

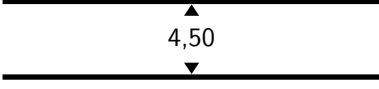









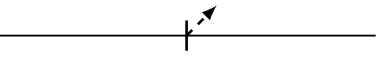
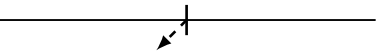
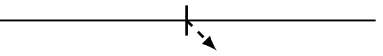
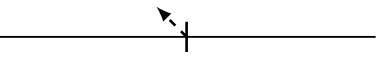
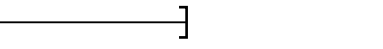
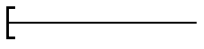


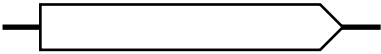

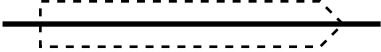
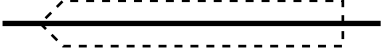
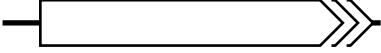




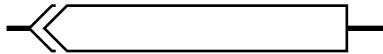
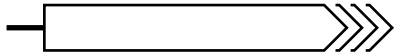





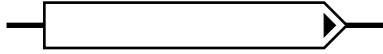
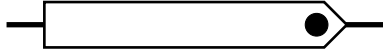
No.	Name	Symbol	Code	File
1	main track		<code>\draw[MainTrack] (-2.5,0) -- ++(5,0);</code>	topology.tikz
2	main line (double track)		<code>\draw[MainTrack] (-2.5, 0.5) -- ++(5,0);</code> <code>\draw[MainTrack] (-2.5,-0.5) -- ++(5,0);</code>	topology.tikz
3	track distance (in m)		<code>\draw[MainTrack] (-2.5, 0.5) -- ++(5,0);</code> <code>\pic at (0,-0.5) {track_distance={4,50}};</code> <code>\draw[MainTrack] (-2.5,-0.5) -- ++(5,0);</code>	topology.tikz
4	side track		<code>\draw[SideTrack] (-2.5,0) -- ++(5,0);</code>	topology.tikz
5	track number		<code>\draw[MainTrack] (-2.5,0) -- ++(5,0);</code> <code>\pic at (0, 0) {track_number={2}};</code>	topology.tikz
6	turnout left (forward)		<code>\draw[MainTrack] (-2.5,0) -- ++(5,0);</code> <code>\draw[MainTrack] (0,0) -- ++(1,1);</code> <code>\pic at (0,0) {turnout_left_forward};</code>	topology.tikz
7	turnout left (backward)		<code>\draw[MainTrack] (-2.5,0) -- ++(5, 0);</code> <code>\draw[MainTrack] (0,0) -- ++(-1,-1);</code> <code>\pic at (0,0) {turnout_left_backward};</code>	topology.tikz
8	turnout right (forward)		<code>\draw[MainTrack] (-2.5,0) -- ++(5, 0);</code> <code>\draw[MainTrack] (0,0) -- ++(1,-1);</code> <code>\pic at (0,0) {turnout_right_forward};</code>	topology.tikz
9	turnout right (backward)		<code>\draw[MainTrack] (-2.5,0) -- ++(5,0);</code> <code>\draw[MainTrack] (0,0) -- ++(-1,1);</code> <code>\pic at (0,0) {turnout_right_backward};</code>	topology.tikz

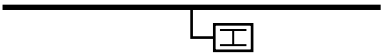
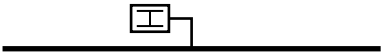
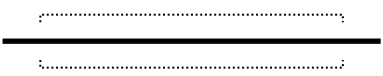
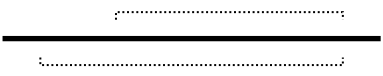
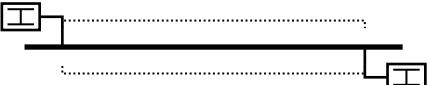
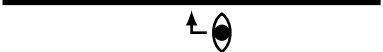



