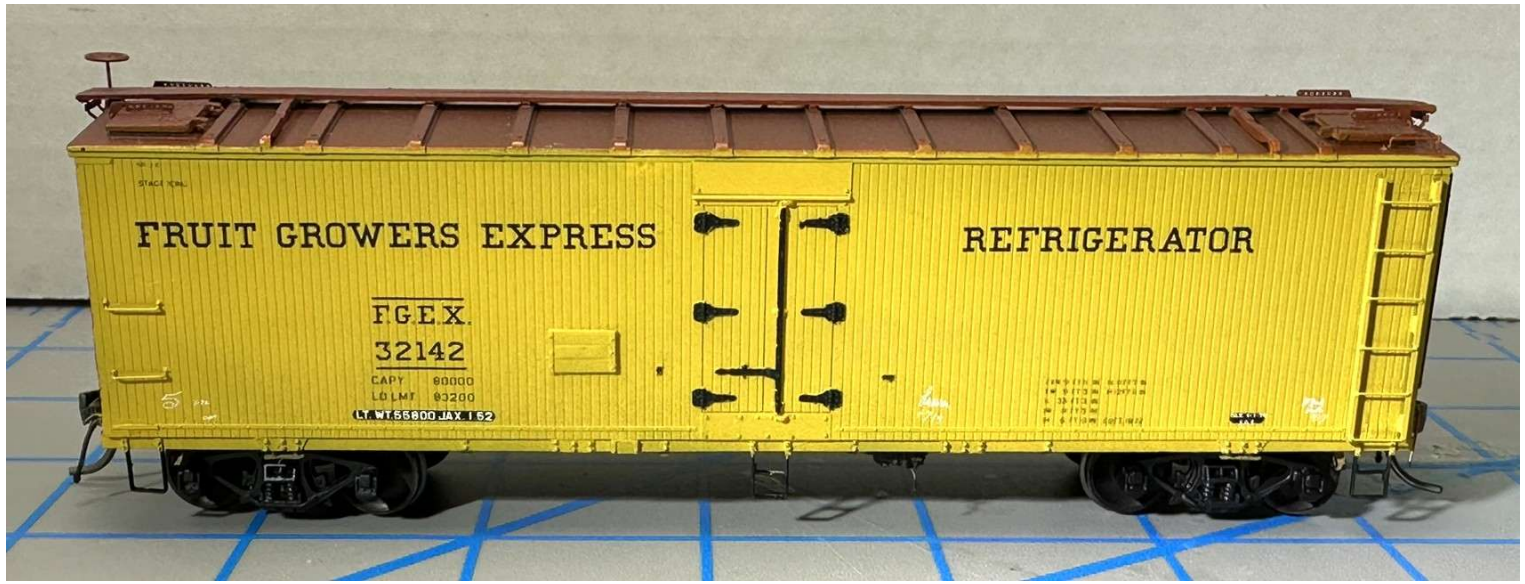
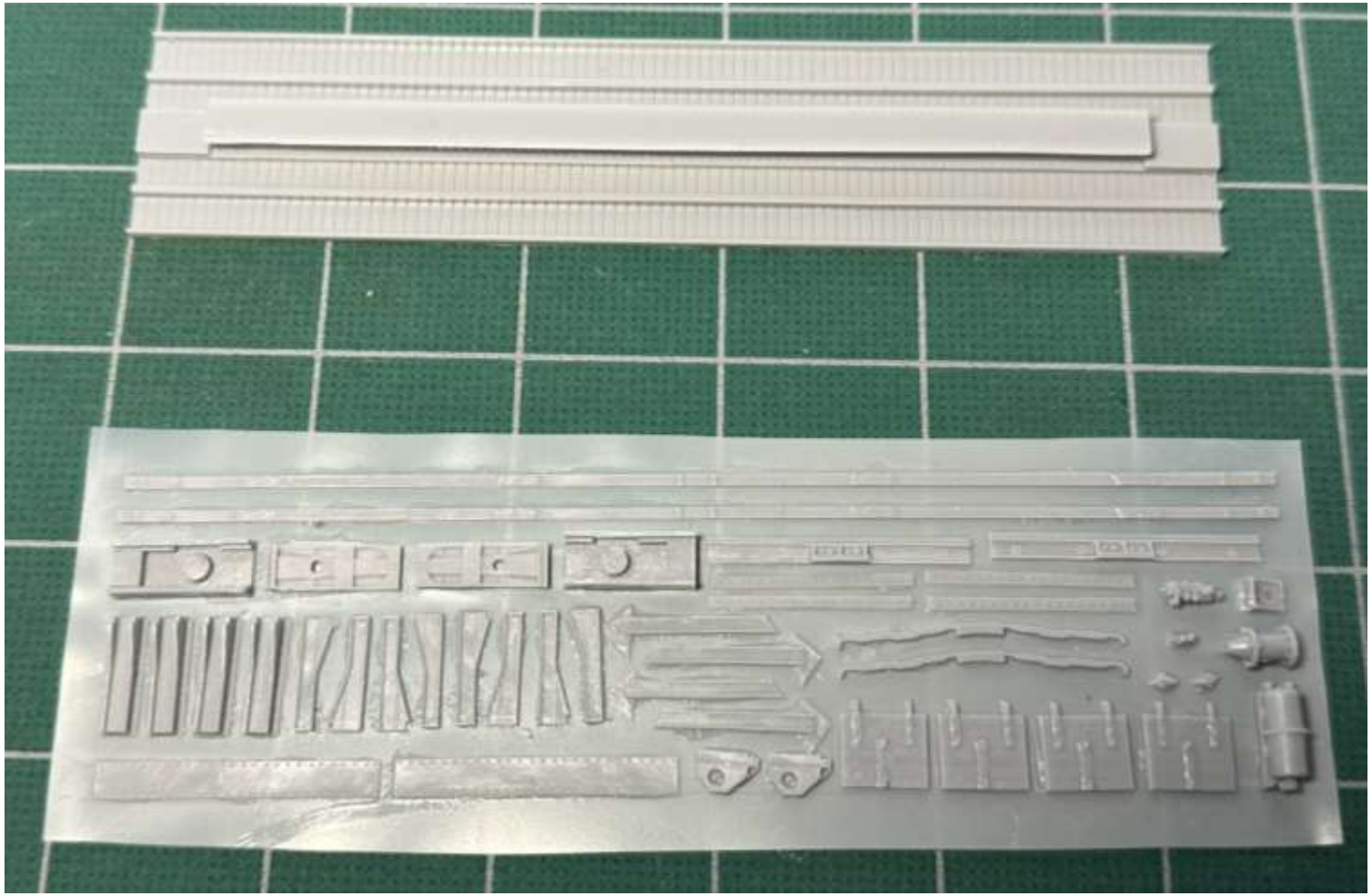
2025 FGE S-n-T
1921/1922 Design
Straight 6inch Sill
32100-35999



Written and built by George Toman

The 2025 Shake-n-Take consisted of an Accurail 4800 Series Reefer, RCW Resin Floor and parts Sheet, Tichy Brakes, Plano PE hatch Latches and National Scale Car Decals. Plano latches not in photo.

Below are the two Resin Car Works castings. A new floor and underframe parts and new hatches



To the right is a page from a Two Part Document on FGEX Wooden Cars written by Bill Welch. As the Collection went to Ted Culotta, I asked his permission to use this page.

This is the car that I modeled.

Experience apparently revealed that the four-inch side sill was not sufficient and consequently a six-inch member was applied. While most of the hardware appears to be the body color, the hinges, door latching hardware, and the fittings told hold the doors open are black. Postwar improvements made to the consortium's fleet included steel sheathing in the kickboard area under the doors and the area above the door flashing. This car was found in Palmetto, Florida on March 1, 1953.

Photo and page from Bill Welch

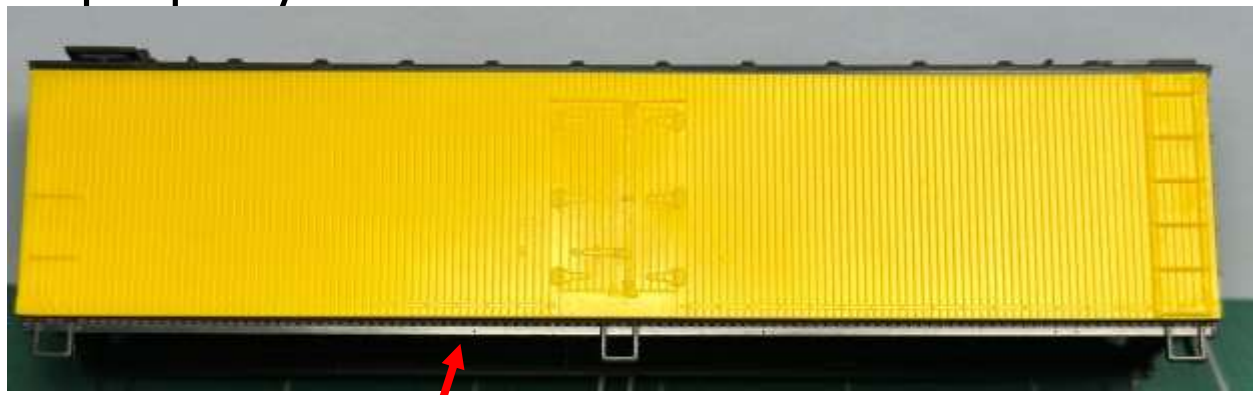
Lets look at some of the features of this FGE Car as pictured below

1 Control Valve on Right side of car. Reservoir on left side with Brake Cyc
2) Sill Steps Right and cent 2 steps
3)Door hardware painted Black rest yellow
4) No lower corner braces both left and right sides as on Accurail
5)Note the exposed bolster and cross bearer exposed 2 inch at bottom
6} Vertical Brake Staff used with AB Brakes
7) Lower left has angle support going all the way to car end

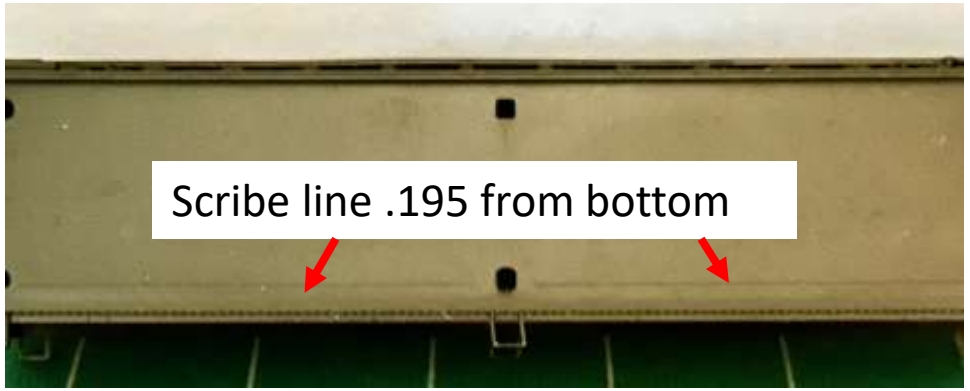
Photo from Bill Welch Collection

Getting Started

The Frame of this SnT FGE Reefer used a 6inch reinforced side sill. The resin parts sheet includes a new resin floor, bolsters side sill and cross bearers. In order for these to fit the Accurail Shell, the Black Shell height must be shortened for the new frame to fit properly.



