

# *Rochester Model Rails*

*Dedicated to quality model railroading in upstate New York*

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ROCHESTER, N.Y.

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Abbott Junction on the 14' x 204' HO scale, standard gauge model railroad at the Medina Railroad and Fire Museum, Medina, NY

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# **Fast Track at the Medina Railroad Museum**

*by Dick Senges*

In early April in 2002, I was asked by Marty Phelps, the Director of the Medina Railroad Museum, located in Medina, NY, between Buffalo and Rochester, if I would help the Museum build the scenery for their HO scale model railroad. The Museum is a not-for-profit organization where all the workers, including the Board of Directors, are volunteers. This sounded like a neat thing to do so I scheduled a visit to the museum later that week.

The place was amazing. It is an old New York Central freight station built in the early 1900s, all wood and very large. It measures about the size of a football field and houses a great collection of railroad memorabilia, model trains, old toys, and also a nice collection of fire fighting equipment and hundreds of fire fighter helmets.

The challenge was in front of me. In the center of the Museum was the initial benchwork for the HO scale layout measuring 14 feet by 202 feet. That's over 2800 square feet of layout! I said to Marty that "there ain't no way" that the scenery would be completed soon for a layout this size. He said that there was a great Extravaganza coming up June 1, and that the 1830s area of the layout, about 100 square feet, had to be finished for the event.

So I looked at the area in question, which was significantly smaller than the whole 2800 square feet, and said I would work on the layout provided there was some help available. Marty assured me that there would be some folks to help with the scenery. So I accepted the challenge.

## Day 1

Since the Museum was 72 miles from my house in Victor, NY, I needed to do some planning of how the scenery would look and also what materials would be needed. The risers of wood and the sub-

roadbed made of *Homasote* type material splines were installed, but there were not specific plans per se of what would go in between the track. Were there to be rock faces? Rivers? Roads? Industrial sites? RR Stations? Where was the plan? Since this was somewhat up in the air, I drew a plan on my computer (see [Figure #1 – Scenery Plan #4 – Circa 1830](#)) based on discussions with Marty and some of the folks at the Museum as to what they envisioned for this area. Since we had to work around the installed sub-roadbed, the plan took this into account. We did move one spur track slightly to make room for the three large mills.

Another challenge was that Marty had accumulated many very finely constructed HO scale models over the years and he wanted them incorporated into the layout. There were also other models in the display cases that were planned to go somewhere on the layout.

An additional challenge the first day was to envision what type of industry would have been in the 1830's era. Since I had spent much time around Penn Yan, NY, and knew the history of the Keuka Lake outlet running from Penn Yan to Dresden on Seneca Lake, this turned out to be a great source for industrial and mill information circa 1830. The Yates County folks had published a detailed series of brochures about the Keuka Lake Outlet which described the mills, mill sites, industries, locks, etc. This was perfect information on which to base our 1830's area of the layout.

So with historical information, and some ideas about what was wanted, a plan was created. As you can see from [Figure # 1](#), the 100 square feet area included three mills, sand, wood, and water facilities, freight station, passenger station, brewery, livery stable, cooperage, and miscellaneous industrial buildings. It also includes a cave, a waterfall, a stream, a pond, and a box sluice feeding the three mills. Linda, Marty's friend also wanted a cemetery on the layout so that was included. I liked oil and oil wells and Marty had a nice one on hand, so one was included, i.e., the first oil well circa 1859 (we stretched the era somewhat to include this well).

Before the corrugated strips for the base form were installed, we had to decide if there were to be rock castings, where would they be located, how large, etc. This was discussed and it appeared that about nine feet of rock face would be required for this area. So when we installed the corrugated strips, we allowed for this.

So, back to the first day of construction. With all the above in mind, I drove the 72 miles to Medina on April 19<sup>th</sup> with my truck loaded with scenery material, blue 2" foam, and about 200 2" x 4' corrugated strips that I had previously cut on my table saw. I knew that we had no time to be cutting materials on the Museum site since I planned to work there in one-day intervals. Remember, we had the June 1<sup>st</sup> deadline staring us in the face.

Knowing that we had to install all the corrugated that day, we started with the standard method of hot gluing the vertical strips and then interweaving the horizontal strips. Since Marty had installed the *Homasote* splines as sub-roadbed, it appeared easier and faster to use 1" wallboard screws to attach the corrugated strips directly to the *Homasote* material using battery powered electric drills. This went much quicker, but we still interwove the horizontal sections of corrugated and hot glued them, holding them temporarily in place with clothespins.

