

**INDUSTRIAL SERIES**  
**GUTTER SYSTEM**  
**INSTALLATION INSTRUCTIONS**

GENERAL DESCRIPTION: The Industrial Series Gutter System is an exceptionally strong gutter product for industrial & commercial type buildings. The gutter is attached to the building with an assembly of brackets and your order may also contain other accessories such as mitered corners. As part of this set of instructions there are several drawings which show the component parts and accessories and how they are applied. Please take a moment to review these drawings so you may become familiar with the terms used in this instruction guide.

SKILLS & TOOLS REQUIRED: While the Industrial Series gutter system is designed for easy installation it is not designed for installation by those not knowledgeable in the trade such as a home owner. This product requires the experience of a skilled sheet metal mechanic for a proper installation. Basic sheet metal tools required for normal gutter installations are all that is necessary for a proper installation.

## **INDUSTRIAL GUTTER INSTALLATION INSTRUCTIONS**

**GENERAL NOTES:** Our gutters are installed in the left to right direction (left to right is read as you stand on the roof and face ground level). This installation instruction assumes that you are starting from an end cap position, see the mitered corner drawing when starting from those conditions. Industrial gutters require expansion joints at 40' intervals (every 4<sup>th</sup> piece).

Unless so stated on your order, sealants (caulk) and fasteners are not included with your order. We recommend a high grade clear silicone (such as GE) or gutter seal as manufactured by 3M. Use aluminum rivets (with aluminum mandrels) 1/8" x 1/4" for connecting the gutter lap joints ( maximum spacing of rivets shall be 2") and 1/8" x 3/8" rivets for connecting the inside straps. Use #10 x 1" stainless screws to fasten the gutter's rear edge to wood plates. Review the architectural specifications for the required support bracket fastener(s); since the product is designed to withstand snow & ice loads it is important to use the correct fastener(s) for this bracket. If architectural specifications do not state fastener type use #10 x 2" flat head stainless screws.

Our Industrial Gutters are available in custom sizes & shapes. These instructions apply to such custom applications as well.

## **INDUSTRIAL GUTTER INSTALLATION INSTRUCTIONS**

### **GUTTER INSTALLATION:**

**STEP 1:** INSTALLING THE SUPPORT BRACKETS, beginning at the left side of the building's roof edge install enough support brackets to "run or hang" 4 sections of gutter (17 brackets). The 1<sup>st</sup> bracket shall be located 1" from its center to the buildings' end, and the remaining brackets shall be installed at 30" centers.

Sloping of gutters is achieved with the proper installation of the support brackets. The best way to allow for slope is by chalking a line on the buildings exterior and fastening the support brackets according to that line. The gutter system will not accommodate a slope greater than 1/8" in 10' (one section), nor more than 1/2" in 40'. Slopes greater than this are not necessary.

One final note on support bracket installation, the high point bracket should be installed flush with the top of the wood plate (at the roof surface) with the remaining brackets not exceeding 1/4" below this level. This will allow for proper flashing of roof to gutter when using SAF-Perimeter Systems gravel stop or trims. If you elect to install your support brackets at a lower point, be sure to check and see that your corresponding flashing will accommodate this condition.

## INDUSTRIAL GUTTER INSTALLATION INSTRUCTIONS

### STEP 2:

Fasten the rear upper edge of the gutter with stainless screws through the pre-punched slotted holes. The screw should center the hole and be screwed to the point that it is snug to the gutter surface but does not warp or bind the gutter. DO NOT OVER TIGHTEN THESE SCREWS, the idea is to let the gutter float to allow for thermal movement. Prior to installing the next gutter, apply sealant to the inside right edge of this gutter  $\frac{3}{4}$ " from edge – sealants must be between the lap joints and shall be applied in sufficient quantity to ooze out into view on the interior gutter surface. Remove this excess sealant.

Industrial gutters are tapered with their left hand end having a notched lip and being slightly smaller in size than its' right end. This allows for a 1" telescoping lap joint. Once in position, rivet the joint with 1/8" x 1/4" at 2" centers. Touch up the rivet heads with sealant and be sure to check the joint for any sealant voids. As an alternate, you can "pre-assemble" four (4) gutter sections together and place the assembly into position at one time. Of course you will need additional man power to handle such large sections. Fasten the rear edge of the gutter with stainless screws through pre-punched holes in a snug manner as mentioned earlier. At this time, install your downspout outlets.

