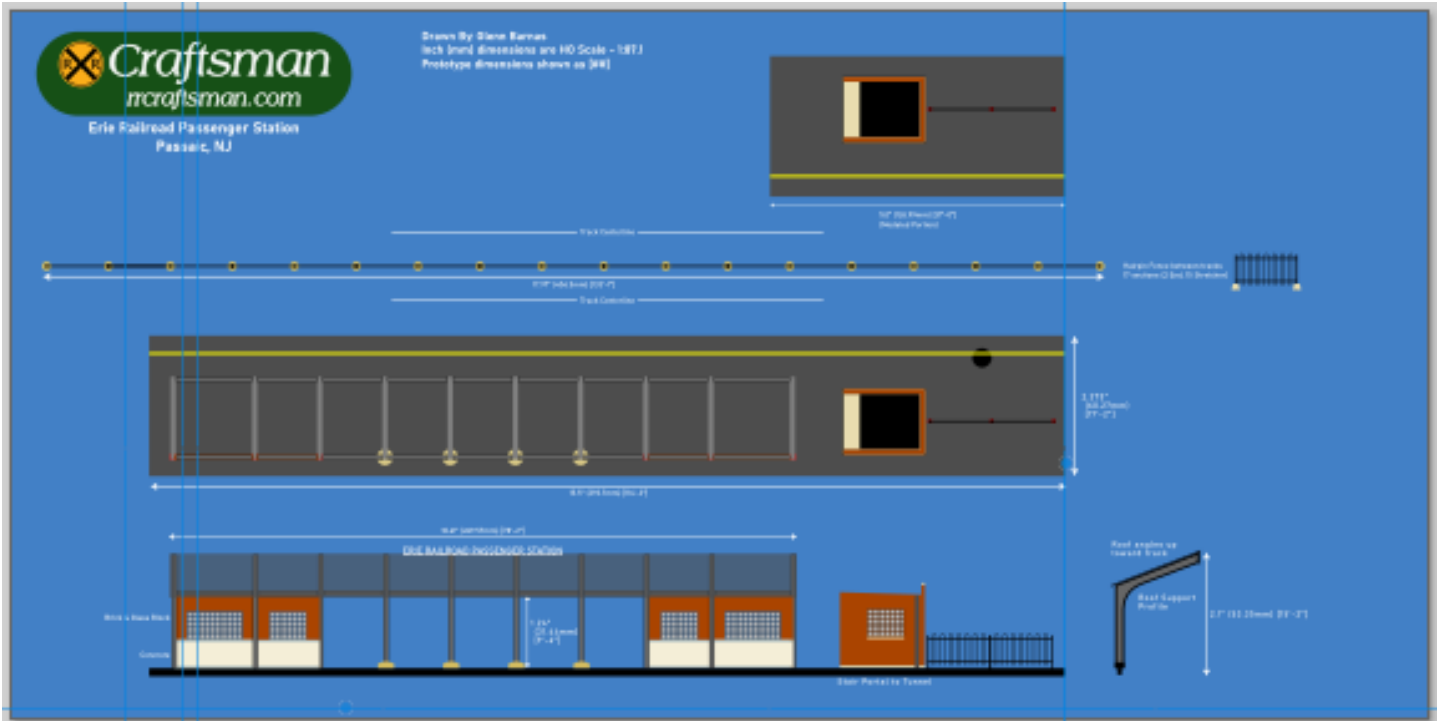




## LS-PS2 – Station - Passaic, NJ 1962

This kit is a replica of the passenger station located in downtown Passaic NJ from the 1950's through 1964. Specifically, this kit contains the passenger shelter from the south (eastbound) side of Main Street and the pedestrian tunnel components for the north (westbound) side. The kit is compact, requiring just 15.5" by 8", including the two main tracks.



It includes enough fencing to run past each end of the station as per the prototype. Additional packs of fencing can be purchased separately to extend the run of the fence. **While not difficult to assemble, patience is required as there are several steps that will depend upon the glue or solvent applied in prior steps being completely cured.** Speaking of glue, we recommend using two types when assembling the kit.