On the flat areas where we knew there would be buildings, we used the 2" blue foam. This worked well since there was enough support and a relatively flat surface to place our buildings later.

In order to complete the scenery by June 1<sup>st</sup> and knowing that only so much time should be spent on the layout, we moved to the next step that first day. This was the shell. Here we used a unique material called *Wet N Shape* which is a 100% cotton craft cloth impregnated with some sort of starch material sold by James Thompson & Co. in New York, NY. I had used this material since 1993, on my Oil Creek Railroad and knew it was much faster and cleaner than plaster and towels or even plaster cloth. It is also about one-fifth the cost of plaster cloth.

This material has a quality of being stiff when dry, but when immersed into water, it becomes slightly less rigid. Placed over an object like corrugated strips, it takes on the shape of the form. That day we used about 150 square feet of the material, including placing some sheets as large as 2' by 3' at one time.

By 8:00pm and a 10.5 hour day, we had all the corrugated and the shell form completed in the 1830's area. We also had some idea of what was to go where, including the roads, box sluice for the mills, pond, and stream. So ended Day One.

## Day 2

Discussions had taken place during the last session about what portals and rock castings would be required. So before my next visit, I cast about 10 different types of portals and four very large 12" x 30" rock faces. The mold used for these casting was the Mold #1 from Bragdon Industries in CA. I had used this mold on my layout for two large casting sections so making three castings for the Museum was not too hard except one had to be convex, and two S shaped. This was done without specific measurements, but as it turned out, no castings were broken, and they all fit fine.

Just some brief words on the castings. Since I had to transport these castings 72 miles, I wanted them to be strong enough to withstand the trip, but soft enough to absorb the acrylic paint wash later for the coloring process. So I invented a new process where the face of the casting is Molding Plaster, and the back is *Hydrocal* plaster. This allows for absorption on the front and strength on the back. This new method worked just fine. Later another casting was made this way but included two bolts to be installed on a trap door, but that's another story.

During the 10.5 hours of Day Two, the major work involved putting two layers of *Hydrocal* plaster over the *Wet N Shape*. The first layer was painted on with a paintbrush and let dry. The second layer was stippled on and much thicker to give a nice rough ground-like appearance.

By the end of Day 2, all the corrugated, all the *Wet N Shape*, and the two plaster layers were completed. So ended Day Two.

## Day 3

As Day 3 approached, time was marching along as it was already May 2, and we all knew that this section of the layout had to be done by June 1<sup>st</sup> for the "big show". So this was the day we had to get those large rock castings installed.

We used the traditional method of wetting the casting and the *Hydrocal* wall with water, then putting on a glob of *Hydrocal* plaster on each, and then "gluing" the casting to the wall. Before this, we cut the edges of the castings so as to minimize the space between the castings so filling with molding plaster with an eye dropper at a later

date would not be much of a chore. Thee 30" castings were installed on Day Three.

The next step was to paint the bright white Hydrocal plaster with a dirt colored paint. I have always used a special formula of cheap latex paint that is mixed to match dirt by *Home Depot*. I brought along a gallon of the paint to use. We got to the task and by the end of Day 3, had the whole area painted with dark brown latex paint. Why paint the whole plaster area with brown paint if you know you were going to cover it with a slurry of white glue, water, and dirt you ask. Well, this is a precaution so that the white does not show through the dirt. It is worth the time and costs very little.

Wow – after only three days, the layout was starting to take shape. All areas except the rocks were covered with brown paint. So ended Day Three.

#### Day 4

Installation of the two portals took longer than we had planned. One was cast and one was pre-manufactured. We set the portals in place, did some fitting, and installed a corrugated tunnel lining on the back of the portal with hot glue after first painting the inside of the corrugated with flat back paint. This resulted in very good effect and took little time. The big job was fitting around the portals with the *Wet N Shape* and plaster.

During Day 4 we colored the rock face. This was interesting since no one at the Museum had done this before and they were not sure what color rocks they wanted. The consensus was for somewhat drab colored rocks with some grays and some blacks as found in upstate NY. I favored much more colorful rocks like those found in NE Pennsylvania with more reds and orange color. Gray won out and the rock face is gray with some yellow, brown, red, and black.

