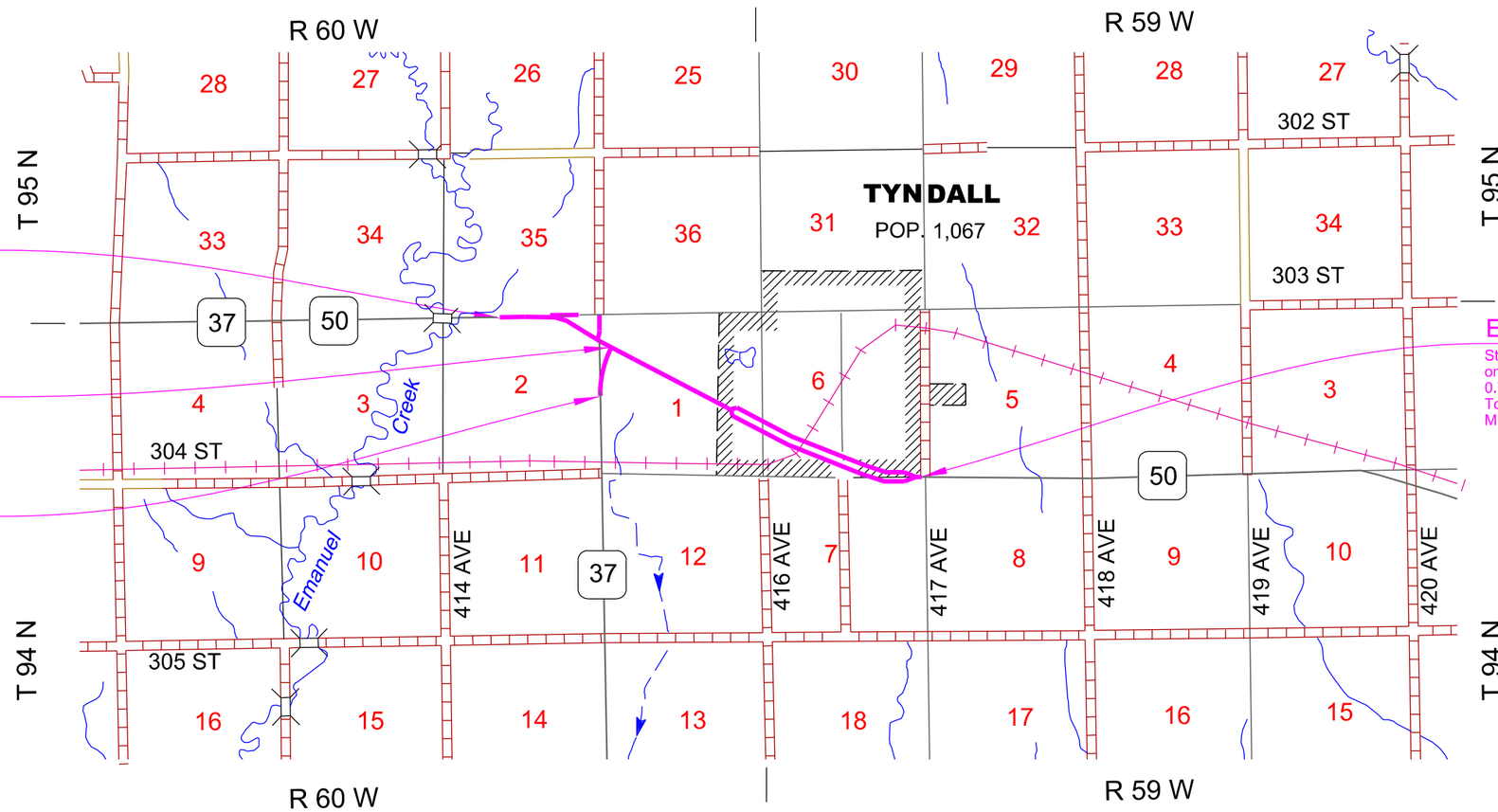
SECTION S: PERMANENT SIGNING PLANS

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	NH-PH 0050(116)354 P 0037(168)19	S1	S37

Plotting Date: 12/09/2024

INDEX OF SHEETS



BEGIN NH-PH 0050(116)354
Station -9+51.75 = Station -9+51.75
on F 473(1) Approximately 2003.26' East and
66.71' North of the Southwest corner of Section 35 -
Township 95 North - Range 60 West of the 5th PM
MRM: 354.00+0.283

END P 0037(168)19
Station 478+04.62 = Station 8+13.1
on FAP 167A(3) Approximately 1058.45' South and
495.45' East of the Northwest corner of Section 1
Township 94 North - Range 60 West of the 5th PM
MRM: 355.00+0.031

BEGIN P 0037(168)19
Station 459+89.26 = Station 459+89.30
on PH 0037(139)11 Approximately 2420.36' North and
111.73' West of the Southwest corner of Section 1 -
Township 94 North - Range 60 West of the 5th PM
MRM: 020.00+0.027

END NH-PH 0050(116)354
Station 141+64.11 = Station 141+64.11
on F 473(1) Approximately 91.06' West and
0.77' North of the Southwest corner of Section 5 -
Township 94 North - Range 59 West of the 5th PM
MRM: 357.14+0.037

REVISED 02/06/25 GB

ESTIMATE OF QUANTITIES – 04K7

BID ITEM NUMBER	ITEM	QUANTITY	UNIT
110E0100	Remove Concrete Footing(s)	Lump Sum	LS
110E0130	Remove Traffic Sign	122	Each
110E0135	Remove Delineator	28	Each
110E7150	Remove Sign for Reset	2	Each
632E1320	2.0"x2.0" Perforated Tube Post	236.5	Ft
632E1340	2.5"x2.5" Perforated Tube Post	333.6	Ft
632E2022	4"x4" White Delineator Back to Back with 1.12 Lb/Ft Post	16	Each
632E2028	4" Tubular White Delineator with 1.12 Lb/Ft Post	12	Each
632E2510	Type 2 Object Marker Back to Back	32	Each
632E3203	Flat Aluminum Sign, Nonremovable Copy High Intensity	420.1	SqFt
632E3205	Flat Aluminum Sign, Nonremovable Copy Super/Very High Intensity	97.6	SqFt
632E3500	Reset Sign	2	Each

ESTIMATE OF QUANTITIES – 080L

BID ITEM NUMBER	ITEM	QUANTITY	UNIT
110E0130	Remove Traffic Sign	9	Each
110E0135	Remove Delineator	3	Each
632E1320	2.0"x2.0" Perforated Tube Post	58.3	Ft
632E1340	2.5"x2.5" Perforated Tube Post	62.8	Ft
632E2022	4"x4" White Delineator Back to Back with 1.12 Lb/Ft Post	3	Each
632E3203	Flat Aluminum Sign, Nonremovable Copy High Intensity	94.6	SqFt
632E3205	Flat Aluminum Sign, Nonremovable Copy Super/Very High Intensity	14.2	SqFt

GENERAL PERMANENT SIGNING

New sign installations will be staked in the field by the Contractor and checked by the Engineer. The Contractor will give the Engineer a minimum of one week to check staked locations prior to signpost installation. Lateral offset of signs will be as shown in the plans or as directed by the Engineer.

The Contractor will be responsible for contacting South Dakota One Call to locate the utilities at the staked sign installation locations.

When signs are mounted in an assembly, they will be 1-2 inches apart vertically and horizontally.

The height of the post must not exceed the minimum height needed by more than 0.5 feet. Any portion that extends above the sign will be cut off. No separate payment will be made for cutting the post or for that length cut off.

Aluminum U-Channel stiffeners will be used on all signs 36 inches or greater in width and will conform to ASTM B221 Alloy 6063-T6 or 6061-T6. The U-Channel will be 2 inches in width and free of holes. The U-Channel stiffeners will also be used to connect various signs together so that an entire sign assembly can be erected on a single installation. Stiffeners may be fastened to signs by use of 1/4-inch diameter drive rivets.

The Contractor will use 3/8-inch diameter rust proof machine sign bolts, flat metal washers, neoprene washers (against the sign sheeting), lock washers, and nuts to fasten the sign to the channel aluminum and posts. A minimum of two bolts will extend through each post.

GENERAL PERMANENT SIGNING (CONTINUED)

Prior to ordering signs, the Contractor will verify dimensions, background, border, and legend of the signs.

Prior to use, the Contractor will provide documentation for the sign support devices showing they meet the applicable NCHRP 350 or MASH requirements.

REMOVE TRAFFIC SIGN

Existing signs that are shown as being removed in the Permanent Signing Table will become the property of the Contractor. Existing signposts and bases will be removed in their entirety. All existing signs, posts, and/or hardware removed will not be reused. Holes remaining from the removal of wood posts will be backfilled and compacted with material placed in layers not to exceed 6 inches in depth.

All costs associated with the removal of existing signs, posts, hardware, and backfilled holes will be incidental to the contract unit price per each for “Remove Traffic Sign”. Quantities will be per assembly at the contract unit price per each.

REMOVE SIGN FOR RESET AND RESET SIGN

Signs that are scheduled for reset will be dismantled and reassembled to the extent needed by the Contractor to properly reset the sign. Signs will be handled with care so that the existing signs, posts, and bases are not damaged during the relocation process. The Contractor will replace and pay for any reset signs damaged in their care. The Contractor will remove and dispose of any existing posts for all reset signs that require use of new posts as shown in the Table of Permanent Signing.

All costs for removing, dismantling, and disposing of any existing posts will be incidental to the contract unit price per each for “Remove Sign for Reset”. All costs for resetting the existing signs will be incidental to the contract unit price per each for “Reset Sign”. All quantities for Remove Sign for Reset and Reset Sign will be per assembly at the contract unit price per each.

NEW PERMANENT SIGNING

All signs will be manufactured in accordance with the sheeting manufacturer’s recommendations utilizing a matched component system, including inks, electronic cuttable films, and protective overlay films. Digitally printed signs will not be accepted.

All Flat Aluminum Signs, Nonremovable Copy High Intensity will have sheeting in conformance with the requirements of ASTM D4956 Type IV. All Flat Aluminum Signs, Nonremovable Copy Super/Very High Intensity will have sheeting in conformance with the requirements of ASTM D4956 Type XI.

The minimum spacing between multiple signposts is 7 feet.

All costs associated with furnishing and installing the new permanent signs, and with furnishing and installing stiffeners and hardware will be incidental to the contract unit price per square foot for Flat Aluminum Sign, Nonremovable Copy High Intensity or Flat Aluminum Sign, Nonremovable Copy Super/Very High Intensity.

All flat aluminum signs will be 0.100” flat sheet aluminum.

All auxiliary signs used with South Dakota state route markers will have green borders with black legend or symbol on a high intensity white background.

No Passing Zone warning signs are to be installed at the beginning of the No Passing Zone marking for each direction of travel. The NO PASSING ZONE pennants’ stationings in the table are estimates and the exact locations are to be determined by the State.

DIGITALLY PRINTED SIGNS

Digitally printed signs will be allowed on this project. If the Contractor elects to provide digitally printed signs, such signs will adhere to the following specifications.

PROTECTIVE OVERLAY FILM

Permanent traffic signs printed with digital ink systems will be fabricated with a full sign protective overlay film designed to provide a smooth surface needed for retroreflectivity, and to protect the sign from fading and UV degradation. The overlaminate will comply with the retroreflective sheeting manufacturer’s recommendations to ensure proper adhesion and transparency and will also meet the reflective film durability as identified in Table 1.

Table 1: Retroreflective Film Minimum Durability Requirements

ASTM D4956 Type	Full Sign Replacement Term (years)	Sheeting Replacement Term (years)
I	0	7
III	7	10
IV	7	10
VIII	7	10
IX	7	12
XI	7	12

FABRICATION

Retroreflective sheeting will be applied to a properly cleaned and prepared aluminum sign blank in accordance with the retroreflective sheeting manufacturer’s recommendations. Sign legend will be applied using digital print technologies and systems in accordance with the retroreflective sheeting manufacturer’s recommendations and the requirements of these plans.

Finished signs will be free of ragged edges and must be supplied clean and free of scratches, grease, oil, lubricants or other contaminants. Minor blemishes (dirt speck, dust, etc.) may settle on the fresh ink surface or become entrapped between the sheeting surface and transparent overlay film due to static charge within the sign shop environment. Any blemish must be minor and not interfere with the communication of the sign message to the motorist. The blemish must not be visible to the naked eye when viewed from 30 feet or greater.

After application of the retroreflective sheeting, sign blanks will be stacked and packaged face to face, back to back, and protected in accordance with the sheeting manufacturer’s recommendations. Finished signs will be securely packaged to prevent damage during transit or storage according to the sheeting manufacturer’s recommendations.

TRAFFIC SIGN PERFORMANCE WARRANTY PROVISIONS

Based on the ASTM Type of sheeting specified, traffic control signs will be warranted for the duration shown in Table 1. Full product terms and conditions are as established by each sheeting manufacturer and may contain certain limitations based on sheeting and ink colors, and geographic exposure of the sign. A copy of the warranty document with complete details of terms and conditions will be supplied if requested by the Engineer.

CERTIFIED DIGITAL SIGN FABRICATOR

Sign fabricators using digital imaging methods to produce regulated traffic signs must be certified by the reflective sheeting manufacturer whose materials are used to produce the delivered signs.

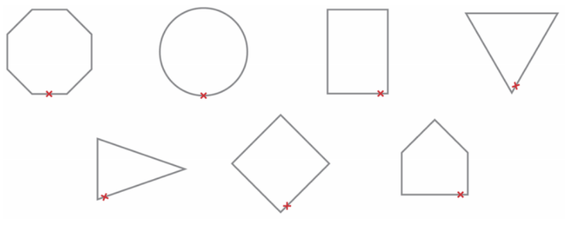
DIGITALLY PRINTED SIGNS (CONTINUED)

DATE TAGGING SIGNS WITH PERTINENT INFORMATION

All digitally printed signs are required to be date-tagged with the following 2 components:

1. Date tags on the back of signs
   Tags will have the following information and be fabricated with material and printing system that are as durable as the warranted sign.
   - Name of Sign Fabricator
   - Date the sign was fabricated (month and year)
   - Process that was used for sign fabrication (digitally printed)
   - Supplier of sheeting that was used for fabricating the sign.
2. Border date

The month and year (mm/yyyy) of sign fabrication will be printed in the border of the sign in 3/8" sans serif font. Border date will be printed with the same warranted printed system as the sign face. The date should be printed in the locations indicated below.



SQUARE TUBE ANCHOR SLEEVE

The Contractor will furnish and install new 2.5" x 2.5" x 18", 12 Gauge square tube anchor sleeve or equivalent components as approved by the Engineer for 2.0" x 2.0" perforated tube posts. A 2.25" x 2.25" x 4', 12 Gauge perforated tube post will be used as the anchor post for installation with the square tube anchor sleeve.

All 2.5" x 2.5", 10 Gauge perforated tube post will be sleeved with a 2-3/16" x 2-3/16" x 4', 10 Gauge perforated tube post.

WINGED SLIP BASE ANCHOR

The Contractor will furnish and install new winged slip base anchors for 2.5" x 2.5" perforated tube posts as required in the Permanent Signing Table. Winged slip base anchors will be installed using the direct drive method. Winged slip base anchors will consist of a slip base (upper), a 48-inch long winged anchor (lower), and a hardware kit.

OBJECT MARKER TABLE

632E2510 Type 2 bject Marker Back to Back

STATION	QUANTITY	STATION	QUANTITY
-4+80 L&R	2	80+00 L	1
-2+97 L	1	97+17 L&R	2
10+1 R	1	99+18 L&R	2
11+00 L	1	99+87 L&R	2
14+51 L&R	2	114+03 R	1
25+12 L&R	2	120+90 L	1
26+47 R	1	135+65 L	1
38+98 L&R	2	138+35 L&R	2
39+00 L&R	2		
59+62 L&R	2		
		TOTAL AT PIPES	**28**

Type 2 Object Markers will also be installed at the begin and end of the curb and gutter section at stations 76+80 L&R and 137+44 L&R

4" Tubular White Delineator with 1.12 Lb/Ft Post
632E2028

ROUTE	STATION	INTERSECTING ROUTE	QUANTITY
SD 50	22+67 L	Ford Ave	6
SD 50	30+31 R	SD 37	6
		TOTAL	**12**

4"x4" White Delineator Back to Back with 1.12 Lb/Ft Post

632E2022

HWY	STATION				SPACING	QUANTITY
SD 50	-9+51.75	L&R	TO	76+80 L&R	528'#	16
SD 37	459+89	L&R	TO	478+04 L&R	528'#	3
# - ALTERNATING				**TOTALS**		19

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	NH-PH 0050(116)354 P 0037(168)19	S4	S37

SIGN REMOVAL TABLE

STATION	SIGN ASSEMBLY DESCRIPTION	SIGN SIZE (IN)	REMOVE 110E0130	RESET 632E3520	TYPE OF POST	FIXED	BREAKAWAY	**REMOVE CONC FOOTING
SD 50 EAST								
-9+03 R	MRM 354.30	4.5 X 21	1		PT		1	
-4+21 R	KEEP RIGHT (sym)	30 X 36	1		PT		1	
9+71 L	STOP	30 30	1		PT		1	
10+09 L	ONE WAY	36 X 12	1		PT		1	
12+34 R	50 37	48 X 24	1		PT		1	
	↑ ↱	42 X 15						
15+48 R	Springfield	120 X 72	1		I-BEAM		2	
	Rec Area 10 →							
	Mike Durfee							
	State Prision 10 →							
18+46 R	Crossroads Warning	48 X 48	1		ROUND		1	1
18+46 L	Crossroads Warning	48 X 48	1		ROUND		1	1
22+09 R	↑ Tyndall	84 X 42	1		PT		2	
	Springfield →							
	Niobrara NE →							
24+11 R	LEWIS & CLARK TRAIL	18 X 24	1		PT		1	
	→	`1qse3a2x	`					
	50 37	48 X 24						
	↑ →	42 X 15						
25+09 R	ONE WAY	36 X 12	1		PT		1	
25+56 L	YIELD	36 X 36	1		PT		1	
25+94 L	DO NOT ENTER	36 X 36	1		WOOD		1	
26+58 R	EAST	24 x 24	1		PT		1	
	50	24 x 12						
28+18 R	LANE REDUCTION	36 X 36	1		PT		1	
28+81 R	MRM 355	4.5 X 18	1		PT		1	
30+93 R	DIVIDED HIGHWAY ENDS	36 X 36	1		PT		1	
34+73 R	TWO WAY TRAFFIC	36 X 36	1		PT		1	
SD 50 EASTBOUND								
37+48 R	MRM 355.17	4.5 X 21	1		PT		1	
39+21 R	Tyndall 1	84 X 36	1		PT		2	
	Yankton 30							
56+66 L	NO PASSING ZONE	48 X 36	1		PT		1	
61+87 R	SPEED REDUCTION 55	36 X 36	1		PT		1	
64+50 R	UNMUFFLED		1		PT		1	
	DYNAMIC							
	ENGINE							
	BRAKING							
	BY CITY							
	ORDINANCE							
67+05 R	DIVIDED HIGHWAY BEGINS	36 X 36	1		PT		1	
73+17 R	SPEED LIMIT 55	24 X 30	1		PT		1	
74+78 R	MRM 355.81	4.5 X 21	1		PT		1	
SD 50 EAST								
77+26 R	SPEED LIMIT 55			1	PT		1	
	RADAR FEEDBACK SIGN							
77+91 l	KEEP RIGHT (sym)	30 X 36	1		PT		1	
	SUBTOTALS		27	1		0	31	2

