

Basic Model Railroad Scenery Construction Steps Part 1



By

Paul Allard

October 5, 2022

Before Scenery Starts

- Build Bench Work
- Add Road Bed
 - Plywood
 - Covered w/ Cork Strips
- Install Track Work

Simulated Roadbed On Risers



Sample $\frac{1}{2}$ " Plywood Cut 2" wide w/ Pine Risers

Note: Base plywood used to support example

Pine risers would normally be attached to layout frame cross braces

Cork Road Bed Prep



- Separate Cork Strips Along Cut Line
- Sand Cork Edge to Remove Ridge

Cork Installed on Road Bed

Stagger Cork Joints



Cork Road Bed

- Glued to plywood w/ White Glue
- Nailed with 3/8" Brads – Spaced 6" Apart
- Offset Cork End Joints

Track Example: Atlas Code 100 Flex Track



Track Attachment:

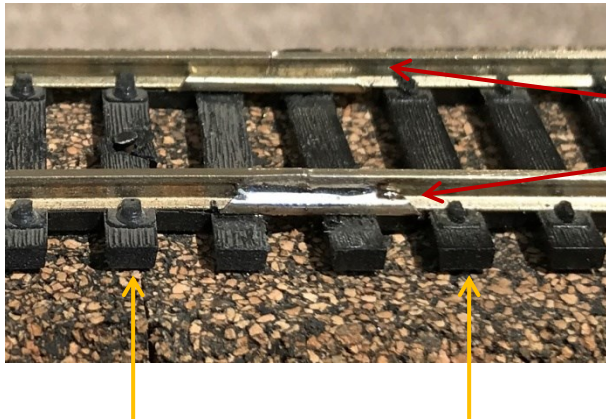
- Can be Nailed Down w/ Track Nails
- Can be Held Down w/ Track Spikes
- Can be Glued Down

Add Track Electrical Connections



← Track Feeders to Power Distribution Buss

← Track Power Distribution Buss



Solder Rail Joiners
On Outside Edge of Rail Only

Note: Old Atlas Code 100 Track → New Atlas Code 100 Track

Add Rock / Stone Wall Elements

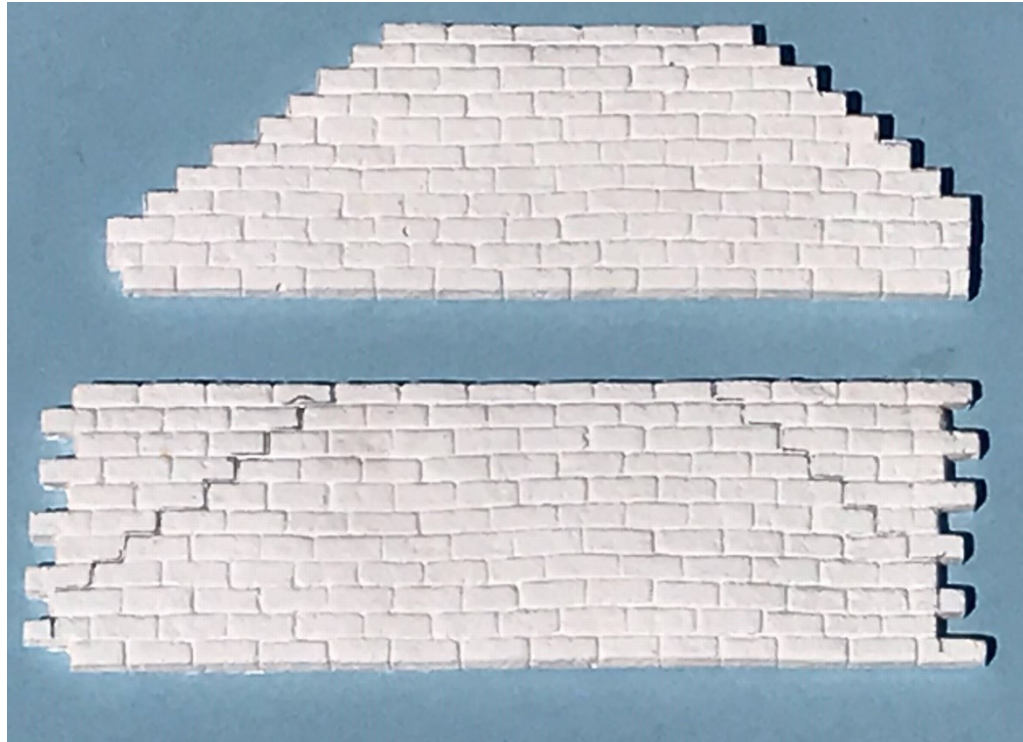
- Cast Rock Faces / Stone Walls
 - Commercial Products
 - or
 - Home Made in Rubber Molds
 - Built w/ Molding Plaster
 - Color w/ Acrylic Washes < 50 % Paint
 - Artist Tube Paints or Latex Paints:
 - Browns, Grays, Reds, etc
 - Brush On Base Color
 - Add High Light Colors Once in Place

