ROADBED SECTIONS IN CUTS

NOTE: HYDROLOGY STUDY SHALL BE USED TO SET THE LIMITS AND DEPTH OF INTERCEPTING DITCHES. BERM FOR INTERCEPTING DITCHES TO BE CONSTRUCTED WITH MATERIAL REMOVED FROM THE ROADBED SIDE. DO NOT EXCAVATE BACK OF BERM. HEIGHT OF BERM TO BE A MINIMUM OF 1'-0".

MATERIAL REQUIRED FOR 1000 FEET OF SINGLE TRACK

<table>
<thead>
<tr>
<th>BALLAST</th>
<th>SELECTED MATERIAL</th>
</tr>
</thead>
<tbody>
<tr>
<td>DEPTH</td>
<td>CUBIC YARDS</td>
</tr>
<tr>
<td>SHOULDER</td>
<td>9&quot;</td>
</tr>
<tr>
<td>19&quot;</td>
<td>525</td>
</tr>
</tbody>
</table>

ABOVE QUANTITIES ARE FOR TANGENT TRACK AND INCLUDE 15% ALLOWANCE FOR SHRINKAGE.

ROADBED SECTIONS AT FILLS

ROADBED SECTION FOR WOOD TIE TRACK CONSTRUCTION

UNION PACIFIC RAILROAD
ENGINEERING STANDARDS

NOTES:
1. THE DEPTH OF BALLAST AND DEPTH OF SELECTED MATERIAL SHALL BE DECIDED ON THE BASIS OF VOLUME OF TRAFFIC AND THE QUALITY OF SELECTED MATERIAL AND SUBGRADE DETERMINED BY THE RAILROAD'S ENGINEER SUBJECT TO THE APPROVAL OF THE AVP.

2. SLOPES SHOWN FOR BANKS IN CUTS AND ON FILLS SHALL BE CONSIDERED STANDARD AND GENERALLY USED, BUT MAY BE MODIFIED AS REQUIRED BY LOCAL CONDITIONS AND CHARACTER OF MATERIAL.

3. BALLAST MUST BE EQUALIZED IN ADVANCE OF DRESSING SO THAT FINAL SECTION WILL CONFORM TO SLOPE REQUIREMENTS AND CHARACTER OF MATERIAL.

4. WHERE OFF-TRACK ROADWAY IS TO BE PROVIDED, ADD 10'-0" ADDITIONAL WIDTH TO THE ROADBED SECTION AT TOP OF SELECTED MATERIAL ELEVATION.

5. ALL FILL SLOPES, BERMS AND OTHER DISTURBED AREAS SHALL BE FACED WITH COVER OF MATERIAL SUITABLE FOR GROWING GRASS AND HAVING A THICKNESS OF APPROXIMATELY 6 INCHES. THE OUTER SURFACE OF THIS COVER SHALL COINCIDE WITH THE DESIGN SLOPE OF THE EMBANKMENT. MATERIAL FOR THIS COVER MAY BE OBTAINED FROM STRIPPING. SEEDING SHALL CONFORM TO THE DEPARTMENT OF TRANSPORTATION SPECIFICATION FOR THAT STATE AND REGION.

6. FLOW LINE ON 0.2% MINIMUM GRADE DITCHES AND BENCHES.

7. FLAT BOTTOM DITCHES ARE REQUIRED FOR HIGH DENSITY LINES, HOWEVER A "V" DITCH IS ACCEPTABLE FOR INDUSTRY TRACKS WHEN RIGHT-OF-WAY IS LIMITED AND WHERE LOCAL CONDITIONS AND CHARACTER OF MATERIAL SO REQUIRE.
BALLAST SECTIONS FOR SINGLE CURVED TRACK WOOD TIE CONSTRUCTION

E = SUPER-ELEVATION

L

13'-6" 6'-0" 10'-0"

9' 12' 9'

JOINTED WELDED

15' MIN. (LOW DENSITY)
19' MIN. (HIGH DENSITY)

SELECT MATERIAL AS REQUIRED

BALLAST SECTIONS FOR TWO CURVED TRACKS WOOD TIE CONSTRUCTION

E = SUPER-ELEVATION

L

13'-6" 6'-0" 10'-0"

9' 12' 9'

JOINTED WELDED

15' MIN. (LOW DENSITY)
19' MIN. (HIGH DENSITY)

SELECT MATERIAL AS REQUIRED

NOTES:
1. SLOPES SHOWN FOR BANKS IN CUTS AND ON FILLS SHALL BE CONSIDERED STANDARD AND GENERALLY USED, BUT MAY BE MODIFIED AS REQUIRED BY LOCAL CONDITIONS AND CHARACTER OF MATERIAL.

2. BALLAST MUST BE EQUALIZED IN ADVANCE OF DRESSING SO THAT FINAL SECTION WILL CONFORM TO SLOPE REQUIREMENTS AND CHARACTER OF MATERIAL.