ilder/Contractor Responsibilities

awing Validity — These drawings, supporting structural calculations and design certification are sed on the order documents as of the date of these drawings. These documents describe the aterial supplied by the manufacturer as of the date of these drawings. Any changes to the order cuments after the date on these drawings may void these drawings, supporting structural lculations and design certification. The Builder/Contractor is responsible for notifying the building thority of all changes to the order documents which result in changes to the drawings, supporting ructural calculations and design certification.

ilder Acceptance of Drawings — Approval of the manufacturer's drawings and cesign data affirms at the manufacturer has correctly interpreted and applied the requirements of the order cuments and constitutes Builder/Contractor acceptance of the manufacturer's interpretations of e order documents and standard product specifications, including its design, fabrication and quality teria standards and tolerances. (April 2010 Section 4.4.1)

de Official Approval — It is the responsibility of the Builder/Contractor to ensure that all project ns and specifications comply with the applicable requirements of any governing building authority. e Builder/Contractor is responsible for securing all required approvals and permits from the propriate agency as required.

ilding Erection — The Builder/Contractor is responsible for all erection of the steel and associated rk in compliance with the Metal Building Manufacturers drawings. Temporary supports, such as nporary guys, braces, false work or other elements required for erection will be determined, nished and installed by the erector (April 2010 Section 7.10.3) (CSA/S16–09 Section 29).

screpancies — Where discrepancies exist between the Metal Building plans and plans for other des, the Metal Building plans will govern. (April 2010 Section 3.3)

terials by Others — All interface and compatibility of any materials not furnished by the nufacturer are the responsibility of and to be coordinated by the Builder/Contractor or A/E firm. ess specific design criteria concerning any interface between materials if furnished as a part of e order documents, the manufacturers assumptions will govern.

dification of the Metal Building from Plans — The Metal Building supplied by the manufacturer has n designed according to the Building Code and specifications and the loads shown on this wing. Modification of the building configuration, such as removing wall panels or braces, from t shown on these plans could affect the structural integrity of the building. The Metal Building nufacturer or a Licensed Structural Engineer should be consulted prior to making any changes to building configuration shown on these drawings. The Metal Building Manufacturer will assume no ponsibility for any loads applied to the building not indicated on these drawings.

ndation Design

e Metal Building Manufacturer is not responsible for the design, materials and workmanship of the ndation. Anchor rod plans prepared by the manufacturer are intended to show only location, meter and projection of the anchor rods required to attach the Metal Building System to the ndation. It is the responsibility of the end customer to ensure that adequate provisions are de for specifying rod embedment, bearing values, tie rods and or other associated items bedded in the concrete foundation, as well as foundation design for the loads imposed by the al Building System, other imposed loads, and the bearing capacity of the soil and other ditions of the building site. (MBMA 06 Sections 3.2.2 and A3)

metallic building company

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ZIP 77041 (713) 466–7788 ZIP 77240

For questions regarding the interpretation of the drawings, materials provided, or assembly of the parts:
- Call 1–844–840–4603 and ask for the "Field Service" department.
- Before or after normal hours, you may send an email to fieldservices@ncigroup.com, Please include the order no., brief description of the question, & contact name and phone number.

ENGINEERING DESIGN CRITERIA

Building Code	FLORID BUILDING CODE, 6TH EDITION (2017)
Building Risk Category	Normal(Risk Category II)
Roof Dead Load	
Superimposed	2.49 pf
Collateral	2.50 pf
(2.00 psf Acoustical Ceiling 0.50 psf Other)	
Roof Live Load	20.00 sf reduction allowed
Wind	
Ultimate Wind Speed (Vult)	120.00mph
Nominal Wind Speed (Vasd)	92 mph(IBC section 1609.3.1)
Serviceability Wind Speed	76 mph
Wind Exposure Category	B
Internal Pressure Coef (GCpi)	0.55/-0.55
Wall Loads for components not provided by building manufacturer	
Corner Areas (within 3.00' of corner)	3.83 psf pressure -39.73 psf suction
Other Areas	3.83 psf pressure -33.80 psf suction

These values are the maximum values required based on a 10 sq ft area.
Components with larger areas may have lwer wind loads.

DEFLECTION CRITERIA

The material supplied by the manufacturer has been designed with the following minimum deflection criteria. The ctual deflection may be less depending on actual load and actual memer length.

BUILDING DEFLECTION LIMITS.....: BLDG-B

Ceiling Type : Acoustical/Other

Roof Limits		Rafters	Purlins	Panels
Live:	L/	180	150	60
Serviceability Wind:	L/	180	180	60
Total Gravity:	L/	120	120	60
Total Uplift:	L/	N/A	N/A	60

Frame Limits		Sidesway	Portal Frame Sidesway
Live:	H/	60	
Snow:	H/	N/A	
Serviceability Wind:	H/	60	
Portal Serviceability Wind:	H/	N/A	60
Total Gravity:	H/	60	

Wall Limits		Limit
Total Wind Panels:	L/	60
Total Wind Girts:	L/	120
Total Wind EW Columns:	L/	120

The Service Seismic limit as shown here is atservice level loads.

PROJECT NOTES

Material properties of steel bar, plate, and sheet used in the fabrication of built-up structural framing members conform to ASTM A529, ASTM A572, ASTM A1011 SS, or ASTM A1011 HSLAS with a minimum yield point of 50 ksi. Material properties of hot rolled structural shapes conform to ASTM A992, ASTM A529, or ASTM A572 with a minimum specified yield point of 50 ksi. Hot rolled angles, other than flange braces, conform to ASTM 36 minimum. Hollow structural shapes conform to ASTM A500 grade B, minimum yield point is 42 ksi for round HSS and 46 ksi for rectangular HSS. Material properties of cold-formed light gage steel members conform to the requirements of ASTM A1011 SS Grade 55, ASTM A1011 HSLAS Grade 55 Class 1, ASTM A653 SS Grade 55, or ASTM A653 HSLAS Grade 55 Class 1 with a minimum yield point of 55 ksi. For Canada, material properties conform to CAN/CSA G40.20/G40.21 or equivalent.

All bolted joints with A325 Type 1 bolts are specified as snug-tightened joints in accordance with the Specification for Structural Joints Using ASTM A325 or A490 Bolts, December 31, 2009. Pre-tensioning methods, including turn-of-nut, calibrated wrench, twist-off-type tension-control bolts or direct-tension-indicator are NOT required. Installation inspection requirements for Snug Tight Bolts (Specification for Structural Joints Section 9.1) is suggested.

Design criteria as noted is as given within order documents and is applied in general accordance with the applicable provisions of the model code and/or specification indicated. Neither the metal building manufacturer nor the certifying engineer declares or attests that the loads as designated are proper for local provisions that may apply or for site specific parameters. The design criteria is supplied by the builder, project owner, or an Architect and/or Engineer of Record for the overall construction project.

Framed openings, walk doors, and open areas shall be located in the bay and elevation as shown in the erection drawings. The cutting or removal of girts shown on the erection drawings due to the addition of framed openings, walk doors, or open areas not shown may void the design certifications supplied by the metal building manufacturer.

The rigid frame at building B side B and D is designed as a non-expandable rigid frame. Corresponding frame reactions are calculated based upon actual tributary area.

Investigation of the existing structure for possible detrimental effects due to the metal building addition is not within the metal building manufacturer's scope of work. It is strongly recommended that the original designer or other responsible professional be retained to analyze the existing structure, recommending any reinforcement that may be needed. The metal building manufacturer and its certifying engineer expressly exclude the existing structure for any warranty or certification whether written, verbal or implied.

The roof and wall panel, not by metal building manufacturer, shall be structurally sufficient to sustain the minimum specified design loads. The roof & wall panel shall be attached to purlins & girts at a maximum spacing of 1'-0".

The roof material, not by metal building manufacturer, attaching to the roof system provided by manufacturer, shall have a maximum weight of 0.94 psf. Attachment of roof material shall be structurally sufficient to sustain the minimum specified design loads.

The roof and wall panels being used for the building are to be through-fastenedtype panel with profile and strength properties equivalent to or greater than 26 Gage PBR as manufactured by A&S Building Systems.

Drawing Index

Revision	Date	Description	By	Ck'd

metallic building company
7301 FAIRVIEW • HOUSTON, TEXAS • P.O. BOX 40338
ZIP 77041 (713) 466–7788 ZIP 77240

Project Name & Location:
THE CROSS CHURCH PHASE 1
12518 S US HIGHWAY 441
LAKE CITY FL 32025–2689

Customer:
THE CROSS CHURCH OF COLUMBIA COUNTRY
12393 S US HIGHWAY 441
LAKE CITY FL 32025–2686 US
KENNETH EDENFIELD

Drawing Status:
☐ Preliminary (Not For Construction)
☐ For Approval (Not For Construction)
☒ For Construction Permit
☐ For Erector Installation

Scale:	NOT TO SCALE
Drawn by:	FER 10/3/19
Checked by:	ABE 10/9/19
Project Engineer:	JMR
Job Number:	17–B–35162–1
Sheet Number:	E1 of 12

The engineer whose seal appears hereon is an employee for the manufacturer for the materials described herein. Said seal or certification is limited to the products designed and manufactured by manufacturer only. The undersigned engineer is not the overall engineer of record for this project.

Patrick T. Kaminski, P.E.
Florida P.E. 84829

Download panel installation manuals from:
www.ncimanuals.com

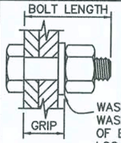
Descargue los manuales de instalación del panel desde:
www.ncimanuals.com

BUILDING DESCRIPTIONS

ilding ID	Width	Length	Height	Slope
uilding B	14'–0	51'–2	10'–0	1 1/16 12

⅞"ø A325 BOLT GRIP TABLE

GRIP	LENGTH
0 TO 9/16"	1 1/4" F.T.
r 9/16" TO 1 1/16"	1 3/4" F.T.
r 1 1/16" TO 1 5/16"	2"
r 1 5/16" TO 1 9/16"	2 1/4"
r 1 9/16" TO 1 13/16"	2 1/2"
r 1 13/16" TO 2 1/16"	2 3/4"
ATIONS OF BOLTS LONGER THAN 2 3/4" ED ON ERECTION DRAWINGS	
DENOTES FULLY THREADED	



NOTE: FULL THREAD ENGAGEMENT IS DEEMED TO HAVE BEEN MET WHEN THE END OF THE BOLT IS FLUSH WITH THE FACE OF THE NUT.

WASHER REQUIRED ONLY WHEN SPECIFIED. WASHER MAY BE LOCATED UNDER HEAD OF BOLT, UNDER NUT, OR AT BOTH AT LOCATIONS NOTED ON ERECTION DRAWINGS. ADD 5/32" FOR EACH WASHER TO MATERIAL THICKNESS TO DETERMINE GRIP.

