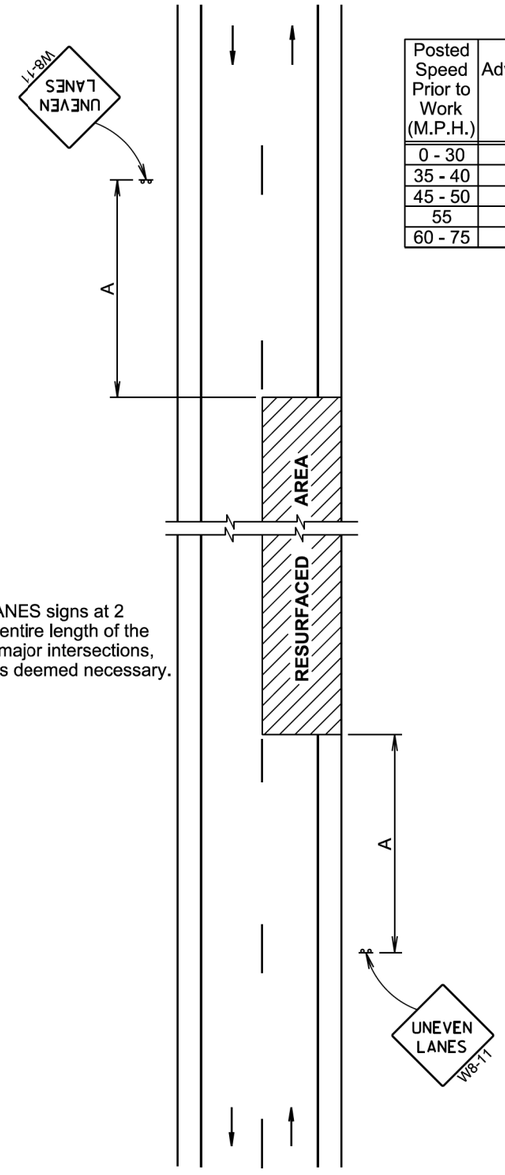
A flagger should be used to protect people who must work with their backs to traffic.

A high-level warning device may be used to protect a surveying device, such as a target on a tripod.



January 22, 2021

Published Date: 2024	SDDOT	SURVEYING ALONG CENTER LINE	PLATE NUMBER 634.21
			Sheet 1 of 1



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

Install additional UNEVEN LANES signs at 2 mile intervals throughout the entire length of the uneven area and at affected major intersections, edge of towns, and other sites deemed necessary.

January 22, 2021

Published Date: 2024

SDDOT

UNEVEN ROAD SURFACE

PLATE NUMBER 634.22

Sheet 1 of 1

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.

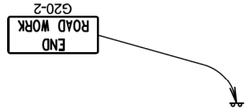
The ROAD WORK AHEAD and the END ROAD WORK signs may be omitted for short duration operations (1 hour or less).

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.

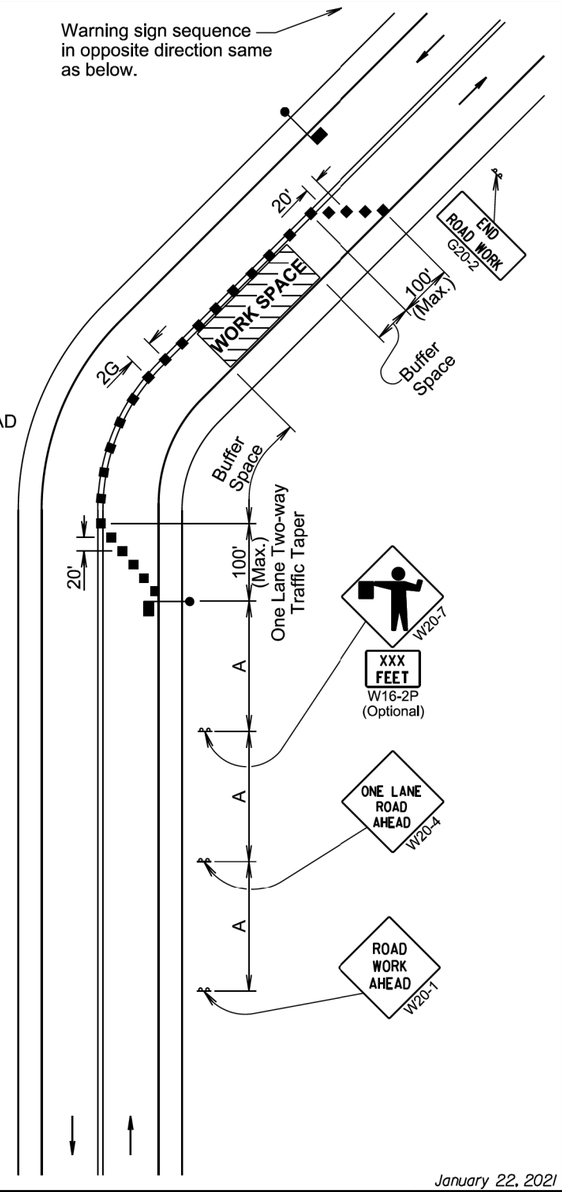
Channelizing devices are not required along the centerline adjacent to work area when pilot cars are utilized for escorting traffic through the work area.



