

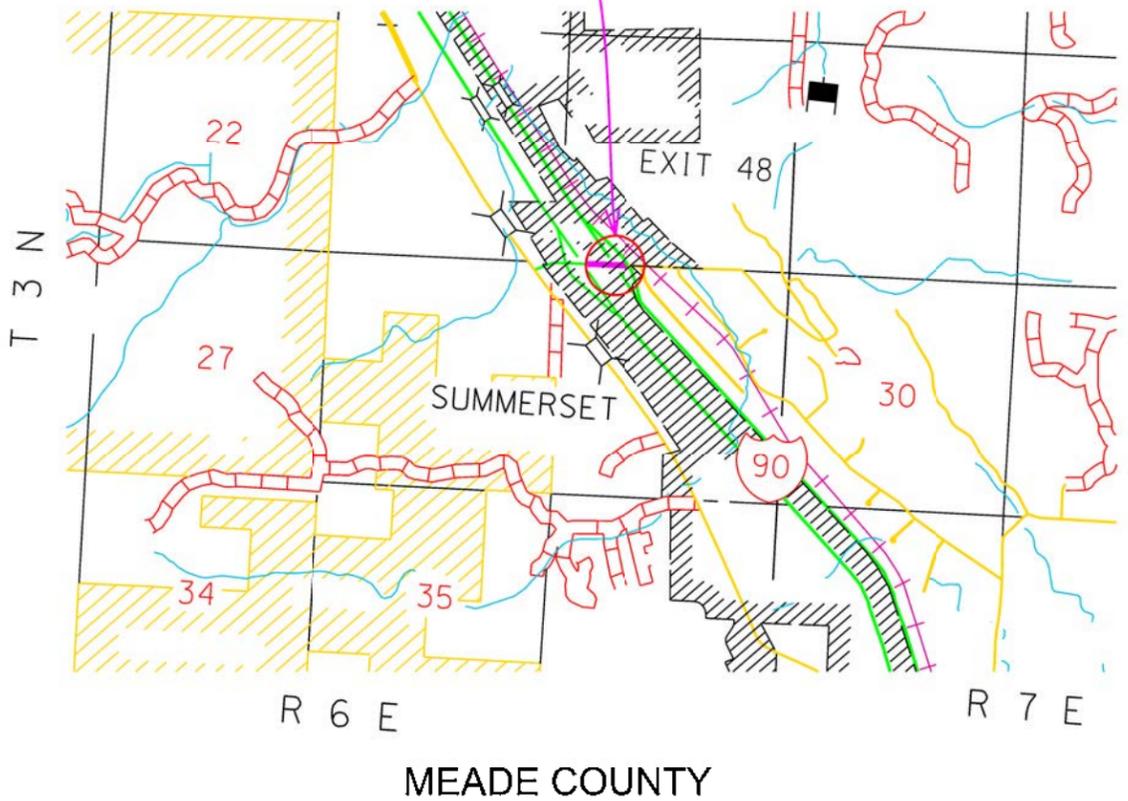
Section C: Traffic Control Plans

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	090 W-468	C1	C18
Plotting Date: 04/14/2014			

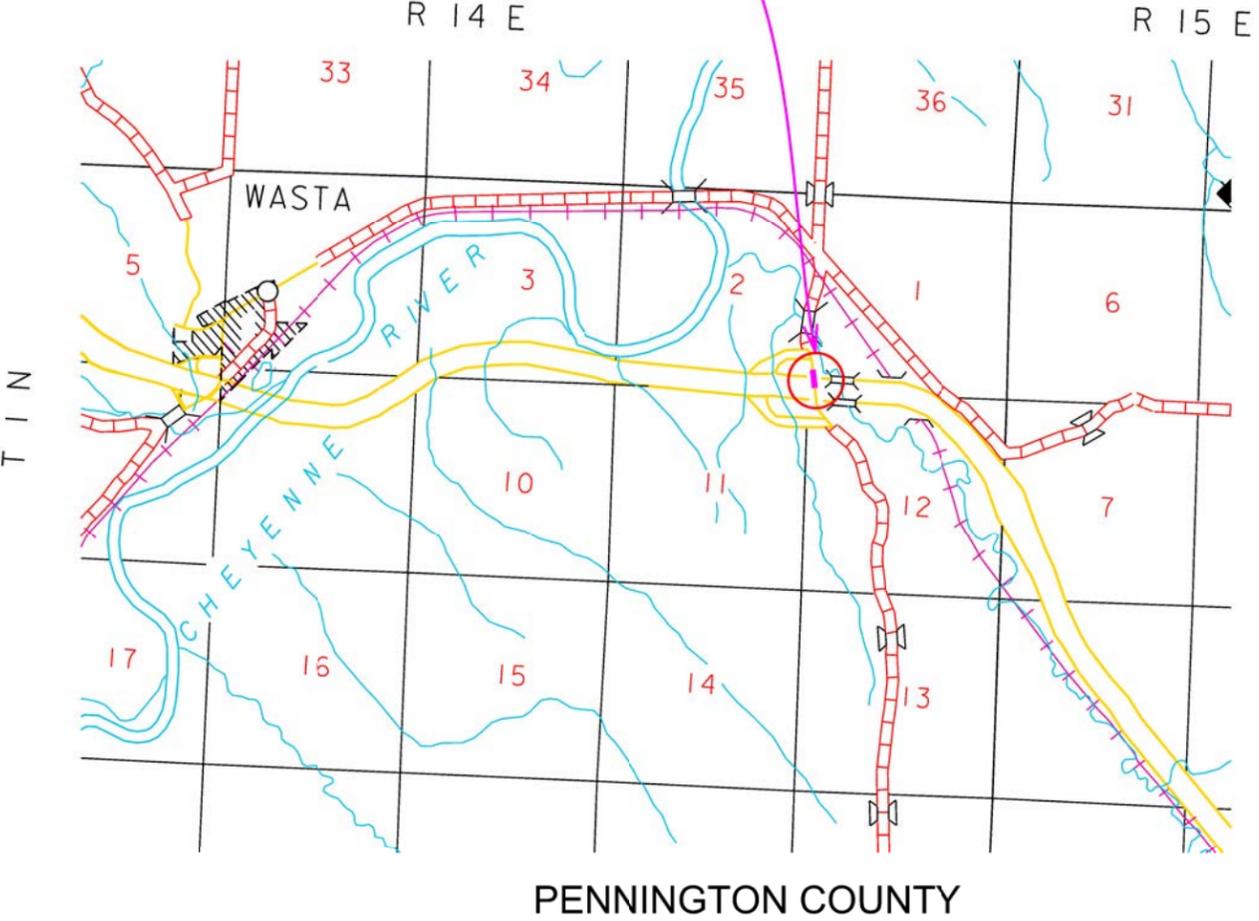
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PROJECT 090 W - 468
STR. NO. 47-111-580
MRM 48.43



PROJECT 090 W - 468
STR. NO. 52-830-310
MRM 101.23



Plot Scale - 1:200

Plotted From - Jrc:16968

File - ...Traffic ControlTitleC.dgn

ESTIMATE OF QUANTITIES (PCN I39U)

Bid Item Number	Item	Quantity	Unit
009E0010	Mobilization	Lump Sum	LS
634E0010	Flagging	40	Hour
634E0100	Traffic Control	513	Unit
634E0120	Traffic Control, Miscellaneous	Lump Sum	LS
634E0420	Type C Advance Warning Arrow Panel	1	Each

ESTIMATE OF QUANTITIES (PCN I39V)

Bid Item Number	Item	Quantity	Unit
009E0010	Mobilization	Lump Sum	LS
110E1400	Remove Pavement Marking, 4" or Equivalent	1,500	Ft
634E0010	Flagging	100	Hour
634E0100	Traffic Control	3,590	Unit
634E0120	Traffic Control, Miscellaneous	Lump Sum	LS
634E0330	Raised Pavement Markers	29,500	Ft
634E0380	Tubular Marker	180	Each
634E0420	Type C Advance Warning Arrow Panel	2	Each
634E0525	Linear Delineation System Panel, Barrier Mounted	20	Each
634E0610	4" Temporary Pavement Marking Tape Type 2	144	Ft
634E0640	Temporary Pavement Marking	27,500	Ft
634E0700	Traffic Control Movable Concrete Barrier	90	Each
634E0750	Temporary Concrete Barrier End Protection	6	Each
634E0760	Temporary Concrete Barrier End Protection Module Set or Repair Kit	2	Each
634E0920	Hazard Identification Beacon	1	Site
634E1002	Detour Signing	378.0	SqFt
634E1215	Contractor Furnished Portable Changeable Message Sign	2	Each

TRAFFIC CONTROL – GENERAL NOTES

- Requests to deviate from the sequence of operations shall 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 shall be submitted for review a minimum of one week prior to potential implementation.
- Unless otherwise stated in these plans, no work will be allowed during hours of darkness. Hours of darkness are defined as ½ hour after sunset until ½ hour before sunrise.
- Storage of vehicles and equipment shall be as near the right-of-way as possible. Contractor's employees should mobilize at a location off the right-of-way and arrive at the work sites in a minimum number of vehicles necessary to perform the work. Indiscriminate driving and parking of vehicles within the right-of-way will not be permitted. Any damage of 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, and to the satisfaction of the Engineer.
- Construction signing mounted on portable supports shall not be used for a duration of more than 3 days, unless approved by the Engineer. Construction signing that remains in the same location for more than 3 days shall be mounted on fixed location, ground mounted, breakaway supports.

- The quantity of traffic control units paid for will be for the greatest number of installations per sign in place at any one time regardless of the number of set-ups on the project.
- Existing guide, route, informational logo, regulatory, and warning signs shall be temporarily reset and maintained during construction. Removing, relocating, covering, salvaging and resetting of existing traffic control devices, including but not limited to, traffic signal heads, delineation, and signing shall be the responsibility of the Contractor. Non-applicable signing and all traffic control devices shall be covered or removed during periods of inactivity. Periods of inactivity shall be defined as no work taking place for a period of more than 48 hours. The cost of removing or covering non-applicable signs shall be incidental to the contract lump sum price for "Traffic Control, Miscellaneous".
- Any delineators and signs damaged or lost shall be replaced by the Contractor at no cost to the State.
- All materials and equipment shall be stored a minimum distance of 30' from the traveled way during nonworking hours.
- The Contractor shall provide documentation that all breakaway sign supports comply with FHWA NCHRP 350 or MASH crash-worthy requirements. The Contractor shall provide installation details at the preconstruction meeting for all breakaway sign support assemblies.
- The Contractor shall be required to have a person available 24 hour/day, 7 days/week to maintain traffic control devices. The name and cellular telephone number of this individual shall be given to the Engineer at the preconstruction meeting.
- The Contractor or designated traffic control subcontractor shall make night inspections at the initial set up of traffic control and every week thereafter to ensure the adequacy, legibility and reflectivity of each sign and device. A written summary of each inspection shall be given to the Engineer within 24 hours after completion of the inspection. The cost for the nighttime inspection work shall be incidental to the contract lump sum price for "Traffic Control, Miscellaneous".
- Vehicles working in traffic or alongside traffic shall be equipped with a flashing amber light visible from all directions. The amber light shall be mounted on the uppermost part of the Contractor's vehicle. Lights must have peak intensity within the range of 40 to 400 candelas and must flash at 75 ± 15 flashes per minute. Vehicle flasher/hazard lights are not acceptable. All haul trucks shall be equipped with a second flashing amber light that is visible from the backside of the haul truck. The costs for the flashing amber lights shall be incidental to the various related contract bid items.
- All construction operations shall 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 shall be used, as determined by the Engineer.
- Drums are required in all lane closure tapers.
- Road Work Ahead signs shall be placed at applicable intersecting roads and as directed by the Engineer.

17. Temporary Road Markers (Tabs) shall be used for lane closure tapers or lane shift tapers and shall be installed at 5' spacing. Tabs used for tapers and shifts will not be measured for payment. All costs associated to furnish, install, maintain (including replacement as required by the Engineer at no added cost to the Department), and remove all markers will be incidental to the contract lump sum price for "Traffic Control, Miscellaneous".

18. A 14' width restriction will need to be put in place on I-90 for Westbound and Eastbound traffic for work at Exit 101. A 16' width restriction will need to be put in place on I-90 for Westbound traffic for work at Exit 48.

