

## **MADCEW -Layout description - 2/17/20**

### **Overview**

The room is finished and is 30' long. The usable width varies from 12 to 15'. The SCARM file shows the room details. The double doors to the left are permanently blocked.

The layout will be four levels, approximately from 28 to 64" high. There will be 3 ramps that wrap around the back of the layout to change levels: The main on most of the levels is a single track reverse loop to reverse loop. Layout will be command or conventional, capable of loop running or prototypical operations. Realistic scenery will be minimal and stylized. A special loop will be for running pre-war tinplate trains. There is no specific time period, equipment crosses eras, steam, diesel and electric engines.

### **Goals and Standards**

Long Mainline Running; Minimum mainline radius O54. Yards can have smaller radius.  
Loop Running / Display. One train running on each of three levels or one train traversing all levels.  
Prototypical Passenger and Freight Operations.  
Maximum length of train as defined by passing sidings and terminals is 14 ft overall.  
11' Classification Yard.  
Track rise/slope under 3%.  
Mainline use Ross Switches or Lionel tubular O72.

### **Prototypical Operations**

Passenger trains will operate from the main passenger terminal on the lowest level to a passenger station of the top most level and back down again, with stops in between.

Freight operations involves staging tracks on the top and bottom level; an operational classification yard with a 14' arrival and departure yard, drill track and locomotive service track. (Missing cabooses track). There are various small yards associated with industries for delivering freight.

There are full double ended passing sidings on Levels 28 and two on 64. The arrival/departure track for the yard will double as a passing siding.

### **Levels and Ramps**

**Level 28"** above floor

Single Track Mainline; Passenger Terminal; Garden; Hidden staging track: Hidden Reverse Loops; Farm; Sidings to Lionel Cattle car & Milk Car

**Ramp Level 28 to 38:**      1.7% rise      10" between levels

## **MADCEW -Layout description - 2/17/20**

### **Level 38” above floor:**

Single Track Mainline; Sidings to Industry; Tinplate layout within a layout, town, MOW

**Ramp Level 38 to 52:**        2.5% rise        14” between levels

**Level 52” above floor:** Single track mainline; Classification Yard; Waterfront with Industry; small yards and industry

**Ramp Level 52 to 64:**        2.1% rise        12” between levels

### **Level 64” above floor:**

Single Track Mainline; Passing Siding with passenger station; Freight passing siding with Hellgate bridge; Sidings to Industry

Level is defined as the top of the bench.

### **Two Layouts / Layout within a layout**

There are two layouts. The main layout has a single track main on each level with passing siding, yards, etc and is set up for command and conventional operation. On level 38 there is a separate layout intended for running prewar electric and clockwork trains. This is separate as I have pre-war equipment with gears on the wheel flanges that will not run through Ross or Lionel switches. The switches shown as Lionel that lead to two yards will be prewar American Flyer which is not in SCARM. Connecting this loop to the mainline is an open question.

### **Track System**

The layout will be tubular “O” track both Lionel and K-Line. Switches will be Lionel and Ross. Minimum mainline Radius will be O54 with some O72. The SCARM file shows the straights as Lionel 10” sections. In reality this will be built out of 36” and 40” track sections. 10” sections are easier for SCARM work.

### **Modes of Operation**

Conventional  
TMCC & Legacy  
DCS  
Clockwork

## MADCEW -Layout description - 2/17/20

### Equipment

Prewar electric and clockwork tin  
Postwar  
Modern semi-scale, conventional , TMCC, Legacy & DCS  
Passenger and Freight

### Access

Maximum reach is 30". There are access hatches in the middle of the right and left reverse loops. One can crawl under and stand in the back corners. The corners and hatches were physically mocked up to be just big enough for me. Some of the benches are also cut out, for example bench 38 is open under both the left and right stack of reverse loops. A "Top Climber" will likely be needed. The top mountain will be removable and has open bench under. There are two movable sections of bench work to improve access, one of the water in the port, and a cart for a station in front of the passenger terminal.

### SCARM File

The SCARM file is attached. It is posted with layers set in such a way as to allow the user to click "3D" and get a complete 3 dimensional overview.

There are many layers in the SCARM file. They are organized into groups:

The first Group is the **Room**. There are columns, but they are on a separate layer so you can turn them off for better 3D viewing. Also, turn off east wall for 3D viewing. The walkway shows an area of the room where the layout cannot be.

Second group is the **Structural** component of the layout such as bench legs. These are not precisely defined for construction and suggest the potential approach to construction.

The third group are the **Benches** for the various levels. Note that some levels have more than one layer.

The fourth group is the **Main Track**. Track is shown with bridges so that they appear above bench level. Note that some levels have more than one layer.

The next group is the **Sloped Track** or the Ramps that connect one level to another.

The next Group is the **Mountain** that occurs on level 28 and 64 on the left side.

The next group is the **Buildings and Accessories** by level. Not complete

## MADCEW -Layout description - 2/17/20

The next group is **Access and Control**. Access shows light blue where there are hatches or access areas. Some benches are also cut out for access. The control panels are not worked out. What's there is intended to be suggestive.

The next group is **Bridges**, so far only two, more to come.

The Next group is **Text for Individual Levels**. When looking at a single level in 2D, this explains what some of the components are. Does not show in 3D.

To look at individual levels. Go down the layers and turn on all the ones that end in the number of the level desired.

### **Construction**

Construction will be wood legs possibly 2×4 under level 28 and 2×4 from the floor to the top level at the back of the benches. The front of the upper levels will be held up with dowel rods and threaded rod. There are drawings in SCARM of legs and structures, but these are not precisely defined for construction. The three ramps will mount on wall brackets.

Bench top will be ½ painted Birch ply. Cork roadbed. There will be 2×4 framing under level 28 and 1x1 framing under the upper levels. Lights and wiring will be hidden by the framing.

The builder has constructed multi-level layouts before, so has some sense of the issues involved.