



plans below indicate door and/or window openings.

The following is a detailed description of the changes needed to construct any of these three alternate versions. Refer to the diagram when reading these.

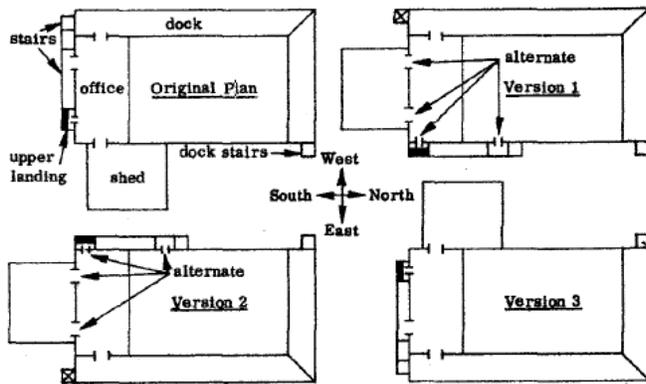
**Version 1:** The only change from the original is that the shed and the landing stairs are interchanged. This means that the "alternate" door and window openings, as indicated below and on the wall cards, are to be cut out instead of the original openings. The area where aluminum is to be omitted is on wall B rather than wall C. The stair treads on the landing stairs should be flush with the right side instead of the left side as in STEP 26. This version is especially nice for an industry between two tracks, as in version 2.

**Version 2:** This arrangement is version 1 flopped, that is, the landing stairs and the long dock section have switched places; therefore, walls A and C must switch positions. (Note: the office remains in the same place, at the south end.) This means that the printed sides of walls A and C will be facing inwards; therefore, transfer the aluminum positioning lines to the blank sides of these walls.

As in version 1: the door and window openings are the alternate ones, the area where aluminum is omitted is on wall 8, but the stair treads on the landing stairs should be flush on the left as in the original.

In assembling the dock, the pieces should be grooved-side up when cutting the angles and gluing them together over figure 7. Figure 7 can still be used for a guide in gluing the joists on.

**Version 3:** The only difference between this version and version 2 is that the shed and landing stairs are in their original position except that the upper landing is on the west side; therefore, wall B must be turned around and the aluminum positioning-lines transferred to the blank side of the wall. Also, the stair treads must be flush with the right side as in version 1. The area where aluminum is omitted is on wall C which, as in version 2, has been switched with wall A. The dock procedure is also the same as in version 2. The door and window openings are the same as in the original.



### STEP 3 CUTTING OUT THE WALLS AND ROOFS

Cut out all of the floor, wall, and roof pieces from the cards along the center of each solid outline and wherever indicated, using a sharp knife (an X-Acto or another brand of hobby knife with a #11 blade is recommended). Note that wall E is to be cut into two pieces on the lines indicated; they will be glued back together later. Cut out the ventilator openings as indicated on the warehouse roofs (AA and CC). The hole for the smokestack in the shed roof should be drilled out with a 3/16" drill or carefully cut out.

Transfer the short dashed horizontal lines located on each side edge of walls A, B, C, and D to their-back sides, extending them across the full length of each wall.

Cut out all door and window openings in the walls, and check the fit of all the plastic doors and windows. If necessary, trim the openings for a proper fit, but do not glue any of the parts in place yet.

### STEP 4 THE CORRUGATED METAL

#804	3 pcs.	4 HO ft. x 7-1/2 in.	Corrugated Metal
#805	3 pcs.	6 HO ft. x 7-1/2 in.	Corrugated Metal
#802	16 pcs.	10 HO ft. x 7-1/2 in.	Corrugated Metal

Examine the kit carefully and note that there are several HO scale heights of corrugated metal provided for covering the cardstock wall and roof cards. These cards are lined and noted by the circled numbers as to the heights of corrugation to be used. Also indicated on the cards is an overlap area between each horizontal row of corrugation.

Prototype corrugation comes in 26" widths so when overlapped they cover a 24" section. Cut all of the corrugated metal into scale 26" panels, about 5/16" wide, keeping the different heights separated. The corrugated metal is very easy to work with and will have a clean edge if it is cut with a very sharp knife, using several light strokes as opposed to one firm stroke - we do not recommend cutting it with scissors. If you prefer to lay the corrugated metal in just one sheet across the length of the walls and roofs; this can be accomplished by gluing the strips of corrugated metal to the cardstock and trimming the edges as indicated in the following steps for corrugating the walls and roofs; however, the building will have much more character

and realism if the corrugated metal is cut into scale panels as indicated.