Note in photo above that the Accurail frame below the removable yellow sides



As Brent Greer did in his SnT presentation, I made a scribe line along the bottom with my calipers set to .195 . You can see the faint scribe line I made with the yellow side removed. Important, please review slides on next page before scribing and cutting

As my shell was already cut, I am using Brent Greer's photo from the SnT presentation in Cocoa Beach.
Here you see a micro saw cutting from along the sides up to the scribe line. You then can either cut along the scribe or bend and break. I would use the micro saw.

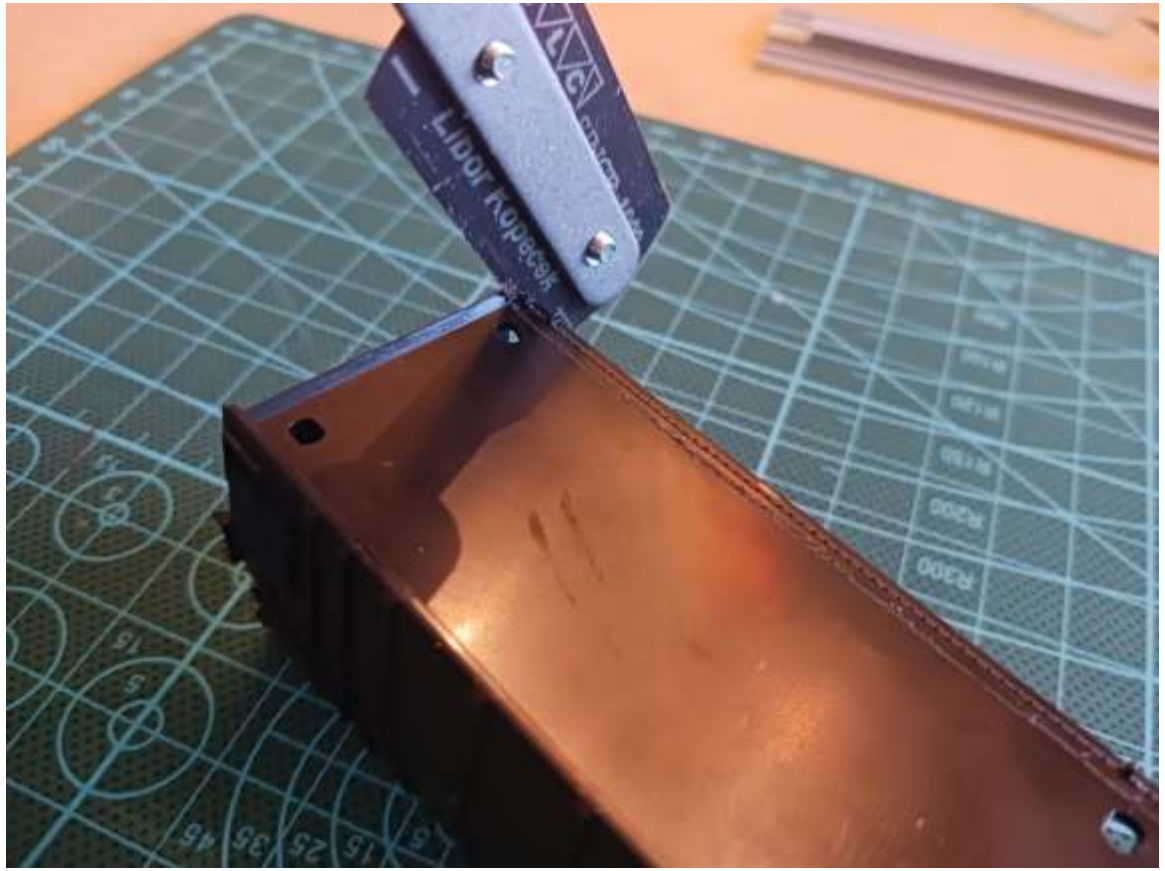
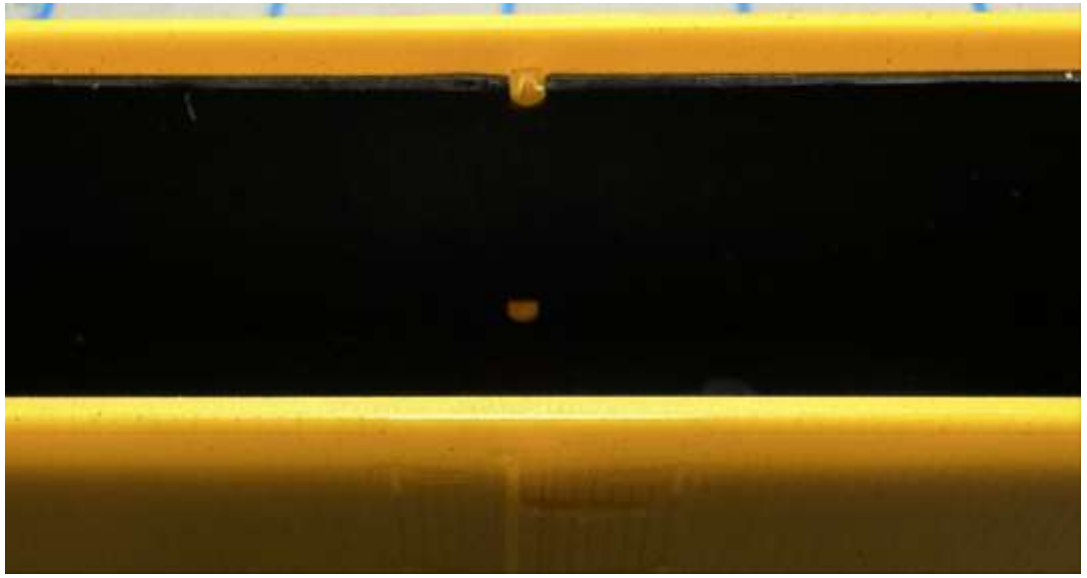


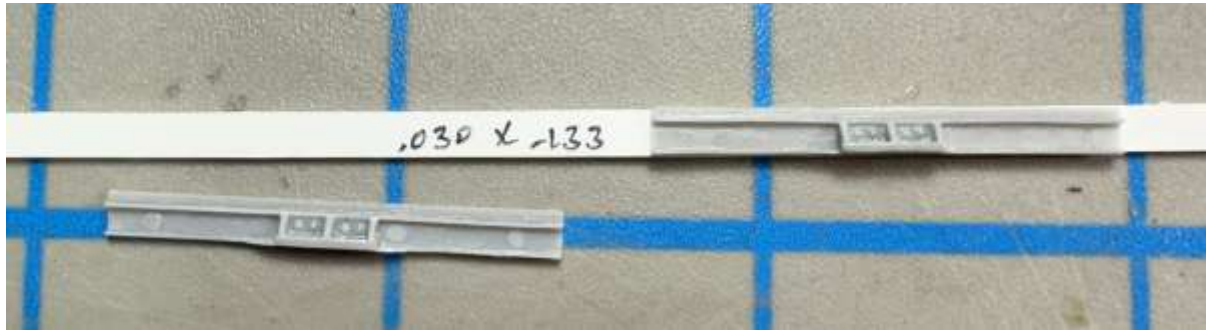
Photo Credit Brent Greer



Pictured above is back to my build showing how the sides look inserted into the shell creating a ledge for the new resin frame to rest at the proper distance. Note before cutting the black shell it is important to have sanded and measure the thickness of your floor assembly to make sure you cut the proper amount off.

The cast resin ends need to be fit in the ends as pictured below in Bill's Photo..

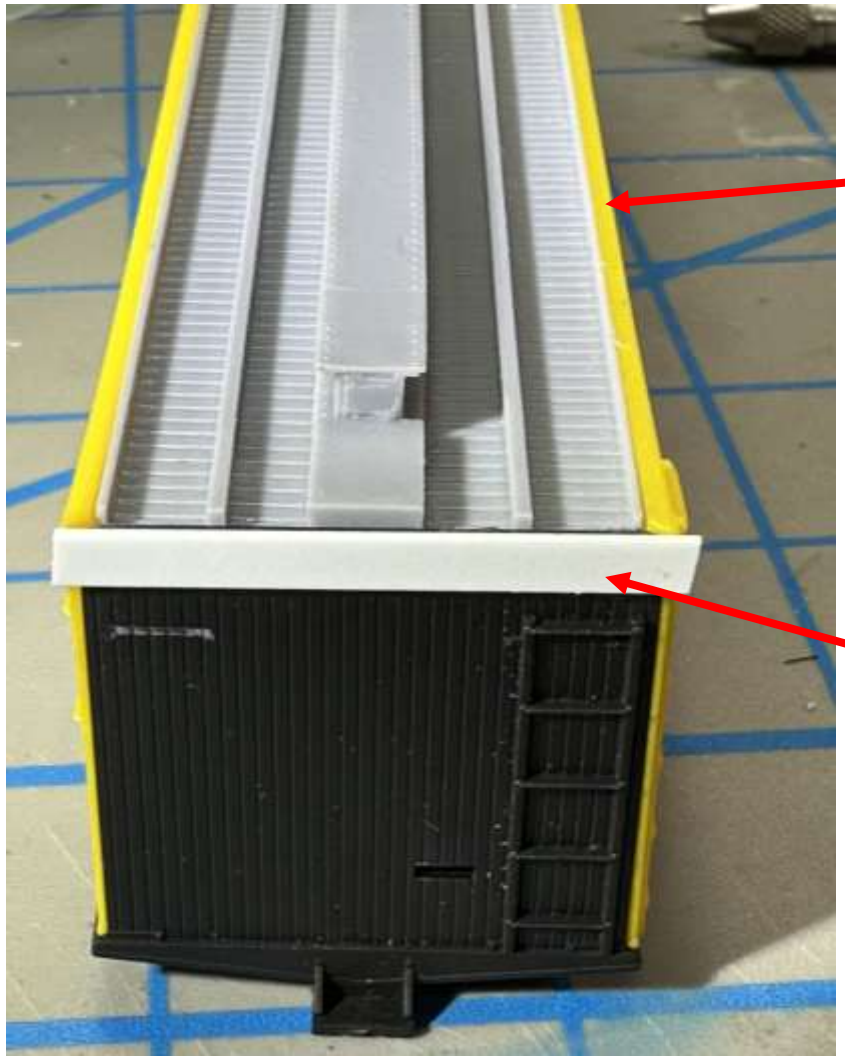
Pictured below are the resin end parts and a piece of styrene cut to the same height



The resin end was glued to the styrene and trimmed to length.

