

# ABBREVIATIONS LIST

&	AND
ACI	AMERICAN CONCRETE INSTITUTE
AISC	AMERICAN INSTITUTE OF STEEL CONSTRUCTION
ARCH	ARCHITECTURAL
ASTM	AMERICAN SOCIETY FOR TESTING AND MATERIALS
AWS	AMERICAN WELDING SOCIETY
BOS	BOTTOM OF STEEL
BOT	BOTTOM / BOTTOM OF
BRG	BEARING
CJ	CONSTRUCTION / CONTROL JOINT
CL	CENTER LINE
CLR	CLEAR
CMU	CONCRETE MASONRY UNIT
CONC	CONCRETE
CONN	CONNECTION
CONST	CONSTRUCTION
CONT	CONTINUOUS
DIA, Ø	DIAMETER
(E )	EXISTING
EIFS	EXTERIOR INSULATION AND FINISH SYSTEM
EJ	EXPANSION JOINT
ELEV	ELEVATION
EQ	EQUAL
EW	EACH WAY
FNDN	FOUNDATION
FIN FLR	FINISHED FLOOR
FTG	FOOTING
GA	GAGE
GC	GENERAL CONTRACTOR
GYP BD	GYP SUM BOARD
HORIZ	HORIZONTAL
HSA	HEADED STUD ANCHOR
INFO	INFORMATION
JBE	JOIST BEARING ELEVATION
JT	JOINT
KSI	KIPS PER SQUARE INCH
LBS	POUNDS
LEH	LONG EDGE HORIZONTAL
LEV	LONG EDGE VERTICAL
LLH	LONG LEG HORIZONTAL
LLV	LONG LEG VERTICAL
LONG	LONGITUDINAL
MAX	MAXIMUM
MECH	MECHANICAL
MFR	MANUFACTURER
MIN	MINIMUM
MISC	MISCELLANEOUS
MTL	METAL
NTS	NOT TO SCALE
OC	ON CENTER
OD	OUTSIDE DIAMETER
OPP	OPPOSITE
PAF	POWDER ACTUATED FASTENER
PCF	POUNDS PER CUBIC FOOT
PEF	EFFECTIVE PRESTRESS FORCE
PJ	PANEL JOINT
PL	PLATE
PLF	POUNDS PER LINEAR FOOT
PSF	POUNDS PER SQUARE FOOT
PSI	POUNDS PER SQUARE INCH
QTY	QUANTITY
REF	REFERENCE / REFER TO
REINF	REINFORCING
REQD	REQUIRED
RTU	ROOF TOP UNIT
SDI	STEEL DECK INSTITUTE
SIM	SIMILAR
SJI	STEEL JOIST INSTITUTE
SPECS	SPECIFICATIONS
STL	STEEL
TB	TOP OF BEAM
TC	TOP OF CONCRETE
TF	TOP OF FOOTING
THK	THICKNESS
TOP	TOP OF PIER
TOS	TOP OF STEEL
TP	TOP OF PANEL OR TOP PLATE
TRANS	TRANSVERSE
(TYP)	TYPICAL
UON	UNLESS OTHERWISE NOTED
VERT	VERTICAL

# GENERAL STRUCTURAL NOTES

## GENERAL NOTES

G1 United States Building Code:  
International Building Code (IBC), 2018

Gravity Load Design Data:  
Roof Dead Load 5 psf  
Roof Live Load 20 psf

Wind Design Data:  
Ultimate Design Wind Speed,  $V_{ULT}$  115 mph  
Building Risk Category II  
Wind Exposure Category C

Snow Load Design Data:  
Ground Snow Load,  $P_g$  25 psf

G2 Canadian Building Code:  
National Building Code of Canada, 2015

Gravity Load Design Data:  
Roof Dead Load 0.24 kN/m<sup>2</sup>  
Roof Live Load (Reducible) 1.00 kN/m<sup>2</sup>

Wind Design Data:  
Hourly Wind Pressure (1/50 years) 0.79 KPa  
Building Risk Category Normal  
Wind Exposure Factor 0.8

Snow Load Design Data:  
Ground Snow Load,  $S_g$  1.5 kPa  
Associated Rain Load,  $S_r$  0.2 kPa  
Wind Exposure Factor,  $C_w$  0.75

## GENERAL CONDITIONS

GC1 The general contractor shall verify all dimensions and conditions at the job site, and shall be responsible for conditions of all work and materials, including those furnished by subcontractors.

GC2 Details shown on drawings apply at all like conditions.

GC3 All materials and workmanship shall be performed in accordance with local standards and to the applicable provisions of the governing building code.

GC4 These drawings show only representative and typical details to assist the contractor. The drawings do not illustrate every condition. All attachments, connections, fastenings, etc., shall be properly secured in conformance with the best practice, and the contractor shall be responsible for providing and installing them.

## FOUNDATIONS

F1 The foundations have been designed using an allowable soil bearing value of 1,500 psf (72 kPa) for grade beams in accordance with the minimum values of the International Building Code.

F2 Grade beams dimensions and/or locations may not be altered without approval by the engineer.

F3 All organic and deleterious material, as well as any other unsuitable material, shall be removed within the building pad area, and beyond openings and other settlement-sensitive areas.

## CONCRETE

C1 Concrete work shall be executed in strict accordance with ACI 318-11, Building Code Requirements for Structural Concrete and, except as modified by these Contract Documents, shall conform to all requirements of ACI 301-10, Specifications for Structural Concrete.

C2 Concrete specifications shall be as follows:  
Minimum compressive strength at 28 days (all concrete) 3,000 psi (20Mpa)  
Portland cement shall conform to ASTM C150 Type I/II

C3 Normal weight concrete shall have a maximum unit weight of 150 pcf. Aggregates for normal weight concrete shall conform to ASTM C33, with a nominal maximum aggregate size of 1-1/2" (38 mm).

C4 If Fly Ash is used, it shall conform to ASTM C618, Type "F" or Type "C" and shall be a minimum 15% and maximum 25% by mass replacement of Portland Cement.

C7 Job site conditions shall be verified by the contractor prior to the fabrication of materials.

C12 Concrete clear cover, unless noted otherwise on the drawings, shall conform to:

Concrete cast against and permanently exposed to earth: 3" (75 mm)  
Concrete exposed to earth or weather: 1 1/2" (38 mm)  
No. 3 – No. 5 bars

## CONCRETE REINFORCEMENT

R1 All reinforcement shall conform to ASTM A615 Grade 60 (410 Mpa).

R2 Reinforcing steel shall be designed, detailed, fabricated and placed in accordance with the latest ACI Detailing Manual (SP-66) and CSRI Manual of Standard Practice.

R3 Corner reinforcing bars shall be used at all corners and intersections. See typical detail.

R4 Splices in reinforcement shall occur at points of minimum stress and, unless noted otherwise, with a minimum lap of 50 times diameter.

R5 Except as provided in ACI 318-14, Building Code Requirements for Structural Concrete, all welding of reinforcement shall conform to "Recommended Practices for Welding Reinforcing Steel, Metal Inserts, and Connections in Reinforced Concrete Construction" (AWS D12.1).

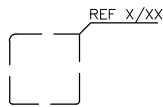

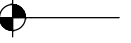





## ALUMINUM

A1 All aluminum shapes and plates shall be alloy type 6061-T6 or 6063-T6.

A2 Galvanic separation shall be provided where aluminum is in contact with steel.

A3 Reference the manufacturer's assembly documents for identification of all custom aluminum shapes. The greenhouse manufacturer assembly documents and aluminum profiles were created by Janssens Alusystems of Lier, Belgium for the "Helios SL" model aluminum greenhouses imported to North America by Exaco Trading Company of Austin, Texas.

