Crossing the scenery divide with a practice module

Rick Bosma demonstrates a strategy for overcoming scenicking anxieties ...

GEXR 3393 rumbles across a well-scenicked rural crossing on the GEXR Guelph Subdivision.

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WHEN I FIRST DECIDED TO MODEL THE GODERICH AND EXETER GUELPH SUBDIVISION, I knew many model railroaders attempt to model real trains running through specific settings. The availability of exquisitely detailed locomotives and rolling stock from many manufacturers easily meets this goal. The great structure kits make that portion achievable with a few evenings spent with sprue cutters, glue, and paint.

However, even with supplies from Woodland Scenics, Noch, and others, creating a realistic scene can still be challenging and intimidating. I've been astonished with the realistic scenery of many layouts, but left with no clue on how to achieve such results myself. It's no surprise that many in-progress model railroads are stuck in a continuous state of modeling the plywood-Pacific region, with only wood and wiring visible, and no trees.

My own railroad has been in a state somewhere between these two extremes. It has ground cover and green static grass, but the results were not very convincing. To try to overcome this, I undertook a module project to understand what I was missing.

My project started with carefully examining prototype photos and asking what's actually there. Let's take a look [1, 2, 3, 4].

1. Grade crossings involve more than just a road. Both the track and the road have ditches on either side for drainage. These oft-overlooked features give a lot of character and realism when incorporated in modeling.

2. Fills on the corners where the road and the track meet give space for crossing bucks, power lines, and a utility shack housing the control circuitry. There is also space to park a signal worker's truck.

3. A closer look reveals that, while the pavement continues between the rails, there are rubber spacers between the asphalt and the rail to control the gap for the train wheel flanges.

4. Here we can see that the road and track are both several feet higher than any of the surrounding fields. There is gravel between the pavement and the grass.

To recreate this scene, I started with a piece of ½″ plywood measuring 14″x24″. In the center, I glued a piece of ¾″ plywood that was 2″ wide to form the sub-roadbed [5].

The utility shack in [2] was set back far enough from the road and track that a railroad service truck could be parked there. This area was incorporated when the pieces for the road were cut and placed.

Since the road sloped up from its main grade, I used ½″ plywood, cut 3½″ wide [6]. This is just slightly wider than a country road, but allows for the small shoulder and the gravel that is usually present between the pavement and the grass.

I cut ¼″ plywood for the fields since they were all lower than the road. I left 1″ gaps between the field cutouts and the road and track pieces to allow for drainage ditches [7]. Finally, I cut rectangles of ½″ plywood to provide a level base for crossbucks.

5. The module base with sub-roadbed installed.

6. The ½″ plywood cutouts for the roads and railroad service truck easement are in place.

7. Field cutouts are in place.

Finally, small rectangles of ½″ plywood were cut to provide a level base for the eventual installation of crossbucks [8].

I used Fusion 360 to design 3D models of the rubber spacers between the pavement and the code 83 track, and printed them with my 3D printer. (If you don't have a 3D printer, you could achieve the same things with a few strips of styrene.) I painted them with Tamiya flat black (XF-1), and used CA to glue them to the ties [9, 10].

To prepare for pouring the "asphalt," I made a dam from scrap pieces of styrene [11], and then filled the remaining rectangular box area using Woodland Scenics Smooth-It. I used a cotton swab to clean any excess off the rails or in the wheel flange gap while the Smooth-It was still wet.