- **Cement** - Ordinary plastic cement such as **Model Master Liquid Cement for Plastic Models**. This has a consistency similar to oil and takes a few minutes for an initial cure. This will be referenced when parts need to be aligned after the cement is applied.
- **Solvent** - A thin, solvent-based material such as **Plastruct Plastic Weld**. This has a consistency of water, is applied with a small brush when the parts are pre-aligned, and cures within seconds. We use a 50:50 mix of MEK and Acetone that is both very effective and inexpensive. Unlike Styrene, the PLA material used in this kit will not craze with excess glue, and often more is better than less to create a strong joint.

We will refer to the correct adhesive to use. We do not recommend using CA (“super-glue”) as an adhesive, but it can be used quite effectively to “clamp” parts in place while the cement or solvent glues do their work.

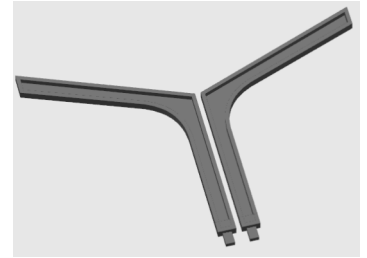
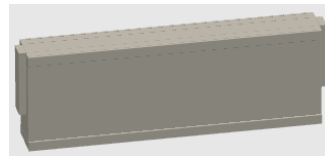
You will need a sharp knife, 220 or 400-grit sandpaper, a flat file (1/2”) and some jeweler’s files, tweezers, and an assortment of clamps and weight blocks will be helpful.

## Preparation

Take a moment to familiarize yourself with the parts. Assembly is fairly straightforward despite the kit having over 120 parts. Ensure that any flash is removed before assembly using a sharp knife and/or jeweler's file.

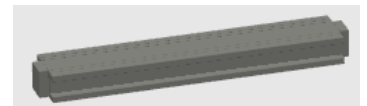
- Platform Panels - there are 3 panels, two that interlock to form a 2.375x15.5" platform and one that is 2.375x5" and holds the pedestrian tunnel entrance. These have a recess for the pedestrian tunnel foundation and an opening to optionally model the stairs. There are also holes for the roof support beams, fence panels, and a manhole on the main platform.
- Roof Support Beams - these are paired (left and right) and must be glued together with cement. Ensure that all flash is removed and that the pins at the base are filed square so they fit into the holes on the base.

- Concrete Panel - there are two sizes - the larger fits on the outermost sections and the smaller ones fit on the next inside position. The orientation of these panels is important! The pins that stick out fit between the beams and the notched end faces the bottom. The brick wall parts and glass block windows sit on top of this panel.



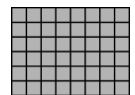
- Upper Brick Panel (2 pieces) - there are also two sizes of these panels and they follow the same placement as the concrete panels. Unlike the concrete panels, these are produced at half the thickness of the wall and are glued "back-to-back" with the mortar lines facing out. The brick parts are produced with layers of gray and terra-cotta brown for a realistic brick and mortar appearance without painting.

- Support Cross beams - these are H-columns with pins that fit into the roof support beams. There are 4 wide and 14 narrow beams. These sit above the upper brick panel and at the very end of the roof support beams. The pin that sits inside the roof support beam will need to be cleaned up to form a sharp angle with a swipe or two of a fine square file. **Do not confuse these with the extra-length parts in the "X" package.**



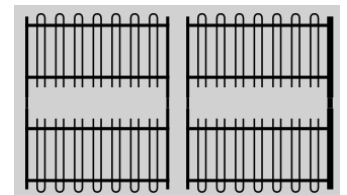
- Pedestrian Tunnel Entry Portal - there are 6 wall pieces that compose each portal. The side walls have a slight angle at the top and the inner walls are about 1 mm narrower than the outer wall. Be sure to pay attention to the angle and size as well as the orientation of the brick texture. The brick texture faces out on the larger panels and faces in on the smaller panels.

- Glass Block Windows - there are three sizes of glass block windows. There are two small windows that fit the rear of the Tunnel Entry Portals. Six medium size windows fit the sides of the Tunnel Entry Portals and the narrow concrete and brick panels, and two large windows that fit in the wide concrete and brick panels. Run the top and side edges on fine (400 grit or higher) sandpaper to ensure a square edge. The window openings may be adjusted with a small file or sanding stick. Fit should be snug. The bottom of the windows in the brick panels can be sanded to match the bottom of the wall after gluing the front and back wall panels together and installing the window.

