

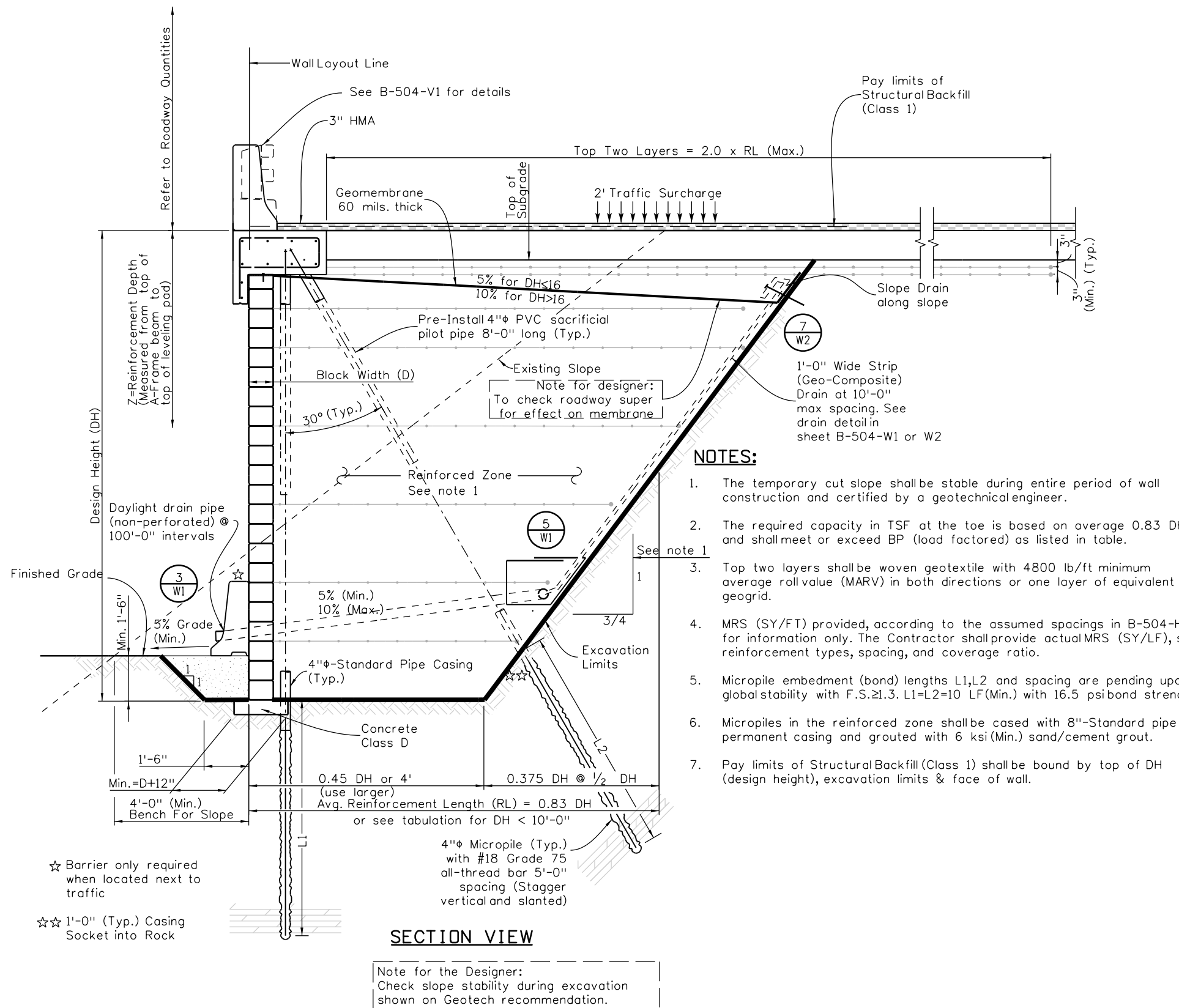
B-504-A3

(This sheet must be accompanied with B-504-H1)