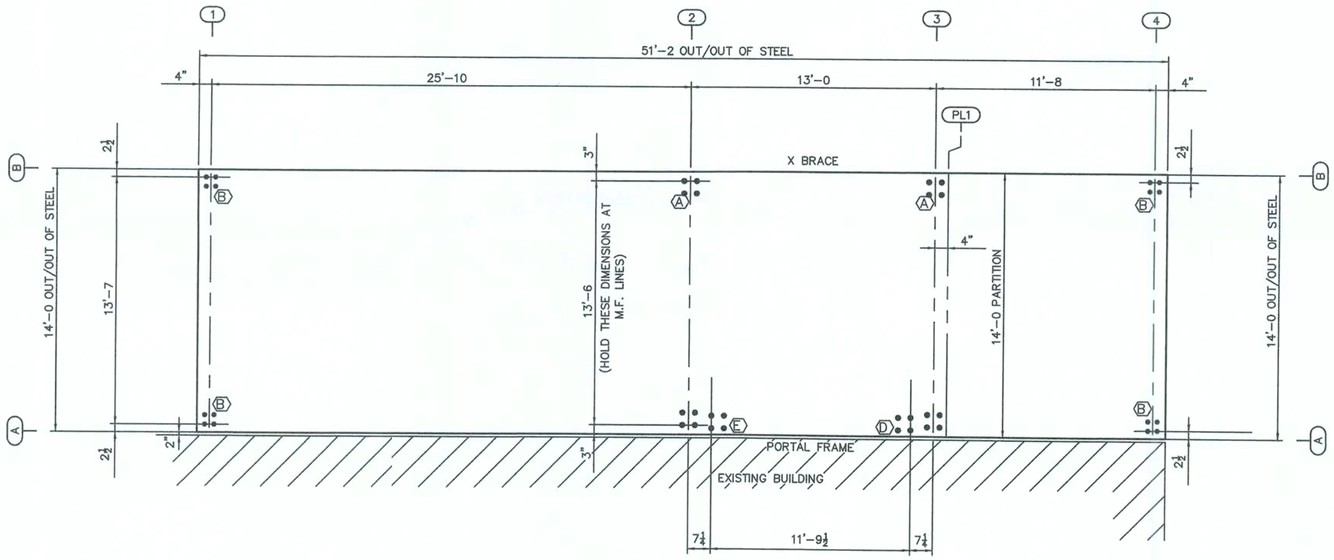
COLUMBIA COUNTY BUILDING DEPARTMENT PLANS EXAMINER — FILE COPY — Received for Compliance

Drawing has been digitally signed.
Oct 15, 2019
PATRICK T. KAMINSKI LICENSE No. 84829 STATE OF FLORIDA PROFESSIONAL ENGINEER

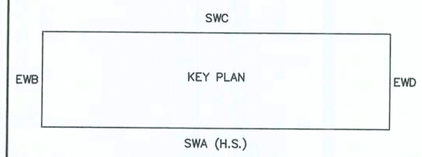
Anchor Rod Drawings

1) This drawing is for anchor rod placement only and is not foundation design.
2) Foundation must be square and level with all anchor rods true in size, location, and projection.
3) Projection shown must be held to keep threads clear of finished concrete.
4) This structural design data includes magnitude and location of design loads and support conditions, material properties, and type and size of major structural members necessary to show compliance with the Order Documents at the time of this issue. Any change to building loads or dimensions may change structural member sizes and locations shown. This structural design data will be superseded and voided by any future mailing.
5) Anchor rod size is determined by shear and tension at the bottom of the base plate. The length of the anchor rod and method of load transfer to the foundation are to be determined by the foundation engineer, and are not provided by the manufacturer.
6) Anchor rods are ASTM F1554 Gr. 36 material unless noted otherwise.
7) 3000 psi concrete compressive strength (f'c) is assumed for the purpose of column base plate design unless otherwise noted.

FINISH FLOOR AT ELEVATION 100'–0



ANCHOR ROD SETTING PLAN



ANCHOR BOLTS TO BE DESIGNED BY FOUNDATION ENGINEER USING DIAMETERS SHOWN IN THIS TABLE.

ANCHOR ROD DESCRIPTION	QUANTITY
⅞"ø DIAMETER X	24
¾"ø DIAMETER X	24

Revision	Date	Description	By	Ck'd

metallic building company
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ZIP 77041 (713) 466-7788 ZIP 77240

Project Name & Location:
THE CROSS CHURCH PHASE 1
12518 S US HIGHWAY 441
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12393 S US HIGHWAY 441
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KENNETH EDENFIELD

Drawing Status:
☐ Preliminary Not For Construction
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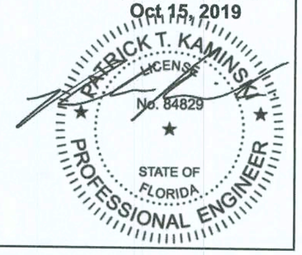
☒ For Construction Permit
☐ For Erector Installation

Scale:	NOT TO SCALE
Drawn by:	FER 10/3/19
Checked by:	ABE 10/9/19
Project Engineer:	JMR
Job Number:	17–B–35162–1
Sheet Number:	F1 of 3

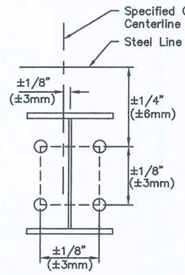
The engineer whose seal appears hereon is an employee for the manufacturer for the materials described herein. Said seal or certification is limited to the products designed and manufactured by manufacturer only. The undersigned engineer is not the overall engineer of record for this project.

Patrick T. Kaminski, P.E.
Florida P.E. 84829

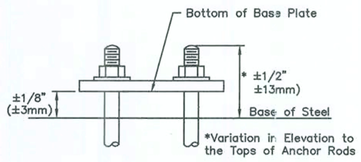
Drawing has been digitally signed.
Oct 15, 2019



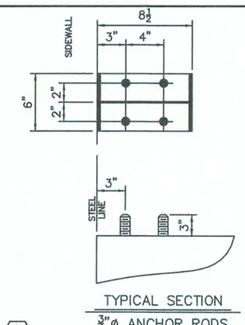
AISC CODE OF STANDARD PRACTICE TOLERANCES FOR SETTING ANCHOR RODS

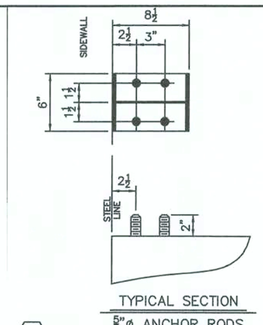


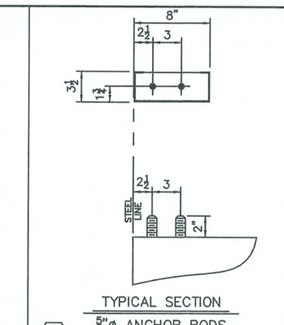
ANCHOR ROD SETTING TOLERANCES

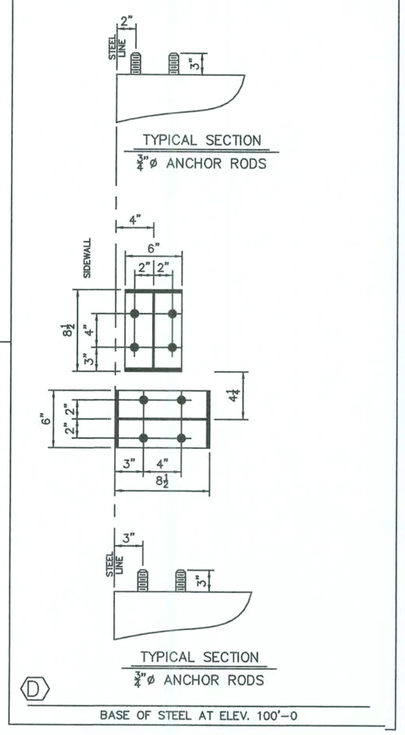


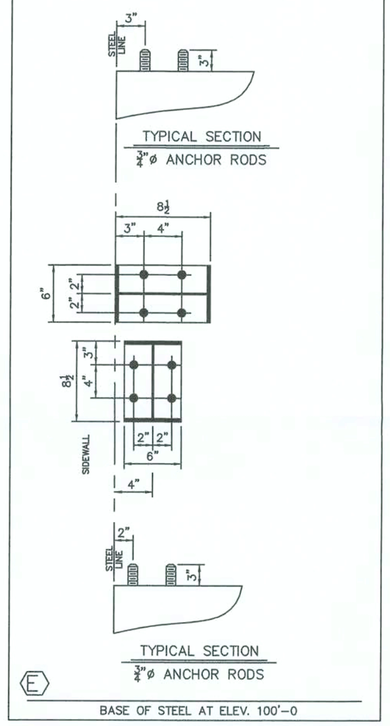
BASE PLATE AND ANCHOR ROD TOLERANCES











Revision	Date	Description	By	Ck'd

metallic building company
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ZIP 77041 (713) 466-7788 ZIP 77240

METALLIC

Customer: THE CROSS CHURCH OF COLUMBIA COUNTRY
12393 S US HIGHWAY 441
LAKE CITY FL 32025-2686 US
KENNETH EDENFIELD

Project Name & Location: THE CROSS CHURCH PHASE 1
12518 S US HIGHWAY 441
LAKE CITY FL 32025-2689

Drawing Status:
☐ Preliminary (Not For Construction)
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☒ For Construction Permit
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Scale:	NOT TO SCALE	
Drawn by:	FER	10/3/19
Checked by:	ABE	10/9/19
Project Engineer:	JMR	
Job Number:	17-B-35162-1	
Sheet Number:	F2 of 3	

The engineer whose seal appears hereon is an employee for the manufacturer for the materials described herein. Said seal or certification is limited to the products designed and manufactured by manufacturer only. The undersigned engineer is not the overall engineer of record for this project.

Patrick T. Kaminski, P.E.
Florida P.E. 84829

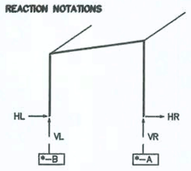
Drawing has been digitally signed.
Oct 15, 2019

PATRICK T. KAMINSKI LICENSE No. 84829 STATE OF FLORIDA PROFESSIONAL ENGINEER

FRAME ID #3 — USER NAME: JMRodriguez DATE: 9/28/19 — PAGE: 3–2
pf 14./10./13.25 20./120./0 — JOB NAME: 35162B — FILE: frame_1.fra

SUPPORT REACTIONS FOR EACH LOAD GROUP
*LOCATION: Gridlines: 1
NOTES: (1) All reactions are in kips and kip–ft. TIME: 11:35:32
(2) Primary wind load cases are not concurrent.
(3) X–bracing reactions (RBPULW and RBUPEQ) are combined withLWL and LEQ groups only.

REACTION NOTATIONS



LOAD GROUP REACTION TABLE GRIDLINES * = 1

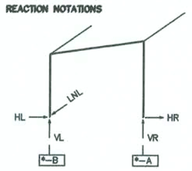
COLUMN	*–B			*–A		
LOAD GROUP	HL	VL	LNL	HR	VR	LNR
DL	0.0	0.4	0.0	–0.0	0.5	0.0
LL	0.2	1.9	0.0	–0.2	1.9	0.0
COLL	0.0	0.2	0.0	–0.0	0.2	0.0
WL1	–1.0	–3.7	0.0	–1.5	–1.3	0.0
WL2	–2.2	–1.4	0.0	–0.4	0.9	0.0
LWL1	1.1	–2.7	0.0	–1.0	–2.3	0.0
LWL2	1.1	–2.2	0.0	–1.0	–2.7	0.0
LWL3	–0.1	–0.4	0.0	0.2	–0.1	0.0
LWL4	–0.1	0.1	0.0	0.2	–0.6	0.0
WL3	2.2	–0.7	0.0	1.2	–4.3	0.0
WL4	1.1	1.6	0.0	2.3	–2.1	0.0

LOAD GROUP DESCRIPTION
DL : Roof Dead Load
LL : Roof Live Load
COLL : Roof Collateral Load
WL1 : Wind from Left to Right with +GCpi
WL2 : Wind from Left to Right with –GCpi
LWL1 : Windward Corner Left with +GCpi
LWL2 : Windward Corner Right with +GCpi
LWL3 : Windward Corner Left with –GCpi
LWL4 : Windward Corner Right with –GCpi
WL3 : Wind from Right to Left with +GCpi
WL4 : Wind from Right to Left with –GCpi

FRAME ID #1 — USER NAME: JMRodriguez DATE: 9/28/19 — PAGE: 1–2
ss 14./10./19.417 20./120./ — JOB NAME: 35162B — FILE: frames_2–3.fra

SUPPORT REACTIONS FOR EACH LOAD GROUP
*LOCATION: Gridlines: 2 3
NOTES: (1) All reactions are in kips and kip–ft. TIME: 11:40:18
(2) Primary wind load cases are not concurrent.
(3) X–bracing reactions (RBPULW and RBUPEQ) are combined withLl and LEQ groups only.