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.



January 22, 2021

Published Date: 2024

SDDOT

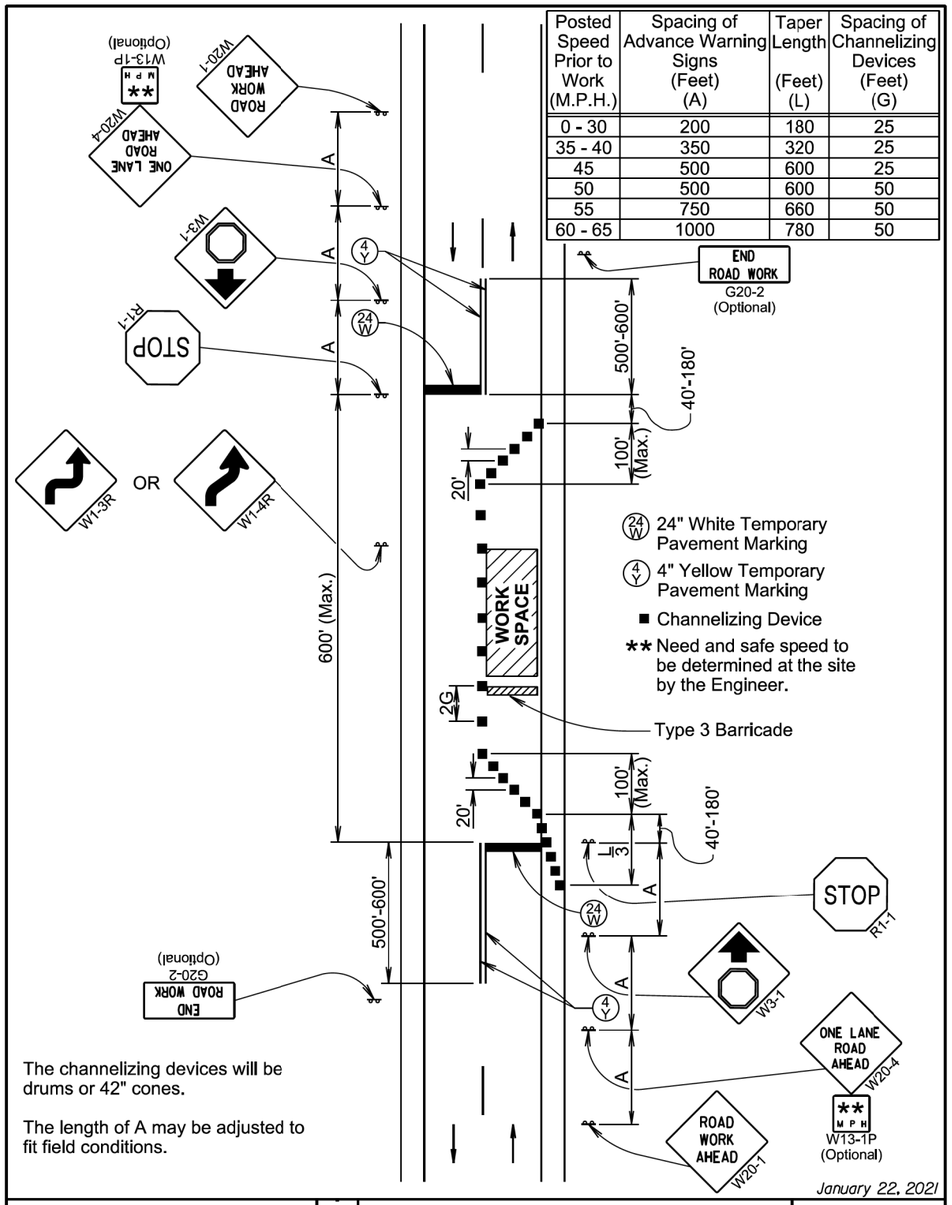
LANE CLOSURE WITH FLAGGER PROVIDED

PLATE NUMBER 634.23

Sheet 1 of 1

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	P-CR0011(152)34	C16	C19

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 W 24" White Temporary Pavement Marking

4 Y 4" Yellow Temporary Pavement Marking

■ Channelizing Device

** Need and safe speed to be determined at the site by the Engineer.

The channelizing devices will be drums or 42" cones.

