



STRUCT

URES, Ĉ.

AC472 ENGINEERING CALCULATIONS

VULCAN STEEL Job Number STRUCTURES, INC

21741 FRANK GASPARINI

DETAILED BY:	DESIGNED BY	DATE: 10/30
SEJ/MMD	MrZ :	/12

CHECKED BY: RM

Job Location:

LAKE CITY FL 32024

End User

DESIGN PARAMETERS BUILDING DESCRIPTION:	TERS	
NOMINAL WIDTH:	45	feet
NOMINAL LENGTH:	40	feet
EAVE HEIGHT, BACK S.W:	18	feet
EAVE HEIGHT, FRONT S.W:	18	feet
ROOF SLOPE, LEFT:	1.0:12	2
ROOF SLOPE, RIGHT:	1.0:12	2

CLOSURE "C, O, P" :	WIND SPEED: (3 SEC GUST)	SNOW LOAD, ROOF:	FRAME LIVE LOAD:	ROOF LIVE LOAD:	COLLATERAL LOAD:	ROOF DEAD LOAD:	FRAME SELF WEIGHT:	BUILDING CODE:		
Closed	120 mph	0 psf	12 psf	20.00 psf	2 psf	2.000 pst	0	FBC 10	DES	
						GROUND SNOW LOAD Pg : 0.00	FLAT ROOF SNOW LOAD Pf : 0	SNOW :	DESIGN LOADS	

SEISMIC IMPORTANCE:

1.00

SEISMIC USE GROUP:

DESIGNED SPECTRAL ACCELERATION PARAMETER "SDS" - (SHORT PERIODS): 0.1291 DESIGNED SPECTRAL ACCELERATION PARAMETER "SD1" - (1 SEC PERIODS): 0.0848 SEISMIC DESIGN CATEGORY:

MAPPED SPECTRAL RESPONSE ACCELERATION: "SS" - (SHORT PERIODS): 0.1210 MAPPED SPECTRAL RESPONSE ACCELERATION: "S1" - (1 SEC PERIOD): 0.0530 RESPONSE MODIFICATION FACTOR: 3.5

SITE CLASS (ASSUMED) :

BASIC SEISMIC-FORCE RESISTING SYSTEM MOMENT RESISTING FRAME

DESIGN BASE SHEAR : V=Cs * W

ANALYSIS PROCEDURE : EQUIVALENT LATERAL FORCE PROCEDURE

DATE SENT DRAWING RELEASE HISTORY REASON FOR RELEASE REVISION DATE ВΥ DRAWING REVISIONS DESCRIPTION

MIAMI-DADE COUNTY

FLORIDA PRODUCT APPROVAL INFORMATION

OVERING

AND

TRIM

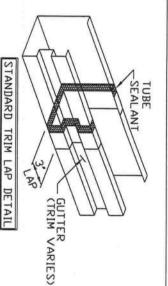
COLOR TABLE

ROOF PANEL:

	26 GA.	24 GA.
	GA.	
	WALL	ROOF
	PBR	DL
	Ponel	PANEL
	PANEL	ROOF DL PANEL ~ Galvalume
	5	olun
	NEED	ne
	WALL PBR Ponel PANEL ~ NEED COLOR	
	FL5335.1	FL11819.2

SPECIAL NOTE:

BUILDING IS NOT STRUCTURALLY SOUND UNTIL ALL WALL COVERING, ROOF SHEETS, AND PERMANENT BRACING IS INSTALLED. BUILDER / CONTRACTOR IS RESPONSIBLE FOR SUPPORTS OR TEMPORARY BRACING DURING ERECTION, HE SHALL FURNISH, AND INSTALL THESE TEMPORARY SUPPORTS WHERE NECESSARY. TEMPORARY SUPPORTS WHERE NECESSARY. TEMPORARY SUPPORTS ARE NOT PROVIDED BY THE METAL BUILDING MANUFACTURER.



NOTE: ALL TRIM CONTAINED ON THIS PROJECT WILL HAVE OUR STANDARD 3' LAP AS SHOWN ABOVE. (TRIM STYLE VARIES)

WALL TRIM COLOR: 26 24 GAUGE WALL PANEL: GAUGE NEED COLOR GA. GA. PANEL TYPE PANEL TYPE DL PBR Panel NEED COLOR Galvalume COLOR COLOR

GABLE TRIM COLOR:

NEED COLOR

	12'x8'	ZONE 5 (WALL EDGE)	ZONE	ZONE	ZONE 2 (ROOF EDGE)	ZONE	WIND LOADING (AREA <= 1 MULTIPLY x.6
I	ω.	5	4	u	2	-	× " 9
		(WALL	(WALL	(ROOF	(ROOF	(ROOF	10 SC FOR
		EDGE)	ZONE 4 (WALL INTERIOR)	ZONE 3 (ROOF CORNER)	EDGE)	ZONE 1 (ROOF INTERIOR)	WIND LOADING PRESSURES CHART (AREA <= 10 SO.FT. FOR PANELS MULTIPLY x.6 FOR DESIGN VALUE POS
	21	24	24	=	=	=	ART NELS) UE POSITIVE
	-23	-32	-26	-66	-44	-26	NECATIVE (GROSS)
	-14	-20	-16	-40	-27	-16	NEGATIVE (DESIGN)

NOTE: USE MAXIMUM STATED WALL PRESSURES FOR WINDOWS, LOUVERS, OR ANY OTHER SUCH TYPE ACCESSORY OPENING IN THE METAL BUILDING WALL WHETHER OR NOT THE ACCESSORY IS SUPPLIED BY THE METAL BUILDING MANUFACTURER.