# SYMBOLS & HATCHING

	INDICATES PLAN OR SECTION DETAIL
	INDICATES STEP IN ELEVATION
	INDICATES REFERENCED ELEVATIONS
	INDICATES SECTION CUT
	INDICATES ELEVATION
	INDICATES OPENING IN SLAB
	INDICATES REVISIONS / ADDENDUMS
	INDICATES EARTH

GENERAL STRUCTURAL NOTES

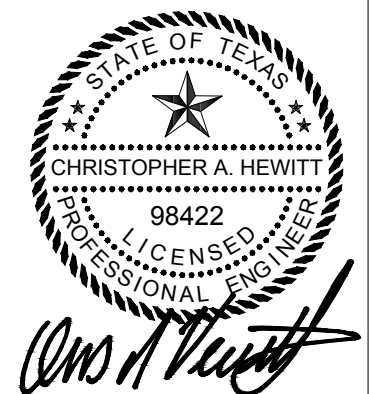
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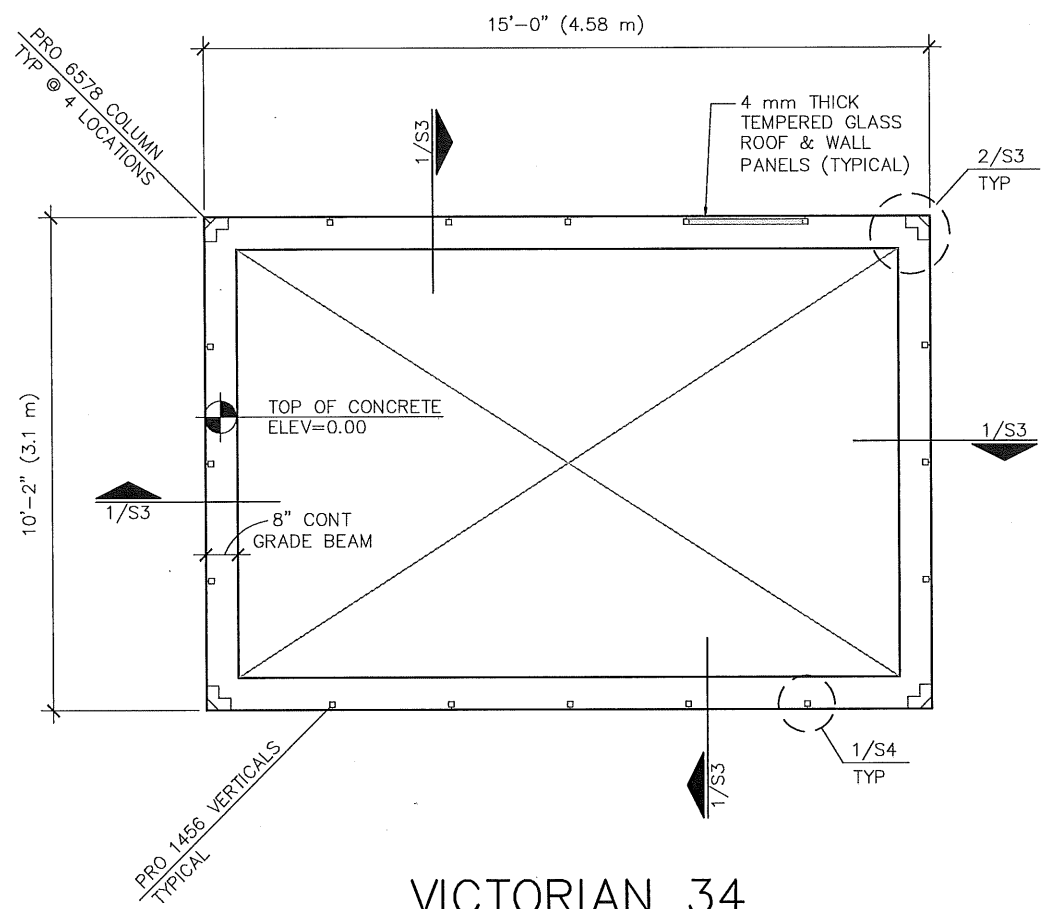
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JANSSENS: HELIOS ROYAL VICTORIAN GREENHOUSE  
VERSIONS 34,36 & 46  
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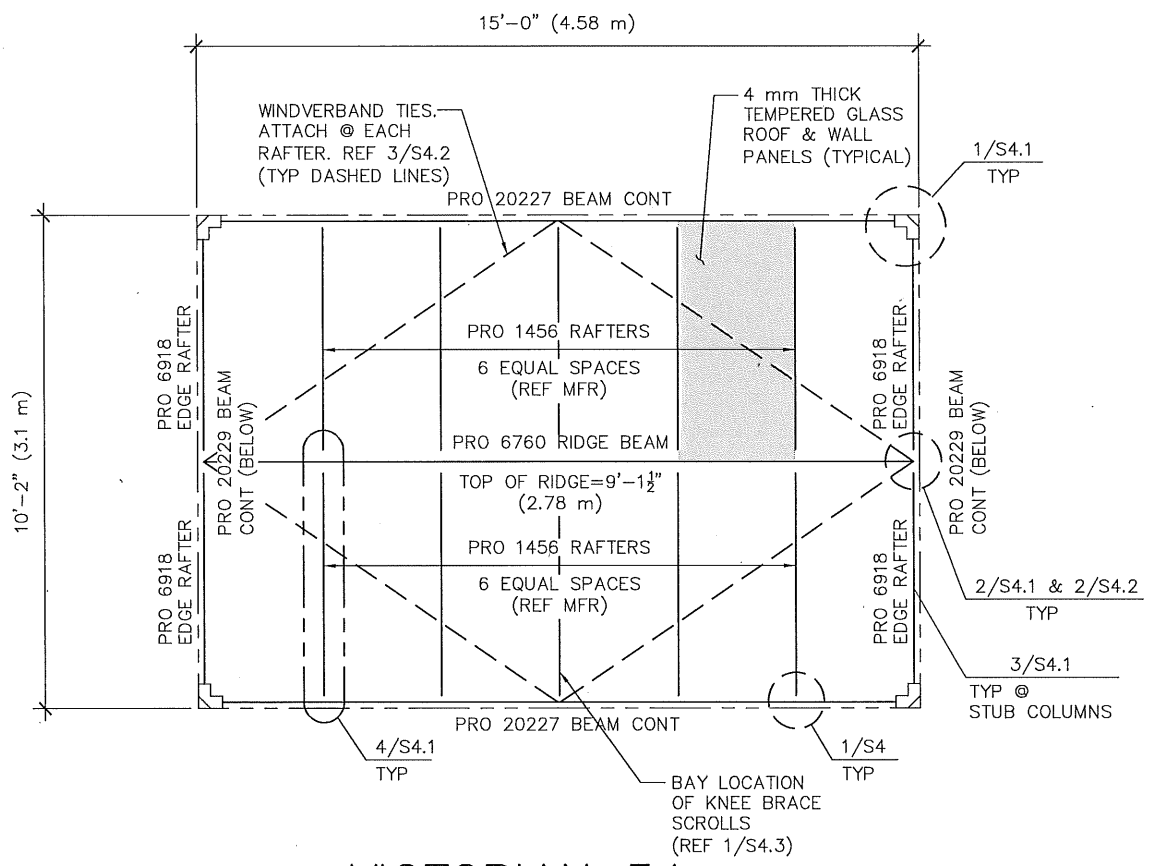
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job no. 30-1014



**1** VICTORIAN 34  
FOUNDATION PLAN  
SCALE: 1/4"=1'-0" (@ 11x17)



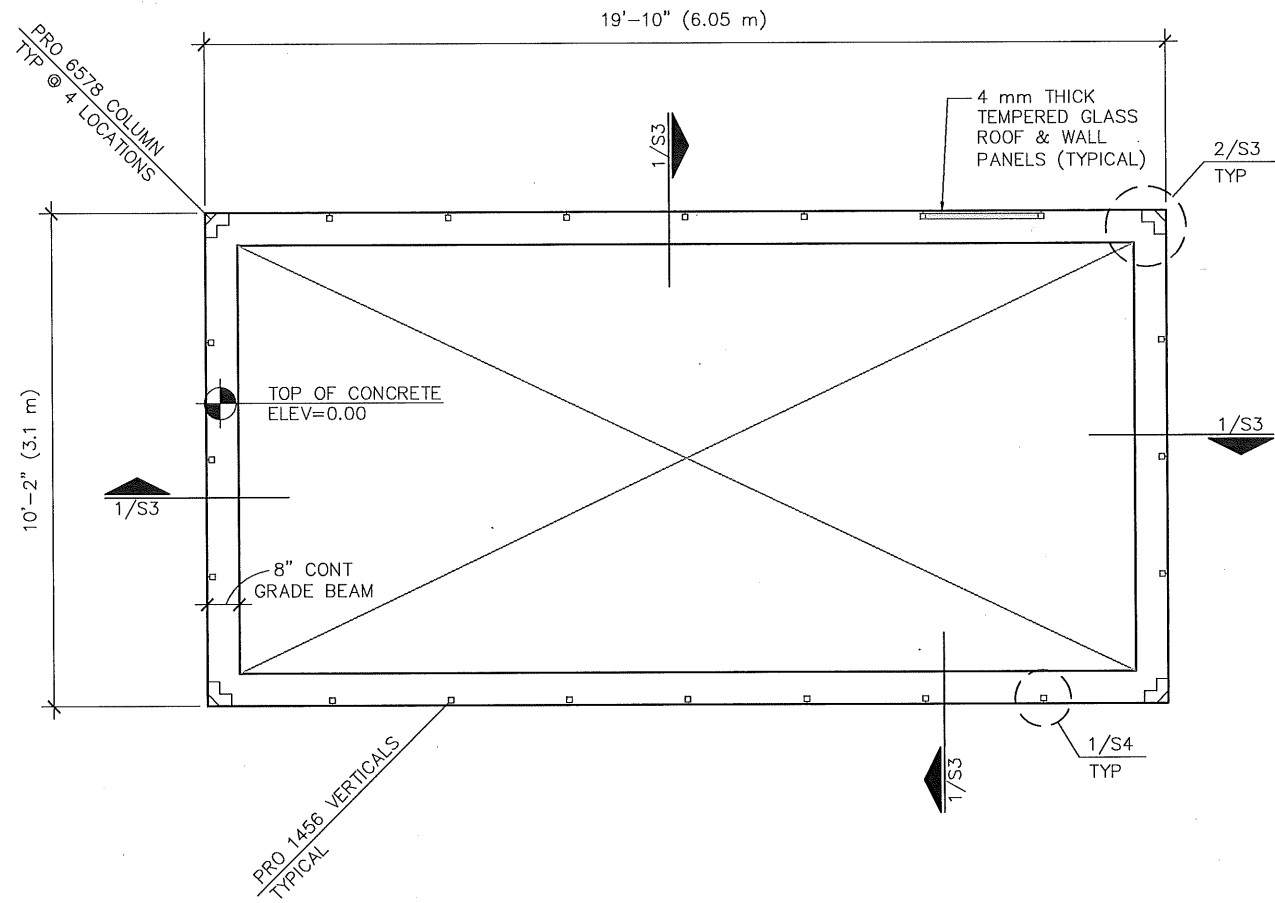
**2** VICTORIAN 34  
ROOF FRAMING PLAN  
SCALE: 1/4"=1'-0" (@ 11x17)



