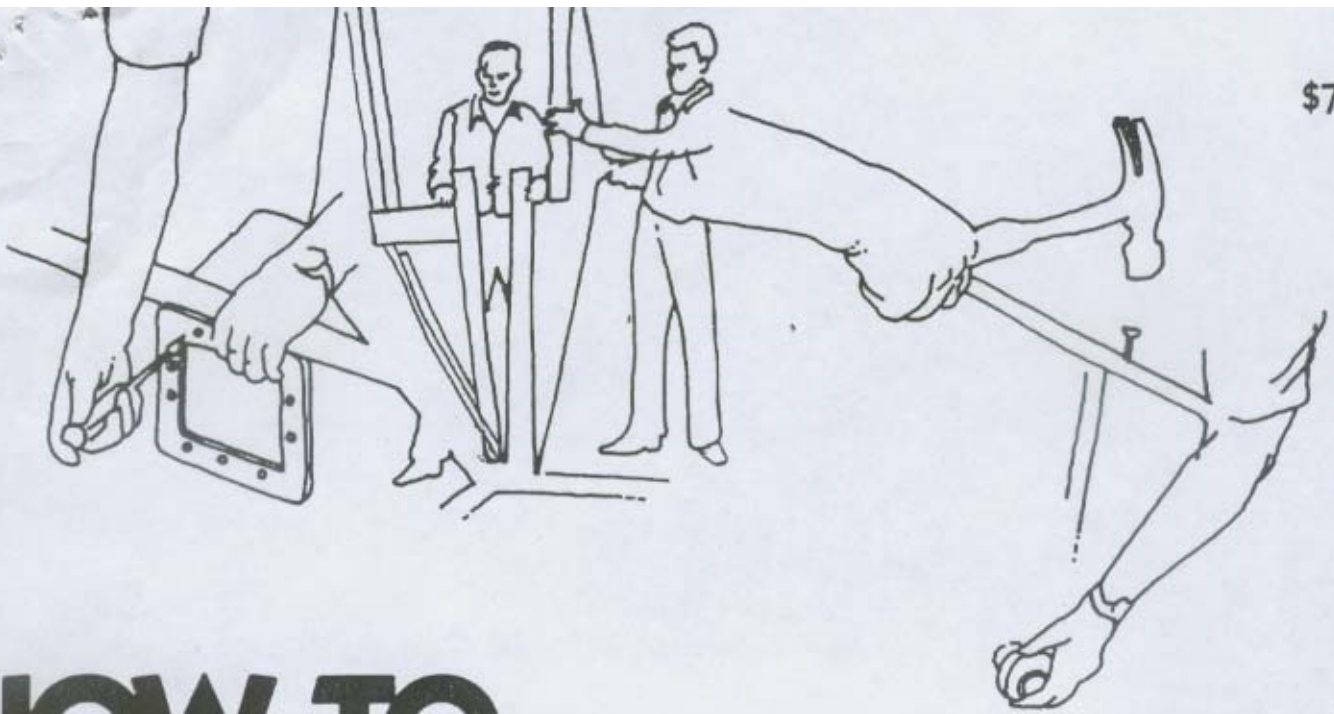
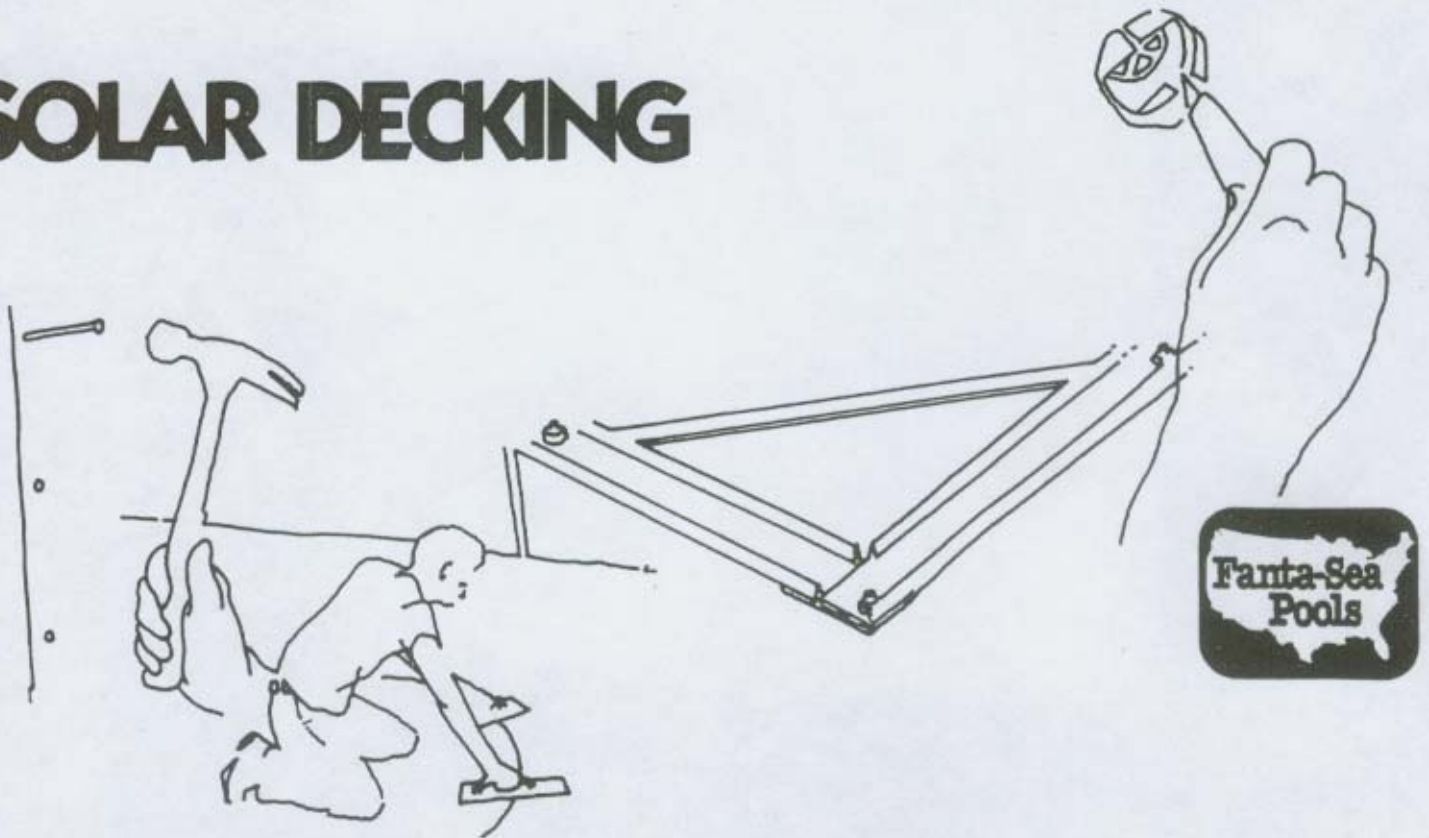


\$7.50



# HOW TO BUILD YOUR OWN SWIMMING POOL.

## SOLAR DECKING



# Introduction . . .

Your pool is designed to be assembled with minimum effort. This manual is provided for you to tell you exactly how to assemble your Fanta-Sea pool. It will give you detailed, step-by-step instructions that can be easily followed. For best results we strongly urge you to follow the assembly sequence in this manual **exactly**. In fact, to familiarize yourself with the pool, read the manual **before** you begin installation. This manual is based on a standard Mark III series, 16' x 24' pool with a standard eight-foot sun deck at one end. If you plan to install a side deck, call your local Fanta-Sea installation manager for installation instructions.

## POOL DELIVERY

Your pool has been delivered with everything necessary for you to complete the assembly and installation. The proper type and amount of nails to assemble your pool are included in the delivery. The only responsibility you have regarding assembly is to have the tools to do the job.

## TOOL LIST

Following is a list of the tools you will need to assemble your pool. If you don't own the tools listed, they can be rented from any local well-stocked rental establishment.

1. One transit, line level, or four-foot carpenter's level.
2. Two pointed shovels
3. Two spade shovels
4. One pick
5. One rake
6. One set of sockets up to 1-1/8"
7. One set of open-end or box wrenches up to 1-1/8"
8. Two 14" pipe wrenches
9. One large Phillips screwdriver
10. Two medium screwdrivers
11. Utility knife
12. One two-foot square
13. One tri-square
14. One hand saw
15. One power hand saw
16. One 3/8" power drill
17. One 2-1/2" hole saw
18. One set of small drills
19. One wheelbarrow
20. One 8' folding rule
21. One hack saw
22. One sod cutter
23. One 50' tape measure
24. Two 3" x 14" trowels
25. Saber saw or "key hole" saw
26. 3/4" speed bit or drill bit
27. Hammer
28. Safety Glasses

## BUILDING PERMITS

Before you begin to assemble and install your pool, check with the local authorities in your area. It is the rule rather than the exception that you will have to get a building permit before you install your pool. There also may be restrictions regarding the location of the pool. Many communities have restrictions about how close you can put your pool to easements, power lines, etc. So, take all of this into consideration before you choose the site for your pool.

## CHOOSING YOUR SITE

Obviously, the best choice would be an open spot away from overhanging tree branches. This way you'll have a maximum of sun and a minimum of cleaning and maintenance. Another thing to consider is how level your site is. If you choose the most level site possible, your leveling job will be a lot easier.

Many owners prefer to locate the pool so that entry to it is as close as possible to the house. Besides convenience, there is also the benefit of being close to both electrical and water outlets. For overall appearance, the pool site should blend with and complement the general landscaping and layout of your lot. Another thing to consider is to try and avoid a site where there is a strong, prevailing wind.

## POOL SITE GROUND PREPARATION

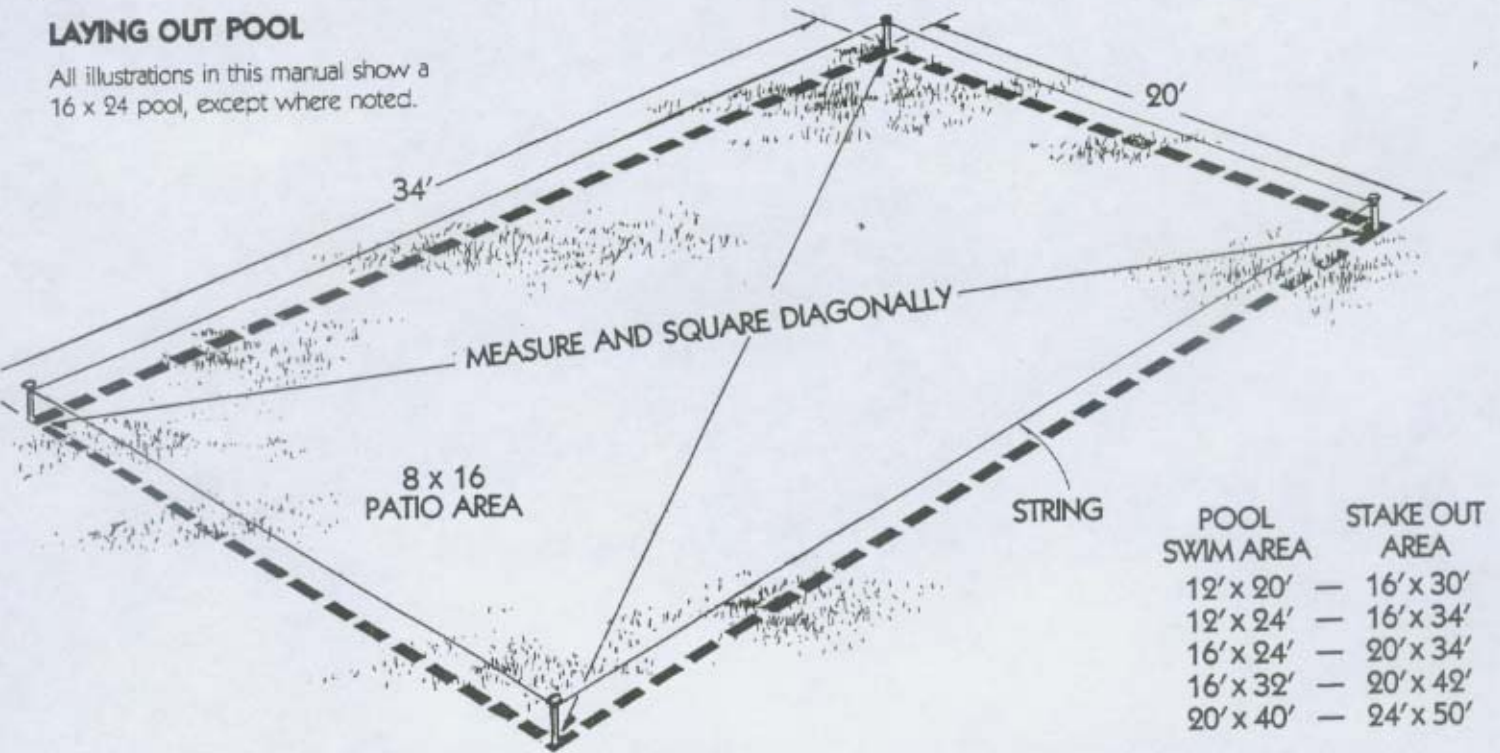
Stake out the corners of your pool site to the size of your pool. Measure diagonally from both corner stakes to make sure the area is true. Remove all sod from the pool area plus an additional foot around the perimeter. The sod must be removed and discarded. If the sod is allowed to remain on the pool site, it will eventually ferment and cause damage to the liner in the future.

Starting at the lowest corner, level your pool site. A transit is recommended, however, you can use a line level or a 2" x 4" x 16' and a 4' carpenter's level. Remember, the more level your site is, the easier it's going to be to level your ground steel and have the completed pool as level as possible. You are now ready to proceed to Page One and begin installation of your Fanta-Sea pool.



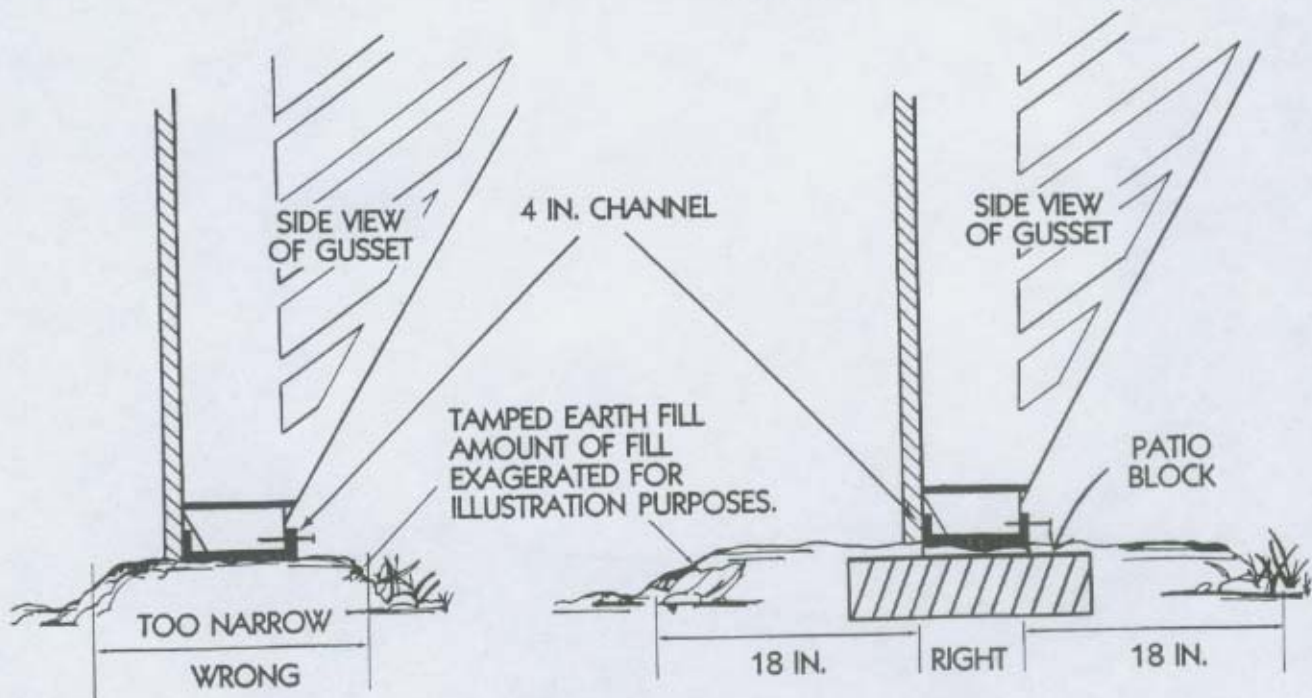
## LAYING OUT POOL

All illustrations in this manual show a 16 x 24 pool, except where noted.



Pool area is staked out 4' wider and 10' longer than swim area of your pool. (Example: 16 x 24 pool is staked out 20' x 34'.) This allows room to adjust bottom steel square to lot lines or buildings and provides room for a border around pool. Refer to diagram above for swim area and stake out area.

In leveling the steel, dig down to the lowest point to provide a solid level base for the pool. In some cases, however, you may find that 85% of the land is within several inches of being level and only 15 or 20% is really far off level (6 in. to 8 in.) Rather than dig down this far creating a landscaping and drainage problem you may build up as illustrated, there being a right and a wrong way to do this, both are illustrated. In addition to terracing out and tamping it is wise to use patio blocks under each gusset where you build up. If you have to build up more than 6 in. to 8 in. it is recommended that you shore this up on the outside to prevent erosion of the terrace.



## BOTTOM STEEL LAYOUT

Bottom steel layout for the complete line of Fanta-Sea's Mark III Redwood series. The illustrations show the approximate amounts of washed brick sand, (or mason sand) to be used in each model. Each pool should have approximately 2 in. of sand in the bottom (46 in. from top of water wall to sand level in the bottom). Refer to deep end diagrams for hopper specifications. On hopper pools have the sand as near the beginning of the gradual slope of the hopper and if you are sure the slope is rough cut to proper specs you may dump the sand there as you will have to shovel it up on the walls of the hopper when packing the sand. This will save you considerable time.



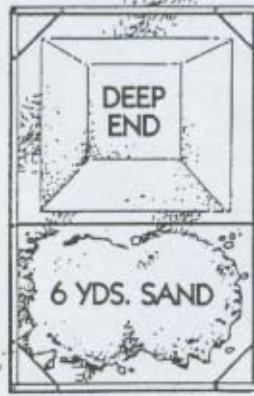
12 x 20 x 4



12 x 24 x 4



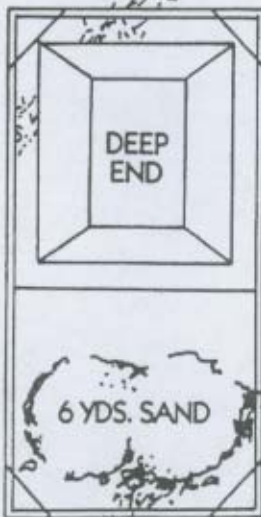
16 x 24 x 4



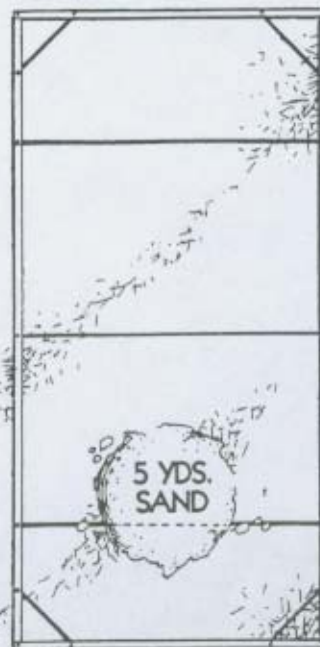
16 x 24 x 7-1/2



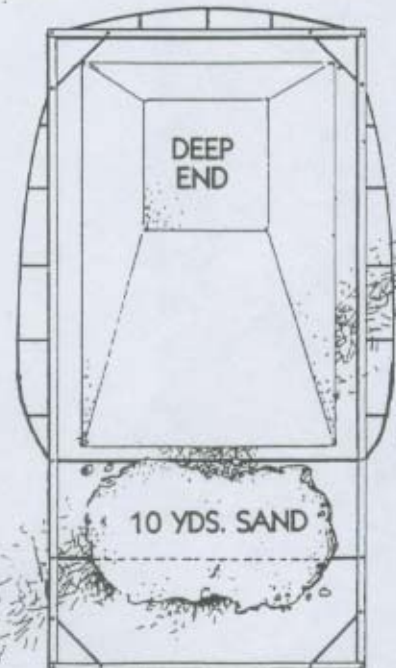
16 x 32 x 4



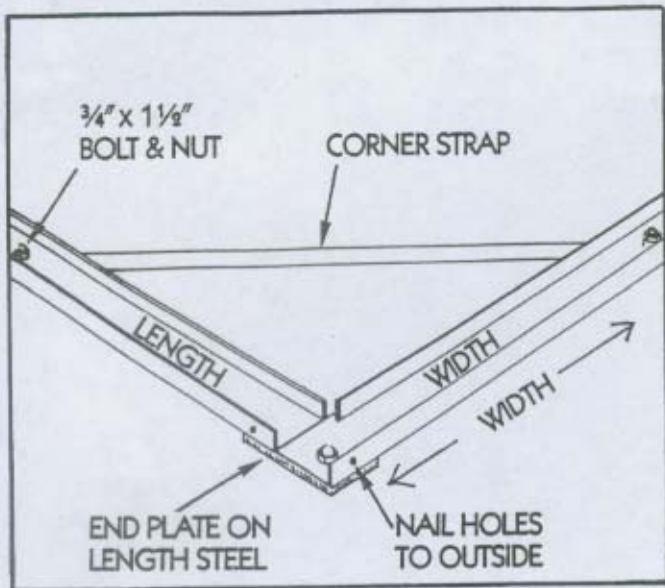
16 x 32 x 7-1/2



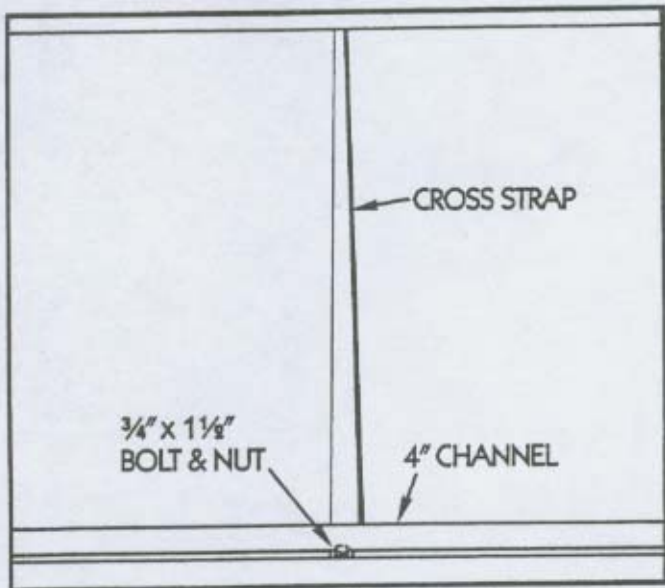
20 x 40 x 4



20 x 40 x 7-1/2



Lay down bottom steel with nail holes to outside. The width or shorter steel must be laid on top of end plates of length or longer steel. All pools have four corner straps which are installed as shown using  $\frac{3}{4}$ " x  $1\frac{1}{2}$ " bolts and nuts. Do not tighten nuts until all bottom steel components are assembled as diagrammed on pg. 2

