THE S RESOURCE

SCALE

NEWS, REVIEWS, INFORMATION TO USE

Vol. 1 No. 2
December 2014 / January 2015

Atlanta RPM Meet

A Look at Grain Elevators

Converting a Lionel Hopper

Larry Blank's Ahnapee and Western

Thoughts on Scratch Building Structures

Des Plaines Hobbies
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SSA2001.1	#38151
SSA2001.2	#38155
SSA2001.3	#38157
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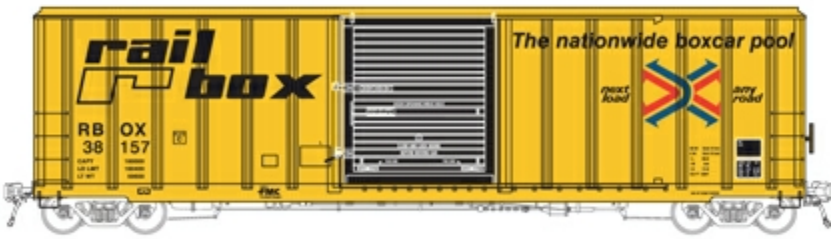


Marinette, Tomahawk & Western

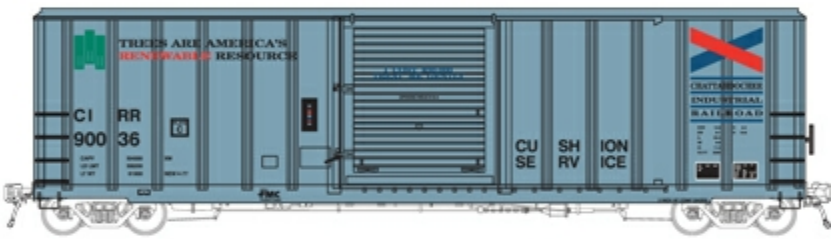
SSA2002.1	#4113
SSA2002.2	#4134
SSA2002.3	#4136
SSA2002.4	#4139

Bath & Hammondsport

SSA2003.1	#25150
SSA2003.2	#25151
SSA2003.3	#25152
SSA2003.4	#25155

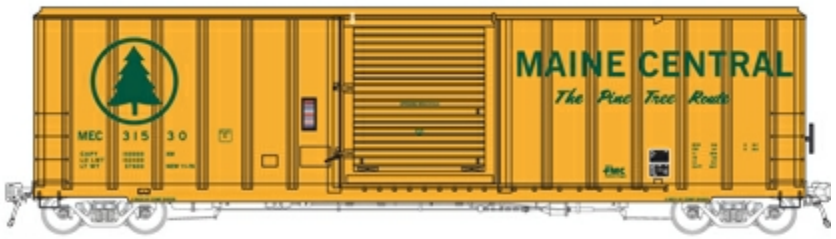
Chattahoochee Industrial

SSA2004.1	#90030
SSA2004.2	#90033
SSA2004.3	#90036
SSA2004.4	#90039



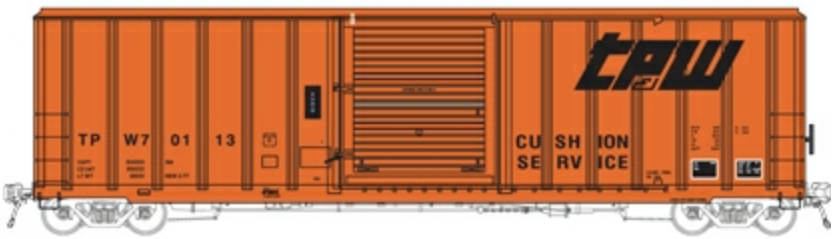
Maine Central

SSA2005.1	#31530
SSA2005.2	#31531
SSA2005.3	#31533
SSA2005.4	#31535



Toledo, Peoria & Western

SSA2006.1	#70110
SSA2006.2	#70111
SSA2006.3	#70113
SSA2006.4	#70117



Des Plaines Hobbies/S Scale America 1524 Lee St Des Plaines, IL 60018
www.desplaineshobbies.com 847-297-2118

Bill Of Lading

Published Bi Monthly

The Model Railroad Resource LLC
Plymouth, Wisconsin

Editors

Glenn Guerra
glenn@sscaleresource.com

Dan Dawdy
daniel@sscaleresource.com

Copy Editor

Amy Dawdy

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Welcome to the online *S Scale Resource* magazine. The magazine is presented in an easy to use format. The blue bar above the magazine has commands for previewing all the pages, advancing the pages forward or back, searching to go to a specific page, enlarging pages, printing pages, enlarging the view to full screen, and downloading a copy to your computer.

Front Cover Photo

The local freight on Larry Blank's Ahnapee and Western passes a tranquil scene.

Rear Cover Photo

A rural scene on Larry Blank's Ahnapee and Western layout.

Page

Advertisers Index

The Model Railroad Resource LLC also publishes
The O Scale Resource
Be sure to take a look. There are many articles in our magazines that are not scale specific and will be of interest to you. Click this announcement to see the magazine online.

Editorial Comment

Welcome to the second issue of *The S Scale Resource.* We had some good comments on the first issue, and Dan and I are glad you like the magazine. I went to Trainfest in Milwaukee, Wisconsin on Friday evening November 7th for the set up night. This is a very large train show that leans towards introducing the general public to model railroading. There are club layouts of all sizes and scales set up at the show with S Scale being well represented. I think that train shows are an important part of the hobby and encourage everyone to attend some of them. Besides promoting the hobby, they are a great way to meet other modelers. For years I went to shows, bought my stuff and left, never meeting any of the other modelers. When I started producing kits, I had to stay and talk to people. This opened up a whole new world to me, especially now with email being so easy to communicate and send photos. Whenever you can, attend a show and meet some of the people. You will find that you will start having friends from all over.

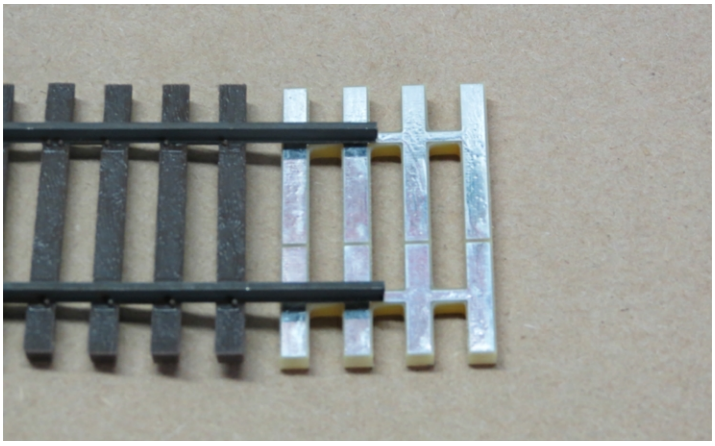
Since we are on the topic of train shows, Robert Hogan sent some photos from the Atlanta Railway Prototype Modelers Meet. There were a number of S Scale modelers there, and they brought some nice models with them. Take a look at the Atlanta Railway Prototype Modelers Meet article for more about the show and some photos of the models. From Atlanta, we move to a photo essay on grain elevators. Grain elevators have changed over the years, and are still part of many railroad scenes. In addition, some of the oldest elevators are still around. With the longevity of grain elevators, you can model them in any era of railroading. This is an article to prompt your imagination. Still on the topic of grain elevators, we hear from Jim Kindraka again. Jim converted a Lionel cylindrical grain hopper to operate on scale track. In addition, he removed the factory lettering and had decals made to fit a New York Central car. This is an interesting car that is not available to operate on scale track. The conversion will add a unique car to your fleet. The next article is about Larry Blank's Ahnapee and Western layout. Larry was at Trainfest with a few modules from his layout, and I met him for the first time at the show. We talked about his layout and how he did it. Besides being a very nice layout, Larry had some interesting ways of solving some of the problems of building a layout. Jim Kindraka and I arranged to go see Larry and talk about his layout. As you will see, it was well worth the trip. The last thing we have for you is an article about how Larry Blank scratch built all his structures. This is not a step by step article about one building, but more about the process of creating a structure. A lot of modeling is solving problems; there are steps along the way that you need to consider, and compromises you may need to make. See how Larry develops his plans and works through the whole process in this article.

I hope you enjoy the articles, and don't forget to tell your friends about the magazine.

Glenn Guerra

News And Reviews

I went to Trainfest in Milwaukee, Wisconsin on Friday, November 7th for the set up night. The Badgerland S Gaugers had their layout set up. The Trainfest show is as much an introduction to model railroading as it is a trade show for modelers. There are many layouts in all scales represented. Hats off to the Badgerland S Gaugers for promoting S Scale modeling.



Tomalco Track has a new product called a Gap Master. The Gap Master consists of 4 ties that the rail is soldered to. To use the Gap Master, you remove the end two ties from your track and solder the rail to two of the ties on the Gap Master. The second track is done the same way. After the track is in place, the electrical gaps are cut. Since the rails are soldered to the Gap Master, they can not move and perfect alignment is maintained. Check their website under new announcements.

Shawn Cararetta from Minuteman Scale Models had a booth at Trainfest with some nice laser cut buildings and accessories. The larger buildings behind the boxes are all S Scale models. Shawn said his next model will be the S Scale version of the blue HO Scale building on the top shelf. In addition to the laser kits, Shawn makes embossed wood detail sheets and laser cut shingles. This looks like a good source for items for your layout.

Bill Lane at Lanes Trains dropped a note to tell us he has purchased an SLR type rapid prototyping machine. He should have delivery by the time you read this. Bill is excited about moving into a high tech area of modeling, and looking forward to producing parts. If you are interested in learning more about what he is doing, be sure to contact him.

Rick and Maureen Hunter from Hunterline were at Trainfest. They have an extensive line of wood bridge and trestle kits. Some of the kits are S Scale specific, and they also have a lot of On30 kits that will work well for S Scale standard gauge. In addition to the kits, they have an extensive line of weathering supplies.

We now have some people advertising in our classified section. Be sure to take a look.

I talked to John Forsythe from TCS at Trainfest. John produces the WOW decoder for steam locomotives. John had a prototype of a new diesel sound decoder running on a test track. Look for this to come out soon.

MTH is producing the old S Helper Service line. They had the PS-2 covered hoppers, the PS-1 box cars and some refrigerator cars on display at Trainfest in Milwaukee. The F-2 locomotive on display was a production sample.