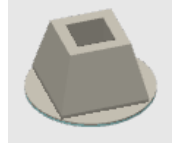


- Hairpin Fence Panels - These are produced in a "fold-over" design that allows the hairpins, horizontal braces, and end posts to be produced in proper size proportions. Note that there are two types of fence panels:

- End panels - (right) one vertical post is 4" wide and the other post is 2" wide. The 2" post is intended to be glued to other 2" posts to create standard 4" square posts. There are 6 of these panels.



- Stretcher panels - (left) both ends have 2” wide end posts and are intended to connect to other 2” posts on either side, effectively stretching the fence line. There are 15 of these panels.
- Fence Post Base - 18 concrete style bases that taper up and have a hole to attach the fence panels. The base is slightly expanded to glue down to the base board between the tracks.
- Manhole ring and cover - the ring sets into the hole on the main panel, flush with the top. The cover is a friction-fit into the ring and can be modeled open or closed.
- Station Sign - A sign with brackets “Erie Railroad Passenger Station” sits on the peak of the roof facing the street side. The brackets glue to the roof allowing the sign to be vertical. This is optional and used when modeling the specific prototype. Since this is glued after the roof is installed and painted, the use of medium-thick CA glue would be appropriate when attaching the sign.



## Painting

Minimal painting is required as most parts are produced in an appropriate color. The platforms should be painted a charcoal gray to blue-gray to represent macadam, with the beam bases then painted to represent concrete.

The steel parts were gray on the prototype but could be painted any common RR color including black or Pullman green.

The platforms should have a yellow or white safety stripe about 24-30 scale inches from the edge. Examine the photo, which shows the platform while looking East. Note the manhole was installed after painting the strip and placed at an “odd” angle. The manhole on your kit was moved west into the modeled portion to allow reproducing this unique effect.



Street view of the South side, looking North West

The roof can be painted black, but applying 400-grit black sandpaper (not included) will represent the fine gravel roof. The sandpaper can be installed with double-sided tape, rubber cement, or tacky glue. The roof had white trim on the front and sides.

Weathering and a flat finish should complete the painting prep. Refer to the picture for colors, stains, and other details.

## Assembly

- Paint the parts as suggested. Any plastic-compatible paint can be used. Behr “chalk” paints in spray cans produce an excellent dull finish for the platform!
- Glue parts using the recommended adhesive - Cement or Solvent.
- Some of the parts may have a bit of “brim” material, which protects the part during printing and during shipping & handling. Remove this as you would any “flash” on injection molded kits, using a sharp knife or jeweler’s file.
- Test-fit before assembly and sand/file where necessary. Most parts are produced at or slightly over-sized to allow a snug fit.
- The sequence described will allow you to continue working while the adhesive cures before moving on to additional tasks.

**TIP:** Use a drop or two of CA to hold parts together, then apply the liquid solvent cement. The CA doesn’t provide a good structural bond, but does cure rapidly and acts like a “chemical clamp” to keep the parts aligned while the solvent does its work.

## Platform

There are two platforms - the long platform is comprised of two parts and joins at the center section of the station roof. The small platform is to support the pedestrian tunnel portal on the far side of the tracks. The long platform should be glued together - apply liquid cement to the keystone tabs and press the two parts together. A small amount of solvent can be applied to the bottom of the joint.

## Wall Sections I (Bag 4)

The wall sections fit between the two end positions at each end of the platform. These should be prepared so that they can be installed at the end of the next section. Note that there are two sizes - narrow and wide. There are two brick sections for each wall - front and back, a concrete lower half, and a glass-block window assembly.

- Locate the two matching brick wall halves. These are 3-layer parts, brick color on the outside, concrete below the brick, and brick in the center. Apply cement to the smooth side of one panel and mate it to the smooth side of the matching panel, *aligning the window openings - NOT the edges*. Repeat for all 4 brick wall sets. Set aside and allow the cement to cure.

## Roof Support Beams (Bag 2)

The roof support beams consists of 10 sets of 2 parts - left and right halves. Each half should be glued to its mating half with cement, making sure that the sides and ends align properly. Assemble all 10 and set aside until the glue cures.

## Stair Portal Walls (Bag 1)

Locate the wall sections and line them up. There are two of each wall part to build two portals. Lay these out in two rows of two groups.

Put the wide panels on the top row with the bricks face UP. Place the narrower panels on the second row so that the wall shapes match (same top edge slope) so the bricks face DOWN. The smaller, face-down panels are the inside of the walls! On the rear wall, note that the concrete window sill is placed toward the bottom.