We used the traditional method of first soaking the molding plaster castings with water, then an India ink and water wash, then the various washes made from acrylic paints such as burnt sienna, burnt umber, red oxide, and Hooker's green. Finally we went back with a brush and darkened the shadow areas. Everyone likes the rocks.

During Day 4 we also did some planning on the adjoining 1825 Erie canal area to the east ([see Figure 2 – Lake and Canal Area – Circa 1825](#)) and completed some more *Wet N Shape* on the next part of the layout to the west – the 1860's area.

Since on my 12' x 30' Oil Creek Railroad home layout I used sifted dirt, white glue and water for a special dirt slurry, I thought we might use that here. But how to sift all that dirt? For now we tried sand, white glue and water. It didn't look as good as the sifted dirt. What to do? So ended Day Four.

### Day 5

As May 11<sup>th</sup> approached, we now needed to get the ground sculptured in a way so it looked pleasing and to finish filling in around the portals. We did this using two materials.

First we used *Sculptamold* which is a great material, although seven times more expensive than the *Hydrocal* we purchased. The *Hydrocal* was purchased at about \$22 per 100 pound bag and the *Sculptamold* at about \$38 for a 25# bag. We used this sparingly and only to sculpt certain areas that needed special care. I do like the material since you can mix it dry and put a ball in your hand and push it around with your fingers, unlike *Hydrocal*. It has its uses.

Another material that many folks have used in the past is known as GOOP. This is a mixture of *Celluclay* (paper mache), Perma-scene (a vermiculite type material), brown latex paint and white glue. Many articles and demos have been written on this material, so why not try it? The first thing we encountered was that Perma-scene is no longer manufactured (as of June 2002), and also the *Celluclay* was relatively expensive, even if purchased in large quantities. But we gave it a try since I had an old box of Perma-scene that I always wanted to try. We did and it filled the low spots just fine. It does give a rough appearance when it dries and sometimes the vermiculite-like material does appear when dry as slightly shiny. We have substituted sand for the Perma-scene and may use this modified GOOP in later scenery sessions. One thing the GOOP did do was stick well directly to the *Wet N Shape*, so maybe we will omit some of the plaster layers in future scenery sections. We will see.

In reviewing the rock castings, it appeared that we needed more. A 4<sup>th</sup> casting was installed extending the rock face to about 110". This casting was attached, blended, and colored. So ended Day Five.

### Day Six

Day 6 was spent finishing up some details regarding the rock colors. They still appeared somewhat light, so more color was added by spraying on more acrylic washes. Paint was added to those white *Sculptamold* places and the portal areas were completed.

Now what about that dirt? In the ensuing days I thought about how to cover 2,800 square feet with dirt. I re-experimented with dirt sifting. My old method included collecting the dirt, drying the dirt for four days on paper in the basement, crushing the dirt with a sledge, further crushing the dirt with a pestle and mortar, and then fine sifting the dirt. This process yielded nice fine sifted dirt useful for dusting, ballast, and a general dirt slurry for general scenery, but it took forever. A faster method had to be found.

So I experimented with drying the dirt in an old microwave oven. This worked fine and only took about 10 – 15 minutes. I crushed the dirt for a few seconds with a patio block. Then to the sifter, but a very large sifter I picked up at a kitchen store. Even though the dirt was not as fine as the dirt I had used for ten years, it was OK for general scenery, and I could sift about 10 pounds in one half-hour! This new process gave us what we wanted and allowed us to dirt slurry the whole 1830's area.

By the end of Day Six, the whole area was covered with dirt, the roads were formed, the pond was created, the waterfall, the pond, and the cave were in place. Even the cork roadbed had a cover of dirt slurry on it since there was no ballast per se in the 1830's. By 9:00pm that night of May 16<sup>th</sup>, the layout looked brown and natural looking, ready for the next step. So ended Day Six.

### Day Seven

Now it was May 22 and only 9 days to the "Big Show". We had to do all in two days since that is all the time I could spend on the layout before June 1.

Day Seven was groundcover day. All the track and all the roads were taped with two-inch masking tape. We knew we were going to be spraying with a mixture of water and acrylic matte medium, we didn't want to get it on the track (the track was in by now) and we

didn't want the ground foam to stick to the roads. The tape on the roads was put down loosely so as not to make a definite straight mark on the side of the roads. Then the slurry of one half white glue and one half water was spread on the dirt. Then various colors and textures of ground foam were spread on the layout intermixing sprays of acrylic matte medium from a bottle sprayer.

