

# 2020 OLD HWY 99 BNSF CROSSING SIGNING

UTC DOCKET NO. TR-091450

CRP NO. 97070

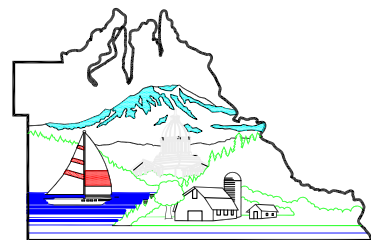
## THURSTON COUNTY, WASHINGTON

*Preliminary*

**PREPARED BY:**

**THURSTON COUNTY PUBLIC WORKS**

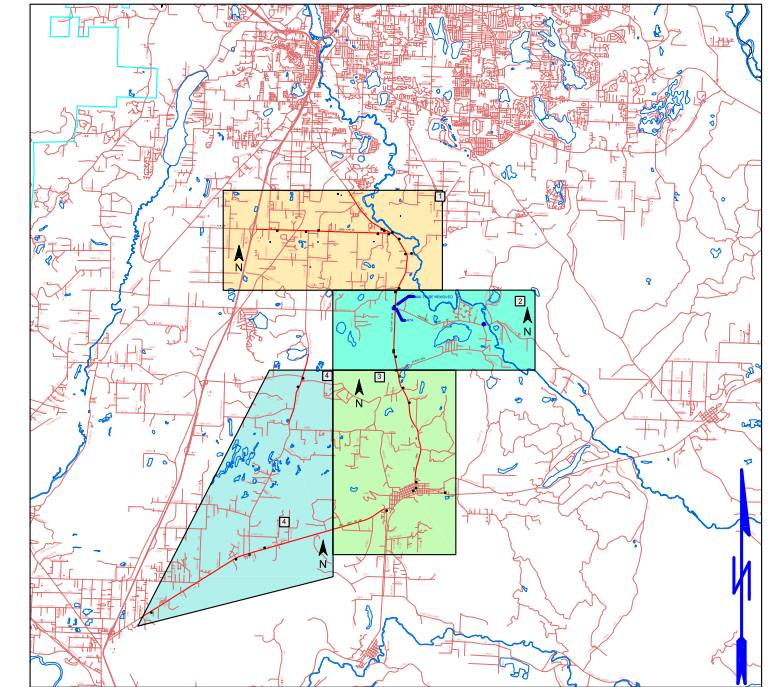
**ENGINEERING SERVICES DIVISION**



THURSTON COUNTY

WASHINGTON

SINCE 1852



VICINITY MAP

NO SCALE

### SHEET INDEX

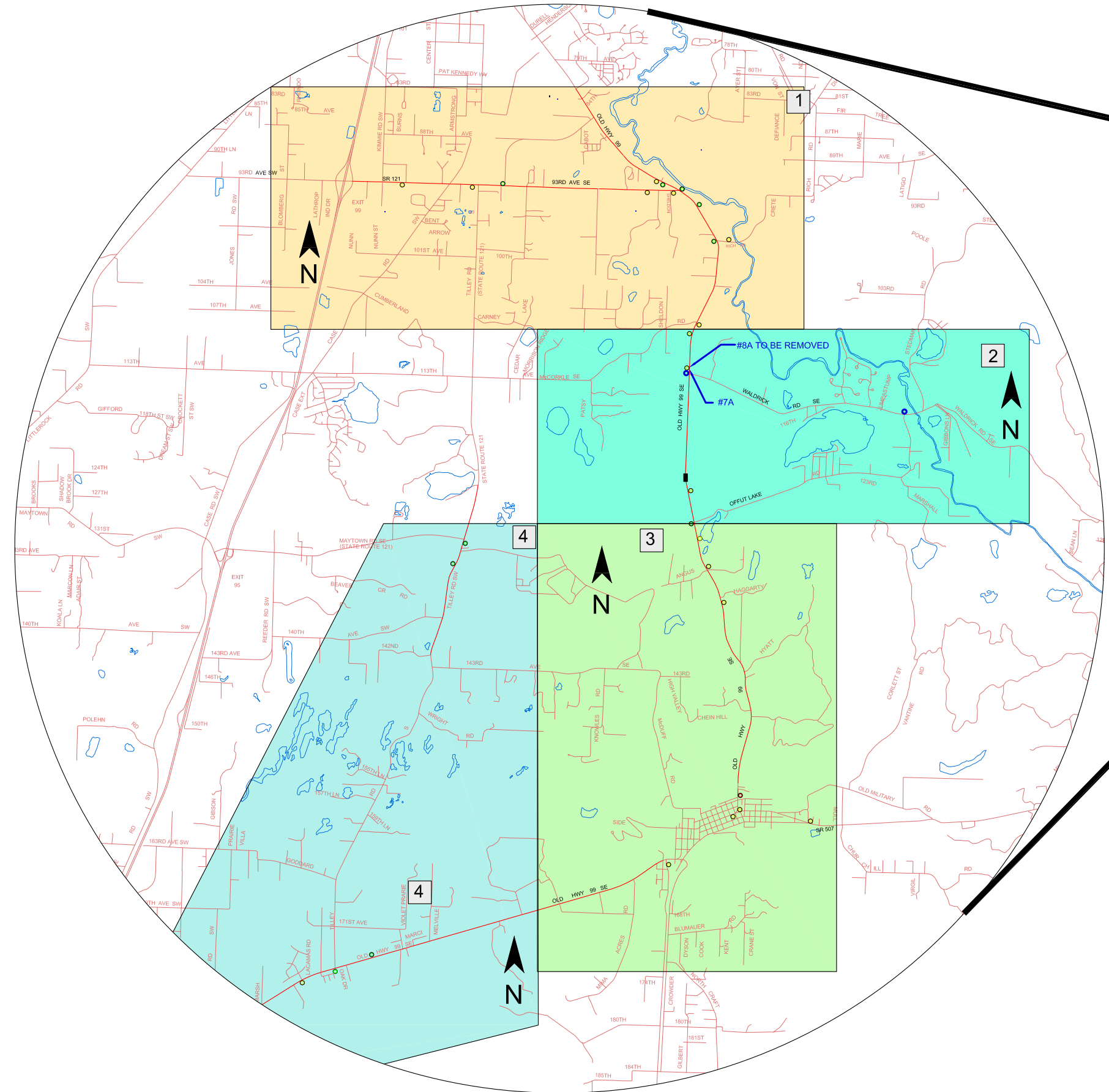
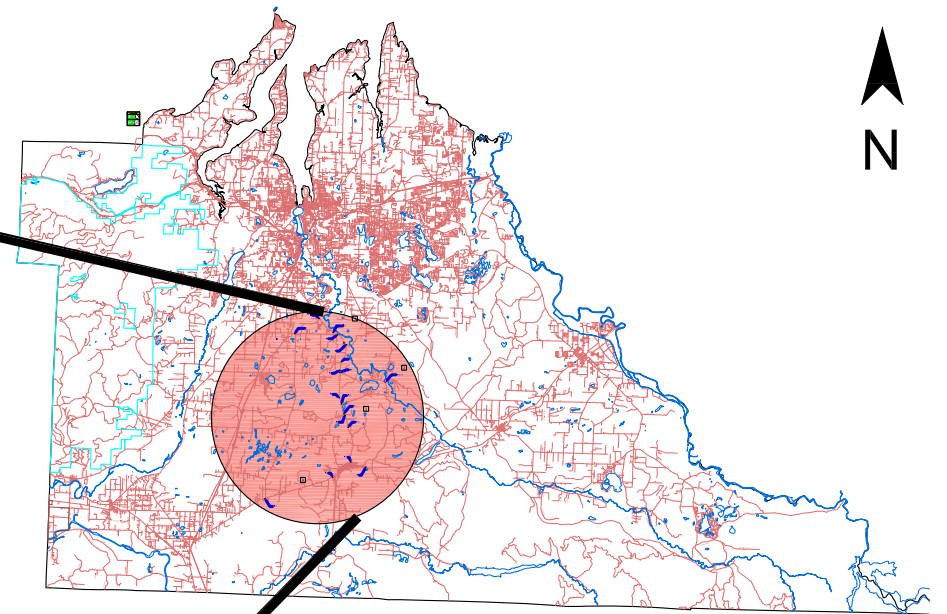
- SHEET 1: COVER
- SHEET 2: SITE VIEW
- SHEET 3: SIGN LOCATIONS
- SHEET 4: SIGN LOCATIONS
- SHEET 5: SPECIAL/WARNING SIGNS
- SHEET 6: GUIDE SIGNS
- SHEET 7: GUIDE SIGNS
- SHEET 8: SIGN SCHEDULE
- SHEET 9: MOUNTING DETAILS
- SHEET 10: MOUNTING DETAILS

THURSTON COUNTY PUBLIC WORKS  
9605 TILLEY RD SW  
OLYMPIA, WA 98512

APPROVED BY:

