

Landslope > 1% slope

G. MOUND SLOPE WIDTH & LENGTH

(landslope greater than 1%)

1. Downslope absorption width = absorption width (F) minus rock layer width (D2)

$10 \text{ ft} - 15 \text{ ft} = 5 \text{ ft}$

2. Calculate mound size  
UPSLOPE

a. Depth of clean sand fill at upslope edge of rock layer = 3 ft minus the distance to restricting layer (C1)

$3 \text{ ft} - 1.64 \text{ ft} = 1.66 \text{ ft}$

b. Mound height at the upslope edge of rock layer = depth of clean sand for separation (G2a) at upslope edge plus depth of rock layer (1 ft) plus depth of cover (1 ft)

$1.66 \text{ ft} + 1 \text{ ft} + 1 \text{ ft} = 3.66 \text{ ft}$

c. Upslope berm multiplier based on land slope

$2.48$  (see figure D-34)

d. Upslope width = berm multiplier (G2c) x upslope mound height (G2b):

$3.66 \times 2.48 = 9 \text{ ft}$

DOWNSLOPE

e. Drop in elevation = rock layer width (D2) x percent landslope (C5) ÷ 100

$10 \text{ ft} \times 7\% \div 100 = 0.7 \text{ ft}$

f. Downslope mound height = depth of clean sand for slope difference (G2e) at downslope rock edge plus the mound height at the upslope edge of rock layer (G2b)

$0.7 \text{ ft} + 3.66 \text{ ft} = 4.36 \text{ ft}$

g. Downslope berm multiplier based on percent land slope

$3.80$  (see figure D-34)

h. Downslope width = downslope multiplier (G2g) times downslope mound height (G2f)

$3.80 \times 4.36 \text{ ft} = 16.56 \text{ ft}$

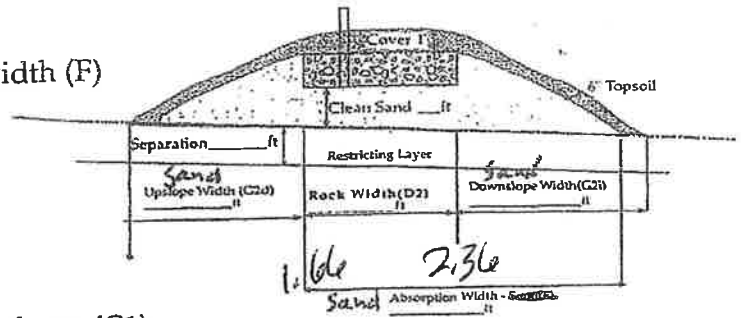
i. Select the greater of G1 and G2h as the downslope width:  $16.56 \text{ ft}$

j. Total mound width is the sum of upslope width (G2d) width plus rock layer width (D2) plus downslope width (G2i)

$9 \text{ ft} + 16.56 \text{ ft} + 10 \text{ ft} = 35.56 \text{ ft}$

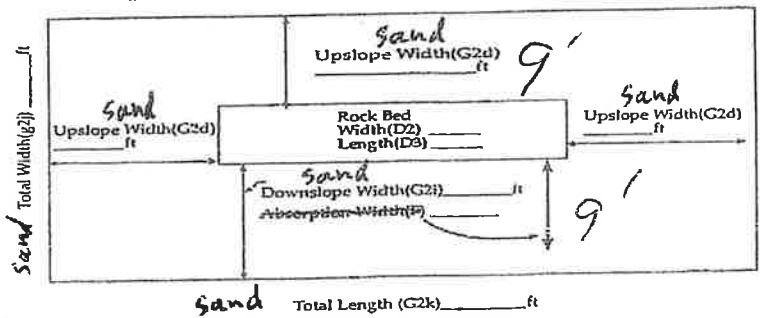
k. Total mound length is the sum of upslope width (G2d) plus rock layer length (D3) plus upslope width (G2d)

$9 \text{ ft} + 9 \text{ ft} + 18 \text{ ft} = 36 \text{ feet}$



D-34: SLOPE MULTIPLIER TABLE

Land Slope, in %	UPSLOPE multipliers for various slope ratios						DOWNSLOPE multipliers for various slope ratios				
	3:1	4:1	5:1	6:1	7:1	8:1	3:1	4:1	5:1	6:1	7:1
0	3.0	4.0	5.0	6.0	7.0	8.0	3.0	4.0	5.0	6.0	7.0
1	2.91	3.85	4.76	5.66	6.54	7.41	3.09	4.17	5.26	6.38	7.53
2	2.83	3.70	4.54	5.36	6.14	6.90	3.19	4.35	5.56	6.82	8.14
3	2.75	3.57	4.35	5.08	5.79	6.45	3.30	4.54	5.88	7.32	8.86
4	2.68	3.45	4.17	4.84	5.46	6.06	3.41	4.76	6.25	7.89	9.72
5	2.61	3.33	4.00	4.62	5.19	5.71	3.53	5.00	6.67	8.57	10.77
6	2.54	3.23	3.85	4.41	4.93	5.41	3.66	5.26	7.14	9.38	12.07
7	2.48	3.12	3.70	4.23	4.70	5.13	3.80	5.56	7.69	10.34	13.73
8	2.42	3.03	3.57	4.05	4.49	4.88	3.95	5.88	8.33	11.54	15.91
9	2.36	2.94	3.45	3.90	4.30	4.65	4.11	6.25	9.09	13.04	18.92
10	2.31	2.86	3.33	3.75	4.12	4.44	4.29	6.67	10.00	15.00	23.33
11	2.26	2.78	3.23	3.61	3.95	4.26	4.48	7.14	11.11	17.65	30.43
12	2.21	2.70	3.12	3.49	3.80	4.08	4.69	7.69	12.50	21.43	43.75



**Final Dimensions;**  
**36' x 56'**

I hereby certify that I have completed this work in accordance with applicable ordinances, rules and laws.  
 (signature) 2205 (license #) 3/10/24 (date)