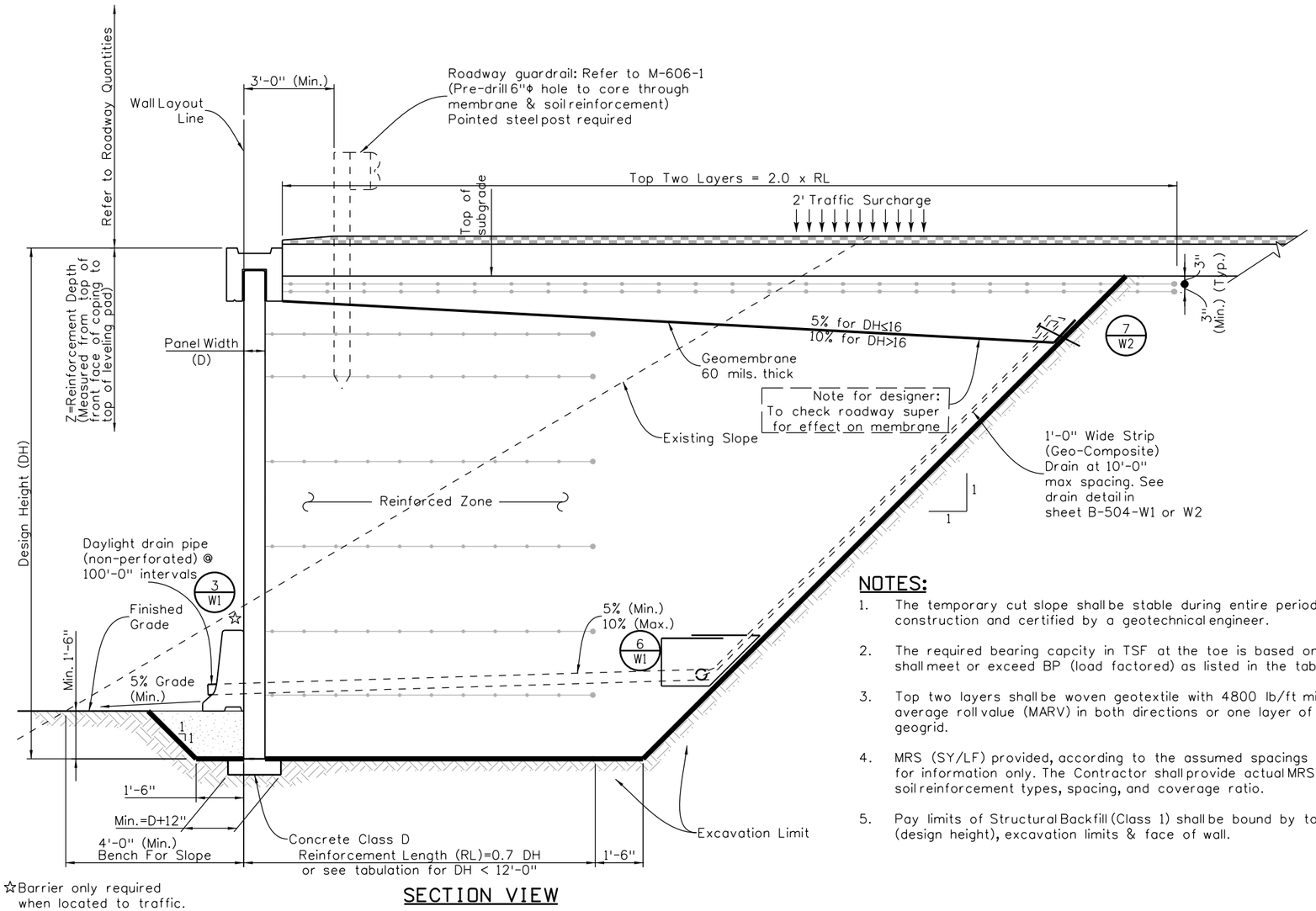
B-504-E1

(This sheet must be accompanied with B-504-H2)



☆Barrier only required when located to traffic.

SECTION VIEW

Note for the Designer:
Check slope stability during excavation shown on Geotech recommendation.

