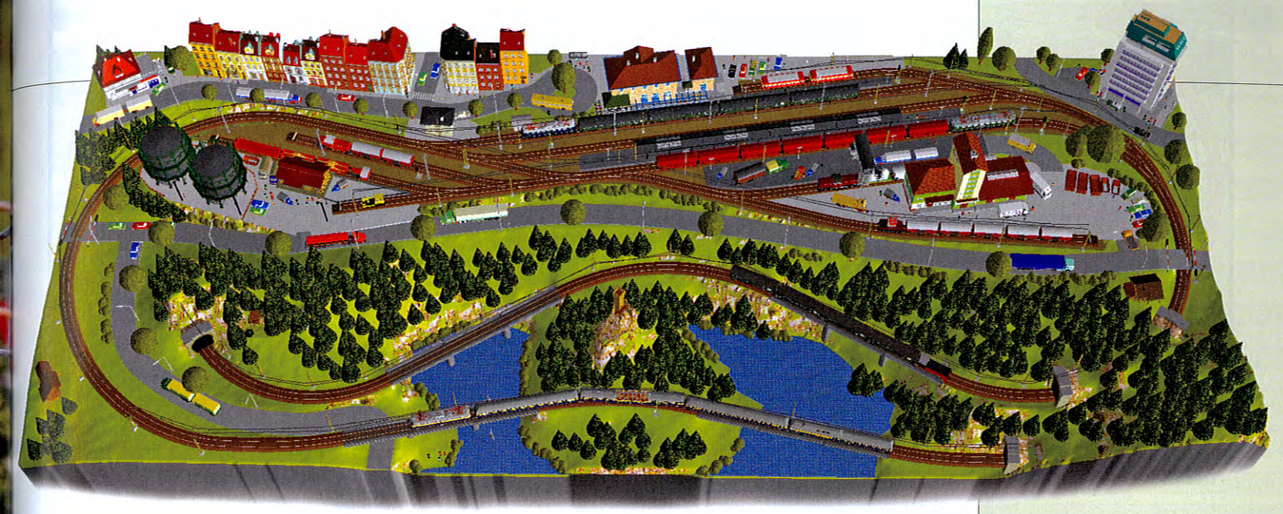


LAYOUT PLANNING FOR IMPROVERS/PART 61

Rectangle with a swing

This layout is a playground for landscape builders. Even so, the track layout is not easy, and it offers a surprising amount.

Today we're going to put the cart before the horse for once: we are going to create a layout for all model railroaders who get their fun mainly from designing. This will need a variegated landscape with plenty of opportunity for scratch-building, improvements and weathering. It looks something like this: on the edge of town stands a station on a main line. Below it there is a lake outlet with a rocky outcrop on which a hunting lodge stands. Railroad lines run past the lodge at different levels, one in front, one behind. That helps add interest to the scenery and gives plenty of opportunities for our own design ideas. We merely suggest the edge of town with a row of houses; there again there is plenty of opportunity for individual design with weathering, painting and lighting. We put in a modern station and hotel to represent the contrasts that are found in most towns to this day. The busy trade in the locality is to be seen in the warehouse complex and in the gas supply. Here too there are endless possibilities for detail design and scratch-building – in theory, you could spend months on the intricacies of design on their own.

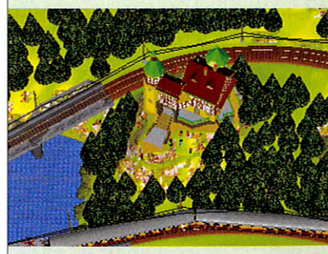
The layout of the tracks must of course be appropriate for these features. For the rail alignments, the requirement was that they should be as elegant as possible. Due to the space restrictions, I decided on a single-track main line with a relatively small through station. Two main-line sections were to make the running of long trains as interesting as possible. Thus the following elements were required:

- a three-track through station on the single-track main line
- platform adjoining the main station building for a rail bus connecting to the main line as a shuttle service
- a large warehous complex with feeder track for loading
- freight loading facilitiy with three dead-end tracks
- urban gasometers to catch the eye