REACTION NOTATIONS



LOAD GROUP REACTION TABLE GRIDLINES * = 2 3

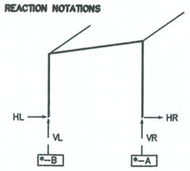
COLUMN	*–B			*–A		
LOAD GROUP	HL	VL	LNL	HR	VR	LNR
DL	0.0	0.5	0.0	–0.0	0.6	0.0
LL	0.3	2.5	0.0	–0.3	2.5	0.0
COLL	0.0	0.3	0.0	–0.0	0.3	0.0
WL1	–1.1	–4.6	0.0	–2.0	–1.9	0.0
WL2	–2.7	–1.3	0.0	–0.3	1.3	0.0
WL3	2.8	–1.2	0.0	1.2	–5.3	0.0
WL4	1.1	2.2	0.0	2.9	–2.1	0.0
LWL1	1.5	–3.5	0.0	–1.5	–2.9	0.0
RBUPLW	0.0	–0.5	–0.6	–0.0	0.0	0.0
LWL2	1.5	–3.0	0.0	–1.5	–3.5	0.0
LWL3	–0.1	–0.1	0.0	0.2	0.3	0.0
LWL4	–0.1	0.4	0.0	0.2	–0.3	0.0
RBDWLW	–0.0	0.5	0.0	0.0	–0.0	0.0

LOAD GROUP DESCRIPTION
DL : Roof Dead Load
LL : Roof Live Load
COLL : Roof Collateral Load
WL1 : Wind from Left to Right with +GCpi
WL2 : Wind from Left to Right with –GCpi
WL3 : Wind from Right to Left with +GCpi
WL4 : Wind from Right to Left with –GCpi
RBUPLW : Upward Acting Rod Brace Load from Long. Wind
LWL2 : Windward Corner Right with +GCpi
LWL3 : Windward Corner Left with –GCpi
LWL4 : Windward Corner Right with –GCpi
RBDWLW : Downward Acting Rod Brace Load from Long. Win

FRAME ID #4 — USER NAME: JMRodriguez DATE: 9/28/19 — PAGE: 4–2
ss 14./10./8.167 20./120./0 — JOB NAME: 35162B — FILE: frame_4.fra

SUPPORT REACTIONS FOR EACH LOAD GROUP
*LOCATION: Gridlines: 4
NOTES: (1) All reactions are in kips and kip–ft. TIME: 11:37:18
(2) Primary wind load cases are not concurrent.
(3) X–bracing reactions (RBPULW and RBUPEQ) are combined withLWL and LEQ groups only.

REACTION NOTATIONS



LOAD GROUP REACTION TABLE GRIDLINES * = 4

COLUMN	*–B			*–A		
LOAD GROUP	HL	VL	LNL	HR	VR	LNR
DL	0.0	0.3	0.0	–0.0	0.3	0.0
LL	0.1	0.9	0.0	–0.1	0.9	0.0
COLL	0.0	0.1	0.0	–0.0	0.1	0.0
WL1	–0.6	–2.0	0.0	–0.8	–0.6	0.0
WL2	–1.2	–0.9	0.0	–0.3	0.4	0.0
LWL1	0.5	–1.4	0.0	–0.4	–1.2	0.0
LWL2	0.5	–1.1	0.0	–0.4	–1.5	0.0
LWL3	–0.0	–0.3	0.0	0.1	–0.2	0.0
LWL4	–0.0	–0.0	0.0	0.1	–0.4	0.0
WL3	1.2	–0.3	0.0	0.7	–2.3	0.0
WL4	0.7	0.8	0.0	1.3	–1.3	0.0

LOAD GROUP DESCRIPTION
DL : Roof Dead Load
LL : Roof Live Load
COLL : Roof Collateral Load
WL1 : Wind from Left to Right with +GCpi
WL2 : Wind from Left to Right with –GCpi
LWL1 : Windward Corner Left with +GCpi
LWL2 : Windward Corner Right with +GCpi
LWL3 : Windward Corner Left with –GCpi
LWL4 : Windward Corner Right with –GCpi
WL3 : Wind from Right to Left with +GCpi
WL4 : Wind from Right to Left with –GCpi

FRAME ID #5 — USER NAME: JMRodriguez DATE: 9/28/19 — PAGE: 5–2
pf 13./12. main building at p — JOB NAME: 35162B — FILE: pframe_a.fra

SUPPORT REACTIONS FOR EACH LOAD GROUP
LOCATION: bays 2–(Gridline A)
NOTES: (1) All reactions are in kips and kip–ft. TIME: 11:45:48
(2) Primary wind load cases are not concurrent.
(3) X–bracing reactions (RBPULW and RBUPEQ) are combined withLWL and LEQ groups only.

REACTION NOTATIONS

LOAD GROUP REACTION TABLE GRIDLINES * = A

COLUMN	*–2			*–3		
LOAD GROUP	HL	VL	LNL	HR	VR	LNR
DL	0.0	0.2	0.0	–0.0	0.2	0.0
LWL1	–0.3	–0.7	0.0	–0.4	0.7	0.0
LWL2	0.4	0.7	0.0	0.3	–0.7	0.0

LOAD GROUP DESCRIPTION
DL : Roof Dead Load
LWL1 : Wind from Left to Right with +GCpi
LWL2 : Wind from Right to Left with –GCpi

NOTES

1) THE REACTIONS PROVIDED ARE BASED ON THE ORDER DOUMENTS AT THE TIME OF MAILING. ANY CHANGES TO BUILDING LOADS (DIMENSIONS MAY CHANGE THE REACTIONS. THE REACTIONS WILL BE SUIRSEDED AND VOIDED BY ANY FUTURE MAILING.
2) THE REACTIONS PROVIDED HAVE BEEN CREATED WITH THIFOLLOWING LAYOUT (UNLESS NOTED OTHERWISE).
a) A REACTION TABLE IS PROVIDED WITH THE REACTIONS FR EACH LOAD GROUP.
b) RIGID FRAMES
(1) GABLED BUILDINGS
(a) LEFT AND RIGHT COLUMNS ARE DETERMINED AS IF1EWING THE LEFT SIDE OF THE BUILDING, AS SHOWN ON THE ACHOR ROD DRAWING, FROM THE OUTSIDE OF THE BUILDING.
(b) INTERIOR COLUMNS ARE SPACED FROM LEFT SIDE) RIGHT SIDE.
(2) SINGLE SLOPE BUILDINGS
(a) LEFT COLUMN IS THE LOW SIDE COLUMN.
(b) RIGHT COLUMN IS THE HIGH SIDE COLUMN.
(c) INTERIOR COLUMNS ARE SPACED FROM LOW SIDE T HIGH SIDE.
c) ENDWALLS
(1) LEFT AND RIGHT COLUMNS ARE DETERMINED AS IF VIWING THE WALL FROM THE OUTSIDE.
(2) INTERIOR COLUMNS ARE SPACED FROM LEFT TO RIGH'
d) ANCHOR ROD SIZE IS DETERMINED BY SHEAR AND TENSN AT THE BOTTOM OF THE BASE PLATE. THE LENGTH OF THE ANHOR ROD AND METHOD OF LOAD TRANSFER TO THE FOUNDATION AE TO BE DETERMINED BY THE FOUNDATION ENGINEER.
e) ANCHOR RODS ARE ASTM F1554 Gr. 36 MATERIAL UNLES NOTED OTHERWISE ON THE ANCHOR ROD LAYOUT DRAWING.
f) X–BRACING
(1) ROD BRACING REACTIONS HAVE BEEN INCLUDED IN VAJES SHOWN IN THE REACTION TABLES.
(2) FOR IBC AND UBC BASED BUILDING CODES, WHEN X–BACING IS PRESENT IN THE SIDEWALL, INDIVIDUAL LONGITUDINAL SISMIC LOADS (RBUPEQ AND RBDWEQ) DO NOT INCLUDE THE MPLIFICATION FACTOR, Ω_0.
(3) FOR CANADA BUILDING CODE (NBC), WHEN X–BRACINGIS PRESENT IN THE SIDEWALL OR ENDWALL, INDIVIDUAL LONGITUDINL SEISMIC LOADS (RBUPEQ & RBDWEQ) ARE MULTIPLIED BY FORC REDUCTION FACTOR, Rd, WHEN SPECIFIED SHORT–PERIOD SPECTR ACCELERATION RATIO $I_E F_a S_a(0.2)$ IS GREATER THAN 0.4.
3) REACTIONS ARE PROVIDED AS UN–FACTORED FOR EACH LAD GROUP APPLIED TO THE COLUMN. THE FOUNDATION ENGINEER WILL PPLY THE APPROPRIATE LOAD FACTORS AND COMBINE THE REACTIONS I ACCORDANCE WITH THE BUILDING CODE AND DESIGN SPECIFICTIONS TO DETERMINE BEARING PRESSURES AND CONCRETE DESIGN. TH FACTORS APPLIED TO LOAD GROUPS FOR THE STEEL COLUMN DESIGN NY BE DIFFERENT THAN THE FACTORS USED IN THE FOUNDATION DEGN.
a) FOR PROJECTS USING ULTIMATE DESIGN WIND SPEEDS SUH AS 2012 IBC, 2015 IBC, OR FLORIDA BUILDING CODE, THE WIND LUD REACTIONS ARE AT A STRENGTH VALUE WITH A LOAD FATOR OF 1.0.
b) FOR IBC CODES, THE SEISMIC REACTIONS PROVIDED ARE.T A STRENGTH LEVEL AND DO NOT CONTAIN THE RHO FACTO
c) FOR NBCC CODES, THE SEISMIC REACTIONS PROVIDED DONOT CONTAIN THE $R_d R_o$ FACTOR.
THE MANUFACTURER DOES NOT PROVIDE "MAXIMUM" LOAD COBINATION REACTIONS. HOWEVER, THE INDIVIDUAL LOAD REACTIONS PRODED MAY BE USED BY THE FOUNDATION ENGINEER TO DETERMINE THE APRCABLE LOAD COMBINATIONS FOR HIS/HER DESIGN PROCEDURES ANDLLOW FOR AN ECONOMICAL FOUNDATION DESIGN.

Revision	Date	Description	By	Ck'd

metallic building company
7301 FARMEN • HOUSTON, TEXAS • P.O. BOX 40338
ZIP 77041 (713) 466–7788 ZIP 77240

METALLIC

Customer:
THE CROSS CHURCH OF COLUMBIA COUNTRY
12393 S US HIGHWAY 441
LAKE CITY FL 32025–2686 US
KENNETH EDENFIELD

Project Name & Location:
THE CROSS CHURCH OF COLUMBIA COUNTRY PHASE 1
12518 S US HIGHWAY 441
LAKE CITY FL 32025–2689 US

Drawing Status:
☐ Preliminary Not For Construction
☐ For Approval Not For Construction
☒ For Construction Permit
☐ For Erector Installation

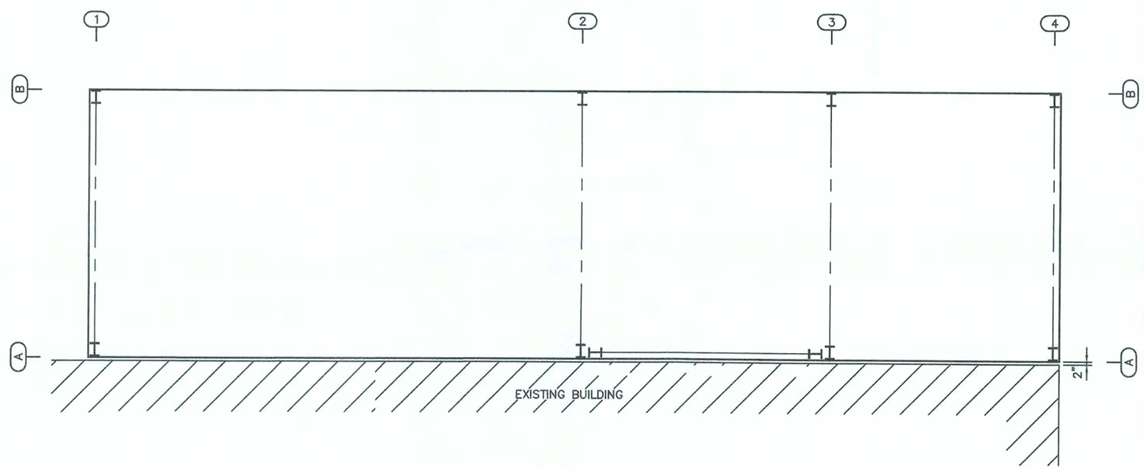
Scale:	NOT TO SCALE
Drawn by:	FER 10/3/19
Checked by:	ABE 10/9/19
Project Engineer:	JMR
Job Number:	17–B–35162–1
Sheet Number:	F3 of 3

The engineer whose seal appears hereon is an employee for the manufacturer for the materials described herein. Said seal or certification is limited to the products designed and manufactured by manufacturer only. The undersigned engineer is not the overall engineer of record for this project.

