DEAN STEEL BUILDINGS, INC.
Standard Construction Details

DEAN STEEL BUILDINGS, INC
Fort Myers, FL/Cedartown, GA/Thomasville, GA

FORM 4068 01/18

IMPORTANT

PLEASE READ THE FOLLOWING:

Unloading Check-out and Shortages:

It is essential, while unloading your Dean building, to verify that all components listed on the shipping papers were actually shipped. The actual quantities of the items on each truck are circled on the shipping papers. Any items found to be shipped short, or in direct conflict with the shipping papers should be noted on the driver's report. This serves two purposes: 1) you, as the erector, will be aware that a particular item is missing and can temporarily work around it; 2) it lets us know that we have a problem an allows us to react quickly. This system eliminates the discovery that something is missing at the time you need it to erect the building. Taking the time to properly unload the job and check it allows for proper placing of the parts around the jobsite, which should expedite the erection process. Dean will do its utmost to fill any reported shortages as quickly as possible. Once the erector, or owner, signs that he has received the goods and accepted them as being complete, we can only assume that shortages after this point are missing due to jobsite theft. All claims for damage or shortage must be presented, in writing, to the carrier – either Dean Steel Buildings, Inc. or common carrier, within seven days after receipt of materials by purchaser. Failure to do so voids any claim.

Storage and Protection of Materials:

A galvanic action known as "white rust" may result when aluminum, galvanized, or the galvanized pre-painted coating on piled flat sheets or nested formed sheets become wet from rain, condensation, or other causes. Under certain weather conditions, this "white rust" can happen in as little as 24-48 hours. Galvalume coated sheet is susceptible, as is galvanized sheet, to wet storage staining. However, due to the composition of the coating, the sheet surface will develop a dark gray discoloration as opposed to the white oxide that develops on galvanized. Formed pre-painted sheets must be protected from moisture, in the same manner as plain galvanized or galvalume sheets, if they are in contact with other sheets. The sheets must be properly packaged and stored. It is important upon receipt of material to examine packages for damage. Builders should take prompt action where cuts, tears, or other damage is evident. If moisture is present the panel should be dried at once.

Panels that cannot be stored out of the elements should be restacked individually and spacers put between the panels, so that individual panels can have air circulated around them (non-metallic spacers, i.e., wood, cardboard, etc.). Bundled panels should be off the ground sufficiently to prevent rising water from coming in contact with the panels. Bundled panels should also be slanted so that any condensation may be drained off. All bundled panels should be thoroughly covered with a waterproof canvas tarp. Do not use non-breathing materials such as plastic because they prevent air passage and tend to trap moisture in the bundle. Roof and side panels should be erected as soon as possible after their arrival at the jobsite. If prolonged jobsite storage will be required, the builder is advised to seek storage of the panels out of the elements.

Proper Erection Practices:

Dean requires that the erection of its products be done by experienced pre-engineered metal building assemblers. Erection and construction methods should be performed as outlined in the "American Institute of Steel Construction Code of Standard Practices for Steel Buildings and Bridges". In addition, the erection policies and practices of both the SBA Independent Erectors Division and MBMA erection practices must be understood and adhered to. The quality of erection has a direct bearing on the quality of the end product. If there are any questions as to these drawings on the Dean Steel Building system, please do not hesitate to contact our Customer Service Department. (239) 334-1051.

Back Charge Claim Procedure:

Dean Steel Buildings, Inc. follows the back charge claim procedure adopted by MBMA and as outlined in the MBMA low Rise Building Systems Manual, Common Industry Practices, the Customer Service Manager must be notified at once when a condition becomes apparent, which may result in a back charge by the builder, or erector. Notification by phone must be confirmed in writing. Some approximation of the amount of the back charge must be established at this time, and written authorization from the Customer Service Manager must be secured before the work is started.

Dean will not honor any field corrections or back charges unless prior notice has been given and agreed upon. All discrepancies must be agreed upon, in writing, and accompanied with a Dean purchase order number before Dean will honor any back charges. Dean will then pay this agreed amount upon presentation of a final claim. Payment will be by credit memo to the Builder's account.

Any work which is undertaken without such notification and authorization, for which the builder expects to back charge Dean, will not be honored as a back charge.

Should such a discrepancy exist, Dean may elect to do one of the following:

1. Ship material from its plant for field correction (freight allowed).
2. Purchase material locally (or allow builder to do so) for field corrections.
3. Modify existing materials previously shipped to conform to requirements.
4. Return material to Dean's plant for exchange or modification requirements.

When delivery is contracted by Dean, it is our carrier's intent to arrive on the jobsite at a pre-designated time and every effort will be made to do so. However, Dean will not accept any back charges due to later arrivals.

Dean will not pay any back charges for delays that may be incurred due to shortages. Dean will not bay claims on improper unloading of material, improper storage of material, or delays or damages caused by improper erection techniques. Dean Steel Buildings, Inc. may make changes from time to time in their product lines by discontinuing, altering, or modifying any or all of the products included therein and by adding new and additional products thereto. Dean Steel Buildings, Inc. shall not, however, be liable to the builder in any way or for any reason on account of any change in Dean Steel Buildings, Inc.'s product lines.

INTRODUCTION

This Construction Details booklet contains typical details of framing members, sheeting, trim, and accessories common to most Dean buildings. Using this booklet in conjunction with the blueprints and shipping list prepared for a specific building will permit an experienced steel erector to erect any building in a timely manner that is both structurally sound and pleasing to look at.

This booklet is divided into three (3) parts as follows:

1. Structural Framing Details
2. Sheeting and Flashing Details
3. Accessory Details

Additionally, each part is subdivided into many parts that show construction details for the various types of buildings fabricated by Dean Steel Buildings, Inc. Please note that many details presented in this booklet may not be relevant to the building type you are erecting. The first thing that you must do is identify from the purchase order what building type you are attempting to erect, as well as what sheeting profile is being furnished with the building. Once you have established that information, follow the details relating to accessories actually listed on the purchase order.

This "Standard Construction Details" is a supplement to the erection drawings for the job. Refer to this booklet when detail cannot be found on the erection drawings.

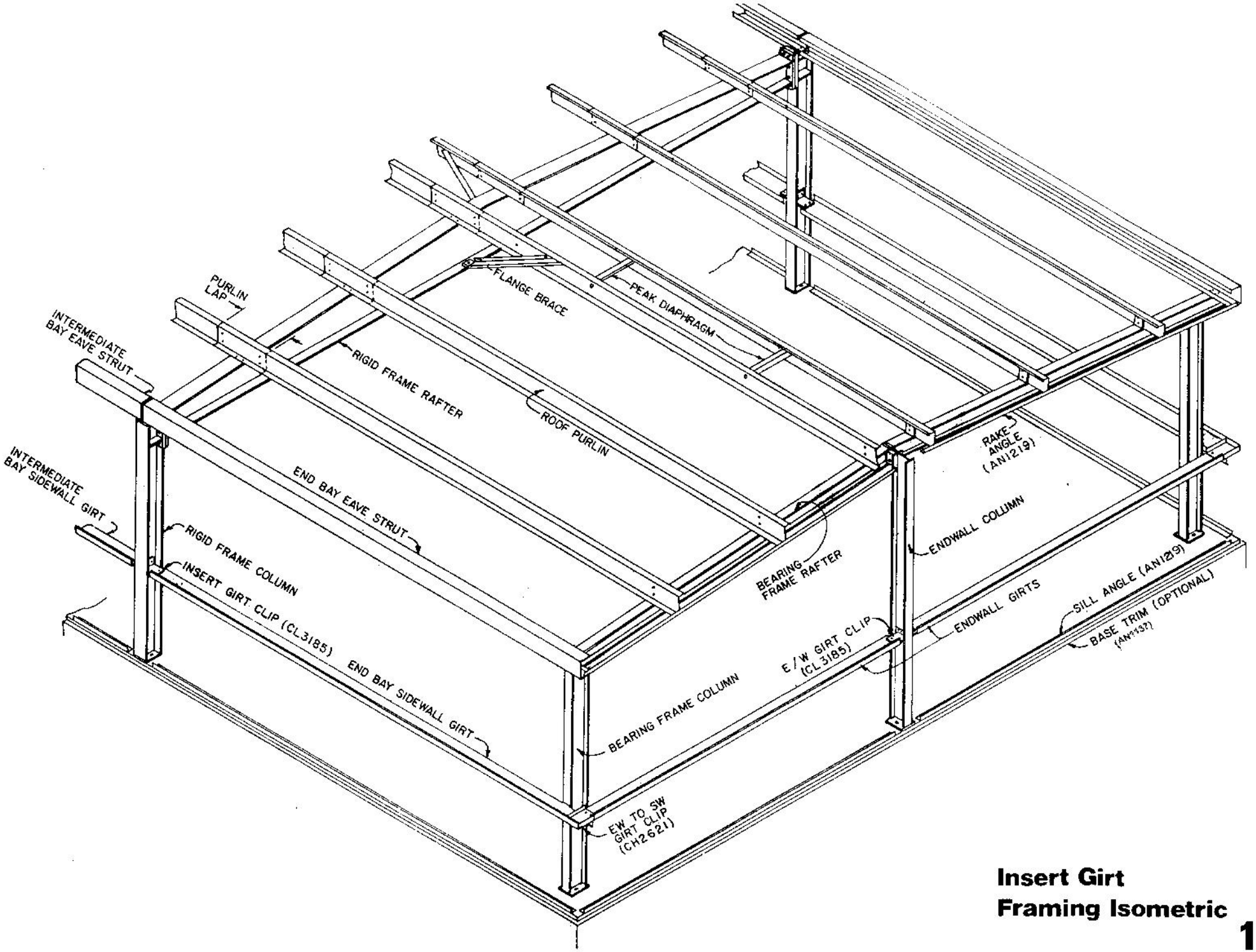
NOTE: For ProSeam, ProLok and ProVR panel sheeting and trim details, see separate booklet.

TABLE OF CONTENTS

STRUCTURAL FRAMING DETAILS

SHEETING & FLASHING

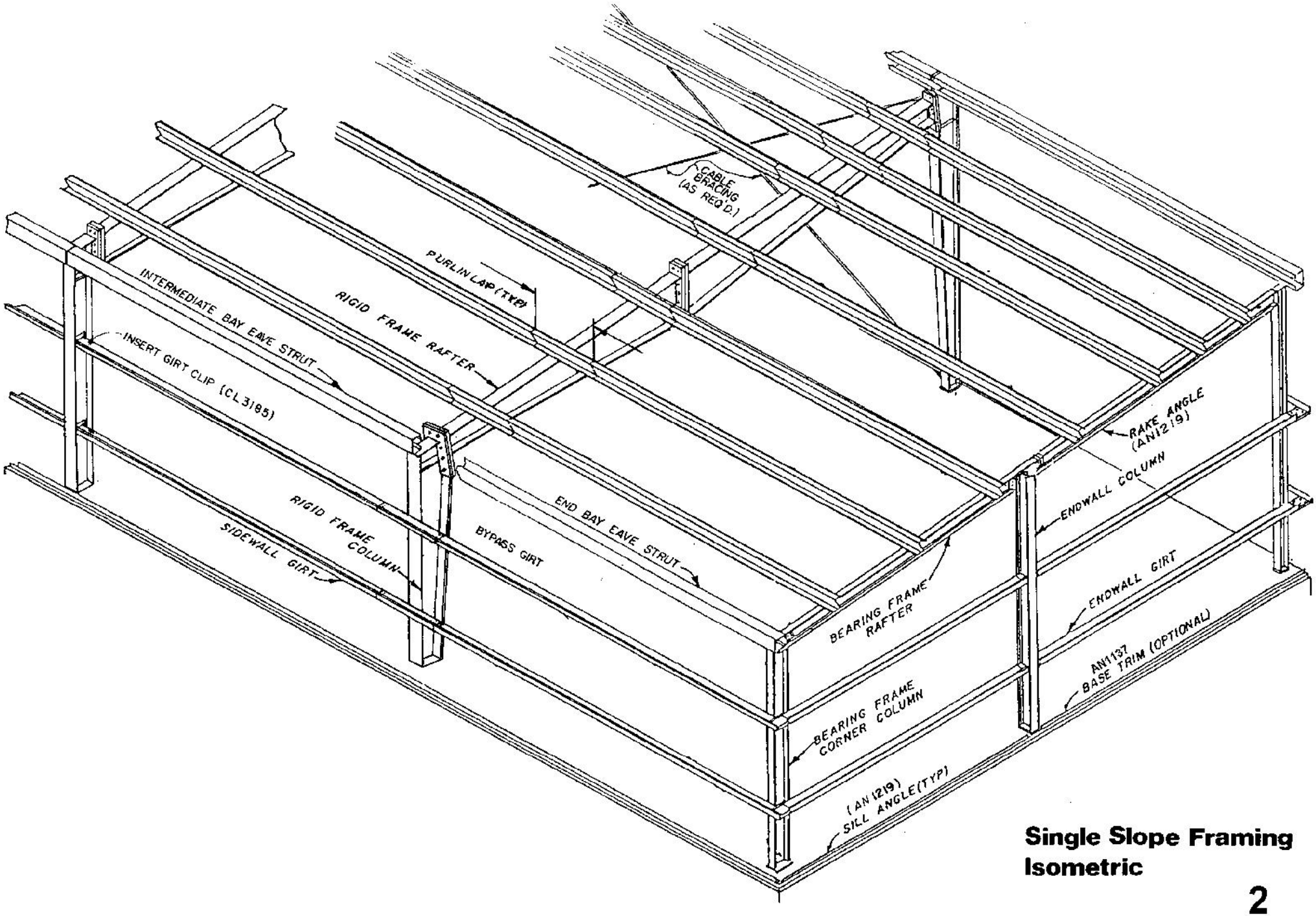
ACCESSORIES & MISCELLANEOUS



Insert Girt Framing Isometric

1

3/31/2015



Single Slope Framing Isometric

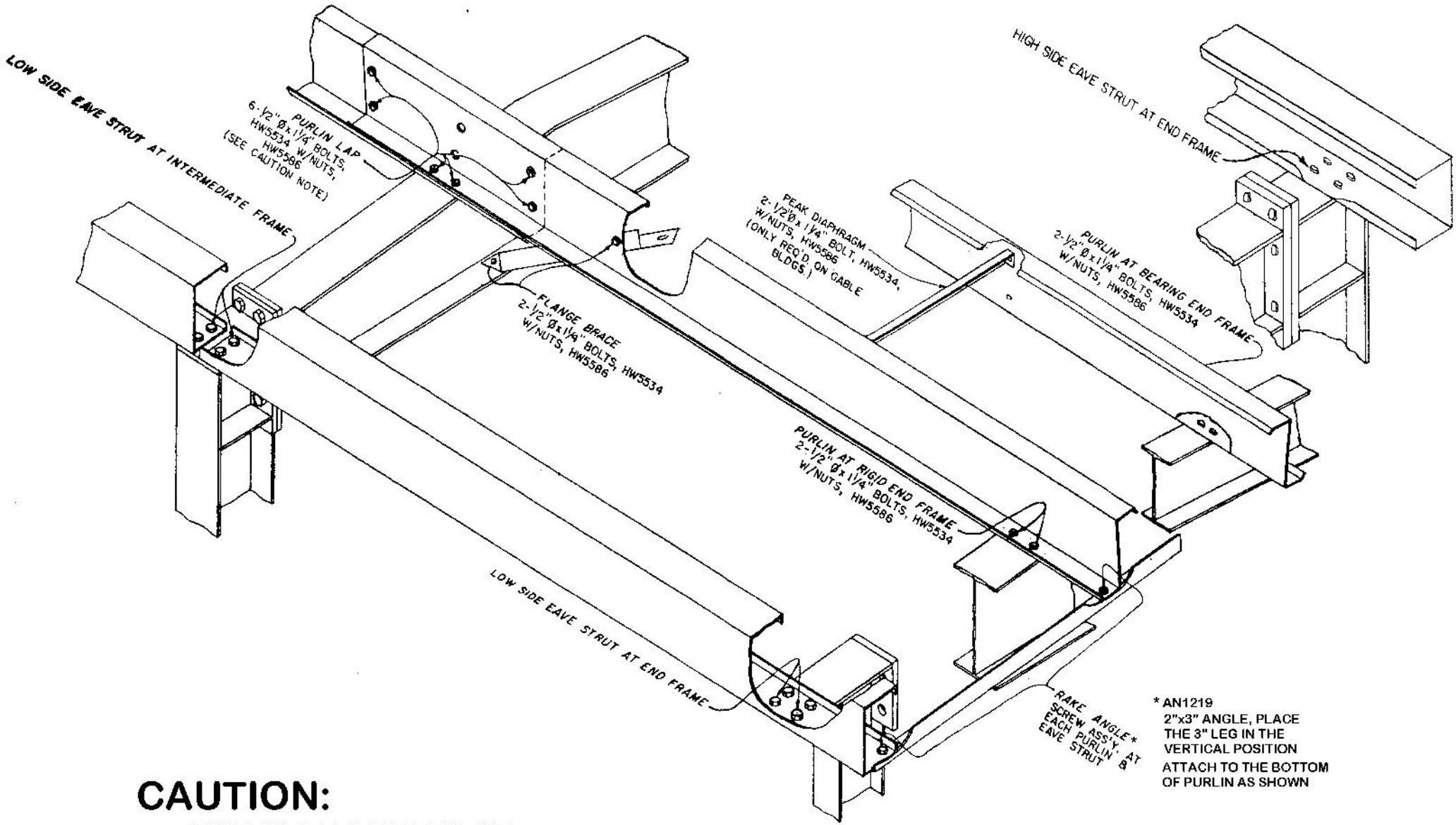
2

5/20/2015

Wing Unit Framing Isometric

3

01/05/2018

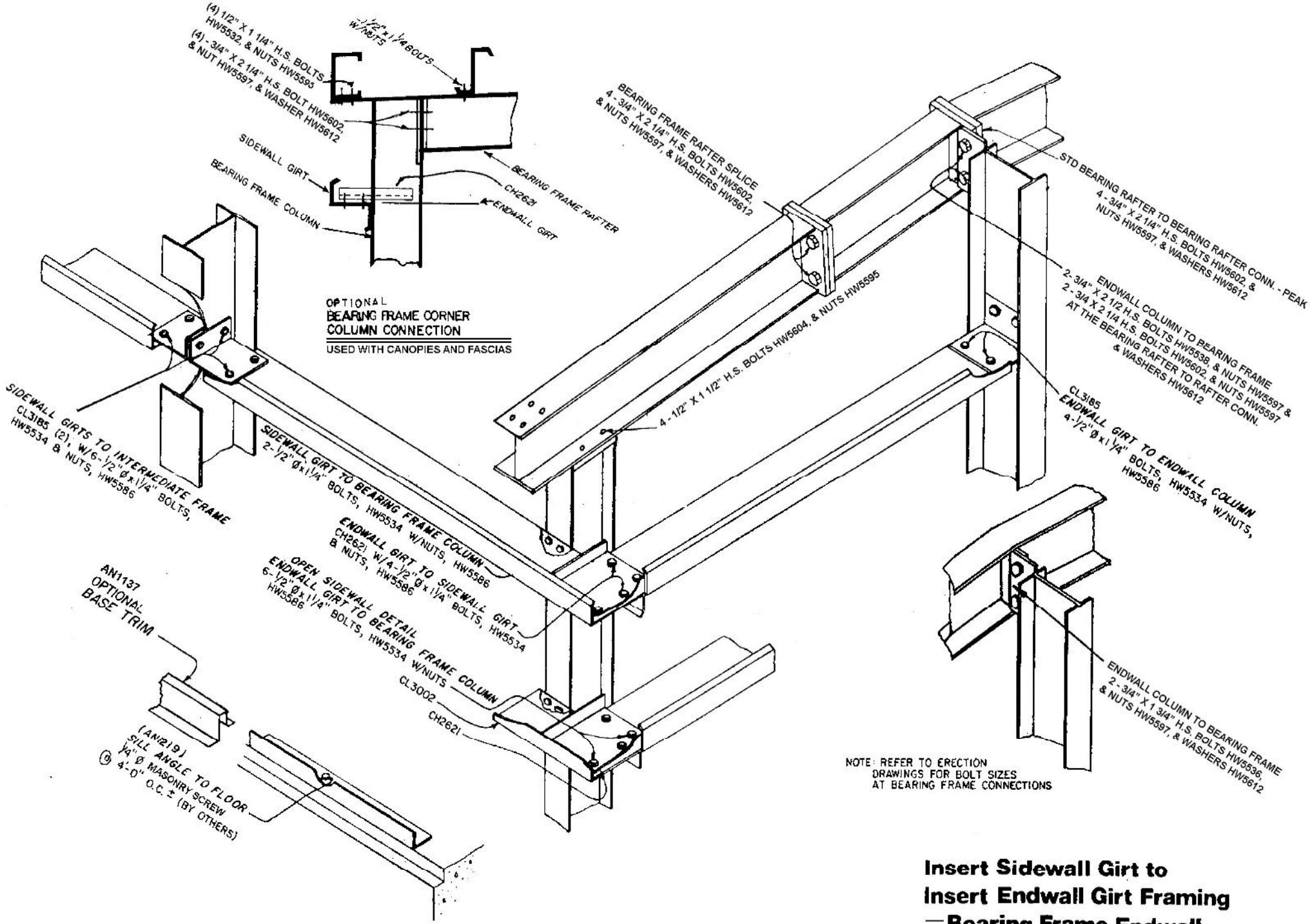


* AN1219
2"x3" ANGLE, PLACE THE 3" LEG IN THE VERTICAL POSITION
ATTACH TO THE BOTTOM OF PURLIN AS SHOWN

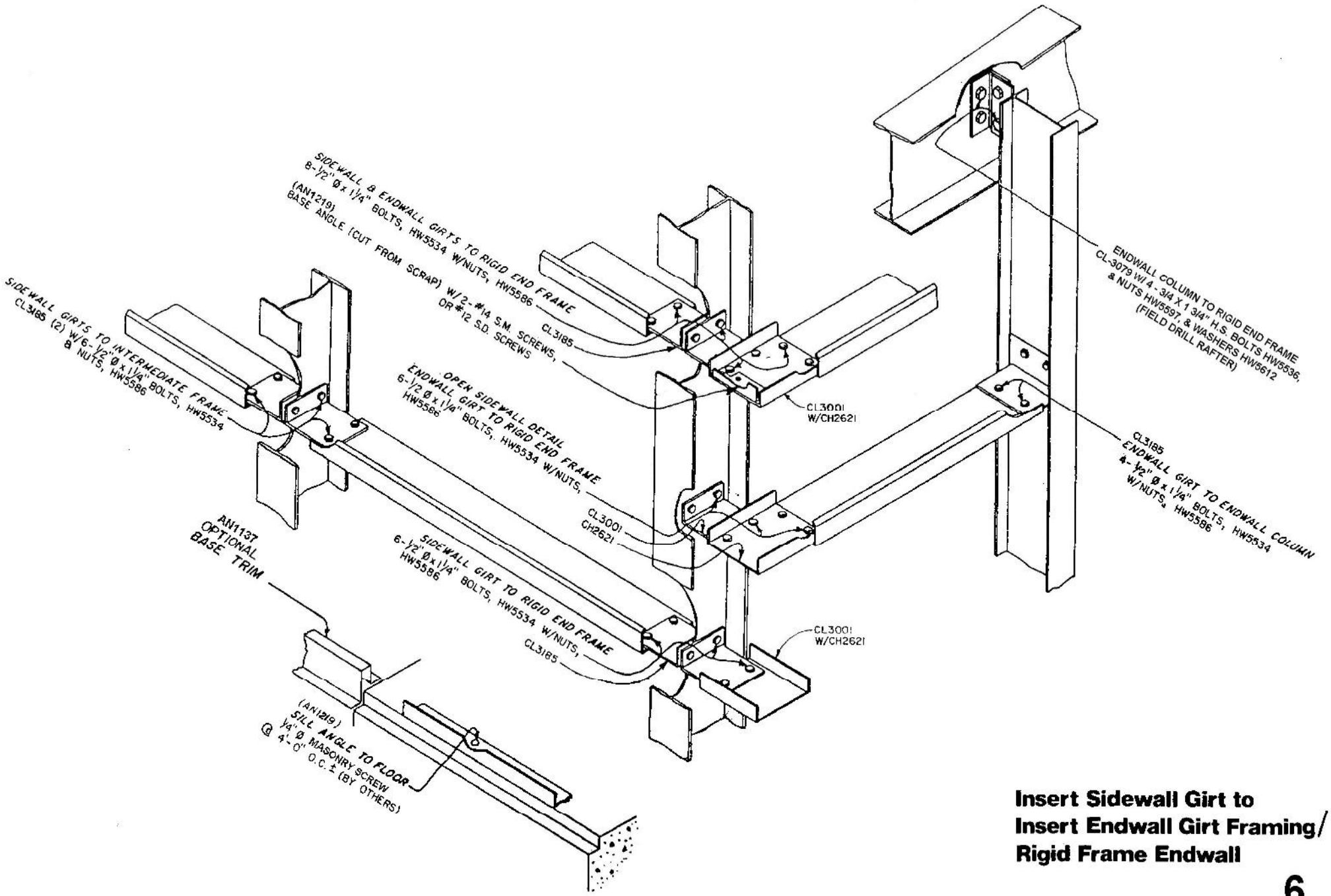
CAUTION:

USE ONLY 6 BOLTS AT EACH PURLIN LAP AS SHOWN ABOVE

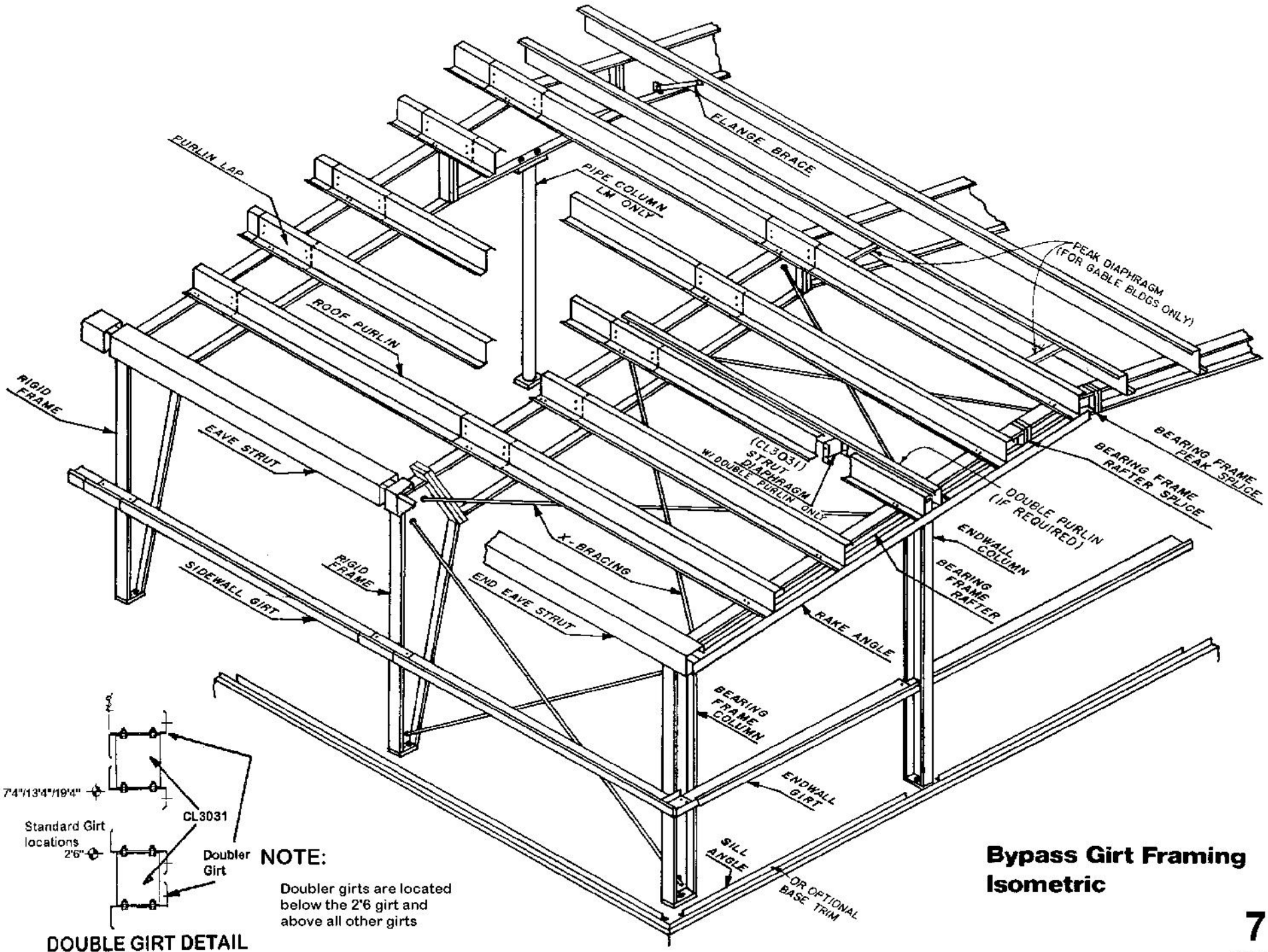
Roof Framing for Insert Girt Bldgs.



Insert Sidewall Girt to Insert Endwall Girt Framing —Bearing Frame Endwall



Insert Sidewall Girt to Insert Endwall Girt Framing/ Rigid Frame Endwall

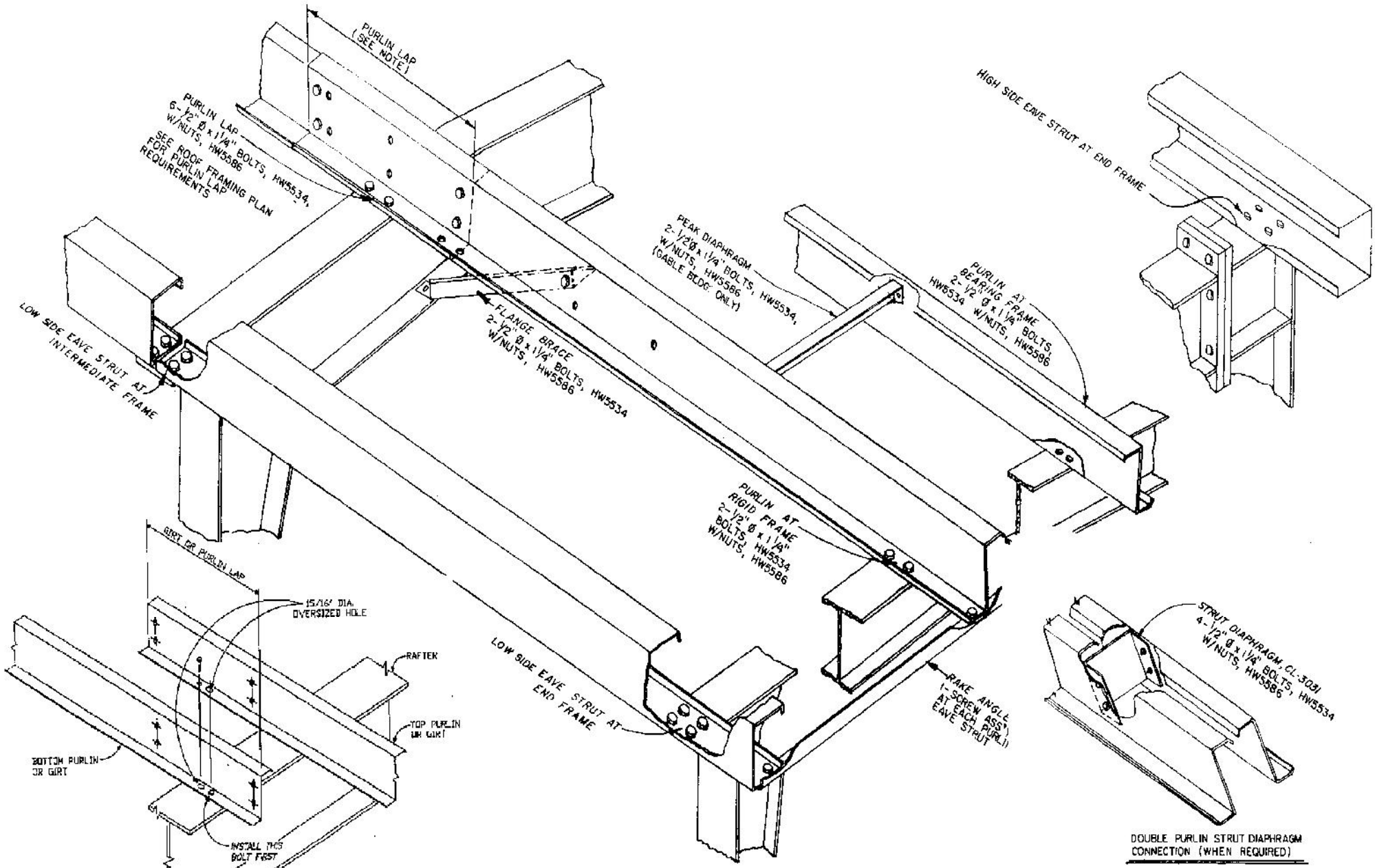


DOUBLE GIRT DETAIL

NOTE:

Doubler girts are located below the 2'6 girt and above all other girts

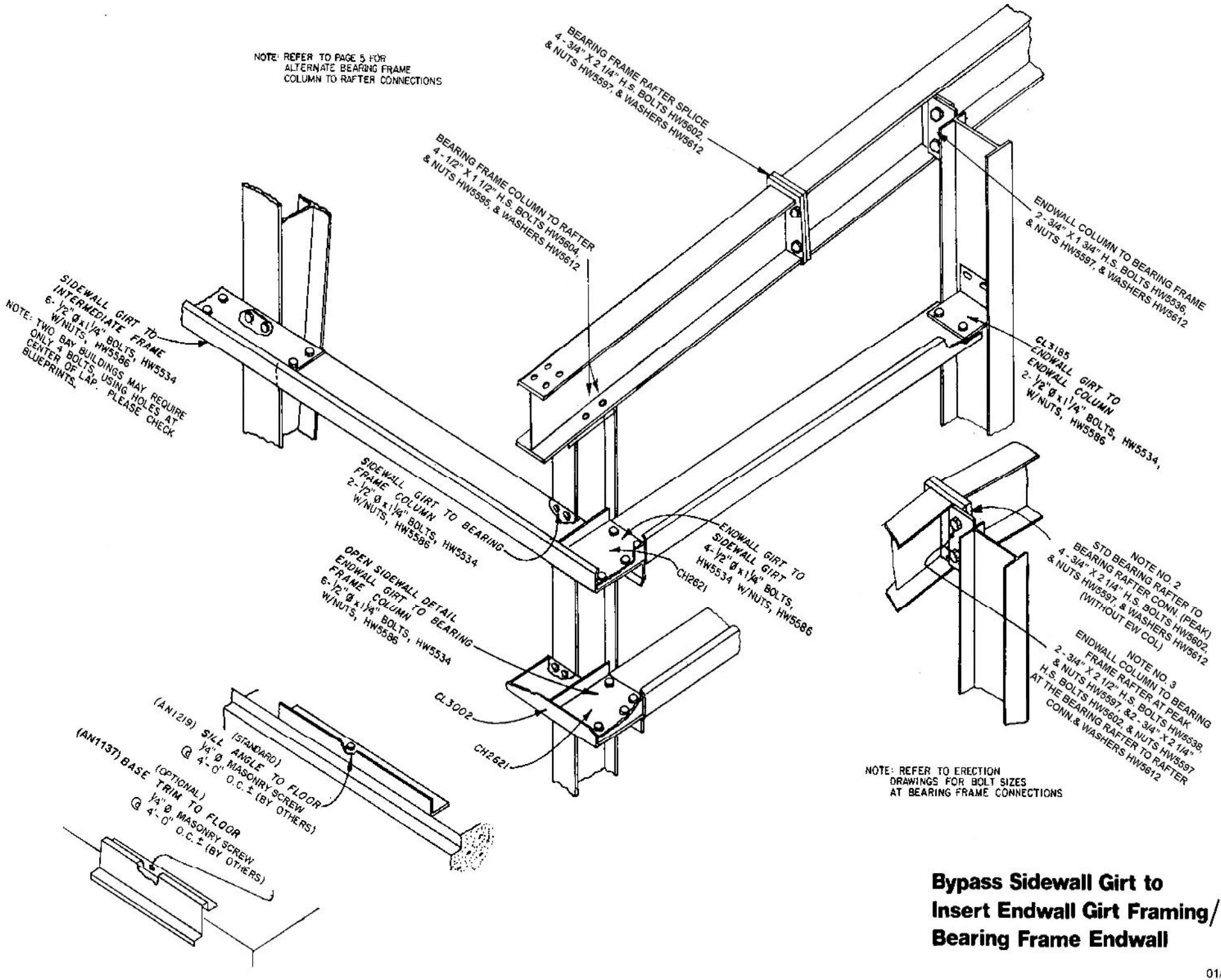
Bypass Girt Framing Isometric



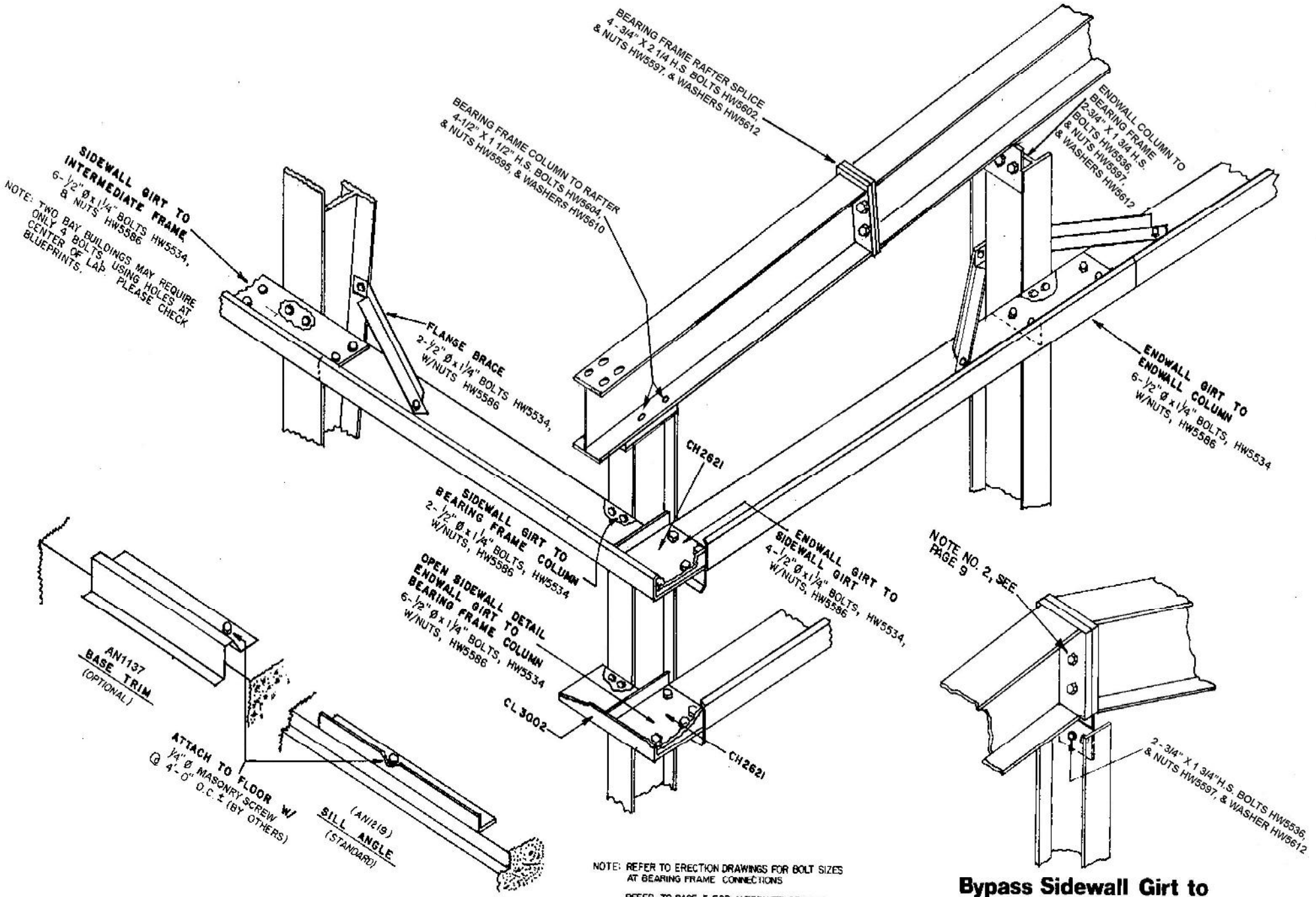
OPTIONAL

"E-Z LAP" DETAIL PURLIN & GIRT

Bypass Girt Roof Framing



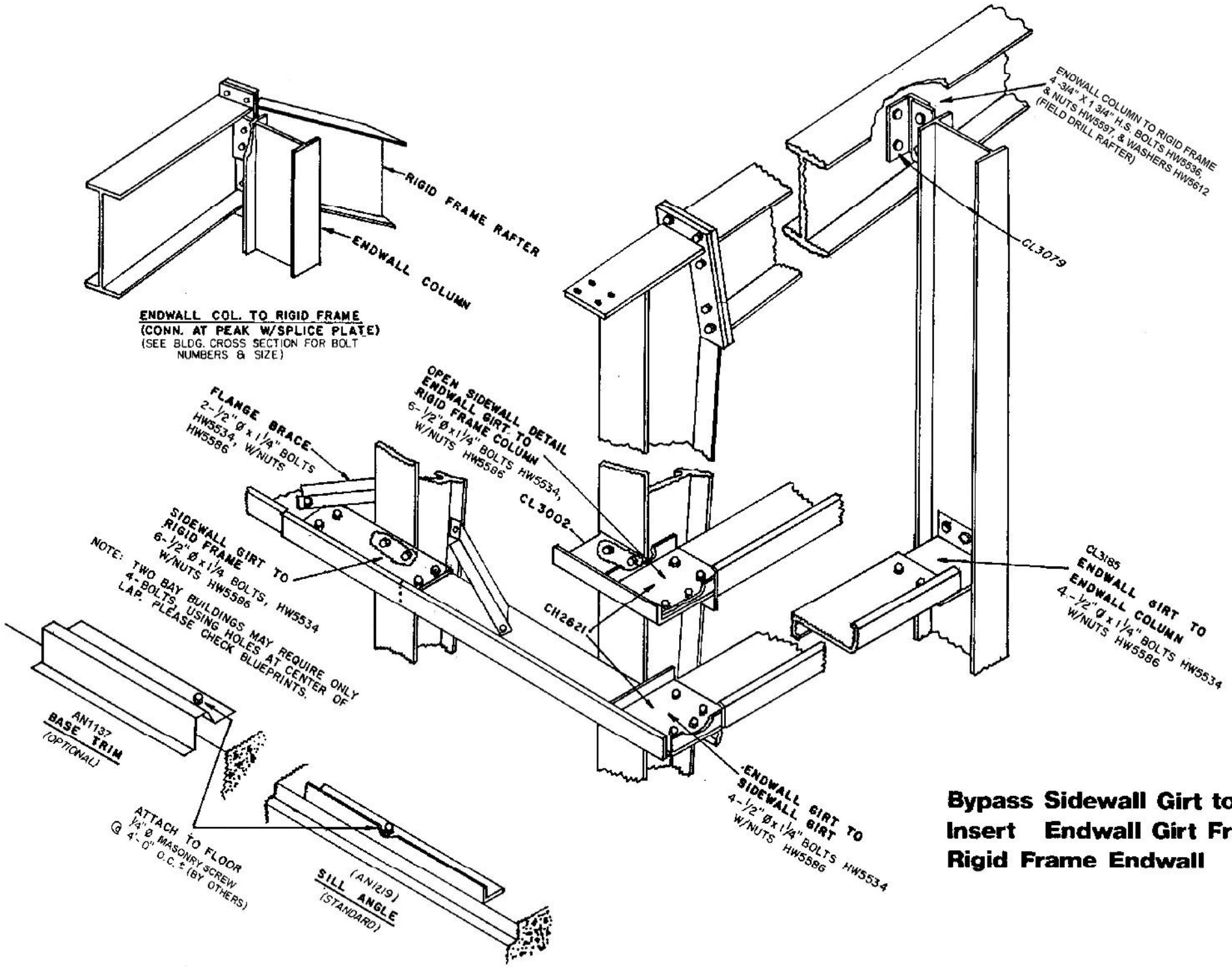
Bypass Sidewall Girt to Insert Endwall Girt Framing/ Bearing Frame Endwall