DH (FT)	RL** (FT)	MRS (CY/LF)	MRS (SY/LF)	BM1 (CY/LF)	PLG (Ft/LF)	BP (TSF)
2.000	6.000	0.444	2.667	0.755	9.500	0.417
2.667	6.000	0.593	3.333	0.997	10.167	0.482
3.333	6.000	0.741	3.333	1.257	10.833	0.550
4.000	6.000	0.889	4.000	1.532	11.500	0.624
4.667	6.000	1.037	4.000	1.825	12.167	0.702
5.333	6.000	1.185	4.000	2.133	12.833	0.788
6.000	6.000	1.333	4.000	2.458	13.500	0.881
6.667	7.000	1.728	5.444	3.047	15.167	0.929
7.333	7.000	1.901	5.444	3.430	15.833	1.024
8.000	8.000	2.370	6.222	4.125	17.500	1.069
8.667	8.000	2.568	6.222	4.565	18.167	1.166
9.333	8.000	2.765	7.111	5.022	18.833	1.270
10.000	8.000	2.963	7.111	5.495	19.500	1.383
10.667	8.000	3.160	7.111	5.985	20.167	1.506
11.333	8.000	3.358	7.111	6.491	20.833	1.642
12.000	8.400	3.733	8.400	7.192	21.900	1.724
12.667	8.867	4.160	8.867	7.960	23.033	1.795
13.333	9.333	4.609	9.333	8.767	24.167	1.866
14.000	9.800	5.081	10.889	9.614	25.300	1.937
14.667	10.267	5.577	11.407	10.500	26.433	2.008
15.333	10.733	6.095	11.926	11.426	27.567	2.079
16.000	11.200	6.637	13.689	12.392	28.700	2.150
16.667	11.667	7.202	14.259	13.397	29.833	2.222
17.333	12.133	7.789	14.830	14.441	30.967	2.293
18.000	12.600	8.400	16.800	15.525	32.100	2.364
18.667	13.067	9.034	17.422	16.648	33.233	2.436
19.333	13.533	9.691	18.044	17.811	34.367	2.507
20.000	14.000	10.370	20.222	19.014	35.500	2.578
20.667	14.467	11.073	20.896	20.256	36.633	2.650
21.333	14.933	11.799	21.570	21.537	37.767	2.721
22.000	15.400	12.548	23.956	22.858	38.900	2.792
22.667	15.867	13.320	24.681	24.219	40.033	2.864
23.333	16.333	14.115	25.407	25.619	41.167	2.935
24.000	16.800	14.933	28.000	27.058	42.300	3.007
24.667	17.267	15.774	28.778	28.537	43.433	3.078
25.333	17.733	16.639	29.556	30.056	44.567	3.149
26.000	18.200	17.526	32.356	31.614	45.700	3.221
26.667	18.667	18.436	33.185	33.211	46.833	3.292
27.333	19.133	19.370	34.015	34.848	47.967	3.364
28.000	19.600	20.326	37.022	36.525	49.100	3.435
28.667	20.067	21.305	37.904	38.241	50.233	3.506
29.333	20.533	22.308	41.067	39.997	51.367	3.578
30.000	21.000	23.333	42.000	41.792	52.500	3.649
30.667	21.467	24.382	45.319	43.626	53.633	3.721
31.333	21.933	25.453	46.304	45.500	54.767	3.792
32.000	22.400	26.548	49.778	47.414	55.900	3.864
32.667	22.867	27.666	50.815	49.367	57.033	3.935
33.333	23.333	28.807	54.444	51.360	58.167	4.007
34.000	23.800	29.970	55.533	53.392	59.300	4.078
34.667	24.267	31.157	59.319	55.463	60.433	4.150
35.333	24.733	32.367	60.459	57.574	61.567	4.221
36.000	25.200	33.600	64.400	59.725	62.700	4.292
36.667	25.667	34.856	68.444	61.915	63.833	4.364
37.333	26.133	36.135	72.593	64.145	64.967	4.435
38.000	26.600	37.437	76.844	66.414	66.100	4.507
38.667	27.067	38.762	81.200	68.723	67.233	4.578
39.333	27.533	40.110	85.659	71.071	68.367	4.650
40.000	28.000	41.481	90.222	73.458	69.500	4.721

***

NOTES:

1. The temporary cut slope shall be stable during entire period of wall construction and certified by a geotechnical engineer.
2. The required bearing capcity in TSF at the toe is based on 0.7 DH and shall meet or exceed BP (load factored) as listed in the table.
3. Top two layers shall be woven geotextile with 4800 lb/ft minimum average roll value (MARV) in both directions or one layer of equivalent geogrid.
4. MRS (SY/LF) provided, according to the assumed spacings in B-504-H2, for information only. The Contractor shall provide actual MRS (SY/LF), soil reinforcement types, spacing, and coverage ratio.
5. Pay limits of Structural Backfill (Class 1) shall be bound by top of DH (design height), excavation limits & face of wall.

** RL for top two geotextile layers = 2.0 x RL

*** For example spacing on B-504-H2: DH=16' requires 13.69 SY/LF reinforcement corresponding to 6.637 CY/LF volume of MRS with Class 1 backfill paid separately

Revision Dates (Preliminary Stage Only): 09-16

Quantities: Initial / Date / Quantities By / Checked By

Detail: Initial / Date / Detailed By / Checked By

Design: Initial / Date / Designed By / Checked By

Print Date: 9/6/2016
File Name: Sheet_B-504-E1.dgn
Horiz. Scale: 1:4 Vert. Scale: As Noted
Staff Bridge Branch-Unit 0XXX Unit Leader Initials

Sheet Revisions		
Date:	Comments	Init.

Colorado Department of Transportation
4201 East Arkansas Avenue
Room 107
Denver, CO 80222
Phone: 303-757-9309 FAX: 303-757-9197
Staff Bridge Branch Initials

As Constructed
No Revisions:
Revised:
Void:

PANEL FACING MSE WALL WITH ROADWAY RAIL AND 1:1 SOIL EXCAVATION

Designer:	XXXXXXX	Structure Numbers	Wall-X-XX-XX
Detailer:	XXXXXXX		Wall-X-XX-XX
Sheet Subset:	Wall	Subset Sheets:	WXX of XXX

Project No./Code
Project Number
Code
Sheet Number

nguyenh 9:17:58 AM C:\Users\nguyenh\Desktop\Worksheet dgn and PDF\Sheet_B-504-E1.dgn