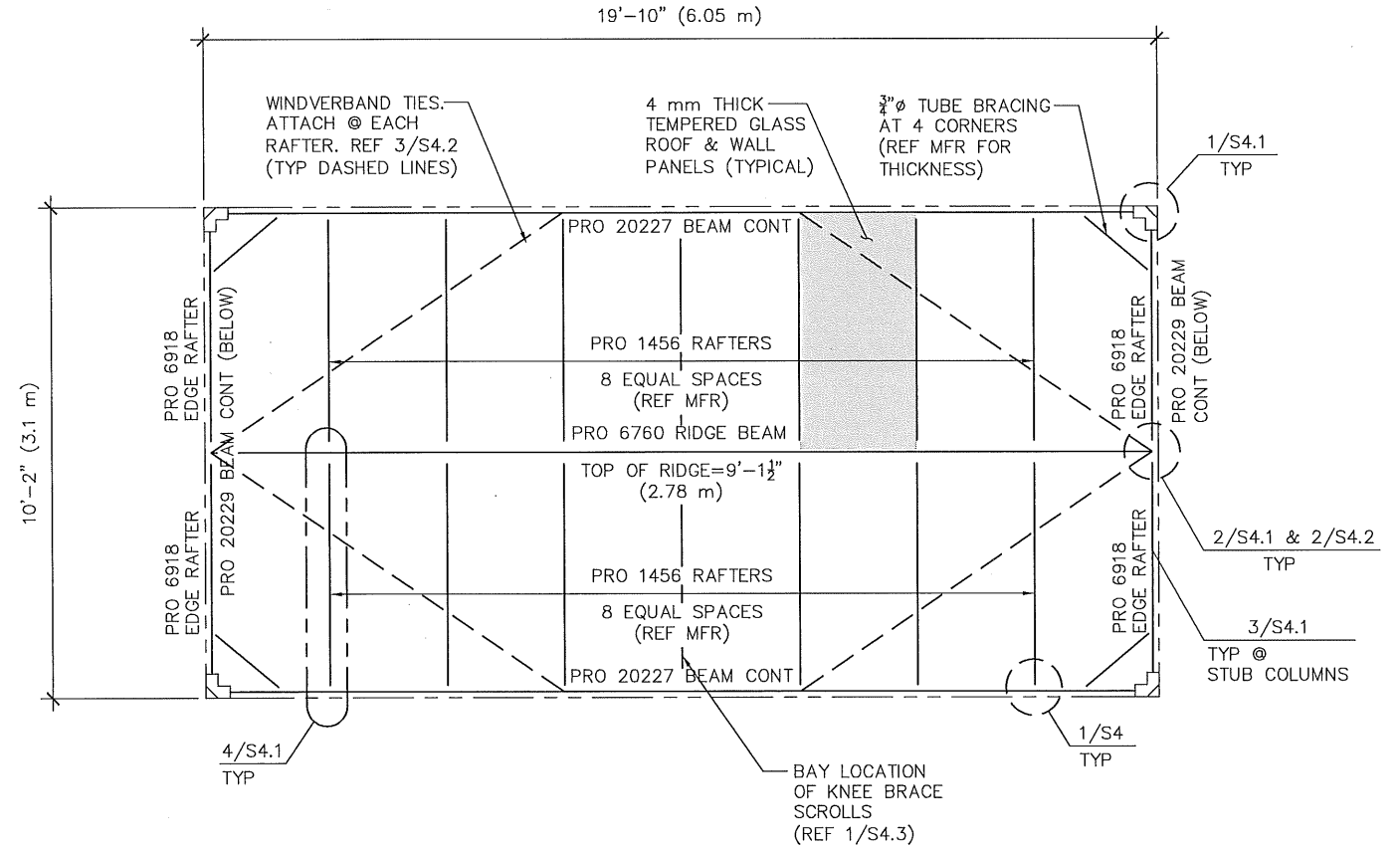
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PERMIT SET	2022-09-22	