Apply a bead of cement around the outer edge and around the window opening of the face-down panel, then place the corresponding face up panel over it. Slide the parts against your work surface so that the front (tallest part) and bottom of the two panels align. The window openings should be perfectly aligned if done correctly.

Repeat for the other side. When gluing the rear wall parts together, align the bottom of both parts against your work surface, then align the window opening in the center. There should be a small gap on both sides of the inside

Repeat for the second portal and set all parts aside to cure.

## Fence Panels

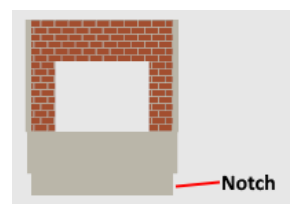
Begin gluing the fence panels while the previously glued parts are curing. Prepare the panels by removing any of the small round disks at the top of each fence post. These may be present and were used to protect the edge of the post while printing. Examine these parts carefully - the inside is perfectly flat while outside has 3 distinct layers. The flat side is folded in and glued.

- Locate the 6 END panels - these have one vertical post that is thicker than the other. Keep these separate during the assembly process.
- Assemble the panels by folding the panel in half. Align the parts against your work surface to ensure that the hairpins mate from both sides and the posts align. Check both vertical and horizontal alignment and apply a drop of solvent to the center of the rail closest to the curved part of the hairpin and hold for a few seconds. Next, either squeeze the small piece that was folded or trim it off so that the posts can fully mate. Apply a drop of solvent to the side of each post and to the center of the bottom rail. Repeat for each fence panel.
- Take two end panels and place them thin-post to thin-post and apply a drop of solvent where they meet. Hold for a few seconds until cured. Repeat for a second pair. These two short segments will be installed behind each stairway portal.
- The long fence between the tracks consists of 15 stretcher and 2 end panels. Align an end with a stretcher panel and use solvent to bond the parts. Add four more stretcher panels so there are a total of 6 panels. Repeat for the opposite end, then prepare a section comprised of 5 stretcher panels. This produces a 6-5-6 arrangement for later installation.

## Wall Sections II

Return to the 4 wall sections assembled earlier and locate 2 large and 2 medium glass-block windows and the 4 concrete bases.

- Carefully fit the glass block windows into the assembled brick wall pieces. The medium and large windows fit into the narrow and wide wall sections respectively. You can file the opening in the wall to help the windows fit. Expanding the opening is preferred over removing glass block material. The glass block assembly should be a snug fit without flexing the brick panels. Note the top/bottom fit as well! Glue the glass block into the window opening using cement.
- The brick sections have small extensions on the inner (brick and tan) layers. These extend into the roof support beams similarly to the bottom half of the wall section. Cement the upper half of the brick wall assembly to the lower (concrete) half, ensuring that the parts are centered to each other and the extended tabs line up. Note that these tabs may not contact the beams - the intent is to block light from passing if the platform is illuminated. **Make sure that the notches in the concrete wall parts face the**

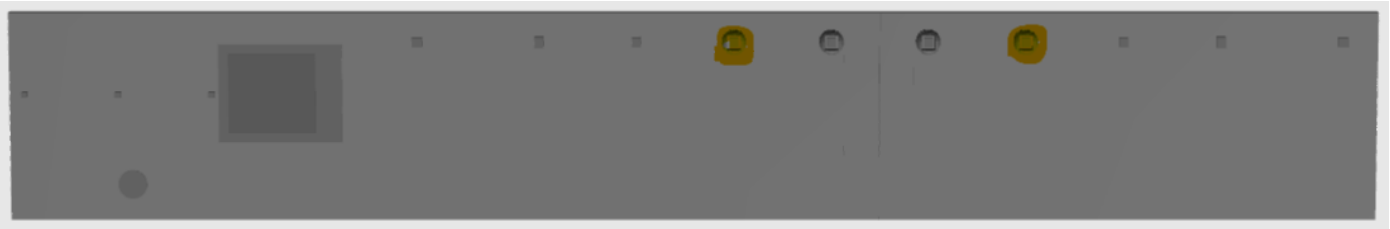


**bottom of the wall panel - away from the brick part!** Note that these assemblies should be allowed to cure for several hours before proceeding!

