

# BUILDER'S PLATE

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March 2020

Volume 3, Issue 2

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**Newsletter of Division 12, Mid Central Region, NMRA, Inc.**

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## Superintendent's Report

This is going to be brief this month. As I write this, I am surrounded by mountains of boxes. We are less than five days away from the big move. Eighty percent of my layout has been disassembled or disposed of. All of the equipment has been moved to the new house.

I have had time for some division flag waving. We had a table at the Toy and Train Show in Hamburg, New York that was staffed by a number of our board members. The venue was great, but overall the show was a disappointment. We agreed that we would probably not attend the show in the fall. We may explore sharing a table with the Buffalo area NMRA members.

I did speak at the Buffalo area NMRA members' meet on Saturday

afternoon. They held their meeting in conjunction with the show. I talked about the Mid Central Region and the history of how Division 12 was formed. I also gave a presentation on the upcoming MCR 2020 Convention in Pittsburgh, our Mini-Meet this fall, and the MCR *Northern Express* convention in Erie in 2021.

Hopefully by the time you are reading this Harriet and I will be settled into the new house and I can get serious about the new track plan.

Happy Model Railroading!

Bradley White

Superintendent, MCR Division 12

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## Next Membership Events:

Division 12 is at the Erie Train Show on March 1, 2020!

Our next membership meeting will be held on **Saturday, March 7, 2020 at 1:00 PM at the Cambridge Springs Trolley station** (This is not the second Saturday!) We will continue to have the "What's on your Workbench" segment where members share what they have been working on. The program will be an introduction to static grass with Mike Hauk. Our social committee chair is organizing an optional brunch gathering. Please read his report for details.



## Division 12, MCR, NMRA, Inc.

*The Alleghany Western Division:*

Expanding your model railroading horizons

Please visit our website: [www.div12mcr.org](http://www.div12mcr.org)

Or  **NMRAAlleghanyWesternDivision**

## Meetings

Membership meetings typically include announcements and limited business; "What's On Your Workbench," during which members share what they have been working on; and educational model railroad related programs, presentations, or clinics.

**NMRA:** <https://www.nmra.org/>

**Mid Central Region:**

<http://www.midcentral-region-nmra.org/>

**Division 12 Superintendent:**

[Superintendent@div12mcr.org](mailto:Superintendent@div12mcr.org)



## Officers and BOD

**Superintendent:** Brad White —  
[superintendent@div12mcr.org](mailto:superintendent@div12mcr.org)

**Assistant Superintendent:** Mike Hauk –  
[ap@div12mcr.org](mailto:ap@div12mcr.org)

**Clerk/Treasurer:** Dave Ellis —  
[clerk@div12mcr.org](mailto:clerk@div12mcr.org)

**Board of Directors:** Rob Bennett, Doug Sandmeyer, Chris Mincemoyer

## Division 12 Upcoming Events

March: **Erie Train Show:** March 1, at Rainbow Gardens. Division 12 will provide volunteers for set-up and food concessions. We will have our T-TRAK layout, information, and white elephant sales.

March: **Membership Meeting:** March 7, (*not the second Saturday*) from 1:00 – 4:00 PM at Cambridge Springs Trolley Station. Program: Mike Hauk on using static grass.

March: **Railfest:** March 14 -15, at Lakeland Community College, 7700 Clocktower Drive, Kirtland, OH, 44094. Hours: 10:00 AM – 4:00 PM. We will have an information table, T-TRAK, and white elephant sales. [Railfest.org](http://Railfest.org)

April: **Membership Meeting:** April 18, (*not the second Saturday*) from 1:00 – 4:00 PM at Cambridge Springs Trolley Station. Program: Prepping for the Golden Spike award.

May: **Membership Meeting:** May 9, ALCO – Brooks Locomotive Display at Chautauqua County Fairgrounds, Dunkirk, NY. Program: Guided tour by Roger Schulenberg.

May: **Steel City Express, MCR Convention:** May 28 - 31, information available at:  
<https://www.keystonedivision.org/convention/index.html>

We will be hosting the next one, so please consider attending in order to experience the event. Division 12 will be hosting a *Northern Express* table, providing volunteers, and participating in the T-TRAK layout.

