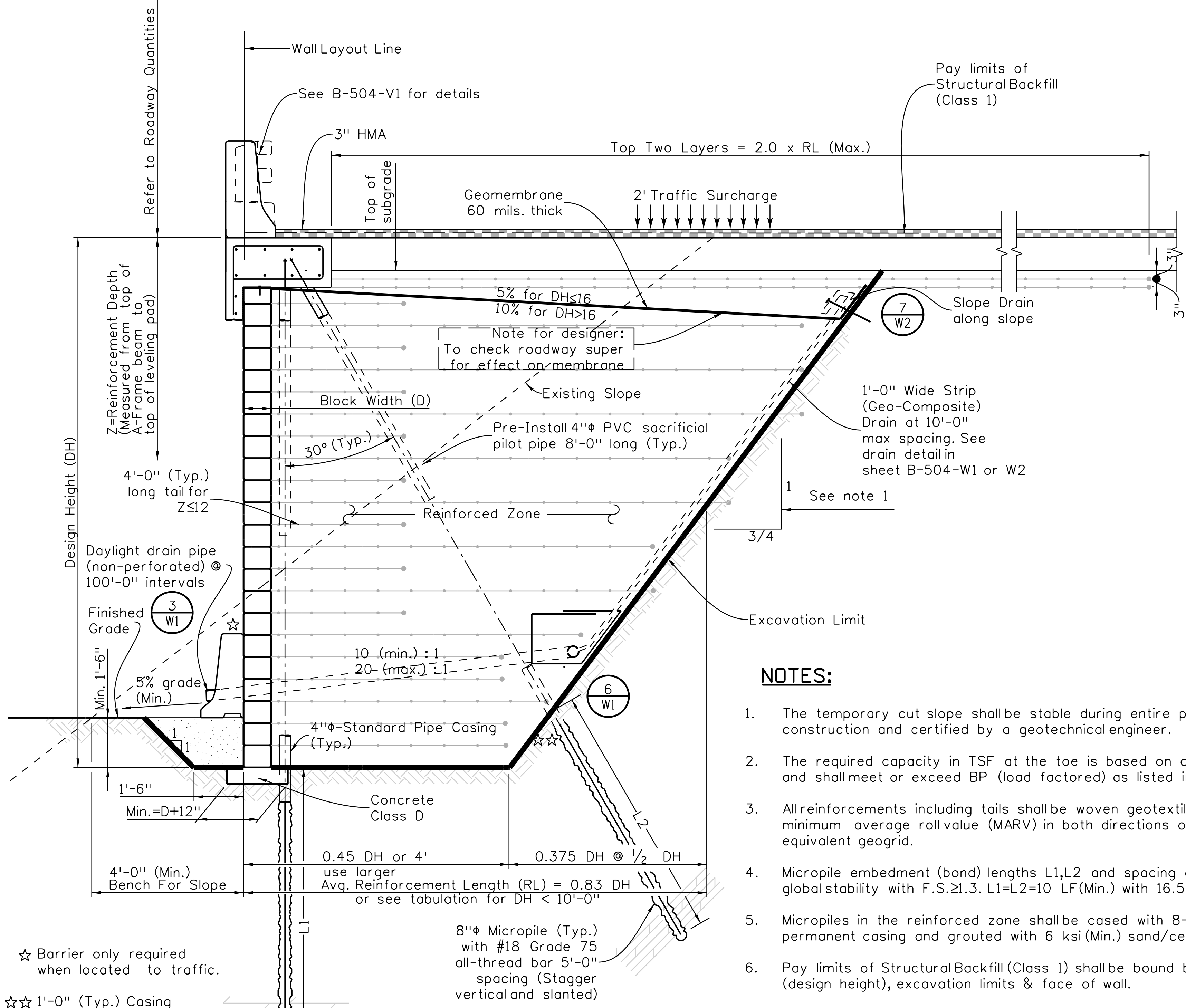
(This sheet must be accompanied with B-504-01)



☆ Barrier only required when located to traffic.

☆☆ 1'-0" (Typ.) Casing Socket into Rock

SECTION VIEW

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

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. 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. 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.
5. Micropiles in the reinforced zone shall be cased with 8-Standard pipe permanent casing and grouted with 6 ksi (Min.) sand/cement grout.
6. Pay limits of Structural Backfill (Class 1) shall be bound by top of DH (design height), excavation limits & face of wall.

