

Layout Vision Development

Here are some questions to help flesh out (plaster out? rail out?) your vision to get the most out of layout design. You don't need to answer all of them, but the more information we have to work with, the better we can develop a layout that will approach your vision and be operationally satisfying.

Imagineering your layout

When you stand in the “real estate” you’ve surveyed out for your “empire” what do you see? Long trains snaking through high mountains and deep forests? Dense urban industries with streetside running and yards tucked under the shadows of tall buildings and overpasses? Shays climbing steep grades to service lumber camps, or big steam pulling a string of reefers up to a long icing platform? Are you the solo operator, or do you envision a crew of 4-6 (or more) working yards and mainlines under fast-clock conditions?

Imagineering is one of the most important aspects of layout design, one we sometimes hurry through to get the track laid and trains running. But take the time to close your eyes and imagine your layout: the scenery, the type of trains running, the industries and jobs operating, the feel / mood of the space you'll be spending while enjoying both the construction and operation of your layout. Yes, there will probably be changes and compromises along the way to get there, but we need a “there” to start our journey towards, and the more developed your vision, the better we can make it happen.

Space

An accurate drawing of the space we have to work with is a great place to start. You don't need to be an architectural draftsman: just sketch out the configuration and dimensions, including the placement and height (if applicable) of any obstructions such as doors (and which way they open), windows, pipes, supports, water heaters, cabinets, desks, kegerators, etc. If the layout is going to share the space with other activities / people, then indicate the space you've negotiated for the layout, as well as the space that is out of bounds. Height is especially a consideration in multi-purpose rooms (shelves, storage space, presentation, etc.) and for double-deck layouts, so include shelf / cabinetry / ceiling dimensions as well.

Operator dimensions: enjoyment of the construction and operation of the layout depends on the dimensions of the operators as much as the layout itself. Your significant co-habitant might doubt your claim that the layout is “for the kids” if you build 58” high benchwork, cleaning track in the back of a 3-foot corner will be very tricky with your 25” reach, and there's no point in squeezing in another classification track in the yard if your big-boned fingers can't fit between the rows of cars. Will you be operating standing up? seated? both (for a double decker)? What arrangement will provide the most comfortable construction and operating environment for all involved?

Prototype or Freelancing

Are you basing your layout on a specific prototype? Is it a general road name like Union Pacific, or do you have a specific line and trackage in mind, like the Southern Pacific's "Sunset Route"?

If you are freelancing an imagined prototype, then what is the "history" (back story) of the line? And how does your fictional line relate to any real railroads? Interchanges with other railroads greatly expand the perceived depth of the layout as well as add operational options: it's a connection to the big world beyond the layout, with all the other line locos, cars, and industries available for your use.

Any maps, schematic diagrams, written histories, timetables, switchlists, etc. will also help, especially if you have a specific location ("Helper, Utah") or time period ("October, 1949") in mind.

Layout Nuts & Bolts

Which scale and gauge do you want to model?

Is there a specific type of track you are thinking about? A specific manufacturer ("Atlas Code 55 with Peco Electrofrog turnouts"), handlaying your own, or an integration of the two?

Minimum and preferred radius curves? (Big Steam Passenger needs big curves, while Urban Shunting Job can get away with super small curves)

DC or DCC?

Scenery: a major focus and source of detail, or an impressionistic background supporting player?

Benchwork: permanent installation, sectional for anticipated future move, or modular for show and club displays or ease of swapping out new scenes?

Construction progression: do you want a design that can be built and put into operation in stages?

Style of layout: Continuous run? Point-to-point? Double mainline? Flat or various elevations?

Length of trains? (will determine length of sidings / runarounds, as well as operational "blocks")

Type of staging: visible or hidden, active or preset, through / loop or stub ended, automated or operated? What length of train, and how many will determine staging configurations.

Double / Triple decks: how will trains move between levels? Helix (hidden or herniated for partial viewing), "nolix," car float, cassettes, switchback, etc. At what heights & how deep will the decks be, and for what kind of operations? (Having a 2 ½ ft deep yard on the upper deck at 60" will be a challenge for anyone except Wilt Chamberlain or Elastigirl).

How much aisle space do you need? Will this be a walk-in layout? Will you need a duck-under? A lift-out? Access sections to remote sections? How many people will be occupying the space with you? And of what body type?

Operations preferences

Is your layout mainly for watching trains run? Realistic operations working yards, industries, etc.? Authentic recreation of prototype practices?

Are you into mainline running or switching? Passenger or freight? Track warrants, CTC, Timetables, acting out actual crew roles, etc.?

Will you be using car cards/waybills, handwritten or computer-generated switchlists, or any other method of generating car movement?

How will operators communicate to each other? Phone, radio, telegraph, yelling, miming, etc.

What are the major industries / types of trains? (lumber, coal, fruit/produce, livestock, manufactured goods, passenger operations, etc.) Any specific signature industries (“Weyerhaeuser lumber mill” or “Port Chicago ammunition loading dock”, etc.), or any specific landmarks / settings (Tehachapi Loop, Port Costa ferry terminal, Oakland Long Wharf, etc.)?