Scenery

Making it realistic

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– Charlie Comstock

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Who is Charlie?

Charlie is

- A model train photography nut
- Superintendent of the Bear Creek & South Jackson Railway Co.
- Contributing editor at Model Railroad Hobbyist magazine – mrhmag.com

Moving beyond plywood ...

When is scenery realistic?

When it’s

plausible!

Part I. Hints for realistic scenery

Hint #1. Plan for scenery while you're developing your track plan!

- If your landform contours don't feel real, nothing else will either!

- Layouts designed without a scenery plan almost NEVER look realistic once scenery is installed.

- Copying landform contours from prototype photographs or maps is NOT cheating!

Hint #2. The ground is almost never absolutely flat. Mill Bend is built on plywood, but I added tiny plaster undulations so it isn't glass-flat.

Hint #3. Terrain should look like it was there first and the track was built through it. Take care with cuts and fills!

Hint #4. Sidings are seldom the same elevation as the mainline. Mainline track usually has more (and better) ballast under it.

Hint #5. Watch out for oversized texture elements. A 3/4” minus gravel road shouldn’t look like it’s made of 3” diameter rocks.

Hint #5 (continued). Pay attention to ballast size. Which track has more realistic ballast?

Hint #6. Outdoors is BIG. Try to allow as much space as possible for it.

Hint #6 (continued). How big is BIG? Tehachapi on the La Mesa club layout qualifies as LARGE.

Hint #7. Use realistically sized trees. A mature Douglas fir forest should be more than 40’ tall!

Some of the trees in this HO scene are 24” tall.

Hint #7. Use a variety of ground cover materials. This scene has static-grass, Silflor®, fine leaf foliage, ground foam and ballast.

Hint #8. Details count – vegetation, rail rack, automobile, detailed tree trunk, different ballast types, static grass, rocks, king-post bridge, etc.

Other hints ...

- Mostly model the commonplace – just because there's one example of a 200' tall rock spire between a river and railroad track doesn't mean every curve should have one.
- Use appropriate structure types. East Coast brick industrial buildings are not commonly found on the West Coast! Glass and granite skyscrapers don't look right in an Old West prairie town.
- Keep vegetation consistent – massive cacti don't belong next to a giant redwood tree.
- Try to match backdrop colors with the colors in the modeled foreground
- Avoid the use of garish colors – check colors in your train room lighting. Don't verify colors outdoors or in a paint store for a scene in your basement.

Part II. Scenery Contour Construction

Different methods I've used to create landform contours:

- Scenery on plywood
- Scenery on pink foam (may or may not be on plywood)
- Cardboard mesh topped with cheesecloth and painted with plaster – the mesh may show through like the ribs of an anorexic supermodel.
- Cardboard mesh, covered with masking tape, and a layer of plaster/vermiculite – fast, easy, no ribs, and a $^{1}/_{4}$" layer of plaster/vermiculite mix is strong but can be drilled for tree spikes.

Setting the contours of your landforms!

Regardless of the method used to produce landform contours, take care that:

- Contours are plausible for the locale you are modeling.
- Cliff faces have sufficient clearance from tracks so that adding $^{1}/_{2}$" of artistic rock carving won't interfere with passing trains – especially on curves.

Use a strategically placed camera to verify landforms will look real to the wee folks who live on your layout. Don't rely solely on Giant-in-the-Aisle viewpoints to verify this. Temporarily adding a few scenic elements (trees, buildings, cars, people) will help.

The camera I used to shoot these photos was small enough that it easily fit in the scene or on the tracks (photo on the right).

Q: What doesn't look quite right?

A: (left photo) The top of the cut to the left of the train seems too high compared with the top of the cut on the right.

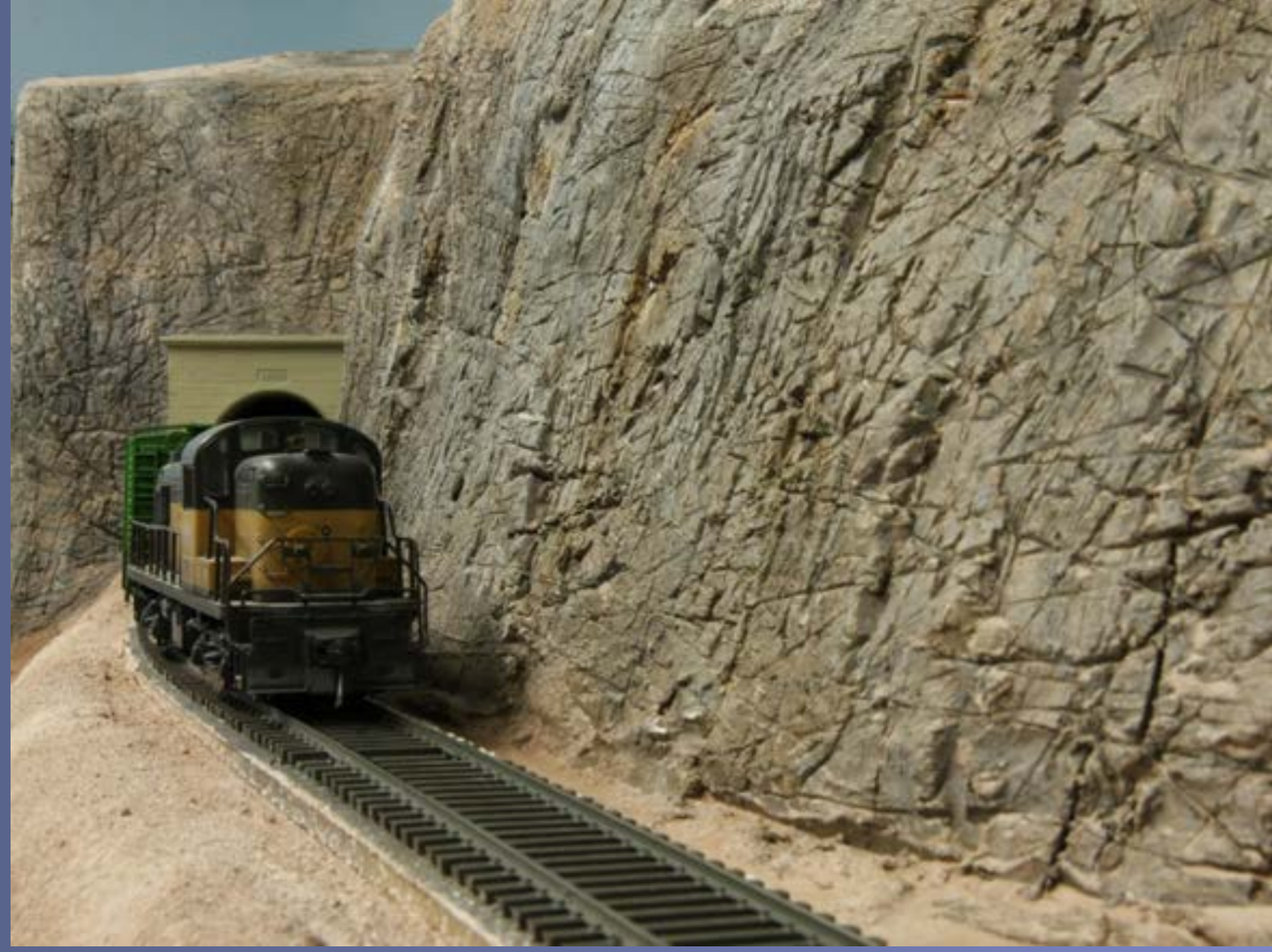
<u>NOW</u> is the time to make changes, not after the scenery is finished!

