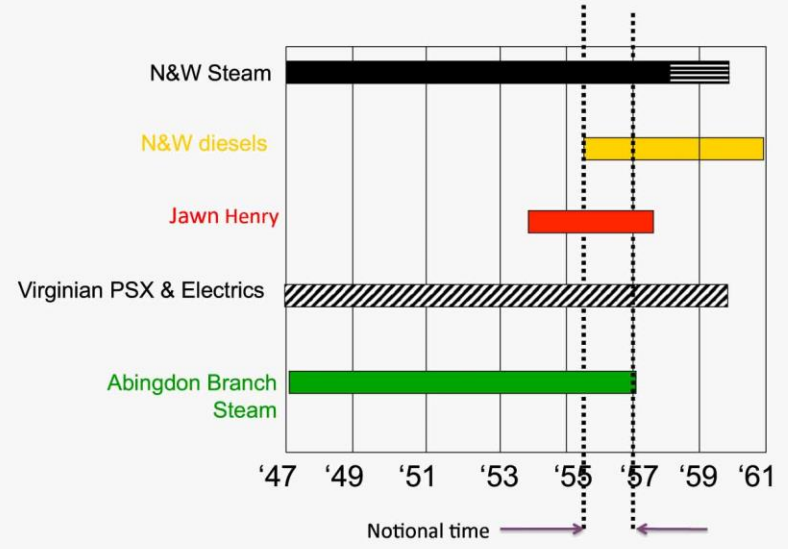


Modeling the Norfolk & Western in the 1950s

Gary Hoover



Choosing a time line based on N&W & VGN History...



And, the downside of modeling the N&W in the 1950s.....

Trees, Trees and more Trees !!

- Fact:** Appalachian roads = lots of trees (actually, forests) = time and money.
- Problem:** How to model all of those forests and live to see the result without going broke?
- Solution:** Model late fall/early winter, limited/no foliage, use Scenic Express Supertrees.
- Trees with little/no foliage can be spaced farther apart than foliated trees. (seeing through each tree helps disguise the spots with no trees.)



Late fall/early winter trees

1. Start with "Supertrees", remove "leaves", straighten trunk by bending. Apply ACC/accelerator to bend location.
2. Spray – flat dark brown. Mist flat dark grey or flat light grey.
3. Apply ground leaf material with with cheap hairspray to a few trees.

Natural leaf foliage ground in dedicated blender.

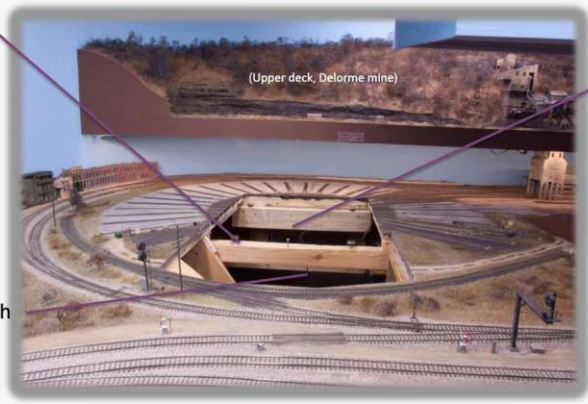


- When the leaves are gathered in the fall, they are placed in an open lawn/leaf bag, sprayed with fungicide and insect killer and allowed to dry for a year in the garage before putting in the blender.
- Depending on your blender, it may not be necessary to trim the stems before blending.

Lamberts Point, Norfolk VA.

At Lamberts Point, VA. hatches were located in several areas to provide access to deep scenes. (Using the turntable as a hatch was not the best idea! Lesson learned.)

Table/chair leg adjusters (4) used to level turntable



Drop-down gate and guard pins between Norfolk and Forest

(Some form of a mechanical guard is especially important if the locos have "keep alive" decoders installed.)

Mercury switch controls a relay that controls the position of the Tortoise switch machine/pins.



Retracting pins connected to Tortoise



The upper deck mine run transitions to the lower deck scenery between Forest and laeger.

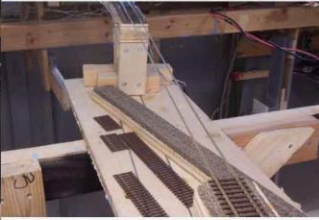
Upper deck tracks are high enough they can't be seen from the normal viewing height. Locos and rolling stock can be seen.....



Dimmable LED strip lights (warm color) from Micromark are installed under the upper deck to provide light for the lower deck scenery.....

General construction techniques

Sub-roadbed level and in-plane



Lots of drywall mud!!!