19. The speed limit on I-90 while traffic is two-way in the eastbound lanes will be 65mph.

SEQUENCE OF OPERATIONS

I-90 - EXIT 48 (PCN I39U)

- Setup traffic control in the westbound lanes of I-90 using Standard Plate 634.63 and close the driving or passing lane as needed to complete the girder repair. The beginning of the taper shall start after the exit ramp so as not to require additional off ramp signing if the driving lane is closed. Note: lane closure shall be removed (shouldered) prior to 4:00PM every day and all lanes of I-90 open to traffic. All costs associated with removing and setting up the lane closure as needed shall be incidental to the contract lump sum price for Traffic Control, Miscellaneous.
- Complete girder repair.
- Remove all traffic control from within the ROW.

I-90 - EXIT 101 (PCN I39V)

Note: No additional payment will be made for any traffic device on Interstate I-90 that is turned away, covered up, or taken temporarily out of service due to the Sturgis Motorcycle Rally Restriction and then returned back to use after the Sturgis Motorcycle Rally Restriction.

- Setup traffic control in the eastbound lane of I-90 using Standard Plate 634.63 and Ramp Entrance and Exit Signing Details #1 Traffic Control sheet and close the driving lane between Jensen Road bridge and I-90 Str. No. 52-831-310. Remove 3 cable guardrail on the off end of I-90 Str. No. 52-831-310 and set moveable concrete barriers and temporary end protection. Set moveable concrete barriers and temporary end protections at the Jensen Road bridge. See I-90 Barrier layout Traffic Control sheet.
- Switch lane closure in the eastbound lane of I-90 and close the passing lane, setup traffic control in the westbound lane of I-90 and close the passing lane. Use Standard Plate 634.63 and I-90 Lane Closures Traffic Control sheet to close both passing lanes between the crossovers at MRM 101.1 and 103.7. REDUCED SPEED AHEAD(65) with FINES DOUBLE signs shall be installed prior to LEFT LANE CLOSED AHEAD signs at a distance of B, and SPEED LIMIT 65 signs shall be installed prior to LEFT LANE CLOSED AHEAD signs at a distance of B/2. A WORK ZONE with SPEED LIMIT 65 sign shall be installed 1000' after the work activity area.

I-90 - EXIT 101 (PCN I39V) (continued)

3. Install moveable concrete barriers and temporary end protections at the Jensen Road bridge and I-90 St. No. 52-831-310. See I-90 Barrier Layout Traffic Control sheets. Remove crossover closures at MRM 101.1 and 103.7. Complete cold milling and asphalt concrete composite resurfacing at the crossovers.
4. Install traffic control according to Standard Plate 634.66, Exit 101 Closure Traffic Control sheet, and Overwidth Detour Traffic Control sheet for two-way traffic in the eastbound lanes of I-90 between the crossovers.
5. Switch traffic to two-way traffic in the eastbound lanes of I-90 between the crossovers. Extra channelizing devices shall be installed across the crossover at MRM 101.1 so that westbound traffic does not think that they can take the exit ramp.
6. Setup traffic control on Jensen Road according to Standard Plate 634.25 and Exit 101 Jensen Road Traffic Control sheet. Advisory speed plaque on Jensen Road shall be 25 MPH.
7. Complete the girder repairs and as much abutment backwall repair as is possible with the traffic control setup. Once the girder repairs are complete and the bridge deck and barrier curb are replaced remove all traffic control from I-90 and open all lanes of traffic. Remove barriers from Jensen Road and switch traffic control on Jensen Road and close the southbound lane and complete the remaining abutment backwall repairs and restore bridge berm slopes.
8. Remove traffic control from Jensen Road and open all lanes to traffic.

REMOVE PAVEMENT MARKING 4", OR EQUIVALENT

All pavement marking paint removals shall be done as directed by the Engineer. Existing pavement marking tape shall be removed by the heat and remove method.

TEMPORARY PAVEMENT MARKING (PAINT)

Payment for temporary pavement marking will be by the foot per 4" line or equivalent. Any temporary pavement marking arrows that are needed will be paid for as 250' of Temporary Pavement Marking. Payment will be for all costs to furnish and install temporary pavement markings.

RAISED PAVEMENT MARKERS (RPM's)

Raised pavement markers shall be used for marking edge lines, lane lines, and centerlines. RPM's shall 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.

Raised pavement markers shall 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.

The markers shall be installed at 5-foot spacing and will be paid for at the contract unit price per foot per 4" line for both Yellow and White markers. The contract unit price per foot for Raised Pavement Markers will be full compensation for all costs associated to furnish, install, maintain (including replacement as required by the Engineer at no added cost to the Department), and remove all markers.

TEMPORARY PAVEMENT MARKING TAPE TYPE 2

Temporary pavement marking tape shall be used for the 24" white stop bars on Jensen Road.

All costs to furnish, install, maintain (including replacement as required by the Engineer at no added cost to the Department), and remove the temporary pavement marking tape type 2 shall be included in the contract price per foot or equivalent for 4" Temporary Pavement Marking Tape Type 2.

TUBULAR MARKERS

The markers shall be securely attached to the roadway surface. The method of attachment shall be resistant to the effects of weather, and capable of retaining the marker in position under traffic during the interval of time it is required to function.

4 tubular markers, spaced at 50', shall be placed in front of all crash attenuators.

Payment for tubular markers will be at the contract unit price per each. Payment shall be full compensation for furnishing, installing, maintaining (including replacement as required by the Engineer at no added cost to the Department), and removal of the tubular markers as required by the Engineer.

CONTRACTOR FURNISHED PORTABLE CHANGEABLE MESSAGE SIGN

The Contractor shall furnish portable changeable message signs to be used for the duration of the project. Message signs shall be installed to inform the traveling public of when construction will begin for each phase (2 week advance notice), advising the general public of the conditions ahead, and as directed by the Engineer. The changeable message signs shall be furnished, programmed, and maintained for the entire project duration. The Engineer will assist in determining the location and messages to be programmed into the message sign. The message boards shall be clearly visible from a minimum of 900 feet and shall be solar powered or wired directly to a power source. Diesel and gas powered message panels will not be allowed. The portable message panels will be paid for at the contract unit bid price per each for Contractor Furnished Portable Changeable Message Sign. Payment will be full compensation for furnishing, maintaining, and relocating as many times as required by the Engineer and the Contractor's operations.

TYPE C ADVANCE WARNING ARROW PANEL

The quantity of Type C Advance Warning Arrow Panels paid will be the most installations in place at any one time regardless of the number of setups on the project.

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 shall provide the Engineer with pertinent information 7 days prior to any phase change or any other major changes that affect traffic flow.

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CONTRACTOR FURNISHED PROGRESS SCHEDULES

The Contractor shall furnish the Engineer two copies of a bar chart method progress schedule at the preconstruction meeting. The schedule shall consist of a construction schedule and brief written narrative. The schedule shall contain the following information:

1. A time scale to graphically show percentage of work scheduled for completion within the contract completion requirements.
2. Definition and relation of work activities to contract pay items.
3. Work activities (prime contractor and all subcontractor activities) in the order they will be performed including submittals, approvals, deliveries, temporary traffic control, and permanent signing/stripping.
4. All major work activities that are controlling factors in the completion of the work.
5. The time required for each activity and its relationship in time to other activities.
6. The total expected time to complete all work.
7. The expected work shifts in days per week and hours per day and the days when work is not expected to be performed.
8. Expected adverse weather delays.

The schedule shall be updated, revised and resubmitted on a bi-weekly interval until the project is substantially complete. There will be no direct payment for the contractor furnished schedule. All costs associated with the schedule shall be incidental to the related items. Failure to properly submit the required construction schedules will result in the withholding of progress payments until an approved schedule is received.

FLAGS

Flags shall be installed on traffic control signs as detailed in the plans and as directed by the Engineer. Payment for the flags shall be 10 traffic control units per each flag. Payment will be full compensation for all costs associated to furnish, install, maintain (including replacement as required by the Engineer at no cost to the Department), and remove flag.

TEMPORARY CONCRETE BARRIER END PROTECTION

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

All costs associated with furnishing, transporting, initial setup, connecting, maintaining, and removal shall be incidental to the contract unit price per each for Temporary Concrete Barrier End Protections.

The Contractor shall have replacement hardware available so that, in the event that an attenuator is hit and made unusable, the 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 shall remain the property of the Contractor.

BARRIER MOUNTED LINEAR DELINEATION SYSTEM PANELS

A linear delineation system (LDS) panel shall be attached to each side of the barrier section. One panel shall be white and the other panel shall be yellow. The color shall be the same as the nearest pavement marking, white along outside edgelines or yellow for the left side on one way traffic sections. The linear delineation system shall 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 shall be sheeted with sheeting designated as ASTM D4956 Type XI. The panels shall be installed at the center of the barrier when measured along the length, with the top of the panel 4 inches below the top of the barrier. Installation shall be as per the manufacturer's recommendation using stainless steel inserts and bolts. This will allow for easy removal for replacement of damaged panels or to replace with an alternate color. The Contractor shall 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 shall be furnished and replaced by the Contractor. All costs associated with furnishing and installing the linear delineation system shall be included in the contract unit price per each for Linear Delineation System Panel, Barrier Mounted.

All linear delineation system panels shall remain attached to the barrier sections and shall become the property of the State of South Dakota upon completion of the project.

The Contractor shall 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 required.

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

TRAFFIC CONTROL MOVABLE CONCRETE BARRIERS

Concrete barriers will be provided by the State and are available for pickup from the SDDOT Maintenance Yard located adjacent to Sturgis Road approximately one mile north of Peaceful Pines Road in Blackhawk. The barriers shall be hauled back to the SDDOT Maintenance Yard located adjacent to Hwy 79 approximately two miles south of Rapid City when they are no longer needed on the project. The sloped end sections are available for pickup from the SDDOT Maintenance Yard located adjacent to Hwy 79 and shall be hauled back to this same yard when they are no longer needed on the project.

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

Concrete barrier sections shall be placed as depicted in the plans to comply with clear zone requirements and as required by the Engineer. The barriers shall be pinned and bolted together as directed by the Engineer.

Concrete barriers shall, at all times, be set on a flat surface for a minimum of 4' behind the barrier. Where 4' of flat surfacing is not attainable behind the barriers due to steep inslopes, the Contractor shall furnish and install Guardrail Post and Block behind the barriers at 6'-3" spacing. All costs associated with furnishing and installing Guardrail Post and Block shall be included in the contract unit price per each for Traffic Control Moveable Concrete Barriers.

All costs associated with picking up from the SDDOT Maintenance Yard, transporting, setting, connecting, and hauling back to the SDDOT Maintenance Yard shall be included in the contract unit price per each for Traffic Control Movable Concrete Barrier.

OVERWIDTH DETOUR SIGNING

Details of the approximate location of the Overwidth Detour Signing are as shown in these plans. Prior to installing the signs, the Contractor shall mark out the sign locations and review them with the Engineer.

Overwidth Detour Signing shall be furnished and installed by the Contractor as detailed in these plans. 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 shall remove the Overwidth Detour Signing. Overwidth Detour Signing shall be installed on fixed location, ground mounted, breakaway supports.

Payment for furnishing, installing, maintaining and removing the signs and the hardware shall be incidental to the contract unit price per square foot for Detour Signing.

HAZARD IDENTIFICATION BEACON

Hazard identification beacons (warning lights) will be utilized to supplement the retroreflectorization of channelizing devices and signs as shown in the plans and as directed by the Engineer. The beacon shall be a "Shielded Type B Warning Light" conforming to the latest edition of the MUTCD. Red color lens shall only be used on "Stop", "Do Not Enter" and "Wrong Way" signs. Yellow color lens shall be used on all other signs and channelizing devices.

Payment for hazard identification beacon will be at the contract unit bid price per site. A site is defined as each individual installation. The quantity of Hazard Identification Beacons paid will be the most installations in place at any one time regardless of the number of setups on the project. Payment will be for all costs to furnish, install, maintain, and remove hazard identification beacon.

