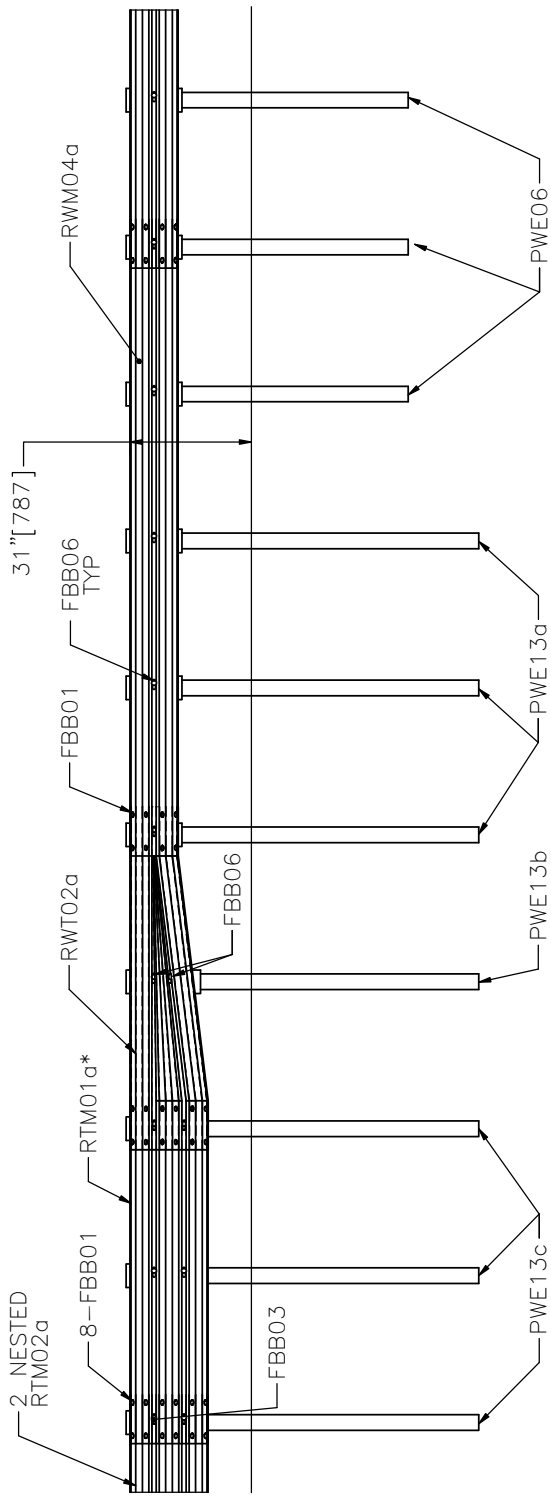


PLAN VIEW



ELEVATION VIEW

*NOTE: RWT02b FOR OPPOSITE DIRECTION

MGS W-BEAM TO THRIE BEAM TRANSITION



STG02

SHEET NO.

DATE:

1 of 3

7/7/2014

INTENDED USE

The Midwest Guardrail System (MGS) w-beam to thrie beam transition is intended to be used when the MGS is placed adjacent to a stiffened thrie beam guardrail in a transition region near the end of a bridge. The installation consists of five major structural components: (1) a stiffened thrie beam bridge rail system; (2) nested 12-gauge (2.67-mm) thick thrie beam guardrail (RTM02a); (3) standard 12-gauge (2.67-mm) thick thrie beam guardrail (RTM01a); (4) a 10-gauge (3.43-mm) thick asymmetrical W-beam to thrie beam transition section (RWT02a*); and (5) standard 12-gauge (2.67-mm) thick W-beam rail attached to a simulated anchorage device (RWT04a). The MGS w-beam to thrie beam transition has been crash tested under TL-3 conditions using test designation 3-11, and its performance was found acceptable according to the MASH safety performance criteria. This system can be used with other 31" [787] w-beam guardrail systems. If the w-beam guardrail system has splices at the posts, remove the half-post spacing. Otherwise, use the system as is.

*Note: RWT02b for opposite direction.

COMPONENTS

Unit Length=337 1/2" [8573]

DESIGNATOR	COMPONENT	QUANTITY
----	Stiffened Thrie Beam Bridge Rail System	1
RWM04a	4-Space W-Beam Guardrail	1
PDB18	6x12x19" [152x305x483] SYP Blockout	1
RTM02a	12'-6" [3810] Thrie Beam Section Half Post Spacing	2
RTM01a	6'-3" [1905] Thrie Beam Section Half Post Spacing	1
PDB17	6x8x19" [152x203x483] SYP Blockout	3
PWE13a-c	W6x12 90" [2286] long Posts	7
PDB10a	6x12x14.25" [152x305x362] SYP Blockout	6
RWT02a*	Asymmetrical W to Thrie Beam Transition	1
FBB06	14" [356] Guardrail Bolt and Recessed Nut	8
FBB03	10" [254] Guardrail Bolt and Recessed Nut	6
----	16D Double Headed Nail	6
FBB01	1.5" [38] Guardrail Bolt and Recessed Nut	40
PWE06	Wide-Flange Guardrail Post	3

*Note: RWT02b for opposite direction.

ELIGIBILITY

FHWA eligibility letter B-187, February 13, 2009.

MGS W-BEAM TO THRIE BEAM TRANSITION



STG02

SHEET NO.

DATE:

2 of 3

7/7/2014

REFERENCES

Eller, C.M., Polivka, K.A., Faller, R.K., Sicking, D.L., Rohde, J.R., Reid, J.D., Bielenberg, R.W., and Allison, E.M., *Development of the Midwest Guardrail System (MGS) W-Beam to Thrie Beam Transition Element*, Final Report to Midwest States Pooled Fund, Transportation Research Report No. TRP-03-167-07, Project No. SPR-3(017)-Years 11-12, 16, Midwest Roadside Safety Facility, University of Nebraska-Lincoln, Lincoln, NE, November 26, 2007.

Polivka, K.A., Faller, R.K., Sicking, D.L., Reid, J.D., Rohde, J.R., and Holloway, J.C., *Crash Testing of Missouri's W-Beam to Thrie Beam Transition Element*, Final Report to Midwest States Pooled Fund, Transportation Research Report No. TRP-03-94-00, Project No. SPR-3(017)-Year 9, Midwest Roadside Safety Facility, University of Nebraska-Lincoln, Lincoln, NE, September 12, 2000.

Polivka, K.A., Coon, B.A., Sicking, D.L., Faller, R.K., Bielenberg, R.W., Rohde, J.R., and Reid, J.D., *Development of the Midwest Guardrail System (MGS) W-Beam to Thrie Beam Transition*, Paper No. 07-2628, Transportation Research Record No. 2025, Journal of the Transportation Research Board, TRB AFB20 Committee on Roadside Safety Design, Transportation Research Board, Washington, D.C., January, 2007.

CONTACT INFORMATION

Midwest Roadside Safety Facility
Nebraska Transportation Center
University of Nebraska-Lincoln
130 Whittier Research Center
2200 Vine Street
Lincoln, NE 68583-0853
(402) 472-0965
Email: mwrsf@unl.edu
Website: <http://mwrsf.unl.edu/>



MGS W-BEAM TO THRIE BEAM TRANSITION



STG02

SHEET NO.

DATE:

3 of 3

7/7/2014