Note how the end is even with the sides and on top of side sill and the angled end

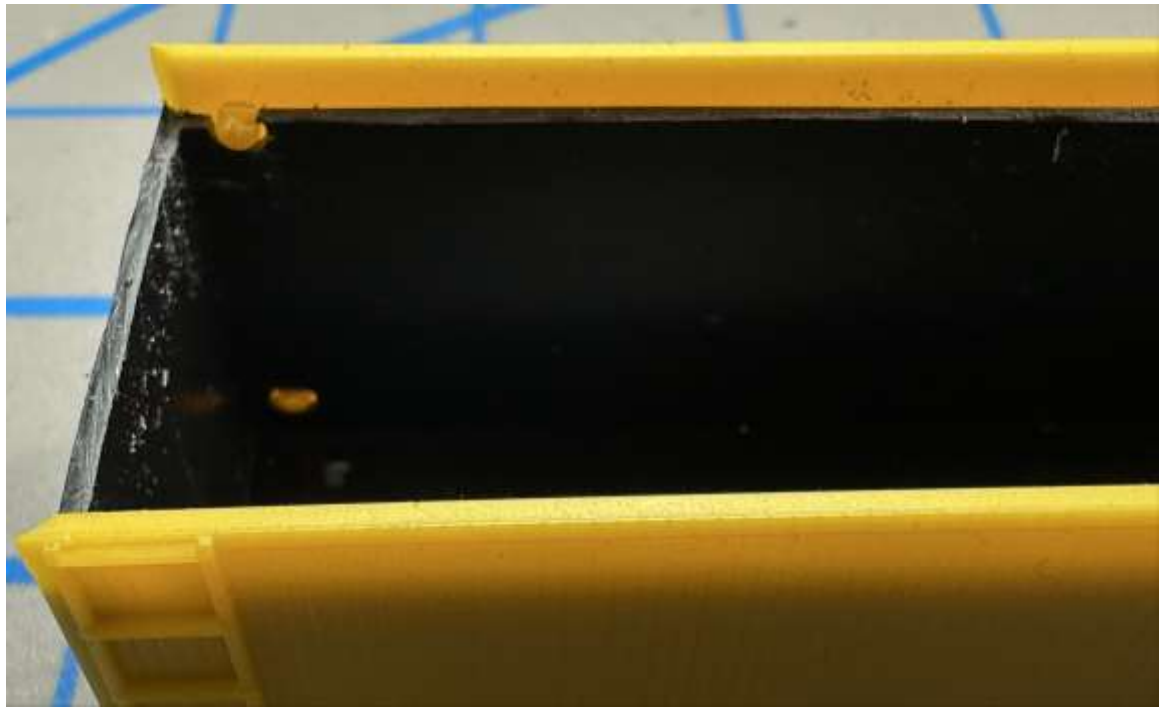
In the photo below I am showing how the resin floor nests in the shell after cutting. As the FGE use a Metal end we must also cut a piece out of the end to fit the resin casting.



Note that the resin floor was sanded to fit the Accurail shell and the resin side sills are even with the yellow car sides that are not yet glued in place

For my build I glued a .125 x .030 thick piece of styrene across the end as shown. I then used a micro scaw to cut this out.

Photo of how my shell looked after cutting



As my shell was bowing In quite a bit, I glued in some spacers as seen to the right

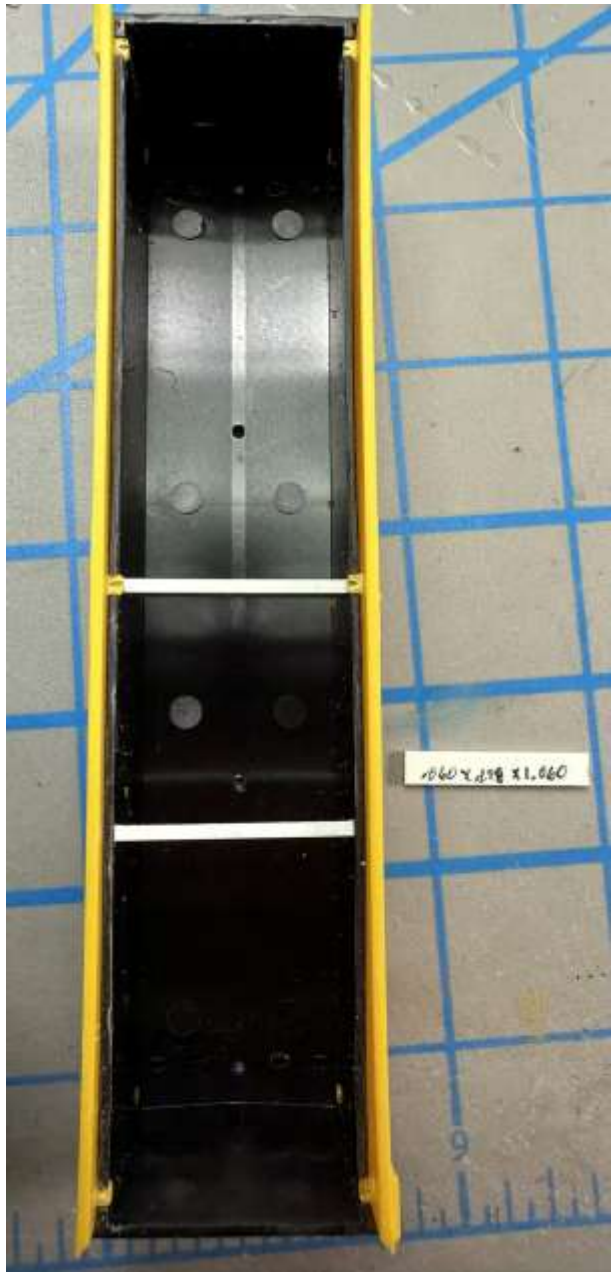
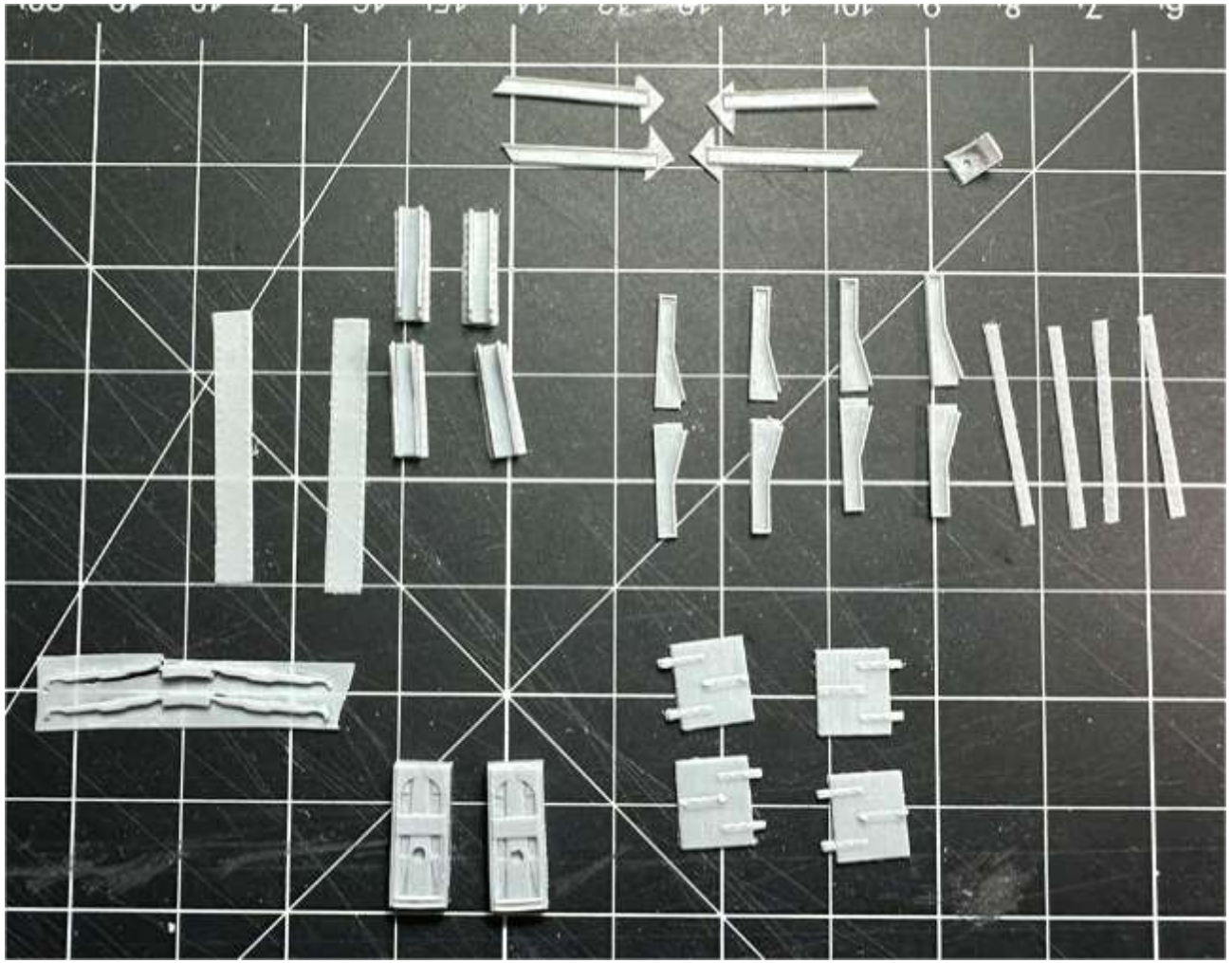


Photo of resin end being test fit. Note that I angled the resin end for a better fit

Note also that the resin end was laminated to a .030 thick piece of styrene to make a nice fit and butt up against the floor.
Also my floor was about .020 too short , so I added a bit to make a snug fit

The rest of the resin parts were sanded off the carrier sheet and prepped for installation



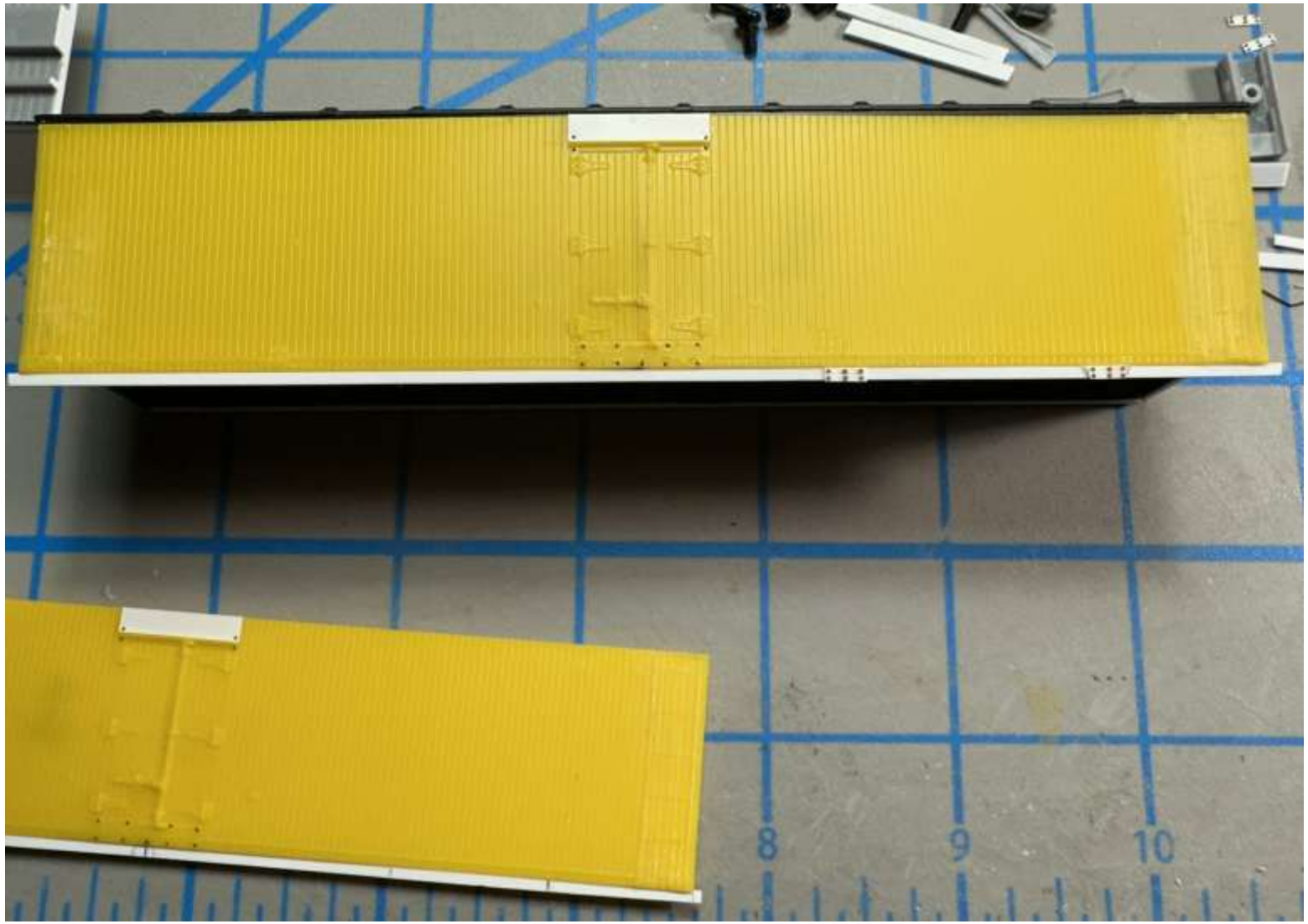
I found my resin side sill to be too short and decided to make a new one from styrene verses adding styrene to increase its length