Sturdy base and approaches for bridges



Shimmed bridge support

Dow foam used for scenery base



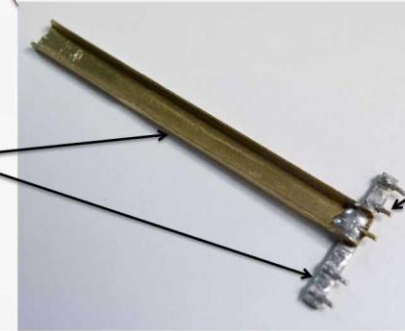
Static Grass Grounding Tool



•Static Grass applicators work great but require grounding the applicator to the scenery. A nail is usually recommended. That leaves a fairly large hole and doesn't always make good electrical contact.

•I solder 2 small brass channels together and then add some .019 brass wire prongs. This provides excellent conductivity. Holes in the scenery are barely visible and easily covered with turf.

Brass channel



.019 brass wire

After the static grass is applied, ground cover is added using Heki leaf foliage, brown polyfiber and "debris" from the Heki "leaf foliage".



Heki 1682 and "debris"

Heki 1680 and "debris"

Sunlit Vistas (Accurail) #1414 dark brown polyfiber

- Apply polyfiber directly over ground foam, dirt or static grass once dry.
- Spray polyfiber with cheap hairspray.
- Lightly sprinkle on left-over Heki 1682 and 1680 debris

(Ground foam would probably also work as an alternate to the Heki debris.)



Easy water

- Prepare creek base using drywall mud. (let dry)
- Stain with acrylics. (darker = deeper, lighter=shallower) (let dry)
- Pour a very thin coat of Envirotex (let dry)
- Add acrylic latex caulk for ripple effect (let dry)
- Brush on a very light coat of Envirotex



Camera and Lenses:

- Canon EOS 90D with blue tooth enabled remote shutter release
- Canon 16-35L mm lens
- Canon 24-70L mm lens

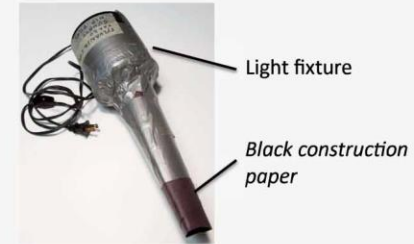
Lighting:

This is a new technique I've started using and works very nicely.....

- Regular fluorescent overhead shop lights for flat fill lighting (about 4200K). (Use the custom white balance function of the camera to get the exact temperature.)
- Genaray & Dracast variable color temperature/intensity LED mono-lights set to the color temperature of the shop lights.

Software:

- ON1 Photo Raw 2021* (one-time fee). Great for initial raw development and black/white conversion. Also has an excellent depth compositing tool for improved depth of field (next slide).
- Photoshop Elements 2020* (one-time fee). Good for general editing, adding real sky.
- Adobe Premier Elements 2020* (one-time fee) for video editing.
- Canon Digital Photo Professional* (free with Canon body S/N). Good high dynamic range (HDR) processor. Also has depth compositing tool—not as good as ON1, but acceptable.



- Use a home made fixture to hold a 50 watt quartz halogen bulb then "paint with light" with the camera set on "Bulb" and at f22.

Some lessons learned over the years from 5 layouts.....

- Fully complete the lower deck before the upper deck.
- Before adding scenery, run as many trains as possible during summer and winter. Look for track issues/derailments.
- Start and end grades on straight track only—not on a curve.
- Re-enforce Tortoise contacts with epoxy. (see slide ahead).
- Scenes over 3 feet deep will require hatches.
- Lay roundhouse track on one common piece of flat/smooth plywood (3/4 inch thick cabinet grade). Roundhouse/turntable should be close enough to reach locomotives by hand.
- Secure non-ballasted track with track nails every 2 to 3 inches or glue track to sub-roadbed to avoid kinks forming with temperature changes.
- Minimize/eliminate curved turnouts and double slip switches. Use largest turnouts possible—especially if steam will be run. Power frog via switch machine contacts.
- Check every turnout for gauge and evenness of point rails with stock rails.
- Solder every track joint. Feeders every 6 feet (max). Fill insulated rail gaps with .020 or .030 styrene/ACC.
- Build the layout benchwork and fascia panels high enough to permit getting under the layout while sitting on a rolling stool.

Reinforcing Tortoise Contacts (Note: this will void the warranty)



Contacts have broken off the arm!

Problem:

- On many of my Tortoise switch machines, the contacts have broken off the arm. This can cause the contacts to become inoperative or worse yet, a dead short to occur.

Reinforcing Tortoise Contacts



Epoxy applied over base of contacts. Allow to cure overnight before reassembling.

Note—don't use ACC. It can "fog" the surface of the contacts.