

My Quest for Master Model Railroader

My 6th AP Certificate: Model Railroad Engineer – Civil

article and photographs by Jim Wanlass, MMR

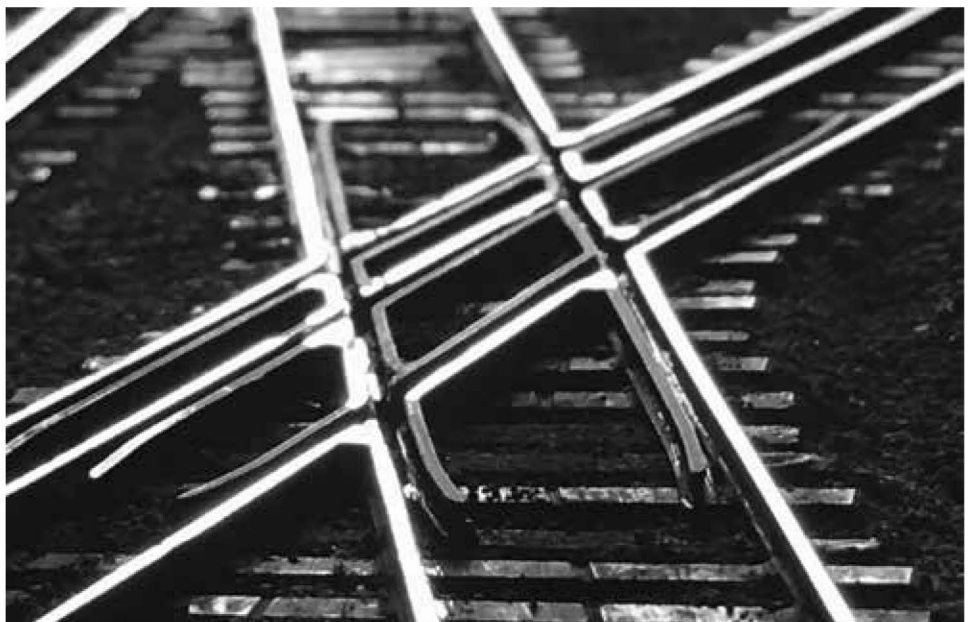
Like my other articles, I will share what my journey was like on my Quest toward Master Model Railroader with earning the Model Railroad Engineer – Civil AP Certificate. When I look back, it was about the same time I earned my Golden Spike Award that I decided to take down the layout I had been working on for the last eight years and put the skills I had learned in track laying and planning to use on a new project. I don't think of it as wasted time, but rather an opportunity to take the lessons learned from that experience and move forward with a new and better project. One of the lessons learned: Without a clear goal, you never really get anything substantial done. I've said it before and will say it again: The AP has helped me set clear goals, and the results are visible. I have something to show for my effort instead of just "puttering around."

The AP Certificates "Model Railroad Engineer – Civil" and "Model Railroad Engineer – Electrical" are complimentary certificates. One can lay track (civil), but if there is no power (electrical), the trains won't run. I know about Dead Rail, but I won't get into it with this article. After finishing my Structures AP Certificate, I assessed what I still had to finish for each of these two certificates. I had been working on them but wanted to make a checklist of what was left to finish them. I also knew that the "Master Builder – Motive Power" Certificate was also within reach. I thought about finishing that instead of Electrical, but more on that in another article. Coincidentally, the first thing on my checklist after finishing my Structures Certificate was to work on another structure! At the very least, I needed to finish the walls and base of the locomotive shop I had started because I needed to know the