Plaster Castings



- Mix Molding Plaster as a Soupy Mix in Cake Pan Using Palette Knife
- Spray Water Mist into Rubber Mold – Pre Wets the Mold
- Transfer Plaster to Mold – Let Harden for 4 Hours
- Remove Casting – Clean / Wash Out Mold w/ Water

Modify Plaster Castings

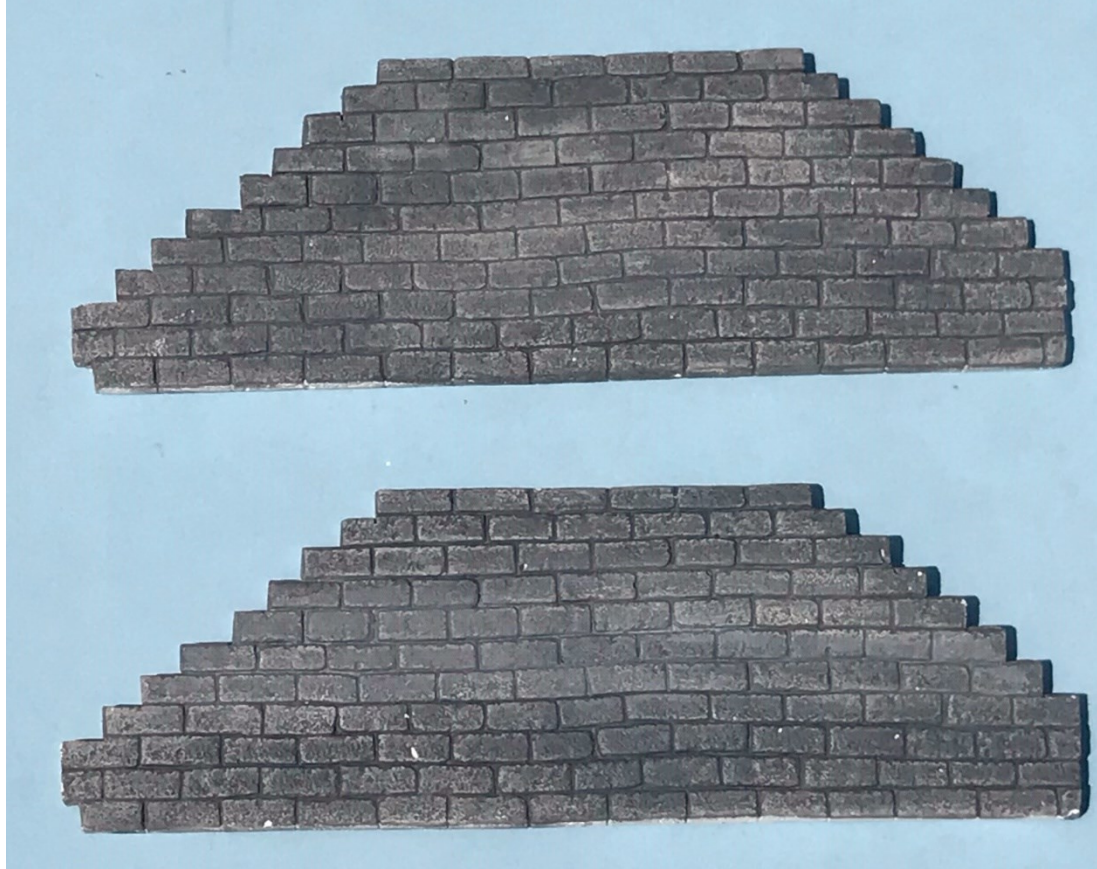


- Cut Casting with Razor Saw

- Note:

