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POTOMAC FLYER

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Moving: Dismantling A Layout Then Getting It Up and Operating Quickly

by William Lyders

Almost all of the articles in model railroading literature about moving a layout involve carefully preserving the assets you may want to keep, discarding quite a bit of the old layout, designing a new layout, and spending years making a new layout. But that is quite a bit different than what I wanted for my layout move.

I wanted my new layout to reuse most of the old layout's assets and to become operational within a year. This article will tell you the measures I took and the lessons that can be learned by my experience in the move. I had my new layout operational in six months and have reused most of the previous layout—even though it wasn't built in sections or originally designed to be moved.

Assessing my original layout assets

I had been working on my dream layout for over 25 years and had recently conducted three operating sessions on it, so it was a mature layout with a lot of operational assets. And



Figure 1 - Layout removal complexity for the 2-level W&V in one room and a 2nd level portions in another room.

now I wanted to move to my retirement home and take my layout with me. Literature told me that I should plan on moving all the structures, rolling stock, locomotives, etc. and trashing the benchwork, track, and scenery. But at my stage in retirement, I had a better idea: I knew I could carefully take apart my current 440 square foot double-deck Whitewater & Virginia (W&V) in an advanced state of construction and pack it up for reuse in my new retirement house basement, including many dioramas or mini-scenes that I wanted to keep, as shown in Figure 1.

So, how does one begin to proceed in a situation like that? The obvious answer is to move the layout in sections and set it up the same way in the new basement. But like most of us, I didn't build my layout in "sections." I just kept building benchwork and sub-roadbed to meet my layout mission statement and operational plans.

Carefully taking down the old layout

So a month before the closing on my old house, I methodically started to take apart my old layout and store the pieces in my garage and open areas of my basement:

- I acquired three large boxes from a neighbor who was just moving into my neighborhood (we got many large boxes from them for this layout move) and placed all of my completed structures in them, along with lots of foam shipping beans.
- I placed all my completed rolling stock and locomotives in my white commercial carry-on train boxes.
- I used wardrobe boxes to store all my plaster scenery pieces, including a 10-foot cliff and river along a rail yard. The movers did move these heavier boxes for me.
- The second-level benchwork in the old layout was secured to the wall by large screws (sometimes a challenge to remove) and some 2"x2" supports. I kept all the benchwork and the ½" plywood/Homasote subroadbed with track on it.
- My "sections" were different construction types (L-girder and open grid) and with various sizes, mostly 16"x96", 30"x60", up to a 5'x9' section (with my turntable, roundhouse, and feeder tracks on it). All of the sections made the move in good condition, except one L-girder section that had a collection of curved tracks that crisscrossed each other—really a subroadbed mess.
- All of the track was retained on each of the "sections," including the wiring (power bus and track feeders). This way, all I would need to do was connect the power busses together in the new layout power grid.
- I retained my power control panel with my Digitrax DCS100 and DB150 and my power district circuit breakers and RRampMeters installed.
- I did have a helix (50" diameter x 24" high) that I moved but later donated to a member of our model railroad club.

Moving the layout

The old layout pieces had been staged in the basement in boxes with the longer pieces stacked in the garage ready for the move:



Figure 2 - The moved layout assets were organized and placed in logical construction piles in the new basement.

- I rented a 15-foot U-Haul truck and, with the help of three friends at my old house and three other friends at my new house, we packed up all the old layout pieces from the garage and many boxes of collected layout material and boxes of rolling stock/locomotives/tools/scenery material/paints, etc. and filled the truck. Both houses had walk-out basement doors, so transporting layout stuff between them was somewhat simplified.
- The layout material was arranged in logical “piles” in the new basement, as shown in Figure 2, so that I could begin construction quickly on the new layout.
- I did take all my 36"-38" length 2"x2" legs from the lower section of my old layout (packed in a box) but donated them to another club member when I decided to have 48" legs on my new layout.

Reuse of assets for a quick construction on the new W&V layout Construction of the new W&V began by considering two firm conditions imposed by my wife: No holes in the walls—i.e., standalone sections No painting of the walls in sky blue—i.e., use backdrops on sections These conditions were imposed because my wife saw the extensive effort I had made taking down my old layout and restoring the walls in the old layout room. She didn't want us to

face that task again should my health (which today is very good) deteriorate. I had read about this take down/restoration effort in Marshall Abrams' *Estate Planning for Model Railroaders*, now available on the Potomac Division website Special Interest Reports page at <http://potomac-nmra.org/Special%20Reports/index.html>.