8. Blocks of ½″ plywood for crossbucks are in place.

9. Painted 3D-printed "rubber" inserts.

10. The 3D-printed rubber spacers glued to the track.

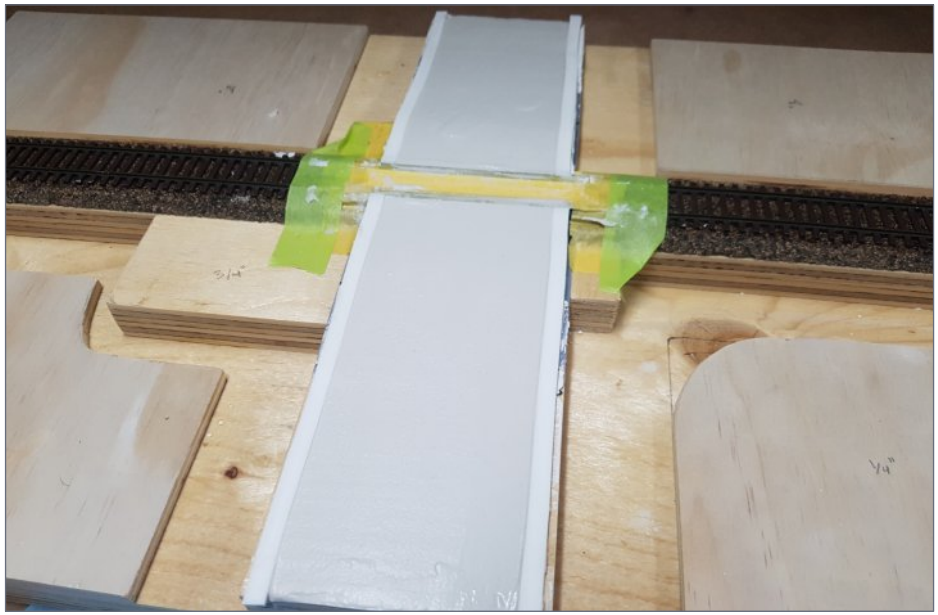
Since the road was lower than the track, I needed a ramp to gain height. I created forms in Fusion 360 by drawing smooth, curved ramps to go from the ½″ road height to the height of the track ties, giving them a flange so they could be held in place with track nails.

After 3D-printing the ramps, I drilled-out the nail holes with a small bit. Once the ramps were in place, I poured and leveled more Smooth-it, and let it dry [12].

To create the final road surface, I used Woodland Scenics Paving Tape to mark the edges of the road. The curved ramps that were used for the first layer were wide enough to allow the paving tape to go directly from the plywood, all the way to the plastic inserts next to the rails. Once again, Smooth-It was used to fill this area [13].

11. Styrene dams for the Smooth-It "Asphalt" are in place.

12. The 3D-printed ramps are in place.



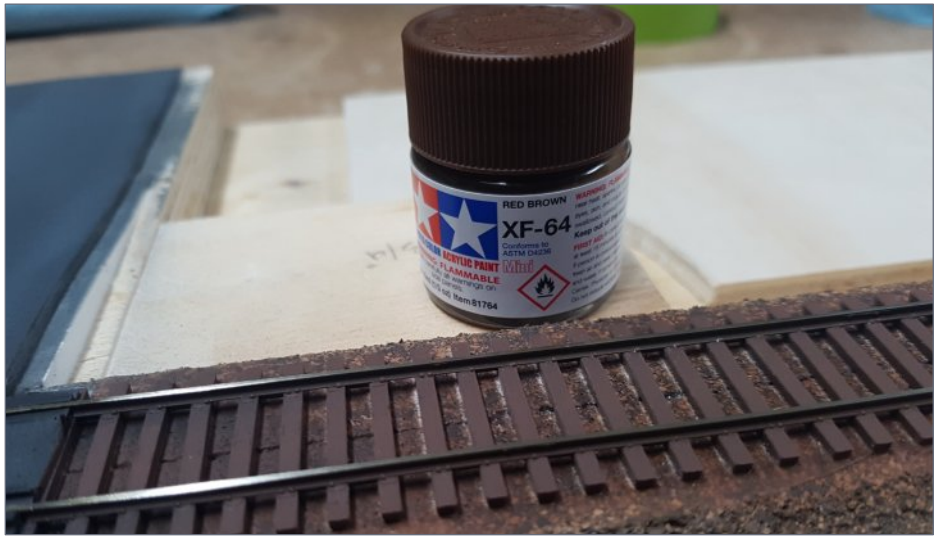
13. Woodland Scenics Paving Tape marked the edges of the road.