Atlanta Georgia
Railway Prototype Modelers Meet

S Scale participants at the Atlanta RPM Meet: (L to R)
Pete Silcox, Jim Schall, Bob Hogan (seated) John Hall, Leigh Swanson, George Courtney, Earl Henry

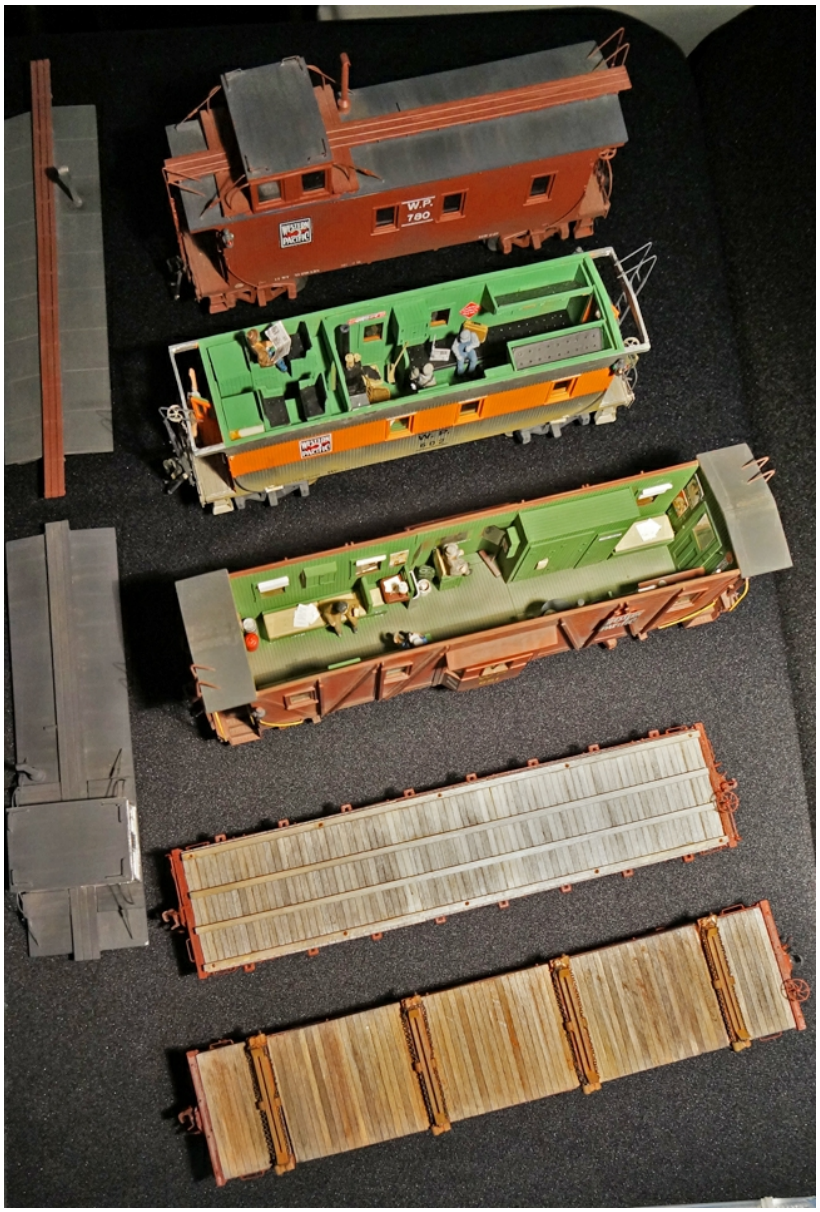
By Robert Hogan

The first ever Atlanta (GA) area Railway Prototype Modelers (RPM) meet was held September 19-20, 2014 at the Museum of Civil War and Locomotive History in Kennesaw, Georgia. The event was organized by George Eichelberger and other members of the Southern Railway Historical Association. Also participating were the historical associations for both the Central of Georgia and the ACL/SAL. Model displays included N, HO, S, O and G Scale models. The meet's primary focus was on southern area railroads, but there was a good selection from the mid-Atlantic and western states.

Southern area S Scalers turned out en masse with seven modelers (from Georgia, Tennessee and North Carolina) participating in the event. The SG had a display table and distributed S scale literature both days. Over 140 S Scale models were displayed in two areas of the large museum exhibition hall. Pete Silcox gave his clinic on the Clinchfield Railroad and his S Scale Georgia Railroad layout was open to RMP participants in the evenings. Smoky Mountain Models displayed a selection of their S Scale car kits, plus the newly re-issued GE 70 tonner.

The museum made for a terrific RPM venue with it's large exhibition hall, state-of-the-art classrooms for clinics, plus the museum's feature attraction, the nicely displayed W&A "General" locomotive of "The Great Locomotive Chase" fame. The museum is a Smithsonian affiliate, and also offers unique displays of the original erecting shops and locomotives of the Glover Locomotive Machine Company, along with a full history of "The Great Locomotive Chase" between the General and the Texas. Kennesaw, formerly known as Big Shanty, sits on a sharp S curve on the CSX mainline between Atlanta and Chattanooga, so there was ample opportunity to watch and photograph action on that busy rail line as well.

The 2015 RPM meet should be bigger and better as the museum currently has an additional 8,000 square feet of exhibition and meeting rooms under construction.



Bob Hogan likes to model the Western Pacific, and had these S Scale models on display.

Earl Henry had some of his S Scale models on display at the Atlanta meet.

Pete Silcox had some of his S Scale models on display in Atlanta. The box car interiors are a nice touch.

John Hall had quite a few of his S Scale freight car models on display at the Atlanta show.

There was a good showing of S Scale passenger equipment at the show, including Earl Henry's Southern and L&N E units and Bob Hogan's Southern Pacific Coast Daylight. Also on display were full passenger train models of Southern Railway's Southern Crescent, Espee's Coast Daylight and WP's California Zephyr.

Grain Elevators

Here is a good example of a small plains states row of elevators. This photo was taken in Minneola, Kansas. My shadow is on the passing track and there was another track to my right. Notice the stack train. Even if you are modeling the modern image, you could have some of these old buildings around for scenery effect.

By Glenn Guerra

With fall here and the grain being harvested, I thought it would be interesting to look at grain elevators. Grain harvests have been a part of railroad shipping since the inception of the railroads. When the grain is harvested, it needs to go “some place” for storage and eventually for shipping. That “some place” has been a grain elevator located on a railroad for many years. As farming grew, and along with it, the demand for grain, elevators also had to grow to accommodate the increased volume of grain. Elevator additions were done with different construction, and add interest to a model scene. Some of the elevators that were located on railroads no longer have rail service, and the grain is trucked to other locations on railroads or to barge terminals. However, the elevators are still in use and near the railroads, so they fit into the scenery of our model railroads. Since we are model railroaders, we would be interested in these facilities. They provide traffic if we are operating our railroad, along with providing visual interest. Elevators were in small towns, as well as, large cities. They have been around for a long time, and can fit into any era of modeling. Lastly, as you will see, they can even fit on our railroads as abandoned structures next to the tracks.

This article is a photo essay of some elevators past and present. It will give you some modeling ideas and information, as well as, some ideas how to create the scene. I tried to group the photos by location. You will see some subtle variations in the style of elevators. Take this kind of information into account when you are making your models. If you are modeling a specific railroad or location, this may add to the effect of your scene. If you live near the area you are modeling, I would recommend getting out and taking as many photos as possible.

Digital photography is cheap, so take lots of photos. The old stuff is disappearing fast. The first group of photos were taken in Kansas around 2005, and all those nifty old elevators are gone today. So let's get started.

The first group of photos are some elevators on the old Rock Island line to Tucumcari, New Mexico. I took these photos in western Kansas and the panhandle of Oklahoma around 2005 while on the way to California for some museum work. The line has small towns all along it, and each one had a small elevator. They are all closed, but you can imagine the strings of boxcars waiting on the siding. You can use these buildings to model everything from around 1900 when they were built, up to the present. The structures are simple to construct, or you could use kits. There is enough detail still on them so you could model them as they were with the filling spouts intact and working. You could even model them in a modern scene as they appear in the photos.

The top photo shows the line of elevators in Minneola, KS around 2005. The bottom photo is an aerial photo today. All three elevators are gone. I was standing at the crossing when I took the top photo. Note the water tank with the green top in both photos. Take these photos while you can, as the buildings may someday be gone.

These photos are the other two elevators in Minneola, Kansas. The basic building could be scratch built. The metal additions could be made from tubing or grain bin kits. If you are modeling an older era, make the buildings with all the loading details and fresh paint. Don't forget the names on the buildings. Signs add interest. If you model them as they appear here, don't forget the trees and brush growing up around them.

This elevator was along Route 54 on the Rock Island line somewhere west of Minneola, Kansas. I took the photos later in the day as I was traveling west. The building would be simple to model. These buildings were built in the days of 30 and 40 ton cars. If they were still in use today, it looks like 3 or 4 modern cars could empty the building.

The next group of photos are along the Toledo Peoria and Western in Illinois. They are recent photos taken in October, 2014. There is some variety in the age of the buildings, and many are still in use. Since the buildings are still in use, they are a good example of current loading facilities and grain transfer between bins.

This facility is in Gridley, Illinois. Not all elevators are tall. This complex uses low buildings for storage. Note how all the delivery tubes are all connected to the single tower. Also, note the weathering on the buildings.

This facility is also in Gridley, Illinois. They were loading cars the day Dan and I stopped. We got to talking to one of the people from the office and learned a lot about the loading. Look at the streaking on the concrete foundation of the grain bin. These kinds of details make nice touches to your model.

Here is a close up of the same facility while they were loading. While we were talking to the guy from the office, he explained what the yellow framework was. Look close and you will see that the guy on the car is tethered to the yellow frame. If he falls off the car, the tether will catch his fall. This is a simple detail for your modern facility.

Here is the east side of the facility in Gridley, Illinois. Just to the left of the guy in the orange vest, there is a winch for pulling the cars forward. This is an old idea, and you should consider this detail around your elevator. Again, note the weathering on the buildings.

Here is another view at Gridley, Illinois. The guy manning the loading chutes is standing on the platform. If you look close, you will see that the tether is still attached to the trolley on the yellow frame. When the guy goes up to the walkway on the car to open or close the hatches, he will still be protected from a fall.

This elevator is about 4 miles east of Gridley, Illinois on the TP&W. The railroad is getting ready for a tie program, and was setting out bundles of ties along the right of way. This is just another detail to consider on your model railroad. Note the different types of grain bins and the transfer facilities for the grain. These towers are available as kits in HO scale and work well in S Scale.

This elevator complex is in Weston, Illinois on the TP&W. Note the piles of new ties set out by the railroad. This is a nice detail that shows activity on your model railroad. Also note the green joints which are the insulated joints for the crossing protection.

Here is the aerial view of the complex at Weston, Illinois. These aerial views can be a big help with roof details. Look at the traffic pattern in the lot on the right. The green grass growing between the tracks is interesting also. All of these are little details that make your scene.

Piper City is located on the TP&W in Illinois. The railroads are pushing the elevator operators to ship more cars at a time. This is necessitating longer sidings and revised facilities. The older grain bins to the right are next to the crossing making loading a lot of cars quickly a problem. These elevators are in the middle of town and the crossings have a lot of traffic.

Here is a close up of the older grain bins at Piper City, Illinois. This would not be a difficult building to scratch build. Note that it is right up to the crossing. It would be difficult to load modern cars here without fouling the crossing. I suspect that this facility is for storage only. When Dan and I were talking to the guy in Meadows, Illinois, he told us that the owners of the elevators also own others in nearby towns. When an elevator is getting full, grain will be trucked a few miles to another facility or the incoming grain directed straight to the other facility. Where the grain gets shipped to also makes a difference. Each railroad that handles a car is going to get some revenue from the move. It may be cheaper to truck the grain 20 miles to another railroad and avoid one railroad's charges.

The last stop for the day on the TP&W was at Forrest, Illinois for lunch. Dan had seen this before, and pointed it out to me. Here is a detail project for you – the local car mover.

This next photo is on the old Chicago and Alton in Chenoa, Illinois. The photo was taken the same day as the Toledo Peoria and Western photos, and is just south of the TP&W crossing of the Alton. Today, the Alton line is owned and run by the Union Pacific.

When Dan and I were looking at elevators on the TP&W, we ended up in Chenoa, Illinois where the TP&W crossed the Chicago and Alton (now Union Pacific). This elevator is south of the crossing on the Alton. There is no siding anymore, but the facility is still used for storage. I suspect that the operator uses this facility for storage and to ship grain that would go out by truck. The facility can still be modeled on your railroad as it is here. Note the color variation on the concrete bin.

On a trip to the O Scale show in Cleveland, Ohio one year, Ted Schepf and I did some railfaning on the way home. We stopped in Montpelier, Ohio to check out the old Wabash yards. On the east side of town, we found this grain facility. I looked it up on the current aerial photos; it is still in use, and they appear to have the same switch engine. Many of the facilities that are still in use have their own switch engine.

This facility is on the Wabash line from Toledo, Ohio, just east of Montpelier, Ohio. The Wabash line from Toledo met the Wabash line from Detroit here, and there was a division yard at Montpelier. Today, the line east to Toledo only goes to this facility. It was a cold November morning when we were here and you can see the frost on the rail. This is a large facility, and the SW switch engine looks right at home. This is a good place to use old engines on your layout.

