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| SUBJECT<br>Railroad Crossing Clearances  | FINAL NUMBER<br>RD06-01(B)   | EFFECTIVE DATE<br>06/01/2006 | VALIDATION DATE | SUPERSEDES<br>Formerly Numbered<br>HDM 06-01 |
| WEB LINK(S)<br><a href="http://www.oregon.gov/ODOT/HWY/TECHSERV/">http://www.oregon.gov/ODOT/HWY/TECHSERV/</a> |  |                              |                 |  |
| TOPIC/PROGRAM<br>Highway Design Manual   | APPROVED SIGNATURE<br>Original signed by<br>Tom Lauer, P.E.<br>Roadway Engineering Section Manager |                              |                 |  |

*ISSUE*

There are no national standards for horizontal and vertical clearances for Railroad facilities. Several railroad companies operate in Oregon and the major companies each have differing design requirements within their right of way. The current situation causes confusion in the design process and can lead to applying the wrong clearance for the wrong railroad. To further complicate the process, railroad companies operate on other railroad company's lines.

UPRR and BNSF are the two largest railroad companies in this state. Each company has their own standards for vertical and horizontal clearances in their respective right of way.

The Washington DOT (WSDOT) has gone to one vertical clearance standard for railroads to address the similar issue in that state.

*DISCUSSION*

ODOT designers have a history of incorrectly interpreting the standards of UPRR thus causing time delays and redesign effort to get railroad permits. Horizontal width seem to be the most incorrectly interpreted standard because of required mitigation items, crash walls for example, for structural items placed within the standard width.

To clarify the standards for the designer, this design change creates one standard for all railroads in Oregon. The vertical height will be a minimum of 23.5' clearance from the top of rail to the bottom of the crossing structure. The preferred horizontal distance from center of existing or future tracks to the face of the obstruction is 25'. Minimum clearance to face of an obstruction is 18'. Any obstruction placed in the zone 18' to 25' from the center of nearest track will require crash walls to further protect the obstruction.

*ACTION*

Replacement of page 5-43 in the Highway Design Manual.  
Replacement of Figure 2.7.3.8A in the Bridge Design and Drafting Manual.

If you have any questions regarding these guidelines, please don't hesitate to contact us.

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