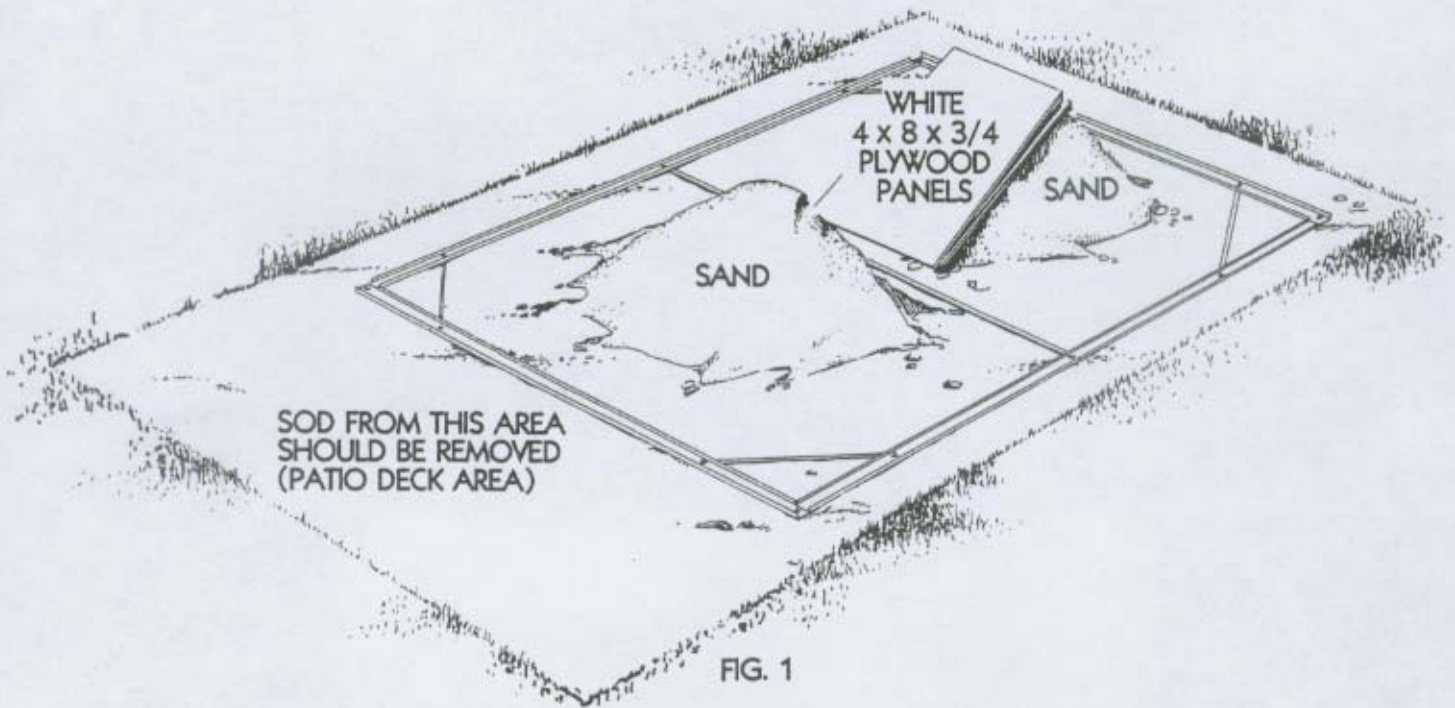


Install the cross strap as shown and bolt it to both length sides of the ground steel with  $\frac{3}{4}$ " x  $1\frac{1}{2}$ " bolts. On the standard 16' x 24' pool, there is only one cross strap. If you are installing a larger pool, bolt in all the straps provided across the width of the pool. The number will vary according to the length of your pool. (See pg. 2)



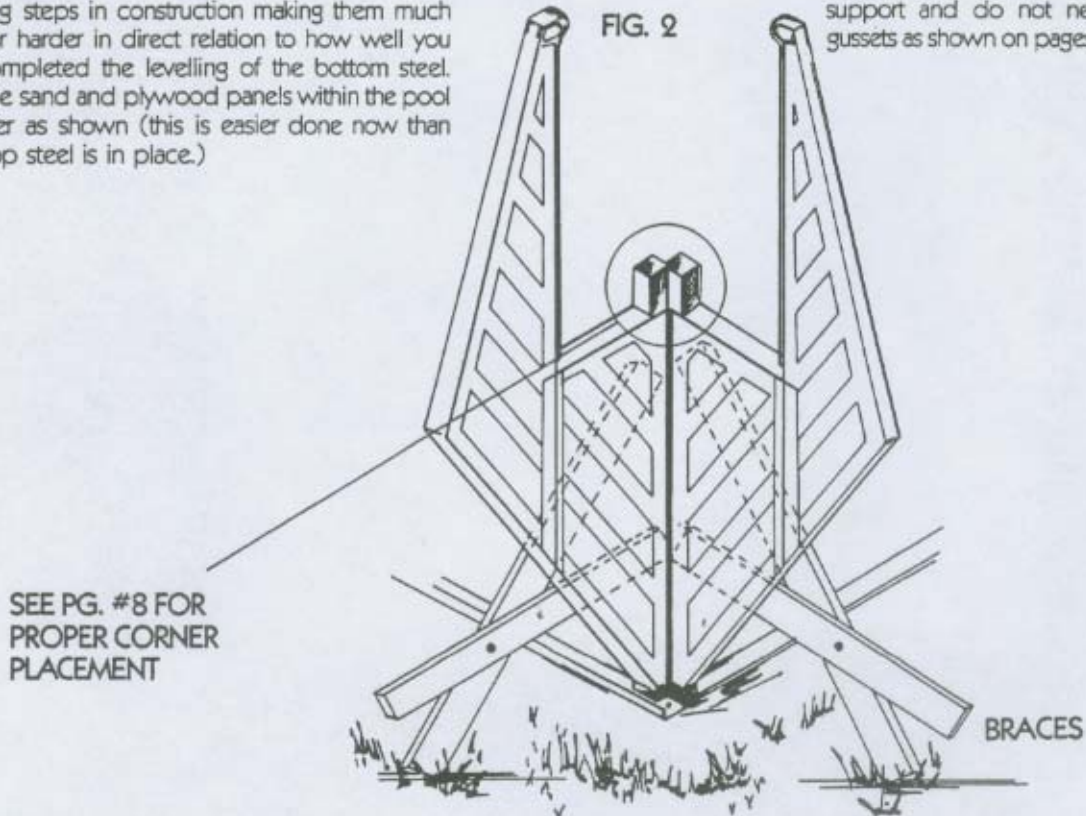
Use a transit to level the ground steel. Level it at all four corners and at 4' intervals along the length and width of the steel. How well you level the steel is directly related to the ease of performing all succeeding steps of the construction.

## LEVELING BOTTOM STEEL

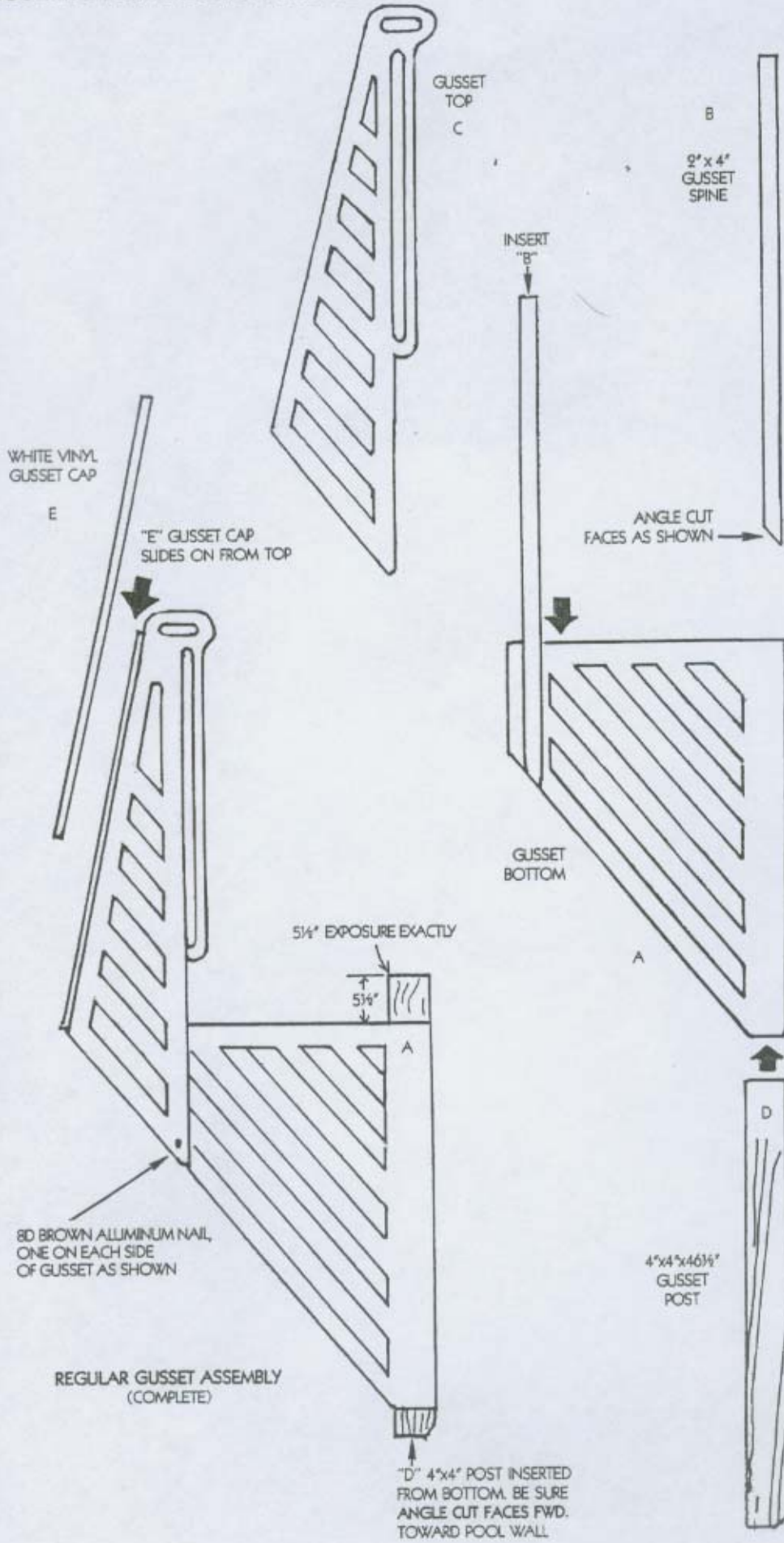


When the sod has been removed from the staked area use a transit level to get the area which the bottom steel rests upon as level as possible. When you are satisfied that this has been done put the bottom steel in place and bolt it together. Finish leveling the bottom steel by checking at 4 ft. to 8 ft. intervals using a transit level with the folding rule or measuring post resting directly on the steel channel. **Keep in mind** that any effort spent in leveling the bottom steel will be well worth it as it will directly affect the following steps in construction making them much easier or harder in direct relation to how well you have completed the leveling of the bottom steel. Move the sand and plywood panels within the pool perimeter as shown (this is easier done now than when top steel is in place.)

Once the bottom steel is in place you must assemble the corner gusset assemblies. These are nailed together with 16D nails and they are then braced by temporarily nailing two pieces of the 5/4 in. x 4 in. handrail in place as shown in figure #2. Note that the nails used to hold the braces in place are not "set" but are left sticking up to facilitate removal later on in construction. Also, it will only be necessary to use one brace on the small gusset at the patio deck end of the pool as the deck gussets have sufficient support and do not need bracing. Assemble gussets as shown on pages 5 and 6.

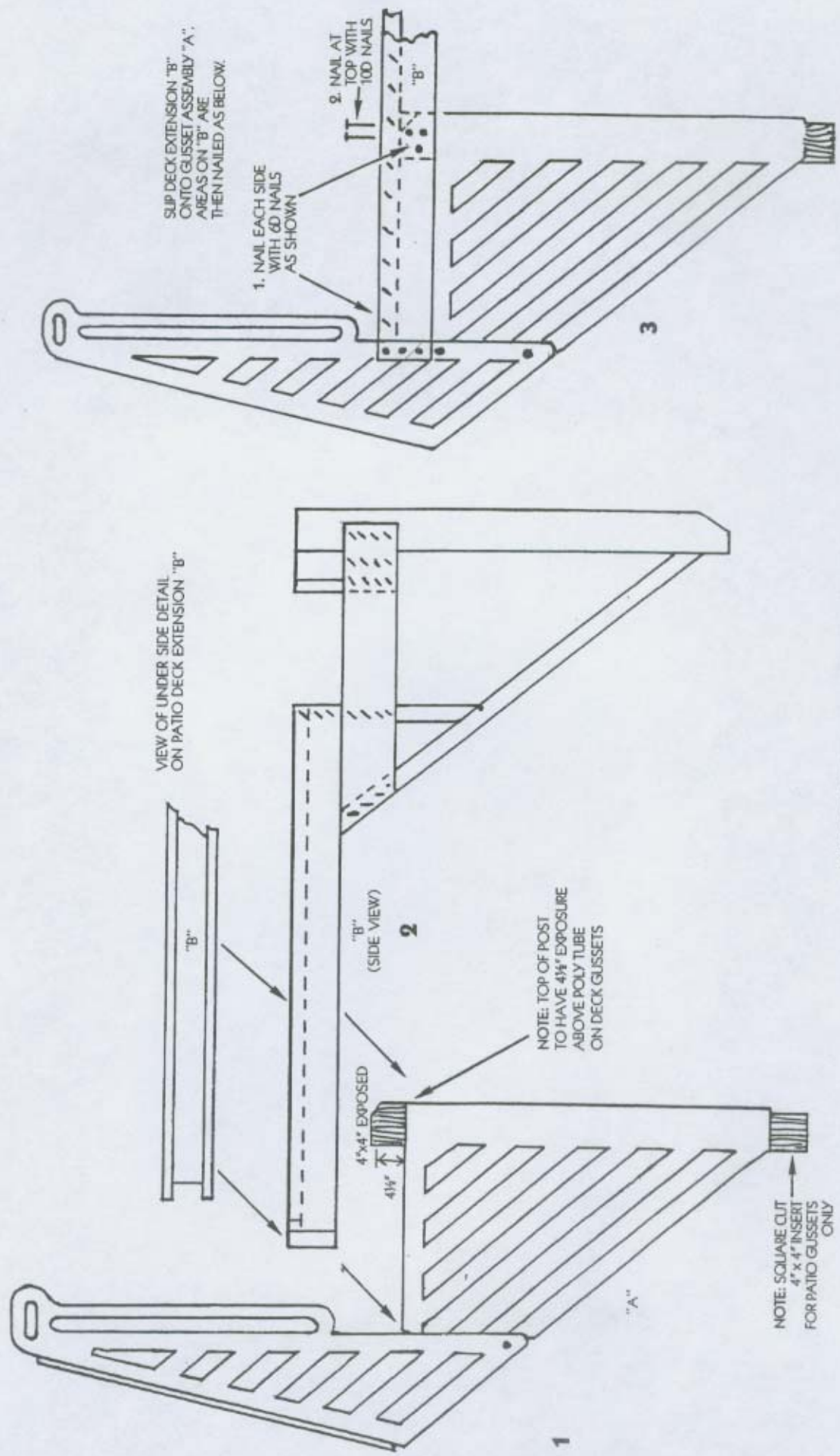


# REGULAR GUSSET ASSEMBLY PROCEDURE



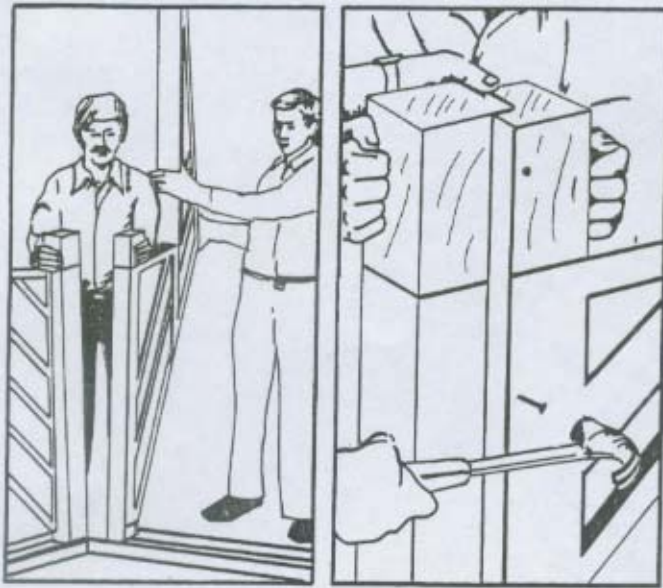
**REGULAR GUSSET ASSEMBLY**  
 SLIDE 4" x 4" POST "D" UP INTO GUSSET BOTTOM "A". BE SURE ANGLE CUT IS AT BOTTOM AND FACING EXACTLY AS YOU SEE IN THE ASSEMBLY DIAGRAMS.  
 GUSSET CAP "E" SLIDES ON FROM TOP AS SHOWN. THIS CAN BE DONE NOW OR WHEN POOL IS COMPLETED.  
 SLIDE GUSSET SPINE "B" INTO RECEIVING POCKET ON TOP OF GUSSET BOTTOM "A".  
 SLIDE GUSSET TOP "C" DOWN OVER GUSSET SPINE AND FASTEN WITH AN 8D BROWN ALUMINUM NAIL, ONE ON EACH SIDE.

# PATIO DECK GUSSET AND EXTENSION ASSEMBLY PROCEDURE

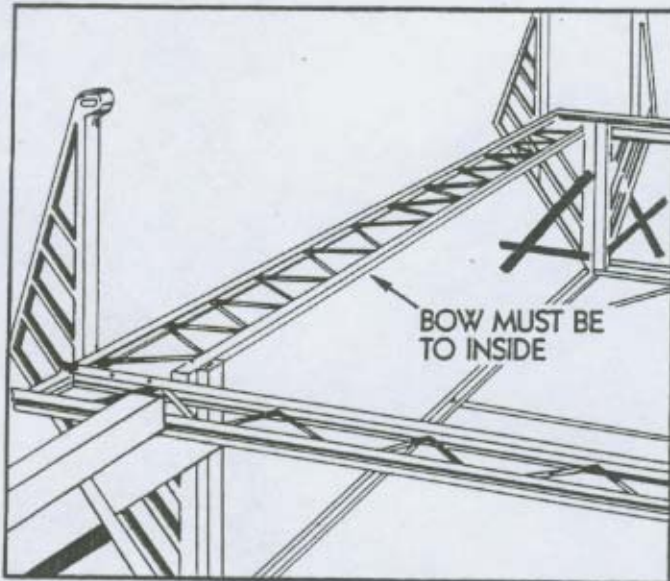


- PATIO DECK EXTENSION ASSEMBLY**
1. ASSEMBLE REAR OF GUSSET "A" AS IN STEP #1
  2. DECK EXTENSION "B" IS PREASSEMBLED AS IN STEP #2
  3. GUSSET ASSEMBLY AND DECK EXTENSION ARE MATED AND NAILED EXACTLY AS IN STEP #3

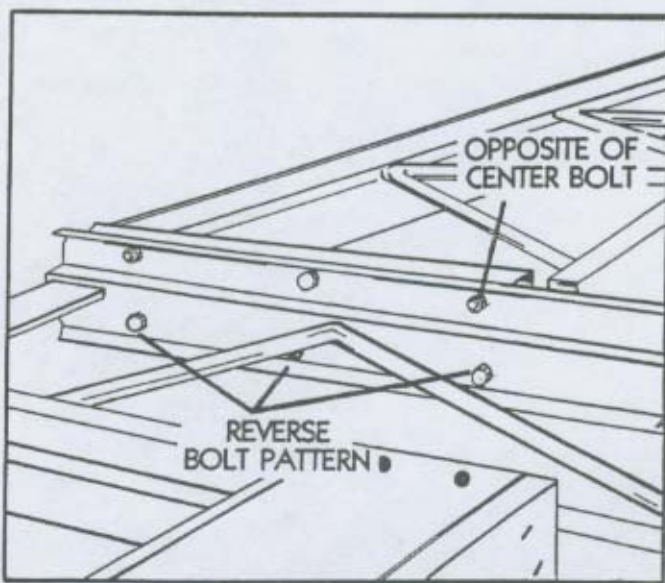




Get one corner gusset with the 1" square notch in the corner of the main 4" x 4" and one regular gusset and place them in position at the corner of the ground steel. The regular gusset fits into the notch of the corner gusset. Position them so that the top of both gussets are flush. Nail the two gussets together with five 16-penny nails spaced evenly the length of the 4" x 4". Follow the same procedure at all three other corners. See page 6 for corner gusset location.



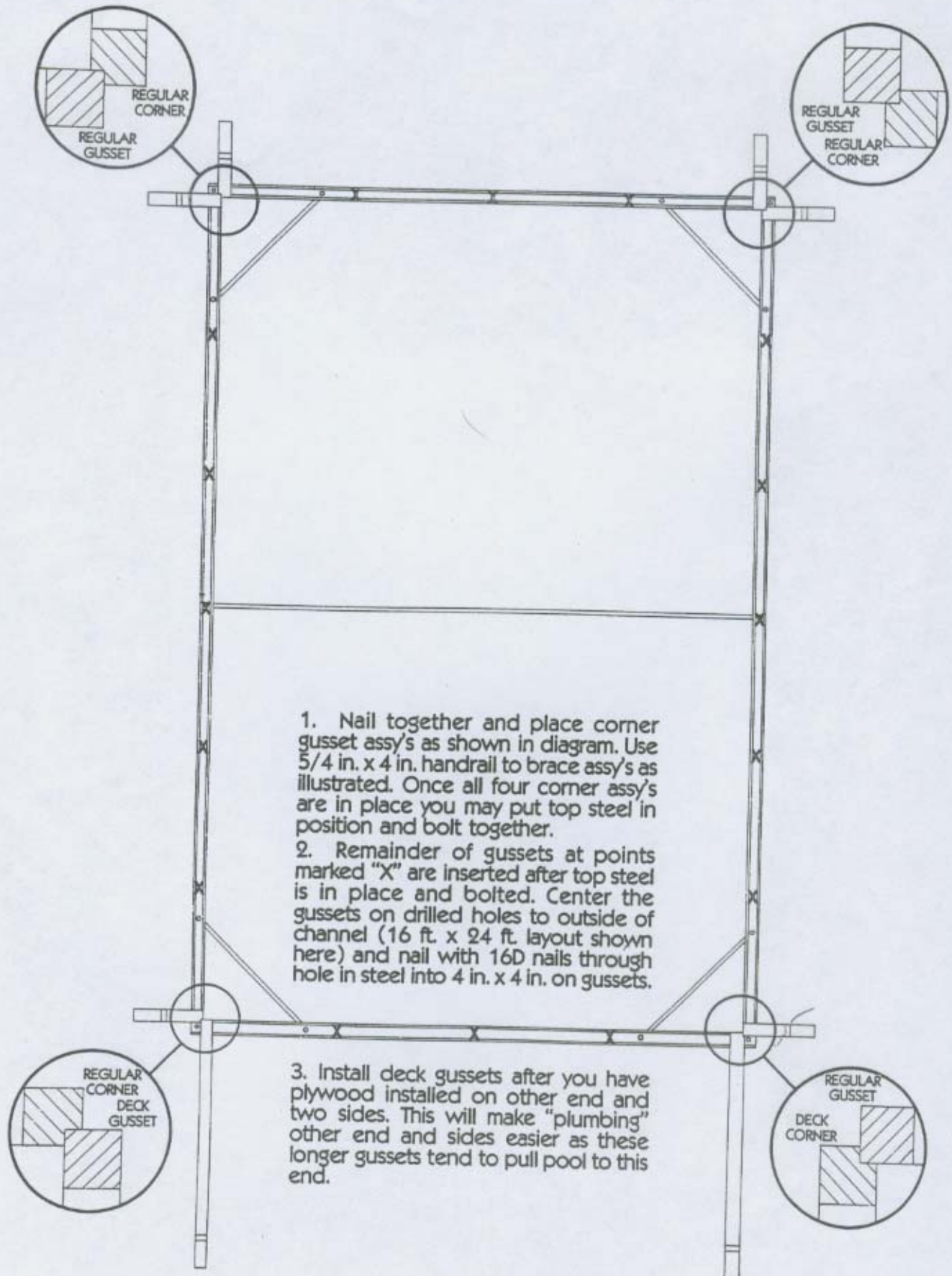
Tacknail the pool handrail to each corner gusset so it is self-supporting to carry the top steel. The length steel has a bow to it that is there for a purpose. Make sure that when you place the top steel into place as shown, the bow is to the inside of the pool. The bow is designed so that when the pool is filled, it will accept the water pressure and become straight. Remember, the bow in the length steel must be to the inside of the pool.