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	090 W-468	C4	C18

INVENTORY OF TRAFFIC CONTROL DEVICES (PCN I39U)

SIGN CODE	SIGN SIZE	DESCRIPTION	NUMBER REQUIRED	UNITS PER SIGN	UNITS
G20-2	48" x 24"	END ROAD WORK	1	24	24
R2-1	36" x 48"	SPEED LIMIT ##	3	29	87
R2-6aP	36" x 24"	FINES DOUBLE	2	20	40
W3-5	48" x 48"	REDUCED SPEED LIMIT AHEAD	2	34	68
W4-2	48" x 48"	LEFT OR RIGHT LANE ENDS (SYMBOL)	2	34	68
W20-1	48" x 48"	ROAD WORK ##### FT. OR AHEAD	2	34	68
W20-5	48" x 48"	LT. OR RT. LANE CLOSED ##### FT. OR AHEAD	2	34	68
W20-7	48" x 48"	FLAGGER	1	34	34
*****		TYPE III BARRICADE - 8 FT. DOUBLE SIDED	1	56	56
TOTAL UNITS					513

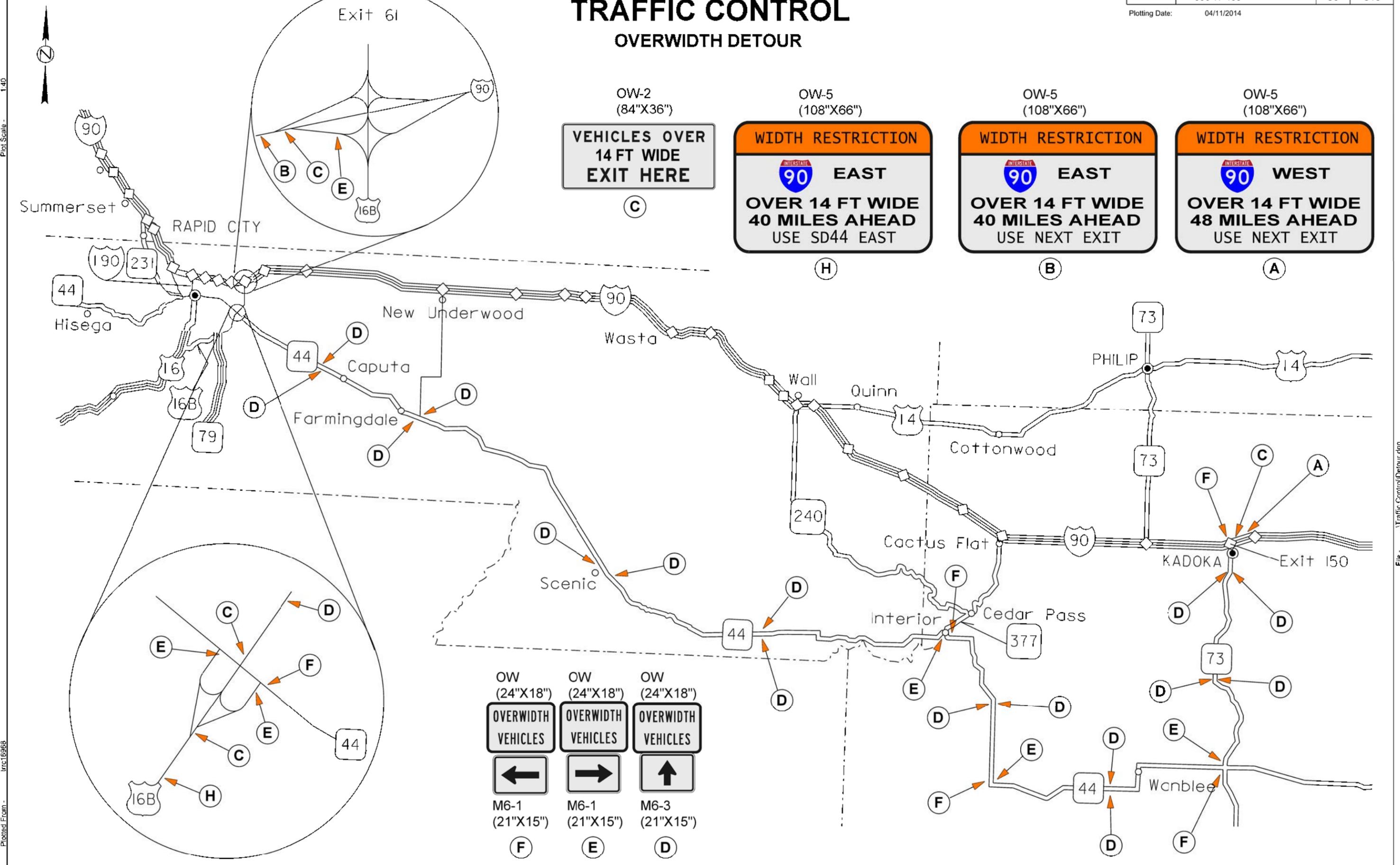
INVENTORY OF TRAFFIC CONTROL DEVICES (PCN I39V)

SIGN CODE	SIGN SIZE	DESCRIPTION	NUMBER REQUIRED	UNITS PER SIGN	UNITS
E5-2a	48" x 36"	EXIT CLOSED	2	29	58
G20-1	48" x 24"	ROAD WORK NEXT ## MILES	4	24	96
G20-2	48" x 24"	END ROAD WORK	4	24	96
G20-5aP	36" x 24"	WORK ZONE	2	20	40
R1-1	30" x 30"	STOP	2	21	42
R1-2	60" x 60"	YIELD	1	44	44
R2-1	36" x 48"	SPEED LIMIT ##	14	29	406
R2-6aP	36" x 24"	FINES DOUBLE	11	20	220
R4-1	36" x 48"	DO NOT PASS	2	29	58
R4-7	36" x 48"	KEEP RIGHT (SYMBOL)	1	29	29
R5-1	36" x 36"	DO NOT ENTER	2	27	54
R11-2	48" x 30"	ROAD CLOSED	1	27	27
W1-3	48" x 48"	REVERSE TURN SIGN (LEFT OR RIGHT)	1	34	34
W1-4	48" x 48"	REVERSE CURVE SIGN (LEFT OR RIGHT)	3	34	102
W1-6	60" x 30"	ONE DIRECTION LARGE ARROW	2	30	60
W3-1	48" x 48"	STOP AHEAD (SYMBOL)	2	34	68
W3-2	48" x 48"	YIELD AHEAD (SYMBOL)	1	34	34
W3-5	48" x 48"	REDUCED SPEED LIMIT AHEAD	10	34	340
W4-1	48" x 48"	MERGE (SYMBOL)	2	34	68
W4-2	48" x 48"	LEFT OR RIGHT LANE ENDS (SYMBOL)	4	34	136
W6-3	48" x 48"	TWO WAY TRAFFIC (SYMBOL)	2	34	68
W7-3aP	36" x 30"	NEXT ## MILES (plaque)	2	23	46
W13-1P	30" x 30"	ADVISORY SPEED PLATE	5	21	105
W20-1	48" x 48"	ROAD WORK ##### FT. OR AHEAD	8	34	272
W20-4	48" x 48"	ONE LANE ROAD ##### FT. OR AHEAD	2	34	68
W20-5	48" x 48"	LT. OR RT. LANE CLOSED ##### FT. OR AHEAD	8	34	272
W20-7	48" x 48"	FLAGGER	3	34	102
SPECIAL	60" x 54"	EXIT XXX CLOSED AHEAD USE EXIT XXX	1	41	41
SPECIAL	48" x 54"	EXIT XXX CLOSED USE NEXT EXIT	1	36	36
SPECIAL	36" x 32"	EXIT GORE	1	24	24
*****		FLAGS	4	10	40
*****		TYPE III BARRICADE - 8 FT. DOUBLE SIDED	9	56	504
TOTAL UNITS					3590

TRAFFIC CONTROL

OVERWIDTH DETOUR

Plot Scale - 1:40



OW-2
(84\"X36\")

VEHICLES OVER 14 FT WIDE EXIT HERE

(C)

OW-5
(108\"X66\")

WIDTH RESTRICTION

90 EAST

OVER 14 FT WIDE 40 MILES AHEAD USE SD44 EAST

(H)

OW-5
(108\"X66\")

WIDTH RESTRICTION

90 EAST

OVER 14 FT WIDE 40 MILES AHEAD USE NEXT EXIT

(B)

OW-5
(108\"X66\")

WIDTH RESTRICTION

90 WEST

OVER 14 FT WIDE 48 MILES AHEAD USE NEXT EXIT

(A)

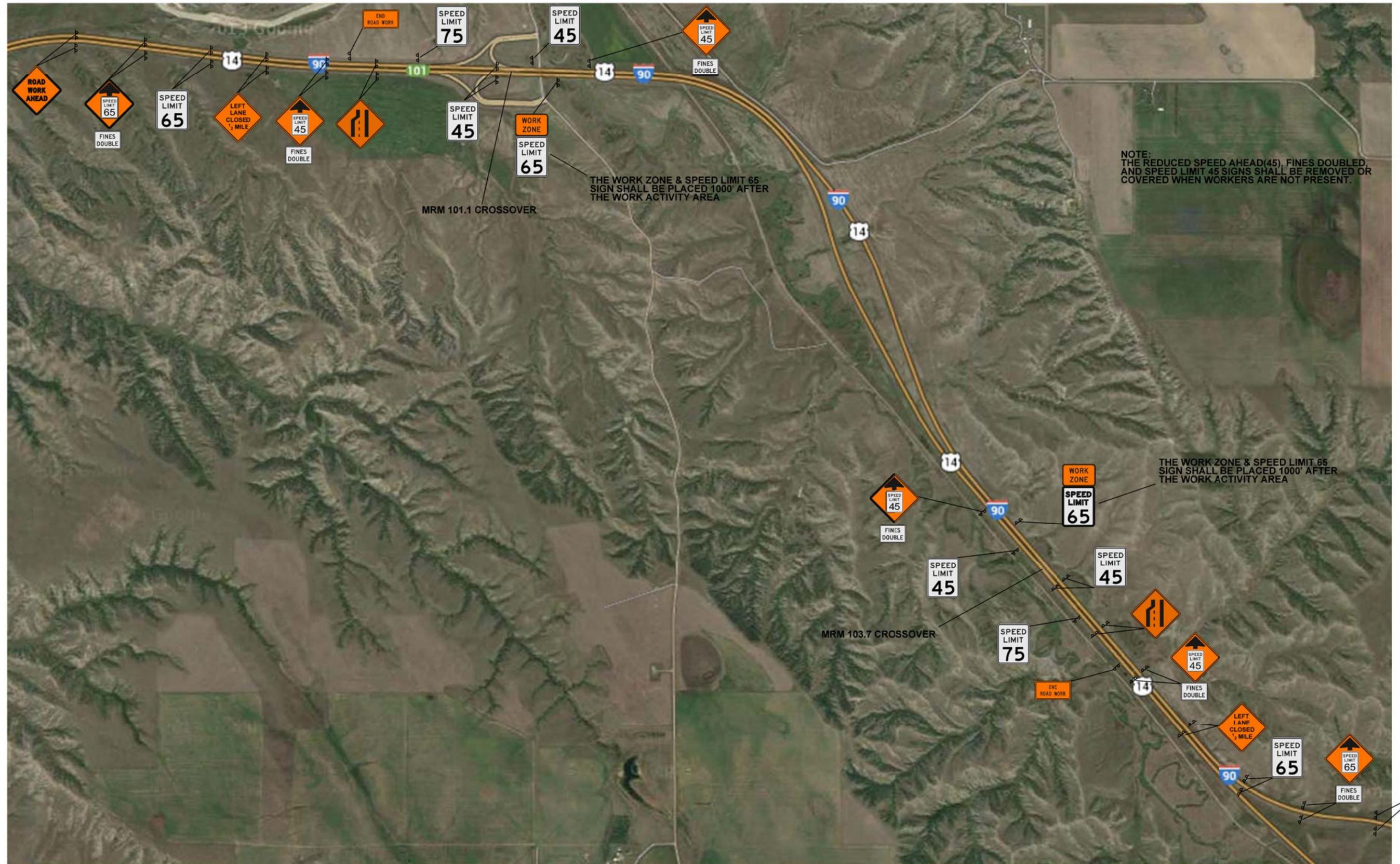
OW (24\"X18\")	OW (24\"X18\")	OW (24\"X18\")
OVERWIDTH VEHICLES	OVERWIDTH VEHICLES	OVERWIDTH VEHICLES
M6-1 (21\"X15\")	M6-1 (21\"X15\")	M6-3 (21\"X15\")
(F)	(E)	(D)

Plotted From - jrc:16988

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TRAFFIC CONTROL

I-90 LANE CLOSURES



Plot Scale - 1:40

Plotted From - trcc16988

TRAFFIC CONTROL

I-90 BARRIER LAYOUT

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	090 W-468	C7	C18
Plotting Date: 04/10/2014			



TEMPORARY CONCRETE
BARRIER END PROTECTION

23 MOVEABLE CONCRETE BARRIERS. START FIRST BARRIER
PERPENDICULAR FROM THE EAST COLUMN OF BENT#3 OF JENSEN
ROAD BRIDGE. BARRIERS SHALL BE SET 4' OFF THE EDGELINE.