This is the Montpelier facility today from the air. The switch engine is still parked in the same place because that's where the plug is for the block heater. The white circle is a concrete pad that is common for short term storage.

On the same trip to Cleveland, we followed part of the Lake Shore and Michigan Southern (later New York Central) east. We stopped in Indiana, and took a few photos. Here is another elevator that was still in use, but not served by the railroad anymore. It was also located right in town.

This old elevator was on the Lake Shore and Michigan southern (New York Central) mainline.

While we are talking about the New York Central, here is a photo from Fowler, Indiana on the old Big Four line from Lafayette, Indiana to Kankakee, Illinois. Today the line is the Kankakee Beaverville and Southern.

I took this photo coming home from the O Scale meet in Indianapolis on September 20, 2014. This is Fowler, Indiana on Route 52. The concrete grain bins would not be hard to scratch build ,and the details can be had in kit form. There is lots of grass around. This was a high speed mainline at one time ,and the James Whitcomb Riley ran on this line from Cincinnati to Chicago.

The last photos are on the old original Illinois Central in Patoka, Illinois. The Illinois Central was started in 1850 and ran from Cairo, Illinois to Galena, Illinois up the middle of the state. The branch from Centrailia to Chicago was built later. Some people refer to the original line as the "spine line" since it ran through the middle of the state. This line was the first land grant railroad built in the United States. In later years, the branch from Centrailia to Chicago became the mainline, and eventually the line from Centrailia to Freeport, Illinois was abandoned. Some of it still runs between Bloomington and Decatur. Patoka is on the original spine line.

The elevator here is on the old Illinois Central spine line through the center of Illinois. The tracks are gone, but the elevator stands as a reminder to the town. On your railroad, you could model a line that would cross your mainline, but has been abandoned. Put a building like this one the abandoned line. Be sure to model the raised right of way, and leave a wide spot through town where the tracks went.

Well, that's enough grain elevators for a while. Elevators are all over the United States and Canada. They come in all sizes and shapes, and can fit any era of railroading. They need not have rail service, or even be operating, to fit in your railroad scene. They can be small for a small town on your layout or very big. The big ones would make good background buildings. They could be modeled as partial buildings up against the wall on a narrow shelf. In S Scale, some of these buildings would be between 18 and 24 inches tall. They could also be used as view blocks to hide other tracks or parts of the layout. And, before I quit, I would like to say again to be sure and take lots of photos in your travels. Get off the interstate highways and into the towns. There is a lot of good stuff to be seen. Remember to have respect for other people's property. Take your photos from a public place. When you see someone watching you, go over and introduce yourself. Explain what you are doing. Once you've introduced yourself, people will usually open up and you will get some good information from them.

Slatyfork Sawmill in S Scale

The McCabe Lumber Co. Slatyfork Sawmill kit consists of laser-cut basswood, plywood, and detail castings. Interior walls and floors are included. And the standard features of ***B.T.S.*** kits are there... positionable doors and window sashes, slot and tab construction, brass door knobs, and well-engineered construction providing fast and easy assembly.

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Lionel
ACF Covered Hopper Conversion

By Jim Kindraka

Early this year, Lionel introduced a new car to their line for American Flyer S Gauge. Done from all new tooling, the cylindrical covered hopper models were delivered in Heritage paint schemes to match Heritage schemes on current Lionel SD70Ace and ES44 locomotives. While the locomotive paint schemes are prototypical, the paint schemes on the covered hoppers are not. However, the car itself looked like it might have possibilities for a conversion to S scale, so I bought a few and began to do some research.

The Lionel cars represent a prototype built by American Car & Foundry (ACF) in the early 1960's. The cars were built mainly for cleaner, less dense lading applications such as grain, corn or plastic pellets. A quick perusal of some of the Morning Sun Color Guide books showed the exact car present on many railroads: GN, Wabash, Santa Fe, CP, CN and a myriad of private grain handling owners to name a few. As primarily a New York Central modeler, once I found a photo of the car in NYC livery, I made that prototype the focus of my modeling.

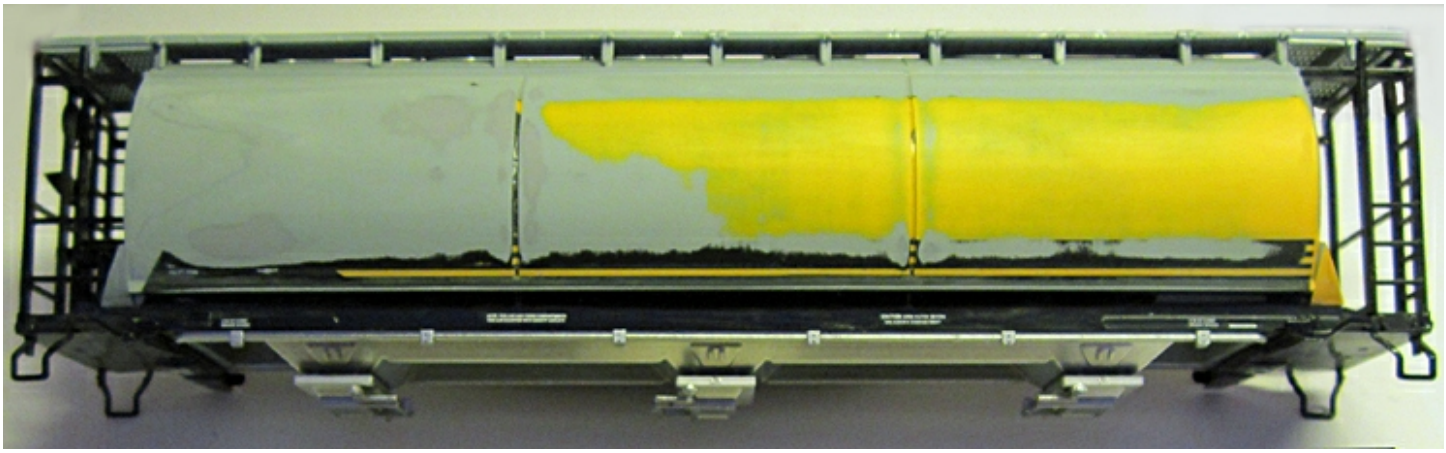
This is the builder's photo of the New York Central cylindrical hopper that Jim modeled. The photo is courtesy of the New York Central System Historical Society.

The NYC had ACF build 62 of these cars in two lots, 915-H and 928-H in 1962 and 1963 respectively. The work was done at ACF's Huntington, WV facility. The first set of 50 cars, numbered 885950 – 885999, were built as 70 ton cars riding on 5' 8" wheelbase AAR friction bearing trucks. The next set of 12, numbers 885901 – 885912, were built with different trucks having 36" wheels for 100 ton ratings, but were otherwise visibly identical. Over time, the cars transitioned to either 70 ton or 100 ton roller bearing trucks. All the cars were built with a capacity of 3500 cubic feet. Though large for the time, the size was eclipsed in the mid-60's by 4650 cubic foot "Center Flow" cars and, eventually, the 5700 cubic foot cars of today. These covered hoppers were originally designed with three compartments and six individual round loading hatches, two per compartment. Some of the cars may have later been outfitted with full length trough loading hatches.

The New York Central System Historical Society was able to provide some builder's photos for cars from these particular lots. I also found some helpful information while doing research on Terry Link's "Canada Southern" website: http://www.canadasouthern.com/caso/home.htm .

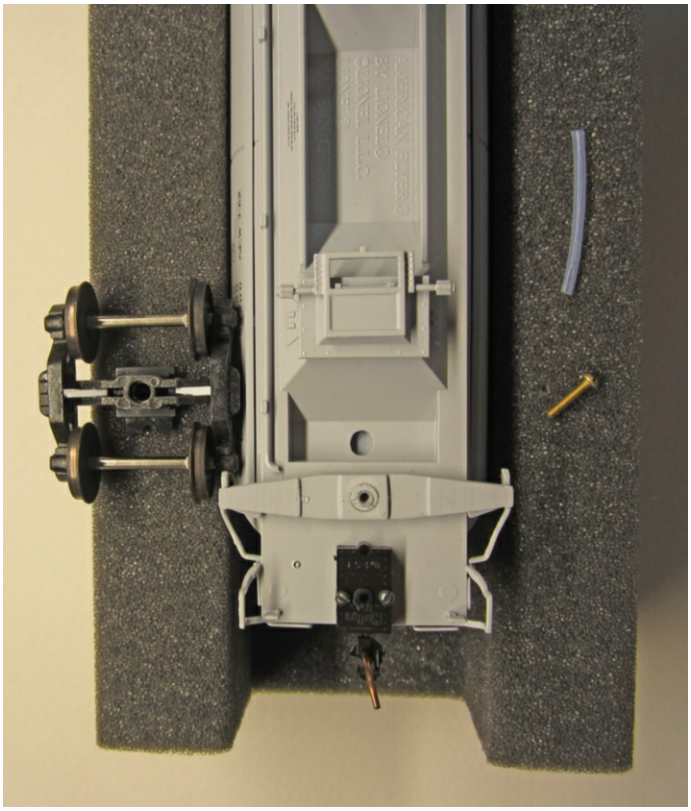
Information there indicated these car lots lasted in revenue service until 1990. I did not do additional research to verify, but it's likely that the cars were repainted to Conrail livery later in their service life.

I began working on the model itself by removing the Lionel trucks, I stripped the layers of lettering, heralds and painted striping from the cars using the wet sanding techniques described in detail in an article in the October/ November 2014 *S Scale Resource;* Volume 1; #1. Once finished with the sanding and cleaning, I applied an even coat of Scalecoat M of W Gray to the cars and set them aside to dry.



Jim wet sanded the lettering off his model. He likes to sand the lettering off the model instead of using chemical strippers. This is what the model looked like prior to new paint.

