NOTE:

1. Extend the fill widening a minimum of 5 feet behind the guardrail, unless otherwise directed by the CO.

2. The guardrail flare shown in the plan view is the minimum length and rate required. As directed by the CO, flare the guardrail so that the terminal section is outside the clear zone. If the terminal section cannot be located outside the clear zone, it should be flared as far as practical from the road at the maximum rate indicated on the Guardrail Flare Rates table.

3. See Detail C617-60 for timber, structural steel, and hardware details.

4. On the Type A, blocked-out guardrail, include the blocks in terminal section, except on the concrete anchor. For the Type B, non-blocked-out guardrail, no blocks are included.

---

**GUARDRAIL FLARE RATE TABLE**

<table>
<thead>
<tr>
<th>Design Speed (mph)</th>
<th>Shy line offset (ft)</th>
<th>Flare rate inside shy line (a:b)</th>
<th>Flare rate outside shy line (a:b)</th>
</tr>
</thead>
<tbody>
<tr>
<td>60</td>
<td>8.0</td>
<td>26:1</td>
<td>14:1</td>
</tr>
<tr>
<td>50</td>
<td>6.5</td>
<td>21:1</td>
<td>11:1</td>
</tr>
<tr>
<td>40</td>
<td>5.0</td>
<td>16:1</td>
<td>8.1</td>
</tr>
<tr>
<td>30 and less</td>
<td>4.0</td>
<td>13:1</td>
<td>7.1</td>
</tr>
</tbody>
</table>

---

**ANGLED STEEL SPLICE PLATE**

**CONCRETE ANCHOR**

**SECTION A-A**

**STEEL BEARING PLATE**

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**NOTE:**

- Flare rate inside shy line = a:b
- Flare rate outside shy line = a:b
Steel-Backed Timber Guardrail Terminal Section Type SBT-FAT

General Information

Appropriate Applications.  Steel-backed timber (SBT) guardrail is an aesthetic roadside barrier. This terminal provides an anchor to the SBT system.

<table>
<thead>
<tr>
<th>Crash Test Criteria</th>
<th>None</th>
</tr>
</thead>
<tbody>
<tr>
<td>Test Level</td>
<td>None</td>
</tr>
<tr>
<td>FHWA Eligibility Letter</td>
<td>None</td>
</tr>
<tr>
<td>TF 13 Designator</td>
<td>Not posted</td>
</tr>
<tr>
<td>Crash Test Report</td>
<td>None</td>
</tr>
</tbody>
</table>

Limitations. Need to flare the terminal outside the clear zone since this is a non-crashworthy terminal.

Layout Guidance.
- See AASHTO Roadside Design Guide
- Use the FLH Barrier Length of Need Calculator available at https://flh.fhwa.dot.gov/resources/design/tools/Barrier-LON.xlsx

Applicable SCRs
None

Typical Pay Item Used
- 61702-0510 Terminal section, type SBT-FAT [EA]

Updates
February 2019
- New Detail drawing