DH (FT)	RL**(FT)			MRS (CY/LF)	MRS (SY/LF)	BM1 (CY/LF)	PLG (Ft/LF)	BP (TSF)
	(Min.)	(Avg.)	(Max.)					
2.000	4.000	4.750	5.500	0.352	2.444	0.477	5.50	0.543
2.667	4.000	5.000	6.000	0.494	3.222	0.619	6.00	0.662
3.333	4.000	5.250	6.500	0.648	3.472	0.773	6.50	0.798
4.000	4.000	5.500	7.000	0.815	4.333	0.940	7.00	0.953
4.667	4.000	5.750	7.500	0.994	4.611	1.119	7.50	1.130
5.333	4.000	6.000	8.000	1.185	4.889	1.310	8.00	1.333
6.000	4.000	6.250	8.500	1.389	5.167	1.514	8.50	1.565
6.667	4.000	6.500	9.000	1.605	5.444	1.730	9.00	1.831
7.333	4.000	6.750	9.500	1.833	5.722	1.958	9.50	2.138
8.000	4.000	7.000	10.000	2.074	6.000	2.199	10.00	2.492
8.667	4.000	7.250	10.500	2.327	6.278	2.452	10.50	2.904
9.333	4.200	7.700	11.200	2.662	6.778	2.727	11.20	3.149
10.000	4.500	8.250	12.000	3.056	7.278	3.011	12.00	3.289
10.667	4.800	8.800	12.800	3.477	7.778	3.302	12.80	3.429
11.333	5.100	9.350	13.600	3.925	8.278	3.600	13.60	3.570
12.000	5.400	9.900	14.400	4.400	8.778	3.900	14.40	3.711
12.667	5.700	10.450	15.200	4.902	9.278	4.200	15.20	3.852
13.333	6.000	11.000	16.000	5.432	9.778	4.500	16.00	3.993
14.000	6.300	11.550	16.800	5.989	10.278	4.800	16.80	4.135
14.667	6.600	12.100	17.600	6.573	10.778	5.100	17.60	4.277
15.333	6.900	12.650	18.400	7.184	11.278	5.400	18.40	4.419
16.000	7.200	13.200	19.200	7.822	11.778	5.700	19.20	4.561
16.667	7.500	13.750	20.000	8.488	12.278	6.000	20.00	4.703
17.333	7.800	14.300	20.800	9.180	12.778	6.300	20.80	4.845
18.000	8.100	14.850	21.600	9.900	13.278	6.600	21.60	4.987
18.667	8.400	15.400	22.400	10.647	13.778	6.900	22.40	5.130
19.333	8.700	15.950	23.200	11.421	14.278	7.200	23.20	5.272
20.000	9.000	16.500	24.000	12.222	14.778	7.500	24.00	5.415
20.667	9.300	17.050	24.800	13.051	15.278	7.800	24.80	5.558
21.333	9.600	17.600	25.600	13.906	15.778	8.100	25.60	5.700
22.000	9.900	18.150	26.400	14.789	16.278	8.400	26.40	5.843
22.667	10.200	18.700	27.200	15.699	16.778	8.700	27.20	5.986
23.333	10.500	19.250	28.000	16.636	17.278	9.000	28.00	6.129
24.000	10.800	19.800	28.800	17.600	17.778	9.300	28.80	6.272
24.667	11.100	20.350	29.600	18.591	18.278	9.600	29.60	6.415
25.333	11.400	20.900	30.400	19.610	18.778	9.900	30.40	6.558
26.000	11.700	21.450	31.200	20.656	19.278	10.200	31.20	6.701
26.667	12.000	22.000	32.000	21.728	19.778	10.500	32.00	6.844
27.333	12.300	22.550	32.800	22.828	20.278	10.800	32.80	6.987
28.000	12.600	23.100	33.600	23.956	20.778	11.100	33.60	7.130
28.667	12.900	23.650	34.400	25.110	21.278	11.400	34.40	7.273
29.333	13.200	24.200	35.200	26.291	21.778	11.700	35.20	7.416
30.000	13.500	24.750	36.000	27.500	22.278	12.000	36.00	7.559
30.667	13.800	25.300	36.800	28.736	22.778	12.300	36.80	7.702
31.333	14.100	25.850	37.600	29.999	23.278	12.600	37.60	7.846
32.000	14.400	26.400	38.400	31.289	23.778	12.900	38.40	7.989
32.667	14.700	26.950	39.200	32.606	24.278	13.200	39.20	8.132
33.333	15.000	27.500	40.000	33.951	24.778	13.500	40.00	8.275
34.000	15.300	28.050	40.800	35.322	25.278	13.800	40.80	8.419
34.667	15.600	28.600	41.600	36.721	25.778	14.100	41.60	8.562
35.333	15.900	29.150	42.400	38.147	26.278	14.400	42.40	8.705
36.000	16.200	29.700	43.200	39.600	26.778	14.700	43.20	8.848
36.667	16.500	30.250	44.000	41.080	27.278	15.000	44.00	8.992
37.333	16.800	30.800	44.800	42.588	27.778	15.300	44.80	9.135
38.000	17.100	31.350	45.600	44.122	28.278	15.600	45.60	9.278
38.667	17.400	31.900	46.400	45.684	28.778	15.900	46.40	9.422
39.333	17.700	32.450	47.200	47.273	29.278	16.200	47.20	9.565
40.000	18.000	33.000	48.000	48.889	29.778	16.500	48.00	9.709

** RL for top two geotextile layers = 2 x RL (Max.)

*** For example spacing on B-504-H1: DH=16' requires 18.8 SY/LF woven geotextile corresponding to 7.822 CY/LF volume of MRS with Class 1 backfill paid separately.



NOTES:

1. The temporary cut slope shall be stable during entire period of wall construction and certified by a geotechnical engineer.
2. The required capacity in TSF at the toe is based on average 0.83 DH and shall meet or exceed BP (load factored) as listed in 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/FT) provided, according to the assumed spacings in B-504-H1, for information only. The Contractor shall provide actual MRS (SY/LF), soil reinforcement types, spacing, and coverage ratio.
5. Micropile embedment (bond) lengths L₁, L₂ and spacing are pending upon global stability with F.S. ≥ 1.3. L₁=L₂=10 LF (Min.) with 16.5 psi bond strength.
6. Micropiles in the reinforced zone shall be cased with 8"-Standard pipe permanent casing and grouted with 6 ksi (Min.) sand/cement grout.
7. Pay limits of Structural Backfill (Class 1) shall be bound by top of DH (design height), excavation limits & face of wall.

Revision Dates (Preliminary Stage Only)	
Revision	Date
09-16	

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

Print Date: 9/6/2016	
File Name: Sheet_B-504-A3.dgn	
Horiz. Scale: 1:4	Vert. Scale: As Noted
Staff Bridge Branch-Unit OXXX	Unit Leader Initials

Sheet Revisions		
Date:	Comments	Init.

Colorado Department of Transportation

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Staff Bridge Branch Initials

As Constructed
No Revisions:
Revised:
Void:

MICROPILE A-FRAME WITH BLOCK FACING GRS WALL			
3/4:1 SOIL EXCAVATION			
Designer:	XXXXXXX	Structure	Wall-X-XX-XX
Detailer:	XXXXXXX	Numbers	Wall-X-XX-XX
Sheet Subset:	Wall	Subset Sheets:	WXX of XXX

Project No./Code	
Project Number	
Code	
Sheet Number	