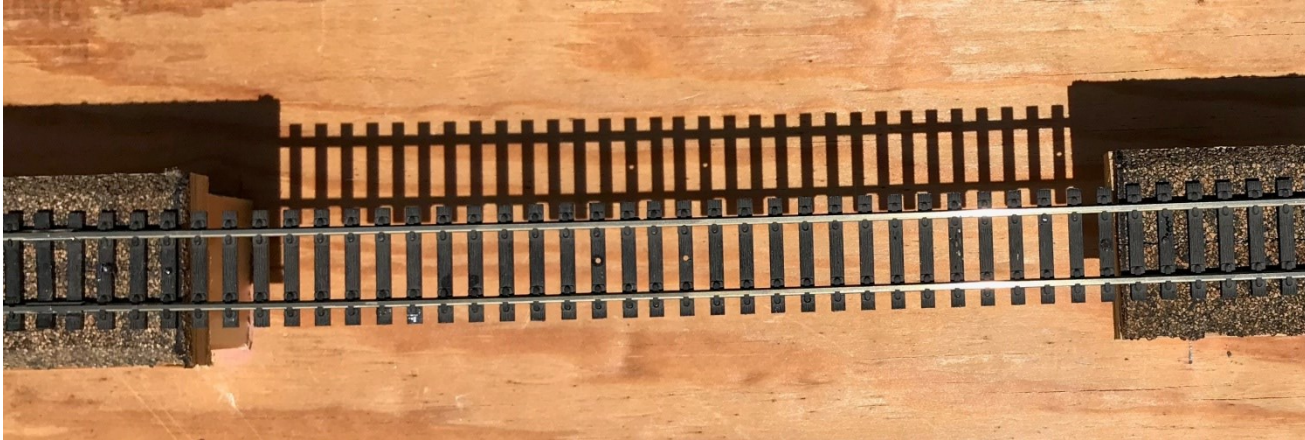
- Set Aside One Saw Blade for Cutting Plaster Only

Color Plaster Castings



- Color with Latex Paint Wash
 - 50% Water / 50% Paint

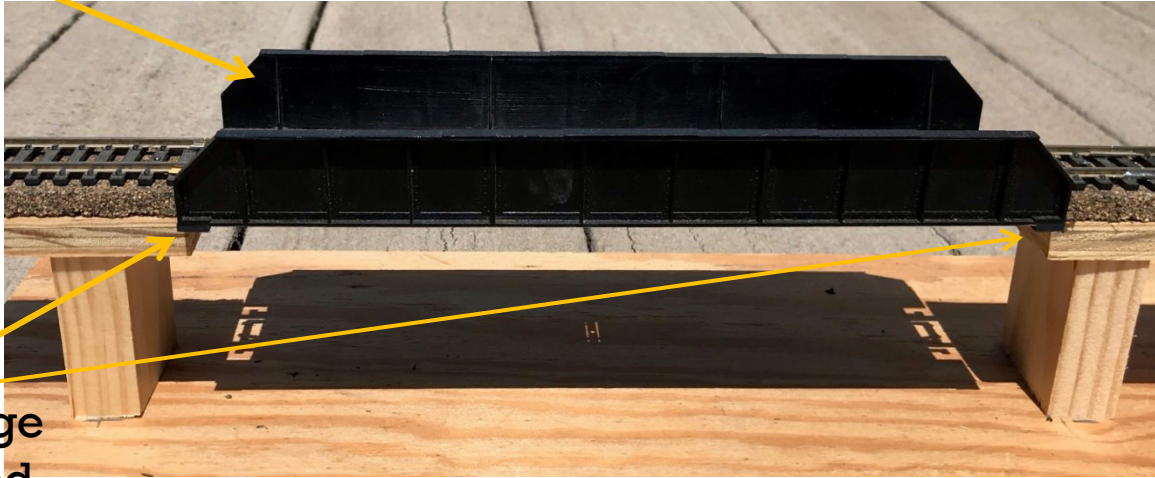
Add Bridges



- Cut Road Bed For Bridge
 - Measure Bridge Spacing
 - Remove Track
 - Cut Road Bed
 - Replace Track Across Road Bed Gap

