

On3 Scale

Curved Switch Turnout

TURNOUT DIMENSIONS

Revised: February 2015

RP-12.52

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(1)	FROG NUMBERS	4	5	6	7	8	9	10	11	12
PROPERTIES OF CURVED SWITCHES										
(2)	Switch Rail Length	2.313	2.313	2.313	3.563	3.563	3.563	3.563		
(3)	Switch Point Angle (deg.)	2.017	2.017	2.017	1.333	1.333	1.333	1.333		
(4)	Switch Heel Spread	0.141	0.141	0.141	0.141	0.141	0.141	0.141		
(5)	Switch Heel Angle (deg.)	4.717	4.717	4.717	2.850	2.850	2.850	2.850		
(6)	Switch Rail Radius	49.000	49.000	49.000	135.000	135.000	135.000	135.000		
(7)	Switch Mid-Ordinate	0.014	0.014	0.014	0.012	0.012	0.012	0.012		
LEAD TO THEORETICAL POINT OF FROG										
(8)	Lead	5.875	6.500	7.125	9.688	10.313	10.938	11.563		
CLOSURE DISTANCE										
(9)	Straight Rail Length	2.938	3.500	4.063	5.250	5.750	6.250	6.750		
(10)	Curved Rail Length	3.000	3.531	4.094	5.281	5.781	6.281	6.781		
(11)	Curved Rail Radius	18.000	30.000	49.000	57.000	77.000	103.000	135.000		
GAGE LINE OFFSETS ON CURVED CLOSURE RAIL										
(12)	1st Point Y1				0.266	0.266	0.266	0.266		
(13)	1st Point X1				5.500	5.563	5.625	5.688		
(14)	Mid-Point Y2	0.344	0.344	0.344						
(15)	Mid-Point X2	3.938	4.125	4.250						
(16)	3rd Point Y3				0.438	0.438	0.438	0.438		
(17)	3rd Point X3				7.250	7.500	7.750	8.000		
PROPERTIES OF FROGS										
(18)	Frog Angle (deg.)	14.250	11.417	9.533	8.167	7.150	6.367	5.717		
(19)	Overall Length	1.688	1.875	2.063	2.313	2.625	2.938	3.313		
(20)	Toe Length	0.625	0.688	0.750	0.875	1.000	1.125	1.250		
(21)	Heel Length	1.063	1.188	1.313	1.438	1.625	1.813	2.063		
(22)	Toe Spread	0.156	0.141	0.125	0.125	0.125	0.125	0.125		
(23)	Heel Spread	0.266	0.234	0.219	0.203	0.203	0.203	0.203		
(35)	Wing Rail Extension									
(36)	Wing Rail Flare Length									
(37)	Wing Rail Flare Width									
(38)	Wing Rail Bend Width									
(39)	Wing Rail End Chamfer									
POINT OF FROG TO INTERSECTION OF CENTERLINES										
(24)	PF to ICL	3.000	3.750	4.500	5.250	6.000	6.750	7.500		
DATA FOR CROSSOVERS: PF TO PF ON PARALLEL TRACKS										
For Track Centers of:		3.000								
(25)	Straight Track Dist.	5.813	7.375	8.938	10.375	11.875	12.875	14.938		
(26)	Crossover Track Dist.	6.188	7.625	9.188	10.625	12.125	13.063	15.063		
For Track Center Increment of:		0.125								
(28)	Straight Track Incr.	0.500	0.625	0.750	0.875	1.000	1.125	1.250		
(29)	Crossover Track Incr.	0.500	0.625	0.750	0.875	1.000	1.125	1.250		
GUARD RAILS										
(30)	Parallel End Setback									
(31)	Bevel Length									
(32)	Flare Length									
(33)	Overall Length									
(34)	Parallel Length									
(37)	Flare Width									
(38)	Plane Width									
(39)	End Chamfer									

Use RP-13.7 and RP-13.8 for wing rail dimensions

Use RP-13.5, RP-13.6 and RP-13.8 for guard rail dimensions