## Platform Assembly

Insert the manhole ring into the provided hole and secure with a drop of solvent. The manhole cover is a press-fit and can remain loose.

Locate two of the roof support beams assembled earlier. Place a few drops of cement into the two holes marked below and insert the roof support beams fully into the holes. Use an appropriate object, such as a block of scrap wood, to ensure that the two beams are aligned and perfectly upright. Allow a few hours for this to cure before continuing!

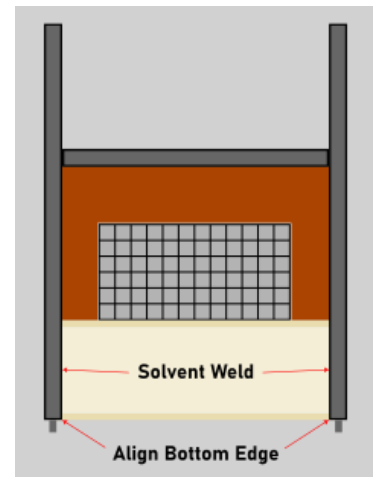


Most of the remaining steps will be performed with the platform's trackside edge on your work surface supported by the two roof beams glued earlier. **These will support the weight of the platform and alignment of the remaining parts in this position, so a good cure of those two beams is critical.**

Glue the next two roof beams into the holes between the beams glued earlier. The end of the beams should touch the work surface. Ensure vertical alignment from the base. Allow some time for these to cure while you assemble the end sections.

### End Sections

Take the wide wall section and two roof support beams and align the beams with the bottom edge of the wall so that the ridges on the concrete part of the wall fit into the beams and the bottom of the wall meets the bottom of the beam evenly. The pins should extend below the wall as shown in the diagram. Holding the beams snugly in place, apply solvent where the beam and concrete wall parts meet. Hold for 5-10 seconds, then flip over and apply solvent to the other side. The cross beam (Bag 3) can then be inserted above the brick wall - apply a bead of cement to the top of the wall and insert the tabs of the cross-beam into the roof support beams and press the flat side of the cross-beam onto the top of the brick wall. A drop of solvent can be applied to each point where the cross beam interfaces with the vertical beams. Set aside to cure and repeat to create a second wide partition assembly.



When this assembly has cured, the narrow wall section and roof beam can be added.

- Take one assembly and place the narrow wall section and roof beam on the LEFT side, align the bottom edges of the concrete section with the assembly and the roof beam and apply solvent at the joints. Install the cross beam as before, then set aside to allow the glue to cure.

- Take the remaining wide wall assembly and place the narrow wall section and roof beam on the RIGHT side, align the bottom edges of the concrete section with the assembly and the roof beam and apply solvent at the joints. Install the cross beam as before, then set aside to allow the glue to cure.

Take a break! These end segments need to be solidly cured before proceeding.

Back already? This is a good time to work on the roof! Paint the vertical edges and underside an off-white color. Once dry, mask the white edges, tape the roof down to a piece of cardboard and paint the top surface a charcoal gray. If you are going to apply sandpaper to create the gravel roof, start by trimming a block of scrap wood to fit inside the underside of the roof. It can be wider, but must fit within the edges of the length.

Apply an appropriate adhesive to the strip of sandpaper. If using rubber cement, apply a thin coating to both the back of the sandpaper and the top of the roof. Align the sandpaper onto the roof, flip it so the sandpaper is down and apply pressure to make good contact between the roof and the sandpaper. Place the wood block onto the roof, ensure that the roof is flat and level, and place some weight onto the wood block while the adhesive cures. Trim the edges with a sharp razor once the glue cures.

### *Platform End Panels & Cross Beams*

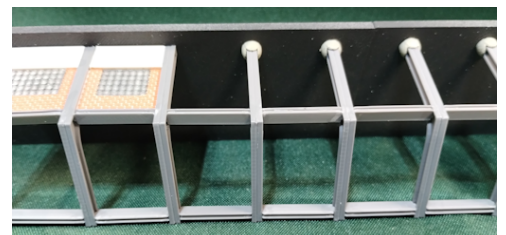
Test the fit of the end panels on the platform. The pins on the bottoms of the roof beams can be sanded or filed thinner (horizontal edge only!) to adjust the fit. The wide section is on the outside of the run of roof beams, and the outer beam of the narrow section sets the spacing and this pin should NOT be filed. The center and outer pins can be adjusted for alignment if necessary. (All of the pins can be lightly filed/sanded to ensure a good fit into the mounting hole, but the inner pin should not be significantly reduced in size.)