I used .020x.060 styrene cut a bit longer than needed and glued to the side bottom with it set back in about .010 allowing for the thickness of the new plates. Also seen in the photo is a new reinforcement plate with rivets that will be added to the now plain styrene sill.

New plates were made from .005 x .060 styrene cut to shape and length as the resin ones were. Tichy rivet heads were cut off the stems and glued in place to make 4 with angled ends for over the bolster ends and 4 rectangular ones

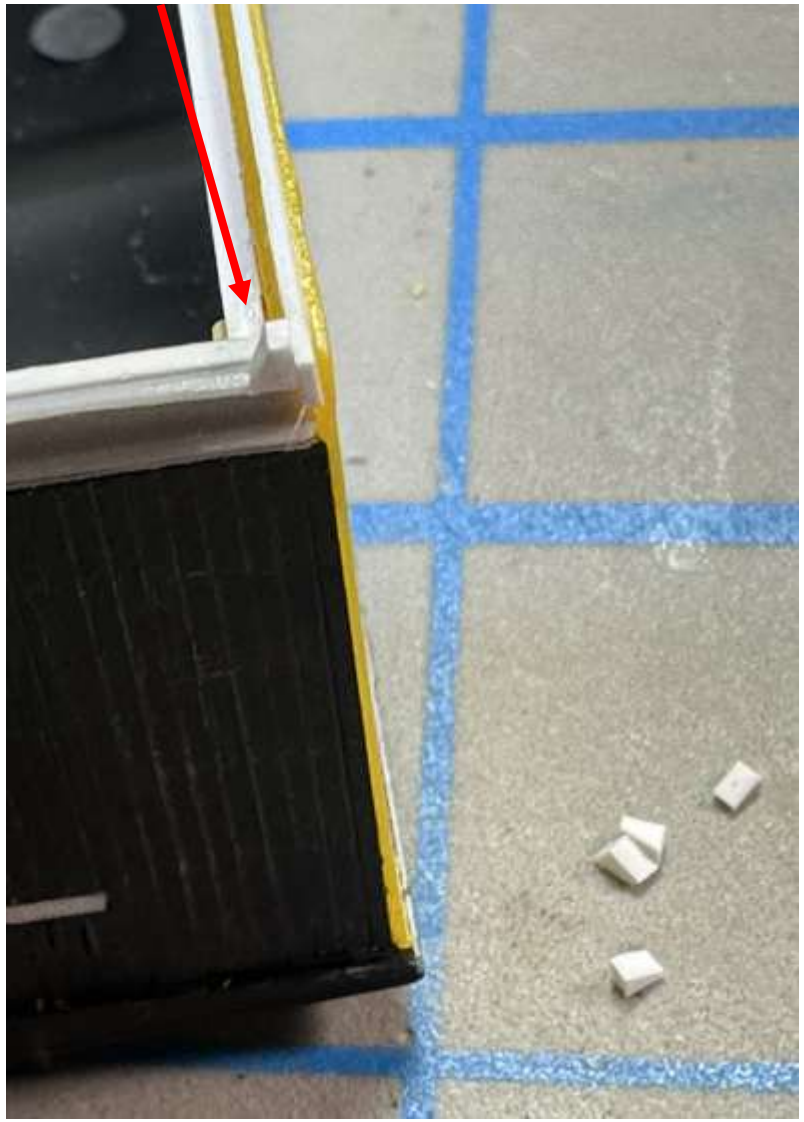
Here is the Draft Gear being test fit in place. The center sill will need to be shortened a bit.
Note floor is not yet glued in place.
The .020x.060 side sill can be seen glued in place

I started adding details to the sides. Note that the ladders and grabs have been shaved off.
As seen in Bill's photo, there was a metal plate above the door with rivet in the right and left lower corner. The plate below the door also had rivets. These were added with Athearn harvested rivets. You could use archer

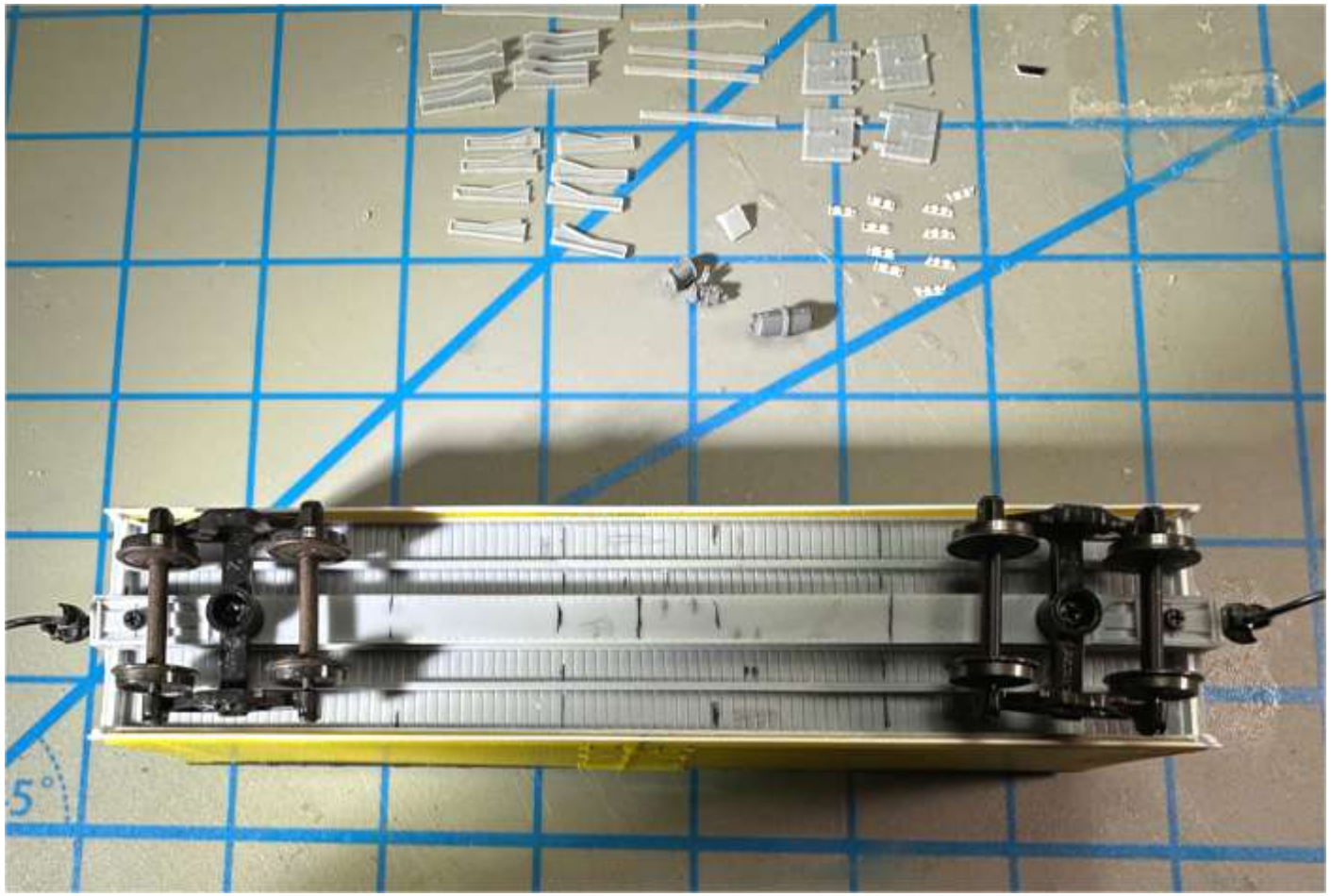


As seen in the photo, the lower corner brace was shaved off and the narrow reinforcement strip was fashioned from .005x.020 cut styrene and glued in place. A Athearn harvested rivet in orange from a PFE Reefer can be seen added.

Small styrene angles were cut from .040x.060 strip and glued in place to better represent the sill as seen in the photo. After drying, the excess length of the side sill will be trimmed flush.