THURSTON TRAFFIC ENGINEER

DATE



THURSTON COUNTY PUBLIC WORKS  
 TRANSPORTATION  
 9605 TILLEY RD OLYMPIA, WA 98502  
 (360) 786-5495

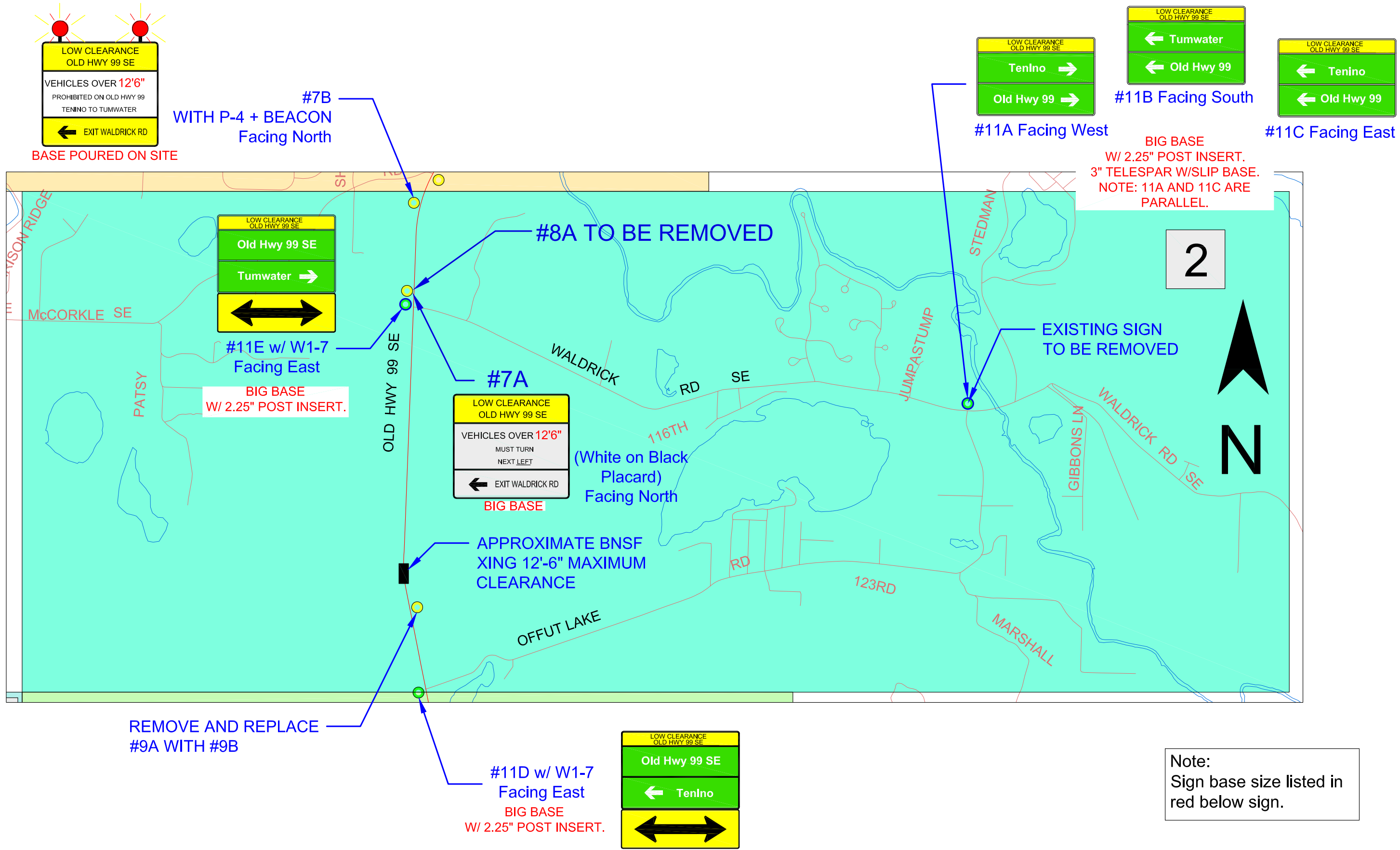
Designed: SD \_\_\_\_\_ Date \_\_\_\_\_  
 Drafted: JH \_\_\_\_\_  
 Checked: SD,KN,NW \_\_\_\_\_  
 Scale: AS NOTED \_\_\_\_\_  
 DWG File: 97070 OLD 99 NEW SIGN PLACEMENT PLAN SET

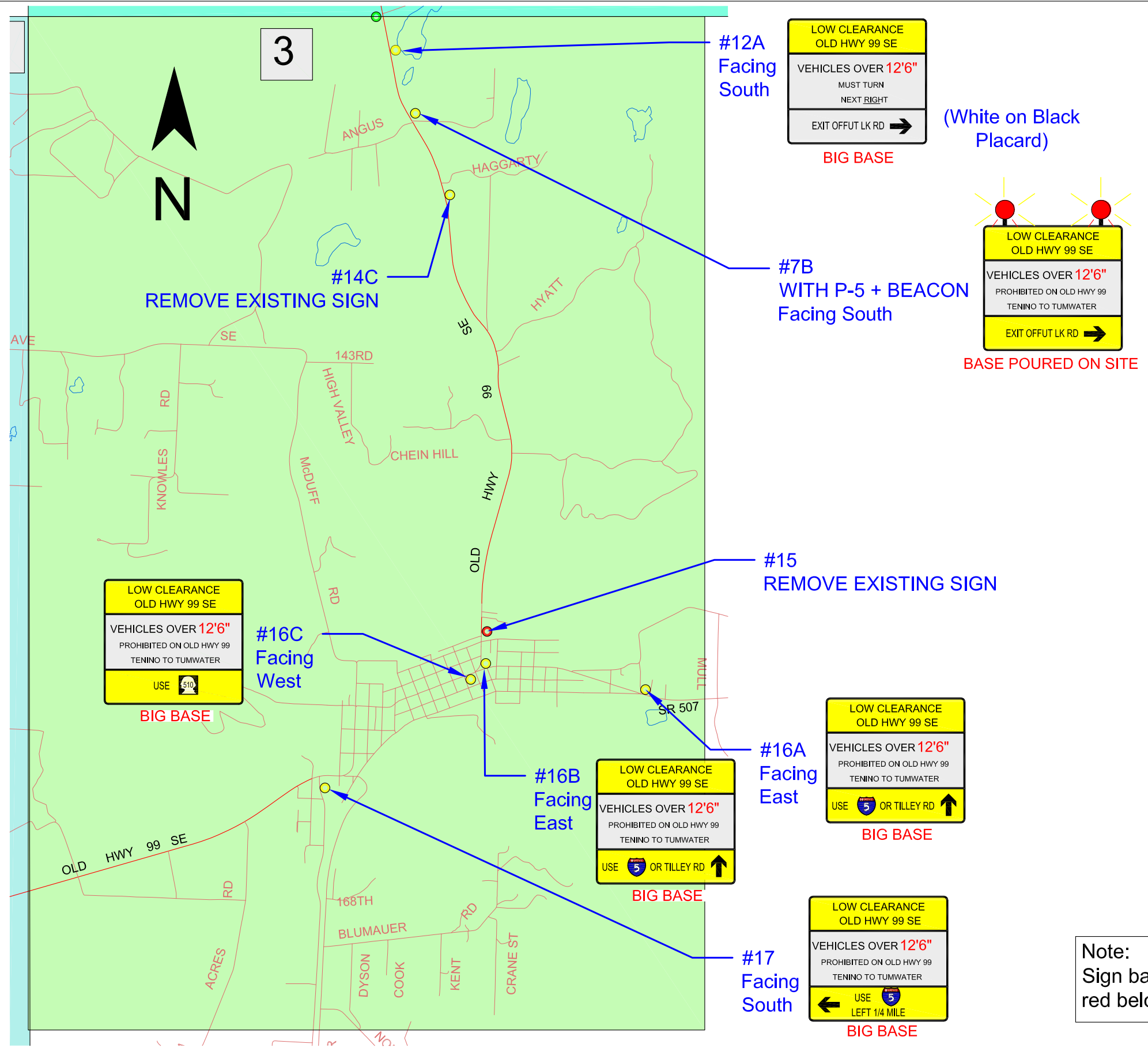
2020 OLD 99 BNSF CROSSING SIGNING  
 C.R.P. No. 97070 UTC No. TR-091450