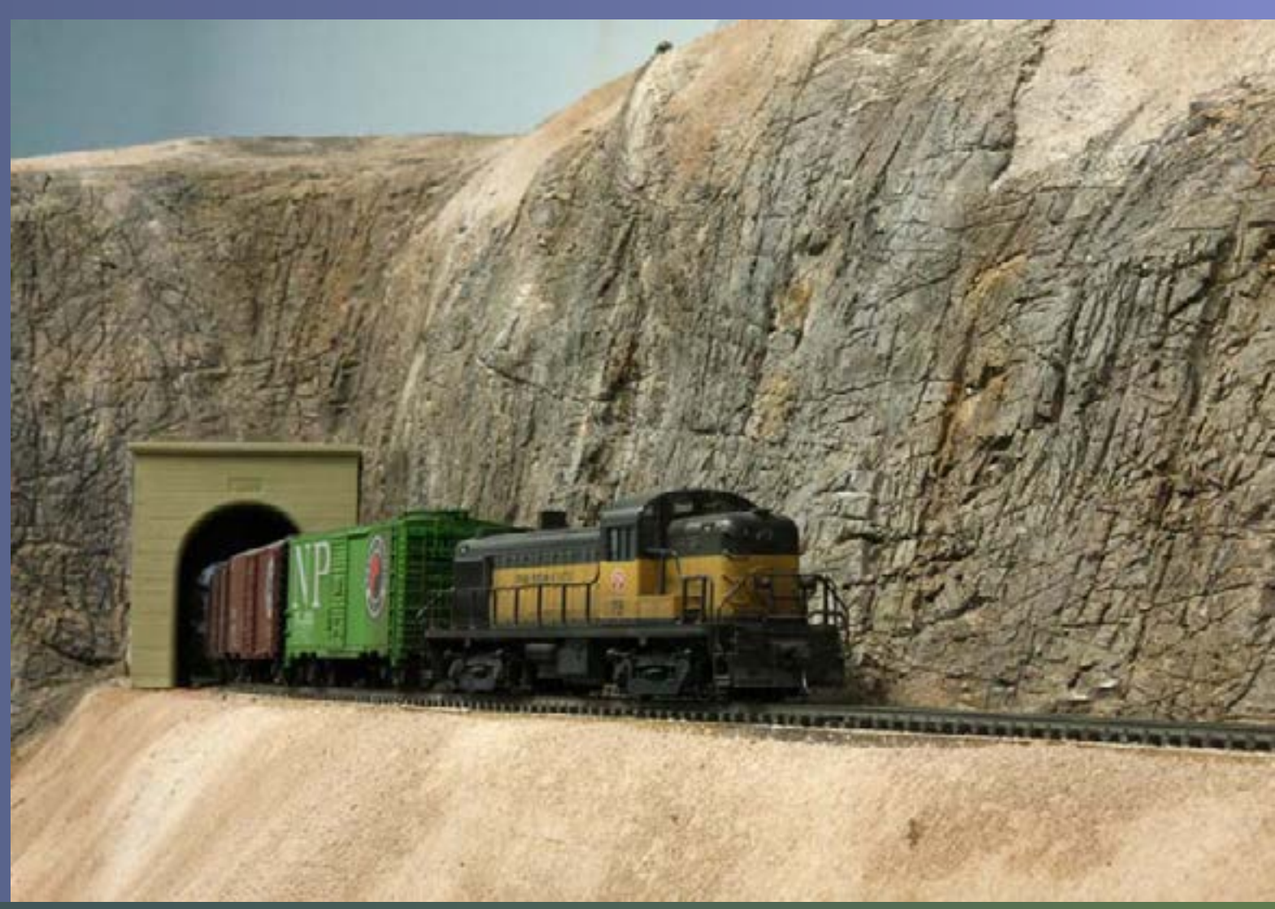
Use your camera frequently as scenery progresses.

Ask yourself, “Where were the landform contours BEFORE the railroad came along?

Are the fills and cuts plausible?

Why did the track curve?”





Part III. Scenery in Upper Bear Creek

I envisioned a creek flowing through this area of steep hillsides. Track follows the creek to keep the grade down to 2%. Rock cuts next to the creek and track are common. The track crosses the creek as it nears Oakhill (at the summit). The track meandered over the ply-wood joists when I shot these photos. Note the creek bed cutouts.

I stuffed plastic grovery bags with wadded up newspapers to approximate land contours at the beginning of the Terraforming™ process.

These were later replaced with hot-glued cardboard mesh topped with masking tape.

Click here to play the

Basic Landform Creation

video

VIDEO: Basic landform creation along Upper Bear Creek

Upper Bear Creek - after rock-work, basic static grass, and ballast (1)

Upper Bear Creek - after rock-work, basic static grass, and ballast (2)

Upper Bear Creek - after rock-work, basic static grass, and ballast (3)

Upper Bear Creek - first vegetation and trackside debris

Upper Bear Creek - roughed in water and more vegetation

Upper Bear Creek - bridge scene basically complete

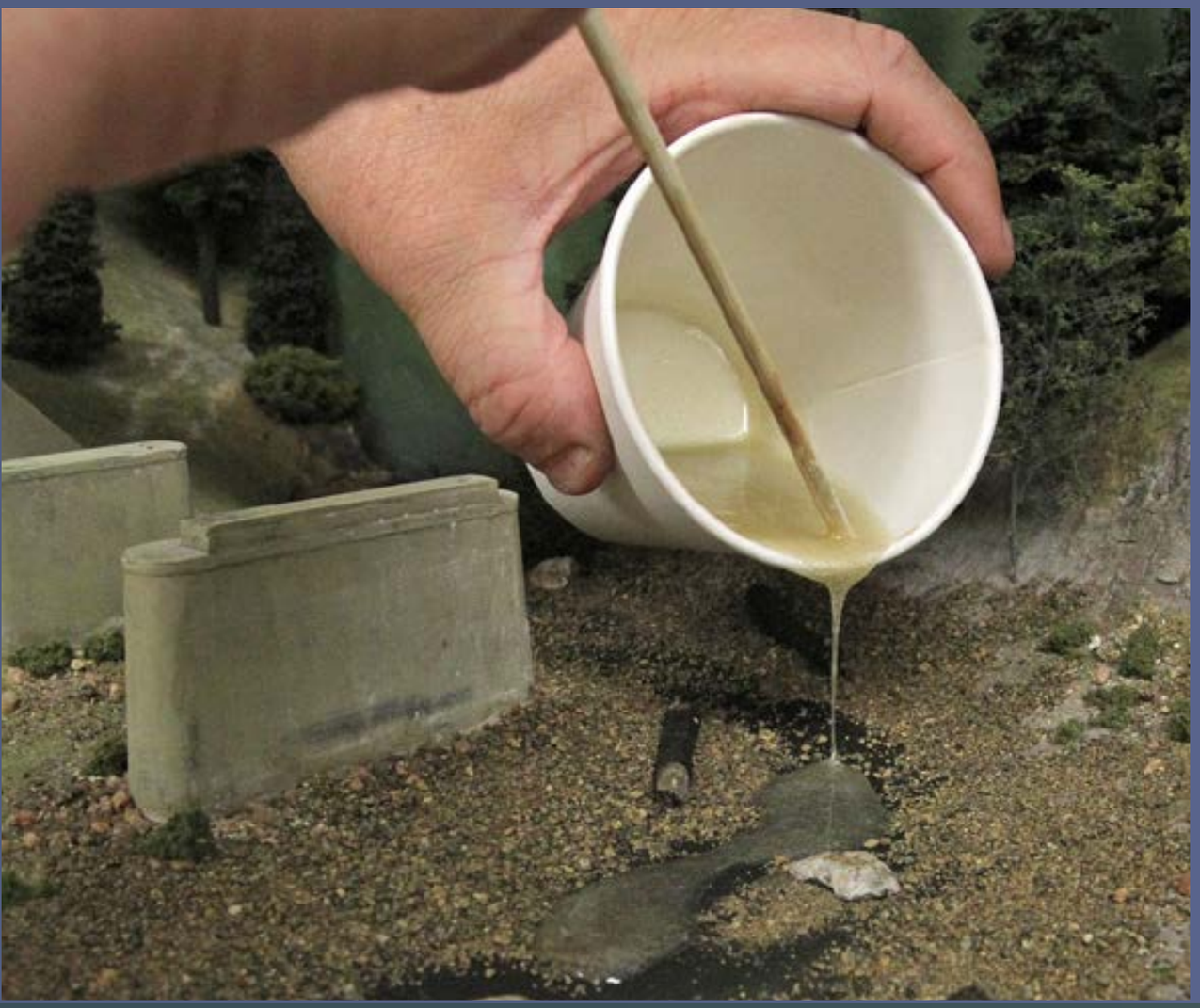
Upper Bear Creek - basic scenery completed

Upper Bear Creek - finishing the creek

The creek bed prepped with paver sand, boulders, and logs. The dam clamped to the fascia keeps the Envirotex™ water off the floor.