An elegant station

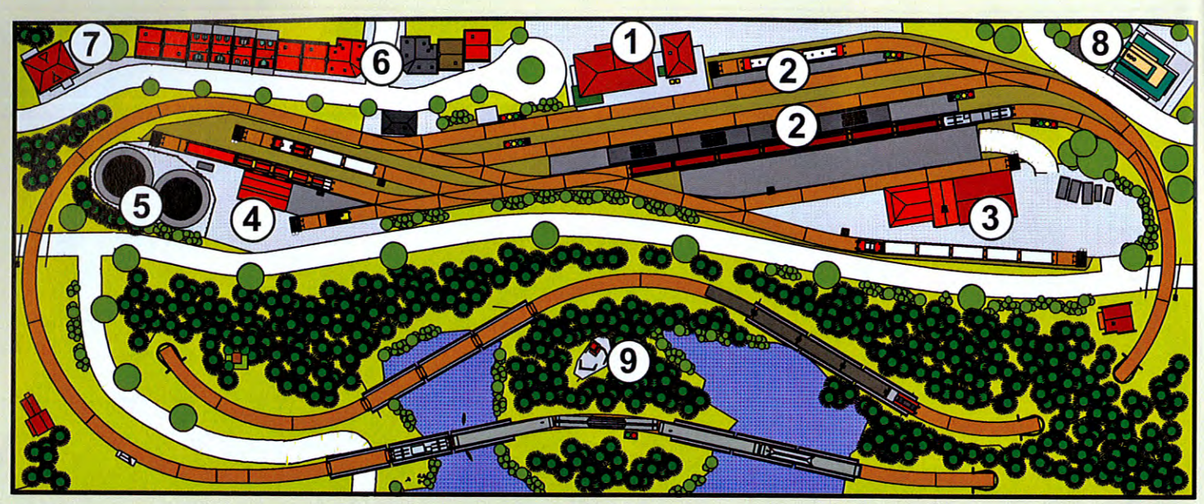
The station represents the operating center of the layout. Here too we look for an elegant line and for the C-track version we select the station Wilhelmsbad and for the K-track, the model of Trossingen by Faller. This small town station built in half-timbering is one of the most attractive of all, and suits our layout perfectly. For the station itself we have planned three through tracks, which should be ample for a suburban station. More interesting is the design for the dead-end tracks for loading and marshaling at the warehouse complex and the freight depot and the freight loading point by the gasometers. In the K-track design, instead of the freight loading tracks, a small loco shed and diesel fueling point are planned. That makes it easy to see that only a few minor alterations mean designing a totally different scenery.

Closure to the rear edge of the layout is primarily accomplished with buildings. To the left we have a long row of houses. If this is cleverly combined with the backdrop, it creates a sensational effect of depth. It even ▸



Layout description

The layout measures 3.5 x 1.4 meters (11'6" x 4'7") and portrays a singletrack main line with loading facilities in the station. Featured are two main line sections which run either side of a hunting lodge at the front of the layout (top picture).



Layout and track description

1 Wilhelmsbad station
2 Platform
3 Warehouse complex with loading track
4 Freight shed with loading tracks
5 Town gasometer
6 Row of town houses
7 Car workshop
8 Modern Europa house
9 Ruins

looks like the edge of a large town. The corner on the right at the back with only trees struck me as too boring, so I hit on the idea of a hotel or apartment block complex as an individual building. That adds the necessary extra to that corner, and the modern building stands out from the design of the remaining features in the layout.

Course of the line

The two main lines run from the station to staging yards at a lower level, each running past a rocky outcrop on which a hunting lodge is perched towards the front edge of the layout. The rocky outcrop divides a lake outlet. That gives us a good excuse for large bridges, which are an essential feature of any layout. It is always fun to see and hear the trains gently rumble across these structures.

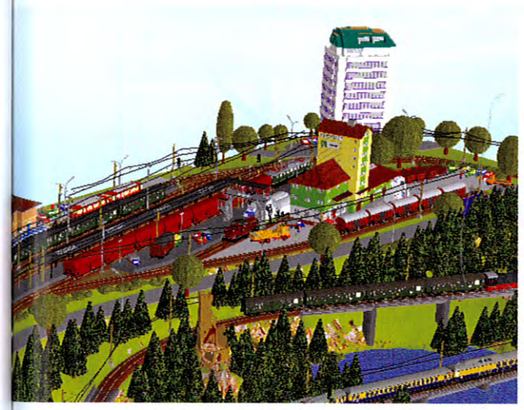
When we leave the station to the right, there is a sweeping bend followed by a short tunnel. Then the crossing of the lake outlet starts: we reach the hillock with the hunting lodge over a bridge on the slope, run behind it to a further bridge crossing over the second part of the lake. Our train then disappears into a tunnel to reach staging yard 2, which has three storage tracks and a reversing loop. We run through the staging yard, and then take the same route in reverse back to the station. Now we continue our journey, this time leaving the station to the left. The line makes a wide curve to pass the two town gasometers, heading for the front of the layout. There we start to cross the lake, but in the opposite direction and using different types of bridge structures. This time the line runs past the front of the hunting lodge, so we have full view of the main line. Then we run into another tunnel and reach the larger staging yard 1. In the C-track design, this has a reversing loop with four storage sidings; the K-track design has an extra storage track. Now we return to the station again uphill, in the opposite direction.

