

**Sample Plan**

**NOISE WALL PROFILES, TABULATIONS AND DETAILS ----- NARRATIVE**

**References:**

- Design Scene: Chapter 4 - Clear Zone  
Chapter 11 - Walls
  
- Standard Plans 5-297.661 Wood Planking Noise Barrier with Concrete Posts (3 Sheets)  
5-297.678 Glue Laminate Rub Rail (3 Sheets)
  
- Miscellaneous: Metro District's Electronic Details Library  
Standards Office's Electronic Details Library

**General Information:**

Noise wall profiles and tabulations may be developed by using Metro Design's automated Noise Wall program. It is located at PW:\Documents\Projects\DM\_ROS\Non-Project\Design\Noise Wall Revised.xlsm

Coordinate noise wall plans with the Noise Wall Specialist in the Project Documentation Unit. Provide the Specialist with draft noise wall plans and profiles, construction plans, typical sections, and cross sections. Request recommendations for locations, heights, ground elevations, lengths, etc. Upon completion of Noise Wall Plans, review with the Noise Wall Specialist.

Indicate where noise wall alignment is located. (Example: front face of wall, back face of post, etc.)

Rubrail is required on noise walls within the clear zone not protected by guardrail. Any irregular faced noise wall within the clear zone will require either guardrail or rubrail. If the design speed is less than 40 mph, rubrail is generally not required. Evaluate the need for end treatments and for tying in to fencing.

Coordinate the noise wall plans with the Environmental Stewardship Unit in regard to wall types and aesthetics such as stepping, stain, rustication, battens, caps, etc. Consult Maintenance Office regarding anti-graffiti measures.

Check with other functional groups and local government agencies regarding the placement of utilities, sewers, culverts, fiber optic cables, fire hose access, etc. through the walls. Provide a detail if necessary. Consider the need for ditches and/or drop inlets and maintenance access behind noise walls.

Tabulation columns generally consist of post number, wall station, ground elevation, berm slope, top of wall elevation, planking area, rounded post length, actual post embedment, and bottom of embedment elevation.

Request a Soils Investigation from District Materials in the areas surrounding the Noise Walls to determine appropriate backfill material around posts and method of payment. Backfill material can be granular, lean mix or native soil. Assume a post hole diameter of 2.5'.

Check for post embedments extending into the water table. Contact the Foundations Engineer for foundation recommendations and, if necessary, the Bridge Design section for footing recommendations.

Include the Noise Wall Standard Plan sheets in the Standard Plan Sheet area.

Noise Wall Standard Plans specify maximum retainage allowed as 1.0'. However, if appropriate compaction recommendations are provided by the Materials Engineer and are included in the plan, up to 3 feet of retainage is allowable. Design charts for noise walls that retain up to 3 feet are available from the Bridge Design Office.

If noise walls are to be located on top of bridges or retaining walls, contact the Bridge Office for structural recommendations and design.