Mixing the Envirotex™ – use only throw-away tools for this.

A paper cup mixing “bowl” is handy for pouring. I carefully dribble the Envirotex™ into the creek bed taking pains to avoid getting it on the scenery. An old chop stick works to spread it around.



I used acrylic gloss medium to add some ripples to the water near rocks are where there are “rapids”. It will become clear when it sets.

Let the gloss medium and Envirotex™ set <u>completely</u>!

Before adding static grass I weathered the bridge piers with chalk and alcohol.

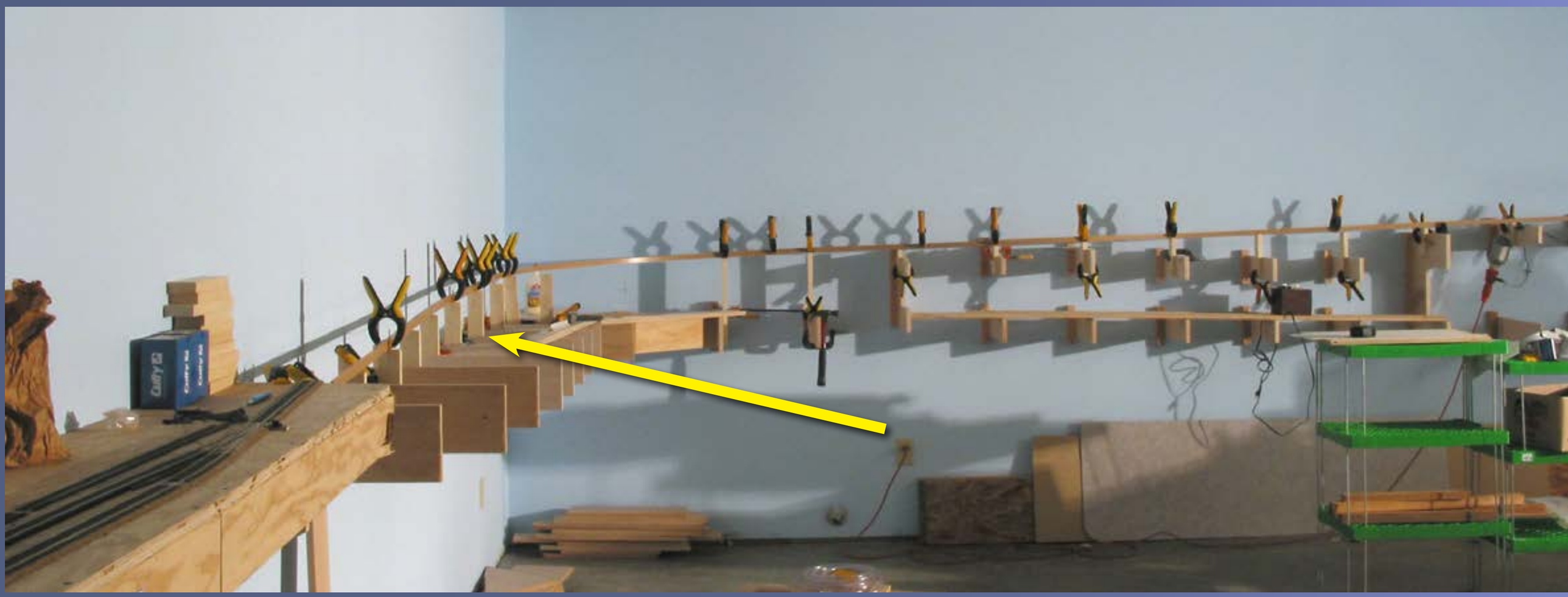
Once the static grass is in place and the glue is dry add more scenery details.

You may want to add some more rocks/gravel in strategic places. Some junk or discarded ties might fit right in unless the Sierra Club owns your railroad. Don't forget to vacuum up all stray scenery bits.

Ready for the frogs...

Upper Bear Creek - finished scene

Part IV. Scenery at Baynes Valley



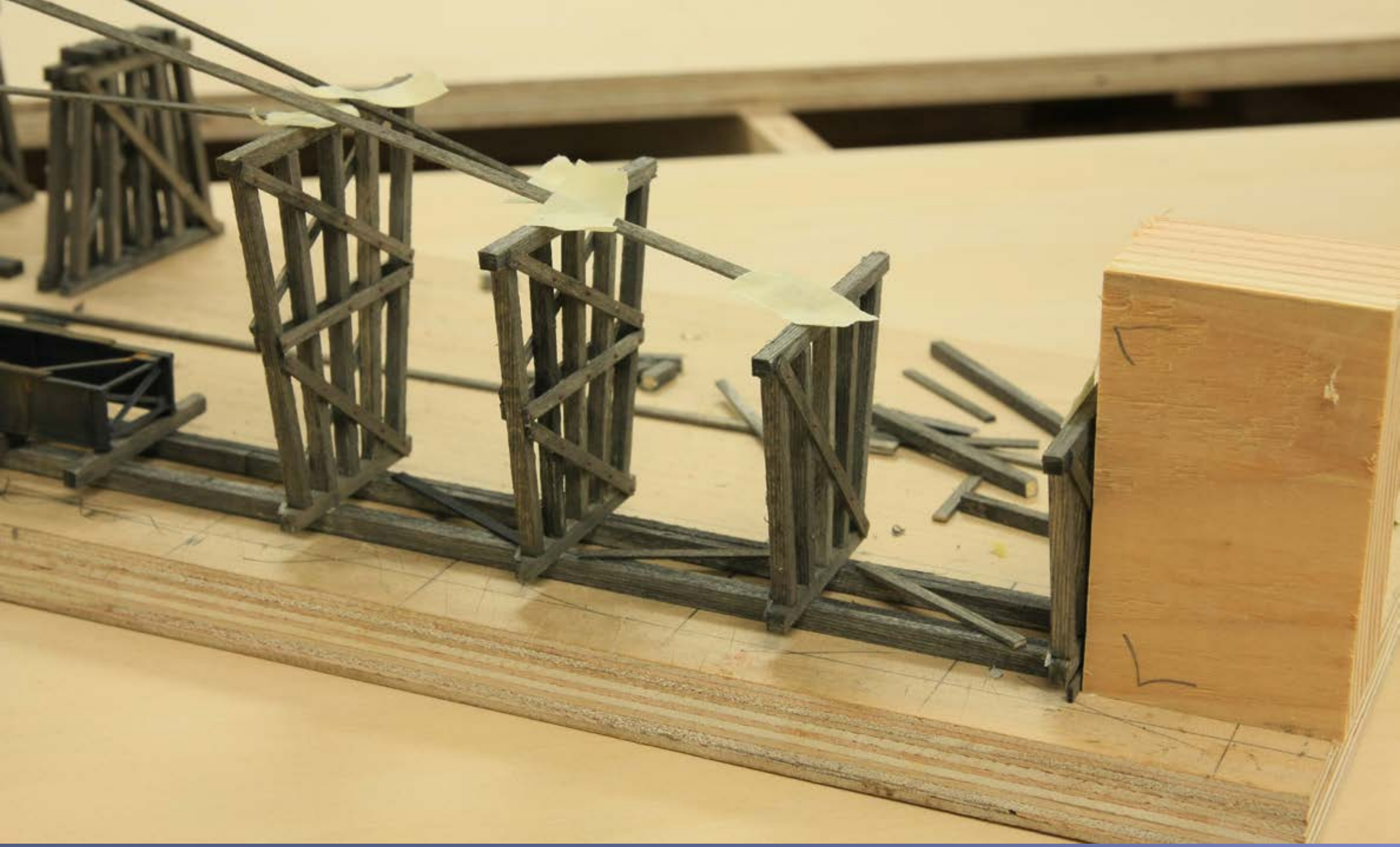
I planned Baynes Valley to be in a an area of rolling hills between the Mill Bend flatlands and mountains farther up the 2.7% grade leading to Oakhill. The scenic centerpiece would be a timber trestle crossing the valley with a highway going under it. I also wanted a dirt farm road for contrast. The tracks will pass through several cuts in the hills.