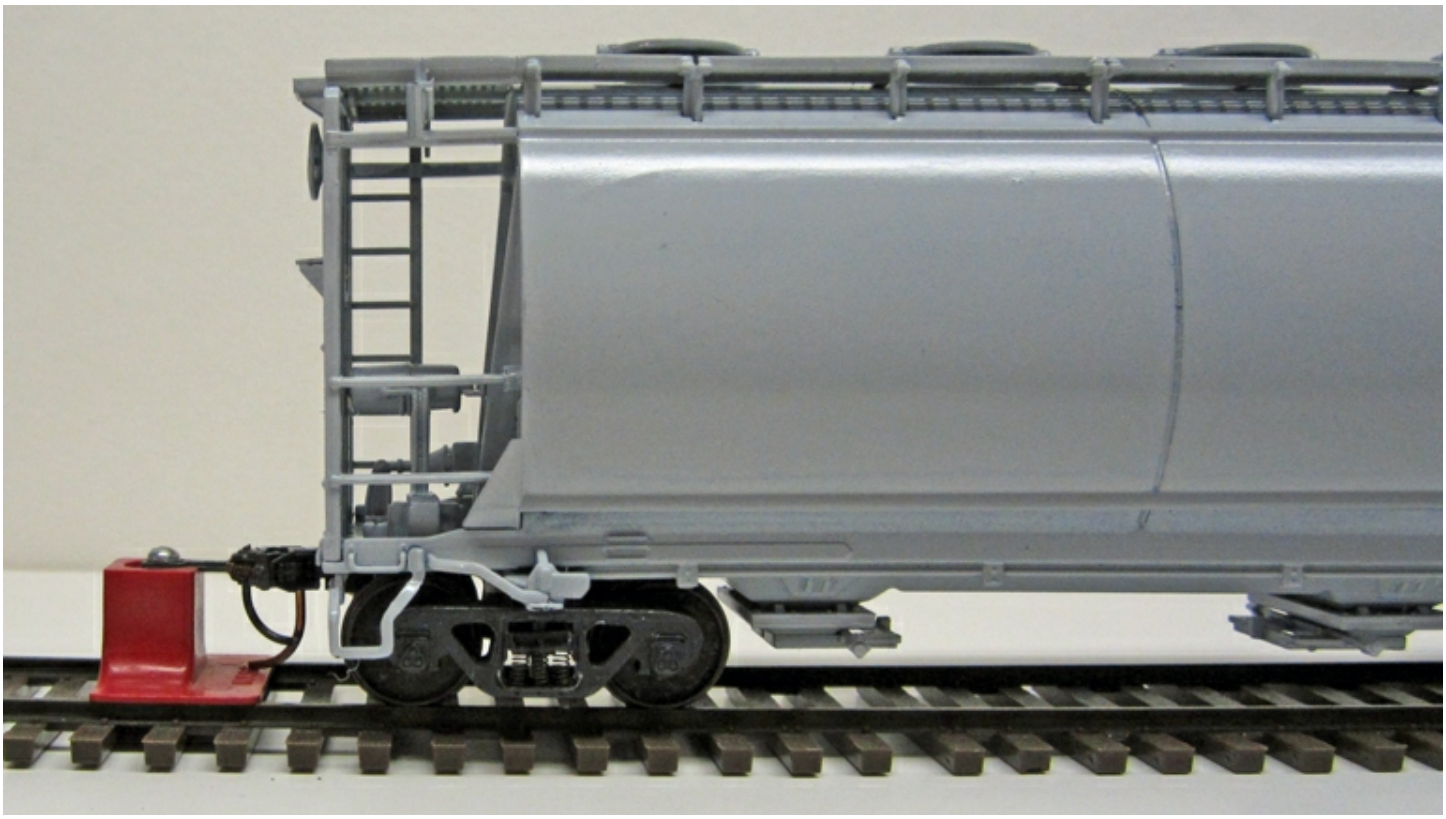
Back to those Lionel trucks... The trucks provided actually have a reasonable scale flange, but the wheel sets are too narrow in the back to back (B) dimension. They are also a challenge to dismantle and re-gauge. Even with re-gauging, the truck bolster design will result in a car that sits too high for S scale, and which makes installing a scale coupler much more work. It is a shame since Lionel went to the trouble of building roller bearing trucks with spinning end caps. As hard as it was, I discarded the Lionel trucks from the project and sold them. Trucks made by American Models (Part #822S) or S Helper Service, now owned by MTH, (former SHS Part #00023) can be substituted, and attached directly to the car's bolster with no major modification. I chose SHS 70 ton trucks with 36" wheels because I had them lying around, but the AM trucks work equally well.



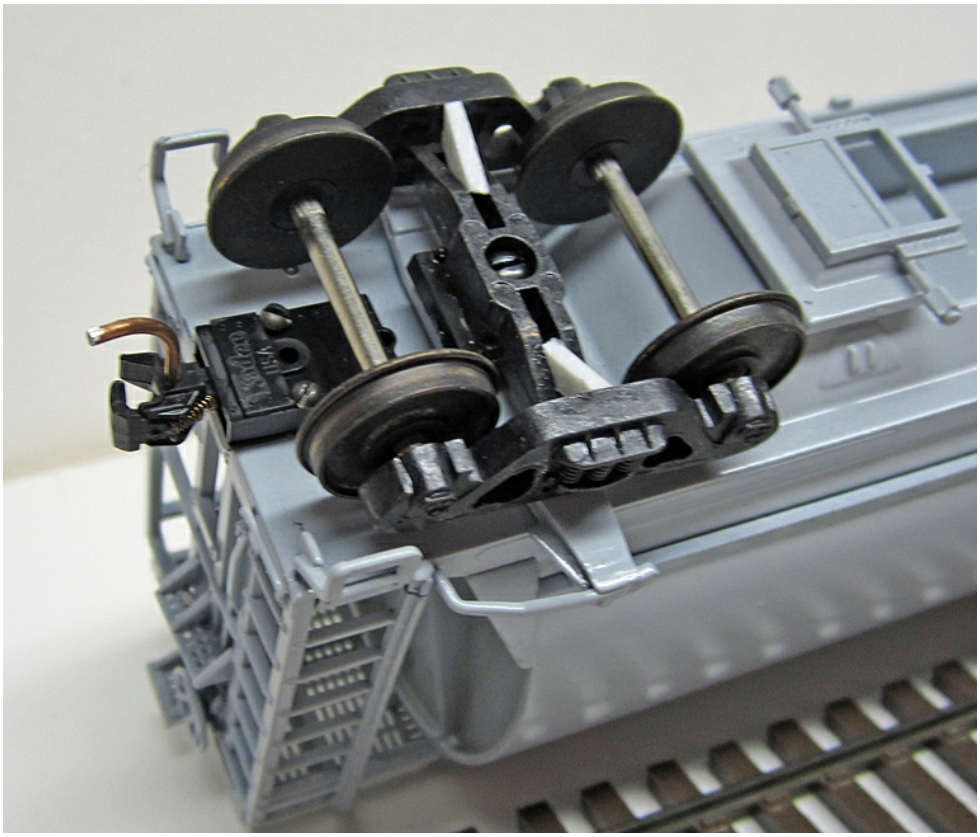
Jim was not able to find a replacement screw that fit the Lionel bolster. To solve the problem, he inserted a short piece of tubing in the bolster so he could use a 2-56 thread screw to mount the trucks.

The car comes with a very short, course thread screw to attach the trucks. It is too short and cannot be re-used for attaching either the American Models or S Helper Service trucks. I could not find any suitable replacement screw that readily fit and threaded in the bolster mount, even metric. My fix was to insert a short (1/4") piece of light wall, 14G PTFE tubing in the hole in the bolster with a touch of ACC. Then, I used a standard 2-56 screw, 3/8" long, to mount the truck. The screw will expand the tubing enough for a solid, tight attachment. The light wall tubing is available from Small Parts Inc., (Part #STT-14). The light wall tubing is also great stuff to use as axle bushings for blunt end axle wheel set on early brass trucks. Some of those early brass trucks have notoriously poor rolling characteristics, but upgrading them would be a totally separate article! One special note – the length of the 2-56 mounting screw is critical. It must be no longer than 3/8" or the screw will distort and possibly break the floor of the car.

The people at Lionel did do scale modelers one favor on this car by locating and pre-drilling holes for a Kadee 802 coupler mount. By installing the SHS trucks with a 0.015" spacer, the Kadee coupler could be mounted directly to the car body and mated dead on with my NASG Coupler Height Gauge tool.



After mounting your couplers, be sure to check the coupler height using a gauge. Standards for wheels, track, coupler height and so on make for smooth and reliable operation.



The trucks and couplers are mounted to Jim's car. Lionel has mounting holes for the Kadee coupler box, and this was a big help. The truck and coupler mounting required no cutting or modifications, making the conversion very simple.

Finally, the lettering; CDS made a lettering set that contained most of the main elements necessary. It means searching through older piles of decals and dry transfers for capacity and dimensional data and, most likely, making some "close enough is good enough" decisions. The biggest drawback was the CDS dry transfer set lacked the herald. The largest O Scale herald I could find in my piles of excess decals measured 8 feet across. These cars used the NYC's largest "cigar band" herald which measures a whooping 12 feet across and 5' 4" high. Fortunately, the NYC Historical Society has many of the actual paint and lettering drawings (as do many other historical and technical societies), and a good friend offered to work with me to create decals. Black decals can be effectively printed with laser printers on blank decal film which aids the task. One note though, if you go that route, always coat the printed decals with a product like Microscale Liquid Decal Film to prevent slight "chipping" of the printed characters.

The finished model painted and ready for lettering.

Jim's finished model. He made a few of these for his layout.

Once I started working to find all the elements to create artwork, it became obvious that virtually all of it could also be used on the former Pacific Rail Shops 4650 cu. ft. Center Flow covered hoppers. Des Plaines Hobby entered the picture, and created lettering and heralds for this project with an eye to produce highly accurate decals for a NYC version of the PRS 4650 Center Flow. These decals should be on the market soon.

The Lionel ACF Covered Hopper makes an excellent S scale conversion. The conversion of the car itself is not difficult, especially with Lionel pre-drilling a Kadee coupler mount. For me, the most challenging part was the lettering, but with the help of Sam McCoy, Ron Sebastian and Rich Stoving of the NYCSHS, everything came together. The result will be not only some new rolling stock for my railroad, but also accurate NYC decals for other efforts. I'd challenge other S scale modelers, especially in Canada, to convert additional ACF covered hoppers lettered for their chosen railroads or private name shippers. These cars make a nice addition to any S Scale train from 1962 on.

Larry Blank's AHNAPEE & WESTERN

Part of Larry Blank's Ahnapee and Western set up at Trainfest in Milwaukee, Wisconsin. Larry takes part of his layout to shows to help promote S Scale.

By Glenn Guerra

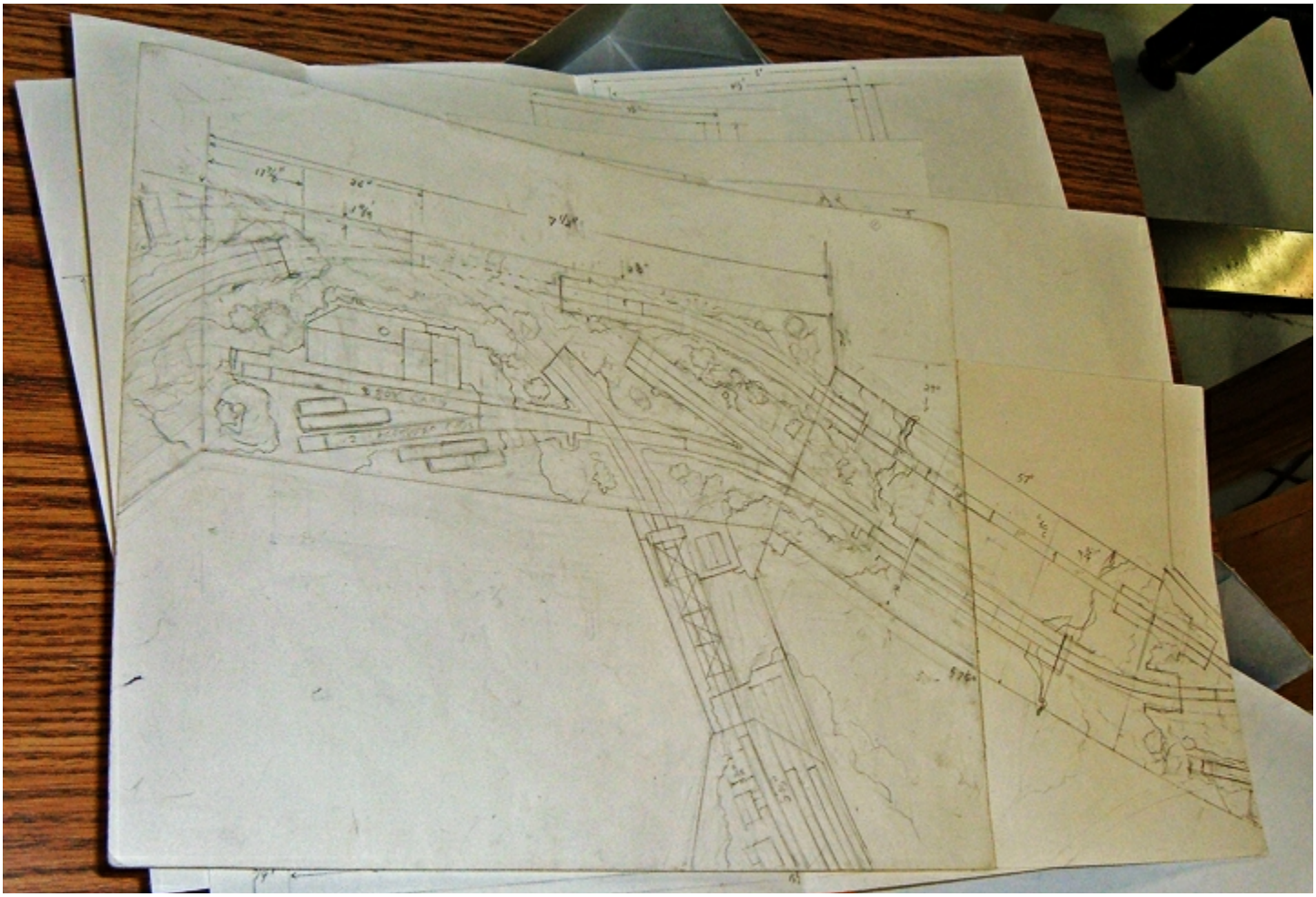
The first time I saw Larry Blank's layout was at Trainfest in Milwaukee, Wisconsin. Larry was there with some modules. At first, I thought it was just a display of a few modules. However, after talking to Larry a bit, I found out his display was only a small part of a home layout. One thing lead to another in the conversation, and I asked Larry if we could do an article on the layout. He said that would be fine, so Jim Kindraka and I went to see Larry in Muskego, Wisconsin.

