



Curved Track Obstacle Clearances

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NMRA Recommended Practices
RP-7.3
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This **RP** is the companion to **NMRA RP-7.2 Curved Track Centers**. **NMRA RP-7.3** provides tables of obstacle clearances required for single curved tracks. Required obstacle clearances on curves must increase for the same reason track centers must increase on curves (see **NMRA RP-7.2**).

The two tables in this **RP** are similar to those in **NMRA RP-7.2**, but show obstacle clearances instead of track centers. The first table defines the minimum obstacle clearance to the inside of a curved track centerline. The second table defines the minimum obstacle clearance to the outside of a curved track centerline.

NOTES:

1. **Tangent** obstacle clearances are for reference, and are the same as dimension **A** given in **NMRA RP-7.1**.
2. Use the tables as-is for a single curved track.
3. When your desired radius falls between two presented in the table, use the obstacle clearance for the smaller of the two radii.
4. For concentric curved tracks, use the radius of the inner track and the **Minimum Inside Obstacle Clearance** table to get the inside clearance for the inner track. Use **NMRA RP-7.2** to get the track center for the outer track and calculate the radius of the outer track (Outer radius = Inner radius plus track center). Use the outer radius in the **Minimum Outside Obstacle Clearance** table to get the outside clearance for the outer track.