The Northern Express:  
MCR Regional Convention 2021

Save the Dates: May 20-23, 2021



The Ambassador Center:

I-90 Exit 24 – 7794 Peach Street, Erie, Pennsylvania

- Clinics
- Contests
- Model Railroads on Display
- Ops-Sessions
- Model Railroad Tours
- Company Store and White Elephant Sale
- Prototype and Industrial Tours
- General Interest Tours
- Non-rail Activities
- Raffle
- Saturday Night Banquet



## Upcoming Model Railroad Events

### Greenberg's Great Train & Toy Show

February 22 - 23, 2020

10:00 AM – 4:00 PM

Monroeville Convention Center

209 Mall Blvd, Monroeville, PA 15146

<http://trainshow.com/monroeville/>

### 28<sup>th</sup> Midwest Scale Train Show

March 27 - 28, 2020

Friday 12:00 PM – 7:00 PM

Saturday 9:00 AM – 4:00 PM

Greenford Space Center

7600 W. South Range Road, Canfield, OH 44460

<http://www.portlandlocomotiveworks.com/events/28th-midwest-scale-train-show/>

### Gowanda & Buffalo Model Railroad Club Open House

Open every second Sunday, November through April, 12:00 to 4:00 PM, Collins, NY

**Save the Date:** Cincinnati Division 7 is planning a day of clinics and layout tours on Sunday, August 9, 2020.

Links to these and additional upcoming model railroad events can be found on the Division 12 Website: <http://www.div12mcr.org>

Use the search button on the "Welcome" page or use the "News/Events" page, either by scrolling or clicking on the "Train Shows and Conventions" category link.

## Division 12 Updates

The formal membership meeting minutes of the February membership meeting are available at:

<http://www.div12mcr.org/documents/>

The division has a busy spring. As Brad mentioned in his Superintendent's Letter, several members attended the



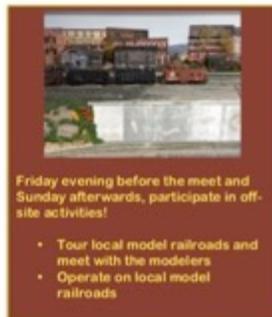
**Allegany Western  
Mini-Meet 2020**  
  
**September 12, 2020**  
  
**Model Railroad Event**

### Saturday's events at the Ambassador Center\*

I-90 Exit 24 – 7794 Peach Street  
Erie, Pennsylvania

(\*Home of the Northern Express, 2021 MCR Regional Convention)

- Registration 8:00-8:45 AM
- A variety of clinics throughout the day
- T-TRAK layout on display
- Option for lunch at the event
- Awesome raffle prizes
- White elephant tables
- Your models on display
- Judging offered for merit awards
- Raffle drawing and hors d'oeuvres 4:45-5:45 PM



Watch for program schedules, clinic lists, white elephant forms, display and judging information, model railroad tours and ops-sessions, vendors and donors, raffle prizes, and other information on our website:

[www.div12mcr.org/mini-meet/](http://www.div12mcr.org/mini-meet/)



Greater Buffalo Train and Toy Show to staff an informational table. Several board members attended a meeting with the Buffalo area NMRA members who are in the process of forming a new division. We are staffing a table, displaying our T-TRAK layout, and providing volunteers for the food concessions at the Erie Train Show on March 1, 2020. At this time, we still need some additional members to help! Also, we are staffing a table with T-TRAK for Railfest on March 14 and 15. Finally, we would like as many Division 12 members as possible to attend the Steel City Express in May in Pittsburgh to get a feel for what a regional convention is like since we are hosting the one in 2021!

At the February membership meeting several Division 12 members who are also active with the Lakeshore Model Railroad Association announced that with their recent change in leadership their association is open to working with the division with shared meetings or activities.

An election by acclimation was proposed and conducted since no nominations were presented to the Nominating Committee or from the floor at the meeting. It passed unanimously, so the current officers will serve a second and final two-year term.

One suggestion for programs for the second half of the year was a multi-part program on signaling: different types of signaling systems, how to model railroad signaling, and how to install signaling devices. A second suggestion for a program topic was around the use of pink foam in model railroad scenery.

Brad White presented a short PowerPoint and discussion of the teardown of his layout and the planning for the layout in the new house as part of the program.

The main program consisted of two hands-on weathering stations. Bill Schopf led one session focusing on weathering buildings with India ink washes and PanPastels. Those who attended his workshop received a preview sampling of several structures mentioned in his new series starting this month! Rob Bennett led a session at the other end of the meeting space focusing on weathering rolling stock using Vallejo and Ammo by Mig products such as paints, washes, and pigments.