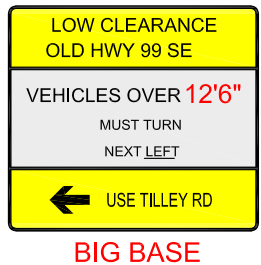
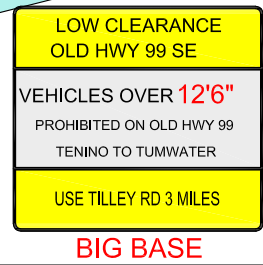
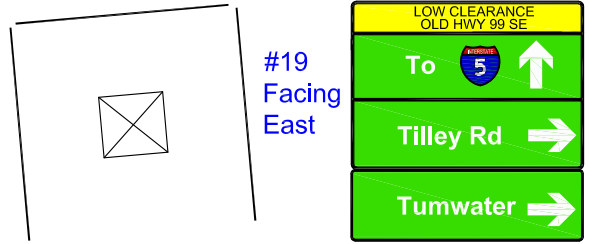
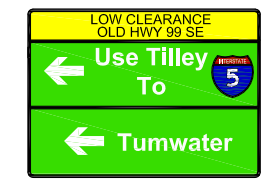
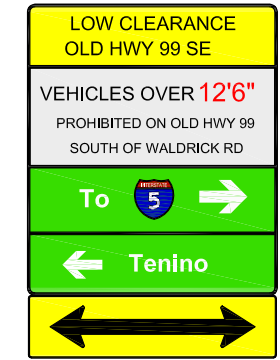
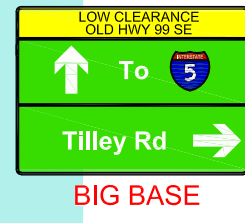
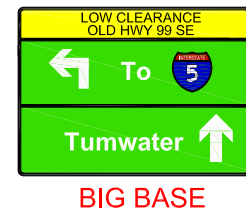
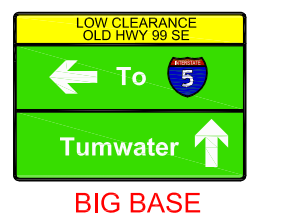
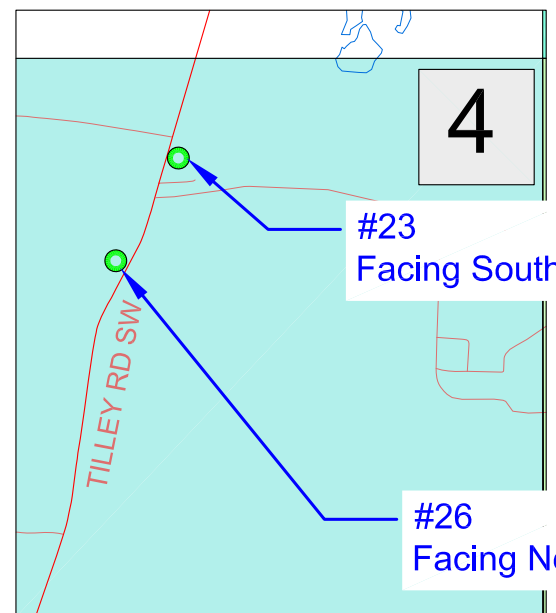
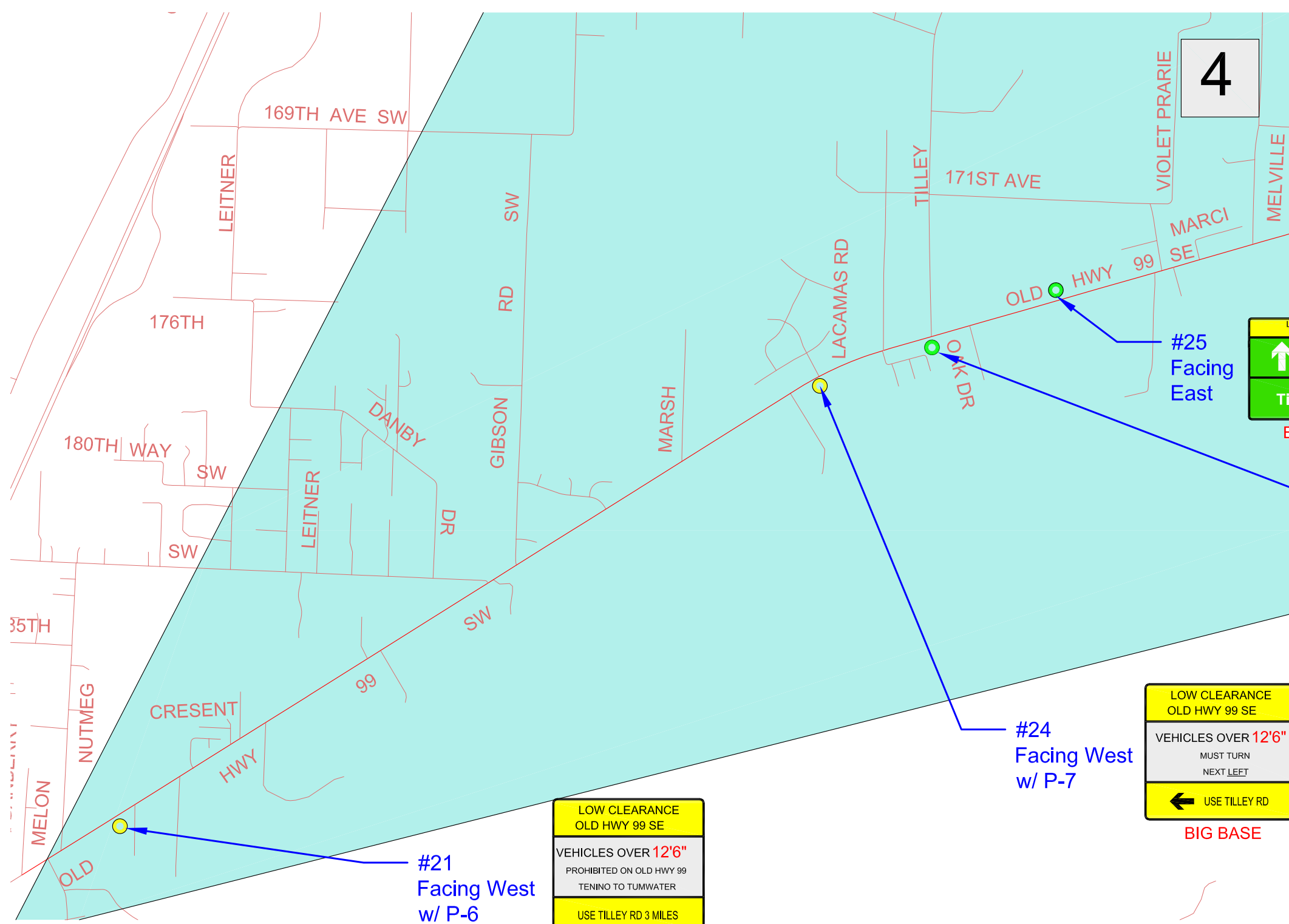
SITE VIEW

Sheet  
 2 of 15



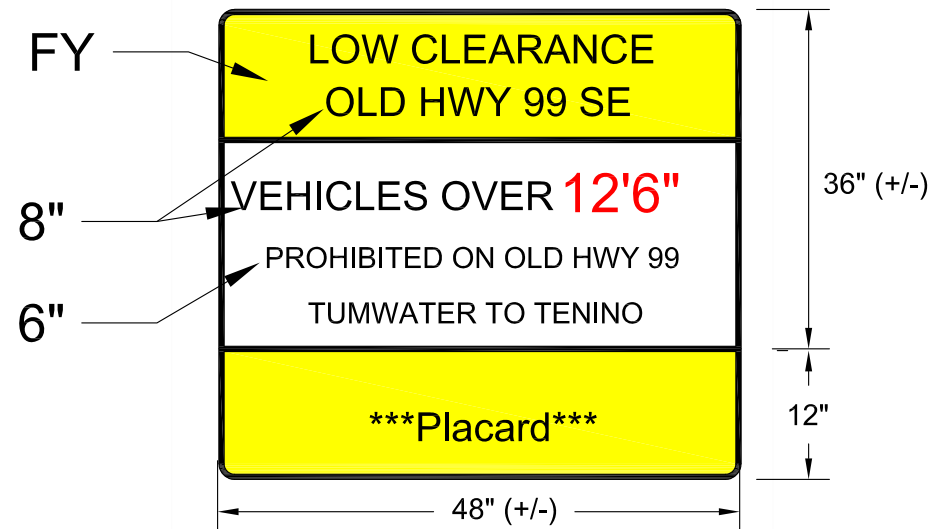




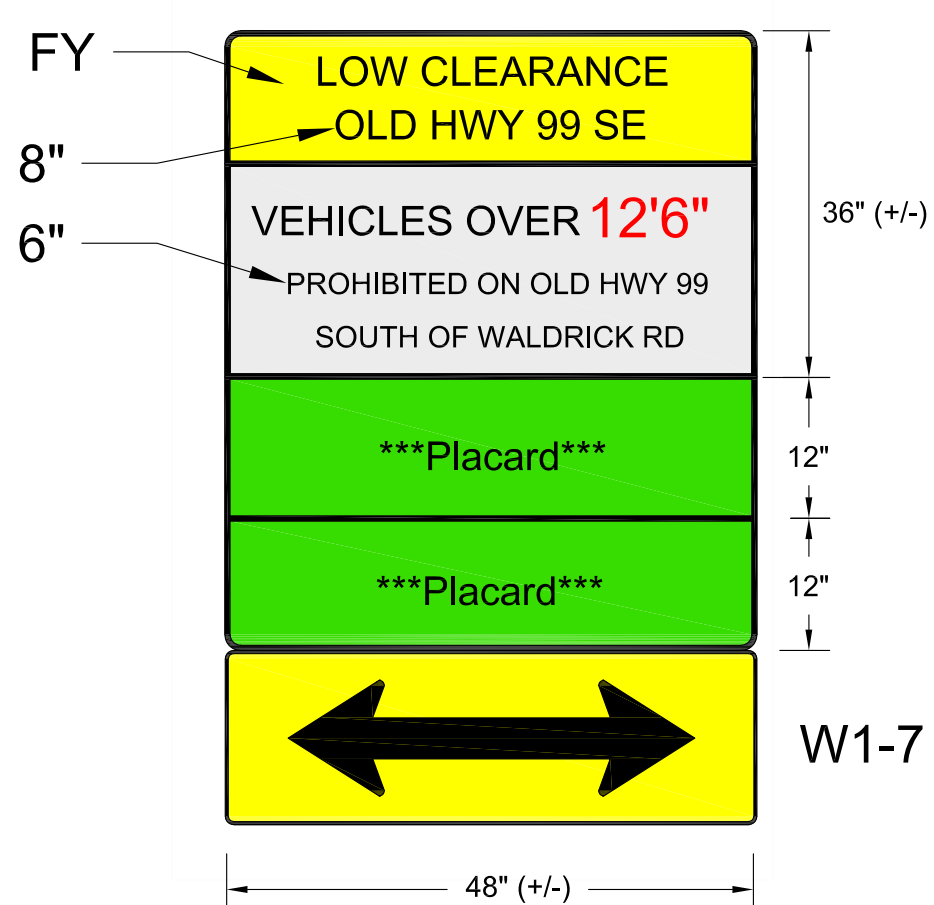


Note:  
Sign base size listed in red below sign.