We see that this layout is one which offers extra running enjoyment due to the well-thought-out loading and marshaling possibilities. This indeed will be enhanced if we install overhead wiring. We have timed the layout in era IV – in those days there were already many electric locos running on the railroad. So we have arranged both of our designs with the Märklin catenary. Running "under the wires" matches the elegance we are seeking to achieve in our layout and it's realistic too.

Urban design: the gasometer and the row of houses give the layout that urban aspect.

Layout controls

For controls, there is one clear recommendation: digital. This is primarily due to the locomotives. They can negotiate all the climbs and down-gradients at the predetermined speed – and we have plenty of them on this layout. Apart from that, solenoid-operated points, signals and so on react much more reliably in digital operation. Wiring up is also far simpler, as the decoder is as a rule already installed in the turnout or signal,



Outstanding: the "Europa house" and the warehouse in front of it really catch the eye.

which merely has to be connected to the digital ring lead and programmed in the Central Station. Since this layout can no longer be classed as one of the smaller ones, there is some connecting up to do too. This is no great problem with Märklin digital, unlike analog. For beginners in particular, that is a decisive advantage of the digital railroad.

The gradients up and down we have already mentioned; they affect the substructure. Design of the terrain has priority however, and here particularly the ribbed strcuture shows its unbeatable qualities. For this, careful preparations have to be made in planning, since a 2-D plan on its own – a pure floor plan – won't be enough at all. Everything must have heights shown – track, roads, particular areas of terrain and much else besides. The more accurately the 2-D plan is prepared, the more realistic the 3-D representation will look, As a bonus to the 3-D ▸

