
Upper Cumberland Railroad Society

A Chartered Tennessee Non-Profit Corporation, IRC 501(c)(3) designated

# MODEL RAILROAD PLANNING

## CONCERNS & CONSIDERATIONS

**Jan 27, 2024**
**Art Landrigan**

# OVERVIEW

- **AVAILABLE SPACE**: How much & where, Htg.-A/C
  Dedicated or Multi-use?
- **YOUR DESIRES:** Continuous Run vs. Point to Point (or both)
- **POWER:** DC / DCC (HO, N, S), AC (O), AC (Other)
- **ERA:** Steam, Transition, Modern
- **CONSTRUCTION:** Wood/Metal/Plywood/Foam

# AVAILABLE SPACE

- Don’t have much unused space? – Consider a multi-use family area.
- A shelf railroad doesn’t take a full room and leaves spacious floor area for other family interests. (Normally a Point-to-Point layout.)
- A shelf with the addition of a widened loop area at each end can expand the ability for a continuous run, as well.
- A dedicated area (separate room or bldg.) has other considerations (heat, A/C, humidity, easy access, weather, etc.). Basements/Attics have much different considerations than a separate room in the main house.

# YOUR DESIRES

- Next to available space, the most important consideration in the process. If you're not happy meeting your desires, you won't use it.
- Prototypical design normally requires significant 'compression' in design area vs. Freelance design which does not attempt to replicate a specific area or real railroad route/subdivision, etc..
- A point-to-Point design facilitates realistic operations within a given area, normally sacrificing large scenic areas, but with increased railroad activity.

**Remember it's your R/R, YOU need to be satisfied!**

# POWER

- Most scales (G, HO, N,S, & Z) utilize DC power to run Locomotives as well as accessories whereas (O Scale) utilizes AC power.
- HO & N Scales compromise the vast majority of interest and sales worldwide, and therefore have the largest availability of both locomotives, rolling stock and accessories.
- DC power can be found in both the older ‘power pack’ and newer ‘Digital Command Control’ systems (DCC) often with sound capability.
- AC Power (Other): a line of AC Power under the layout to provide power availability without having to Access wall outlets for each use. Consider using a network of Power Strips to facilitate safe AC Power.

# ERA

- **STEAM ERA** – normally from the 1800s through the mid 1950s.

- **TRANSITION ERA** – most popular era covering the 1940s through the disappearance of steam engines from the commercial railroads in the late 1960s/early 1970s.

- **MODERN ERA** – 1980s to current times. Becoming more and more popular especially with the younger generations. (Larger Locomotives and rolling stock facilitating the movement of more & faster freights.)

# CONSTRUCTION

- Layout table construction can take many forms: Open Grid, Box Design, L-Girder design, mostly using dimensional lumber. (Each type has it’s benefits and drawbacks)
- Traditional methods used mostly plywood for surfaces (Sub-roadbed), however Extruded Foam is rapidly gaining in popularity. (Depending on thickness and Joist spacing, this is **VERY** strong.)
- Use solid 2x2 (min.) for legs to allow for floor adjusters to be inserted in bottom of legs, as necessary.
- Some locations could benefit from use of metal studs vs. 2x4s.

# WIRING

## Solid Wire

- Very Rigid
- Soldering can be difficult
- Easier to use with some connectors

## Stranded Wire

- Very Flexible
- Soldering is easier
- Better to solder wire to wire

# MISCELLANEOUS

- Circuit Breakers ???
- **Work Area** (Include small tools, small storage jars, **BLI Address Changer** for DCC Operators)
- Storage & **Inventory of Locos & Rolling Stock** – Spreadsheet on Cell Phone
- Test Area (Plus a **separate Run and Programming Track for DCC**)
- Wireless Layout Power Control (Total Layout protection when not using)
- **Pictures** (Progressive throughout layout build)
- **Wiring Notes** - Binder
- **Coding Notes** –Binder (Wire Colors for what, color dots on Loco Bottom, etc.)
- Homemade Rock Walls (SAMPLE) on Extruded Foam (Pix)
- A **'Free'** test version of 'Any Rail' computer software for PCs is available from www.anyrail.com
- **REMEMBER**: There is no Right Way or Wrong Way to do something.
- Do what's best and easiest for you, - after all it's **YOUR RAILROAD.**