### SPECIAL SIGN TYPE A



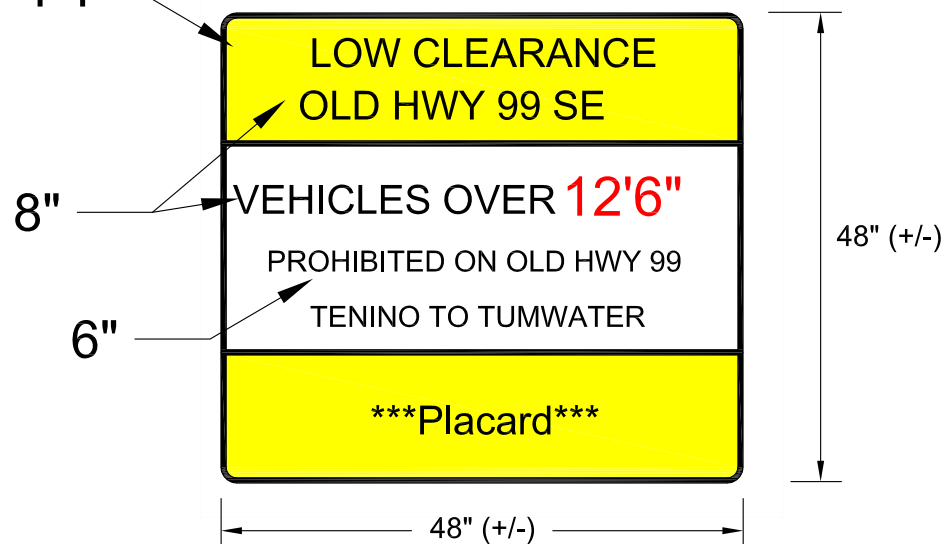
### SPECIAL SIGN TYPE D



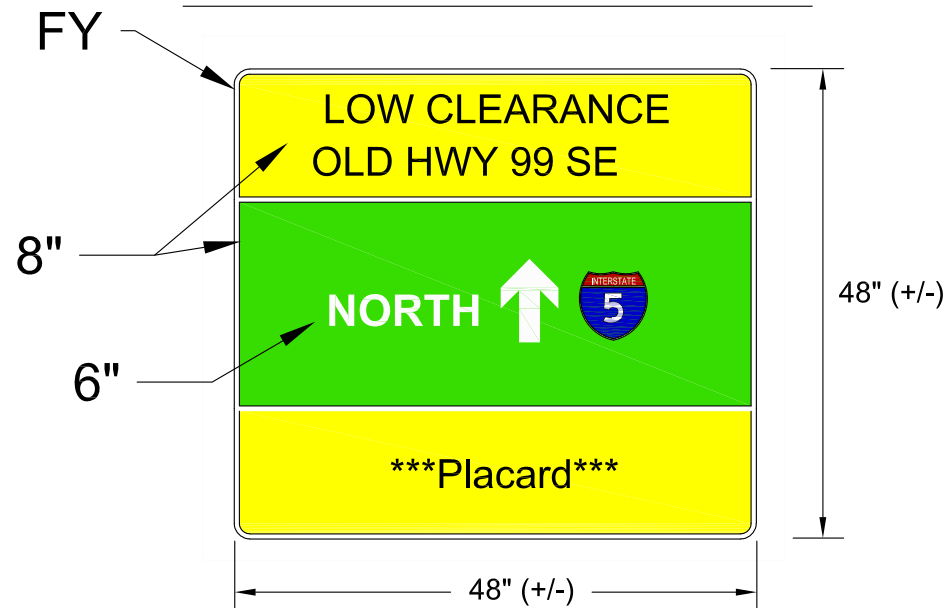
Notes:

- 1) Retroreflective Sheeting: FY - ASTM Type XI, All others - ASTM Type IV. Sheeting Manufacture - 3M
- 2) Font - Series B
- 3) Borders, Corner Radiuses, Arrows see WSDOT Sign Fabrication Manual
- 4) Sign dimensions are approximate for estimating purposes only. Final dimensions will be determined when final layouts are produced by sign manufacture.
- 5) Aluminum shall meet 9-28.8 of WSDOT Standard Specifications and have a thickness of 0.080" or 14 gage.
- 6) Signs larger than 48" shall be fabricated in multiple panels.
- 7) Special Signs and Placards shall also include aluminum windbeams and all other angle & mounting hardware as depicted in Standard Plan G22-10.01.

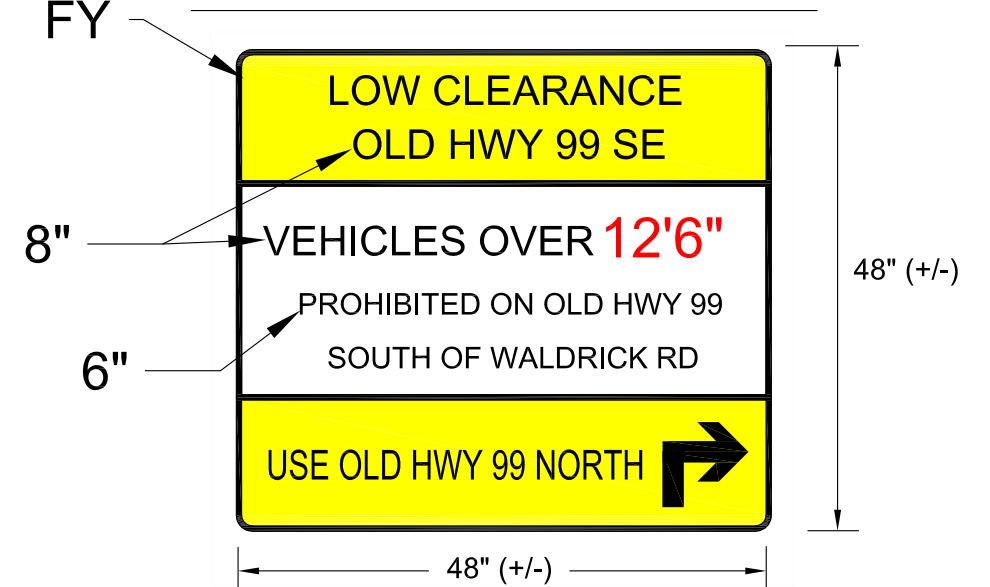
### SPECIAL SIGN TYPE B



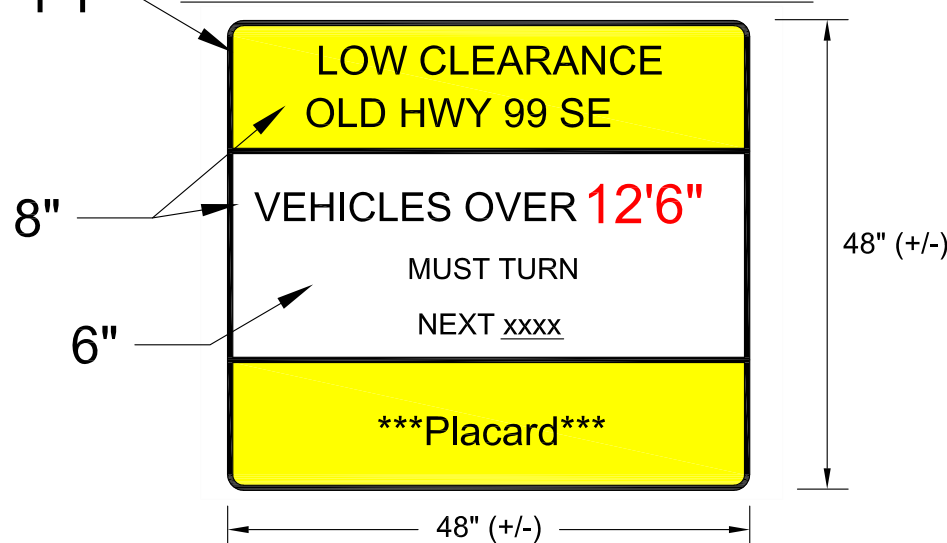
### SPECIAL SIGN TYPE E



### SPECIAL SIGN TYPE F



### SPECIAL SIGN TYPE C



FY (all)

1 12" (+/-) H  
48" (+/-) W

2 12" (+/-) H  
48" (+/-) W

3 12" (+/-) H  
48" (+/-) W

4A 12" (+/-) H  
48" (+/-) W

4B 12" (+/-) H  
48" (+/-) W

5A 12" (+/-) H  
48" (+/-) W

8" 12" (+/-) H  
48" (+/-) W

5B

6 12" (+/-) H  
48" (+/-) W

7 12" (+/-) H  
48" (+/-) W

8 12" (+/-) H  
48" (+/-) W

9 12" (+/-) H  
48" (+/-) W

10 12" (+/-) H  
48" (+/-) W

11 12" (+/-) H  
48" (+/-) W

12 12" (+/-) H  
48" (+/-) W

13 12" (+/-) H  
48" (+/-) W

14 12" (+/-) H  
48" (+/-) W

15 12" (+/-) H  
48" (+/-) W

8" 12" (+/-) H  
48" (+/-) W

16

17 12" (+/-) H  
48" (+/-) W

18 12" (+/-) H  
48" (+/-) W

19 12" (+/-) H  
48" (+/-) W

Notes:

- 1) Retroreflective Sheeting: FY - ASTM Type XI, All others - ASTM Type IV. Sheeting Manufacture - 3M
- 2) Font - Series B
- 3) Borders, Corner Radiuses, Arrows see WSDOT Sign Fabrication Manual
- 4) Sign dimensions are approximate for estimating purposes only. Final dimensions will be determined when final layouts are produced by sign manufacture.
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# GUIDE AND DIRECTIONAL SIGNING

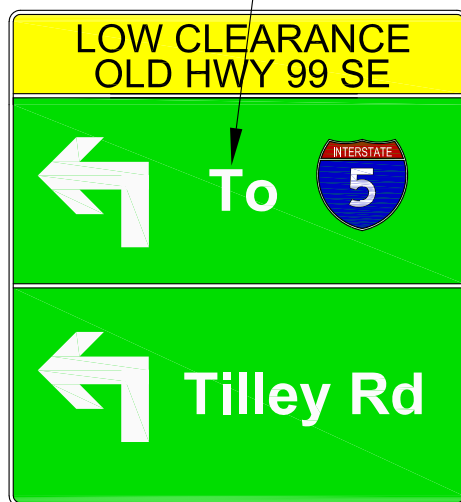
(G)