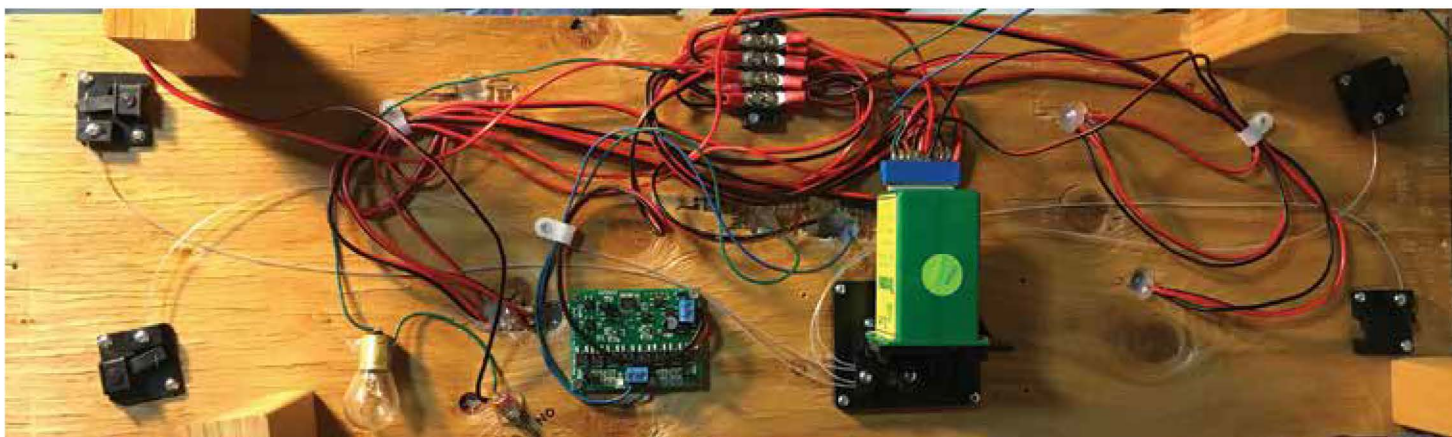
exact size and position to lay some of the final track work required.

If you recall from my first article in the January 2017 *NMRA MAGAZINE*, I had a small layout that I dismantled when I moved to Utah. Remember the realization I had — having more space didn't mean I had more time?! After moving, I started a switchback layout built around a sawmill and, for years, I worked on it without much progress. It was fun to run some trains around a little, but what I really missed was "railfanning" my own layout!

You might also remember from previous articles a mantra I used was to just work on items that would get me closer to finishing my MMR. A few years prior to starting on the Civil Certificate and my new 4x8 layout, I built a 3.5x5-foot module for my huge sawmill complex. I built it with folding legs to make it easily portable but have yet to take it anywhere. Consciously, I stopped working on the module except for a couple of the structures I completed to use for my Structures Certificate. You can



Both Right: The two pictures to the right are close-ups of the track on the next page. Jim is known for his specialty track and an often requested piece is some form of a mixed gauge crossing. As seen in both pictures, narrow gauge mixed with standard gauge gives a dramatic effect.



Above: Jim and his nephew “playing trains” on the dining room table to make sure the track plan will work as desired. Jim’s son claims to not like trains, but he’s starting to come around. Until then, Jim’s nephews appreciate trains almost as much as he does.

see how that mantra helped me to focus and still gave me flexibility.

If you have not started a layout yet, I suggest you read over the requirements for both Civil and Electrical and make notes of what you would like to do. Unlike the other certificates, there are more options. For example, you only need to choose three types of track work out of more than a dozen options to construct and earn Merit Awards. You also need six types of track features from a list of 18 that you need to “construct and demonstrate, the satisfactory operation...” I actually read over the requirements after I had already started sketching my new layout. I was pleased to

Both Above: Originally built for another project, it was convenient to use this board with four turnouts and a crossing for the track work required for Merit Judging. All four turnouts are controlled with one Tortoise Switch Machine for the points and frog polarity, and the crossing uses a Tam Valley Depot Dual Frog Juicer for polarity. All track is powered, so even the smallest locomotive (narrow or standard gauge) can run over all the track reliably.

find most of what I needed to do was already in my plans.