9 MOVEABLE CONCRETE BARRIERS.
START FIRST BARRIER PERPENDICULAR
FROM THE EAST COLUMN OF BENT#4
OF JENSEN ROAD BRIDGE. BARRIERS
SHALL BE SET 6' OFF THE EDGELINE.

TEMPORARY CONCRETE
BARRIER END PROTECTION

█ - MOVEABLE CONCRETE BARRIER

▬ - TEMPORARY CONCRETE BARRIER END PROTECTION



TRAFFIC CONTROL

I-90 BARRIER LAYOUT

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	090 W-468	C8	C18

Plotting Date: 04/10/2014



 - MOVEABLE CONCRETE BARRIER

 - TEMPORARY CONCRETE BARRIER END PROTECTION

TRAFFIC CONTROL

EXIT 101 CLOSURE

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	090 W-468	C9	C18

Plotting Date: 04/15/2014

Plot Scale - 1:40



Plotted From - lrrc16988

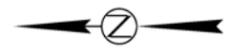
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STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	090 W-468	C10	C18

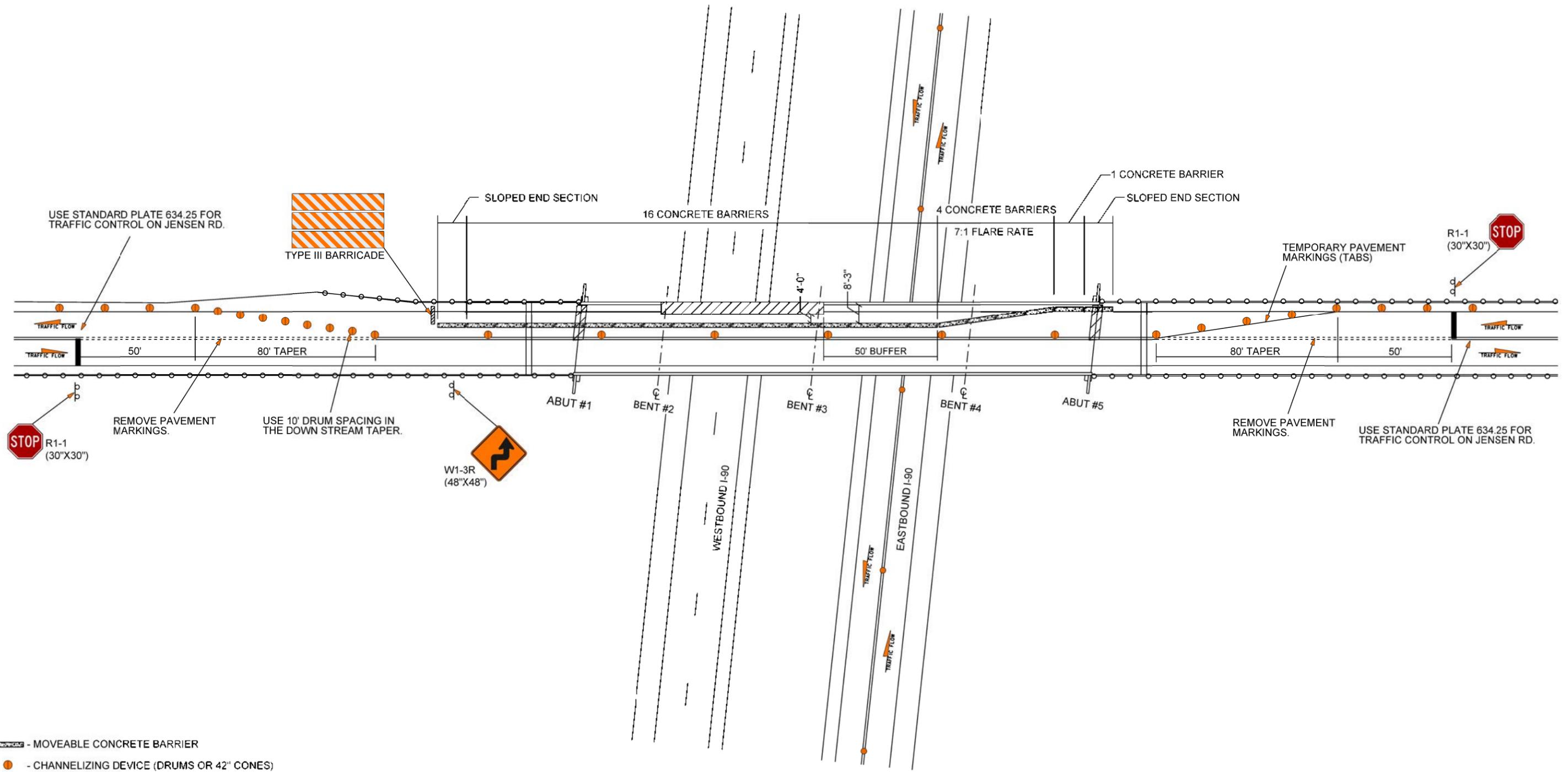
Plotting Date: 04/10/2014

TRAFFIC CONTROL

EXIT 101 - JENSEN ROAD



Plot Scale - 1:40



- MOVEABLE CONCRETE BARRIER
- CHANNELIZING DEVICE (DRUMS OR 42" CONES)
- WORK AREA

- SIGN SPACING, BARREL SPACING AND TAPER LENGTHS SHALL CONFORM TO STANDARD PLATES.

Plotted From - Irrc16988

File - ...Exit 101 Jensen Road.dgn

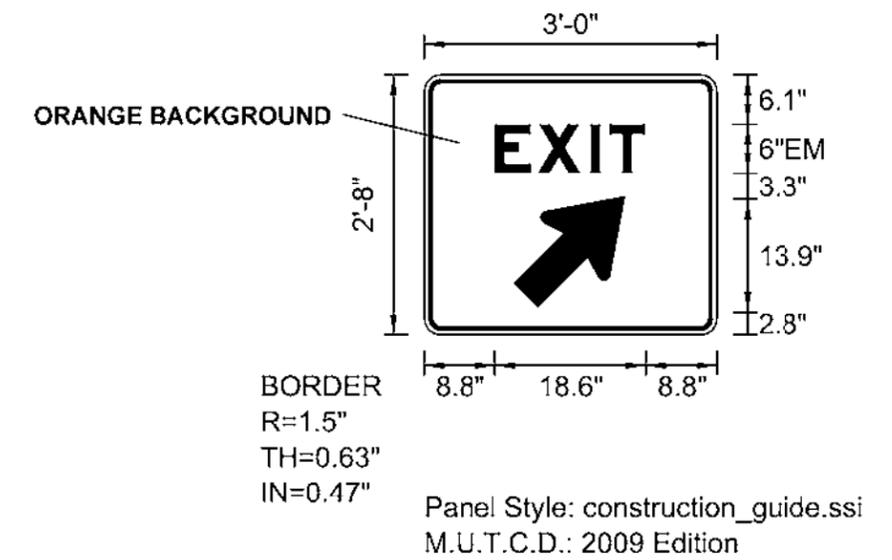
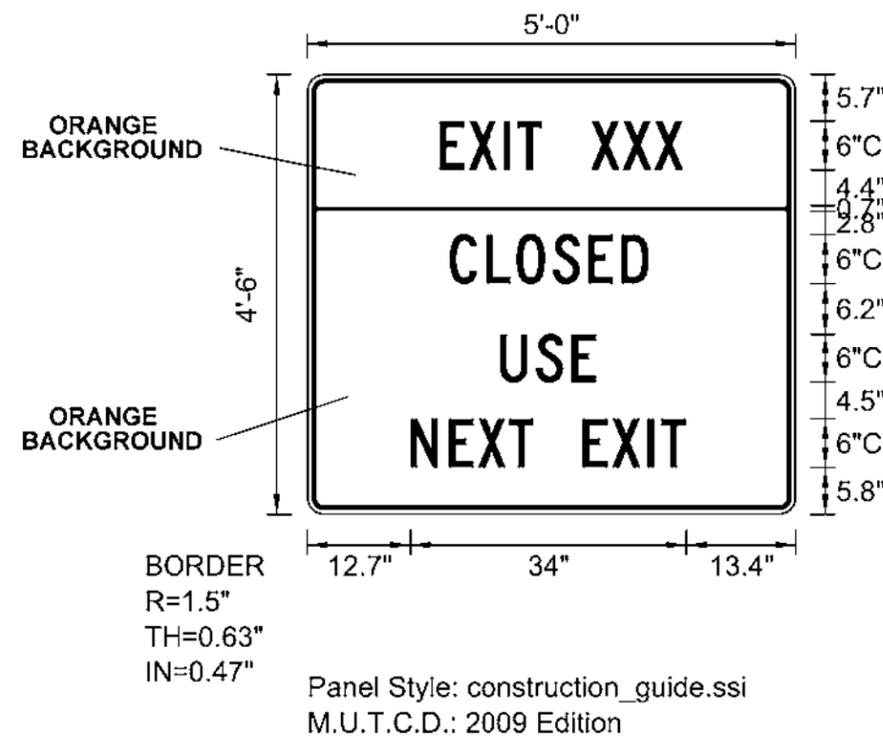
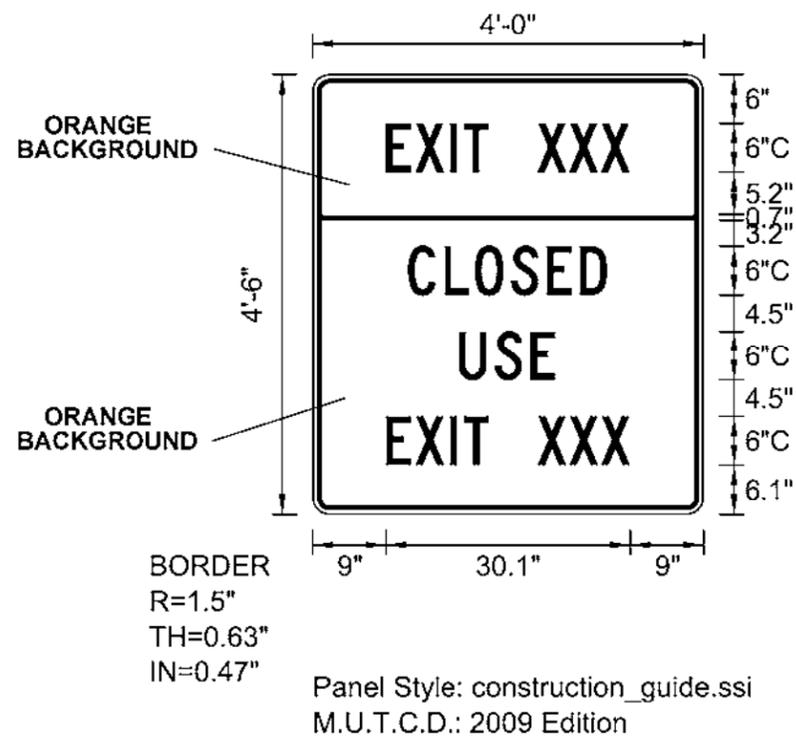
STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	090 W-468	C11	C18