8" uppercase  
6" lowercase

24" (+/-) H  
48" (+/-) W  
For All Signs Below

6" Uppercase  
4" lowercase  
Typical

1

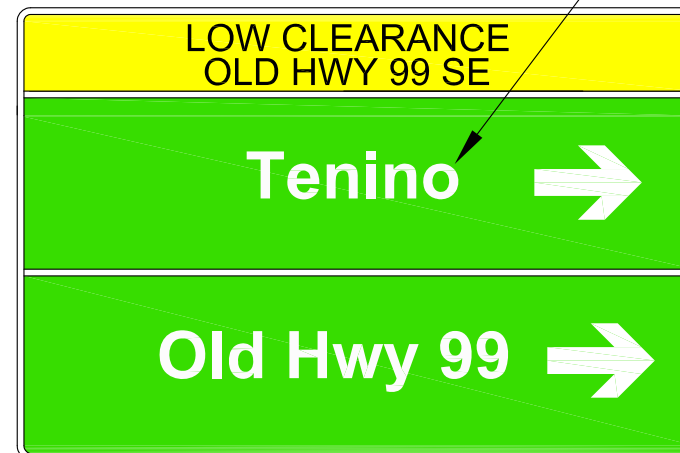


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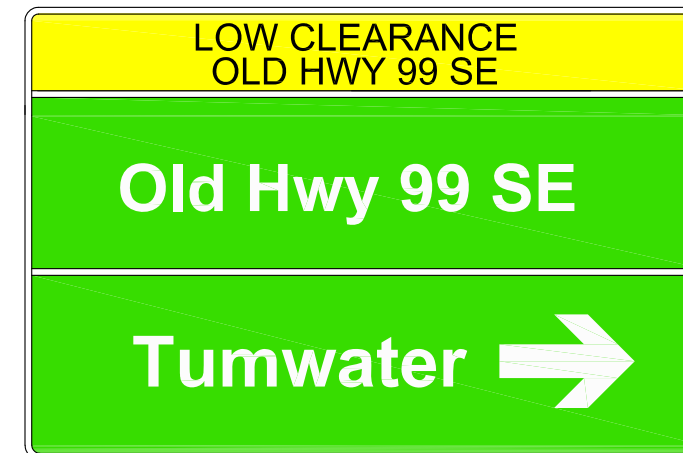
NOT  
USED

12" (+/-) H

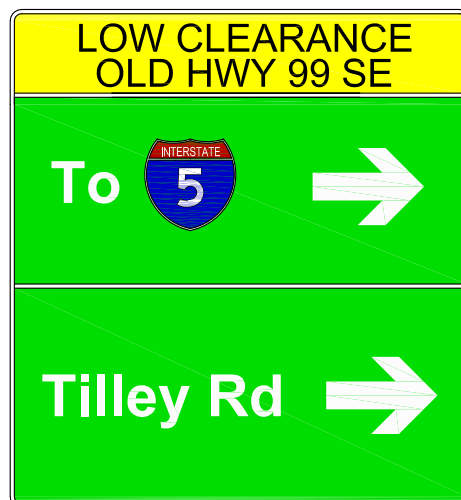
5



8



2



12" (+/-) H

4



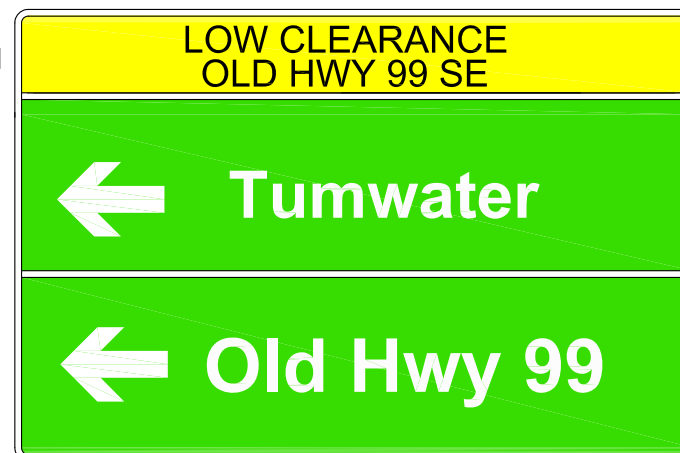
12" (+/-) H

M1-1  
12" x 12" (+/-)

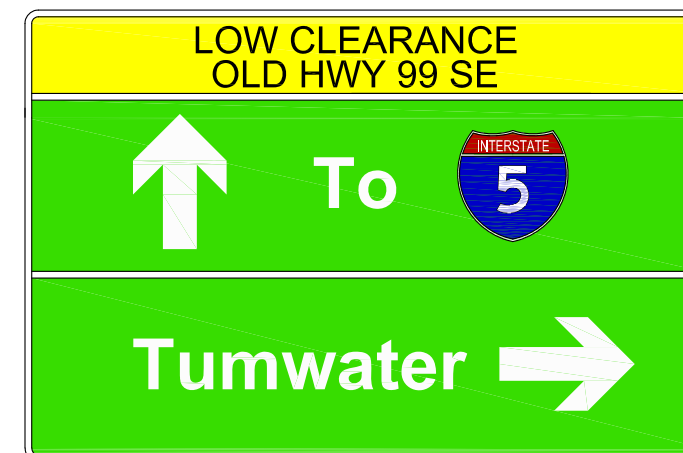
6

12" (+/-) H

7



9



36" (+/-) H  
48" (+/-) W  
For Signs 2-4 Above

Notes:

- 1) Retroreflective Sheeting: ASTM Type IV. Sheeting Manufacture - 3M
- 2) Font - Highway B
- 3) Borders, Corner Radiuses, Arrows see WSDOT Sign Fabrication Manual
- 4) Sign dimensions are approximate for estimating purposes only. Final dimensions will be determined when final layouts are produced by sign manufacture.
- 5) Aluminum shall meet 9-28.8 of WSDOT Standard Specifications and have a thickness of 0.125".

# GUIDE AND DIRECTIONAL SIGNING

(G)

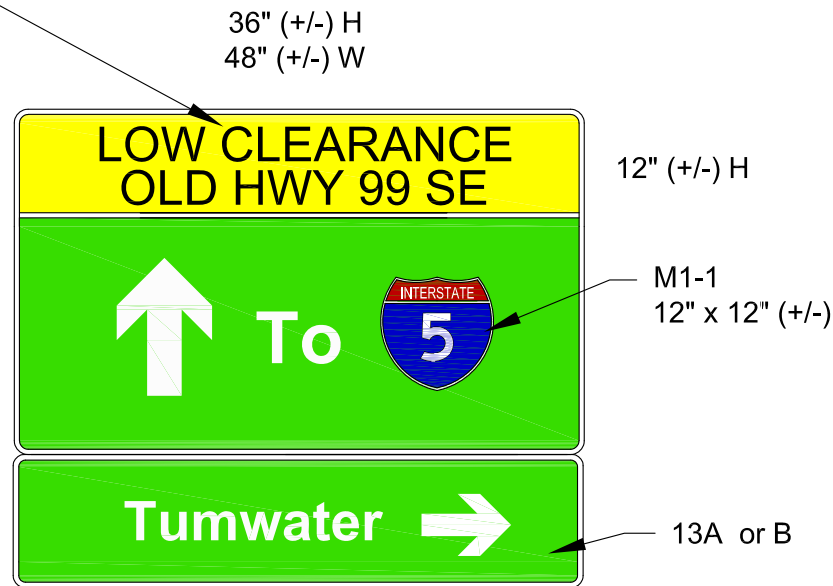
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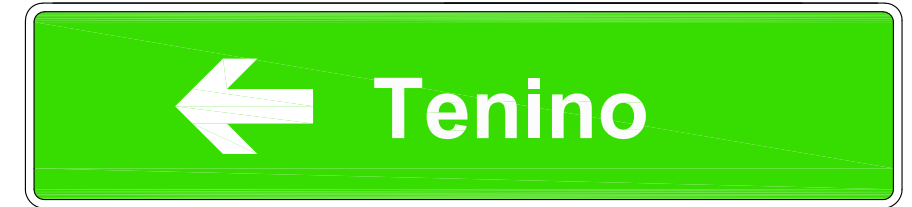
18" (+/-) H  
60" (+/-) W