Baynes Valley area with landforms roughed in using plywood, pink foam, and cheesecloth methods.

Note the sheet of plywood under the future home of the bridge. I am obsessive about bracing both ends of my roadbed BEFORE I cut out a piece for a bridge. I DON’T want the bridge ends moving. At all.

These views suggest what the area will look like when done.

I slapped a coat of cheap interior latex house paint over the foam to kill the Mary Kay look and used spackle to smooth out the road surfaces. The area remained in this state for several years.



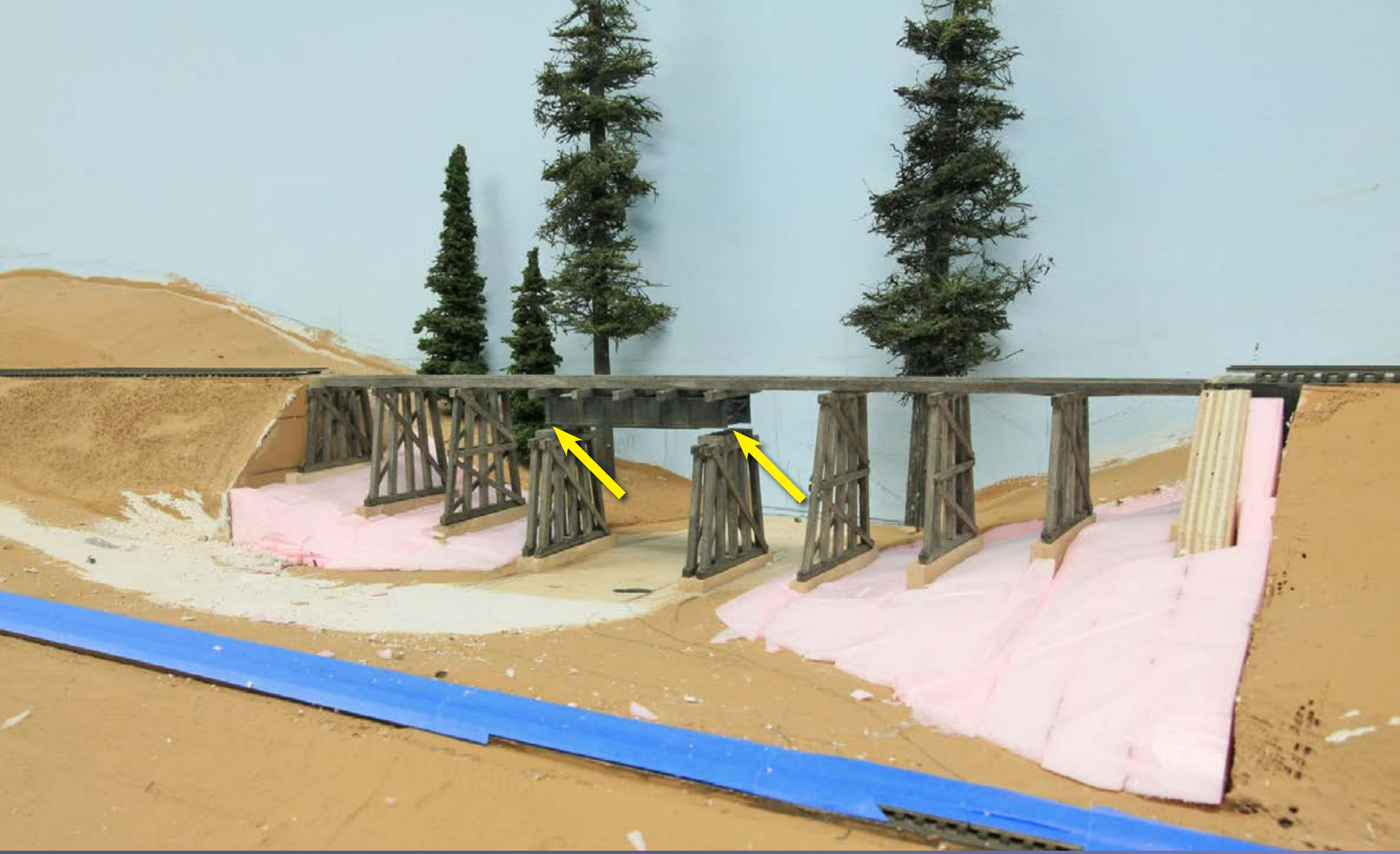
I finally got started building the trestle for Baynes Valley in December 2008. The trestle was ready for installation in January 2009.

I hate installing bridges. The amount of fiddly work involved drives me nuts. I made this cardboard template to help me set terrain contours under the bridge and the heights of the piers.

Setting the bridge temporarily in place to check for fit and look for gross problems in the heights of the bents. I discovered that somehow I'd managed to make the bridge too short.

I installed foundations under each of the bents, a very iterative process and one of the things I dislike about installing bridges. I also added a new bridge ‘abutment’ on the right.

With the foundations yellow glued to the plywood base, it’s time to add terrain between them. There are many ways to do this: paver sand, pouring in a plaster/vermiculite mix, but I chose pink foam.



Another test fitting of the bridge. It looks like the double bents supporting the 30’ plate girder will need some height augmentation.