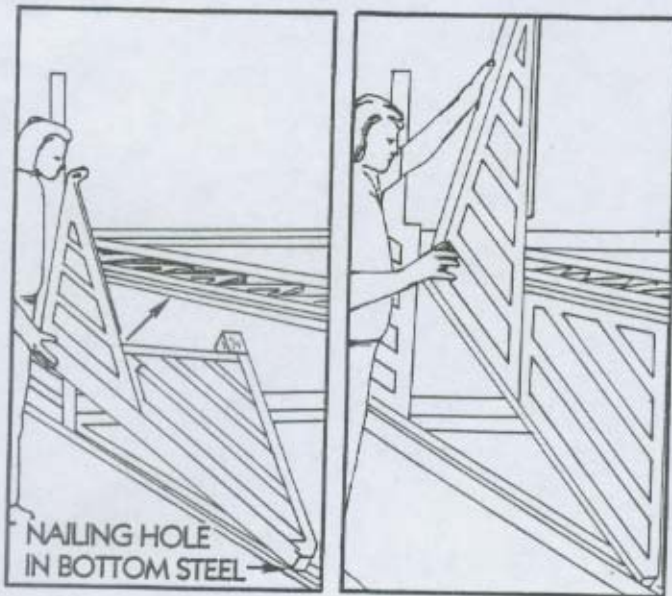


Bolt the top steel together. Insert the end bolts in the opposite direction as the center bolt. Reverse the pattern between the top and bottom rows. Repeat this procedure at the other corners.

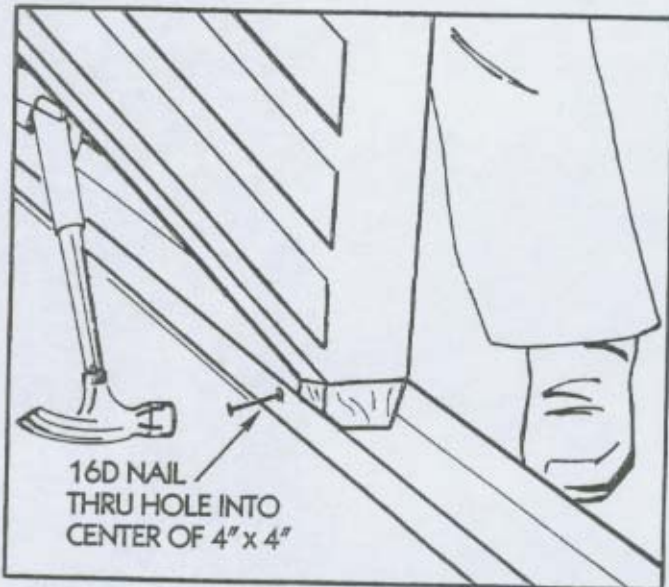
## CORNER GUSSET PLACEMENT

Applies to all standard pool sizes with end deck.

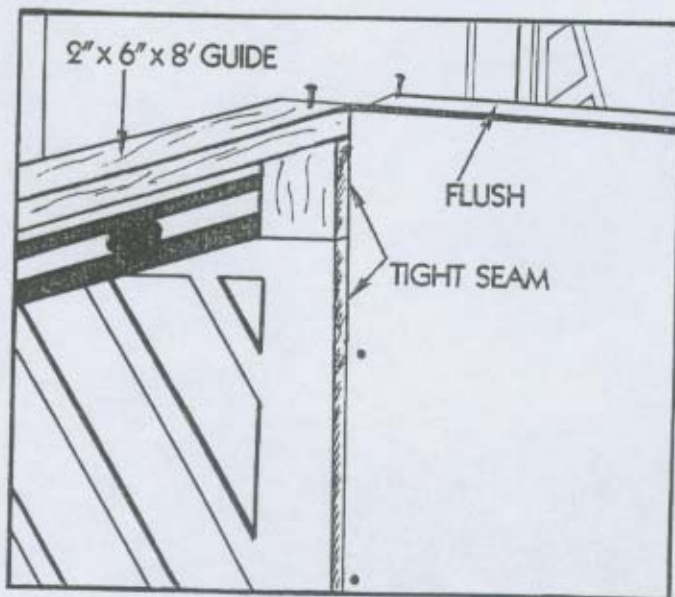




Begin installing remaining gussets one at a time by first placing them into position. The easiest way to do it is to lean the gusset to the side and place the bottom of it as close as possible to the nail hole in the steel as shown. Then simply swing it upright so that it rests vertically under the top steel.

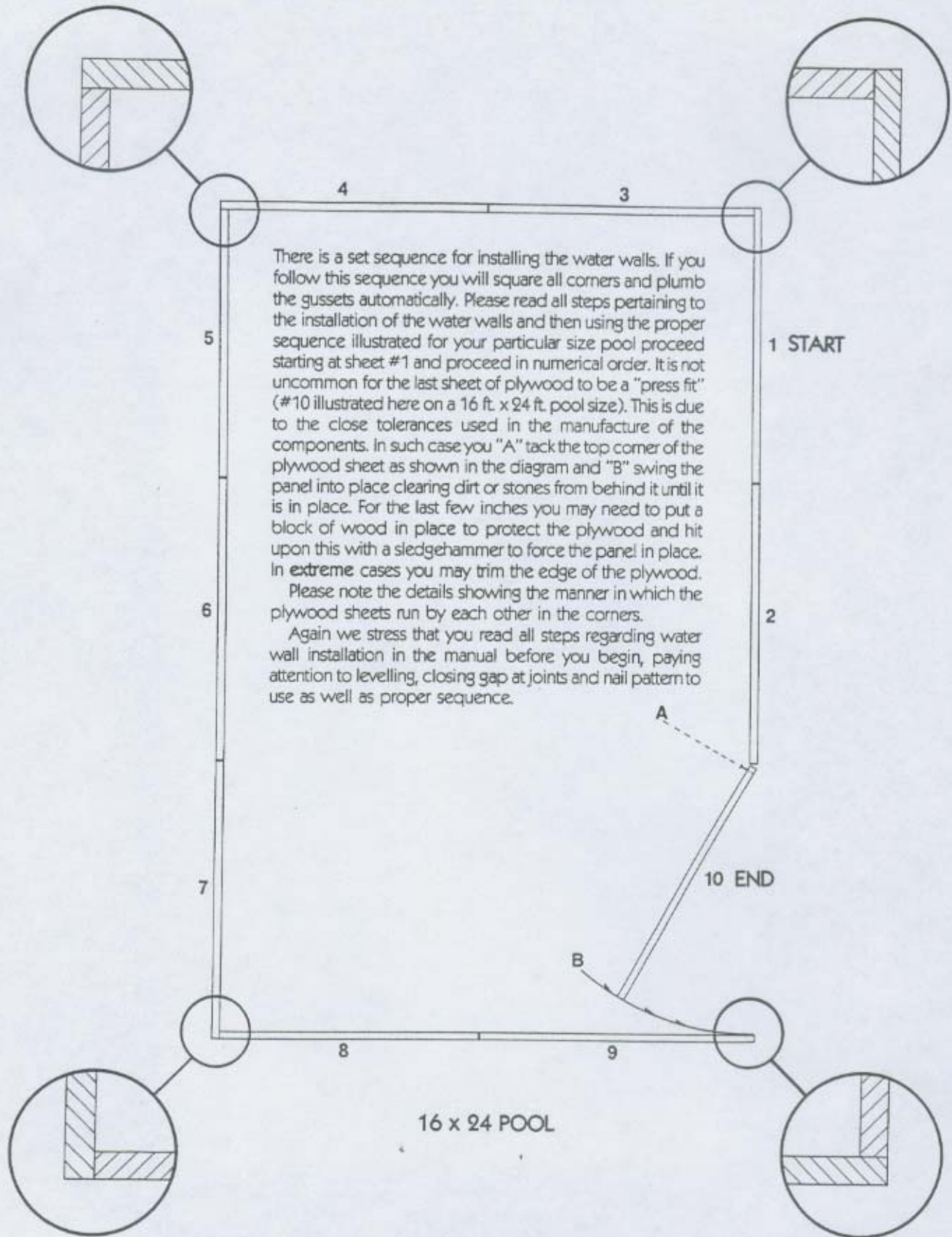


Position the bottom of the gusset so that the nail hole in the steel is in the center of the gusset 4" x 4". Nail the steel and gusset together with a 16-penny nail. There is a gusset every 4'. Follow the same procedure for the others. Also, nail your corner gussets and steel together. You are now ready to begin installation of the acrylic-coated, waterwall plywood. See diagrams on Pg. 11, to determine numerical sequence for installing plywood panels.



Start installing the plywood in the corner to your right as you face the end of the pool without the 8' sun deck. As an installation guide, tacknail a 2" x 6" x 8' to the top of the corner gusset and rest it on top of the other gusset. Make sure when doing this that the corner gussets are tight against the top steel. Place the first piece of plywood into place as shown. Make sure it is tight against the corner gusset and flush with the top of the 2" x 6" guide. Nail the plywood to the corner gusset with five 16-penny nails spaced evenly the height of the plywood panel. See diagram Pg. 9.

# PLYWOOD NAILING SEQUENCE 16 x 24

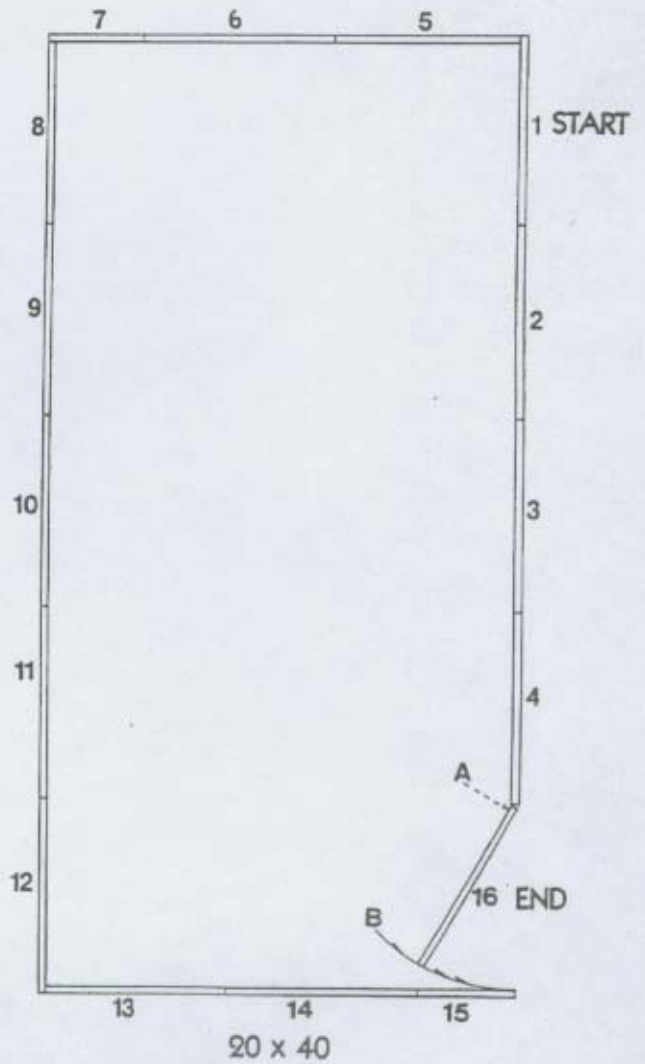
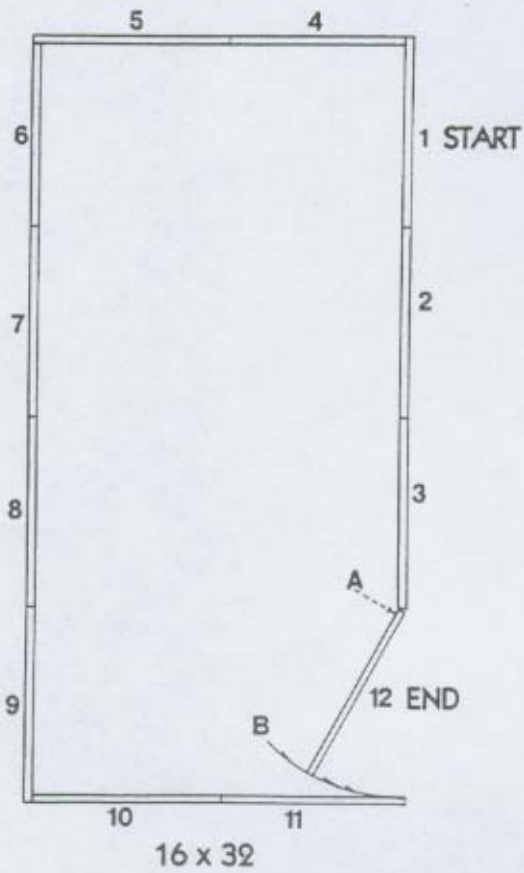
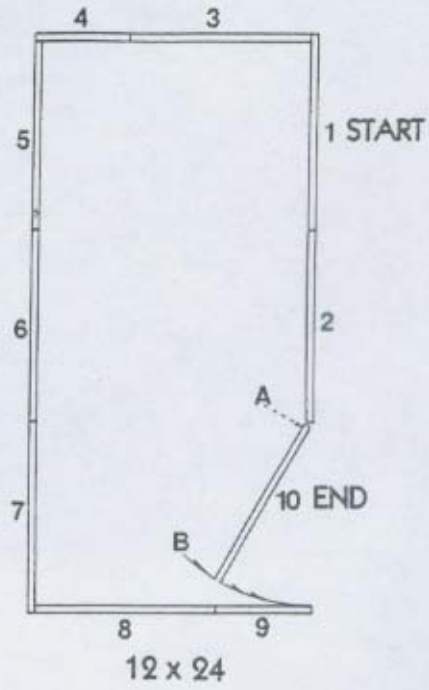
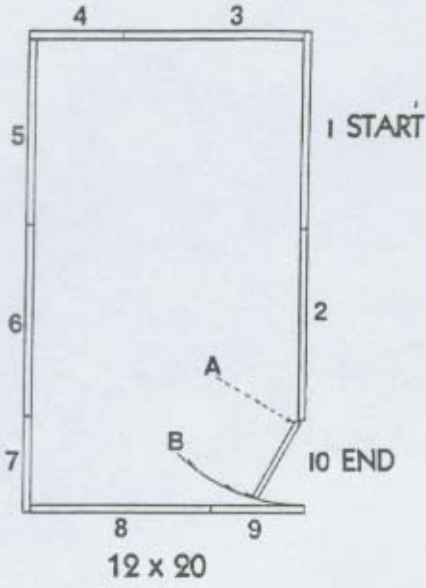


There is a set sequence for installing the water walls. If you follow this sequence you will square all corners and plumb the gussets automatically. Please read all steps pertaining to the installation of the water walls and then using the proper sequence illustrated for your particular size pool proceed starting at sheet #1 and proceed in numerical order. It is not uncommon for the last sheet of plywood to be a "press fit" (#10 illustrated here on a 16 ft. x 24 ft. pool size). This is due to the close tolerances used in the manufacture of the components. In such case you "A" tack the top corner of the plywood sheet as shown in the diagram and "B" swing the panel into place clearing dirt or stones from behind it until it is in place. For the last few inches you may need to put a block of wood in place to protect the plywood and hit upon this with a sledgehammer to force the panel in place. In **extreme** cases you may trim the edge of the plywood. Please note the details showing the manner in which the plywood sheets run by each other in the corners.

Again we stress that you read all steps regarding water wall installation in the manual before you begin, paying attention to levelling, closing gap at joints and nail pattern to use as well as proper sequence.

16 x 24 POOL

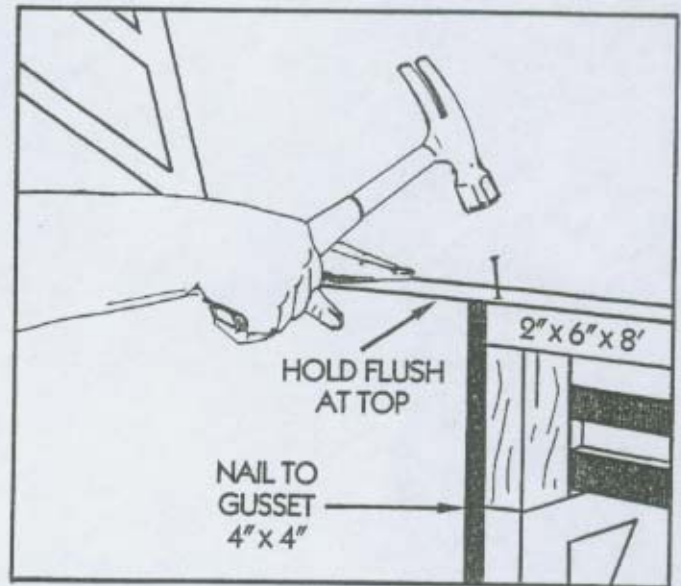
**PLYWOOD NAILING SEQUENCE**  
**12 x 20, 12 x 24, 16 x 32 & 20 x 40**



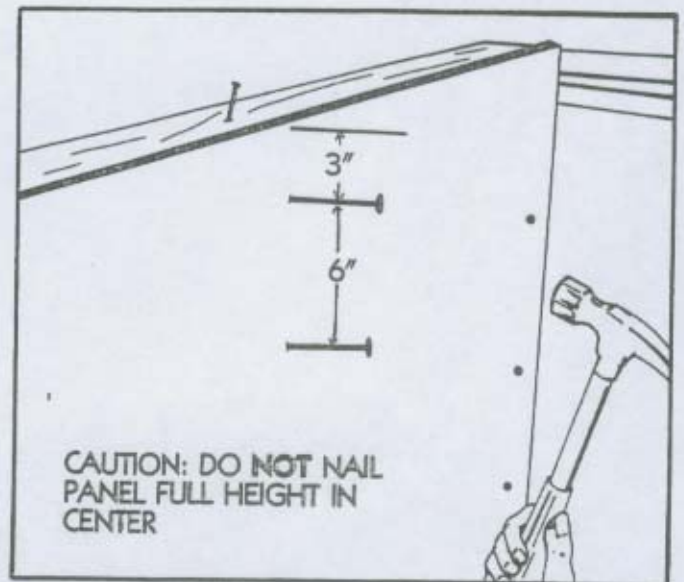
Go to the edge of plywood and level plywood flush to the top of the 2" x 6". Then level 4" x 4" of the gusset vertically. See diagram on Pg. 9 for pointers on proper panel installation and method of ensuring a tight fit at each joint of water wall.

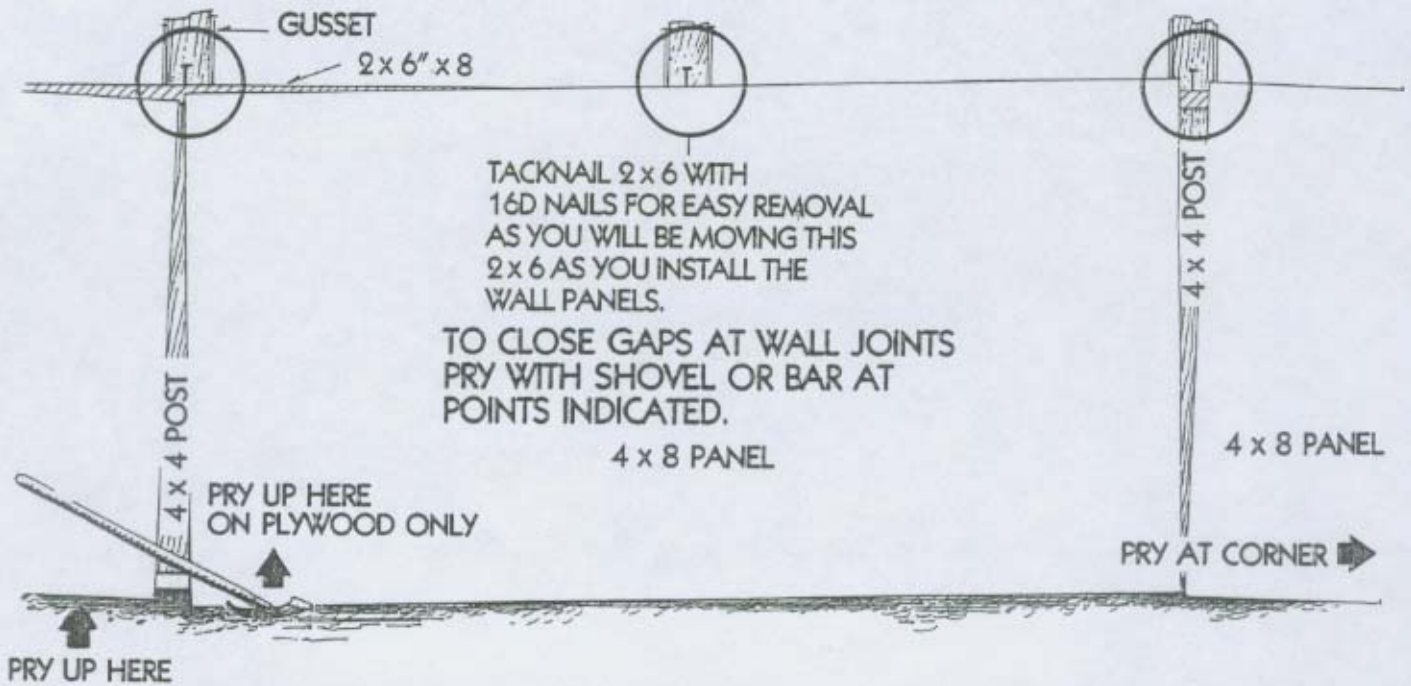


Tacknail the 2" x 6" to the top of the gusset 4" x 4" to keep it in position vertically level. Position the plywood panel flush with the top of the 2" x 6". Nail the plywood panel to the gusset 4" x 4" with five 16-penny nails spaced evenly the height of the panel.



