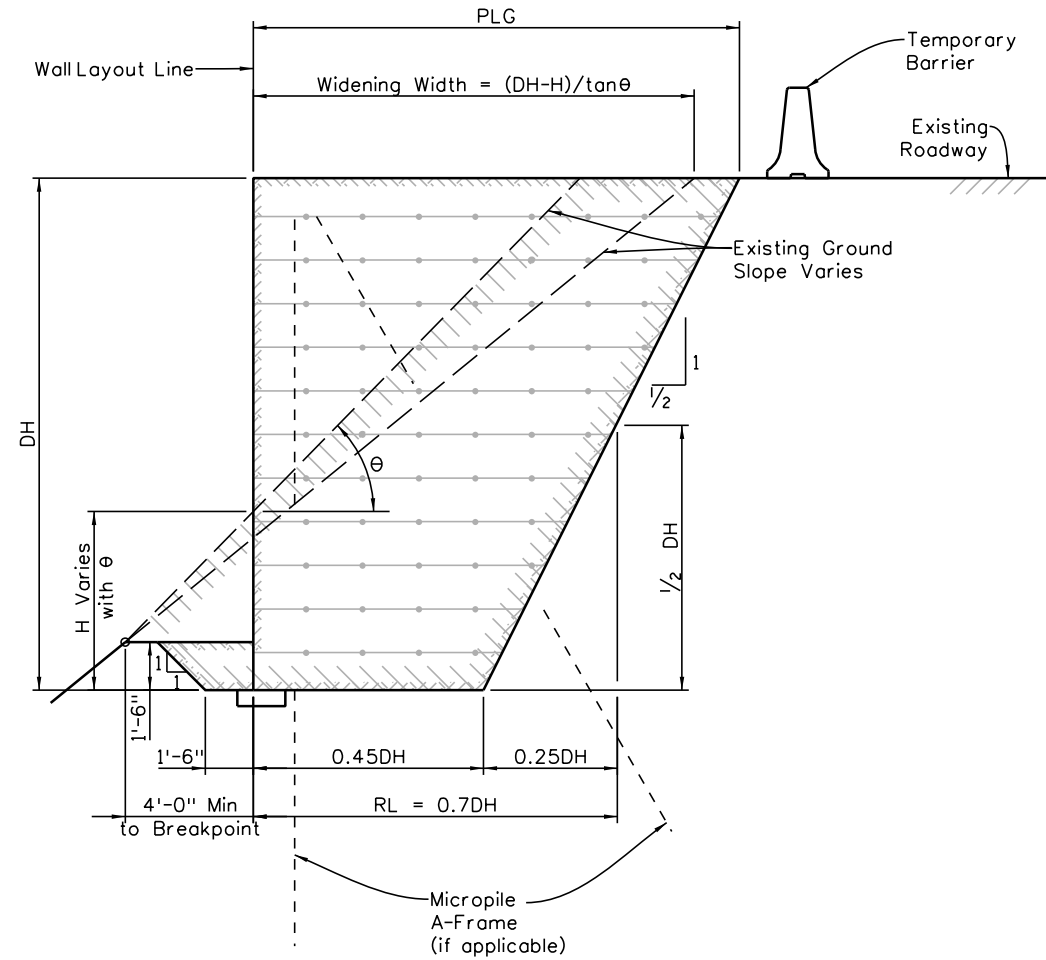
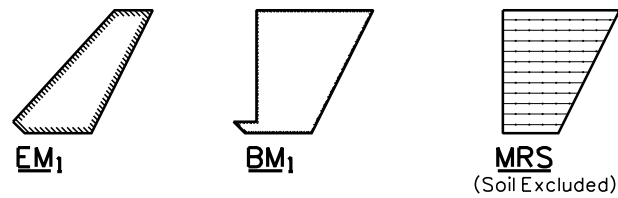


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| Revision Dates |
| 09-16 |
| 10-24 |



θ = Average Angle of Existing Ground Line
 Note: Widening width may vary

SECTION VIEW



NOTES:

1. Template with minimum 1'-6" toe cover is based on wall at layout line, and may be used for taking sections perpendicular to roadway center line with offsets.
2. Quantity of structure excavation (EM_1) may be calculated either by formulae with average H and θ at wall layout line or by actual area from graphic model using volume from surfaces or end area methods.
3. Earth removal outside the boundaries as defined shall be managed under roadway quantities and paid as unclassified excavation.
4. Use of reinforced soil foundation (RSF) is an option for bridging over weak foundation material.
5. The width (WRSF) and depth (DRSF) if applicable shall be addressed in both the project plans and geotechnical report.
6. Footer excavation is not paid separately but is included in the cost of the work

ABBREVIATIONS USED:

- BM_1 = Quantities of Structure Backfill (Class 1) without Shoring (CY/LF)
- DH = Design Height (or Avg height for quantity calculations) (Ft)
- EM_1 = Quantity of Structure Excavation without Shoring (CY/LF)
- H = Height of Excavation at Wall Layout Line (Ft)
- MRS = Quantity of Mechanical Reinforcement for Prescribed Soil Zone (CY/LF)
- PLG = Pay Length for Geomembrane (Ft)
- RL = Reinforcement Length (Ft)

Note to Designer:
 This sheet is required as a part of the plan set when used for quantity calculations.

Note to Designer:
 Given end of wall to end of wall stations, with wall segment lengths defined, a spreadsheet maybe required for summing up wall related calculations.

Condition: $H \geq 1.5 + 4 \tan(\theta)$

$EM_1 = [0.7(DH)^2 - 0.5(DH-H)^2 / \tan\theta + 3.375 + 4.5 \tan\theta] / 27$
 $BM_1 = [3.375 + (RL)(DH)] / 27$
 $MRS = [(DH)(RL)] / 27$
 $PLG = [0.95 DH]$
 $H = 1.5 + 4 \tan(\theta)$

Example:
 Inputs- DH=16'; Average RL=0.7DH=11.2'; $\theta=45^\circ$
 Outputs- H=5.5'; $EM_1=4.3$ (CY/Ft); $BM_1=6.76$ (CY/Ft); $MRS=6.64$ (CY/Ft); $PLG=15.2$ (Ft/Ft)

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|------------|--------|------|--------|------|----------|------|
| INITIALS | DESIGN | DATE | DETAIL | DATE | QUANTITY | DATE |
| By | | | | | | |
| Checked By | | | | | | |

\$PLOT_INFO\$

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|---|---------------------------------------|-----------------|----------|-------|--|--------------------|--|--------------------|----------------------------------|------------------|
| All seals for this set of drawings are applied to the cover page(s) | Print Date: \$DATE\$ | Sheet Revisions | | | Colorado Department of Transportation 2829 West Howard Place, 3rd Floor Denver, CO 80204 Phone: 303-512-4079 FAX: 303-757-9197 Staff Bridge Branch | As Constructed | PAY ITEMS FOR TRUNCATED BASE WITH OR WITHOUT A-FRAME MSE WALL WITH 1/2:1 ROCK EXCAVATION | | | Project No./Code |
| | File Name: Sheet_B-504-Q5.dgn | Date: | Comments | Init. | | | No Revisions: | Structure Numbers | | |
| | Horiz. Scale: Vert. Scale: As Noted | | | | | | Revised: | Designer: XXXXXXXX | Structure Numbers: XXXXXXXXXXXXX | |
| | Unit Information Unit Leader Initials | | | | | | Void: | Detailer: XXXXXXXX | Structure Numbers: XXXXXXXXXXXXX | |
| | | | | | | Sheet Subset: WALL | Subset Sheets: WXX of XXX | Sheet Number | | |