1 VICTORIAN 36  
FOUNDATION PLAN  
SCALE: 1/4"=1'-0" (@ 11x17)



2 VICTORIAN 36  
ROOF FRAMING PLAN  
SCALE: 1/4"=1'-0" (@ 11x17)



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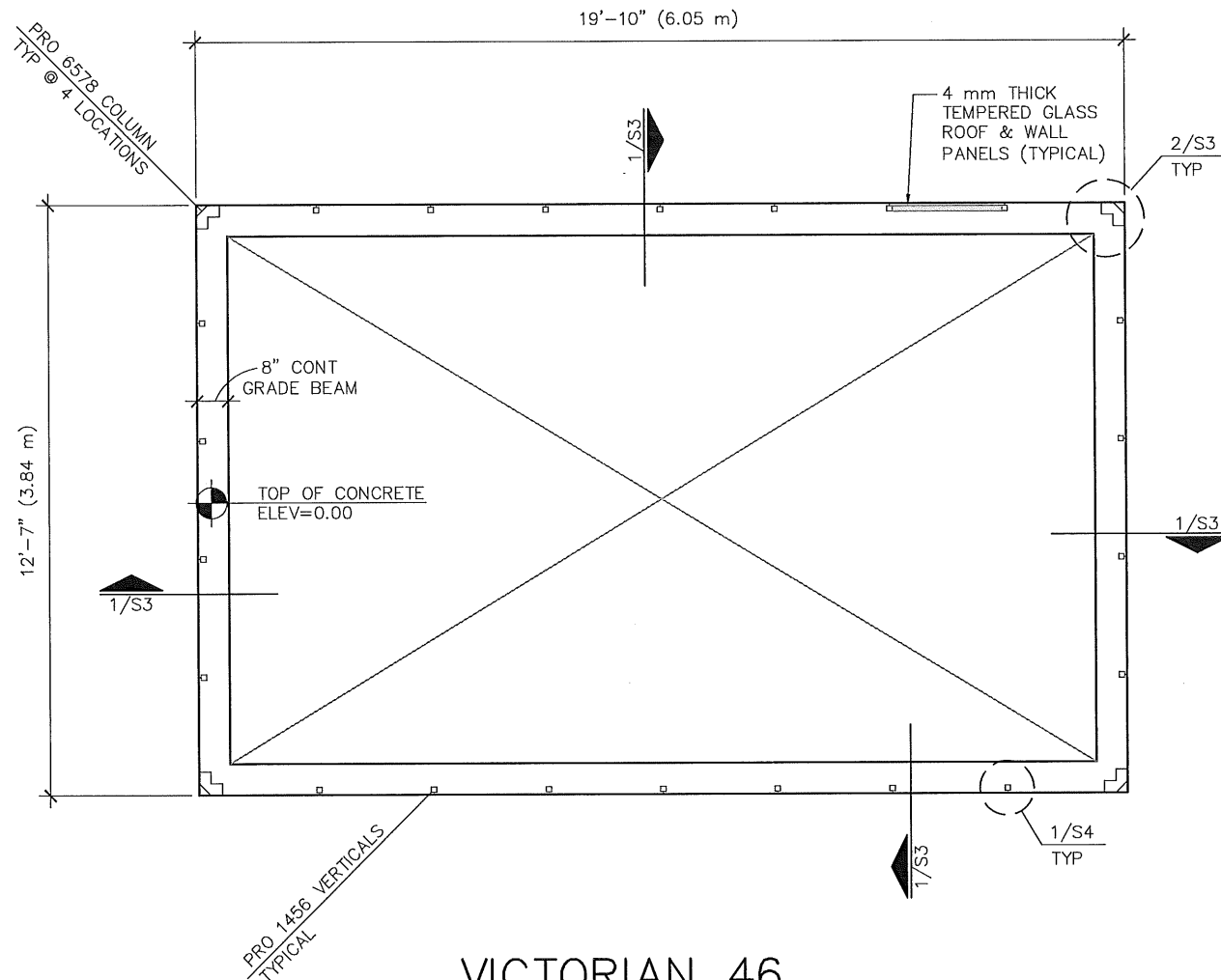
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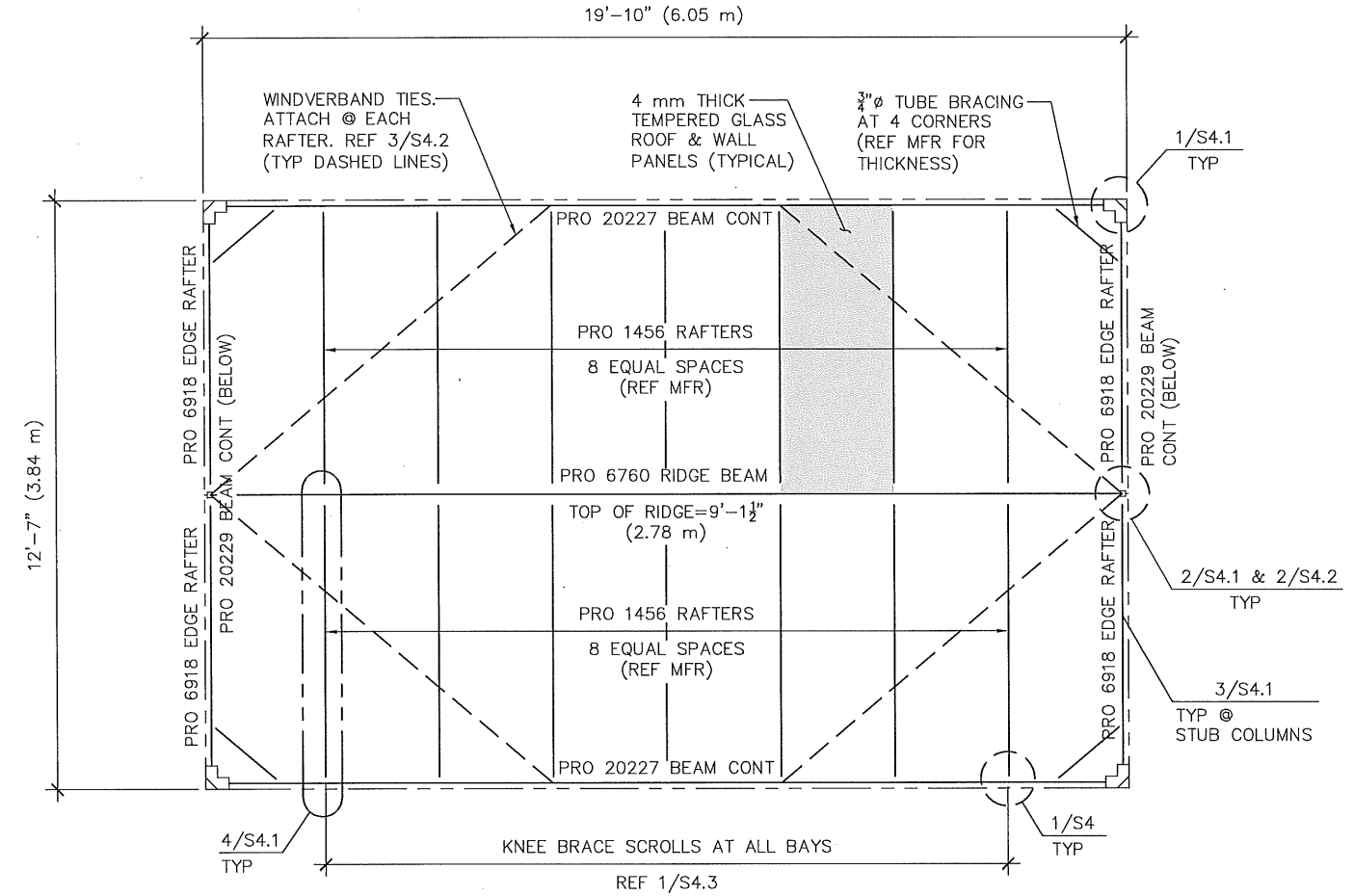
DATE  
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FOUNDATION &  
ROOF FRAMING  
PLANS

S1.1



**1** VICTORIAN 46  
**FOUNDATION PLAN**  
 SCALE: 1/4"=1'-0" (@ 11x17)



**2** VICTORIAN 46  
**ROOF FRAMING PLAN**  
 SCALE: 1/4"=1'-0" (@ 11x17)



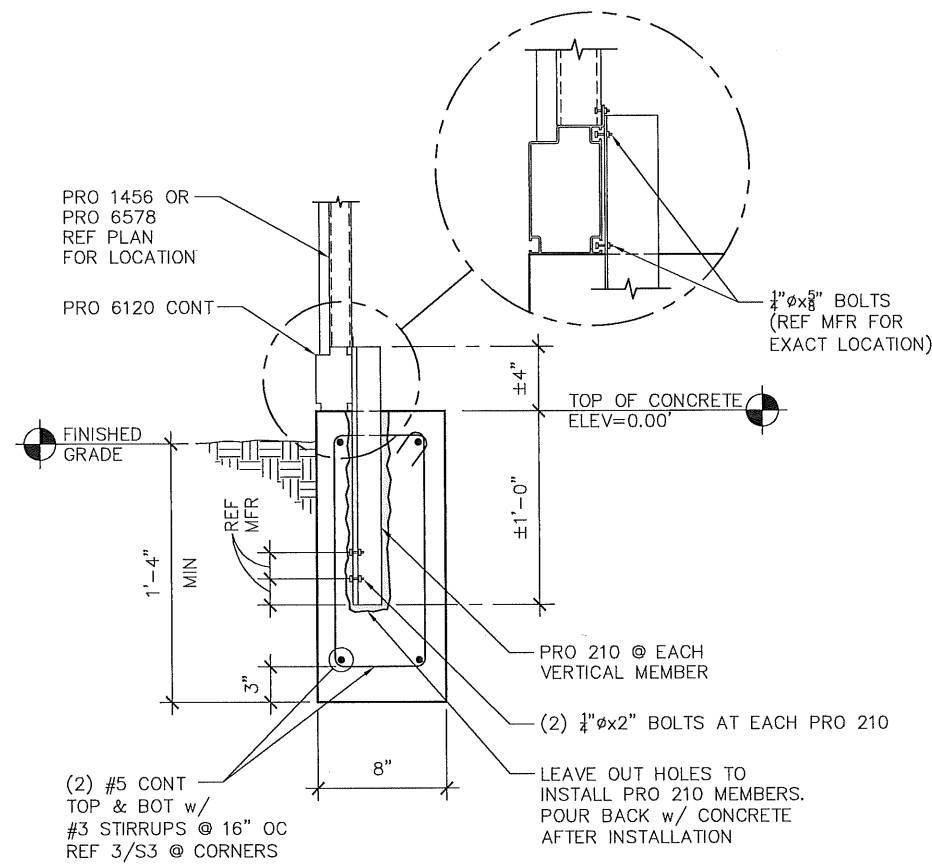
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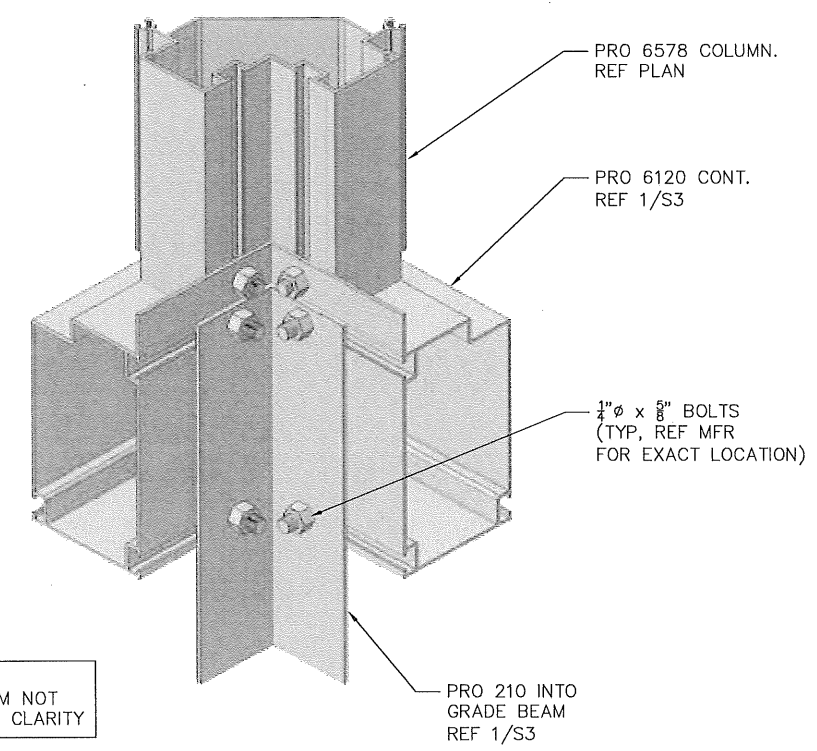
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FOUNDATION &  
 ROOF FRAMING  
 PLANS