## **INDUSTRIAL GUTTER INSTALLATION INSTRUCTIONS**

STEP 3: INSTALL EXPANSION JOINTS at the ends of every fourth (4<sup>th</sup>) gutter section which will divide the gutter system into 40' segments. The expansion joint consists of a self-adhesive rubber strip to cover a 1" gap joint between adjoining sections and a exterior cover plate. At the end of the fourth (4<sup>th</sup>) gutter and prior to its installation, install a gutter expansion cover plate to center the joint. Do not caulk the cover plate. Install the next gutter section and allow a 1" gap for expansion. Cover this joint with the peel & stick membrane supplied with your order being careful to achieve a good bond of rubber to metal. This completes the application of the liner's expansion joint.

It is critical to the performance of the system that expansion joints be installed at 40' intervals. The only exception is; you may omit expansion joints for independent runs of gutter which do not exceed 50'. The run must receive end caps on both ends to be considered independent. Gutters installed without proper allowance for thermal expansion WILL LEAK at their joints.

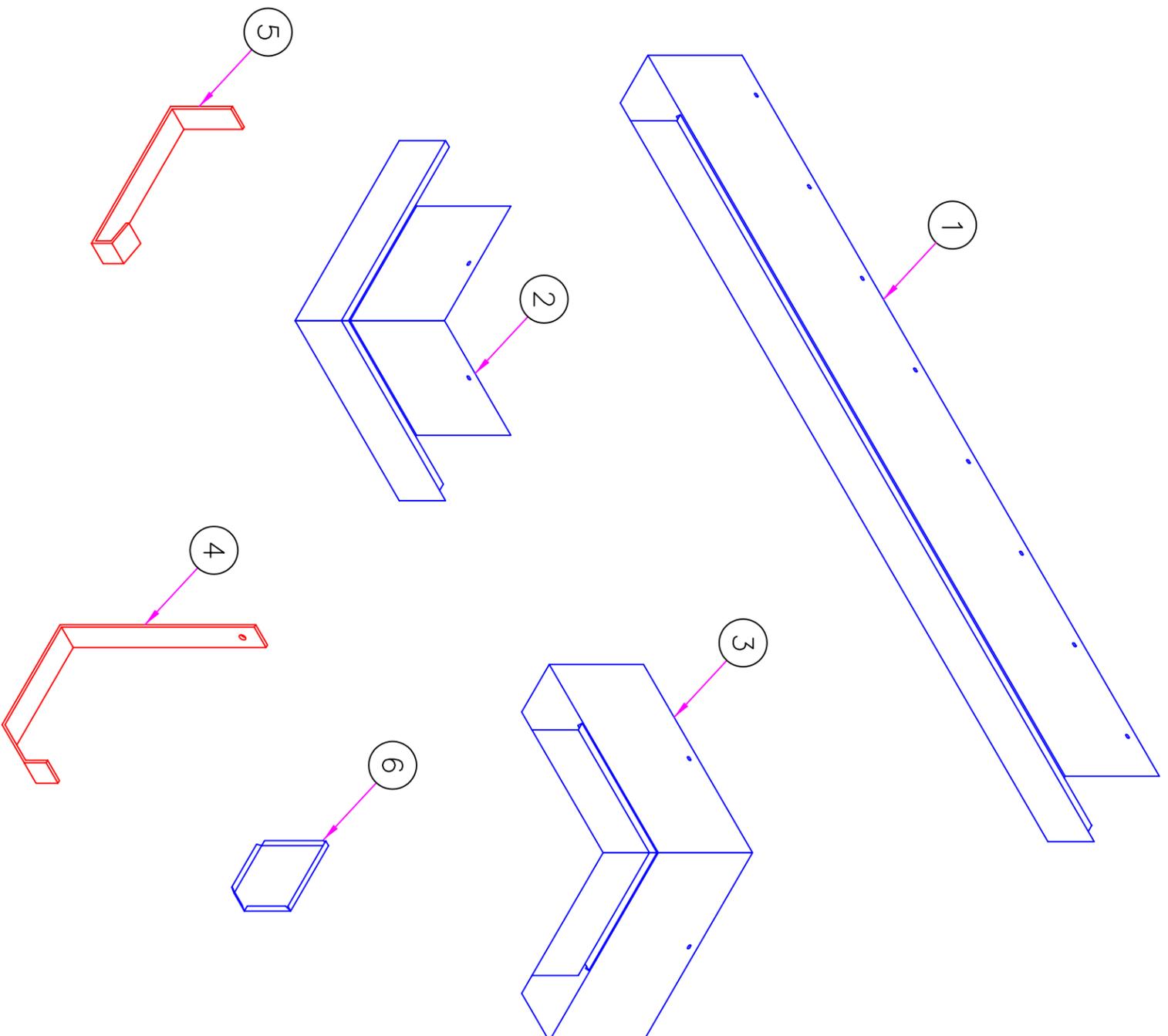
**DO NOT LEAVE GUTTERS EXPOSED TO WINTER CONDITIONS, (SNOW & ICE) WITHOUT INSTALLING THE INTERIOR STRAPS. GUTTERS ARE SUBJECT TO DAMAGE UNDER SUCH CONDITIONS.**