First, let's start with Larry. He began as a kid with model trains. His dad did not like the three rails of Lionel, so he chose American Flyer S Scale trains. Larry lived right next to the Chicago & Northwestern main line when he was growing up. As the years passed, Larry kept up his interest in model railroading, but did not do much for a while. His new family and career were eating up the time. Larry also remembers what he calls "the dark days of S Scale". He wanted more realism in his models, and there just was not much of a selection in the 1960's and 1970's. They moved to the house in Muskego, and Larry's wife asked if he could build a rec room in the basement. Some of the relatives were getting married, and she wanted to have a place for parties and bridal or baby showers. About this time, their own kids were older, and Larry started thinking about a model train layout again. So, that's the background story that will make the rest of this story much clearer.

Larry Blank stands by the roll out section of his layout. The section locks in place for operation, but can be removed to allow easy access to the room.

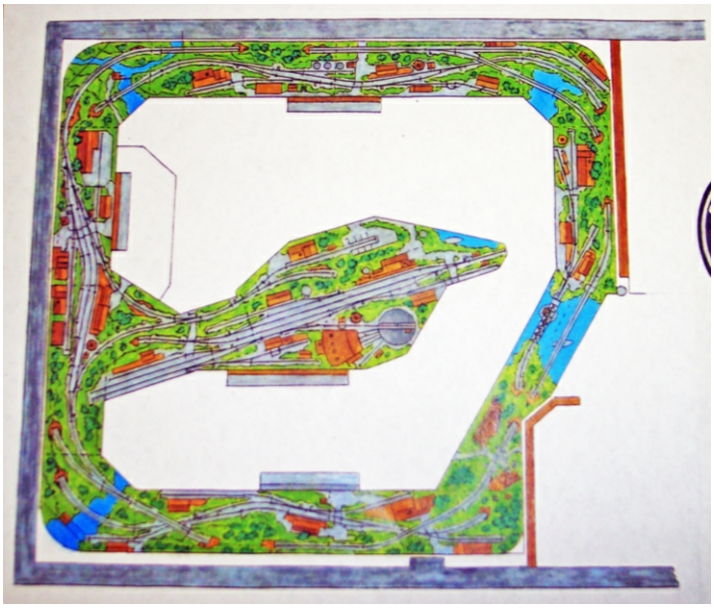
On to the layout. While Larry was working on the rec room, he started thinking about a model train layout. He was not ready yet, but he was thinking. As so often happens to all of us, life gets in the way of things we want to do. The kids were still small, the rec room needed to be finished, and the bills needed to be paid. But, still the train layout was on his mind. Larry had an American Flyer set as a kid with his dad, but now as an adult, he was starting over. He started looking at the different scales. Remember he lived near the tracks as a kid and trains are big when you are up close. The HO Scale trains did not fit the bill for Larry. With the larger scales, you feel more like you are in the scene as opposed to looking at it. This was the feel Larry wanted. O Scale really fit the bill, but the size of the space available to Larry did not make that possible. He went back to the S Scale trains; only this time, he would build a scale railroad. Larry likes the scenery in western Wisconsin, and that is what the railroad scenery is based on. In eastern Wisconsin, the glaciers ground down the mountains, and all that was left was gravel and rolling hills. In western Wisconsin, the hard granite hills are still there. As for the name of the railroad, some of you may have noticed that the Ahnapee and Western did run in Wisconsin, but on the northeast corner of the state by Lake Michigan. I asked Larry how he came up with the name. Well, the truth is, there was no name; and he did not care about one at the time. At a model show, he had the layout displayed and they said he had to have a name for it. He looked at the secondhand locomotive he had purchased and the previous owner had it lettered for the Ahnapee and Western, so Larry decided that was what he would call his railroad. As for a timeframe, Larry is modeling an era prior to 1937.

Frank Ellison was a writer for Model Railroader in the 1950's, and created the Delta Lines railroad in O Scale at his home in Louisiana. His writings about the art of model railroading were a big influence on Larry. Frank also had some articles on building your layout in sections that could be taken apart and moved. This appealed to Larry as a way to build his layout in the rec room, and still maintain domestic tranquility. He started sketching ideas while the work on the rec room continued.



This is a sample of the sketches Larry made while planing his layout. The plan is drawn to scale and the track has both rails shown. This worked out well for Larry, and he was able to see how the buildings and scenery would fit.

Now that Larry had some idea on scale, space available, and construction, it was time to start to work out some of the details. Since the layout needed to be moved out of the room when the room was needed for another function, the sections needed to fit through a 30" door opening. To get the most railroad possible, an around the wall type of layout was considered. This would make the longest run with the required 30" wide sections. The next step was to sketch the sections. Larry drew the layout sections to scale to make sure that they would all fit. He showed me some of the drawings, and I was impressed with the level of detail, especially since I am a big proponent of drawings and planing.



When planing the layout, Larry made this drawing to see how things would fit. He is quick to point out that the design is evolving as the layout is getting built. The peninsula is not built yet, and there will be another track from the end of the peninsula to the far right section of the layout. Larry said that this would give him a reverse loop.

The top view is standing in the roll out section of the room looking to the right. The bottom photo is the next section of the layout. The layout sections sit on the support frame with the knotty pine paneling, and can be removed.

In this view, I am standing in the roll out section again. In front of me is the roll out section that has been removed. Larry and Jim are looking at the curved stone bridge in the corner of the layout The section at the back wall has no track yet, and some of the buildings are just mock ups.

This view of the roll out section gives you a good idea of the type of construction and workmanship in Larry's layout. Good work here will make your life better later on. Note the contour plates on the edges and the minimal track supports.

Larry uses these trunk latches to secure the roll out section in place. The fit is very good and the whole section locks tightly in place.

This factory was scratch built by Larry from plans he made. Note how the scenery drops off by the box car. These effects add a lot to your layout, and are a good example for why the track should be raised above the frame work.

A local freight meanders into town. I like the gravel roads, and how the color is darker at the edges.

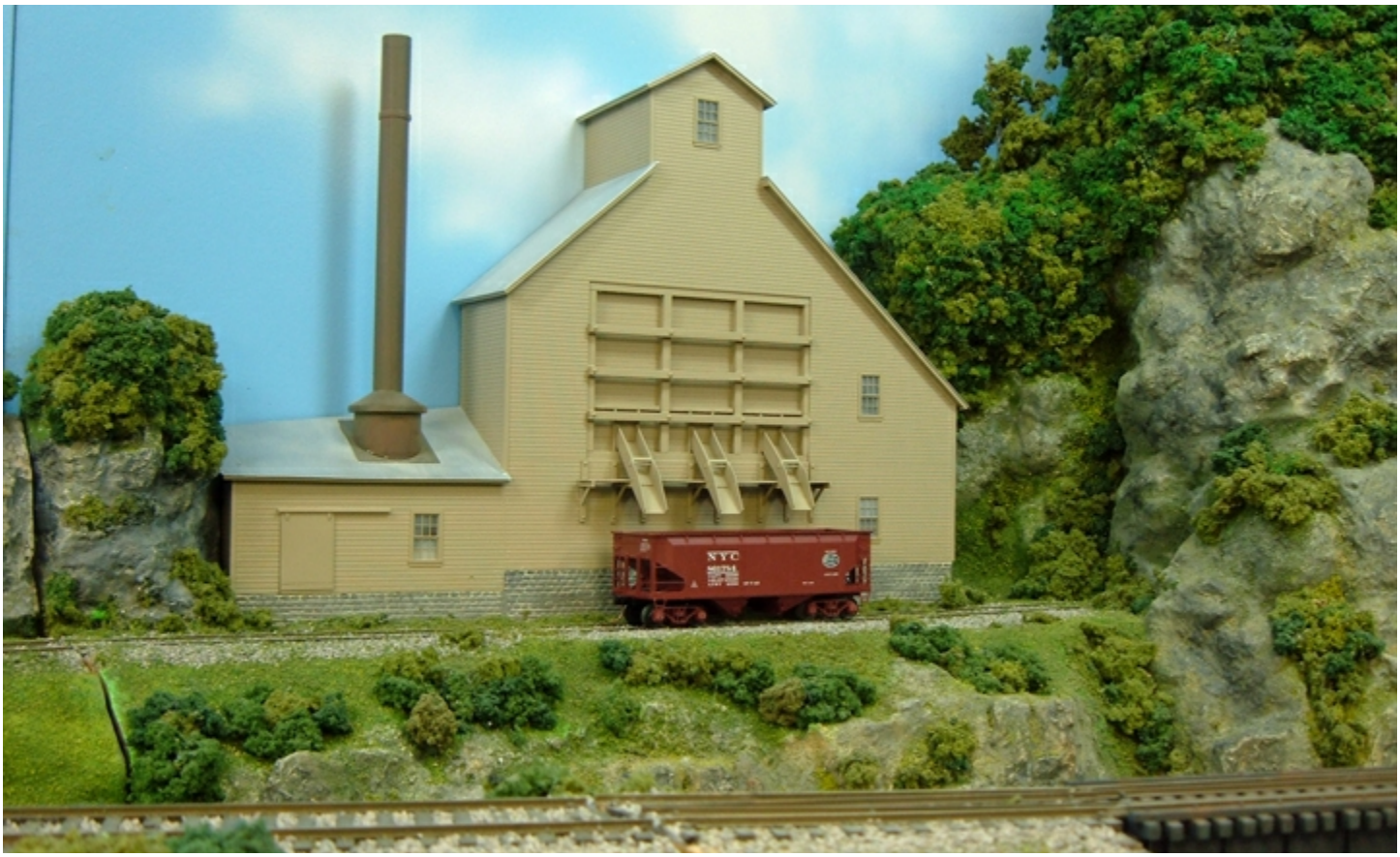
This curved stone bridge and the stone mill are a nice match in this corner scene. I like the small mouse hole where the road goes through the bridge.

This view of the stone bridge shows the stone work on the underside of the arch, and the detail of the stone. The bridge is made of 1/16" styrene with styrene stone overlay. The arch stones were hand made.

The stone mill sits behind the stone bridge. The effect is interesting. We tend to build our layouts with the scenery going up as it goes back. In this case, you need to look over the bridge to see the mill. It's a little bit of discovery to see what is on the other side.

This section of the layout is not finished yet, but note how Larry did the scenery before the track. The careful planing allowed this. Look closely in front of the depot, and you will see the track drawn on the base. Note that the whole track is drawn, not just the center line. This allowed for placement of the building bases and scenery because everything was accurately located.

The local rolls past a rural farm. The gravel roads are nicely done with good color variation.