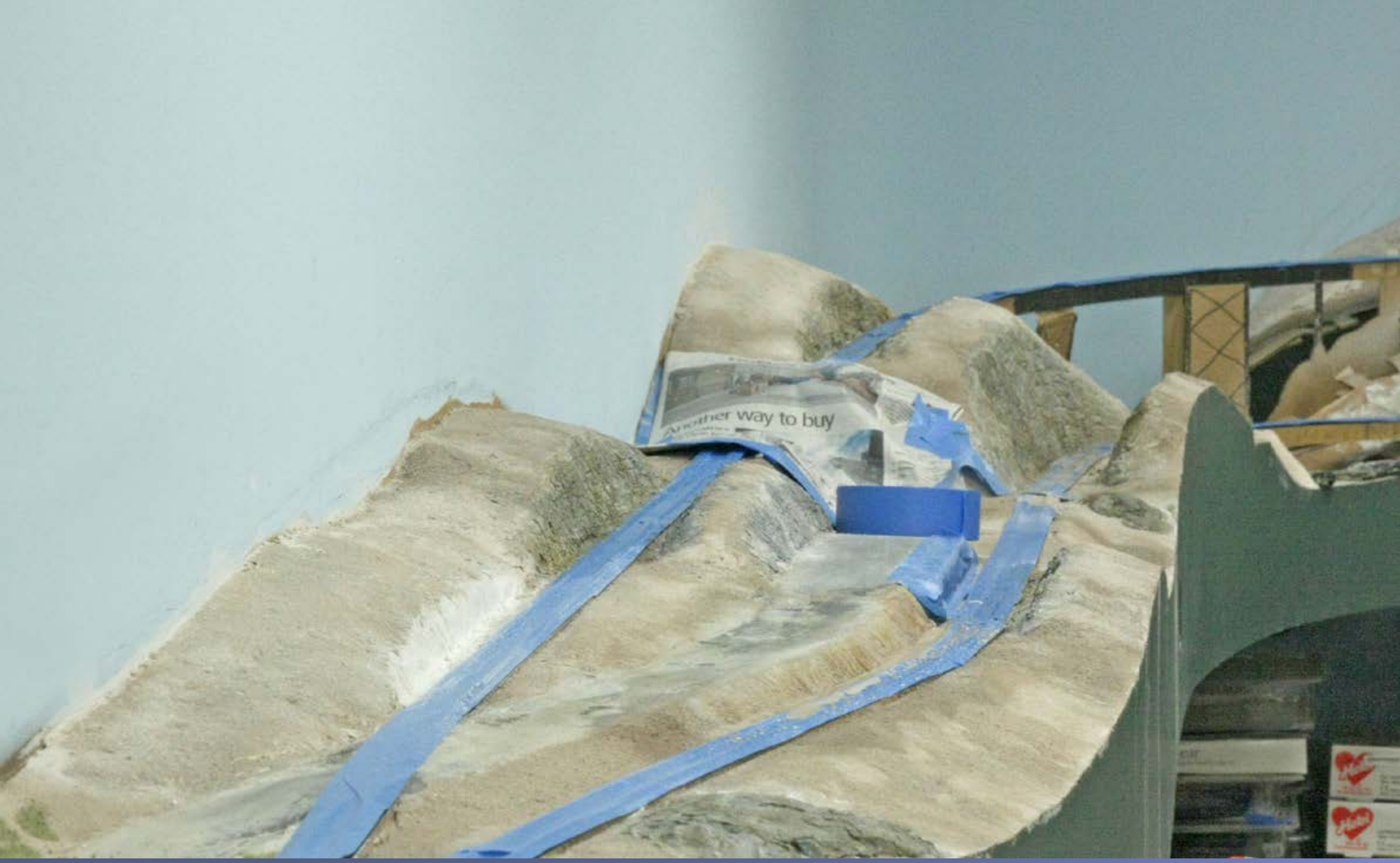
Tracks nearby run through a cut next to Baynes Valley road. I ripped some scrap pine into 8x8s and built a retaining wall. I modeled a couple of pillars with scrap rail instead of 8x8s where they had been hit by a piece of derailed rolling stock.

Lots of masking protects the track while I zip texture the ground and carve the plaster rock cuts.

More rock faces in cuts carved from US Gypsum No.1 Casting Plaster. I mix fine Woodland Scenics ballast with the plaster for a gritty texture...

I paint/seal the rocks with a gray base coat.

Once dried, I daub stains of highly diluted acrylic paints on the rocks. It takes a little practice since the rocks lighten as they dry.



Rock faces with coloration. They’re not dry yet and will lighten over the next few hours.

I airbrushed clouds on the backdrop, then over-painted rows of distant hills using interior latex house paint. Ready for vegetation!

Click here to play the

Background Painting – Sky, Clouds, and Hills

video

VIDEO: Backdrop painting – clouds and distant hills.

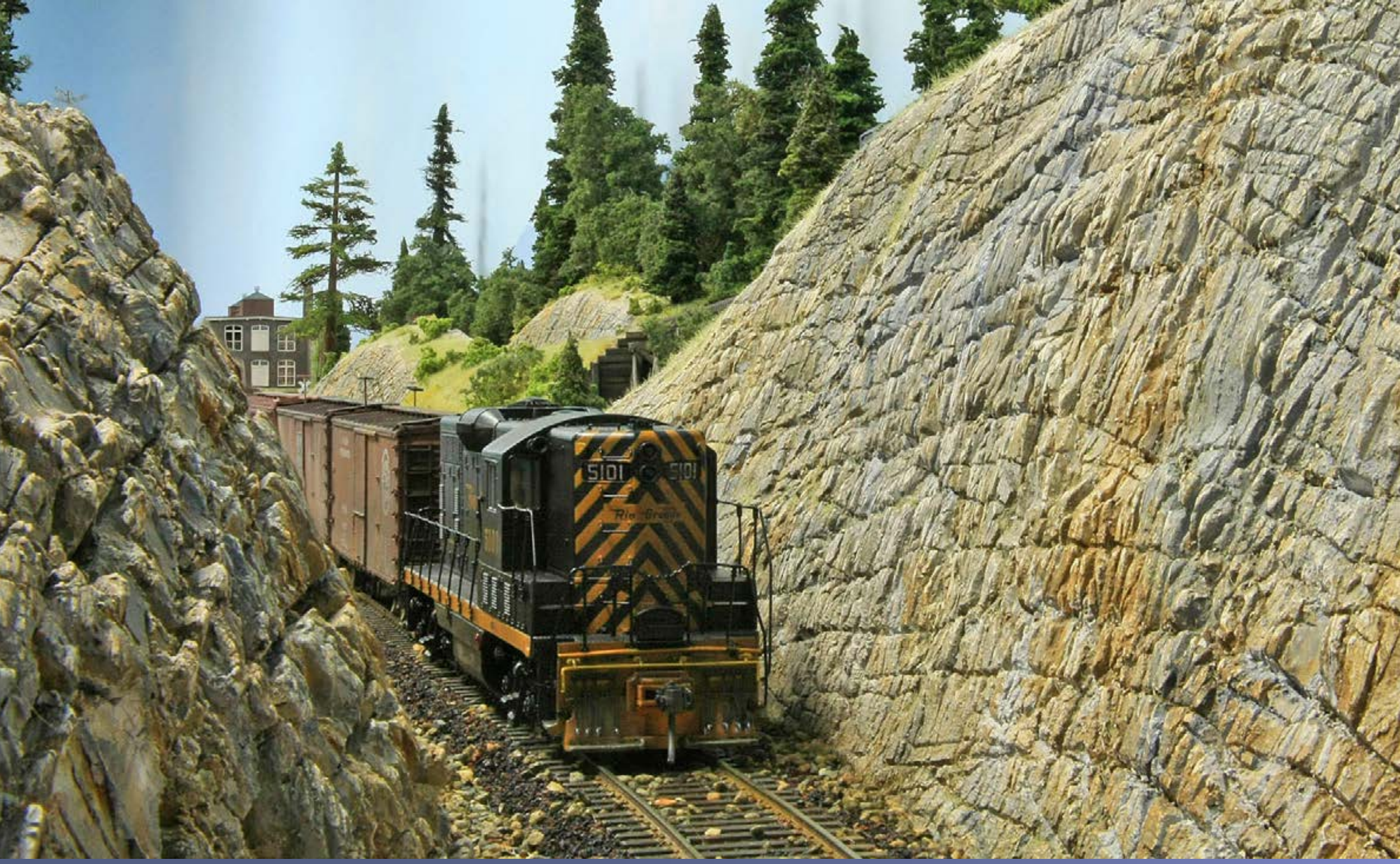
First vegetation installed. The line of vegetation at the backdrop is too scanty – it doesn't do a good job of hiding the joint.

A bushier line of vegetation at the backdrop does a much better job of hiding the terrain to background joint.

Same scene, different angle. Vegetation includes: static-grass, ground foam, Silflor®, ballast, Apache rock, fine leaf foliage, super trees, etc.

Baynes Valley bridge completed and with additional details around it. The area still isn't quite complete though ...

Different length static-grass, airbrushed static-grass, roadside gravel, rusty rails, dirt road tinted. NO large areas of exactly the same color.