STATION	SIGN ASSEMBLY DESCRIPTION	SIGN SIZE (IN)	REMOVE 110E0130	RESET 632E3520	TYPE OF POST	FIXED	BREAKAWAY	REMOVE CONC FOOTING
SD 50 EAST								
79+36 R	FLASHING BEACON	12 X 12	1		PT		1	1
	BIRCH ST	24 X 12						
	DIVIDED HWY/CROSSROAD	36 X 36						
	AHEAD	24 X 18						
79+36 L	FLASHING BEACON	12 X 12	1		PT		1	1
	BIRCH ST	24 X 12						
	DIVIDED HWY/CROSSROAD	36 X 36						
	AHEAD	24 X 18						
81+63 R	MRM 356	4.5 X 18	1		PT		1	
86+20 R	ONE WAY	36 X 12	1		WOOD		1	
86+75 L	YIELD	36 X 36	1		PT		1	
87+25 L	DO NOT ENTER	36 X 36	1		WOOD		1	
87+57 L	THINK/WHY DIE	24 X 24	1		UCHAN		1	
99+00 L	YIELD	36 X 36	1		PT		1	
99+48 L	DO NOT ENTER	36 X 36	1		WOOD		1	
100+72 R	Tyndall	60 X 24	1		PT		1	
	POP 1239							
103+14 R	THRU	36 X 48	1		PT		1	
	TRAFFIC							
	KEEP							
	RIGHT							
103+14 L	THRU	36 X 48	1		WOOD		1	
	TRAFFIC							
	KEEP							
	RIGHT							
105+93 L	YIELD	36 X 36	1		PT		1	
106+32 L	DO NOT ENTER	36 X 36	1		WOOD		1	
106+70 R	FLASHING BEACON	12 X 12	1		PT		1	1
	MAIN ST	24 X 12						
	DIVIDED HWY/CROSSROAD	48 X 48						
	AHEAD	24 X 18						
106+70 L	FLASHING BEACON	12 X 12	1		PT		1	1
	MAIN ST	24 X 12						
	DIVIDED HWY/CROSSROAD	48 X 48						
	AHEAD	24 X 18						
112+68 R	BUSINESS H	60 X 30	1		PT		2	
	DISTRICT ←							
	←							
	VETERANS	36 X 30						
	MEMORIAL							
	←							
115+06 R	ONE WAY	36 X 12	1		WOOD		1	
115+64 L	YIELD	36 X 36	1		PT		1	
116+07 L	DO NOT ENTER	36 X 36	1		PT		1	
116+66 R	EAST	24 X 12	1		PT		1	
	50	24 X 24						
128+17 R	LANE REDUCTION	36 X 36	1		PT		1	
133+15 R	DIVIDED HIGHWAY ENDS	36 X 36	1		PT		1	
	SUBTOTALS		23	0		0	24	4

STATION	SIGN ASSEMBLY DESCRIPTION	SIGN SIZE (IN)	REMOVE 110E0130	RESET 632E3520	TYPE OF POST	FIXED	BREAKAWAY	**REMOVE CONC FOOTING
SD 50 EAST								
137+23 R	TWO WAY TRAFFIC	36 X 36	1		PT		1	
139+79 R	MRM 357.14	4.5 X 21	1		PT		1	
SD 50 WEST								
140+45 R	SPEED LIMIT 55			1	PT		1	
	RADAR FEEDBACK SIGN							
139+79 R	MRM 357.14	4.5 X 21	1		PT		1	
136+64 L	KEEP RIGHT (sym)	30 X 236	1		PT		1	
134+38 R	MRM 357	4.5 X 18	1		PT		1	
125+54 R	Tyndall	60 X 24	1		PT		1	
	POP 1239							
122+75 R	FLASHING BEACON	12 X 12	1		PT		1	1
	MAIN ST	24 X 12						
	DIVIDED HWY/CROSSROAD	48 X 48						
	AHEAD	24 X 18						
122+75 L	FLASHING BEACON	12 X 12	1		PT		1	1
	MAIN ST	24 X 12						
	DIVIDED HWY/CROSSROAD	48 X 48						
	AHEAD	24 X 18						
117+59 R	BUSINESS H	60 X 30	1		PT		2	
	DISTRICT →							
	→							
	VETERANS	36 X 30						
	MEMORIAL							
	→							
115+59 R	ONE WAY	36 X 12	1		PT		1	
114+93 L	YIELD	36 X 36	1		PT		1	
114+53 L	DO NOT ENTER	36 X 36	1		WOOD		1	
133+89 R	WEST	24 X 12	1		PT		1	
	50	24 X 24						
105+92 R	YIELD	36 X 36	1		PT		1	
105+09 R	DO NOT ENTER	36 X 36	1		PT		1	
98+63 R	ONE WAY	36 X 12	1		WOOD		1	
98+35 L	YIELD	36 X 36	1		PT		1	
97+90 L	DO NOT ENTER	36 X 36	1		PT		1	
93+65 L	FLASHING BEACON	12 X 12	1		PT		1	1
	BIRCH ST	24 X 12						
	DIVIDED HWY/CROSSROAD	48 X 48						
	AHEAD	24 X 18						
93+65 R	FLASHING BEACON	12 X 12	1		PT		1	1
	BIRCH ST	24 X 12						
	DIVIDED HWY/CROSSROAD	48 X 48						
	AHEAD	24 X 18						
87+25 R	ONE WAY	36 X 12	1		WOOD		1	
85+89 L	YIELD	36 X 36	1		PT		1	
85+49 L	DO NOT ENTER	36 X 36	1		WOOD		1	
85+01 L	LANE REDUCTION	36 X 36	1		PT		1	
81+32 R	DIVIDED HIGHWAY ENDS	36 X 36	1		PT		1	
81+16 R	MRM 356	4.5 X 18	1		PT		1	
	SUBTOTALS		26	1		0	28	4
	TOTALS THIS SHEET		76	2		0	83	10

** Quantities in the Remove Concrete Footing Columns are for information only.

SHEET 1 OF 2

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	NH-PH 0050(116)354 P 0037(168)19	S5	S37

SIGN REMOVAL TABLE

STATION	SIGN ASSEMBLY DESCRIPTION	SIGN SIZE (IN)	110E0130 REMOVE	632E3520 RESET	TYPE OF POST	FIXED	BREAKAWAY	**REMOVE CONC FOOTING
SD 50 WESTBOUND								
77+28 R	TWO WAY TRAFFIC	36 X 36	1		PT		1	
74+77 R	MRM 355.81	4.5 X 21	1		PT		1	
73+18 R	SPEED LIMIT 65	24 X 30	1		PT		1	
45+20 R	DIVIDED HIGHWAY BEGINS	36 X 36	1		PT		1	
42+45 L	NO PASSING ZONE	48 X 36	1		PT		1	
37+76 R	JCT	21 X 15	1		PT		1	
	37	24 X 24						
42+45 L	NO PASSING ZONE	48 X 36	1		PT		1	
SD 50 WEST								
37+50 R	MRM 355.17	4.5 X 21	1		PT		1	
34+50 R	Springfield	120 X 72	1		I-BEAM		2	2
	← Rec Area 10							
	Mike Durfee							
	← State Prision 10							
34+14 L	KEEP RIGHT (sym)	30 X 36	1		PT		1	
31+54 R	Crossroads Warning	48 X 48	1		ROUND		1	1
31+54 L	Crossroads Warning	48 X 48	1		ROUND		1	1
28+81 R	MRM 355	4.5 X 18	1		PT		1	
28+56 R	↑ Wagner	96 X 48	1		PT		2	
	← Springfield							
	← Niobrara NE							
26+35 R	37 50	48 X 24	1		PT		1	
	↩ ↑	42 X 15						
25+09 R	SD 50 / FORD AVENUE	30 X 6	1		PT		1	
25+04 R	ONE WAY	36 X 12	1		PT		1	
24+66 L	YIELD	36 X 36	1		PT		1	
24+26 L	DO NOT ENTER	36 X 36	1		PT		1	
23+50 R	NORTH WEST	48 X 12	1		PT		1	
	37 50	48 X 24						
19+65 R	Avon 9	84 X 36	1		PT		2	
	Wagner 25							
5+96 L	ONE WAY	36 X 12	1		PT		1	
6+96 R	LANE REDUCTION	36 X 36	1		PT		1	
-1+33 R	DIVIDED HIGHWAY ENDS	36 X 36	1		PT		1	
-5+35 R	TWO WAY TRAFFIC	36 X 36	1		PT		1	
-9+05 R	MRM 354.30	4.5 X 21	1		PT		1	
SD 37								
463+26 R	JCT	21 X 15	1		PT		1	
	50	24 X 24						
468+10 R	37	24 X 24	1		PT		1	
.	←	21 X 15						
470+05 R	STOP AHEAD (sym)	48 X 48	1		PT		1	
470+92 L	NO PASSING ZONE	48 X 36	1		PT		1	
472+22 R	← Wagner	72 X 36	1		PT		2	
	Tyndall →							
472+69 L	JCT 52 6	96 X 48	1		PT		2	
	Springfield 9							
	Niobrara NE 23							
	SUBTOTALS		32	0		0	37	4

STATION	SIGN ASSEMBLY DESCRIPTION	SIGN SIZE (IN)	110E0130 REMOVE	632E3520 RESET	TYPE OF POST	FIXED	BREAKAWAY	REMOVE CONC FOOTING
SD 37								
474+73 R	37 50	48 X 24	1		PT		1	
	← ↔	42 X 15						
474+15 L	SOUTH	24 X 12	1		PT		1	
	37	24 X 24						
477+33 R	ONE WAY	36 X 12	1		PT		1	
	STOP	48 X 48						
	DIVIDED HIGHWAY	30 X 24						
303rd Street								
22+83 R	NO PASSING ZONE	48 X 36	1		WOOD		1	
20+74 L	KEEP RIGHT	24 X 30	1		PT		1	
20+55 L	DO NOT ENTER	24 X 24	1		PT		1	
20+47 L	DO NOT ENTER	24 X 24	1		PT		1	
16+67 R	YIELD	24 X 24	1		PT		1	
Ford Avenue								
0+88 L	ONE WAY	36 X 12	1		PT		1	
	STOP	36 X 36						
	DIVIDED HIGHWAY	30 X 24						
Birch Street								
7+37 L	SPEED LIMIT 25	18 X 24	1		UCHAN		1	
7+63 R	ONE WAY	36 X 12	1		PT		1	
	STOP	36 X 36						
7+81 L	SD HWY 50 / 416TH AVE	30 X 6	1		PT		1	
10+5 L	ONE WAY	36 X 12	1		PT		1	
	STOP	36 X 36						
10+78 R	BON HOMME CO 5	18 X18	1		UCHAN		1	
Willow Street								
4+64 R	ONE WAY	36 X 12	1		PT		1	
	STOP	30 X 30						
Fir Street								
6+29 L	STOP	30 X 30	1		PT		1	
7+14 R	SPEED LIMIT 25	18 X 24	1		UCHAN		1	
SW Ivy Street								
6+20 L	ONE WAY	36 X 12	1		WOOD		1	
6+20 L	STOP	30 X 30	1		UTILITY			
6+99 L	IVY ST SW	24 X 6	1		PIPE		1	
7+48 R	SPEED LIMIT 25	18 X 24	1		UCHAN		1	
Main Street								
4+42 R	ONE WAY	36 X 12	1		PT		1	
	STOP	36 X 36						
	DIVIDED HIGHWAY	30 X 24						
6+60 R	ONE WAY	36 X 12	1		PT		1	
	STOP	30 X 30						
	DIVIDED HIGHWAY	30 X 24						
	SUBTOTALS		23	0		0	22	0

STATION	SIGN ASSEMBLY DESCRIPTION	SIGN SIZE (IN)	110E0130 REMOVE	632E3520 RESET	TYPE OF POST	FIXED	BREAKAWAY	**REMOVE CONC FOOTING
	SUBTOTALS		0	0		0	0	0
	TOTALS THIS SHEET		55	0		0	59	4
	TOTALS ALL SHEETS		131	2		0	142	14

** Quantities in the Remove Concrete Footing Columns are for information only.

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	NH-PH 0050(116)354 P 0037(168)19	S6	S37

REVISED 02/06/25 GB

SIGN INSTALLATION TABLE

SIGN DATA									POST DATA				
STATION	DESCRIPTION	SIGN CODE	SIGN SIZE (Ft)	SIGN AREA (SqFt)		OFFSET* (R)IGHT/ (L)EFT	SIGN FACES	COMMENTS	POST LENGTHS X		BREAK-AWAY #	SIZE/QUANTITY {Ft}	
				Type IV	TYPE XI				INSIDE	OUTSIDE		2.0"x2.0" TUBE	2.5"x2.5" TUBE
SD 50 EB				632E3203	632E3205							632E1320	632E1340
15+00 R	50 37 ↑ ↱	M1-5 & M1-5 M6-3 & M6-6	4.0 X 2.0 3.5 X 1.25	8.0 4.4		16' R	WEST		12.8		A		12.8
20+00 R	Springfield Rec Area 10 → Mike Durfee State Prision 10 →	SPECIAL	11.0 X 6.0	66.0		16' R	WEST		15.5	17.0	A		32.5
25+00 R	↑ Tyndall Springfield → Niobrara NE →	SPECIAL	9.0 X 4.0	36.0		16' R	WEST		13.0	14.5	A		27.5
28+00 R	50 37 ↑ →	M1-5 & 1-5 M6-3 & M6-1	4.0 X 2.0 3.5 X 1.25	8.0 4.4		16' R	WEST		12.8		A		12.8
32+00 R	ADDED LANE	W4-3R	3.0 X 3.0		9.0	16' R	WEST		13.3		A	13.3	
40+00 R	Tyndall 1 Yankton 30	SPECIAL	7.5 X 3.0	22.5		16' R	WEST		11.0	12.5	A		23.5
43+00 R	EAST 50	M3-2 M1-5	2.0 X 1.0 2.0 X 2.0	2.0 4.0		16' R	WEST		12.8		A	12.8	
62+00 R	SPEED REDUCTION 55	W3-5	3.0 X 3.0		9.0	16' R	WEST		13.3		A	13.3	
64+50 R	UNMUFFLED DYNAMIC ENGINE BRAKING BY CITY ORDINANCE		3.0 X 3.5 2.5 X 1.5	10.5 3.8		16' R	WEST		14.1		A	14.1	
73+00 R	SPEED LIMIT 55	R2-1	2.0 X 2.5	5.0		16' R	WEST		11.8		A	11.8	
78+00 R	SPEED LIMIT 55 RADAR FEEDBACK SIGN	R2-1 SPECIAL	2.5 X 3.0 2.67 X 3.50			16' R	WEST	RESET EXISTING	18.7	19.9			38.6
82+00 R	Tyndall POP 1057	SPECIAL	5.5 X 2.0	11.0		2' R	WEST		7.0		A	7.0	
110+00 R	H ←	D9-2 M6-1	2.0 X 2.0 1.75 X 1.25	4.0 2.2		2' R	WEST		8.3		A	8.3	
112+00 R	BUSINESS DISTRICT ← VETERANS MEMORIAL ←	SPECIAL SPECIAL	3.0 X 2.5 3.0 X 2.5	7.5 7.5		2' R	WEST		10.0		A		10.0
122+00 R	LANE REDUCTION	W9-2L	3.0 X 3.0		9.0	2' R	WEST		8.5		A	8.5	
TOTALS THIS SHEET				206.8	27.0							89.1	157.7

* - distance from back of curb to edge of sign

X -Plan post lengths are estimates. The post lengths shall be field verified by the Contractor.

- (S)lip Base on winged (A)nchor

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	NH-PH 0050(116)354 P 0037(168)19	S7	S37

SIGN INSTALLATION TABLE

SIGN DATA									POST DATA				
STATION	DESCRIPTION	SIGN CODE	SIGN SIZE (Ft)	SIGN AREA (SqFt)		OFFSET* (R)IGHT/ (L)EFT	SIGN FACES	COMMENTS	POST LENGTHS X		BREAK-AWAY #	SIZE/QUANTITY {Ft}	
				Type IV	TYPE XI				INSIDE	OUTSIDE		2.0"x2.0" TUBE	2.5"x2.5" TUBE
SD 50 WB				632E3203	632E3205							632E1320	632E1340
136+00 R	SPEED LIMIT 55	R2-1	2.5 X 3.0			2' R	EAST	RESET EXISTING	18.7	19.9	A		38.6
	RADAR FEEDBACK SIGN	SPECIAL	2.67 X 3.50										
125+00 R	Tyndall POP 1057	SPECIAL	7.5 X 3.0	22.5		2' R	EAST		8.0		A		8.0
120+00 R	H	D9-2	2.0 X 2.0	4.0		2' R	EAST		8.0		A	8.0	
	→	M6-1	1.75 X 1.25	2.2									
118+00 R	BUSINESS DISTRICT →	SPECIAL	3.0 X 2.5	15.0		2' R	EAST		10.0		A		10.0
	VETERANS MEMORIAL →	SPECIAL	3.0 X 2.5										
93+00 R	RIGHT LANE ENDS	W9-1R	3.0 X 3.0		9.0	2' R	EAST		10.0		A		10.0
	1000 FEET		2.0 X 1.5		3.0								
85+00 R	LANE REDUCTION	W9-2L	3.0 X 3.0		9.0	2' R	EAST		8.5		A	8.5	
79+00 R	WEST	M3-4	2.0 X 1.0	2.0		16' R	EAST		12.8		A	12.8	
	50	M1-5	2.0 X 2.0	4.0									
73+00 R	SPEED LIMIT 65	R2-1	2.0 X 2.5	5.0		16' R	EAST		11.8		A	11.8	
43+00 R	JCT	M2-2	1.75 X 1.25	2.2			EAST		12.1		A	12.1	
	37	M1-5	2.0 X 2.0	4.0									
38+00 R	Springfield ← Rec Area 10	SPECIAL	11.0 X 6.0	66.0		16' R	EAST		15.5	17.0	A		32.5
	Mike Durfee ← State Prision 10												
34+00 R	↑ Wagner ← Springfield ← Niobrara NE	SPECIAL	9.0 X 4.0	36.0		16' R	EAST		13.0	14.5	A		27.5
32+00 R	37 50	M1-5 & M1-5	4.0 X 2.0	8.0		16' R	EAST		12.8		A		12.8
	↑ ↑	M6-6 & M6-3	3.5 X 1.25	4.4									
19+00 L	NORTH WEST	M3-1 & M3-4	4.0 X 1.0	4.0		16' L	EAST		13.0		A		13.0
	37 50	M1-5 & M1-5	4.0 X 2.0	8.0									
16+00 L	Avon 9 Wagner 25	SPECIAL	7.0 X 3.0	21.0		16' R	EAST		11.0	12.5	A		23.5
SD 37													
463+25 R	JCT	M2-1	1.,75 X 1.25	2.2		16' R	SOUTH		12.1		A	12.1	
	50	M1-5	2.0 X 2.0	4.0									
468+00 R	37	M1-5	2.0 X 2.0	4.0		16' R	SOUTH		12.1		A	12.1	
	↰	M5-1	1.75 X 1.25	2.2									
470+00 R	STOP AHEAD (sym)	W3-1	3.0 X 3.0		9.0	16' R	SOUTH		13.3		A	13.3	
472+00 R	←Wagner Tyndall →	SPECIAL	7.0 X 3.0	21.0		16' R	SOUTH		11.0	12.5	A		23.5
472+00 L	JCT 52 6 Springfield 9 Niobrara NE 23	SPECIAL	9.5 X 4.5	42.8		16' L	NORTH		12.5	14.0	A		26.5
474+00 R	37 50	M1-5 & M1-5	4.0 X 2.0	8.0		16' R	SOUTH		12.8		A		12.8
	← ↔	M6-1 & M6-4	3.5 X 1.25	4.4									
474+00 L	SOUTH	M3-3	2.0 X 1.0	2.0		16' L	NORTH		12.8		A	12.8	
	37	M1-5	2.0 X 2.0	4.0									
477+70 R	STOP	R1-1	2.5 X 2.5		5.2	12' R	SOUTH		8.0		S	8.0	
TOTALS THIS SHEET				302.9	35.2							111.5	238.7

*** - distance from back of curb to edge of sign**

\# - (S)lip Base on winged (A)nchor

X -Plan post lengths are estimates. The post lengths shall be field verified by the Contractor.

