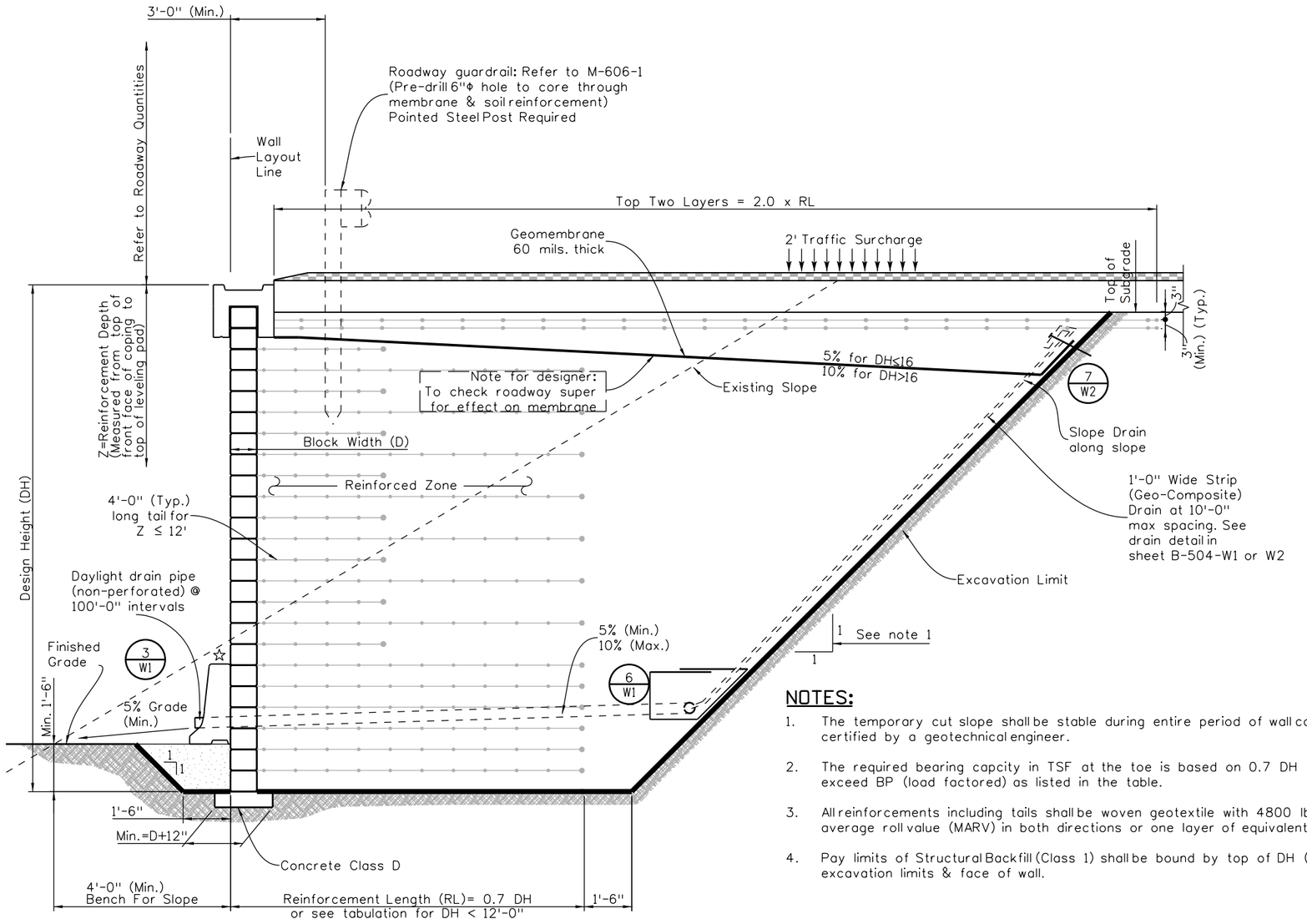
B-504-M1

(This sheet must be accompanied with B-504-02)