**Sample Plan**

**NOISE WALL PROFILES, TABULATIONS AND DETAILS ----- CHECKLIST**

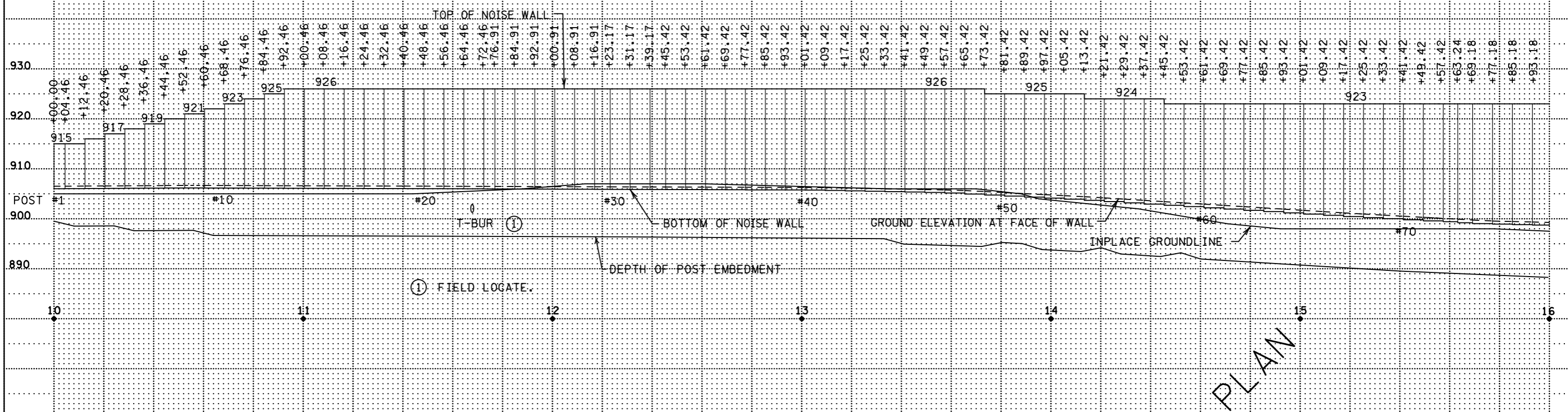
- 1. Label top of noise wall
- 2. Finished and in-place ground line
- 3. Bottom of noise wall
- 4. Bottom of embedment
- 5. Rubrail/End Treatments, if applicable
- 6. Fire Hose Access Panel (as applicable)
- 7. Show utilities, sewers, culverts, conduits, etc.
- 8. Stationing
- 9. Elevations
- 10. Cross references to other sheets (as applicable)
- 11. Drawn by: and Checked by: Initials and Engineer's signature

**NOISE WALL PROFILES AND TABULATIONS  
NARRATIVE AND CHECKLIST**

REVISION DATE 12/28/16  
PLOTTED/REVISED: 26-JAN-2017 08:51

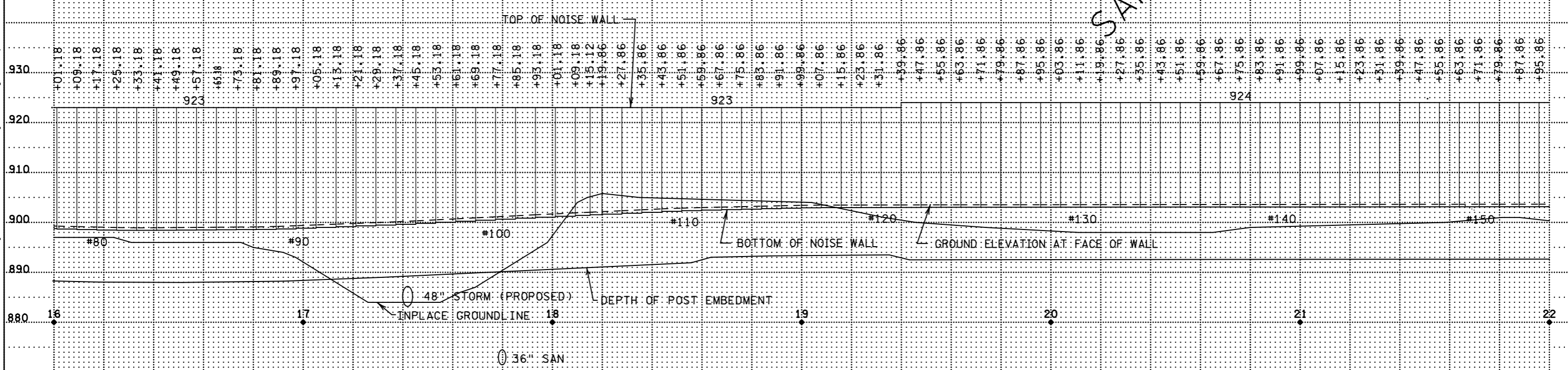
# NOISE WALL A

WOOD PLANKING NOISE BARRIER TYPE NO. 1  
FOR DETAILS, SEE SHEETS NO. 91 & 92



# NOISE WALL A

WOOD PLANKING NOISE BARRIER TYPE NO. 1  
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NOISE WALL A

## NOISE WALL PROFILES AND TABULATIONS



# NOISE WALL SUMMARY

Z

REVISION DATE 12/28/16  
PLOTTED/REVISED: 26-JAN-2017 08:51

DISTRICT #: METRO  
IFLOT NAME: spnwallpro3  
FILENAME: Projects\DM\_R0S\Non\_Project\Design\SamplePlan\Eng\Ish\nwallpro.dgn