I started to color the pavement by applying a coat of Woodland Scenics Asphalt paint (ST1453). This got the road close to what I wanted, but the surface was too uniform. To add variation, I airbrushed a light coat of Tamiya Ocean Gray (XF-82) and a few spots of Mr. Color flat black (no. 33) [14]. The goal was to provide a light dusting in various areas to break up the monotony.

I applied a coat of Tamiya red brown (XF-64) to the track. This did a decent job of simulating the rusted look of many secondary tracks [15]. Once this dried, I cleaned the tops of the rails using my trusty Bright Boy.

In preparation for adding the landforms that would represent the drainage ditches, I covered the road and tracks in painter's tape [16]. I mixed up a batch of Sculptamold and applied it to the ditch areas with a putty knife.

14. The painted road.



15. The track was painted.

16. Sculptamold formed the side grades.

I used my wet index finger to get a smooth finish at the bottom of the ditches. I also made sure to create nice gradual slopes next to the track, as well as the areas around the bases for the crossbucks, and the utility shack.

After the Sculptamold was thoroughly dry, I painted all the landforms with dark brown latex paint [17]. This would ensure there were no white spots to ruin the look, in case the ground cover didn't cover everything.

After removing the tape, I ballasted the track with medium gray ballast from Woodland Scenics.

I applied full-strength white glue to the sides of the ditch areas, and applied 4mm and 6mm static grass with my Scenic King static grass applicator. I avoided applying glue to the bottom of the ditch, as I wanted this to have a brown, muddy look [18].

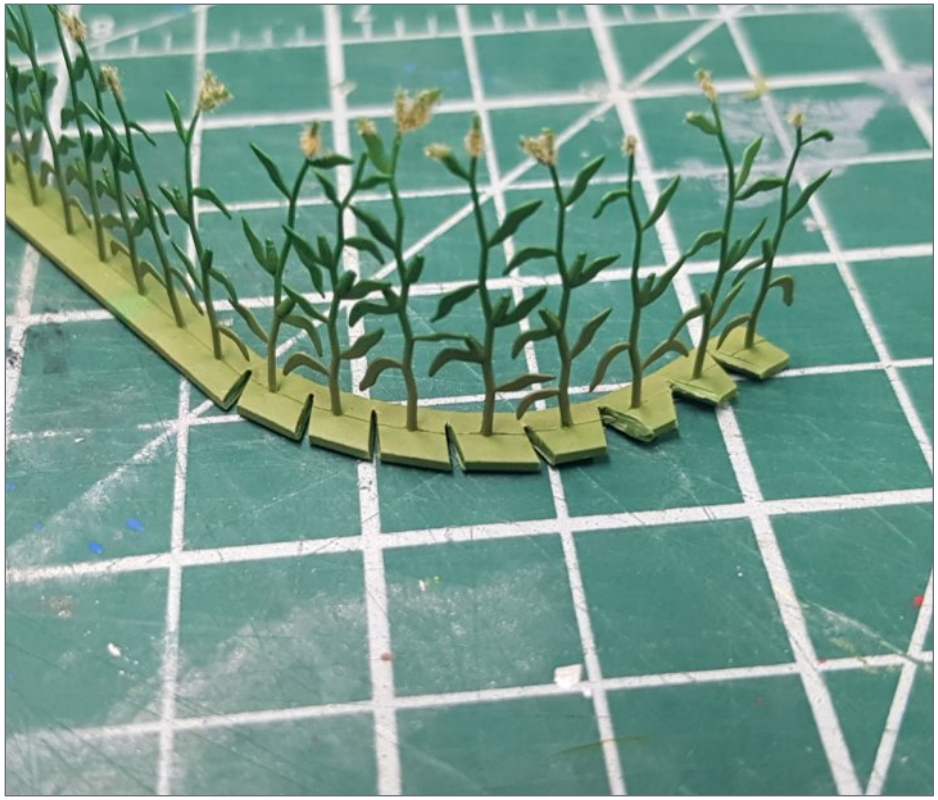
17. Landforms were painted dark brown.