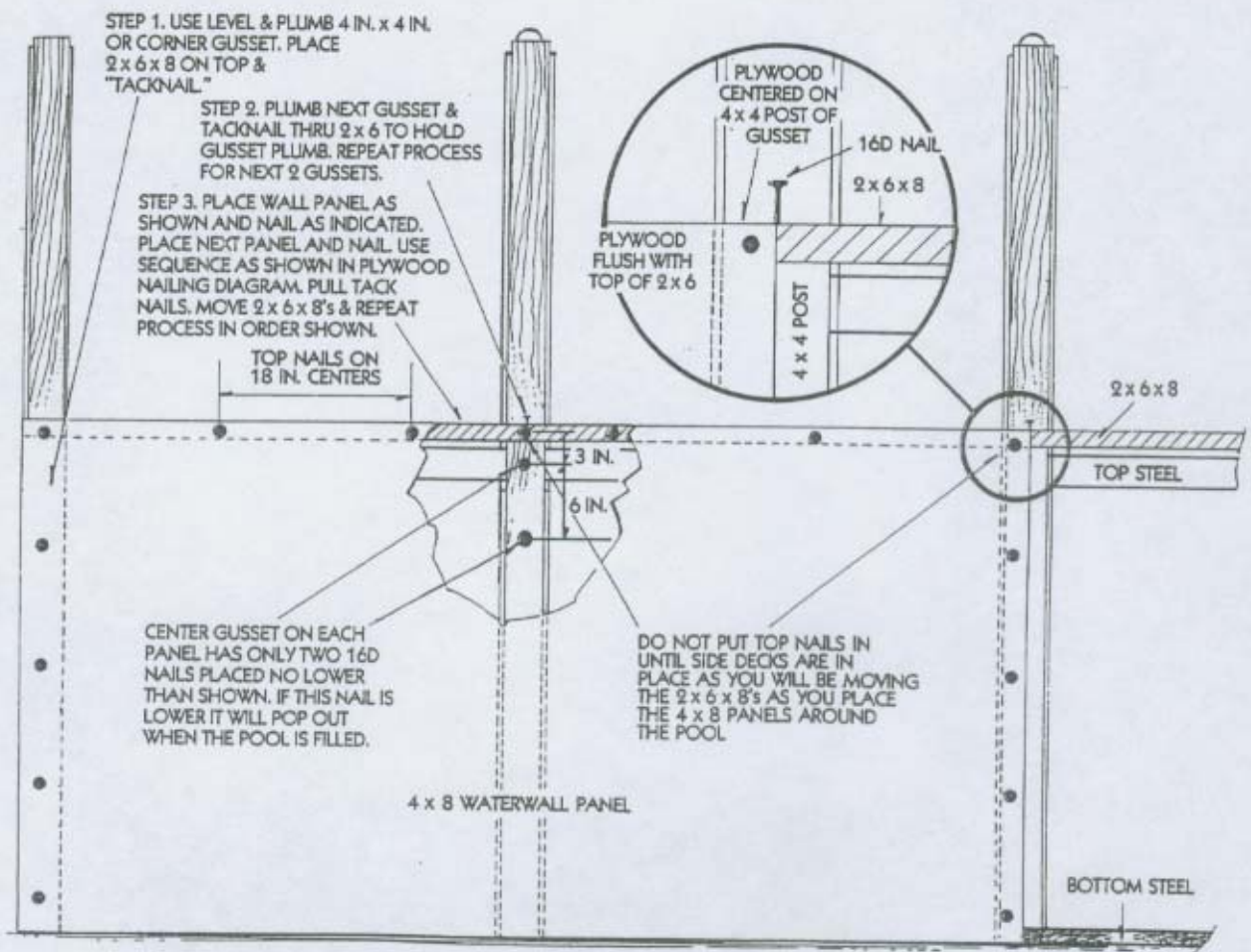
**CAUTION:** Installing the nails at the gussets in the center of the panel is very important and must be followed *exactly* to avoid nail popping in the future. Level the gussets vertically. Tacknail the 2" x 6" to the top of the gusset 4" x 4". Then put one nail approximately 3" from the top of the panel and another 2" from the first to hold the gusset in position. Do not nail the center of the panel all the way down the gusset. As mentioned before, water pressure will cause nail popping and liner puncture in the future if any more than the two nails called for are installed. Install the remaining panels.



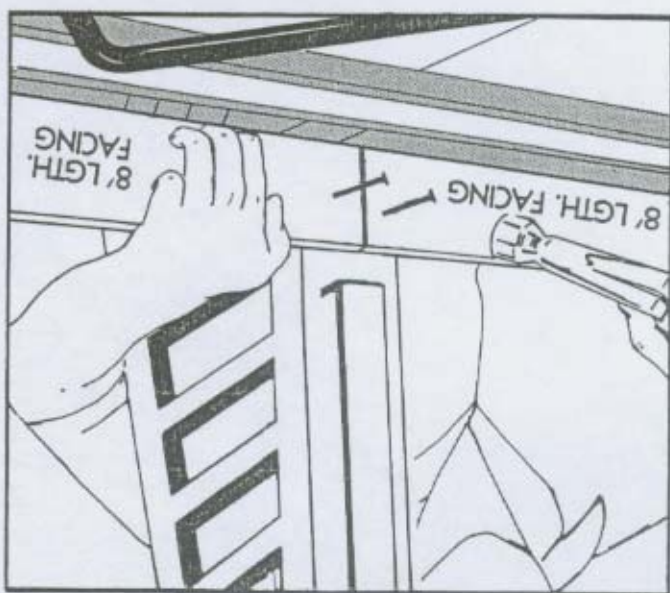


Due to slight differences in land level under the bottom steel you may have gaps between wall panels. These can and should be closed so that you have a tight, closed seam at each joint where panels meet. This is done by prying up on the panels or occasionally,

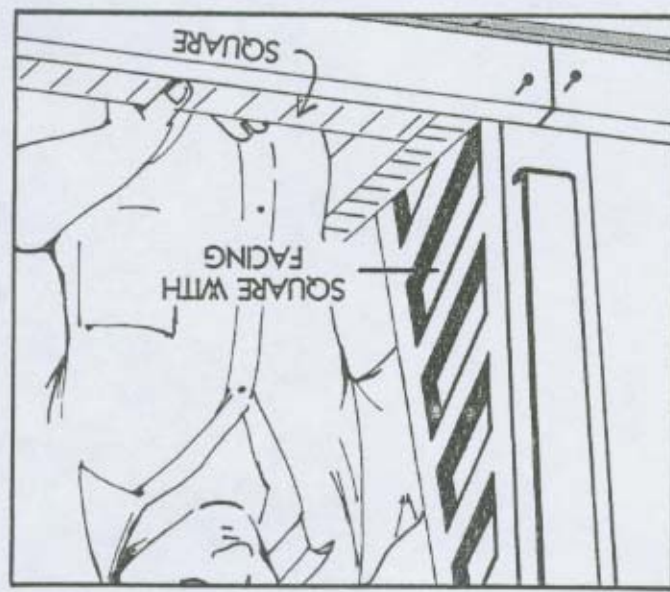
prying up on the bottom steel where it may be low. The gaps are exaggerated in this diagram for clarity's sake. If bottom steel is leveled to within 1 in. overall you should not have any trouble installing the water walls.



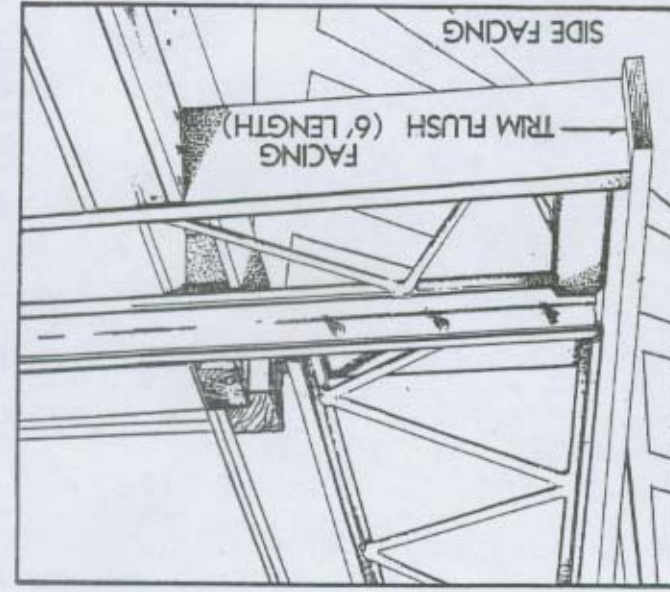
Consult facing diagram on Page 15 of your manual. Do both long sides first, placing facing according to length and position indicated on diagram. Start at center gusset placing an 8' length to each side. Center face boards on gusset are shown in drawing and nail with 10D nails as shown. (Do not sink nails fully yet).



Next place a carpenter's 2' square against facing and square the gusset to the facing as indicated in drawing by swinging gusset either left or right until it is squared. Be sure center gusset remains squared while proceeding to gusset on each side of it and squaring them and nailing them in same manner. Repeat procedure until both long sides are done.



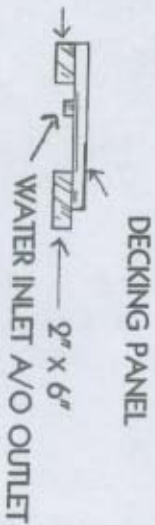
The ends are done as shown in the next drawing, starting with a 6' length of facing, butting it to the side facing squaring the facing and nailing it to the nearest gusset and repeating procedure until all gussets are squared and nailed. When you are satisfied all gussets are squared properly, you may now finish by "sinking" nails.



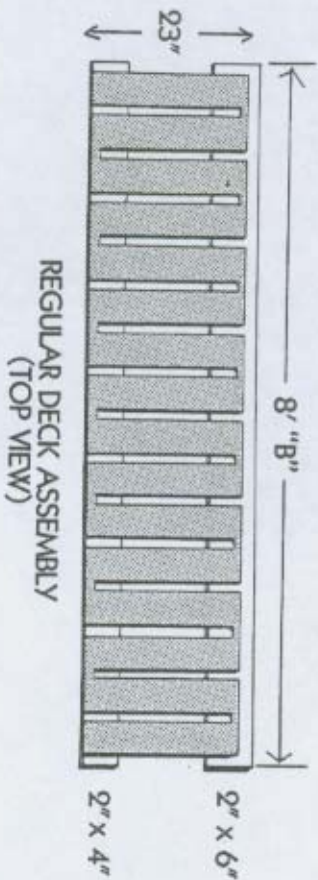




REGULAR DECK (END VIEW)

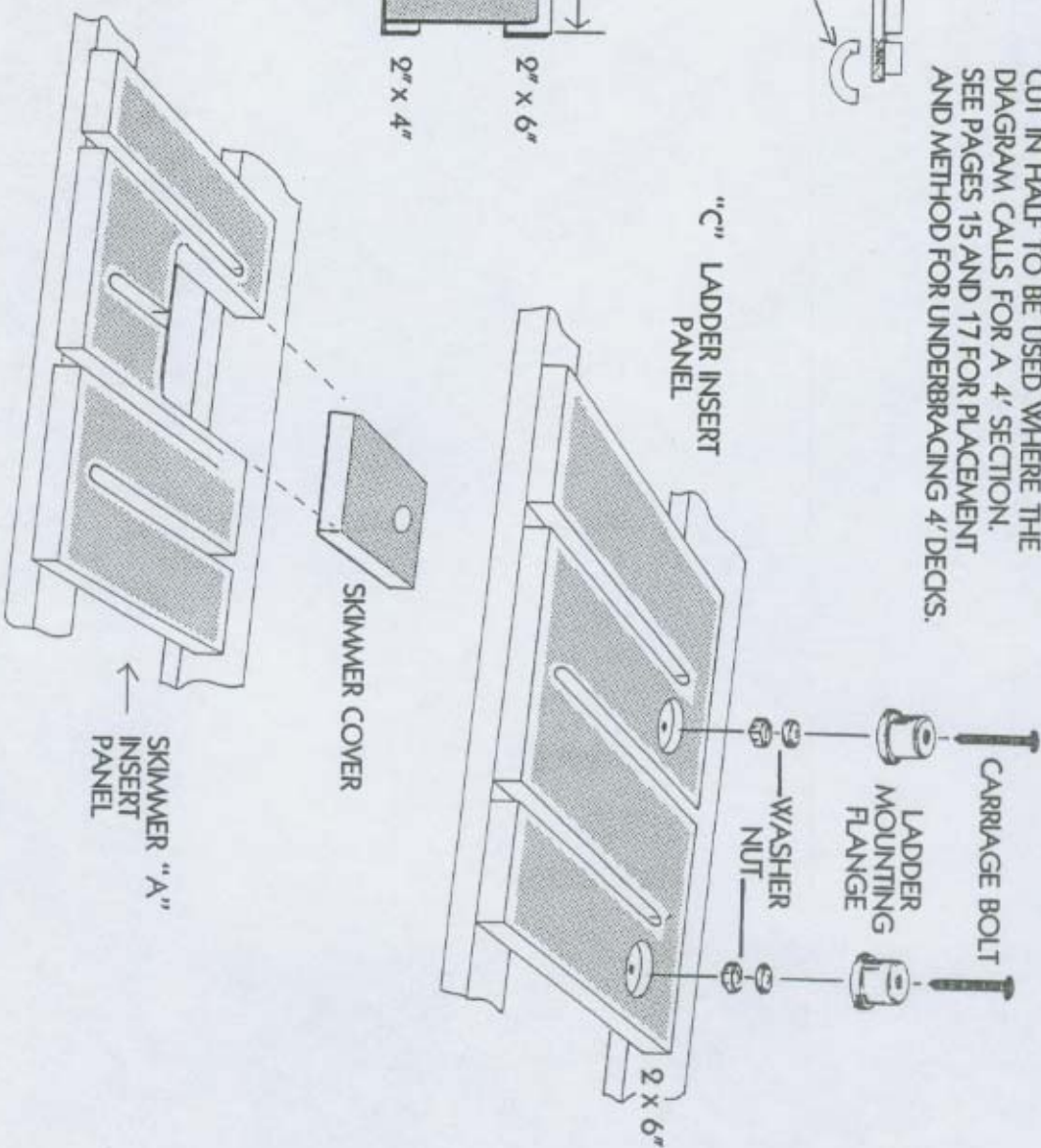


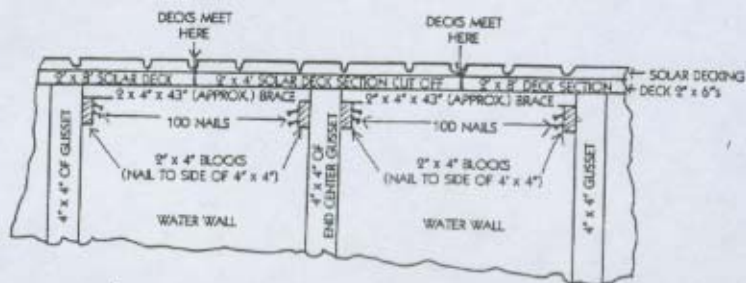
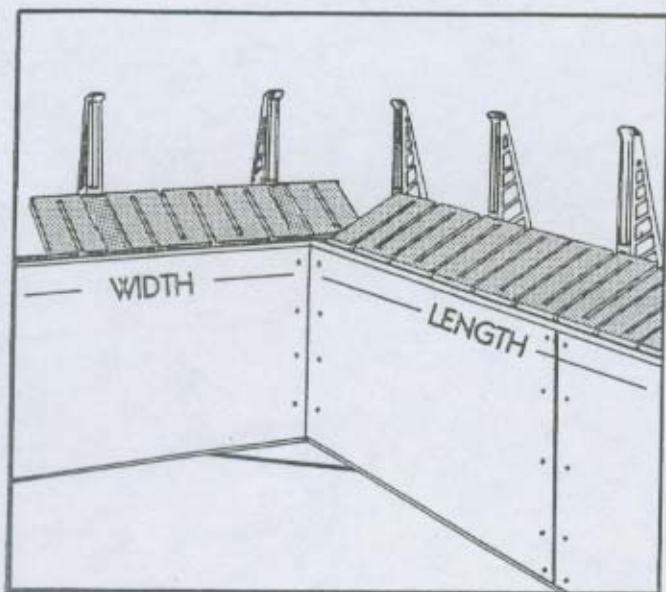
REGULAR DECK (SIDE VIEW)



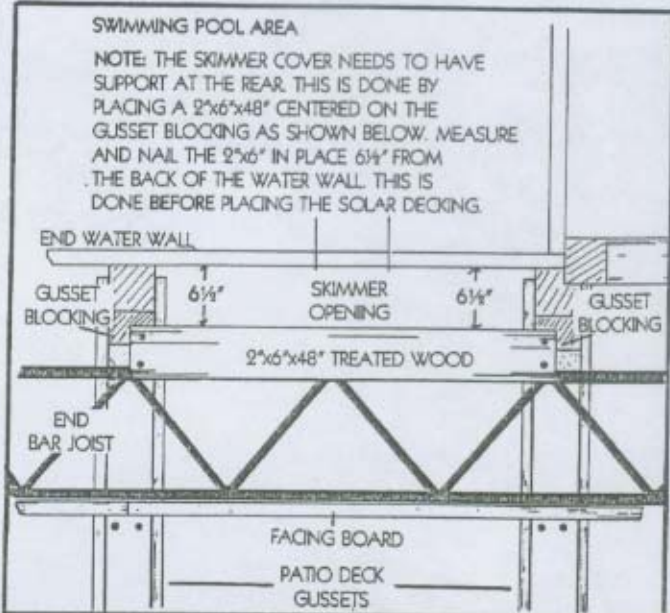
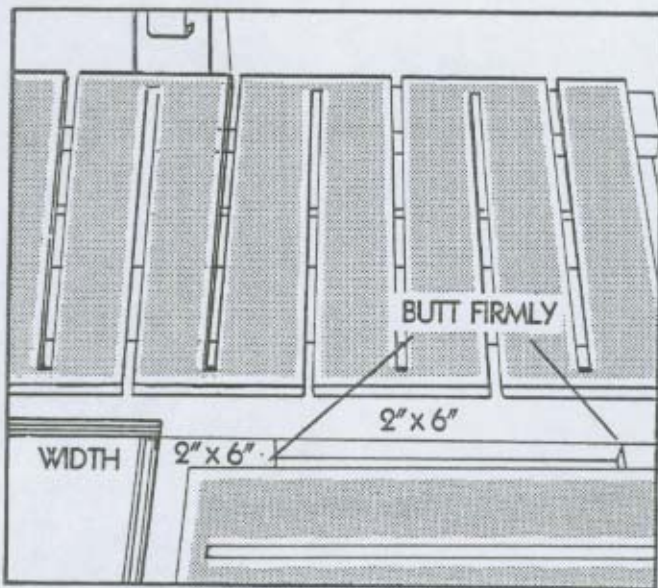
SEE DECKING PLACEMENT DIAGRAM FOR LOCATION OF LADDER AND SKIMMER PANELS. (ON PG. 15)

NOTE: THE SOLAR DECKS ARE PLACED AROUND THE PERIMETER OF THE POOL SWIM AREA, THEY ARE BASICALLY ALL THE SAME EXCEPT TWO WITH SKIMMER (DETAILS "A" AND "B"). SEE THE DECK PLACEMENT DIAGRAM FOR THE LOCATION OF THE VARIOUS DECKS. ONE 8' SECTION WILL BE CUT IN HALF TO BE USED WHERE THE DIAGRAM CALLS FOR A 4' SECTION. SEE PAGES 15 AND 17 FOR PLACEMENT AND METHOD FOR UNDERBRACING 4' DECKS.



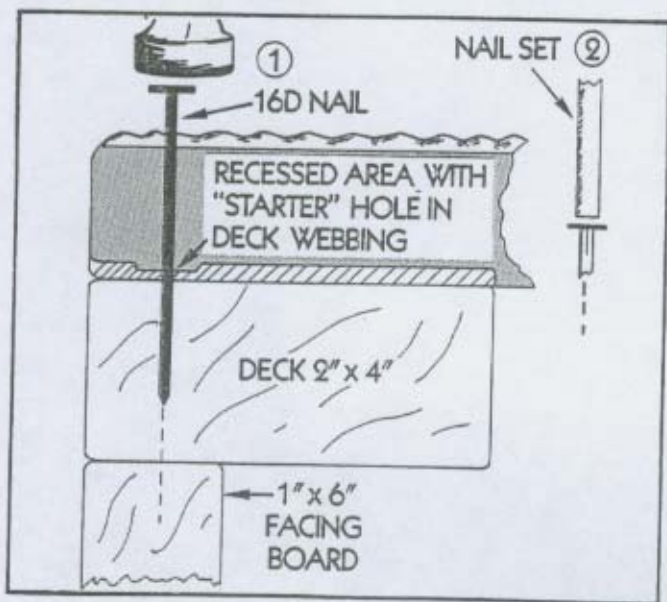


End view of pool showing the method of underbracing the 4' solar section. 4' section is supported by 2" x 4" x 43" and blocks nailed as shown above. One brace each side of the center gusset.



Place the solar decks into position on the 4" x 4" studs. There will be deck sections for the end and three or more for each side. They will vary in length according to the size of the pool you are installing. There may be some trimming of the ends of the 2" x 4" and 2" x 6" of the decks to make them fit. (See page 15 for deck placement.)

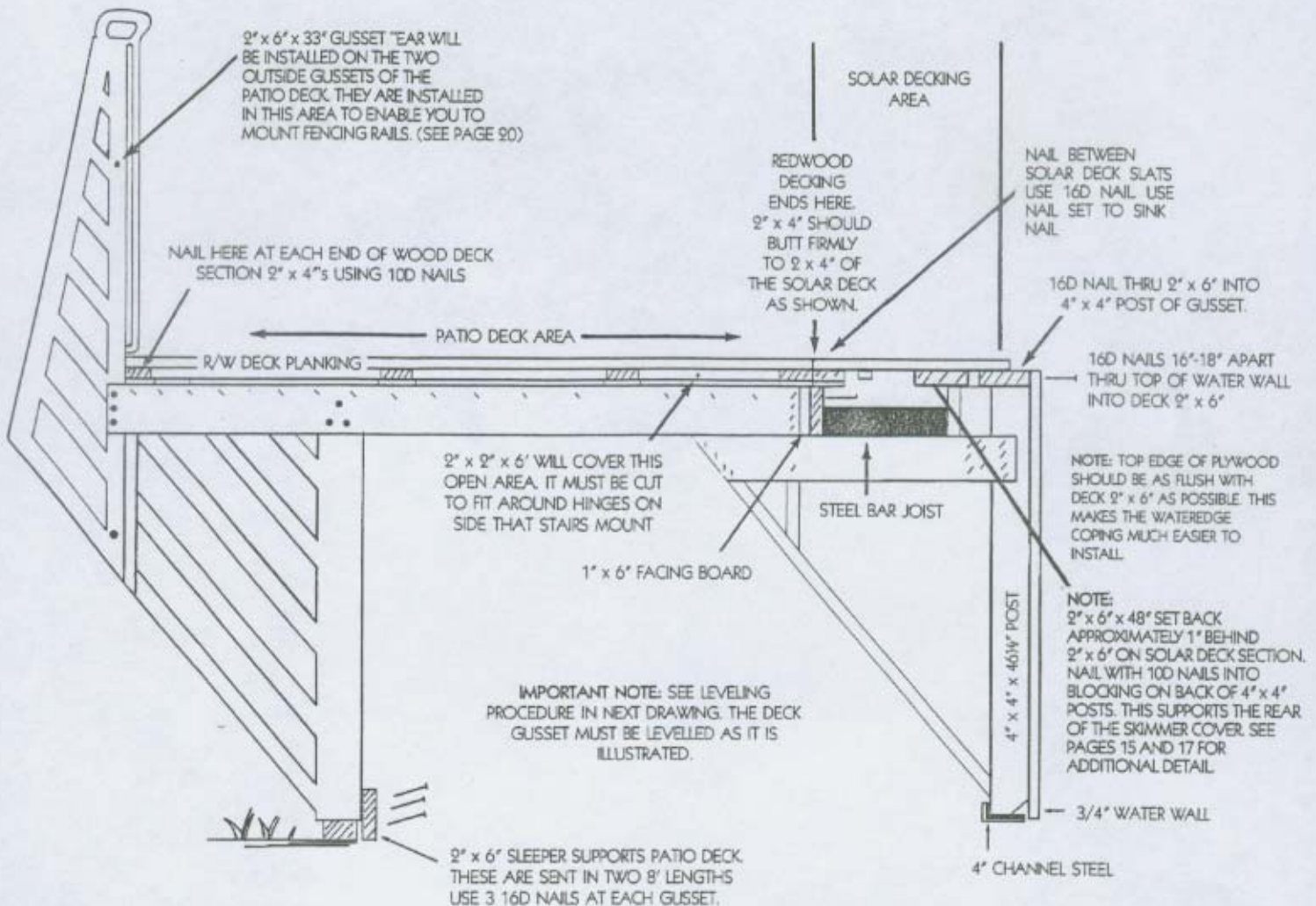
Make sure that the 2' deck sections are butted firmly against the waterwall at the corners. Also make sure that the 2" x 6" of each deck section is butted firmly against each other at the corners. This plays an important part when you install the liner, in the photo, one deck slat is left out to show detail.