No.	Name	Symbol	Code	File
10	turnout left (forward) with fouling point indicator		<pre>\draw[MainTrack] (-2.5,0) -- ++(5,0); \draw[MainTrack] (0,0) -- ++(1,1); \pic at (0,0) {turnout_left_forward}; \pic at (0,0) {fouling_point_left_forward};</pre>	topology.tikz
11	turnout left (backward) with fouling point indicator		<pre>\draw[MainTrack] (-2.5,0) -- ++(5, 0); \draw[MainTrack] (0,0) -- ++(-1,-1); \pic at (0,0) {turnout_left_backward}; \pic at (0,0) {fouling_point_left_backward};</pre>	topology.tikz
12	turnout right (forward) with fouling point indicator		<pre>\draw[MainTrack] (-2.5,0) -- ++(5, 0); \draw[MainTrack] (0,0) -- ++(1,-1); \pic at (0,0) {turnout_right_forward}; \pic at (0,0) {fouling_point_right_forward};</pre>	topology.tikz
13	turnout right (backward) with fouling point indicator		<pre>\draw[MainTrack] (-2.5,0) -- ++(5,0); \draw[MainTrack] (0,0) -- ++(-1,1); \pic at (0,0) {turnout_right_backward}; \pic at (0,0) {fouling_point_right_backward};</pre>	topology.tikz
14	double-slip turnout left		<pre>\draw[MainTrack] (-2.5, 0) -- ++(5,0); \draw[MainTrack] (-1 ,-1) -- ++(2,2); \pic at (0,0) {turnout_left_forward}; \pic at (0,0) {turnout_left_backward}; \pic at (0,0) {slip_left_forward}; \pic at (0,0) {slip_left_backward};</pre>	topology.tikz
15	double-slip turnout right		<pre>\draw[MainTrack] (-2.5,0) -- ++(5, 0); \draw[MainTrack] (-1 ,1) -- ++(2,-2); \pic at (0,0) {turnout_right_forward}; \pic at (0,0) {turnout_right_backward}; \pic at (0,0) {slip_right_forward}; \pic at (0,0) {slip_right_backward};</pre>	topology.tikz
16	diamond crossing left		<pre>\draw[MainTrack] (-2.5, 0) -- ++(5,0); \draw[MainTrack] (-1 ,-1) -- ++(2,2); \pic at (0,0) {turnout_left_forward=none}; \pic at (0,0) {turnout_left_backward=none};</pre>	topology.tikz
17	diamond crossing right		<pre>\draw[MainTrack] (-2.5,0) -- ++(5, 0); \draw[MainTrack] (-1 ,1) -- ++(2,-2); \pic at (0,0) {turnout_right_forward=none}; \pic at (0,0) {turnout_right_backward=none};</pre>	topology.tikz