Plotting Date: 04/15/2014

TRAFFIC CONTROL

SPECIAL SIGN DETAILS

Plot Scale - 1:40



Plotted From - lrrc16988

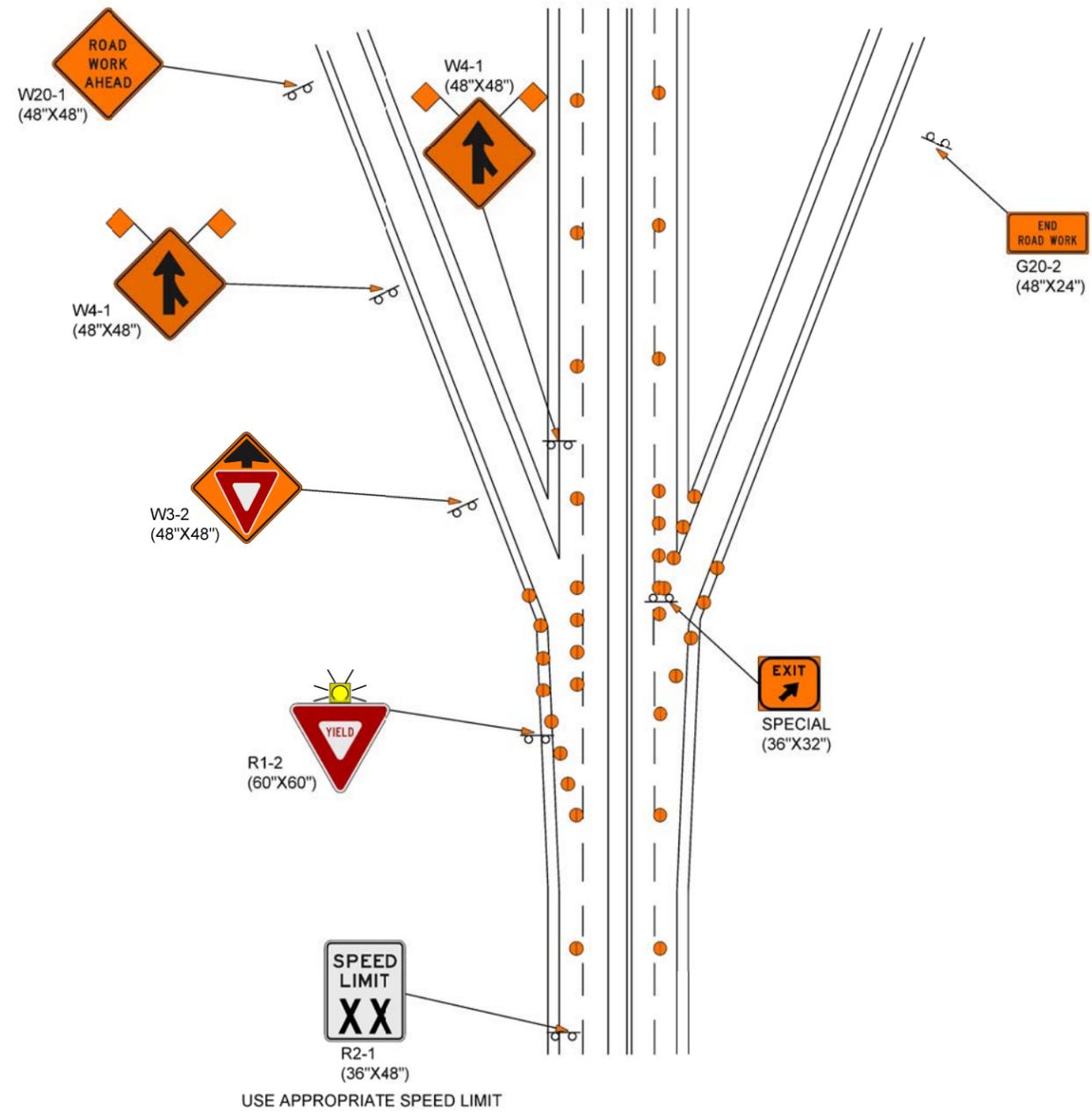
File - ...Special Sign Details.dgn

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	090 W-468	C12	C18

Plotting Date: 03/28/2014

TRAFFIC CONTROL

RAMP ENTRANCE AND EXIT SIGNING DETAILS #1



 THE WARNING LIGHT SHALL BE A SHIELDED TYPE B, IN ACCORDANCE WITH THE MUTCD AND SHALL BE PAID FOR AT THE CONTRACT UNIT PRICE PER SITE FOR "HAZARD IDENTIFICATION BEACON"

Plot Scale - 1:40

Plotted From - trc16988

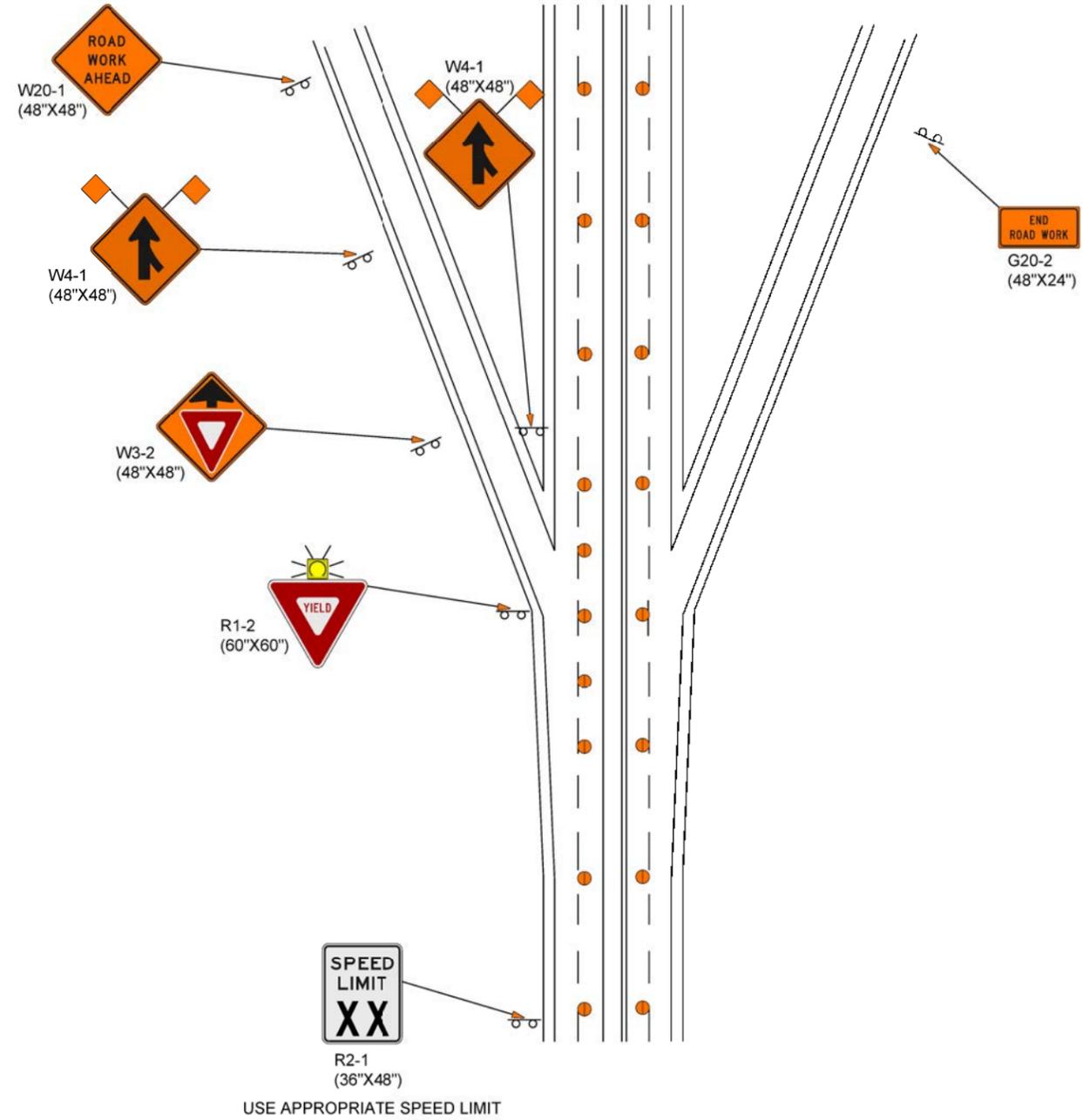
File - ...Typical ramp signing details.dgn

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	090 W-468	C13	C18

Plotting Date: 03/28/2014

TRAFFIC CONTROL

RAMP ENTRANCE AND EXIT SIGNING DETAILS #2



USE APPROPRIATE SPEED LIMIT

 THE WARNING LIGHT SHALL BE A SHIELDED TYPE B. IN ACCORDANCE WITH THE MUTCD AND SHALL BE PAID FOR AT THE CONTRACT UNIT PRICE PER SITE FOR "HAZARD IDENTIFICATION BEACON"

The Contractor will ensure the entire width of the Barriers are installed on a level surface.

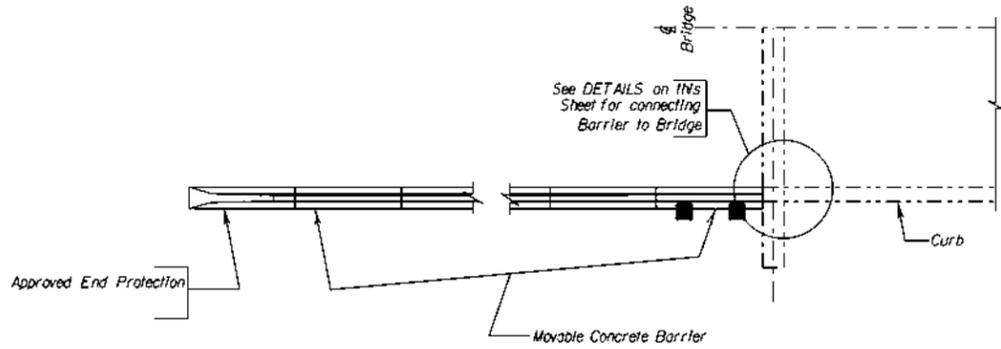
ATTACHMENT OF MOVABLE CONCRETE BARRIERS TO BRIDGE ENDS

STATE OF SOUTH DAKOTA	PROJECT 090 W-468	SHEET C14	TOTAL SHEETS C18
-----------------------	----------------------	--------------	---------------------

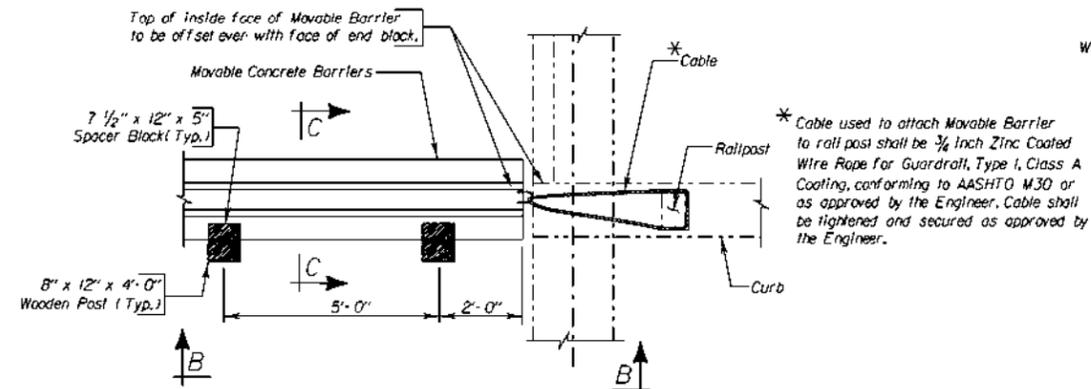
Plotting Date: 04/10/2014
Revised: 09-06-2012 LLA

PLOT SCALE - 1:32,9427

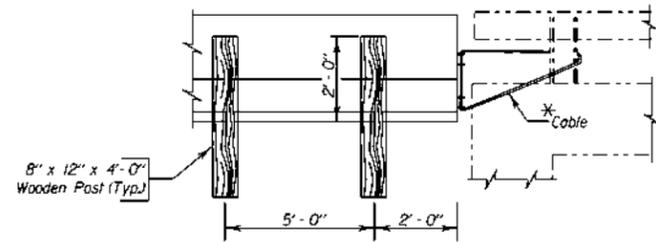
PLOT NAME - ... \GUARDRAIL MOVABLE BARRIERS.DGN



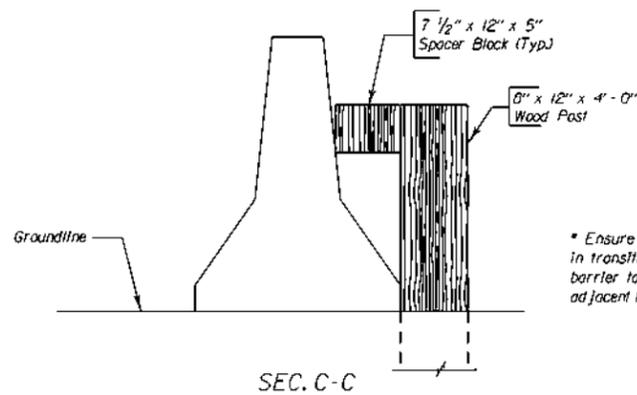
LAYOUT OF MOVABLE CONCRETE BARRIER AT BRIDGE ENDS