☆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	3.111	0.755	9.500	0.417
2.667	6.000	0.593	3.778	0.997	10.167	0.482
3.333	6.000	0.741	4.222	1.257	10.833	0.550
4.000	6.000	0.889	4.889	1.532	11.500	0.624
4.667	6.000	1.037	5.333	1.825	12.167	0.702
5.333	6.000	1.185	6.000	2.133	12.833	0.788
6.000	6.000	1.333	6.444	2.458	13.500	0.881
6.667	7.000	1.728	8.000	3.047	15.167	0.929
7.333	7.000	1.901	8.444	3.430	15.833	1.024
8.000	8.000	2.370	10.222	4.125	17.500	1.069
8.667	8.000	2.568	10.667	4.565	18.167	1.166
9.333	8.000	2.765	11.556	5.022	18.833	1.270
10.000	8.000	2.963	12.000	5.495	19.500	1.383
10.667	8.000	3.160	12.889	5.985	20.167	1.506
11.333	8.000	3.358	13.333	6.491	20.833	1.642
12.000	8.400	3.733	14.756	7.192	21.900	1.724
12.667	8.867	4.160	16.363	7.960	23.033	1.795
13.333	9.333	4.609	18.074	8.767	24.167	1.866
14.000	9.800	5.081	19.889	9.614	25.300	1.937
14.667	10.267	5.577	21.807	10.500	26.433	2.008
15.333	10.733	6.095	23.830	11.426	27.567	2.079
*** 16.000	11.200	6.637	25.956	12.392	28.700	2.150
16.667	11.667	7.202	28.185	13.397	29.833	2.222
17.333	12.133	7.789	30.519	14.441	30.967	2.293
18.000	12.600	8.400	32.956	15.525	32.100	2.364
18.667	13.067	9.034	35.496	16.648	33.233	2.436
19.333	13.533	9.691	38.141	17.811	34.367	2.507
20.000	14.000	10.370	40.889	19.014	35.500	2.578
20.667	14.467	11.073	43.741	20.256	36.633	2.650
21.333	14.933	11.799	46.696	21.537	37.767	2.721
22.000	15.400	12.548	49.756	22.858	38.900	2.792
22.667	15.867	13.320	52.919	24.219	40.033	2.864
23.333	16.333	14.115	56.185	25.619	41.167	2.935
24.000	16.800	14.933	59.556	27.058	42.300	3.007
24.667	17.267	15.774	63.030	28.537	43.433	3.078
25.333	17.733	16.639	66.607	30.056	44.567	3.149
26.000	18.200	17.526	70.289	31.614	45.700	3.221
26.667	18.667	18.436	74.074	33.211	46.833	3.292
27.333	19.133	19.370	77.963	34.848	47.967	3.364
28.000	19.600	20.326	81.956	36.525	49.100	3.435
28.667	20.067	21.305	86.052	38.241	50.233	3.506
29.333	20.533	22.308	90.252	39.997	51.367	3.578
30.000	21.000	23.333	94.556	41.792	52.500	3.649
30.667	21.467	24.382	98.963	43.626	53.633	3.721
31.333	21.933	25.453	103.474	45.500	54.767	3.792
32.000	22.400	26.548	108.089	47.414	55.900	3.864
32.667	22.867	27.666	112.807	49.367	57.033	3.935
33.333	23.333	28.807	117.630	51.360	58.167	4.007
34.000	23.800	29.970	122.556	53.392	59.300	4.078
34.667	24.267	31.157	127.585	55.463	60.433	4.150
35.333	24.733	32.367	132.719	57.574	61.567	4.221
36.000	25.200	33.600	137.956	59.725	62.700	4.292
36.667	25.667	34.856	143.296	61.915	63.833	4.364
37.333	26.133	36.135	148.741	64.145	64.967	4.435
38.000	26.600	37.437	154.289	66.414	66.100	4.507
38.667	27.067	38.762	159.941	68.723	67.233	4.578
39.333	27.533	40.110	165.696	71.071	68.367	4.650
40.000	28.000	41.481	171.556	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. All reinforcements including tails shall be woven geotextile with 4800 lb/ft minimum average roll value (MARV) in both directions or one layer of equivalent geogrid.
4. 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 x RL

*** For example with reinforcement at each block: DH=16' requires 25.95 SY/LF woven geotextile corresponding to 6.637 CY/LF volume of MRS with Class 1 backfill paid separately

Revision Dates (Preliminary Stage Only): 09-16

Quantities / Detail / Design — INITIAL / DATE
Quantities By / Checked By
Detailed By / Checked By
Designed By / Checked By

nguyenh 9:18:27 AM C:\Users\nguyenh\Desktop\Worksheet dgn and PDF\Sheet_B-504-M1.dgn

Print Date: 9/6/2016	Sheet Revisions		
File Name: Sheet_B-504-M1.dgn	Date:	Comments	Init.
Horiz. Scale: 1:4 Vert. Scale: As Noted			
Staff Bridge Branch-Unit 0XXX Unit Leader Initials			

Colorado Department of Transportation
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Room 107
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Phone: 303-757-9309 FAX: 303-757-9197
Staff Bridge Branch Initials

As Constructed
No Revisions:
Revised:
Void:

BLOCK FACING GRS WALL WITH ROADWAY RAIL AND 1:1 SOIL EXCAVATION OR FILL

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