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

January 22, 2021

Published Date: 2024

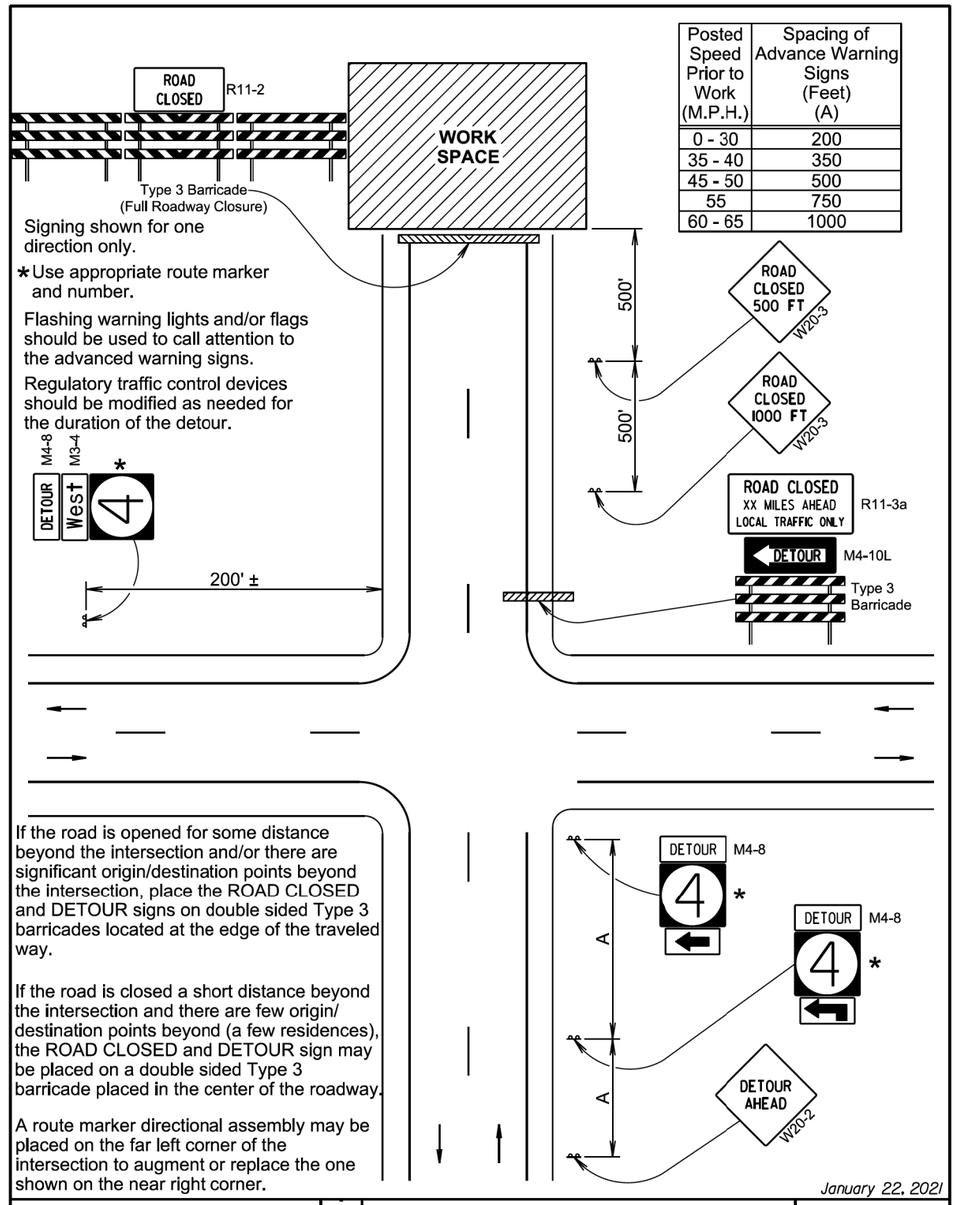
SDDOT

LANE CLOSURE USING STOP SIGNS

PLATE NUMBER 634.25

Sheet 1 of 1

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



Signing shown for one direction only.

* Use appropriate route marker and number.

Flashing warning lights and/or flags should be used to call attention to the advanced warning signs.

Regulatory traffic control devices should be modified as needed for the duration of the detour.

If the road is opened for some distance beyond the intersection and/or there are significant origin/destination points beyond the intersection, place the ROAD CLOSED and DETOUR signs on double sided Type 3 barricades located at the edge of the traveled way.

If the road is closed a short distance beyond the intersection and there are few origin/destination points beyond (a few residences), the ROAD CLOSED and DETOUR sign may be placed on a double sided Type 3 barricade placed in the center of the roadway.

A route marker directional assembly may be placed on the far left corner of the intersection to augment or replace the one shown on the near right corner.

January 22, 2021

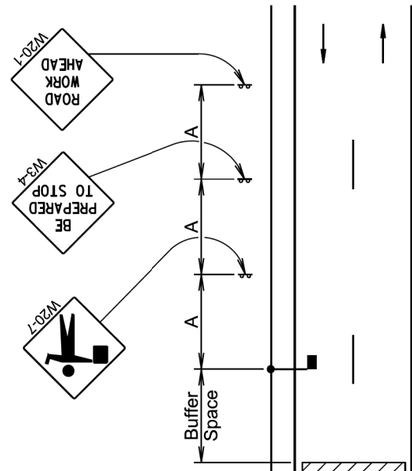
Published Date: 2024

SDDOT

ROAD CLOSED WITH OFF-SITE DETOUR

PLATE NUMBER 634.29

Sheet 1 of 1



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

Flagger

END ROAD WORK
G20-2
(Optional)

Posted Speed Prior to Work (M.P.H.)	Length of Longitudinal Buffer Space (Feet)
20	115
25	155
30	200
35	250
40	305
45	360
50	425
55	495
60	570
65	645

Buffer space dependent on work site limitations.

A changeable message sign may be used in addition to the initial warning sign.