8" uppercase  
6" lowercase

10



12A  
18" (+/-) H  
48" (+/-) W



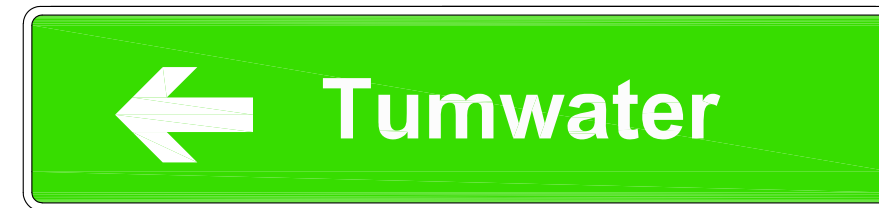
12B  
18" (+/-) H  
48" (+/-) W



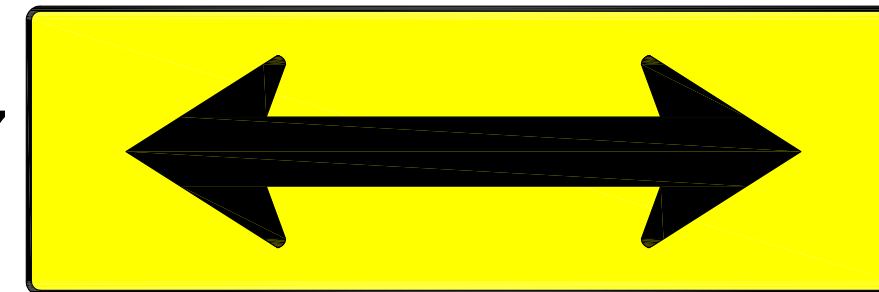
13A  
18" (+/-) H  
48" (+/-) W



13B  
18" (+/-) H  
48" (+/-) W



W1-7  
24" (+/-) H  
48" (+/-) W

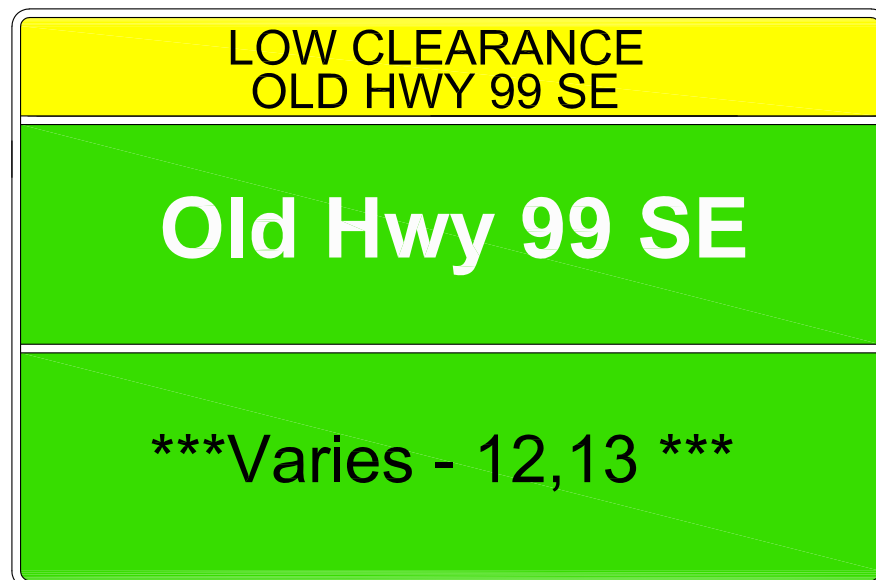


Note:  
For installation at intersections  
of 0+149 & Offut / Waldrick.  
And as noted on Plans.

Add W1-7 w/wind beam to  
existing sign post/assembly.

12" (+/-) H

11  
36" (+/-) H  
48" (+/-) W



Notes:

- 1) Retroreflective Sheeting: ASTM Type IV. Sheeting Manufacture - 3M
- 2) Font - Series C
- 3) Borders, Corner Radiuses, Arrows see WSDOT Sign Fabrication Manual
- 4) Sign dimensions are approximate for estimating purposes only. Final dimensions will be determined when final layouts are produced by sign manufacture.
- 5) Aluminum shall meet 9-28.8 of WSDOT Standard Specifications and have a thickness of 0.125".

MAP ID	MAP #	SIGN SERIAL	ROAD NAME	MUTCD ID	SIZE	SIDE OF ROAD	MP	INSTALL TYPE	DETAIL	SIGN TYPE ID	PLACARD ID	INSTALLED BY
1A	1		93RD AVE SE	SPECIAL		R	STATE	NEW	SEE SIGN DETAILS	A	P-8	TC
1B	1		93RD AVE SE	SPECIAL		R	STATE	NEW	SEE SIGN DETAILS	A	P-7	TC
1C	1		93RD AVE SE	SPECIAL		R	STATE	NEW	SEE SIGN DETAILS	A	P-17	TC
1D	1		93RD AVE SE	SPECIAL		R	STATE	NEW	SEE SIGN DETAILS	A	P-18	TC
2	1		93RD AVE SE	SPECIAL		L	TUMWATER	NEW	SEE SIGN DETAILS	G-10	P-11	TC
3	1	17165	OLD HWY 99 SE	SPECIAL		L	18.726	REPLACE	SEE SIGN DETAILS	A	P-15	TC
4A	1	17163	OLD HWY 99 SE @ 93RD AVE	SPECIAL		R	18.761	REPLACE	SEE SIGN DETAILS	G2		TC
4B	1	14712	OLD HWY 99 SE @ 93RD AVE	SPECIAL		R	18.526	REPLACE	SEE SIGN DETAILS	G4		TC
4C	1		OLD HWY 99 SE @ 93RD AVE	SPECIAL		R	18.526	REPLACE	SEE SIGN DETAILS	D		TC
5	1		RICH RD SW	SPECIAL		L	0.000	NEW	SEE SIGN DETAILS	A	P-3	TC
6A	1		OLD HWY 99 SE	W12-2	36" X 36"	L	17.146	NEW	12'6"	C		TC
6B	1		OLD HWY 99 SE	W16-3P	30" X 24"	L	17.146	NEW	2 MILES	A	P-2	TC
7A	2		OLD HWY 99 SE	SPECIAL		L	16.490	NEW	SEE SIGN DETAILS	C	P-4	TC
7B	2		OLD HWY 99 SE	SPECIAL		L	16.490	NEW	SEE SIGN DETAILS	A	P-4 + BEACON	TC
8A	2	5815	OLD HWY 99 SE	W12-2	36" X 36"	L	16.440	REMOVE				TC
8B	2		OLD HWY 99 SE	W12-2	36" X 36"	L	16.340	NEW	12'6"	C		TC
8C	2		OLD HWY 99 SE	W16-3P	30" X 24"	L	16.340	NEW	1 MILE			TC
8D		12207	OLD HWY 99 SE	W12-2	36"x36"	L	15.386	REPLACE	12'6"	C		TC
8E			OLD HWY 99 SE	W16-9P	30"x24"	L	15.386	NEW	AHEAD			TC
9A	2	5569	OLD HWY 99 SE	W12-2	36" X 36"	L	15.141	REPLACE	12'6"	C		TC
9B	2		OLD HWY 99 SE	W16-9P	36" X 36"	L	15.141	NEW	AHEAD	C		TC
10A	2		OLD HWY 99 SE	W12-2	36" X 36"	R	14.880	NEW	12'6"	C		TC
10B	2		OLD HWY 99 SE	W16-3P	30" X 24"	R	14.880	NEW	1/3 MILE	C		TC
11A	2		WALDRICK RD SE @ OFFUT LK RD	D3-2	VARIABLE X 30"	L	2.297	NEW	SEE SIGN DETAILS	G-5		TC
11B	2		WALDRICK RD SE @ OFFUT LK RD	D3-2	VARIABLE X 30"	L	2.297	NEW	SEE SIGN DETAILS	G-6		TC
11C	2		WALDRICK RD SE @ OFFUT LK RD	D3-2	VARIABLE X 30"	L	2.297	NEW	SEE SIGN DETAILS	G-7		TC
11D												
11E												
12A	3		OLD HWY 99 SE	SPECIAL		R	14.772	NEW	SEE SIGN DETAILS	C	P-5	TC
12B	3		OLD HWY 99 SE	SPECIAL		R	14.772	NEW	SEE SIGN DETAILS	B	P-5 + BEACON	TC
13	3	5574	OLD HWY 99 SE	W12-2	30"x30"	R	14.107	REMOVE				TC
14A	3		OLD HWY 99 SE	W12-2	36" X 36"	R	14.240	NEW	12'6"	C		TC
14B	3		OLD HWY 99 SE	W16-3P	30" X 24"	R	14.240	NEW	1 MILE	C		TC
14C	3	5581	OLD HWY 99 SE	W12-2	30"x30"	R	14.107	REMOVE				TC
15	3		OLD HWY 99 SE	SPECIAL		R	TENINO	REMOVE				TC
16	3		SR 507	SPECIAL		L	STATE	REPLACE	SEE SIGN DETAILS	B	P-1	WSDOT
17	3		SR507	SPECIAL		R	STATE	NEW	SEE SIGN DETAILS	B	P-9	WSDOT
18	4		OLD HWY 99 SE	SPECIAL		R	4.012	NEW	SEE SIGN DETAILS	B	P-7	TC
19	4		OLD HWY 99 SE	SPECIAL		L	7.118	NEW	SEE SIGN DETAILS	G-1		TC
20	4		OLD HWY 99 SE @ TILLEY RD	SPECIAL		R	7.012	NEW	SEE SIGN DETAILS	G-8		TC
21	4		OLD HWY 99 SE	SPECIAL		R	6.917	NEW	SEE SIGN DETAILS	B	P-6	TC
22	4		OLD HWY 99 SE	D3-1	SEE PLANS	R	7.012	NEW	TILLEY RD SW	G-9		TC
23	4		TILLEY RD SW	SPECIAL	SEE PLANS	R		NEW	SEE SIGN DETAILS	G-10		TC
24	4		TILLEY RD SW	SPECIAL	SEE PLANS	R		NEW	SEE SIGN DETAILS	C		TC

THURSTON COUNTY PUBLIC WORKS  
TRANSPORTATION  
9605 TILLEY RD OLYMPIA, WA 98502  
(360) 786-5495

Designed: SD  
Drafted: JH  
Checked: SD,KN,NW  
Scale: AS NOTED  
DWG File: 97070 OLD 99 NEW SIGN PLACEMENT PLAN SET

