Track Centers and Obstacle Clearances

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NMRA Recommended Practices
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Former **NMRA Standards S-6**, **S-7**, and **S-8**, specifying clearance diagrams, track centers and obstacle clearances, fall more appropriately in the category of Recommended Practices. These former Standards have been reviewed, updated, and improved by the NMRA Standards & Conformance Dept., and reorganized into this new series of Recommended Practices:

RP-7.1 Tangent Track Centers and Clearance Diagrams

NMRA RP-7.1 provides track centers, clearance diagrams for bridges and trackside obstacles, single-track tunnels, and double-track tunnels for tangent (straight) tracks for each of the four NMRA-defined modeling eras; **Old-Time/Narrow Gauge** (before 1920), **Classic** (1920-1969), **Early Modern** (1969-1983), and **Modern** (after 1983). The diagrams are simplified combinations of those developed by the American Railway Engineering Association (AREA) and its successor, the American Railway Engineering and Maintenance-of-Way Association (AREMA). Each era has a recommended minimum tangent track centerline spacing, clearance diagrams labeled with their pertinent dimensions, and a table giving those dimensions for the more common modeling scales.

RP-7.2 Curved Track Centers

On curves, locomotive and car corners swing outward, and their sides inward. This means equipment operating on double-track curves may come into contact unless curved track centers are made wider than the tangent track centers. **NMRA RP-7.2** recommends the minimum track centers required to ensure safe operation for equipment operating on double-track curves, again with tables for each modeling era.

RP-7.3 Curved Track Obstacle Clearances

For the same reasons described in **NMRA RP-7.2**, clearance to trackside obstacles must also increase for curved tracks. **NMRA RP-7.3** is the companion to **NMRA RP-7.2**. It recommends minimum trackside obstacle clearance for equipment operating on a curved track, again with tables for each modeling era.

RP-7.4 Interurban Track Centers and Obstacle Clearances

NMRA RP-7.4 recommends track centers and trackside obstacle clearance required for interurban equipment operating on a curved track, all in a single table.

RP-7.5 Modifying Tangent Clearance Diagrams for Curved Tracks

NMRA RP-7.1 defines clearance diagrams for bridges, tunnels and trackside obstacles, specifically for tangent track. **NMRA RP-7.5** presents straightforward instructions that describe how to modify these diagrams for use with curved single- or double-tracks. Modification instructions use track centerline and obstacle clearances obtained from **NMRA RP-7.2** and **RP-7.3**, or **RP-7.4**, or those calculated by the **NMRA Curved Track Center and Obstacle Clearance Assistant** described below in **NMRA RP-7.6**.

RP-7.6 Using the NMRA Curved Track Center and Obstacle Clearance Assistant

The curved track center and trackside obstacle clearance values presented in **NMRA RP-7.2**, **RP-7.3**, and **RP-7.4** derive from "worst case" prototype equipment in use during each modeling era. For those who prefer to set track centers and obstacle clearances for specific equipment in use on their model railroads, **NMRA RP-7.6** describes how to use the companion **NMRA Curved Track Center and Obstacle Clearance Assistant**. This is a web-based app posted next to **NMRA RP-7.6** in the **Standards and Recommended Practices** section of the **NMRA Website**. Select or click it to operate it in your browser.