Don’t be afraid of scenery experiments – even though they don’t always work as anticipated. For example over doing paver-sand track debris …

Part V. Scenery in Oakhill

Oakhill prior to Terraforming™.

Scenery began with a hot-glued cardboard-strip mesh, a $^{1}/_{4}$" plywood road up the hill, and cutting out the subroadbed for Sheffield Creek.

The mesh was covered with cheesecloth and painted with 3 coats of very thin plaster to make a hardshell. A few buildings, boxcars, and vehicles helps show what it will look like in the future.

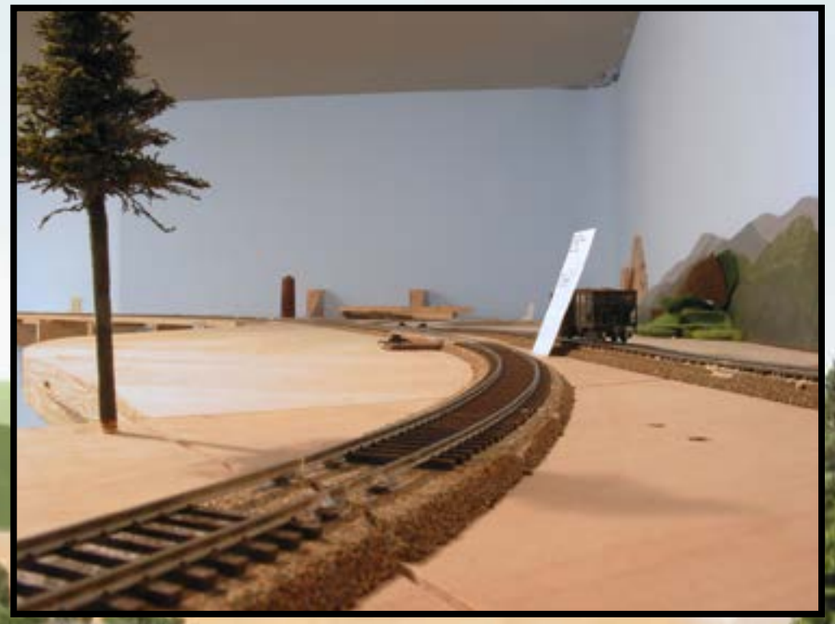
Sheffield Creek runs under the wye track and has been lined with pink foam. The far side of the wye has been rough contoured with pink foam. The lift up access hatch (yellow outline) is under the tree.

The lift hatch raises and lowers on ball-bearing steel drawer slides. The scenery around the hatch received a coat of dirt colored paint.

The lift hatch cover with plaster rock carving and spackle to fill in the joints between the pieces of foam.

Carving foam to precisely match the contours of the adjacent land forms is both important and very tricky. Don't build so much scenery/roadbed around it that you have trouble reaching the hatch – until its contouring is done. Sigh...

My first hand-carved plaster rock face. Also some of my early static grass experiments. This Noch grass was too fluorescent for my taste. The backdrop is my first attempt at a tree line using latex house paint. I decided I didn’t like the color and painted over it later.



The first layer of static grass. It’s all mono-colored 2mm flock. Not really terrific, but much nicer than brown benchwork.

Where’s the lift up hatch?

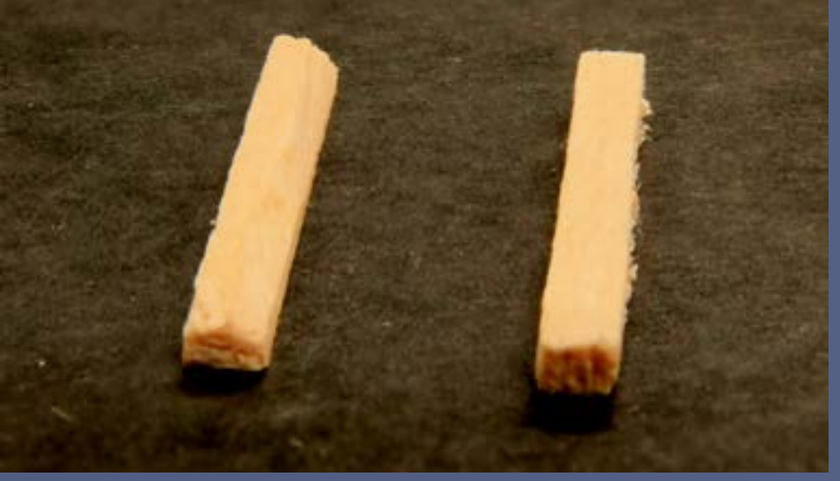
Precise contour matching and alignment make the hatch near invisible.

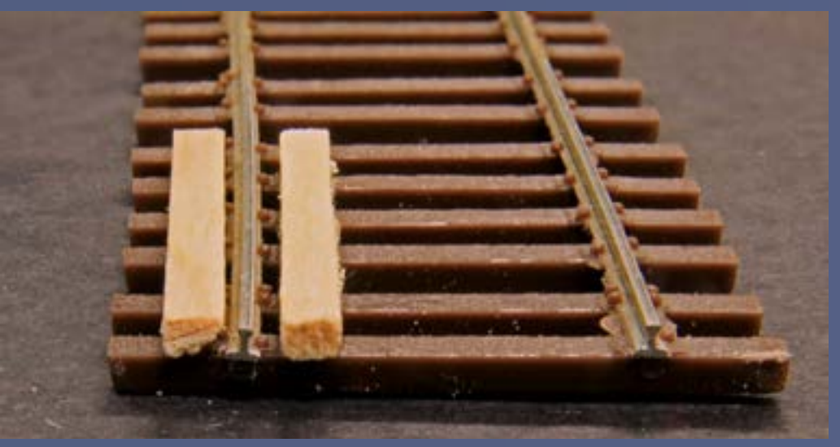
I’ve over-painted the old backdrop hills and trees with new ones. Oakhill is ready for some serious scenery work.

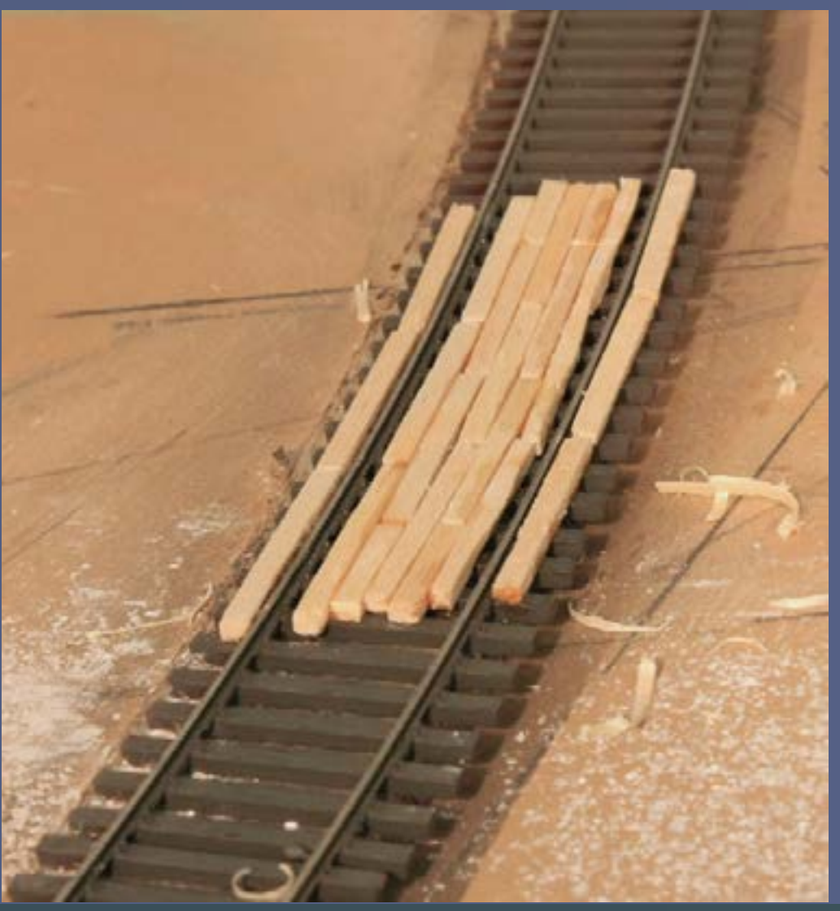
The first real Oakhill scenery was at B. Josef Gravel. Rock carving, more static grass, and the road through town got paved with spackle.