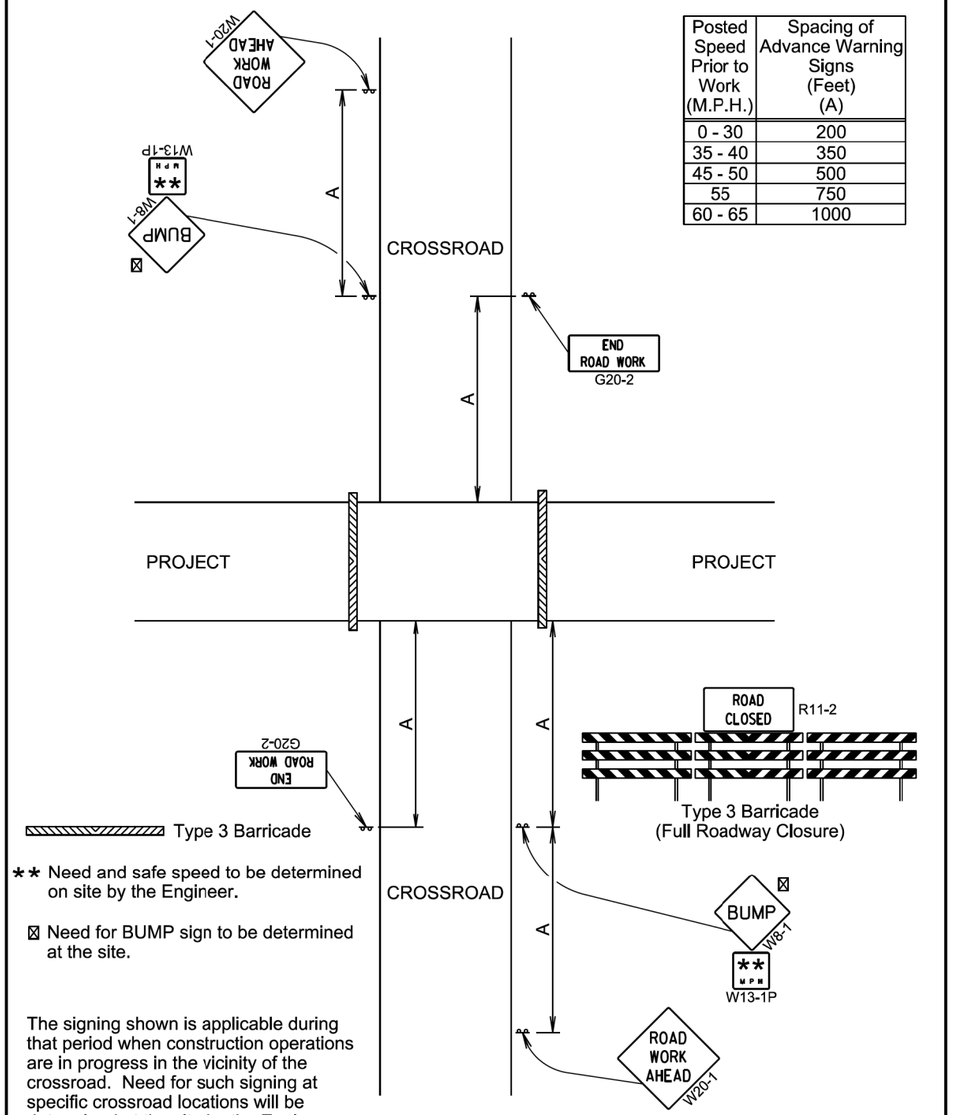
Flagger station to be lighted at night.

On unfinished grades, until gravel is in place, reflectorized devices (cones, tubular markers, drums, or vertical panels back-to-back) defining the outside edge of the road will be placed at 264 feet maximum spacing on tangent and at 132 feet maximum spacing on curves (greater than 3 degrees) during night time hours and during daytime hours at inactive locations where grading work is being performed. During daytime hours at active locations, a well defined path of adequate width will be provided by motor grader, normally in conjunction with flagging operations either with or without pilot car. Minimum width for one-way operations is 12 feet for two-way operations is 24 feet.

Work areas which are duplicated less than one mile apart, may be classified as one work area for purposes of sign installation unless otherwise directed by the Engineer.
PAVEMENT ENDS signs (W8-3) to be used as appropriate to warn of existing surfacing being removed.

January 22, 2021

Published Date: 2024	SDDOT	LONG TERM ROAD WORK	PLATE NUMBER 634.31
			Sheet 1 of 1