## **INDUSTRIAL GUTTER INSTALLATION INSTRUCTIONS**

STEP 4: INSTALL THE INSIDE STRAPS by hooking into the gutter's hemmed edge and rivet it 's back leg to the gutter (DO NOT NAIL) with 1/8" x 3/8" aluminum rivets. Inside straps should be installed at 30" centers and alternate with the support bracket. In other words, an inside strap shall be located between each support bracket.

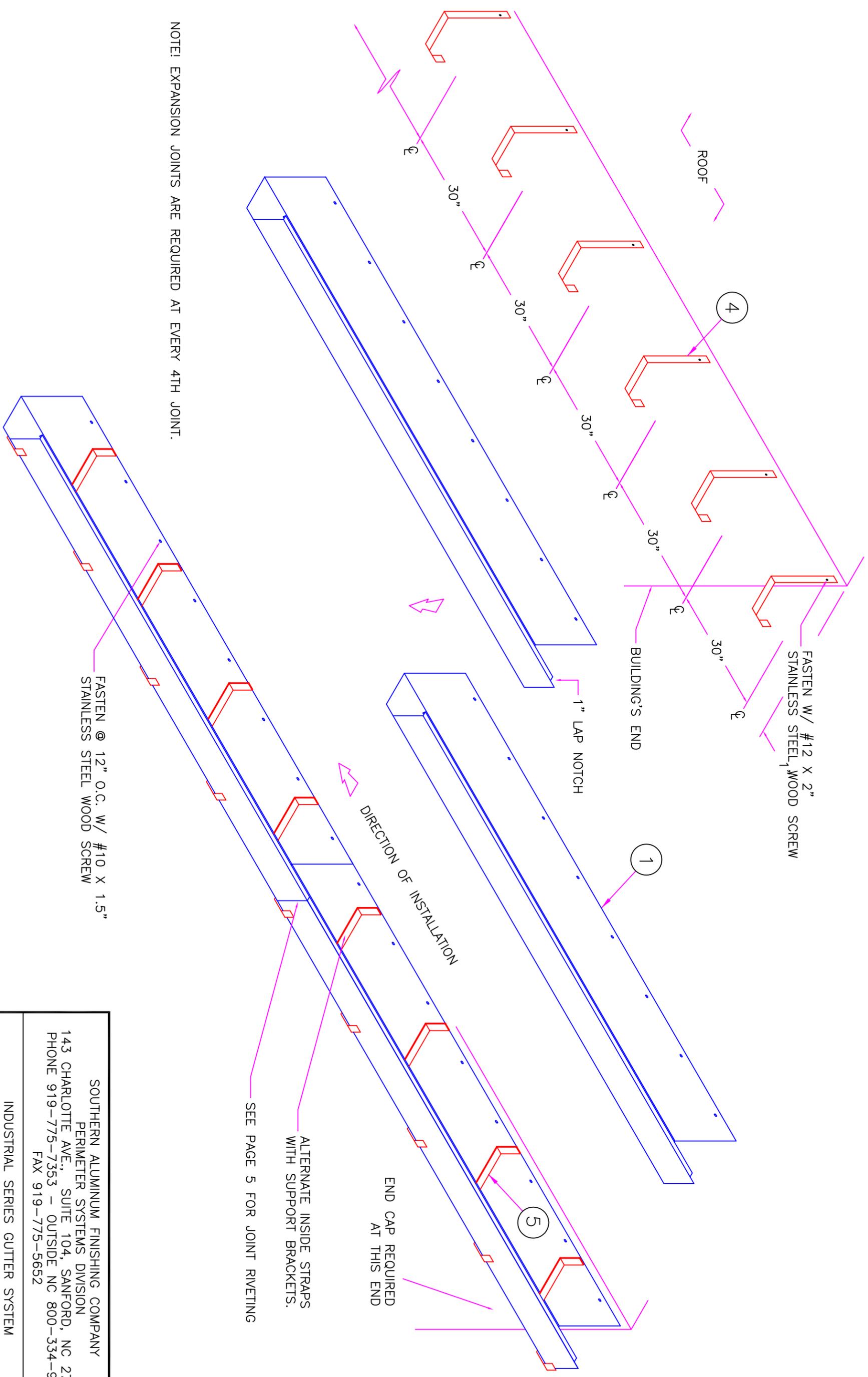
\*\*\*\*\*END\*\*\*\*\*

1. 10' GUTTER SECTION (Profile G2 Shown, other profiles similar)
2. OUTSIDE MITER
3. INSIDE MITER
4. SUPPORT BRACKET
5. INSIDE STRAP
6. END CAP (Left Shown)



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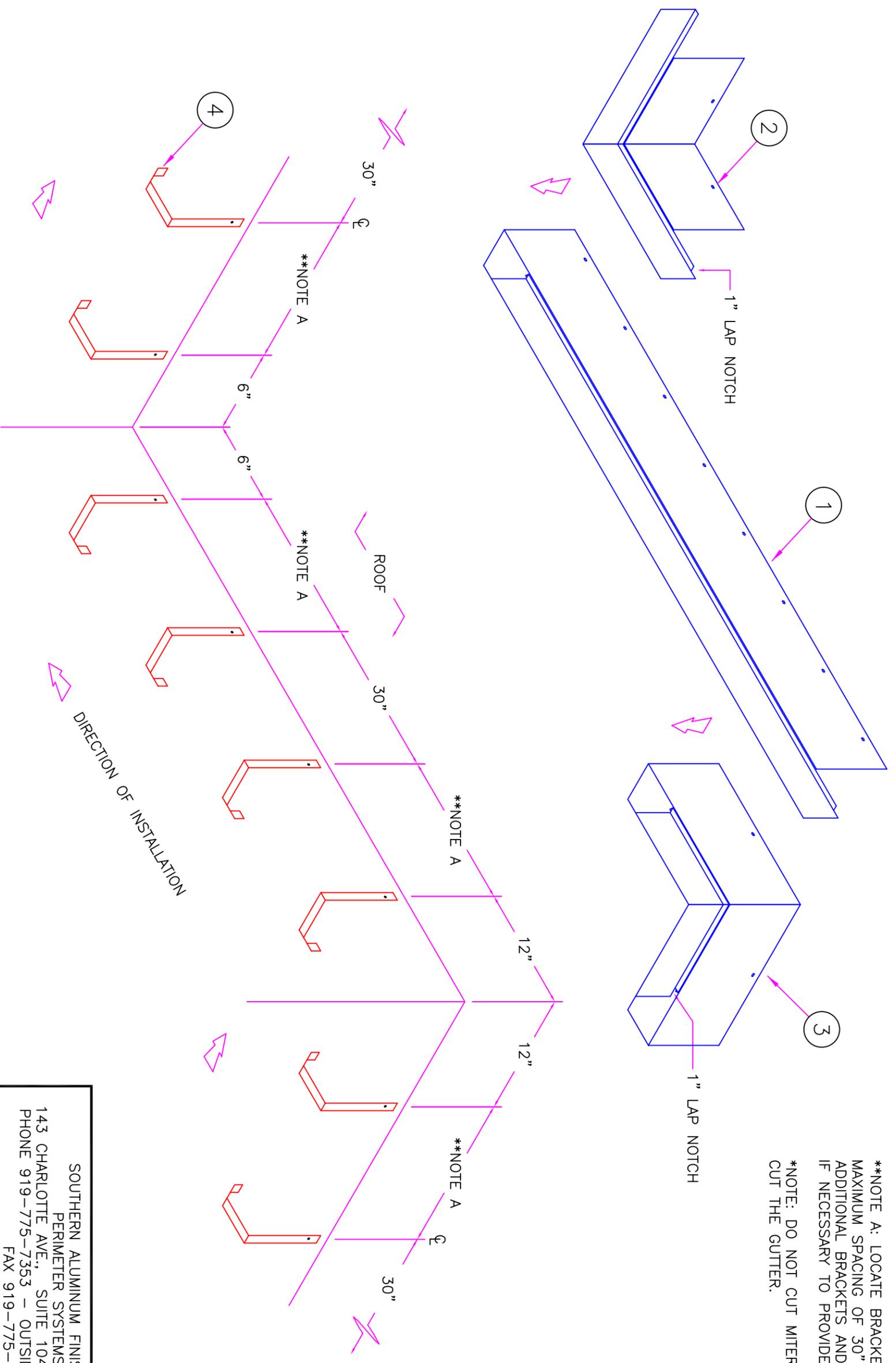
INDUSTRIAL SERIES GUTTER SYSTEM  
 COMPONENT PARTS



