NOTE:
1. Posts ① and ③ may be wood or steel.
2. Use wood posts for CRT posts.
3. The minimum length of guardrail, including the end terminals, upstream and downstream of posts ② and ⑦ is 62.5 feet.
4. In locations where the culvert headwall extends above the finished grade to act as a vertical roadway curb, the maximum height of the culvert headwall above the finished grade is 2 inches.
5. See Details C617-31 or C617-32 for other assembly details.
MGS W-Beam Guardrail Long-Span System

General Information

**Appropriate Applications.**
- Long-span guardrail systems are used to span low-fill culverts. This drawing may also be used if an impenetrable object is encountered at post locations during construction.

<table>
<thead>
<tr>
<th>Crash Test Criteria</th>
<th>MASH</th>
</tr>
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<tr>
<td>Test Level</td>
<td>TL-3</td>
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<tr>
<td>FHWA Eligibility Letter</td>
<td>B-189, B-133, B-211A</td>
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<tr>
<td>TF 13 Designator</td>
<td>SGR20a-b, SGR38a-e</td>
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<tr>
<td>Crash Test Report</td>
<td>MwRSF Report No TRP-03-187-07</td>
</tr>
</tbody>
</table>

*From MwRSF website [https://mwrsf.unl.edu/mgs.php](https://mwrsf.unl.edu/mgs.php)*

**Limitations**
- The maximum span is 25 feet.

**Layout Guidance.**
- See AASHTO Roadside Design Guide Section 5.4.2
- See the FLH Midwest Guardrail System FAQ document for more information.

**Applicable SCRs**
- Section 563 (if weathering agent applied to galvanized elements)
- Section 617
- Section 710
- Section 725 (if weathering agent applied to galvanized elements)

**Typical Pay Item Used**
- 61701-4550 Guardrail system MGS, type 2, class A wood posts [LNFT] for galvanized steel
- 61701-5150 Guardrail system MGS, type 4, class B wood posts [LNFT] for weathering steel

*Note: long-span systems are paid for using the same pay item as roadside rail.*

**Updates**
- February 2019
  - New Detail drawing
- April 2020
  - CADD edits

Designer Notes for CFLHD Drawing 617-37