There are two mining areas on the layout. The bridge in the foreground has not been finished yet. The complete scenery without the track is a departure from the normal way of building a layout. Larry's planing is so good that he knows there will be no changes needed to install the bridge.

For another look at Larry's layout I went down to the river bank, and looked up the hill towards the rock crushing plant.

All too often, we jump into a project all excited to get going, not having a clear idea where we are going. What happens next is things don't fit, and problems pile up. We all need to tell ourselves to plan ahead, and think the project through. So, enough of the grandstanding, back to Larry and his layout. Once Larry had some idea of the bench work he would build, he started to fit a track plan in. When he drew the tracks in, he drew both rails. This was another good idea. When you only draw the track center line, you do not get the whole picture. Then Larry started to sketch in the scenery. This is where drawing the whole track is a big help. Buildings, bridges, cuts, and fills all need to be located far enough away from the track. By drawing the whole track, you can see this relationship better. The other thing that was important were the dimensions on the drawings. Even though the drawing is to scale, it is still not accurate. By placing the dimensions of the sections on the plan Larry, was able to make sure it fit the room and that the sections would mate. Once this was done, the bench work for the individual sections could be constructed.

Now that Larry had some ideas and plans about the bench work for the sections, he needed to think about moving them. Since the layout had to moved, weight was a consideration. Larry came up with a solution. The track and buildings are mounted on the minimum amount of surface. The base roadbed and building areas were constructed next on the section frame work. Since the scenery needs to have a contour at the front and rear of the sections, as well as the ends, these contours were installed next. When Larry planed the sections, he made sure that even the lowest track was placed on a riser. This allowed the scenery to drop below the track level. The scenery was made by wadding up newspaper to form the base and then laying plaster cloth over that. Larry only used a few layers of plaster cloth to keep the weight down. This forms a hard shell that is good for a stationary layout, but not for one that needs to move. What Larry did next was clever. He turned the section over and removed all the wadded up newspaper. Then, he coated the whole underside with casting resin. The plaster cloth has a mesh backing that is exposed on the back side. The casting resin soaks into this mesh and makes it very strong. The result was a very durable and light weight scenery shell. Note that we have not talked about track yet. Larry puts the track down after the scenery shell is complete.

This stone arch bridge was made with a 1/16" styrene core and overlaid with embossed stone pattern styrene. The arch stones and cap stones were made individually.

The layout is an around the wall layout, which means you need to get into it. There are a lot of ways to do this with gates, lift out sections, or roll out sections. Larry has a good smooth floor to work with, so he made a roll out section. The section also has the ability to duck under in case you need to get out fast. The workmanship on the roll out section is outstanding, and gives you some idea of the rest of the bench construction. When the roll out is installed, there are two latches that lock it in place. All the sections on Larry's layout fit so well that he does not need rail joiners between the sections. On the roll out section, there will be a river with two bridges over it. The high bridge will be a girder bridge; and the low bridge will be a swing bridge. The girder bridge is fairly straight forward, but Larry is still thinking about how to do the swing bridge. The bridge will be scratch built like the others, but what components to use are still being debated.

The buildings and bridges are scratch built. I was fascinated by the buildings and how he does them, so I decided to do a separate article on the buildings themselves. That article is in this issue also. Larry makes the bridge piers and head supports from resin castings made by him. The bridge girders are also cast by Larry. They were interesting also. Larry casts them in short segments that get assembled into any length he needs. I thought that was a good idea. By doing this, the bridges are not all the same on the layout. The stone bridges were made on 1/16" styrene forms with plastic stone pattern sheets glued to them. The arch stones were hand made. Take a look at the curved stone arch bridge with the two different sizes of arches. This is a very nice looking bridge.

The track is code 100 flex track laid on cork road bed. Larry used O Scale cork roadbed and cut it narrower to work for S Scale. He also uses a foam roadbed on top of the cork when doing the main line. Larry likes the high ballast line for the main tracks. On sidings, he leaves the foam out, dropping the siding below the main as on the prototypes. The little bit of elevation change looks good. At present, there are no turnout controls and that is being worked out. To save some money, Larry is thinking about some throw rods that come to the front of the sections. The advantage to this is that a scale size switch stand could be modeled.

The layout is not complete yet (we all know they never are), but Larry takes some of the sections to shows. For the present time, Larry is using straight DC for control. He is debating whether to convert to DCC. Some wiring is in and there are plugs between the sections. Speaking of wiring – think about how nice the section idea is when you get to wiring. Just take the section out and set it on the work bench on it's side. No bending over. I am liking this even more.

Larry has a nice layout going, and is a credit to the hobby with the effort he puts into promoting S Scale modeling. Thanks for showing the layout to us Larry.

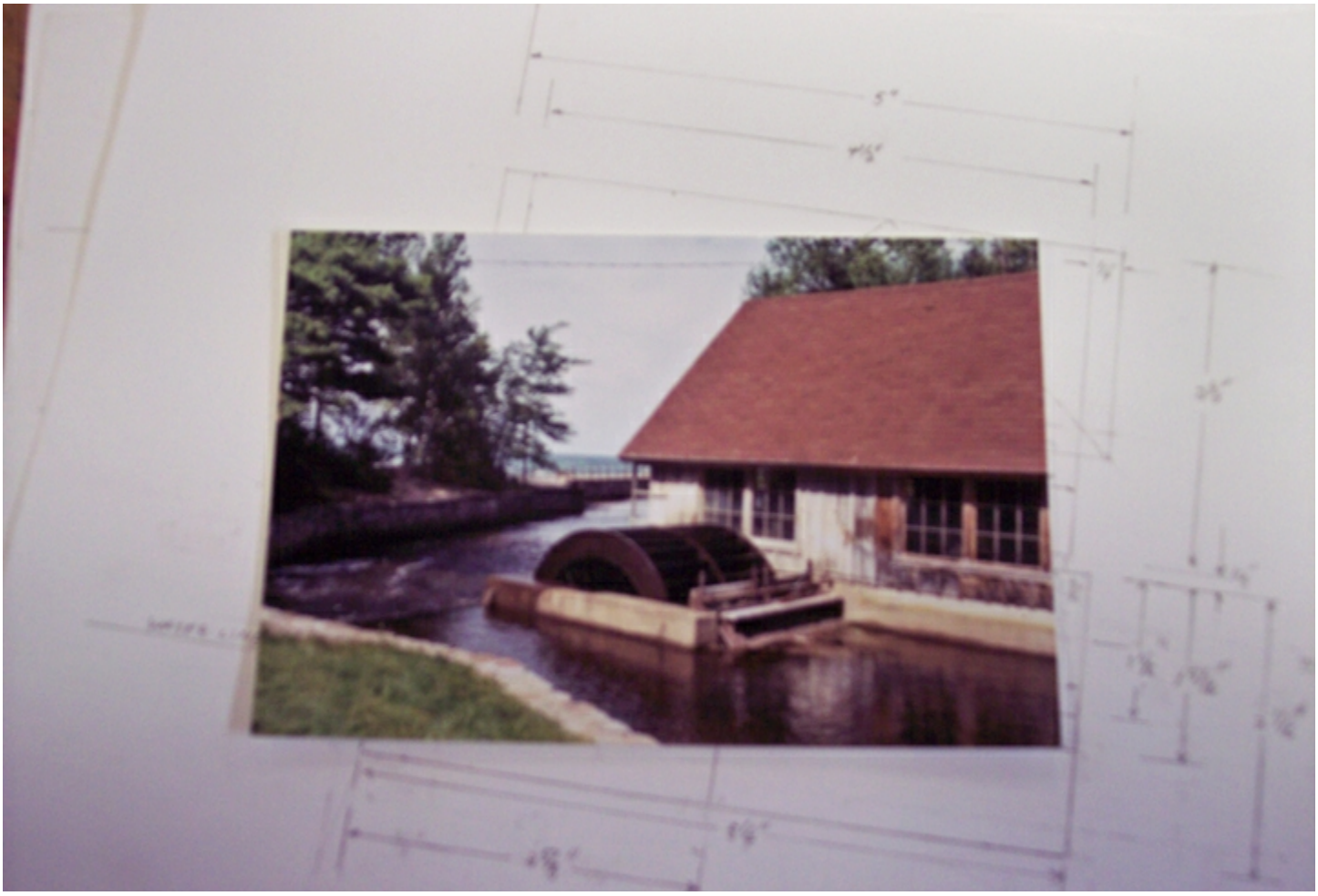
Thoughts On Scratch Building Structures

Larry Blank scratch built this mill based on one he saw on Lake Superior. He has captured the feel of the mill in his model by incorporating some of the key elements of the prototype in his model.

By Glenn Guerra

There are many times that we would like to have a building on our layout that is not available, or we would like to make an addition to a building kit. This usually involves scratch building or heavily modifying a kit. When I was visiting Larry Blank to see his layout, he was showing me all the scratch built buildings he has made. I wanted to show you some of what he does in this article. Many articles on making structures are for a single structure, and that may not be the one you are interested in. I want to back up a bit, looking at how the whole project is conceived and planned. Being able to conceive the look you want, and plan the project, you will be creating a kit for yourself that is not difficult to build.

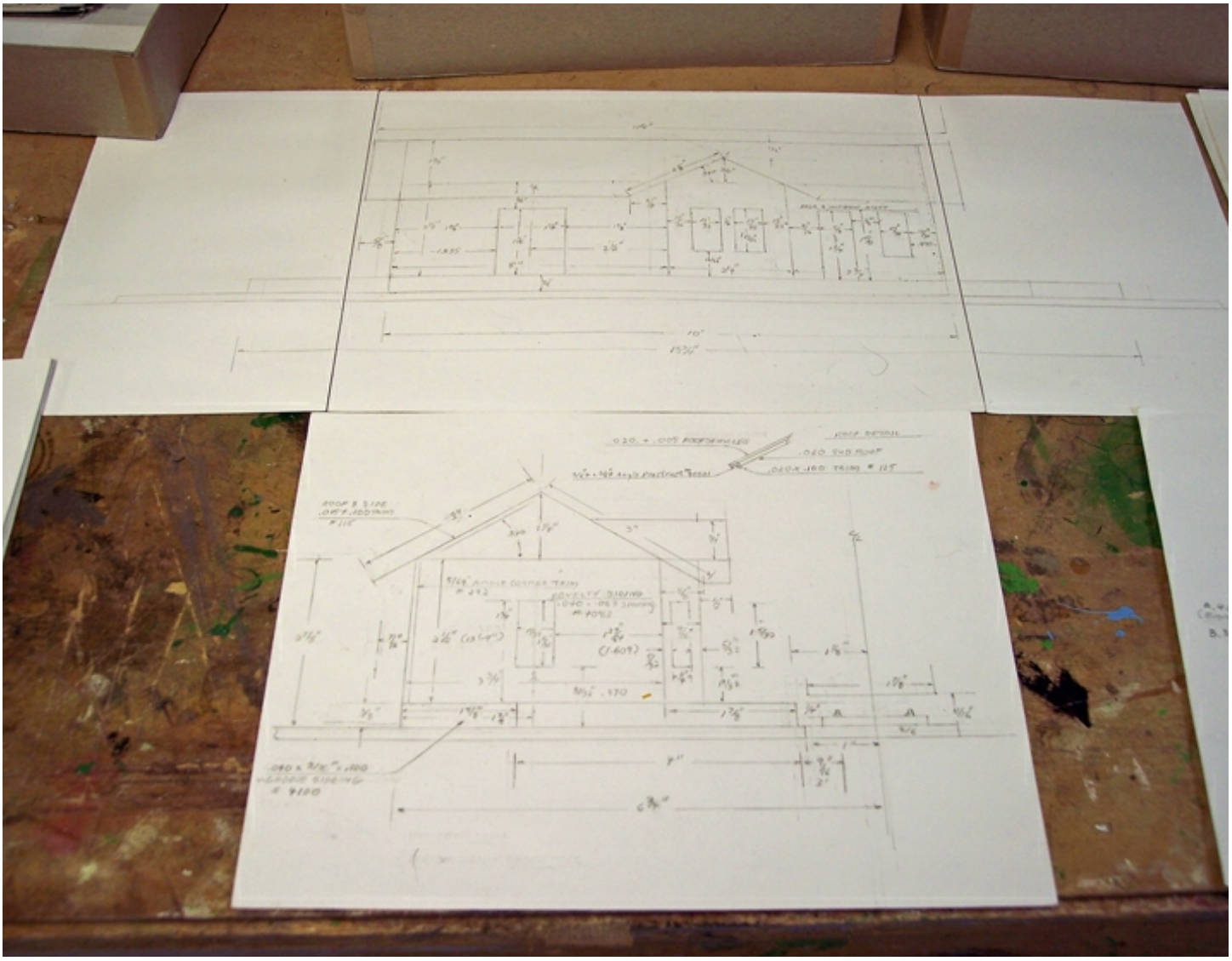
In your travels or research of your prototype, you have probably seen a building that you would like to have on your layout. Now, you need to figure out how to make it fit, and how to build it. In addition, you want to keep the character of the building. The first step is always to collect information. When Larry decides to make a building for his layout, the first thing he does is collect as much information as possible. The easiest thing to do is to take lots of photos. Get photos of not only the whole scene, but as many details as you can. If possible, get