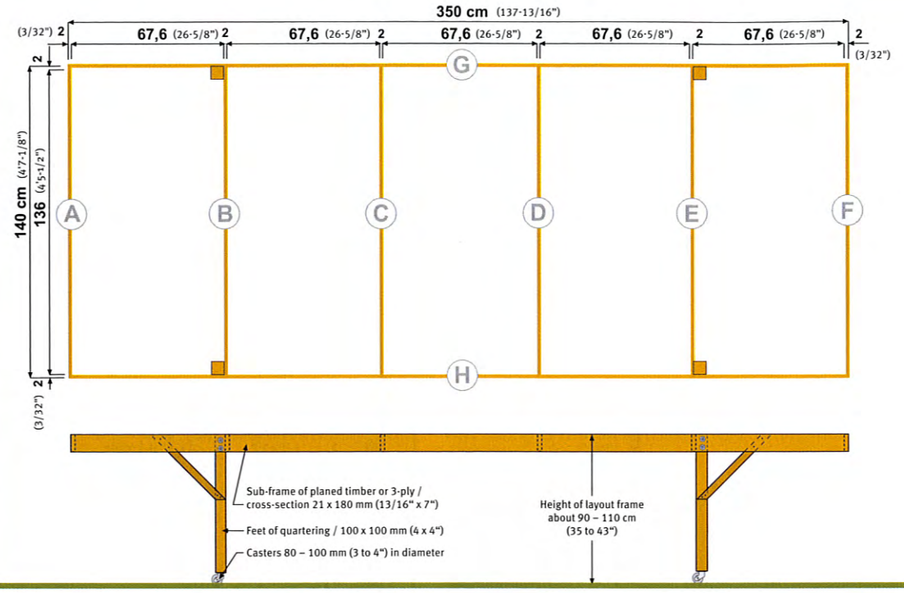
Track parts list

Track parts list for C-track system Märklin and Trix

Quantity	Märklin item	Quantity	Trix item No.	Designation
93x	24188	92x	62188	Straight track 188.3 mm (7-13/32")
16x	24172	16x	62172	Straight track 171.7 mm (6-3/4")
5x	24094	5x	62094	Straight track 94.2 mm (3-11/16")
19x	24236	19x	62236	Straight track 236.1 mm (9-5/16")
2x	24229	3x	62229	Straight track 229.3 mm (9")
3x	24064	3x	62064	Straight track 64.3 mm (2-9/16")
6x	24978	6x	62977	Track bumper with lantern, length 77.5 mm (3-1/16")
3x	24530	3x	62530	Curved track, radius R5 = 643.6 mm (25-5/16")
1x	24430	1x	62430	Curved track, radius R4 = 579.3 mm (22-13/16")
13x	24330	13x	62330	Curved track, radius 515 mm (20-1/4") parallel circle
13x	24230	13x	62230	Curved track, radius 437.5 mm (17-1/4") parallel circle
4x	24215	4x	62215	Curved track 1/2, radius 437.5 mm (17-1/4") parallel circle
7x	24224	7x	62224	Curved track (for turnouts)
2x	24206	2x	62206	Curved track extension piece
21x	24130	21x	62130	Curved track, radius 360 mm (14-3/16") normal circle
5x	24912	5x	62912	Turnout branch for wide-radius turnouts
9x	24611	10x	62611	Turnout left, radius 437.5 mm (17-1/4") parallel circle
12x	24612	13x	62612	Turnout right, radius 437.5 mm (17-1/4") parallel circle
1x	24071	1x	62071	Length 70.8 mm (2-13/16"), shoulder removable
1x	24671	1x	62671	Left curved turnout
1x	24630			Three-way turnout radius 437.5 mm (17-1/4"), length 188.3 mm (7-13/32")
Signals				
4x	L-hGlSpSig	4x	L-hGlSpSig	Color-light track block signal on post (H0: Mä76372)
1x	L-VorSig	1x	L-VorSig	Color-light distant signal (H0:Mä76383)
1x	L-Block	1x	L-Block	Color-light block signal Hp0-Hp1 (H0:Mä76391)
1x	L-Hp0-1-2	1x	L-Hp0-1-2	Color-light home signal Hp0Hp1Hp2 (H0:Mä76393)
4x	L-Hp0-1-2S	4x	L-Hp0-1-2S	Color-light home signal Hp0-1-2/Sh1 (H0:Mä76394)
Overhead equipment				
7x	70142			Catenary wire 142 mm (5-9/16")
6x	70167			Catenary wire 167.5 mm (6-5/8")
1x	70172			Catenary wire 172.5 mm (6-13/16")
11x	70203			Catenary wire 203 mm (8")
8x	70228			Catenary wire 227.5 mm (8-15/16")
10x	70253			Catenary wire 252.7 mm (9-15/16")
9x	70360			Catenary wire 360 mm (14-3/16")
15x	70360+			Catenary wire 360 mm (14-3/16")+adjustment section Mä70231
55x	74101			Standard mast (with hanger arm)
7x	74104			Bridge mast (with hanger arm)
4x	74105			Center mast (with 2 hanger arms)

Track parts list for Märklin K-track system

Quantity	Märklin item	Designation
71x	2200	Straight track 180 mm (7-3/32")
16x	2205	Flex track straight length 900 mm (35-7/16")
8x	2207	Straight track, 156 mm (6-1/8")
10x	2201	Straight 1/2 track, 90 mm (3-9/16")
1x	2202	Straight 1/4 track, 45 mm (1-3/4")
1x	2203	Straight 1/6 track, 30 mm (1-3/16")
5x	7389	Track bumper with lighted track-block signal
3x	2251	Curved track, radius 618.5 mm (24-3/8"), large radius II
8x	2241	Curved track, radius 553.9 mm (21-13/16"), large radius I
14x	2231	Curved track radius 424.6 mm (16-3/4") normal circle II
5x	2232	Curved track, radius 424.6 mm (16-3/4"), turnout branch
1x	2233	Curved track half-length, radius 424.6 mm (16-3/4") normal circle II
2x	2234	Curved track quarter-length, radius 424.6 mm (16-3/4") normal circle II
24x	2221	Curved track, radius 360 mm (14-3/16") normal circle I
4x	2224	Curved track quarter-length radius 360 mm (14-3/16") normal circle I
3x	2274	Curved tracks radius 902.4 mm (35-1/2") complementary curve
10x	2262	Turnout left r = 424.6 mm (16-3/4") (2261L)
18x	2263	Turnout right r = 424.6 mm (16-3/4") (2261R)
1x	2268	Curved turnout left. normal circle I (2267L)
Signals		
2x	VorSig3Vr2	Distant signal with moveable arm Vr2 (H0:Vi4511)
1x	F1 Hp1	Semaphore signal, single-arm Hp1 (H0:Vi4500)
6x	F2 Hp0	Semaphore signal, 2 arms coupled Hp0 (H0:Vi4501)
5x	GlSpS Sh1	Digital semaphore track block signal Sh1 (H0:Vi4717)
Overhead equipment		
11x	70142	Catenary wire 142 mm (5-9/16")
11x	70167	Catenary wire 167.5 mm (6-5/8")
8x	70203	Catenary wire 203 mm (8")
7x	70228	Catenary wire 227.5 mm (8-15/16")
10x	70253	Catenary wire 252.7 mm (9-15/16")
15x	70360	Catenary wire 360 mm (14-3/16")
9x	70360+	Catenary wire 360 mm (14-3/16") + adjustment section Mä70231
63x	74101	Standard mast (with hanger arm)
9x	74104	Bridge mast (with hanger arm)
3x	74105	Center mast (with 2 hanger arms)