I attended Rob's workshop and really liked using the Vallejo washes to quickly weather rolling stock. Since then I have ordered some for myself and plan to add them to my go-to weathering materials.

Thank you,

Dave Ellis  
[clerk@div12mcr.org](mailto:clerk@div12mcr.org)

## Social Committee Report

Brunch at Venango before our February meeting was held at 11:00 AM on February 8, 2020 at the General Store. The last time we gathered there was October of last year, so it was fun to once again be back there to share a good meal and conversation.

Another brunch at Venango will be held at 11:00 AM before our next meeting on March 7 at the General Store. Look for a Facebook event invitation that you can check "going" or RSVP [social@div12mcr.org](mailto:social@div12mcr.org) if you plan to attend. I would like to know how many attendees are planning on going by the end of day Thursday, March 5, so I can call the restaurant Friday and make a reservation for us.

Before the March brunch and meeting the Erie Train Show will take place at Waldameer's Rainbow Gardens. I am completing a schedule of volunteers to help in the kitchen at the show. As of this writing we still have vacant slots. We need four volunteers on each of the three two-hour shifts between 10:00 AM and 4:00 PM. Please look at the schedule and e-mail me at [social@div12mcr.org](mailto:social@div12mcr.org) if you can take an open shift.

<https://drive.google.com/file/d/1EAC9NbxmXdviKlaBk3ksm6f2PzGeal7k/view>

I attended the February board meeting as Social Committee Chairman and afterward ordered "Save The Date" cards for the *Northern Express* 2021. The cards were ready in time to be handed out at the Buffalo Train

Show and there are plenty of them for future events. We will be handing them out at the Erie Train Show, and if you want some for events you'll be attending please ask for some at the Erie Train Show or at our March meeting in Cambridge Springs.

And save the date for our annual summer picnic on Saturday, June 13, 2020; details to come.

Thank you,  
Lee Farnsworth  
Social Committee Chairman  
[social@div12mcr.org](mailto:social@div12mcr.org)

## T-TRAK Committee Report

Greetings T-TRAK modelers!

The Erie Train Show at Rainbow Gardens will be here in just a few days and I'm hoping all of our T-TRAK modelers can bring a module or more to put in our Division 12 layout. Show setup begins at 6:00 AM so you are welcome to come then and help Brad with the tables or a little later for module setup. It will be nice to see what everyone has been working on this winter.

I had hoped to be at the February meeting to share some information about the MCR Convention in Pittsburgh this May. Bruce DeMaeyer has shared a recent draft of the Call for T-TRAK Modules. The Pre Entry Form 803 is available for download on our main T-TRAK web page <http://www.div12mcr.org/t-trak/> in the resources list. It's time to start getting

ready for the Steel City Express. Bruce tells me that he is planning for over one-hundred modules, last year we had over sixty. Thursday night a hands-on clinic to build a module will be offered with the intention to then place it in the T-TRAK layout on Friday. Gary Kohler (Portland Locomotive Works), Bryan Hartle (CMR), and Richie & Laura Jodon are presenting. You would be building a Single 12" x 12" Tab Tec module from CMR and adding grass, trees, and other items.

If you are interested in seeing where the Tab Tec modules are produced, a tour of the facility is offered in connection with the Midwest Narrow Gauge Show in Salem, Ohio March 27 - 28. Contact Gary Kohler at Portland Locomotive Works ([m2fq@aol.com](mailto:m2fq@aol.com))

Information and registration for extra fare events is available on the Steel City Express web page. <https://www.keystonedivision.org/convention/tours.html>  
If you are interested in displaying your module(s) at Pittsburgh please fill out the form 803 found on our T-TRAK web page and return it to me or Bruce DeMaeyer [bdmaeyer@att.net](mailto:bdmaeyer@att.net) or Bruce DeMaeyer 1120 Kidds Mill Road, Versailles, KY 40383

Doug Sandmeyer  
[ttrak@div12mcr.org](mailto:ttrak@div12mcr.org)

## Brick and Mortar Hobby Stores in Division 12

We have a dearth of train stores here in the division or even near the division. Several that exist are in New York State. If you visit any of them, let them know you are a

member of the NMRA and you learned about them from the Division 12 newsletter.