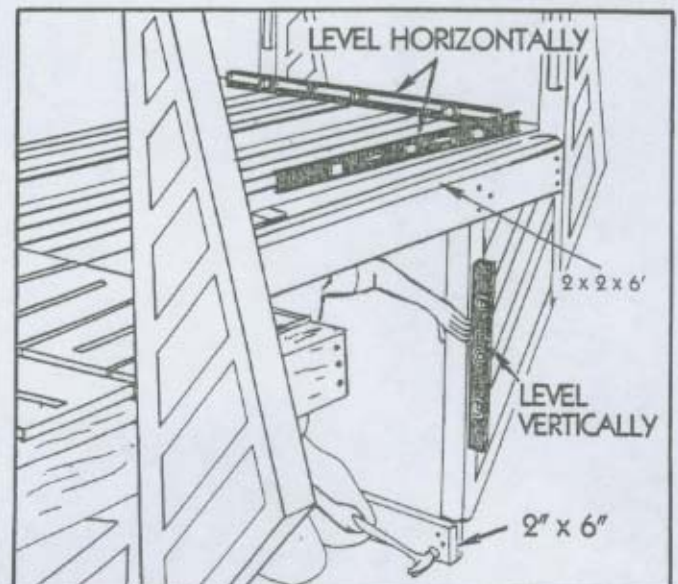
1) Hammer nails straight down through deck web and 2" x 4" into facing board until nail head is flush with deck surface. (Stay within recessed area or leaks will result.)

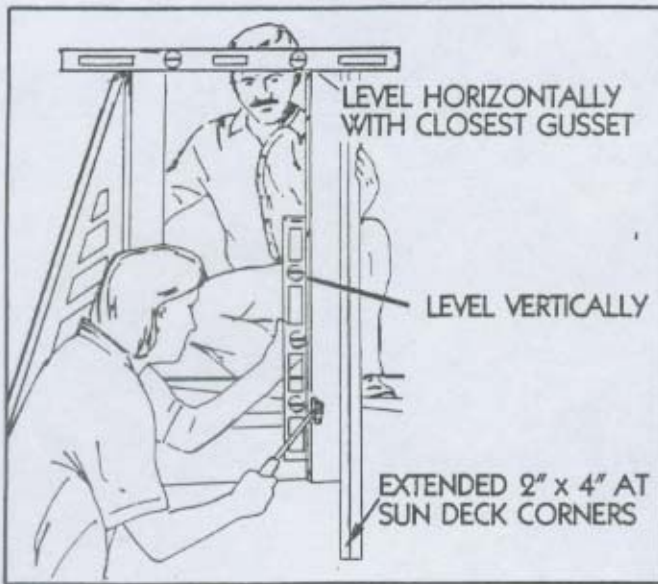
2.) Use a nail set to drive nail into the slotted area between deck slats when hammer will not reach nail head. There are two recessed areas on each 4" solar deck section but it is only necessary to nail one.

## SIDE VIEW OF PATIO DECK STRUCTURAL DETAIL



Level the entire sun deck horizontally in both directions. To do this, you may have to remove earth under the bottom of the gusset or build it up; whichever is required. Level each gusset vertically as shown. Nail the two 2" x 6" x 8's at the bottom of each gusset as you level it. Use three 16-penny nails at bottom of each gusset. See diagram above for position of 2" x 6" and other pertinent patio deck detail. Install 2" x 2" x 6" to finish deck facing at each side as shown in picture.



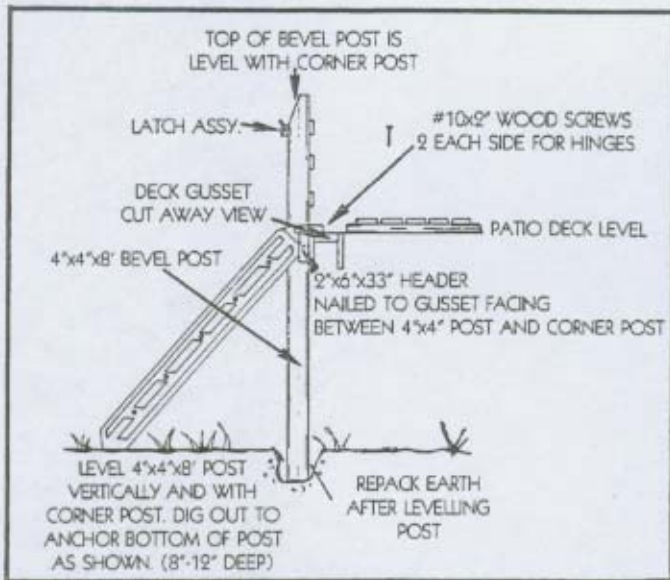


When installing the corner posts the two with the extended 2" x 4" must be installed at the corners of the sun deck as shown. See material list on page 15 for locations of deck corner posts. (Items #2 and 3)

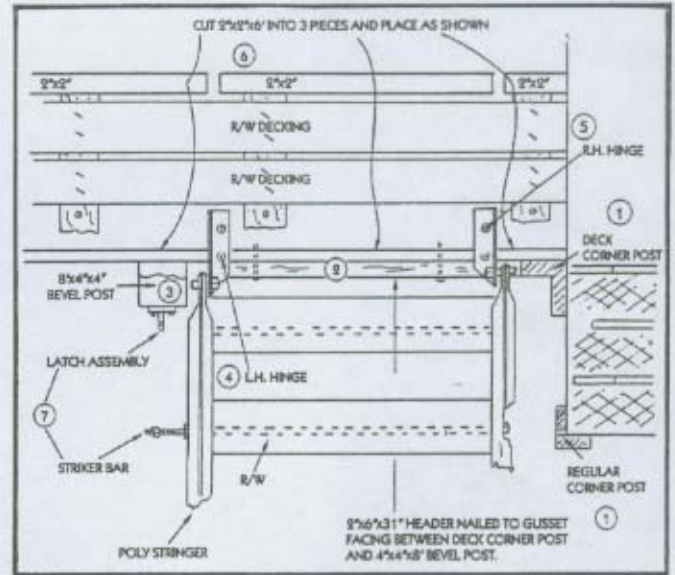
**NOTE:** Do not install regular corner posts (Item #1, Pg. 15) until all fencing is installed as shown pg. 20.

**WARNING:** ONCE STAIRS ARE ASSEMBLED DO NOT USE THEM UNTIL HINGES ARE ATTACHED, TO AVOID INJURIES.

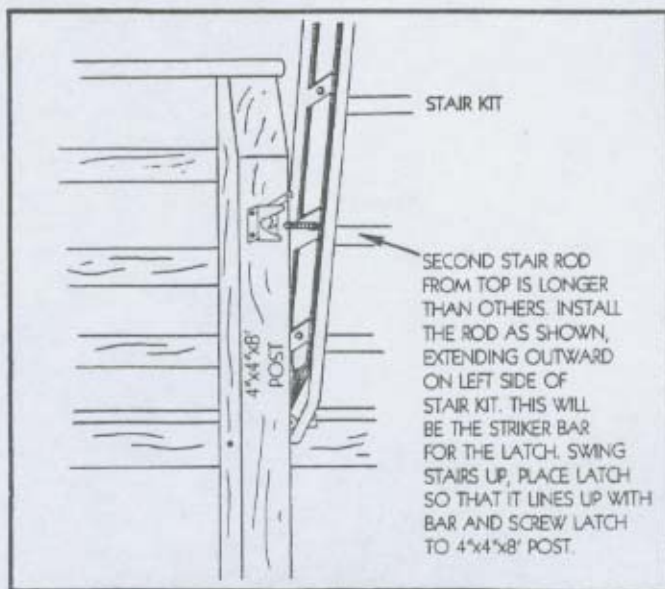
Assemble wood poly stair kit according to instructions found in stair kit box paying close attention to hinge mounting details and placing of 2"x2" filler board mount stair kit as shown at left and install stair kit latch as shown below.



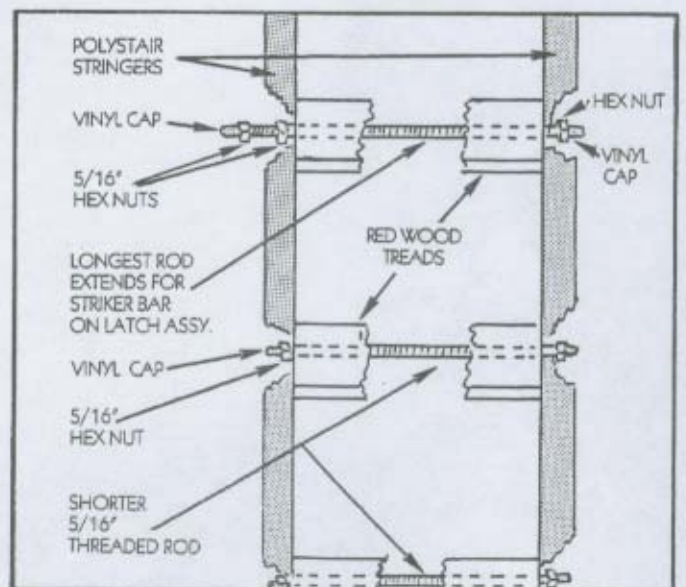
SIDE VIEW



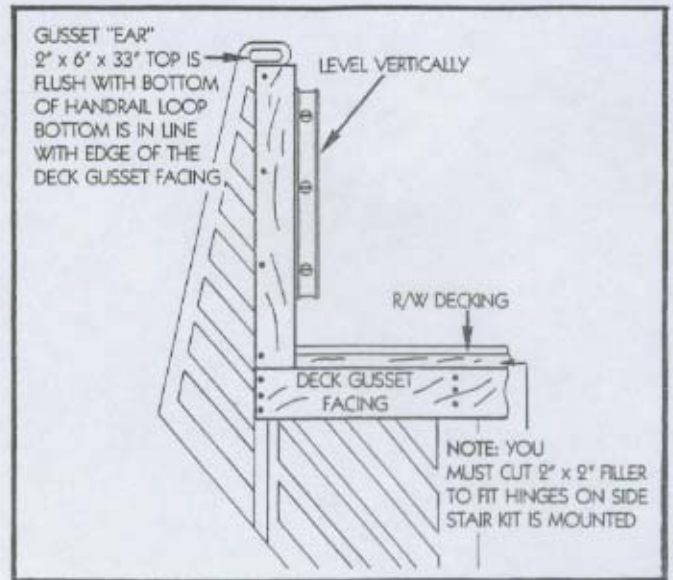
TOP VIEW



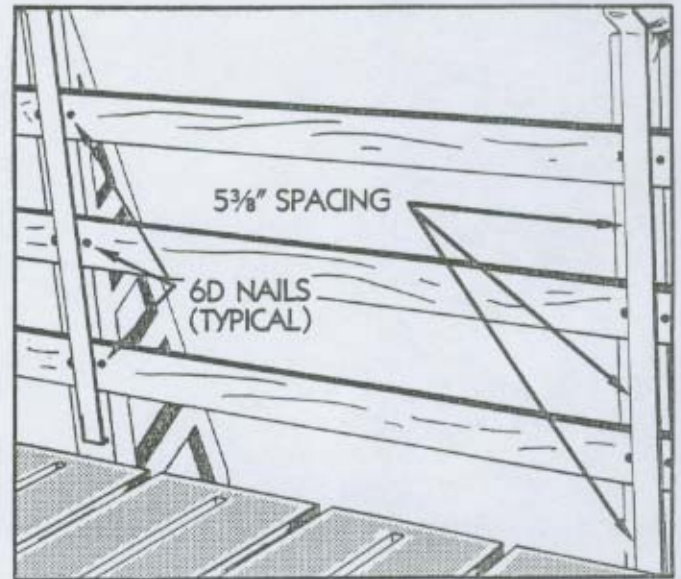
INSTALL LATCH AS SHOWN ABOVE



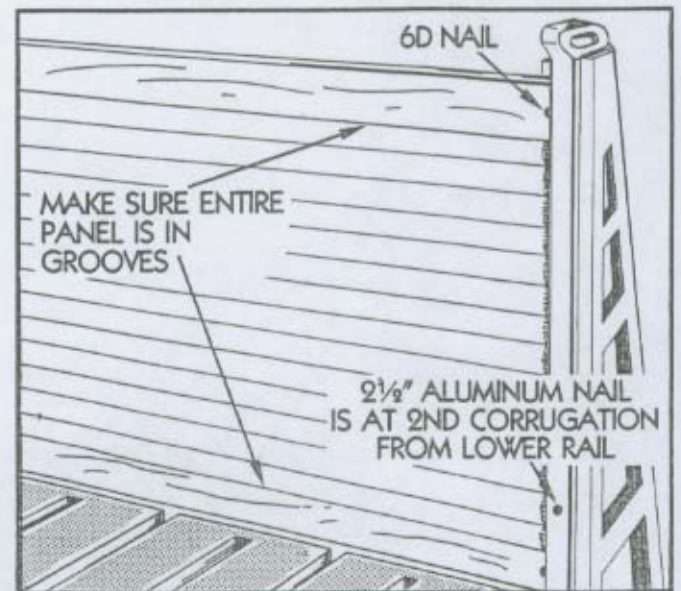
Using two pieces of 2" x 6" x 33", install one to each outside sun deck gusset as shown. Make sure they are flush with bottom of handrail loop and in line with back edge of deck gusset facing as shown at right. Nail with 4 10D nails equally spaced as in drawing at right. Nail through 2" x 6" into 2" x 4" spine of the 2 outside deck gussets.

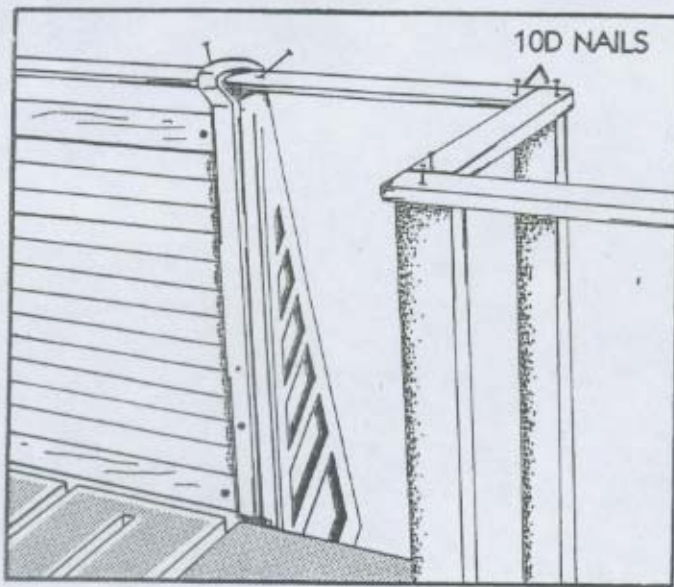


If you have a pool with open fencing, this is the next installation step. Start with the bottom rail. Position it 5 3/8" from the top of the deck and nail it to the gussets. The middle and top rails are done the same way and should be 5 3/8" apart. Use 6D nails here.

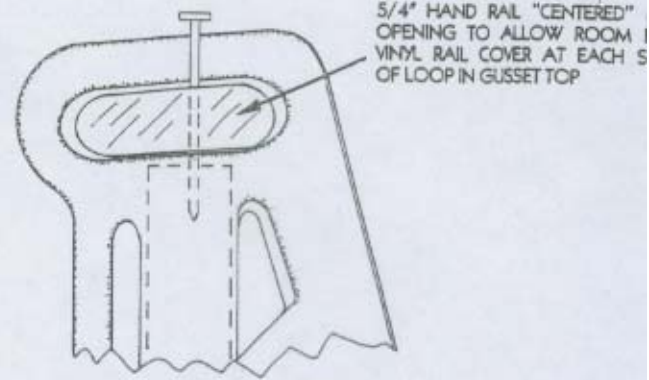


To install fiberglass privacy panels you must first insert lower redwood grooved rail and nail it in place. You then slide the fiberglass panel in the groove provided and nail it in place. The top rail is then slid in place and nailed. Use 6D nails to secure redwood grooved rail and 2 1/2" alum nail to secure fiberglass panel.

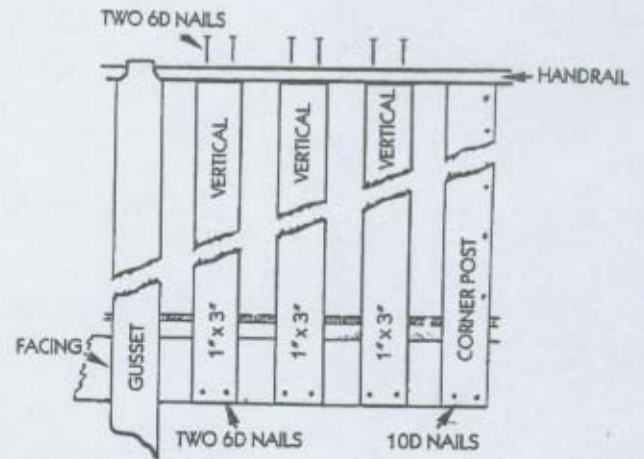
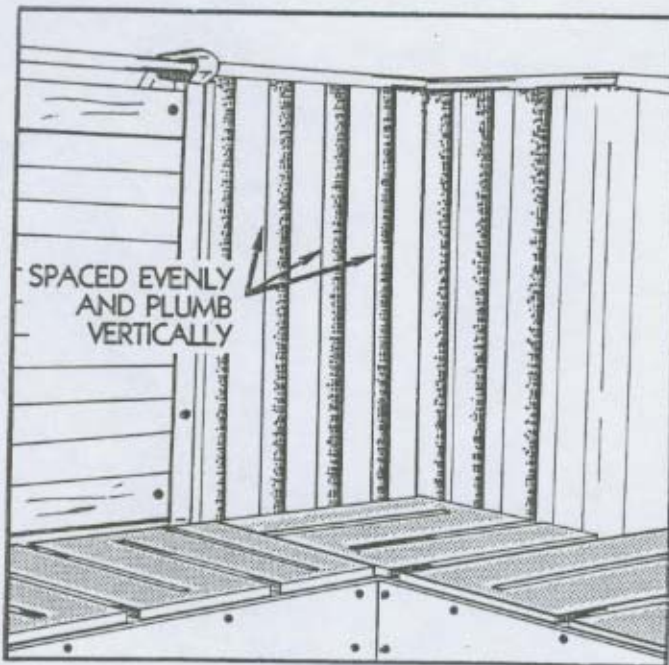




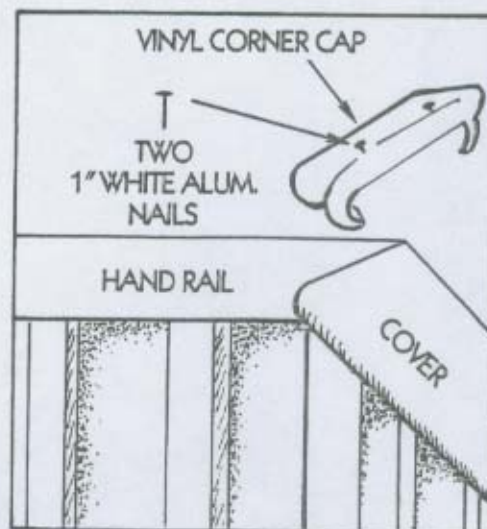
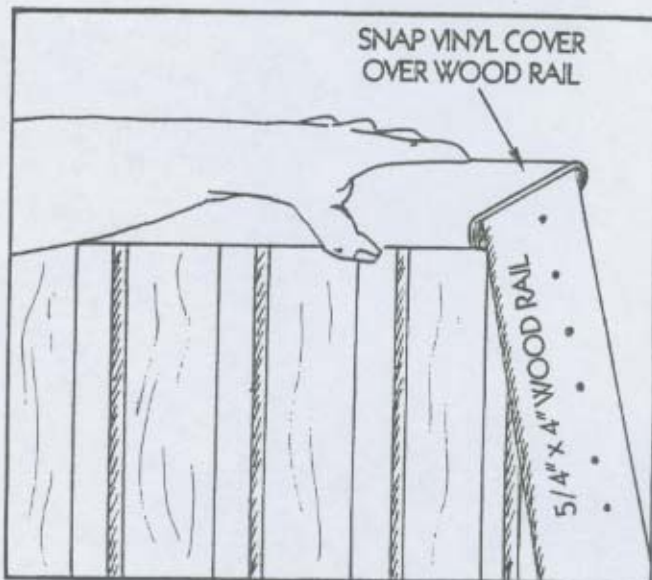
Install the hand rail as shown here. The hand rail should pass through the top of the gussets over the corner posts and are nailed to them. Use the 6' pieces at ends and 8' sections in between.



See handrail layout on page 15.