Construction began by standing up all the sections on their new legs and then assembling them in a logical order in accordance with my new layout plan sketch:

- The new W&V plan has 22 sections comprising two peninsulas and a long stretch along the back and side wall.
 - I was able to keep my old W&V Mission Statement and Operational Concept.
 - Operations on the W&V center on the town of Whitewater (i.e. Lynchburg, VA where the N&W, C&O, VGN, and SOU all go thru or nearby) with runs from WVA to Tidewater and NC to Alexandria (NVA). Eventually I kept/expanded the four staging yard sections for these locations.
 - The sections were assembled so that they roughly connect to the original W&V sections.
- The 22 sections included 18 reused “sections” and four new sections: two new corner sections (each about 3’x3’), one new section (16”x96”) for constructing my NMRA Engineer-Civil AP certificate trackwork and industries, and a new section required to provide lead tracks into my old Whitewater Servicing Facility (WSF) with the roundhouse/turntable on it.
- My only purchases to date are 96 new 2”x2”x48” legs and some Masonite sheets cut into 16”x96” pieces for backdrops—all cut accurately for me at Lowes.
- With the assembled sections standing in place in the basement, construction involved systematically connecting the new sections together to align the reused track. Each section was screwed together with the connection points clearly marked with magic markers at the connecting screws. This will make it easier to disassemble when that time comes.
- Section assembly priority was given for sections required to launch trains on the continuous run around the two peninsulas and the peninsula connecting section when power could be applied. This was achieved in six months when those 15 sections were assembled. Progress on the remaining sections is proceeding smoothly.
- Shelving was constructed beneath some sections for access to stored assets and construction supplies.
- Power to the 15 sections was achieved by connecting the respective section power busses together. Power was run from the DCS100 or DB150 to the power districts via power busses. The power busses for each section were connected as that section was assembled.
- Reconnecting track was a little challenging, as a Dremel cutting tool was used to cut the track on the original W&V, and sometimes the gaps remaining had to be dealt with. But with lots of reused track available, adding small pieces of track when needed was not difficult.
- I did install many reused scenic features (a long trestle, the Thunder Gorge diorama with bridge, a long, curved bridge over a lake, the Bear Creek curved trestle, the roundhouse/turntable and associated tracks) in similar settings, but not necessarily in the same places as the original W&V.

- Rock formations, cliffs, and forests were installed on their original sections or occasionally moved to the new corner sections.
 - Lakes and rivers were mostly retained but modified somewhat for a better viewing location.
 - I reused the middle section from the original W&V above the town of Whitewater but repurposed it from a working yard to an industrial park. This allowed me to reuse some scenic bridges above, and then construct a new 2.5"x96" girder bridge to climb to them.
 - The new Masonite backdrops were all painted a sky blue and installed on the back of the sections. One peninsula has a scenery divide of backdrops on it.
- The DCC Loconet cabling was reusable, as it only had to be run from the DCS100 and DB150 out to the UP-3/5s (Digitrax Universal Panels for plugging in throttles) on the fascia. Of course, the fascia was in different locations, as were the sections from the original W&V. But setting up the W&V Loconet was not difficult.
- The fascia/skirting_brought up some decisions to make. With the layout using 48" legs vs. the old 36" legs, and Sections from the original W&V upper level only requiring 10-12" fascia, I now had to decide (a) if I wanted to make new taller fascia boards and



Figure 3 - The initial view of the new W&V entering the room shows Dispatcher and many sections connected

retain the original skirting or (b) retain the original fascia boards and get new taller skirting. I initially mounted the original fascia boards where UP-3/5s had been mounted so I could get the Loconet operational and start running trains. But in hindsight, I realized I will have to make new fascia boards for over 30% of the sections and taller fascia boards would look better in some of the Sections anyway. So I have chosen option (a).

Viewing the new W&V

A visitor entering the new W&V from the stairs down to the basement will see an approaching helicopter view of the whole layout until he or she gets to the bottom of the stairs, as shown in Figure 3. This view also shows the Dispatcher station, Northern VA Yard, and the power control panel.



Figure 4 - View from the crew lounge to the W&V Servicing Facility and the working middle aisle sections

The two main views once in the room are:

- 1) Looking from the new crew lounge towards the Whitewater Servicing Facility (WSF) and the working yards in the center aisle with the NC Yard, the Interchange Yard, and the Meat Packing Plant & Ice Platform, shown in Figure 4, and

- 2) Looking down the main aisle with the Eagle Lake Bridge and bridge over the town of Whitewater on the left and on the right, the Tidewater yard, a horse ranch, and the under-construction Civil AP Section, down to the end of the room where the D&D Mines are located, as shown in Figure 5.



Figure 5 - The view along a main aisle with long bridges, the main town, a staging yard, and mines.