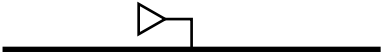



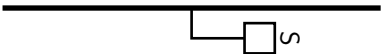

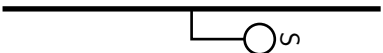
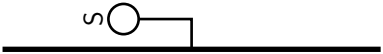
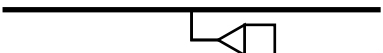
No.	Name	Symbol	Code	File
18	turnout left (forward) with points in right position		<pre>\draw[MainTrack] (-2.5,0) -- ++(5,0); \draw[MainTrack] (0,0) -- ++(1,1); \pic at (0,0) {turnout_left_forward}; \pic at (0,0) {turnout_left_forward_points_right};</pre>	topology.tikz
19	turnout left (forward) with points in left position		<pre>\draw[MainTrack] (-2.5,0) -- ++(5,0); \draw[MainTrack] (0,0) -- ++(1,1); \pic at (0,0) {turnout_left_forward}; \pic at (0,0) {turnout_left_forward_points_left};</pre>	topology.tikz
20	turnout left (forward) with moving points		<pre>\draw[MainTrack] (-2.5,0) -- ++(5,0); \draw[MainTrack] (0,0) -- ++(1,1); \pic at (0,0) {turnout_left_forward}; \pic at (0,0) {turnout_left_forward_points_moving};</pre>	topology.tikz
21	turnout left (backward) with points in right position		<pre>\draw[MainTrack] (-2.5,0) -- ++(5, 0); \draw[MainTrack] (0,0) -- ++(-1,-1); \pic at (0,0) {turnout_left_backward}; \pic at (0,0) {turnout_left_backward_points_right};</pre>	topology.tikz
22	turnout left (backward) with points in left position		<pre>\draw[MainTrack] (-2.5,0) -- ++(5, 0); \draw[MainTrack] (0,0) -- ++(-1,-1); \pic at (0,0) {turnout_left_backward}; \pic at (0,0) {turnout_left_backward_points_left};</pre>	topology.tikz
23	turnout left (backward) with moving points		<pre>\draw[MainTrack] (-2.5,0) -- ++(5, 0); \draw[MainTrack] (0,0) -- ++(-1,-1); \pic at (0,0) {turnout_left_backward}; \pic at (0,0) {turnout_left_backward_points_moving};</pre>	topology.tikz
24	turnout right (forward) with points in right position		<pre>\draw[MainTrack] (-2.5,0) -- ++(5, 0); \draw[MainTrack] (0,0) -- ++(1,-1); \pic at (0,0) {turnout_right_forward}; \pic at (0,0) {turnout_right_forward_points_right};</pre>	topology.tikz
25	turnout right (forward) with points in left position		<pre>\draw[MainTrack] (-2.5,0) -- ++(5, 0); \draw[MainTrack] (0,0) -- ++(1,-1); \pic at (0,0) {turnout_right_forward}; \pic at (0,0) {turnout_right_forward_points_left};</pre>	topology.tikz
26	turnout right (forward) with moving points		<pre>\draw[MainTrack] (-2.5,0) -- ++(5, 0); \draw[MainTrack] (0,0) -- ++(1,-1); \pic at (0,0) {turnout_right_forward}; \pic at (0,0) {turnout_right_forward_points_moving};</pre>	topology.tikz

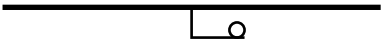



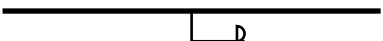




No.	Name	Symbol	Code	File
27	turnout right (backward) with points in right position		<pre>\draw[MainTrack] (-2.5,0) -- ++(5,0); \draw[MainTrack] (0,0) -- ++(-1,1); \pic at (0,0) {turnout_right_backward}; \pic at (0,0) {turnout_right_backward_points_right};</pre>	topology.tikz
28	turnout right (backward) with points in left position		<pre>\draw[MainTrack] (-2.5,0) -- ++(5,0); \draw[MainTrack] (0,0) -- ++(-1,1); \pic at (0,0) {turnout_right_backward}; \pic at (0,0) {turnout_right_backward_points_left};</pre>	topology.tikz
29	turnout right (backward) with moving points		<pre>\draw[MainTrack] (-2.5,0) -- ++(5,0); \draw[MainTrack] (0,0) -- ++(-1,1); \pic at (0,0) {turnout_right_backward}; \pic at (0,0) {turnout_right_backward_points_moving};</pre>	topology.tikz
30	derailer left (forward)		<pre>\draw[SideTrack] (-2.5,0) -- ++(5,0); \pic at (0,0) {derailer_left_forward};</pre>	topology.tikz
31	derailer left (backward)		<pre>\draw[SideTrack] (-2.5,0) -- ++(5,0); \pic at (0,0) {derailer_left_backward};</pre>	topology.tikz
32	derailer right (forward)		<pre>\draw[SideTrack] (-2.5,0) -- ++(5,0); \pic at (0,0) {derailer_right_forward};</pre>	topology.tikz
33	derailer right (backward)		<pre>\draw[SideTrack] (-2.5,0) -- ++(5,0); \pic at (0,0) {derailer_right_backward};</pre>	topology.tikz
34	bufferstop (forward)		<pre>\draw[SideTrack] (-2.5,0) -- ++(2.5,0); \pic at (0,0) {bufferstop_forward};</pre>	topology.tikz
35	bufferstop (backward)		<pre>\draw[SideTrack] (0,0) -- ++(2.5,0); \pic at (0,0) {bufferstop_backward};</pre>	topology.tikz



