Big-time Passenger Terminal

Some track plans, in order to keep the layout to a reasonable size, employ curved turnouts. I chose an island table, loop-to-loop curved turnout steam engine passenger layout featured in the book "Track Planning for Realistic Operation" (figure 11-9) as a feasibility study, to see if I could make a reasonable duplicate of the design using only conventional 3rail turnouts.

As this track plan was designed for HO scale it had to be upscaled, but at the same time I also desired to keep the layout as absolutely small as possible (you can always expand a small layout if you have the space, but the opposite is never true). I also needed to make sure that all portions of the layout remained within a three foot reach.

To achieve my goal I had to eliminate some features in the reference layout. The main line was reduce from double track to single track. The vestigial freight spurs (the team tracks and engine terminal supply tracks) all had to be eliminated, but this actually was a benefit as it concentrated the focus on this being a big-time passenger terminal. One coach yard track, One station spur track, One long, short, and outdoor turntable spur, and One turntable lead track had to be eliminated for space reasons, but the advantage is that their expensive turnouts would not have to be purchased.

The reach problem was resolved by relocating the coach yard to the inside of the layout, rather than along the outside. As the original plan is a layout of its era, there were no scenic dividers or staging tracks (what they used to call "layover tracks") drawn, but the Coach Yard is very effective to use as pseudo staging tracks.

It is difficult to tell elevations from the 2d drawing, but if you look at the original the bypass track that runs past the turntable makes no sense, as the grade would have to be enormous. I thus chose to eliminate it completely. Keeping the engine terminal at a lower level than the passenger terminal (so the turntable lead could connect to the return loop) would have produced too short of a lead to the turntable, so I chose to raise the engine terminal to be at the same elevation as the passenger terminal (which actually simplifies layout construction). The connection to the engine service area had to now be shifted from the return loop to the station loop (but as a side effect this improved operations greatly).

The original track plan shows a full scale station model. I chose to instead add a scenic divider, and model the station as a (mostly) building flat. This both saves a considerable amount of layout real estate, and visually reduces much of the track clutter exposed in the original plan.

The final result, while not an exact clone of the original track plan (it unexpectedly is even narrower in width than the HO original), this layout design is functionally identical, and fully retains the "feel" of the original. Track in GREEN is an exposed downward grade, and track in YELLOW is hidden beneath the layout. People who enjoy modeling rock faces can decorate the wall running alongside the downward grade track that leads to the under layout return loop.

This new layout is still suitable for persons who enjoy running passenger trains and have a large collection of steam locomotives. Although a small layout, it justifiably provides on-layout display possibilities not normally available to owners of large locomotive collections. Because the station is no longer centered on the platform tracks, I reversed the direction of traffic flow into the station from the direction used in the original layout drawing. This now places the passenger cars closer to the building, and also allows the locomotives to easily disconnect and head directly to the engine terminal.

The turntable length is 26 inches, so it can handle two trailing wheel steam engines, such as Pacifics without issue. Two long turntable stubs face the turntable lead tracks, so you can run a locomotive of any length across the turntable and into the stub. If you prefer using diesel engines, simply remove the steam engine coal and water structures, and replace them with diesel fueling racks.

All switches and trackwork are at least O-45, with some being O-54 and even O-72. The layout was almost entirely constructed using only sectional track pieces. The descending track to the under layout loop has a shallow enough grade that all locomotives should be able to handle it. Just remember to have sufficient clearance between the track and overhead in the under layout loop, and to leave access under the layout so you can reach a train on the loop if necessary.

If you have the space, you should extend the length of the layout to the right by passenger car length increments. This will allow the adding of more parallel horizontal track in front of the station.

Consider lengthening the return loop at the same time, as your maximum train length is limited by the return loop length. Note that for example, increasing the layout width by as little as an extra 16 inches would allow the fitting of an O-54 layover track around the outside of the current O-45 return loop.