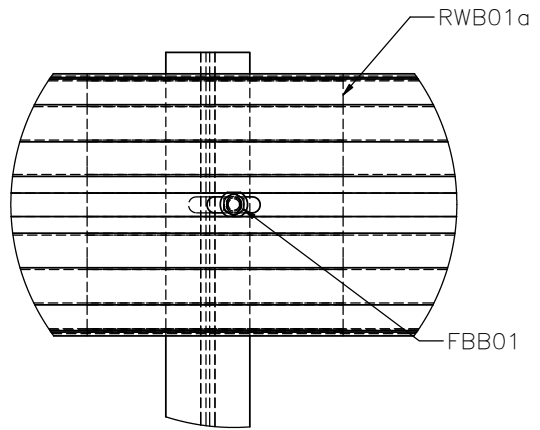


SECTION A-A



DETAIL B

MASH TL-3 NON-BLOCKED MGS ADJACENT TO A 3H:1V SLOPE ON TOP OF A WIRE-FACED, MSE WALL



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INTENDED USE

A non-blocked Midwest Guardrail System (MGS) with standard post spacing can be placed on top of and forward from a wire-faced, mechanically stabilized earth (MSE) wall system and used in locations where a maximum dynamic deflection of 27.4" [696] or less is acceptable and where a working width of 35.7" [907] is provided. The non-blocked MGS should be anchored and terminated using a suitable guardrail end treatment that is approved with a 31" [787] nominal top mounting height. The non-blocked MGS should be used with wide-flange steel posts (PWE06). The non-blocked MGS adjacent to a 3:1 fill slope on wire-faced, MSE wall system has been crash tested under TL-3 using test designations nos. 3-10 and 3-11 and was found acceptable according to the Manual for Assessing Safety Hardware (MASH) performance criteria.

COMPONENTS

Unit Length = 150" [3810]

DESIGNATOR	COMPONENT	NUMBER
FBB01	Guardrail splice bolts and nuts	10
RWB01a	W-beam back-up plate	2
PWE06	Wide-flange guardrail post	2
RWM04a	W-beam rail	1
-----	MSE Wall	1

ACCEPTANCE

FHWA Acceptance Letter will be pursued according to the TL-3 MASH performance criteria.

REFERENCES

McGhee, M.D., Faller, R.K., Rohde, J.R., Lechtenberg, K.A., Sicking, D.L., Reid, J.D., *Development and Evaluation of the Non-Blocked Midwest Guardrail System (MGS) for Wire-Faced, MSE Walls*, Draft Report, Transportation Research Report No. TRP-03-234-10, Midwest Roadside Safety Facility, University of Nebraska-Lincoln, July 6, 2011.

Homan, D.M., Thiele, J.C., Faller, R.K., Rosenbaugh, S.K., Rohde, J.R., Arens, S.W., Lechtenberg, K.A., Sicking, D.L., Reid, J.D., *Investigation and Dynamic Testing of Wood and Steel Posts for MGS on a Wire-Faced, MSE Wall*, Draft Report Transportation Research Report No. TRP-03-231-11, Midwest Roadside Safety Facility, University of Nebraska-Lincoln, July 6, 2011.

Lechtenberg, K.A., Faller, R.K., Sicking, D.L., Rohde, J.R., Reid, J.D., *Non-Blocked, Midwest Guardrail System for Wire-Faced, MSE Walls*, Paper No. 11-2684, Submitted for Publication and Presentation at the 90th Annual Meeting of the Transportation Research Board, Washington D.C., March 15, 2011.

Meyer, C.L., Faller, R.K., Lechtenberg, K.A., Sicking, D.L., Rohde, J.R., Reid, J.D., *Investigation and Dynamic Testing of Wood Posts MGS for Use in a Wire-Faced MSE Wall*, Draft Report, Transportation Research Report No. TRP-03-256-11, Midwest Roadside Safety Facility, University of Nebraska-Lincoln, in progress.