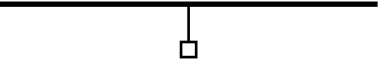
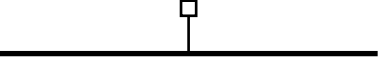


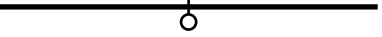

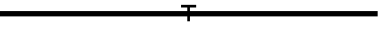
No.	Name	Symbol	Code	File
36	vehicles (parked)		<pre>\draw[SideTrack] (-2.5,0) -- ++(5,0); \pic at (-2,0) {vehicles}; \node[font=\sffamily] at (0,0) {label};</pre>	vehicles.tikz
37	vehicle (parked)		<pre>\draw[SideTrack] (-2.5,0) -- ++(5,0); \pic at (-0.5,0) {vehicles=1}; % change the 1 to desired length</pre>	vehicles.tikz
38	train (direction forward)		<pre>\draw[MainTrack] (-2.5,0) -- ++(5,0); \pic at (2,0) {train_direction_forward};</pre>	vehicles.tikz
39	train (direction backward)		<pre>\draw[MainTrack] (-2.5,0) -- ++(5,0); \pic at (-2,0) {train_direction_backward};</pre>	vehicles.tikz
40	ghost train (direction forward)		<pre>\draw[MainTrack] (-2.5,0) -- ++(5,0); \pic at (2,0) {ghost_train_direction_forward};</pre>	vehicles.tikz
41	ghost train (direction backward)		<pre>\draw[MainTrack] (-2.5,0) -- ++(5,0); \pic at (-2,0) {ghost_train_direction_backward};</pre>	vehicles.tikz
42	train moving (forward)		<pre>\draw[MainTrack] (-2.5,0) -- ++(5,0); \pic at (2,0) {train_moving_forward};</pre>	vehicles.tikz
43	train moving (backward)		<pre>\draw[MainTrack] (-2.5,0) -- ++(5,0); \pic at (-2,0) {train_moving_backward};</pre>	vehicles.tikz
44	train moving slow (forward)		<pre>\draw[MainTrack] (-2.5,0) -- ++(5,0); \pic at (2,0) {train_moving_slow_forward};</pre>	vehicles.tikz

No.	Name	Symbol	Code	File
45	train moving slow (backward)		<pre>\draw[MainTrack] (-2.5,0) -- ++(5,0); \pic at (-2,0) {train_moving_slow_backward};</pre>	vehicles.tikz
46	train moving fast (forward)		<pre>\draw[MainTrack] (-2.5,0) -- ++(5,0); \pic at (2,0) {train_moving_fast_forward};</pre>	vehicles.tikz
47	train moving fast (backward)		<pre>\draw[MainTrack] (-2.5,0) -- ++(5,0); \pic at (-2,0) {train_moving_fast_backward};</pre>	vehicles.tikz
48	train in shunting mode (direction forward)		<pre>\draw[MainTrack] (-2.5,0) -- ++(5,0); \pic at (2,0) {train_shunt_mode_forward};</pre>	vehicles.tikz
49	train in shunting mode (direction backward)		<pre>\draw[MainTrack] (-2.5,0) -- ++(5,0); \pic at (-2,0) {train_shunt_mode_backward};</pre>	vehicles.tikz
50	train shunting (forward)		<pre>\draw[MainTrack] (-2.5,0) -- ++(5,0); \pic at (2,0) {train_shunting_forward};</pre>	vehicles.tikz
51	train shunting (backward)		<pre>\draw[MainTrack] (-2.5,0) -- ++(5,0); \pic at (-2,0) {train_shunting_backward};</pre>	vehicles.tikz
52	train operated automatic (direction forward)		<pre>\draw[MainTrack] (-2.5,0) -- ++(5,0); \pic at (2,0) {train_direction_forward}; % train \pic at (2,0) {train_automatic_forward}; % triangle</pre>	vehicles.tikz
53	train operated by human (direction forward)		<pre>\draw[MainTrack] (-2.5,0) -- ++(5,0); \pic at (2,0) {train_direction_forward}; % train \pic at (2,0) {train_human_forward}; % dot</pre>	vehicles.tikz