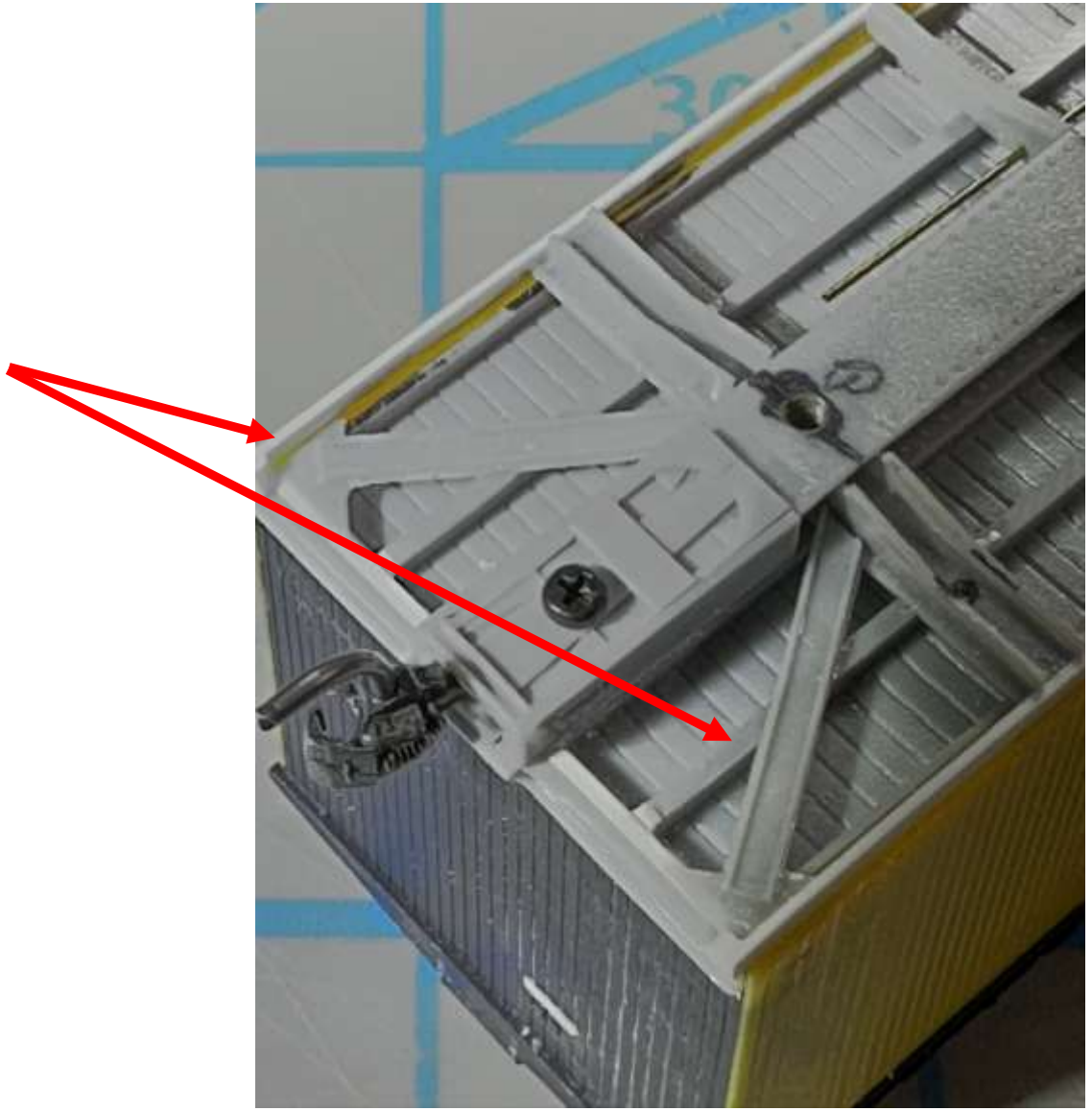
Here is the underframe after drilling the bolsters and fitting and drilling the draft gear. I also tapped the holes for 2-56 screws.
You see some marks on the underframe as I start to plan and layout the placement of the various parts pictured



Progress of ends and sides.
Note ladders, grabs and hatch stops on roof were shaved off.
Hole for the brake step was filled with styrene

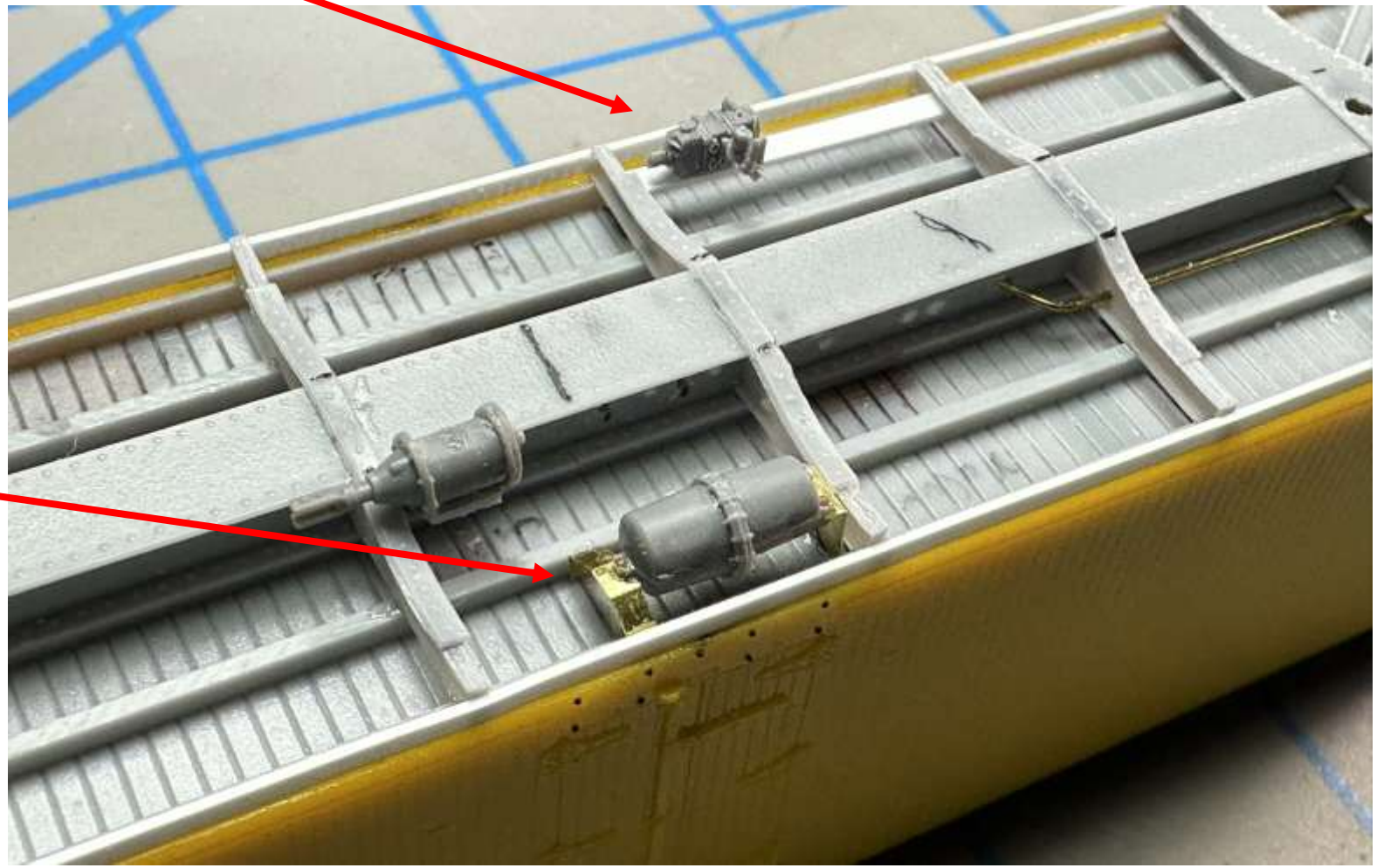
Before glueing the floor in I marked the center sill as to the location of the center line for the bolsters of the cross bearers. Also you can see where the airline crosses. The bolsters and cross bearers were drilled before installation for the airline and added as seen in photos. The airline was made from Tichy .020 wire.

Corner braces needed just a bit of sanding for a proper fit before gluing in place



The Control valve was mounted on the opposite side of the centersill as the brake cylinder. I used a styrene strip between the two cross bearers as seen below

The brake reservoir was mounted on some brackets made from .005 brass sheet as pictured



Here is how I did the brake piping and brake levers. Other photos from Bill’s document helped me determine the location of the major components