Scrape any paint off of the platform where BOTH of the end panel assemblies will be glued to the platform. Apply cement to the bottom of both concrete wall sections and install the end section, making sure that the 3 beams are touching the work surface - the same as the 4 center beams. Reach around and apply a drop of solvent into each of the holes to secure the pins to the platform. This will help the section remain in alignment while the cement cures. Repeat this process for the other end panel. Ensure that both end panels are firmly seated on the platform and all of the beams are in alignment from end to end.

***Leave this assembly to cure for a few hours before proceeding!!*** This is a good time to assemble the stair portals. Return here to install the cross-beams when the portal buildings are complete.

### *Cross Beam Installation (Bag 3)*

Each pair of beams are joined by an “H” shaped cross-beam - one at the top of the vertical section and one at the end of the beam near the track end. Since the platform should be sitting on it’s side, the track end of the beams will be close to the work surface and should be done first.



Locate Bag 3 and Bag X. DO NOT mix these parts! Bag 3 contains the cross-beams that fit between the roof beams. Bag X contains similar parts that are slightly longer. These can be inserted between the roof beams to apply pressure on the beam you are installing. The roof beams are flexible and make installing the cross-beams a bit “fiddly”. The X beams help

keep the roof beams in alignment and should not be glued in place. They will be removed and discarded once all of the cross-beams are installed.

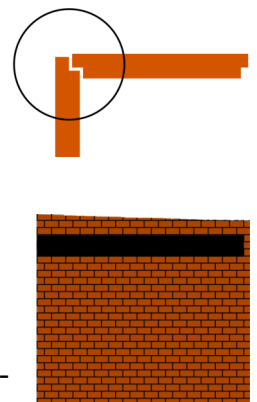
- Work from the ends of the platform toward the middle! The cross-beams have notched ends that fit between the openings of the roof beams.
- Insert the X beams between the roof beams about halfway from the track end of the beam to help keep the beams stiff while installing the cross-beams.
- Insert the cross beams at the end of the roof beams - see the photo above - these are at the bottom of the photo. The open section of the cross-beams faces up toward the roof so the smooth / solid part faces out. Align each beam and secure with a drop of solvent. Repeat until all cross-beams are installed at the end of the roof beams.
- Continue installing the cross beams on the rear of the station. Use a straight-edge and mark the position in pencil along the same level as the beams over the partition walls on each end. Remove the X beam if present and insert the cross-beam in the aligned position, then secure each end with a drop of solvent.

Leave the model in the rotated position and allow the glue to cure.

## Stair Portal Assembly

The stair portals consist of the 2 side walls, rear wall, roof, foundation, trim strips, and downspout. The walls were prepared earlier - it is now time to put these small buildings together. Note that the rear wall fits inside of the two side walls. Dry-fit the rear and one side wall to verify the alignment before gluing.

- Start by carefully fitting the glass block windows into the assembled brick wall pieces. The medium windows fit into the side walls and the small window fits into the the rear wall. You can file the opening in the wall to help the windows to fit. Expanding the opening is preferred over removing glass block material. When filing the opening, remove material equally from both sides and the top of the opening. Do not file the bottom as this will affect the thickness of the window sill! The glass block assembly should be a “barely snug” fit. Glue the glass block into the window opening using a few drops of cement.
- Align the rear wall and the LEFT side walls so that the rear wall fits inside of the side wall as shown in this image. Ensure that the bottoms are aligned and the two walls are 90-degrees and flood the joint with several drops of solvent, holding for several seconds until it cures.
- The roof panel is installed next - the black panel has raised parts on 3 sides, which represents the tar applied to the bricks when the roof is installed. Place the roof inside the corner so that the raised panel starts 2 bricks below the lowest point of the inside wall as shown in this image. Align the roof to the rear wall to ensure a 90-degree angle of the walls and apply solvent to the underside of the roof on the side and rear walls. Hold until the bond sets. *Use the mortar line to ensure that the roof is square to the walls.*



- The two walls can now be glued to the foundation. The large flat area represents the concrete panel at the entrance to the portal. Apply cement to the foundation and align the side and rear wall, then set aside to allow to cure.