The new grass looks better than the old but it’s still way too uniform. The hill in the background is still bare as is the creek. More to do ...

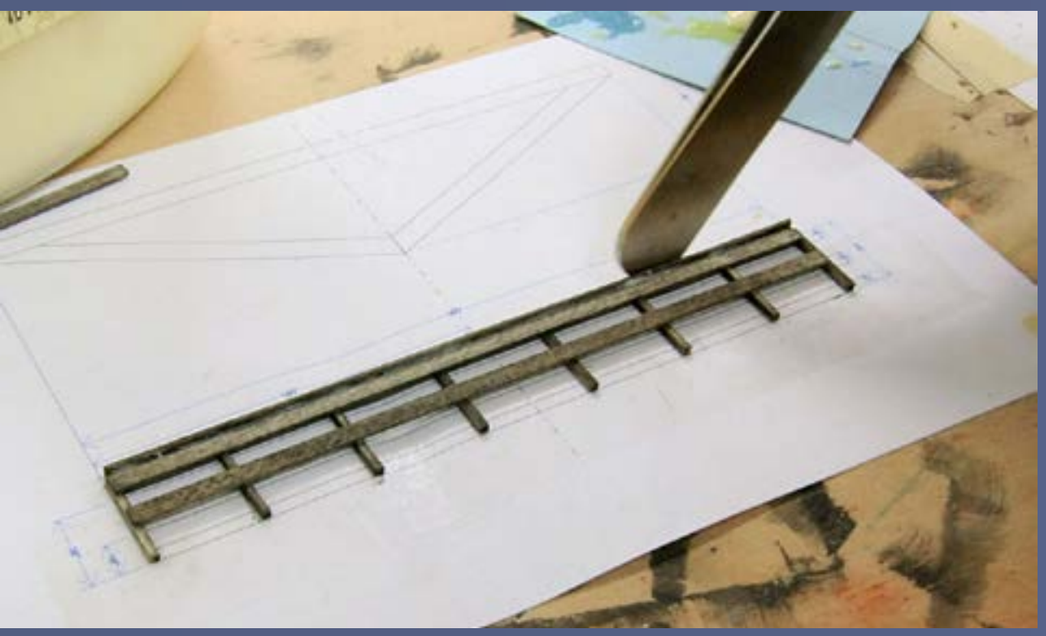
Mixed grasses – height and color, boulders, more quarry details, debris under the tree, the road has a stripe and the distant hill is finished.

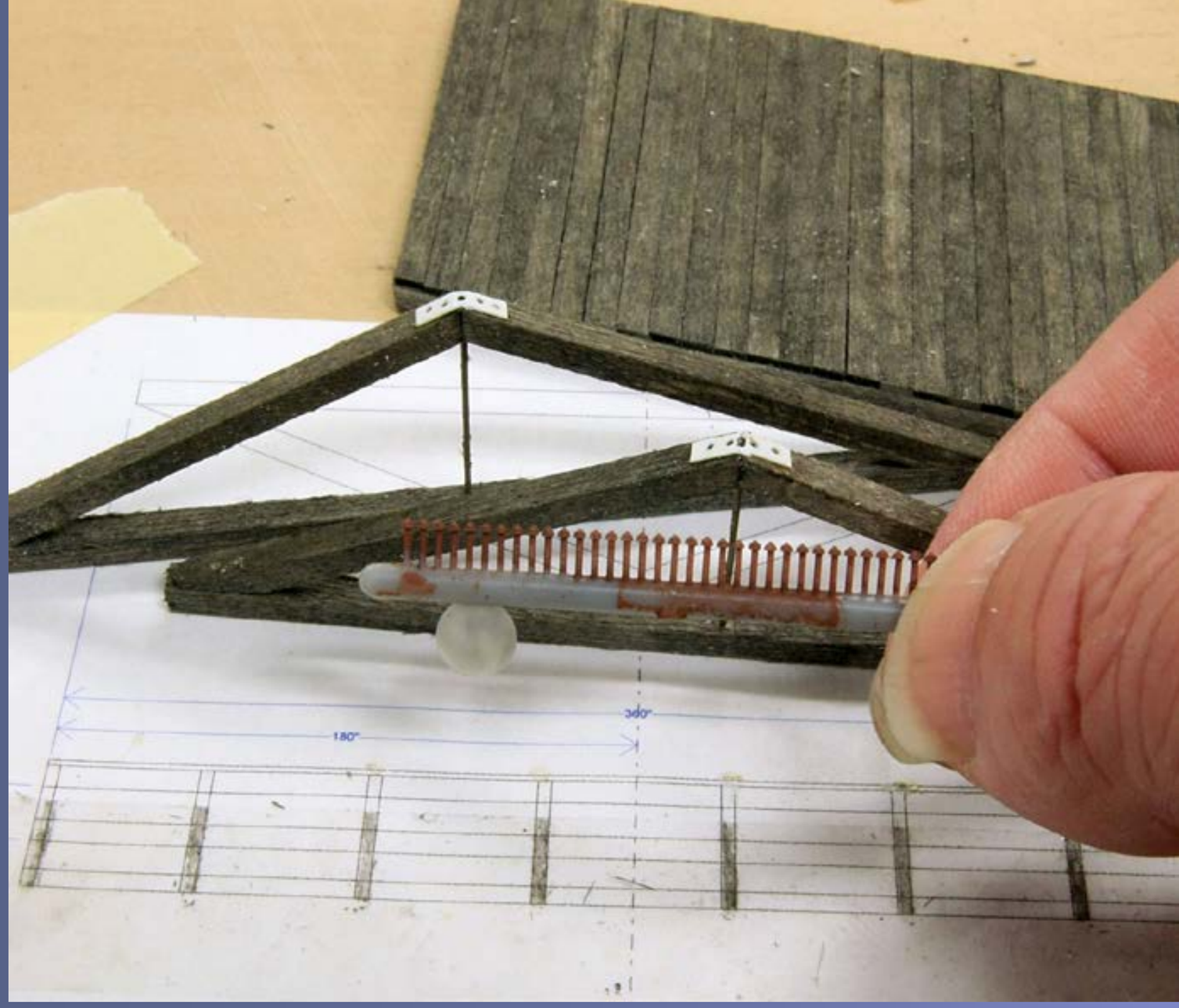






I started work on the Sheffield Creek area by timbering the grade crossings. The Micro Engineering ties required some contouring to fit snug against the outside of the rails.