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

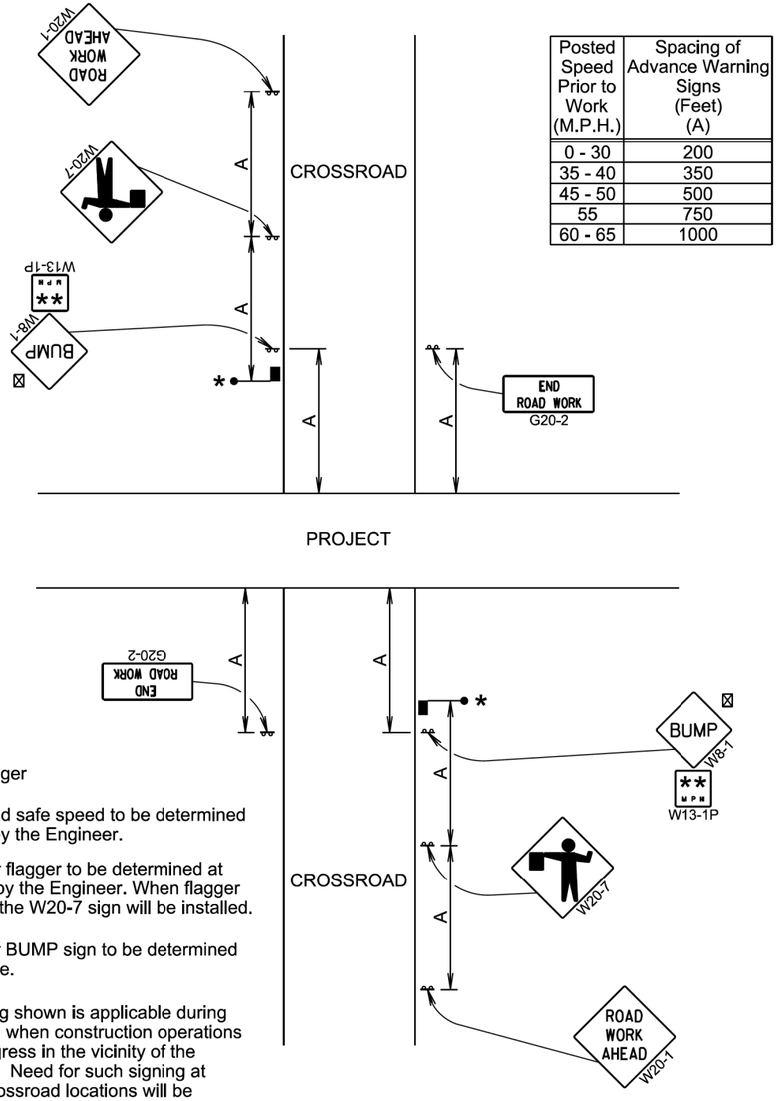
** Need and safe speed to be determined on site by the Engineer.

☒ Need for BUMP sign to be determined at the site.

The signing shown is applicable during that period when construction operations are in progress