If you have already started a layout or have one mostly done, you might have to get a little creative. The scratchbuilt trackwork needed for Merit Awards can be done off your layout. I know a number of people who have done it that way, usually on a small module or board. Another option is to make a change to your layout. Later in the article, I’ll explain how I did both of these. Before you do anything, talk with your Division AP Chair and others to get their input. You might be surprised to find the suggestions from others might even spark an idea that you come to think, “Why didn’t I think of that before?”

I found a plan I liked, flipped it, and added more staging tracks. I wanted to railfan my layout, but I also like switching. I also built in two spots for the trains to continue beyond the layout when the time was right to expand to a larger empire. As

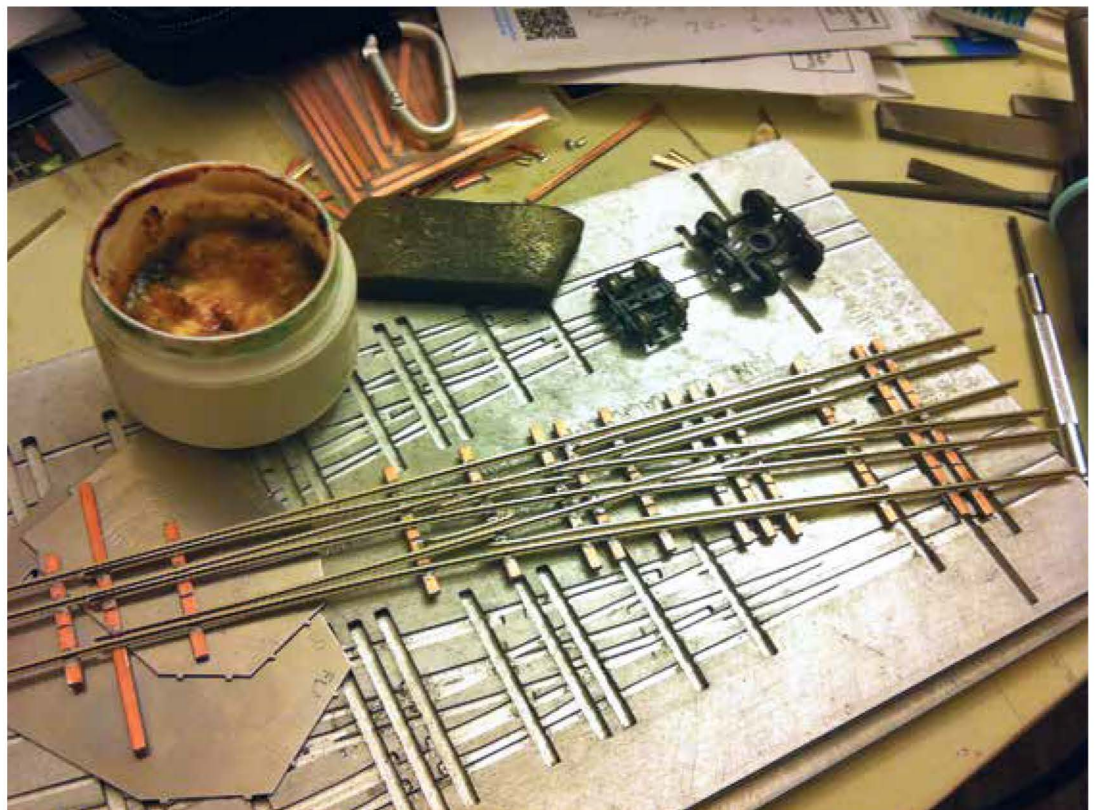
a side note, after finishing my MMR, I am currently building staging cassettes so that I can run a whole train (a small one) off the layout and either reverse the direction or put it on a shelf and grab a different train in another cassette to then go onto the layout. This gives me the advantages of a small layout — limited time to build it, and it takes a smaller footprint — with the benefit of a large layout, which makes it feel like it is part of a larger world where the train “goes away” and at a future time can “come back” onto the layout very easily. I am surprised how much this has added to the realism factor of my layout, and it’s exciting!