NOTE! EXPANSION JOINTS ARE REQUIRED AT EVERY 4TH JOINT.

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INDUSTRIAL SERIES GUTTER SYSTEM  
 SUPPORT BRACKET INSTALLATION

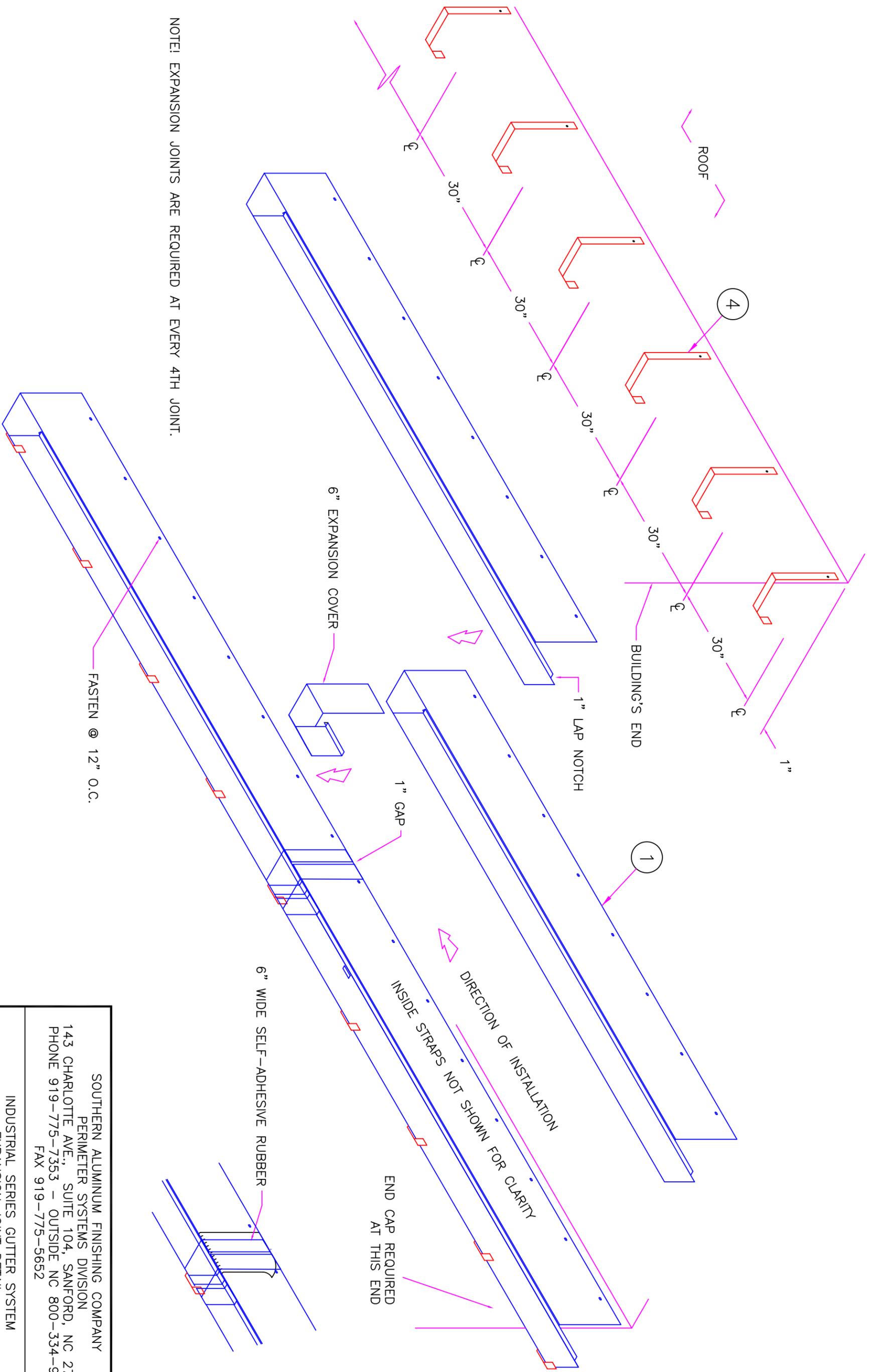


\*\*NOTE A: LOCATE BRACKETS SO THAT A MAXIMUM SPACING OF 30" IS HELD. INSTALL ADDITIONAL BRACKETS AND DECREASE SPACING IF NECESSARY TO PROVIDE UNIFORM APPEARANCE.