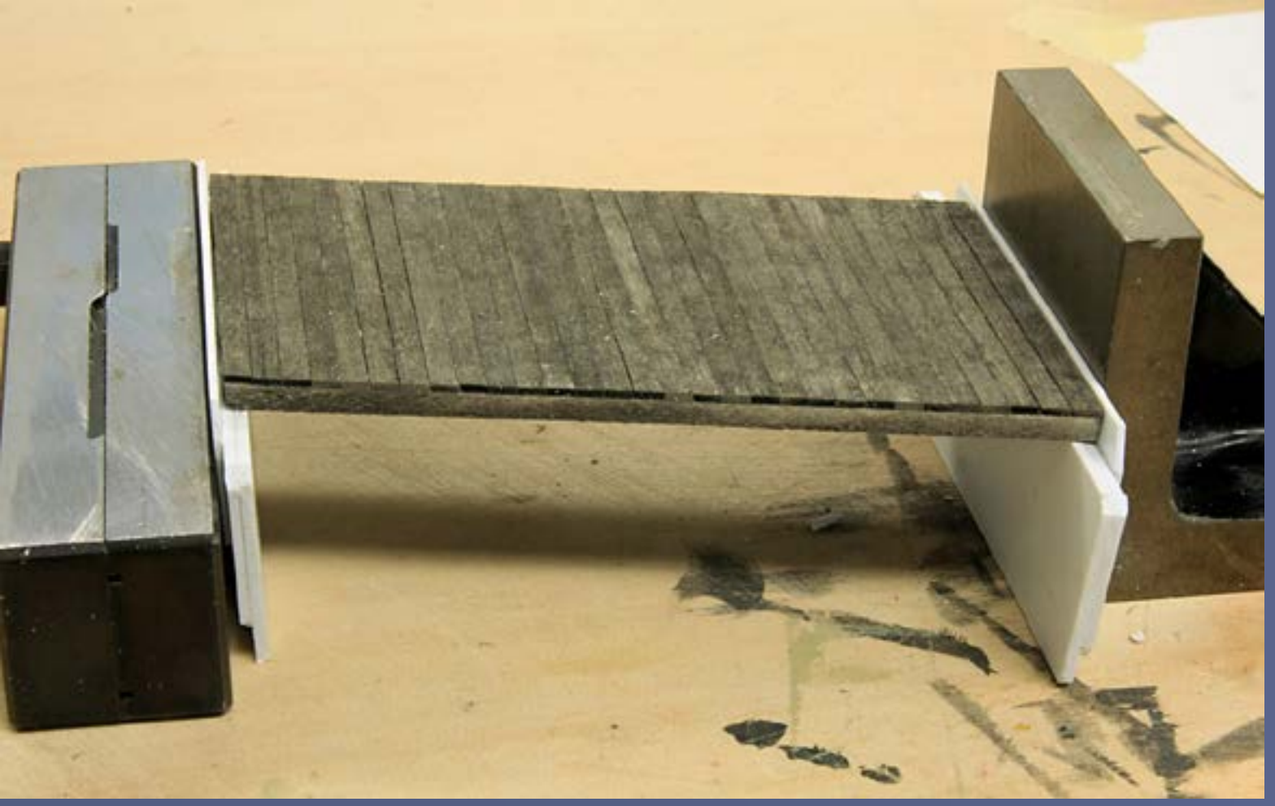




I wanted a one-lane highway bridge across Sheffield Creek. I used 3rd Planit to print full size templates for the trusses, bottom, and railings.

Double sticky tape makes it easy to assemble the stripwood components directly on the templates. I used a toothpick to apply tiny drops of yellow glue to hold it together.

The king post bridge spanning Sheffield Creek.



Styrene bridge abutments and PVC pipe culverts.

Mask off EVERYTHING before getting out the spackle and plaster. I used ACC to cement a foundation for a speeder shed in place.

Homemade latex rubber rock molds. I embedded strips of linen from a nearly dead pillow case in the rubber for strength.

Zip texturing, spackle roads, cast and tinted rocks on hillside, and track ballasted, mostly anyway – the game is afoot!

Finished ballast on the Sheffield Creek culvert. The creek is acrylic green paint topped with multiple layers of acrylic gloss medium.

I planted this fairly large Canyon Creek Scenics cedar tree inside the Oakhill wye along with Silflor®, static grass, stumps, cedar debris, smaller trees, rail stack, wood scraps, small rocks, shrubs and weeds.

Another view of the cedar scene. The static grass really sets off the scene along with the rusty rail color and two colors of ballast.

Click here to play the

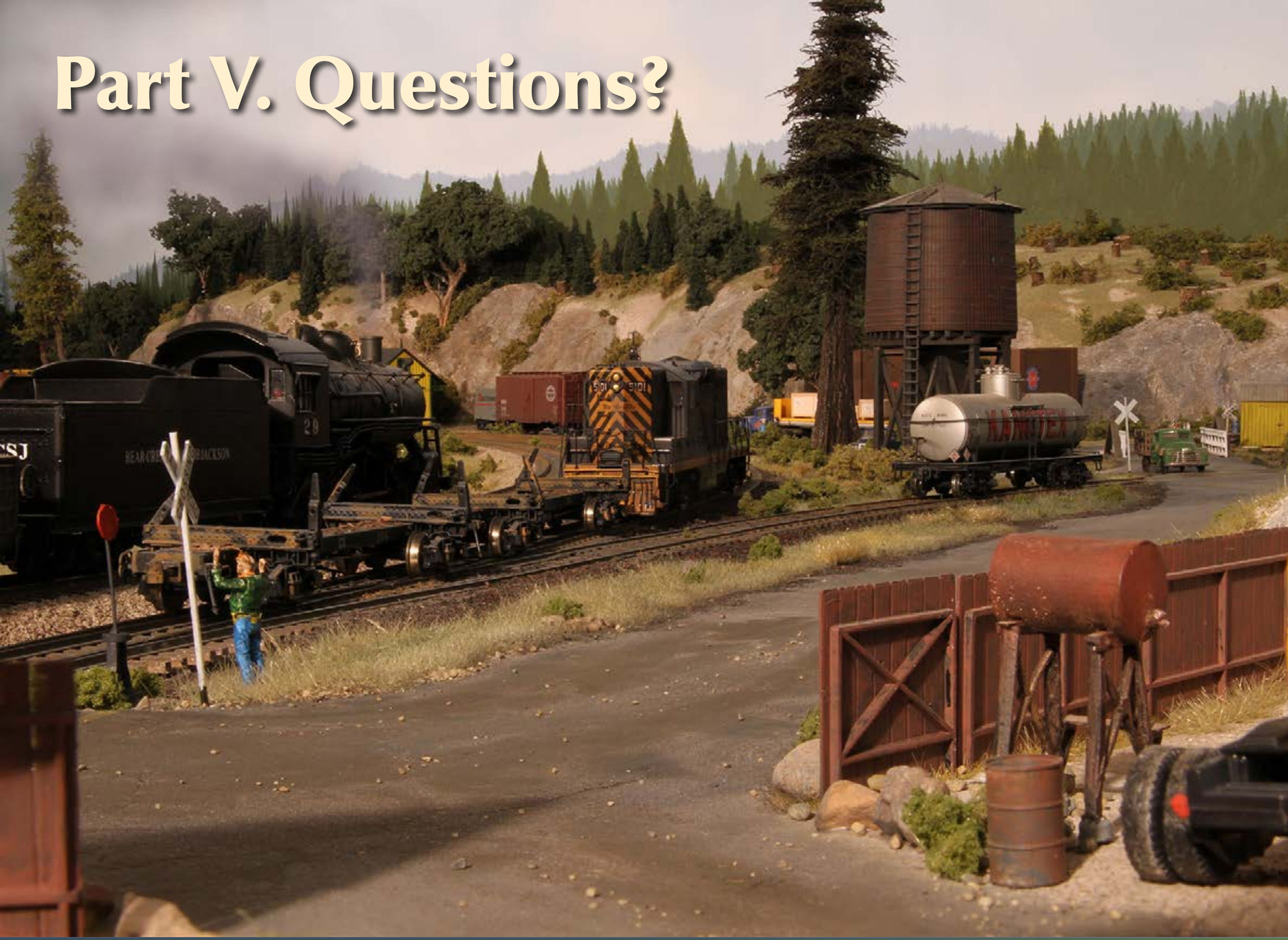
Advanced Greenery: Finishing a creek

video

VIDEO: Static Grass and bush installation along Sheffield Creek.

Completed creek scene.

Part V. Questions?



Thank You – The End