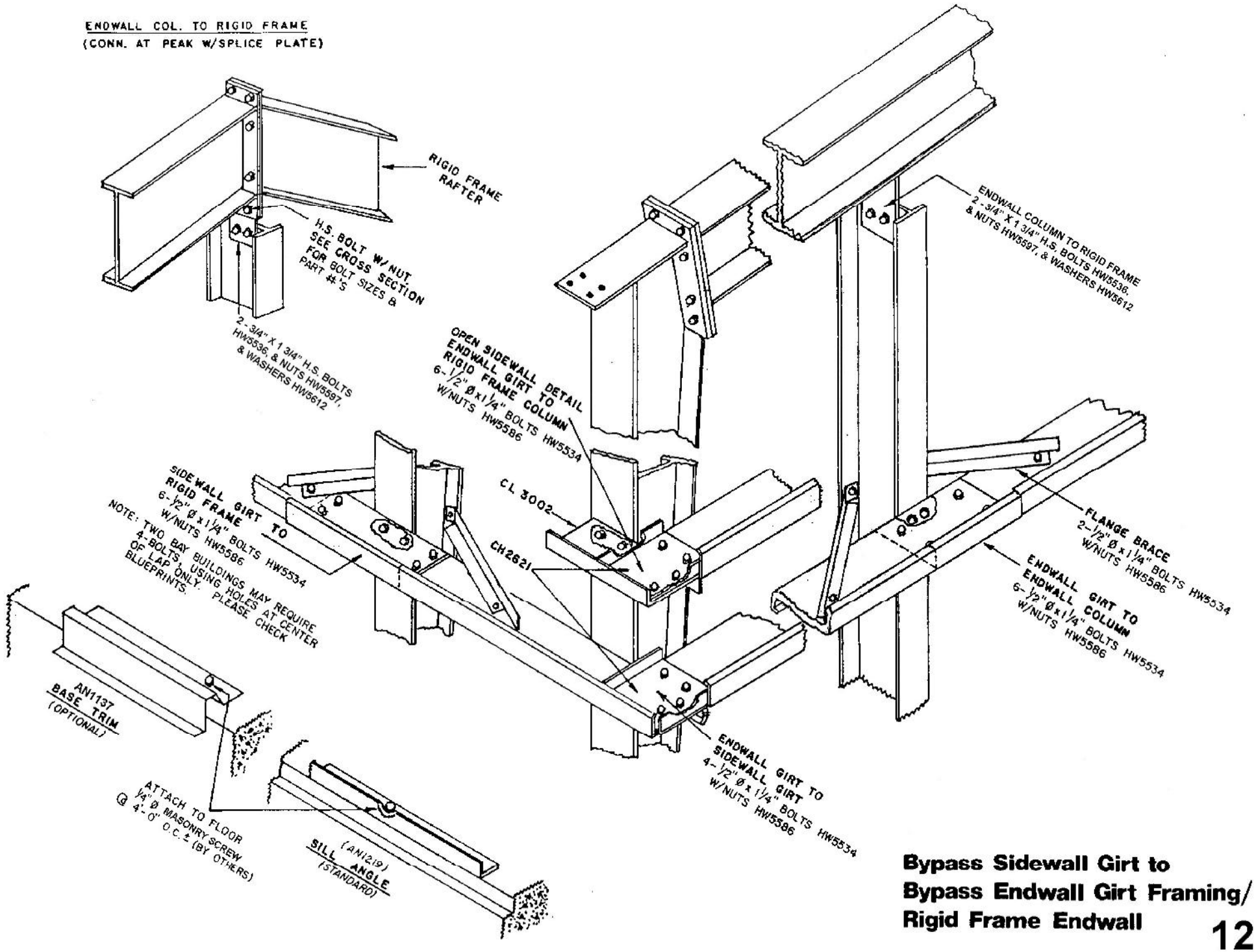
NOTE: REFER TO ERECTION DRAWINGS FOR BOLT SIZES AT BEARING FRAME CONNECTIONS

REFER TO PAGE 5 FOR ALTERNATE BEARING FRAME COLUMN TO RAFTER CONNECTIONS

Bypass Sidewall Girt to Bypass Endwall Girt Framing/ Bearing Frame Endwall



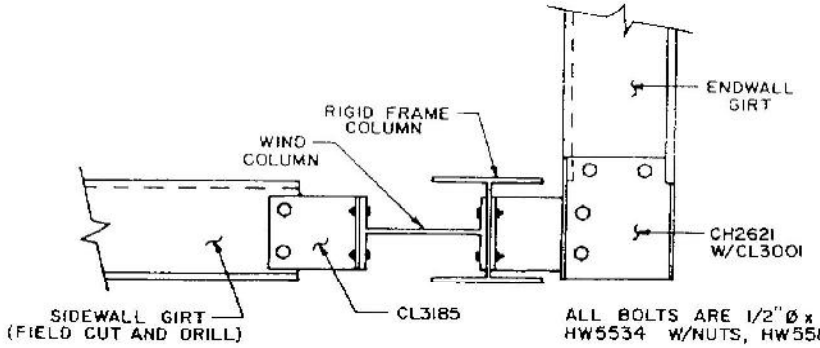
Bypass Sidewall Girt to Insert Endwall Girt Framing/ Rigid Frame Endwall



Bypass Sidewall Girt to Bypass Endwall Girt Framing/ Rigid Frame Endwall

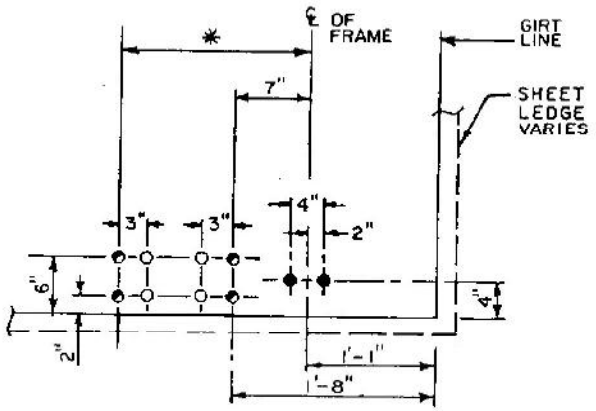
12

01/05/2018

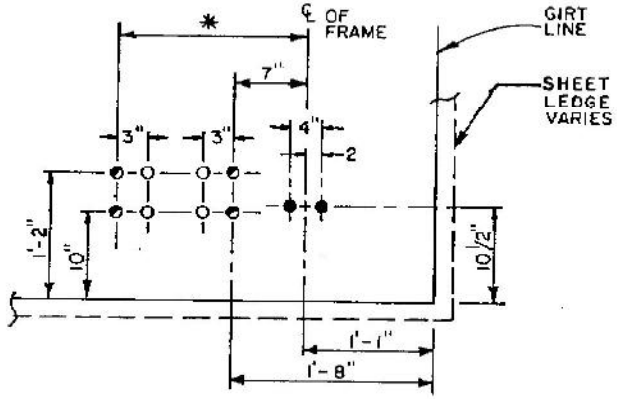


TYPICAL GIRT CONNECTION AT RIGID FRAME WIND COLUMN

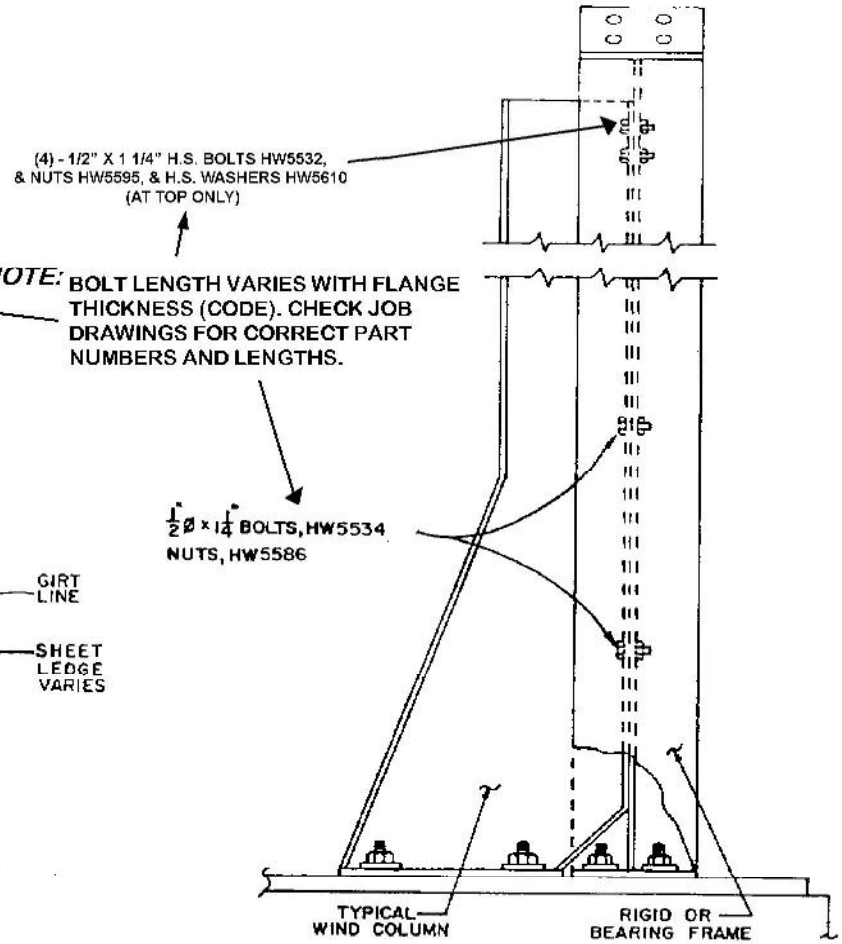
NOTE: WIND COLUMN DOES NOT INTERFERE WITH FRAMING AT BEARING FRAME



AT INSERT GIRT FRAME



AT BYPASS GIRT FRAME



STANDARD WIND COL. FIELD ASSEMBLY TO RIGID FRAME OR BEARING FRAME

WIND COLUMN ANCHOR BOLT PLANS

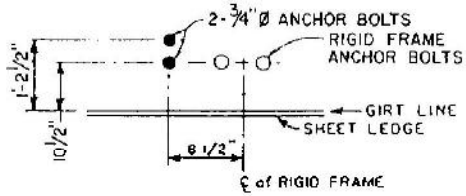
NOTE: ALL WIND COLUMN ANCHOR BOLTS HAVE A 3" PROJECTION.

AT SIDEWALLS THAT ARE OPEN TO REMAIN OPEN IT IS RECOMMENDED FULL SLAB WIDTH BE MAINTAINED FOR RIGID FRAME WIND COLUMN LOCATIONS

- ● - BASIC BLD'G. ANCHOR BOLTS
- ◐ - WIND COLUMN ANCHOR BOLTS
- ○ - ADDITIONAL ANCHOR BOLTS USED ONLY WITH TYPE "E" WIND COLUMN

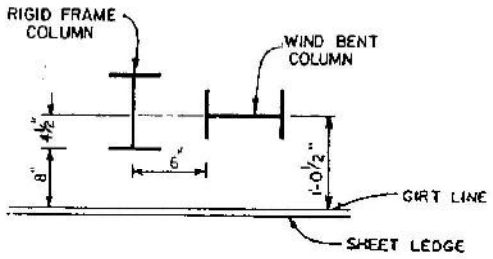
WIND COLUMN ANCHOR BOLT SCHEDULE			
COLUMN TYPE	* DIMENSION	QTY.	BOLT SIZE
A	1'-2 1/2"	4	7/8" Ø x 1'-3"
B	1'-2 1/2"	4	1" Ø x 1'-6"
C	1'-2 1/2"	4	1 1/4" Ø x 2'-0"
D	2'-1"	4	1 1/4" Ø x 2'-0"
E	2'-6"	8	1 1/4" Ø x 2'-0"

Insert Girt Wind Column Details

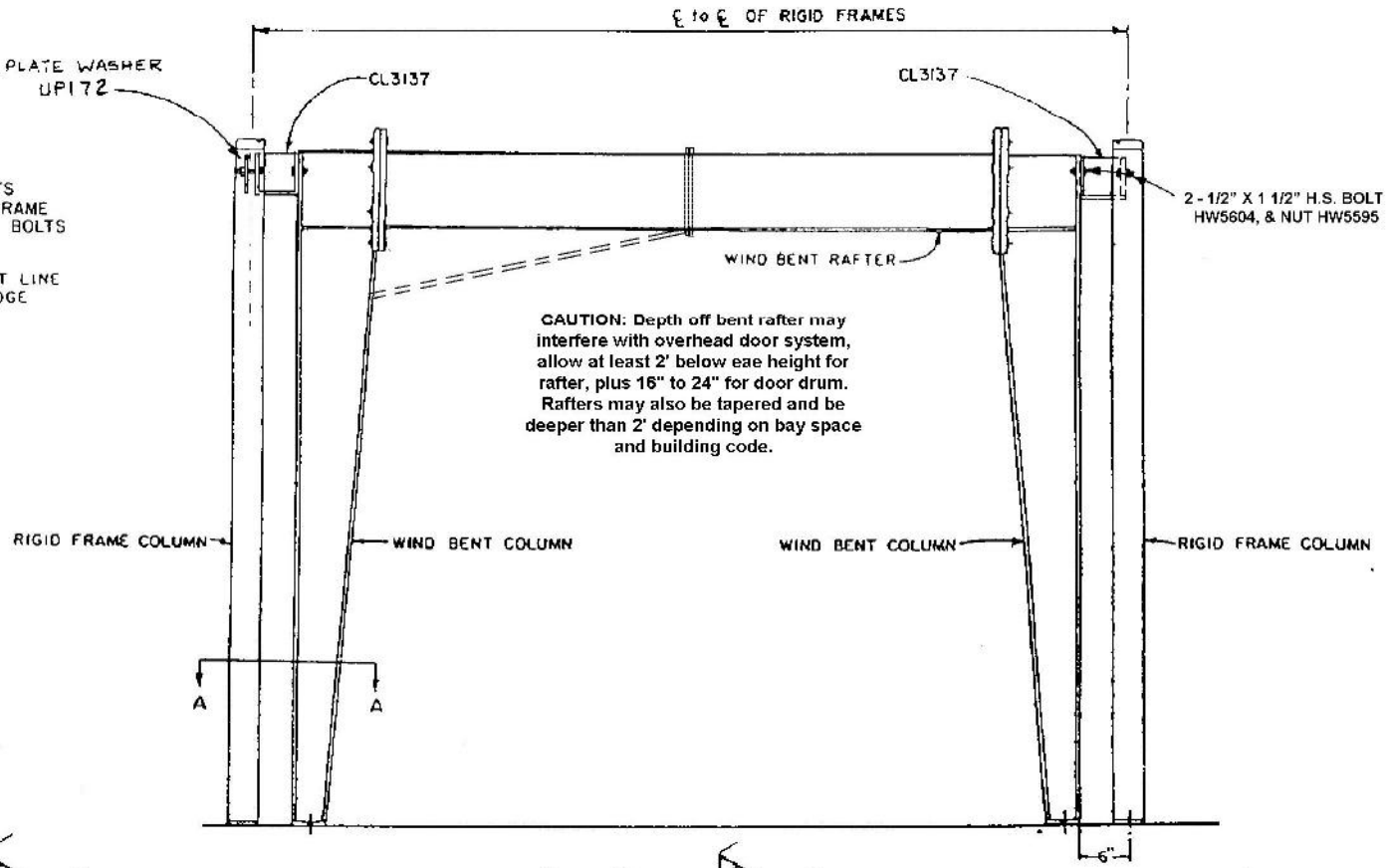


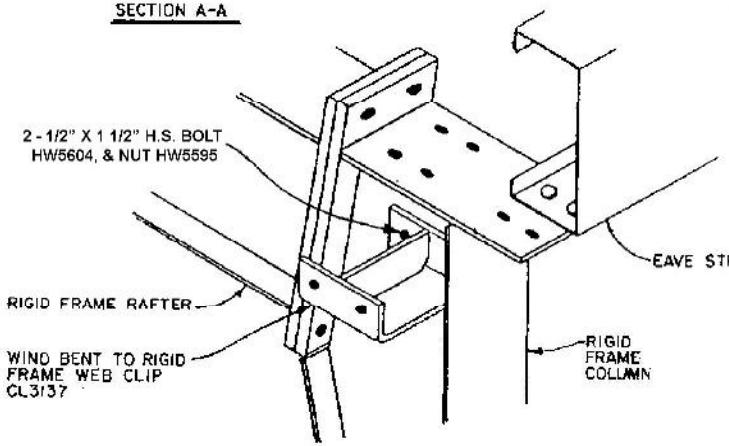
ANCHOR BOLT PLAN

NOTE: WIND BENT DOES NOT INTERFERE WITH SIDEWALL FRAMING

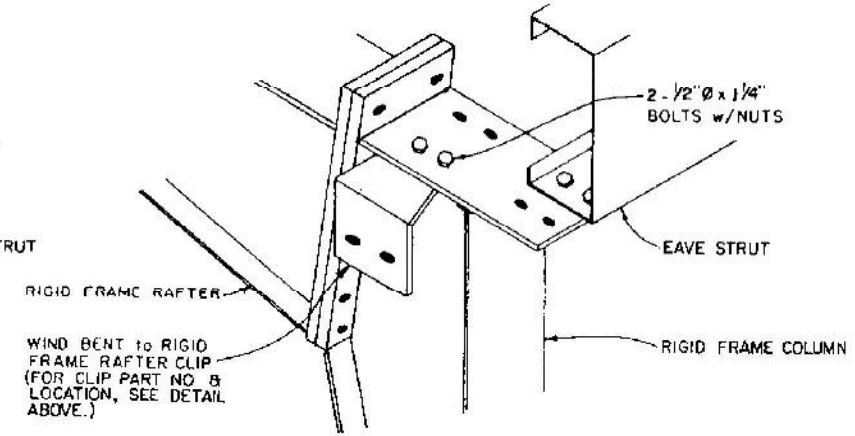


SECTION A-A



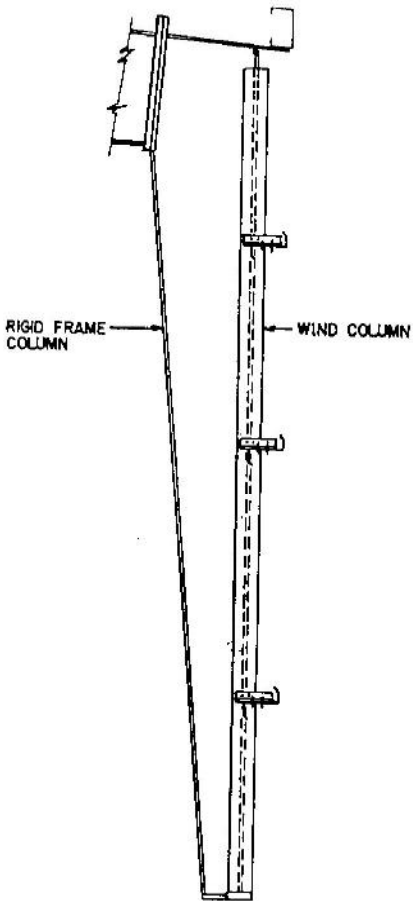


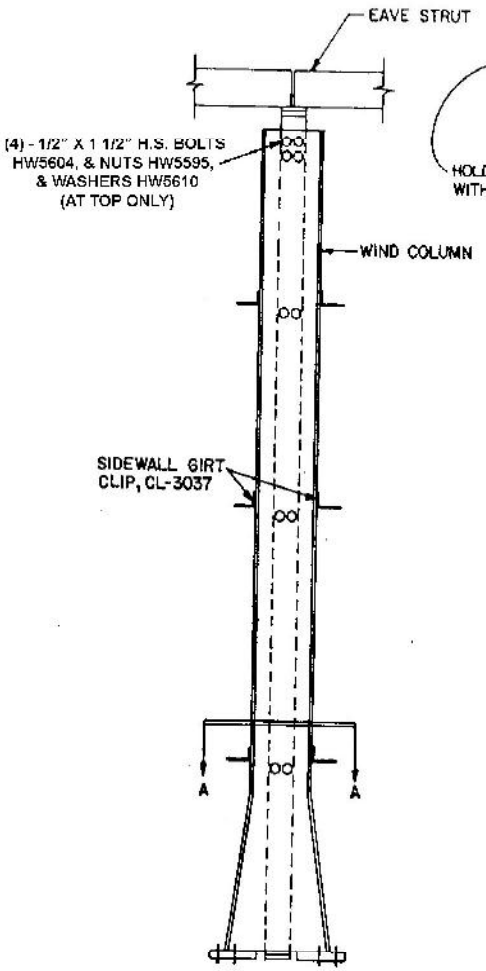
WIND BENT TO RIGID FRAME RAFTER CLIP LOCATION
(STANDARD)

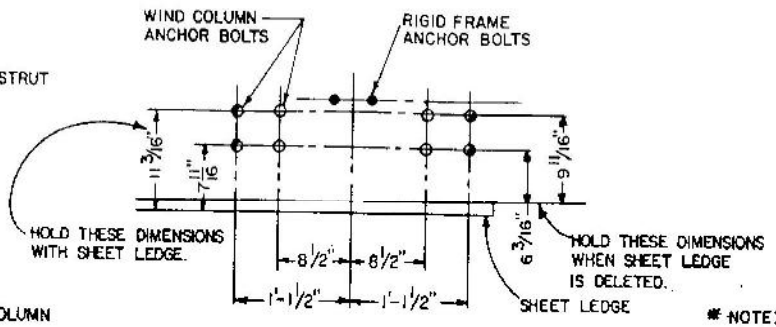


WIND BENT TO RIGID FRAME RAFTER CLIP LOCATION
(OPTIONAL)

Bypass Girt Wind Bent Details







ANCHOR BOLT DETAIL

● - BASIC BLDG ANCHOR BOLTS

○ - WIND COLUMN ANCHOR BOLTS

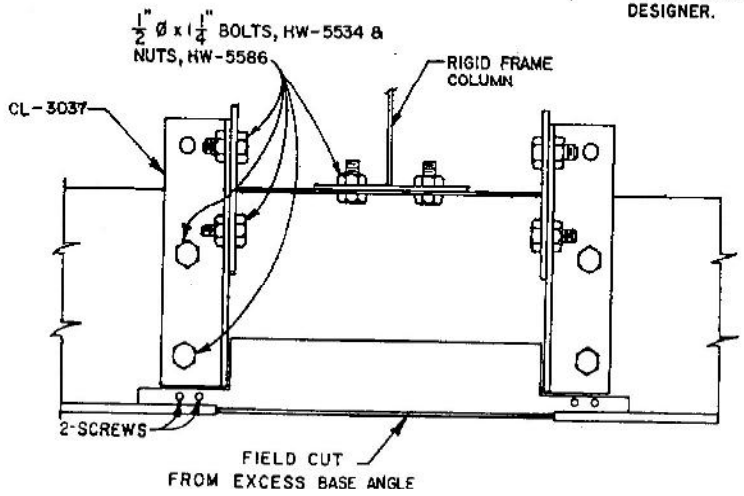
◐ - ADDITIONAL ANCHOR BOLTS USED WITH TYPE B & C WIND COLUMNS

ANCHOR BOLT SCHEDULE			
TYPE	DIAMETER	LENGTH *	QTY
A	1"	2'-2"	4
B	1"	1'-6"	8
C	1 1/4"	2'-0"	8

NOTE: ALL WIND COLUMN ANCHOR BOLTS HAVE A 2" PROJECTION

* NOTE: RECOMMENDED MINIMUM EMBEDDED LENGTH (INCLUDING HOOK) OF THE ANCHOR BOLTS AT FULL MOMENT CAPACITY OF THE WIND COLUMN. ANCHOR BOLT LENGTH IS BASED ON ALLOWABLE BOND STRESS OF 160psi PER PAGE 279, STRUCTURAL DESIGN GUIDE TO A.I.S.C. SPECIFICATIONS FOR BUILDINGS, 1976 ED.

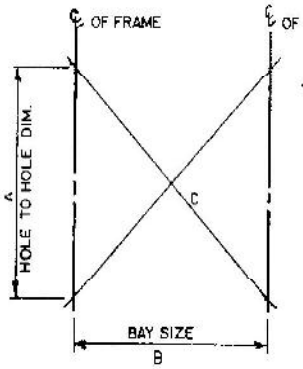
ALTERNATE LENGTHS MAY BE SPECIFIED AT THE OPTION OF THE FOUNDATION DESIGNER.



SECTION A-A
AT GIRT ELEVATIONS

Bypass Girt Wind Column Detail

TO FIND THE LENGTH OF A CABLE W/O THE EYEBOLTS ATTACHED. TAKE THE XC "LENGTH" AND SUBTRACT AS FOLLOWS.	
CABLE DIA.	MINUS DIMENSION
1/4"	2'-5"
5/16"	2'-7"
3/8"	2'-9"
7/16"	2'-11"
1/2"	3'-0"



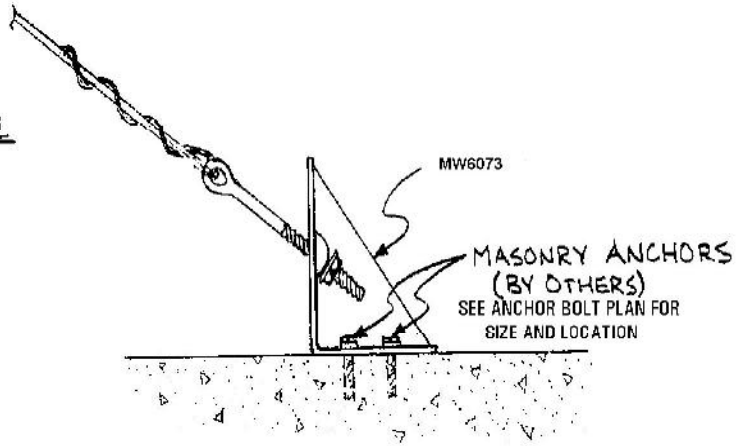
CALCULATING THE "LENGTH" OF CABLE AND ROD BRACING

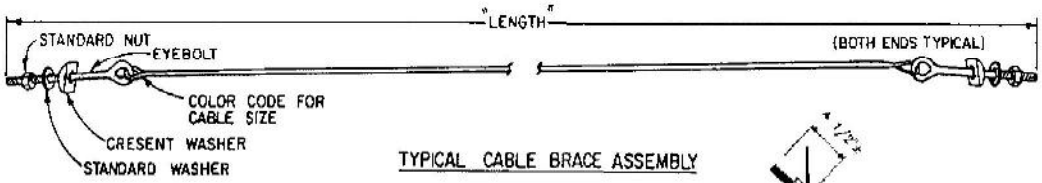
$A^2 + B^2 = C^2$

ROUND C OFF TO THE NEAREST ONE THIRD OF A FOOT.

EX.: IF C = 22'-8 9/16", THEN C = 22'-9"

"LENGTH" = C + 9" ⇒ 22'-9" + 9" ⇒ 23'-6"





TYPICAL CABLE BRACE ASSEMBLY

BRACE GRIP COLOR CODE	CABLE DIA.	CABLE DIA. CODE	EYEBOLT TH'D. SIZE
YELLOW	1/4"	4	1/2"
BLACK	5/16"	5	5/8"
ORANGE	3/8"	6	5/8"
GREEN	7/16"	7	3/4"
BLUE	1/2"	8	7/8"

SIZE	NUT	WASHER	CRESCENT WASHER
1/2	HW5586	HW5573	HW5563
5/8	HW5587	HW5574	HW5560
3/4	HW5588	HW5575	HW5564
7/8	HW5589	HW5576	HW5561
1"	HW5590	HW5581	HW5562

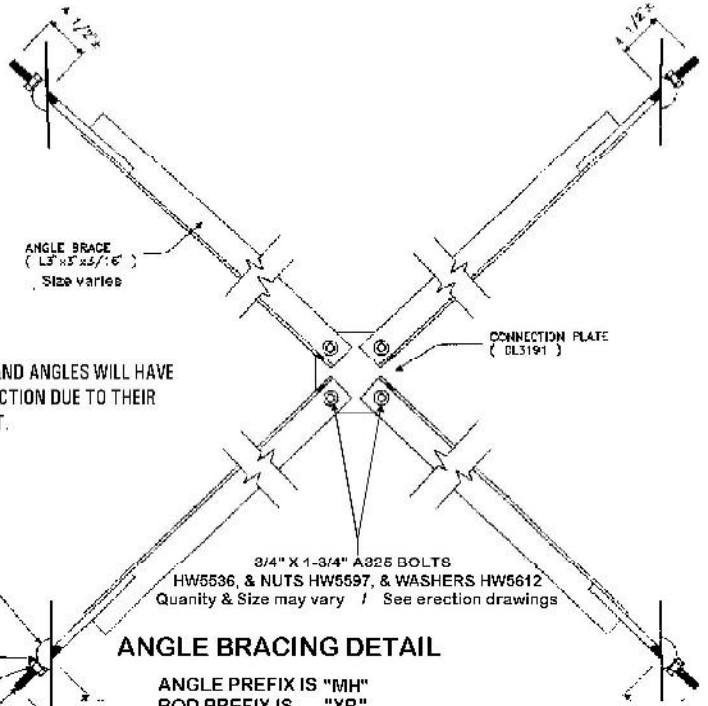
PART NO. IDENTIFICATION SYSTEM

CABLE EXAMPLE XC 2365

23'-6" LONG — SEE DIA. CODE CHART

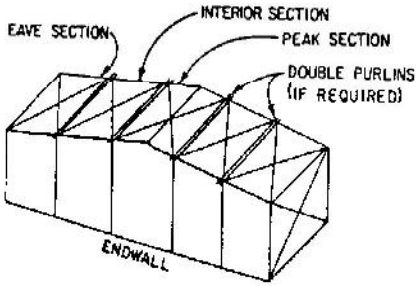
(OPTIONAL) ROD EXAMPLE XB 2365

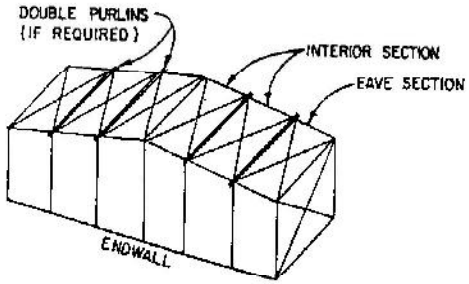
23'-6" LONG — DIA. IN EIGHTHS 5/8"



ANGLE BRACING DETAIL

ANGLE PREFIX IS "MH"
ROD PREFIX IS "XB"
CABLE PREFIX IS "XC"





(X)-Brace Details

INSTRUCTIONS FOR INSTALLING A325 BOLTS BY THE "TURN-OF-NUT" METHOD

1. Align the connection holes with enough drift pins to maintain the dimensions and plumbness of the structure.
2. Enough bolts shall be brought to a "snug tight" condition to insure that the parts of the joint are brought into good contact with each other. ("snug tight" is defined as tightness attained by a few impacts of an impact wrench or the full effort of a man using an ordinary spud wrench.)
3. Bolts shall be placed in any remaining holes in the connection and brought to snug tightness. Hardened washers shall be used on nut side of connections.
4. All bolts in the connection shall then be tightened* additionally by the applicable amount of nut rotation specified in table-A, with tightening progressing systematically from the most rigid part of the joint to its free edges. During this operation there shall be no rotation of the part not turned by the wrench.
5. A307 bolts should be brought to a finger tight condition.

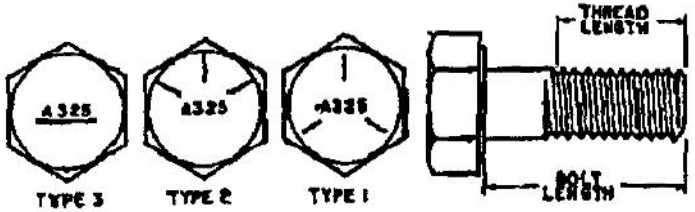
TABLE - A

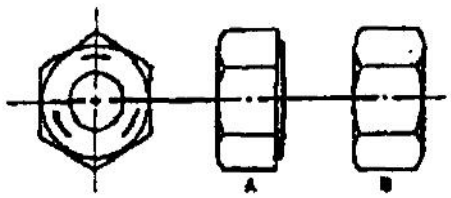
A325 BOLTS		NUT ROTATION*** FROM SNUG TIGHT CONDITION	TENSION / KIPS
DIA.	LENGTH**		
1/2"	2" & SHORTER	1/3 TURN	12
5/8"	2" & SHORTER	1/3 TURN	19
5/8"	OVER 2", NOT OVER 4"	1/2 TURN	19
3/4"	3" & SHORTER	1/3 TURN	28
3/4"	OVER 3", NOT OVER 6"	1/2 TURN	28
7/8"	3 1/2" & SHORTER	1/3 TURN	39
7/8"	OVER 3 1/2", NOT OVER 7"	1/2 TURN	39
1"	4" & SHORTER	1/3 TURN	51
1"	OVER 4", NOT OVER 8"	1/2 TURN	51

*Impact wrenches, if used, shall be of adequate capacity and sufficiently supplied with air to perform the required tightening of each bolt in approximately 10 seconds.
** Bolt length is measured from the underside of the to the extreme end of the point.
*** Nut rotation is relative to the bolt, regardless of the element (nut or bolt) being turned. For bolts installed by 1/2 turn or less, the tolerance should be 130°.

AS STATED IN AISC SPECIFICATION FOR "STRUCTURAL JOINTS USING ASTM A325 OR A490 BOLTS."

A325 BOLT & NUT IDENTIFICATION

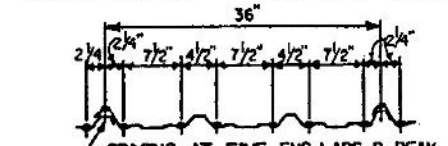


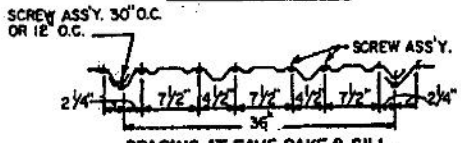


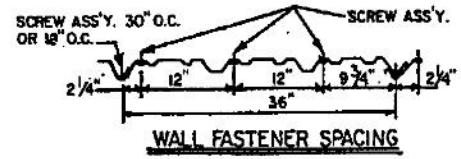
NUTS MAY BE WASHER FACED (A) OR DOUBLE CHAMFERED (B)

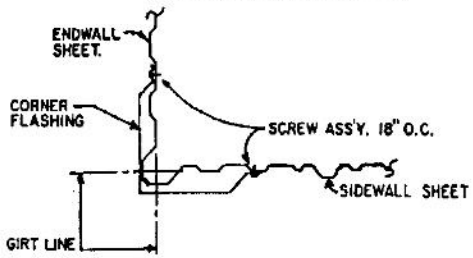
Turn-of-Nut Method

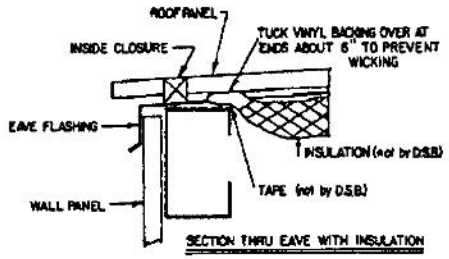
SIDEWALL SHEETING LAP

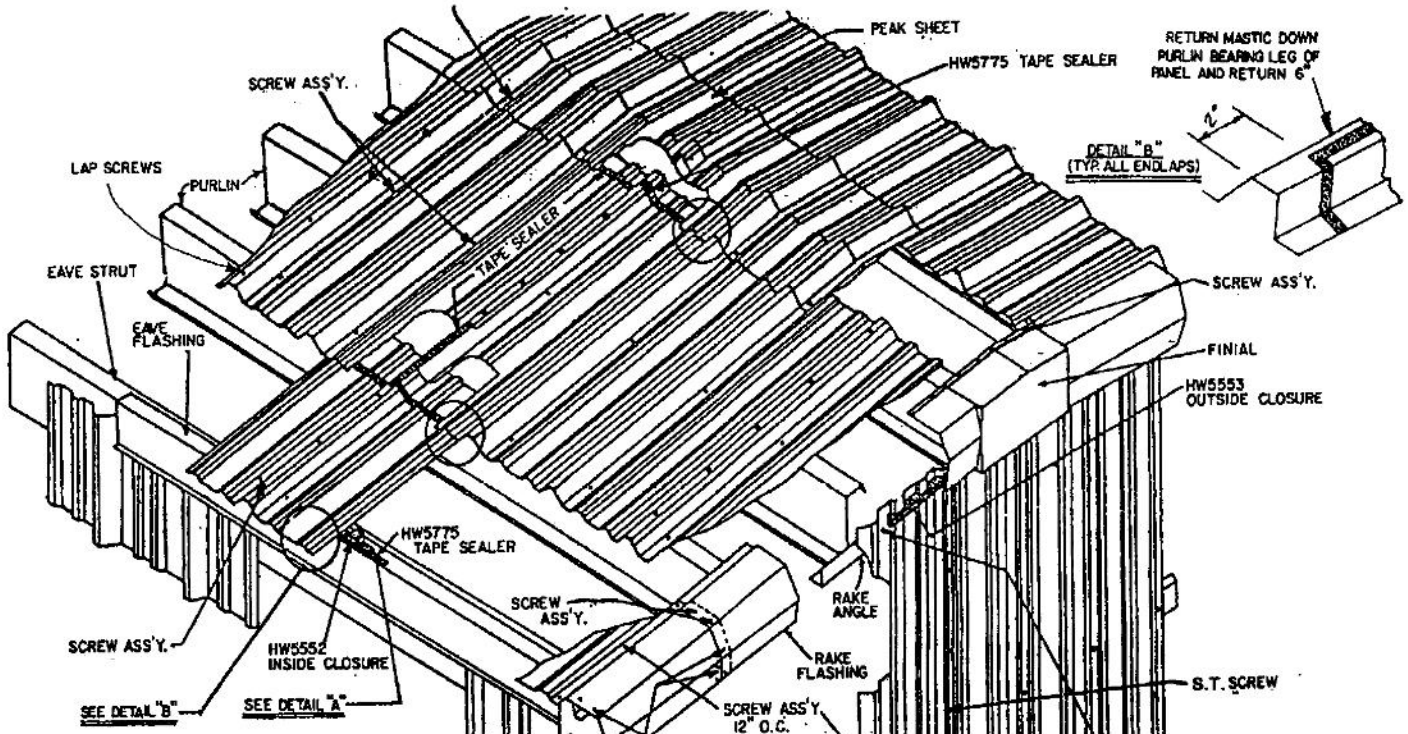








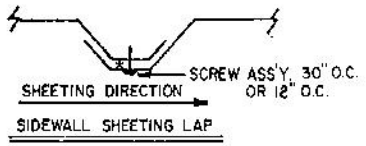




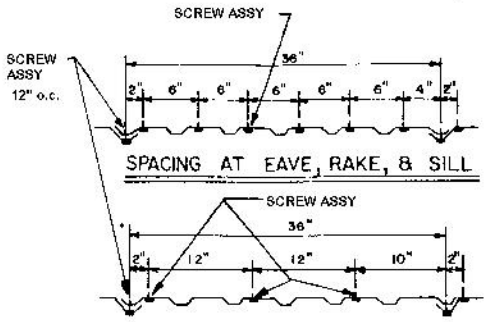
Notes:

1. Sweep all filings from panels during and after erection.
2. Start roof panels same as sidewall panels unless otherwise indicated on the construction drawings.
3. Start wall panels at the steel line unless otherwise indicated on the construction drawings.
4. Optional self-drilling screws are used for attaching the sheeting and flashing to the secondary framing only. Self-tapping screws are used at laps and flashing to sheeting connections.
5. Refer to the cover page of the construction drawings for screw part number callout and spacing.
6. Product approved panels for Florida Building Code, High Velocity, buildings must have tap sealer (HW5775) in all wall side laps.
7. At panel laps, start the downhill/lower panel 4" uphill/above the web of the purlin/girt. Start the uphill/upper panel 2" downhill/below the web of the purlin/girt to form a 6" overall lap.