STATION TO STATION	WOOD NOISE ATTENUATOR WALL	STRUCTURAL CONCRETE FOOTING (1652)	CONC. COLLAR STRUCTURAL CONCRETE (1652) 36"	STRUCTURE EXCAVATION CLASS U	REINFORCEMENT BARS	CONCRETE POSTS 12"X18"	CONCRETE POSTS 12"X20"
	SQ FT	CU YD	CU YD	CU YD	POUND	LIN FT	LIN FT
<b>NOISE WALL C</b>							
70+00.59 TO 72+00	2131					549	
72+00 TO 74+00	2152					504	
74+00 TO 76+00	2763	111			8908	602	
76+00 TO 78+00	3476	140		335	10795	627	
78+00 TO 80+00	3656	141		503	11141	621	
80+00 TO 82+00	3404	122		474	9528	629	
82+00 TO 84+00	3045					649	
84+00 TO 86+00	3505	68		129	5489	675	
86+00 TO 88+00	3711	137		406	10697	595	
88+00 TO 89+28	2807	106		460	8349	472	
<b>NOISE WALL D1</b>							
68+00.92 TO 70+02	3424	100			8500	660	
70+02 TO 72+02	3745	139			10886	608	
72+02 TO 74+02	3769	145		695	12235	592	60
74+02 TO 76+02	3764	140		760	11022	611	
76+02 TO 78+02	3791	142		617	11426	615	
78+02 TO 80+02	3416	3		11	232	705	
80+02 TO 82+02	3725					752	
82+02 TO 84+02	3752					753	
84+02 TO 86+02	3895					769	
86+02 TO 88+02	4289					785	
88+02 TO 90+02	3979					779	
90+02 TO 91+30	2564		13			495	
<b>NOISE WALL D2</b>							
92+00 TO 94+00	3953	151		375	11857	620	
94+00 TO 96+00	3905	141		347	11102	620	
96+00 TO 98+00	3869	142		324	11258	614	
98+00 TO 100+00	3720	140		294	11145	600	
100+00 TO 101+84	2680	99		210	7601	480	
<b>TOTALS</b>	<b>92890</b>	<b>2167</b>	<b>13</b>	<b>5940</b>	<b>172171</b>	<b>16981</b>	<b>60</b>

STATION TO STATION	WOOD NOISE ATTENUATOR WALL	STRUCTURAL CONCRETE FOOTING (1652)	CONC. COLLAR STRUCTURAL CONCRETE (1652) 36"	STRUCTURE EXCAVATION CLASS U	REINFORCEMENT BARS	CONCRETE POSTS 12"X18"	CONCRETE POSTS 12"X20"
	SQ FT	CU YD	CU YD	CU YD	POUND	LIN FT	LIN FT
<b>NOISE WALL E</b>							
40+00 TO 42+00	3831		22				726
42+00 TO 44+00	4083		32				767
44+00 TO 46+00	4091		27				755
46+00 TO 48+00	4045						772
48+00 TO 50+00	4044						819
50+00 TO 52+00	4044						819
52+00 TO 54+00	4046						819
54+00 TO 56+00	4045						818
56+00 TO 58+00	4005						814
58+00 TO 60+00	3941						808
60+00 TO 62+00	3906						808
62+00 TO 64+00	3941		33	17			743
64+00 TO 66+00	4259	158		422	12231		656
66+00 TO 68+00	4230	154		189	11864		652
68+00 TO 69+76	3235	99		161	7944		578
<b>NOISE WALL F</b>							
37+93 TO 40+00	4156		34				785
40+00 TO 42+00	4000		33				750
42+00 TO 44+00	4047		26				767
44+00 TO 46+00	4400						823
46+00 TO 48+00	4044						820
48+00 TO 50+00	4023						819
50+00 TO 52+00	4046						819
52+00 TO 54+00	4053						833
54+00 TO 56+00	3990						810
56+00 TO 58+00	4021						819
58+00 TO 60+00	4054						818
60+00 TO 62+00	4093						825
62+00 TO 64+00	4030						818
64+00 TO 66+00	4038		14				785
66+00 TO 67+58.45	2779		20				573
<b>TOTALS</b>	<b>119520</b>	<b>411</b>	<b>241</b>	<b>789</b>	<b>32039</b>	<b>23218</b>	