The creme de la creme was the spices. For over 20 years I have been using about 35 different types of spices on my layout for that added touch of color and texture. I used this technique on the Medina Railroad Museum layout, but that is another story by itself.

[Ed. – See October 2003 RMR for “Spices” story.]

Special attention was given to the rock face which was sprayed with acrylic matte medium and then sprinkled with foam from the top down, giving a pleasing and natural effect. Some small bushes were added later to this area.

In one area on the layout, a special rock fall was created using shale taken from the Keuka Lake area of NY State. The shale was piled up, soaked with white glue and water, and let dry. It looks very realistic, so much so that many folks ask where they can be located. Just drive about 10 miles south of Penn Yan, NY, on the east side of Keuka Lake and look to your left along the road. There they are.

By the end of Day Seven, the whole 100 square feet of the 1830's area was covered with ground foam. By seven that night we placed most of the buildings on the layout just to see how they would look. WOW! What a great scene, especially with those great buildings supplied by Marty. So ended Day Seven.

### [Day Eight](#)

Now it was May 29<sup>th</sup>, only three days to go. It was reserved for the detailed scenery. Trees were planted, both conifers and deciduous. Conifers from High Pines were used as well as Heki conifers from Germany. Petite Pines were used for some of the deciduous trees, but most were the Scenic Express Super Trees. Some of the conifers were of the homemade bottle brush type I had on hand from my Oil Creek Railroad layout.

Other detail was added such as a cemetery. Stones were placed and a lady wearing a black 1830's dress was added. Horses and wagons were added on the roads. A horse corral was added behind the livery stable. Bushes and debris were added also.

The stream, water fall, and pond were poured using Envirotex about 4:00pm and were covered with newspapers for 48 hours just to make sure no dust settled on the pond. The base of the pond had been prepared with a slurry of white glue, water, and dirt, with India ink and water in the middle, making it darker in the middle and blending to a lighter color along the edges. Weeds were placed along the end of the pond. By the morning of June 1, the pond looked great!

Other details were added such as many small stumps and medium size stumps. These were made from latex molds made by the author using real Christmas trees branches as the masters for the stumps. The castings were made with Durham's Water Putty and then colored with a brown wash, and topped off with a black wash of India ink and water.

The 10 or so buildings were put into place and we all stood back. What a marvel! We totally completed the scenery in the 100 square foot 1830's area in eight working days. For this level of detail, a record for sure.

Along the way new methods of model railroad scenery were developed, such as corrugated using wallboard screws, *Wet N Shape* Craft cloth in large pieces, multi-layered molding plaster/Hydrocal rock castings, modified GOOP, large quantities of sifted dirt, and using 35 different spices for scenery material. So ended Day Eight.