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MASH TL-3 NON-BLOCKED MGS ADJACENT TO A 3H:1V SLOPE ON TOP OF A WIRE-FACED, MSE WALL

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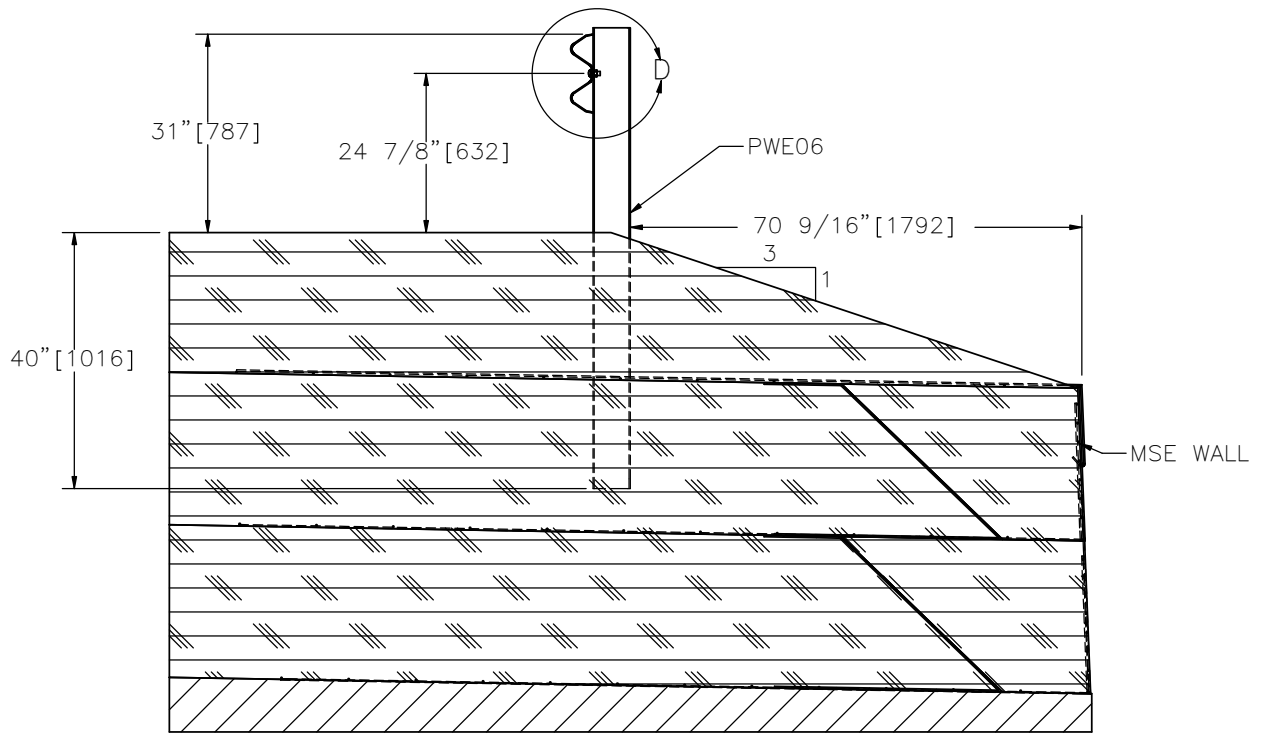
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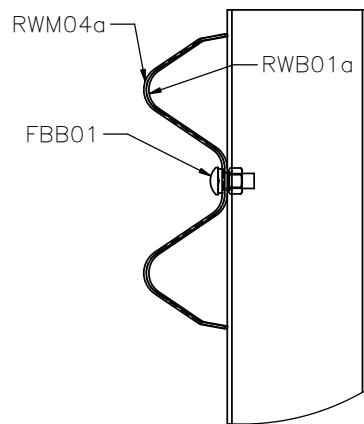
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SECTION C-C



DETAIL D

MASH TL-3 NON-BLOCKED MGS ADJACENT TO A 3H:1V SLOPE ON TOP OF A WIRE-FACED, MSE WALL



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MSE SPECIFICATIONS

The wire-faced, MSE wall system is configured with three 2-ft (0.6-m) thick layers of roller-compacted, course, crushed limestone material and has a 3H:1V fill slope at the outer edge. The soil-aggregate material shall meet the select wall backfill materials denoted in Sections 255 and 704 of the 2003 FHWA *Standard Specifications for Construction of Roads and Bridges on Federal Highway Projects*, which also closely conforms to the Grading B specifications of AASHTO M147-65 denoted in MASH and NCHRP Report No. 350. The outer region of the bottom two layers shall contain a wall facing fill material that consists of 4 to 6-in. (102 to 152-mm) diameter rocks that shall be placed by hand. Steel-wire reinforcement mats are used to construct and stabilize the MSE wall system.

MASH TL-3 NON-BLOCKED MGS ADJACENT TO A 3H:1V SLOPE ON TOP OF A WIRE-FACED, MSE WALL

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