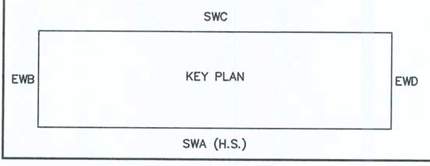
Patrick T. Kaminski, P.E.
Florida P.E. 84829

Drawing has been digitally signed.
Oct 15, 2019

PATRICK T. KAMINSKI LICENSE No. 84829 STATE OF FLORIDA PROFESSIONAL ENGINEER



PRIMARY STEEL LOCATION PLAN



Revision	Date	Description	By	Ck'd

metallic building company
7301 FARMER • HOUSTON, TEXAS • P.O. BOX 40338
ZIP 77041 (713) 466-7788 ZIP 77240

METALLIC

Project Name & Location:
THE CROSS CHURCH OF COLUMBIA COUNTRY
12518 S US HIGHWAY 441
LAKE CITY FL 32025-2689

Customer:
THE CROSS CHURCH OF COLUMBIA COUNTRY
12393 S US HIGHWAY 441
LAKE CITY FL 32025-2686 US
KENNETH EDENFIELD

Drawing Status:
☐ Preliminary (Not For Construction)
☐ For Approval (Not For Construction)
☒ For Construction Permit
☐ For Erector Installation

Scale:	NOT TO SCALE
Drawn by:	FER 10/3/19
Checked by:	ABE 10/9/19
Project Engineer:	JMR
Job Number:	17-B-35162-1
Sheet Number:	E2 of 12

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Florida P.E. 84829

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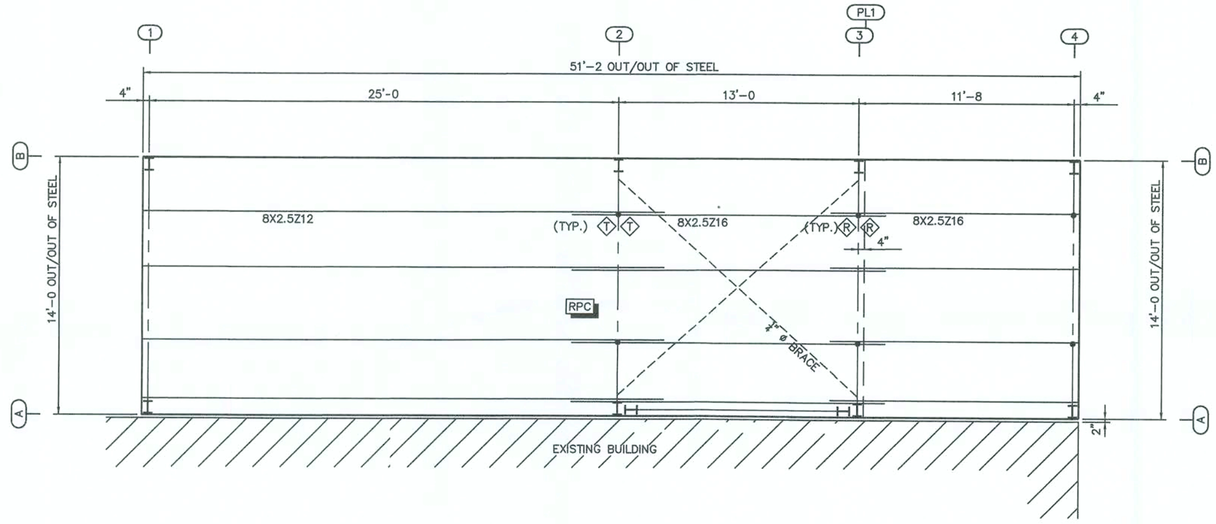
● – DENOTES: CLIP LOCATION
SC90 AT 8" PURLINS
SC92 AT 10" PURLINS
SC94 AT 12" PURLINS



ROOF FRAMING PLAN

SWC
EWB KEY PLAN EWD
SWA (H.S.)

ZEE SECTION LAP TABLE			
SYMBOL	LAP LENGTH	SYMBOL	LAP LENGTH
Q	–0'–0½"	T	2'–5½"
S	0'–3½"	V	3'–1¼"
R	1'–5½"	REFER TO CF01122	

Revision	Date	Description	By	Ck'd

metallic building company
7301 FAIRVIEW • HOUSTON, TEXAS • P.O. BOX 40338
(713) 466-7788 ZIP 77240
ZIP 77041

METALLIC

Customer:
THE CROSS CHURCH OF COLUMBIA COUNTY
12393 S US HIGHWAY 441
LAKE CITY FL 32025–2686 US
KENNETH EBBINFIELD

Project Name & Location:
THE CROSS CHURCH PHASE 1
12518 S US HIGHWAY 441
LAKE CITY FL 32025–2689

Drawing Status:
☐ Preliminary (Not For Construction)
☐ For Approval (Not For Construction)
☒ For Construction Permit
☐ For Erector Installation

Scale:	NOT TO SCALE
Drawn by:	FER 10/3/19
Checked by:	ABE 10/9/19
Project Engineer:	JMR
Job Number:	17–B–35162–1
Sheet Number:	E3 of 12

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Patrick T. Kaminski, P.E.
Florida P.E. 84829

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Oct 15, 2019

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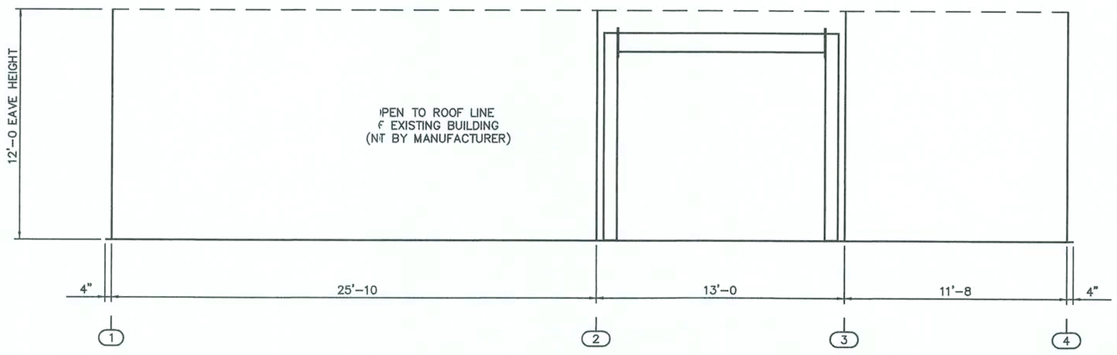
LICENSE
No. 84829
STATE OF FLORIDA
PROFESSIONAL ENGINEER

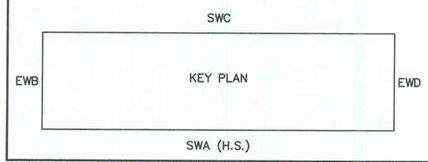
SCHEDULE OF ACCESSORIES

NO. REQD	DESCRIPTION
2	6'-4½ X 7'-2¼ FIELD LOCATED FRAMED OPENING

REFER TO DETAILS ON INSTALLATION OF FRAMED OPENINGS.
USE STANDARD WALL PROCEDURES TO ERECT THE SIDEWALL AND ENDWALL PANELS.



SIDEWALL ELEVATION "SWA" AT GRID LINE "A"



Revision	Date	Description	By	Ck'd

metallic building company
7301 FAIRVIEW • HOUSTON, TEXAS • P.O. BOX 40338
(713) 466-7788 ZIP 77240
ZIP 77041

METALLIC

Customer:
THE CROSS CHURCH OF COLUMBIA COUNTY
12393 S US HIGHWAY 441
LAKE CITY FL 32025-2686 US
KENNETH EDENFIELD

Project Name & Location:
THE CROSS CHURCH PHASE 1
12518 S US HIGHWAY 441
LAKE CITY FL 32025-2689

Drawing Status:
☐ Preliminary (Not For Construction)
☐ For Approval (Not For Construction)
☒ For Construction Permit
☐ For Erector Installation

Scale:	NOT TO SCALE	
Drawn by:	FER	10/3/19
Checked by:	ABE	10/9/19
Project Engineer:	JMR	
Job Number:	17-B-35162-1	
Sheet Number:	E4 of 12	

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Florida P.E. 84829

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Oct 15, 2019

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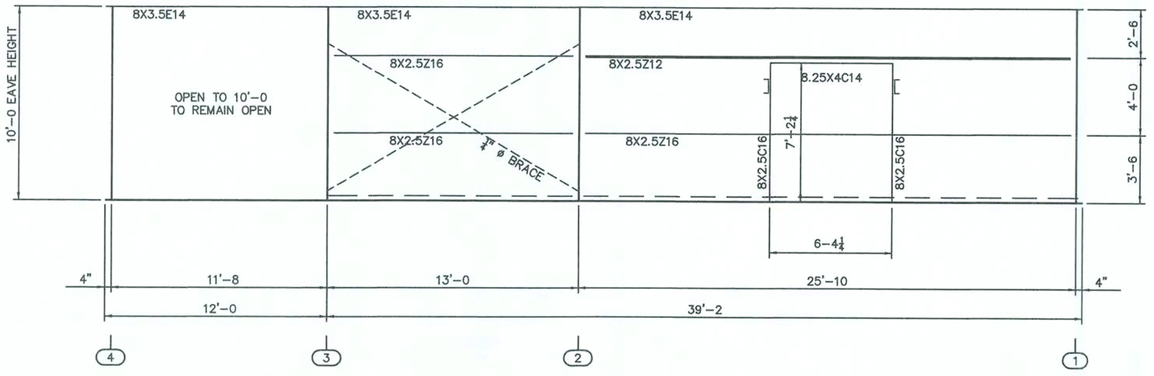
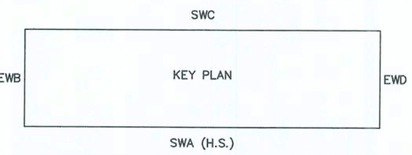
STATE OF FLORIDA
PROFESSIONAL ENGINEER



SIDEWALL ELEVATION "SWC" AT GRID LINE "B"



Revision	Date	Description	By	Ck'd

metallic building company
7301 FAIRVIEW • HOUSTON, TEXAS • P.O. BOX 40338
ZIP 77041 (713) 466-7788 ZIP 77240

METALLIC

Customer:
THE CROSS CHURCH OF COLUMBIA COUNTRY
12393 S US HIGHWAY 441
LAKE CITY FL 32025-2686 US
KENNETH EDENFIELD

Project Name & Location:
THE CROSS CHURCH OF COLUMBIA COUNTRY PHASE 1
12518 S US HIGHWAY 441
LAKE CITY FL 32025-2689

Drawing Status:
☐ Preliminary (Not For Construction)
☐ For Approval (Not For Construction)
☒ For Construction Permit
☐ For Erector Installation

Scale:	NOT TO SCALE
Drawn by:	FER 10/3/19
Checked by:	ABE 10/9/19
Project Engineer:	JMR
Job Number:	17-B-35162-1
Sheet Number:	E5 of 12

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Patrick T. Kaminski, P.E.
Florida P.E. 84829