in the vicinity of the crossroad. Need for such signing at specific crossroad locations will be determined at the site by the Engineer.

January 22, 2021

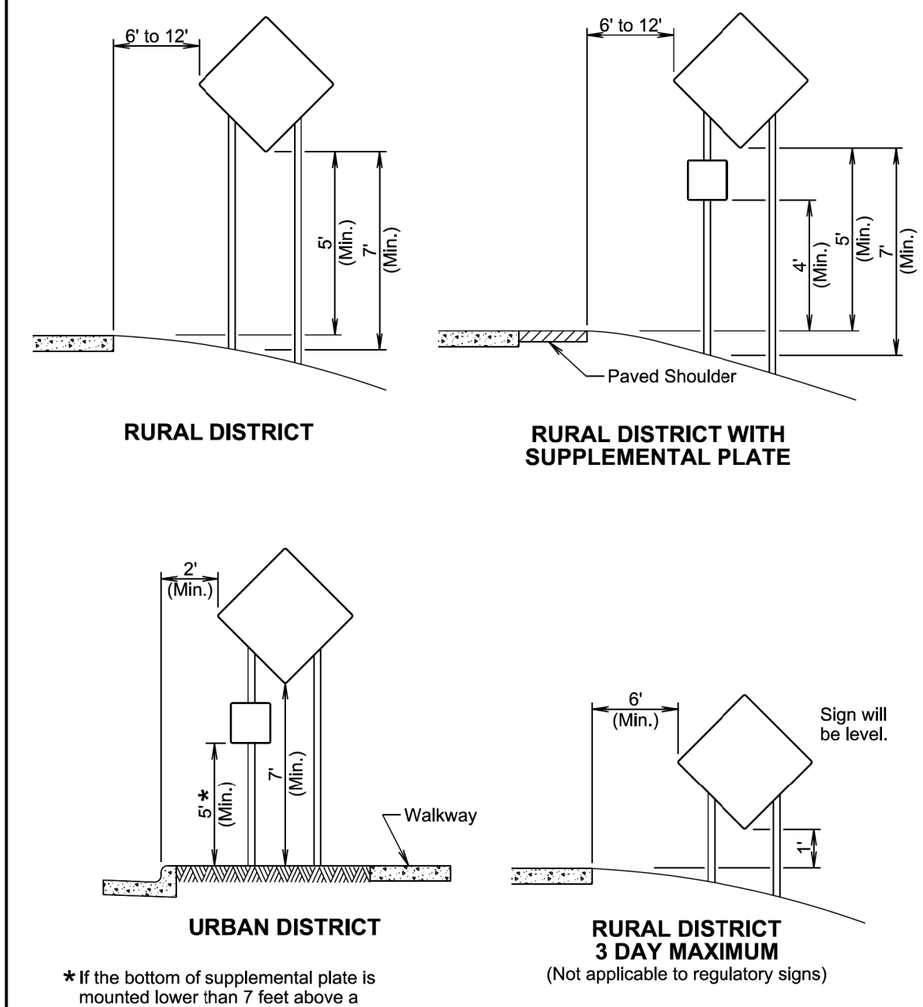
Published Date: 2024	SDDOT	PROJECT CLOSED TO TRAFFIC FROM CROSSROAD	PLATE NUMBER 634.37
			Sheet 1 of 1