For bonding the aluminum to the cardstock use recommend using contact adhesive or five-minute epoxy. Commercial white glues such as Elmer's will not bond the corrugation.

### STEP 5 CORRUGATING THE WALLS

A	1 pc.	Cardstock	West Wall
B	1 pc.	Cardstock	South Wall
C	1 pc.	Cardstock	East Wall
D	1 pc.	Cardstock	North Wall
E	2 pcs.	Cardstock	North Office Wall
F	1 pc.	Cardstock	South Shed Wall
G	1 pc.	Cardstock	East Shed Wall
H	1 pc.	Cardstock	North Shed Wall

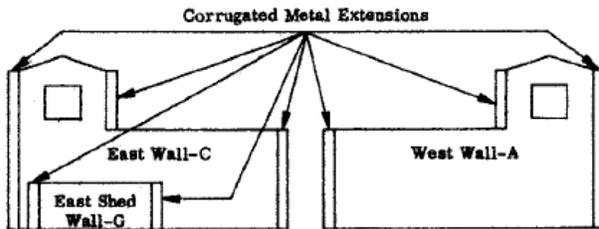
On walls A, C, and G it is necessary that the corrugation be glued in place to extend 1/8" past the vertical edges of each wall: shown in the diagram below and noted on the wall cards. The excess length will be folded and glued around the corners after the five walls of the warehouse office building and the three walls of the shed are assembled.

To corrugate all the walls, begin at the bottom of each, aligning the bottom edge of the corrugation with the bottom of the card. Lay the panels in a horizontal row, vertically lapping each other's edge by two vertical ribs. When the bottom row is complete, move up the wall to the next row, aligning the top edge of the corrugation with the next dotted line or the top of the card, whichever comes first.

Glue the corrugation completely over all door and window openings. Do not attempt to follow the gabled roof lines with precut (angled) pieces of aluminum: simply use the full-size panels, using the overlap lines as a guide in the placement of their bottoms. Be sure to omit aluminum in all areas as noted; such as the lower section of wall E.

As each wall is completed, turn it face down on a piece of wax paper and weight it to prevent warpage. When all the walls are finished and thoroughly dry (weighting them for a 24 hour period is recommended), clear all door and window openings, and trim all of the gabled roof lines flush with the card edges remember to leave the wrap-around extensions on the sides of walls A, C, and G. Re-check the fit of all doors and windows, trimming if necessary.

Glue the two sections of wall E back together, being sure the printed side of the lower section is facing the same way as the corrugation on the upper section.



### STEP 6 CORRUGATING THE ROOFS

AA	1 pc.	Cardstock	Front Warehouse Roof
BB	2 pcs.	Cardstock	Office Roofs
CC	1 pc.	Cardstock	Rear Warehouse Roof
DD	2 pcs.	Cardstock	Ventilator Roofs
FGH	1 pc.	Cardstock	Shed Roof
I	1 pc.	Cardstock	Front Dock Roof
J	1 pc.	Cardstock	Left Dock Roof

The roofs are corrugated in the exact same manner as the walls except that an overhang of 1/32" of corrugation must extend past the bottom and side edges of each roof with the exception of roofs AA and CC; the south edges that butt up against wall E are to be cut flush, and roofs I and J; the edges where the two roofs join over the dock are to be cut flush.

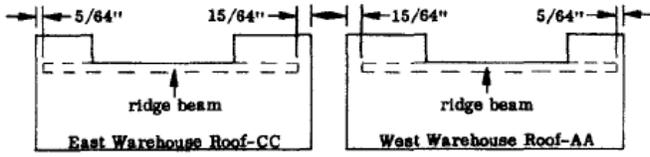
The top row of aluminum on roofs AA and CC are to be laid over the ventilator openings and then cut flush with the edges when dry. The hole in the shed roof for the smokestack should also be covered and after it is dry, an "X" should be cut in it from the underside - do not remove the corrugation from the hole. The smokestack will be pushed through the hole later, from the top, pushing the corrugation through the hole, thus achieving a tight fit. When the dock roofs are assembled to the building, the joint will be covered by one 6' and one 10' panel of corrugation, so be sure to save a panel of each.