Install Bridge

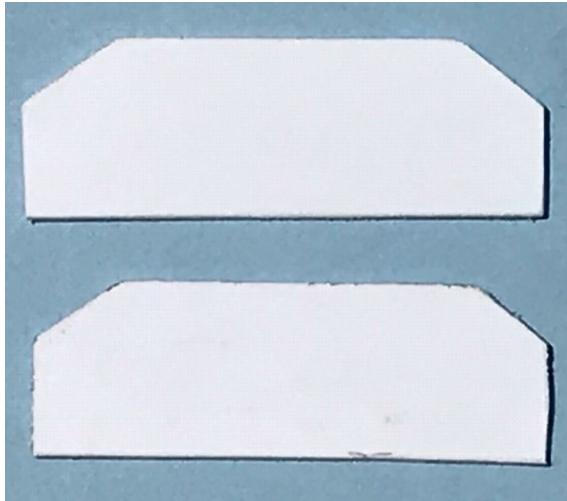
Atlas Bridge



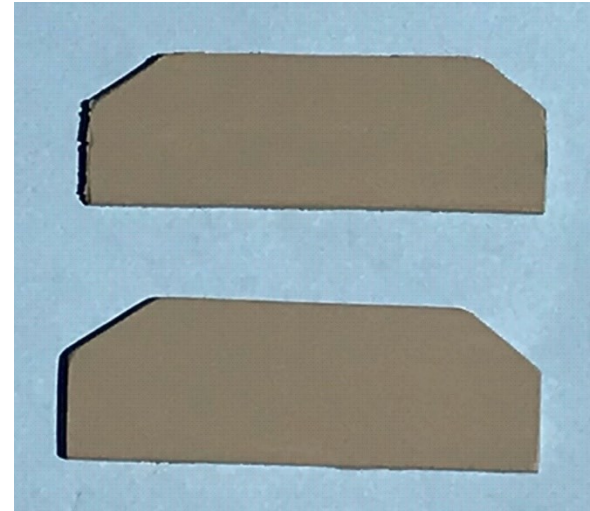
Plastic Bridge
Shoes Added

- Cut Out Flex Track Section
 - Add Rail Joiners
 - Reconnect Track to Bridge
 - Track Should be Level Thru Bridge

Road Bed Caps at Bridge Ends



Caps Cut From 0.040" Plastic Sheet



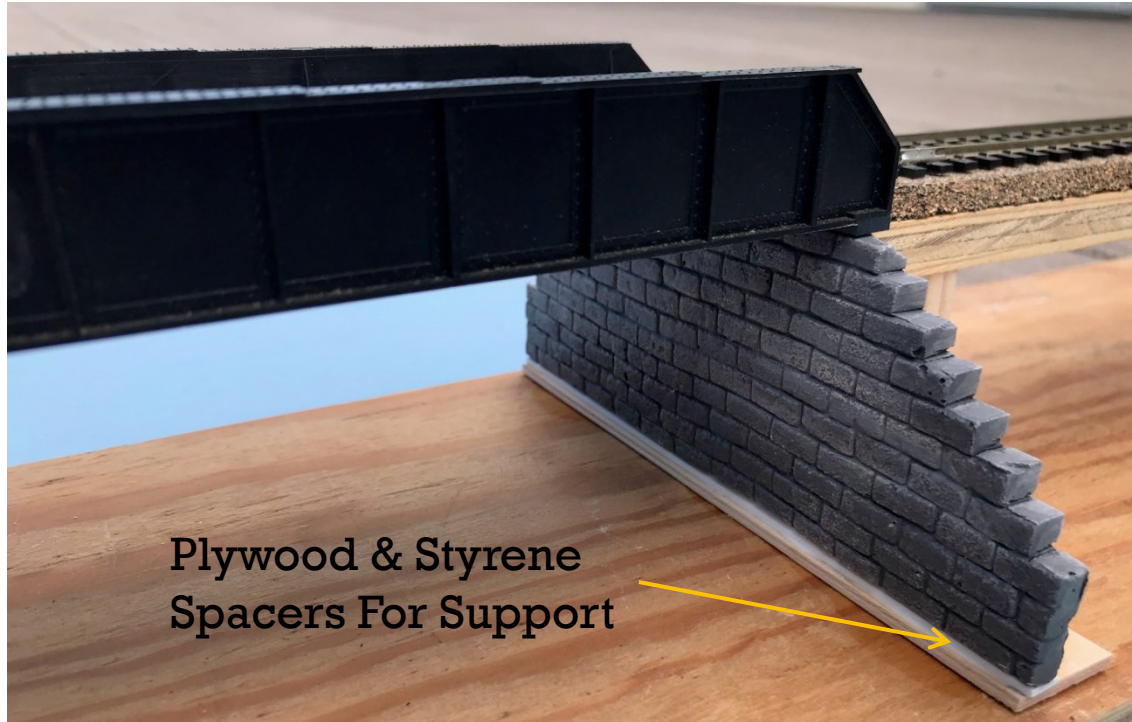
Painted w/ 3 Coats Poly S Concrete

Road Beds Caps Installed



- Road Bed Caps Installed Against Plywood / Cork Edge
 - Hides Road Bed Ends
 - Most Effective on Open Deck Bridges