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

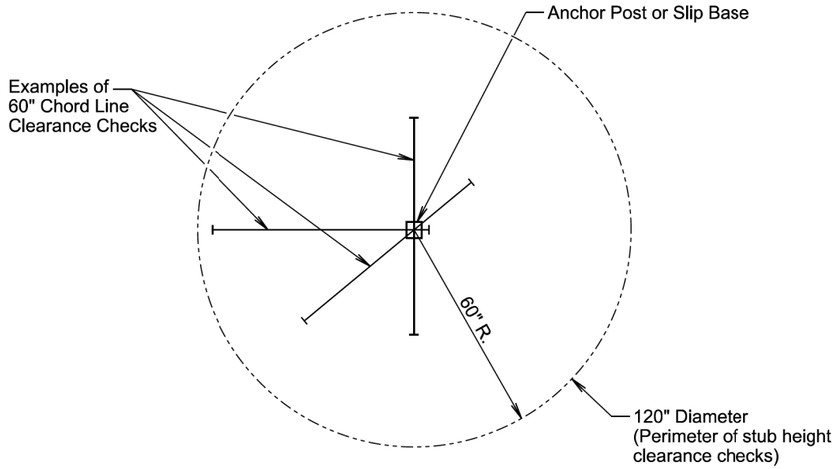
January 22, 2021

Published Date: 2024	SDDOT	PROJECT OPEN TO TRAFFIC FROM CROSSROAD	PLATE NUMBER 634.38
			Sheet 1 of 1

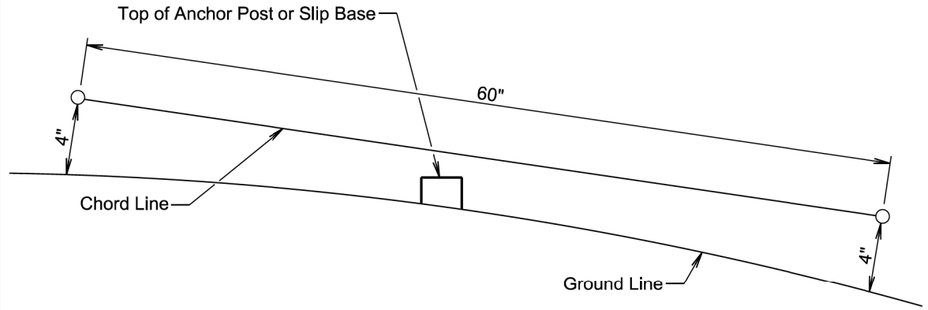


January 22, 2021

Published Date: 2024	SDDOT	CRASHWORTHY SIGN SUPPORTS (Typical Construction Signing)	PLATE NUMBER 634.85
			Sheet 1 of 1



PLAN VIEW
(Examples of stub height clearance checks)



ELEVATION VIEW

GENERAL NOTES:

The top of anchor posts and slip bases 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

Published Date: 2024	SDDOT	BREAKAWAY SUPPORT STUB CLEARANCE	PLATE NUMBER 634.99 Sheet 1 of 1