Estimate of Cost of a Single Track Bridge similar to the above, with 2 trusses, 16½ feet from centre to centre.

2474 pounds cast-iron @ 2½ cents $ 55.66
2772 " malleable iron @ 3½ cents 90.09
284 " do. for lateral braces and track @ 3½ cents 9.23
3400 feet B. M. of timber @ $15 per M. 51.00
32 lineal feet workmanship @ $8½ 208.00

Total cost $418.98
Average cost per foot, $13.

Calculation.

The middle truss, which bears the weight of the railroad track, sustains a much greater load than either of the others. As the length of the bridge is not sufficient for more than one locomotive, it will be assumed that the greatest load would be 28 tons, or 1533 pounds per foot.

The permanent load will be the weight of the truss and 16½ feet of roadway. It will therefore be,

For the truss itself,

<table>
<thead>
<tr>
<th>Description</th>
<th>Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>cast-iron</td>
<td>1,237 pounds</td>
</tr>
<tr>
<td>malleable iron in truss</td>
<td>1,386 &quot;</td>
</tr>
<tr>
<td>&quot; lateral braces, &amp;c.</td>
<td>284 &quot;</td>
</tr>
</tbody>
</table>

Total 2,907 "

For the roadway, 3400 feet B. M. @ 3 pounds per foot 10,200 "

Total weight 13,107 "

Or 410 pounds per foot lineal.

Add for the weight of locomotive 46,000 "

Total weight of middle truss and load = 59,107 "