No.	Name	Symbol	Code	File
54	train berth sign (forward)		<pre>\draw[MainTrack] (-2.5,0) -- ++(5,0); \pic at (0,0) {train_berth_sign_forward};</pre>	trafficControl.tikz
55	train berth sign (backward)		<pre>\draw[MainTrack] (-2.5,0) -- ++(5,0); \pic at (0,0) {train_berth_sign_backward};</pre>	trafficControl.tikz
56	train berth shape bidirectional		<pre>\draw[MainTrack] (-2.5,0) -- ++(5,0); \pic at (-2,0) {train_berth_shape=4}; % change the 4 to desired length</pre>	trafficControl.tikz
57	train berth shape		<pre>\draw[MainTrack] (-2.5,0) -- ++(5,0); \pic at (-2,0) {train_berth_shape_forward=4}; \pic at (-1,0) {train_berth_shape_backward=3};</pre>	trafficControl.tikz
58	train berth		<pre>\draw[MainTrack] (-2.5,0) -- ++(5,0); \pic at (-2,0) {train_berth_sign_backward}; \pic at (-2,0) {train_berth_shape}; \pic at (2,0) {train_berth_sign_forward};</pre>	trafficControl.tikz
59	view point (forward)		<pre>\draw[MainTrack] (-2.5,0) -- ++(5,0); \pic at (0,0) {view_point_forward};</pre>	trafficControl.tikz
60	view point (backward)		<pre>\draw[MainTrack] (-2.5,0) -- ++(5,0); \pic at (0,0) {view_point_backward};</pre>	trafficControl.tikz
61	distant signal (forward)		<pre>\draw[MainTrack] (-2.5,0) -- ++(5,0); \pic at (0,0) {distant_signal_forward};</pre>	trafficControl.tikz
62	distant signal with speed indicator		<pre>\draw[MainTrack] (-2.5,0) -- ++(5,0); \pic at (0,0) {distant_signal_forward={S}}; % replace the S with desired speed or remove</pre>	trafficControl.tikz

No.	Name	Symbol	Code	File
63	distant signal (backward)		<pre>\draw[MainTrack] (-2.5,0) -- ++(5,0); \pic at (0,0) {distant_signal_backward};</pre>	trafficControl.tikz
64	distant signal with speed indicator		<pre>\draw[MainTrack] (-2.5,0) -- ++(5,0); \pic at (0,0) {distant_signal_backward={S}}; % replace the S with desired speed or remove</pre>	trafficControl.tikz
65	speed signal (forward)		<pre>\draw[MainTrack] (-2.5,0) -- ++(5,0); \pic at (0,0) {speed_signal_forward={S}}; % replace the S with desired speed or remove</pre>	trafficControl.tikz
66	speed signal (backward)		<pre>\draw[MainTrack] (-2.5,0) -- ++(5,0); \pic at (0,0) {speed_signal_backward={S}}; % replace the S with desired speed or remove</pre>	trafficControl.tikz
67	block signal (forward)		<pre>\draw[MainTrack] (-2.5,0) -- ++(5,0); \pic at (0,0) {block_signal_forward=S}; % replace the S with desired speed or remove</pre>	trafficControl.tikz
68	block signal (backward)		<pre>\draw[MainTrack] (-2.5,0) -- ++(5,0); \pic at (0,0) {block_signal_backward=S}; % replace the S with desired speed or remove</pre>	trafficControl.tikz
69	route signal (forward)		<pre>\draw[MainTrack] (-2.5,0) -- ++(5,0); \pic at (0,0) {route_signal_forward=S}; % replace the S with desired speed or remove</pre>	trafficControl.tikz
70	route signal (backward)		<pre>\draw[MainTrack] (-2.5,0) -- ++(5,0); \pic at (0,0) {route_signal_backward=S}; % replace the S with desired speed or remove</pre>	trafficControl.tikz
71	combined signal (distant and block signal)		<pre>\draw[MainTrack] (-2.5,0) -- ++(5,0); \pic at (0,0) {block_signal_forward}; \pic at (0,0) {distant_signal_forward};</pre>	trafficControl.tikz