Minimum Inside Obstacle Clearance

Curvature in Degrees	0	5	10	15	20	25	30	35	40	45
PROTOTYPE Radius (ft.)	Tangent	1146	574	383	288	231	193	166	146	131
Old-Time/NG (ft.)	6.0	6.35	6.69	7.03	7.38	7.72	8.06	8.40	8.73	9.06
Classic (ft.)	8.0	8.39	8.78	9.18	9.57	9.96	10.34	10.73	11.11	11.49
Early Modern (ft.)	8.0	8.48	8.95	9.42	9.90	10.37	10.84	11.31	11.77	12.24
Modern (ft.)	9.0	9.48	9.95	10.42	10.90	11.37	11.84	12.31	12.77	13.24
O SCALE Radius (in.)	Tangent	286 9/16"	143 13/32"	95 25/32"	72"	57 3/4"	48 9/32"	41 9/16"	36 9/16"	32 21/32"
Old-Time/NG (in.)	1 1/2"	1 19/32"	1 11/16"	1 3/4"	1 27/32"	1 15/16"	2"	2 3/32"	2 3/16"	2 9/32"
Classic (in.)	2"	2 3/32"	2 3/16"	2 9/32"	2 13/32"	2 1/2"	2 19/32"	2 11/16"	2 25/32"	2 7/8"
Early Modern (in.)	2"	2 1/8"	2 1/4"	2 11/32"	2 15/32"	2 19/32"	2 23/32"	2 13/16"	2 15/16"	3 1/16"
Modern (in.)	2 1/4"	2 3/8"	2 1/2"	2 19/32"	2 23/32"	2 27/32"	2 31/32"	3 1/16"	3 3/16"	3 5/16"
S SCALE Radius (in.)	Tangent	214 15/16"	107 9/16"	71 13/16"	54"	43 5/16"	36 7/32"	31 3/16"	27 13/32"	24 1/2"
Old-Time/NG (in.)	1 1/8"	1 3/16"	1 1/4"	1 5/16"	1 3/8"	1 7/16"	1 1/2"	1 9/16"	1 5/8"	1 11/16"
Classic (in.)	1 1/2"	1 9/16"	1 21/32"	1 23/32"	1 25/32"	1 7/8"	1 15/16"	2"	2 3/32"	2 5/32"
Early Modern (in.)	1 1/2"	1 19/32"	1 11/16"	1 25/32"	1 27/32"	1 15/16"	2 1/32"	2 1/8"	2 7/32"	2 9/32"
Modern (in.)	1 11/16"	1 25/32"	1 7/8"	1 31/32"	2 1/32"	2 1/8"	2 7/32"	2 5/16"	2 13/32"	2 15/32"
OO SCALE Radius (in.)	Tangent	191 1/32"	95 5/8"	63 27/32"	48"	38 1/2"	32 3/16"	27 23/32"	24 3/8"	21 25/32"
Old-Time/NG (in.)	1"	1 1/16"	1 1/8"	1 3/16"	1 7/32"	1 9/32"	1 11/32"	1 13/32"	1 15/32"	1 1/2"
Classic (in.)	1 11/32"	1 13/32"	1 15/32"	1 17/32"	1 19/32"	1 21/32"	1 23/32"	1 25/32"	1 27/32"	1 29/32"
Early Modern (in.)	1 11/32"	1 13/32"	1 1/2"	1 9/16"	1 21/32"	1 23/32"	1 13/16"	1 7/8"	1 31/32"	2 1/32"
Modern (in.)	1 1/2"	1 19/32"	1 21/32"	1 3/4"	1 13/16"	1 29/32"	1 31/32"	2 1/16"	2 1/8"	2 7/32"
HO SCALE Radius (inches)	Tangent	157 15/16"	79 1/16"	52 25/32"	39 11/16"	31 27/32"	26 5/8"	22 29/32"	20 5/32"	18"
Old-Time/NG (in.)	13/16"	7/8"	29/32"	31/32"	1 1/32"	1 1/16"	1 1/8"	1 5/32"	1 3/16"	1 1/4"
Classic (in.)	1 3/32"	1 5/32"	1 7/32"	1 1/4"	1 5/16"	1 3/8"	1 7/16"	1 15/32"	1 17/32"	1 19/32"
Early Modern (in.)	1 3/32"	1 5/32"	1 7/32"	1 5/16"	1 3/8"	1 7/16"	1 1/2"	1 9/16"	1 5/8"	1 11/16"
Modern (in.)	1 1/4"	1 5/16"	1 3/8"	1 7/16"	1 1/2"	1 9/16"	1 5/8"	1 11/16"	1 3/4"	1 13/16"
TT SCALE Radius (in.)	Tangent	114 5/8"	57 3/8"	38 5/16"	28 25/32"	23 3/32"	19 5/16"	16 5/8"	14 5/8"	13 1/16"
Old-Time/NG (in.)	19/32"	5/8"	21/32"	23/32"	3/4"	25/32"	13/16"	27/32"	7/8"	29/32"
Classic (in.)	13/16"	27/32"	7/8"	29/32"	31/32"	1"	1 1/32"	1 1/16"	1 1/8"	1 5/32"
Early Modern (in.)	13/16"	27/32"	29/32"	15/16"	1"	1 1/32"	1 3/32"	1 1/8"	1 3/16"	1 7/32"
Modern (in.)	29/32"	15/16"	1"	1 1/32"	1 3/32"	1 1/8"	1 3/16"	1 7/32"	1 9/32"	1 5/16"
N SCALE Radius (in.)	Tangent	85 31/32"	43 1/32"	28 23/32"	21 19/32"	17 5/16"	14 1/2"	12 15/32"	10 31/32"	9 13/16"
Old-Time/NG (in.)	7/16"	15/32"	1/2"	17/32"	9/16"	19/32"	19/32"	5/8"	21/32"	11/16"
Classic (in.)	19/32"	5/8"	21/32"	11/16"	23/32"	3/4"	25/32"	13/16"	27/32"	7/8"
Early Modern (in.)	19/32"	5/8"	21/32"	23/32"	3/4"	25/32"	13/16"	27/32"	7/8"	29/32"
Modern (in.)	11/16"	23/32"	3/4"	25/32"	13/16"	27/32"	7/8"	15/16"	31/32"	1"