### STEP 7 THE MAIN STRUCTURE WALL STIFFENERS

A23	6 pcs.	3/23 x 3/32 x 11-1/2 in.	Main Structure Wall Stiffeners Material
-----	--------	--------------------------	---

The inside wall stiffeners (vertical, horizontal, and roof) are to strengthen and straighten the cardstock walls. On the west and east walls (A and C) there are top and floor horizontal stiffeners which run the full length of the structure. Cut and glue these in place, per figures 1 and 3, leaving 1/8" space on each side to allow for the corner stiffeners and the cardboard of the north and south walls. Be sure to glue the floor stiffeners above the line made in STEP 3

	<p>Cut four vertical corner stiffeners for walls Band D per figures 2 and 4 respectively. Glue these in place, flush with the side edges and bottoms of each wall. Cut three horizontal stiffeners to fit between these vertical stiffeners, gluing one on each wall, above the lines made in STEP 3, and one on wall B, flush with the top.</p> <p>Cut four gabled warehouse roof supports for walls D and: E using figure 4 as a template. Glue these in place, being sure the notches at the bottom, on each side of wall E, remain clear to rest on the top horizontal stiffeners on walls A and C.</p> <p>Cut two vertical stiffeners, 1-1/4" long, for the inside of wall E and glue in place, flush with the top and sides, again leaving the notches clear. Cut one horizontal stiffener for wall E to fit between the vertical side stiffeners, gluing it flush with the top edge.</p> <p>Using figures 1 and 3 as templates, cut and glue in place four gabled office roof supports on walls A and C.</p>
	<p><b>STEP 8 THE SHED WALL STIFFENERS</b></p> <p>A24      3 pcs.      3/32 x 3/32 x 9-1/2 in.      Shed Wall Stiffener Material</p> <p>Using figure 3 as a template cut two vertical corner stiffeners for wall G and glue in place. Cut four horizontal stiffeners for the west and east shed walls per figure 3. Glue two stiffeners on wall G to fit between the two vertical corner stiffeners, flush with the top and bottom. Mark 1-5/8" up from the bottom, on both sides of the area within the shed outline on waif C, and draw a line connecting the two marks. Glue the other two stiffeners in the shed area on wall C; one above the lira and one flush with the bottom, leaving 3/32" space on each side for the vertical stiffeners on the north and south shed walls.</p> <p>Using figure 2, cut two shed wall vertical stiffeners and glue in place on the "high" side of walls F and H, flush with the side edges and bottom. Cut and glue in place on walls F and H, two horizontal bottom and two slanted top stiffeners, leaving 1/8" space on the east ends to allow for the east shed wall and its stiffeners. Do not cut out the bottom stiffeners where they cross the door openings.</p>
	<p><b>STEP 9 PAINTING THE CORRUGATED METAL</b></p> <p>Spray paint both sides of the corrugation with an etching paint such as Rust-oleum Self-Etching Primer (or equivalent) prior to cutting the individual panels. Etching Primer Paint can be found at most hardware stores or home centers. This will give any 2<sup>nd</sup> coats the grip needed. After the etching-primer is dry we recommend painting the corrugation with a flat mid-gray paint to simulate the color of "oxidized" corrugated panels and will serve as a good base coat if you choose to give your structure a weathered-rusted look. Let this dry.</p> <p>If you'd like the weathered-rusted effect, use various rust colors by using a "dry-brush" technique, by brushing up with single uneven strokes from the bottom edges to about the center of each panel. Since the panels are overlapped, some dirt would have accumulated under the edges and overlap seams, therefore dry brush a bit of grime/blackened paint at these areas. Do not over stroke as this might cause the paint to lift from the aluminum, leaving shiny streaks. Before the weathering colors have a chance to set-up completely, use a thin wash of flat mid-gray paint stroking over each panel lightly and carefully blending the colors, eliminating that blotchy look.</p>
	<p><b>STEP 10 THE WOODEN DOOR OPENING TRIM</b></p> <p>A20      1 pc.      1/32 x 3/32 x 7 in.      Warehouse Door Trim Material  A22      1 pc.      1/32 x 1/16 x 3-1/2 in.      Shed Door Trim Material</p> <p>Trim the warehouse door openings on the west and north walls per figures 1 and 4 using the A20 material. Begin by cutting four vertical side jambs for the two openings and glue them on the face of the corrugated siding, flush with the openings' edges and bottoms. Cut two horizontal top headers and glue them above the vertical pieces, flush with the openings' top edges and the outside edges of the two vertical pieces.</p> <p>Trim the shed door opening in the same manner and order as with the warehouse doors using the A22 material.</p>
	<p><b>STEP 11 PAINTING AND INSTALLING THE PLASTIC DOORS AND WINDOWS</b></p> <p>B1      3 pcs.      #901      Plastic Windows  B2      5 pcs.      #904      Plastic Windows  B3      6 pcs.      #905      Plastic Windows  B4      1 pc.      #912      Plastic shed Door  B5      1 pc.      #913      Plastic Office Door with Window  1 pc.      3 x 3 in.      Acetate for Windows  B7      4 pcs.      #933      Plastic or Wood Stair Stringer  B8      4 pcs.      #S15      Plastic Louver Brackets</p> <p>Paint the doors and windows (B1-B5) the same color as the exterior wood parts, paint the four stair stringers (B7) and the four louver brackets (B8), detaching both from their sprues and clearing off any flash before painting. When painting the plastic parts use a trim paint that will not "attack" plastic.</p> <p>Glue all of these painted doors and windows in their respective locations after they dry thoroughly. Glue the acetate, cutting it per figure 12, behind each window to represent glass panes. Add Scotch Magic tape on the back of the windows to give a frosted look.</p>
	<p><b>STEP 12 ASSEMBLING THE WALLS</b></p>