Rib·12 Roof and Wall Sheeting Details



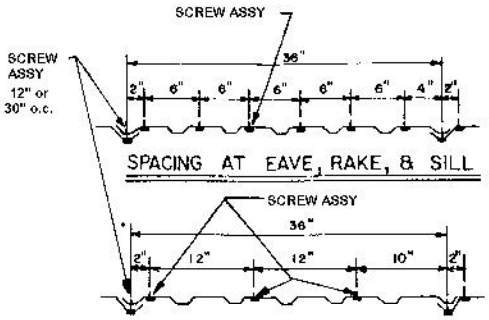
SIDEWALL SHEETING LAP



SPACING AT EAVE, RAKE, & SILL

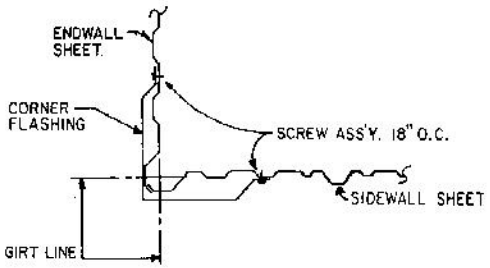
FASTENER SPACING FOR ROOF

EAVE & END LAPS, PURLINS, & DOUBLED PURLINS

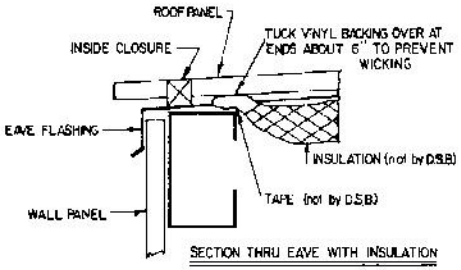


SPACING AT EAVE, RAKE, & SILL

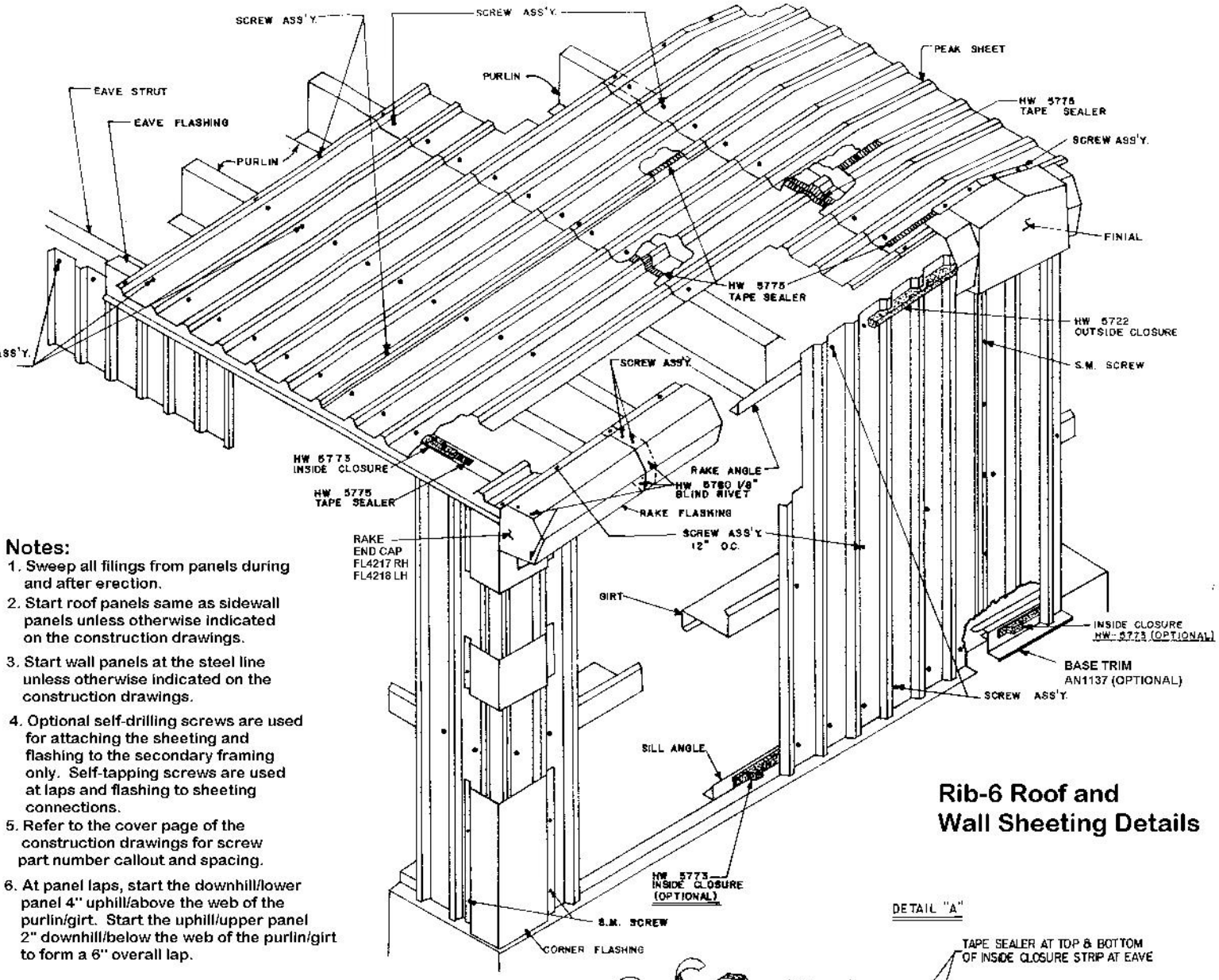
WALL FASTENERS



SECTION THRU CORNERS



SECTION THRU EAVE WITH INSULATION

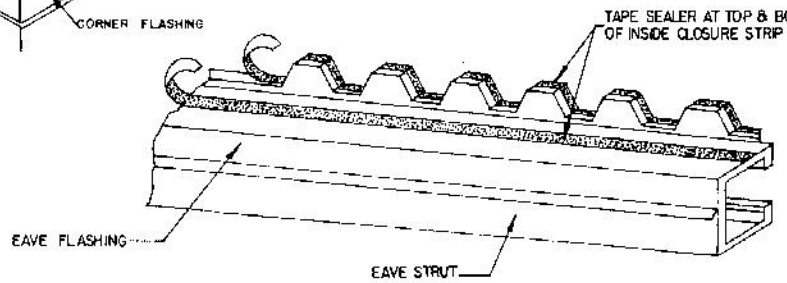


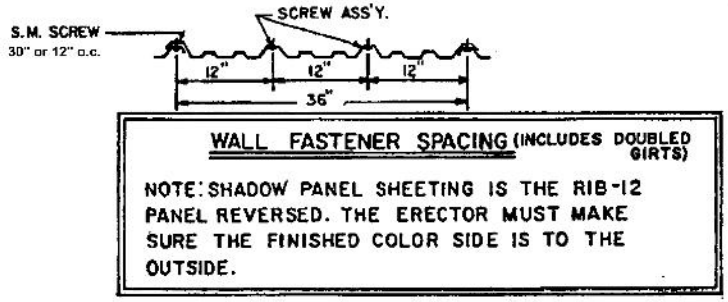
Notes:

1. Sweep all filings from panels during and after erection.
2. Start roof panels same as sidewall panels unless otherwise indicated on the construction drawings.
3. Start wall panels at the steel line unless otherwise indicated on the construction drawings.
4. Optional self-drilling screws are used for attaching the sheeting and flashing to the secondary framing only. Self-tapping screws are used at laps and flashing to sheeting connections.
5. Refer to the cover page of the construction drawings for screw part number callout and spacing.
6. At panel laps, start the downhill/lower panel 4" uphill/above the web of the purlin/girt. Start the uphill/upper panel 2" downhill/below the web of the purlin/girt to form a 6" overall lap.

Rib-6 Roof and Wall Sheeting Details

DETAIL "A"



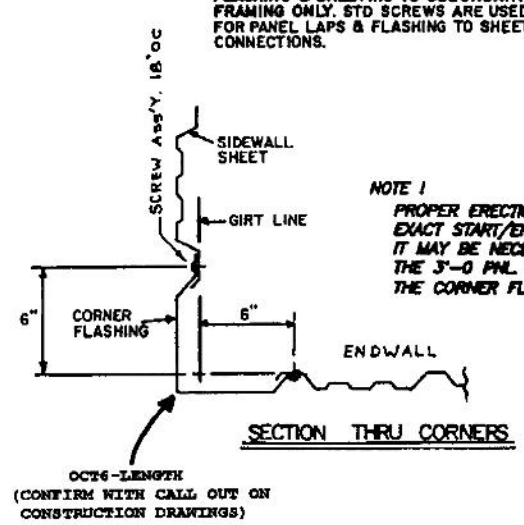


WALL FASTENER SPACING (INCLUDES DOUBLED GIRTS)

NOTE: SHADOW PANEL SHEETING IS THE RIB-12 PANEL REVERSED. THE ERECTOR MUST MAKE SURE THE FINISHED COLOR SIDE IS TO THE OUTSIDE.

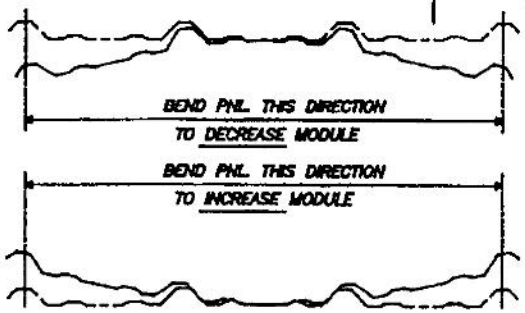
NOTE: SWEEP ALL FILINGS FROM PANELS DURING & AFTER ERECTIONS.

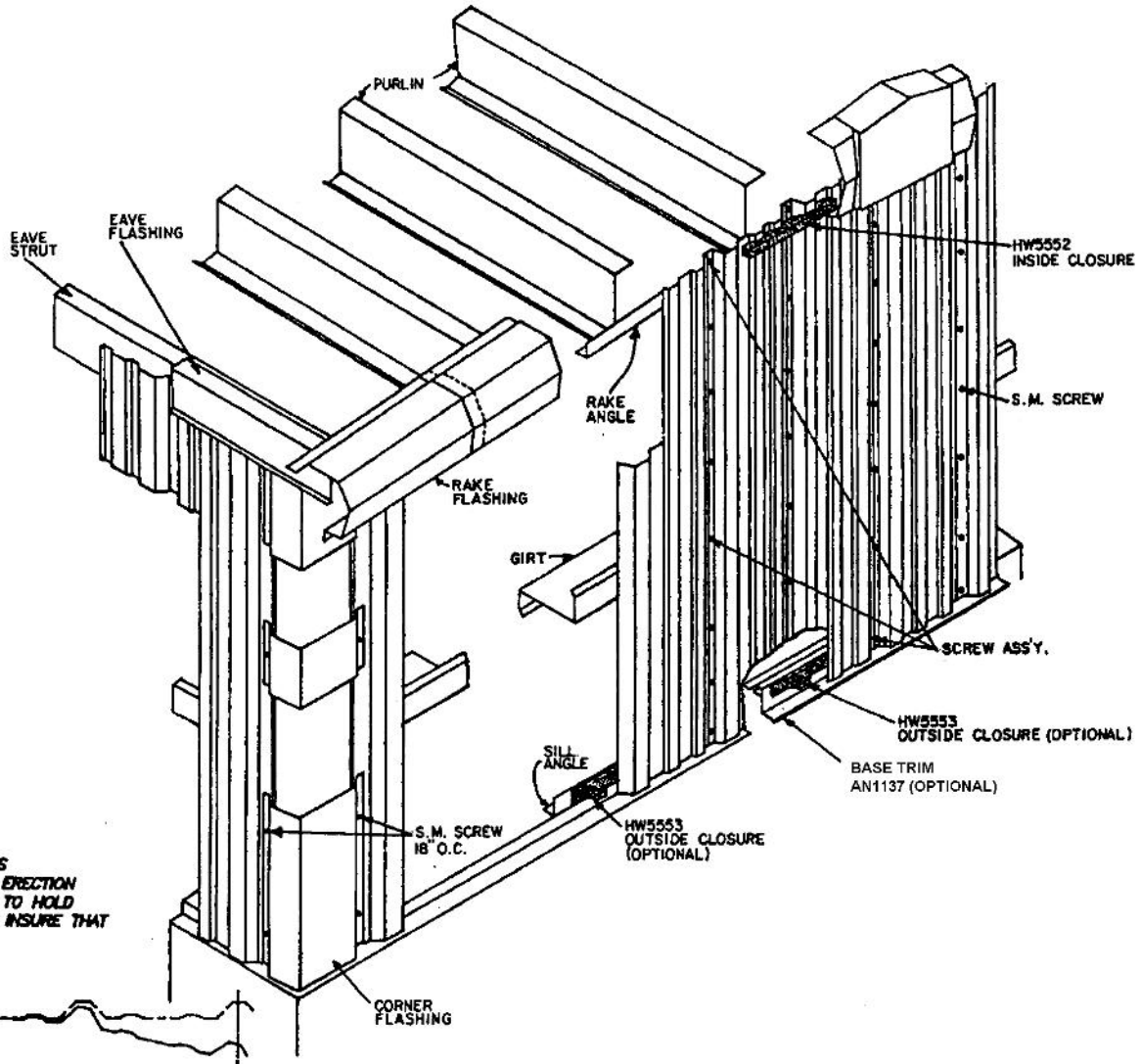
NOTE: (OPTIONAL) SELF-DRILLING SCREWS S.D. SCREWS ARE USED FOR ATTACHING FLASHING & SHEETING TO SECONDARY FRAMING ONLY. STD SCREWS ARE USED FOR PANEL LAPS & FLASHING TO SHEETING CONNECTIONS.



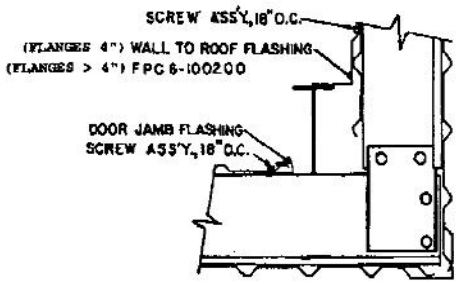
NOTE 1

PROPER ERECTION OF SHADOW PNLS. REQUIRES EXACT START/END DIMENSIONS. DURING PNL. ERECTION IT MAY BE NECESSARY TO FIELD MODIFY PNLS TO HOLD THE 3'-0 PNL. MODULE THAT IS REQUIRED TO INSURE THAT THE CORNER FLASHING FITS CORRECTLY.

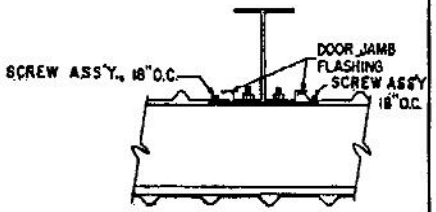




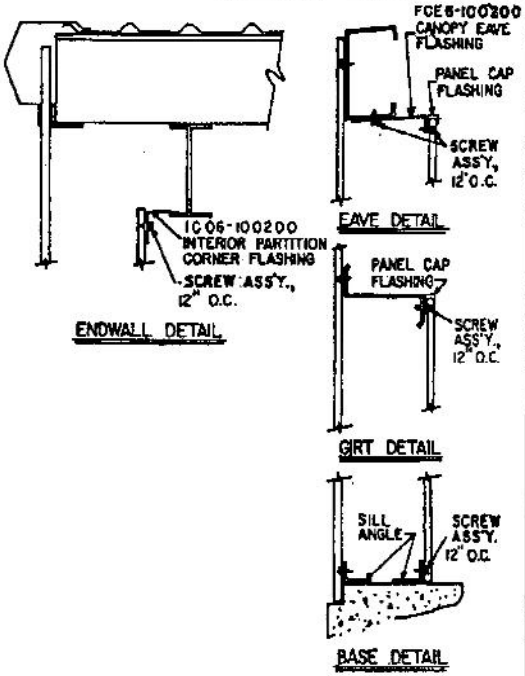
Shadow Panel Wall Sheeting Details



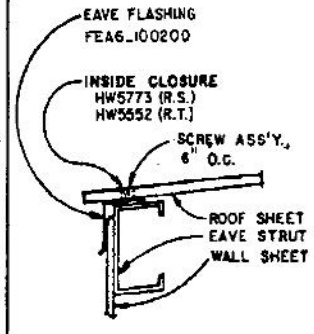
BEARING OR RIGID FRAME
CORNER DETAIL



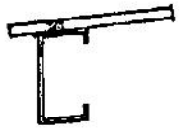
INTERMEDIATE FRAME DETAIL



LINER PANEL DETAILS

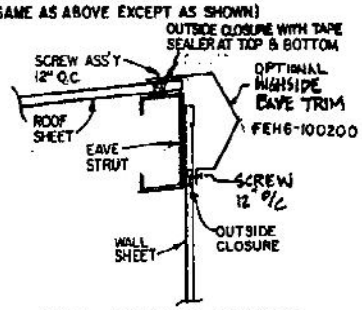


SECTION THRU EAVE
(WITH SIDEWALL SHEET)

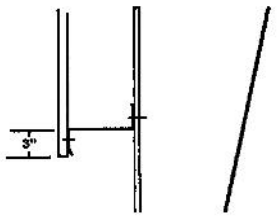


SECTION THRU EAVE
(WITHOUT SIDEWALL SHEET)

(SAME AS ABOVE EXCEPT AS SHOWN)

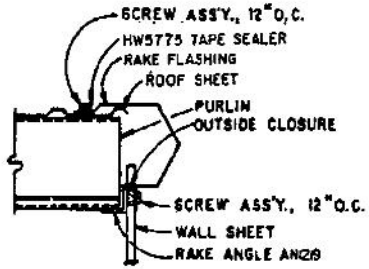


SECTION THRU HIGH SIDE EAVE
(WITH SIDEWALL SHEET)

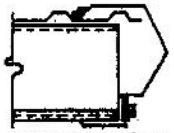


OPEN WALL DETAIL

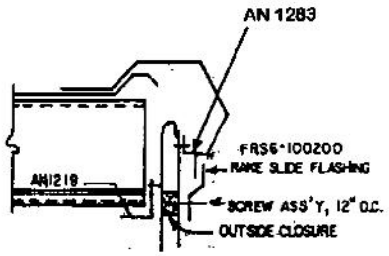
Girt is reversed (turned down) no trim provided unless requested on purchase order (Optional)



SECTION THRU RAKE
(WITH ENDWALL SHEET)

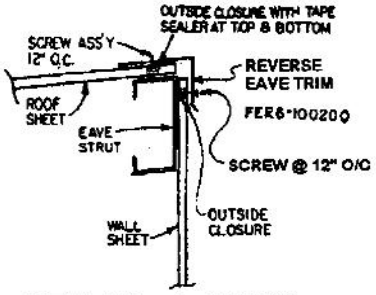


SECTION THRU RAKE
(WITHOUT ENDWALL SHEET)

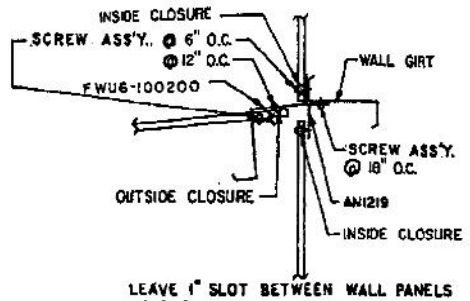


SECTION THRU RAKE
WITH RAKE SLIDES

(see pg 27)

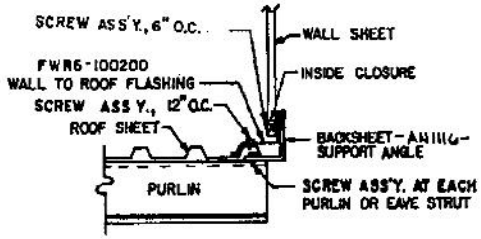


SECTION THRU HIGH SIDE EAVE
(WITH SIDEWALL SHEET)

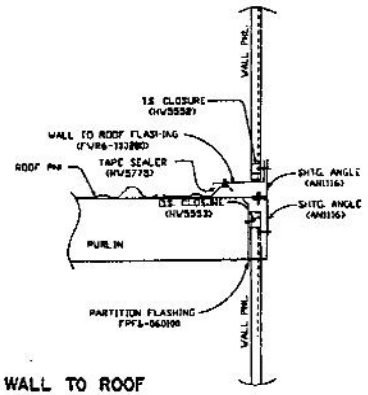


LEAVE 1" SLOT BETWEEN WALL PANELS AS SHOWN.

WING UNIT or CANOPY
WALL TO ROOF FLASHING
(BELOW EAVE CONDITION)

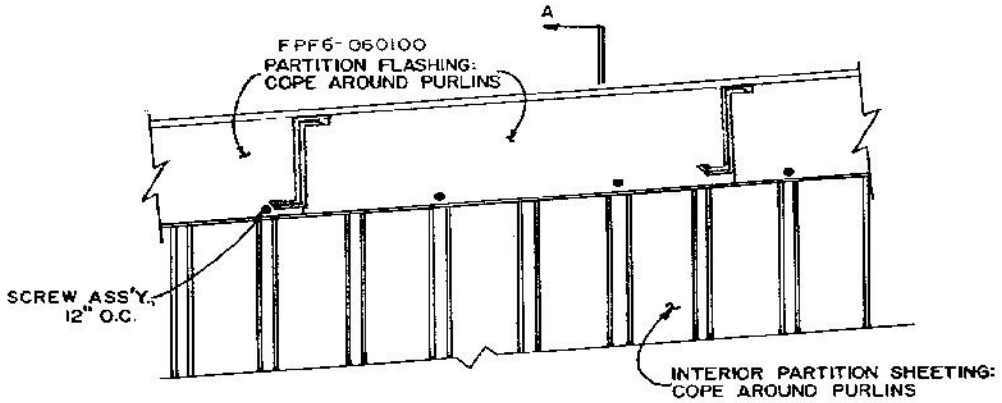


WALL TO ROOF
CONNECTION DETAIL
(SECTION THRU RAKE)

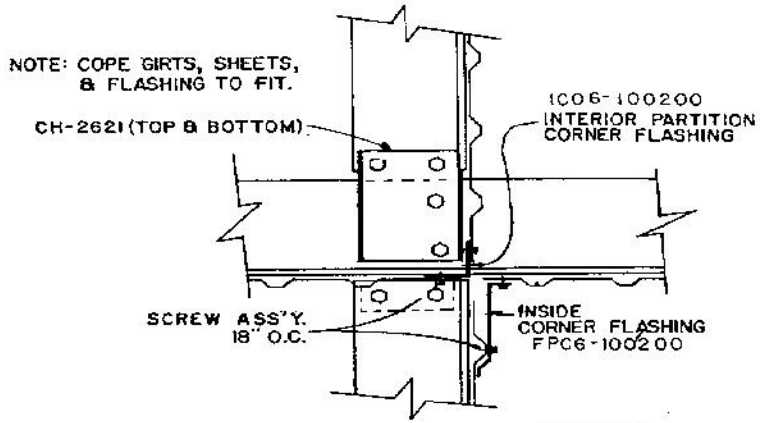


WALL TO ROOF
CONNECTION DETAIL
(SECTION THRU RAKE, SHEETED BELOW)

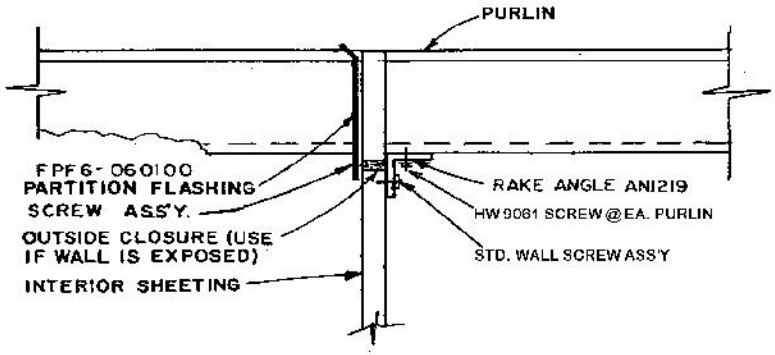
Roof Trim and Liner Panel Details



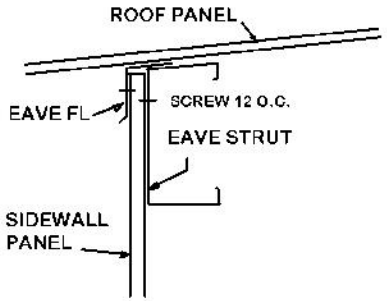
INTERIOR PARTITION WALL TO ROOF FLASHING DETAIL



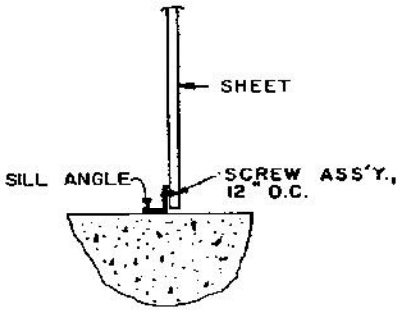
INTERIOR PARTITION CROSSING



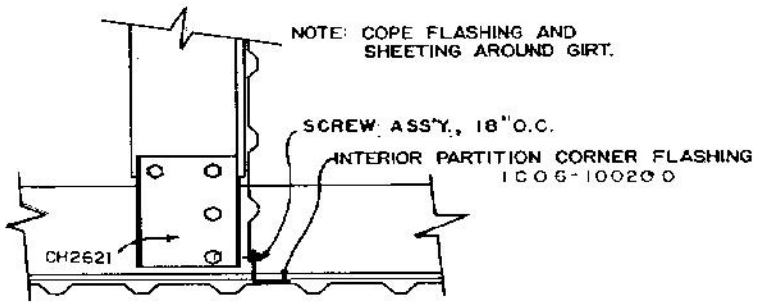
SECTION A



INTERIOR SIDEWALL PARTITION DETAIL

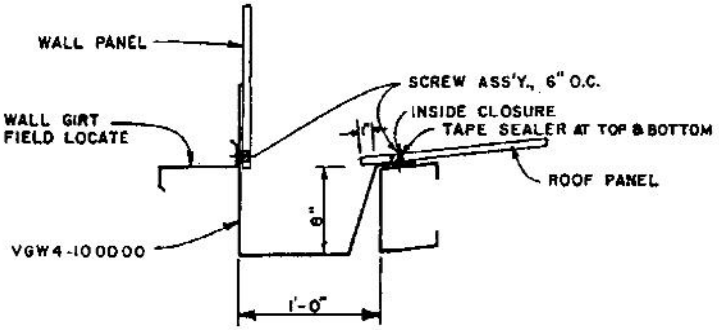


BASE DETAIL



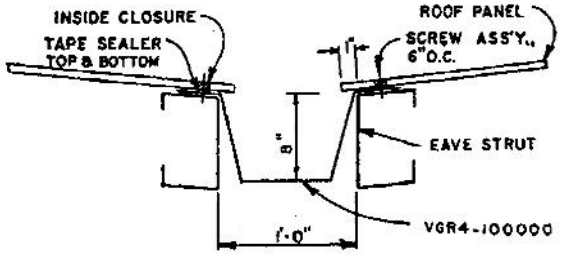
INTERIOR PARTITION CORNER FLASHING DETAIL

Interior Partition Details



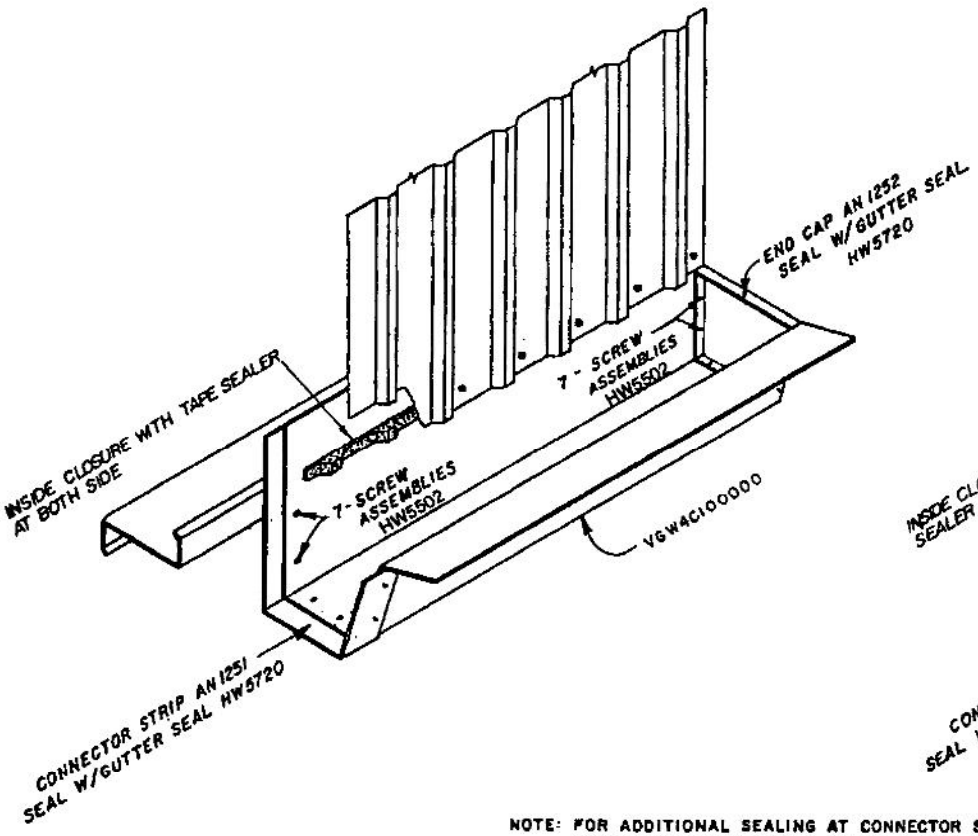
GIRT LINE TO GIRT LINE CLEARANCE

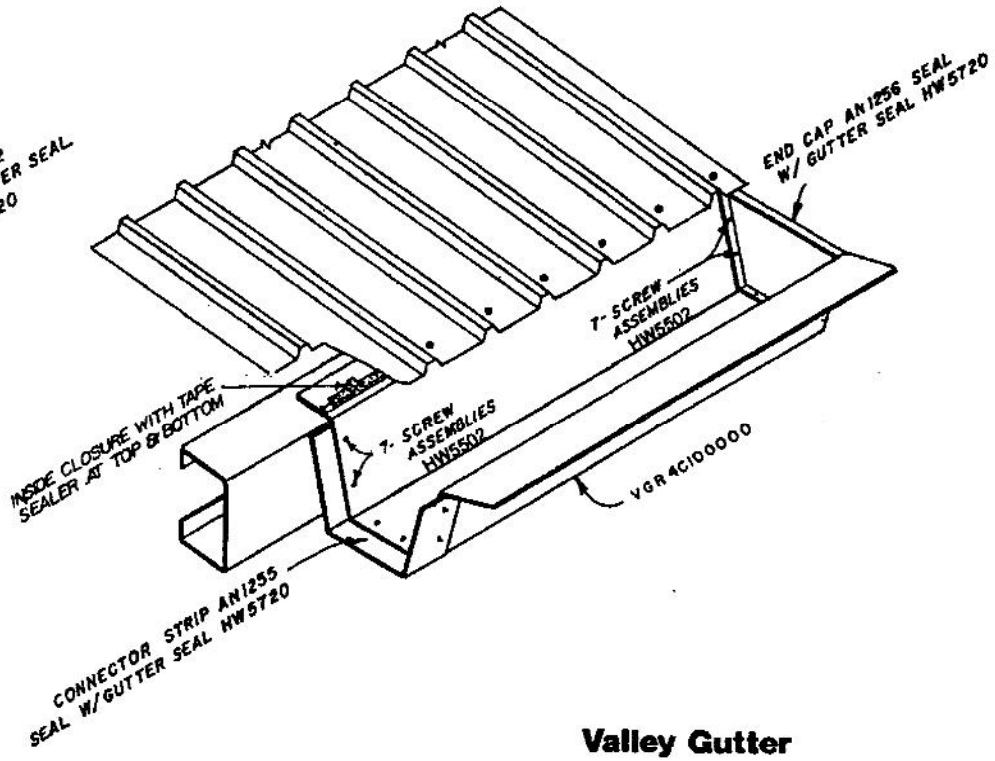
WALL TO ROOF



GIRT LINE TO GIRT LINE CLEARANCE

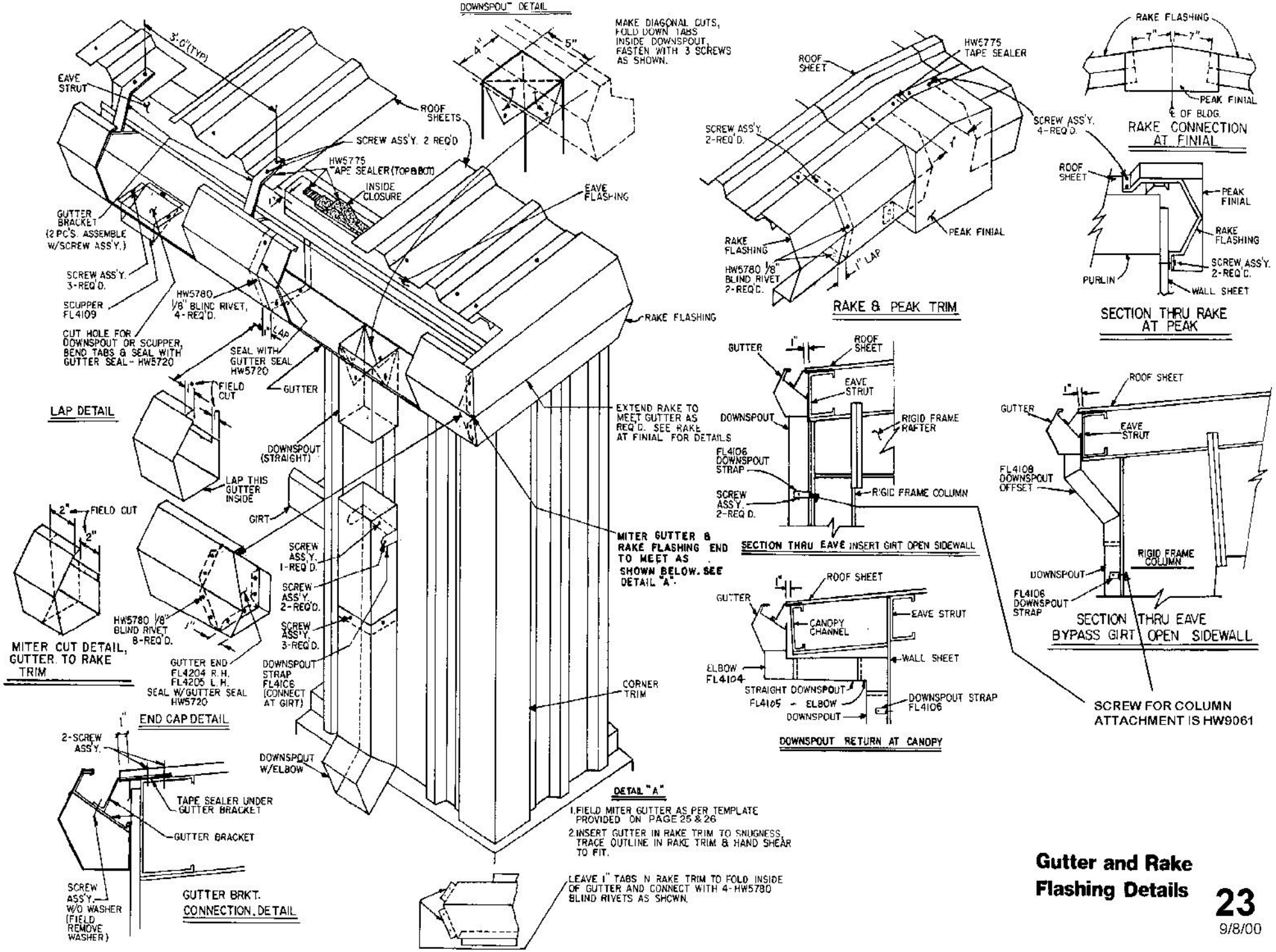
ROOF TO ROOF





NOTE: FOR ADDITIONAL SEALING AT CONNECTOR STRIPS & END CAPS FIELD SOLDER JOINTS & SEAL WITH ROOFING CEMENT.(NOT BY DEAN STEEL BLDGS.)