### **Terry's Train Shop**

1739 Foote Ave Ext.  
Jamestown, NY 14701  
716-397-5545

### **East Dyke Depot**

332 E. Dyke Street  
Wellsville, NY 14895  
585-593-0005

### **Bova's Music and Train Shoppe**

31 McClurg Street  
Westfield, NY 14787  
716-326-6891

## Brick and Mortar Hobby Stores Near Division 12

### **Hobby Express**

[www.hobbyexpressinc.com](http://www.hobbyexpressinc.com)

1713 Route 228  
Cranberry Twp., PA 16066

### **Mercer Junction**

<https://mercerjunction.com>

151 North Diamand Street  
Mercer, PA 16137

## Mentoring in Division 12

After discussing several approaches to offering mentoring in the division, we came up with starting a list of members who felt comfortable mentoring on specific topics. To contact the mentors either email the clerk ([clerk@div12mcr.org](mailto:clerk@div12mcr.org)) who will forward your email or contact them directly.

- Brad White: DCC, Signaling
- Dave Ellis: Backdrops
- Ed Blenner: Scenery
- Doug Sandmeyer: Benchwork, Wiring, Soldering

## Committee Chairs and Volunteer Positions:

Achievement Program: Mike Hauk  
[ap@div12mcr.org](mailto:ap@div12mcr.org)

Newsletter: Dave Ellis  
[clerk@div12mcr.org](mailto:clerk@div12mcr.org)

Operations Coordinator: Dale Desser  
[operations@div12mcr.org](mailto:operations@div12mcr.org)

Social Committee: Lee Farnsworth  
[social@div12mcr.org](mailto:social@div12mcr.org)

T-Trak: Doug Sandmeyer  
[ttrak@div12mcr.org](mailto:ttrak@div12mcr.org)

Webmaster: Chris Mincemoyer  
[webeditor@div12mcr.org](mailto:webeditor@div12mcr.org)

## Track Cleaning Update

Bill Schopf

In case you don't subscribe to Model Railroad Hobbyist's *Running Extra* or in case you missed Joe Fugate's short

piece in the February issue, he has updated his rankings of track cleaning solvents. He calls it his Updated Dielectric Constants Table, and he breaks the solvents into three categories -- Best, Poor, and Worst -- in terms of how polar are the solvents. The best solvents are nonpolar, the poor solvents are semipolar and the worst are polar solvents.

It needs to be noted that all these solvents will clean track. However, Fugate's research and consultation with a chemist ranks them according to how often you will have to clean track using a particular solvent. The lower the dielectric constant (the best solvents) the less often you will have to repeat the boring and laborious process of track cleaning. The higher the number (poor and worst solvents), the more often you will have to clean track.

Below is an edited list of Fugate's findings. The numbers indicate the dielectric constant at which the solvents tested. Some I haven't listed because even though they might be nonpolar no model railroader in his right mind would use them -- for example, gasoline 2.0, diesel fuel 2.1, and carbon tetrachloride 2.2. He includes these just for reference.

### The Best:

Track Magic 1.9  
WD-40 contact cleaner 1.9  
CRC contact cleaner. 2.0  
DeoxIT D5 2.0  
Neverstall 2.0  
No-Ox-IDA 2.3  
Graphite (microscopic thin layer).  
1.8-3.0

### The Poor:

- CRC 2-26. 4.6
- Rail Zip. 4.8
- Bachmann track cleaner. 4.8

The Worst:

- Graphite (thick layer). 10.0-15.0
- Isopropyl alcohol. 18.0
- CRC QD contact cleaner. 20.0
- Acetone. 20.7
- Radio Shack electronics cleaner. 25.0
- Lacquer thinner. 33.6
- Water. 80.4

Again, these rankings do not mean that commonly used cleaners like isopropyl alcohol and lacquer thinner do not work well to clean track. They do. What the numbers mean is that if you use isopropyl alcohol or lacquer thinner, you will have to clean your track much more often than if you used Track Magic, No-Ox or CRC contact cleaner.



And finally Fugate reminds us of the importance of getting the loosened black gunk off the track after cleaning with whatever solvent we choose. If we don't use something like a Centerline track cleaning car, for example, he suggests using gun-cleaning Q-tips to polish the gunk off the rails by hand. These are longer and more robust than an ordinary Q-tip, according to Fugate. But over-the-counter Q-tips will work fine as well.