■ **Substructure**

The easiest way is to use ribs: they will then determine the shape of the terrain later. The seven ribs are fixed to a stable underframe.

representation, in WinTrack we obtain accurate drawings for the lengthways and transverse ribs. All terrain shapes are given there; even the cutouts for the hidden tracks and staging yards are included. Despite the accuracy, it is however always possible that after installation something needs to be modified. The drawings will enable us to determine how much wood we will need and to buy the panels. Now we put the frame together to which we will fix the lengthways and transverse ribs. With a little routine, a complete frame can be constructed with its ribs in a day. At this stage it is already possible to recognize the basic shapes of the terrain. It then becomes more interesting with each step of progress in building.

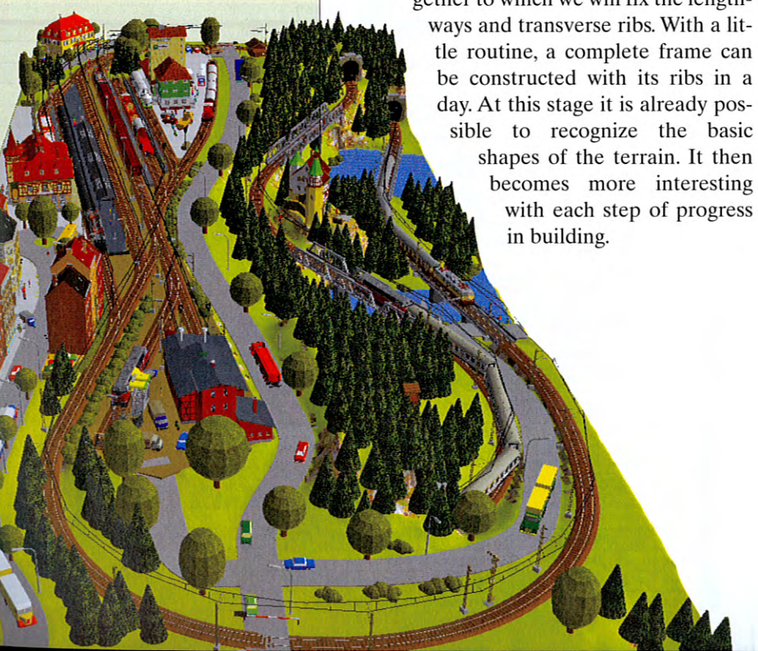
Summary

This rectangular layout offers a model railroad for all. Its versatility is seen in the bustle in the town, in the loading in the center and in the extremely elegant main lines. It is open to every model railroader to make a real gem of this layout – it promises any amount of building fun too. You'll be able to spend many a relaxing evening on designing the details of the town with its houses, shop windows and roads or the station scenery and the loading facilities. All that is needed is a little skill and a lot of patience for the tasks in hand – some of them are really quite demanding. When it's all finished, you'll have a wonderful layout with a wide choice of operating options, on which you can run up to nine trains as you want. If you consider the marshaling options too, you can see that there's plenty of running as well to be enjoyed on this layout – which was primarily for the landscape builder.

TEXT: M. T. NICKL
PHOTOS: CLAUS DICK, M. T. NICKL ■

■ **K-track version**

Instead of the striking municipal gasometers, this version has a diesel fueling point with a loco shed.