SAMPLE PLAN

## NOISEWALL SUMMARY

SHEET 3 OF 4

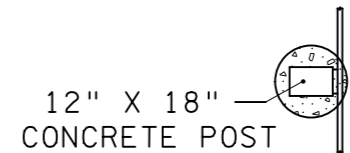
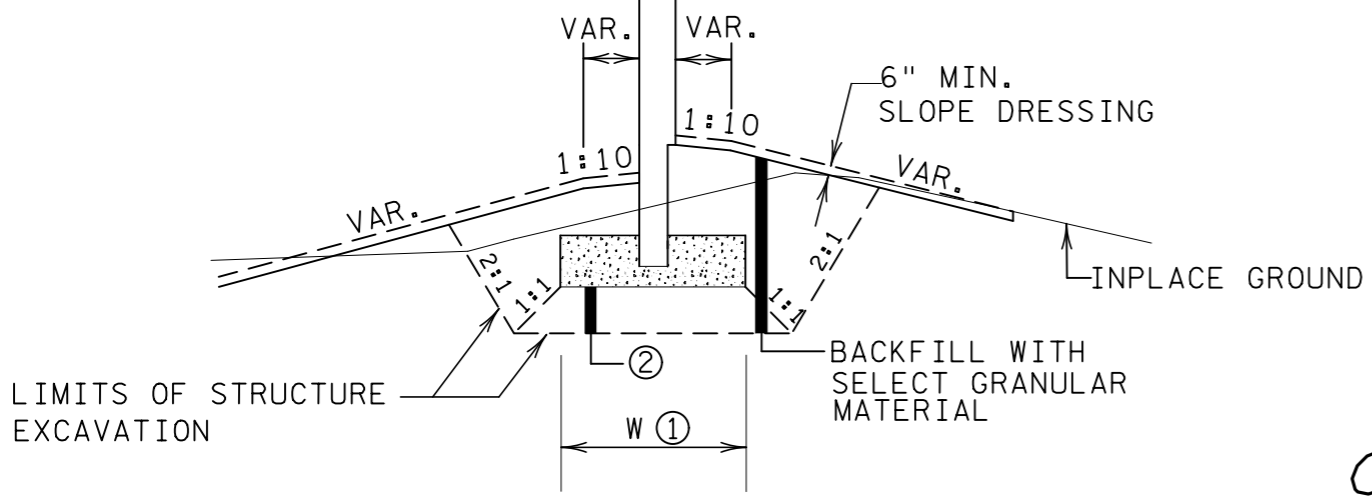
### NOISE WALL PROFILES AND TABULATIONS

REVISION DATE 12/28/16  
PLOTTED/REVISED: 26-JAN-2017 08:51

DISTRICT #: METRO  
PLOT NAME: spnwallpr04  
FILENAME: Projects\DM\_R0S\Non\_Project\Design\SamplePlan\Eng\Ish/nwallprodgn