	<p>A-H 8 pcs. Cardstock Completed Walls</p> <p>Glue walls A, B, and C together. Walls B and D go between walls A and C. Immediately after the glue has set, run a bead of glue along the top of the floor stiffeners on these three walls and wall D. Also run a bead of glue on the inside vertical edges of walls A and C. Now slide in the floor from the left keeping it just above the glue. When fully inserted press the floor onto the floor supports. Now slide wall D between walls A and C, and its floor support underneath the floor. Glue wall E in place between walls A and C so the notches rest on the top horizontal side stiffeners of these walls. <b>Make sure all the walls are square to each other.</b></p> <p>When thoroughly dry, bend the corrugation extensions on walls A and C around the corners and glue them flat to the side walls.</p> <p>Glue the three shed walls together and to wall C, over the bare cardboard area. Walls F and H go between walls G and C. When thoroughly dry, bend the two extensions around the corners and glue them flat to the side walls.</p>
	<p><b>STEP 13 INSTALLING THE RIDGE AND CEILING BEAMS</b></p> <p>A24 3 pcs. 3/32 x 3.32 x 9-1/2 in. Ridge Beams and Ceiling Beams</p> <p>The ridge and ceiling beams serve to make the top portions of the structure rigid. For the pieces in this step use your structure and cut pieces to fit.</p> <p>Begin by cutting and gluing in place two ceiling joists; one between the stiffeners on walls Band E, and one between the top stiffeners on walls A and C, as indicated in figures 1 through 3. Cut and glue in place a ridge beam between the stiffeners at the peaks of the gables on walls A and C using figure 2.</p> <p>The warehouse has two horizontal beams located on either side of the peaks of the gabled roofs. On the two warehouse roofs (AA and CC) extend the lines of the lower portion of the ventilator openings to the underside of both pieces. (See the diagram below.) Cut the two horizontal beams to length using figure 3. Glue them below the lines as shown, leaving 5/64" space on the south side and 15/64 in. on the north side -- then test fit them in place. They should have a snug, not tight, fit. If they are too tight trim slightly as necessary. Do not glue these or any roofs in place yet.</p>  <p>Cut a horizontal ceiling joist, 2-3/16" long, for the shed and glue in place between the one top stiffener on wall G and wall C. A floor joist should also be cut and glued in place, using figure 2, between the two bottom stiffeners on walls G and C.</p>
	<p><b>STEP 14 PAINTING AND INSTALLING THE WOODEN DOORS</b></p> <p>B6 3 pcs. 3/64 x 1-1/4 x 1-1/4 in. Warehouse and Shed Door Material (1/16" Gangplanking) 1 pc. Cardstock Door Designs</p> <p>The three wooden pieces (B6), which are cut oversize, are for the large warehouse and shed doors. For these doors, cut out the three door designs from the door design card and glue in place, per the figure 2 shed door drawing, centering them between the sides and flush with the bottom. When dry, paint these with the same paint used on the exterior wood parts.</p> <p>The two warehouse doors can be used as either hinged or sliding doors. If any of them are to be open and hinged, trim the excess material from around the designs to fit the openings and then cut them down the center, but do not glue them in place until STEP 22 after the dock has been installed. If any of them are to be open, trim off the excess on whichever side is to be open and glue them in place behind the walls. If any of them are to be closed simply glue them in place behind the walls, centering the designs in the openings.</p> <p>The shed door is to be hinged and if it is desired to be open, the bottom support across the doorway must be cut away and the door cut down the center. Glue this door in place now.</p>
	<p><b>STEP 15 THE DOCK FLOOR AND ROOF, REAR BEAMS</b></p> <p>A25 2 pcs. 1/16 x 3/32 x 10-1/2 in. Dock Floor &amp; Roof Rear Beams</p> <p>From A25 cut one 6-13/16" beam for the west dock, floor and roof (rear beam), and one each, north dock, floor and roof rear beams at 3-13/32" for a total of four pieces.</p> <p>Using figures 1 and 4 mark the location of these wall beams. (The rear floor beams should be 25/64" up from the bottom and the rear roof beams should be 1-7/8" up.).</p> <p>Glue these in place, above the lines made, overlapping the ends of the north dock beams with the west dock beams.</p>
	<p><b>STEP 16 THE VENTILATOR</b></p> <p>A4 1 pc. 3/64 x 23/32 x 1-5/8 in. Ventilator Ends Material (1/16" Gangplanking) A7 3 pcs. 1/16 x 3/32 x 2-3/8 in. Ventilator Inside Bracing B8 4 pcs. #S15 Plastic Louver Brackets A18 8 pcs. .023 x 3/32 x 2-3/8 in. Ventilator Louvers</p>