No.	Name	Symbol	Code	File
72	shunt signal (forward)		<pre>\draw[MainTrack] (-2.5,0) -- ++(5,0); \pic at (0,0) {shunt_signal_forward};</pre>	trafficControl.tikz
73	shunt signal (backward)		<pre>\draw[MainTrack] (-2.5,0) -- ++(5,0); \pic at (0,0) {shunt_signal_backward};</pre>	trafficControl.tikz
74	shunt signal locked (forward)		<pre>\draw[MainTrack] (-2.5,0) -- ++(5,0); \pic at (0,0) {shunt_signal_forward_locked};</pre>	trafficControl.tikz
75	shunt signal locked (backward)		<pre>\draw[MainTrack] (-2.5,0) -- ++(5,0); \pic at (0,0) {shunt_signal_backward_locked};</pre>	trafficControl.tikz
76	shunt limit (forward)		<pre>\draw[MainTrack] (-2.5,0) -- ++(5,0); \pic at (0,0) {shunt_limit_forward};</pre>	trafficControl.tikz
77	shunt limit (backward)		<pre>\draw[MainTrack] (-2.5,0) -- ++(5,0); \pic at (0,0) {shunt_limit_backward};</pre>	trafficControl.tikz
78	transmitter (below & above)		<pre>\draw[MainTrack] (-2.5,0) -- ++(5,0); \pic at (-1,0) {transmitter_below}; \pic at (1,0) {transmitter_above};</pre>	trafficControl.tikz
79	transmitter (below) with signal		<pre>\draw[MainTrack] (-2.5,0) -- ++(5,0); \pic at (0,0) {route_signal_forward}; \pic at (0,0) {transmitter_below};</pre>	trafficControl.tikz
80	transmitter (below & above) effective forward		<pre>\draw[MainTrack] (-2.5,0) -- ++(5,0); \pic at (-1,0) {transmitter_below_forward}; \pic at (1,0) {transmitter_above_forward};</pre>	trafficControl.tikz