\*NOTE: DO NOT CUT MITERS FOR FIT ... CUT THE GUTTER.

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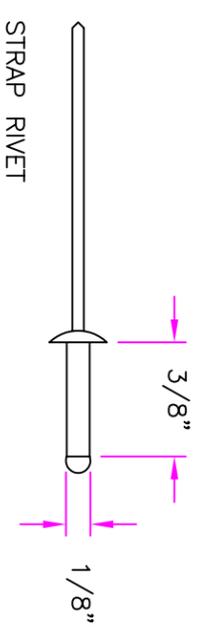
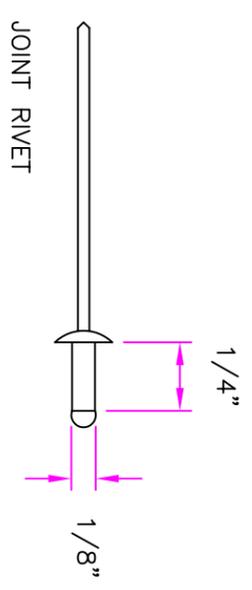
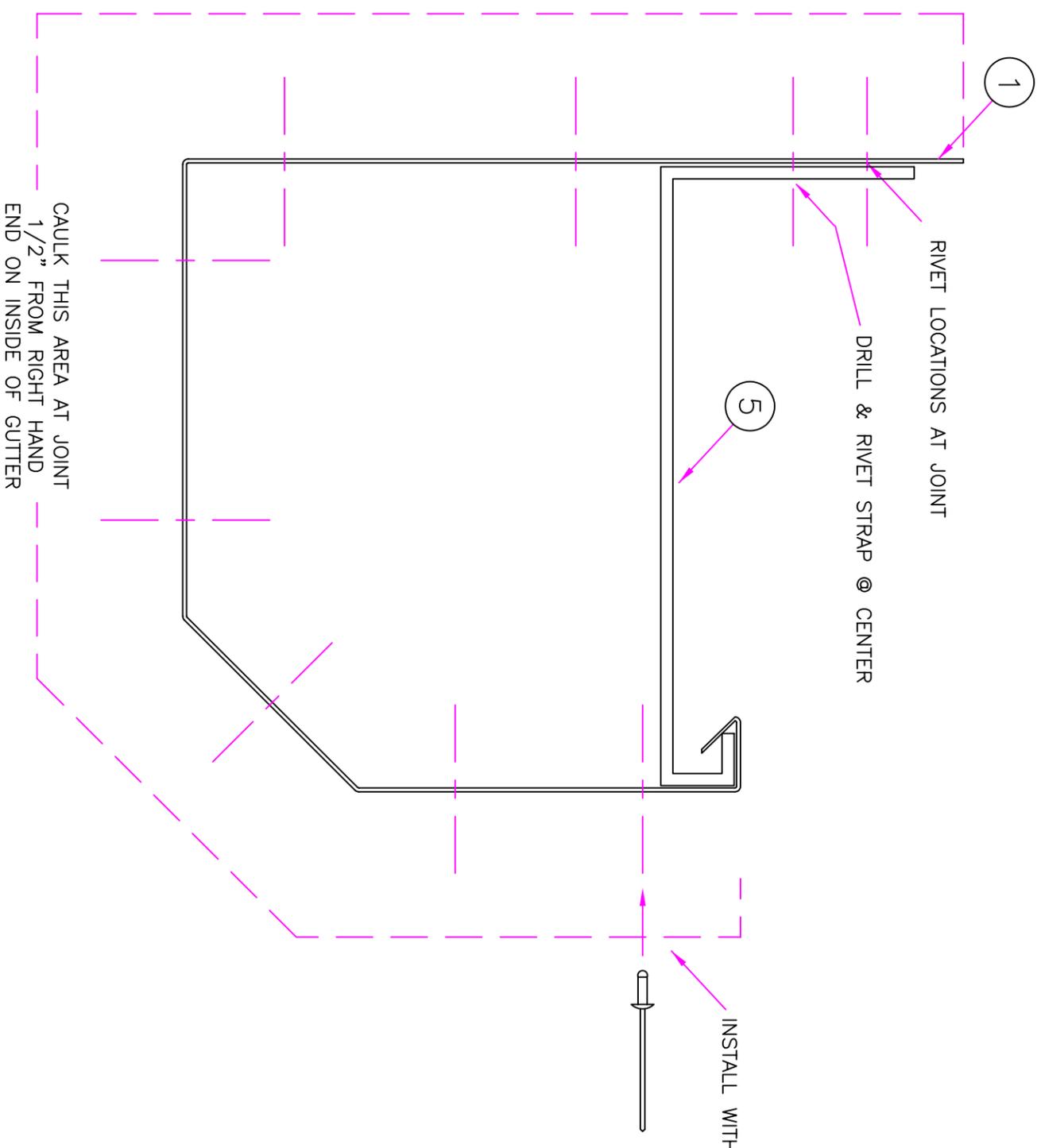
INDUSTRIAL SERIES GUTTER SYSTEM  
 SUPPORT BRACKET & MITER INSTALLATION