### NMRA Partnership Program

The NMRA Partnership Program is a member benefit that truly has a tangible payback. The NMRA has partnered with model railroad manufacturers of all sizes, giving them exposure on the NMRA website in return for receiving generous discounts for NMRA members all year long. Some provide members with special codes, others prefer a phone or email order, but all appreciate the additional business from our members.

For complete descriptions of the partners, the discount they offer, and instructions on applying the discount on your order visit the NMRA Partnership website (<https://www.nmra.org/partnerships>). If you are not signed in as a member, you will only see a list of the partners offering the discounts. To see the instructions on how to apply the discounts you need to register or log in as a registered member.

# Scratch Building with the Structure Guy: Part 1: Placing Structures in Hard-to-Reach Locations

Bill Schopf

When Dave Ellis approached me about writing a series on scratch building structures, my first thought was to begin with tips for placing structures in hard-to-reach or awkward locations on the layout. That might seem a bit odd -- sort of the cart-before-the-horse thing. Why think about placing a structure before thinking about building it?

My thought is this: I believe a structure is much more than just the walls and roof and paint and arrangement of windows. It isn't just a 4" x 7" rectangular three-story red building with a flat roof.

Structures obviously involve these things. And these are where we begin when we build. But a structure is also the soil and grass surrounding it. It's the bushes and trees that we place near it. It's the road leading into it. The power poles. The junk piled up. Vehicles near the building. Figures of people or animals to give it life. A stream or wet spot near it. Small signs or even a billboard around the property.



So when you think structure building, you have to think of all these things and figure out ahead of time how you will incorporate these elements into the actual building. But what if where you want to place the structure is almost beyond your reach or in an uncomfortable working location? Will you be able to plant trees, apply static grass, install power lines between poles, put in sidewalks and add signs?

To begin the series on scratch building, we will look at ways to overcome these obstacles by constructing at your workbench what I would call the "**total structure**" (a mini scene that includes the structure itself **plus** all the surrounding scenic elements). Once built, this finished mini scene is then simply lifted up and transported into its place on the layout.

While building my railroad, I have twice faced the issue of locating structures that are almost impossible to reach or in a place that involves lots of bending and kneeling and is not kind to my back or knees. Here is how I overcame these problems.

## Problem one: reaching the impossible reach

Due to poor layout design on my part years ago and an obsession to keep adding on by building out a few inches here and a few inches there, the far rear of my town of Lehigh Center is anywhere from 40" to 52" from the front fascia. Not too good to work on.

Lehigh Center underwent a redesign four years ago. The town stretches out over sixteen feet with a double mainline and two passing sidings running pretty much its full length. Between the back passing siding and the attic wall is 4 1/2". My game plan was to leave the tracks alone and try to create some perspective of distance as well as hint at the effect of a large city in that less than five-inch space.

I began by gluing directly to the sky-blue wall a backdrop of building/factory cutouts collected from the internet and Kingsmill's Radical Flats (unfortunately, now out of business). These had no depth -- only the thickness of the matte board they were glued to. To break up the sixteen feet of these cutouts and to provide peekaboos through them, I took old postcards from the 30s and 40s that showed a street running straight at the viewer. I cut out the sky on these postcards and then tucked them behind the flats in three spots.



Now I needed to build a road in those 4 1/2" that would be perpendicular to the wall and provide an illusion of distance. Then around the road I would need to plant buildings, fences, trees, dirt and grass, signs, etc.

But how could I do all this standing on a step stool and leaning across anywhere from 40" to 52" of space and not destroying structures locked into place on the front part of the layout. The simple answer: I could not.

So what to do? My first thought was to use inexpensive foam core to build small modules 4 1/2" by whatever length, which turned out to be 24". I would build the structure, glue it in place on the foam, and then glue down all the groundcover and detail the scene *all at my workbench*.

I quickly realized this wouldn't work. The water-based Elmer's white glue that I like to use to fasten down groundcover is not an acceptable marriage with paper products. They just don't like each other. In fact, they hate each other. The paper, no matter if it's thick or thin, will warp and twist -- sometimes not for a week or so, but in time it will warp. Trust me.