S2

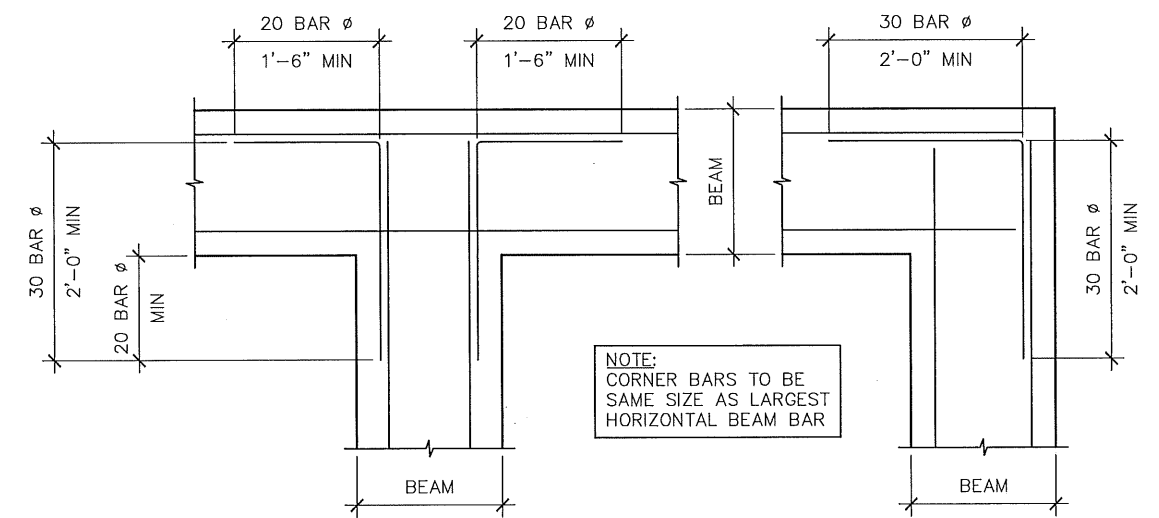


**1** TYPICAL GRADE BEAM  
SCALE: 1 1/2"=1'-0" (@ 11x17)



NOTE:  
GRADE BEAM NOT  
SHOWN FOR CLARITY

**2** CORNER BASE 3D CONNECTION  
SCALE: 1/2"=1'-0" (@ 11x17)



NOTE:  
CORNER BARS TO BE  
SAME SIZE AS LARGEST  
HORIZONTAL BEAM BAR

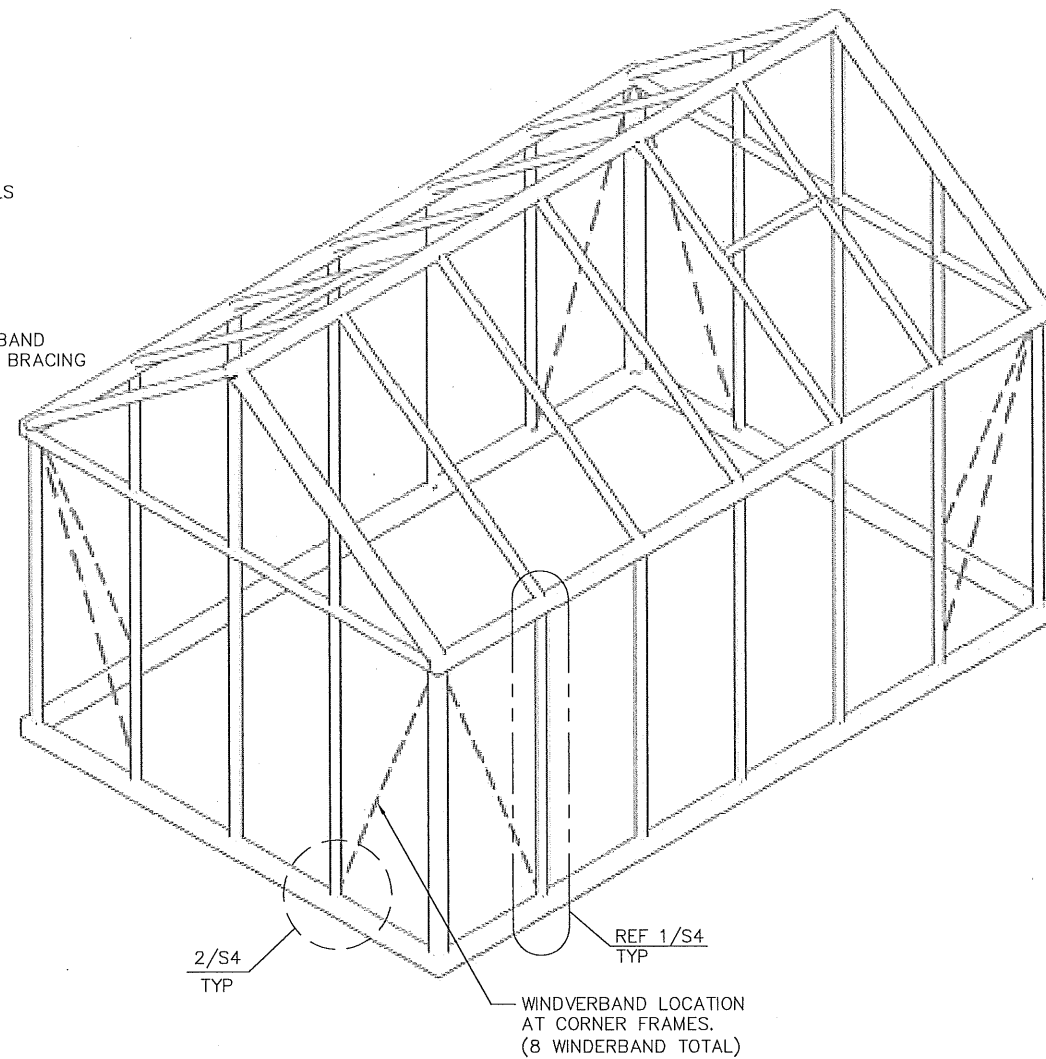
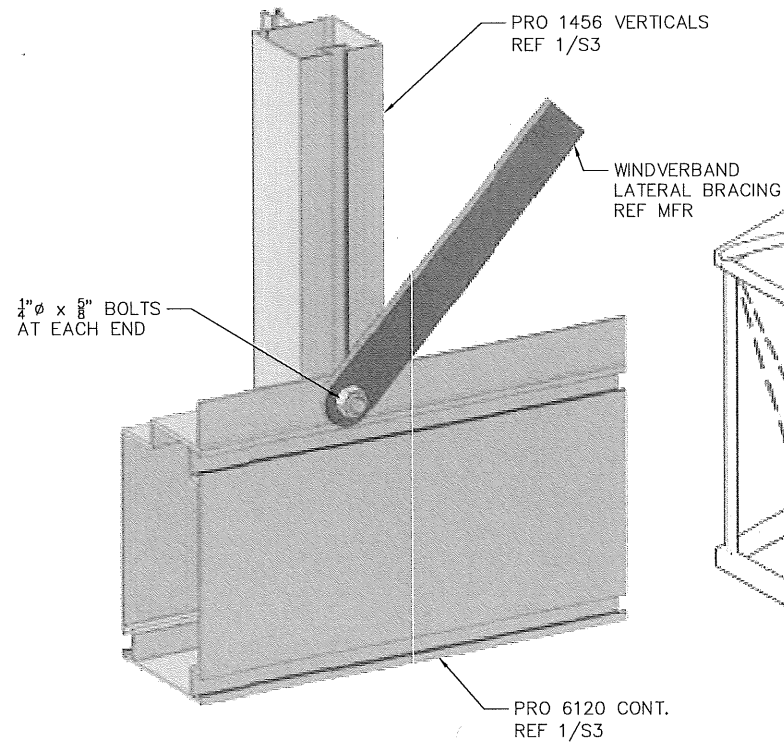
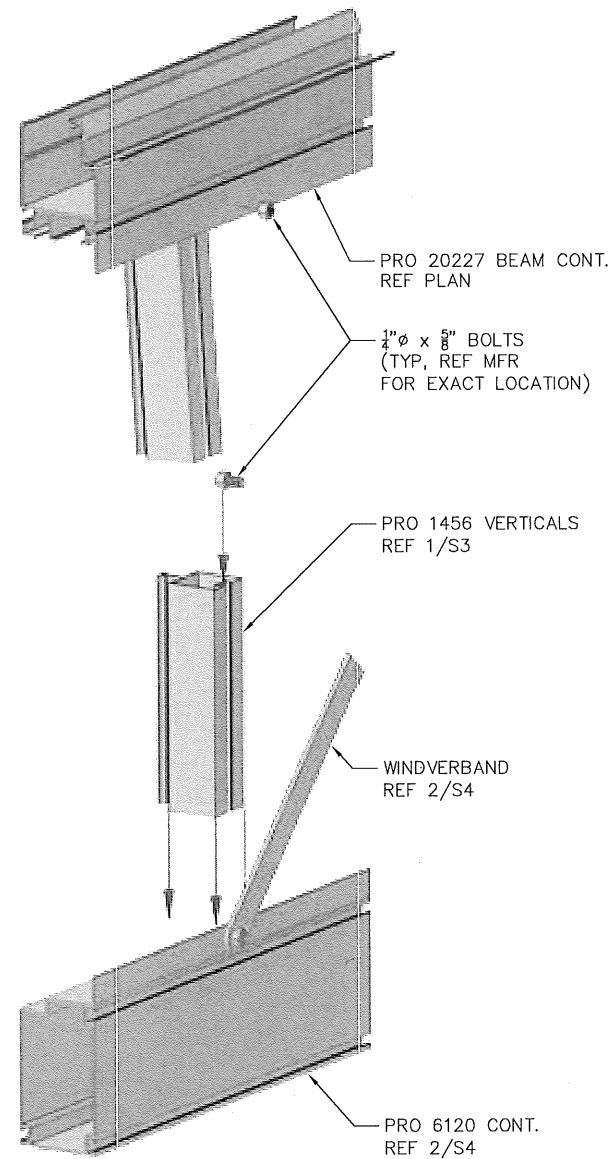
**3** TYP CORNER BAR DETAIL  
NTS