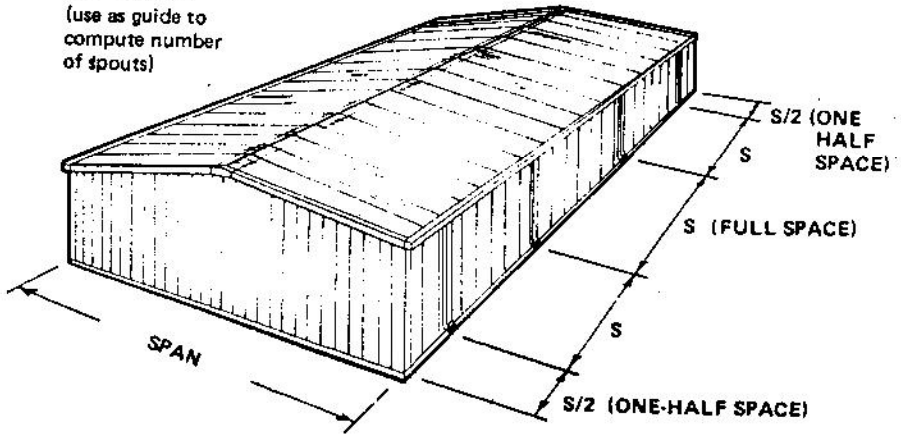
Valley Gutter Details

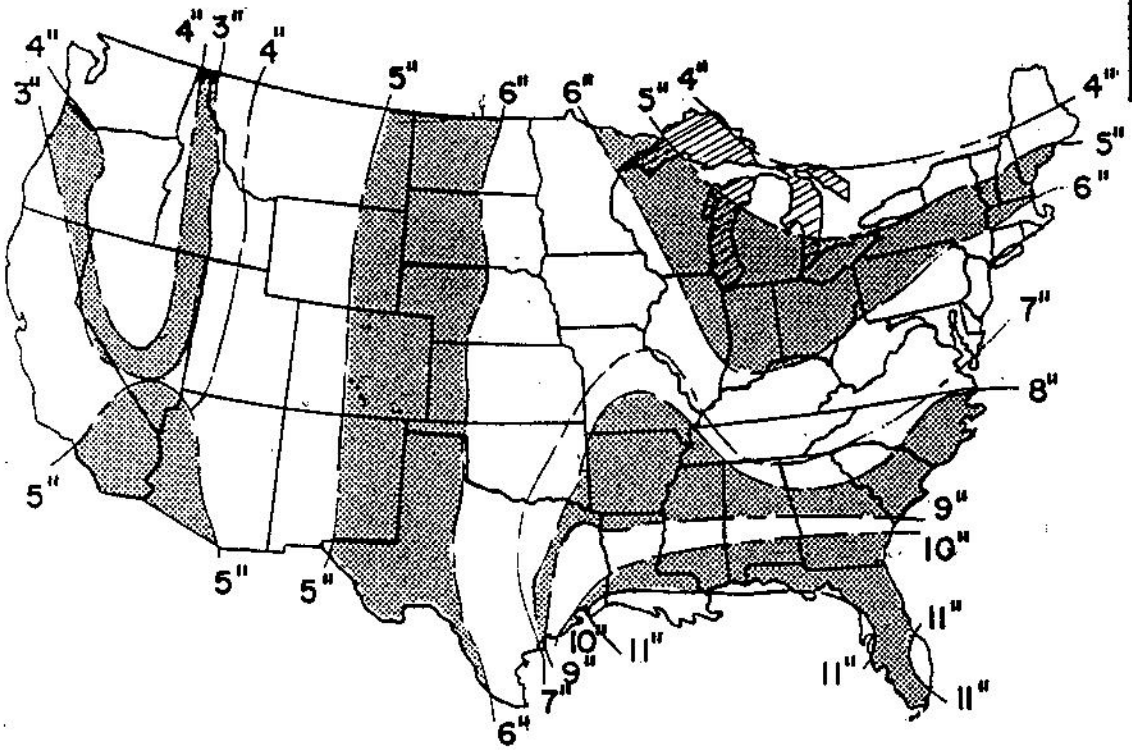


Gutter and Rake Flashing Details

DOWNSPOUT SPACING

(use as guide to compute number of spouts)

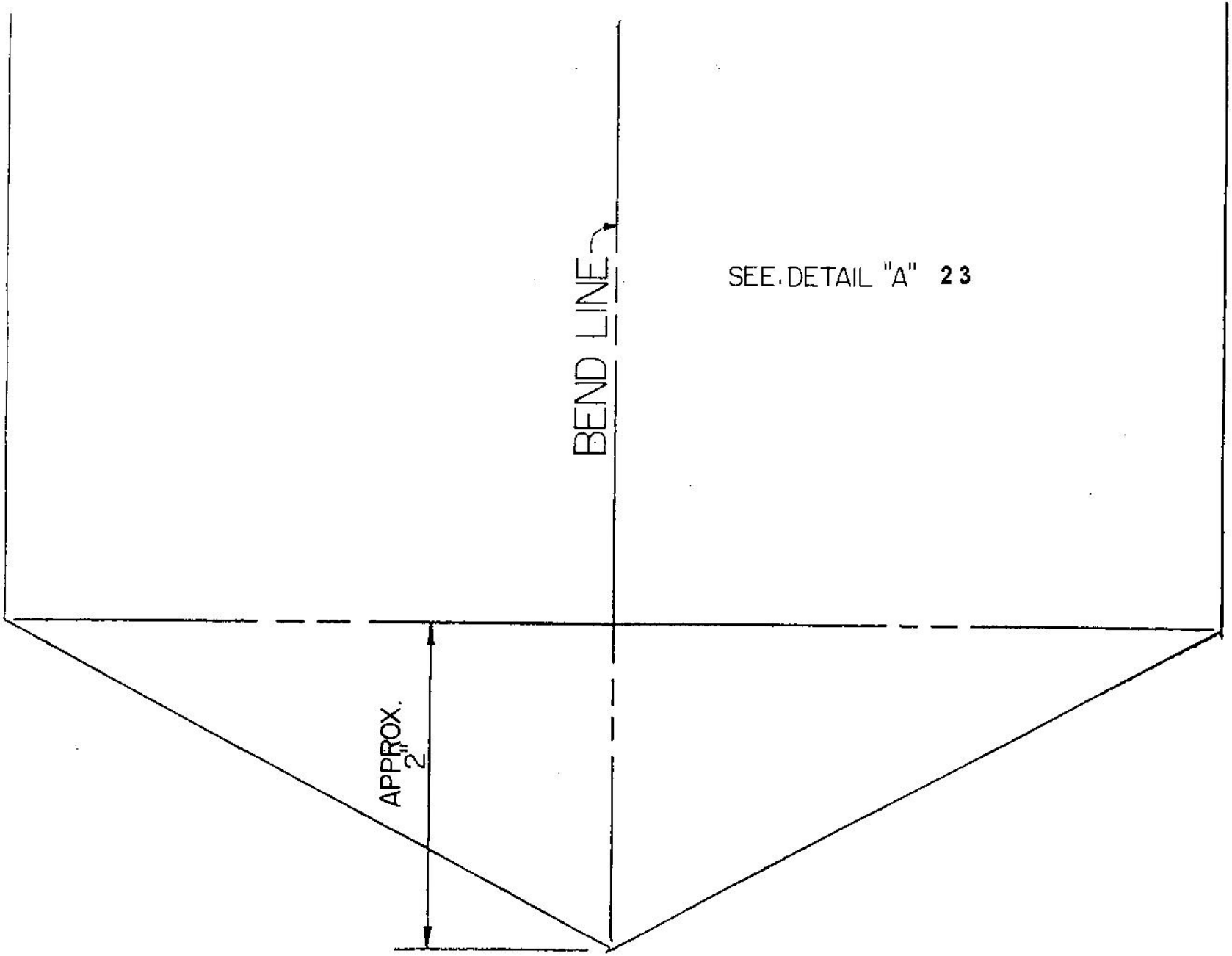




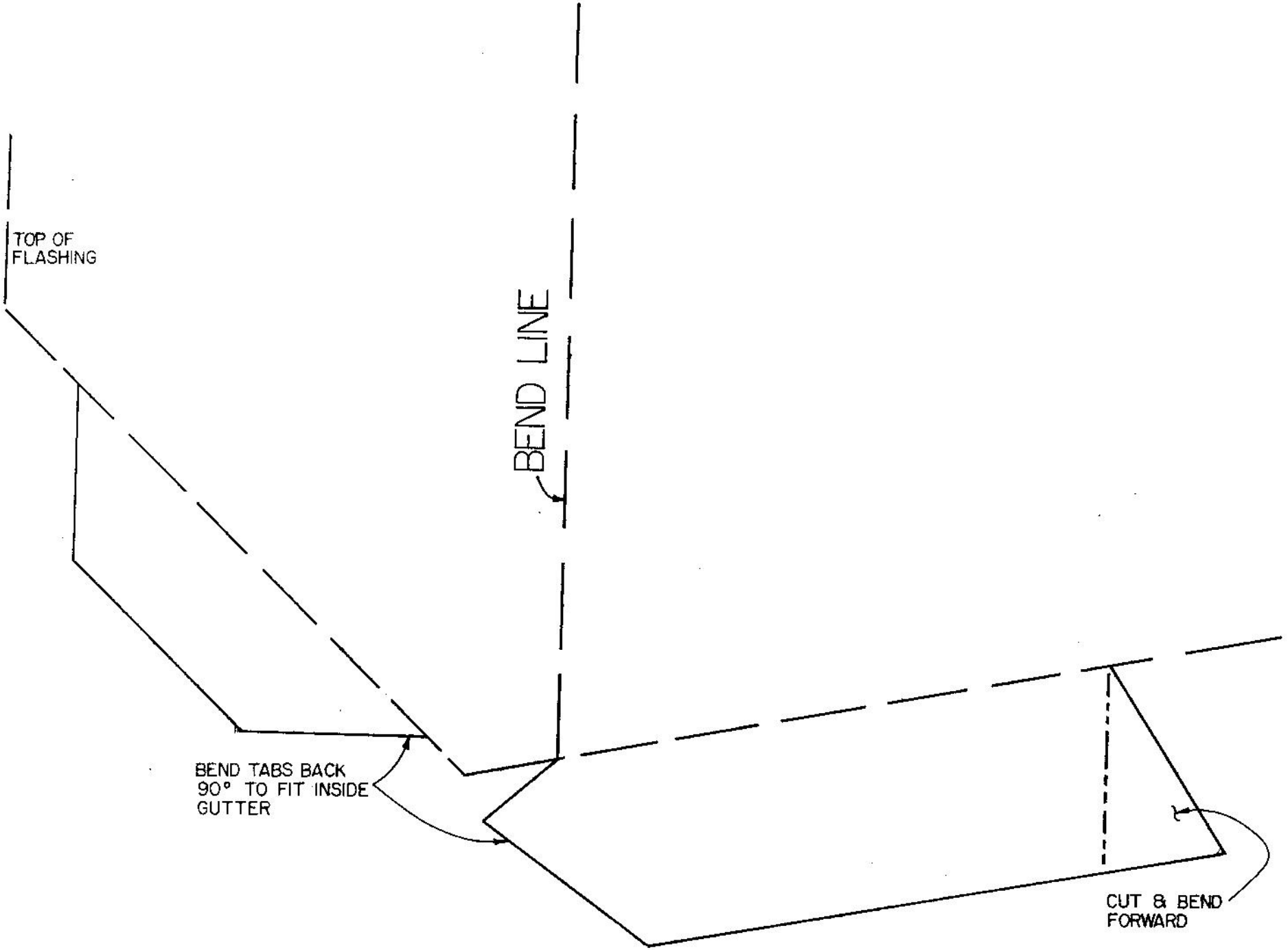
Maximum Distance Between Downspouts 4" x 5" Downspout Spacing: 60' O.C.								
Bldg. Width	Maximum Rainfall							
	11"	10"	9"	8"	7"	6"	5"	4"
20								
24								
30								
40	59'							
50	51'	52'	56'					
60	42'	47'	48'	54'				
70	36'	40'	44'	50'	53'			
80	33'	36'	40'	44'	50'	54'		
100	27'	30'	33'	36'	40'	47'	52'	
120	24'	27'	28'	31'	35'	38'	47'	54'
130	24'	25'	27'	29'	33'	37'	43'	50'
140	23'	23'	25'	27'	31'	35'	40'	46'
150	22'	23'	24'	27'	29'	33'	37'	44'
160	20'	23'	22'	25'	27'	31'	36'	44'
180		20'	22'	22'	25'	28'	33'	39'
200			20'	20'	23'	25'	30'	36'
220					22'	23'	28'	34'
240					21'	22'	27'	31'

NOTES:

1. Reference is from Architectural Graphic Standards and U.S. Dept. of Commerce Climatic Maps of U.S.
2. Shaded areas of chart exceed standard gutter requirements. Non-standard gutter and downspouts may be required for adequate drainage - consult with Engineer.
3. For buildings with fascias or mansards, use 1/2 of the spacing indicated on the above chart.
4. Chart is for width or span of gabled buildings; single slope buildings would have twice the water for the span, so use double the width of the single slope to determine downspout spacing. Ex. for 60' wide S.S., use spacing for 120' bldg.
5. It is the builder's responsibility to determine the proper spacing for their local area.

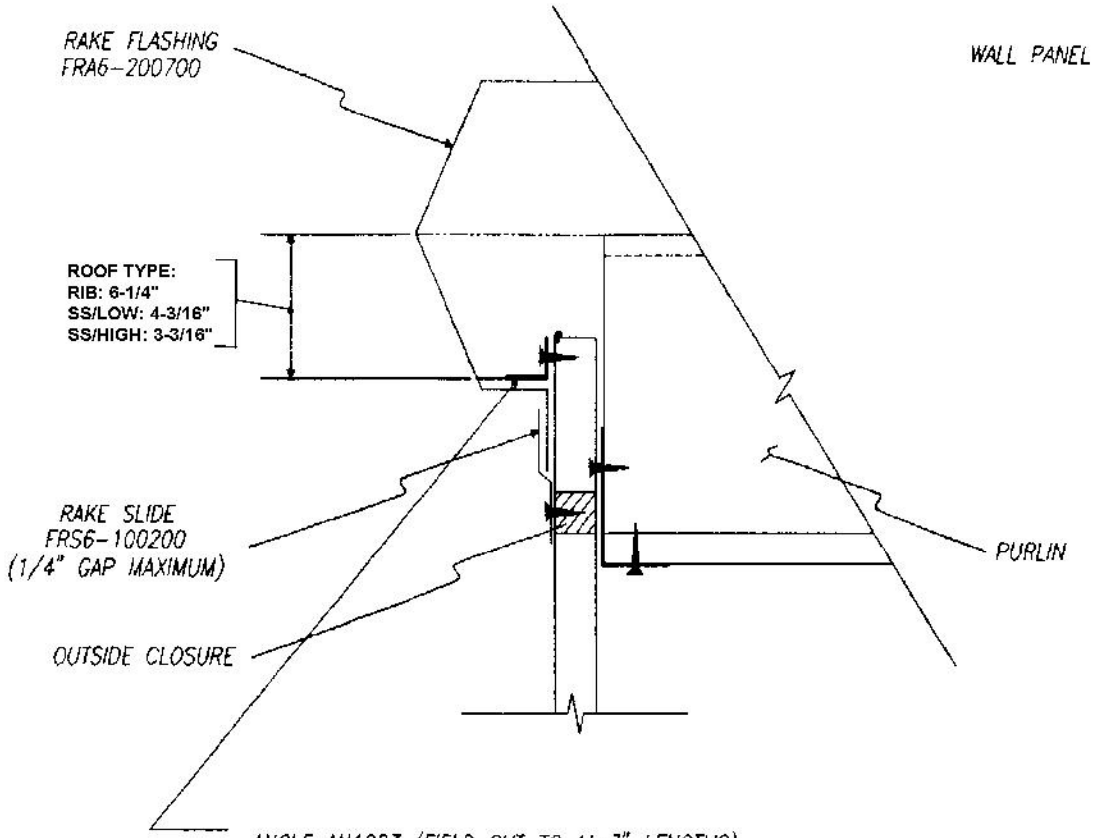


Gutter Miter Template

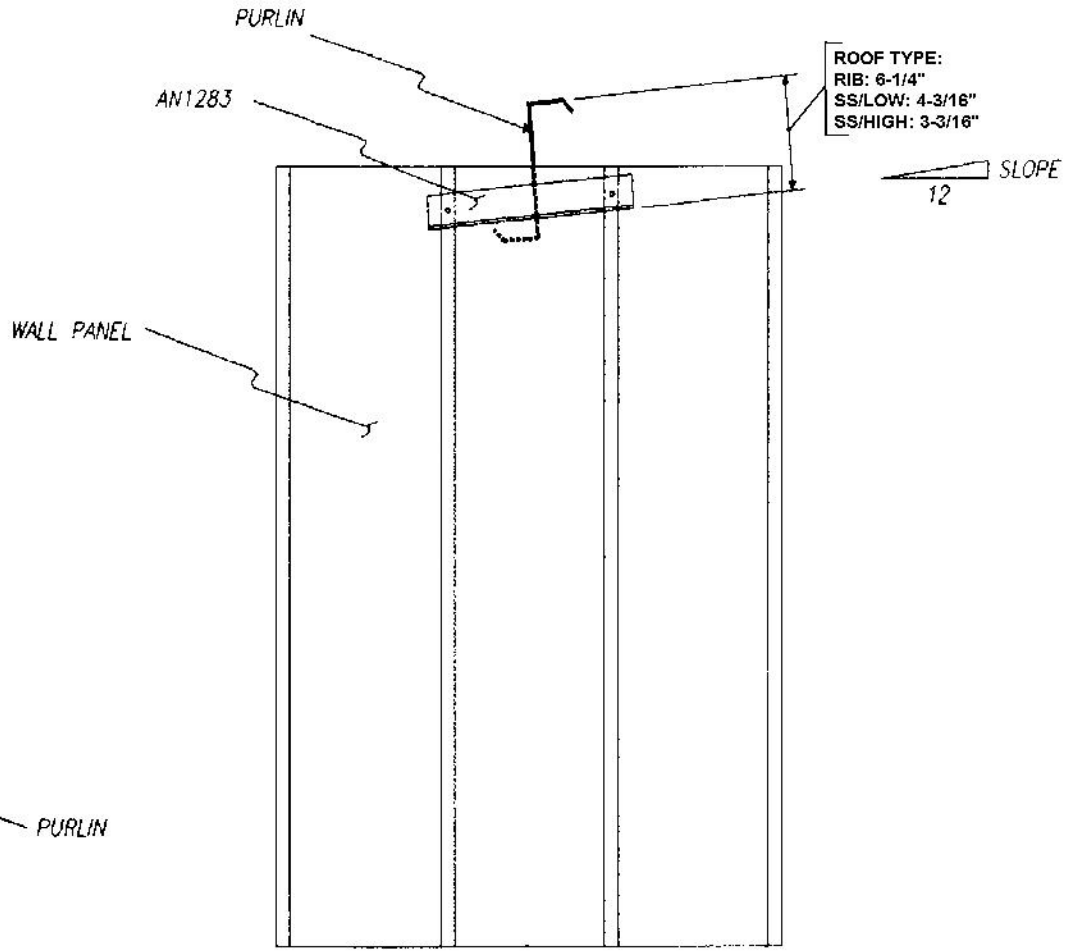


Rake Miter Template **26**

8/7/97



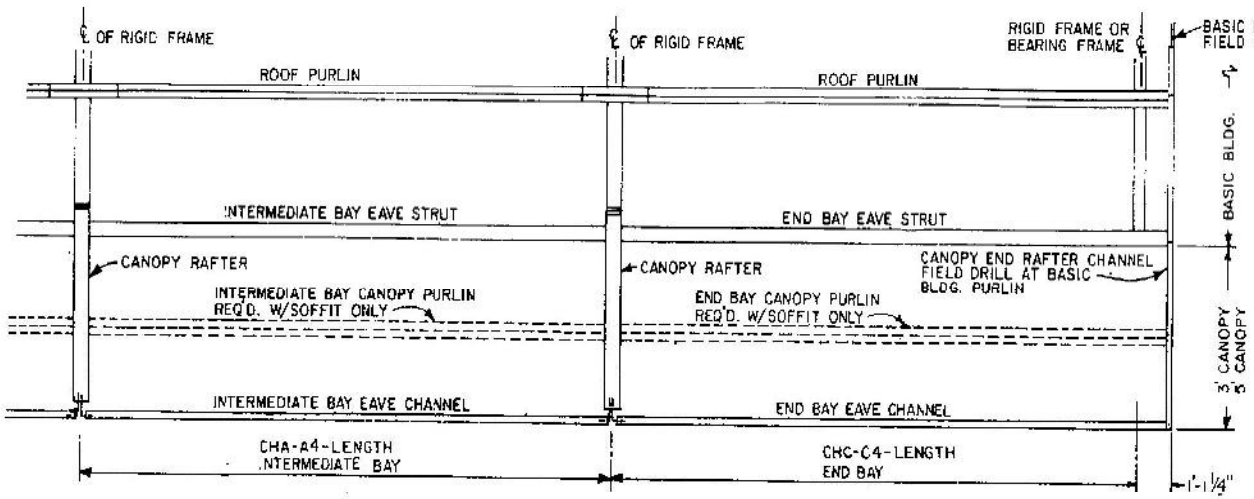
ANGLE AN1283 (FIELD CUT TO 1'-3" LENGTHS)
ATTACH TO PANEL RIBS WITH SELF TAPPING SCREW.
ANGLES REQ'D. 5 FEET ON CENTER.
ALIGN ANGLE W/ ROOF SLOPE.



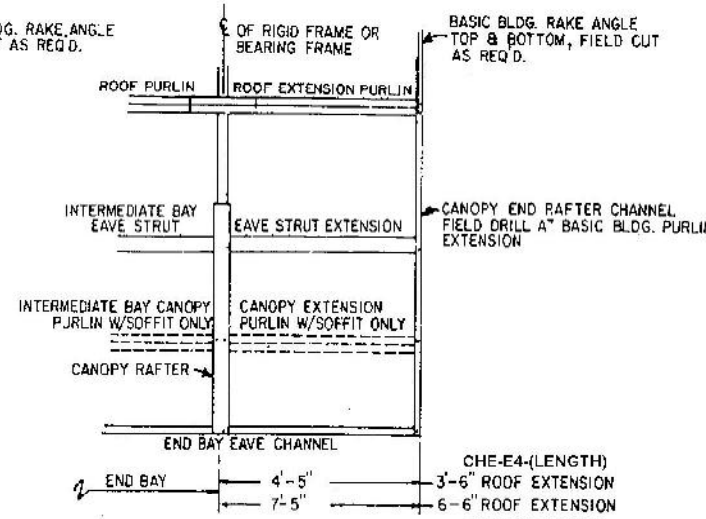
NOTE: RETAINER ANGLES ARE TO KEEP RAKE FLASHING FROM BECOMING DISENGAGED FROM THE RAKE SLIDE IN HIGH WIND CONDITIONS.

RAKE SLIDES & RETAINER ANGLE ARE PROVIDED ON GABLED BUILDINGS 120' WIDE AND GREATER AND ON SINGLE SLOPE BUILDINGS 60' WIDE AND GREATER.

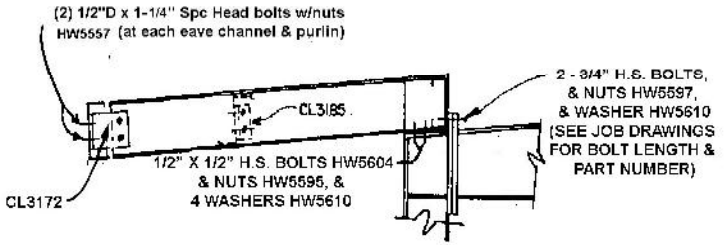
Rake Slide Retainer Angle



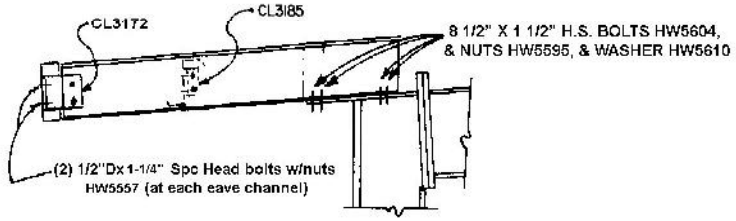
FRAMING PLAN, CANOPY W/O EXTENSION



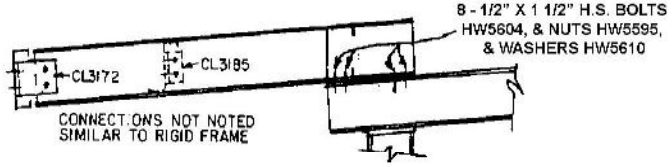
FRAMING PLAN, CANOPY W/ EXTENSION



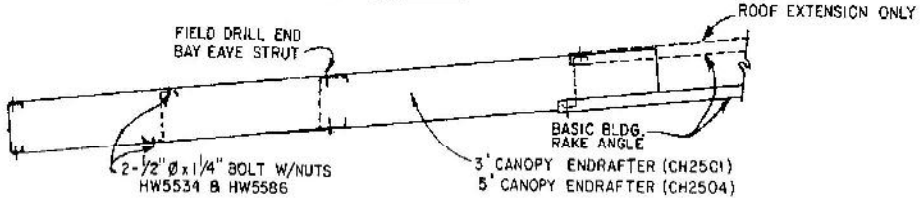
CANOPY CONNECTIONS AT RIGID FRAME - INSERT GIRTS



CANOPY CONNECTION AT RIGID FRAME - BYPASS GIRTS

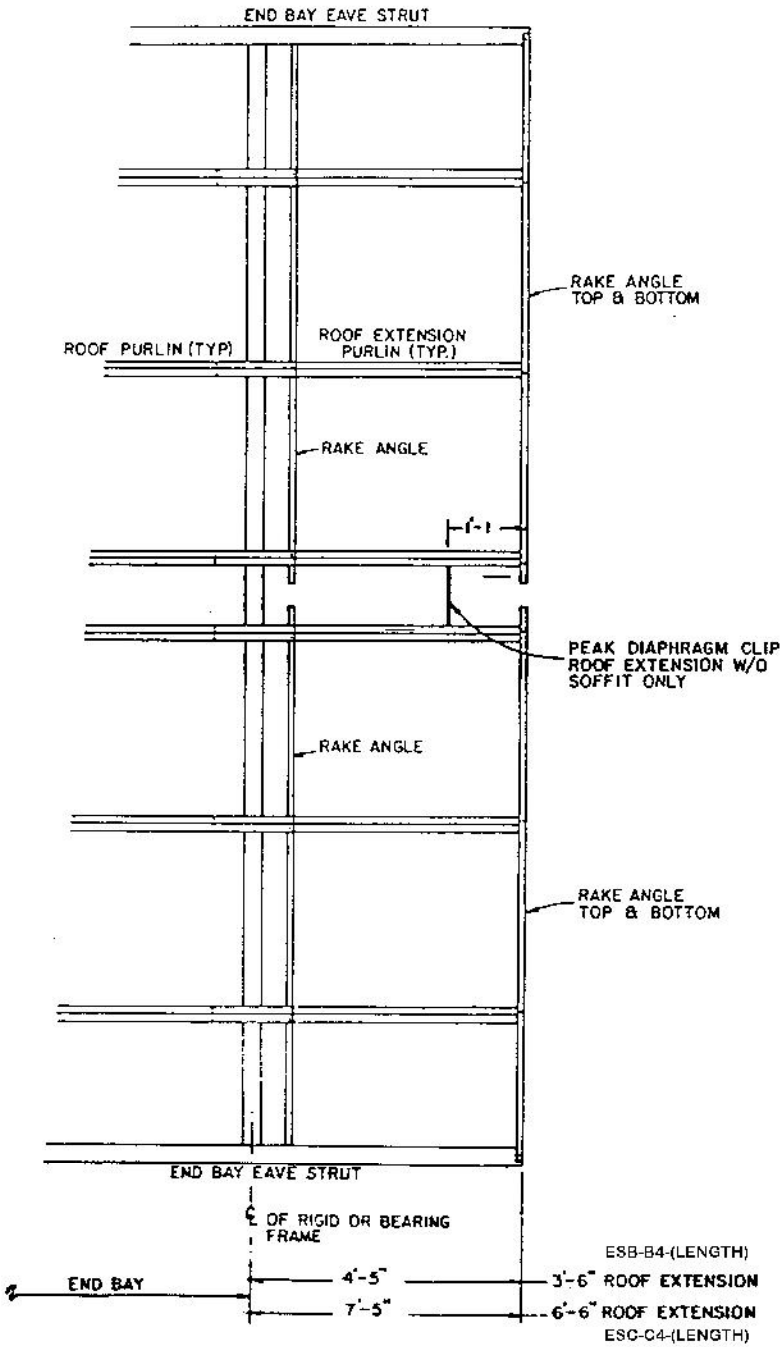


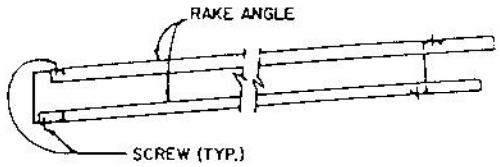
CANOPY CONNECTIONS AT BEARING FRAME



CONNECTIONS AT CANOPY END RAFTER

Straight Beam Canopy Framing Details

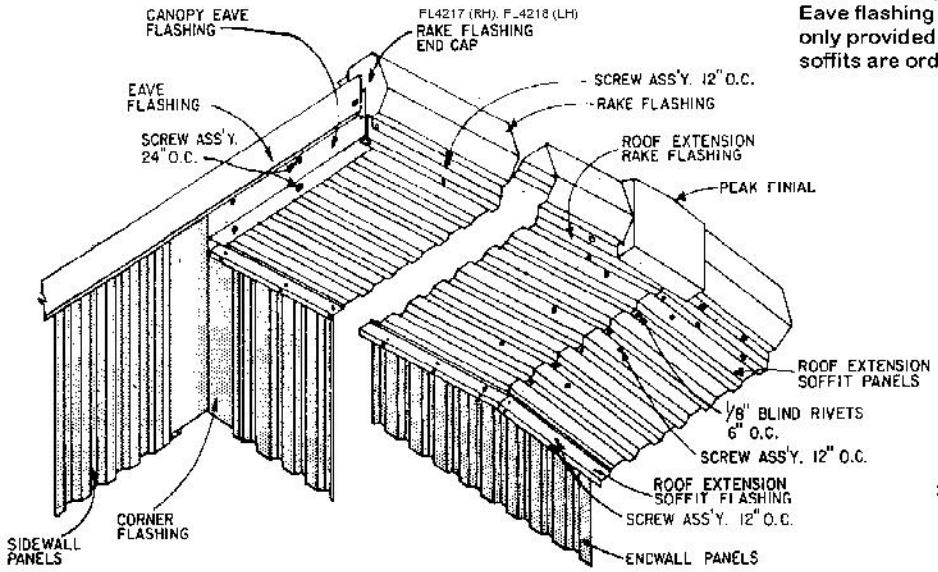




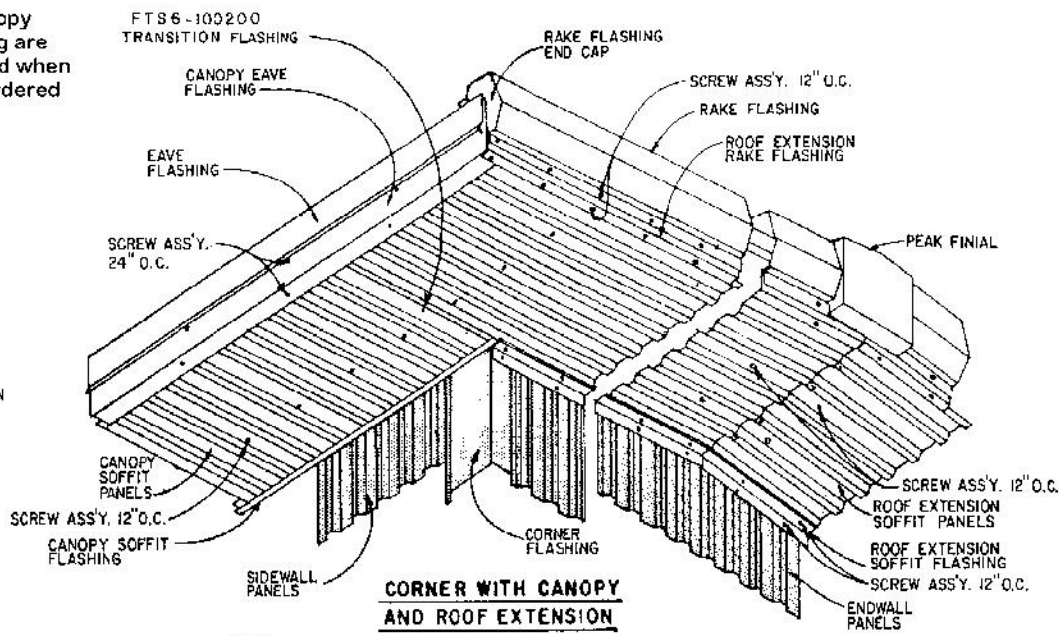
RAKE ANGLE CONNECTION

Roof Extension Framing Details

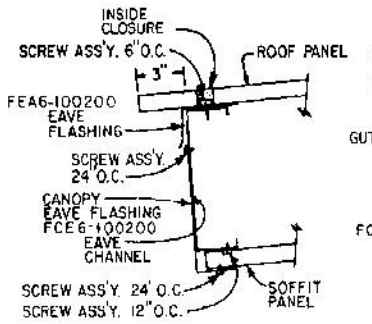
*Note: Eave & Canopy Eave flashing are only provided when soffits are ordered



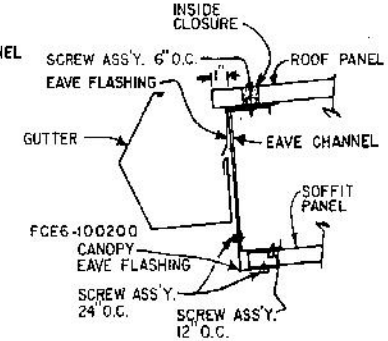
CORNER WITH ROOF EXTENSION



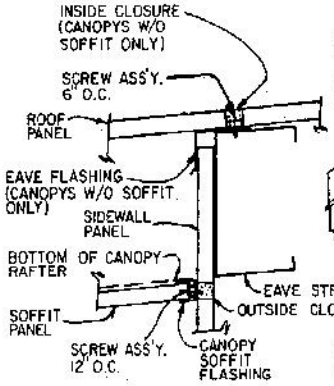
CORNER WITH CANOPY AND ROOF EXTENSION



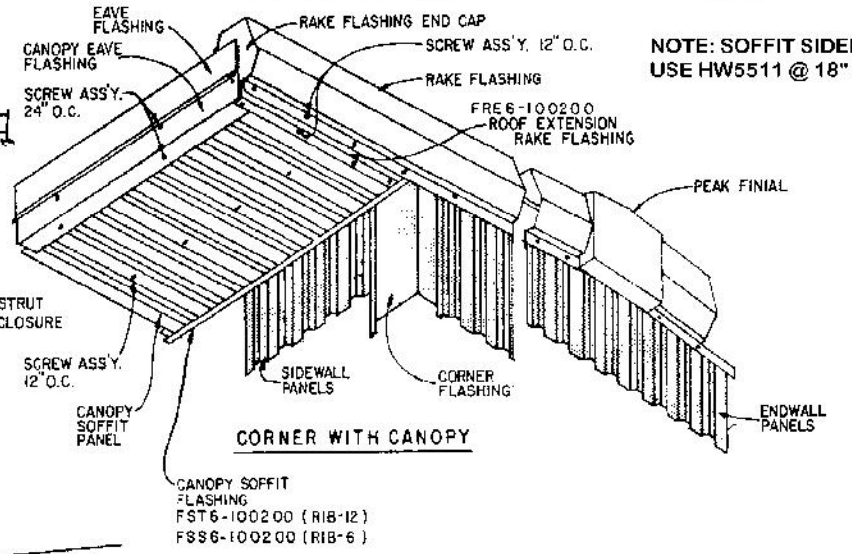
EAVE W/O GUTTER *



EAVE W/ GUTTER *

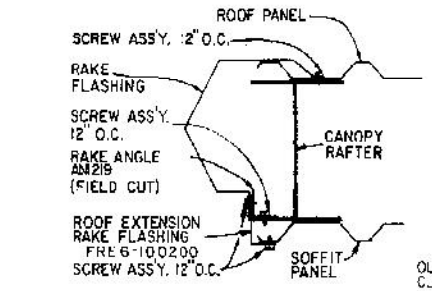


CANOPY AT SIDEWALL

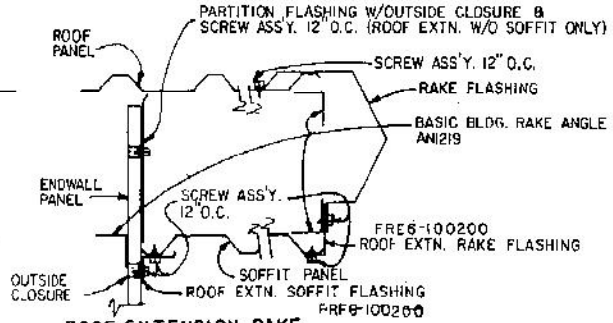


CORNER WITH CANOPY

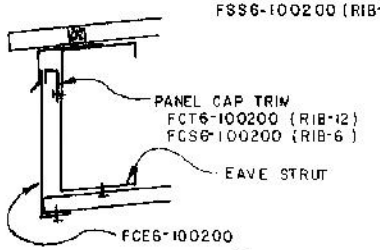
NOTE: SOFFIT SIDELAPS USE HW5511 @ 18" O.C.



CANOPY RAKE AT INT. FRAME

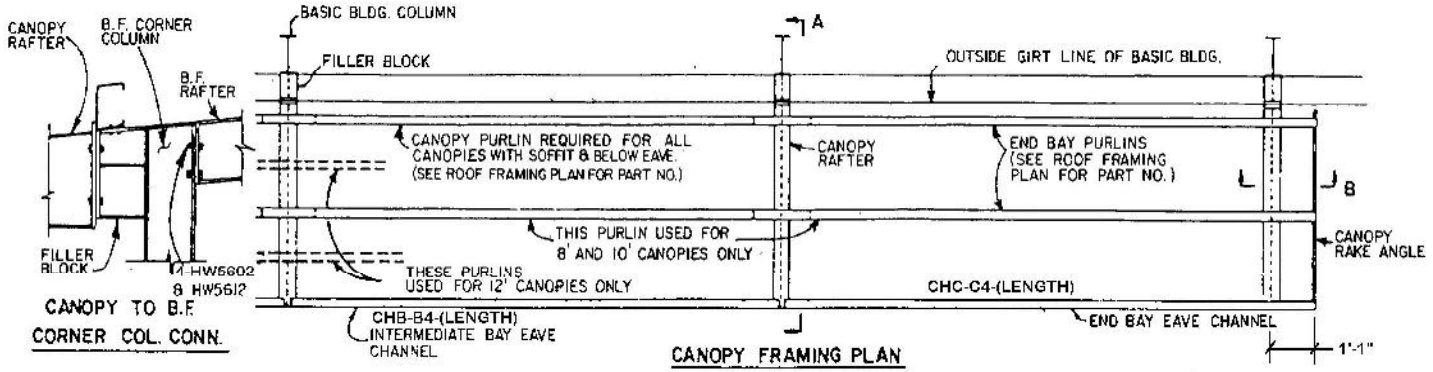


ROOF EXTENSION RAKE



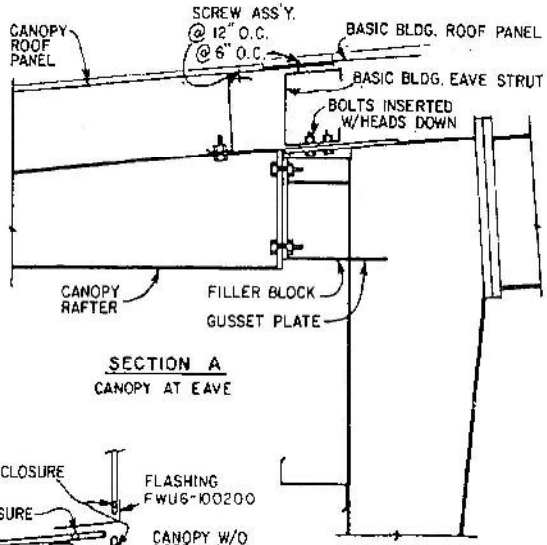
ROOF EXTENSION AT EAVE *

Straight Beam Canopy/ Roof Extension Sheeting & Flashing Details



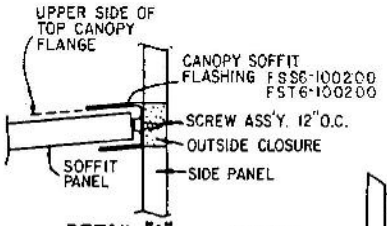
CANOPY TO B.F. CORNER COL. CONN.

CANOPY FRAMING PLAN

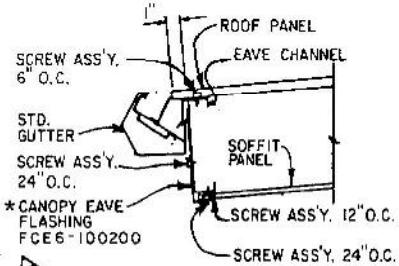


SECTION A
CANOPY AT EAVE

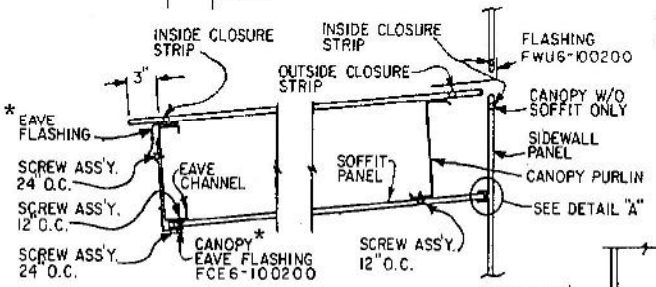
NOTE: SOFFIT PANEL SIDELAPS - USE HW5511 SCREWS @ 18" O.C.