If, at the time, I had known about Gatorboard, I would have used it. But I didn't know anything about it until well after this project was done. Gatorboard looks like a twin sister to foam core but instead of having a paper veneer surface it actually has a very thin solid veneer on both sides that is completely resistant to water. It is guaranteed not to warp or twist no matter how heavy a coat of latex paint or white glue or spray water you apply on it. One modeler actually threw some Gatorboard in his swimming pool and left it overnight. When he took it out the next day and let it dry, it remained perfectly flat.

But with no Gatorboard I was forced to get creative (another word for desperate). I needed something that was a nonpaper product that would not warp when wet, that would be fairly lightweight, that would remain absolutely flat, and that would be a little less than the thickness of the Midwest cork roadbed (about 3/16") that the back track was glued to. I needed to blend my structures into the existing trackwork.

A visit to Lowe's gave me an unexpected answer -- vinyl floor tiles. They were perfect. Nonpaper. Flexible. They could be easily shaped and flattened by hand. And they were cheap. Much cheaper than the Gatorboard, which is pricey -- about \$100 for a 48" x 96" sheet.

To make it even better, Lowe's had several options:

1. Tarkett brand Midnight vinyl tiles 12" x 12" @ 69 cents ... 3/32" thick or .090 mm.

2. Armstrong brand white vinyl tiles 12" x 12" @ 80 cents ... 1/8" thick or .125 mm.

3. Style Selections brand Ebony Marble vinyl tiles 12" x 12" @ 69 cents ... 9/128" thick or .068 mm.

I chose the Tarkett Midnight vinyl tile. It was black -- the perfect color for scenic bases. And it was the perfect thickness to blend into the existing track and ballast. I purchased eight of them and scored them at 4 1/2" a couple of times with my hobby knife, snapped them in two and had my base.

Because I had 16' to cover, I didn't want to build sixteen small 12" x 4 1/2" modules. So I taped two of them together on the bottom with a piece of painters tape and applied a pretty thick bead of CA into the gap and squeezed together for a minute or so. The tape kept them together and also prevented the CA from leaking out and gluing the tiles to my desktop. Now I had a 4 1/2" x 24" module on my workbench to work with.



This photo shows a section of buildings with the road blending into the postcard street that was a relatively easy technique to do. Before I did anything else, I laid the vinyl tiles against the backdrop and marked where the outer edges of the postcard street hit the module. Then I drew a line out towards the front, flaring it slightly to

make it wider at the front to give a sense of distance perspective. Back at the desk, I painted white glue along the marked-out road and got a color of groundcover that came close. I got lucky with the module in the photo. The color of the groundcover I found in my drawer was almost a perfect match for the street in the postcard.

The next step was to build the actual structures for that area of the backdrop. When finished, I glued on the buildings and applied groundcover, soil, grass, and bushes around them taking care not to get anything on the roadway. I added a chainlink fence, vehicles, and people. I now had what I call a total structure -- the physical building plus its surroundings. Most important, I didn't need to perform humanly impossible stretches and twists to build it. I simply sat at my desk's easy chair and built away.

When finished with the module, I slipped a piece of foam core underneath to stabilize the joint between the tiles as I carried it across the room, leaned over the layout, and slid it into place. I didn't even bother to glue it down. The Tarkett tiles are heavy and stable enough that they don't need to be glued. When all the modules were completed, I filled in the gap between the ballasted track and the edge of the tile with the same color ballast and was done. I did not even glue that ballast down in case I wanted to remove them later or replace them.

All in all, the backdrop to Lehigh Center now contains seventeen or so buildings all of which are completely detailed and scenicked to become total structures. They provide a transition

into the backdrop flats. And with the postcard streets providing hints of a large city behind the flats, I have what I wanted. Structures. Perspective of distance. And the illusion of a large city. But I could never have done it without building the whole thing at my workbench.

### **Problem two: staying comfortable while building**

The second time I used this approach was last month when I built a row of buildings for the town of San Guillermo, Colorado on the narrow gauge shelf layout I am working on. Just like the Lehigh Center backdrop, San Guillermo promised to be a nightmare if I wanted to detail the structure right on the layout.



My narrow gauge is not a text-book design. It will never make an issue of *Model Railroad Planning*. It is born out of necessity -- a 16" deep shelf layout that runs 34' underneath the center peninsula of my regular layout. And underneath really means low -- in this case the layout is 18" off the floor. The only way I can work on it for anything over ten minutes is to sit on a mechanic's stool with wheels and lean over. But the leaning gets awfully hard

on the cranky lower back and my head keeps hitting the fascia of the railroad above.