	<p>A20 2 pcs. 1/32 x 3/32 x 7 in. Ventilator Frame Material</p> <p>Begin by cutting out the ventilator ends from the A4 material using figure 5 as a template. Glue two braces (A7) between these ends, 3/32" side down, flush with the bottom and outside edges, as shown in figures 3 and 5, and another brace (A7) between the peaks of the gables as shown in figure 4. Make sure this assembly dries square and thoroughly.</p> <p>When dry, glue the louver brackets (B8) to the inside of each end, flush with the outside edges and resting on the braces. Make sure all the bracket slots slant downward and face out. Let this dry.</p> <p>With a toothpick, add a dab of glue to each bracket slot and glue the louvers (A18) in place. When these are dry add the frame pieces, cutting them from the A20 material, using figures 1 and 3 as templates. Glue the roofs to the ventilator, centering them. Paint all inside surfaces and the ends of the ventilator the same color as the outside.</p>
	<p><b>STEP 17 INSTALLING THE ROOFS, VENTILATOR, AND SMOKESTACK</b></p> <p>AA-FGH 7 pcs. Cardstock Completed Roofs  A27 1 pc. 3/64 x 3/64 x 9 in. Roof Peak Cap Material  B11 1 pc. 3/16 O.D. x 3-3/4 in. Smokestack, Brass  B14 1 pc. 1/4x 3/4 x 3/4 in. Smokestack Block Support</p> <p>Tape the warehouse (AA and CC), office (BB and BB), and ventilator (DD and DDE) roof units together on their undersides.</p> <p>Glue each roof unit in its respective location, noting on the warehouse roofs, that the ends with the corrugation cut flush, butt up against the north office wall. Glue the ventilator in its opening on the warehouse roof making sure it stays horizontal and that the sides cover the edges of the opening.</p> <p>Using the A27 material, make cut-to-fit roof peak caps for the office, warehouse, and ventilator roofs and glue these in place.</p> <p>Paint the smokestack (B11) and the inside ends with a grimy black paint. Glue the smokestack block support (B14) in the southeast corner of the shed, flush with the bottom, as-shown in figures 2 through 4. Let this dry, then push the smokestack through the hole in the shed roof and tap it into the block slightly, making sure it remains perpendicular while doing so. Use a generous amount of glue around the stack on the underside of the roof.</p>
	<p><b>STEP 18 THE CHIMNEY</b></p> <p>B9 4 pcs. #923 Large Plastic Chimney Sides  B10 1 pc. .230 x .230 x1-1/2 in. Wood Chimney Core</p> <p>Using figure 6 as a template and cut the chimney sides (B9) to the proper size and shape. Before assembling the chimney, paint the inside surfaces flat black.</p> <p>Using the wooden core (B10) to hold the four sides square, glue the pieces together around the core with a plastic cement. Do not glue the chimney to the core. A rubber band will hold the assembly tight around the core until dry.</p> <p>When dry, remove the rubber bands and paint the chimney with a red brick colored paint for plastics. When the paint is dry, over-wash it with a gray water-based paint. Rub off the gray before it dries so the gray color remains only in the mortar grooves. Remove the core and discard it. Mark the chimney's location on the roof and glue the chimney in place.</p>
	<p><b>STEP 19 THE DOCK FLOOR SUB-ASSEMBLY</b></p> <p>A1 1 pc. 3/64 x 1-1/8 x 7-27/32 in. West Dock Floor  A2 1 pc. 3/64 x 1-1/8 x 4-17/32 in. North Dock Floor  A15 4 pcs. 1/32 x 3/32 x 7 in. Dock Floor Joists  A23 1 pc. *1/32 x 3/32 x 11-1/2 in. Dock Joint Joists  *See note in instructions</p> <p>Attach a piece of wax paper over figure 7. Using this as a template, lay each dock floor (A1 and A2), grooved-side-down, over their respective drawing outlines and cut the 45 degree angle on one end of each piece as drawn. Glue the two dock floor pieces together, at the angled ends, over figure 7.</p> <p>Cut twenty-four joists from the A15 material using figure 9. Cut the four smaller joists, near the joint, and the joint joist from the A28 material, using figure 7. (Note: the other half of this piece of A28 material is to be used in STEP 23.)</p> <p>Lay the dock over figure 7 and glue the joists in place, aligning them with the extension lines which protrude from the sides of the dock in the drawing. All of the joists should be flush with the outer edge of the floor. Set this sub-assembly aside on a piece of wax paper to dry thoroughly.</p>
	<p><b>STEP 20 THE DOCK LEG SUB-ASSEMBLIES</b></p> <p>A5 1 pc. 1/16 x 3/32 x 7-27/32 in. West dock Front Door Beam  A6 1 pc. 1/16 x 3/32 x 4-17/32 in. North Dock Front Floor Beam  A11 11 pcs. 1/16 x 1/16 x 25/64 in. Dock Legs  A13 3 pcs. 1/32 x 3/32 x 8 in. West Dock Horizontal Leg Braces  A14 3 pcs. 1/32 x 3/32 x 4-17/32 in. North Dock Horizontal Leg Braces</p> <p>Attach the drawings to a flat working surface and tape a piece of wax paper over figures 1 and 4. Bevel cut one end of each floor beam (A5 and A6) using figure 8. Spot glue these beams in their drawing outlines over figures 1 and 4. The bevel cuts should be facing down and positioned at the corner where the two sub-assemblies will eventually join. Glue eleven legs</p>