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	NH-PH 0050(116)354 P 0037(168)19	S8	S37

REVISED 02/06/25 GB

SIGN INSTALLATION TABLE

SIGN DATA									POST DATA				
STATION	DESCRIPTION	SIGN CODE	SIGN SIZE (Ft)	SIGN AREA (SqFt)		OFFSET* (R)IGHT/ (L)EFT	SIGN FACES	COMMENTS	POST LENGTHS X		BREAK-AWAY #	SIZE/QUANTITY {Ft}	
				Type IV	TYPE XI				INSIDE	OUTSIDE		2.0"x2.0" TUBE	2.5"x2.5" TUBE
303rd St				632E3203	632E3205							632E1320	632E1340
16+00 L	DO NOT ENTER	R5-1	2.0 X 2.0		4.0	16' L			11.2		A	11.2	
16+00 R	DO NOT ENTER	R5-1	2.0 X 2.0		4.0	16' R			11.2		A	11.2	
Ford Ave													
0+55 L	STOP	R1-1	2.5 X 2.5		5.2	12' L			7.5		A	7.5	
Birch Ave													
8+40 R	STOP	R1-1	2.5 X 2.5		5.2	12' R			7.5		A	7.5	
9+90 L	STOP	R1-1	2.5 X 2.5		5.2	12' L			7.5		A	7.5	
Willow St													
4+85 R	STOP	R1-1	2.5 X 2.5		5.2	12' R			7.5		A	7.5	
Fir St													
5+95 L	STOP	R1-1	2.5 X 2.5		5.2	12' L			7.5		A	7.5	
SW Ivy St													
0+25 R	STOP	R1-1	2.5 X 2.5		5.2	12' R			7.5		A	7.5	
7+50 L	SPEED LIMIT 25	R2-1	2.0 X 2.5	5.0		16' L			11.8		A	11.8	
Main St													
5+00 R	STOP	R1-1	2.5 X 2.5		5.2	12' R			7.5		A	7.5	
6+32 L	STOP	R1-1	2.5 X 2.5		5.2	12' L			7.5		A	7.5	
TOTALS THIS SHEET				5.0	49.6							94.2	0.0
PROJECT TOTALS				**514.7**	**111.8**							**294.8**	**396.4**

*** - distance from back of curb to edge of sign**
# - (S)lip Base on winged (A)nchor

X -Plan post lengths are estimates. The post lengths shall be field verified by the Contractor.

PERMANENT SIGNING LAYOUT

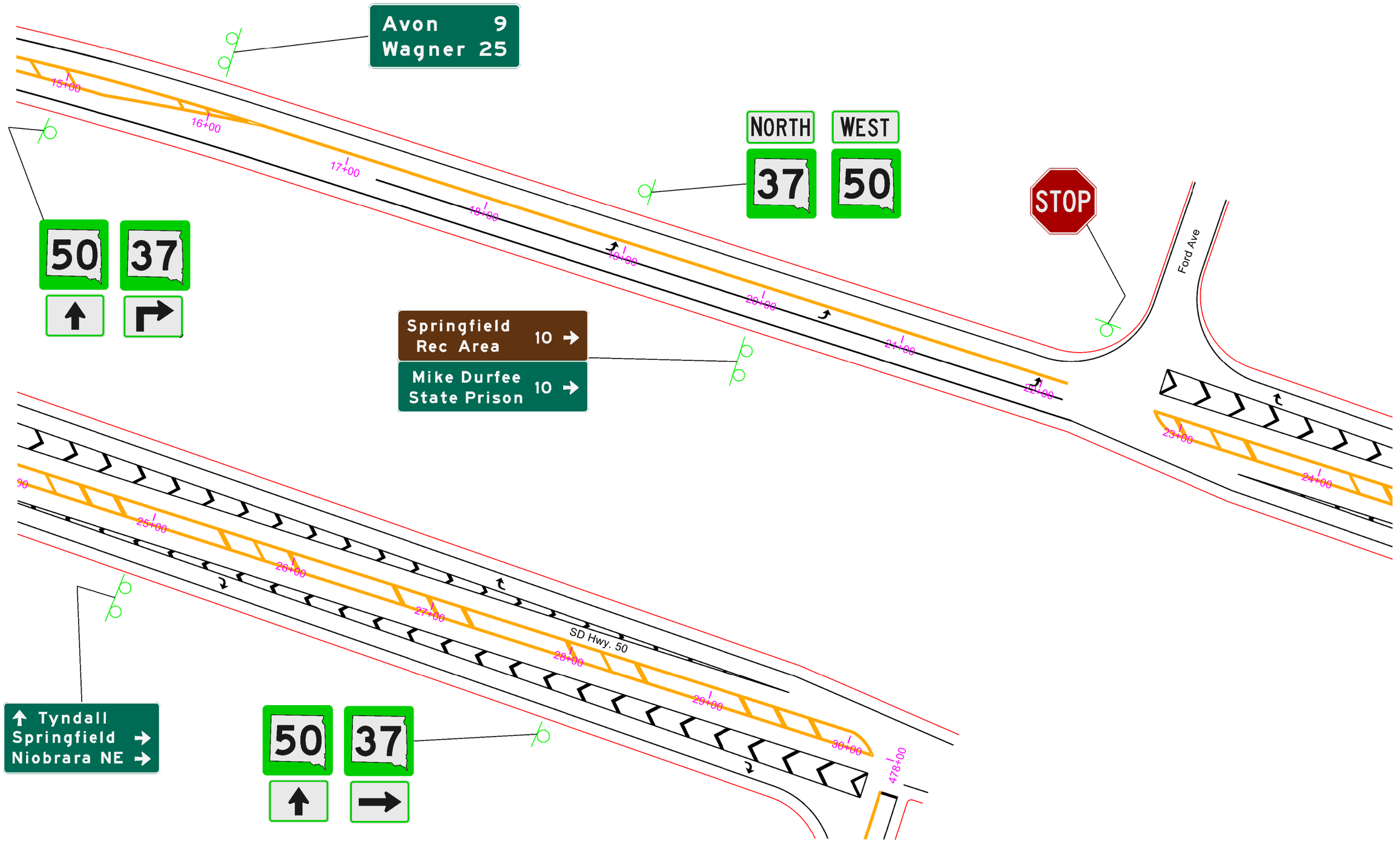
STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	NH-PH 0050(116)354 P 0037(168)19	S9	S37

Plotting Date: 12/09/2024

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	NH-PH 0050(116)354 P 0037(168)19	S10	S37

Plotting Date: 12/09/2024

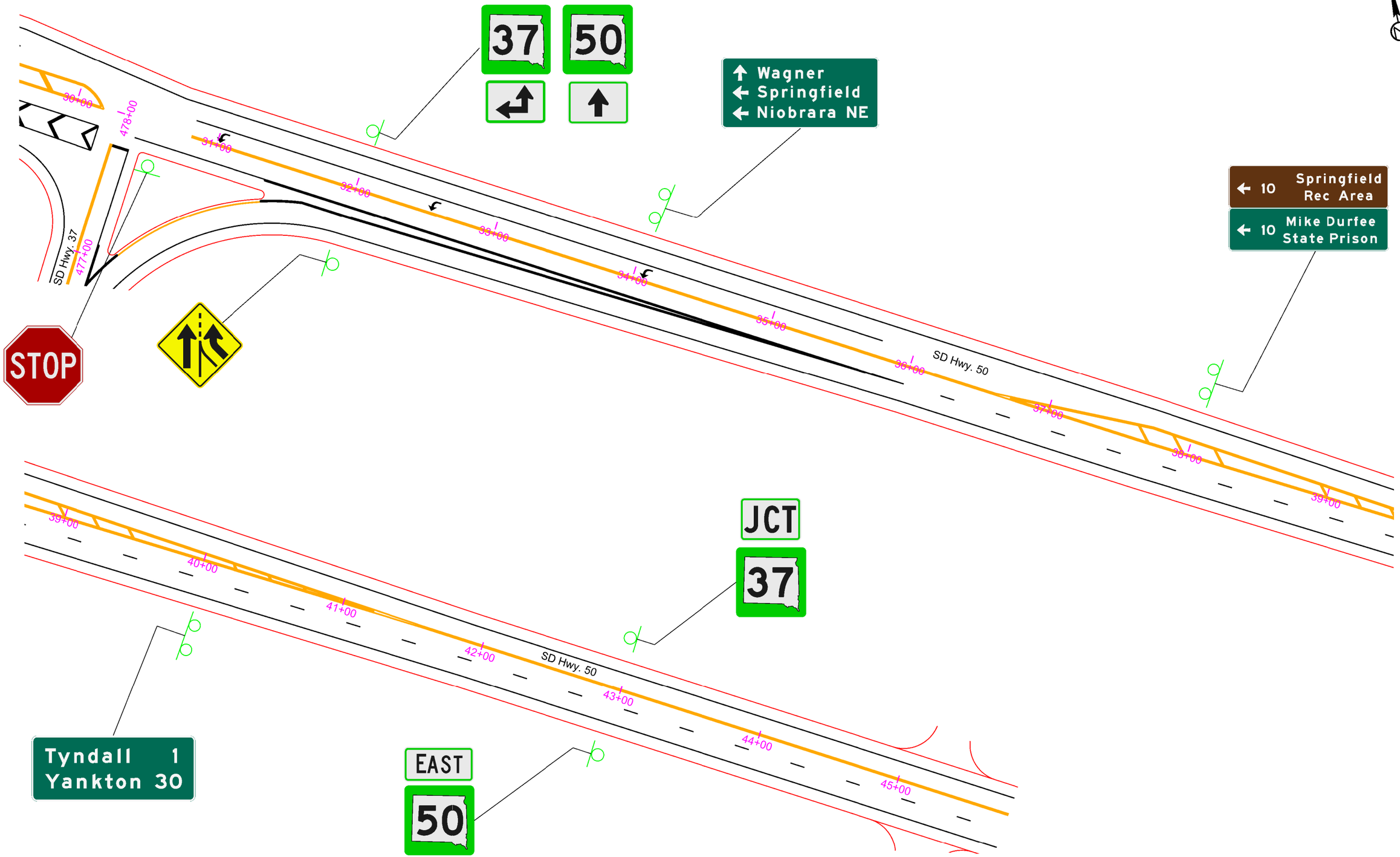
PERMANENT SIGNING LAYOUT



STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	NH-PH 0050(116)354 P 0037(168)19	S11	S37

Plotting Date: 12/09/2024

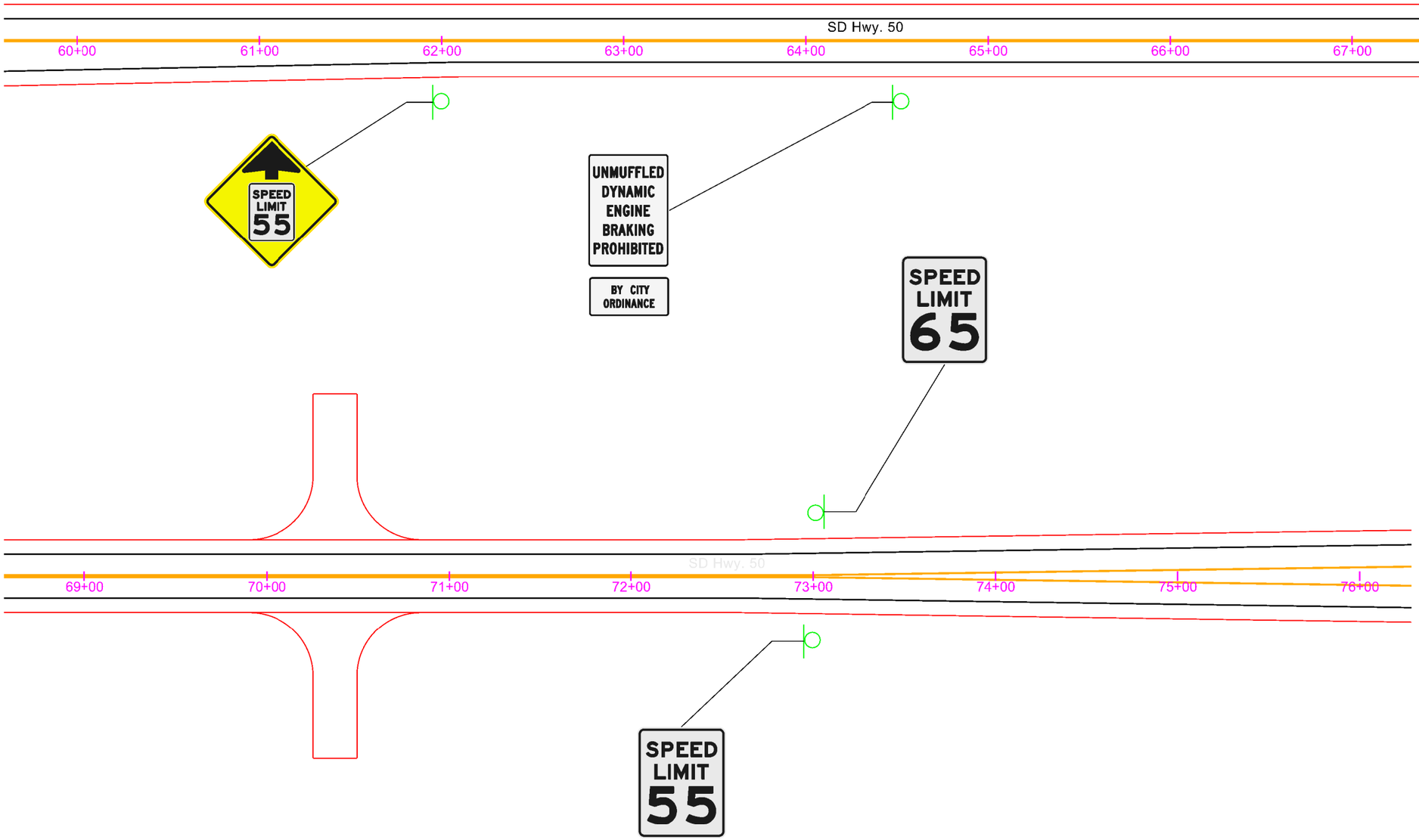
PERMANENT SIGNING LAYOUT



STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	NH-PH 0050(116)354 P 0037(168)19	S12	S37

Plotting Date: 12/09/2024

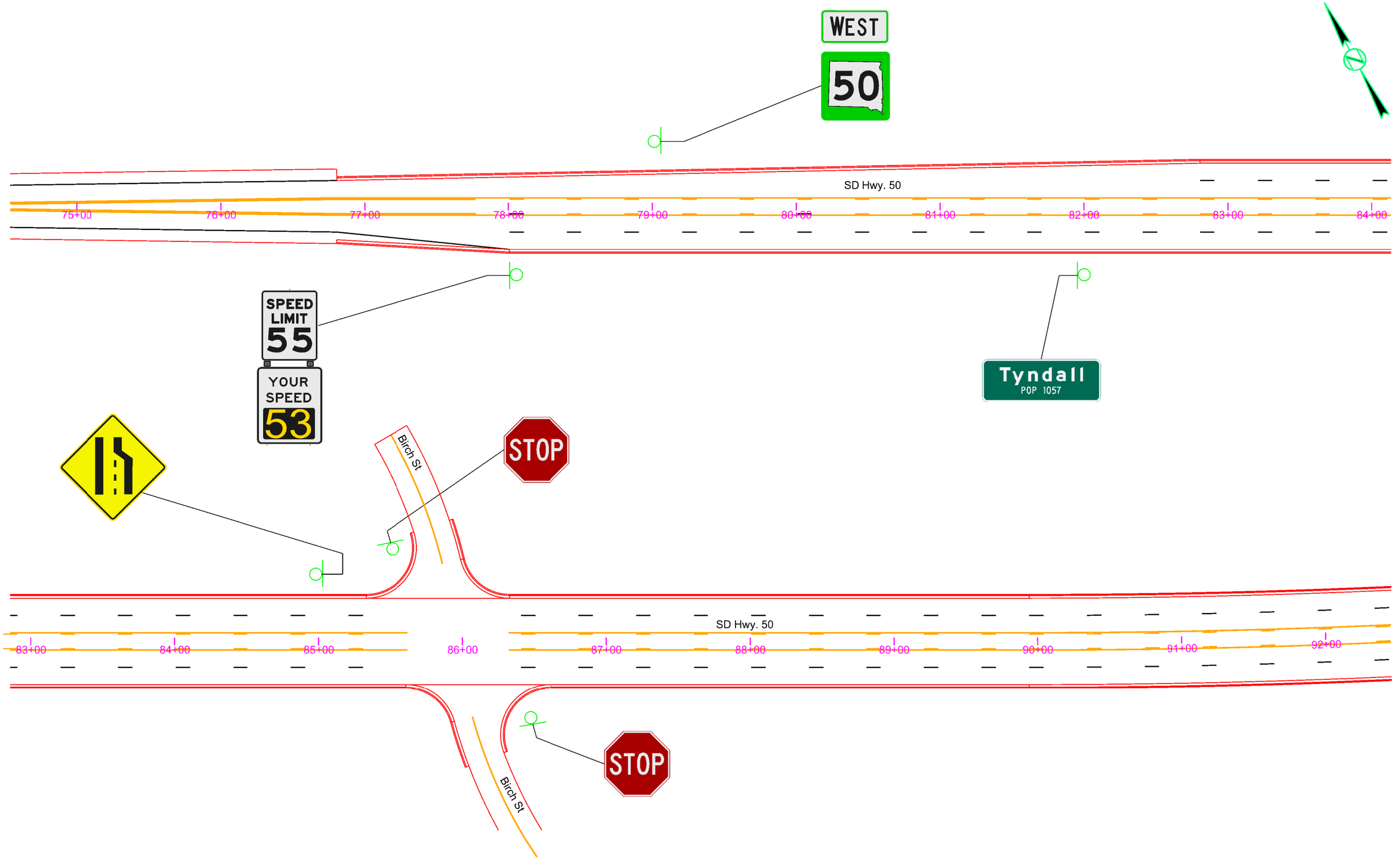
PERMANENT SIGNING LAYOUT



STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	NH-PH 0050(116)354 P 0037(168)19	S13	S37

Plotting Date: 12/09/2024

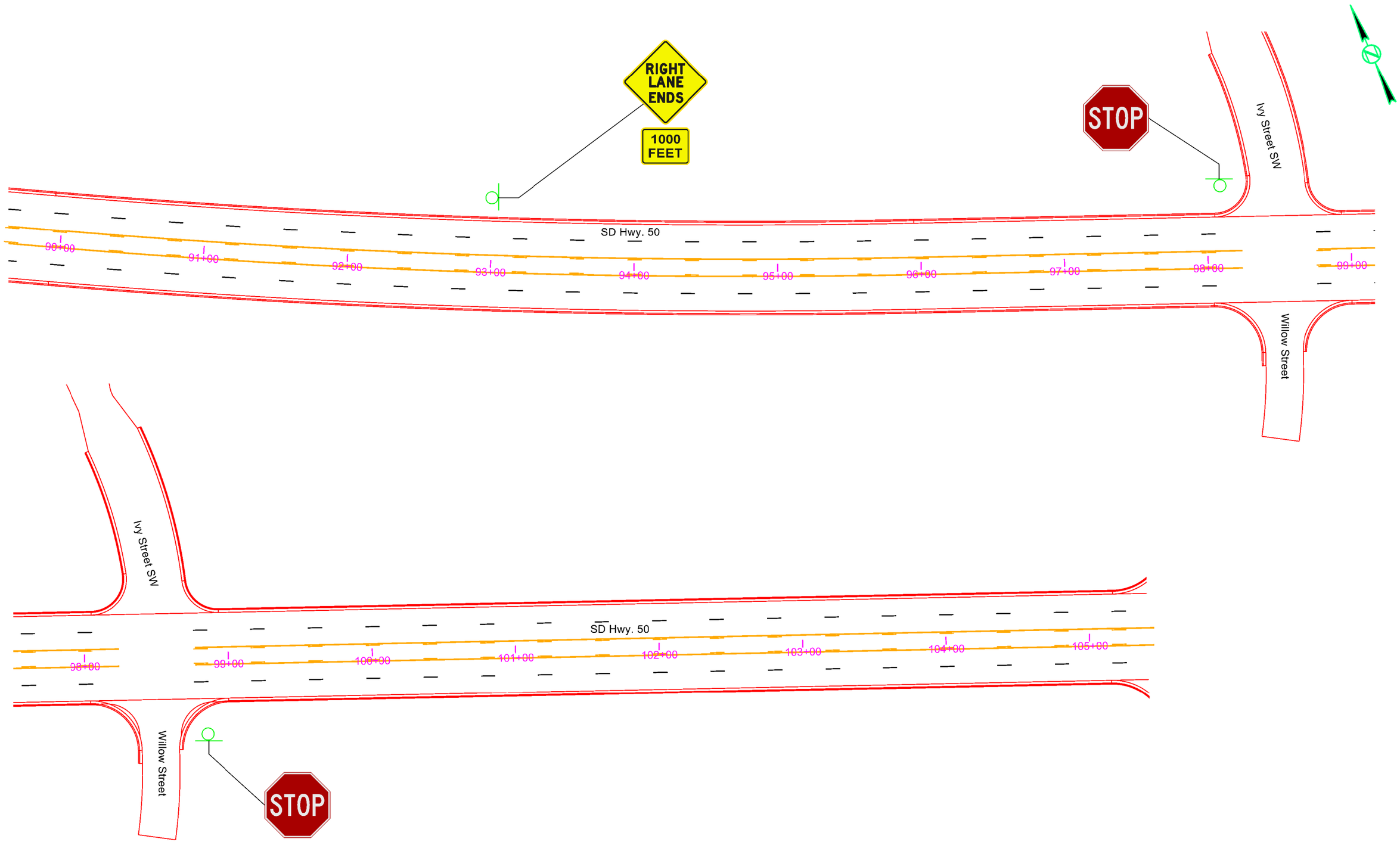
PERMANENT SIGNING LAYOUT



PERMANENT SIGNING LAYOUT

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	NH-PH 0050(116)354 P 0037(168)19	S14	S37