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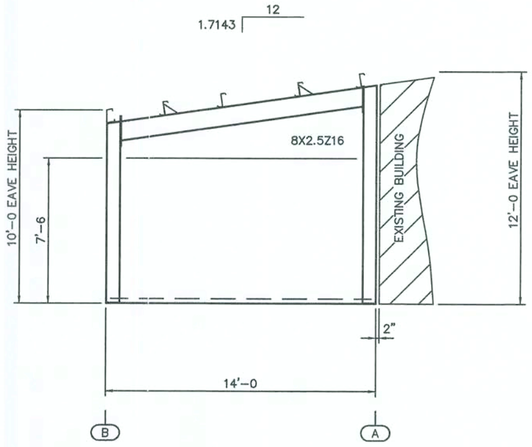
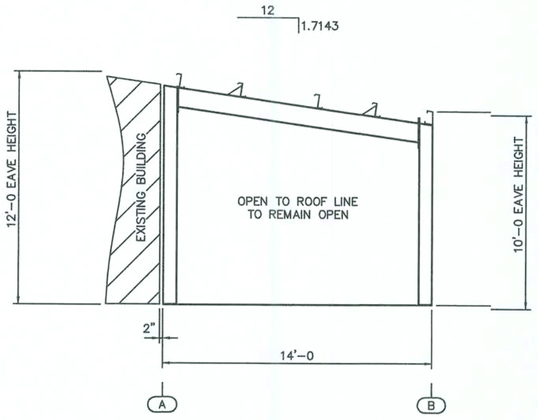
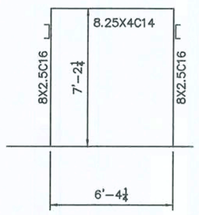
PROFESSIONAL ENGINEER



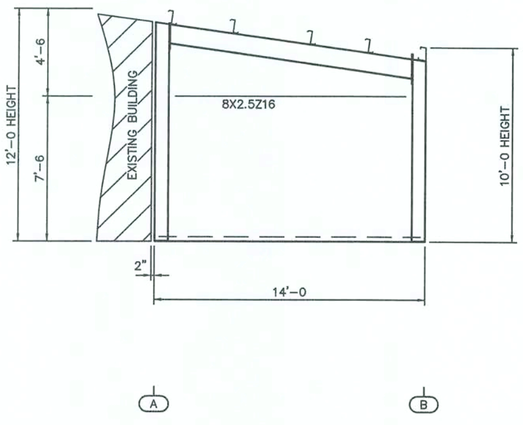
ENDWALL ELEVATION "EWB" AT GRID LINE "1"



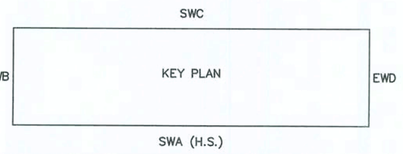
ENDWALL ELEVATION "EWD" AT GRID LINE "4"



FRAME LAYOUT OF F.O TO EXISTING BUILDING



PARTITION ELEVATION "PL1" AT GRID LINE "PL1"



Revision	Date	Description	By	Ck'd

metallic building company
7301 FARNEW • HOUSTON, TEXAS • P.O. BOX 40338
ZIP 77041 (713) 466-7788 ZIP 77240

METALLIC

Project Name & Location:
THE CROSS CHURCH PHASE 1
12518 S US HIGHWAY 441
LAKE CITY FL 32025-2689

Customer:
THE CROSS CHURCH OF COLUMBIA COUNTRY
12393 S US HIGHWAY 441
LAKE CITY FL 32025-2686 US
KENNETH EDENFIELD

☐ Preliminary (Not For Construction)
☐ For Approval (Not For Construction)
☒ For Construction Permit
☐ For Erector Installation

Drawing Status:

Scale:	NOT TO SCALE	
Drawn by:	FER	10/3/19
Checked by:	ABE	10/9/19
Project Engineer:	JMR	
Job Number:	17-B-35162-1	
Sheet Number:	E6 of 12	

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Patrick T. Kaminski, P.E.
Florida P.E. 84829

Drawing has been digitally signed.
Oct 15, 2019

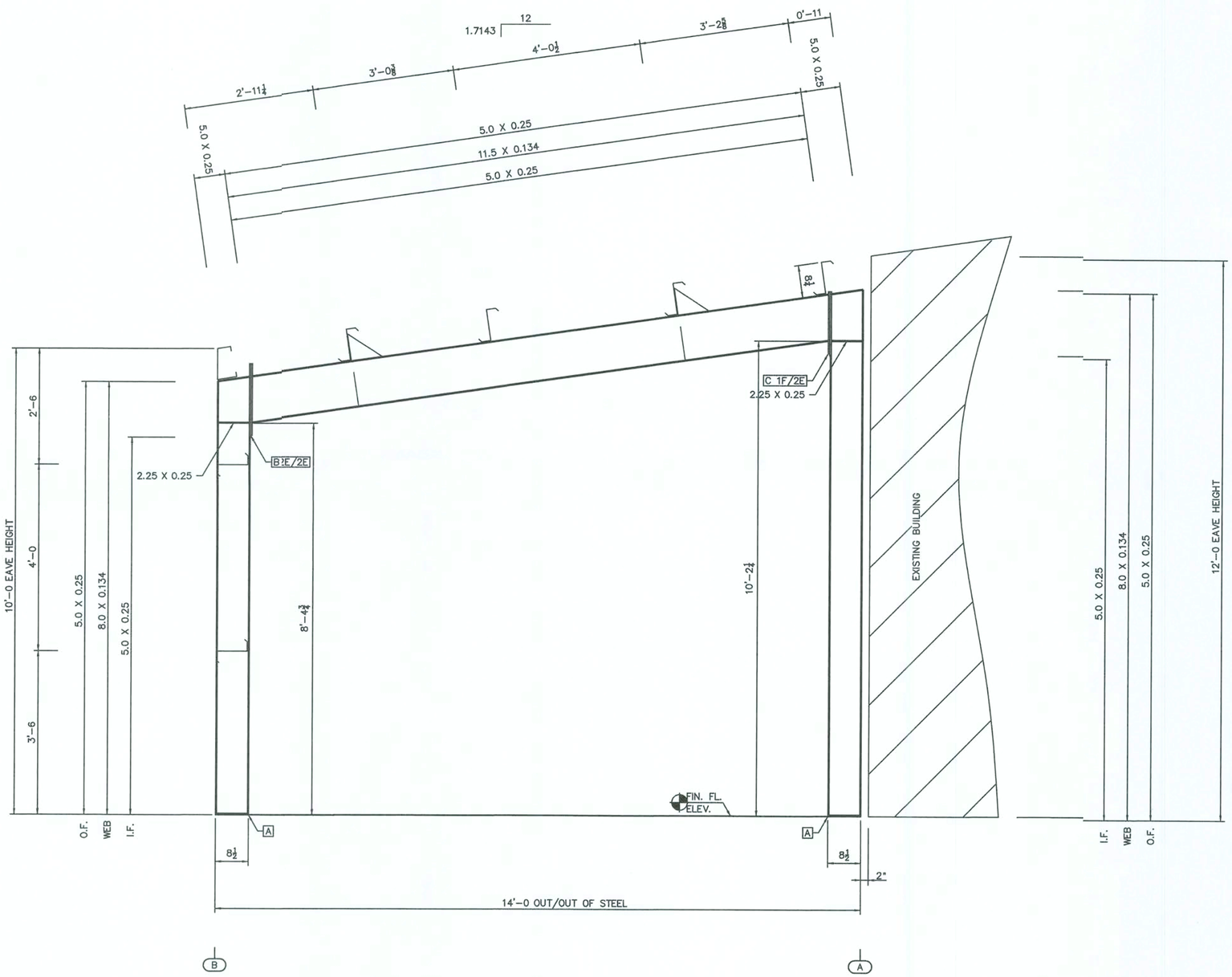
PATRICK T. KAMINSKI LICENSE No. 84829 STATE OF FLORIDA PROFESSIONAL ENGINEER

OY/PROJECTS\XDS-V8-07-00 FRAME = Eng/17-B-35162/ver01-jmrodriguez/BLDG-B/Drftg/x03L 9/28/19 11:35:32
OY/PROJECTS\XDS-V8-07-00 FB SET = Eng/17-B-35162/ver01-jmrodriguez/BLDG-B/Drftg/x03L

GENERAL NOTES
FRAME CLEARANCES SHOWN ARE APPROXIMATE AND MAY VARY DUE TO CONDITIONS (DEFLECTION).

VERTICAL CLEARANCE DIMENSIONS ARE FROM FINISHED FLOOR REFERENCE ELEVATION.

* DENOTES: PLATE AT FLANGE BRACE
CL190 AT 8" PURLINS/GIRTS
CL191 AT 10" PURLINS/GIRTS
CL192 AT 12" PURLINS/GIRTS



CROSS SECTION AT FRAME LINE "1"

	PLATE SIZE TABLE		SPLICE BOLT TABLE			
NN.	LOW SIDE	HIGH SIDE	QTY. SIZE	TYPE	HARDENED WASHERS	BEVELED WASHERS
A	6 X 0.375 X 8½					
B	6 X 0.375 X 1'-6 15/16	6 X 0.375 X 1'-6 7/16	(8) ¾ X 1¾	A325 B&N	0	0
C	6 X 0.375 X 1'-3 15/16	6 X 0.375 X 1'-4 7/16	(6) ¾ X 1¾	A325 B&N	0	0

Revision	Date	By	Ck'd	Description

metallic building company
7301 FAIRVIEW • HOUSTON, TEXAS • P.O. BOX 40338
ZIP 77041 (713) 466-7788 ZIP 77240

METALLIC

Project Name & Location:
COUNTRY THE CROSS CHURCH PHASE 1
12516 S US HIGHWAY 441
LAKE CITY FL 32025-2689

Customer:
THE CROSS CHURCH OF COLUMBIA COUNTRY
12393 S US HIGHWAY 441
LAKE CITY FL 32025-2686 US
KENNETH EDENFIELD

Drawing Status:
☐ Preliminary (Not For Construction)
☐ For Approval (Not For Construction)
☒ For Construction Permit
☐ For Erector Installation

Scale:	NOT TO SCALE
Drawn by:	FER 10/3/19
Checked by:	ABE 10/9/19
Project Engineer:	JMR
Job Number:	17-B-35162-1
Sheet Number:	E7 of 12

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Patrick T. Kaminski, P.E.
Florida P.E. 84829