	<p>(A11) to the bottom of the two beams in their proper locations; keeping them perpendicular - the corner leg should be attached to the north sub-assembly. When the glue has set, glue the west and north horizontal leg braces (A13 and A14) on top of the legs per figures 1 and 4. The braces should be flush with the south leg on the west sub-assembly, and the east and west (corner) legs on the north sub-assembly. When both sub-assemblies are completely dry, remove them from the wax paper and set them aside.</p>
	<p><b>STEP 21 ASSEMBLING THE DOCK FLOOR AND LEG SUB-ASSEMBLIES</b></p> <p>A11 2 pcs. 1/16 x 1/16 x 25/64 in. Dock Legs  A15 2 pcs. 1/32 x 3/32 x 7 in. Dock Leg Diagonal Braces</p> <p>Keeping the dock floor sub-assembly Gangplanking side down, glue the leg sub-assemblies in place and join them at the corner. The floor beams should be flush with the ends of the joists and the dock ends, and the west horizontal leg' braces should overlap the north horizontal braces.</p> <p>Cut ten diagonal braces from the A15 material using figure 9. Glue these to the underside of the dock/leg assembly, against the legs and joists using figures 1 through 4 as a guide. These will help strengthen this assembly. Make sure the leg sub-assemblies dry perpendicular to the floors.</p>
	<p><b>STEP 22 INSTALLING THE DOCK/LEG ASSEMBLY</b></p> <p>When the completed dock/leg assembly is completely dry, glue it to the west and north walls, resting the back of it on the rear floor beams attached to the walls. Let this dry on a flat surface, lightly weighted, to insure it dries flat.</p> <p>If any of the warehouse doors were chosen to be open and hinged, as in STEP 14, glue these to the openings now.</p>
	<p><b>STEP 23 THE DOCK ROOF SUB-ASSEMBLY</b></p> <p>I, J 2 pcs. Cardstock Completed Dock Roofs  A16 5 pcs. 1/32 x 3.32 x 7 in. Dock Roof Rafters  A28 1 pc. 1/32 x 3/32 x * Dock Joint Rafter Material (* leftover from Step 19)</p> <p>The rafter locations are marked for you on the undersides of dock roofs. Using the leftover A28 material from STEP 19 cut the four smaller rafters and the joint rafter, slightly beveling the ends of the short rafters that butt up against the joint rafter. Use the roofs as a guide for length and use figure 9 for cutting the angle on each end. Use figure 9 to cut twenty-four rafters from the A16 material. (Note: When cutting the rafters, lay one strip of A16 over the template and cut one rafter from it, then, simply slide the strip ahead so the end-cut angle matches up with the rafter end and cut another rafter. Repeat this process for all the rafters.)</p> <p>Lay both roofs corrugation-side-down and glue the rafters to the roofs so the angled ends slope towards the front edge allow 1/64" clearance on each roof at the angled edge for the 1/32" thick joint rafter, but do not glue the joint rafter on at this time; save it until STEP 25 when the roofs are installed.</p>
	<p><b>STEP 24 THE DOCK ROOF SUPPORT SUB-ASSEMBLIES</b></p> <p>A8 1 pc. 1/16 x 1/16 x 7-23/32 in. West dock Front Roof Beam  A9 1 pc. 1/16 x 1/16 x 4-13/32 in. North Dock Front Roof Beam  A10 10 Pcs. 1/16 x 1/16 x 1-5/32 in. Dock Roof Support Posts  A28 1 pc. 1/32 x 3/32 x 11-1/2 in. Roof Support Auxiliary Bracing</p> <p>Bevel cut one end of each roof beam (A8 and A9) using figure 8. Using the same piece(s) of wax paper over figures 1 and 4 spot glue the beams in their proper shaded drawing outlines. The bevel cuts should be facing down and turned toward the corner where the two sub-assemblies will join.</p> <p>Glue ten posts (A10) to the bottom of the roof beams in their proper locations, keeping them perpendicular'; the corner post will be glued in place in the next step. Cut two auxiliary braces from the A28 material to span the width of each support subassembly. Lightly spot glue these to each post - just enough glue so it will hold each post in place, perpendicular to the beams. Let these two sub-assemblies dry thoroughly.</p>
	<p><b>STEP 25 INSTALLING THE DOCK ROOF AND ROOF SUPPORT SUB-ASSEMBLIES</b></p> <p>A10 1 pc. 1/16 x 1/16 x 1-5/32 in. Dock Roof Support Post</p> <p>Using figures 1 and 4, carefully transfer the locations of the posts to the dock floors. Glue the post assemblies to the floor, and together at the corner of the roof beams. Now glue the corner post (A 101 in at its location. Let the glue set on these, making sure they stay perpendicular to the floor. Glue the joint rafter in place, so it rests on the joints of both the rear and front roof beams. Let it dry.</p> <p>Glue the two dock roofs to the front and rear roof beams and the joint rafter, running a bead of glue along the top of all four beams, the joint rafter, and one side of the joint in the roofs.</p> <p>Weight the roofs lightly until dry. Again, be sure the roof posts remain perpendicular to the floor. When thoroughly dry, carefully <i>remove</i> the two auxiliary braces from the supports using a sharp knife. To complete the dock add a six and ten foot <i>panel</i> of corrugation, <i>saved</i> from STEP 6, to cover the roof joint.</p>
	<p><b>STEP 26 THE STAIR FLIGHTS</b></p> <p>B7 4 pcs. #933 Plastic or Wood Stringer Material  A12 23 pcs. 1/32 x 1/8 x 17/32 in. Stair Treads</p>