Bridge w/ Stone Abutments



- Place Stone Abutment Under Bridge
- Add Spacers to Lift Stone => Supports Bridge Ends
- Hold Stone & Spacers in Place with White Glue
- Track Should be Level Across Bridge Span

Rock Castings



- Cut Casting with Razor Saw
- Color with Burnt Umber Wash
 - Thinned Artist Tube Paint

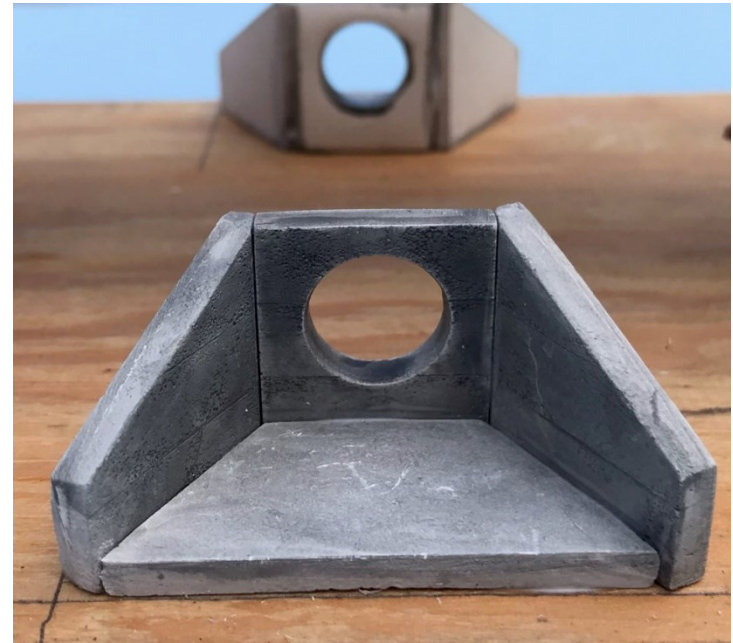
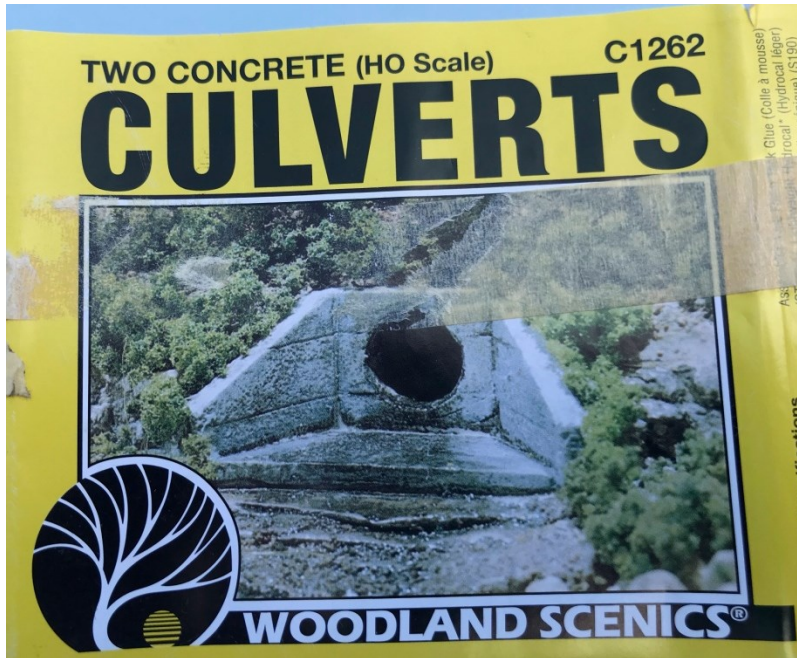
Install Rock Castings