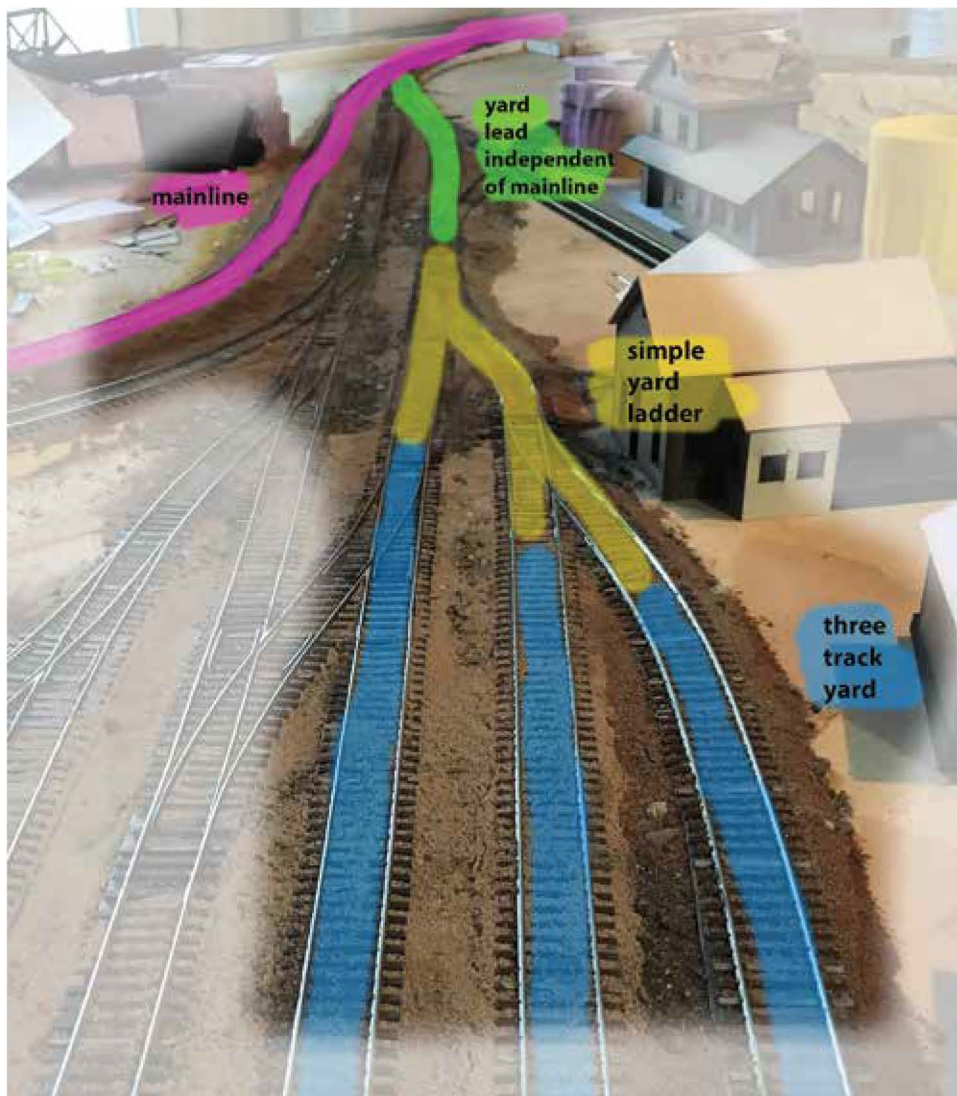
Sometimes it’s difficult to imagine what a plan on paper is really going to look like. I was able to temporarily use the dining room table, which was just a little smaller than my plan, and lay down some track and paper templates of the turnouts I had in mind. I made a few adjustments to the exact placement of the crossovers I had and decided on some curved turnouts rather than straight ones because of the limited space. I build my turnouts, so I could make whatever I needed. To help speed the process, I used commercial flex track and set radii track where I knew I wanted an exact curve. I have some narrow



Above: Not a lot of space is required to earn the Civil AP Certificate. Several pictures stitched together show Jim's 4x8 with a 2x4 extension. Two trains can be running at once with a third switching the yard. The far left is where the staging cassettes connect. The connector was not installed when these pictures were taken. You can see in the upper right where planning has already started for a slight expansion.