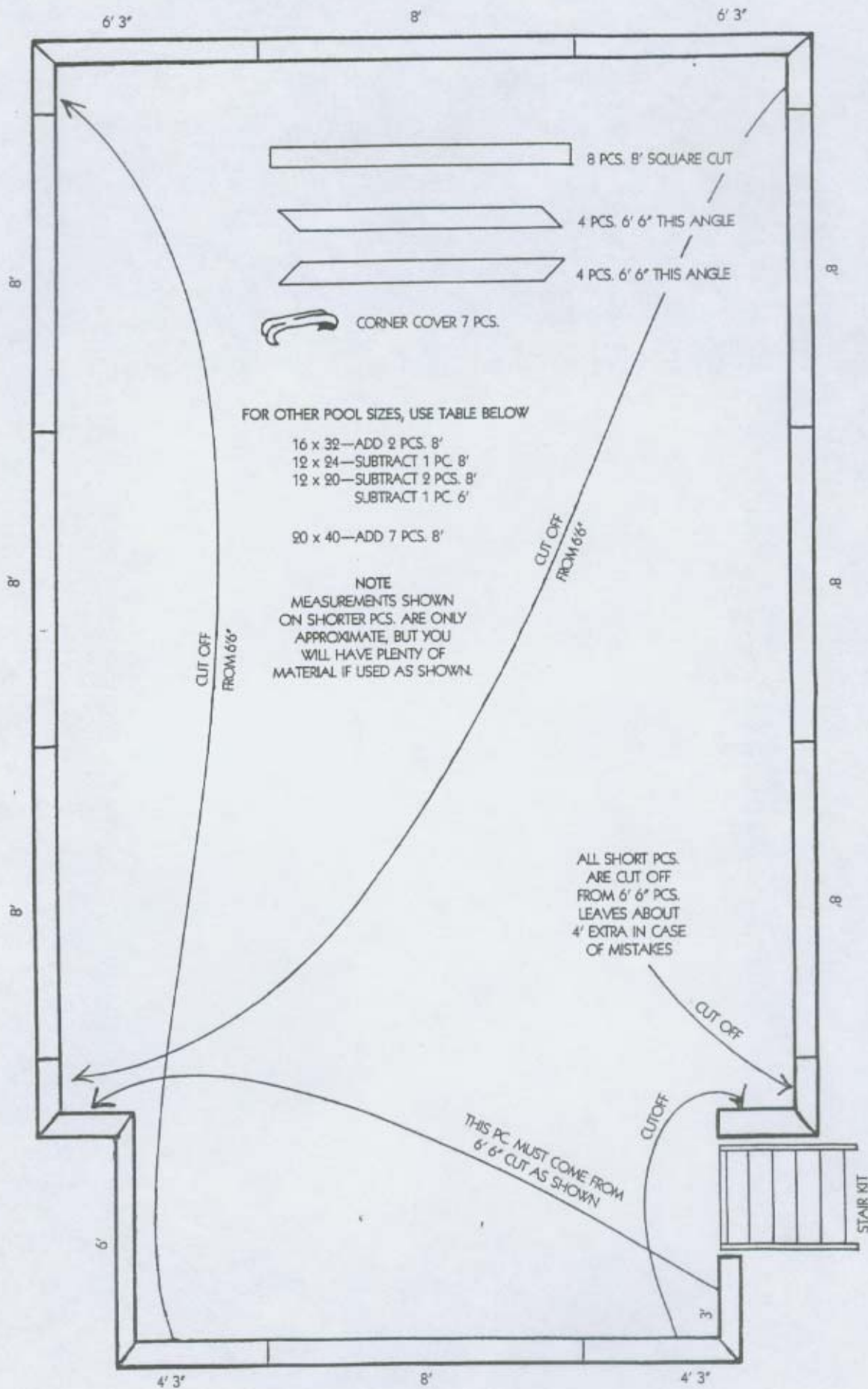


Install the filler verticals. They are pre-cut to length and should be evenly spaced between gussets and corner posts and level vertically. Nail the bottom of the vertical to the facing. At the top, the vertical should be centered in the hand rail and secured by driving two nails through the hand rail into the vertical.



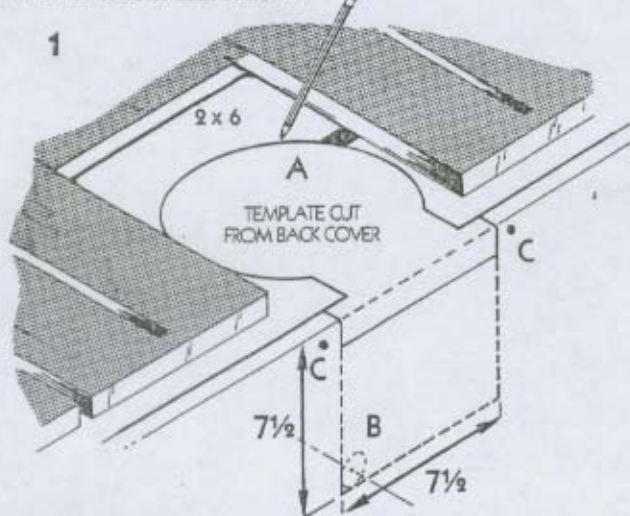
After nailing verticals you may install vinyl rail cover. Use diagram on page 22 as a guide for placement of the various angle cuts and lengths. It will be necessary to cut a few of the angled and shorter lengths as indicated. The cover slides through the gusset loops and is snapped over wood rail as shown at left. Install corner caps as shown on right.

# VINYL HANDRAIL COVER FOR 16 x 24 POOL MK VI

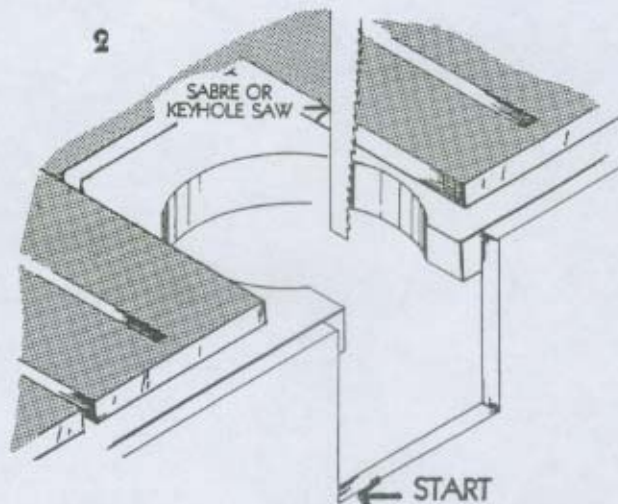




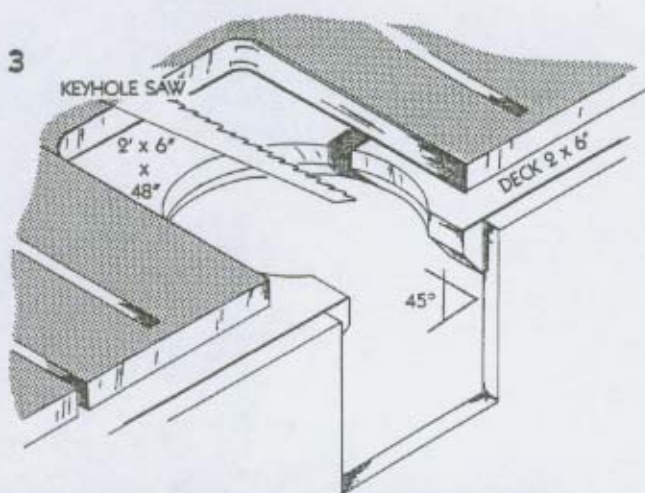
# SKIMMER INSTALLATION



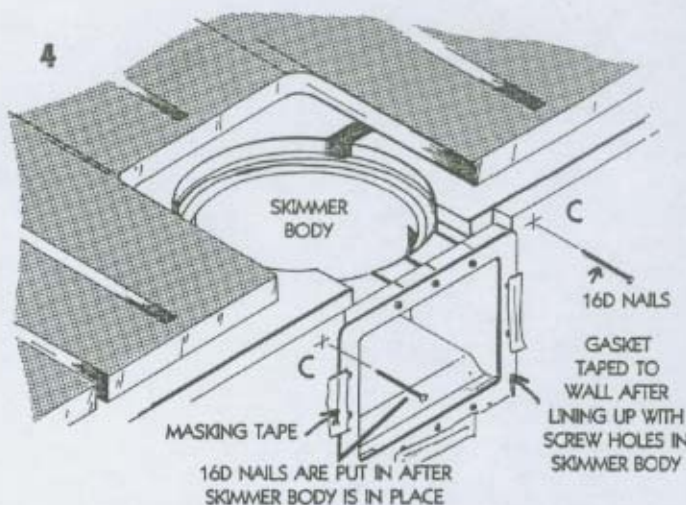
Carefully cut outside edge of template from back cover of this manual. Fold on dotted line. Place template as shown and center it in gap provided in special deck. Trace out line of template. Use 3/4 in. speed bit or auger bit to drill starting hole (A) for sabre saw or keyhole saw which is used to cut the opening. Do not nail at points (C) until Step 4.



Starting at (B) Step 1, (3/4 in. hole), carefully cut around opening as shown using a sabre saw or keyhole saw. You may find that additional 3/4 in. holes cut in the top may be helpful.



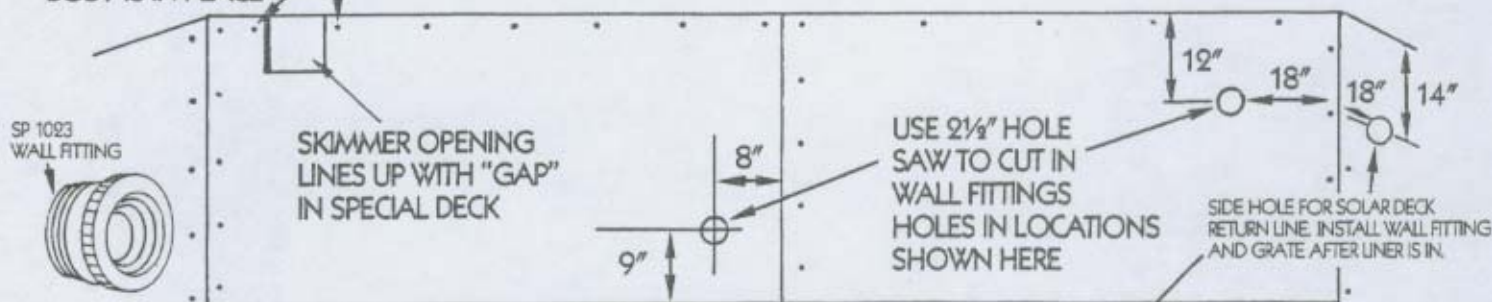
Bottom side of 2 in. x 6 in. must be cut on a chamfer or angle (approx. 45 degrees) as shown. This is to accommodate the flange on the skimmer body.



Place the skimmer body in place by inserting from rear of plywood wall. It is necessary to insert the skimmer on angle to clear the top steel, pushing up and then forward as it slides in place. When the skimmer body is in place use tape to hold the faceplate gasket in place on the water wall. The holes in the gasket must be in alignment with the holes in the skimmer body before the gasket is taped in place. Nail the 16D nails in the top of the wall panel "C".

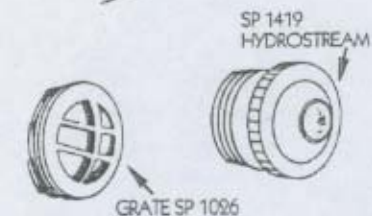
THESE TWO 16D NAILS LEFT OUT UNTIL SKIMMER BODY IS IN PLACE

## WALL FITTING LOCATION AND PREPARATION FOR INSTALLATION

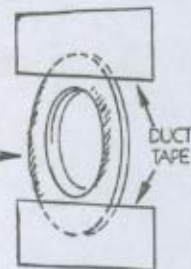


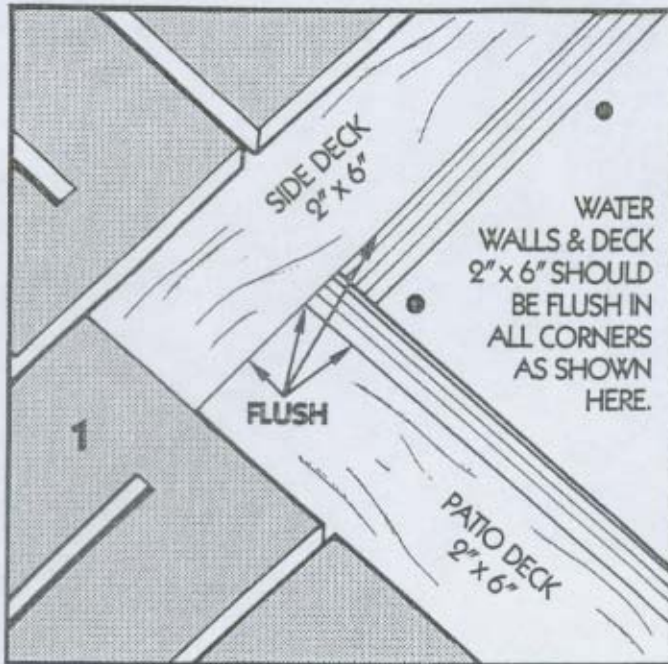
## END VIEW OF POOL WITH WALL FITTING LOCATION

**NOTE:** Side Fitting cut in solar pool only 14" from top of wall. One hole at 12" from top otherwise.

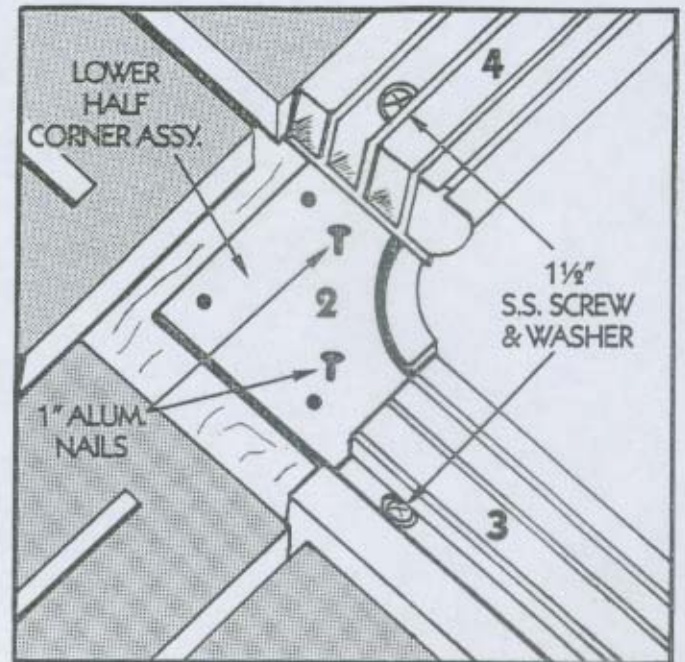


Use 2 1/4" hole saw to cut opening for wall fittings. Use dimensions shown above as a guide. Tape rubber wall fitting gasket to wall before dropping liner. (See page 27) Do not put nails at points marked "X" near skimmer opening until skimmer body is in place or you will not be able to install skimmer body.





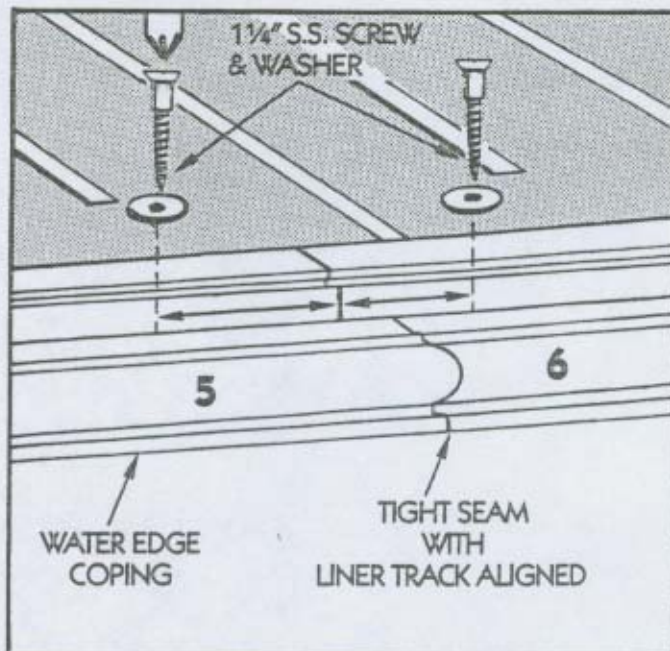
1.) Be sure deck 2" x 6" and water walls are as even as possible, especially in the corners of the pool. This will make it much easier to install the water edge coping and corner assemblies. Be sure skimmer opening is cut in before placing water edge coping.



2.) Using two 1" white alum. nails fasten lower half of corner assy. in place

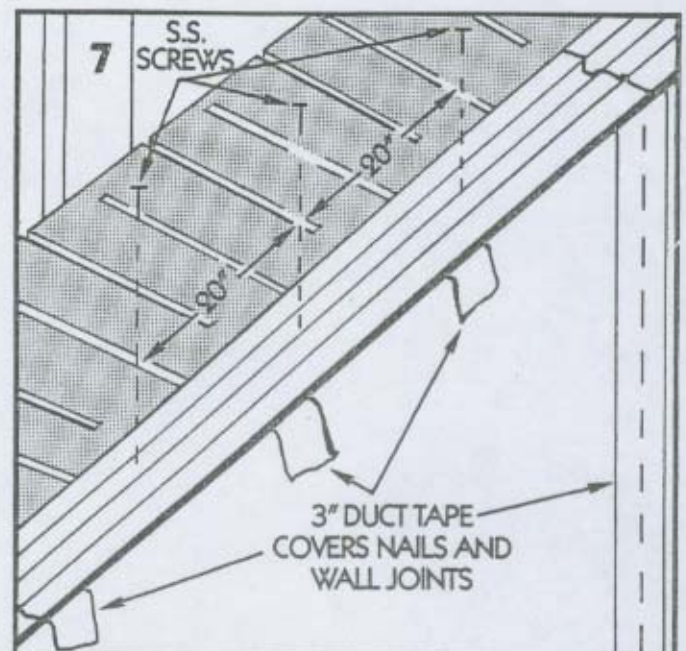
3.) Align a section of water edge coping with liner track in corner assy. Fasten with stainless steel screw and washer approx. 18" apart.

4.) Place another section of coping and fasten same as step #3.



5.) When installing water edge coping butt sections tightly and align liner track. Install one s.s. screw & washer about 1" from end of section as shown above.

6.) Align next section of coping and place screw and washer as shown. Repeat until all coping is in place.



7.) Next install remaining screws and washers about 20" apart (5 per 8' sections). Do not install top half of corner assemblies until liner is installed.

# Liner Installation...

The pool liner should be installed when you have completed all the steel and wood construction including the fencing and wood ladder. This will eliminate the chance of damaging the liner by dropping wood, fiberglass or tools such as hammers and saws into the pool while filling the liner.

**Sand Preparation**—The sand is distributed around the inside of the pool and is finished to depth of 46" from the top edge of the water wall. You may wish to snap a chalk line around the inside of the water wall to indicate the 46" level and use this as a guide.

Spread the sand evenly to a depth approximately 1" higher than the level marked as the sand will be packed down as you finish it. Using a spray nozzle and garden hose wet the sand thoroughly so that it is damp clear through (not "soupy").

To finish the sand once it is dampened to facilitate packing, you use a float and trowel. As you pack the sand and smooth it you will be able to feel or hear whenever the metal trowel crosses a stone or other foreign objects in the sand. Remove these as you smooth the sand bottom.

When the bottom is finished to your satisfaction you must inspect the water walls before you drop the liner. Any sand or lump of mud, sawdust, etc. should be cleared off before the liner is installed. If not these will show up as sharp projections as pool is filled. Even small objects must be swept off as they will still show due to the magnification effect of the water. Finally check to be sure all gaskets for skimmer, lower intake and return line fittings are in place as shown on page #23. Tape gaskets on wall with strips of duct tape.

After you are satisfied with bottom finish and cleanliness of water walls you may drop the liner. Make sure the pool deck is clear of all objects which may fall in and puncture the liner. Let the liner be exposed to heat or sunlight while you are preparing the bottom to make it more pliable. When bringing the liner up onto the patio deck, be careful not to snag it on the gate latch or fencing. Observe the precautions printed on the liner box when unpacking the liner. Sweep sand and dirt from decks before dropping liner.

It is best to use four people when dropping the liner. Find the top corners of the liner as indicated by the vertical inked lines. Have two men holding corners which will remain at patio end and two men taking other corners and walking toward the opposite end. The liner is then lowered into the pool and the corners inserted as shown on page #26 at steps 1, 2, 3, 4.

When the four corners are inserted, go to the midway point on the sides and insert the liner, you then go to the points indicated on page #26 and insert liner into track using numerical sequence shown on page #26, step #3.

It is now time to place the vacuum under the pool deck although it is possible to use a home vacuum such as a Electrolux or Hoover, it is best to use a shop vacuum, a canister type such as a Sears Craftsman or Black & Decker with an 1½" plastic "pipe to pipe" ELL in the end of the vacuum hose. Insert the other end of the "ELL" through the opening in the water wall which is drilled for bottom drain fitting, (being careful not to knock the gasket off the inside of the wall). The "ELL" should be pointing downward and pulled close to the wall as shown in detail 3A, Pg. 27. Use a piece of duct tape to seal around fitting and use a piece of duct tape to seal off hole for return fitting so that you get maximum suction.

Turn on the vacuum and in approximately four to five minutes you will notice the liner begin to push into place as the air drawn out from behind it and atmospheric pressure begins to push on it. You may reach down with your hands while lying on the deck and remove the large folds (if any) immediately. The liner corners are not set directly into the corners of the swim area but rather they have a 4" to 6" radius which allows for ice expansion in the winter. It is only necessary to see that the four corners are as equal in distance from the corner as possible and that the distance from water wall to edge of mosaic tile pattern is equal at sides and ends of pool.

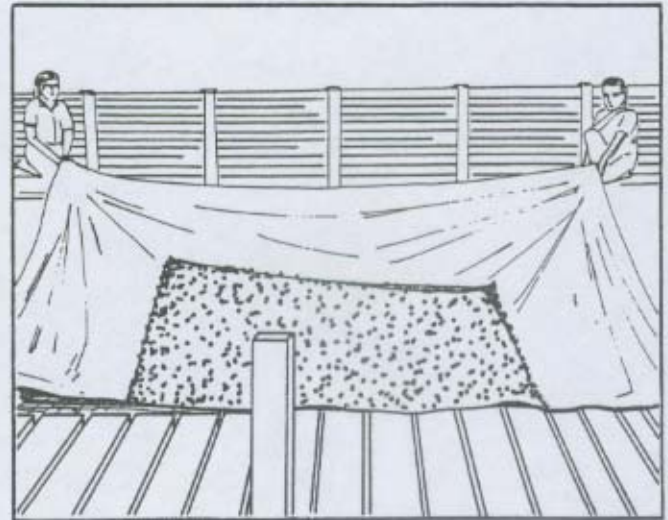
When you are satisfied with the placement of the bottom of the liner turn on the hose and fill the liner to a depth of 3" to 4". The vacuum must remain running until the entire bottom is covered with at least 3" of water, otherwise the folds and wrinkles may reappear. It is alright to shut off the vacuum once you have two inches of water covering the bottom but you must have the 3" to 4" depth in order to "stretch" or remove the folds from the walls of the liner. When you have shut off the vacuum remove the "ELL" fitting from the hole in the water wall, again being careful not to knock the gasket off inside wall. **Fill pool until side walls stretch down to sand bottom and then cut in wall fittings and skimmer face plate gasket and face plate as shown on page 28.**

FIG. 1



Level your bottom sand as closely as possible. The best method is to use a lengthy 2" x 4" so that there is 1-1/2" of sand evenly over the bottom of the pool. Then, trowel the sand smooth and tamp it with the trowel as you go along. This will provide you with the smoothest possible pool bottom. Also, shown here is the taping. Cover all nails driven into the water wall with 3" furnace duct tape for added protection to your liner. Finally, check the entire water wall for splinters or gouges and cover them with duct tape. The seams of the water walls are taped vertically as shown. It is not necessary to tape the corners vertically.