	DH (FT)	RL**(FT) (Min.)	RL**(FT) (Avg.)	RL**(FT) (Max.)	MRS (CY/LF)	MRS (SY/LF)	BM1 (CY/LF)	PLG (Ft/LF)	BP (TSF)
	2.000	4.000	4.750	5.500	0.352	2.889	0.477	5.50	0.543
	2.667	4.000	5.000	6.000	0.494	3.667	0.619	6.00	0.662
	3.333	4.000	5.250	6.500	0.648	4.361	0.773	6.50	0.798
	4.000	4.000	5.500	7.000	0.815	5.222	0.940	7.00	0.953
	4.667	4.000	5.750	7.500	0.994	5.944	1.119	7.50	1.130
	5.333	4.000	6.000	8.000	1.185	6.889	1.310	8.00	1.333
	6.000	4.000	6.250	8.500	1.389	7.639	1.514	8.50	1.565
	6.667	4.000	6.500	9.000	1.605	8.667	1.730	9.00	1.831
	7.333	4.000	6.750	9.500	1.833	9.444	1.958	9.50	2.138
	8.000	4.000	7.000	10.000	2.074	10.556	2.199	10.00	2.492
	8.667	4.000	7.250	10.500	2.327	11.361	2.452	10.50	2.904
	9.333	4.200	7.700	11.200	2.662	12.778	2.787	11.20	3.149
	10.000	4.500	8.250	12.000	3.056	13.944	3.181	12.00	3.289
	10.667	4.800	8.800	12.800	3.477	15.644	3.602	12.80	3.429
	11.333	5.100	9.350	13.600	3.925	16.872	4.050	13.60	3.570
	12.000	5.400	9.900	14.400	4.400	18.756	4.525	14.40	3.711
	12.667	5.700	10.450	15.200	4.902	20.761	5.027	15.20	3.852
	13.333	6.000	11.000	16.000	5.432	22.889	5.557	16.00	3.993
	14.000	6.300	11.550	16.800	5.989	25.139	6.114	16.80	4.135
	14.667	6.600	12.100	17.600	6.573	27.511	6.698	17.60	4.277
	15.333	6.900	12.650	18.400	7.184	30.006	7.309	18.40	4.419
***	16.000	7.200	13.200	19.200	7.822	32.622	7.947	19.20	4.561
	16.667	7.500	13.750	20.000	8.488	35.361	8.613	20.00	4.703
	17.333	7.800	14.300	20.800	9.180	38.222	9.305	20.80	4.845
	18.000	8.100	14.850	21.600	9.900	41.206	10.025	21.60	4.987
	18.667	8.400	15.400	22.400	10.647	44.311	10.772	22.40	5.130
	19.333	8.700	15.950	23.200	11.421	47.539	11.546	23.20	5.272
	20.000	9.000	16.500	24.000	12.222	50.889	12.347	24.00	5.415
	20.667	9.300	17.050	24.800	13.051	54.361	13.176	24.80	5.558
	21.333	9.600	17.600	25.600	13.906	57.956	14.031	25.60	5.700
	22.000	9.900	18.150	26.400	14.789	61.672	14.914	26.40	5.843
	22.667	10.200	18.700	27.200	15.699	65.511	15.824	27.20	5.986
	23.333	10.500	19.250	28.000	16.636	69.472	16.761	28.00	6.129
	24.000	10.800	19.800	28.800	17.600	73.556	17.725	28.80	6.272
	24.667	11.100	20.350	29.600	18.591	77.761	18.716	29.60	6.415
	25.333	11.400	20.900	30.400	19.610	82.089	19.735	30.40	6.558
	26.000	11.700	21.450	31.200	20.656	86.539	20.781	31.20	6.701
	26.667	12.000	22.000	32.000	21.728	91.111	21.853	32.00	6.844
	27.333	12.300	22.550	32.800	22.828	95.806	22.953	32.80	6.987
	28.000	12.600	23.100	33.600	23.956	100.622	24.081	33.60	7.130
	28.667	12.900	23.650	34.400	25.110	105.561	25.235	34.40	7.273
	29.333	13.200	24.200	35.200	26.291	110.622	26.416	35.20	7.416
	30.000	13.500	24.750	36.000	27.500	115.806	27.625	36.00	7.559
	30.667	13.800	25.300	36.800	28.736	121.111	28.861	36.80	7.702
	31.333	14.100	25.850	37.600	29.999	126.539	30.124	37.60	7.846
	32.000	14.400	26.400	38.400	31.289	132.089	31.414	38.40	7.989
	32.667	14.700	26.950	39.200	32.606	137.761	32.731	39.20	8.132
	33.333	15.000	27.500	40.000	33.951	143.556	34.076	40.00	8.275
	34.000	15.300	28.050	40.800	35.322	149.472	35.447	40.80	8.419
	34.667	15.600	28.600	41.600	36.721	155.511	36.846	41.60	8.562
	35.333	15.900	29.150	42.400	38.147	161.672	38.272	42.40	8.705
	36.000	16.200	29.700	43.200	39.600	167.956	39.725	43.20	8.848
	36.667	16.500	30.250	44.000	41.080	174.361	41.205	44.00	8.992
	37.333	16.800	30.800	44.800	42.588	180.889	42.713	44.80	9.135
	38.000	17.100	31.350	45.600	44.122	187.539	44.247	45.60	9.278
	38.667	17.400	31.900	46.400	45.684	194.311	45.809	46.40	9.422
	39.333	17.700	32.450	47.200	47.273	201.206	47.398	47.20	9.565
	40.000	18.000	33.000	48.000	48.889	208.222	49.014	48.00	9.709

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

*** For example with reinforcement at each block: DH=16' requires 32.622 SY/LF woven geotextile corresponding to 7.822 CY/LF volume of MRS with Class 1 backfill paid separately

Revision Dates: 09-16 (Preliminary Stage Only)

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

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Print Date: 9/6/2016
File Name: Sheet_B-504-L3.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
CDOT
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:

MICROPILE A-FRAME WITH BLOCK FACING GRS WALL
3/4:1 SOIL EXCAVATION

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

Project No./Code
Project Number
Code
Sheet Number