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ISSUE LOG	DATE	MANUFACTURER
PERMIT SET	2022-09-22	DETAILS
		<b>S3</b>



**1** VERTICAL MEMBER CONNECTION  
SCALE: 1/2"=1'-0" (@ 11x17)

**2** LATERAL BRACING  
SCALE: 1/2"=1'-0" (@ 11x17)



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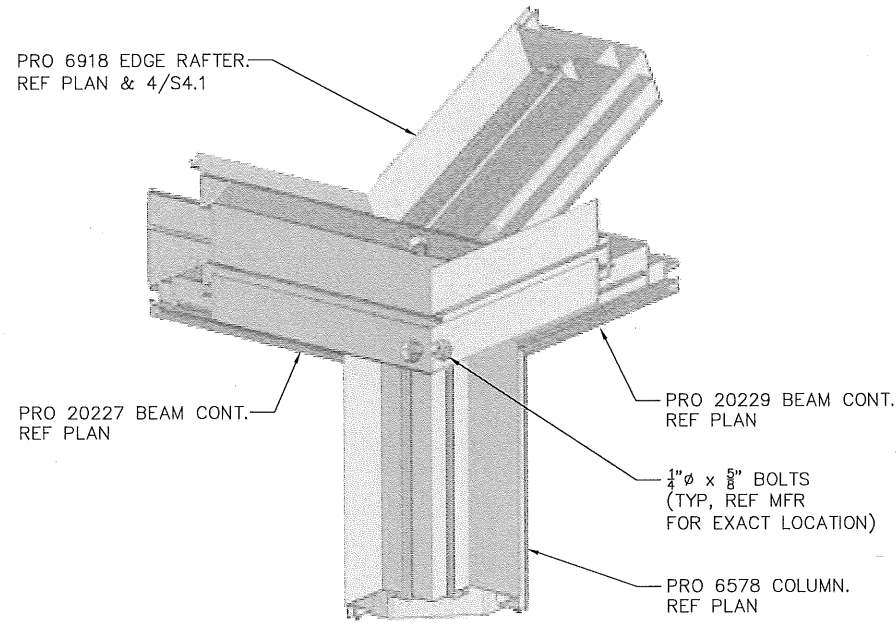
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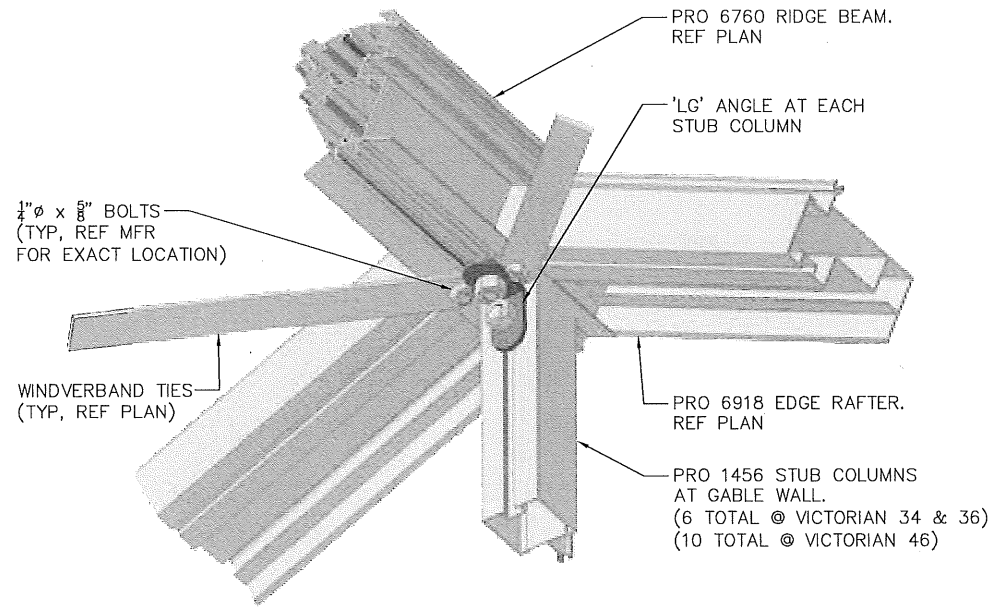
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MANUFACTURER  
DETAILS