NOTE! EXPANSION JOINTS ARE REQUIRED AT EVERY 4TH JOINT.

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INDUSTRIAL SERIES GUTTER SYSTEM  
 EXPANSION JOINT DETAIL

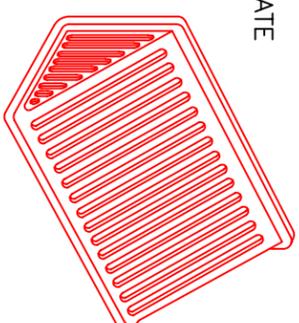


RIVETS, FASTENERS, CAULKS / SEALANTS  
NOT SUPPLIED BY S.A.F.

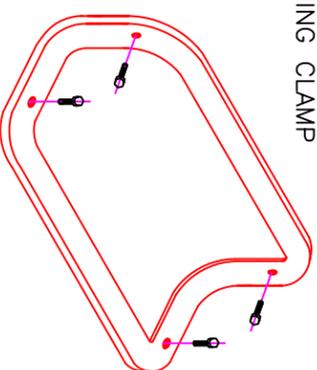
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INDUSTRIAL SERIES GUTTER SYSTEM  
JOINT FASTENER DETAIL

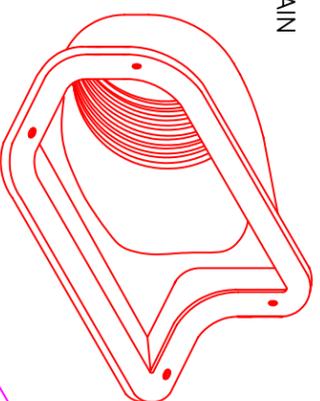
CAST GRATE



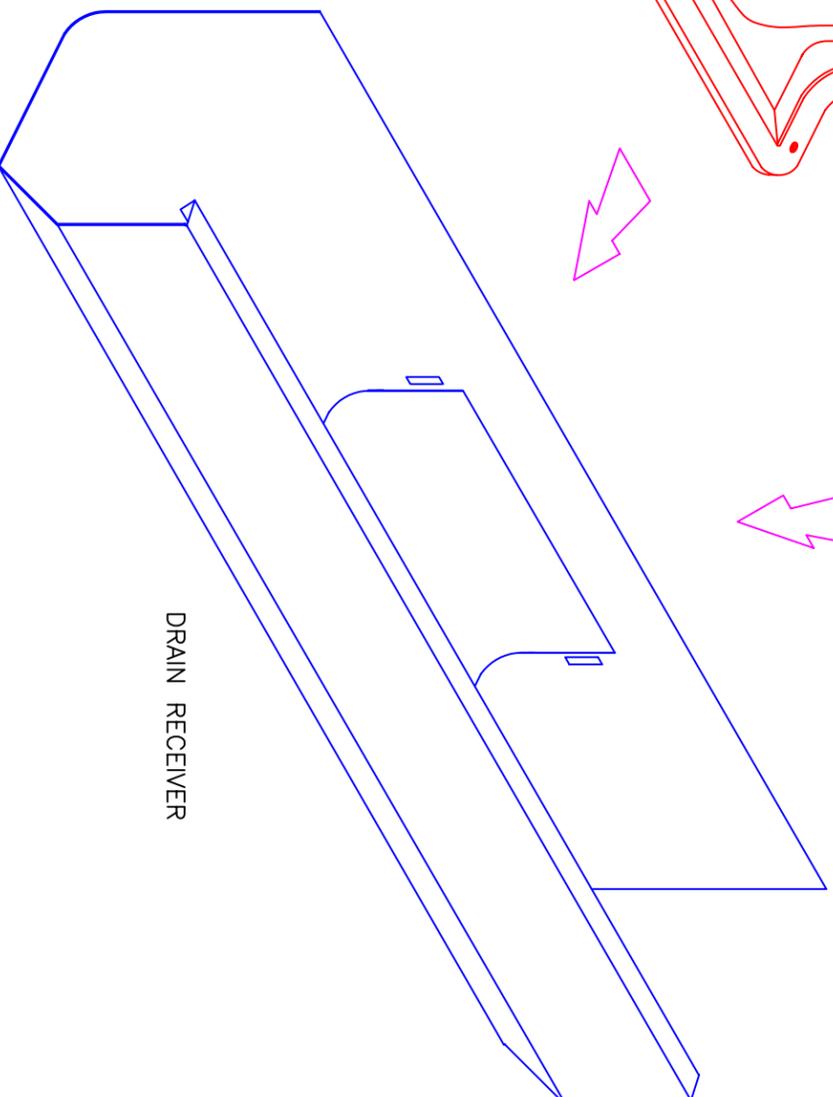
FLASHING CLAMP



DRAIN



DRAIN RECEIVER



1. DRAINS SHOULD BE MOUNTED TO THE RECEIVER PRIOR TO INSTALLATION. TO MOUNT DRAIN(S), APPLY AMPLE BEAD OF SEALANT TO THE DRAINS FLANGE. SEALANTS ARE NOT FURNISHED, USE A HIGH GRADE OF SILICONE OR EQUIVALENT EXTERIOR GRADE SEALANT.

DRAINS ARE MOUNTED TO THE UNDERSIDE OF THE RECEIVER AND HELD IN PLACE WITH THE FLASHING CLAMP. BOLT FLASHING CLAMP TO THE INTERIOR SIDE OF THE DRAIN RECEIVER THROUGH THE (4) ELONGATED HOLES. BE SURE THAT SEALANT FULLY SEALS THE BOLT HOLE AND BOLT.

GRATE IS PLACED IN POSITION AFTER INSTALLATION.

2. INSTALL GUTTER WITH ASSOCIATED SUPPORT BRACKETS AND STRAPS AS PER OUR STANDARD INSTALLATION INSTRUCTIONS. CUT GUTTER SECTION IF NECESSARY TO PROPERLY ALIGN DRAIN WITH PREDETERMINED DRAIN PIPE LOCATIONS.

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INDUSTRIAL SERIES GUTTER SYSTEM  
DRAIN INSTALLATION

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