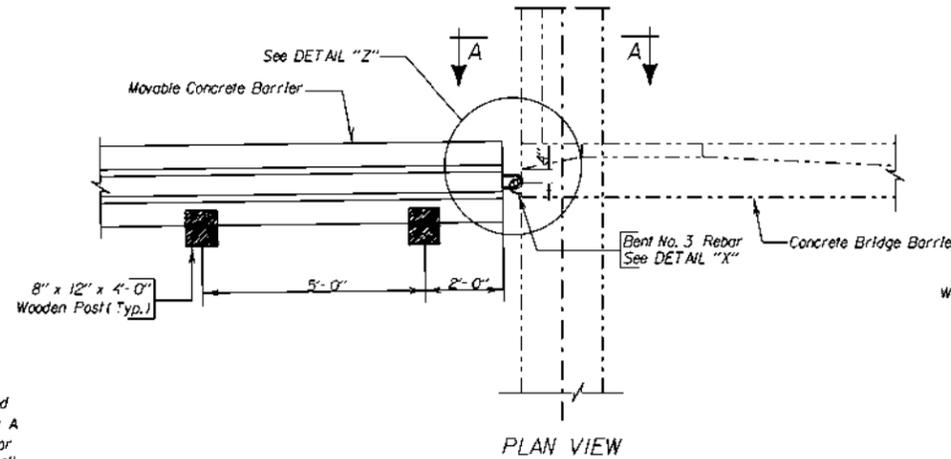
PLAN VIEW
MOVABLE BARRIER FASTENED TO BRIDGE RAIL POST



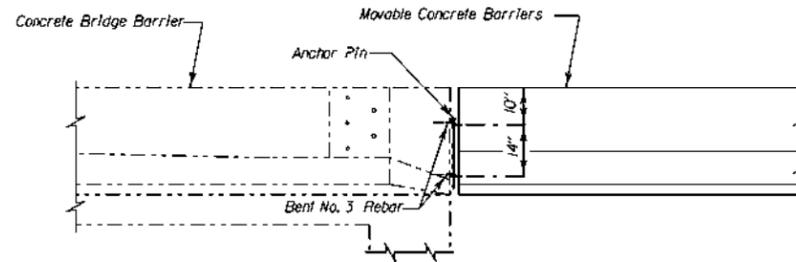
VIEW B - B



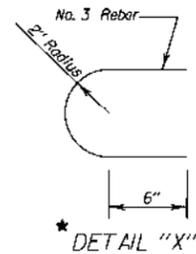
SEC. C - C



PLAN VIEW
MOVABLE BARRIER FASTENED TO CONCRETE BARRIER



VIEW A - A



DETAIL "X"

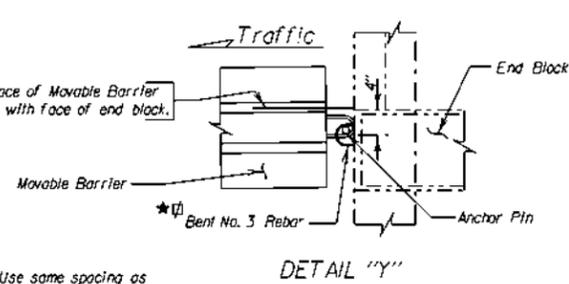
*Drill in and epoxy No. 3 Rebar. See notes under "Installing Dowels in Concrete". Minimum Embedment of 4".

PLAN VIEW
MOVABLE BARRIER FASTENED TO BRIDGE END BLOCK

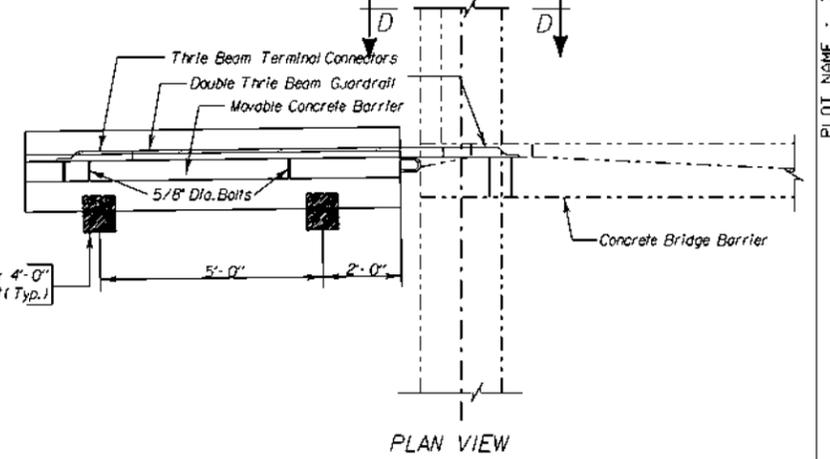
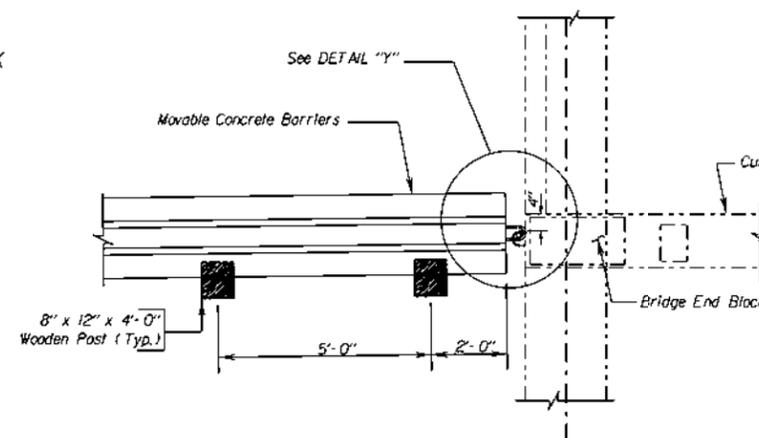
*Top of inside face of Movable Barrier to be offset even with face of end block.

*Ensure no snag point in transition from temporary barrier to bridge rail for adjacent lane of traffic.

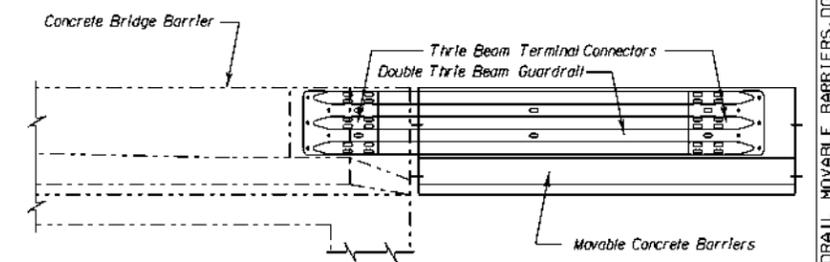
⊕ Use same spacing as shown in VIEW A - A.



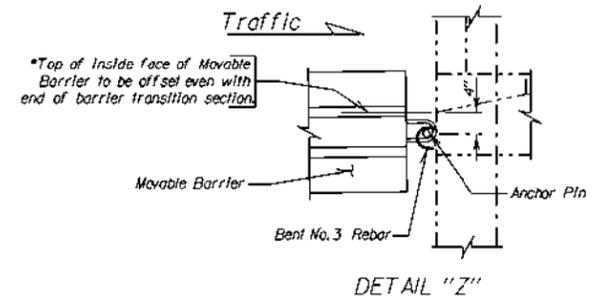
DETAIL "Y"



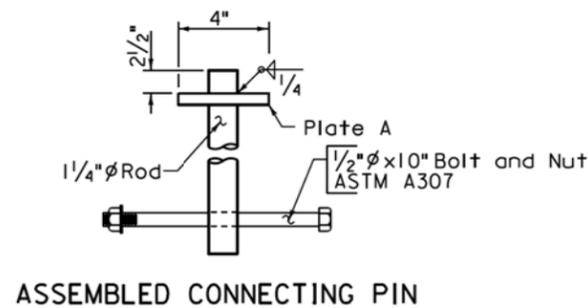
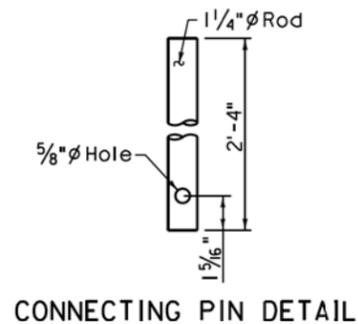
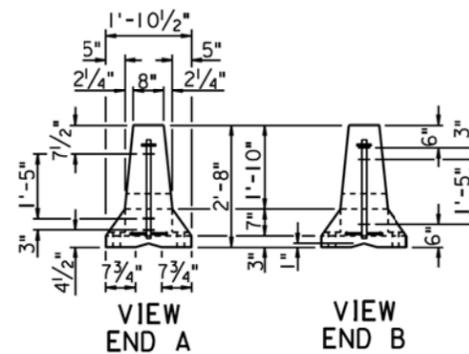
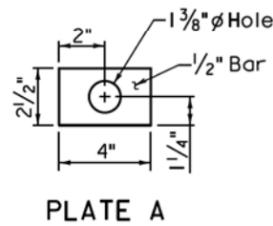
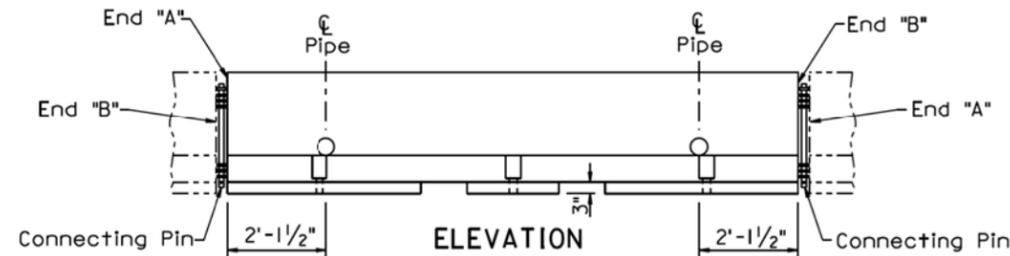
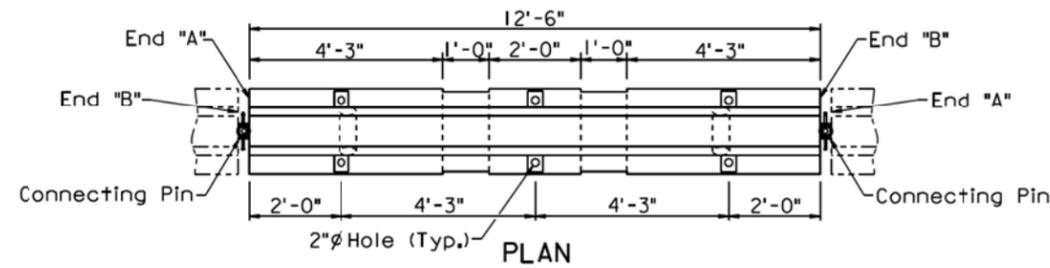
PLAN VIEW
MOVABLE BARRIER FASTENED TO CONCRETE BARRIER



VIEW D - D



DETAIL "Z"



June 26, 2009

June 26, 2009

Published Date: 1st Qtr. 2014	S D D O T	TRAFFIC CONTROL MOVABLE CONCRETE BARRIERS (F SHAPE INTERIOR SECTION)	PLATE NUMBER 628.01
			Sheet 1 of 2

Published Date: 1st Qtr. 2014	S D D O T	TRAFFIC CONTROL MOVABLE CONCRETE BARRIERS (F SHAPE INTERIOR SECTION)	PLATE NUMBER 628.01
			Sheet 2 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 shall be constructed according to the F shape movable concrete barrier details on standard plate 628.10.

Each movable concrete barrier section weighs 5030 \pm 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 shall be used for each run of barriers.