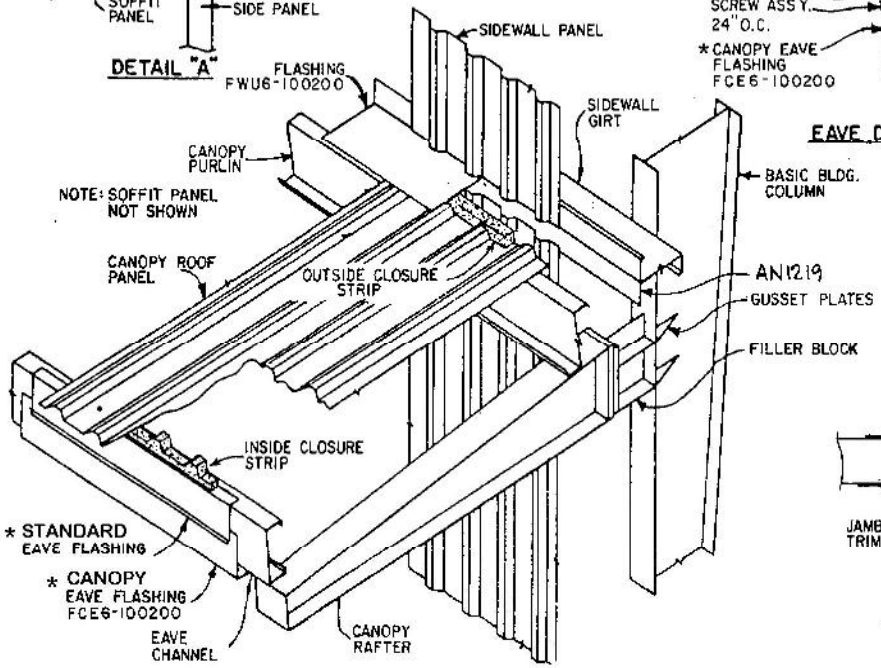
DETAIL "A"

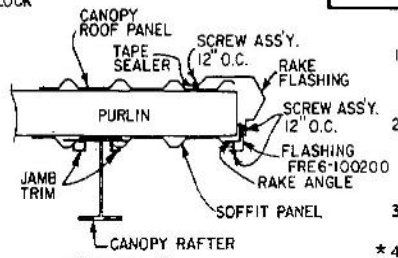


EAVE DETAIL W/GUTTER

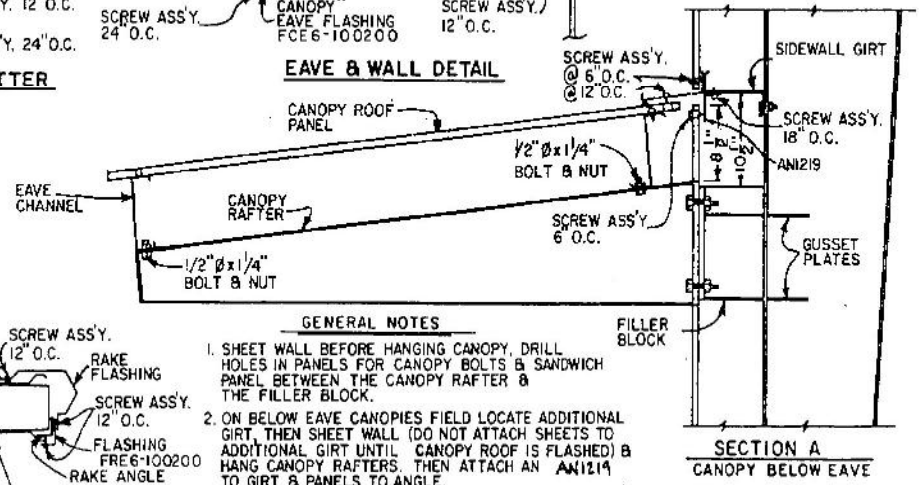


EAVE & WALL DETAIL





SECTION B



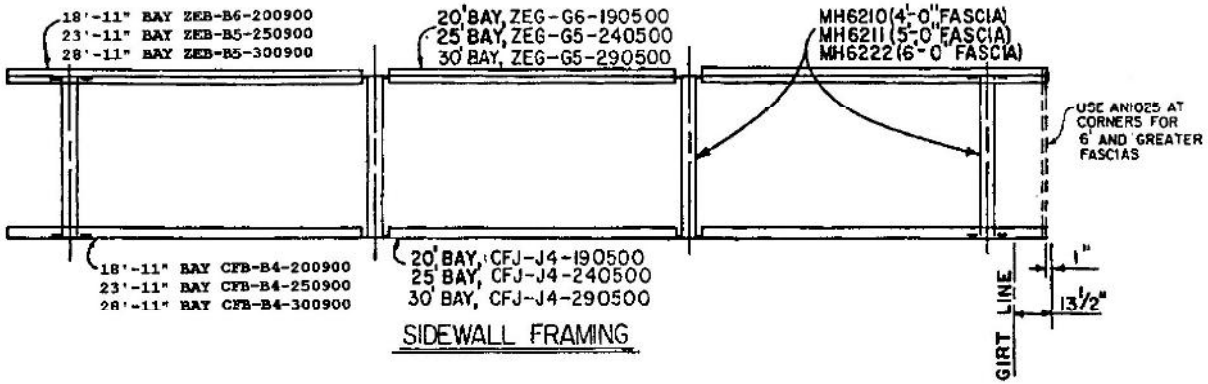
SECTION A
CANOPY BELOW EAVE

GENERAL NOTES

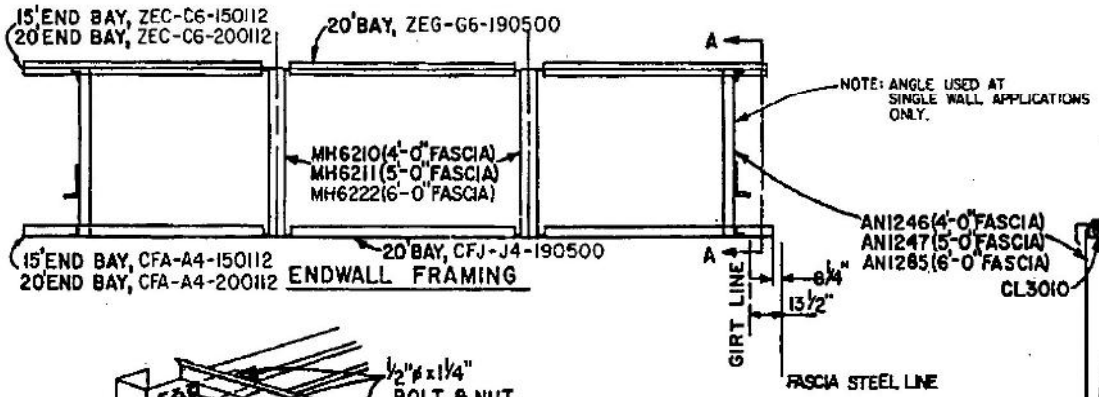
1. SHEET WALL BEFORE HANGING CANOPY. DRILL HOLES IN PANELS FOR CANOPY BOLTS & SANDWICH PANEL BETWEEN THE CANOPY RAFTER & THE FILLER BLOCK.
2. ON BELOW EAVE CANOPIES FIELD LOCATE ADDITIONAL GIRT, THEN SHEET WALL (DO NOT ATTACH SHEETS TO ADDITIONAL GIRT UNTIL CANOPY ROOF IS FLASHED) & HANG CANOPY RAFTERS. THEN ATTACH AN AN1219 TO GIRT & PANELS TO ANGLE.
3. FOR CANOPY ROOF FASTENERS & TAPE SEALER SEE STD. SHEETING ISOMETRIC.
* 4. STANDARD AND CANOPY EAVE FLASHINGS ARE ONLY PROVIDED WHEN THERE IS A SOFFIT ON THE CANOPY.

CANOPY	PART NO.	BOLTS	WASHERS	NUTS
4'	RR6549	(4)-HW5802	(4)-HW5612	(4)-HW5597
6'	RR6550	(4)-HW5539	(4)-HW5612	(4)-HW5597
8'	RR6551	(4)-HW5539	(4)-HW5612	(4)-HW5597
10'	RR6552	(4)-HW5539	(4)-HW5612	(4)-HW5597
12'	RR6559	(4)-HW5539	(4)-HW5612	(4)-HW5597
5'	RR6560	(4)-HW5602	(4)-HW5612	(4)-HW5597

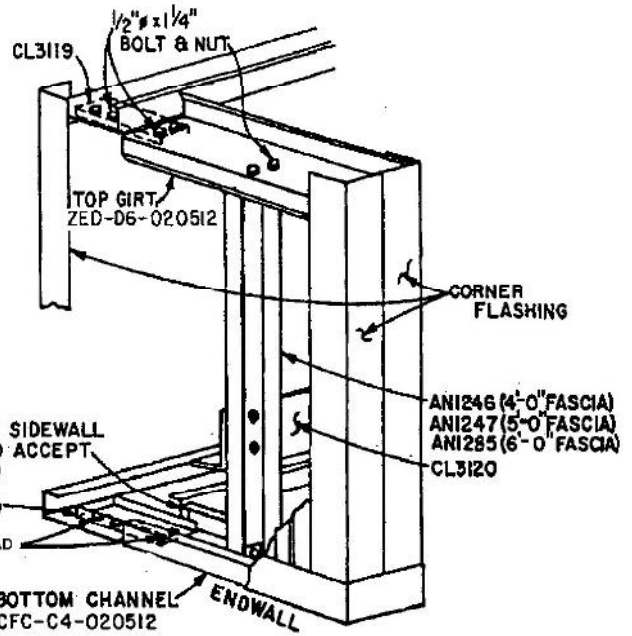
Tapered Beam Canopy Framing, Sheeting & Flashing Details



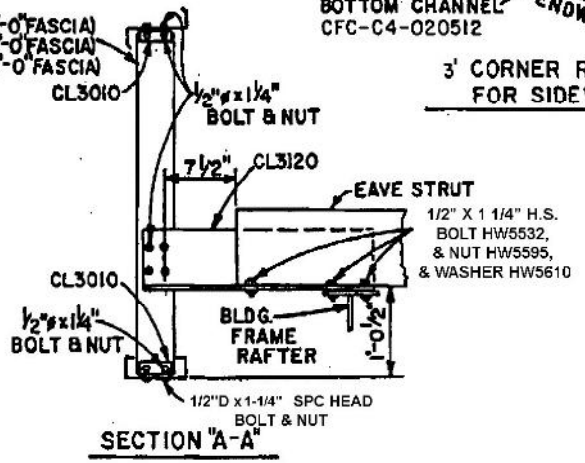
SIDEWALL FRAMING



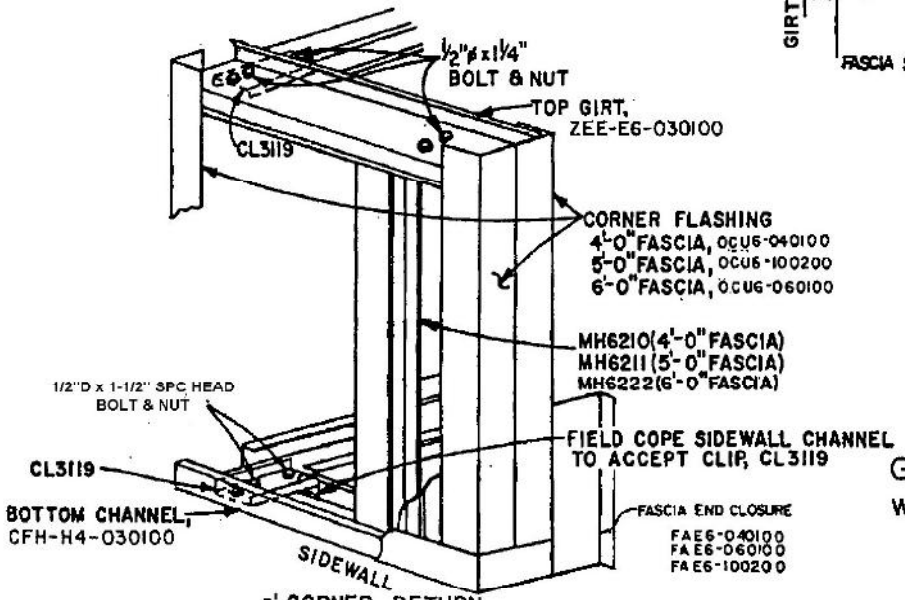
ENDWALL FRAMING



3' CORNER RETURN FOR SIDEWALL FASCIA



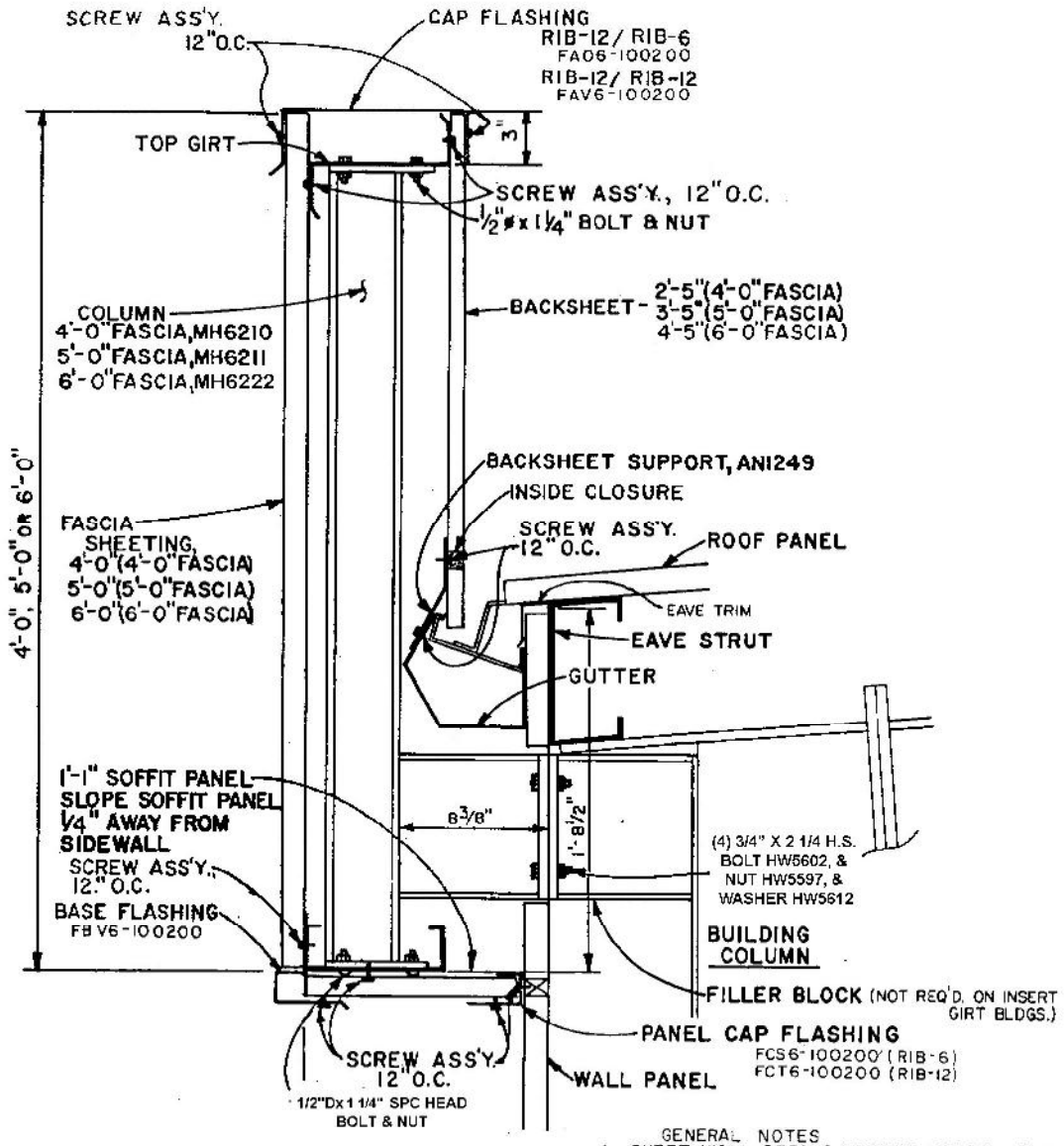
SECTION "A-A"



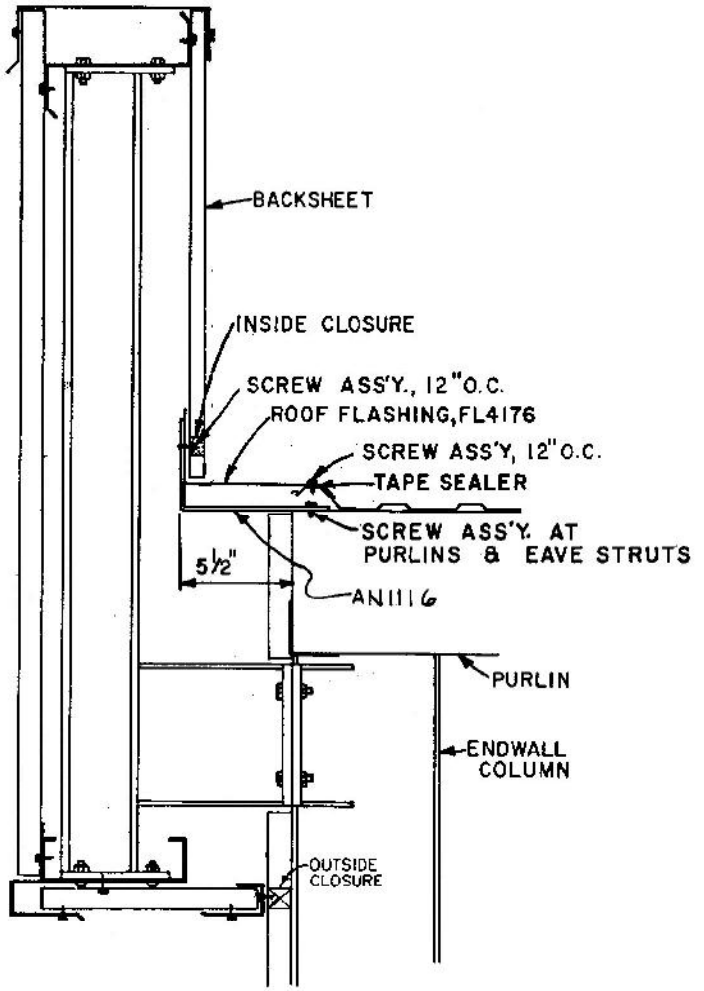
3' CORNER RETURN FOR ENDWALL FASCIA

Gauge of members shown will vary with wind load & code

Vertical Fascia
Framing & Flashing Details



SIDEWALL CONNECTION



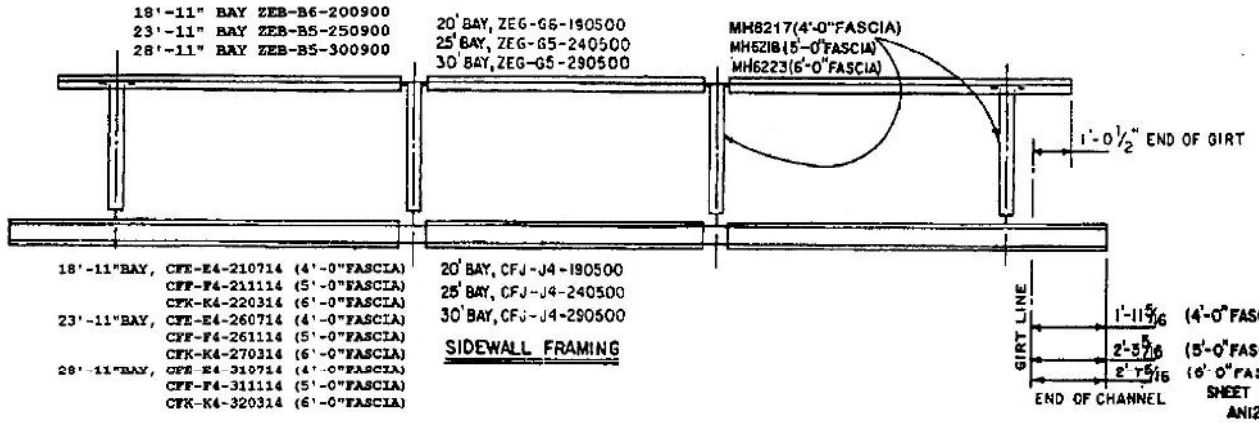
ENDWALL CONNECTION

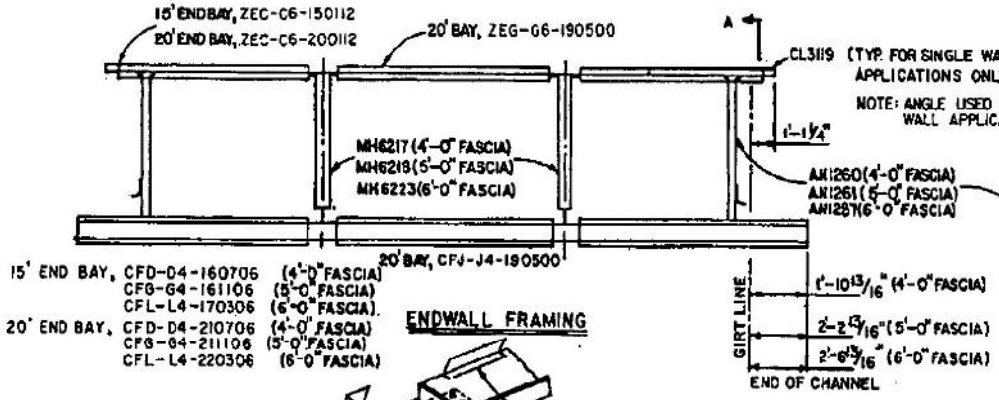
DETAILS NOT NOTED SAME AS SIDEWALL CONNECTION

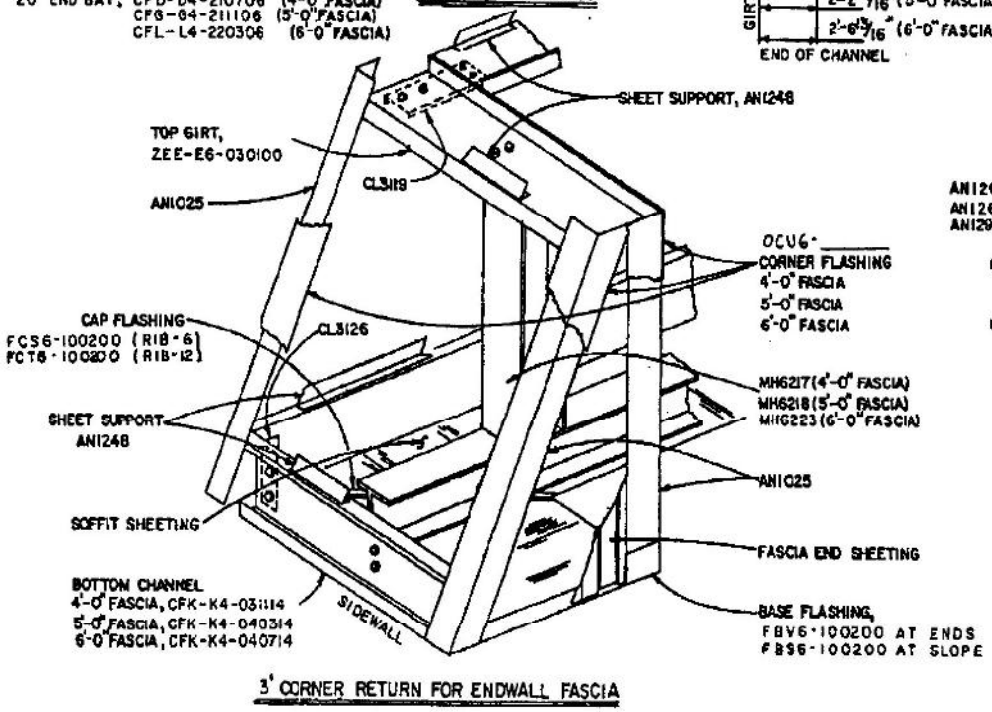
GENERAL NOTES

1. SHEET WALL BEFORE HANGING FASCIA, DRILL HOLES IN PANELS FOR FASCIA BOLTS & SANDWICH PANEL BETWEEN THE FASCIA FRAME & THE FILLER BLOCK. THE ERECTOR IS RESPONSIBLE FOR WEATHERTIGHTNESS OF THE BUILDING AT THE FASCIA FRAME CONNECTION.
2. DEAN STD. GUTTER IS DESIGNED TO OVERFLOW DURING EXCESSIVE RAINFALL.
3. **IN HIGHER WIND LOADS, THE STANDARD PROJECTION MAY CHANGE TO 1- 4 1/2" AS THE FASCIA BEAM CHANGES FROM W4X13 TO W8X10.**

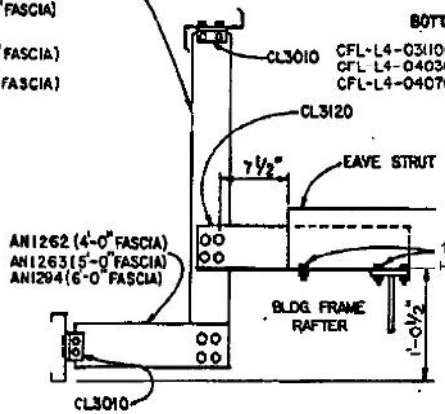
Vertical Fascia Cross Section





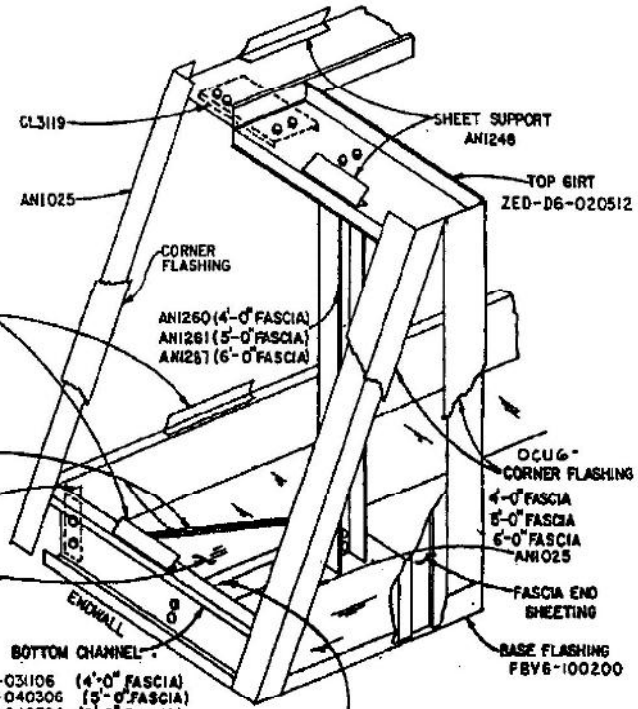


3' CORNER RETURN FOR ENDWALL FASCIA



SECTION A-A

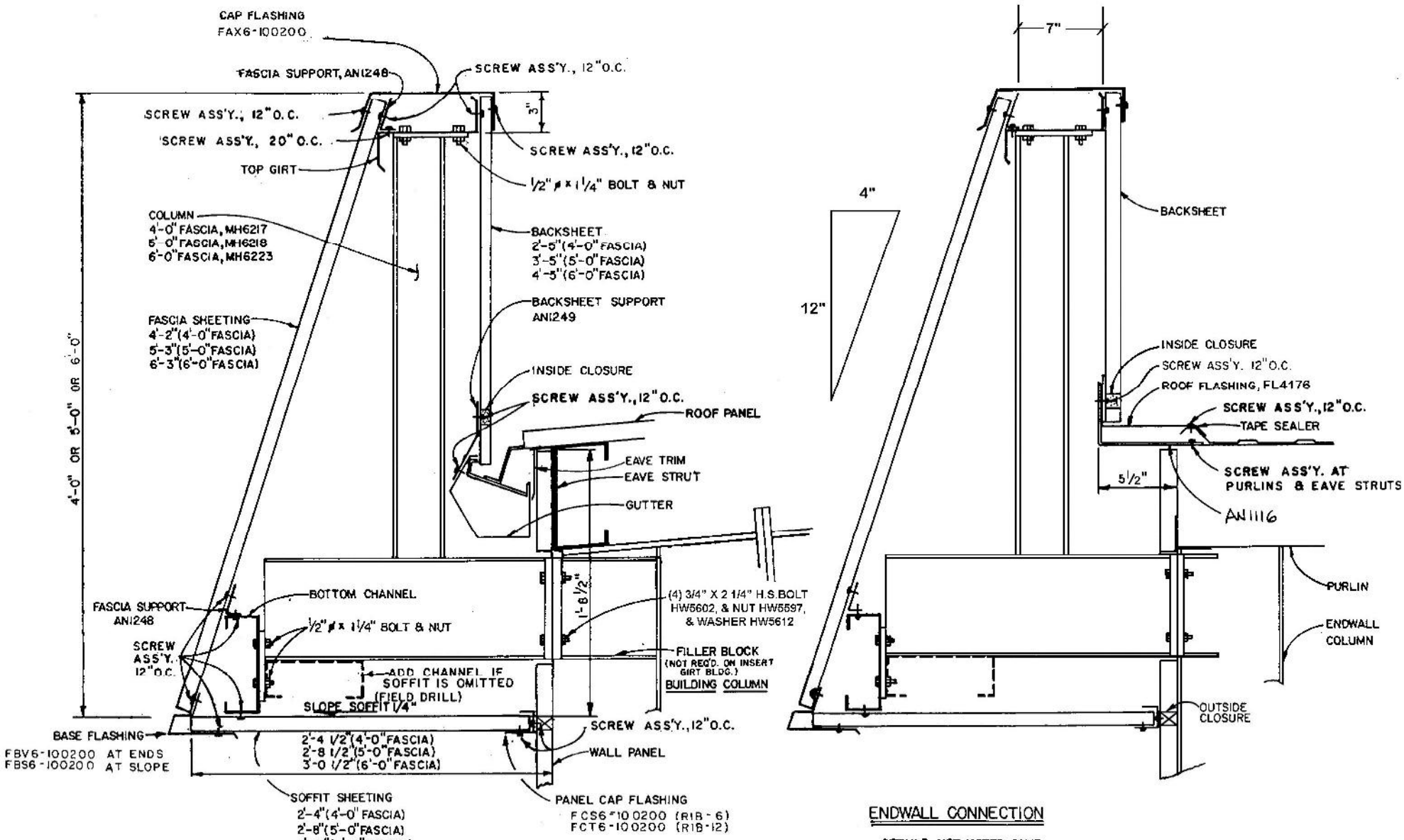
ALL BOLTS & NUTS
1/2 ø x 1 1/4"
(UNLESS NOTED)



3' CORNER RETURN FOR SIDEWALL FASCIA

Gauge of members shown will vary with wind load & code

Sloped Fascia Framing & Flashing Details



NOTE: SLOPE SOFFIT PANELS 1/4" TO DRAIN AWAY FROM SIDEWALL

SIDEWALL CONNECTION

ENDWALL CONNECTION

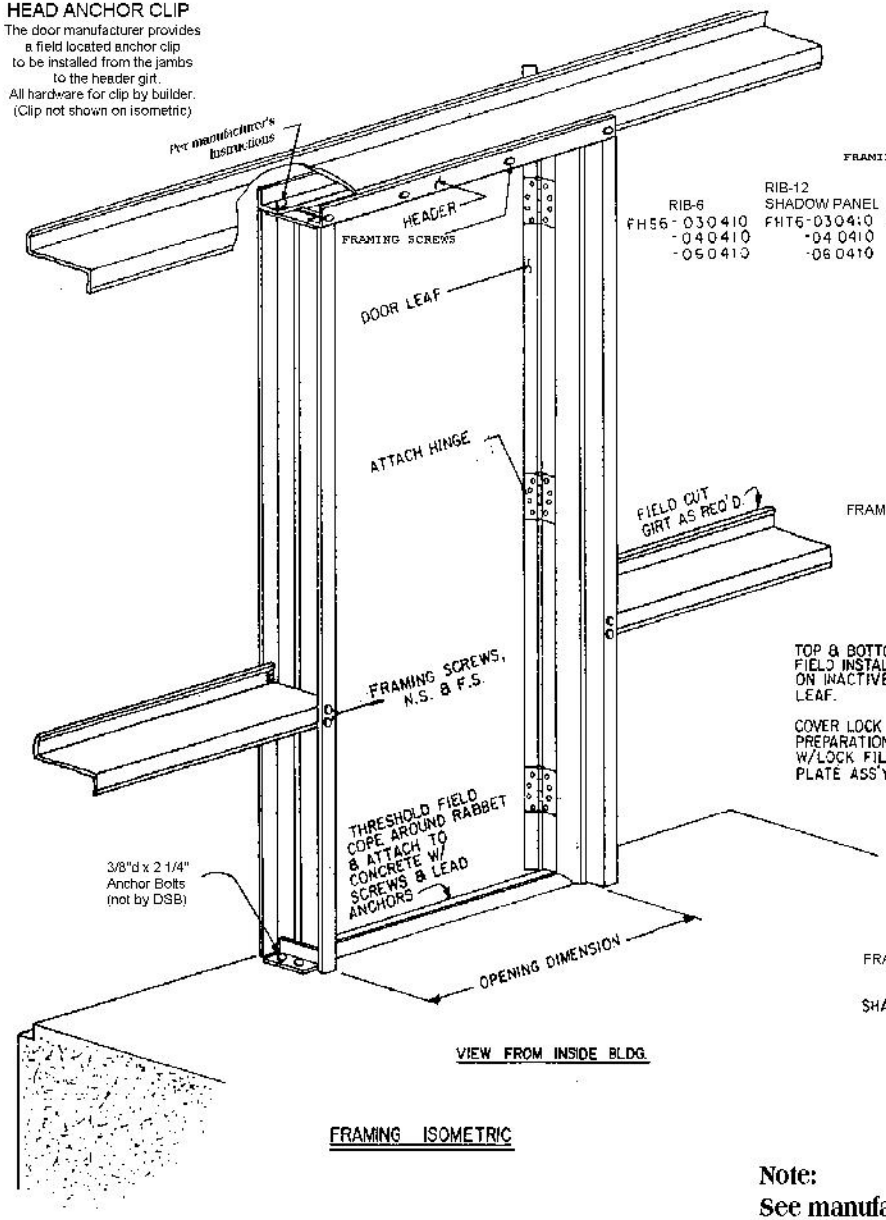
DETAILS NOT NOTED SAME AS SIDEWALL CONNECTION

GENERAL NOTES

1. SHEET WALL BEFORE HANGING FASCIA, DRILL HOLES IN PANELS FOR FASCIA BOLTS & SANDWICH PANEL BETWEEN THE FASCIA FRAME & THE FILLER BLOCK. THE ERECTOR IS RESPONSIBLE FOR WEATHERTIGHTNESS OF THE BUILDING AT THE FASCIA FRAME CONNECTION.
2. DEAN STD. GUTTER IS DESIGNED TO OVERFLOW DURING EXCESSIVE RAINFALL.

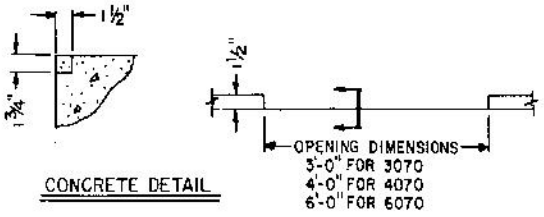
Sloped Fascia Cross Section

HEAD ANCHOR CLIP
The door manufacturer provides a field located anchor clip to be installed from the jambs to the header girt. All hardware for clip by builder. (Clip not shown on isometric)

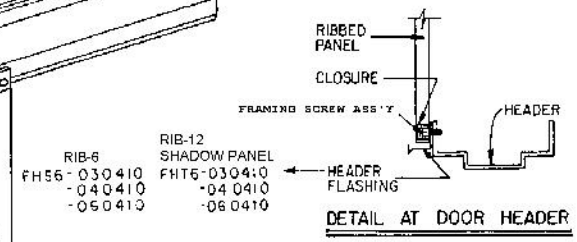


VIEW FROM INSIDE BLDG.

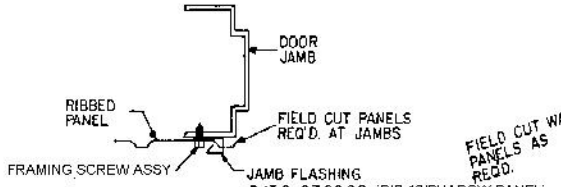
FRAMING ISOMETRIC



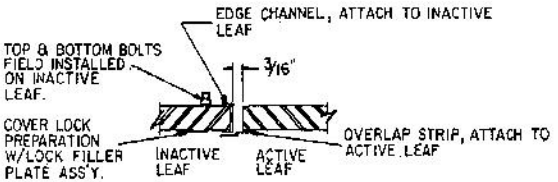
CONCRETE DETAIL



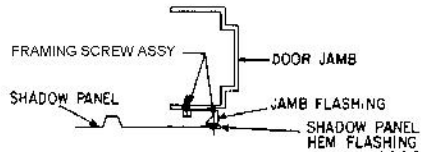
DETAIL AT DOOR HEADER



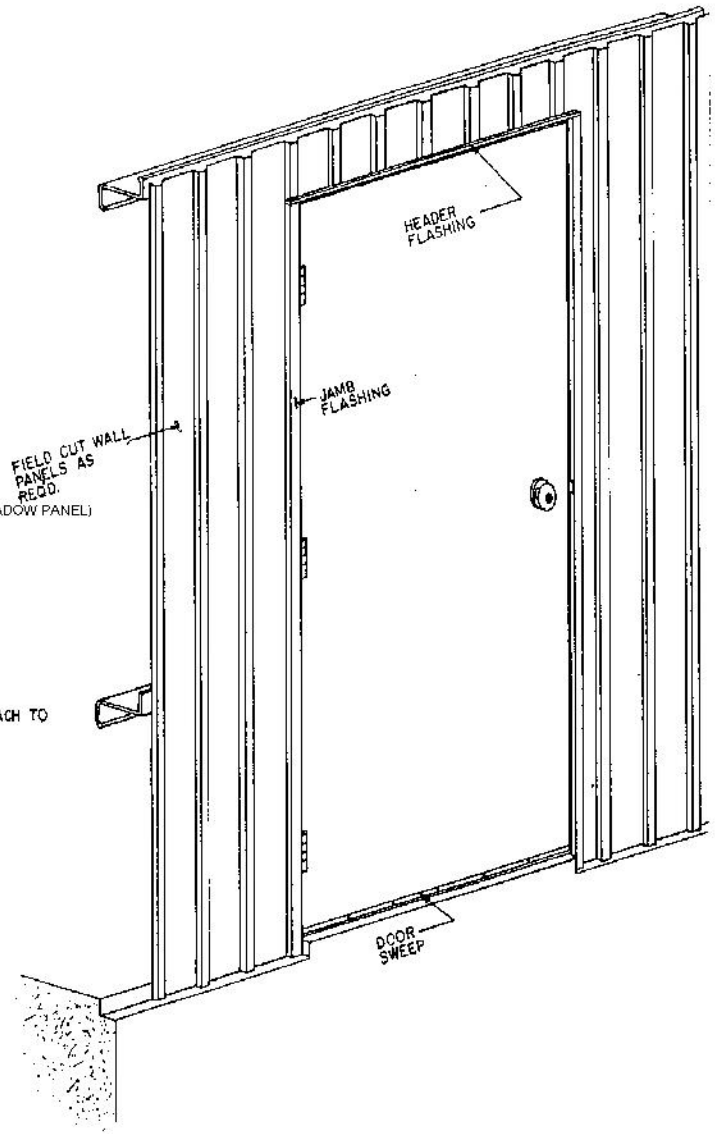
DETAIL AT DOOR JAMB



DETAIL FOR DOUBLE SWING DOORS



DOOR JAMB w/ SHADOW PANEL

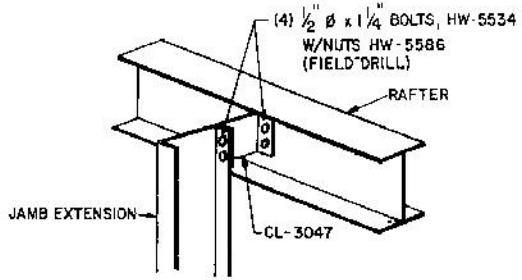


Note:
See manufacturer's installation instructions for size and location of all bolts and screws.

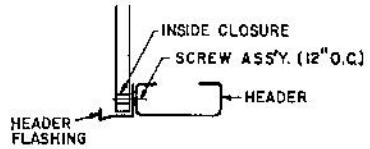
The purpose of this sheet is to show the interaction of the metal building and door and is not meant to replace the manufacturer's installation instructions.

Product Approval numbers are shown on cover sheet of drawing package.