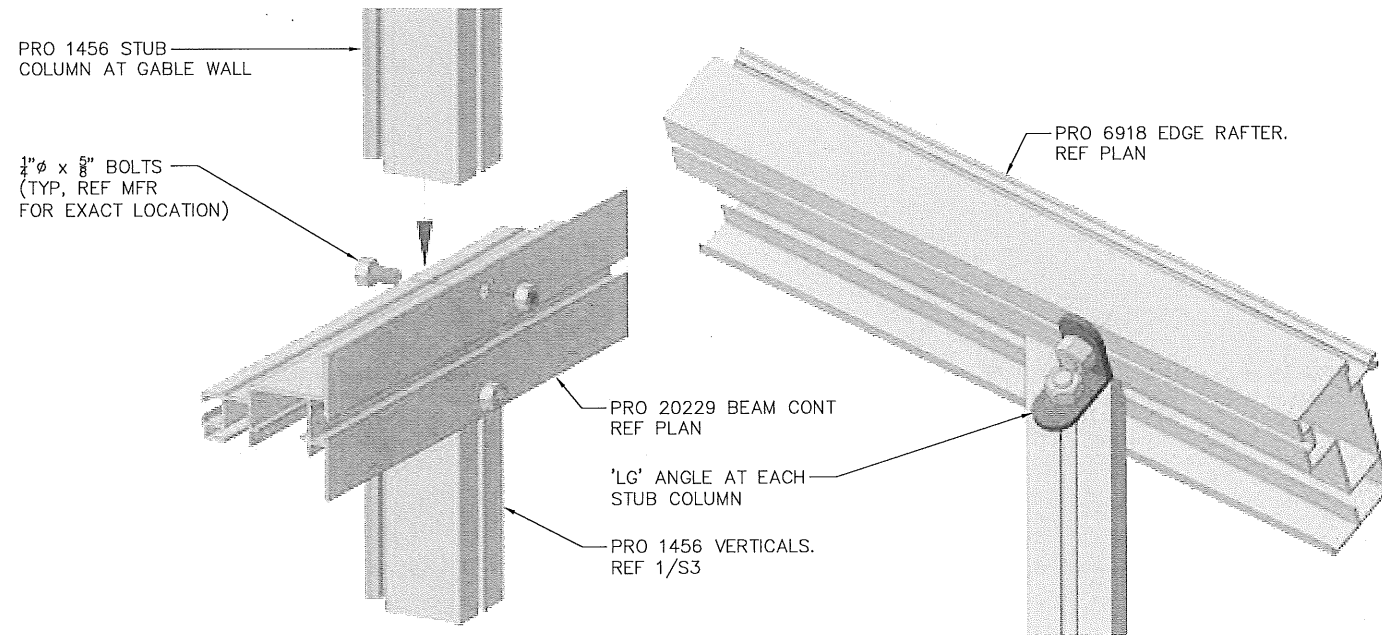
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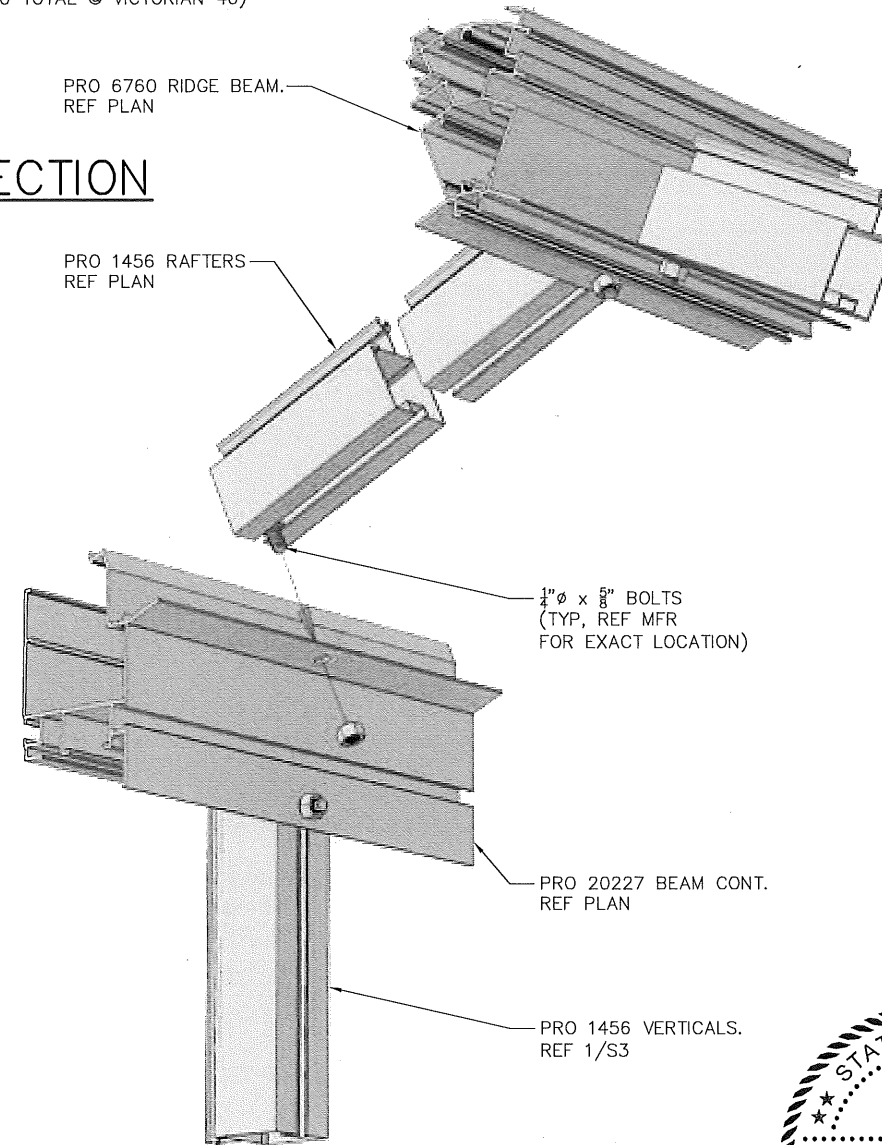
**1** EDGE RAFTER CONNECTION  
SCALE: 1/2"=1'-0" (@ 11x17)



**2** RIDGE BEAM CONNECTION  
SCALE: 1/2"=1'-0" (@ 11x17)



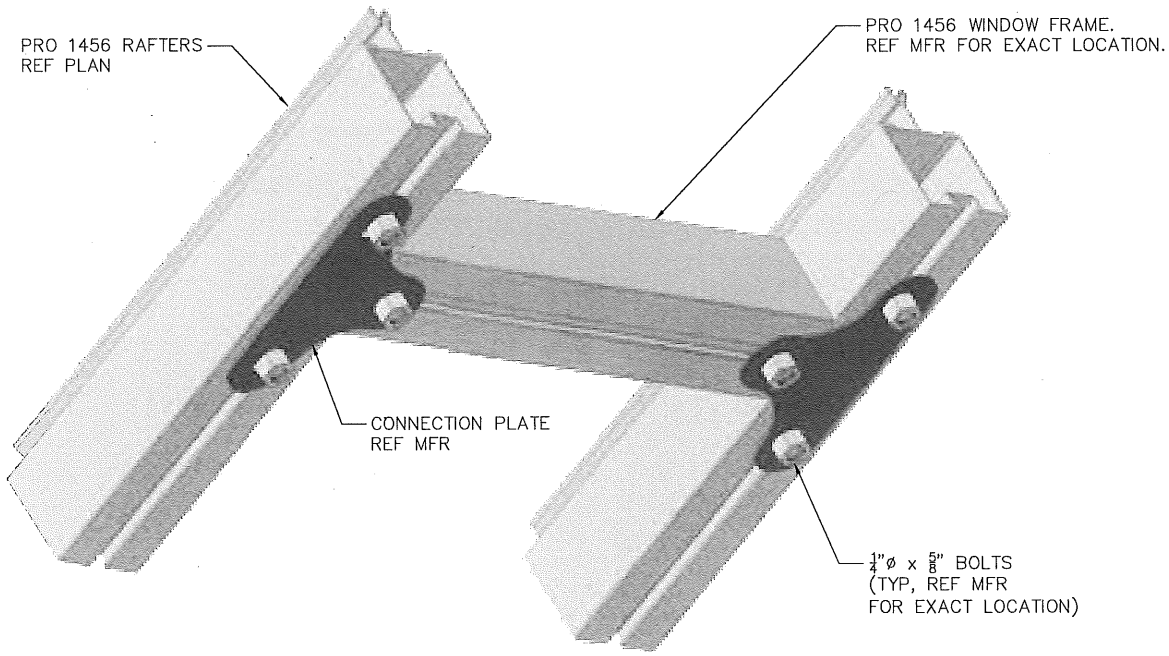
**3** STUB COLUMN CONNECTION  
SCALE: 1/2"=1'-0" (@ 11x17)



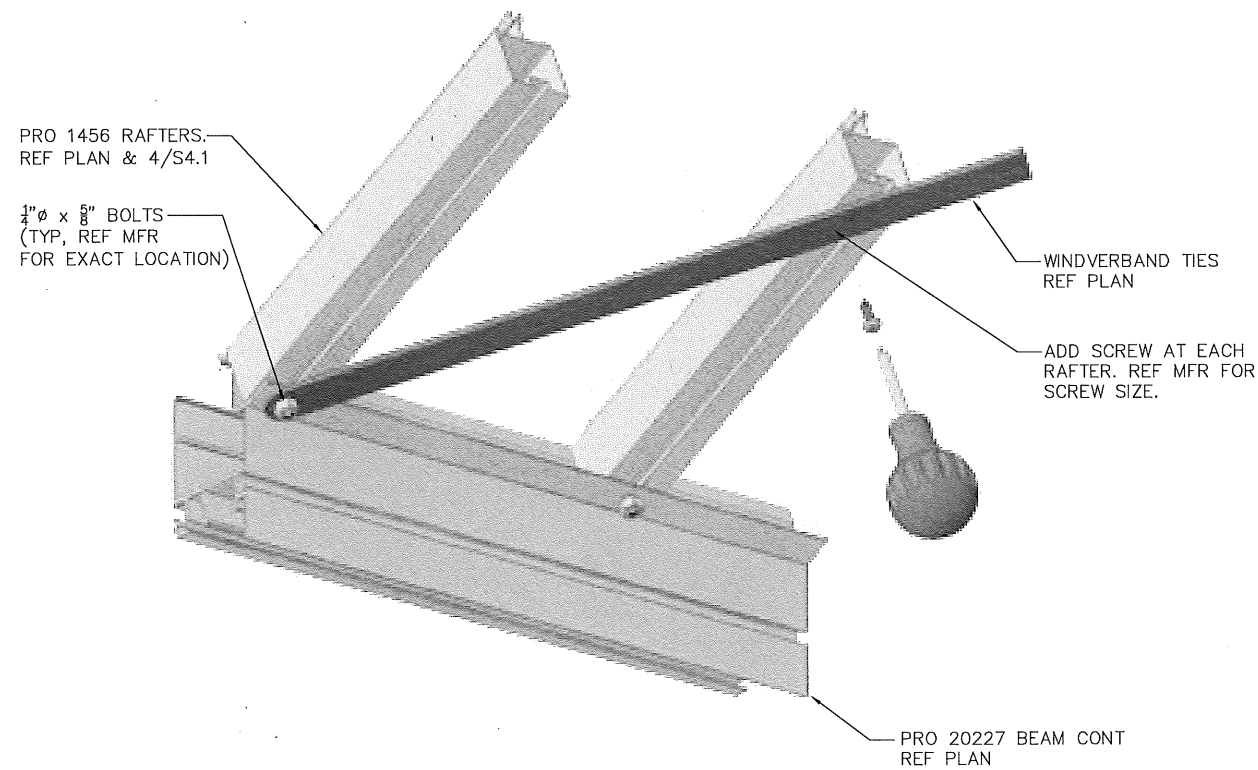
**4** RAFTER CONNECTION  
SCALE: 1/2"=1'-0" (@ 11x17)