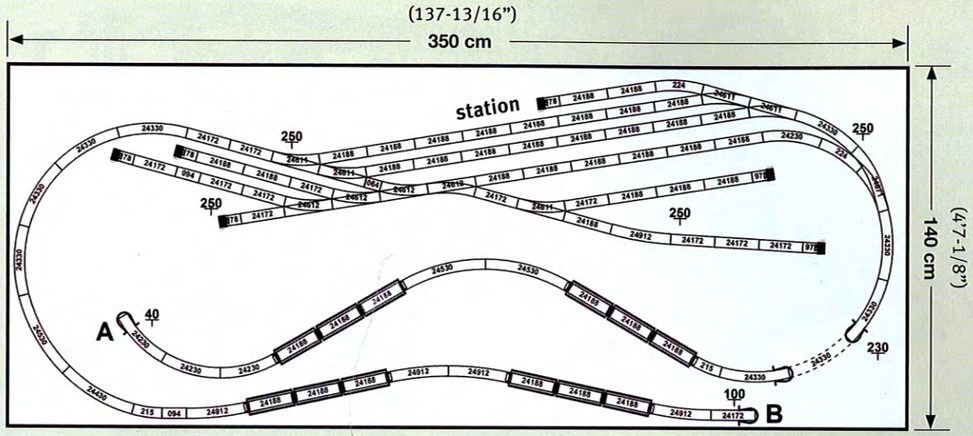


MM COMPACT – THE TRACK PLANS*

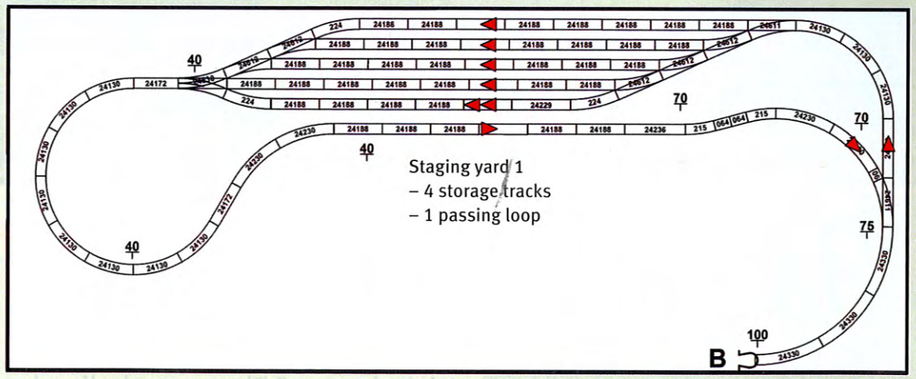
Thanks to careful track planning, the layout offers more variety than you would expect at first glance. This is contributed to in no small measure by the staging yards. An extremely varied running program can be realized here with automatic train changeovers – ideal for exhibitions, for example. In addition, the loading facilities offer us a range of further play opportunities. The two running lines at the front edge of the layout are outstanding features. Especially the fact that one runs in front of and one behind the hill adds appeal to the layout.

Direct access to downloads and track plan archive under: www.maerklin-magazin.de

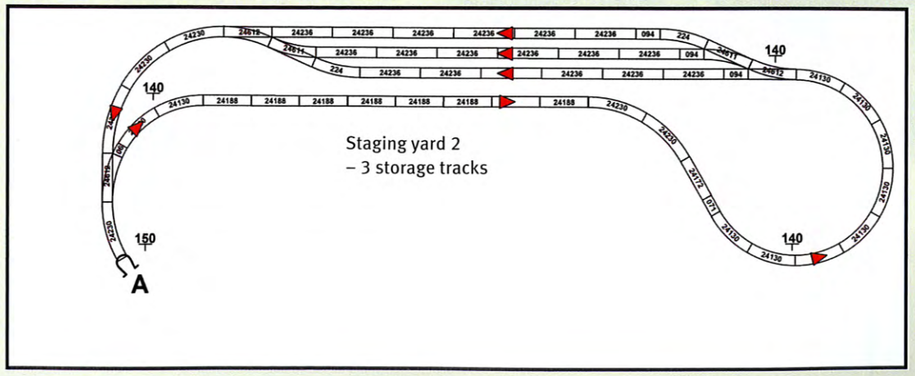
Märklin-C track, tracks above ground



Märklin C-track, concealed tracks staging yard 1



Märklin C-track, concealed tracks staging yard 2



* Heights given in mm / inches