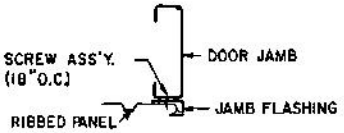
Self Framing Walk Door Details



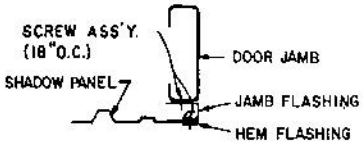
ENDWALL FRAMING



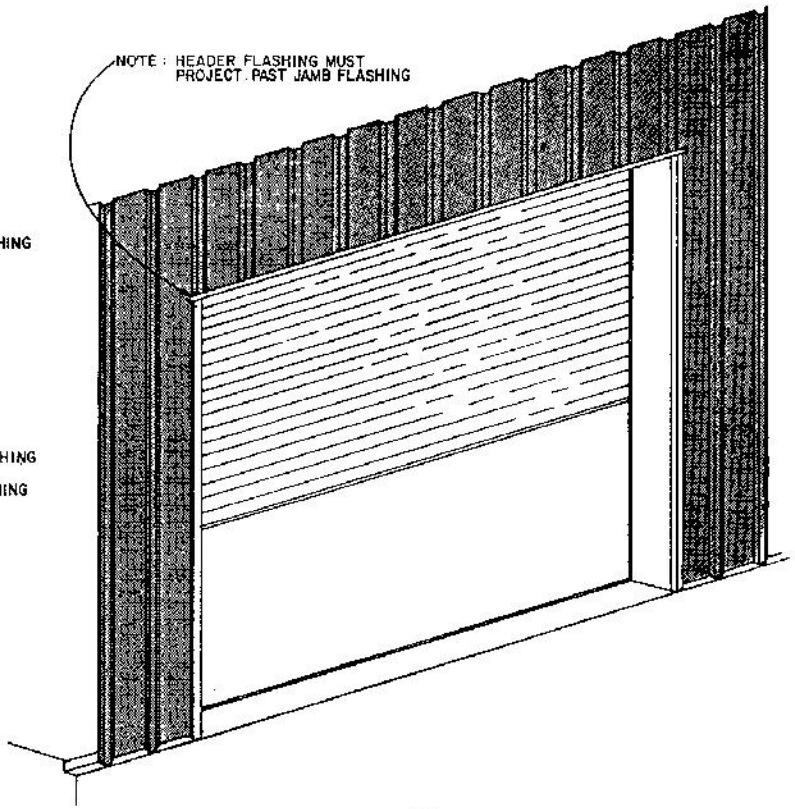
DETAIL AT HEADER

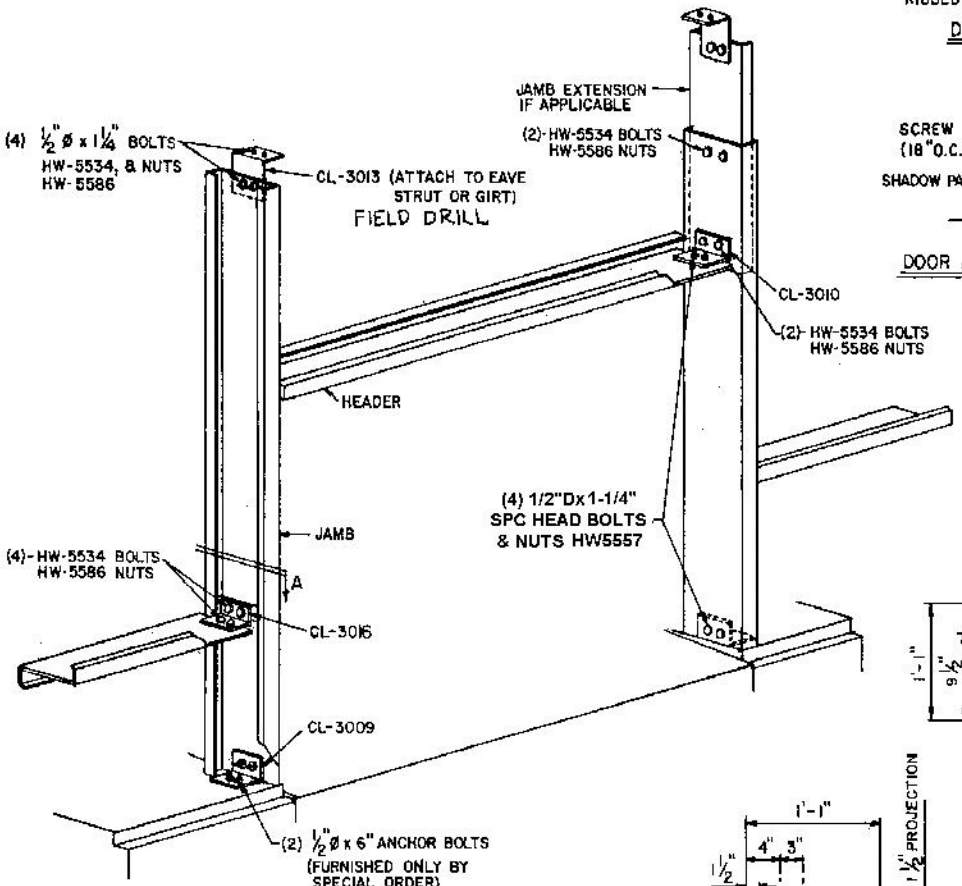


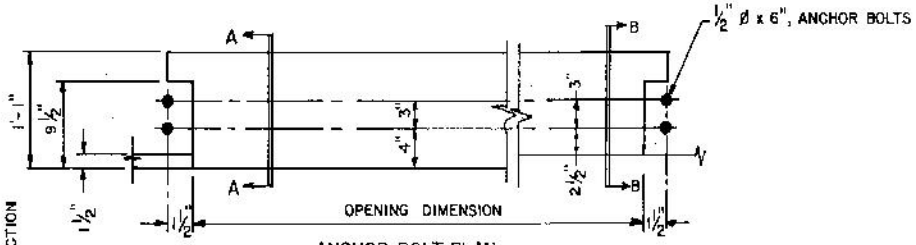
DETAIL AT DOOR JAMB



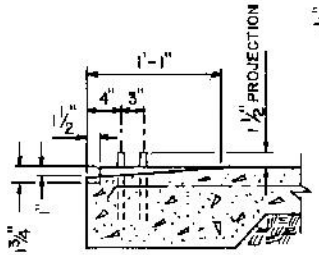
DOOR JAMB W/SHADOW PANEL



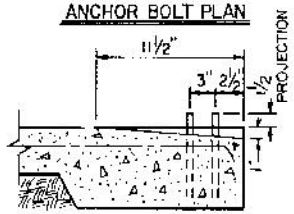




ANCHOR BOLT PLAN

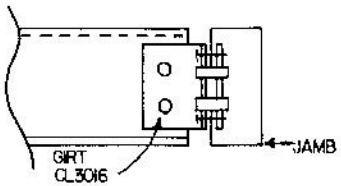


SECTION A-A
(WITH SHEET LEDGE)



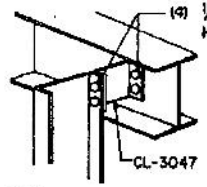
SECTION B-B
(W/O SHEET LEDGE)

SECTION-A

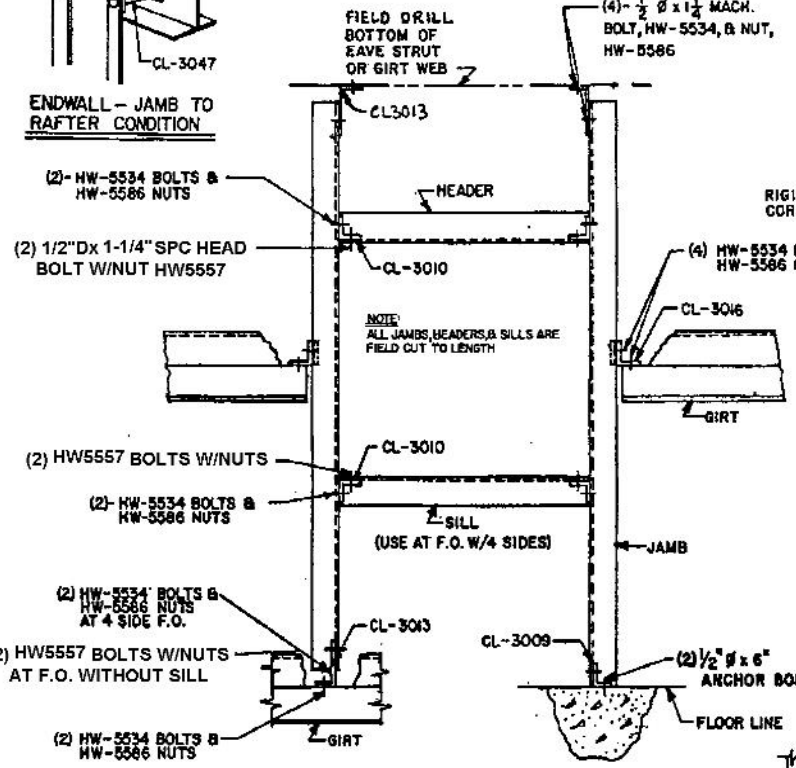


NOTE: USE TWO FRAMING SCREWS AT EACH CLIP CL3016 WHEN REQUIREDTO SUPPORT THE WEIGHT OF WORKMEN.

Overhead Door
Framed Opening Details

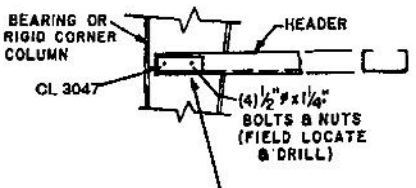


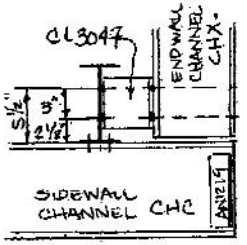
ENDWALL – JAMB TO RAFTER CONDITION

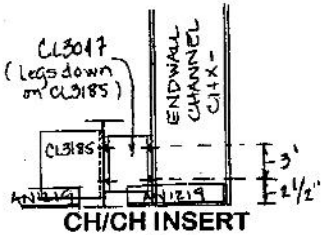


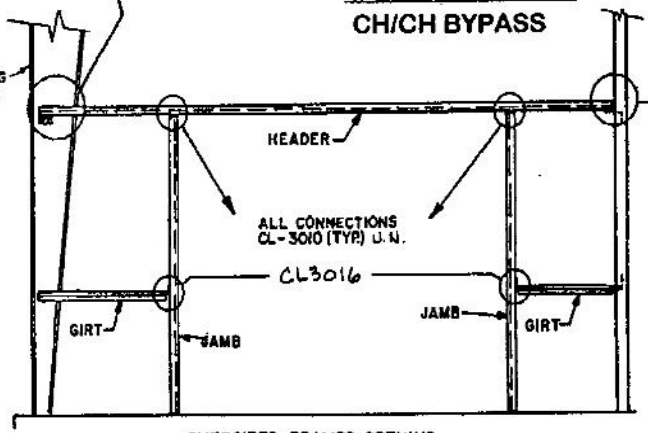
FRAMED OPENING

SIDEWALL & ENDWALL LOCATION DETAILS



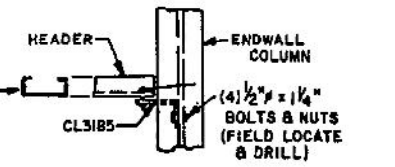




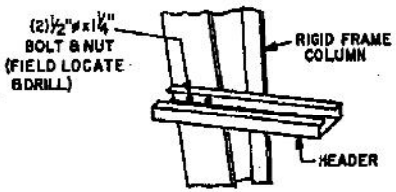


OVERSIZED FRAMED OPENING

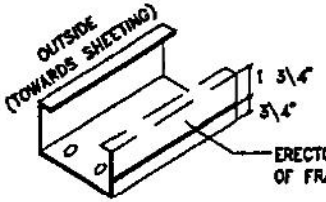
SIDEWALL & ENDWALL LOCATION DETAILS



ENDWALL COLUMN OR SIDEWALL INSERT HEADER CONDITION

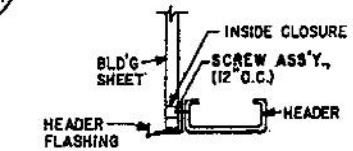


SIDEWALL BY-PASS HEADER CONDITION

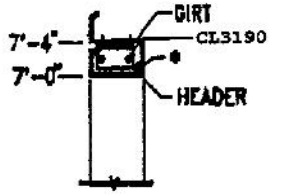


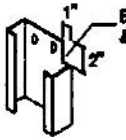
ERECTOR TO FIELD CUT INSIDE FLANGE OF FRAMED OPENING HEADER.

* NOTE 1
AT NO TIME SHOULD THE ERECTOR CUT OR MODIFY THE GIRT FLANGE, ALWAYS CUT HEADER CHANNEL.



HEADER FLASHING DETAIL

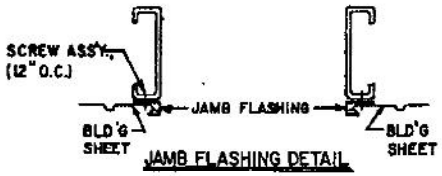




ERECTOR TO FIELD NOTCH INSIDE FLANGE & WEB OF FRAMED OPENING JAMB.

DETAIL FOR F.O. WITH 7'-0" HEADER HEIGHT

NOTE: FOR HEADERS ABOVE 7'-0" TO 7'-4" RUN JAMBS FULL HEIGHT TO NEXT GIRT RUN ABOVE OPENING. (GIRT TO START & STOP)



JAMB FLASHING DETAIL

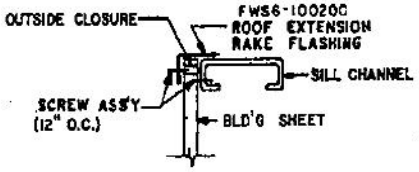
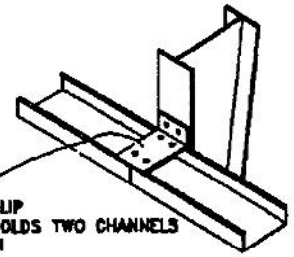
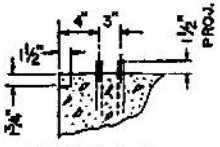


PLATE GLASS WINDOW SILL FLASHING





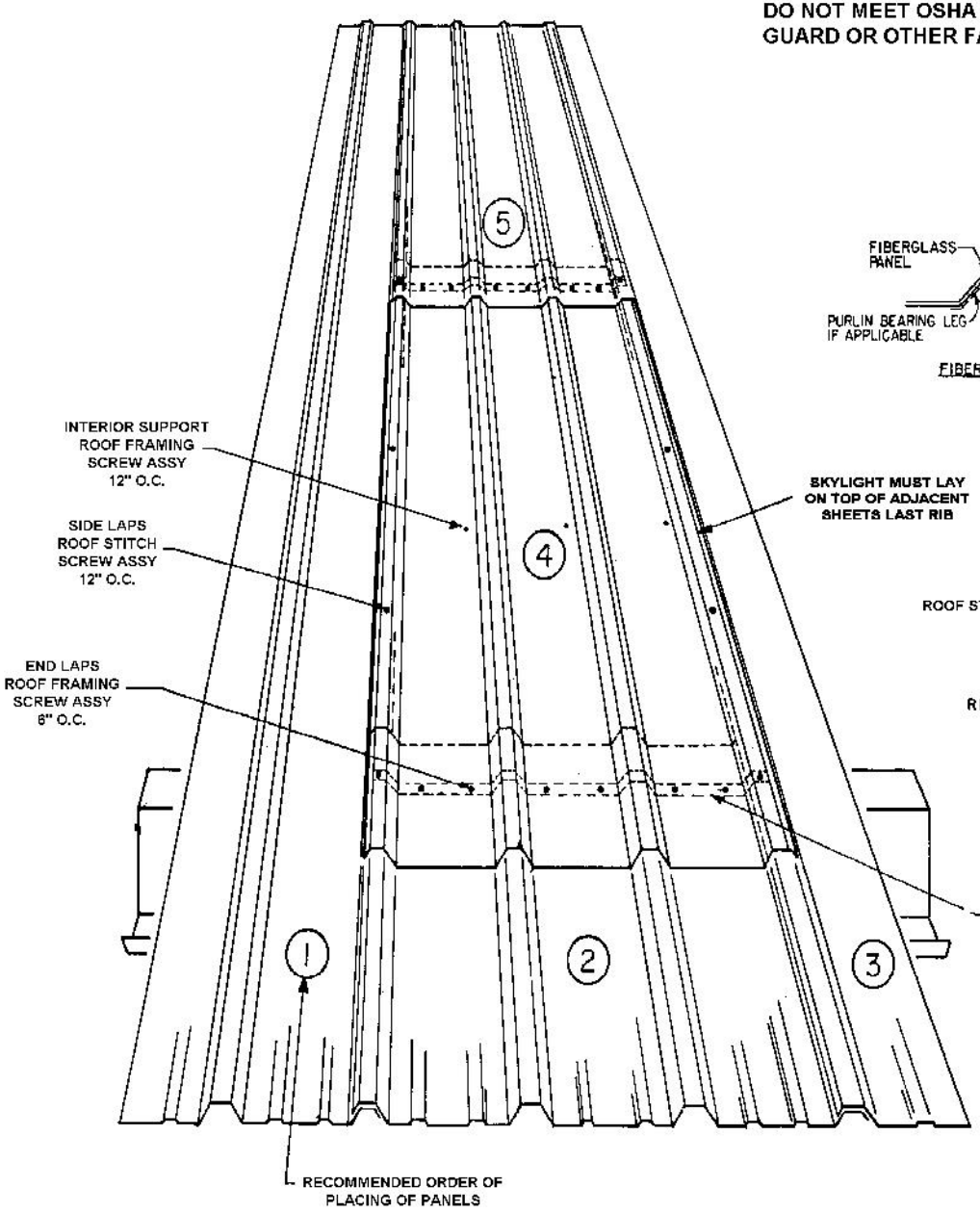
SECTION A-A

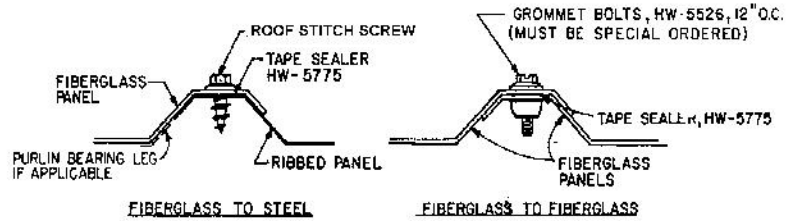
ANCHOR BOLT PLAN

NOTE:
JAMB TRIM PREFIX IS FJT6- (RIB-12)
FJS6- (RIB-6)
HEADER TRIM PREFIX IS FHT6- (RIB-12)
FHS6- (RIB-6)

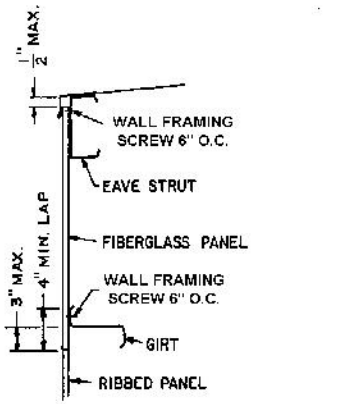
Miscellaneous Framed Opening Details

NOTE: DSB PROVIDED LIGHT TRANSMITTING PANELS DO NOT MEET OSHA FALL PROTECTION REQUIREMENTS. GUARD OR OTHER FALL PROTECTION DEVICE REQUIRED.

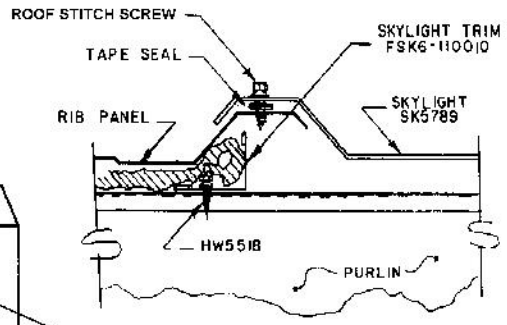




TYPICAL SIDE LAPS

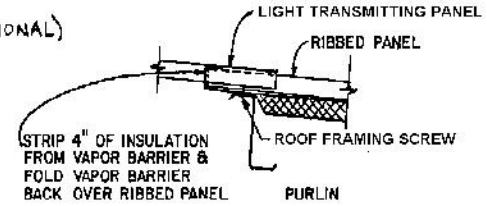


TYPICAL FIBERGLASS WALL PANEL INSTALLATION



SKYLIGHT TRIM INSTALLATION

IF SKYLIGHT TRIM IS NOT USED, ROLL BACK INSULATION AS REQUIRED.



END LAP WITH INSULATION

CAUTION

DO NOT STAND ON LIGHT TRANSMITTING PANELS. LTP'S ARE NOT DESIGNED TO CARRY CONCENTRATED LOAD. STANDING ON LTP'S MAY CAUSE THE PANEL TO FAIL RESULTING IN SEVERE PERSONAL INJURY.

FOR UL-90 SKYLIGHT KITS REFER TO UL CONSTRUCTION #167 FOR INSTALLATION INSTRUCTIONS

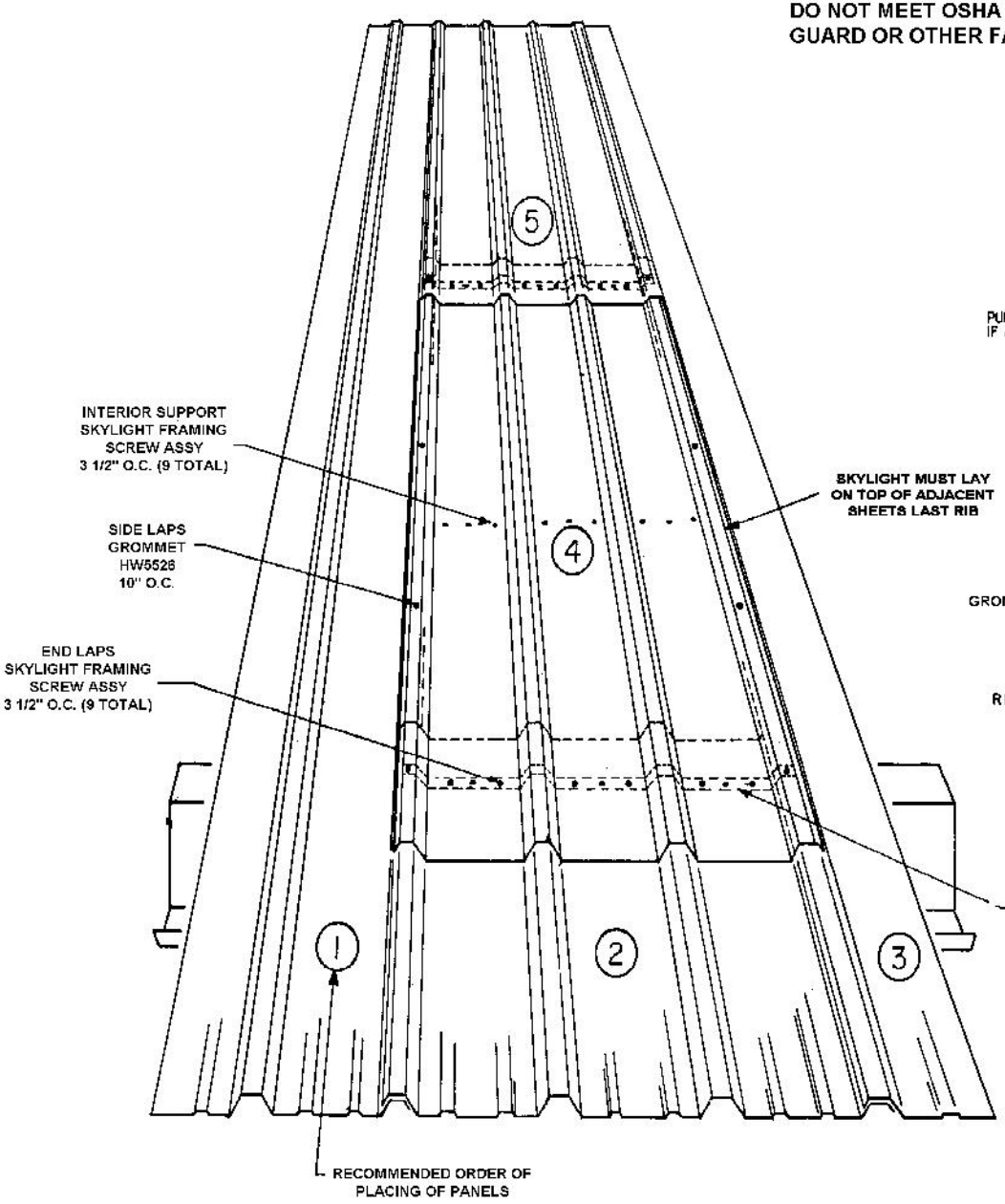
Standard Skylight Details

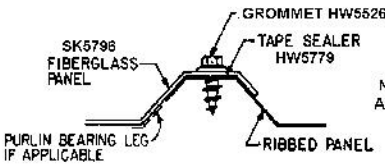
LIGHT TRANSMITTING PANELS

39

3.5.2013

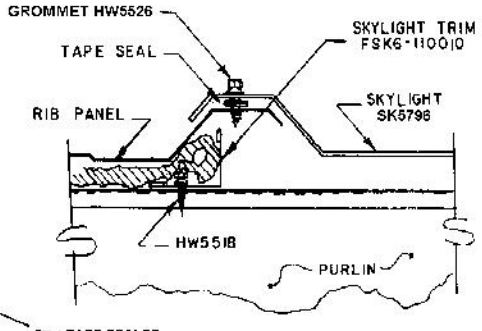
NOTE: DSB PROVIDED LIGHT TRANSMITTING PANELS DO NOT MEET OSHA FALL PROTECTION REQUIREMENTS. GUARD OR OTHER FALL PROTECTION DEVICE REQUIRED.





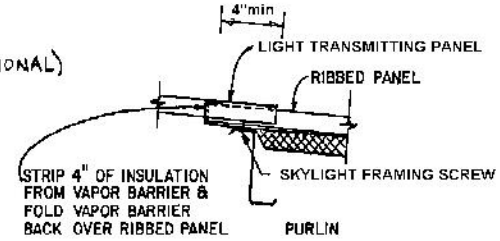
NOTE: SKYLIGHT TO SKYLIGHT APPLICATIONS NOT PERMITTED

TYPICAL SIDE LAPS



SKYLIGHT TRIM INSTALLATION

IF SKYLIGHT TRIM IS NOT USED, ROLL BACK INSULATION AS REQUIRED.

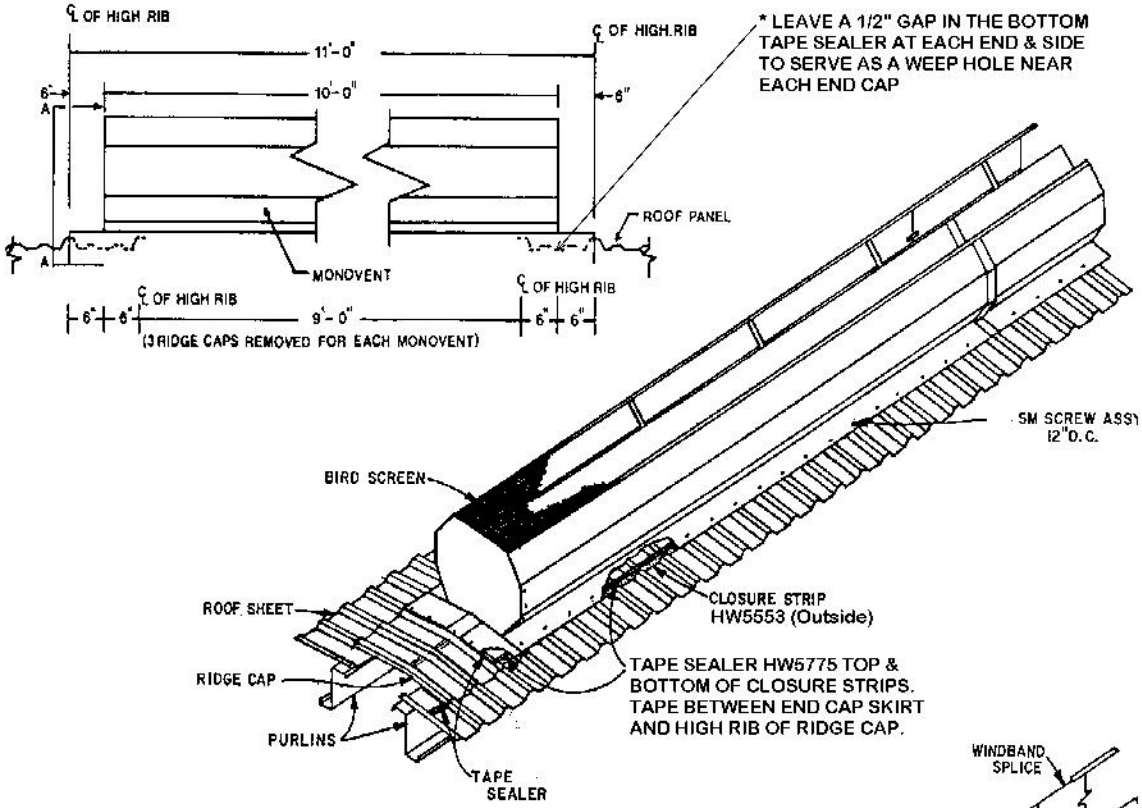


END LAP WITH INSULATION

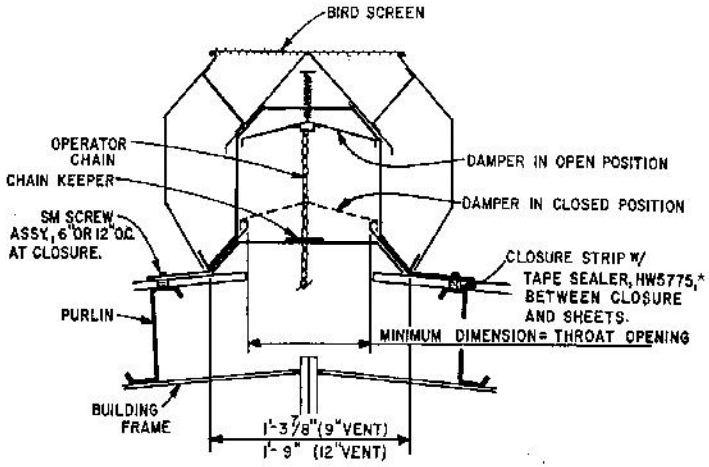
CAUTION

DO NOT STAND ON LIGHT TRANSMITTING PANELS. LTP'S ARE NOT DESIGNED TO CARRY CONCENTRATED LOAD. STANDING ON LTP'S MAY CAUSE THE PANEL TO FAIL RESULTING IN SEVERE PERSONAL INJURY.

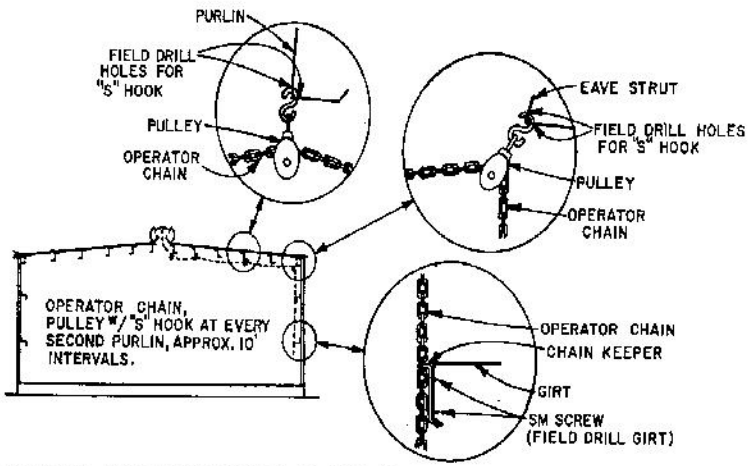
THE INSTALLATION INSTRUCTION FOR FL13793 SUPERSEED THESE INSTRUCTIONS.



NOTE: MONOVENTS MAY NOT BE 100% WEATHERTIGHT IN SOME STORM CONDITIONS. CONDENSATION ON VENTS CAN ALSO PRODUCE MOSITURE INFILTRATION OF THE BUILDING SYSTEM.

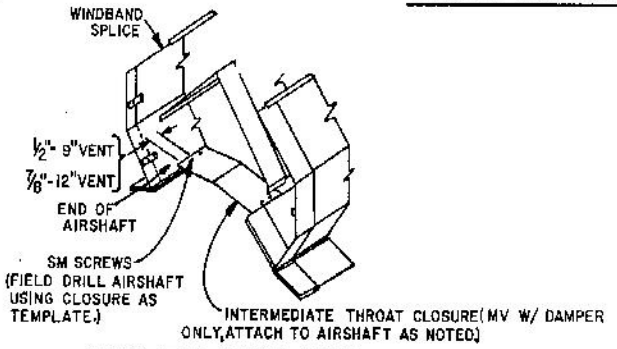


SECTION THRU VENTILATOR WITH DAMPER



SUGGESTED DIAGRAM FOR INSTALLATION OF OPERATOR CHAIN

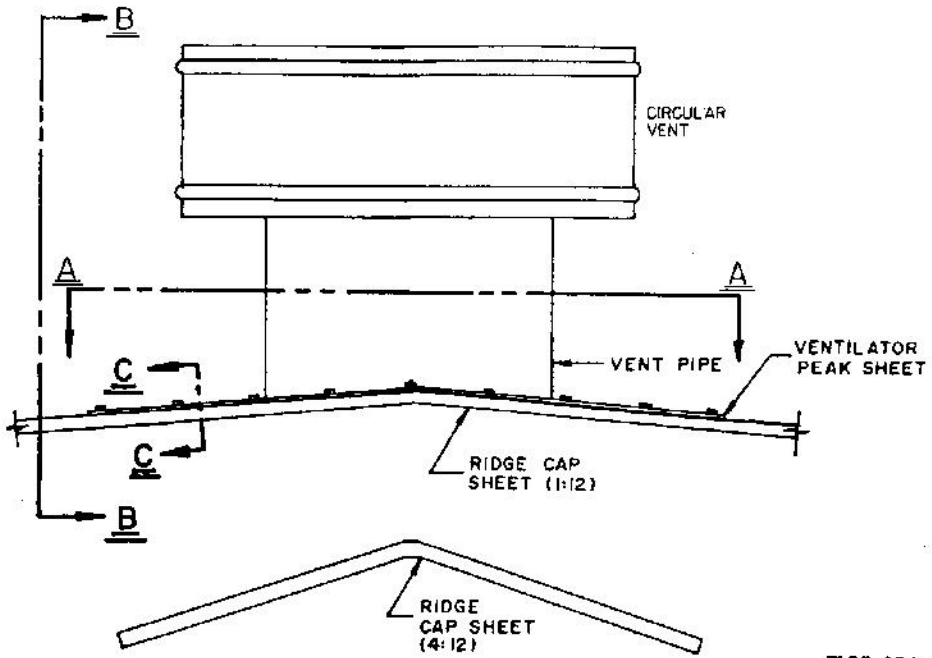
(PARTS SHOWN NOT SUPPLIED)

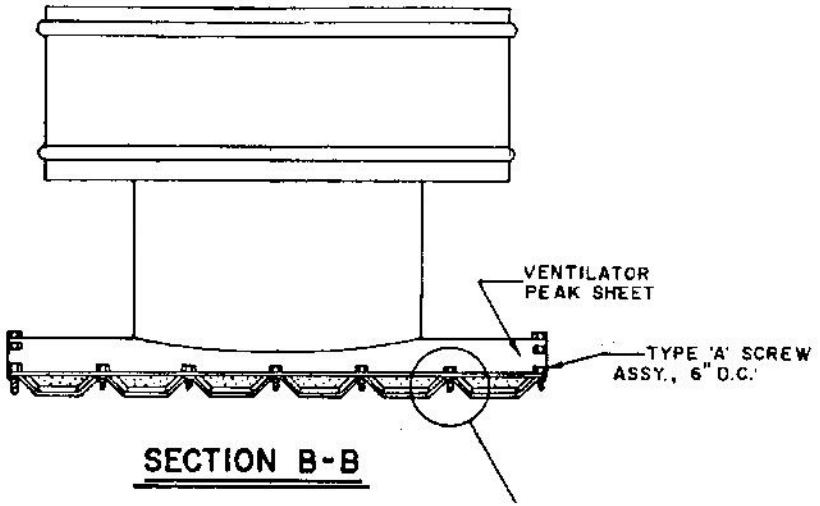


VENTILATOR SPLICE DETAIL

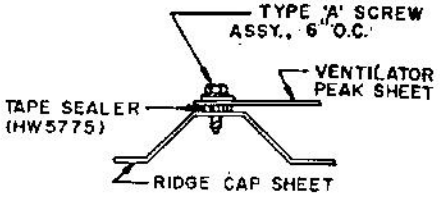
ALL VENTS ARE SHIPPED WITH END CAPS
REMOVE CAP AND SPLICE AS SHOWN ABOVE
FOR CONTINIOUS VE NT OPERATION

Monovent Details

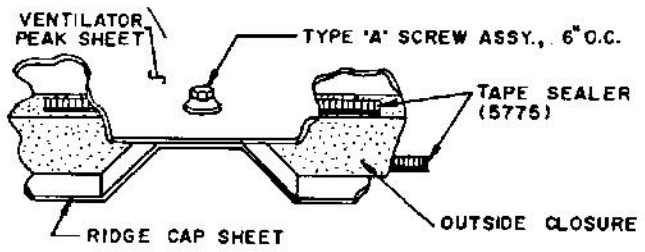




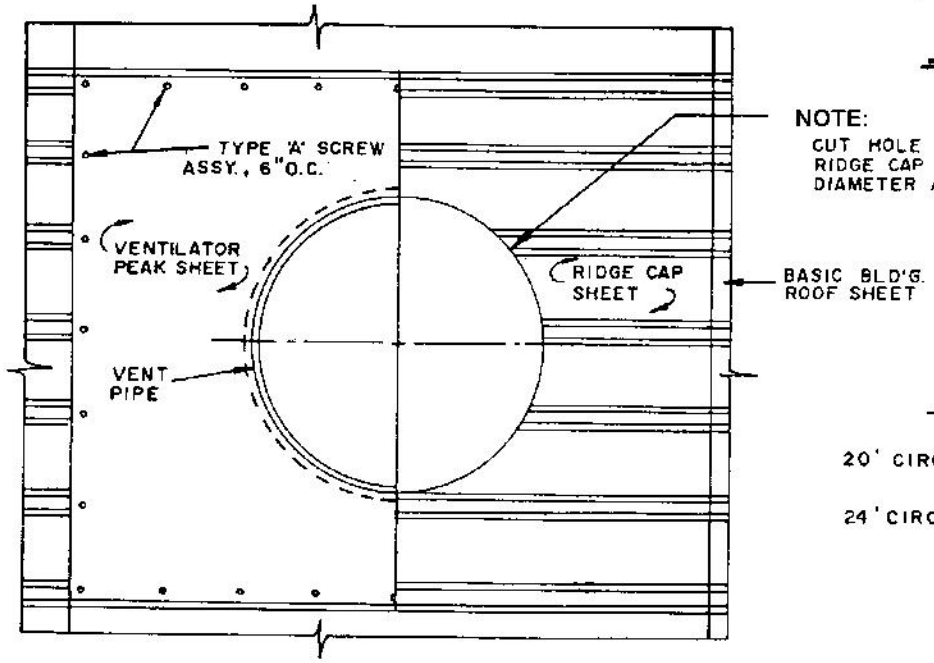
SECTION B-B



SECTION C-C



DETAIL B-1



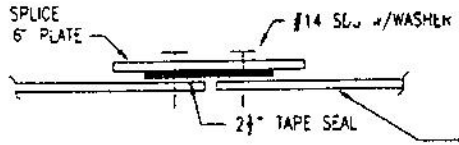
NOTE:
CUT HOLE IN RIDGE CAP SAME DIAMETER AS VENT.