Larry and his wife were on vacation near Munising, Michigan, and saw this old mill near the shore of Lake Superior. Larry started taking photos and looking for other information. Here is an example of one of the photos, and some of the drawings Larry made to make this building. See the photo on the previous page for the finished model. Note that the water wheel is a unique feature of the building, and Larry modeled it faithfully. Also, the way the mill pond is contained by concrete wall is a distinctive feature. These were the features Larry incorporated into his model.

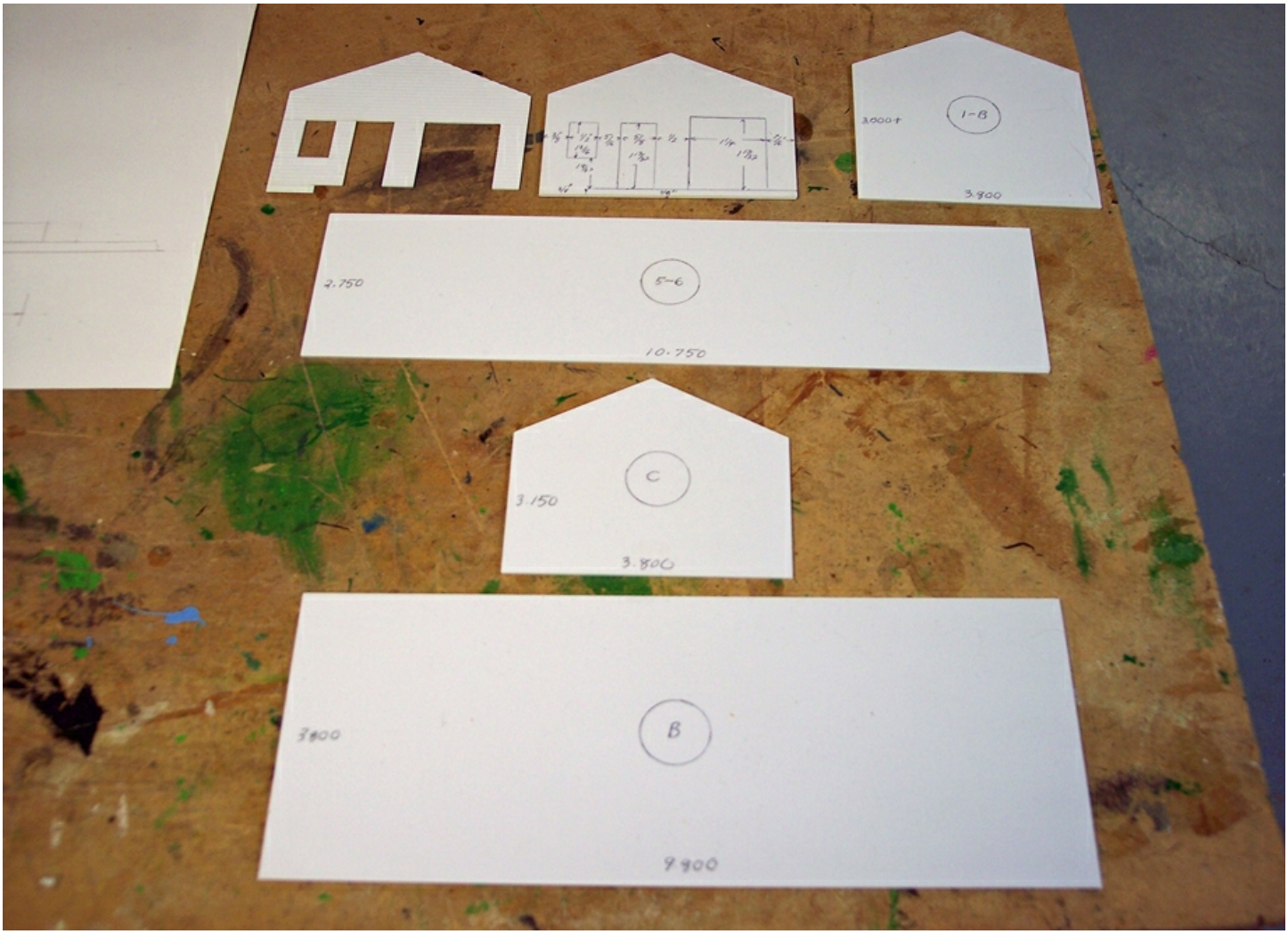
dimensions of the building. In some cases, prototype plans are available. If you are taking the photos, try to take some from straight on to minimize distortion. This will help you in determining dimensions. Take some detail photos and close ups also. When things of a known size (bricks or siding boards) are in the photo, you can use them for reference later.

The next step is to determine how much space you want to allocate to the building on your layout. Larry draws detailed scale plans of his layout. This helps him determine how much room he has to work with. It is easier to do all the planing on paper than it is to move track to fit a building in. When doing this, you will find that many times it is not possible to fit the building in full size. You may need to make some compromises. A common term for this is selective compression. Basically, this means that you will need to make the building smaller without losing the character of the building. This is where some of the art of modeling comes in. Look at your building, or for that matter your building complex, and try to see the different elements that make it up. By that, I mean look for the things that make it interesting. Things like dormers, window trim, door locations, loading ramps, overhangs, types of siding, and so on. If these features are prominent, you will want to make them prominent in your model. Imagine if you compressed a depot leaving the bay window off. The depot would not look right. If you make the windows a little closer together to make the bay window fit, no one will notice. They expect there to be a bay window, and you still have one. When you have a size that will fit your layout, the next step is to make some plans.



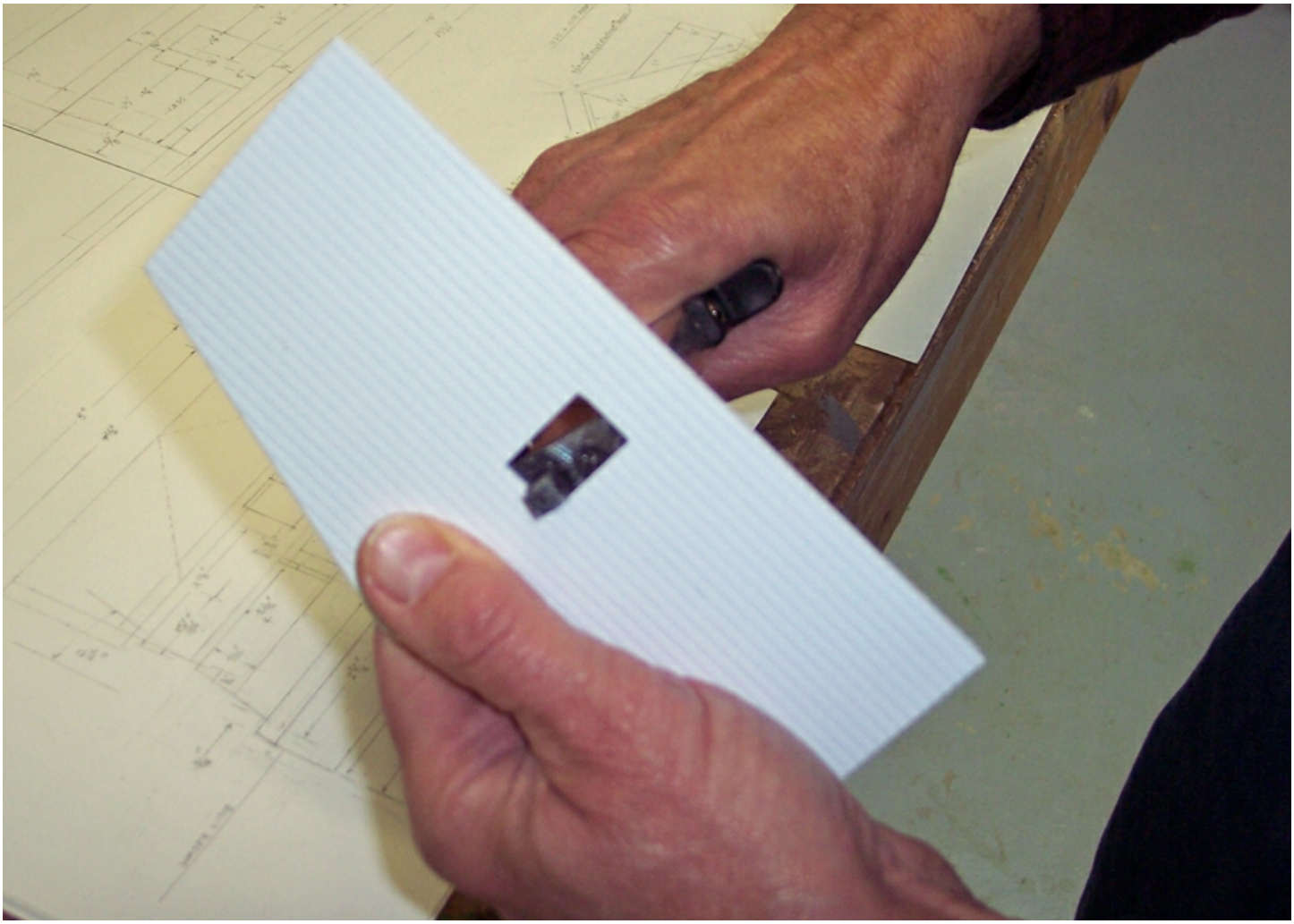
These are the plans Larry drew for his depots. There are four of them on the layout. Note that there are dimensions for all the parts he needs to cut. On the lower drawing, there is an enlargement of the roof construction with the thickness of styrene he used. On this sketch, Larry was determining how he was going to make the trim at the edge of the roof.

To start your plans, draw the building to scale if you can. In the larger scales, like S Scale, we have the advantage that we can draw the building full size for the location we will put it in. Start with the overall size of the building. Check to see how it will fit the space you have. Now, you can adjust it if you need. Then add the details like windows and doors. If you are using commercial windows and doors, measure them and draw them to size on your plan. Another way is to lay them on the plan to see how they will fit. Larry will do this, and then make a simple mockup of the building to see how it will look. Foam core board from the art store or craft store works good for these mock ups. I know some people who make copies of their drawings, and glue them to the mock up. Larry goes one step further, painting the mockup. Put this in place on the layout for a while, and see how it looks. Making changes now is not a problem. A lot of information for dimensions can be derived from photographs. For example, the size of a brick is fairly standard. By counting the bricks, you can determine some dimensions. Counting siding boards is another help. A lot of siding is 5½" to 6" wide. Larry determined the pitch of a roof by counting siding. What you need is the height at the peak. And the number of siding boards multiplied by six will tell you the height from the eave at the front of the building. Divide the height to the peak by half the the width, and this will give you the pitch. Draw the front, sides, and rear as they will look. These drawings and mockups will finalize the size and look of your building. The next step is to think about how you will build the model.