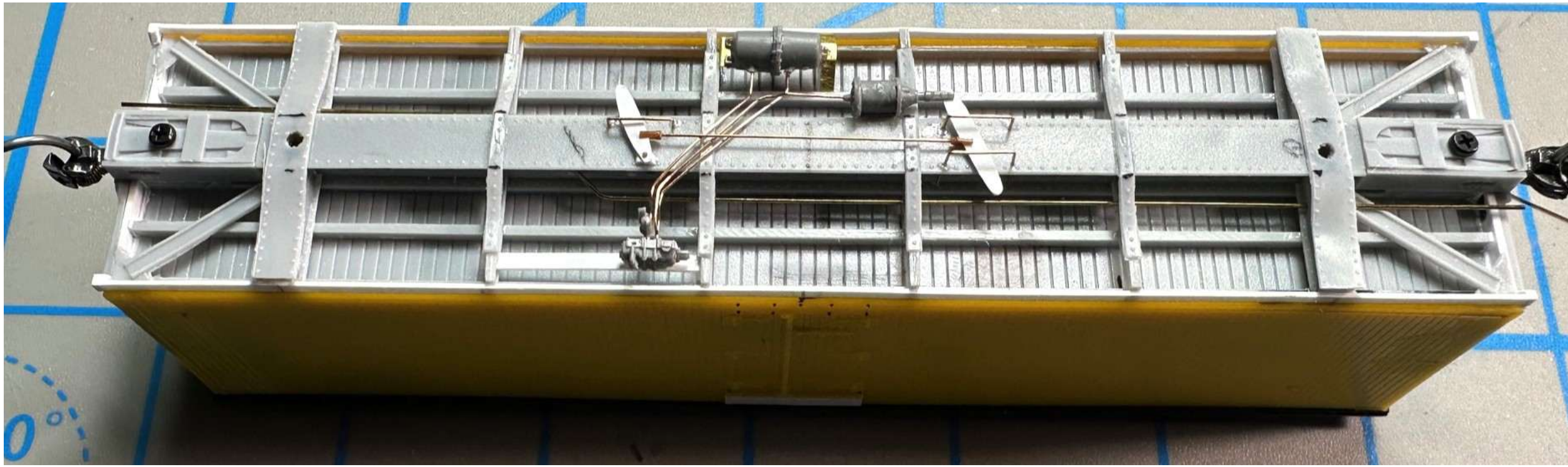
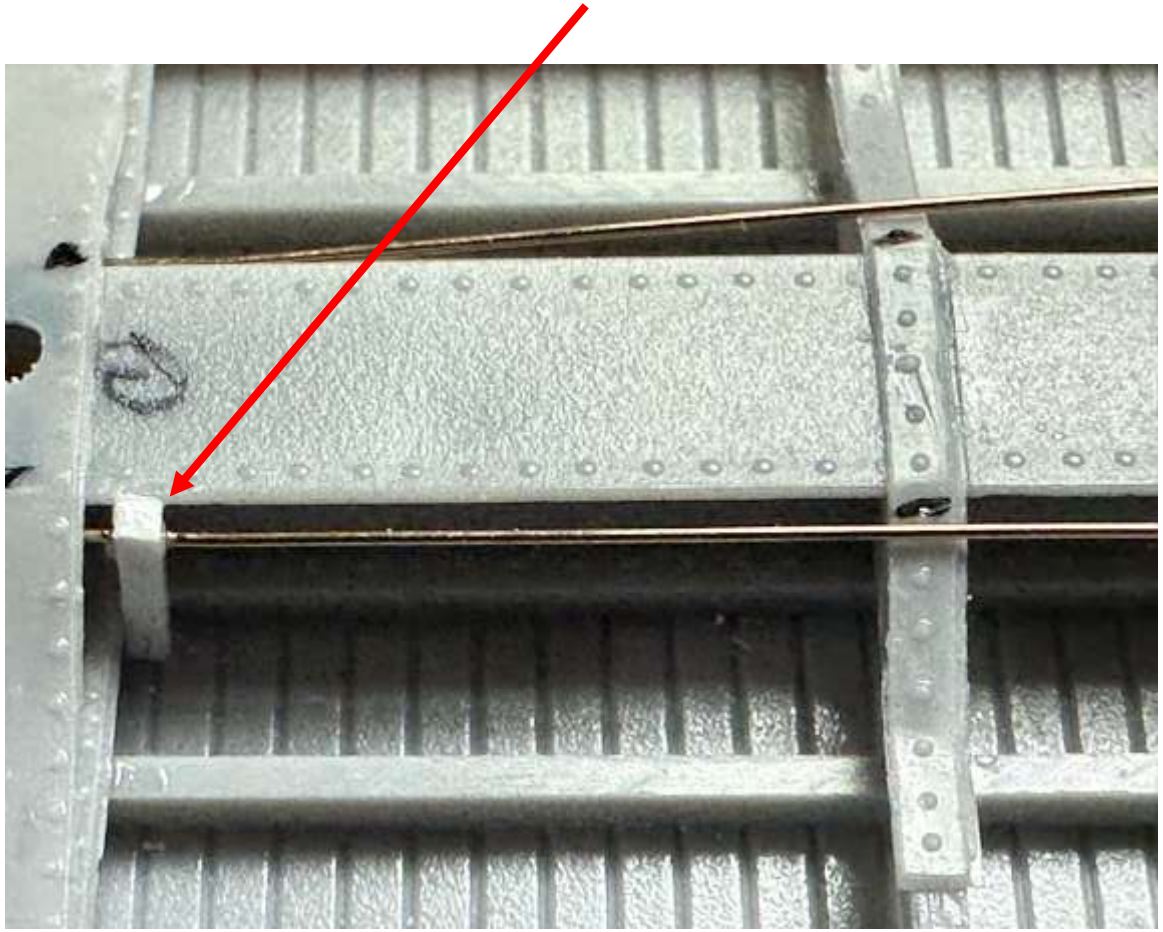
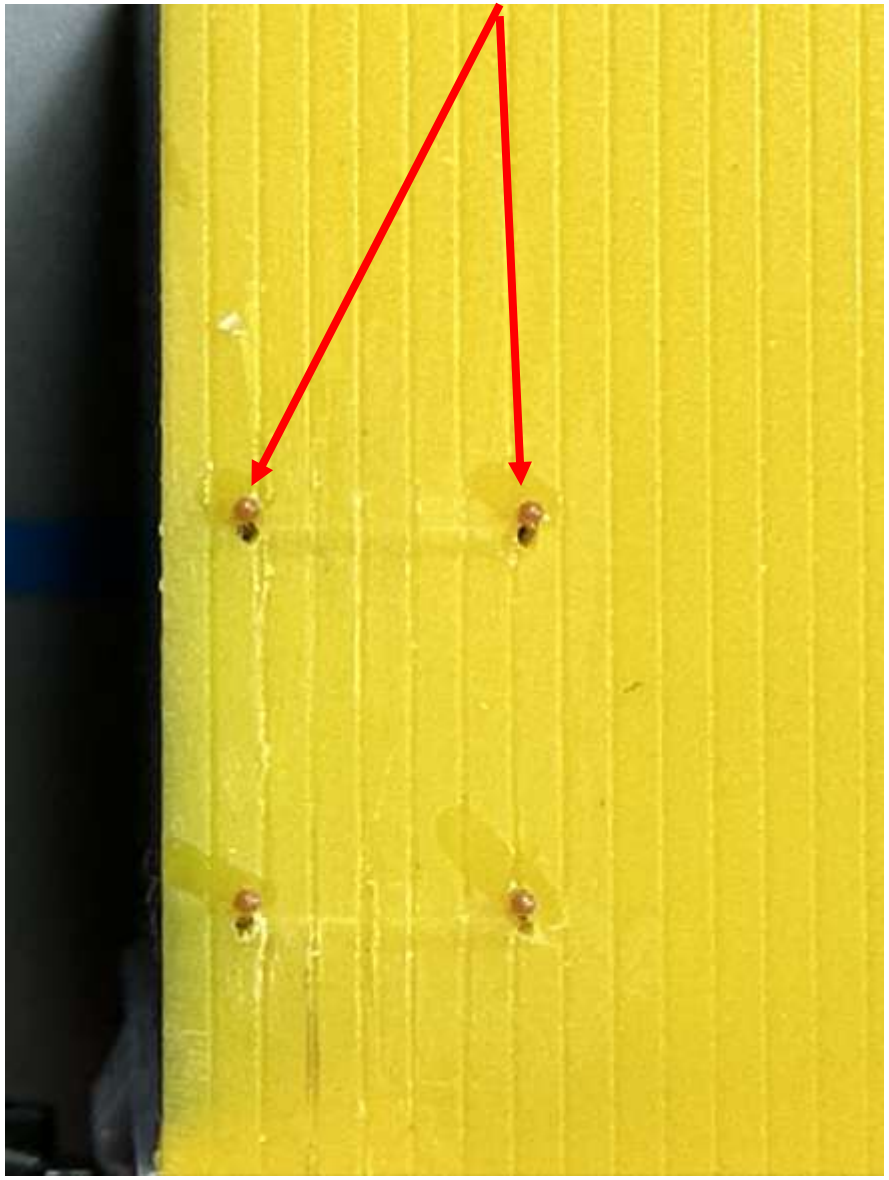


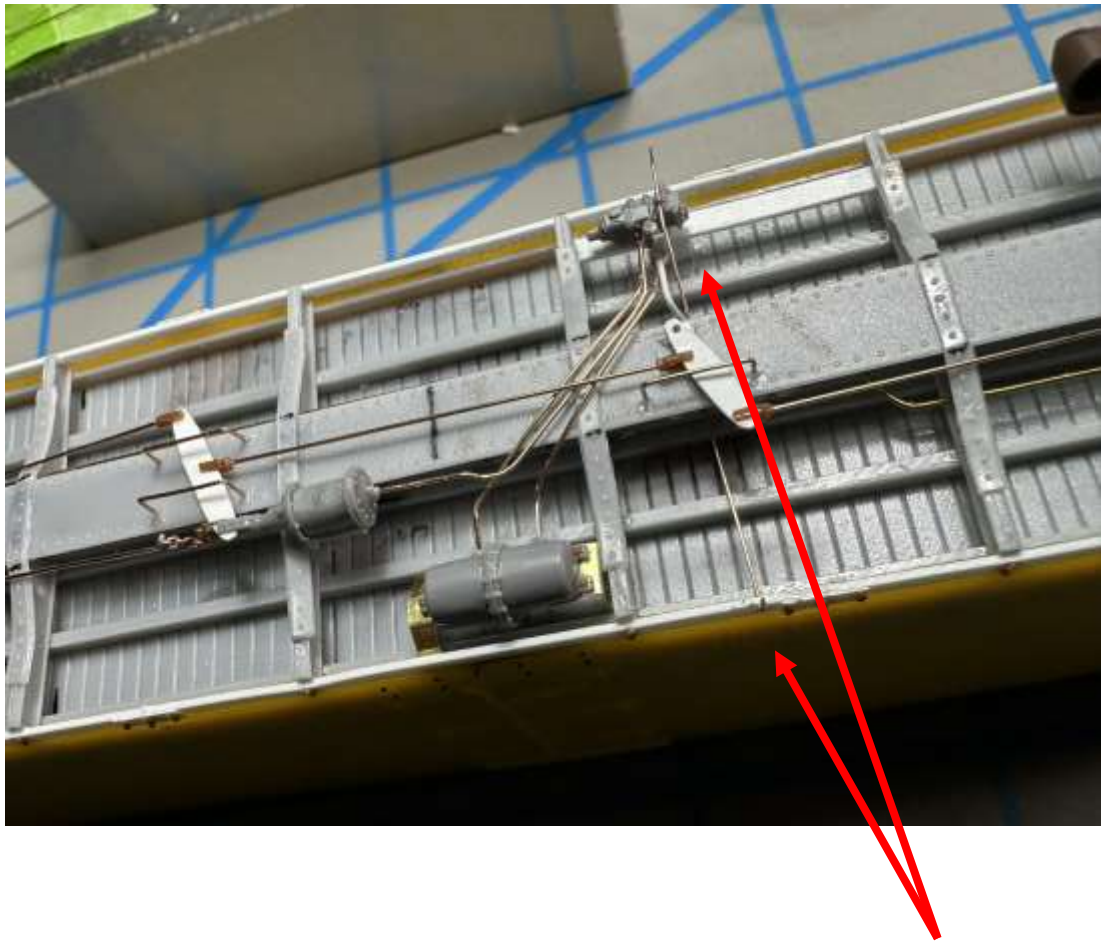
Photo below shows a .040 x .040 styrene vertical piece with a .0125 hole drilled for the brake rod that has the chain attached. The rod is able to slide in the hole and adjust the amount of slac/droop of the chain. Once I am happy with the look, I glue the rod in place with CA.



Yarmouth PE 18inch Stiles were user for the ladders. Rungs were made from .010 Tichy wire and soldered to the stiles in a Yarmouth Models assembly fixture as seen below.

Tichy .020 rivet heads were located above each of the grab holes as seen below





.008 Tichy wire was used for the control valve release rod as pictured

I cut .020 x .070 styrene strips for the running boards. Wood grain was added along with nail impressions and glued to the roof. The final length will be trimmed after glue dries

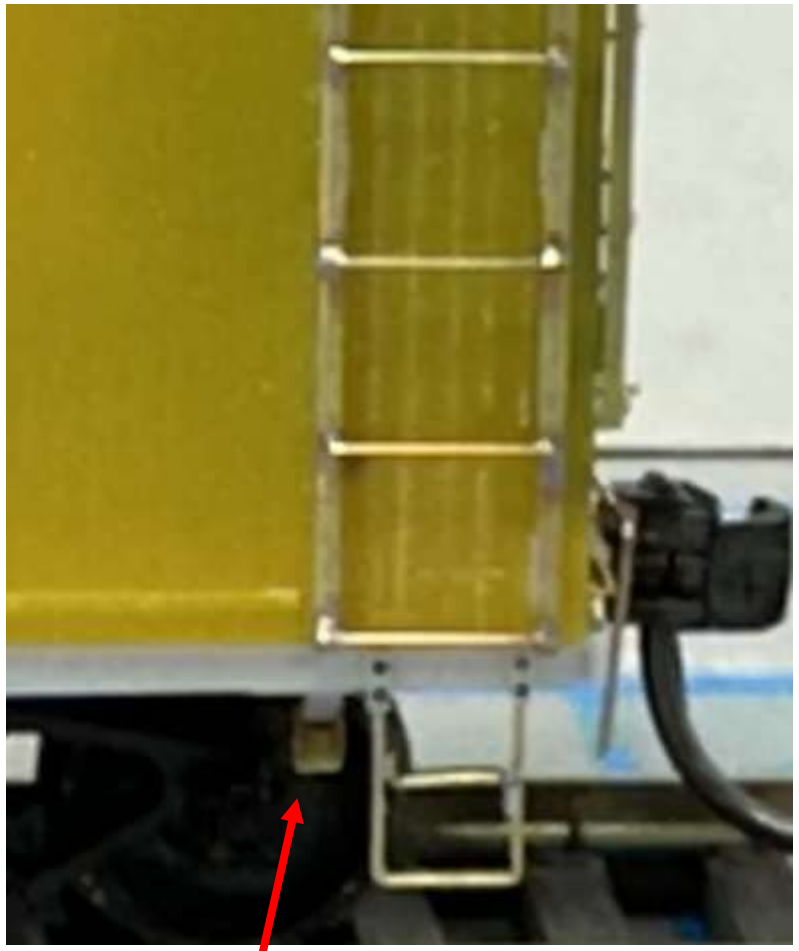
Yarmouth ice hatch latches were substituted . Tichy .008 wire loops were bent and holes drilled to mount the latches as pictured