SECTION A-A

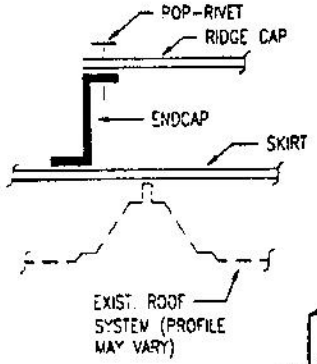
PARTS SCHEDULE

20' CIRCULAR VENT	1:12	W/O DAMPER ONLY	VT7000
	4:12	" " "	VT7002
24' CIRCULAR VENT	1:12	W/O DAMPER ONLY	VT7004
	4:12	" " "	VT7006

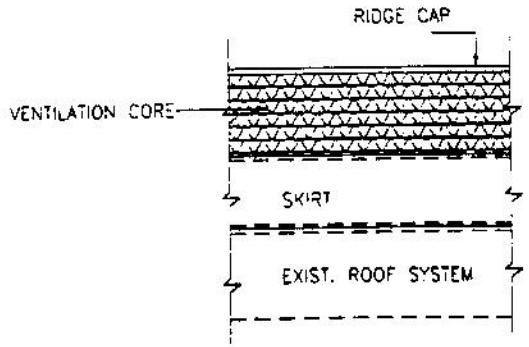
Circular Vent Details



SECTION "B"



SECTION "C"



SECTION "A"

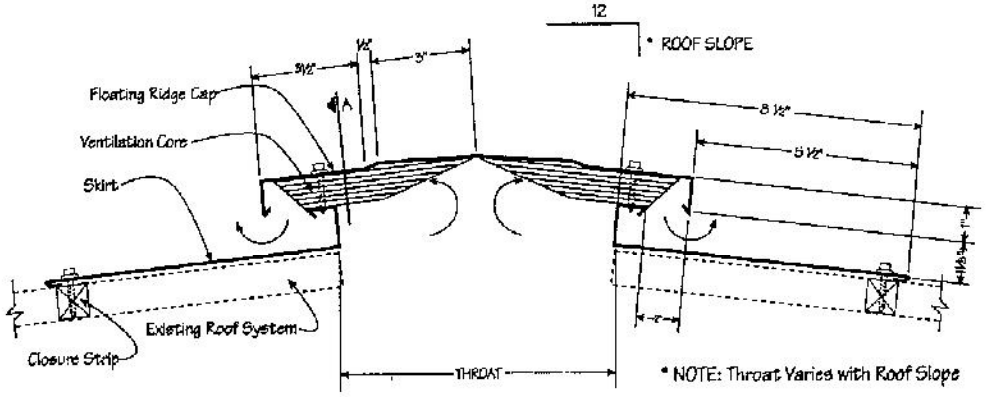
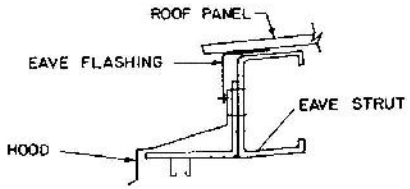


TABLE A						
Air Movement per Lineal Foot Factors						
HEIGHT IN FEET	Temperature Difference					
	5°	10°	15°	20°	25°	30°
10	16.65A	22.05A	26.10A	28.80A	31.50A	34.20A
15	18.90A	27.00A	31.95A	36.00A	38.70A	41.40B
20	23.85A	31.50A	36.45A	41.40A	44.50B	48.15B
25	26.10A	34.65A	40.05A	45.00B	48.60B	53.10C
30	28.35A	37.35A	43.65B	48.60B	52.65C	57.60C
35	29.70A	39.15B	45.90B	51.30B	55.80C	60.75C
40	31.50B	41.85B	48.60B	54.90C	58.50C	63.45C
45	33.30B	43.20B	50.40B	57.60C	62.10C	66.60C
50	34.65B	45.45B	53.10C	59.85C	64.80C	70.20D

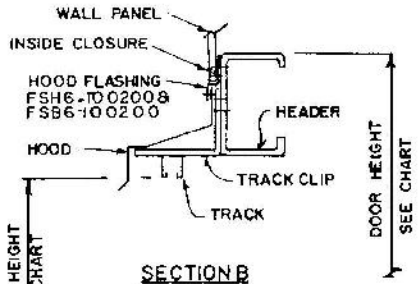
TABLE B				
Wind Velocity Factors				
WIND M.P.H.	Factors			
	A	B	C	D
3	1.14	1.09	1.05	1.02
5	1.25	1.18	1.13	1.09
7	1.41	1.29	1.22	1.16
9	1.62	1.43	1.33	1.25
11	1.82	1.57	1.43	1.32

TOTAL CFM = (Table A) X (Table B) X Length

Lo-Profile Ridge Vent

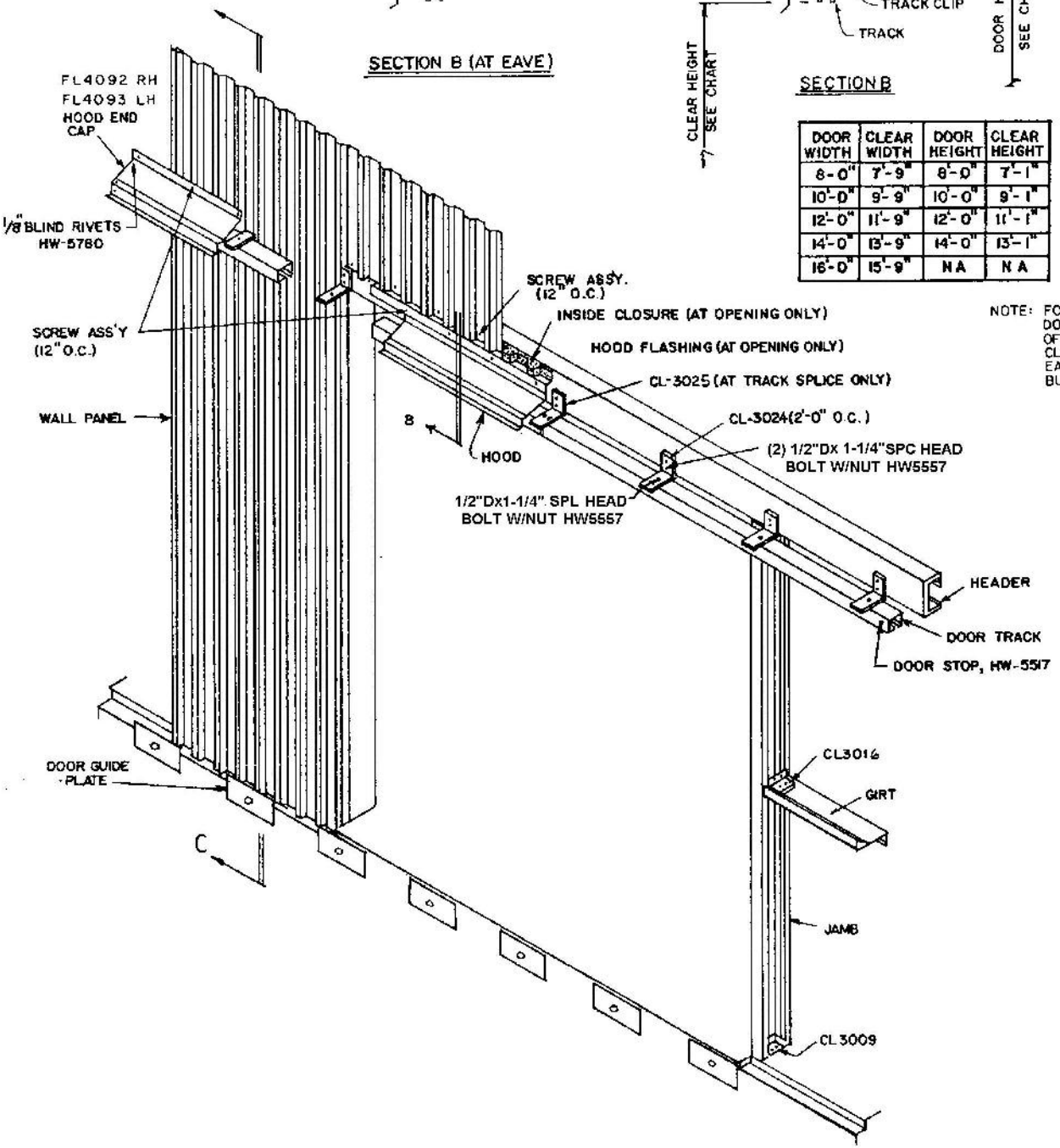


SECTION B (AT EAVE)

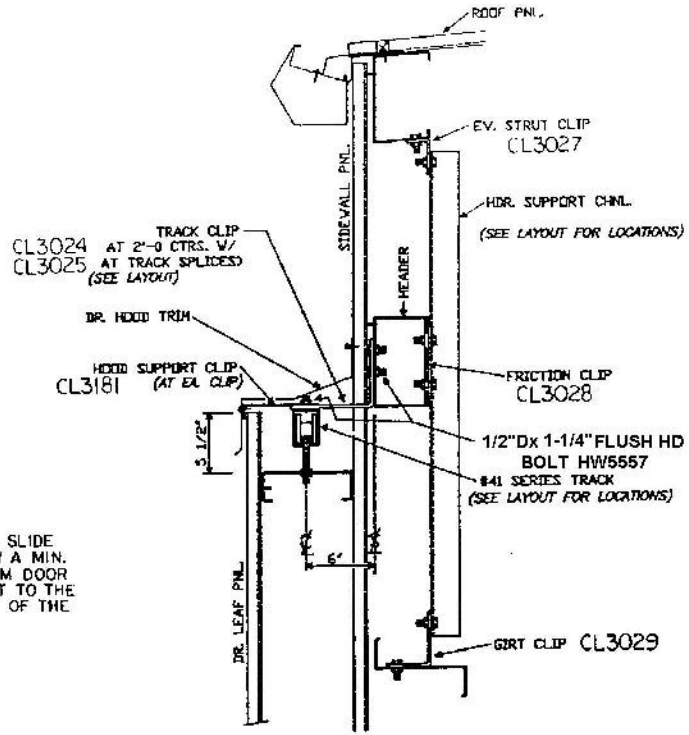


SECTION B

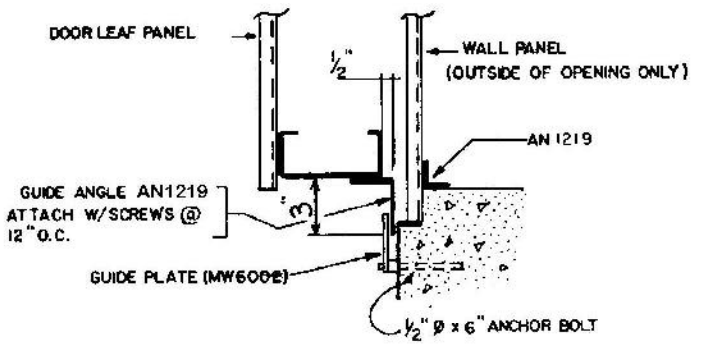
DOOR WIDTH	CLEAR WIDTH	DOOR HEIGHT	CLEAR HEIGHT
8'-0"	7'-9"	8'-0"	7'-1"
10'-0"	9'-9"	10'-0"	9'-1"
12'-0"	11'-9"	12'-0"	11'-1"
14'-0"	13'-9"	14'-0"	13'-1"
16'-0"	15'-9"	NA	NA



NOTE: FOR ENDWALL SLIDE DOORS ALLOW A MIN. OF 1'-8" FROM DOOR CLEAR HEIGHT TO THE EAVE HEIGHT OF THE BUILDING

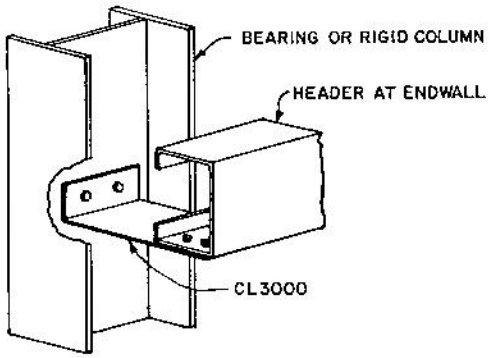


SECTION " C "
(OUTSIDE OF OPNG.)

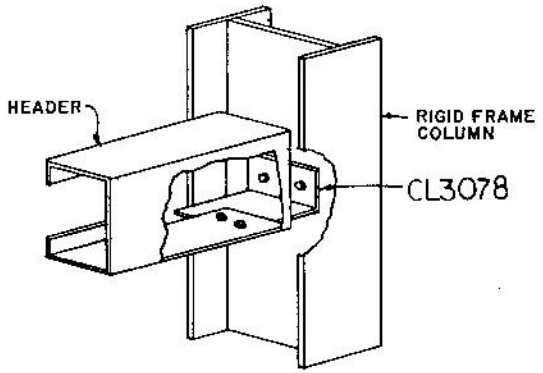


SECTION "C"

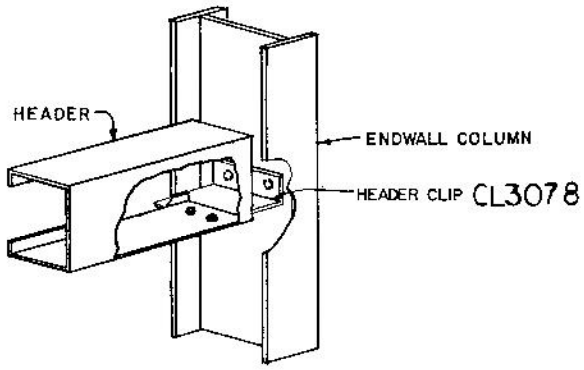
Slide Door Opening
Isometric



CORNER COLUMN

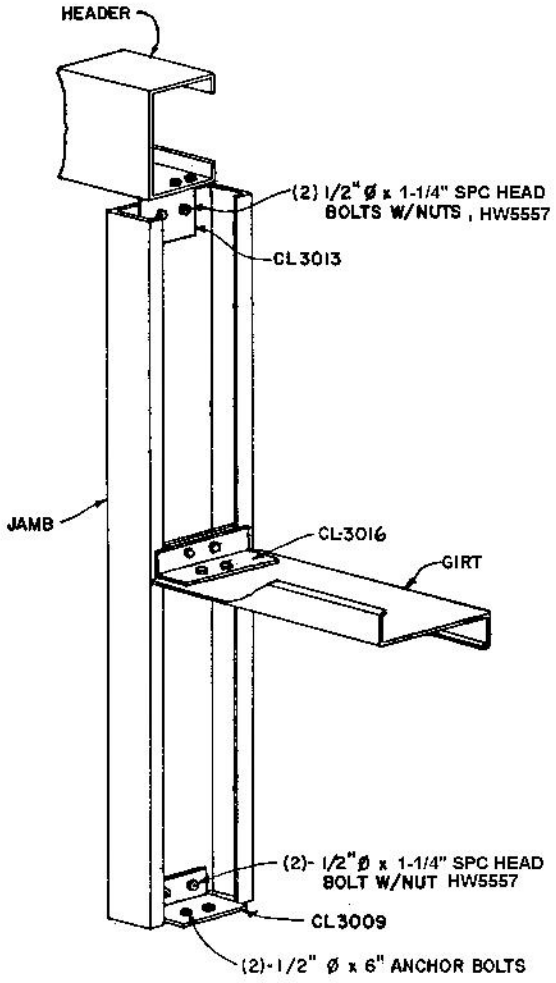


INSERT GIRT
RIGID FRAME

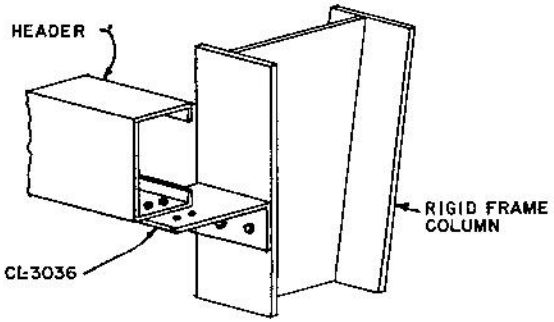


ENDWALL COLUMN

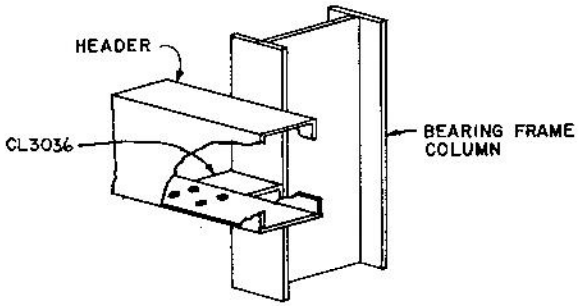
(ALL BOLTS 1/2"Ø x 1-1/4" UNLESS NOTED)



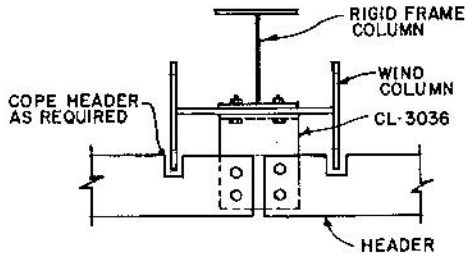
JAMB CONNECTIONS



BYPASS GIRT
RIGID FRAME

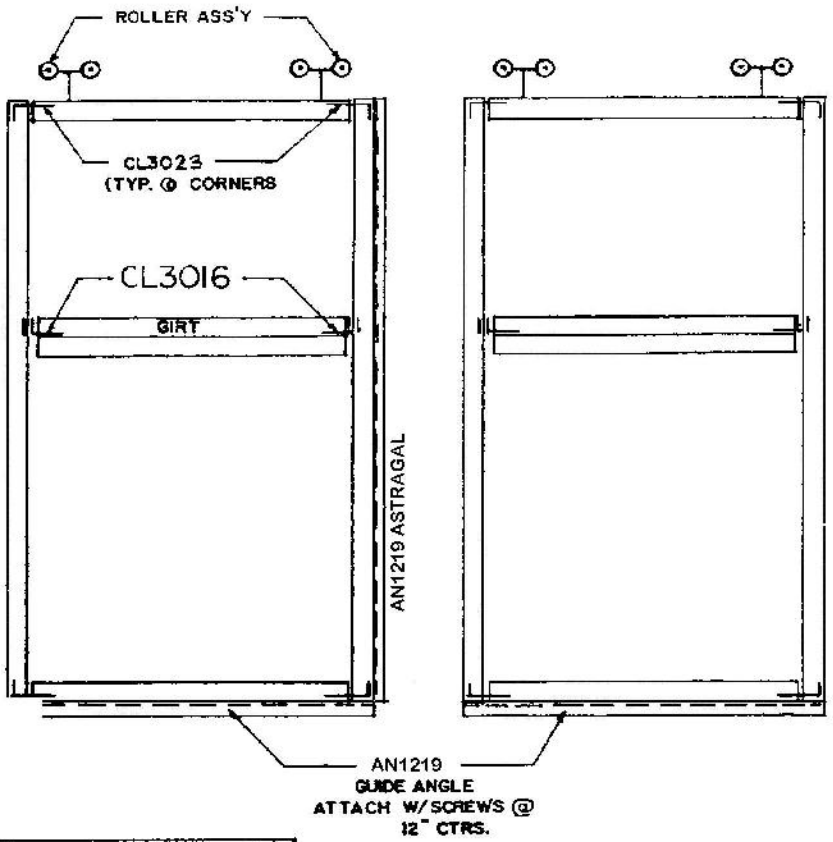


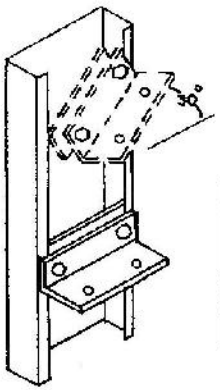
BEARING FRAME



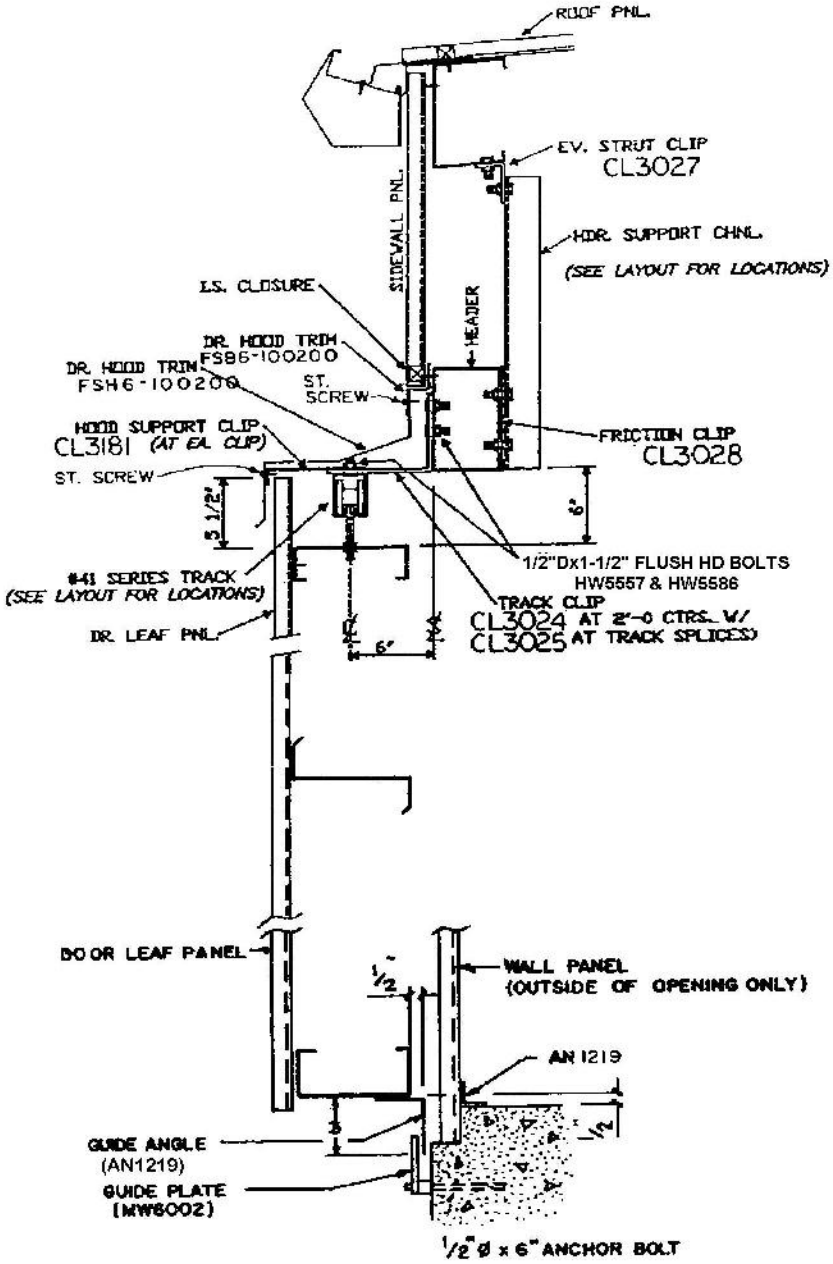
WIND COLUMN

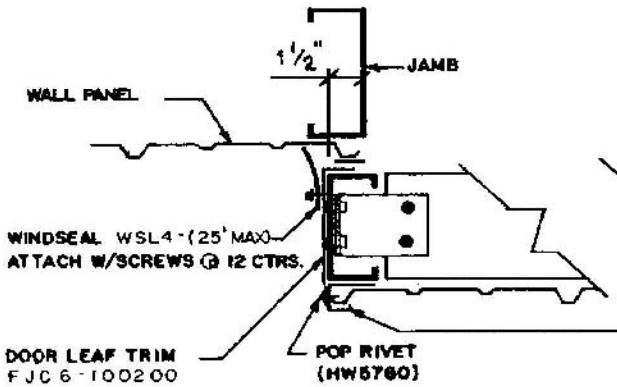
Slide Door Opening Framing Details 45

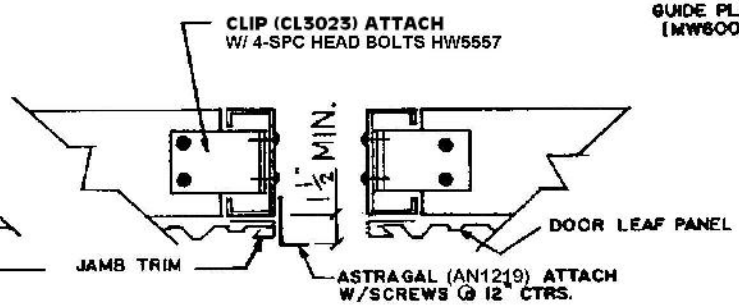




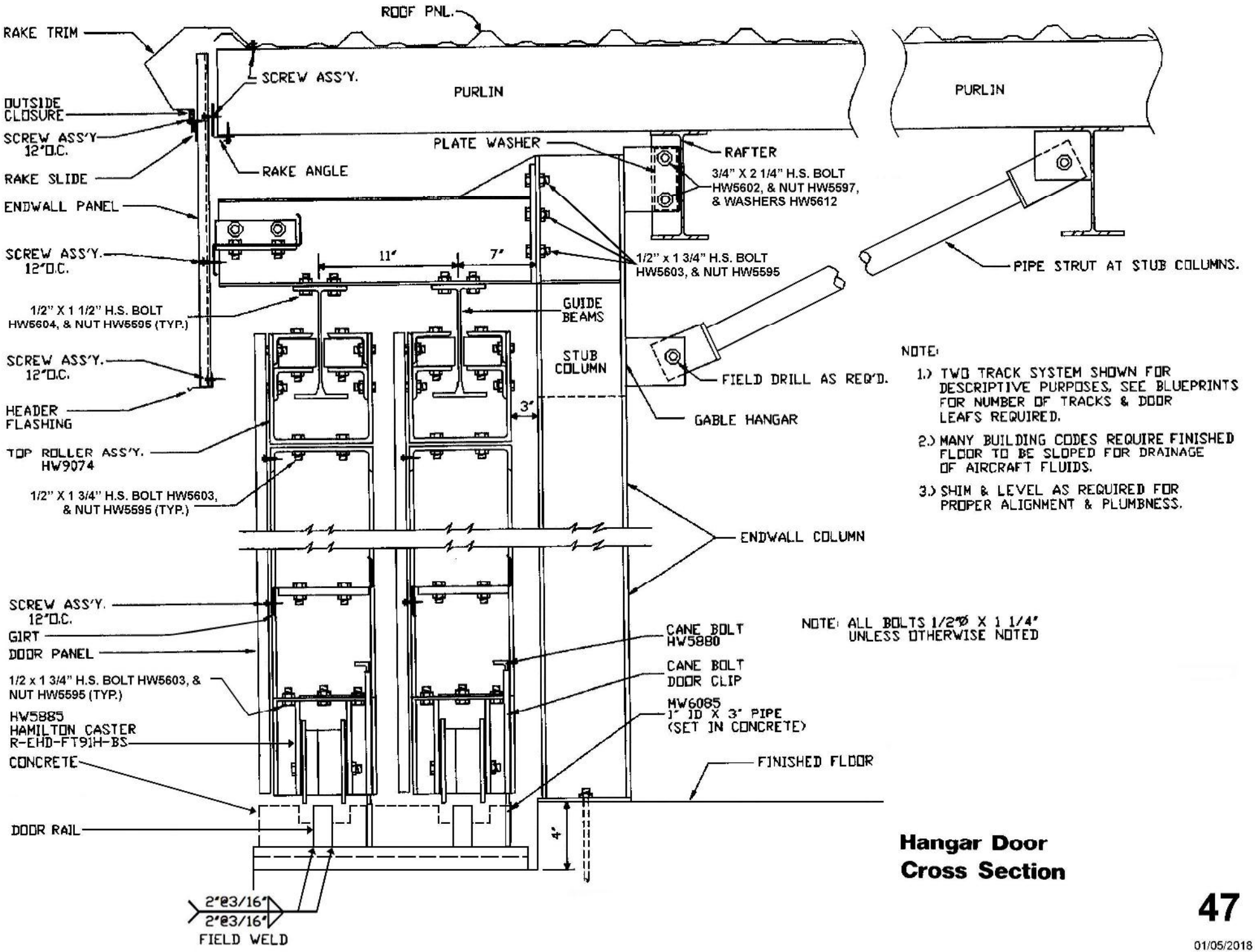
CAUTION TO BUILDER
DO NOT STAND ON CL3016 DURING THE ERECTION PROCESS.







Slide Door Leaf Details



NOTE:

1.) TWO TRACK SYSTEM SHOWN FOR DESCRIPTIVE PURPOSES, SEE BLUEPRINTS FOR NUMBER OF TRACKS & DOOR LEAFS REQUIRED.

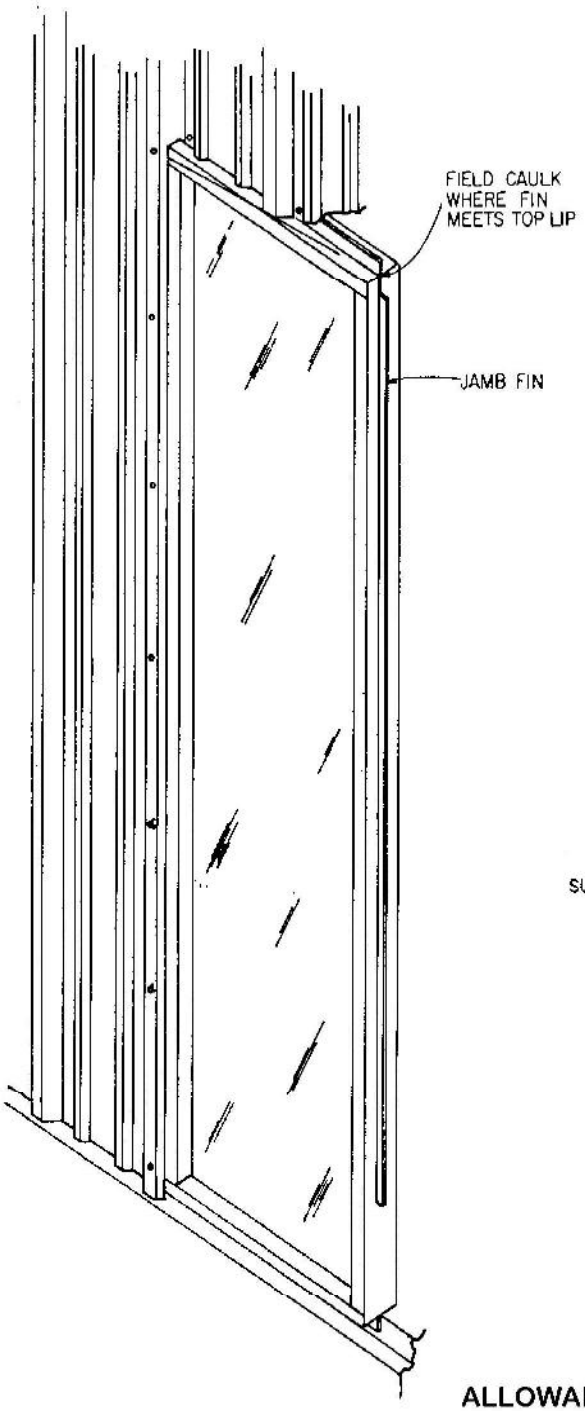
2.) MANY BUILDING CODES REQUIRE FINISHED FLOOR TO BE SLOPED FOR DRAINAGE OF AIRCRAFT FLUIDS.

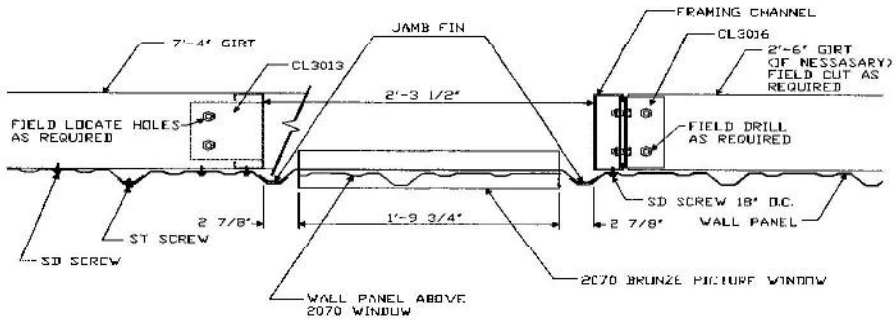
3.) SHIM & LEVEL AS REQUIRED FOR PROPER ALIGNMENT & PLUMBNESS.

NOTE: ALL BOLTS 1/2"Ø X 1 1/4" UNLESS OTHERWISE NOTED

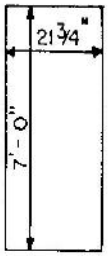
Hangar Door Cross Section

NOTE: FOR WINDOWS REQUIRING FL PRODUCT APPROVAL

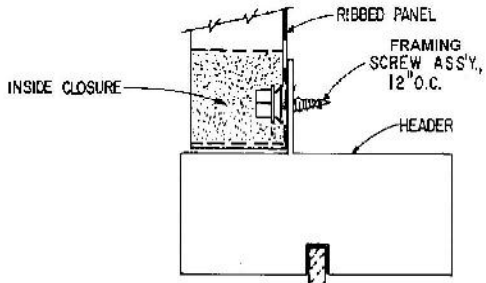


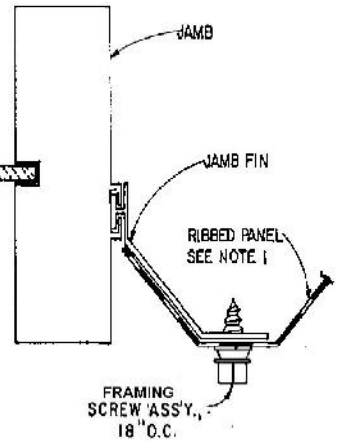


FOR RED STEEL FRAMING DETAILS SEE MISCELLANEOUS FRAMED OPENING (NO HEADER REQUIRED)

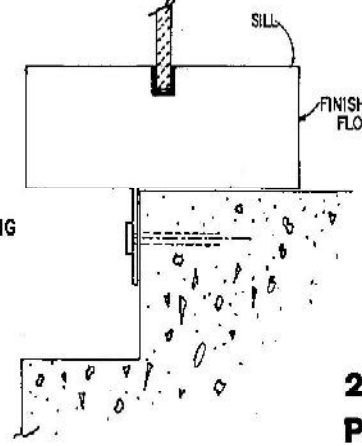


SUGGESTED OPENING DIMENSIONS





SECTION THRU JAMB



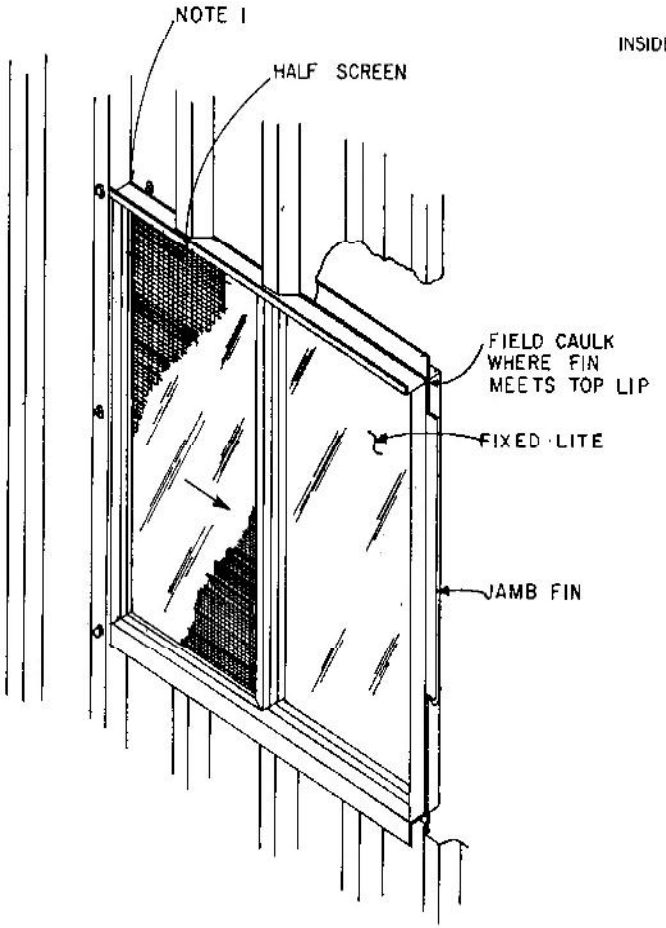
SUGGESTED SILL FASTENING
STEP 1 DRILL CONCRETE
STEP 2 USE DRIVE PIN
STEP 3 GROUT IN

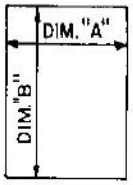
SECTION THRU SILL AND HEADER

NOTES
1. SHEET IS CUT AT BASE OF MAJOR RIB.. ALL PROFILES.
2. JAMB FINS ARE TO BE CHANGED FOR DIFFERENT SHEET PROFILES. PLEASE SPECIFY WHEN ORDERING.

2070 Bronze Picture Window

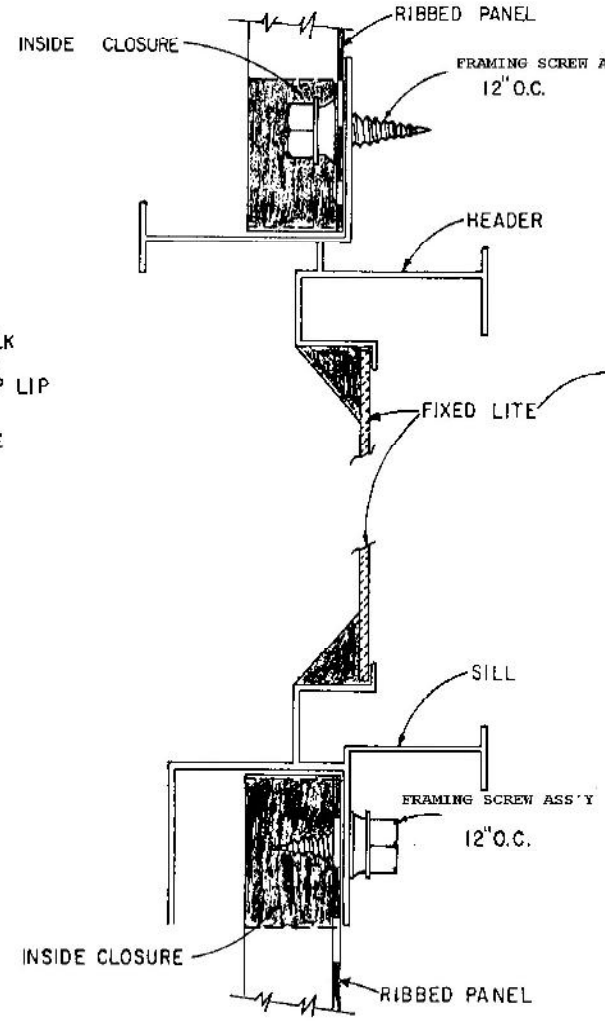
ALLOWABLE WIND LOAD = 45.0 PSF



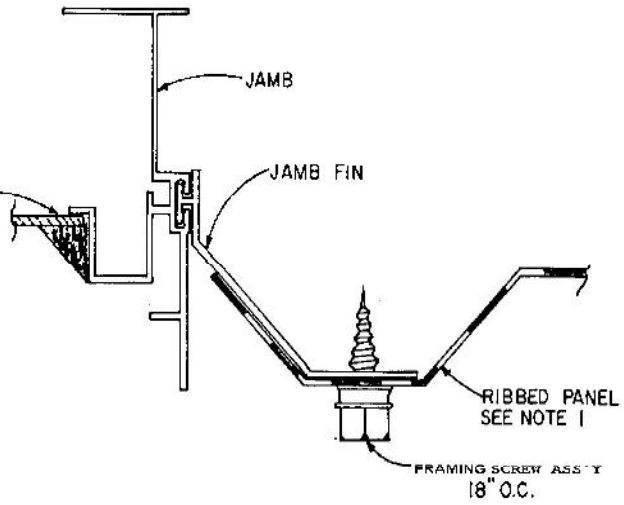


SUGGESTED OPENING DIMENSIONS

WINDOW STYLE	DIM. "A"	DIM. "B"
2020 HORZ. SLIDE	21 3/4"	24"
3030 HORZ. SLIDE	33 3/4"	36"
6030 HORZ. SLIDE	69 3/4"	36"



SECTION THRU SILL AND HEADER



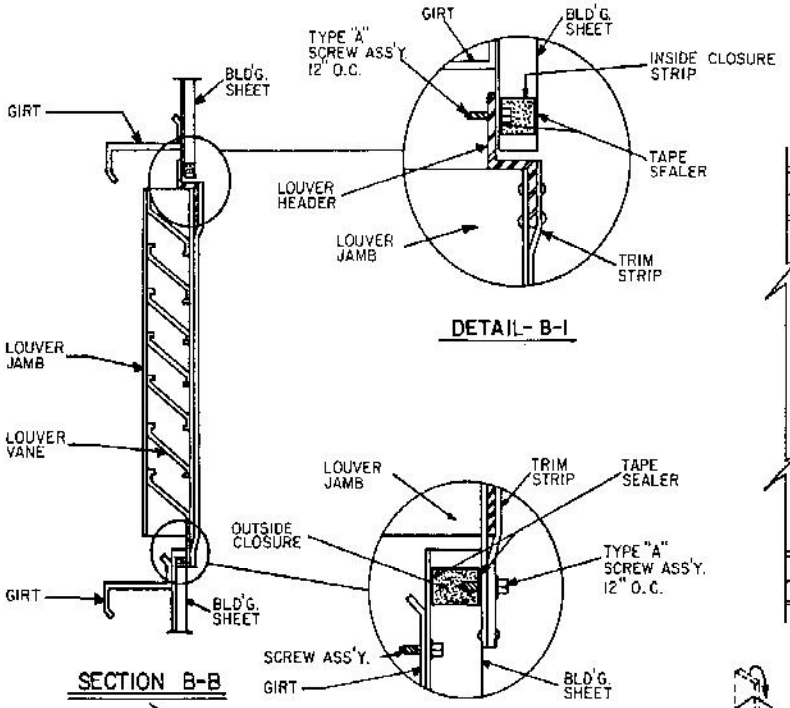
SECTION THRU JAMB

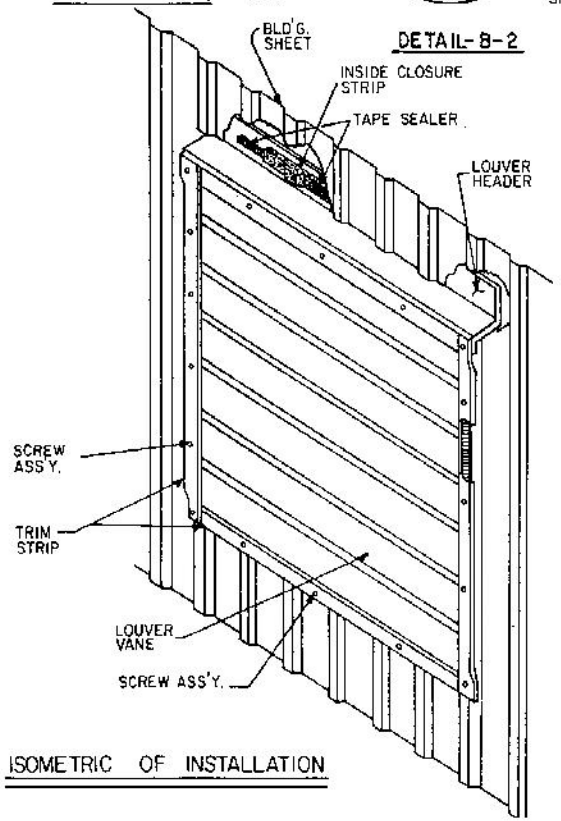
NOTES:
1. SHEET IS CUT AT BASE OF (MAJOR) RIB. ALL PROFILES
2. JAMB FINS VARY WITH DIFFERENT SHEET PROFILES. PLEASE SPECIFY WHEN ORDERING.
3. A WALL GIRT IS REQUIRED ABOVE AND BELOW WINDOWS AT STANDARD LOCATIONS. AN EXTRA GIRT AT 2'-6" IS REQUIRED FOR 80 & 100 MPH WIND LOADS, IF THE WINDOW IS INSTALLED BELOW THE 7'-4" GIRT.