	<p>Using figures 2 and 4 as templates, cut six stair stringers from the stair stringer material (B7) - the upper flight stringers need only a very slight amount of cutting from the stock material. Attach scotch tape sticky-side-up over figure 10. Stand the stair stringers on their back edges pressed against the tape and aligned within their drawing outlines. Notch five of the treads (A12) so they clear the railing posts on the upper flight, using figure 2 for location. Glue nineteen treads (A12) to the upper and lower flight stringers, positioning them flush with the left and placing the four notched treads in their proper places. Glue three of the remaining treads to the north dock flight stringers, centering the treads on the stringers. When all the treads are dry, carefully <i>remove</i> the completed flights from the tape.</p> <p>Glue the north dock flight in place per figures 3 and 4. Note that the top of the strings go behind the end joist - see figure 4. Glue the remaining tread in place, butted up against the end joist.</p>
	<p><b>STEP 27 THE LANDINGS. SUPPORTS. AND RAILINGS</b></p> <p>A20 1 pc. 1/32 x 3/32 x 7 in. Landing Support Cross Braces  A26 1 pc. 1/16 x 1/16 x 11-1/2 in. Landing Supports &amp; Beams, &amp; Railing Post  A17 2 pcs. 1/32 x 3/32 x 5-3/16 in. Landing Horizontal Braces &amp; Joists Material  A29 1 pc. 1/32 x 1/16 x 10 in. Stair &amp; Landing Railing Material  A3 2 pcs. 3/64 x 27/32 x 9/16 in. Landings (3/32" gangplanking)</p> <p>There are four separate sub-assemblies to be built in this step: 1) the lower landing support; 2) the upper landing support; 3) the upper stair flight railing; and 4) the lower and upper landings.</p> <p>Begin by building the two landing supports; attaching a piece of wax paper over figure 2. Cut six cross braces from the A20 material, keeping track of which ones go where, four horizontal braces from the A17 material, and four landing support posts (do not cut stair railing posts at this time) from the A26 material using figure 2. Bevel the top of the "west", upper landing support as drawn in figure 2. Spot glue the four landing support port posts, for the upper and lower landings, in place over figure 2 and glue the four horizontal braces just cut, to these posts, in their proper locations. Now glue three of the cross braces on top of the posts per the drawings (one on the lower landing and two on the upper landing). Cut two rails to sit on top of the landing support posts from the A29 material, beveling the west end of the upper landing rail as in figure 2 and the east end using figure 8, and glue in place. When these two partial sub-assemblies are dry, turn them over and glue the remaining three cross braces in place. Cut two side rails for the landings from the A29 material and glue these in place.</p> <p>Build up the upper stair flight railing by first cutting two railing posts from the A26 material and spot glue them in place over their drawing outlines. Cut a rail and side rail from the A29 material; cutting them a little longer than the drawing - they will be trimmed to fit when installed. Glue the rail in place and when it is dry, release the posts and rail from the wax paper; turn it over and glue the side rail in place. Set this sub-assembly aside.</p> <p>Now build up the landings. Lay the landings (A3) over figure 11, gangplanking-side-down, with the gangplanking running the correct way. Cut out the notches and mark the locations of the joists. Cut eight joists from the A17 material, to fit the length of the landings, using figure 11 again. Glue these in line with the marks made on the underside of the landings. Using the A26 material, cut two joist beams for each landing using the shaded outlines in figure 11 as a template. Glue these beams in position to the bottom of the joists. When dry, glue each landing to its proper support assembly making sure the landings remain perpendicular to the supports until dry.</p>