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

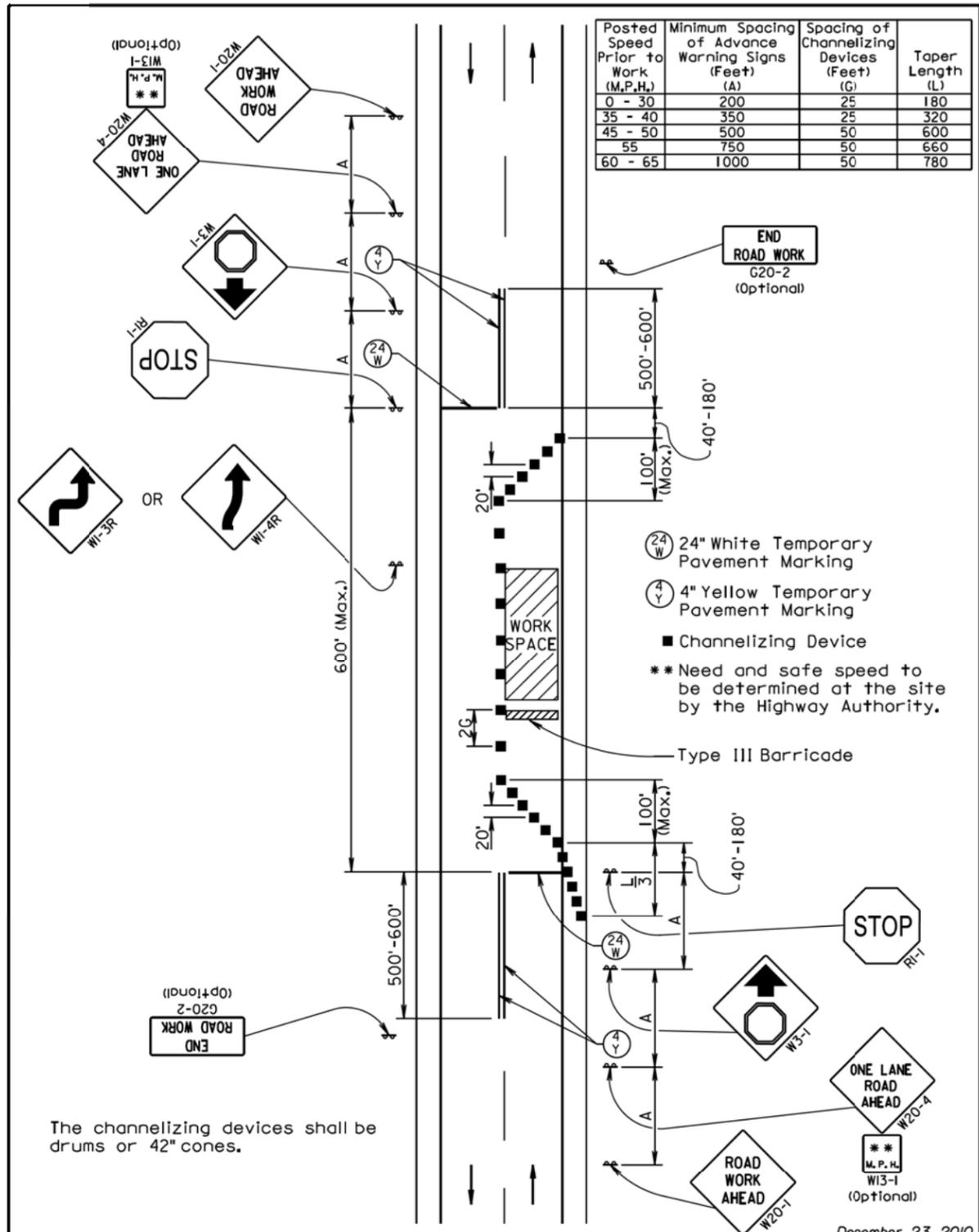
Movable concrete barrier sections shall never be moved or lifted using the end loops.

Movable concrete barrier sections that have been damaged shall 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 shall be incidental to the contract unit price per each for "Traffic Control Movable Concrete Barrier".

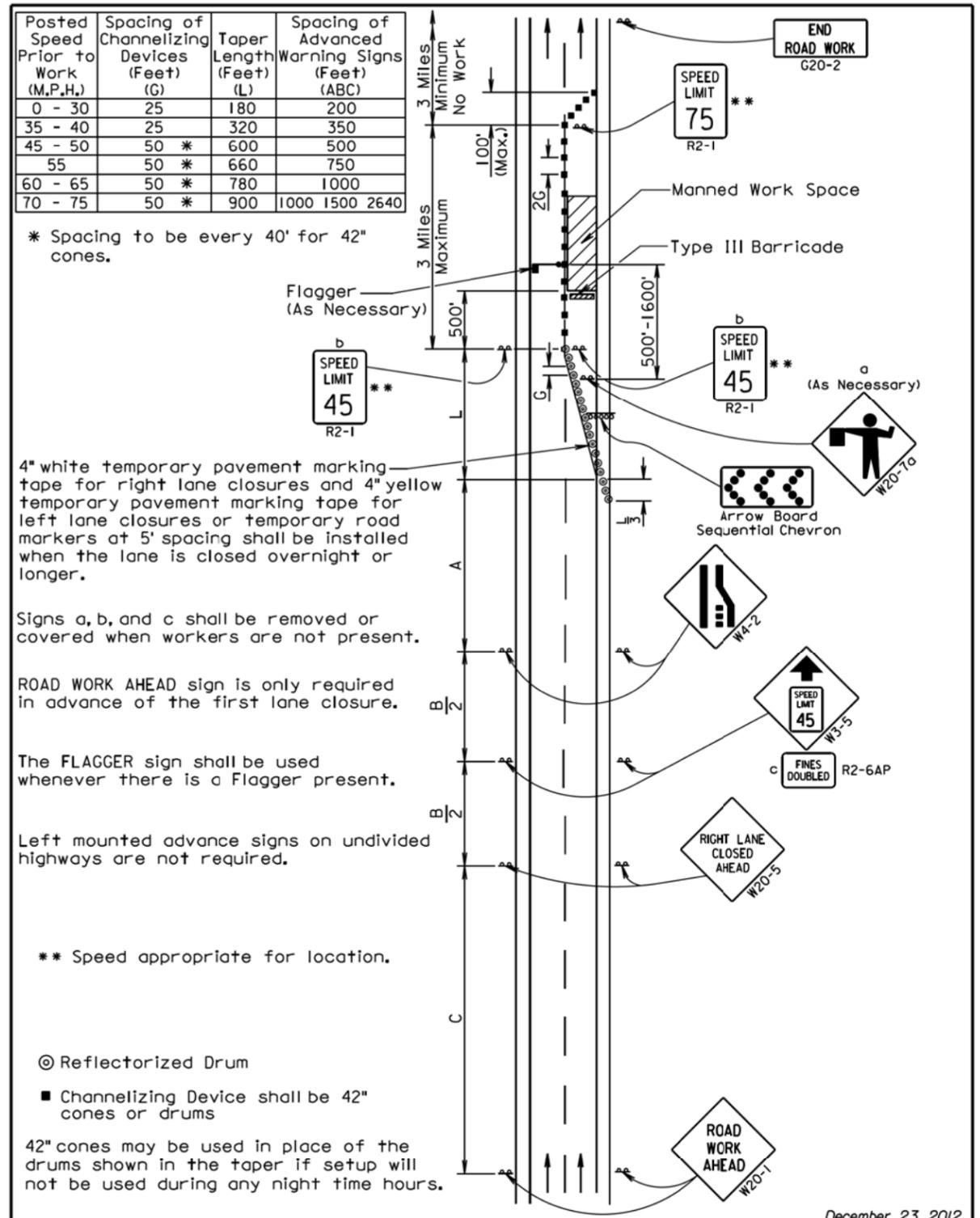
If the concrete barriers need to be moved and reset on the project, requiring the barriers to be transported by truck, all cost for removing, transporting, and resetting the barriers shall be incidental to the contract unit price per each for "Remove and Reset Traffic Control Movable Concrete Barrier".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

Plot Scale - 1:200



December 23, 2010

S D D O T	GUIDES FOR TRAFFIC CONTROL DEVICES LANE CLOSURE USING STOP SIGNS	PLATE NUMBER 634.25
	Published Date: 1st Qtr. 2014	Sheet 1 of 1



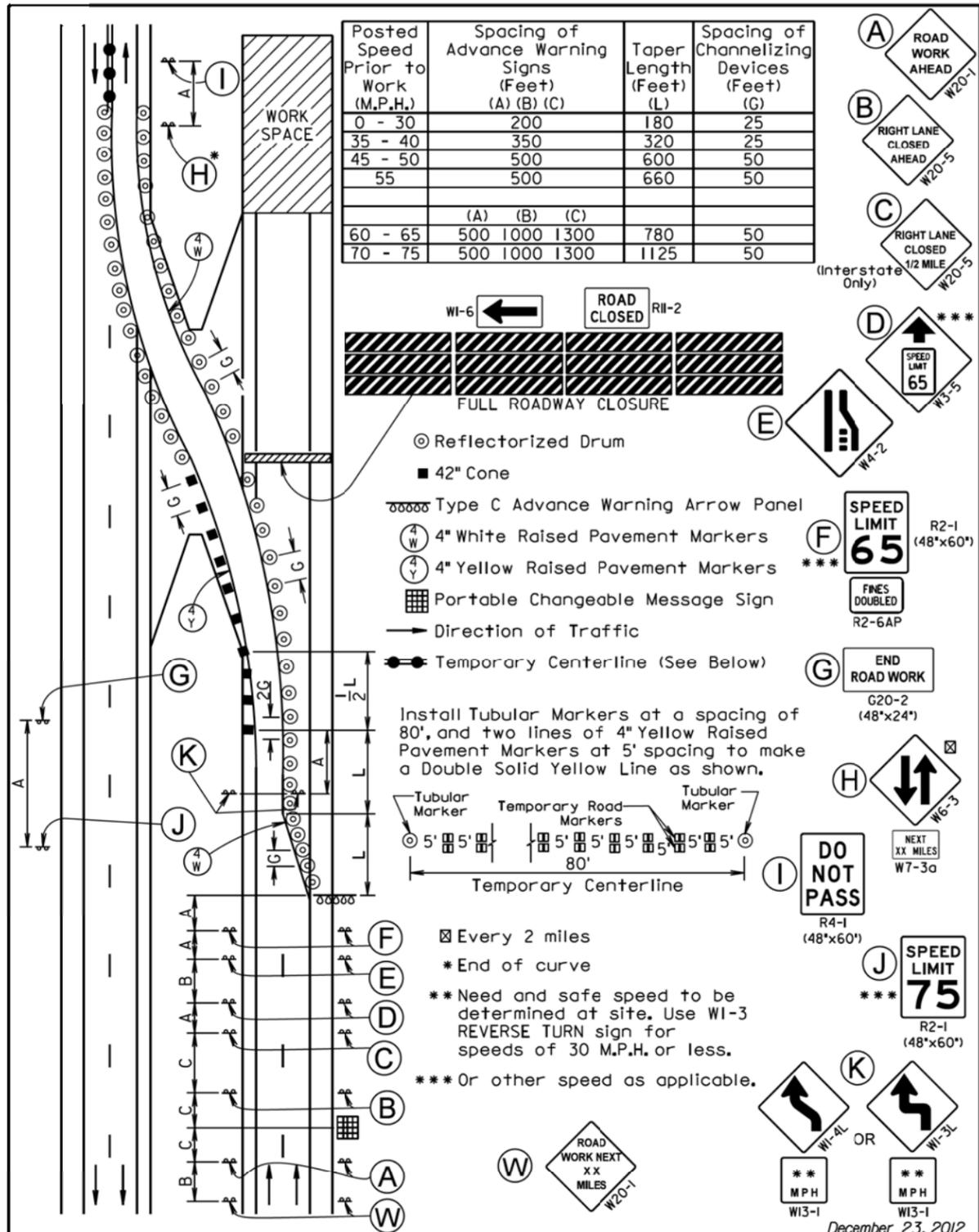
December 23, 2012

S D D O T	MANNED WORK SPACE SIGNING FOR DIVIDED AND UNDIVIDED HIGHWAYS	PLATE NUMBER 634.63
	Published Date: 1st Qtr. 2014	Sheet 1 of 1