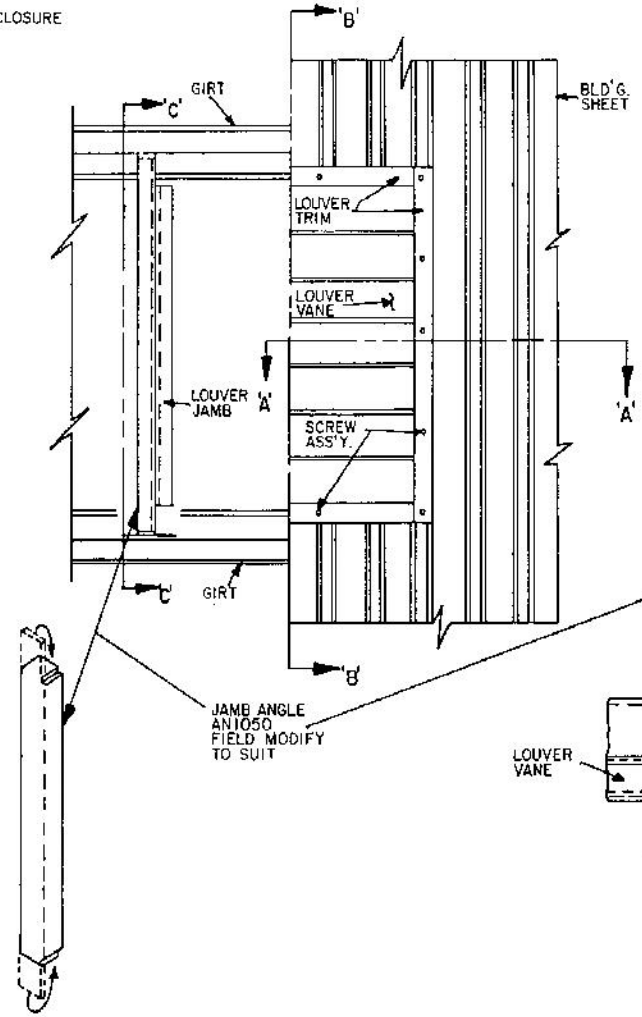
FRAMED OPENING REQUIRED WITH FL PRODUCT APPROVAL

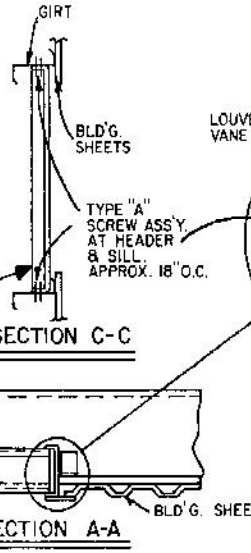
ALLOWABLE WIND LOAD = 25.0 PSF

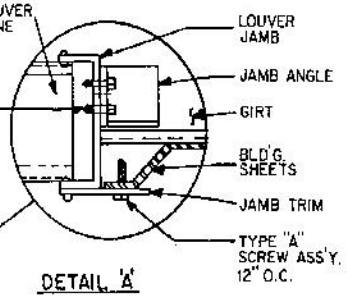
Horizontal Slide Windows





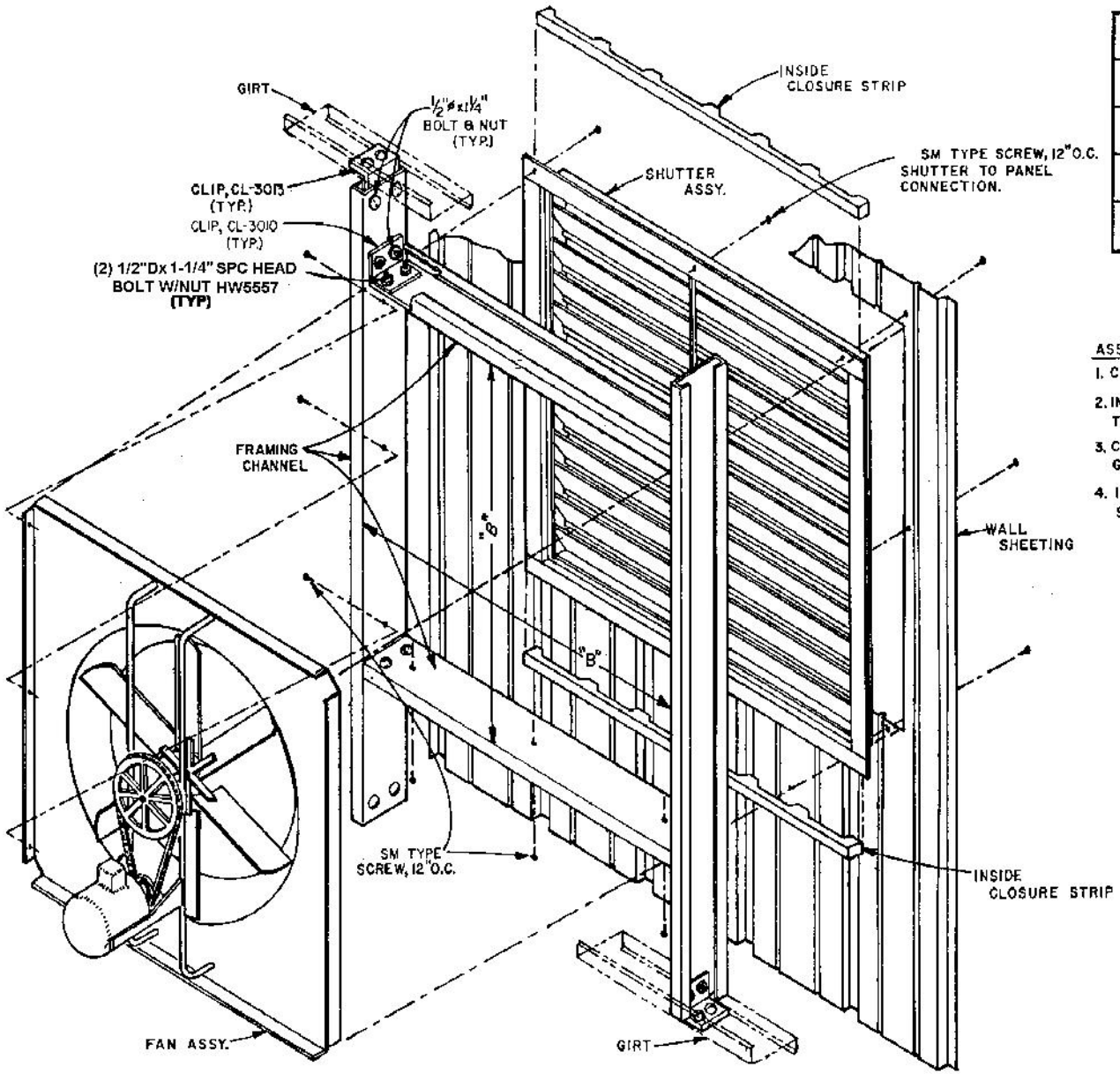






LOUVER SCHEDULE			
SIZE (NOMINAL)		SHEET OPENING DIMENSION	
WIDTH	HEIGHT	WIDTH	HEIGHT
2'-0"	2'-0"	1'-9 1/2"	1'-10 1/2"
3'-0"	3'-0"	2'-9 1/2"	2'-10 1/2"
4'-0"	4'-0"	3'-9 1/2"	3'-10 1/2"

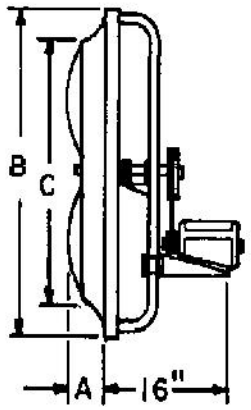
Fixed Louver Assembly Details



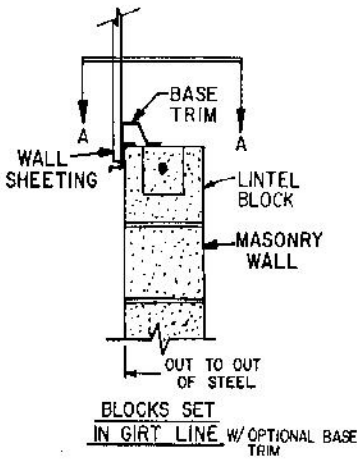
ASSEMBLY NO.	FAN BLADE SIZE & VOLTAGE	FAN DIMENSION "A"	"B"	"C"	SHEET OPENING	FAN H.P.	FAN RPM	CFM DELIVERY
FAN241	24" SINGLE PHASE 115/230V, 60Hz	5"	28"	24 3/8"	25"	1/3	710	6000
FAN243	24" 3-PHASE 230/460V, 60Hz	5"	28"	24 3/8"	25"	1/3	710	6000
FAN361	36" SINGLE PHASE 115/230V, 60Hz	8"	40"	36 1/2"	37"	1/2	485	11700
FAN363	36" 3-PHASE 230/460V, 60Hz	8"	40"	36 1/2"	37"	1/2	485	11700

ASSEMBLY PROCEDURE:

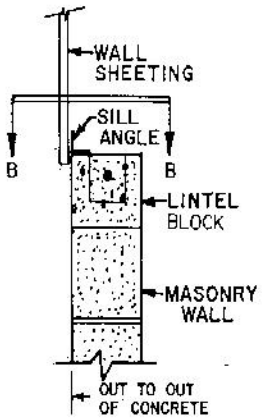
1. CUT SHEET OPENING AS PER CHART DIMENSION.
2. INSTALL SHUTTER, USING INSIDE CLOSURE, TOP & BOTTOM AS SHOWN.
3. CUT, DRILL, & ASSEMBLE FRAME BETWEEN GIRTS USING DIMENSION "B" ON CHART.
4. INSTALL FAN INTO FRAME USING S.M. SCREWS, 12"O.C. ALL AROUND.



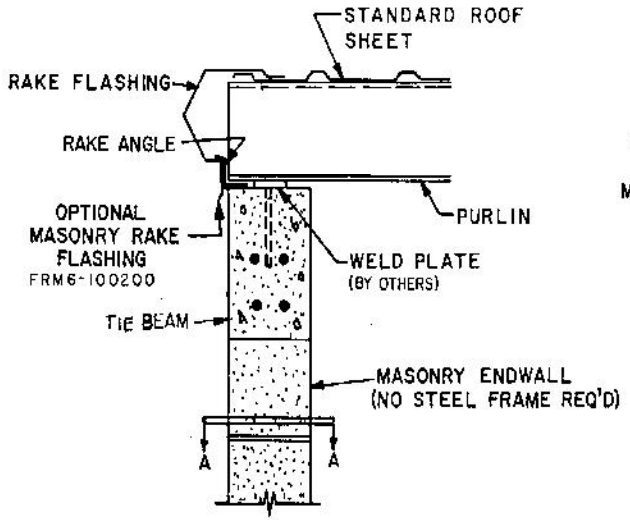
Vertical Mounted Exhaust Fan

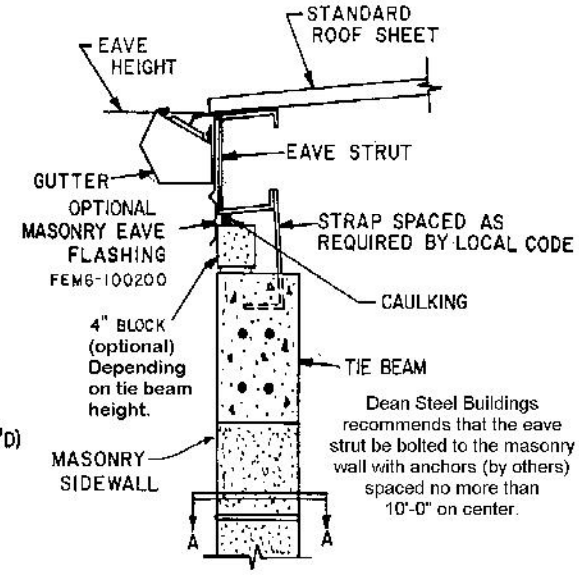


BLOCKS SET IN GIRT LINE W/ OPTIONAL BASE TRIM

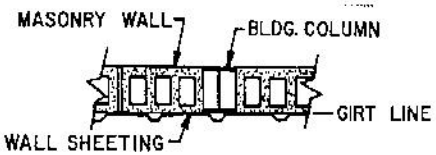


BLOCKS SET IN GIRT LINE W/ STANDARD SILL ANGLE

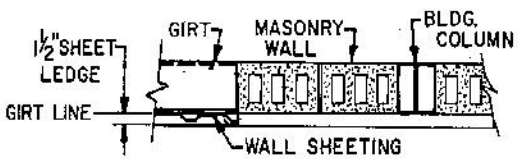




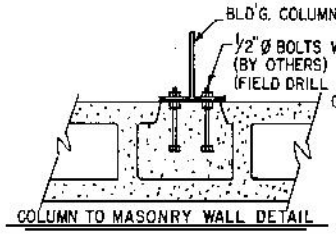
Dean Steel Buildings recommends that the eave strut be bolted to the masonry wall with anchors (by others) spaced no more than 10'-0" on center.



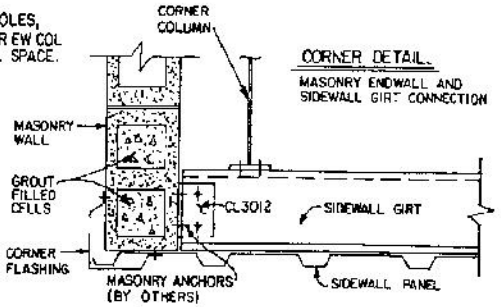
SECTION A-A
INSERT GIRT CONDITION

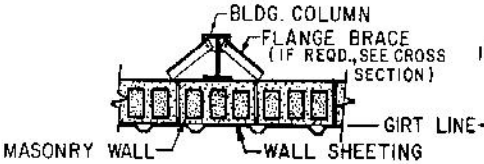


SECTION B-B
INSERT GIRT CONDITION

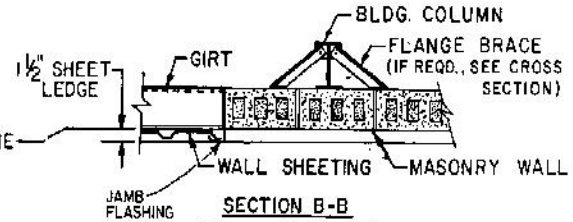


COLUMN TO MASONRY WALL DETAIL



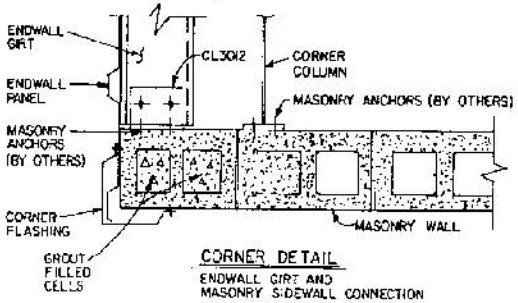


SECTION A-A
BY-PASS GIRT CONDITION

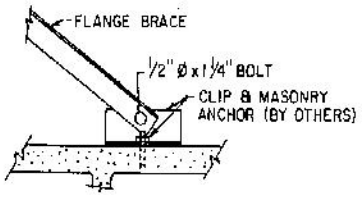


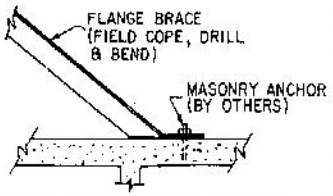
SECTION B-B
BY-PASS GIRT CONDITION

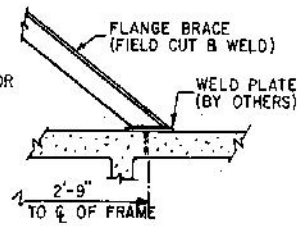
NOTE: FILL CELLS AT THE COLUMN AND FLANGE BRACE CONNECTIONS. COLUMN FLANGE BRACE MUST BE INSTALLED AS SHOWN FOR BLDG. TO HAVE ITS FULL DESIGN STRENGTH.



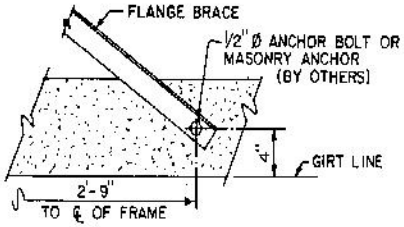
CORNER DETAIL
ENDWALL GIRT AND MASONRY SIDEWALL CONNECTION







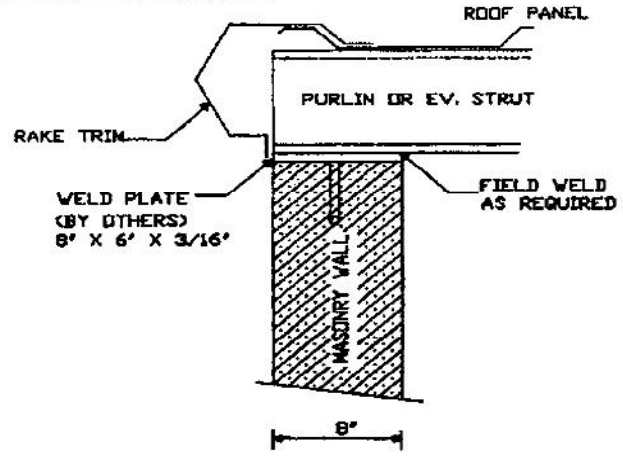
FLANGE BRACE TO MASONRY WALL DETAILS
BELOW TOP OF WALL



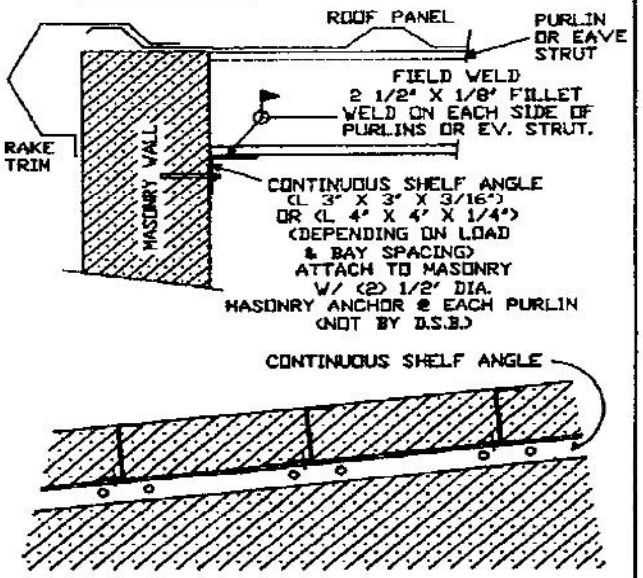
FLANGE BRACE TO MASONRY WALL
AT TOP OF WALL

Masonry Details

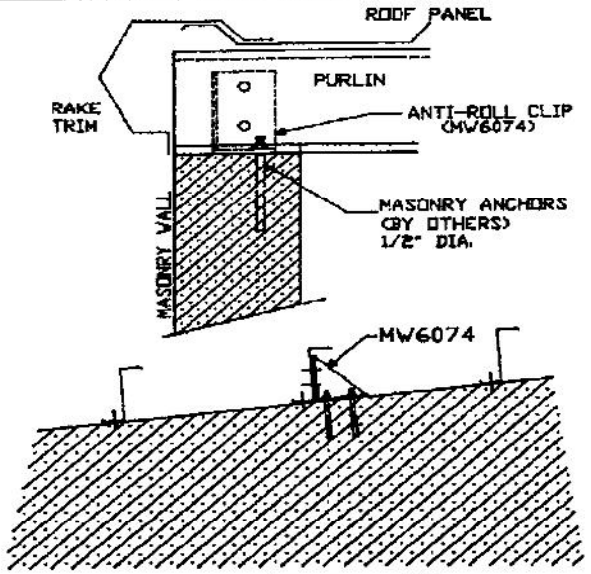
WELD PLATE



SHELF ANGLE

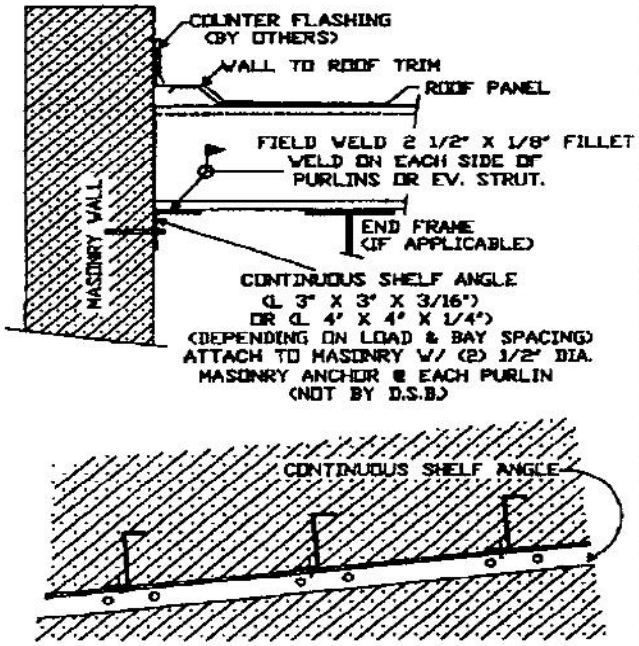


ANTI-ROLL CLIP

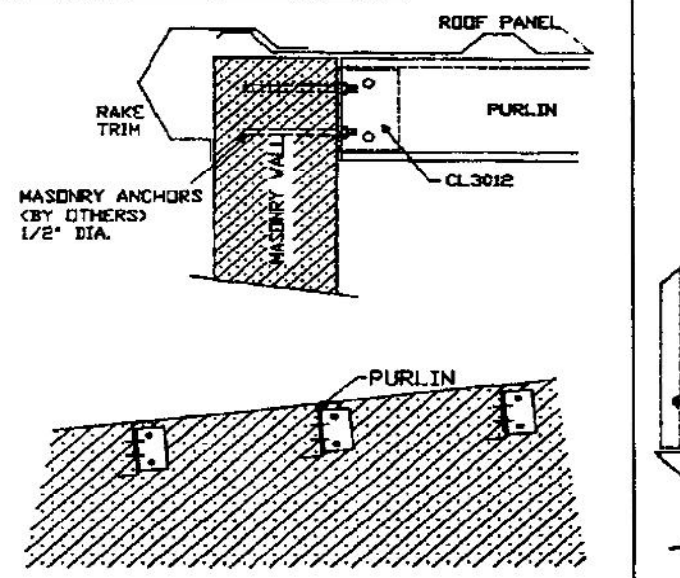


SHELF ANGLE

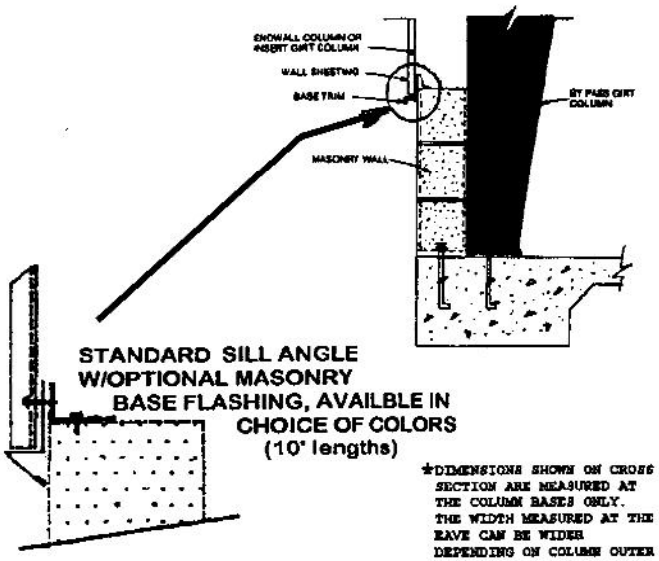
W/PARAPET WALL



PURLIN HANGER CLIP

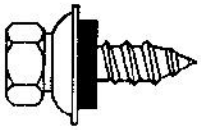
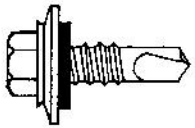
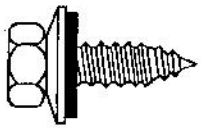


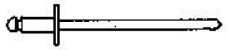
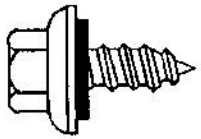
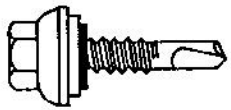
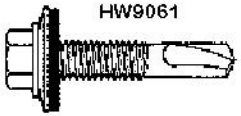
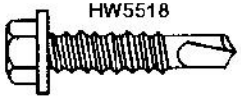
PARTIAL MASONRY WALLS



STANDARD SILL ANGLE
W/OPTIONAL MASONRY
BASE FLASHING, AVAILBLE IN
CHOICE OF COLORS
(10' lengths)

*DIMENSIONS SHOWN ON CROSS SECTION ARE MEASURED AT THE COLUMN BASES ONLY. THE WIDTH MEASURED AT THE EAVE CAN BE WIDER DEPENDING ON COLUMN OUTER FLANGE THICKNESS CHANGES.

FASTENER	DESCRIPTION	PRE DRILL SIZE	SOCKET SIZE	APPLICATION
HW5511 (5/8") 	#10 x 5/8" Lg Type 'A' SMS Plated Steel or w/Painted Color Head	1/8" DIA	5/16" A.F.	For Laps and Stitching on: Wallpanel to Wallpanel Flashing to Wallpanel
HW5501 (7/8")  HW5505 (1") HW5509 (1-1/2")	#14 Standard Type 'A' SMS w/Painted Color Head	3/16" DIA	3/8" A.F.	Self Tapping Panel to Panel Panel to Secondary Steel
HW5512 (1") HW5515(1-1/4")  HW5520 (1-1/2")	#12 x 1" Lg SMS Plated Steel or Color Head	N/A	5/16" A.F.	Self Drilling Screw for use in lieu of #14 x 3/4" Panel to Secondary Steel
HW5521 (3/4") 	#17 x 3/4" Lg Type 'AB' SMS Plated Steel Head	7/32" DIA	3/8" A.F.	For Sheets with oversized pre-drilled holes or when a #14 has stripped out

FASTENER	DESCRIPTION	PRE DRILL SIZE	SOCKET SIZE	APPLICATION
HW5780 (1/4") 	#42 Alum Blind River	3/16" DIA	N/A	For Gutter Laps and Rake Trim and Downspout Joints
HW5502 (3/4")  HW5506 (1")	#14 ZAC ® Zinc/Alum Head 25 Year Warranty (by manufacturer)	3/16" DIA	3/8" A.F.	Long Life Fasteners Self Tapping Panel to Panel Panel to Secondary Steel
HW5513 (1")  HW5510 (1-1/4")	#12 x 1" Lg ZAC ® Zinc/Alum Head 25 Year Warranty (by manufacturer)	N/A	3/8" A.F.	Long Life Fastener Self Drilling Screw For use in lieu of #14 x 3/4" Panel to Secondary Steel
HW9061 	#12 x 1 1/4" Lg TEK #4 Self Drilling	N/A	5/16" A.F.	Panel or Trim to Structural Frame, Channel or Column Clips or Panel to Joist
HW5518 	# 12 x 1"Lg Self Drilling (No Washer)	N/A	5/16" A.F.	Strapping Screw, Skylight Trim and other Interior applications

FASTENER SELECTION GUIDE		
INSULATION THICKNESS	SELF TAPPING SCREWS	SELF DRILLING SCREWS
2"	3/4"	1"
3"	1"	1 1/4"
4"	1 1/4"	1 1/2"
5"	1 1/2"	2"
6"	1 1/2"	2"

Assumes .6 to .75 Density Fiberglass Blanket on Roof Applications. Could vary with other Density Insulations. (Construction Fasteners 1987)

CORRECT	TOO LOOSE	TOO TIGHT
		
SEALING MATL. SLIGHTLY VISABLE AT EDGE OF METAL WASHER. ASSEMBLY IS WEATHERTIGHT.	SEALING MATL. NOT VISIBLE. NOT ENOUGH COMPRESSION TO SEAL PROPERLY.	METAL WASHER DEFORMED. SEALING METL. EXTRUDED BEYOND EDGE OF WASHER.

RECOMMENDED DRIVING TOOLS: SELF DRILLING:
1900-2500 RPM driver equipped with depth locating nose piece to prevent overdriving & stripout (do not use impacting type drivers)

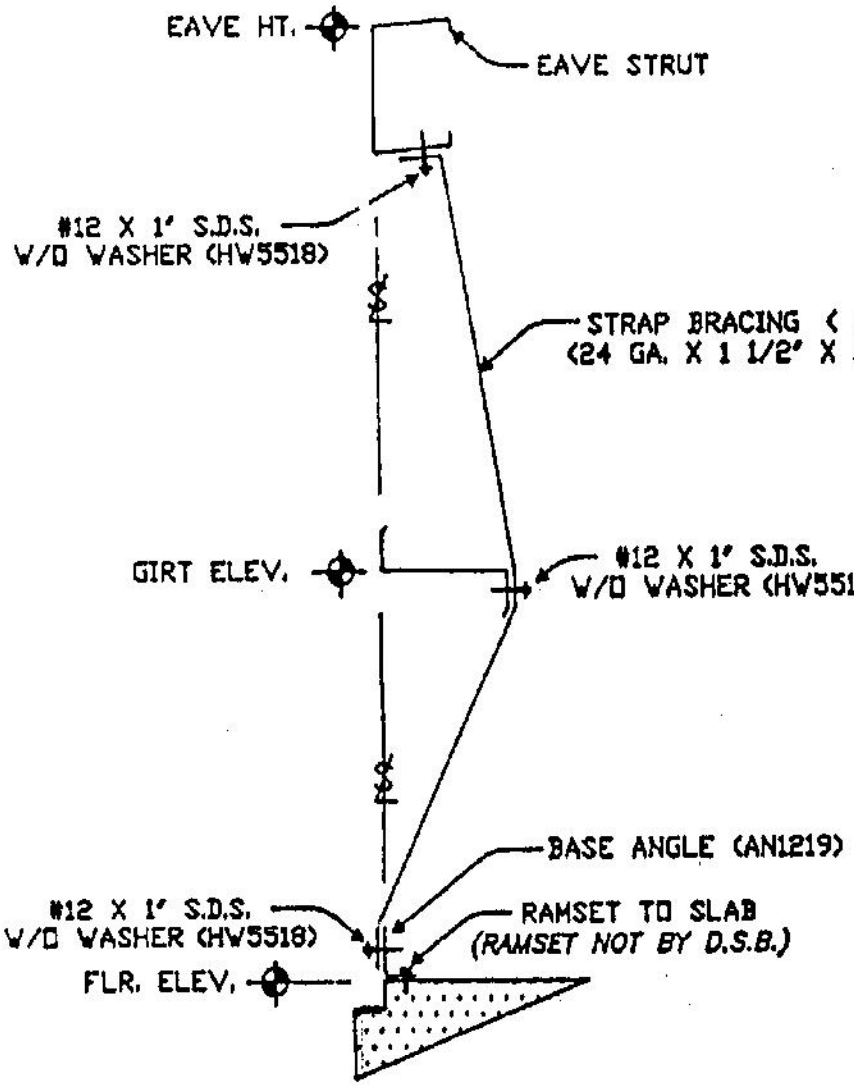
SELF TAPPING:
600-800 RPM driver equipped with depth locating nose piece to prevent overdriving & stripout (do not use impacting type drivers)

A.F. Head--Across Flats

Screw Identification Table 54

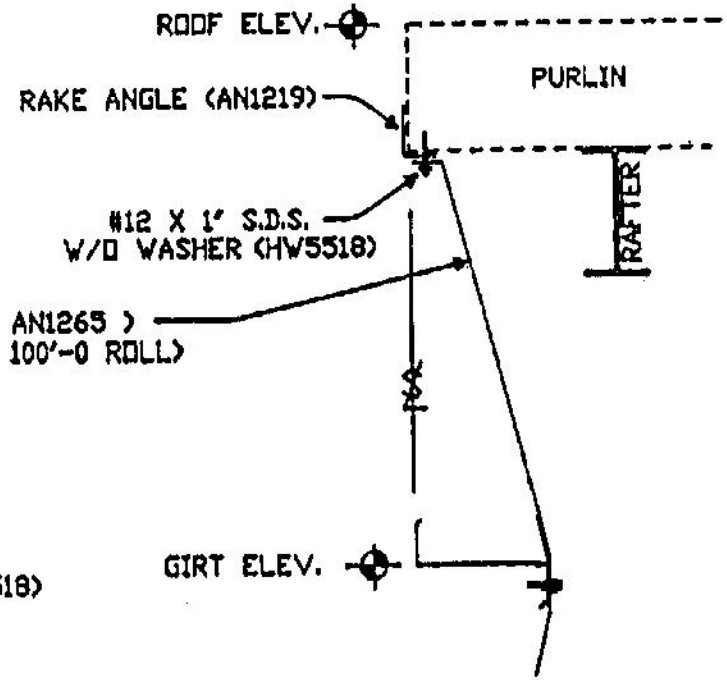
06.28.05

STRAP TO EAVE ATTACHMENT



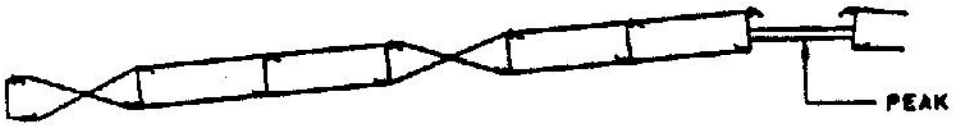
STRAP TO BASE ANGLE ATTACHMENT

STRAP TO RAKE ATTACHMENT



NOTE !
REFER TO BUILDING ERECTION DRAWINGS FOR NUMBER OF ROWS AND SPACING REQUIREMENTS

ROOF STRAP (Bottom flange unbraced)



ROOF STRAP (Both Top & Bottom flange unbraced)
Typical of Pro Seam Roof

Cross straps every 3rd space and at eave section

GLOSSARY OF STANDARD PART NUMBERS

AF Architectural flat panel (discontinued)
AN Angle - Flat plate or coil stock cold formed in-house
ANF Flange brace
AR Architectural roof panel (discontinued)
AW Architectural wall panel (discontinued)
BC Bearing frame column
BR Bearing frame rafter
CH 8" Channel
CL Clip
CTA 10" channel
DS Downspout
EC Endwall column
ES Eave strut
FL Flashing (see next page for N.P.D. Prefixes)
GU Gutter
HW Hardware
MH Misc. hot rolled - part whose major component(s) is hot rolled section (beam, channel, or angle) and does not fall into one of the specific hot rolled categories (BC, BR, EC).
MW Misc. welded - part that is built up by welding flat plate(s) together and does not fall into one of the specific built up categories (RC, RR, WB, WC); i.e., weld plates
PC Pipe column
PSB ProSeam roof panel - 18"
PSC ProSeam roof panel - 24"
PK ProLok roof panel – 24"
PV ProVR roof panel – 16"
RC Rigid frame column (or wind bent column)
RR Rigid frame rafter (or wind bent rafter)
RSA Rib-6 panel (square cut)
RTA Rib-12 panel (square cut)
RTB Left hand mitered sheet (long side is on the right)
RTC Right hand mitered sheet (long side is on the left)
SK Skylight
SPA Shadow panel (reverse Rib-12 panel)
VG Valley gutter
VT Vent - monovent, louver, circular vent, or turbine vent
WC Wind column
XB Rod bracing
XC Cable bracing
ZEA 8" zee with standard punch pattern:
A = 2'2" lap or 1'1" lap; H = 1'1" lap only
ZTA 10" zee with standard punch pattern:
A = 2'2" lap or 1'1" lap; H = 1'1" lap only

Building Codes

ASCE American Society of Civil Engineers
BAH Bahamas Building Code
FBC Florida Building Code
IBC International Building Code
PR Puerto Rico
SBC Standard Building Code Congress

N.P.D. PREFIXES

FAE Fascia End Closure
FAO Fascia Cap - Optional
FAV Fascia Cap Vertical - Std
FAX Fascia Cape Sloped - Universal
FBC Fascia Base Vertical Cover
FBM Base Flashing - Masonry Wall
FBS Fascia Base Sloped
FBV Fascia Base Vertical
FCE Canopy Eave
FCM Counter Flashing - Masonry
FCS Cap Flashing - Rib-6
FCT Cap Flashing - Rib-12
FCW Cap Flashing - Architectural Wall
FEA Eave Flashing - Std
FEH Eave Flashing - High Side Sculptured
FEL Eave Flashing - Low Side Sculptured
FEM Eave Flashing - Masonry
FEO Eave Flashing - Optional
FEP Eave Flashing - Pro-Seam
FER Eave Flashing - Reversed
FEW Eave Flashing - Arch. Wall
FEX Eave Flashing - Special
FHE Hem Flashing
FHS Header Flashing - Rib-6
FHT Header Flashing - Rib-12
FHW Header Flashing - Arch. Wall
FHX Header Flashing - Special
FJC Jamb Cap - 8" Std
FJS Jamb Flashing - Rib-6
FJT Jamb Flashing - Rib-12
FJW Jamb Flashing - Arch. Wall
FJX Jamb Flashing - Special
FNN Finial with Name
FNO Finial without Name
FNP Finial for Pro-Seam
FPC Partition Corner Trim
FPF Partition Flashing
FRA Rake Flashing - Std
FRC Ridge Cap Pro-Seam
FRE Roof Extension
FRF Roof Extension Soffit
FRM Rake Flashing - Masonry
FRP Rake Flashing - Pro-Seam
FRR Roof to Roof Flashing
FRS Rake - Slide Flashing
FRX Rake - Special
FSB Slide Door Bypass Flashing
FSH Slide Door Hood Flashing
FSL Slide Door Leaf Trim
FSK Skylight Trim - Standard
FSS Soffit - Rib-6
FST Soffit - Rib-12
FSU Soffit - Universal
FTP Termination Flashing - Pro-Seam
FTS Transition Flashing - Rib-6
FTT Transition Flashing - Rib-12
FWH Window Header
FWR Wall to Roof Flashing
FWS Window Sill Flashing
FWU Wing Unit Flashing
ICP Inside Corner FL - Special
ICS Inside Corner FL - Rib-6
ICT Inside Corner FL - Rib-12
ICO Inside Corner - Optional 3"
ICU Inside Corner - Universal 6"
OCP Outside Corner FL - Special
OCS Outside Corner FL- Rib-6
OCT Outside Corner FL - Rib-12
OCU Outside Corner FL - Universal 6"
OCW Outside Corner FL - Arch Wall
VGW Valley Gutter to Wall - 14 Ga.
VGR Valley Gutter to Roof - 14 Ga.

N.P.D. PART NUMBERING

ZEES/CHANNEL

Z E A - A 4 - 25 02 08

08	length in sixteenth inches
02	length in inches
25	length in feet
-	slope code (not required on zees)
4	zee gauge (2 = 12 ga., 4 = 14 ga., 6 = 16 ga.)
A	trailing punch pattern
-	special punch or "Z" for E-Z Lap
A	lead punch pattern
E	size code
Z	Z = zee, C = channel

(14 ga. zee with standard long lap holes, 25'-2 ½" long)

PUNCH PATTERN

A - long lap (2'-1")
G - single span girt
H - short lap (1'-1" standard)
L - extra long lap (3'-1")
X - special (needs drawing)

No charge for standard punch
Call for quote on special punches - **Blank zees & channel not available**

SIZE CODES

ZEES E = 8" x 2.5"
T = 10" x 3.5"

CHANNEL F = 8" x 2.5" (fascia channel)
H = 8" x 2.5"
T = 10" x 3.5"

EAVE STRUTS

ES N - N 4 C 20 00 10

10	length in sixteenths
00	length in inches
20	length in feet
C	pitch code
4	gauge (14 ga. standard)
N	trailing punch pattern
N	lead punch pattern
ES	eave strut

(14 ga. eave strut with standard low side punch, 20'0-5/8" long)

PUNCH PATTERN

N - low side eave strut
R - high side eave strut
B - low side w/3'-6" roof ext.
C - low side w/6'-6' roof ext.
Q - high side w/3'-6" roof ext.
P - high side w/6'-6" roof ext.

PITCH CODES

A - less than 0.50:12
C - 0.50:12 - < 1.75:12
E - 1.75 - < 2.75:12
G - 2.75 - < 3.75:12
J - 3.75 - 4.00:12

INDEX