Minimum Outside Obstacle Clearance

Curvature in Degrees	0	5	10	15	20	25	30	35	40	45
PROTOTYPE Radius (ft.)	Tangent	1146	574	383	288	231	193	166	146	131
Old-Time/NG (ft.)	6.0	6.35	6.70	7.04	7.37	7.68	7.99	8.29	8.57	8.84
Classic (ft.)	8.0	8.86	9.70	10.52	11.32	12.10	12.85	13.57	14.27	14.94
Early Modern (ft.)	8.0	8.50	8.99	9.46	9.92	10.36	10.77	11.18	11.56	11.92
Modern (ft.)	9.0	9.50	9.99	10.46	10.91	11.34	11.75	12.14	12.51	12.86
O SCALE Radius (in.)	Tangent	286 9/16"	143 13/32"	95 25/32"	72"	57 3/4"	48 9/32"	41 9/16"	36 9/16"	32 21/32"
Old-Time/NG (in.)	1 1/2"	1 19/32"	1 11/16"	1 3/4"	1 27/32"	1 29/32"	2"	2 1/16"	2 5/32"	2 7/32"
Classic (in.)	2"	2 7/32"	2 7/16"	2 5/8"	2 27/32"	3 1/32"	3 7/32"	3 13/32"	3 9/16"	3 3/4"
Early Modern (in.)	2"	2 1/8"	2 1/4"	2 3/8"	2 15/32"	2 19/32"	2 11/16"	2 25/32"	2 7/8"	2 31/32"
Modern (in.)	2 1/4"	2 3/8"	2 1/2"	2 5/8"	2 23/32"	2 27/32"	2 15/16"	3 1/32"	3 1/8"	3 7/32"
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Old-Time/NG (in.)	1 1/8"	1 3/16"	1 1/4"	1 5/16"	1 3/8"	1 7/16"	1 1/2"	1 9/16"	1 19/32"	1 21/32"
Classic (in.)	1 1/2"	1 21/32"	1 13/16"	1 31/32"	2 1/8"	2 9/32"	2 13/32"	2 17/32"	2 11/16"	2 13/16"
Early Modern (in.)	1 1/2"	1 19/32"	1 11/16"	1 25/32"	1 7/8"	1 15/16"	2 1/32"	2 3/32"	2 5/32"	2 1/4"
Modern (in.)	1 11/16"	1 25/32"	1 7/8"	1 31/32"	2 1/32"	2 1/8"	2 3/16"	2 9/32"	2 11/32"	2 13/32"
OO SCALE Radius (in.)	Tangent	191 1/32"	95 5/8"	63 27/32"	48"	38 1/2"	32 3/16"	27 23/32"	24 3/8"	21 25/32"
Old-Time/NG (in.)	1"	1 1/16"	1 1/8"	1 3/16"	1 7/32"	1 9/32"	1 11/32"	1 3/8"	1 7/16"	1 15/32"
Classic (in.)	1 11/32"	1 15/32"	1 5/8"	1 3/4"	1 7/8"	2 1/32"	2 5/32"	2 1/4"	2 3/8"	2 1/2"
Early Modern (in.)	1 11/32"	1 13/32"	1 1/2"	1 9/16"	1 21/32"	1 23/32"	1 25/32"	1 7/8"	1 15/16"	2"
Modern (in.)	1 1/2"	1 19/32"	1 21/32"	1 3/4"	1 13/16"	1 7/8"	1 31/32"	2 1/32"	2 3/32"	2 5/32"
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Old-Time/NG (in.)	13/16"	7/8"	15/16"	31/32"	1"	1 1/16"	1 3/32"	1 5/32"	1 3/16"	1 7/32"
Classic (in.)	1 3/32"	1 7/32"	1 11/32"	1 7/16"	1 9/16"	1 21/32"	1 25/32"	1 7/8"	1 31/32"	2 1/16"
Early Modern (in.)	1 3/32"	1 5/32"	1 1/4"	1 5/16"	1 3/8"	1 7/16"	1 1/2"	1 17/32"	1 19/32"	1 21/32"
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Old-Time/NG (in.)	19/32"	5/8"	21/32"	23/32"	3/4"	25/32"	13/16"	27/32"	27/32"	7/8"
Classic (in.)	13/16"	7/8"	31/32"	1 1/16"	1 1/8"	1 7/32"	1 9/32"	1 11/32"	1 7/16"	1 1/2"
Early Modern (in.)	13/16"	27/32"	29/32"	15/16"	1"	1 1/32"	1 1/16"	1 1/8"	1 5/32"	1 3/16"
Modern (in.)	29/32"	15/16"	1"	1 1/32"	1 3/32"	1 1/8"	1 3/16"	1 7/32"	1 1/4"	1 9/32"
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Old-Time/NG (in.)	7/16"	15/32"	1/2"	17/32"	9/16"	9/16"	19/32"	5/8"	21/32"	21/32"
Classic (in.)	19/32"	21/32"	23/32"	25/32"	27/32"	29/32"	31/32"	1 1/32"	1 1/16"	1 1/8"
Early Modern (in.)	19/32"	5/8"	11/16"	23/32"	3/4"	25/32"	13/16"	27/32"	7/8"	29/32"
Modern (in.)	11/16"	23/32"	3/4"	25/32"	13/16"	27/32"	7/8"	29/32"	15/16"	31/32"