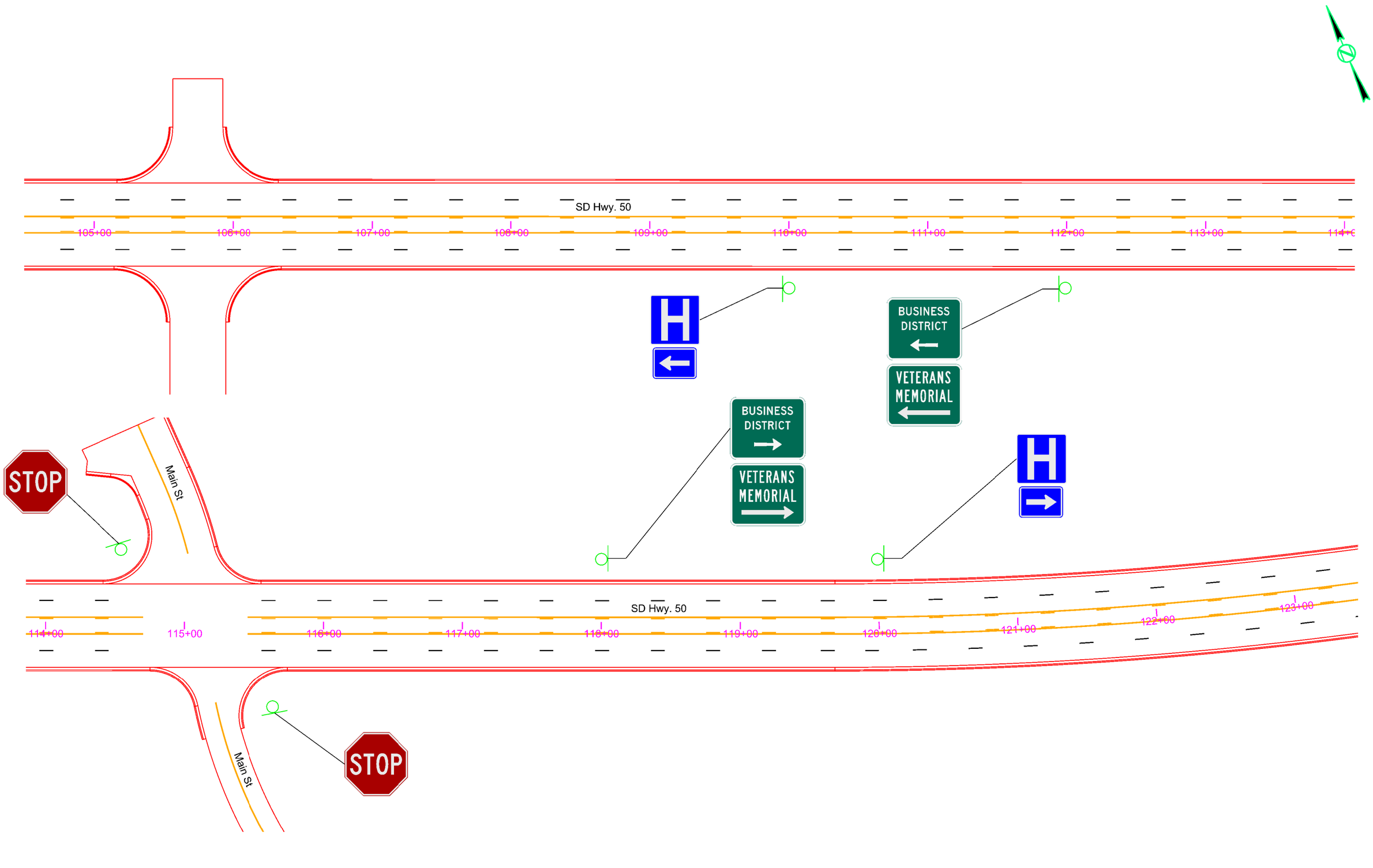
Plotting Date: 12/09/2024



STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	NH-PH 0050(116)354 P 0037(168)19	S15	S37

Plotting Date: 12/09/2024

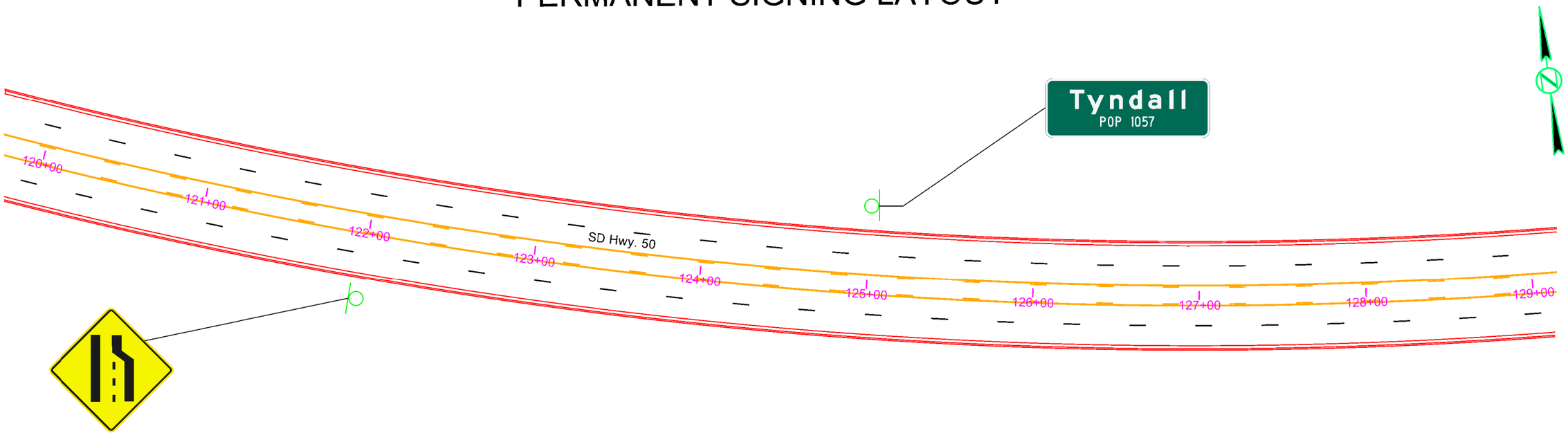
PERMANENT SIGNING LAYOUT



STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	NH-PH 0050(116)354 P 0037(168)19	S16	S37

Plotting Date: 12/09/2024

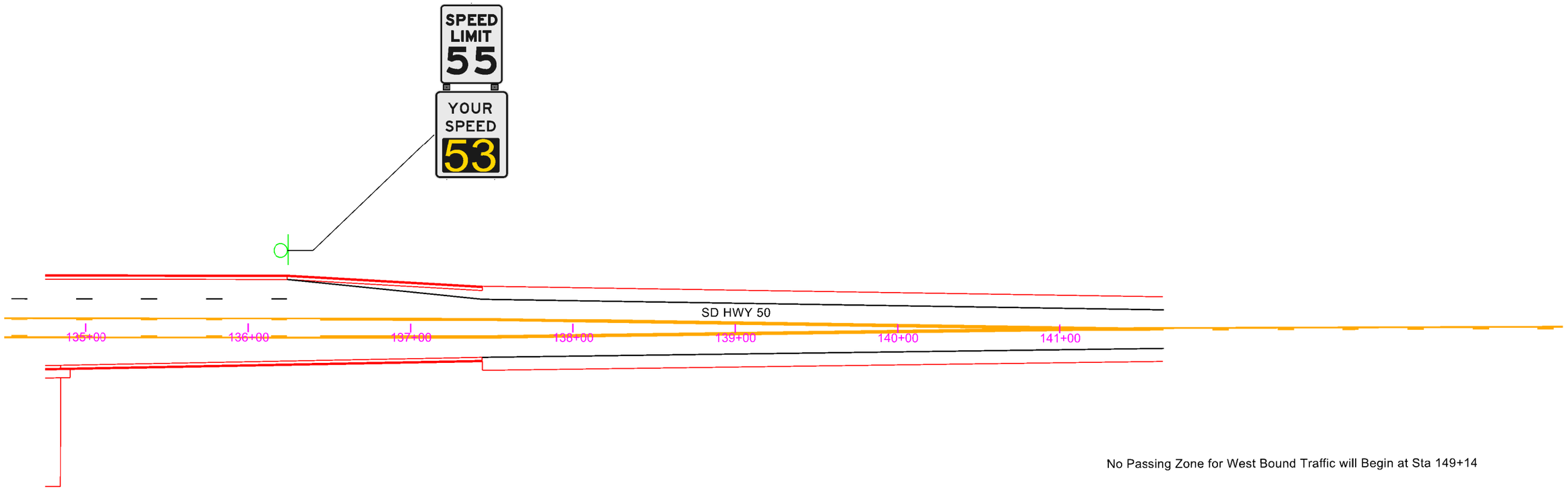
PERMANENT SIGNING LAYOUT



STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	NH-PH 0050(116)354 P 0037(168)19	S17	S37

Plotting Date: 12/09/2024

PERMANENT SIGNING LAYOUT

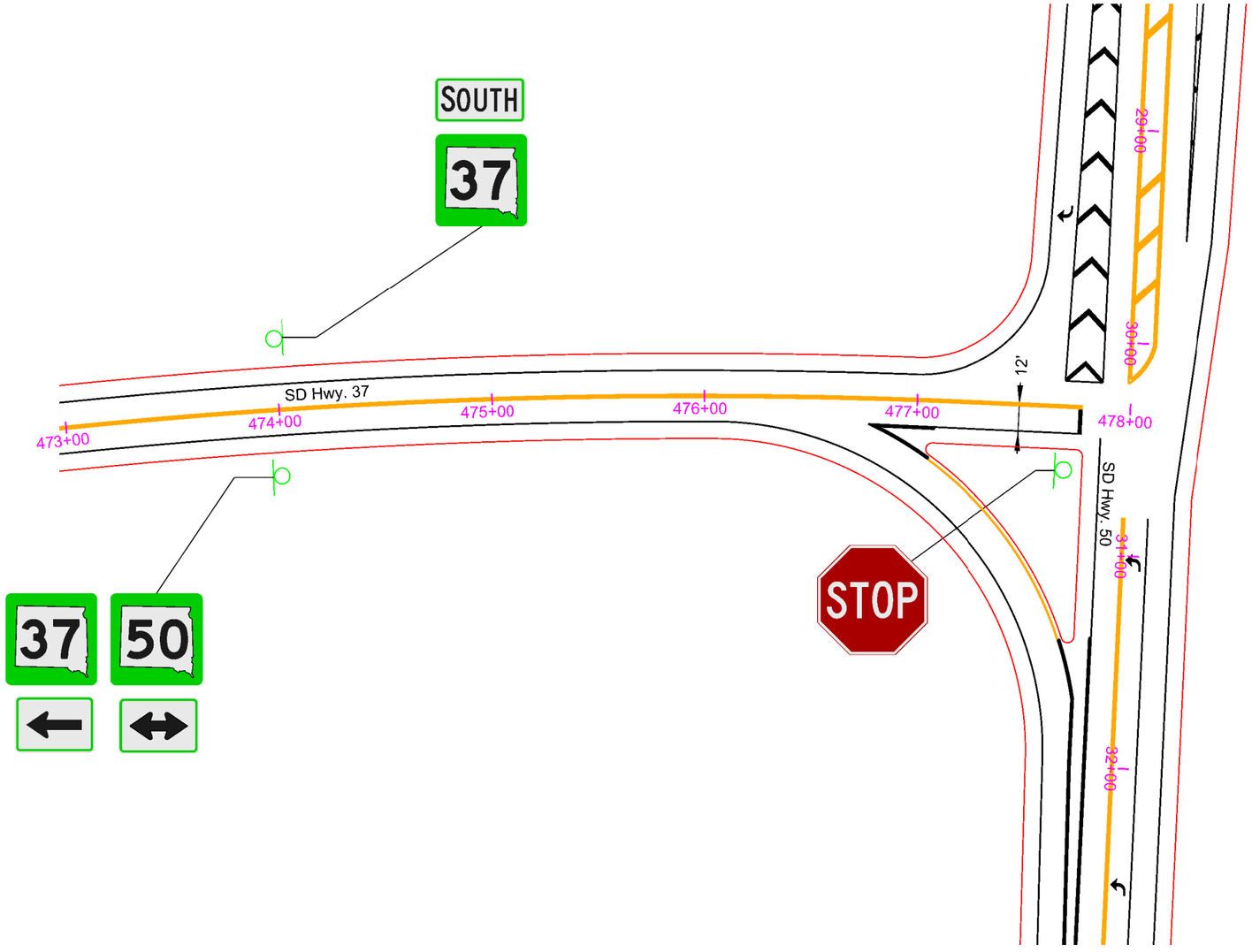


No Passing Zone for West Bound Traffic will Begin at Sta 149+14

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	NH-PH 0050(116)354 P 0037(168)19	S18	S37

Plotting Date: 12/09/2024

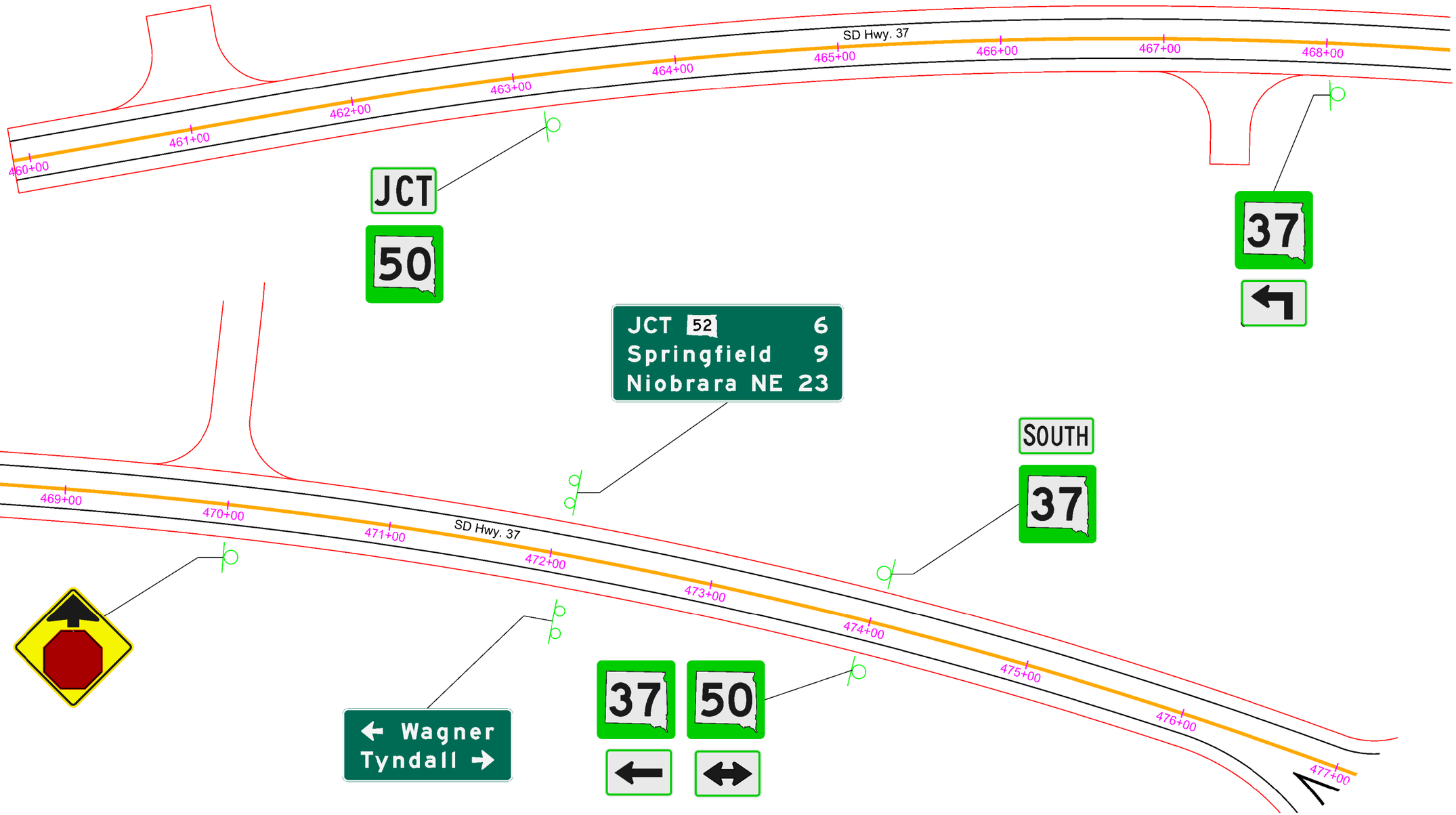
PERMANENT SIGNING LAYOUT



PERMANENT SIGNING LAYOUT

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	NH-PH 0050(116)354 P 0037(168)19	S19	S37

Plotting Date: 12/09/2024

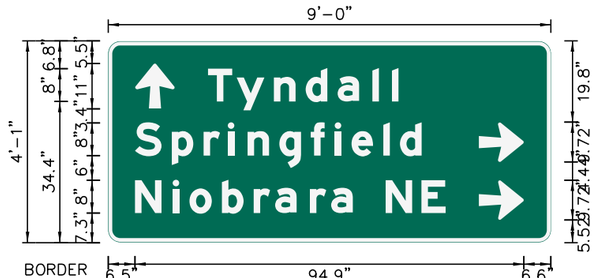


STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	NH-PH 0050(116)354 P 0037(168)19	S20	S37

Plotting Date: 12/09/2024

SPECIAL SIGN DETAILS

SIGN DETAIL
1:25



SIGN NUMBER	SPECIAL	
WIDTH x HGHT.	9'–0" x 4'–1"	
BORDER WIDTH	1"	
CORNER RADIUS	3"	
MOUNTING	Overhead	
BACKGROUND	TYPE:	Reflective
	COLOR:	Green
LEGEND/BORDER	TYPE:	Reflective
	COLOR:	White/White

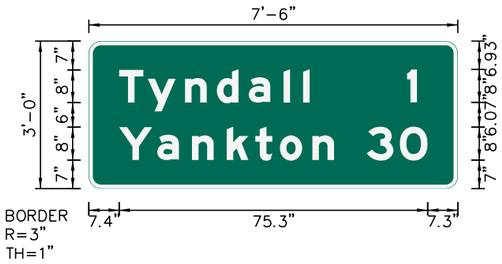
SYMBOL	ROT	X	Y	WID	HT
AR_Type D	0	6.6	32.6	9.7	11
AR_Type D	270	90.5	19.7	9.7	11
AR_Type D	270	90.5	5.5	9.7	11