- Plotted From - Irrc:16988

File - ...Standard Plates.dgn

Plot Scale - 1:200



SD DOT

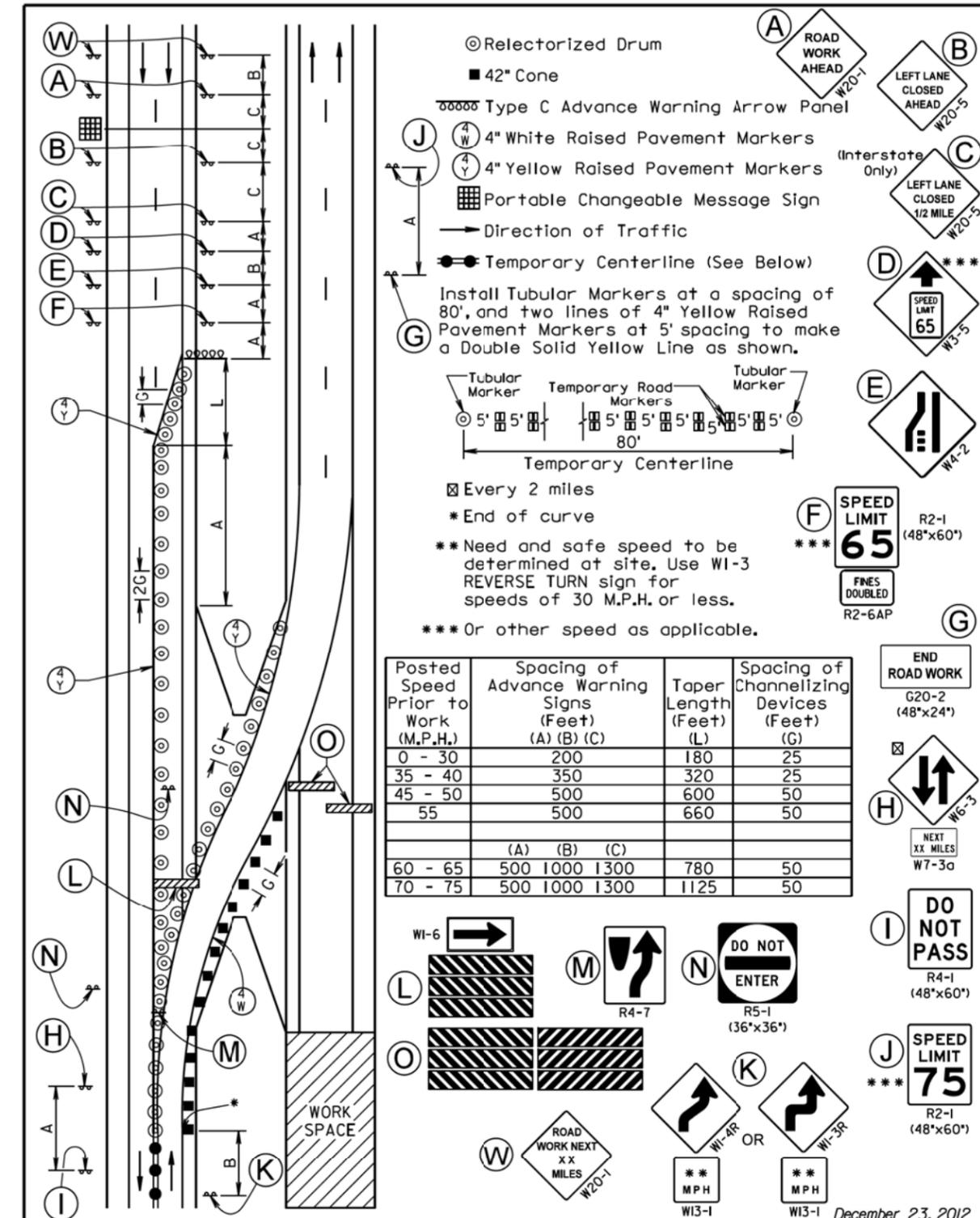
**GUIDES FOR TRAFFIC CONTROL DEVICES
MEDIAN CROSSOVER ON DIVIDED HIGHWAY**

PLATE NUMBER 634.66

Sheet 1 of 2

Published Date: 1st Qtr. 2014

December 23, 2012



SD DOT

**GUIDES FOR TRAFFIC CONTROL DEVICES
MEDIAN CROSSOVER ON DIVIDED HIGHWAY**

PLATE NUMBER 634.66

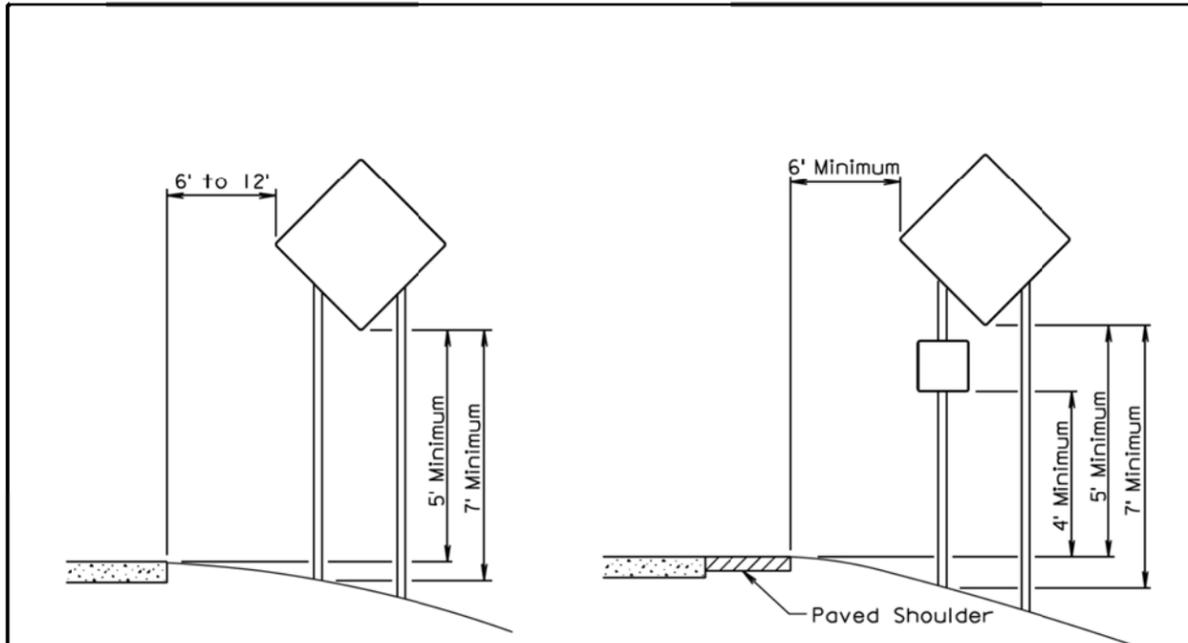
Sheet 2 of 2

Published Date: 1st Qtr. 2014

December 23, 2012

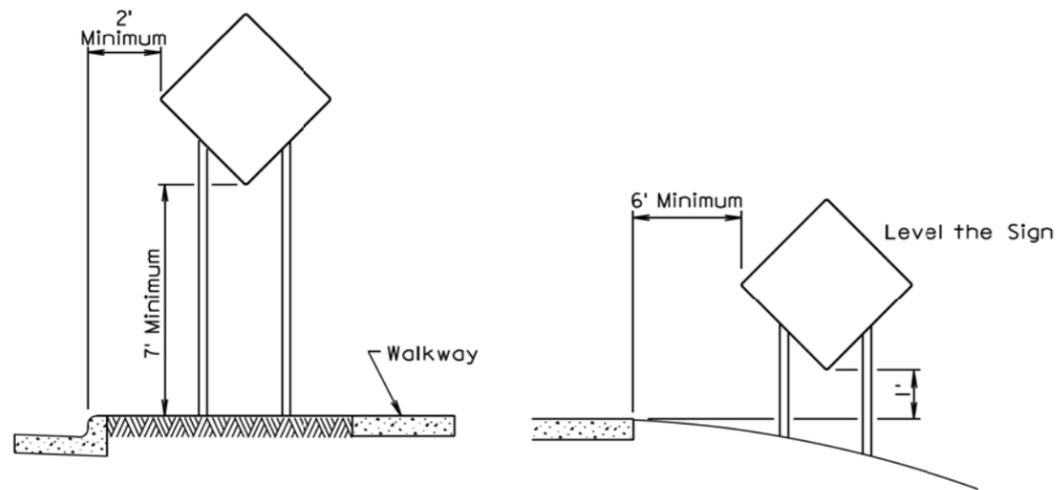
- Plotted From - Ircr16988

File - ...Standard Plates.dgn



RURAL DISTRICT

RURAL DISTRICT WITH SUPPLEMENTAL PLATE

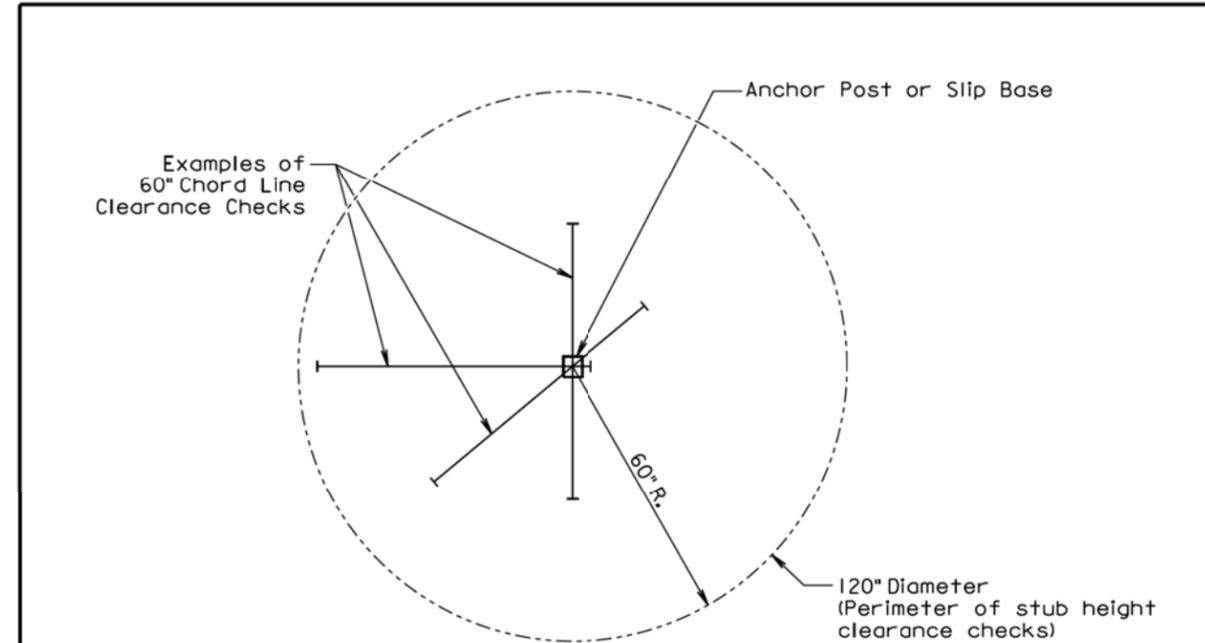


URBAN DISTRICT

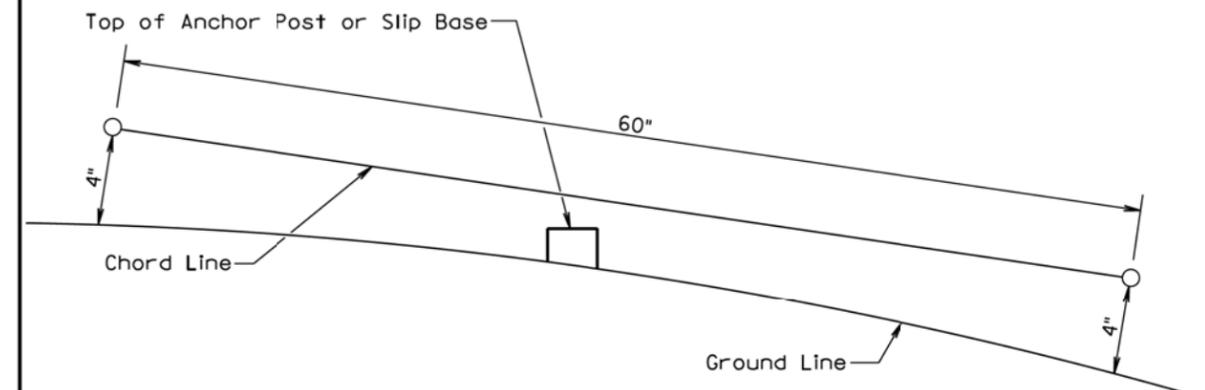
RURAL DISTRICT 3 DAY MAXIMUM

February 14, 2011

Published Date: 1st Qtr. 2014	S D D O T	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 SHALL NOT extend above a 60° chord line within a 120" diameter circle around the post with ends 4" above the ground.

At locations where there is curb and gutter adjacent to the breakaway sign support, the stub height shall be a maximum of 4" above the ground line at the localized area adjacent to the breakaway support stub.

The 4" stub height clearance is not necessary for U-channel lap splices where the support is designed to yield (bend) at the base.

July 1, 2005

Published Date: 1st Qtr. 2014	S D D O T	BREAKAWAY SUPPORT STUB CLEARANCE	PLATE NUMBER 634.99
			Sheet 1 of 1