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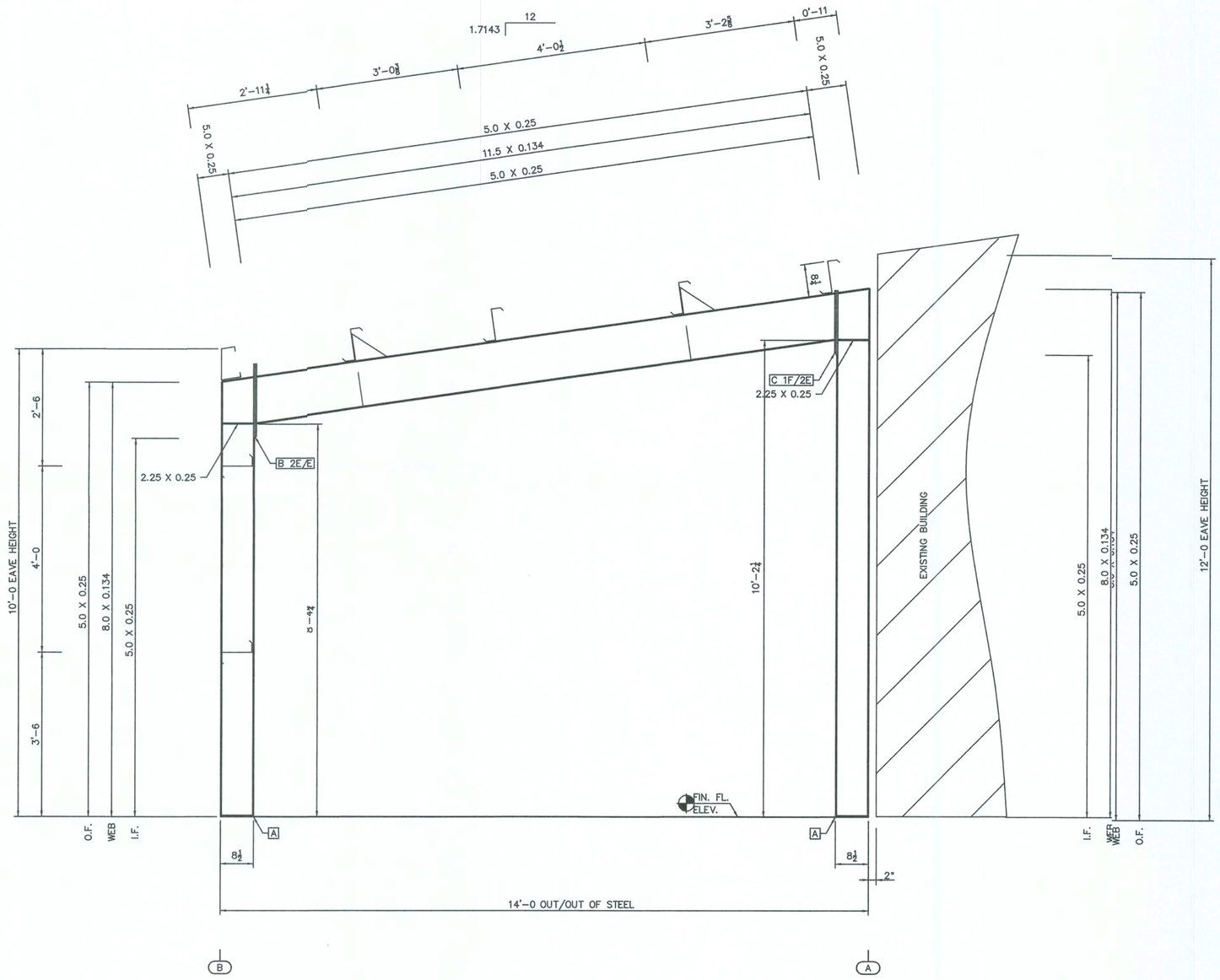
Oct 15, 2019

PATRICK T. KAMINSKI
LICENSE
No. 84829
STATE OF FLORIDA
PROFESSIONAL ENGINEER

ERAL NOTES
ME CLEARANCES SHOWN ARE APPROXIMATE AND VARY DUE TO CONDITIONS (DEFLECTION).
TICAL CLEARANCE DIMENSIONS ARE FROM SHED FLOOR REFERENCE ELEVATION.

ENOTES: PLATE AT FLANGE BRACE
CL190 AT 8" PURLINS/GIRTS
CL191 AT 10" PURLINS/GIRTS
CL192 AT 12" PURLINS/GIRTS



CROSS SECTION AT FRAME LINE "2"

PLATE SIZE TABLE		SPLICE BOLT TABLE				
LOW SIDE	HIGH SIDE	QTY.	SIZE	TYPE	HARDENED WASHERS	BEVELED WASHERS
6 X 0.375 X 8½						
6 X 0.375 X 1'-6 15/16	6 X 0.375 X 1'-6 7/16	(8)	¾ X 1¾	A325 B&N	0	0
6 X 0.375 X 1'-3 15/16	6 X 0.375 X 1'-4 7/16	(6)	¾ X 1¾	A325 B&N	0	0

Revision	Date	Description	By	Ck'd

metallic building company
7301 FAIRVIEW • HOUSTON, TEXAS • P.O. BOX 40338
(713) 466-7788 ZIP 77240
ZIP 77041

METALLIC

Customer: THE CROSS CHURCH OF COLUMBIA COUNTRY
15133 S US HIGHWAY 441
LAKE CITY, FL 32025-2686 US
KENNETH EDENFIELD

Project Name & Location:
THE CROSS CHURCH PHASE 1
12518 S US HIGHWAY 441
LAKE CITY FL 32025-2689

Drawing Status:
☐ Preliminary (Not For Construction)
☐ For Approval (Not For Construction)
☒ For Construction Permit
☐ For Erector Installation

Scale:	NOT TO SCALE
Drawn by:	FER 10/3/19
Checked by:	ABE 10/9/19
Project Engineer:	JMR
Job Number:	17-B-35162-1
Sheet Number:	E8 of 12

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Patrick T. Kaminski, P.E.
Florida P.E. 84829

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Oct 15, 2019

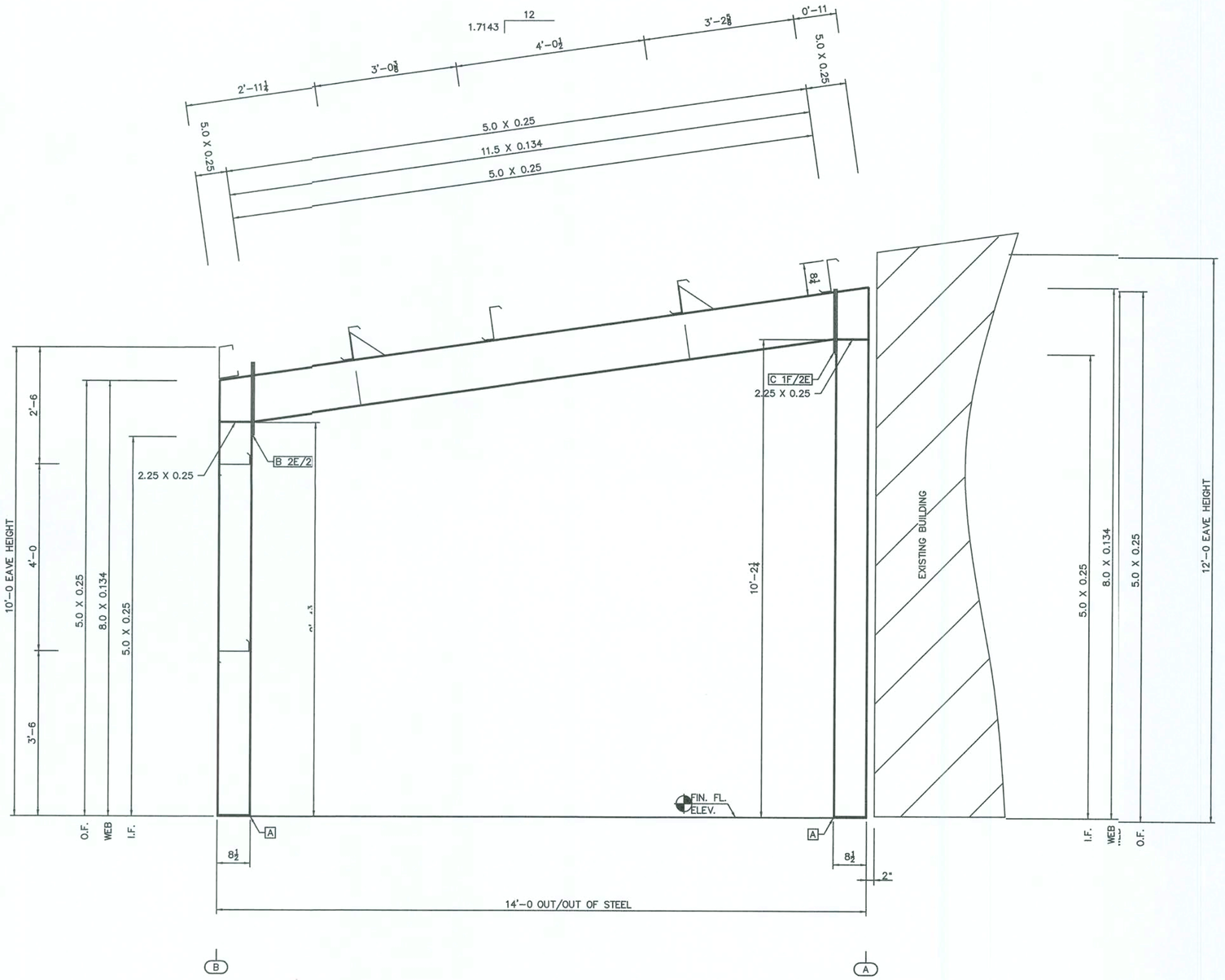
PATRICK T. KAMINSKI
LICENSE
No. 84829
STATE OF FLORIDA
PROFESSIONAL ENGINEER

OJECTS\XDS-V8-07-00 FRAME = Eng/17-B-35162/ver01-jmrodriguez/BLDG-B/Drftg/x01L 9/28/19 11:40:18
OJECTS\XDS-V8-07-00 FB SET = Eng/17-B-35162/ver01-jmrodriguez/BLDG-B/Drftg/x01L

RAL NOTES
E CLEARANCES SHOWN ARE APPROXIMATE AND VARY DUE TO CONDITIONS (DEFLECTION).

CAL CLEARANCE DIMENSIONS ARE FROM ED FLOOR REFERENCE ELEVATION.

NOTES: PLATE AT FLANGE BRACE
CL190 AT 8" PURLINS/GIRTS
CL191 AT 10" PURLINS/GIRTS
CL192 AT 12" PURLINS/GIRTS



CROSS SECTION AT FRAME LINE "3"

PLATE SIZE TABLE		SPLICE BOLT TABLE			
LOW SIDE	HIGH SIDE	QTY. SIZE	TYPE	HARDENED WASHERS	BEVELED WASHERS
X 0.375 X 8½					
X 0.375 X 1'-6 13/16	6 X 0.375 X 1'-6 7/16	(8) ¾ X 1¼	A325 B&N	0	0
X 0.375 X 1'-3 15/16	6 X 0.375 X 1'-4 7/16	(6) ¾ X 1¼	A325 B&N	0	0

Revision	Date	Description	By	Ck'd

metallic building company
7301 FAIRVIEW • HOUSTON, TEXAS • P.O. BOX 40338
ZIP 77041 (713) 466-7788 ZIP 77240

METALLIC

Project Name & Location:
COUNTRY THE CROSS CHURCH PHASE 1
12383 S US HIGHWAY 441
LAKE CITY FL 32025-2689

Customer:
THE CROSS CHURCH OF COLUMBIA COUNTY
12383 S US HIGHWAY 441
LAKE CITY FL 32025-2686 US
KENNETH EDENFIELD

Drawing Status:
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☐ For Approval Not For Construction
☒ For Construction Permit
☐ For Erector Installation

Scale:	NOT TO SCALE
Drawn by:	FER 10/3/19
Checked by:	ABE 10/9/19
Project Engineer:	JMR
Job Number:	17-B-35162-1
Sheet Number:	E9 of 12