This is the payback for all the planning. Larry cut these parts to the dimensions he had on his drawings, and everything fit. He made four kits so he could build the depots on the layout. Three are already finished, and this one will go on the peninsula. The part on the upper left is the siding for the end way of the depot. Larry cuts the doors and windows in these first. The part next to it is the core wall. Larry will laminate the siding to the core wall first, and then cut and trim the doors and windows to match the openings in the siding. Note the other parts have reference notes on them so Larry knows where they go relative to the plans he made. At this point, a kit has been created for your building.

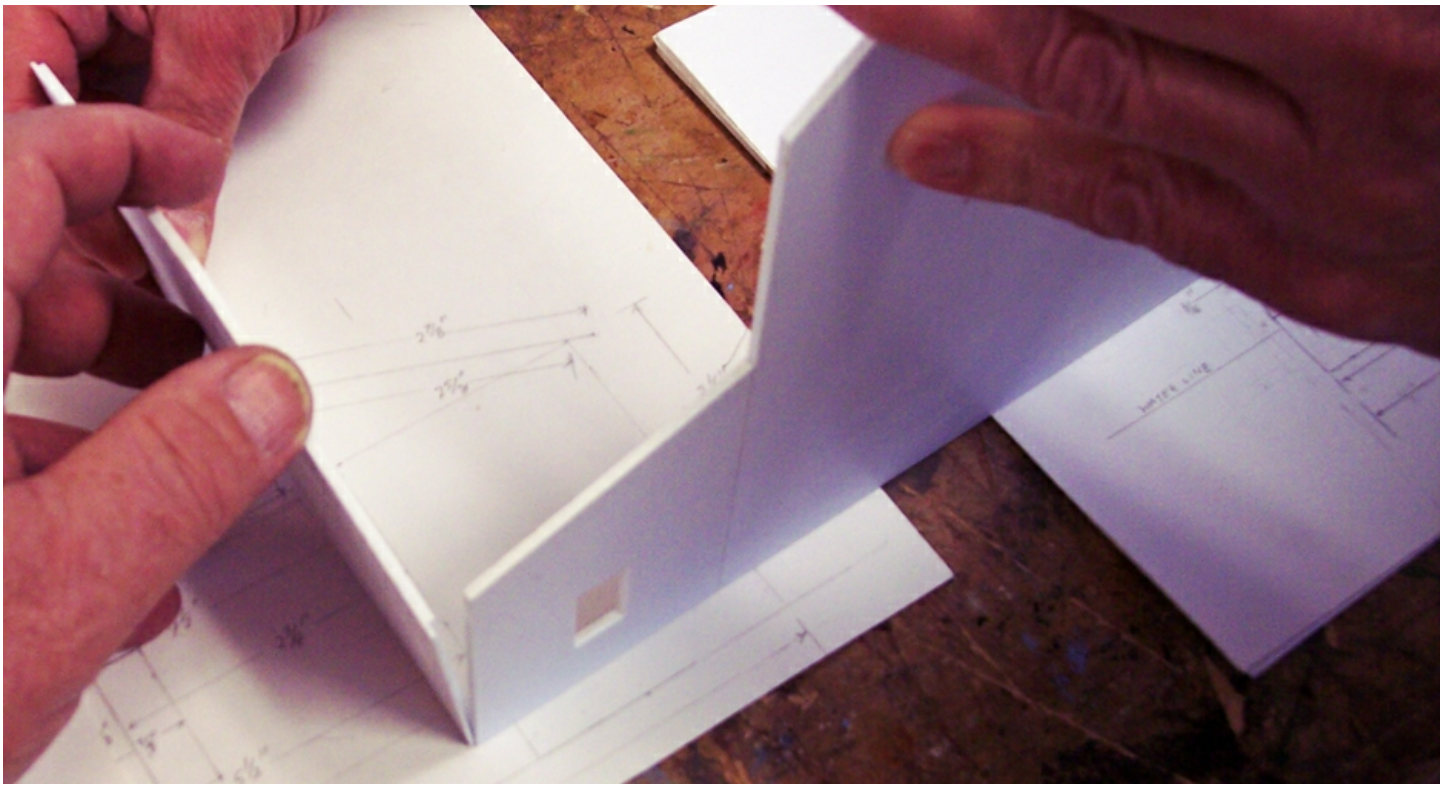
When building the model, there are some considerations. One of the biggest is whether or not you want an interior. If you do want an interior, it will be important to think about how you plan to get the details inside the model. This involves removable roofs and/or removable floors. Another consideration is durability of the buildings. Larry built a sectional layout with the intent that it could be moved. This means that the whole layout, including the buildings, must be able to withstand handling. You also need to consider how you will do the details. For example, Larry uses predominantly ready made doors and windows. These come in limited sizes and styles. These will need to be fit to the size of the building as previously determined. The style of the detail parts you use may influence the character of the building you are modeling. For example, the building you want to model may have double hung windows with two panes in the top and one on the bottom. A commercial double hung window with four panes on the top and the bottom could be modified. Cut out all of the bottom ones and the horizontal mullions on the top. A simple change like this will be more noticeable to the character of your building than the size. This is a detail you will see from across the street, not the fact the window is 4” too wide. Think about roof and eve trim, and how you will do it. With a removable roof, it usually works better to have the support brackets glued to the wall not the roof. Once you have these considerations worked out, make any changes to your drawings. Now it is time to plan the construction.



Larry uses a nibbler to cut the openings for doors and windows in the siding. The nibbler will make square corners, and it is easy to control the cut.

Larry likes to make a core for his buildings. This provides a good solid building to apply details and siding to. To help visualize how this will work, draw a top section view. On this view, add the correct dimensions. Do not try to build a model by measuring your drawing, always dimension your drawing, and use those dimensions. I thought Larry had some very well detailed drawings with dimensions on them, and it paid off for him. On this top view, add the siding material. For example, Larry uses 1/16" styrene for his core with styrene siding glued over that. At the corner, Larry makes a lap joint for added strength. Draw a large version of this so you can dimension it better. On one side of the building, your siding and the core will be the same width. On the adjacent side, the siding will need to be wider than the core by the thickness of the core and siding. Now, Larry has created the lap joint which will add more glue surface to the joint making it stronger. If interior partitions and floors are going to be added, they need to be dimensioned on the drawing. If there is an interior, and you want the floor removable, think about how you want to do it. Most buildings have the siding covering the floor joist and sills. By making the siding overhang the core by 3/16" at the bottom, you can make a step that will locate a 3/16" floor. It usually works best if you glue the interior partitions to the core and not the floor. This will help to make the building stronger. For the interior partitions, a simple butt joint is usually sufficient. If there are other interior details, like a chair rail molding and wainscoting, they will help captivate the partitions and provide more glue surface which will make the joint stronger. With the lap joint on the corner, the basic building will need to be assembled prior to installing the partitions. On a large building, the partitions may be easier to install prior to assembling the basic building. Think these details through while you are making the final drawings. Changes are a simple matter of erasing and not remaking the parts. Spending time working on drawings and sketches is not time wasted.

Larry made this fixture to help align the cores and the sides on his buildings. He is working on a piece of glass which is flat. Note the tape on the fixture to keep the parts from sticking when glue comes out at the edges. Larry has a core and the upper siding in the fixture to show you how it works for aligning the parts.



Here, you can see the lap joint at the corner of the building. This joint makes the corner stronger.

These two views show some of the bracing inside of Larry's buildings. The top one is the freight house, and the bottom one is the stone mill. The stone mill is a large building, and Larry added a lot of wood supports to keep the sides flat.

The drawings in the photo on the third page of this article are for this depot. Larry built three of these so far, and there is one more cut and ready to assemble.

The parts for this freight house are shown in the photo on the fourth page of this article. Larry has built two of these so far. There are already parts cut for another one. The peak of the roof is a piece of small brass tubing with a round head pin stuck in the end for a finial.

Once Larry has finished his drawings, he cuts the parts to the dimensions on his drawings. The more accurate you are in laying out the cuts, the less fiddling you will do during the assembly. Since the doors and windows fit snug in the siding, Larry puts those openings in the siding before he assembles the walls. The first step is to again accurately draw the openings on your siding. To cut the openings out, Larry uses a nibbler. Simply drill a hole in the styrene siding, and then insert the nibbler. Each squeeze of the handle will take out a small rectangle from the opening and the corners will be square. Keep nibbling up to your layout lines. You can cut the windows and doors in the core also, but this adds complications to the accuracy of your work. It's one thing to lay the windows out right once, and quite another thing to layout the second set to match. This makes too many places where things will not line up. Larry glues the siding on the core first, and then cuts the opening in the core to match the openings in the siding. It is much easier to nibble up to the previous opening than to have your two openings line up. With this done, it is time to start the assembly.

When you do start construction, there are some different ways of doing it. I sometimes like to build the core first and then apply the siding. This seems like the logical way to do it, but it makes gluing the siding on a lot harder because you are working with the whole building. Larry likes to glue the siding on before assembling the core. I like what he did. Since alignment is critical, Larry made a fixture to help him. He had a piece of glass cut with a square corner. Then, he made a board with two sides on it that are perfectly square. He lays the glass in the fixture, and that becomes a flat smooth surface to work on. When laminating two pieces together, glue will squeeze out on the edges and that would stick to the fixture. Larry solved this problem by putting some tape on the fixture. Larry used two sided tape with the separating film still on it. I suppose that Scotch Tape would work also. After the tape gets messed up, you can remove it and put another piece on. When I was doing wood work, I would wax my fixtures with paste floor wax to keep glue from sticking to the wood fixture. Larry starts with the walls that have the siding flush at the corners and the top. The top of the side is pushed up tight to the top of the fixture and the side edge of the building is pushed tight to the side of the fixture. The siding is checked for fit. Then glue is applied to the siding, and it is set in place. By using the fixture, the siding is flush on the top and each side of the core. The wall is also flat because you are working on flat glass. Larry has tried Locktite glue and styrene cement. If the siding is very thin, as the stone and brick sheets are, be careful with the styrene cement. Too much and it can melt the thin sheet. I'm one of those people that thinks, if a little glue is ok, a lot of glue is better. I melt a lot of thin styrene. The Locktite is a fast set glue like ACC. Larry said that it works very well, but you better have the pieces lined up because once they touch they are together. When you get to the sides that have the overhang on them, you need to have a method of aligning the parts on the sides. A spacer between the core and the fixture will work. Be careful not to glue it to your side assembly. Do as much on the sides as you can before assembling the basic building. When all the siding is on, finish cutting out the door and window openings in the core with the nibbler.

When you start to assemble the building, be sure to keep it square. Again, working on the glass will help. The size of the building will determine how it is assembled. On the small depots, it will work to assemble the whole building and then put the partitions in. Larry designed his buildings to be picked up off the layout for moving the layout. As a result, the building gets no strength from being mounted to the layout. Larry adds a lot of interior partitions, along with wood blocks to make the buildings stronger. To glue the wood to the styrene, Larry uses a glue similar to matte medium. It holds the two dissimilar materials together and dries clear. The rest of the assembly is similar to any other kit.

Being able to design and build your own structures will help you to achieve a look to your layout that may not be possible with commercial structures. In addition, you may want to add additions to a commercial structure. By taking your time designing and planing, you will be able to develop a kit that will get you what you want. The up front planing will also save you from frustration later. If you have not done a lot of design work, start with a small project. A section house or garage would be a simple building to design. It will help you develop your skills and get you the buildings you want.

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It was a long cold trip.