- Sand Casting Base Smooth
- Set In Place With White Glue

Additional Details

- Wood Land Scenics Concrete Culvert



Color With Gray Wash
Assemble With White Glue

Base Contours – Old School

***** Warning *****

- **Do Not Use**
 - Wire Screen
 - Chicken Wire
 - Metal Staples
- Very Difficult To Modify
- Sharp Edges => There Will Be **Blood**

Base Contours – Foam

Foam
Sample



WS Hot Wire
Foam Cutter

- High Density Foam
 - Great for Modules – Light Weight
 - Easy to Work With
 - Cut With Knife or Hot Wire

Base Contours – Another Approach

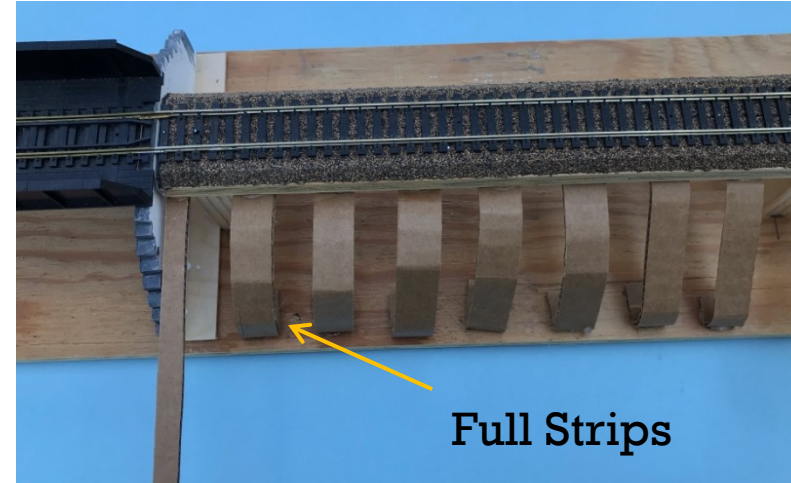
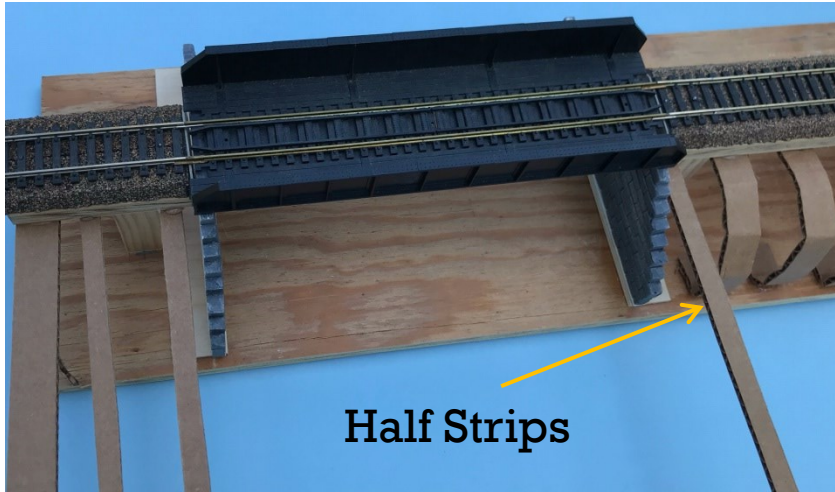


- Cardboard Strips
 - Cut to $\frac{3}{4}$ " width
 - Tight Spots:
 - Cut Strips in Half



- Woodland Scenics Glue Gun
 - Low Temp Glue Sticks
 - Avoid High Temp Glues

Add Base Contours



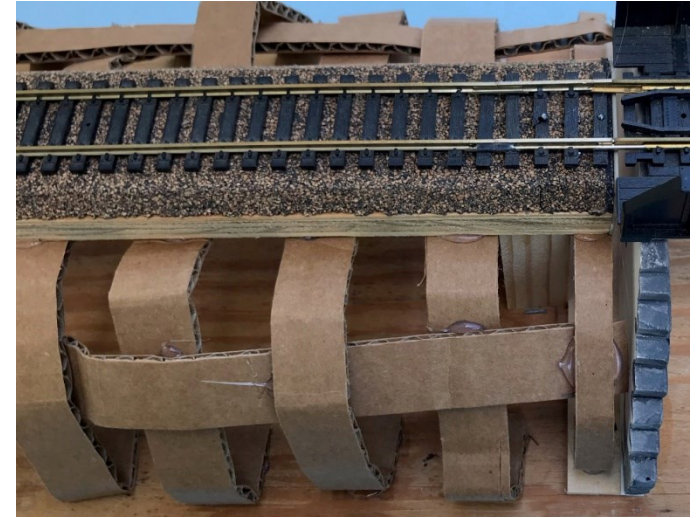
- Cardboard Strips
 - Hot Glue To Underside of Roadbed
 - Curve To Form Contours
 - Hot Glue To Frame Base