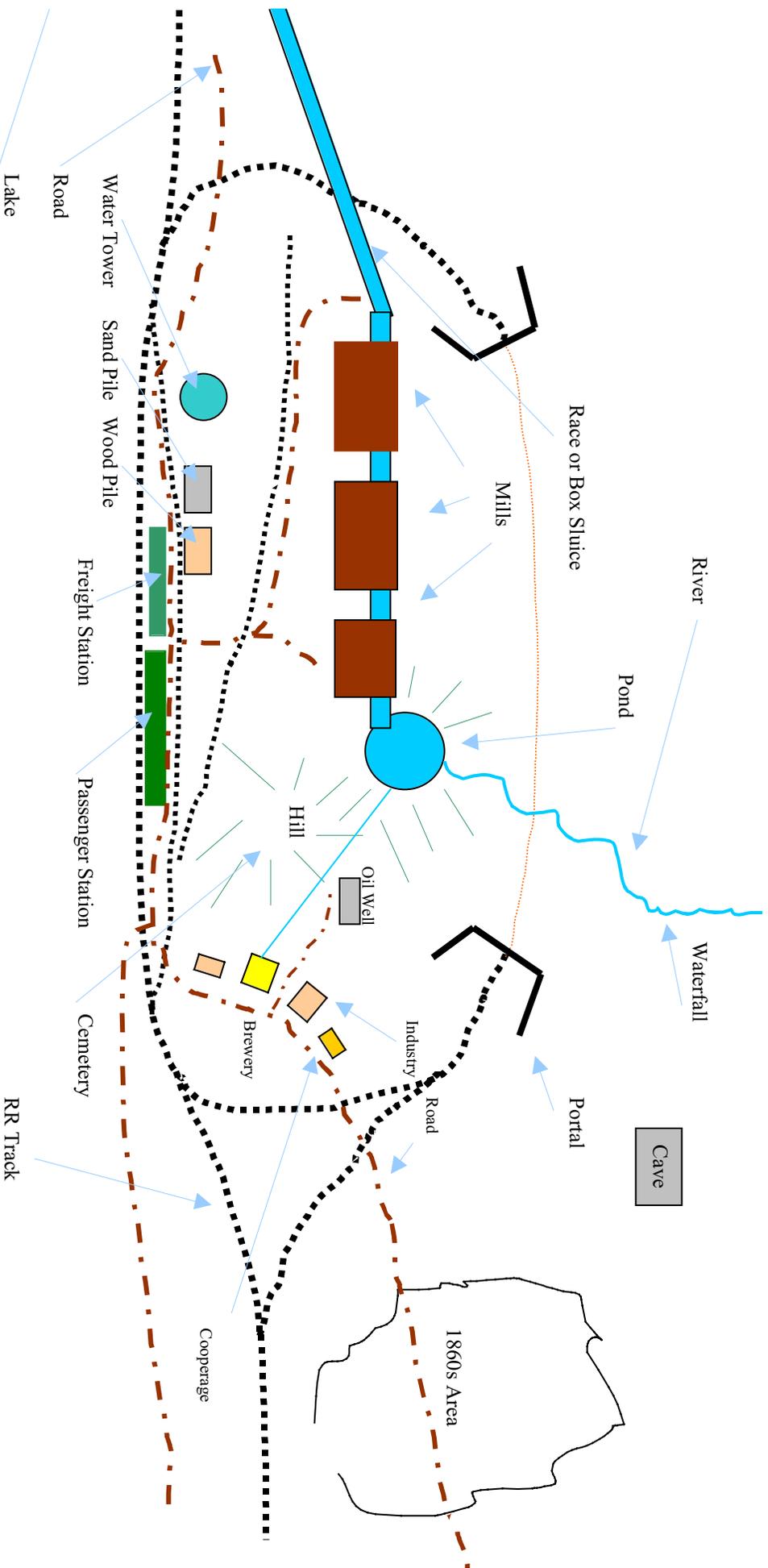
In addition to the work done on the scenery, the author supplied the Medina Railroad Museum with a *Scenery Manual* for their exclusive use which covers basic forms, groundcover, rock castings, rock coloring, water for ponds and streams, 1830's history, and a source of supply index.

Now for the future of the HO scale model railroad at the Medina Railroad Museum. As of September 2003, much more scenery and trackwork has been completed and is definitely worth seeing. Anyone with model railroad experience or interested in learning is welcome to talk with Marty or Linda at the Museum. All the work in the Museum is on a volunteer basis and people come from as far away as Toronto, Canada to work on the layout.