Dimensions are in inches.tenths

Letter locations are panel edge to lower left corner

LETTER POSITIONS (X)																				LENGTH	SERIES-SIZE
T	y	n	d	a	l	l															EM 2000
24.5	31.4	40.5	48.3	56.1	64.5	69.3														46.6	8/6
S	p	r	i	n	g	f	i	e	l	d											EM 2000
6.6	15.6	23.4	29.3	34.1	41.8	49.5	55.4	59.4	67.2	71.3										70	8/6
N	i	o	b	r	a	r	a		N	E											EM 2000
6.6	15.8	19.9	27.8	35.6	40.8	49.3	54.5	59.8	67.8	76.5										75.8	8/6

SIGN DETAIL
1:25



SIGN NUMBER	SPECIAL	
WIDTH x HGHT.	7'–6" x 3'–0"	
BORDER WIDTH	1"	
CORNER RADIUS	3"	
MOUNTING	Overhead	
BACKGROUND	TYPE:	Reflective
	COLOR:	Green
LEGEND/BORDER	TYPE:	Reflective
	COLOR:	White/White

SYMBOL	ROT	X	Y	WID	HT

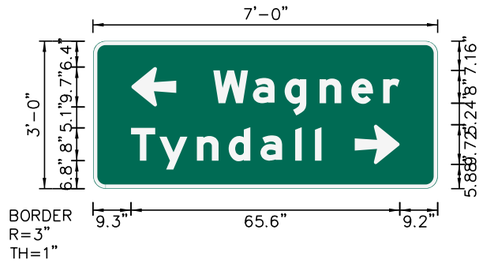
Dimensions are in inches.tenths

Letter locations are panel edge to lower left corner

LETTER POSITIONS (X)																				LENGTH	SERIES-SIZE
T	y	n	d	a	l	l															EM 2000
7.4	14.4	23.5	31.3	39	47.5	52.3														46.6	8/6
1																					EM 2000
77.6																				2.5	8
Y	a	n	k	n	3	0															EM 2000
7.4	16.7	25.2	33.7	54.5	67.8	75.9														75.3	8/6

SPECIAL SIGN DETAILS

SIGN DETAIL
1:25



SIGN NUMBER	SPECIAL
WIDTH x HGHT.	7'-0" x 3'-0"
BORDER WIDTH	1"
CORNER RADIUS	3"
MOUNTING	Overhead
BACKGROUND	TYPE: Reflective
	COLOR: Green
LEGEND/BORDER	TYPE: Reflective
	COLOR: White/White

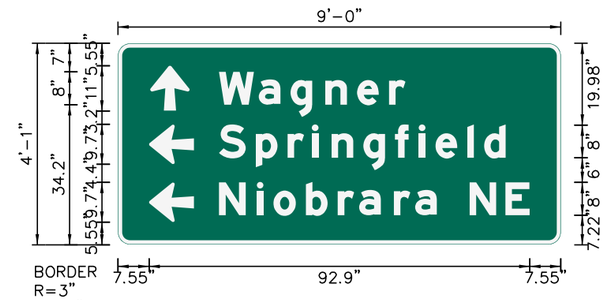
SYMBOL	ROT	X	Y	WID	HT
AR_Type D	90	9.2	19.9	9.7	11
AR_Type D	270	63.7	5.9	9.7	11.2

Dimensions are in inches.tenths

Letter locations are panel edge to lower left corner

LETTER POSITIONS (X)																				LENGTH	SERIES-SIZE
W	a	g	n	e	r																
29.3	38.9	46.7	55.2	62.9	70.7															45.5	EM 2000 8/6
T	y	n	d	a	l	l															
9.2	16.1	25.3	33	40.8	49.3	54.1														46.5	EM 2000 8/6

SIGN DETAIL
1:25



SIGN NUMBER	SPECIAL
WIDTH x HGHT.	9'-0" x 4'-1"
BORDER WIDTH	1"
CORNER RADIUS	3"
MOUNTING	Overhead
BACKGROUND	TYPE: Reflective
	COLOR: Green
LEGEND/BORDER	TYPE: Reflective
	COLOR: White/White

SYMBOL	ROT	X	Y	WID	HT
AR_Type D	0	7.8	32.6	9.7	11
AR_Type D	270	7.6	19.6	9.7	11
AR_Type D	270	7.6	5.4	9.7	11

Dimensions are in inches.tenths

Letter locations are panel edge to lower left corner

LETTER POSITIONS (X)																				LENGTH	SERIES-SIZE
W	a	g	n	e	r																
24.7	34.4	42.1	50.6	58.4	66.1															45.5	EM 2000 8/6
S	p	r	i	n	g	f	i	e	l	d											
24.7	33.7	41.4	47.3	52.1	59.9	67.6	73.4	77.5	85.3	89.3										70	EM 2000 8/6
N	i	o	b	r	a	r	a		N	E											
24.7	33.9	38	45.9	53.7	58.9	67.3	72.5	77.8	85.8	94.5										75.9	EM 2000 8/6

SPECIAL SIGN DETAILS

SIGN DETAIL
1:25

SIGN NUMBER	SPECIAL
WIDTH x HGHT.	7'-0" x 3'-0"
BORDER WIDTH	1"
CORNER RADIUS	3"
MOUNTING	Overhead
BACKGROUND	TYPE: Reflective
	COLOR: Green
LEGEND/BORDER	TYPE: Reflective
	COLOR: White/White

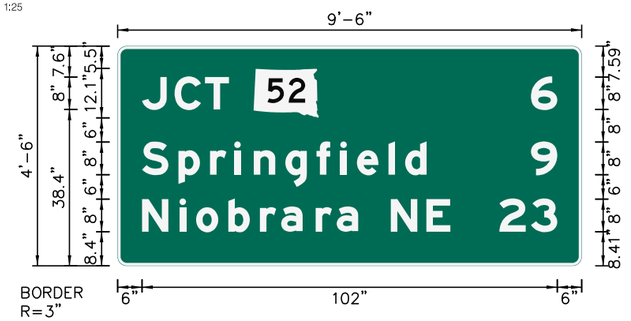
SYMBOL	ROT	X	Y	WID	HT

Dimensions are in inches.tenths

Letter locations are panel edge to lower left corner

LETTER POSITIONS (X)																				LENGTH	SERIES-SIZE
A	v	o	n																		
7.9	17	24.8	32.7																	30.2	EM 2000 8/6
9																					
69.5																				6.6	EM 2000 8
W	a	g	n	e	r	2	5														
7.9	17.6	25.3	33.8	41.6	49.3	61.3	69.6													68.2	EM 2000 8/6

SIGN DETAIL
1:25



SIGN NUMBER	name
WIDTH x HGHT.	9'-6" x 4'-6"
BORDER WIDTH	0.75"
CORNER RADIUS	2.25"
MOUNTING	Overhead
BACKGROUND	TYPE: Reflective
	COLOR: Green
LEGEND/BORDER	TYPE: Reflective
	COLOR: White/White

SYMBOL	ROT	X	Y	WID	HT
STG482	0	33.4	36.4	16.1	12.1

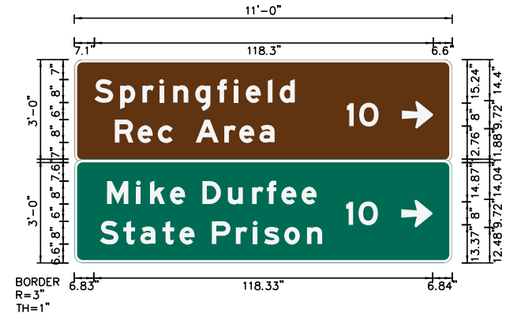
Letter locations are panel edge to lower left corner

LETTER POSITIONS (X)																				LENGTH	SERIES-SIZE
J	C	T																			
6	14	21.4																		21.4	EM 2000 8
6																					
101.5																				6.5	EM 2000 8
S	p	r	i	n	g	f	i	e	l	d											
6	15	22.7	28.6	33.4	41.2	48.9	54.7	58.8	66.6	70.6										70	EM 2000 8/6
9																					
101.5																				6.5	EM 2000 8
N	i	o	b	r	a	r	a		N	E											
6	15.2	19.3	27.2	35	40.2	48.6	53.8	59.1	67.1	75.8										75.8	EM 2000 8/6
2	3																				
93.8	101.5																			14.2	EM 2000 8

SPECIAL SIGN DETAILS

SIGN DETAIL

1:35



SIGN NUMBER	SPECIAL
WIDTH x HGHT.	11'-0" x 3'-0"
BORDER WIDTH	1"
CORNER RADIUS	3"
MOUNTING	Overhead
BACKGROUND	TYPE: Reflective
	COLOR: Green
LEGEND/BORDER	TYPE: Reflective
	COLOR: White/White

SYMBOL	ROT	X	Y	WID	HT
AR_Type D	270	114.4	11.9	9.7	11
AR_Type D	270	114.1	12.5	9.7	11

Panel Style:

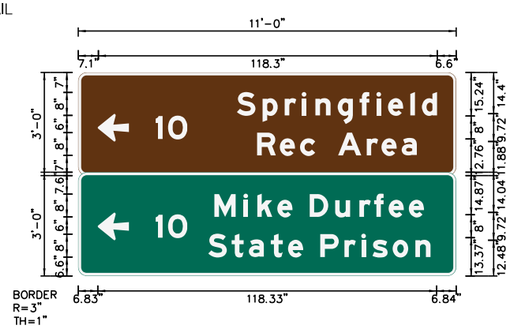
Dimensions are in inches.tenths

Letter locations are panel edge to lower left corner

LETTER POSITIONS (X)																				LENGTH	SERIES/SIZE
S	p	r	i	n	g	f	i	e	l	d											EM 2000
7.1	16.1	23.8	29.7	34.5	42.3	50	55.8	59.9	67.7	71.7										69.9	8/6
1	0																				EM 2000
95.3	99.6																			11.1	8
R	e	c		A	r	e	a														EM 2000
14.2	22.1	29.2	34.4	42.4	52.4	57.6	64.7													55.8	8/6
M	i	k	e		D	u	r	f	e	e											EM 2000
11.5	21.6	26.4	33.5	38.8	44.8	53.6	62.1	67.2	72.4	79.4										73.2	8/6
1	0																				EM 2000
95	99.3																			11.1	8
S	t	a	t	e		P	r	i	s	o	n										EM 2000
9.3	17.4	23.4	31.2	36.7	40.5	50.3	57.7	62.7	66.7	73.6	81.3									82.4	8/6

SIGN DETAIL

1:35



SIGN NUMBER	SPECIAL
WIDTH x HGHT.	11'-0" x 3'-0"
BORDER WIDTH	1"
CORNER RADIUS	3"
MOUNTING	Overhead
BACKGROUND	TYPE: Reflective
	COLOR: Green
LEGEND/BORDER	TYPE: Reflective
	COLOR: White/White

SYMBOL	ROT	X	Y	WID	HT
AR_Type D	270	6.7	11.9	9.7	11.2
AR_Type D	270	6.7	12.5	9.7	11.2

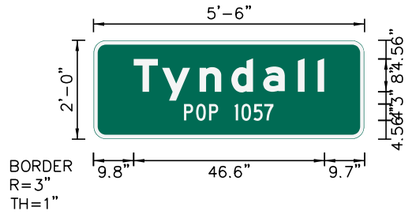
Dimensions are in inches.tenths

Letter locations are panel edge to lower left corner

LETTER POSITIONS (X)																				LENGTH	SERIES/SIZE
S	p	r	i	n	g	f	i	e	l	d											EM 2000
55.4	64.4	72.2	78.1	82.9	90.6	98.3	104.2	108.2	116	120.1										70	8/6
1	0																				EM 2000
27.1	31.4																			11.1	8
R	e	c		A	r	e	a														EM 2000
62.5	70.4	77.5	82.8	90.8	100.8	106	113													55.8	8/6
M	i	k	e		D	u	r	f	e	e											EM 2000
47.6	57.7	62.5	69.6	74.9	80.9	89.7	98.2	103.3	108.5	115.5										73.3	8/6
1	0																				EM 2000
27.1	31.4																			11.1	8
S	t	a	t	e		P	r	i	s	o	n										EM 2000
45.4	53.5	59.5	67.3	72.8	76.6	86.4	93.8	98.8	102.8	109.7	117.6									82.4	8/6

SPECIAL SIGN DETAILS

SIGN DETAIL
1:25



SIGN NUMBER	SPECIAL
WIDTH x HGHT.	5'-6" x 2'-0"
BORDER WIDTH	1"
CORNER RADIUS	3"
MOUNTING	Overhead
BACKGROUND	TYPE: Reflective
	COLOR: Green
LEGEND/BORDER	TYPE: Reflective
	COLOR: White/White

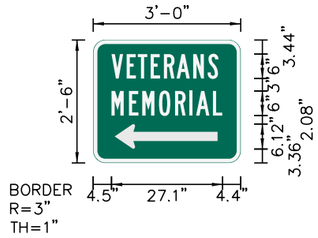
SYMBOL	ROT	X	Y	WID	HT

Dimensions are in inches.tenths

Letter locations are panel edge to lower left corner

LETTER POSITIONS (X)																					LENGTH	SERIES/SIZE
T	y	n	d	a	l	l																EM 2000
9.8	16.8	25.9	33.7	41.4	49.9	54.7															46.6	8/6
P	O	P		1	O	7	5															C 2000
22.1	25.1	28.2	30.5	34.5	36.1	39	41.8														22	4

SIGN DETAIL
1:25



SIGN NUMBER	SPECIAL
WIDTH x HGHT.	3'-0" x 2'-6"
BORDER WIDTH	1"
CORNER RADIUS	3"
MOUNTING	Shoulder
BACKGROUND	TYPE: Reflective
	COLOR: Green
LEGEND/BORDER	TYPE: Reflective
	COLOR: White/White

SYMBOL	ROT	X	Y	WID	HT
ARUP	90	5.2	3.4	6.1	25.2

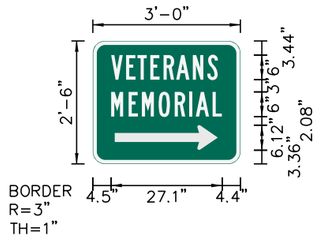
Dimensions are in inches.tenths

Letter locations are panel edge to lower left corner

LETTER POSITIONS (X)																					LENGTH	SERIES/SIZE
V	E	T	E	R	A	N	S															B 2000
4.5	8.1	10.9	14	17.3	20.3	24.4	27.9														26.1	6
M	E	M	O	R	I	A	L															B 2000
4.5	8.7	12	16.1	20	23.5	25.1	29.2														27.1	6

SPECIAL SIGN DETAILS

SIGN DETAIL
1:25



SIGN NUMBER	SPECIAL	
WIDTH x HGHT.	3'-0" x 2'-6"	
BORDER WIDTH	1"	
CORNER RADIUS	3"	
MOUNTING	Shoulder	
BACKGROUND	TYPE:	Reflective
	COLOR:	Green
LEGEND/BORDER	TYPE:	Reflective
	COLOR:	White/White

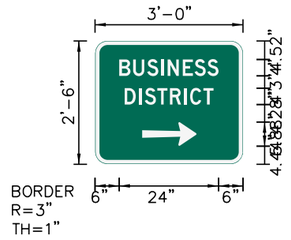
SYMBOL	ROT	X	Y	WID	HT
ARUP	90	5.2	3.4	6.1	25.2

Dimensions are in inches.tenths

Letter locations are panel edge to lower left corner

LETTER POSITIONS (X)																				LENGTH	SERIES-SIZE
V	E	T	E	R	A	N	S														B 2000
4.5	8.1	10.9	14	17.3	20.3	24.4	27.9													26.1	6
M	E	M	O	R	I	A	L														B 2000
4.5	8.7	12	16.1	20	23.5	25.1	29.2													27.1	6

SIGN DETAIL
1:25



SIGN NUMBER	SPECIAL	
WIDTH x HGHT.	3'-0" x 2'-6"	
BORDER WIDTH	1"	
CORNER RADIUS	3"	
MOUNTING	Shoulder	
BACKGROUND	TYPE:	Reflective
	COLOR:	Green
LEGEND/BORDER	TYPE:	Reflective
	COLOR:	White/White

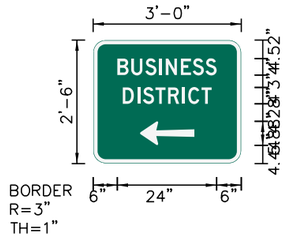
SYMBOL	ROT	X	Y	WID	HT
AR_Type A - Extended					

Dimensions are in inches.tenths

Letter locations are panel edge to lower left corner

LETTER POSITIONS (X)																				LENGTH	SERIES-SIZE
B	U	S	I	N	E	S	S														D 2000
5.9	9.3	12.7	16.1	17.7	21.4	24.3	27.4													24.2	4
D	I	S	T	R	I	C	T														D 2000
7.2	10.8	12.1	15.2	18.3	21.7	23.2	26.4													21.7	4

SIGN DETAIL
1:25



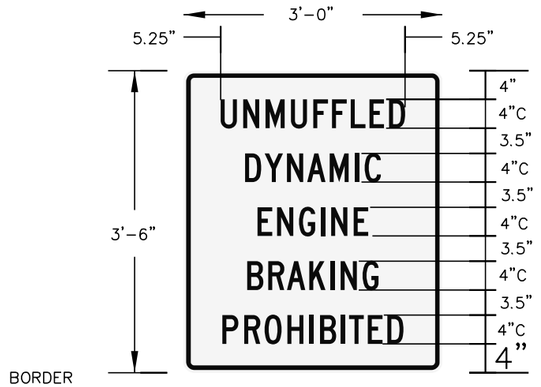
SIGN NUMBER	SPECIAL
WIDTH x HGHT.	3'-0" x 2'-6"
BORDER WIDTH	1"
CORNER RADIUS	3"
MOUNTING	Shoulder
BACKGROUND	TYPE: Reflective
	COLOR: Green
LEGEND/BORDER	TYPE: Reflective
	COLOR: White/White

SYMBOL	ROT	X	Y	WID	HT
AR_Type A - Extended					

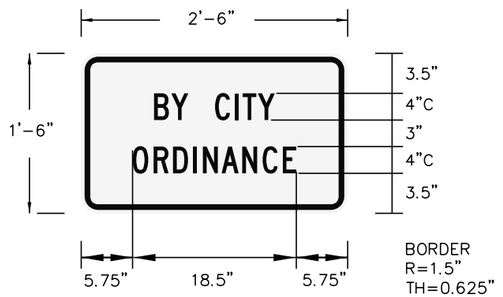
Dimensions are in inches,tenths

Letter locations are panel edge to lower left corner

LETTER POSITIONS (X)																				LENGTH	SERIES/SIZE
B	U	S	I	N	E	S	S														D 2000
5.9	9.3	12.7	16.1	17.7	21.4	24.3	27.4													24.2	4
D	I	S	T	R	I	C	T														D 2000
7.2	10.8	12.1	15.2	18.3	21.7	23.2	26.4													21.7	4

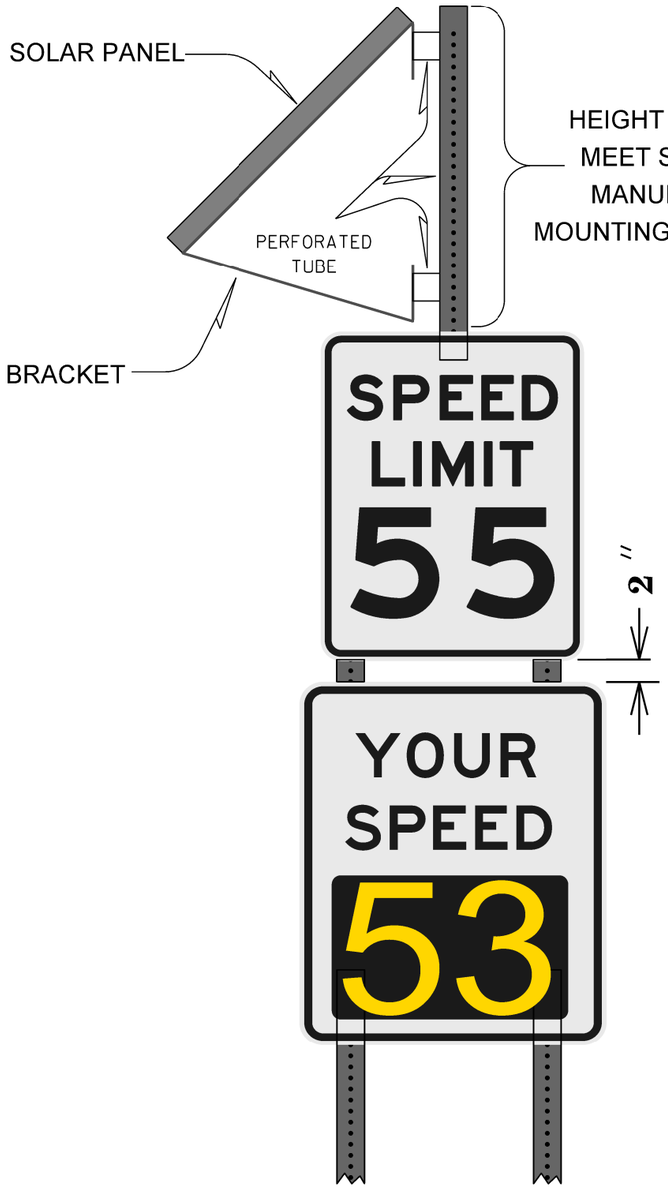


SIGN NUMBER	SPECIAL
WIDTH x HGHT.	3'-0" x 3'-6"
BORDER WIDTH	0.875"
CORNER RADIUS	1.5"
MOUNTING	Shoulder
BACKGROUND	TYPE: Reflective
	COLOR: White
LEGEND/BORDER	TYPE: Reflective
	COLOR: Black/Black