Progress showing National Scale Car Tack and Route Boards mounted,

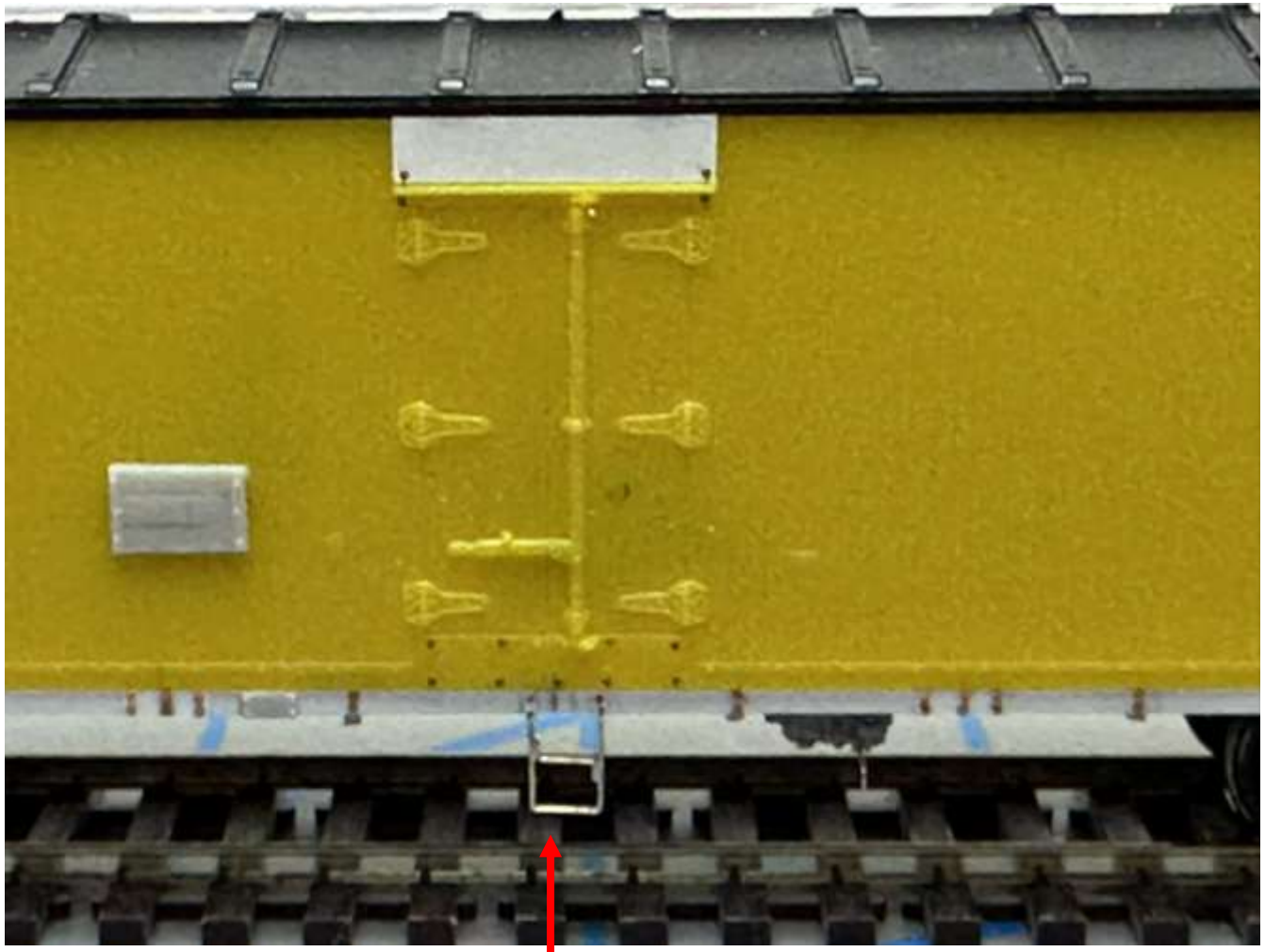
The lower side sill is showing all the rivet plates and rivets at each of the Cross Bearers,

Alternate View of ready to clean and paint

Making Drains using .040 x .060 styrene cut on an angle and .003 brass cut and bent to shape using an Umm-USA PE Bender and a Tamiya PE Tweezer. I used the plastic one from an Intermountain Reefer kit as a guide for size and angle

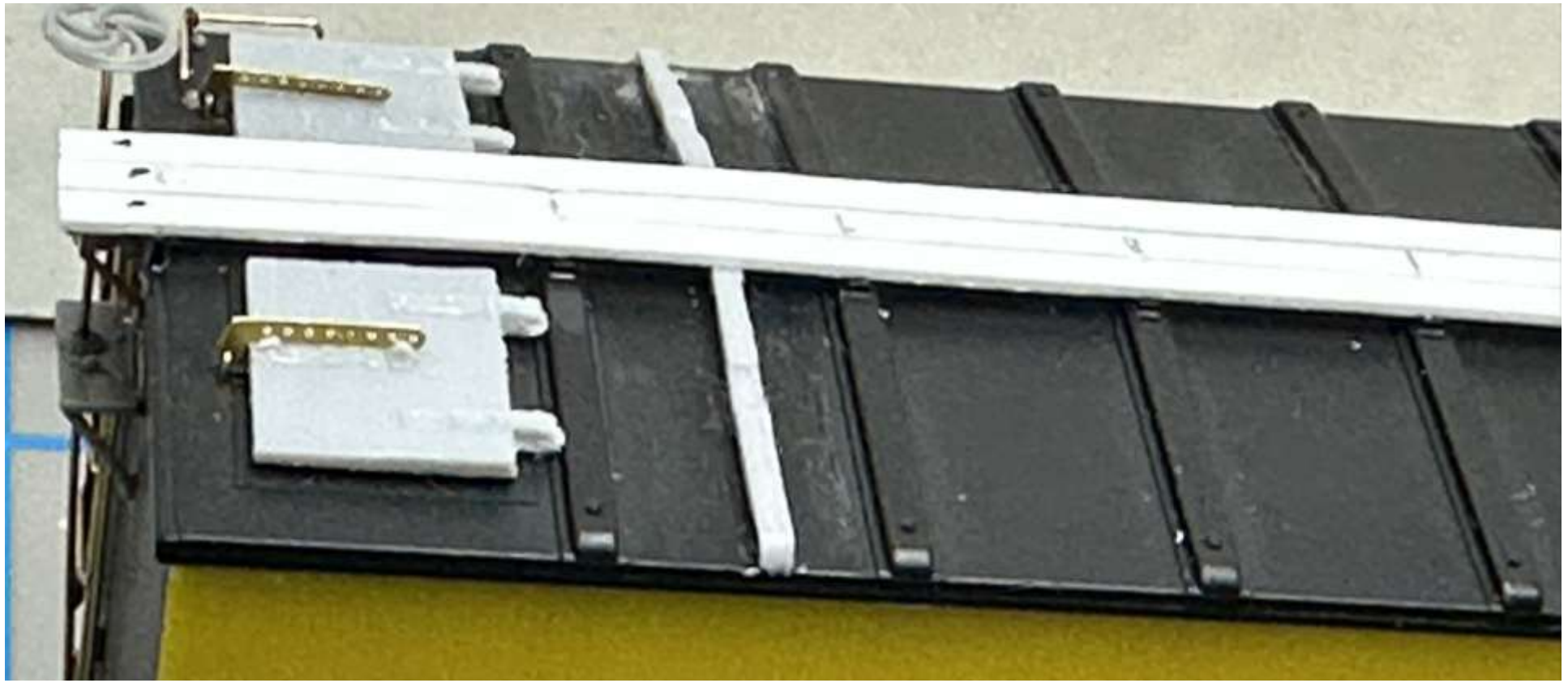


Drain pictured next to sill step



Sill steps made from .010x.030 brass .
Double steps are soldered
Note that .005 x .020 styrene with Athearn
Rivets are above each leg of the step