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Florida P.E. 84829

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Oct 15, 2019

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LICENSE
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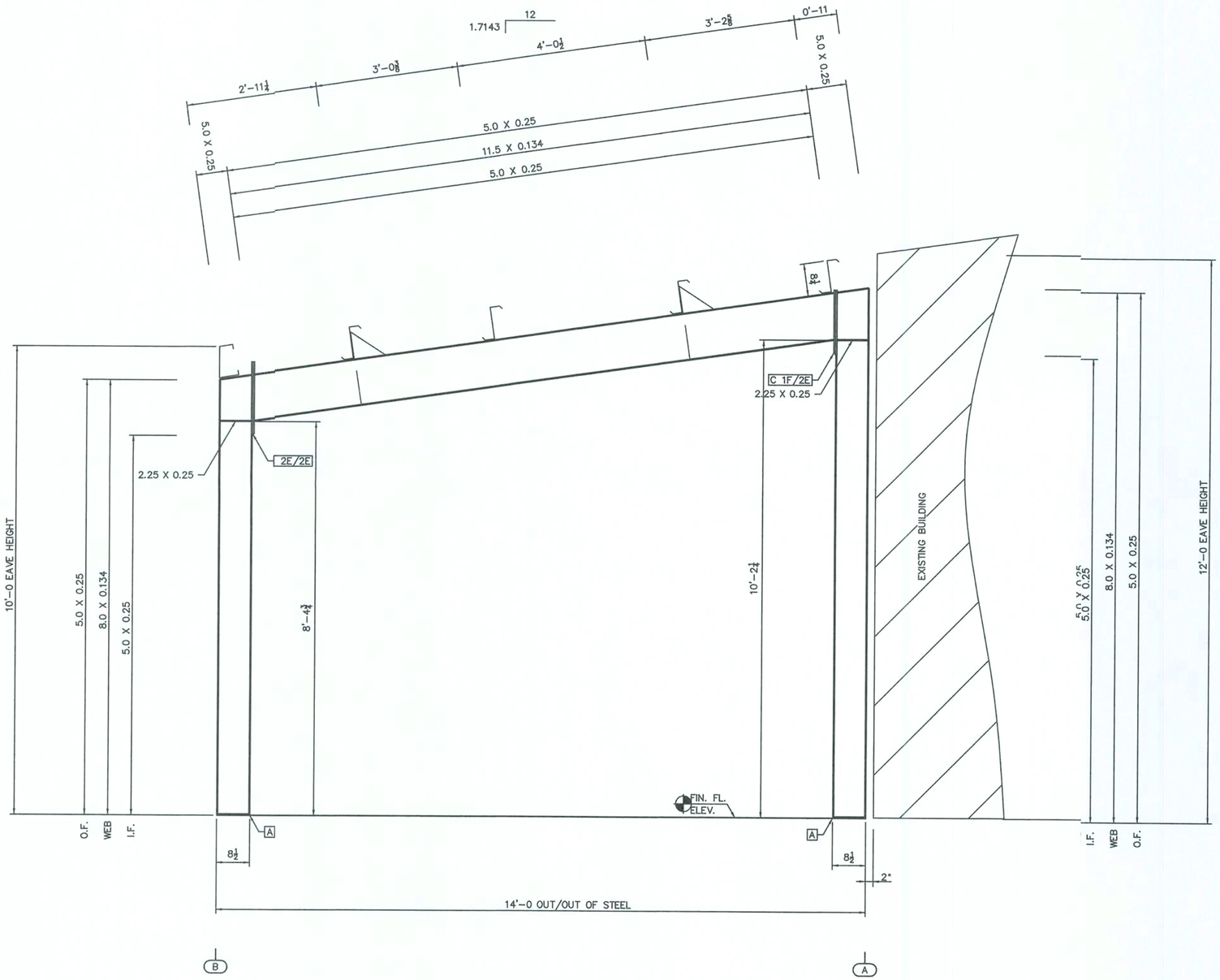
STATE OF FLORIDA
PROFESSIONAL ENGINEER

OY/PROJECTS\XDS-V8-07-00 FRAME = Eng/17-B-35162/ver01-jmrodriguez/BLDG-B/Drftg/x04L 9/28/19 11:37:18
OY/PROJECTS\XDS-V8-07-00 FB SET = Eng/17-B-35162/ver01-jmrodriguez/BLDG-B/Drftg/x04L

GENERAL NOTES
FRAME CLEARANCES SHOWN ARE APPROXIMATE AND MAY VARY DUE TO CONDITIONS (DEFLECTION).

VERTICAL CLEARANCE DIMENSIONS ARE FROM FINISHED FLOOR REFERENCE ELEVATION.

* DENOTES: PLATE AT FLANGE BRACE
CL190 AT 8" PURLINS/GIRTS
CL191 AT 10" PURLINS/GIRTS
CL192 AT 12" PURLINS/GIRTS



CROSS SECTION AT FRAME LINE "4"

CONN.	PLATE SIZE TABLE LOW SIDE	HIGH SIDE	SPLICE BOLT TABLE QTY.	SIZE	TYPE	HARDENED WASHERS	BEVELED WASHERS
A	6 X 0.375 X 8½						
B	6 X 0.375 X 1'-6 13/16	6 X 0.375 X 1'-6 7/16	(8)	¾ X 1¾	A325 B&N	0	0
C	6 X 0.375 X 1'-3 13/16	6 X 0.375 X 1'-4 7/16	(6)	¾ X 1¾	A325 B&N	0	0

Revision	Date	Description	By	Ck'd

metallic building company
7301 FARMER • HOUSTON, TEXAS • P.O. BOX 40338
ZIP 77041 (713) 466-7788 ZIP 77240

METALLIC

Customer: THE CROSS CHURCH OF COLUMBIA COUNTRY
12393 S US HIGHWAY 441
LAKE CITY FL 32025-2886 US
KENNETH EBENFIELD

Project Name & Location: THE CROSS CHURCH PHASE 1
12518 S US HIGHWAY 441
LAKE CITY FL 32025-2689

Drawing Status: ☐ Preliminary (Not For Construction) ☐ For Approval (Not For Construction) ☒ For Construction Permit ☐ For Erector Installation

Scale:	NOT TO SCALE
Drawn by:	FER 10/3/19
Checked by:	ABE 10/9/19
Project Engineer:	JMR
Job Number:	17-B-35162-1
Sheet Number:	E10 of 12

The engineer whose seal appears hereon is an employee for the manufacturer for the materials described herein. Said seal or certification is limited to the products designed and manufactured by manufacturer only. The undersigned engineer is not the overall engineer of record for this project.

Patrick T. Kaminski, P.E.
Florida P.E. 84829

Drawing has been digitally signed.
Oct 15, 2019

PATRICK T. KAMINSKI LICENSE No. 84829 STATE OF FLORIDA PROFESSIONAL ENGINEER

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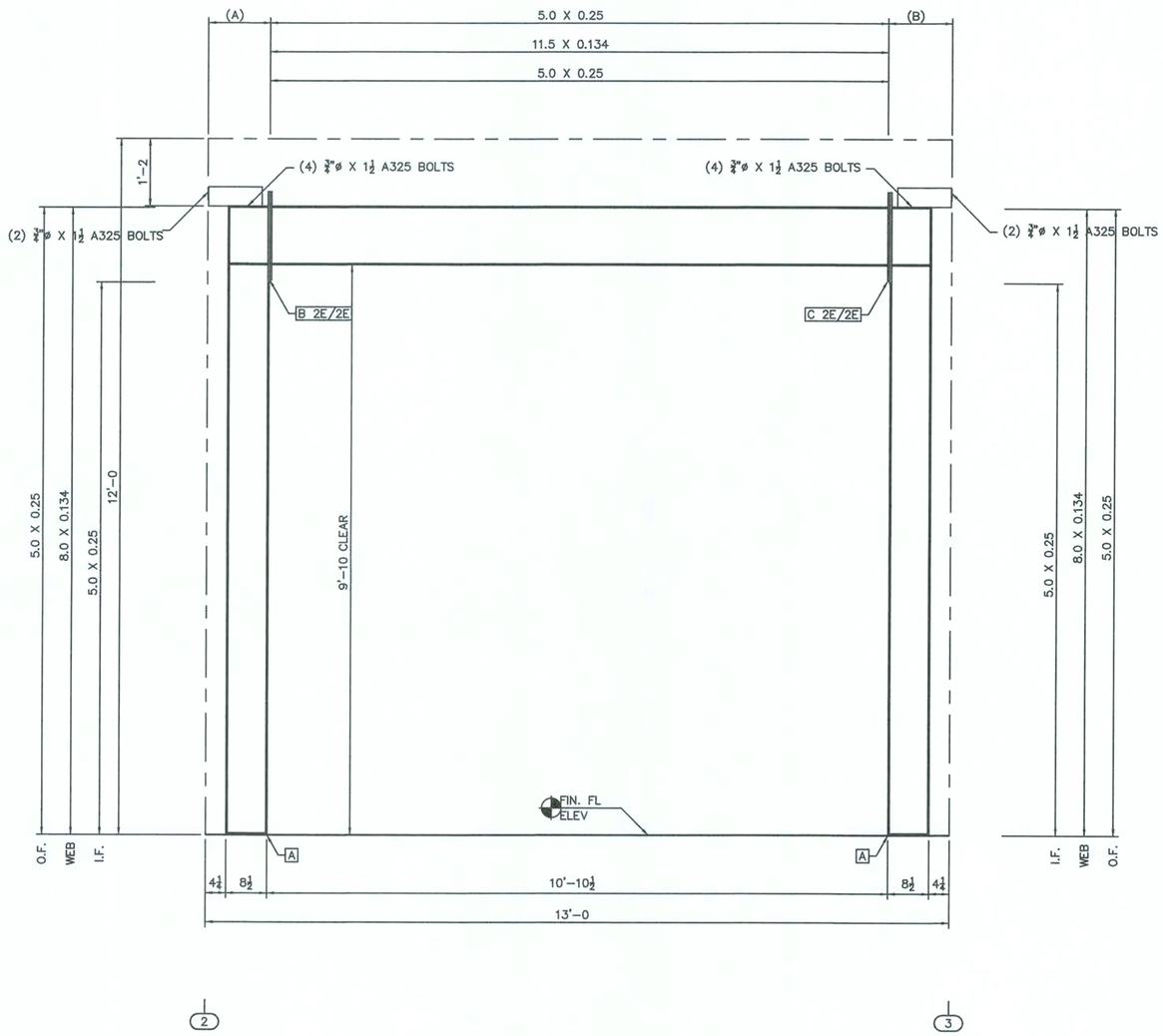

CRSS SECTION AT PORTAL FRAME
AT GRID LINE "A"

PLATE SIZES
(A) 5.0 X 0.25
(B) 5.0 X 0.25

CONN.	PLATE SIZE TABLE		SPLICE BOLT TABLE				
	LOW SIDE	HIGH SIDE	QTY. SIZE	TYPE	HARDENED WASHERS	BEVELED WASHERS
A	6" X 0.375 X 8½					
B	6" X 0.375 X 1'-6⅜	6" X 0.375 X 1'-6⅜	(8) ¾ X 1¾	A325 B&N	0	0
C	6" X 0.375 X 1'-6⅜	6" X 0.375 X 1'-6⅜	(8) ¾ X 1¾	A325 B&N	0	0

Revision	Date	Description	By	Ck'd

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METALLIC

Project Name & Location:
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12518 S US HIGHWAY 441
LAKE CITY FL 32025-2689

Customer:
THE CROSS CHURCH OF COLUMBIA COUNTRY
12393 S US HIGHWAY 441
LAKE CITY FL 32025-2686 US
KENNETH EDENFIELD

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Checked by:	ABE 10/9/19
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Job Number:	17-B-35162-1
Sheet Number:	E11 of 12

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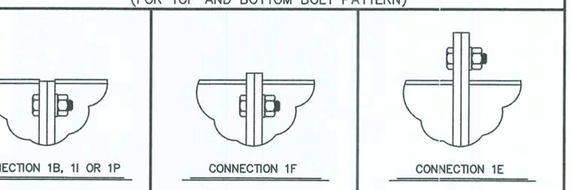
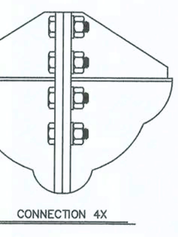
PROFESSIONAL ENGINEER

CONNECTION CODES
(FOR TOP AND BOTTOM BOLT PATTERN)





4E /2EH
- CONNECTION DESIGNATION
  - BLANK = STANDARD CONNECTION
  - H = HEAVY CONNECTION
- BOTTOM CONNECTION CODE
- BOTTOM QUANTITY OF BOLT ROWS
- CONNECTION DESIGNATION
  - BLANK = STANDARD CONNECTION
  - H = HEAVY CONNECTION
- TOP CONNECTION CODE
- TOP QUANTITY OF BOLT ROWS

CONNECTION CODE FORMAT

CONNECTION CODE DESCRIPTION

S DESCRIPTION CODE IS USED TO DEFINE SHEAR CONNECTIONS. BOLTS ARE LOCATED INSIDE FLANGE AND CONNECTION PLATE IS RECESSED 1/8" BELOW THE TOP FLANGE. CONNECTION NGTH MUST BE A MINIMUM OF HALF THE RAFTER WEB DEPTH AND SHALL NOT EXCEED THE TOTAL DEPTH.