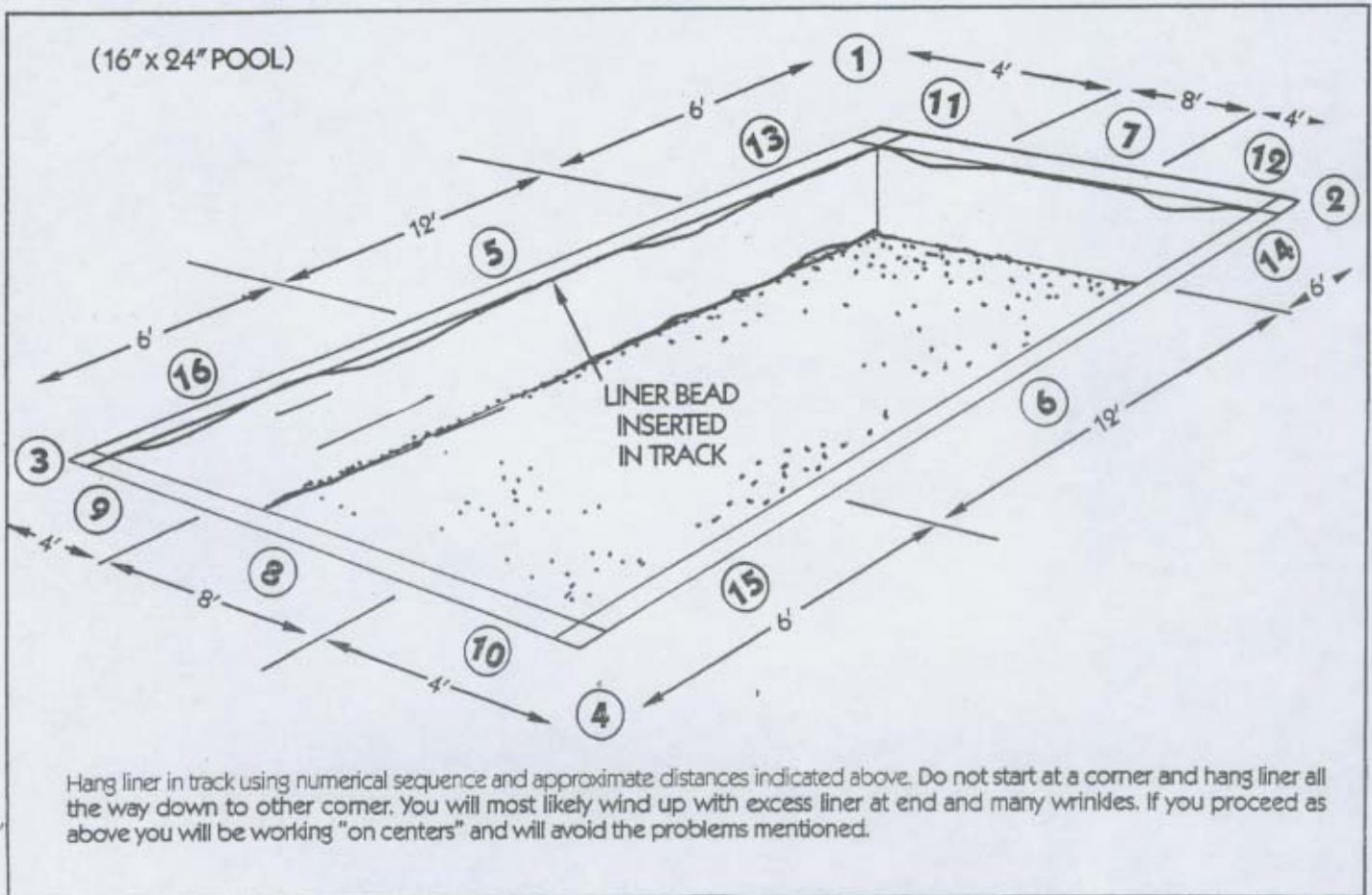
FIG. 2



Unpack and unfold your pool liner. For best results, let the liner lay in the sun for approximately one hour before installation. To drop the liner into the pool, have two people hold the liner at the corners of either end. Have two other people walk the other two corners to the other end allowing the liner to drop into the pool. Start at Step #1, proceed as per Fig. 3, Pg. 26; Fig. 4 & 5, Pg. 27

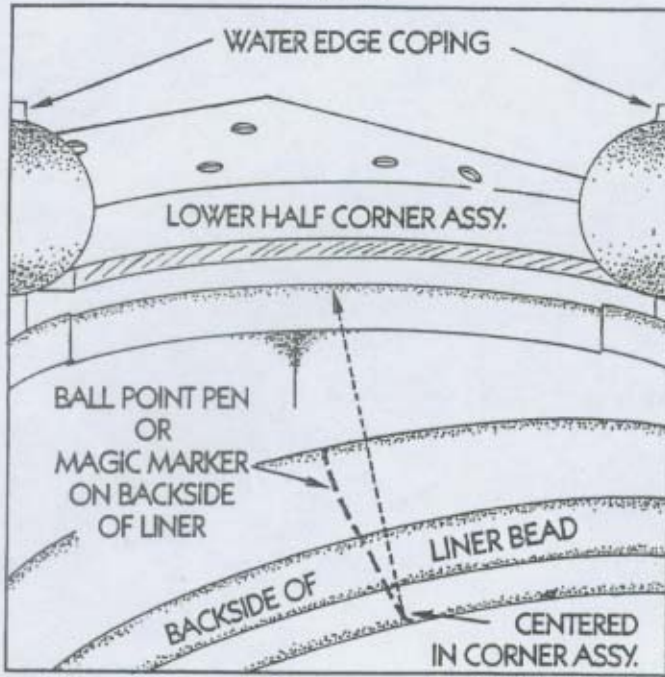
**Avoid dragging the liner on decks or edges of plywood unnecessarily when putting liner into pool. This will prevent snagging and tearing of the vinyl liner.**

FIG. 3



Hang liner in track using numerical sequence and approximate distances indicated above. Do not start at a corner and hang liner all the way down to other corner. You will most likely wind up with excess liner at end and many wrinkles. If you proceed as above you will be working "on centers" and will avoid the problems mentioned.

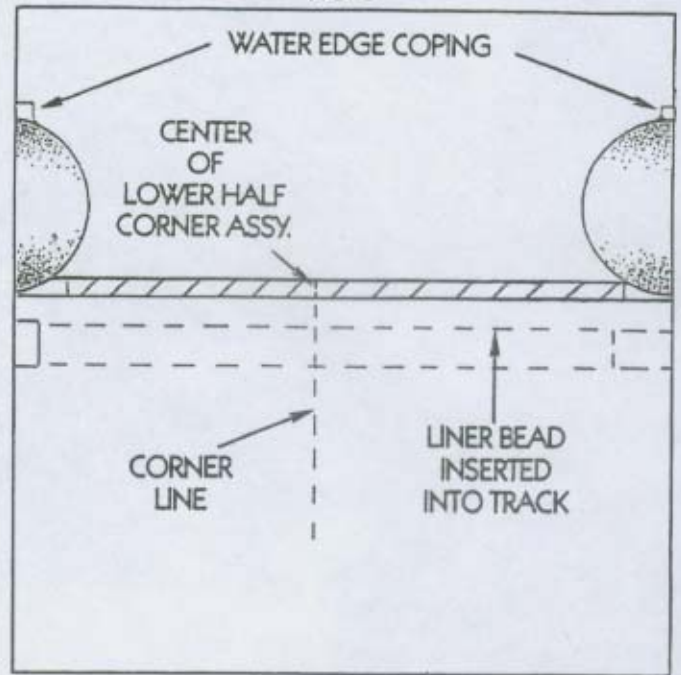
FIG. 4



When liner is lowered in pool, locate top corners indicated by ink line on backside of liner. Center ink line on corner assy. track and insert liner.



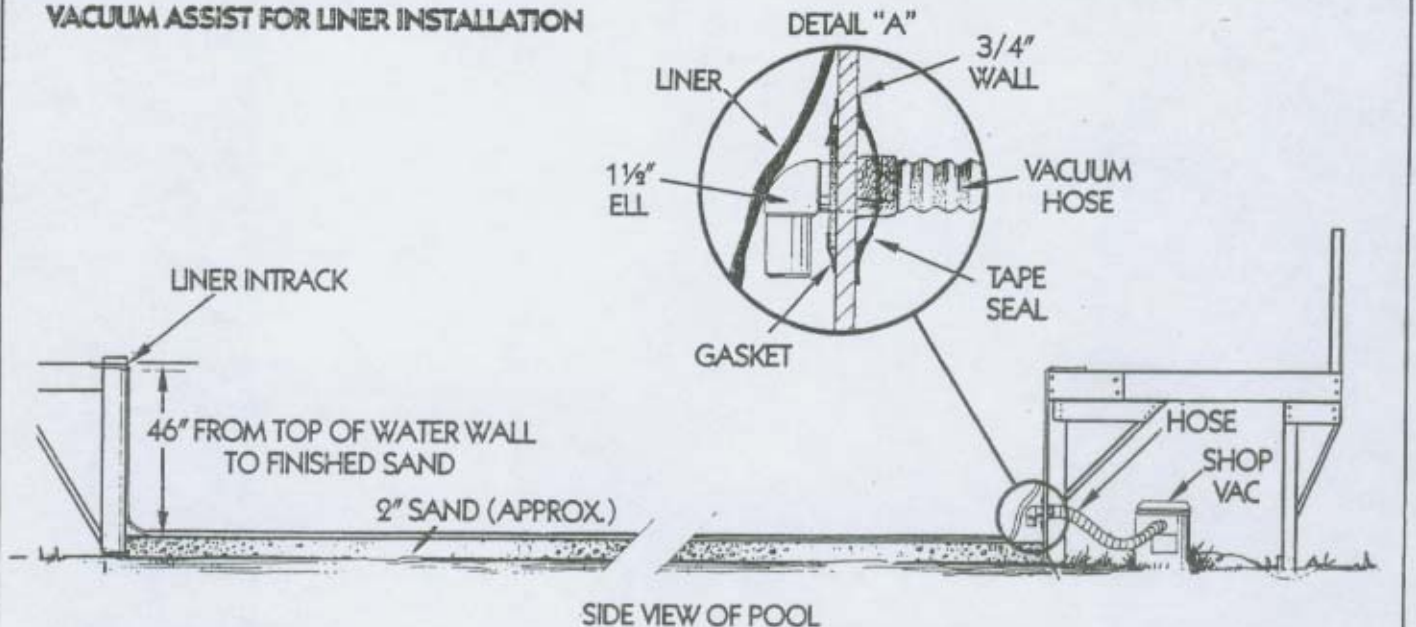
FIG. 5



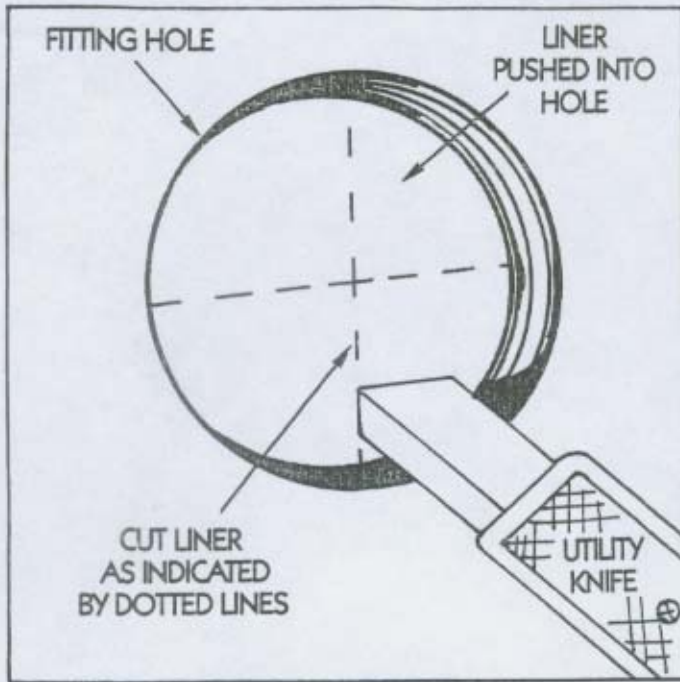
Liner bead is inserted into corner assy. with corner line centered as shown above. The four corners are done first and then hang rest of liner in numerical sequence indicated in Fig. 3, pg. 26.

FIG. 6

VACUUM ASSIST FOR LINER INSTALLATION

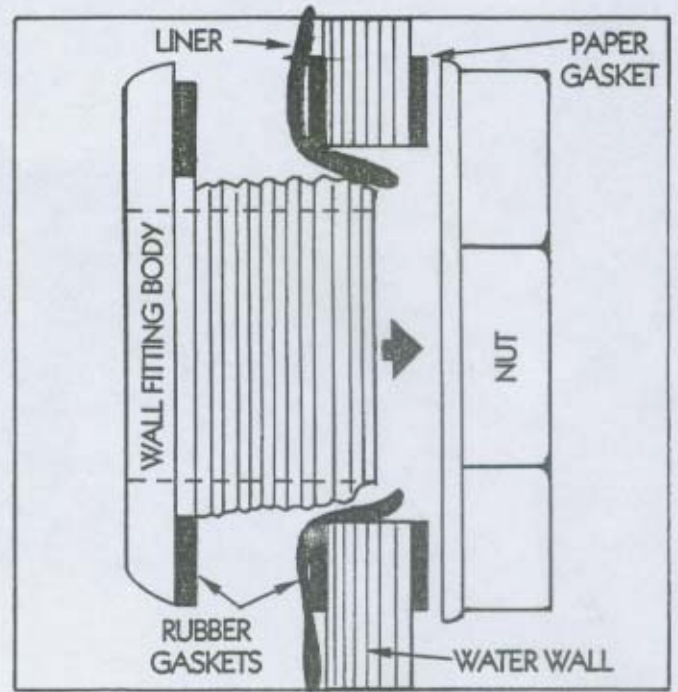


After liner is hung evenly in track completely around the pool, use a shop vacuum and an 1 1/2" ELL installed as shown in detail "A" to draw air out from behind liner. Atmospheric pressure will begin to act on liner in several minutes. Move bottom corners in place and move wrinkles in bottom toward end or side walls as necessary for a smooth bottom. When liner corners are even and bottom wrinkles are removed LEAVE VAC RUNNING and run approx. 3" water in pool. Shut off vac and remove "ELL" fitting from wall being careful not to knock lower fitting gasket off wall. Continue filling pool until liner bottom is in place (about 6"-8" of water). Shut off water and install wall fittings and skimmer faceplate as shown next.



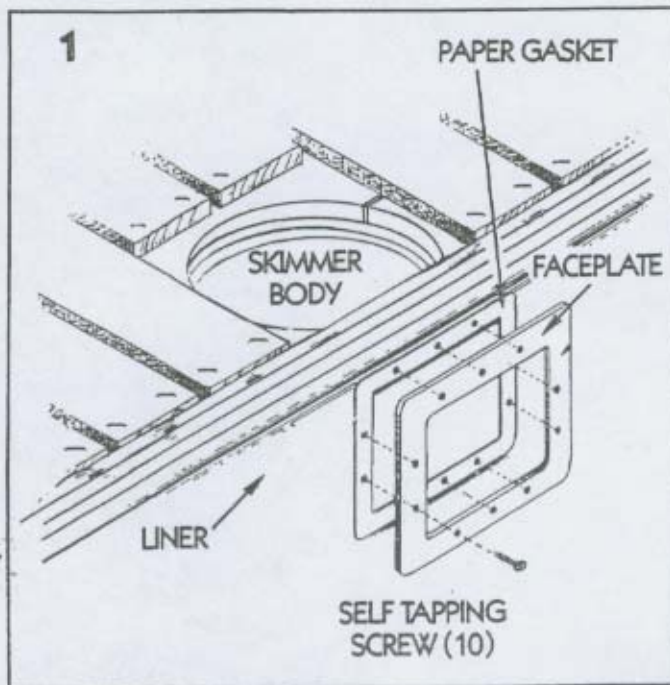
BACKSIDE OF WATER WALL

1.) Push wall fitting body into fitting hole in water wall. Cut liner from backside of wall as indicated above keeping tension on liner with fitting as you are cutting.

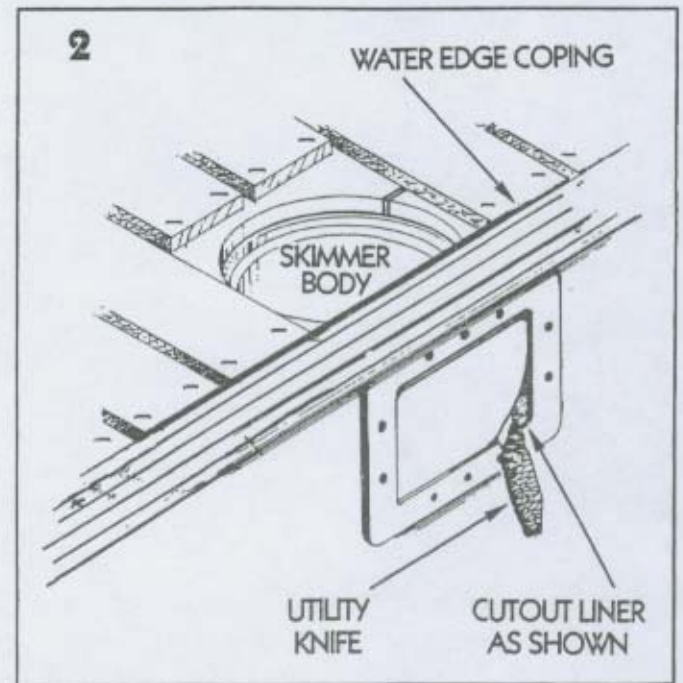


SIDE VIEW

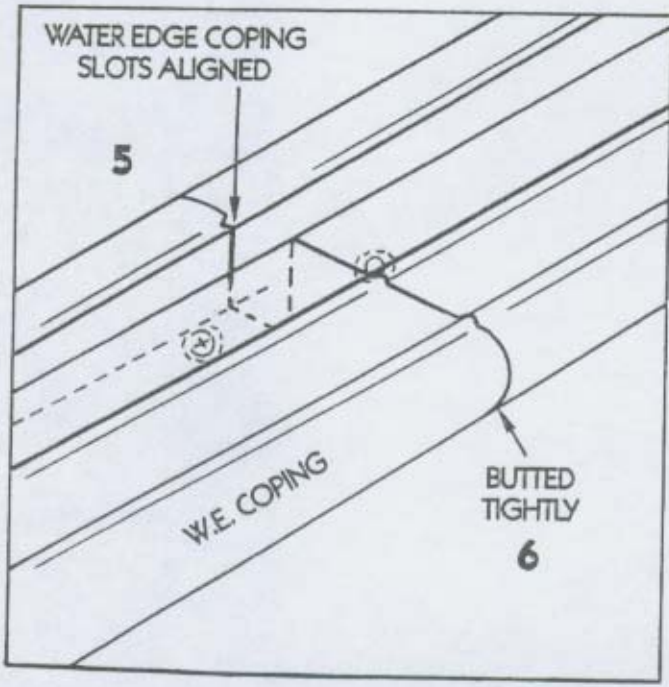
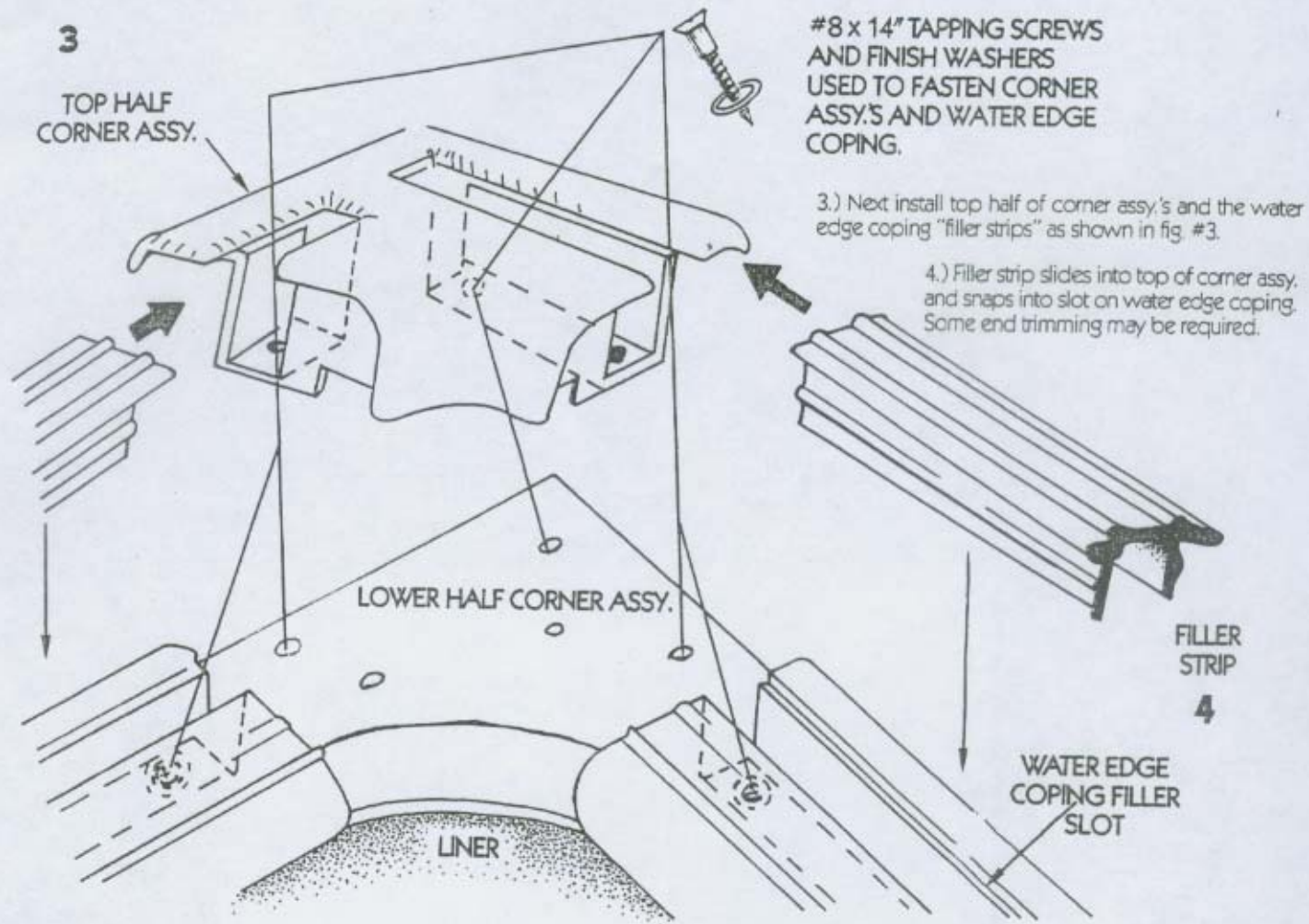
2.) Push fitting body through wall after liner has been cut. Install gasket and nut from backside of wall. Fitting nut should be snugged up to prevent leakage. Over tightening may crack fitting.