No.	Name	Symbol	Code	File
81	transmitter (below & above) effective backward		<pre>\draw[MainTrack] (-2.5,0) -- ++(5,0); \pic at (-1,0) {transmitter_below_backward}; \pic at (1,0) {transmitter_above_backward};</pre>	trafficControl.tikz
82	transmitter (below & above) effective bidirectional		<pre>\draw[MainTrack] (-2.5,0) -- ++(5,0); \pic at (-1,0) {transmitter_below_bidirectional}; \pic at (1,0) {transmitter_above_bidirectional};</pre>	trafficControl.tikz
83	block end marker (forward)		<pre>\draw[MainTrack] (-2.5,0) -- ++(5,0); \pic at (0,0) {block_end_marker_forward};</pre>	trafficControl.tikz
84	block end marker (backward)		<pre>\draw[MainTrack] (-2.5,0) -- ++(5,0); \pic at (0,0) {block_end_marker_backward};</pre>	trafficControl.tikz
85	block clearing point (forward)		<pre>\draw[MainTrack] (-2.5,0) -- ++(5,0); \pic at (0,0) {block_clearing_point_forward};</pre>	trafficControl.tikz
86	block clearing point (backward)		<pre>\draw[MainTrack] (-2.5,0) -- ++(5,0); \pic at (0,0) {block_clearing_point_backward};</pre>	trafficControl.tikz
87	route clearing point (forward)		<pre>\draw[MainTrack] (-2.5,0) -- ++(5,0); \pic at (0,0) {route_clearing_point_forward};</pre>	trafficControl.tikz
88	route clearing point (backward)		<pre>\draw[MainTrack] (-2.5,0) -- ++(5,0); \pic at (0,0) {route_clearing_point_backward};</pre>	trafficControl.tikz
89	clearing point		<pre>\draw[MainTrack] (-2.5,0) -- ++(5,0); \pic at (0,0) {clearing_point};</pre>	trafficControl.tikz

No.	Name	Symbol	Code	File
90	platform (left)		<pre>\draw[MainTrack] (-2.5,0) -- ++(5,0); \pic at (-2,0) {platform_left=4}; % change the 4 to desired length</pre>	constructions.tikz
91	platform (right)		<pre>\draw[MainTrack] (-2.5,0) -- ++(5,0); \pic at (-2,0) {platform_right=4}; % change the 4 to desired length</pre>	constructions.tikz
92	platform (middle)		<pre>\draw[MainTrack] (-2.5, 0.5) -- ++(5,0); \draw[MainTrack] (-2.5,-0.5) -- ++(5,0); \pic at (-2, 0.5) {platform_right}; \pic at (-2,-0.5) {platform_left};</pre>	constructions.tikz
93	level crossing (single track)		<pre>\draw[MainTrack] (-2.5,0) -- ++(5,0); \pic at (0,0) {level_crossing_barrier_left}; \pic at (0,0) {level_crossing_barrier_right};</pre>	constructions.tikz
94	level crossing (double track)		<pre>\draw[MainTrack] (-2.5,-0.5) -- ++(5,0); \draw[MainTrack] (-2.5, 0.5) -- ++(5,0); \pic at (0, 0.5) {level_crossing_barrier_left}; \pic at (0, 0.5) {level_crossing}; \pic at (0,-0.5) {level_crossing_barrier_right};</pre>	constructions.tikz
95	level crossing (double track) with full closure		<pre>\draw[MainTrack] (-2.5,-0.5) -- ++(5,0); \draw[MainTrack] (-2.5, 0.5) -- ++(5,0); \pic at (0, 1.5) {level_crossing_barrier_right}; \pic at (0, 0.5) {level_crossing_barrier_left}; \pic at (0, 0.5) {level_crossing}; \pic at (0,-0.5) {level_crossing_barrier_right}; \pic at (0,-1.5) {level_crossing_barrier_left};</pre>	constructions.tikz
96	bridge		<pre>\draw[MainTrack] (-2.5,0) -- ++(5,0); \pic at (-2,0) {bridge_left=4}; \pic at (-2,0) {bridge_right=4};</pre>	constructions.tikz
97	bridge with track beneath		<pre>\draw[MainTrack] (-1,-1) -- ++(2,2); \fill[background] (-1,-0.4) rectangle (1,0.4); \draw[MainTrack] (-2.5,0) -- ++(5,0); \pic at (-1,0) {bridge_left=3}; \pic at (-2,0) {bridge_right=3};</pre>	constructions.tikz

No.	Name	Symbol	Code	File
98	hump		<pre>\draw[SideTrack] (-2.5,0) -- ++(5,0); \pic at (0,0) {hump};</pre>	<pre>constructions.tikz</pre>
99	interlocking		<pre>\pic at (0,0) {interlocking};</pre>	<pre>constructions.tikz</pre>