DESCRIPTION CODE IS USED TO DEFINE MOMENT CONNECTIONS. BOLTS ARE LOCATED WITH OUTSIDE THE TOP OR BOTTOM FLANGE AND THE REMAINING SETS ARE LOCATED INSIDE THE BOTTOM FLANGE.

DESCRIPTION CODE IS USED TO DEFINE MOMENT CONNECTIONS. BOLTS ARE LOCATED INSIDE OR BOTTOM FLANGE AND CONNECTION PLATE PROJECTS 1/2" BEYOND THE TOP OR BOTTOM

DESCRIPTION CODE IS USED TO DEFINE MOMENT CONNECTIONS. BOLTS ARE LOCATED INSIDE OR BOTTOM FLANGE AND CONNECTION PLATE IS RECESSED 1/8" BELOW THE TOP OR FLANGE.

DESCRIPTION CODE IS USED TO DEFINE SHEAR CONNECTIONS. BOLTS ARE LOCATED INSIDE FLANGE AND CONNECTION PLATE IS RECESSED 1/8" BELOW THE TOP FLANGE. CONNECTION NGTH MUST BE A MINIMUM OF HALF THE RAFTER WEB DEPTH AND SHALL NOT EXCEED THE TOTAL DEPTH.

S DESCRIPTION CODE IS USED TO DEFINE MOMENT CONNECTIONS. BOLTS ARE LOCATED WITH S EACH SIDE OF THE TOP OR BOTTOM FLANGE WITH A GUSSET PLATE OUTSIDE THE TOP AND FLANGE OR COLUMN CAP PLATE.

CONNECTION BOLT DATA

NAME	DESCRIPTION FOR A325 BOT DIMENSIONS	A325 CONNECTION BOLT DIMENSIONS					
D	DIAMETER OF THE BOLT	1/2"	3/4"	7/8"	1"	1 1/4"	1 1/2"
HD	BOLT HOLE DIAMETER	9/16"	13/16"	15/16"	1 1/16"	1 5/16"	1 9/16"
G	BOLT GAUGE	2 1/2"	3"	4"	3 1/2"	4"	5 1/2"
	MAX. WEB THICKNESS (Max. 5/16" Fillet Weld) WITHOUT WASHER	1"	1 1/8"	1 7/8"	1 1/4"	1 3/8"	2 1/8"
	MAX. WEB THICKNESS (Max. 5/16" Fillet Weld) WITH WASHER	3/4"	7/8"	1 5/8"	7/8"	7/8"	1 7/8"
HG	HEAVY CONN. BOLT GAUGE	N/A	2 1/4"	2 5/8"	3"	3 3/4"	4"
S	NORMAL BOLT SPACING	2 1/2"	3"	3 1/4"	3 1/2"	4"	4 1/2"
BSMIN	MINIMUM SPACING BETWEEN TOP & BOTTOM SETS OF BOLTS	1 1/2"	2 1/4"	2 5/8"	3"	3 3/4"	4"
BSMAX	MAXIMUM BOLT SPACING BETWEEN TOP AND BOTTOM SETS OF BOLTS ON CONNECTION PLATES LESS THAN OR EQUAL TO 3/4" THICK	2'-0"	2'-0"	2'-0"	2'-0"	2'-0"	2'-0"
	SPLICE BOLT SPACING (NOT TO EXCEED 2'-0)	1/2 BSMAX (±1/16") WHEN BSMAX = 2'-0 1/16" TO 4'-0 1/3 BSMAX (±1/16") WHEN BSMAX = 4'-0 1/16" TO 6'-0 1/4 BSMAX (±1/16") WHEN BSMAX = 6'-0 1/16 TO 8'-0					
BFCD	MINIMUM BOLT-TO-FLANGE CLEARANC AT OUT OF NUT SEE BOLT AT FLANGE DETAIL	1 1/2"	1 3/4"	1 7/8"	2 1/4"	2 1/2"	2 3/4"
PF	MINIMUM BOLT-TO-FLANGE CLEARANC AT CONNECTION PLATE SEE BOLT AT FLANGE DETAIL	(BFCD + RNWT) PF INSIDE OF FLANGE IS INCREASED BASED ON THE YT & YB VALUE. PF FOR CONNECTION B, F, I AND P ARE THE SAME AS USED ON CONNECTION E					
NWT	NUT AND WASHER THICKNESS	SEE BOLT AT FLANGE DETAIL. NUT THICKNESS IS EQUAL TO THE BOLT DIAMETER AND .15625" WASHER THICKNESS IS USED EVEN IF A WASHER IS NOT REQUIRED.					
RNWT	RISE ON NUT AND WASHER THICKNESS						
TT	THICKNESS TOP FLANGE	REFER TO FRAME CROSS SECTION DRAWING FOR LARGEST FLANGE THICKNESS EITHER SIDE OF THE CONNECTION.					
TB	THICKNESS BOTTOM FLANGE						
YT	BOLT SPACING TOP (ROUND UP TO NEXT 1/2", MIN = S)	3" + TT	3 1/2" + TT	3 3/4" + TT	4 1/2" + TT	5" + TT	5 1/2" + TT
YB	BOLT SPACING BOTTOM (ROUND UP TO NEXT 1/2", MIN = S)	or TB Sloped	or TB Sloped	or TB Sloped	or TB Sloped	or TB Sloped	or TB Sloped
EED(E)	MINIMUM END EDGE DIMENSION	1 1/4"	1 1/4"	1 1/2"	1 3/4"	2 1/4"	2 5/8"
EED(S)	MINIMUM SIDE EDGE DIMENSION	3/4"	1"	1 1/8"	1 1/4"	1 5/8"	2 1/4"
EEDK	END EDGE DIMENSION AT KNEE CONNECTION	1 3/8"	1 3/8"	1 5/8"	1 7/8"	2 3/8"	2 3/4"
BCWM	MINIMUM BOLT CLEARANCE FROM A FLANGE OR WEB WELD — WHOUT WASHER	7/16"	5/8"	3/4"	13/16"	1"	1 3/8"
	MINIMUM BOLT CLEARANCE FROM A FLANGE OR WEB WELD — WH HARDENED WASHER	9/16"	3/4"	7/8"	1"	1 1/4"	1 1/2"
WCSM	MINIMUM WIDTH OF CONNECTION PLATE (Standard Connection)	5"	6"	8"	8"	10"	12"
WCHM	MINIMUM WIDTH OF CONNECTION PLATE (Heavy Connection)	N/A	10"	12"	12"	16"	18"
TCMIN	MINIMUM THICKNESS OF CONNECTION PLATE	1/4"	3/8"	7/16"	1/2"	5/8"	1"

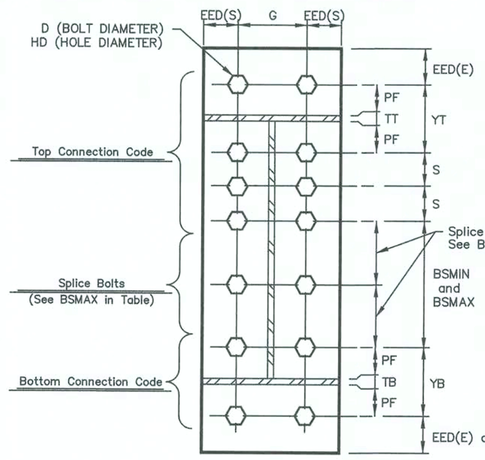
Frame Documentation
A325 Connection Bolt Details

Page 05-12-10
Date Jun '18 Rev. 04

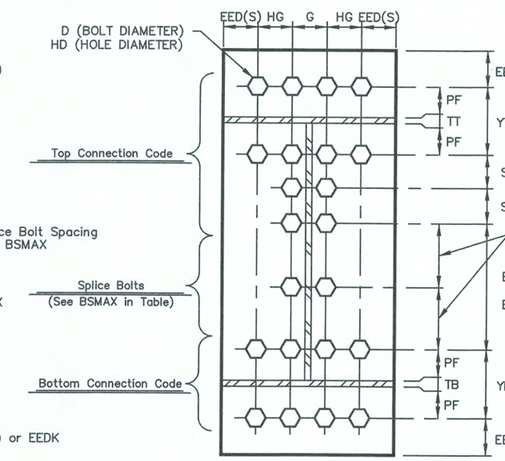
B 4E/2EH
- Connection Code (See "Connection Code Format" on this drawing)
- Connection Location

CROSS SECTION CONNECTION CODE KEY
(AS SHOWN AT CONNECTIONS ON FRAME CROSS SECTION DRAWINGS)

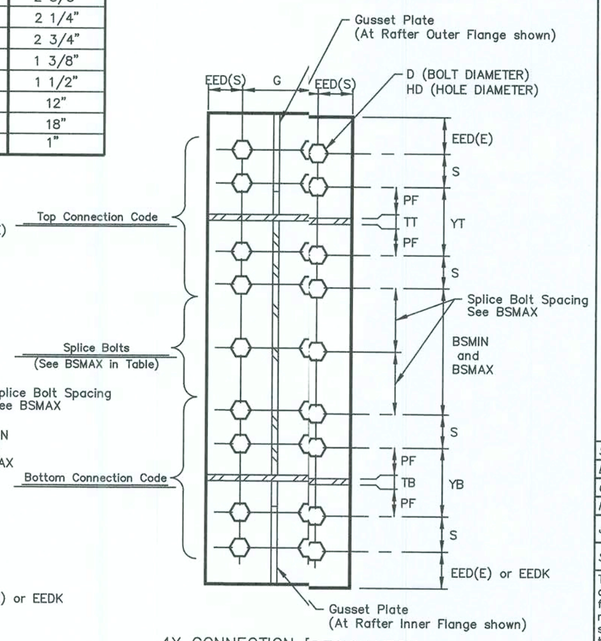
Flange Brace Material Schedule	
Part Mark	Material
FB4_	L 2" x 2" x 14 Ga.
FB5_	L 2" x 2" x 14 Ga.
FB6_	L 2" x 2" x 1/8"
FB7_	L 2 1/2" x 2 1/2" x 3/16"



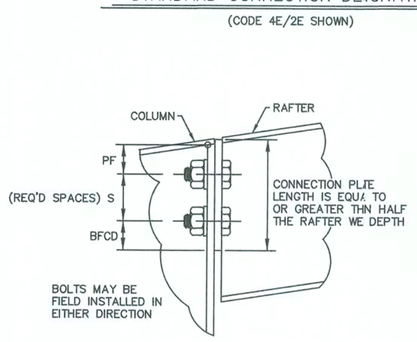
STANDARD CONNECTION DEIGNATION
(CODE 4E/2E SHOWN)



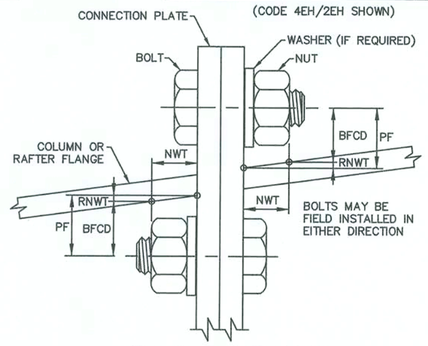
HEAVY CONNECTION DESIGNATION
(CODE 4EH/2EH SHOWN)



4X CONNECTION DESIGNATION
(CODE 4X/4X SHOWN)



CONNECTION B & P
(Low Side Shown, High Side Similar)



BOLT AT FLANGE DETAIL
(Top Flange Shown, Bottom Flange Similar)

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12518 S US HIGHWAY 441
LAKE CITY FL 32025-2689

Customer:
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12383 S US HIGHWAY 441
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Drawing Status:
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Revision	Date	By	Ck'd	Description

Scale: NOT TO SCALE
Drawn by: FER 10/3/19
Checked by: ABE 10/9/19
Project Engineer: JMR
Job Number: 17-B-35162-1
Sheet Number: E12 of 12

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