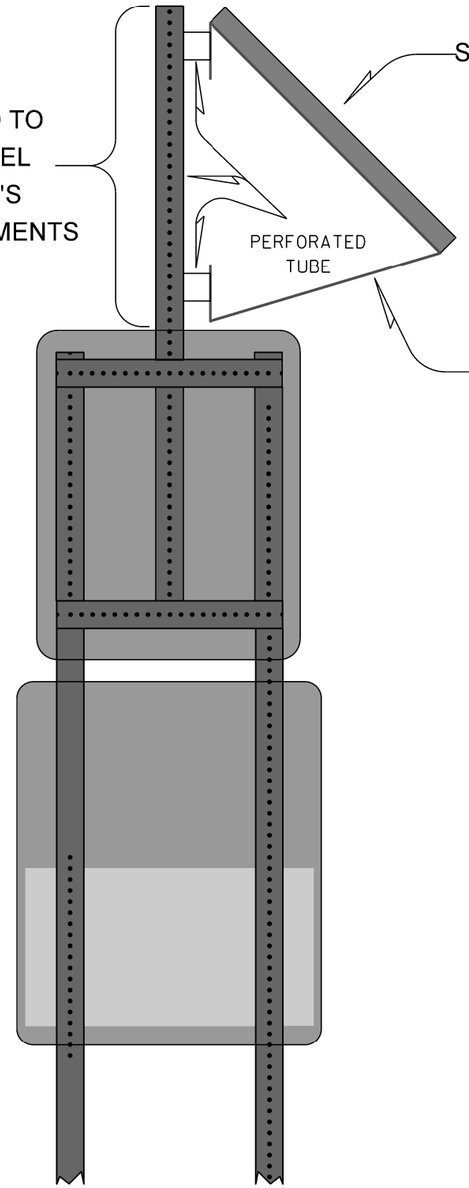


SOLAR POWERED RADAR SPEED SIGN INSTALLATION

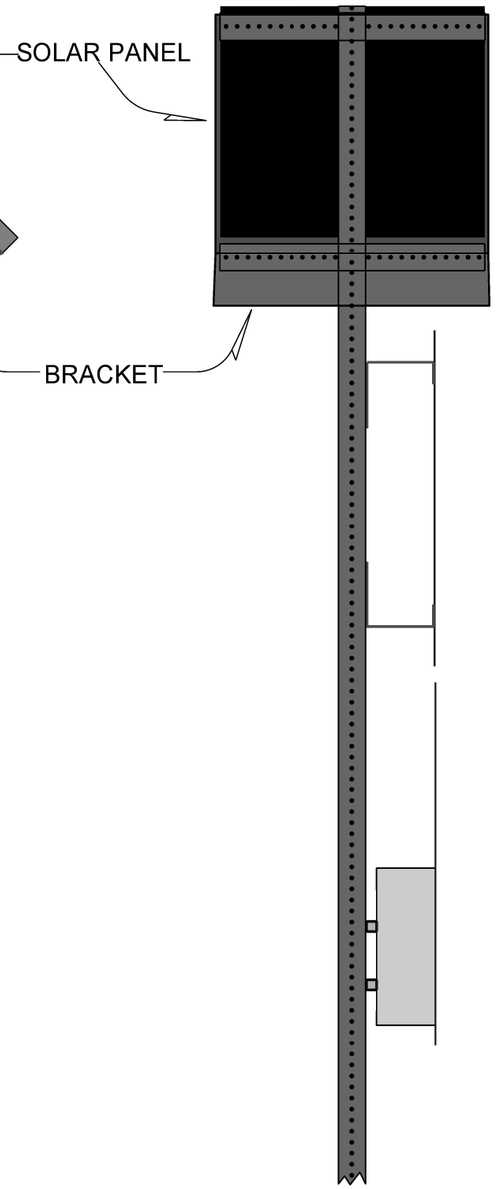
{TYPICAL}



FRONT VIEW



SIGN FACING EAST
BACK VIEW

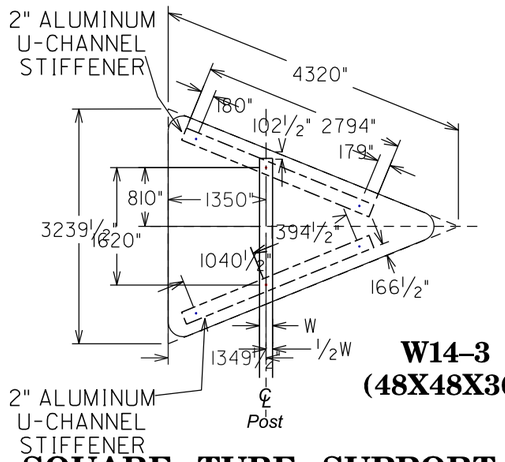


SIDE VIEW

SIGN SIZES AND POST LENGTHS WILL BE DEPENDANT ON HEIGHT OF NUMERAL WITHIN FACE OF RADAR SPEED FEEDBACK SIGN.

TYPICAL SIGN INSTALLATION DETAILS

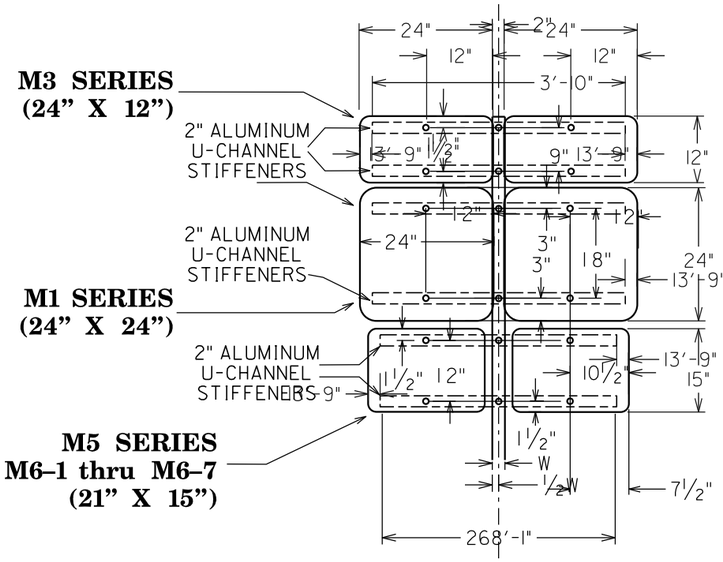
PEFORATED TUBE SUPPORTS



W14–3 (48X48X36)

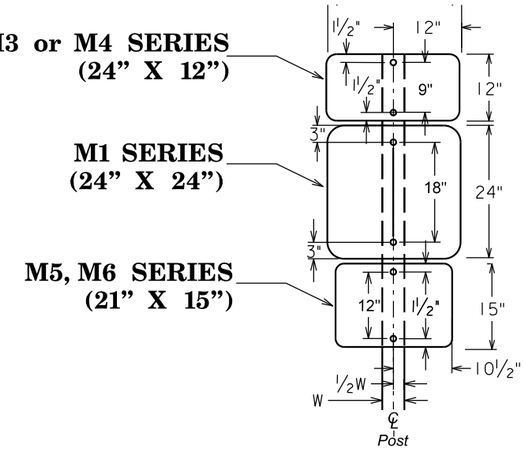
SQUARE TUBE SUPPORT

W/ALUMINUM CHANNEL BACKING



W/ALUMINUM CHANNEL BACKING

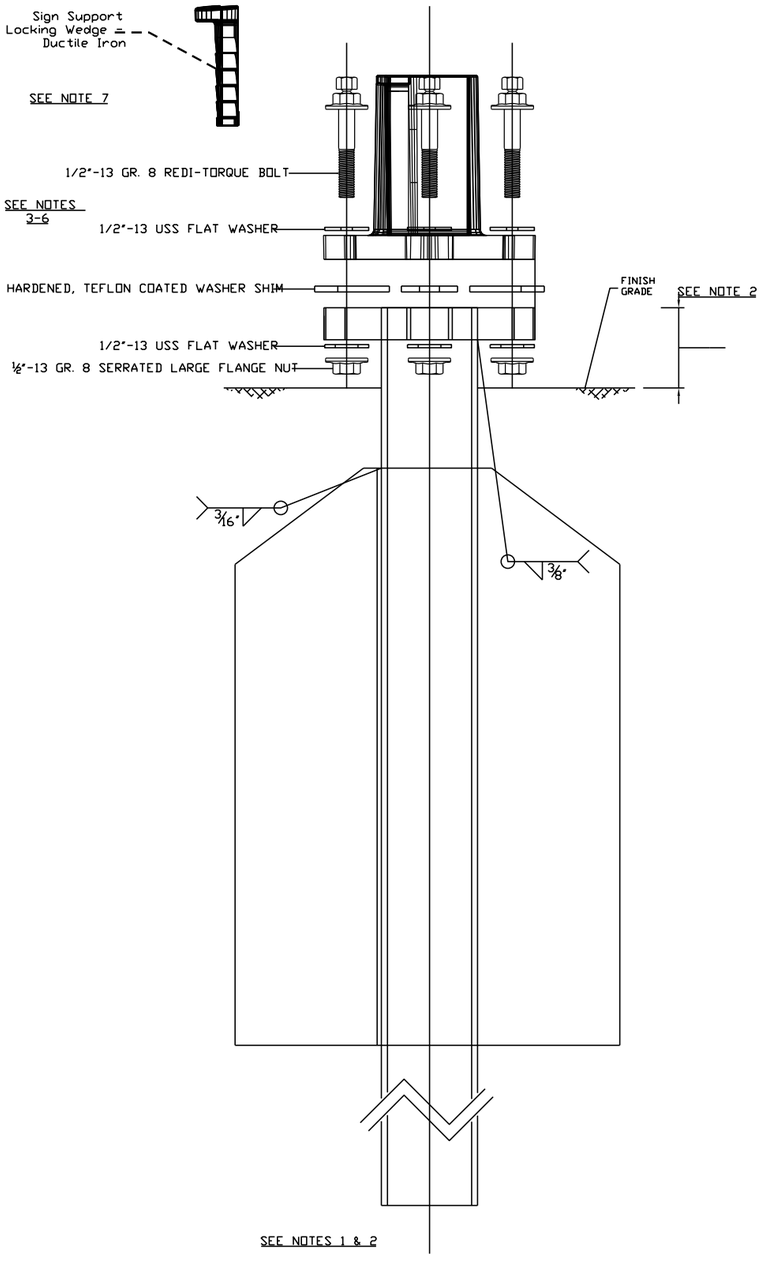
{TYPICAL OF FASTENER LOCATIONS IN ANY MOUNTING CONFIGURATION}



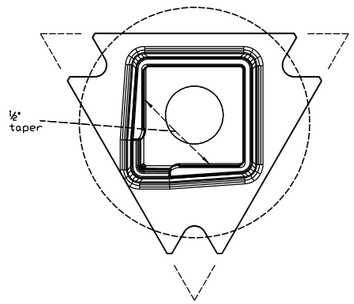
W/SIGN MOUNTED ON SUPPORT

{TYPICAL OF FASTENER LOCATIONS IN ANY MOUNTING CONFIGURATION}

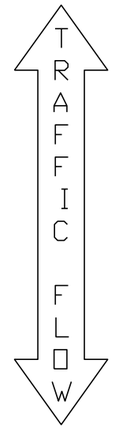
Typical Perforated Tube Support– Slip Base with Winged Anchor



TOP POST RECEIVER for ½" SQUARE POST*



SEE NOTE 4

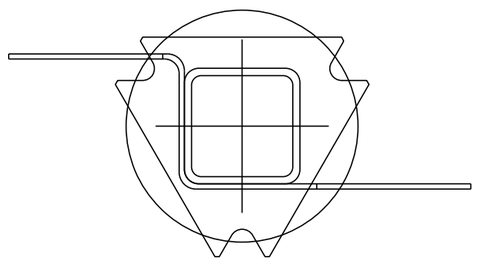


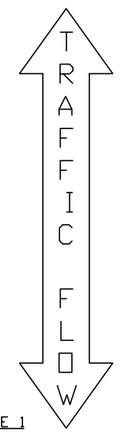
MATERIAL: Single Piece Cast Receiver 2-½" x 2-½" and Plate- DUCTILE IRON

* 2-¼" X 12 GA. MAY BE INSERTED INTO 2½" X 12 GA. FOR ADDITIONAL WINDLOAD.

* 2-⅜" X 10 GA. MAY BE INSERTED INTO 2½" X 10 GA. FOR ADDITIONAL WINDLOAD.

BOTTOM UNIBASE SOIL STUB

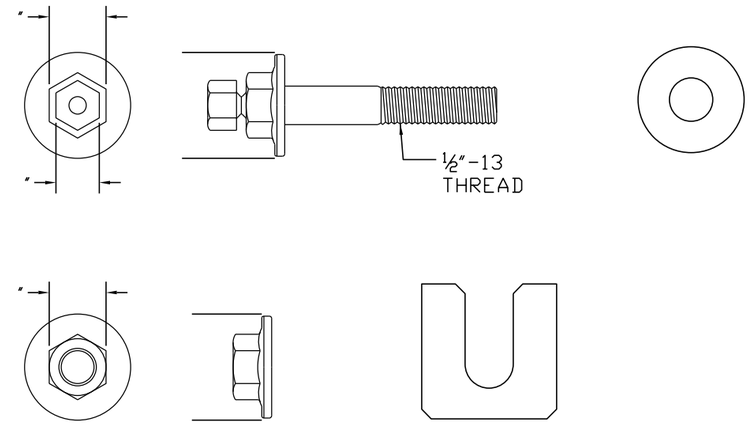




SEE NOTE 1

MATERIALS: Tube - 3" x 3" x 7 ga. ASTM A500 Grade B tube
Stabilizing Wing- 7 ga. H.R.P.O. ASTM A 569
Plate - ASTM A572 grade 50

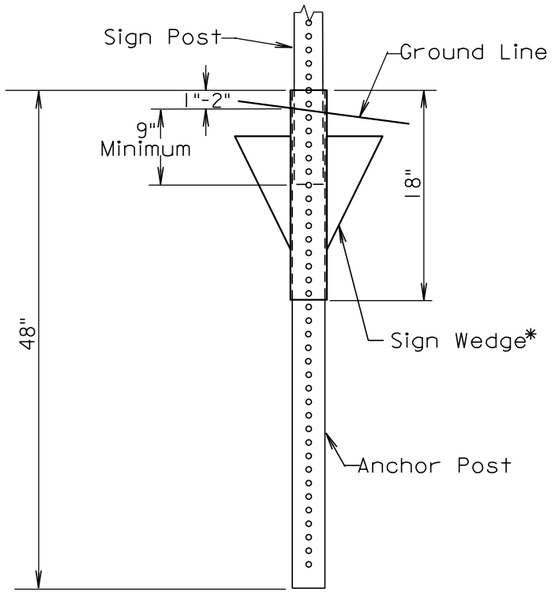
REDI-TORQUE MATCH PLATE HARDWARE



NOTES FOR INSTALLATION PROCEDURES

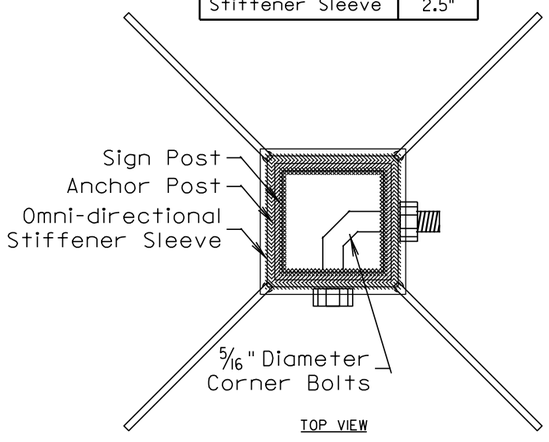
1. INSTALL BOTTOM UNIBASE SOIL ANCHOR STUB PLUMB AND SQUARED UP WITH ROAD, WITH POINT OF PLATE FACING ONCOMING TRAFFIC.
2. DEPTH OF IMBEDMENT TO LEAVE 2-1/2" FROM GRADE TO TOP OF UNIBASE.
3. PLACE 1 EACH TEFLON COATED WASHER SHIM ON EACH OF THE 3 NOTCHED POINTS, WITH THE OPEN SIDE FACING TOWARDS THE CENTER OF THE TRIANGLE.
4. PLACE TOP POST RECEIVER, SO THAT THE SIGN POST IS IN CORRECT POSITION FOR SIGN VISIBILITY, ON TO THE UNIBASE AND WASHER SHIMS.
5. PLACE 1 EACH ½" WASHER ONTO REDI-TORQUE BOLT AND PLACE IN EACH NOTCHED POINT OF THE TRIANGLE. PUSH EACH TEFLON COATED WASHER SHIM AGAINST THE SHANK OF EACH BOLT AND FINGER TIGHTEN ½" FLANGED LOCK NUT. SECOND ½" FLAT WASHER SHOULD BE PLACED BETWEEN FLANGE NUT AND UNDER SIDE OF BOTTOM SLIP PLATE.
6. FULLY TIGHTEN ALL THREE REDI-TORQUE BOLTS USING THE SMALLER 9/16" HEX HEAD UNTIL IT TWISTS OFF.
   *NOTE: SECONDARY (9/16" HEX) HEAD WILL TWIST OFF AT DESIRED TORQUE LEVEL TO MEET FEDERAL COMPLIANCE.
7. INSERT SIGN SUPPORT INTO THE TUBULAR PORTION OF TOP POST RECEIVER AND SECURE WITH A LOCKING WEDGE.
   *NOTE: WHERE HIGHER WINDLOAD IS DESIRED, INSERT THE NEXT SIZE SMALLER SQUARE POST INSIDE BOTTOM OF MAIN UPRIGHT POST
   *NOTE: ON MULTI-LEG INSTALLATIONS, BE SURE THAT ALL ANCHORS ARE SQUARED AND LINED UP WITH EACH OTHER.

NOTE:
Engineer may approve equal.