Right: Jim uses Fast Tracks tools and supplies to build custom turnouts. When a need doesn't fit a jig he has, it is built on top of a paper template. Building turnouts is something he never thought he'd do, but in trying something new, Jim found he really enjoys custom-building turnouts. Jim has built more than 600 custom pieces for himself and others.





Left: Don't be afraid to make a change. It might be a little scary but worth it. The yard had a few tracks and included a runaround track for the engine to escape. It worked, but by adding another turnout and one more track, it satisfied one of the requirements for the Civil AP Certificate. It also allows for better operations because now the three tracks can be switched without "fouling the main" and is very similar to an Inglenook Switching Puzzle, adding another element of fun to the layout.

The trackwork I used for Merit Judging I actually had done several years earlier. I had built four turnouts (standard, mixed, and dual gauge) and a mixed gauge crossing all on a separate board for my prior project. I took some time to add a little more detail and brought it to a Division event to be judged. I could have just had turnouts on my layout judged, but for me, at that time, it was easier to take it to the judges. I actually did this just before completing my Structures Certificate. It was one item I could check off my to-do list without having to wait.

This certificate felt harder for me because — aside from getting the Merit Awards — there were not “milestones” to mark how much I had completed over the years. I just had to finish everything and then have it all verified at once. I will have the paperwork I turned in on my website, JamestownTrains.com, so you can see how I did it. For me, doing it the way I did helped me keep track of what was done when it came time to get it finished. There are many ways to do the paperwork; it doesn't have to be complex. Check with your Division AP Chair if you have questions. Who knows? You may even get to see the layout in person at the NMRRA National Convention in Salt Lake City in 2019. Maybe by then I will have the Scenery Certificate finished!

I want to point out that you don't need a lot of space to earn the Civil Certificate. There is also no time limit. As I mentioned, I started on it years ago. As time permitted, between activities with my family and working on the other certificates, I made progress little by little. The further along I got, the better the trains ran. Now, I am excited how smoothly they run! When it came down to it, after completing my Structures Certificate, it only took a month of working just on the Civil requirements to complete it. I hope you can see that you don't have to feel overwhelmed by the requirements for the Civil AP Certificate. In time, I will add more videos and pictures of my layout to my website and hope to see some of yours too so that we can enjoy the journey together! 🚂

gauge equipment, but I was planning only on standard gauge for this layout. At the last minute, before building the turnouts and any construction, I decided at the very minimum to have dual gauge track around the outside loop so that I could railfan my narrow gauge trains as well, and I'm glad I did.

Because I was not in a hurry — I was, after all, working on the other certificates at the same time — it was about a year between starting my planning and installing track on new benchwork. I began with just the portion that fit on the 4x8 base I had made. Later, I made the 2x4 extension and laid the extra track that went on that part. A couple of years later, I finally did the special track work for the yard I had planned for my switching area. In the meantime, I was putting in the ballast that was required and wiring so it could run. I didn't rush it because I was enjoying the journey!

After making my checklist, one thing I had to finish was the yard area. I had track

down and mostly ballasted, but one of the items I planned on for one of the options was a simple yard ladder with at least three tracks. Well, the yard had enough tracks, but it didn't really have a good lead track independent of the main line. I realized I could add one more turnout and some additional track that would make that requirement work and enhance the operations greatly. While I was hesitant, I kept thinking about what I learned from others: “Don't be afraid to start over or change something.” I wasn't starting over, but I had already put in ballast. I was a little nervous but decided to go for it, and I am so glad I did! I only had to take out a small section of track, build another turnout, and install a little more track. Now I have a much better area that I can switch, just like an Inglenook Switching Puzzle. I also now have a switching lead independent of the main line and still have some storage tracks besides the yard tracks. It's great!