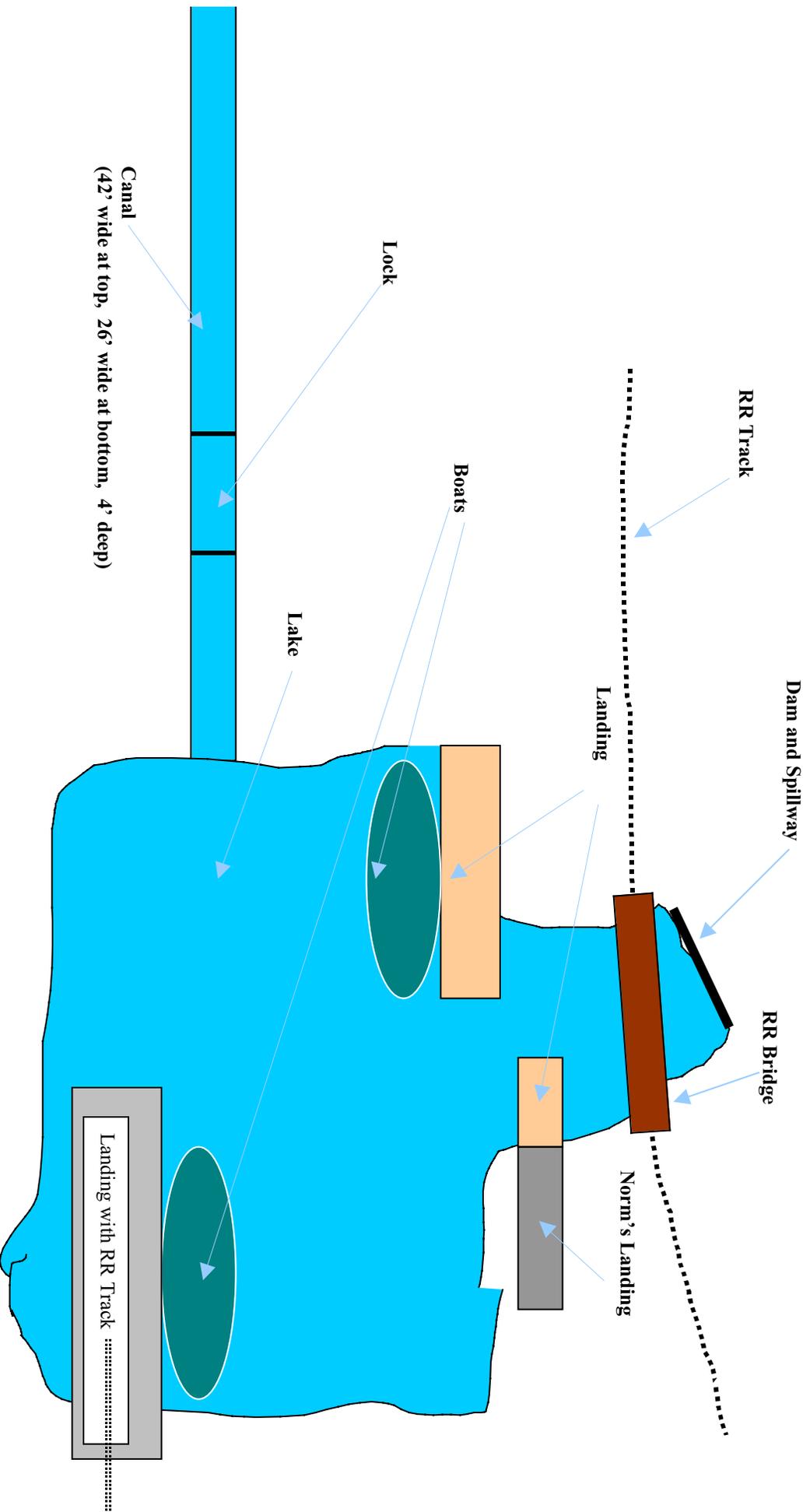
**See the Medina Railroad Museum HO scale 14' x 204' layout at the NMRA NFR Lakeshores Division's Meet this October 11, 2003. See [Coming Events](#) for details.**