Revisions \_\_\_\_\_ Date \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

2020 OLD 99 BNSF CROSSING  
SIGNING

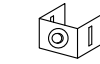
C.R.P. No. 97070 F.A. No. TR-091450

SIGN SCHEDULE

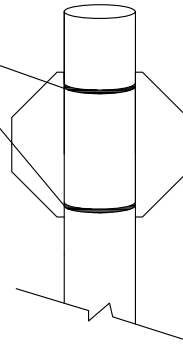
Sheet  
11 of 15

ALTERNATIVE METHOD OF MOUNTING TYPE A SIGNS  
APPROVAL REQUIRED BY THURSTON COUNTY

STAINLESS STEEL CLAMPS  
3/4 INCH X .015 INCH STAINLESS STEEL

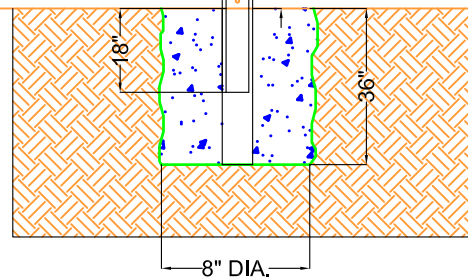


SIGN BRACKETS

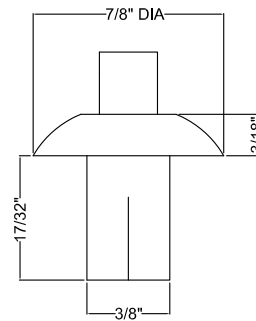
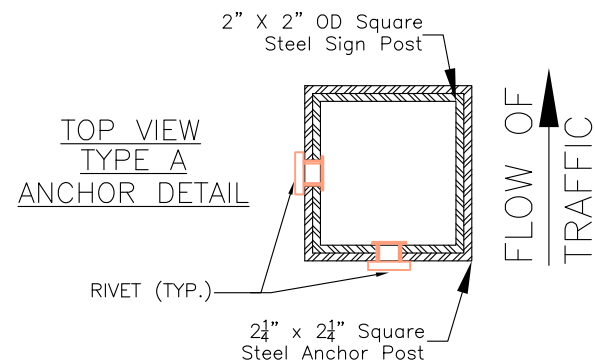


SIGN PLACEMENT ONTO LAMP POSTS USING BRACKETS, STEEL BANDS, OR CLAMPS

2" X 2" OD 14 GAUGE GALVANIZED STEEL POST W/ 3/8" DIA PERFORATIONS



TYPE A ANCHOR INSTALLATION DETAIL



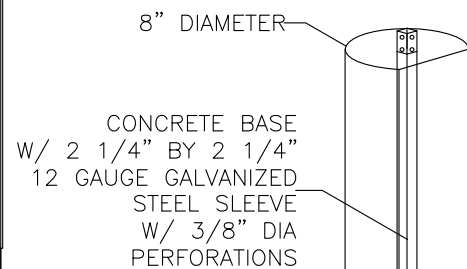
STEEL DRIVE RIVET

NOTE: USE STEEL DRIVE RIVETS TO FASTEN POST TO SLEEVE AND SIGNS TO POST

MATERIALS: C1006-1008 ALUMINUM KILNED FINE GRADE STEEL

FINISH: ZINC PLATE W/ CHROMATE SEALER

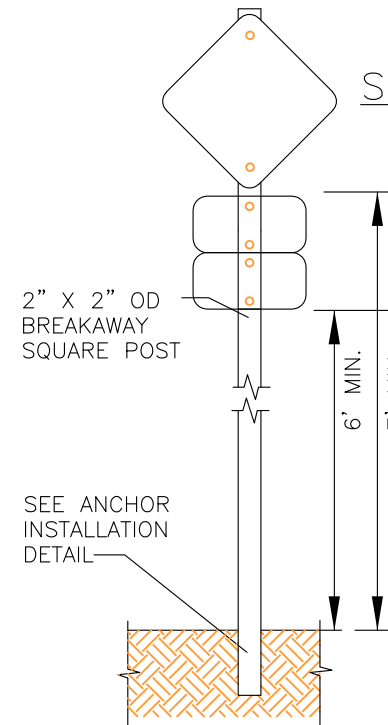
GRIP RANGE: NOMINAL 3/16" IN A 3/8" HOLE



CONCRETE BASE W/ 2 1/4" BY 2 1/4" 12 GAUGE GALVANIZED STEEL SLEEVE W/ 3/8" DIA PERFORATIONS

PRE-CAST CONCRETE TYPE A ANCHOR WITH SLEEVE

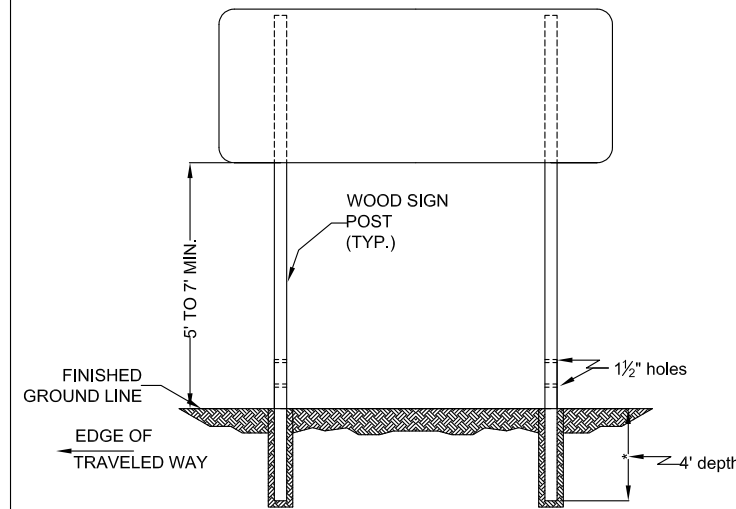
TYPE 1 SIGN MOUNTING DETAIL



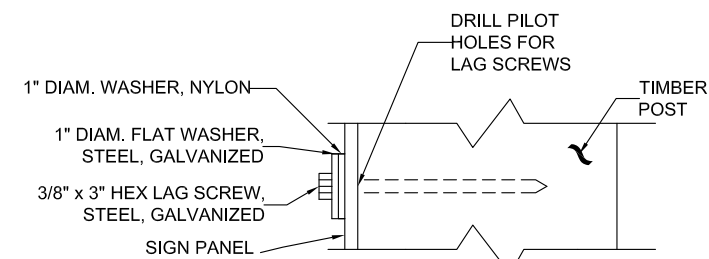
NOTES:

For mounting more than one sign to a post, lowest sign will be at the 7' height.

Supplemental signs may be installed below the primary signs, but the bottom of the sign shall be no less than 6' above the sidewalk or ground elevation

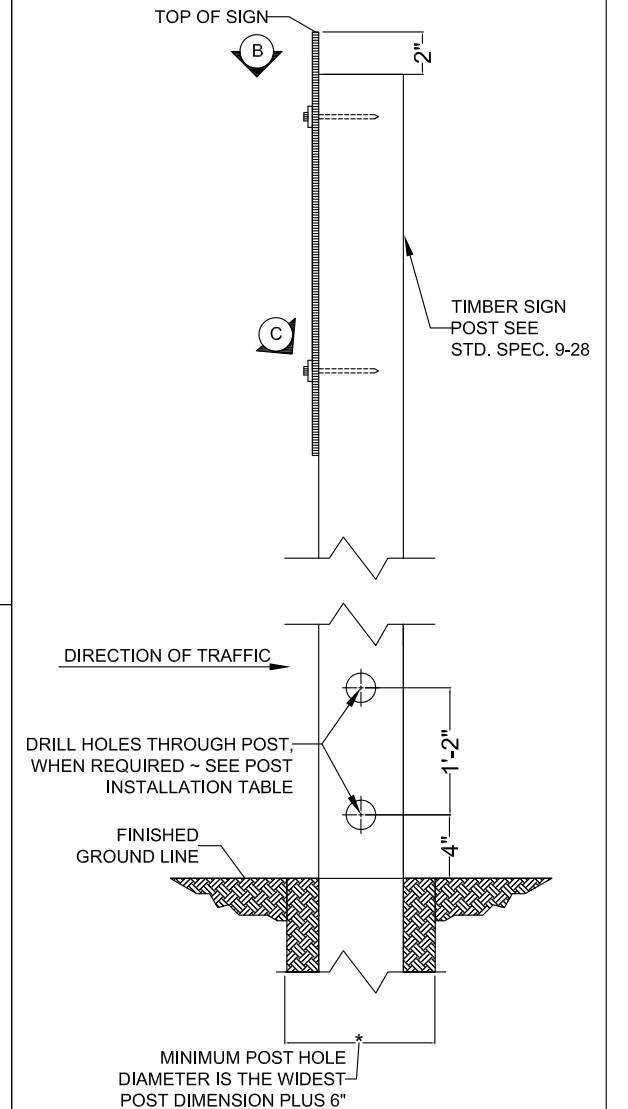


TYPE 2 SIGN MOUNTING DETAIL



TYPE B POST DETAILS DETAIL (C)