Work Around Scenic Elements



- Cardboard Strips
 - Hot Glue To Underside of Roadbed
 - Hot Glue To Back Side of Elements

Add Horizontal Strips



- Cardboard Strips
 - Weave Strips Across Contours
 - Hot Glue At Intersections
 - Review Final Shape – Adjust as Needed

Plaster Cloth



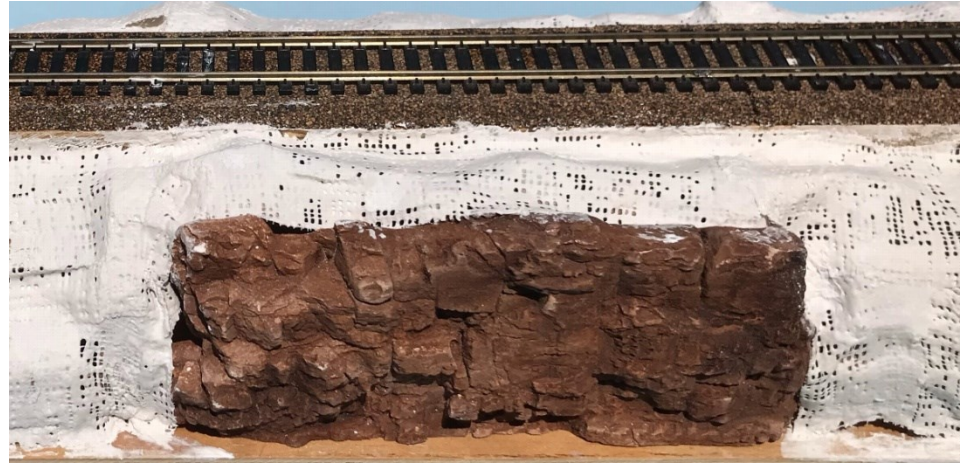
- Either Product Works Well
 - Woodland Scenics – Has a Coarse Weave
 - Scenic Express – Has a Fine Weave

Add Plaster Cloth



- Cover Track with Painter's Blue Tape
 - Keeps Plaster Off Track / Ties
- Cut Strips of Cloth => 2" to 3" Wide
- Place in Cake Pan of Water – One at a Time
- Over Lay on Top of Cardboard Contours
- Example Shows WS Version

Add Plaster Cloth



- Wear Latex Gloves
- Work Edges to Roadbed / Scenic Elements
- Smooth with Fingers / Palette Knife
- Forms Basic Earth Works Contours

Add 2nd Layer of Plaster Cloth



- Over Spray With Water Mister
- Apply 2nd Layer of Plaster Cloth
- Wear Gloves => Smooth with Fingers
- Plaster Should Mostly Fill in Holes in Cloth

Add Plaster Top Coat

- Forms Final Contours
 - Hydrocal & Sculptamold: Make a 50/50 Mix
 - Hydrocal Dries Very Hard
 - Sculptamold Is Like Papier-mâché
 - Combination Resembles An Oatmeal Texture
 - Use Plastic Cups To Measure Equal Volumes
 - Start With Half Cups of Each
 - 10 - 15 Minute Work Time – Best Case!
 - Extend Work Time By Using Water Mister
 - Avoid Waste w/ Small Batches

Plaster Top Coat



All Photos w/o Touch Up

Clean Up Surface w/ Light Sanding



Clean Around Elements
w/ Hobby Knife

Future Contour Modifications

- Areas May Be Changed / Cut Out
 - Use Hand Held Key Hole Saw
 - Add New Scenic Elements
 - Stone Wall, Rock Outcropping, etc
 - Blend Open Area into Existing Contours
 - Card Board Strips, Plaster Cloth, Plaster Overlay
 - Changes Are Difficult With Screen Wire Base
 - Metal is Buried in Plaster – Very Hard to Modify
 - You Will **Bleed!**