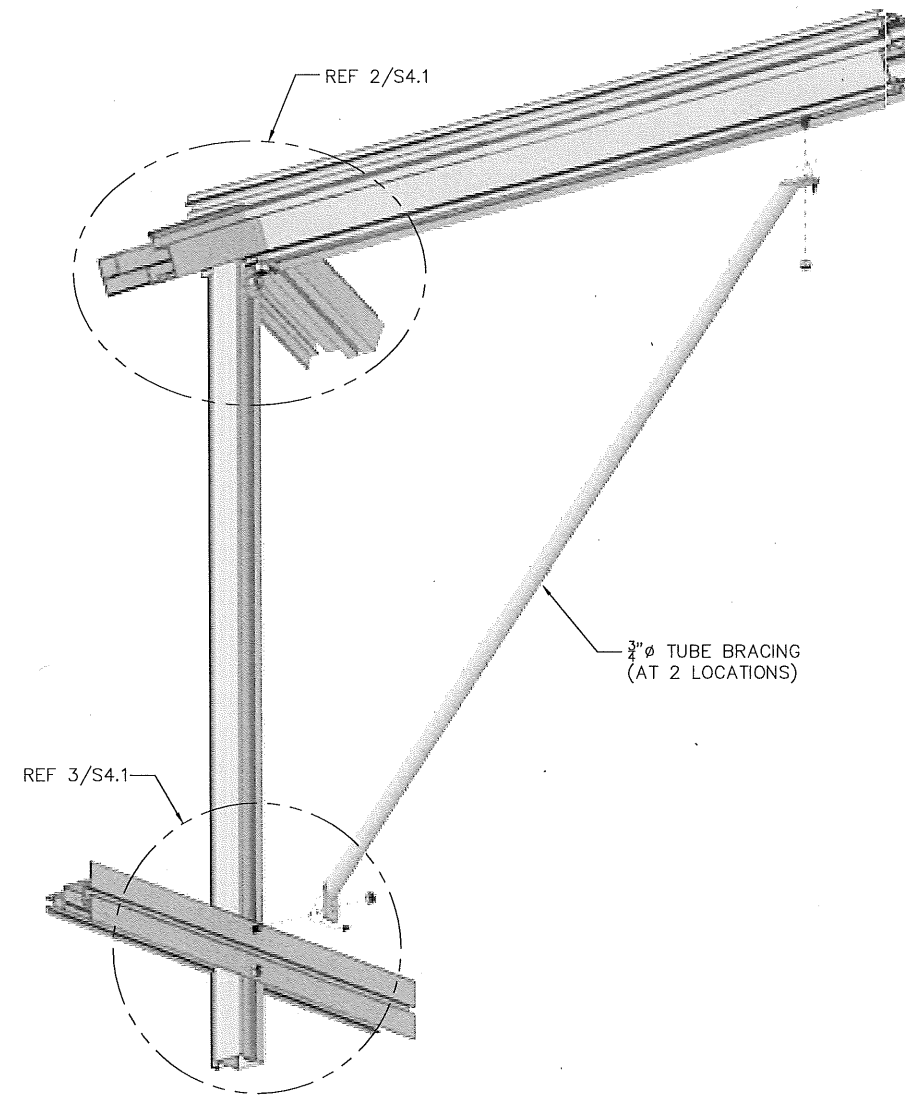
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	job no. 30-1014	S4.1		



**1 WINDOW ROOF FRAME**  
SCALE: 1/2"=1'-0" (@ 11x17)



**3 ROOF TIES**  
SCALE: 1/2"=1'-0" (@ 11x17)

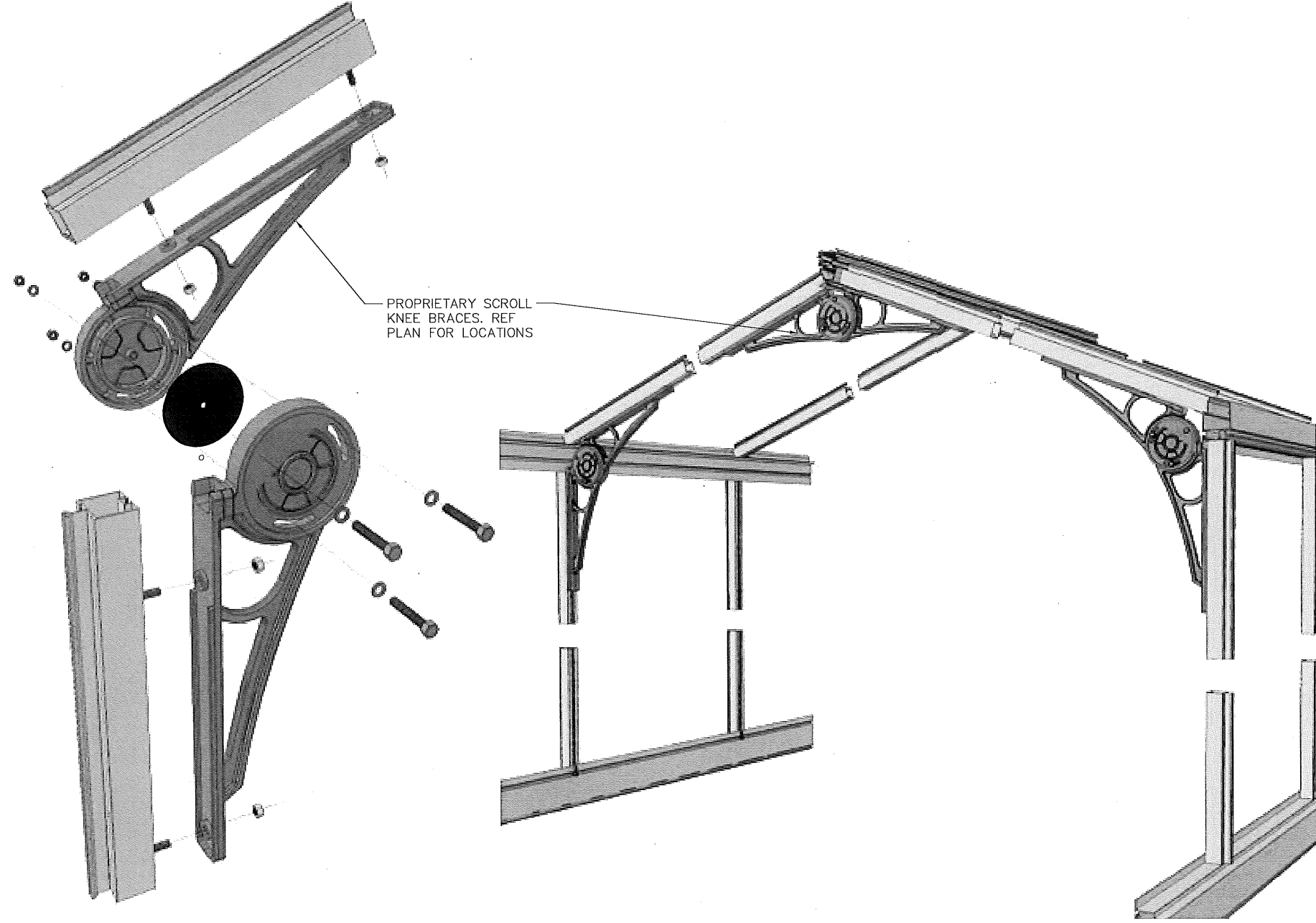


**2 BRACING AT RIDGE BEAM**  
SCALE: 1/2"=1'-0" (@ 11x17)



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1 KNEE BRACE DETAIL  
 SCALE: 1/2"=1'-0" (© 11x17)



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S4.3