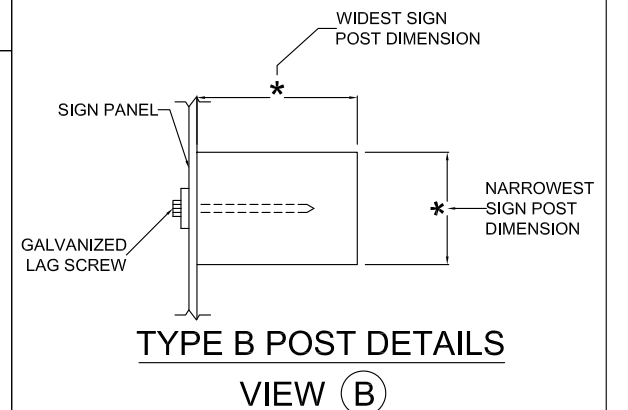
TYPE B POST DETAILS



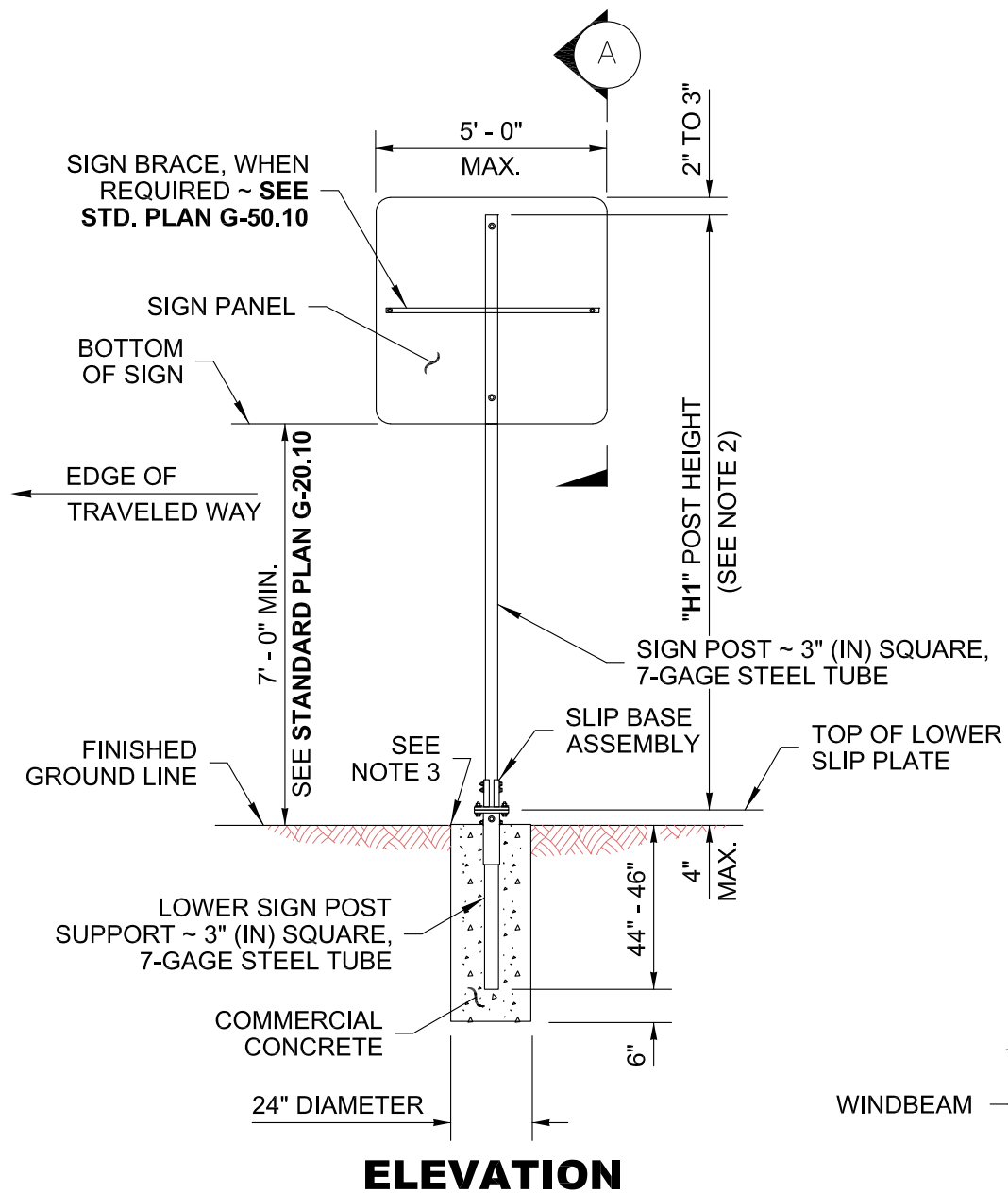
DRILL HOLES THROUGH POST, WHEN REQUIRED - SEE POST INSTALLATION TABLE

FINISHED GROUND LINE

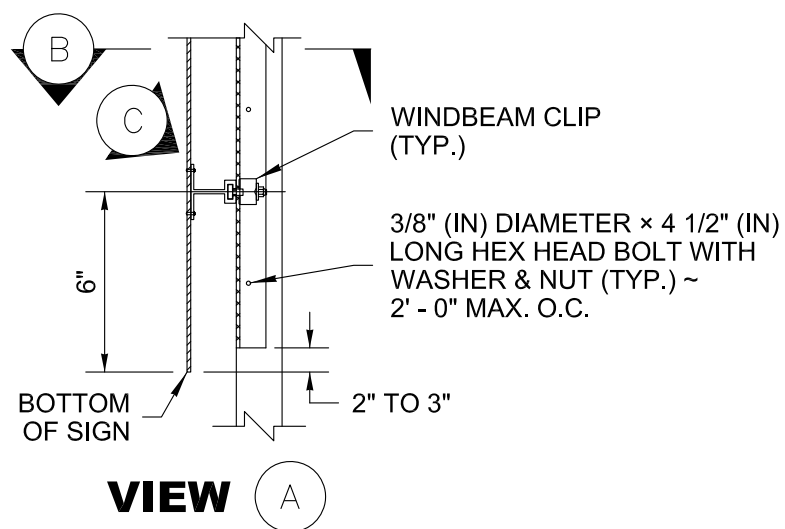
MINIMUM POST HOLE DIAMETER IS THE WIDEST POST DIMENSION PLUS 6"



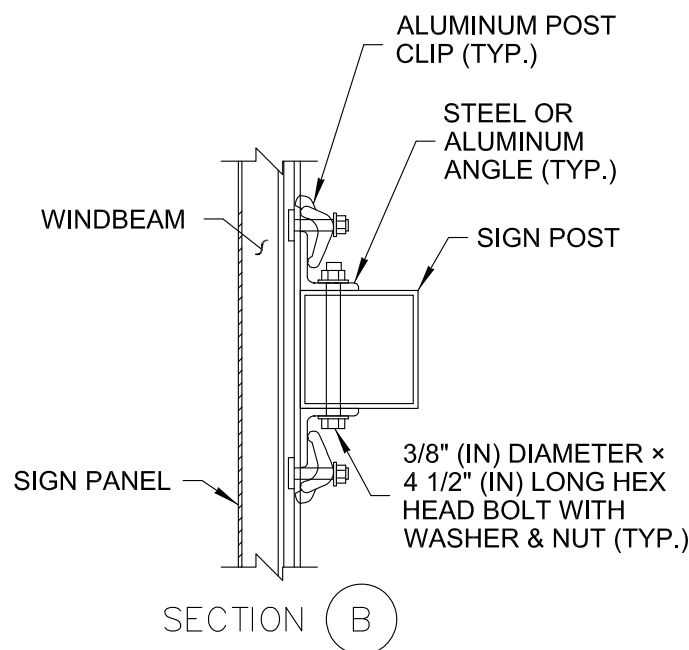
TYPE B POST DETAILS VIEW (B)



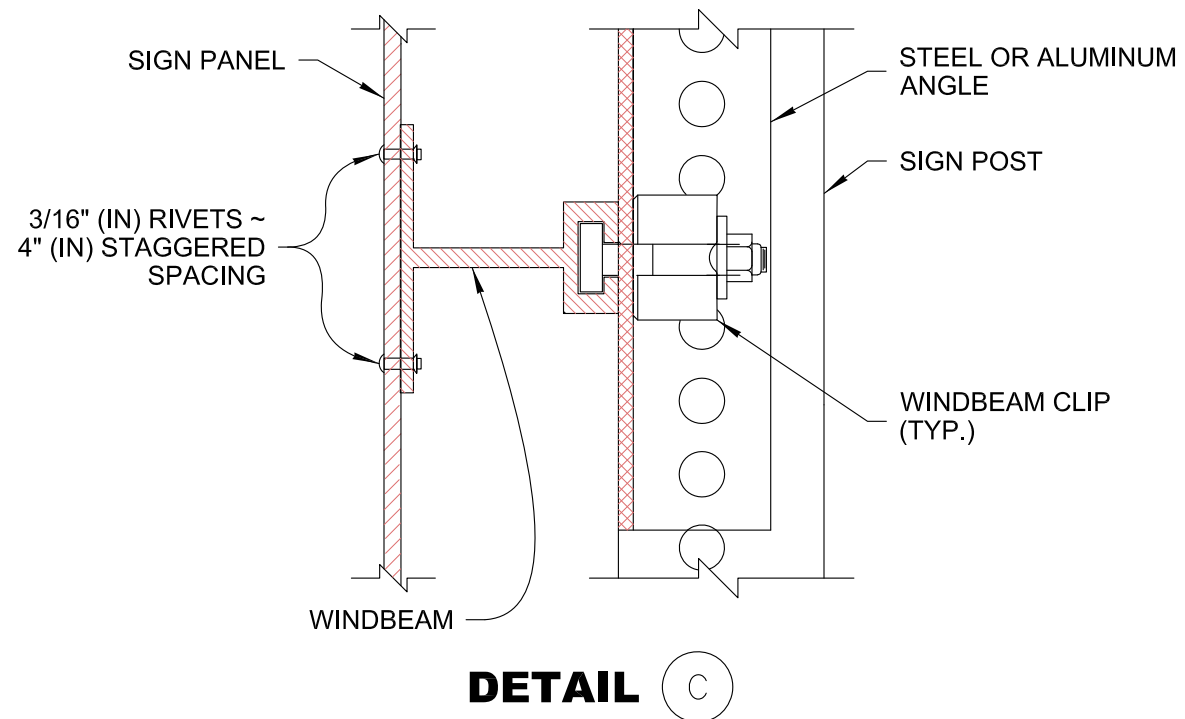
**ELEVATION**



**VIEW A**



**SECTION B**



**DETAIL C**

**NOTES**

1. For "W", Horizontal distance from edge of traveled way to center of nearest post, and "V", Vertical distance from edge of traveled way to bottom of sign, see Standard Plan G-20.10
2. For "H1" refer to the Sign Specification Sheet in the Contract.
3. Top of concrete foundation shall be smooth, dense, and uniform to finished ground line.
4. Field drill posts to accept angle and cold galvanized holes.
5. Materials shall meet the requirements of **Standard Specification Section 9-28**.
6. Slip Base assembly and all other materials shall meet the requirements of **Standard Specification Sections 9-06 and 9-28**.
7. See Standard Plan J-40.35 and Contract Plans for installations with electrical devices.

**INSTALLATION DETAILS  
PER WSDOT STANDARD PLAN G-24.40-07**