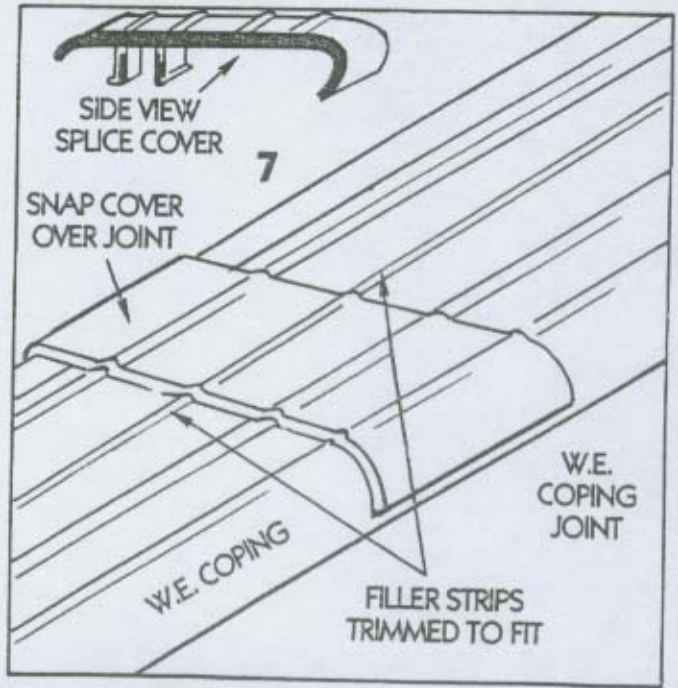
1.) Liner is in place and wrinkles removed. Paper gasket and faceplate are aligned with screwholes in skimmer body then secure faceplate using self tapping screws provided in skimmer kit shown in figure #1.



2.) When faceplate is installed cut out the liner within faceplate opening as shown above. Fig. #2

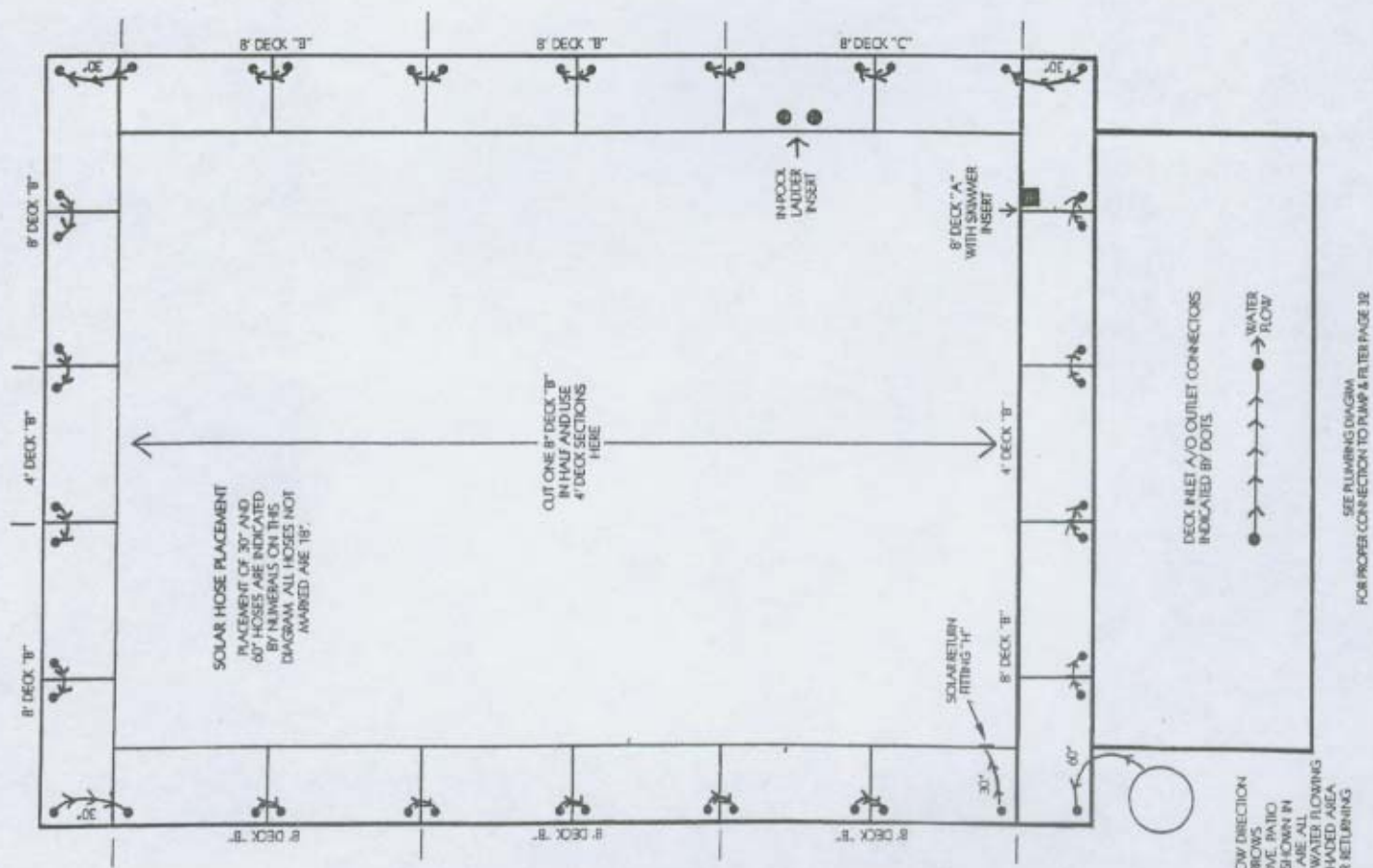
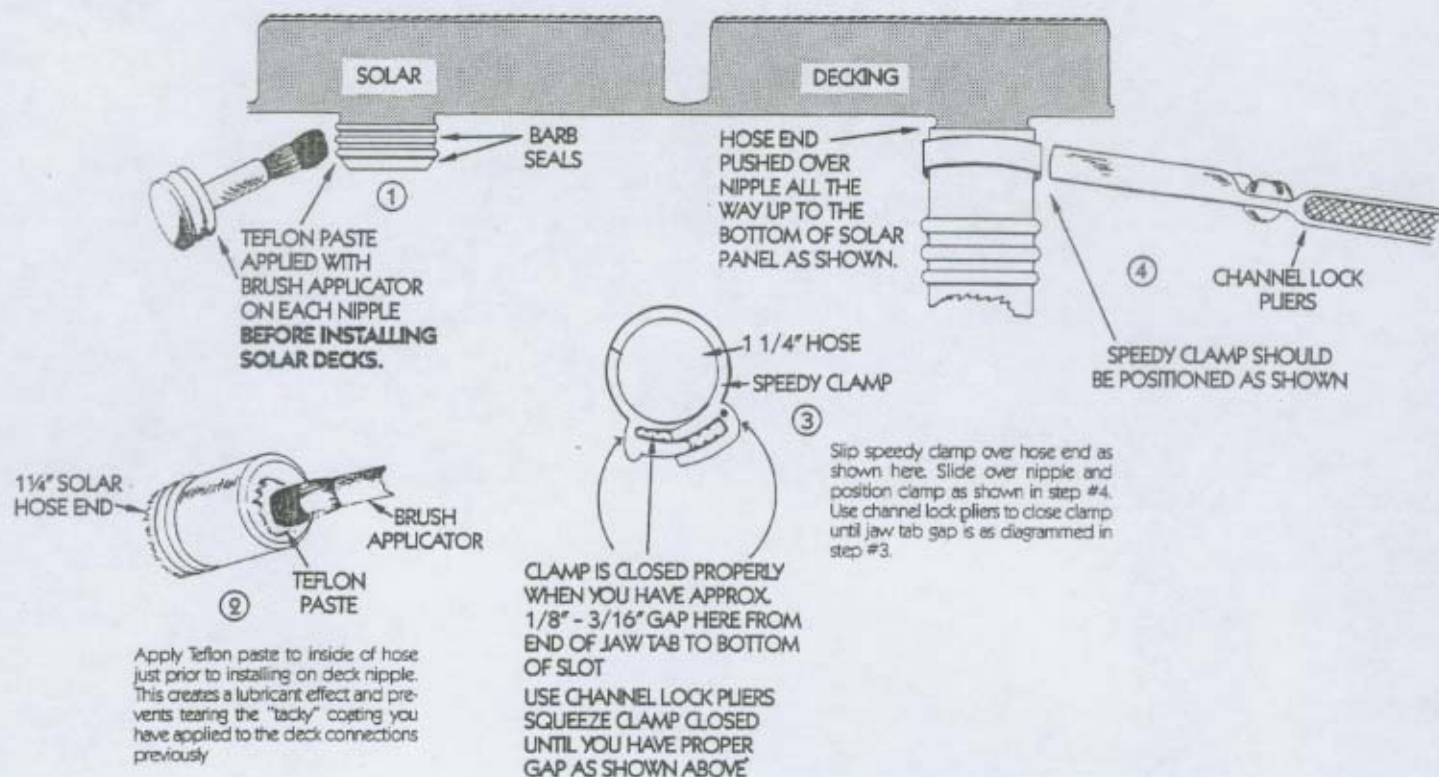


Be sure to align filler strip slots and butt water edge coping tightly at joints when installing water edge coping.



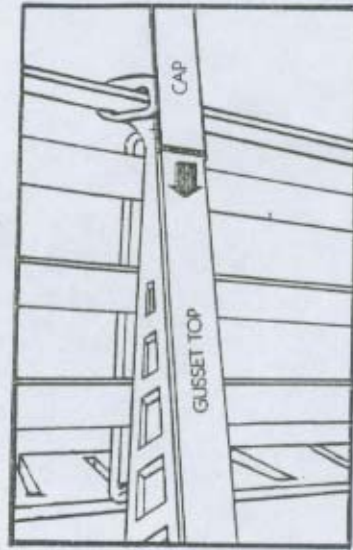
When all screws are installed in water edge coping and corner assy's are in place, put splice covers over joints and install filler strips as shown above.

# SOLAR HOSE CONNECTION PREPARATION AND CLAMPING

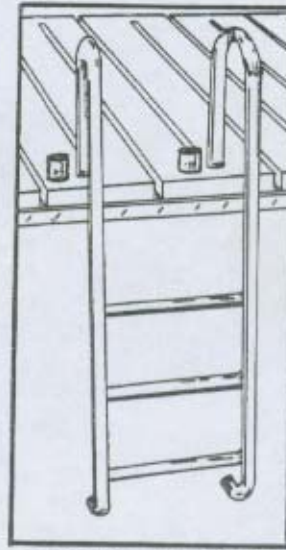


### SOLAR HOSE PLACEMENT DIAGRAM 16 x 24 POOL





GUSSET CAP  
INSTALLATION  
(SEE PAGE 5)

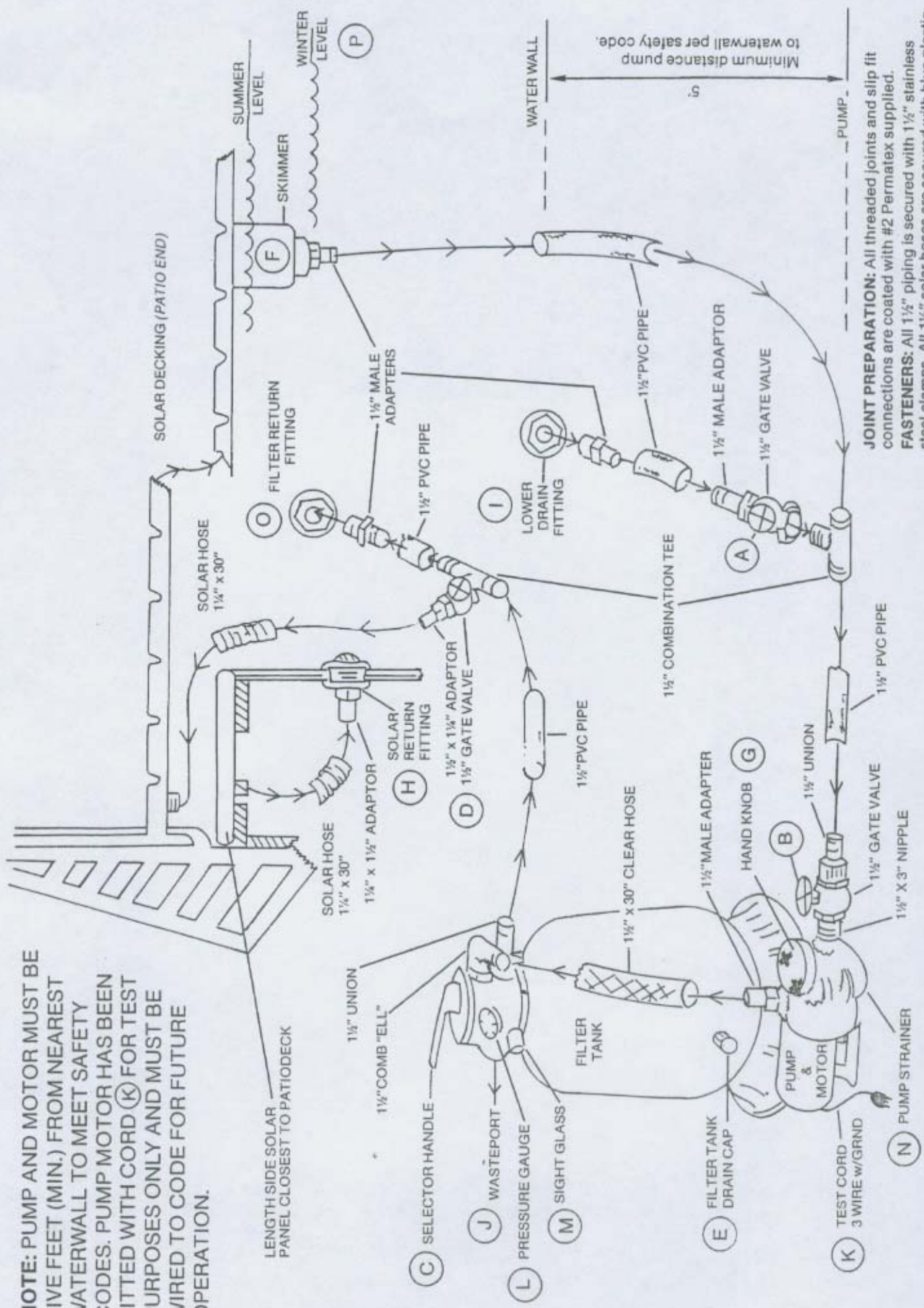


LADDER FLANGES SIT  
IN DECK SOCKETS  
(SEE PAGE 16)

## INSTALLATION NOTES

# FILTRATION AND SOLAR PLUMBING DIAGRAM FOR MARK VI AND SEA LION POOLS

**NOTE:** PUMP AND MOTOR MUST BE FIVE FEET (MIN.) FROM NEAREST WATERWALL TO MEET SAFETY CODES. PUMP MOTOR HAS BEEN FITTED WITH CORD (K) FOR TEST PURPOSES ONLY AND MUST BE WIRED TO CODE FOR FUTURE OPERATION.



**JOINT PREPARATION:** All threaded joints and slip fit connections are coated with #2 Permatex supplied.

**FASTENERS:** All 1 1/2" piping is secured with 1 1/2" stainless steel clamps. All 1 1/4" solar hoses are secured with blue plastic 1 1/4" speedy clamps.

## Filtration and Solar Plumbing Operation

**BEFORE FILLING POOL:** Valves "A", "B", "C", and "D" should be in "closed" position. Filter drain cap "E" should be in place. Raise water level to halfway point in skimmer opening "F", shut off water supply and proceed as follows. Use schematic drawing on opposite page for locating letter coded items mentioned.

**1. FILTER START UP:** Open valves "A" and "B" to fully open position. Check piping for leakage at joints and clamped connections. Correct if necessary and then move selector handle "C" to "rinse" setting, being sure water (which will be discharged from waste port "J") will not come in contact with electrical connection "K" (or yourself). Start pump and let run about 10 seconds after water begins, to discharge from waste port "J" to remove silt and finer sand from filter media which would be discharged into your clean pool water otherwise.

**2.** Stop pump and move selector handle "C" to "filter" setting. Start pump and wait until air is purged from filter tank and piping. When water is circulating with even flow, make a note of reading on pressure gauge "L". The reading you have now will be the "clean-running" pressure period when you get a reading of about 7 psi. Higher, you will need to backwash your filter as a higher reading indicates a buildup of solid contaminants on top of the filter media.

**3. BACKWASHING THE FILTER:** Reverses the flow of water thru the filtering media, from the normal top to bottom flow to a bottom to top flow which carries the dirt, etc. caked on top of the filtration bed out of the waste port along with the water discharged. To do this, simply stop the pump and move selector handle "C" to the "backwash" setting and restart pump, again remembering to direct discharging water away from electrical connections and yourself. A running time of .30 to 60 seconds should normally be enough to remove the waste and the discharging water which will be cloudy at first - should be running very clear. Shut off pump and move selector handle "C" back to "filter" setting. **WAIT** about 5 minutes before restarting pump as this allows the sand filtration bed to settle evenly across the surface, making it much more efficient in terms of filtration.

**4.** The pump strainer housing "N" contains a basket which catches larger objects such as hairpins, leaves, etc. before they can enter the pump and jam the impeller. Periodic cleaning of the basket is necessary to keep a good flow of water to the pump. To clean the basket, you must shut off the pump, turn selector handle "C" to "closed" setting, close valve "B", loosen hand knobs "G" and remove the clear plastic cover. You then lift the basket out by the wire handle attached and empty the contents. Replace the basket after cleaning, put cover back on strainer housing "N", tighten hand knobs "G" finger tight, open valve "B", and turn selector handle "C" to "filter" setting and restart pump.

**VACUUMING POOL:** The vacuum hose is inserted into skimmer "F" as instructed earlier (pg. 14 & 15) in owner's manual. Valve "A" can be closed more to increase suction of vacuum or opened more to decrease suction if vacuum head clings to pool bottom too tightly, making movement difficult. Generally, having valve "A" closed about 1/3 of the way provides sufficient suction for vacuuming. Count the number of turns required to fully open valve from the closed position and divide by 3 to determine what would be 1/3 closed setting.

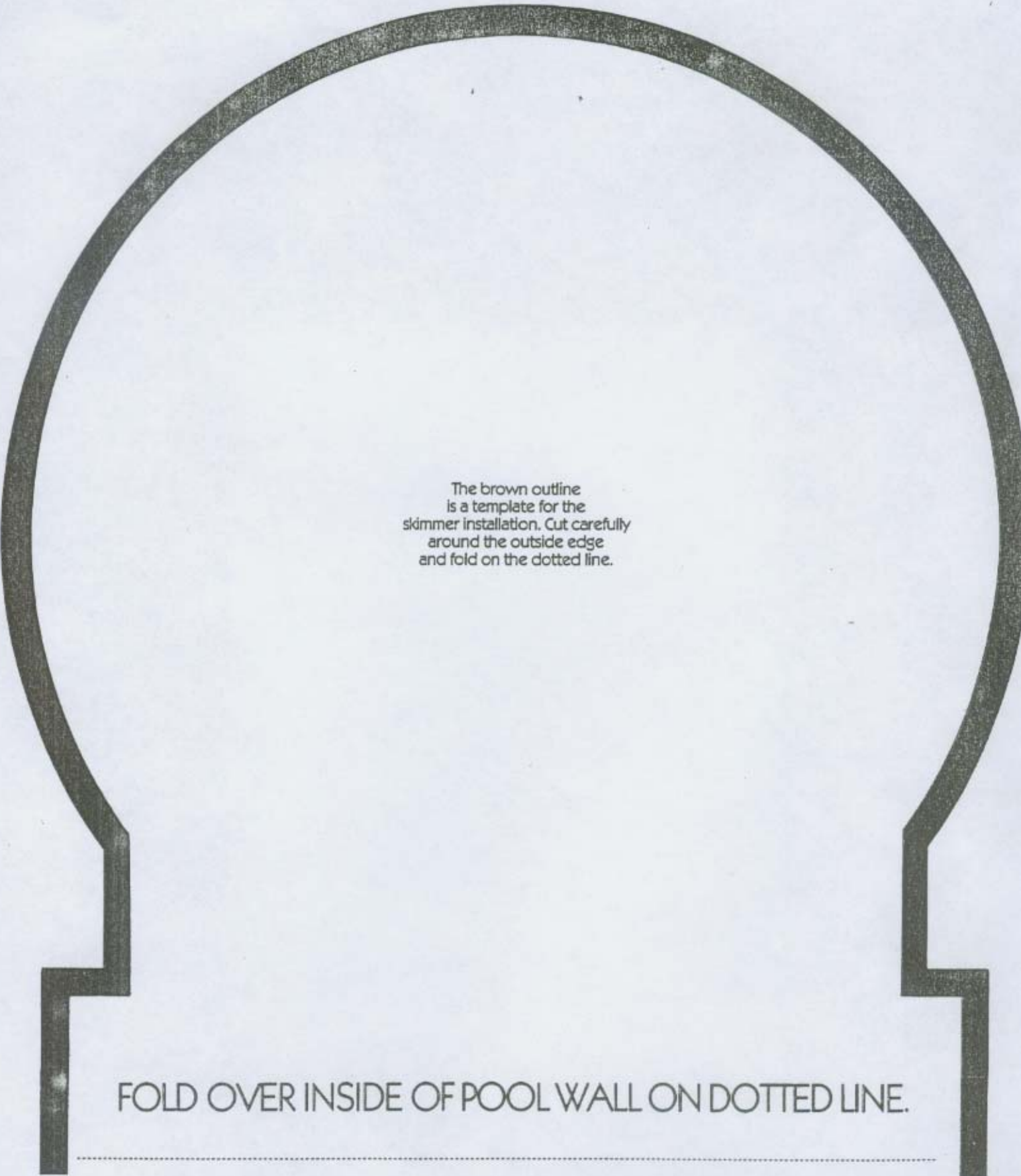
**SOLAR HEATING:** is accomplished by circulating water through the decking collector panels. When water is flowing evenly and air has been purged from filter and piping, open valve "D" fully to begin circulation through solar decking. There will be a great deal of air bubbling from solar return "H" at first and this will continue for 5 or 10 minutes until the decks are purged of air, and then water will be flowing evenly at a rate of about 4 to 5 gallons per minute which is a most efficient flow rate in terms of heat transfer. When water is flowing evenly, check solar hose connections for leakage, correct if necessary by adjusting clamps. There will be some very small air bubbles coming from solar return "H" after system has been purged due to turbulence of water flowing through decks and air which is drawn in at skimmer occasionally. This is normal and should not be a cause for concern. To stop solar heating simply close valve "D". The solar panels will work in reverse, when air temperature is cooler than water as during evening hours. The panels will remove heat from water, therefore it is best to shut off solar system during night, unless you wish to cool your pool water.

## Pool Winterizing Instructions

1. Vacuum pool thoroughly and backwash filter very thoroughly.
2. Lower water level 4" below skimmer opening shown at "P."
3. Remove hydrostream fitting from wall fitting "O". Remove grate inserts from wall fittings "H" and "I".
4. Install winter plugs (provided with Fanta-Sea winter kits) into wall fittings on INSIDE of pool.
5. Add winter chemicals as directed on packages.
6. Disconnect 1½" x 30" clear hose from male adaptor on top of pump housing "N". Drain pump and store indoors.
7. Remove cap from filter drain "E", drain tank and leave cap off for winter. Depress selector handle "C", move it between settings to allow valve to drain. Remove pressure gauge and store indoors.
8. Remove stainless steel ladder from pool.
9. Wash "ring" from top of liner with liquid cleaner from winter kit.
10. Cover pool with Fanta-Sea cover following directions in package.

**NOTE:** Fanta-Sea holds spring and winter seminars in most areas. Pool opening and closing procedures are covered in detail. If you are not notified by mail, call your dealer for time, date and location of seminars.

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The brown outline is a template for the skimmer installation. Cut carefully around the outside edge and fold on the dotted line.

FOLD OVER INSIDE OF POOL WALL ON DOTTED LINE.

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