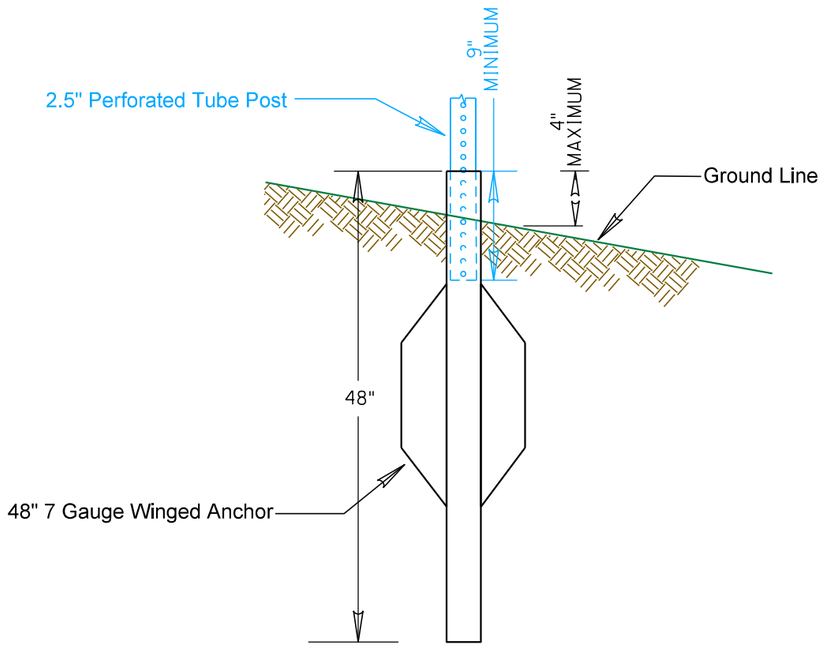
* - 18" Omni-directional Sleeve w/4 Blades, or Equivalent.
Manufacturer Recommended Dimensions and Installation.

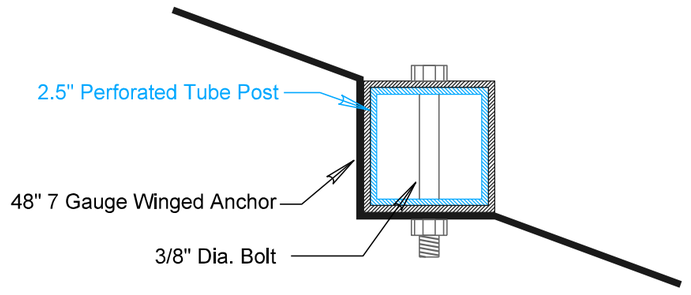
POST SIZE	
Sign Post	2"
Anchor Post	2.25"
Stiffener Sleeve	2.5"



NOTE:
Sign installations must meet or exceed NCHRP 350 or MASH breakaway requirements.

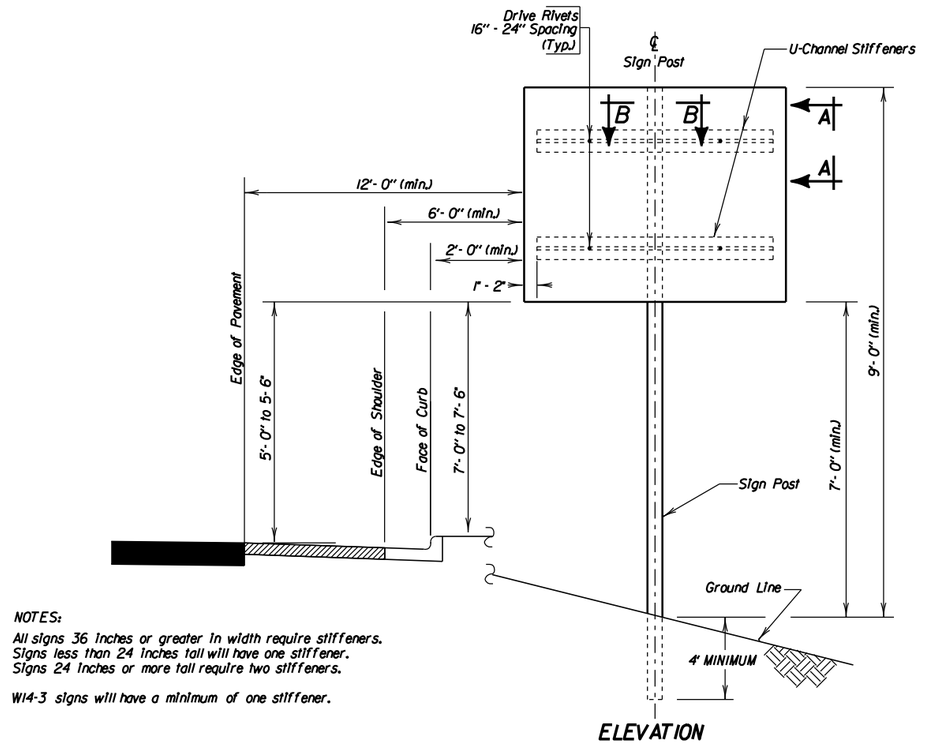
2" PERFORATED TUBE POST WINGED ANCHOR BASE DETAILS (Typical)





Configuraton of Anchor Blade may vary with Manufacturer.
Manufacturer's Installation Recommendations will be followed.
Installatios will meet NCHRP350 and MASH Requirements.

2.5" PERFORATED TUBE POST WITH 7 GAUGE HEAVY DUTY ANCHOR (Typical)

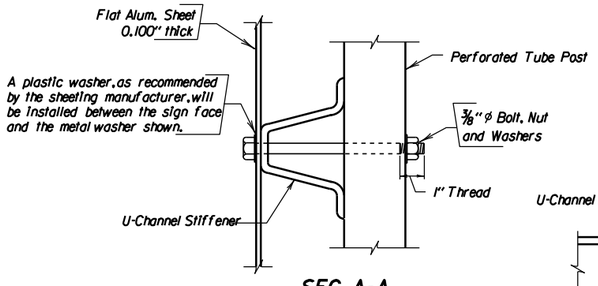


ELEVATION

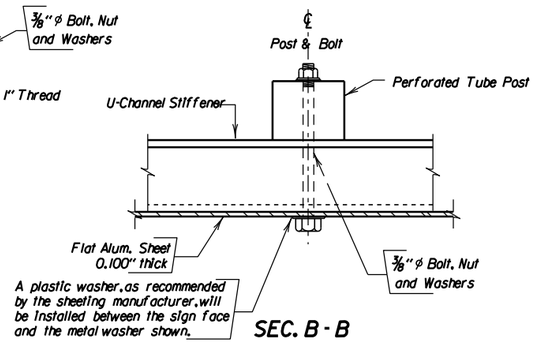
NOTES:

All signs 36 inches or greater in width require stiffeners.
Signs less than 24 inches tall will have one stiffener.
Signs 24 inches or more tall require two stiffeners.

W14-3 signs will have a minimum of one stiffener.

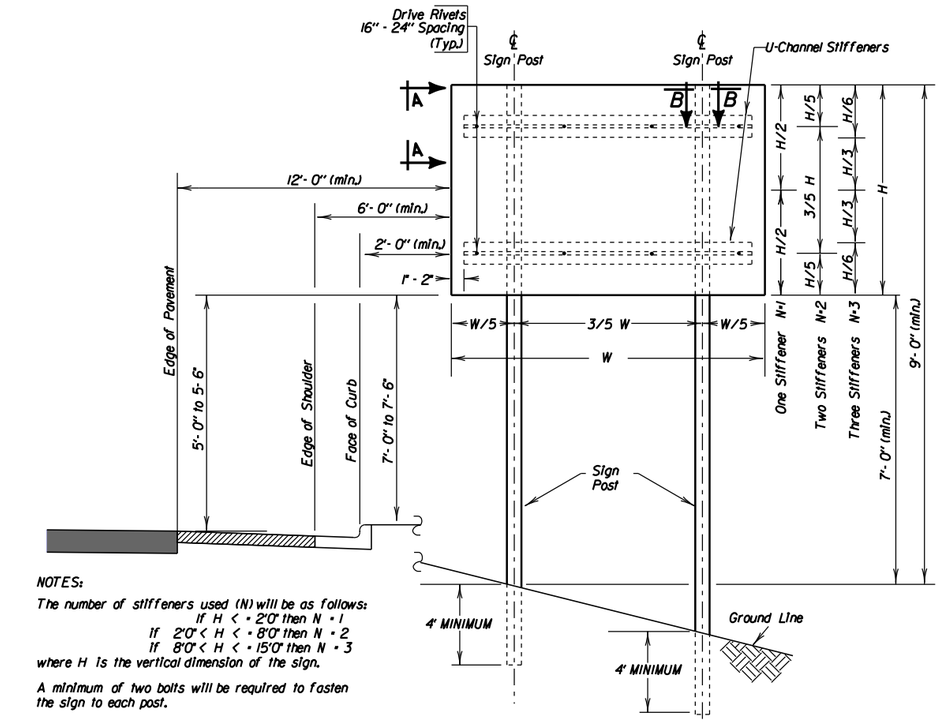


SEC. A-A



SEC. B - B

SINGLE POST BREAKAWAY SIGN SUPPORT
(Typical Sign and Stiffener Details)

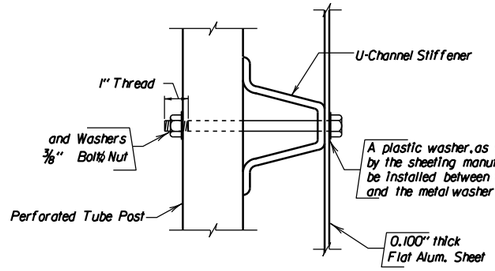


NOTES:

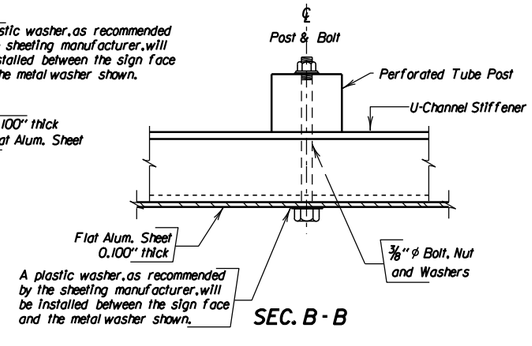
The number of stiffeners used (N) will be as follows:
If H < = 2'0" then N = 1
If 2'0" < H < = 8'0" then N = 2
If 8'0" < H < = 15'0" then N = 3
where H is the vertical dimension of the sign.

A minimum of two bolts will be required to fasten the sign to each post.

ELEVATION

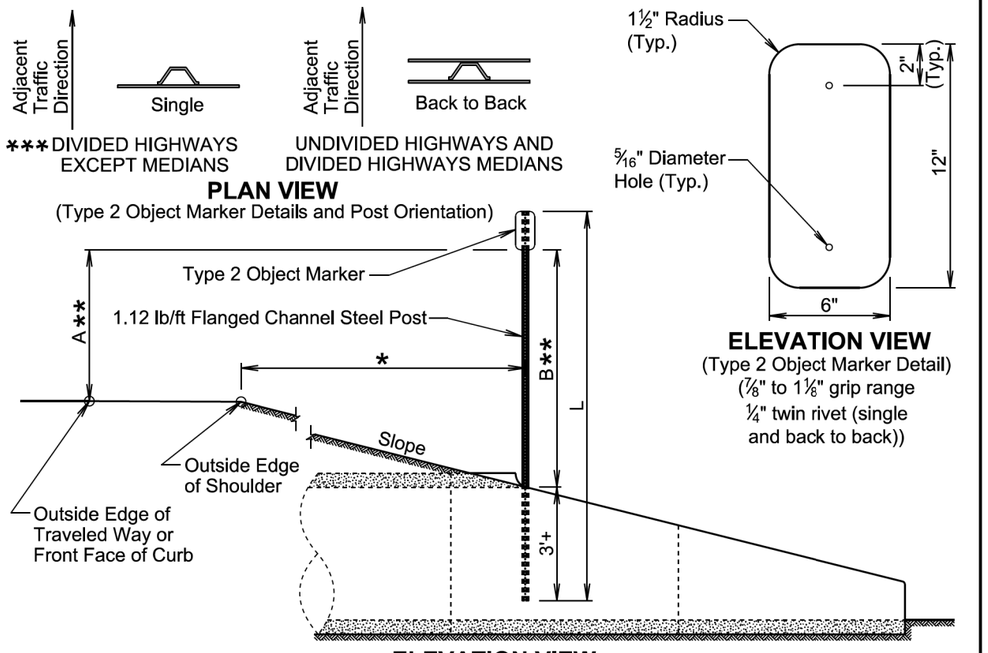


SEC. A-A



SEC. B - B

TWO POST BREAKAWAY SIGN SUPPORTS
(Typical Sign and Stiffener Details)



ELEVATION VIEW
(Pipe culvert shown for illustrative purpose.)

TYPE 2 OBJECT MARKER POST LENGTHS									
OFFSET (*)		1'	2'	3'	4'	5'	6'	7'	8'	Greater Than 8'
		POST LENGTH (L)								
SLOPE	3:1	8'-6"	8'-9"	9'-3"	9'-6"	9'-9"	10'-3"	10'-6"	10'-9"	8'-0"
	4:1	8'-6"	8'-9"	9'-0"	9'-3"	9'-9"	9'-9"	10'-0"	10'-3"	8'-0"
	5:1	8'-3"	8'-6"	8'-9"	9'-0"	9'-3"	9'-3"	9'-6"	9'-9"	8'-0"
	6:1	8'-3"	8'-6"	8'-9"	8'-9"	9'-0"	9'-3"	9'-3"	9'-6"	8'-0"

GENERAL NOTES:

*** The type 2 object marker may be installed back to back when specified in the plans.

Post Length L was calculated based on a shoulder width of 6 feet at a crosslope of 4 percent and L was rounded up to the nearest 3 inches.

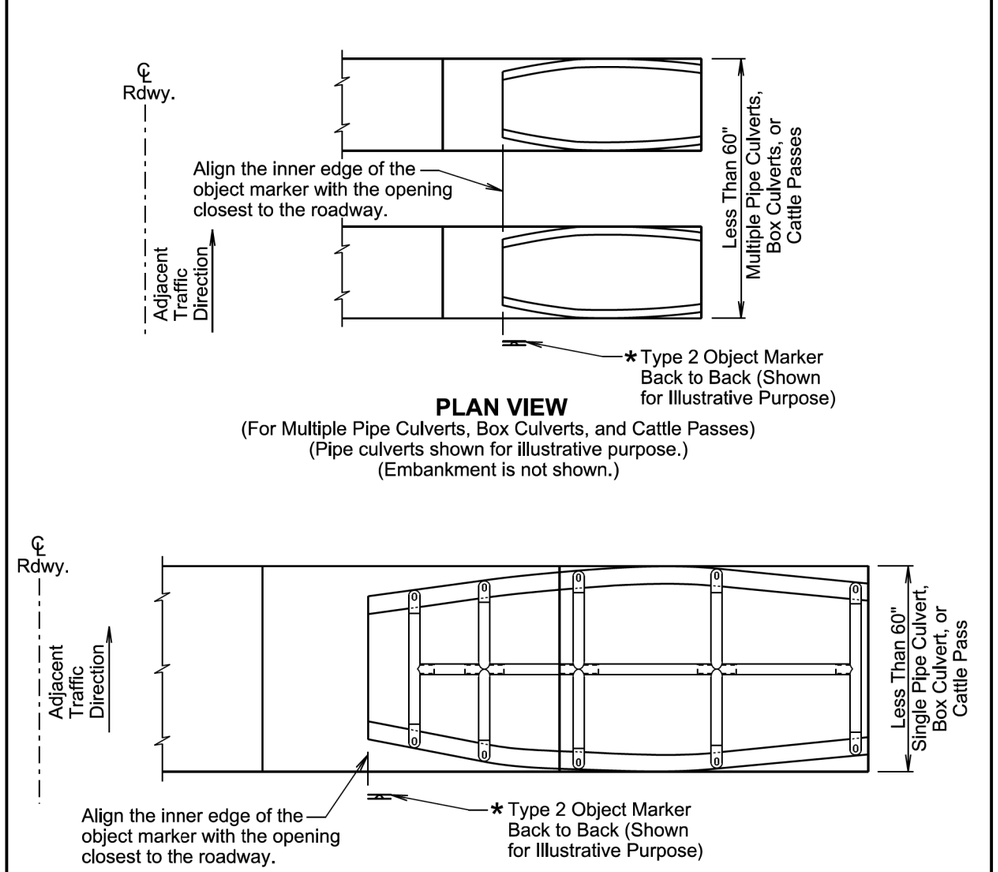
** Dimension A is 4 feet when the Offset * is 8 feet and less. Dimension B is 4 feet when Offset * is greater than 8 feet.

The type 2 object marker and the 1.12 lb/ft flanged channel steel post will be in conformance with Specifications Section 982.2 J.

Payment for the type 2 object marker will be in conformance with Specification Section 632.5 B.

December 23, 2019

Published Date: 2025	SDDOT	TYPE 2 OBJECT MARKER (DIRECT DRIVE)	PLATE NUMBER 632.01
			Sheet 1 of 1



GENERAL NOTES:

This standard plate will be used in conjunction with standard plate 632.01.

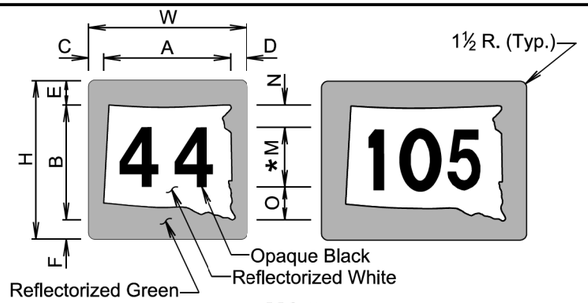
* The type 2 object markers will be installed at the locations shown above. The type 2 object markers, single faced or back to back, will be as specified in the plans.

December 23, 2019

Published Date: 2025	SDDOT	TYPE 2 OBJECT MARKER AT PIPE CULVERTS, BOX CULVERTS, AND CATTLE PASSES (Less than 60" Overall Width)	PLATE NUMBER 632.03
			Sheet 1 of 1

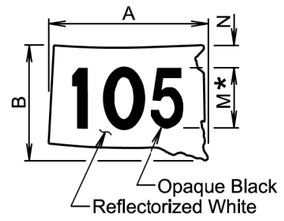
STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	NH-PH 0050(116)354 P 0037(168)19	S33	S37

Plotting Date: 12/09/2024



M1-5

SIGN CODE	WxH	A	B	C	D	E	F	M*	N	O
M1-5	24x24	20½	18	2	1½	3½	2½	12D	2	4
M1-5 **	30x24	24	18	2¼	1¾	3½	2½	12D	2	4
M1-5	30x30	25⅝	22½	2½	1⅞	4⅜	3⅛	15D	2½	5
M1-5	36x36	30¾	27	3	2¼	5¼	3¾	18D	3	6

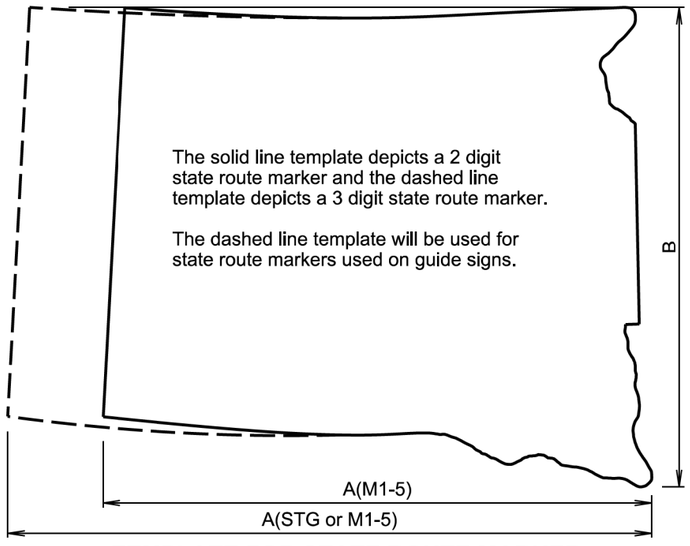


STG

SIGN CODE	AxB	M*	N
STG-24	24x18	10D	4
STG-32	32x24	12D	4¾
STG-48	48x36	18D	7
STG-64	64x48	24D	9½

* In the few cases where there is not enough space for the numerals, the standard D series font may be replaced with C series font if approved by the Engineer.