	<p><b>STEP 28 INSTALLING THE STAIR FLIGHTS AND LANDINGS</b></p> <p>A19 1 pc. 1/16 x 1/16 x 4 in. Landing Support Wall Posts Material  A21 1 pc. 1/32 x 3/32 x 3-1/2 in. Landing Horizontal Braces Material</p> <p>Glue the lower stair flight to the front of the lower landing, and the upper stair flight to the front of the upper landing; the stringers go against and on the outside of the north and south joists, flush with the front, as shown in figure 1. Now glue the upper landing/stair flight sub-assembly in position on the lower landing floor per figure 2.</p> <p>When the glue on this assembly has set, place the building on a flat surface with the south wall facing you. Glue the stair and landing assembly to the south wall, centering the upper landing under the door and leaving the lower landing flush with the dock floor. Keep the bottoms of the supports the correct distance from the wall until the wall support posts and horizontal braces are added.</p> <p>Using figure 3, cut two wall support posts for under the upper landing on the south wall, and a wall support post to fit .under the lower dock rear joist beam on the south wall, all three from the A19 material. Glue these on the wall, opposite their counterparts, referring to figures 2 and 3. Using figure 3, cut and glue five horizontal braces from the A21 material, connecting and spacing the outer supports with those on the wall. The brace on the lower landing is located at the bottom and those for the upper landing are at the same height as those on the outer supports.</p> <p>Glue the upper stair flight railing sub-assembly in position, trimming the rails to fit. Cut an upper landing wall railing post per figure 3 using the A19 material and glue in place. Using A29 material, leftover from STEP 27, cut a rail to fit on top of the posts on the back of the landing, bevel cutting the south end using figure 8 as a template. Cut and install an east side rail using figure 3. (Note: the material to be used for this is leftover A29 material from STEP 27.)</p>
	<p><b>STEP 29 THE SIGNS</b></p> <p>1 pc. Printed Cardstock Sign</p> <p>The long sign is meant to be placed just above the dock roof on the west wall or on the office roof peak. The shorter sign is meant to be placed just above the dock roof on the north wall or on the ventilator roof peak. If using them on the roof peaks cut two of them to size and glue them back to back and then glue the bottom edge to the peaks.</p>

**STEP 30 COMPLETING THE BARREL COMPANY**

B12 12 pcs. #250 Unpainted Barrels (HO)

B13 6 pcs. #247 Unpainted Barrels (N)

Stain the barrels with a light brownish/gray stain and then; using Grimy Black and Rust paint, paint the bands around the barrels using the Rust on some of the older, rejected barrels. Place the barrels in piles along the dock, against the wall, or wherever you want them.

Touch up any areas where paint or stain has been disturbed by cutting, trimming, or where just bare wood or cardboard shows. Also paint the corrugation covering the dock roof joint.

The Barrel Company is primarily meant to have a siding run along the west dock or it can have one down the north side, or both. We hope you have a "barrel" of fun while building this kit.

20171016 tdm