Repeat these steps for the other portal building.

While the glue on the two portal assemblies are drying, locate the RIGHT wall and place it so the inside wall is down on your work surface. Locate the drain pipe. The large round base will be removed by cutting the vertical pipe with a set of nippers. Cut about 1/16" above the base. Apply cement to the two mounting brackets and install the drain pipe halfway between the window and the rear edge of the wall with the "EL" about 1mm below the top of the wall. Set aside to dry and repeat on the wall for the second portal building.

After allowing sufficient time for the drain pipe to become secure, apply a bead of cement to the foundation, rear wall, and roof and place the right wall onto the portal structure. Set aside to cure and repeat for the second portal building.

Set the portal building on your work surface and check the drain pipe for interference with the surface. Use nippers to trim the pipe so it is flush or a hair's thickness high to prevent it from snagging when installing onto the platform.

### ***Portal Trim***

There are several strips of concrete colored material in the kit (Bag 1). These should all be secured with cement.

- File the uneven edge of the rear wall that extends over the side walls to create a flat end.
- A thin piece of trim should be affixed to the front open edge of both side walls, overlapping the foundation and cut even with the top of the wall.
- Apply thin strips to the top edge of both walls, overlapping the front trim. It is OK (preferred) to allow the trim to extend past the ends and file smooth later after all parts have cured.
- Use a piece of the thin trim left over from the previous step and apply it to the short vertical section of the rear wall that was trimmed earlier. Cut it even with the top of the rear wall.
- Apply a piece of thick trim across the entire top of the rear wall, extending slightly over the vertical trim pieces applied above.
- Allow the trim pieces to fully cure before proceeding. The overlapping edges can be made square with a few swipes of a jewelers file.

### ***Final Assembly***

The foundation should fit into the shallow alignment pit on the platforms. Since the platform is painted, use some thick CA to secure this - apply a drop to the underside of the foundation at the entrance (thin plate) and the rear foundation. Place the front edge of the foundation into the pit to align it and then rotate it back/down and hold for 30 seconds until the CA cures. Repeat for the second portal building.

Install the two-panel fence segments into the holes behind the stair portal. If the holes need to be enlarged to fit the post spacing, do not enlarge the one closest to the stair portal. The middle and far hole can be elongated slightly in either direction to fit the posts. Secure the posts from below with a drop of cement.

Install the platforms on your layout in the desired space. The platform should be about 1/8" from the ties - confirm the spacing with a passenger car before gluing the platform down.

Install the fence between the two tracks using the 3 sections prepared earlier. Apply a drop of cement into the concrete base and press the post carefully into the hole. Do not cement the inner-most bases to the two outer sections or to either end of the middle section (yet).

Place two cars on the tracks and ensure there is enough space for the fence. Mark the centerline between the two tracks and determine where you want the fence to start/end. It is intended to be centered on the long platform, extending slightly beyond the platform ends.

Put a drop of CA on the fence centerline at the point you want the fence to start and place the END section base into the CA and hold until cured. Note the position of the next base, move the fence aside and place a drop of CA on the mark and then move the base back into the CA, tugging very slightly to keep the fence panel taught.

Before continuing, flex the fence and slip a base over the end of the fence segment's last post, but do not glue (yet). Glue the remaining bases down on the centerline as before, keeping the fence taught. When you get to the last base, grip it with tweezers to A) keep it square to the fence line and B) ensure that there is room to insert the next half-width post of the next set of fencing.

Repeat this installation method with the center (5-panel) and end (6-panel) fence sections. Ballast should now be installed on the tracks, allowing the base to protrude through the ballast layer.

Add details, passengers, and other items to fit your modeling era. For the early 1960's, dome-top trash cans, phone booths, a US Mail mailbox, advertising signs, a newspaper kiosk or vending machine (the Herald News was a local paper and used orange vending machines), soda machine, and a cigarette machine would all be appropriate. Some of these details are available through the RR Craftsman website.

## **Support**

If you need support for anything related to this kit, please send an email to [support@rrcraftsman.com](mailto:support@rrcraftsman.com). Be sure to identify which product you need support for, the specific issue, and attach any photos that could help to identify the problem.

We're open to feedback as well, if you have ideas to improve or enhance a current product or would like to see a new product, just let us know.

We're always happy to see the results, too! Feel free to send us photos of your installation and we may feature them on our home page.