18. Static grass in place. The brown ditch bottom was deliberate to represent mud.

19. The first field was created by brushing white glue and sprinkling sifted dirt.

After the glue dried, I created the first field by applying a coat of white glue, and sprinkling on sifted dirt from my garden [19]. I "cooked" the dirt in a toaster oven for an hour after it sifting to ensure there were no critters left in there. I do NOT recommend doing this in your kitchen, due to the odor!

To create the corn field, I used Bush Corn Field kits. I followed the kit's instructions to bend the plant leaves for a natural look, and applied glue with a micro brush before applying the flocking to represent the corn's tassels [20].



20. I bent the leaves and applied the corn's tassels. To curve the plants in the corner of the field, I used rail nippers to cut notches on one side of the base.

I grew up on a farm, so I'm aware some farmers make several laps around the outside of the field during planting, so instead of all rows ending in parallel lines, some curve in the field corners. I used Xuron rail nippers to partially cut through the base of the corn plant pieces to allow the corn plant base to curve to represent this look.

I proceeded to plant one row at a time, using white glue, and sprinkled dirt over the base of the corn pieces as I went along [21]. Unfortunately, I ran out of plants before completely covering the field, but it was a good experiment to understand how this could be made to look good on a permanent layout.

21. The corn rows are laid out, with the corners following a curve at the field's edge.

To simulate a soybean field in mid-summer, I used dark green clumpy ground foam to cover one of the other fields [22]. This was quite simple, as I just applied glue to the base, and pushed the ground foam into it. While some may point out that real plants are generally planted in parallel rows, I chose to model a field planted with a seed drill which makes the rows more difficult to see.

For the third field, I wanted to simulate a recently harvested wheat field, so I used 4mm Woodland Scenics Straw static grass [23]. I used my airbrush to apply a few steaks of Tamiya brown paint in various shades for variety.

22. The field of soybeans.

23. The harvested wheat field.

24. I added water to the ditches.

I added water in the ditches using Woodland Scenics Realistic Water to simulate runoff from a recent summer rain shower [24]. I dammed the ends of the ditches with some Tamiya tape until the water dried. I then added clumps of ground foam to represent brush growing in the ditches and break up the contours a bit [25].

For finishing touches, I placed power poles along the road and telegraph poles along the railroad track. I added the utility shack and a shortened utility pole for a power meter I saw in prototype locations [26].

The scene turned out reasonably well, and allowed me to try a few techniques I had not used before. If I were to try again, I would probably use a few different shades of grass for the hay field, as it currently looks too manicured, like a golf course instead of a farmer's field.

25. A few ground foam bushes break up the contours.

If you've been nervous about trying to cover large portions of your layout with scenery, especially if you've never delved deeply into scenery before, it may be worth your time to try out a few techniques on a small module. You might discover it's easier than you thought. If things don't turn out, you didn't invest a lot of time or money, and it's easy to start over and try again. ☑

26. The finished scene with power lines, telegraph poles, and the utility shack. The scene is still missing crossbucks, as I haven't acquired anything suitable yet.

RICK BOSMA

Rick received his first HO scale Piko train set with a tiny 0-4-0 Dutch steam locomotive when he was 7 years old. From there, he built several freelance 4x8 layouts through the beginning of high school.

After a common departure from the hobby for college, career and kids, he started up again in his early 30s and has built three moderate layouts over two decades.

His most recent endeavor is a triple-level 11′x16′ layout based on the GEXR Guelph Subdivision. He is an electronics engineer, and has worked in the automotive and agricultural industries. ■