Unexpected challenges in the construction Not all the new construction went smoothly. But no problems were encountered that could not be resolved: One section “fell apart” during the move. But it did provide many 2”x4” risers and power bus wiring for reuse. Also three bridges, an industrial park, and a river from that section were reused, but at new locations on the new W&V The power control panel was completely reused. However, connecting the Loconet cables and power cables from it to the new W&V provided a challenge. I had “documented’ this panel in my AP electrical certificate documentation, but didn’t make some of the cable connections clear enough. I had no trouble getting the DCS100 and two of my four power districts up and running. However, a few weeks before I tried to bring my DB

150 and its two power districts and Loconet UP-3/5s operational, I made the mistake of running an analog locomotive on my DCC layout. Some really screwy voltages (DCC expanded from 14V to 23V and a DC component later) occurred. I had to draw upon the Digitrax Yahoo Group and a DCC friend to identify the problem and then clear the analog loco from my active list so the DCS100 generated the correct voltages. My DCC friend straightened me out on how to run a Loconet from both the DCS100 and DB150 and then hook my DT100 to an UP-3 to bring the system up correctly. My documentation needs updating now.

- The D&D Mines/Power Plant section required a new main line as the previous tracks to this had entered at a 90-degree angle and now needed to go directly across the section. This new track required modifying the background mountain scenery with hidden track. It was actually the only section moved totally intact as it had shelving included too. (See middle rear of Figure 2).

The staging yards in the original W&V were jammed in a closet and entered the layout thru holes in walls. Now they were out in the open and had to be located so that operations as described above could still be done. This was easy except for the Appalachian Yard which had to now be placed in the middle of the room. This will mean a longer around-the-layout run to the Tidewater and Northern VA (NVA) staging yards.

Support for Estate Planning Regarding the New W&V I had a very detailed W&V Inventory of the assets of the layout and collection (whether built or still in boxes to be built). I had worksheets in the inventory (Excel) spreadsheet for Locomotives, Structures, Rolling Stock, Electrical, Tools, Scenery, Scene Details, Figures, Vehicles, Tools, etc. I capture product info, asset catalog #, car/loco number, DCC loco #, purchase date/price, and action needed (build, built, update).

However, as I stated earlier, I took apart the original W&V and created 22 sections. So I needed to add a page in my W&V Inventory to capture these new section assets. In Marshall Abrams' *Estate Planning Special Report*, a discussion of assigning a market value to layout

W&V Layout Sections						3/24/19
#	Name	Description	Size (WxL)	Unique Feature	Market Value	Action Needed
1	W&V Servicing Facility (WSF)	Roundhouse, operating Turntable,[14 Tracks], Steam and Diesel Loco servicing Tracks; mainline around the WSF	5'x9'	2 Shelves built into benchwork		
2	WSF Transition Leads	6 Entry tracks from mainline into/exiting WSF; Industry and loco cleaning track	5'x4'	1 shelf built into benchwork		
3	Meat Packing/Ice House	Double track mainline with double crossover; Industry siding with Meat Packing and Ice House for Reefers	16"x8"	Power Panel and Dispatcher station under Section		
20	Horse Ranch	Old horse ranch module with house, barn, pond, and team track	24"x48"	Open storage underneath		
21	Local Coal Distributor/Industrial Park	Track for delivering coal to truck industry; An industry; 2 bridges	24"x30"	Open storage underneath		
22	Tidewater Staging Yard	5 tracks with lead-in mainline; 2 industries and background industrial buildings	24"x95"	Open storage underneath		

Figure 6 - Sample new section page in the W&V inventory spreadsheet

assets was recommended for your executor or the person charged with settling the estate and removing the layout. This section page will have info on all 22 sections similar to that shown in Figure 6. Hence my Estate Planning actions, per the Special Report and summarized in Marshall's January 2019 NMRA Magazine article, Page 34-35, is to add the section page and include a market value column for everything in the inventory. I will also include modify the column for where an asset is located on the W&V now to the layout section.

Conclusion

Whether you are in one of the model railroad clubs that have lost or are losing your location, or just a model railroader who wants to move and retain a large portion of your layout in order to have a working railroad, I have demonstrated it can be done. From an estate planning viewpoint, if you want to sell or donate whole sections (and sell the on-board assets) for someone else to use, this approach will work also. ☒



Bill Lyders is a retired defense systems engineer. His W&V layout is his third layout over the last 45 years. The first two were bedroom-sized layouts and were “moved” in the old-fashioned way—save some stuff, trash most, and do a new design and build. But he joined a local model railroad club, the Prince William Model Railroad Club (PWMRC), in 1995. Bill says his skills grew and his layout grew until he was going through walls, making a double-level layout into two rooms. Bill is now working on his NMRA AP certificates.