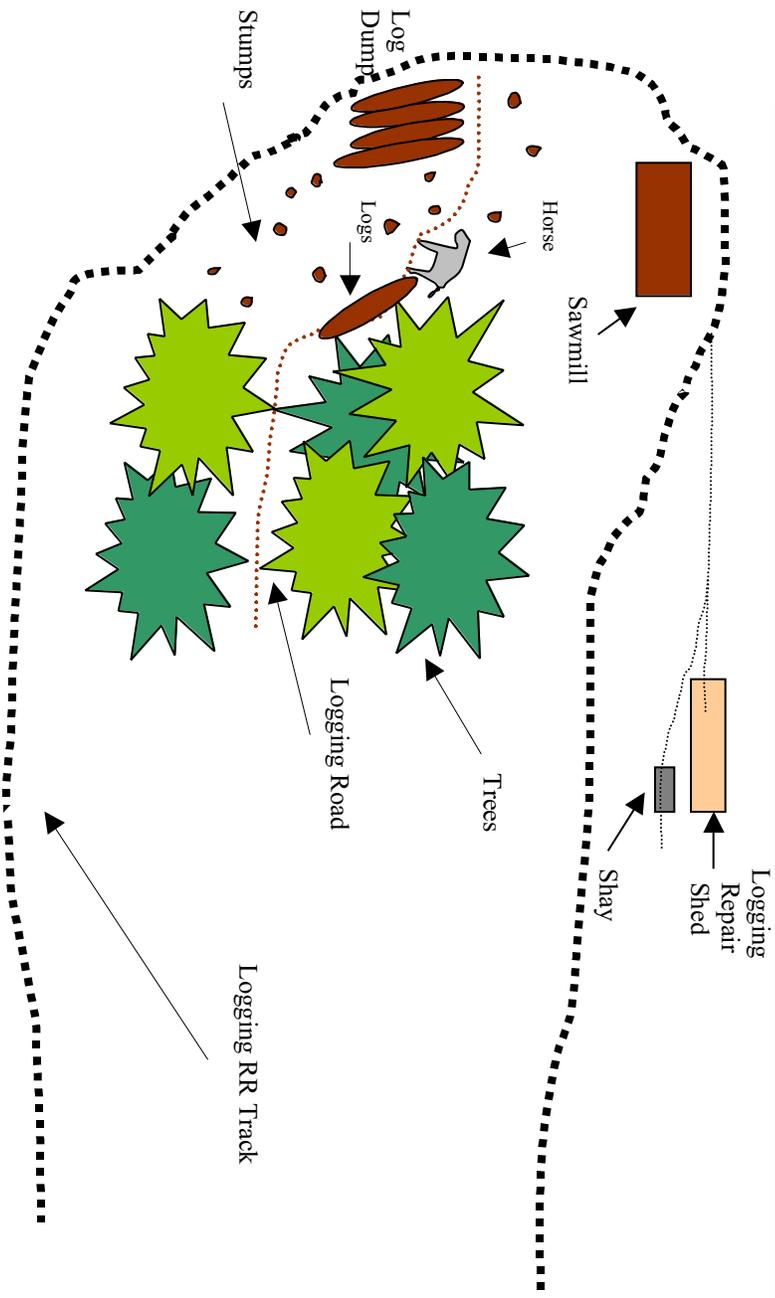
**Figure # 1 - Scenery Plan #4 - Circa 1830**



**Figure #2 - Lake and Canal Area - Circa 1825**



# Scenery Plan # 5 Proposed Scenery – Circa 1880 - Logging





## *Ask Doctor Dick (The Scenery Doctor)*

### Mike writes:

I am building a new train room and want to paint a simple backdrop with a blue sky and white clouds. The wallboard walls are installed and I have a suspended ceiling. Suggestions?

### Doc:

First I would paint the wall with a flat blue paint representing a typical blue sky. John Lowrance and Miles Hale in their 90 minute video "The Sky's the Limit" recommends using *Sherwin Williams* "Universe Blue", formula # 33-4. I have used a blue paint mixed by *Home Depot*, *Glidden* "Billowing Clouds" # 10BB 65/094, base HD 9011 with success.

Once the wall is painted blue, the next step is to paint the clouds. This at first sounds like a forbidding task, however if you purchase "The Clouds" stencils from *New London Industries* (8611 Norwich, San Antonio, TX 78217) and follow the video instructions, it is somewhat simple.

Basically you will be painting three types of clouds: the larger higher up clouds with well defined bottoms and tops that fade into the ceiling, the middle clouds with well defined tops and fuzzy bottoms, and the bottom or horizon clouds.

When I say painting, what you will be doing is spraying the edge of the stencils with a flat white spray paint. John recommends Krylon flat white #1502. I used this to paint clouds on my Oil Creek Rail Road with great success. ***Caution: ventilate the room, use a respirator, and put drop cloths on absolutely everything, especially the floor.***

Here less is more. That is, you will spraying on very little paint. The tops of the clouds will have the most paint and the bottoms the least paint. The trick is that the darker part of the cloud (the bottom where there is less sun) will have less white paint, thus more blue will show through making the bottom of the cloud look darker.

"The Clouds" stencils I used (4) were OK, but I would make a small alteration. The paperboard stencil is somewhat thin so I glued a small 2" strip of corrugated to the front of each stencil in order to stiffen the stencil. This made it much easier to handle. Also, one stencil is of a complete cloud, i.e., all 4 sides. I cut this stencil in half making two stencils, thus making 5 in total.

Try this process – it is easier than it looks. Good luck.

## Guidelines for Good Photographic Composition

or

## How to Make Better Pictures

*By Leaf Shutter*

Good photographic composition frees the mind from having to adjust itself to situations it does not accept naturally and automatically. It makes the photograph appear natural and pleasing to the eye.

I will offer fifteen guidelines for you to consider the next time you take a photograph. I say *guidelines*, not *rules*. Many times these guidelines can be disregarded and still a “good” photograph can result. However, when you take your next picture pause and think a bit. Slight adjustments can make all the difference in the world.