** 3 Digits



TEMPLATE FOR STATE ROUTE MARKER

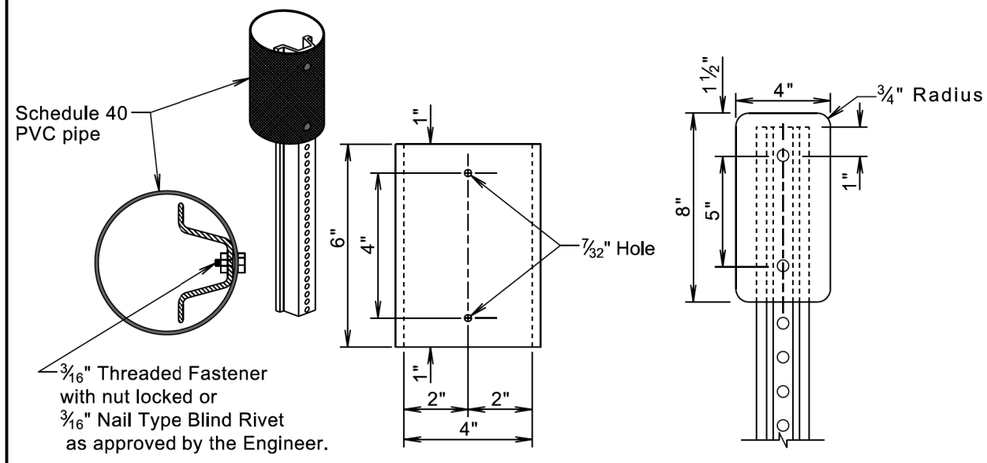
GENERAL NOTES:

The unit for all dimensions shown is inches.

Numerals will be D series font for all state route markers except as noted above.

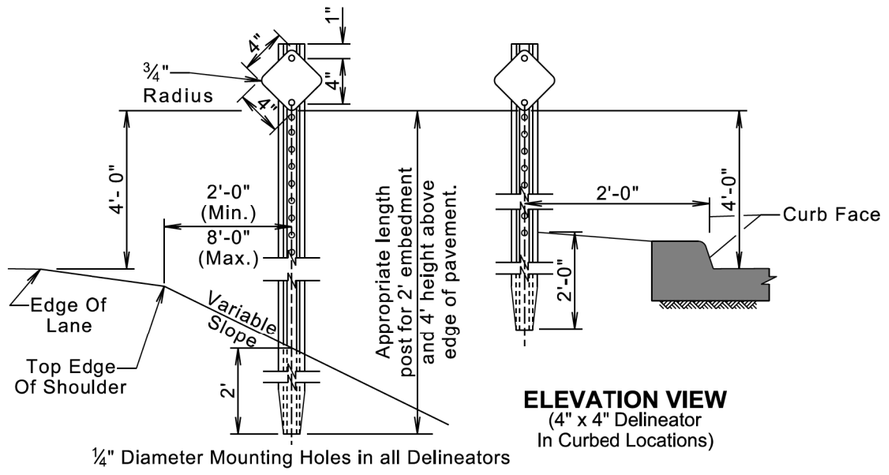
December 23, 2019

Published Date: 2025	SDDOT	**STATE ROUTE MARKERS**	PLATE NUMBER 632.20 Sheet 1 of 1



ELEVATION VIEW
(4" Tubular delineator mounted on post)

ELEVATION VIEW
(4" x 8" Delineator)



¼" Diameter Mounting Holes in all Delineators

ELEVATION VIEW
(4" x 4" Delineator In Curbed Locations)

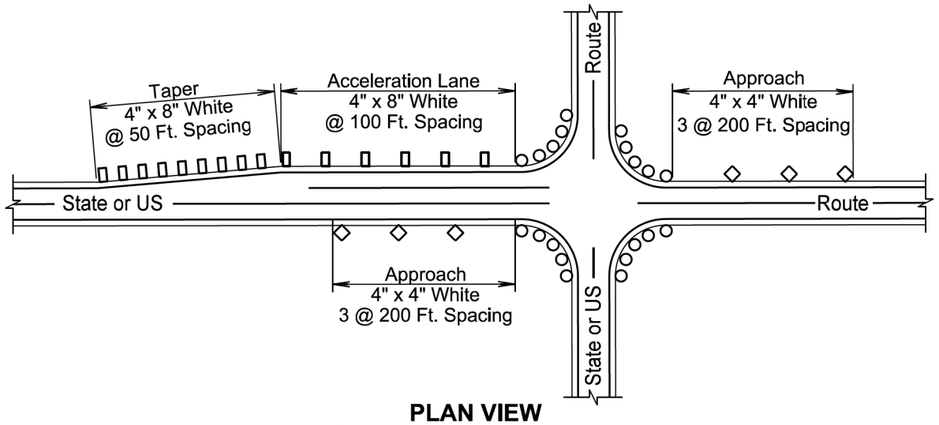
ELEVATION VIEW
(4" x 4" Delineators)

GENERAL NOTES:

Back-to-back delineation is required for two-way traffic, single-sided delineation for one-way traffic.

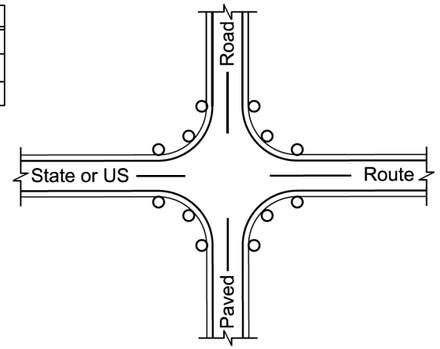
March 31, 2024

Published Date: 2025	SDDOT	**DELINEATOR INSTALLATION DETAIL**	PLATE NUMBER 632.42 Sheet 1 of 1



PLAN VIEW
(State or US Highway Intersection)

LEGEND
◇ 4" x 4" White Delineator
▯ 4" x 8" White Delineator
○ 4" x 6" White Tubular Delineator



PLAN VIEW
(Paved County Crossroad)

GENERAL NOTES:

At all intersections with State or US highways and paved county roads:

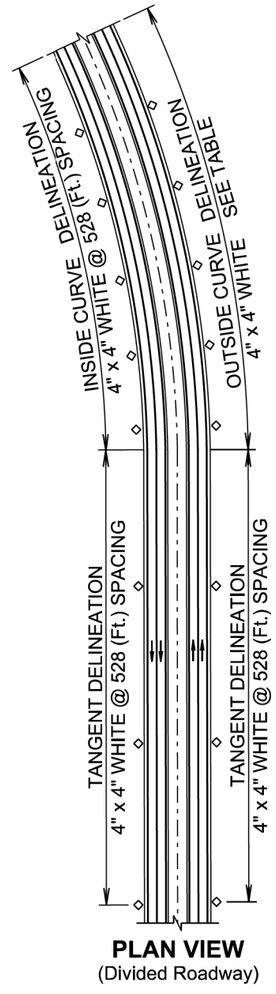
For radii greater than 100 feet, place 5 tubular white delineators on equally spaced posts around the turning radius.

For radii greater than 50 feet up to 100 feet, place 4 tubular white delineators on equally spaced posts around the turning radius.

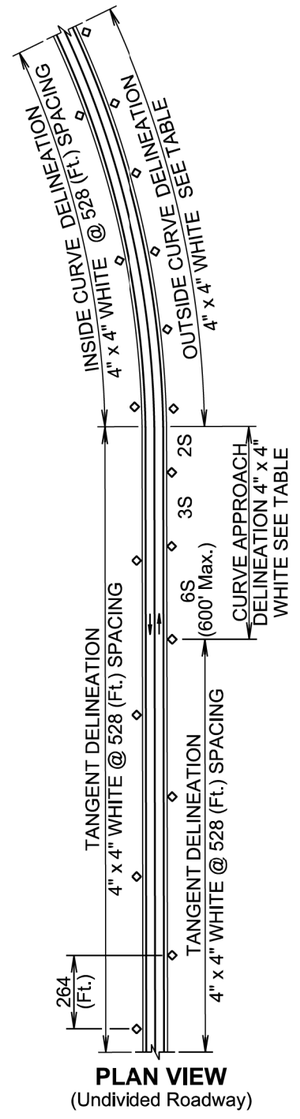
For radii of 50 feet or less, place 3 tubular white delineators on equally spaced posts around the turning radius.

November 19, 2020

Published Date: 2025	SDDOT	DELINEATOR AT INTERSECTIONS	PLATE NUMBER 632.44 Sheet 1 of 1



PLAN VIEW
(Divided Roadway)



PLAN VIEW
(Undivided Roadway)

March 31, 2024

Published Date: 2025	SDDOT	DELINEATOR INSTALLATION SPACING	PLATE NUMBER 632.46 Sheet 1 of 2

GENERAL NOTES:

Delineators will be located from 2 to 8 feet outside of the outer edge of shoulder. When a roadside barrier or other obstruction intrudes into the space between the pavement edge and the extension of the line of delineators, the delineators should be in line with the barrier or in line with the innermost edge of the obstruction.

When normal spacing is interrupted by driveways, crossroads, or approaches, delineators falling within such areas may be moved in either direction a distance not exceeding one-quarter of the standard spacing. Delineators still falling within such areas should be eliminated.

The spacing for specific radii may be interpolated from the table. The minimum spacing should be 20 feet. The spacing on curves should not exceed 300 feet. In advance of or beyond a curve, and proceeding away form the end of the curve, the spacing of the first delineator is 2S, the second 3S, and the third 6S, but not to exceed 300 feet. S refers to the delineator spacing for specific radii computed from the formula $S = 3\sqrt{R - 50}$. The distances for S shown in the table were rounded to the nearest 5 feet.

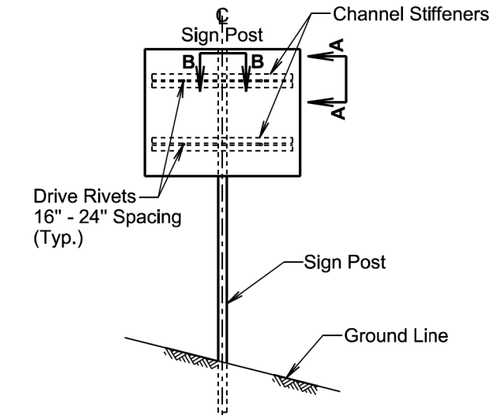
Curve approach delineation is not required if curve delineation spacing exceeds 100 ft.

Back-to-back delineation is required for two-way traffic, single-sided delineation for one-way traffic.

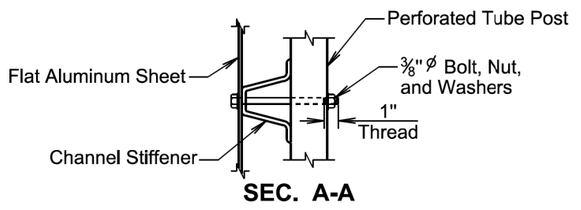
DELINEATOR SPACING OUTSIDE CURVE				
Radius of Curve (Ft.)	Curve Delineator Spacing (Ft.)	Curve Approach Spacing (Ft.)		
		A	B	C
50	20	40	65	125
115	25	50	75	150
150	30	60	90	180
180	35	70	110	215
250	40	85	125	250
300	45	95	140	285
400	55	110	170	300
500	65	125	190	300
600	70	140	210	300
700	75	150	230	300
800	80	165	245	300
900	85	175	260	300
1000	90	185	275	300

March 31, 2024

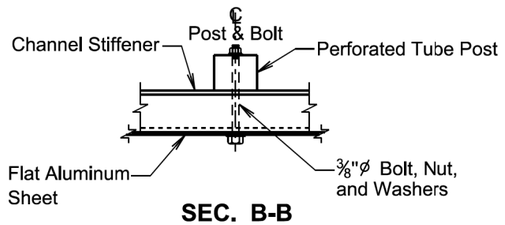
Published Date: 2025	SDDOT	DELINEATOR INSTALLATION SPACING	PLATE NUMBER 632.46
			Sheet 2 of 2



ELEVATION VIEW
(One post breakaway sign supports.)



SEC. A-A



SEC. B-B
(Typical sign and stiffener details.)

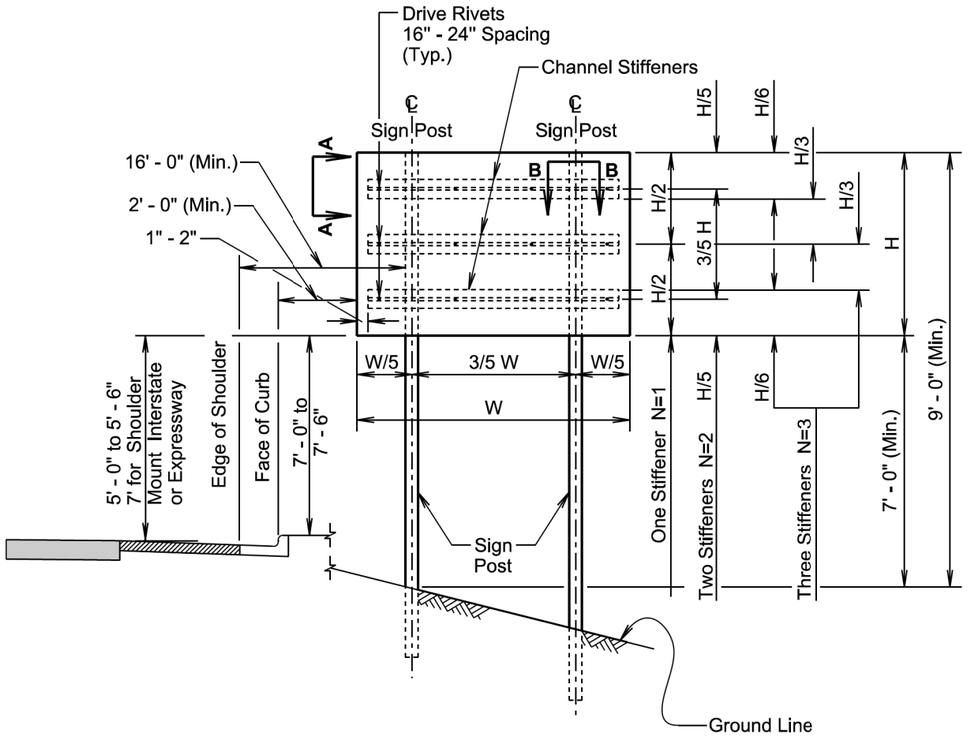
ø A plastic washer, as recommended by the sheeting manufacturer, will be installed between the sign face and the metal washer shown.

November 19, 2020

Published Date: 2025	SDDOT	SIGN STIFFENER DETAILS	PLATE NUMBER 632.60
			Sheet 1 of 2

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	NH-PH 0050(116)354 P 0037(168)19	S36	S37

Plotting Date: 12/09/2024



TWO POST BREAKAWAY SIGN SUPPORTS

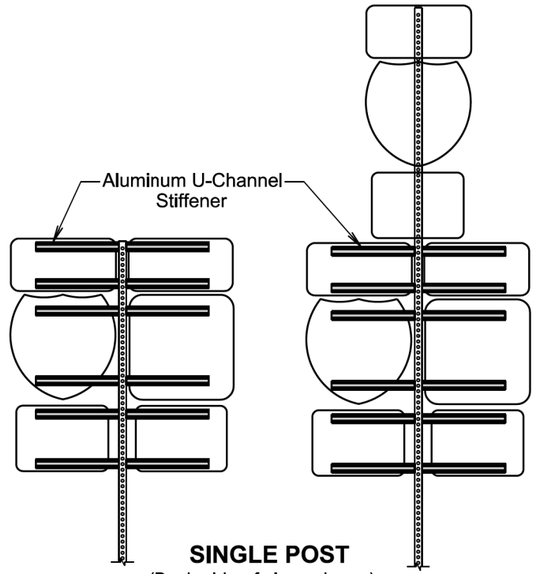
GENERAL NOTES:

The number of stiffeners used (N) will be as follows:
If H < = 2' - 0" then N = 1
if 2' - 0" < H < = 8' - 0" then N = 2
if 8' - 0" < H < = 15' - 0" then N = 3
where H is the vertical dimension of the sign.

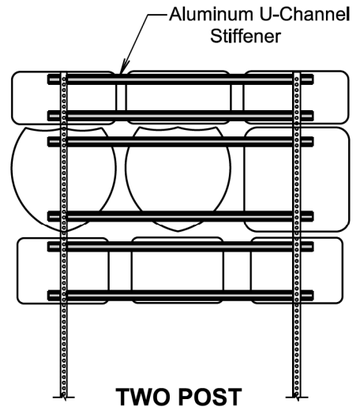
A minimum of two bolts will be required to fasten the sign to each post.

November 19, 2020

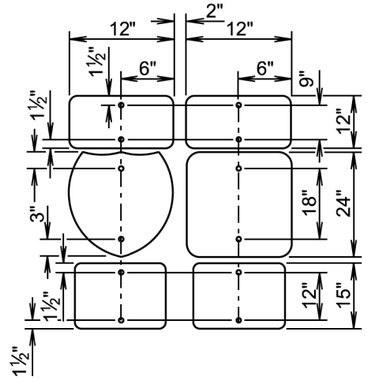
Published Date: 2025	SDDOT	SIGN STIFFENER DETAILS	PLATE NUMBER 632.60
			Sheet 2 of 2



SINGLE POST
(Back-side of signs shown)



TWO POST
(Back-side of signs shown)



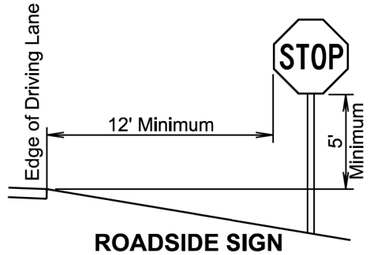
TYPICAL ROUTE MARKER BOLT HOLE LOCATIONS

November 19, 2020

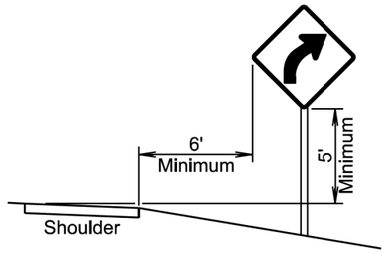
Published Date: 2025	SDDOT	MULTIPLE ROUTE MARKER SIGN STIFFENER INSTALLATION DETAILS	PLATE NUMBER 632.62
			Sheet 1 of 1

STATE OF SOUTH DAKOTA	PROJECT	SHEET	TOTAL SHEETS
	NH-PH 0050(116)354 P 0037(168)19	S37	S37

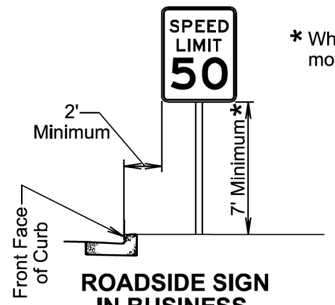
Plotting Date: 12/09/2024



ROADSIDE SIGN IN RURAL AREA

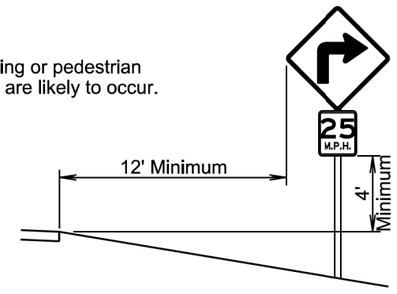


ROADSIDE SIGN IN RURAL AREA
(If shoulder width is greater than 6 foot)

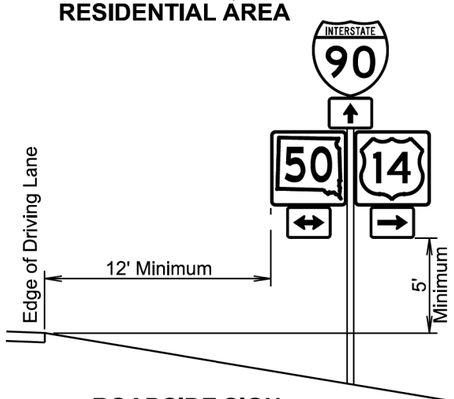


ROADSIDE SIGN IN BUSINESS, COMMERCIAL, OR RESIDENTIAL AREA

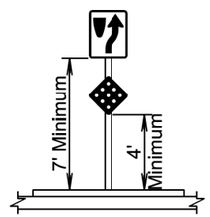
* Where parking or pedestrian movements are likely to occur.



WARNING SIGN ADVISORY SPEED PLAQUE IN RURAL AREA



ROADSIDE SIGN IN RURAL AREA



SIGN ON NOSE OF MEDIAN

November 19, 2020

Published Date: 2025	SDDOT	OFFSETS FOR SIGN INSTALLATION	PLATE NUMBER 632.90 Sheet 1 of 1