So how could I place and detail this row of buildings for San Guillermo and not schedule work sessions between chiropractic visits? Simple. Use the same method I did at Lehigh Center.

Except this time none of the vinyl tiles or even Gatorboard would work. All of them were just too thick. I wanted a base thin enough that I could scenic against it and not notice the bump in elevation. So I needed the thinnest product possible that was not a paper product, would not warp, would have some length and would be that ideal thickness -- in this case about 1/32" or .030 mm. Sheets of styrene would have worked, I suppose, but the sheets I've seen have been about 8" x 10" and I wanted something bigger. Large styrene sheets would most certainly be available online, but be pricey.

So again I went shopping. At Hobby Lobby I hit a homerun. Next to the colored glass was exactly what I needed -- 16" x 20" sheets of clear acrylic that were the perfect thickness. And the cost was only \$2.99 (\$1.80 with the 40% Hobby Lobby coupon). Basically, I had discovered 1/32" Plexiglas.

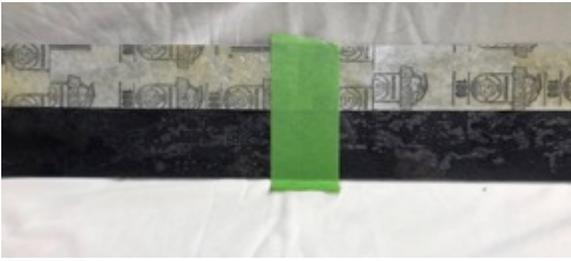
I had first thought of shooting a rattle can of flat black on the acrylic, but the acrylic surface has no tooth. I figured the paint would probably run, not cover consistently, and be pretty much a mess. Then in my drawer of roofing materials I found a package of Crossfire brand waterproof, 180 grit sandpaper

from NAPA that is used for wet and dry automotive bodywork. It was perfect. Resistant to water. Black. Plenty of tooth to grab on to the groundcover. And it would easily bond to the acrylic with my go-to product for gluing together different surfaces -- Weldwood contact cement. (I later found that 3M's wet or dry 180 grit auto body sandpaper available at Advance Auto Parts would work just as well as the Crossfire brand.)

I wanted a slightly elevated boardwalk for a walkway in front of the buildings. And I wanted a dirt street to front the buildings along with some power poles and other stuff. All of this in 3 3/4" which was the maximum space I had between the rear of the depot and my backdrop.

I finally decided on a road 1 3/4" wide and a boardwalk 2 1/16". And 32" would work out perfectly for the block of buildings I had envisioned. I scored two 16" pieces of the acrylic at 3 3/4" a couple of times with the hobby knife and snapped it. It snaps cleanly -- if scored -- just like styrene. I then glued and taped them together on the back side with green painters tape to keep them stable for the next step. I followed the same procedure here as I did with the vinyl tiles for Lehigh Center's backdrop.

Next, I cut four 9" strips of the sandpaper at 1 3/4" and carefully glued them with the Weldwood contact cement to the acrylic. Then I found a stray piece of black matte board. (Use a dark color here so if there are any gaps in the boards of the sidewalk nothing light shows through.) I cut the matte board at 2" wide and 32" long and Weldwooded it to the acrylic.



This photo shows a view of the bottom of the acrylic with the backs of the sandpaper and matte board showing.

Then I took strips of narrow craft wood, put them into bundles and carefully cut them on my chop saw at  $2 \frac{1}{16}$  " so they would slightly slip past the edge of the matte board when glued on. This made the job quick because I needed about 250 pieces and I didn't relish doing them with a razor blade one at a time on my Chop-It. Plus they weren't all exactly the same length. Some were  $\frac{1}{64}$ " or  $\frac{1}{32}$ " off. This was fine, as I wanted the boardwalk to have irregular edges as it hung out over the edge of the street.

While sitting comfortably at my workplace, I brushed a heavy coat of Elmer's white glue on the waterproof auto body sandpaper and sprinkled on stove ash that I get out of my pellet stove every week when I dump the ash tray. (Previously I had sifted it through a very fine sieve to get out any irregularities.) I applied the ash with a saltshaker with small holes so that the ash would go on slow and thin and not clump up. The stuff dries to a gray brown and to my eye looks a whole lot like a dirt road when finished.