While we railroaders take predominantly railroad photographs, these guidelines apply to all picture taking situations whether it be family, vacation or flower pictures.

Did you ever notice that when a person is taking a picture of another person, they usually pose them against a railing, take the photo from a far distance and hold the camera horizontally? The following guidelines will tell you how this common situation can be improved.

### Guideline Number 1. – Get in Close.

How many times have we seen a person taking a picture – usually of another person – from a very long distance? Maybe it’s there natural reticence about getting into another’s “territory” but a dot in the viewfinder will result in a dot on the photograph. ‘Who is that?’ or ‘What is that?’ means you were much too far away. There is very little excuse for this today with the ubiquitous telephoto lens.

If it is railroad equipment you are photographing, get as close as you can to bring up the detail in the subject. Try to fill the viewfinder with as much of the subject as possible. You will be rewarded with an excellent photograph. A well-known photographer once told me that anything photographed close up even if it is a rusty garbage can lid, was good.

Stay tuned for more guidelines in future issues.

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An old railroad man once said  
“One who thows mud  
loses ground”

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**Don't Forget to Visit the  
Medina Railroad Museum  
Medina, NY**

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## Railroad Quiz

What was the first big railroad tunnel?

How long was it?

When was it completed?

On what Railroad?

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## First President of US to Travel by RR

On June 6, 1833, President Andrew Jackson rode a Baltimore & Ohio train from Ellicott's Mills to Baltimore, a distance of 13 miles.

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*Rochester  
Model Rails*

Web Site:

[www.trainweb.org/rmr](http://www.trainweb.org/rmr)

## Next Issue:

*Mary – Land Northern Railroad*

*Cedar Swamp Depot*

**How to Make Good Photos Better  
– Guideline #2**

**Ask Doctor Dick  
(the Scenery Doctor)**

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## Coming Events

### OCTOBER

- 4-5**     **Rochester, NY** – Great American Train Show, Monroe County Fair Grounds, 2695 East Henrietta Road, Henrietta, NY     Info: [INFO@GATS.COM](mailto:INFO@GATS.COM)
- 7-28:**   **Rochester, NY** - *Tuesday Night Gang* meets each Tuesday night at members layouts. Contact Lou Nost at [Louis.Nost@USA.Xerox.com](mailto:Louis.Nost@USA.Xerox.com) for more information.
- 11:**     **Oakfield and Medina, NY** – NMRA – NFR – Lakeshores Division Fall Meet, meet starts at GSME club in Oakfield at 8:30am. Lunch at the **Medina RR Museum in Medina, NY**, and train Ride on the Falls Road RR at 2:00pm. Also Museum tour.     Info: Dave Mitchell at [dbmitch@frontiernet.net](mailto:dbmitch@frontiernet.net)
- 16:**     **Rochester, NY** - Rochester Chapter of the National Railway Historical Society, 7:00pm at the 40 & 8 Club, University Avenue, Rochester.
- 19:**     **Binghamton, NY** – Southern Tier Railfest, Heritage Country Club, Watson Blvd.  
Info: 607-775-1267     [railfestinfo@aol.com](mailto:railfestinfo@aol.com)
- 19:**     **Rochester, NY** - 2003 RIT Fall Train Show, 10:00am – 3:30pm on RIT campus, Henrietta, NY  
Info: <http://www.ritmrc.org>

### NOVEMBER

- 1-2:**    **Syracuse, NY** - TRAIN Fair, Saturday and Sunday, at the NY State Fairgrounds  
10 – 6 on Sat. 10 – 5 on Sun. Fee: \$6.00 Info: [CNYNRHS@aol.com](mailto:CNYNRHS@aol.com)
- 4-25:**   **Rochester, NY** - *Tuesday Night Gang* – most Tuesday nights     Contact: Lou Nost at:  
[Louis.Nost@usa.xerox.com](mailto:Louis.Nost@usa.xerox.com)
- 9:**     **Batavia, NY** - GSME Great Batavia Train Show at Batavia Downs Conference Center, 9:30a.m.-  
3:30pm     Contact: Mike Pyszczek at: [pyzek@iinc.com](mailto:pyzek@iinc.com)
- 20:**     **Rochester, NY** – National Railway Historical Society, Rochester Chapter meeting 40&8 Club  
University Avenue, 7:00pm