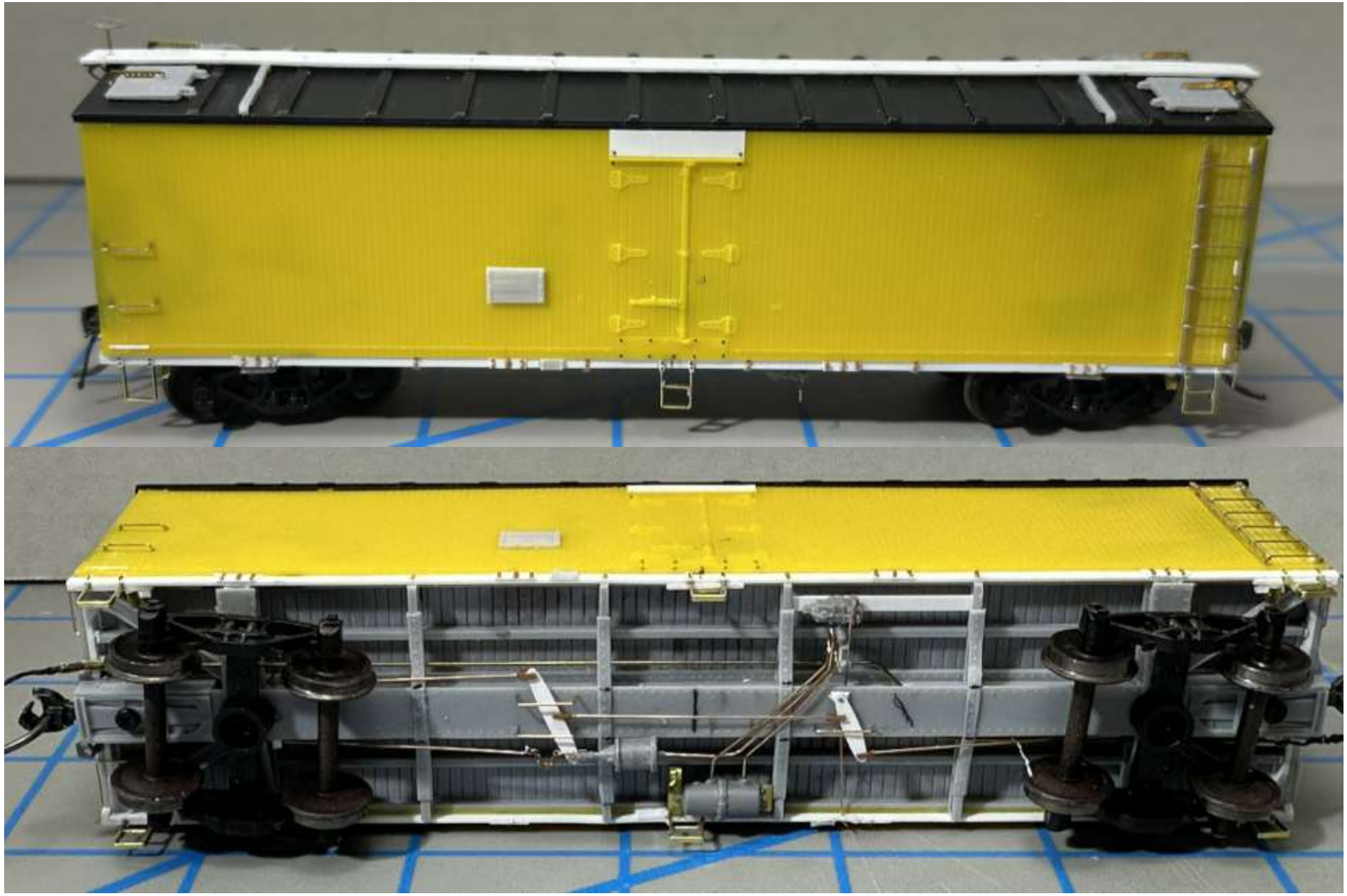
Final Roof Detail



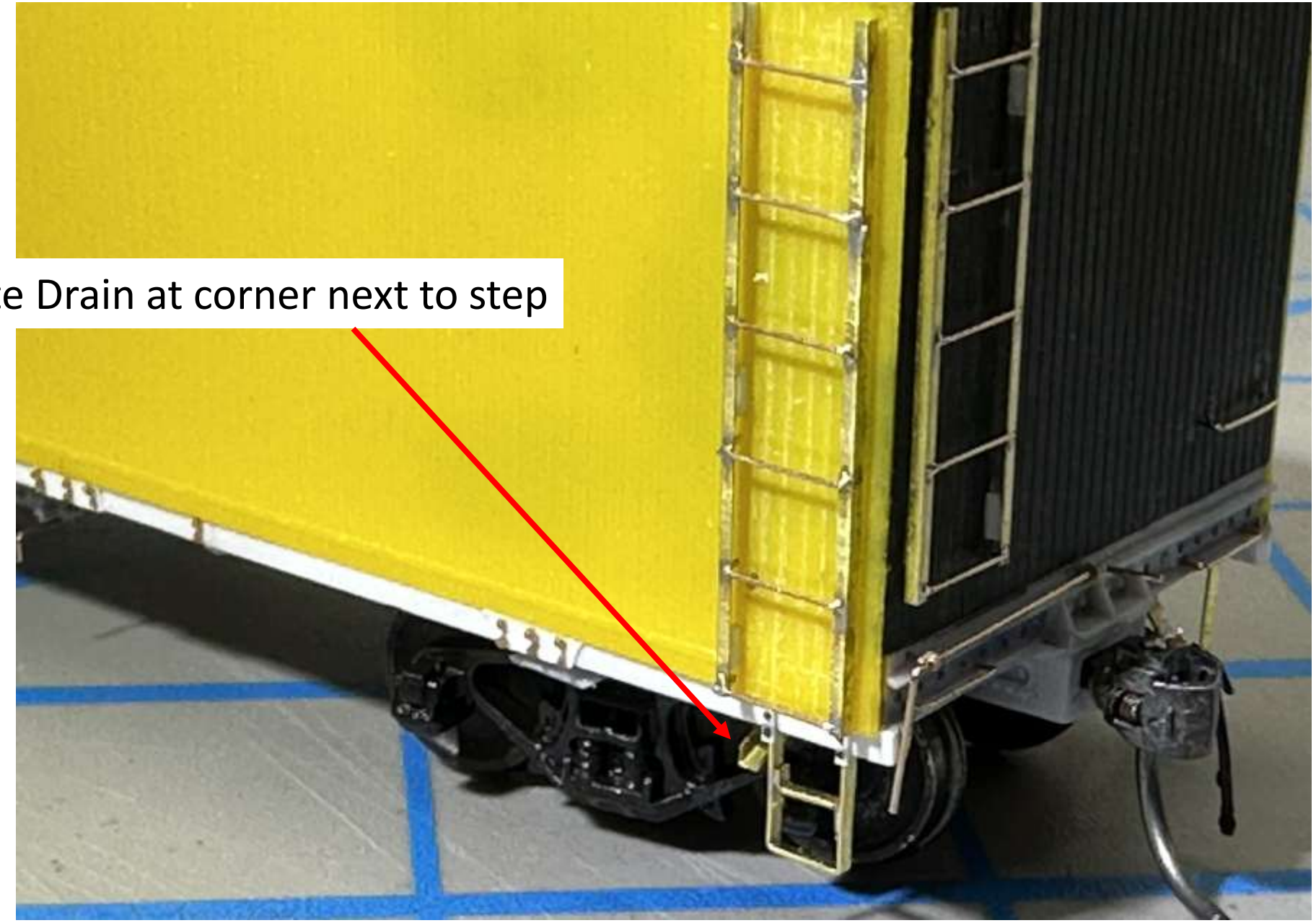
B End details

Tichy brake step and parts for the vertical staff were used for the B end. These matched Bill's photo fairly well.

You can also see the addition of Yarmouth PE airline brackets and Moloco rubber air hoses.
Yarmouth PE eyelets were used with Tichy .0125 wire bent to shape for the pin lifter



Yarmouth PE Running Board Supports were used as pictured


Note Drain at corner next to step

The car was fully assembled before painting and required multiple steps to paint.
The Roof, Ends, and underframe were primed with Stynyelrez Brown Primer and the sides then primed with Stynylrez Neutral Yellow Primer,
Next I sprayed the underframe with Vallejo Black
I next sprayed the sides with Vallejo Yellow 71.078. I did not mask anything yet . But used a cut piece of cardstock to keep overspray from the underframe. I let the yellow dry for a full day and used Tamiya masking tape to cover the yellow sides.
I then sprayed a coat of Vallejo Red Brown on the rood and ends

After the paint dried, I sprayed a coat of Quick Shine Floor Finish by Holloway House as used by Ted Culotta.
The decals were applied and top coated with the Quick Shine followed by a flat coat of Model Maters.
This paint scheme with only black door hardware matches Bills Photo at the beginning of this article. I used a micro-fiber brush to paint the black door hardware.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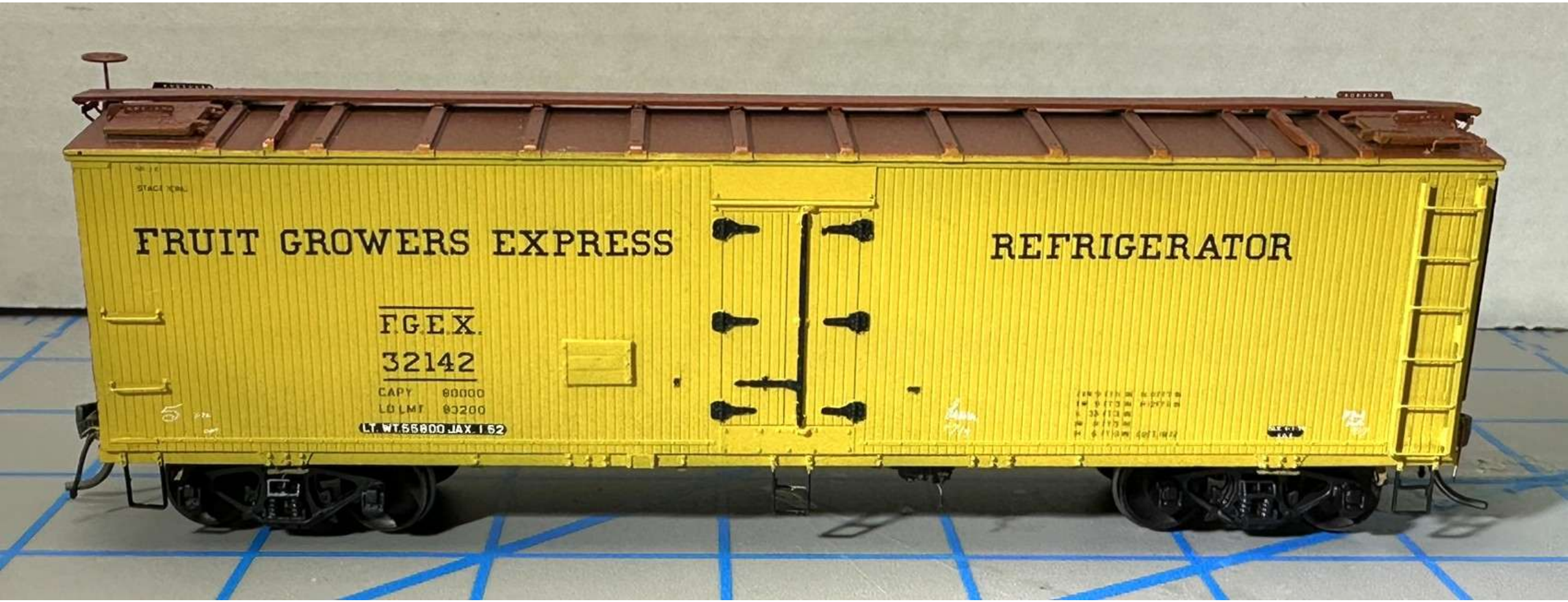
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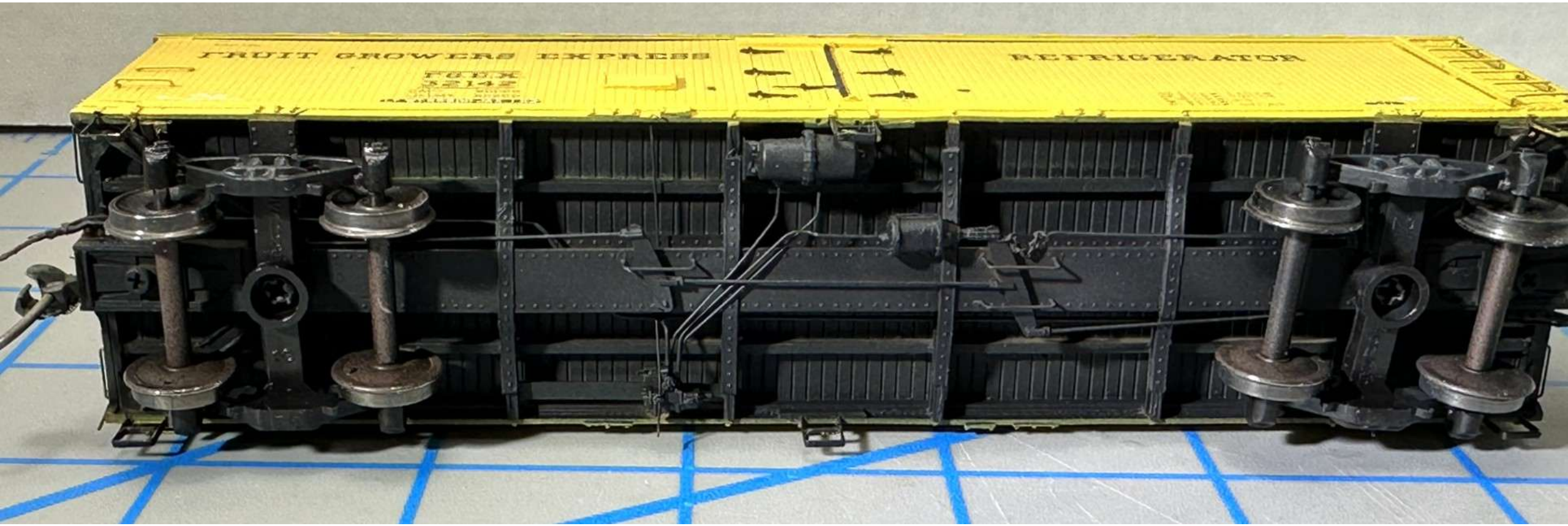
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The End