After I cut the boards to the slightly over 2" size, I let them soak for a half hour or so in some Minwax stain of

the color I wanted and then I pulled them out one by one and wiped them down with a paper towel. By far this was the most boring part of the process. I let them set out on paper towels for a couple of days to completely dry and expel some of the Minwax odor.

Then I began the tedious job of gluing down the 250 strips of wood. Even though it went faster than I thought, this would not have been any fun sitting on a mechanics stool and leaning across the shelf applying them one by one.

Once all the sticks were applied, the scenicked base for my block of businesses was complete. Now it was just a matter of selecting the buildings to get the effect I wanted. After the structures were all arranged along the 32" base, I glued them down and installed the 1" wide fence to close the gap between two of the buildings. The fence is there for two reasons. First, it provides a visual irregular effect. Second, it gives a little latitude in the measuring of the widths of the buildings. They could come out at  $30 \frac{1}{2}$ " or  $31 \frac{1}{4}$ " and it would make no difference. The fence across the gap will disguise this.



This photo shows the work in progress at the work area with vehicles, people, trashcans, benches, and power poles added. All that is left is installing the E-Z power lines, which go on easily and add a nice effect.



This photo shows the row in its final resting place in front of the Trackside Scenery Timberline series backdrop. To the row's left is a second San Guillermo module -- a 16" long base that houses Hugg's Grocery and Clyde Wilson's Texaco Garage. It was made exactly the same way. Pushing a hole through the acrylic with an awl and gluing the bases of the trees with CA added homemade trees.

An important thing to remember is that if you do use the .030 mm acrylic from Hobby Lobby as a base, be sure you slip something pretty substantial underneath it before you pick it up and carry it into place. It is extremely "bendy" and flexible. Mine had 5 buildings with wooden cores so there was a lot of weight on it. I used a sturdy piece of thick foam core, carried it to the layout and just tilted it slightly alongside the backdrop and slid it into place.

I've found this thin acrylic might tend to flex upwards if there are no buildings on it to weigh it down. So I marked with a pencil along the edges of the module, slid it out of the way and applied another favorite adhesive on the layout's shelf, Weldbond Universal Adhesive purchased at Hobby Lobby. I then slid the module back over the glue and placed heavy weights down the road and let it dry just to be sure the glue took hold. In a few hours everything was perfectly flat and secure. And at only 1/32" above the layout's shelf base, I could easily blend scenery into it later, and the slight bump in elevation would be completely hidden.

Just like in Lehigh Center, to do all this on the layout itself would have been painful. Literally. That much bending over would have been a killer. But to build a base on which to place the structures and add the details while you are sitting on a comfortable chair makes all the difference in the world. What you wind up with is a fully scenicked total structure. And a back that does not scream at you.

Another plus to this technique is this: if you do not glue down the modules (I glued down the ones in San Guillermo but not the ones in Lehigh Center) you can remove one later and interchange it with something else. Maybe in two years, for example, you want to replace a coal dealer with a feed mill. Simple. Build a new module of the same size, pull out the old one and replace it.

In short, thinking in terms of "total structures" and not just "structures" will make the work on your layout a lot

more comfortable, less strenuous on both body and mind, and give options you would not otherwise have.

**Next month:** "Scratch Building with the Structure Guy, Part 2," will focus on how the storefronts for the buildings in Part 1 were made. Not one piece of styrene was used on any of them. Many modelers shy away from using actual wooden wall siding because they think it is far more difficult than styrene and too brittle to work with. Not so. The Structure Guy will give you lots of tips to make realistic and different types of walls out of wood siding and paper.

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## To publish the *Builder's Plate* we need submissions!

Modeler's tips, modeler's projects, the "Modeler's Workbench" column, or any other railroad or modeling related stories make excellent submissions. Any member can submit a short article.

To make our membership meetings less business-focused and include more model railroading fun, we also need reports from the officers and committee chairs submitted to the *Builder's Plate*.

*Builder's Plate* encourages Division 12 members to share their favorite YouTube videos or DVDs. The more you share, the more the rest of us can learn from the modeling masters that are out there. Give it a shot in the coming months and tell us what you've been watching "At the Movies."

Write it up and submit it as a minimally formatted Word document attached to an email to [clerk@div12mcr.org](mailto:clerk@div12mcr.org). Photos are best formatted as JPEGs.

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