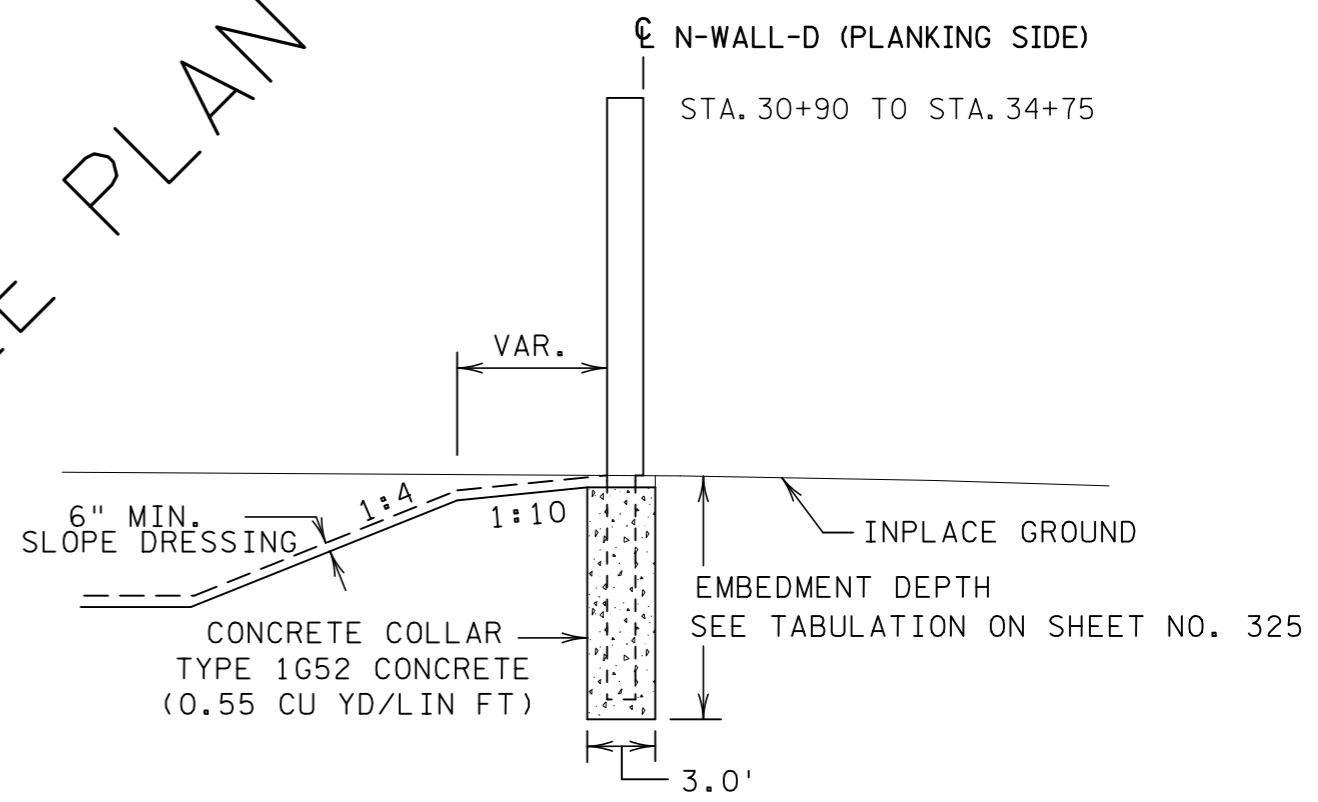
DESIGN 2

CL N-WALL-C (PLANKING SIDE)  
STA. 25+00 TO STA. 26+97  
AND  
STA. 27+00 TO STA. 28+44.56



DESIGN 4

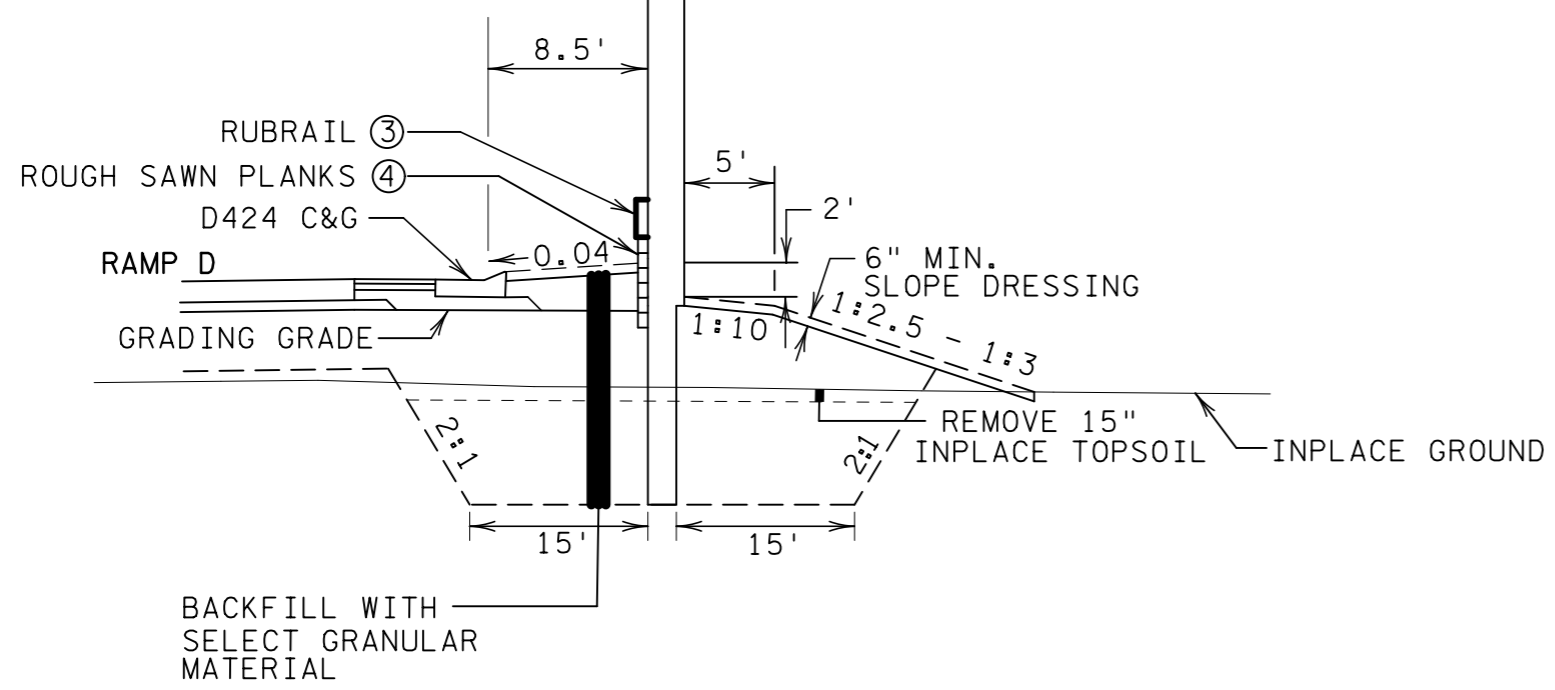
CL N-WALL-D (PLANKING SIDE)  
STA. 30+90 TO STA. 34+75



SAMPLE PLAN

DESIGN 3

CL N-WALL-D (PLANKING SIDE)  
STA. 34+75 TO STA. 41+80



NOTE: WOOD PLANKING NOT SHOWN.  
ALL SLOPES ARE IN FT. PER FT.

- ① FOR SPREAD FOOTING DETAILS, SEE SHEET NO. 331.
- ② PROVIDE A MINIMUM OF 1.5' SUBCUT. FROM STA. 25+65 TO 26+50, SUBCUT TO ELEVATION 853.0. BACKFILL WITH SELECT GRANULAR MATERIAL.
- ③ N-WALL-D STA. 35+35 TO 38+90. SEE RUBRAIL DETAILS ON STANDARD PLAN SHEET .678.
- ④ SEE DETAILS ON SHEET 161.

NOISE WALL DETAILS

SHEET 4 OF 4

NOISE WALL PROFILES AND TABULATIONS

DRAWN BY: BT    CHECKED BY: TLB    CERTIFIED BY: *Will D. Zure* LIC. NO. 00000 DATE 02/01/10

STATE PROJ. NO. 0000-00 (T.H. 00) SHEET NO. 67 OF 84 SHEETS