LESS THAN 12'x8'

22

-24



THE PROJECT DESIGNER IS NOT THE METAL BUILDING MANUFACTURER, THE METAL BUILDIN DESIGNER OR THE METAL BUILDING ENGINEER THE ENGINEER WHOSE SEAL APPEARS ON THE METAL BUILDING PLANS IS A SPECIALTY ENGINEER AND NOT THE PROJECT DESIGNEER OR THE PROJECT ENGINEER OF RECORD. THE ENGINEER WHOSE SEAL APPEARS ON THE ENGINEER WHOSE SEAL APPEARS ON THE METAL BUILDING PLANS DOES NOT HAVE FAMILIARITY WITH THE PHYSICAL JOBSITE LOCATION AND THEREFORE CANNOT BE IDENTIFIED AS, SERVE AS OR QUALIFY AS THE PROJECT DESIGNER.

NO. 67131 MICHAEL R. MURPHY P.E. FLORIDA P.E.# 67131 500 VULCAN PARKWAY ADEL, GA 3,1620

GENERAL NOTES

1. MATERIALS

STRUCTURAL STEEL PLATE

COLD FORMED LIGHT GAGE SHAPESA570 OR A607

BRACE RODS

HOT ROLLED MILL SHAPES

ROOF AND WALL SHEETS

BOLTS

BOLTS

BOLTS

A570

A570

ASTM DESIGNATION

A572 OR A572 OR A607 GRADE 50

GRADE 65, UNLESS NOTED

GRADE 50

G

2. STRUCTURAL PRIMER

SHOP PRIMER PAINT IS A RUST INHIBITIVE PRIMER AND IT'S COLOR IS RED OXIDE THIS PAINT IS NOT INTENDED FOR LONG TERM EXPOSURE TO THE ELEMENTS.

3. A325T BOLT TIGHTENING REQUIREMENTS

ALL HIGH STRENGTH BOLTS ARE A325T-N UNLESS SPECIFICALLY NOTED OTHERWISE.

STRUCTURAL BOLTS SHALL BE TIGHTENED BY THE TURN-OF-THE-NUT METHOD IN ACCORDANCE WITH THE 13th EDITION AISC "SPECIFICATION FOR STRUCTURAL JOINTS USING ASTM A325T OR A490 BOLTS". PER SECTION 8.2, A325T BOLTSMAY BE INSTALLED WITHOUT WASHERS WHEN TIGHTENED BY THE TURN-OF-THE NUT METHOD.

ALL HIGH STRENGTH BOLTS, EXCEPT AS NOTED OTHERWISE, ARE SUBJECT TO DIRECT TENSION AND MAY REQUIRE INSPECTION AS DEFINED BY THE APPLICABLE BUILDING CODE OR STANDARD. IT IS THE RESPONSIBILITY OF THE ERECTOR TO ASSURE PROPER TIGHTNESS.

4. BUILDER/CONTRACTOR RESPONSIBILITIES

THE METAL BUILDING MANUF.'S STANDARD PRODUCT SPECIFICATIONS APPLY AND UNLESS STIPULATED OTHERWISE IN THE CONTRACT DOCUMENTS, THE METAL BUILDING MANUF.'S DESIGN, FABRICATION, QUALITY CRITERIA STANDARDS AND TOLERANCES WILL GOVERN THE WORK.

IN CASE OF DISCREPANCIES BETWEEN METAL BUILDINGS MANUF. STRUCTURAL PLANS AND PLANS FOR OTHER TRADES. THE METAL BUILDING MANUF.'S PLANS SHALL GOVERN.

IT IS THE RESPONSIBILITY OF THE BUILDER / CONTRACTOR TO OBTAIN APPROPRIATE APPROVALS AND NECESSARY PERMITS FROM CITY, COUNTY, STATE, OR FEDERAL AGENCIES, AS REQUIRED.

APPROVAL OF METAL BUILDING MANUF.'S DRAWINGS CONSTITUTES THE BUILDER / CONTRACTOR'S ACCEPTANCE OF THE METAL BUILDING MANUF.'S INTERPRETATION OF THE CONTRACT PURCHASE ORDER.

ONCE THE BUILDER / CONTRACTOR OR A/E FIRM HAS SIGNED MANUF.'S APPROVAL PACKAGE, CHANGES FROM THE PURCHASE ORDER BY THE BUILDER WILL BE BILLED TO THE BUILDER / CONTRACTOR FOR MATERIAL, ENGINEERING AND HANDLING FEES. SUCH CHANGES MAY CAUSE THE PROJECT TO BE MOVED FROM THE FABRICATION AND / OR SHIPPING SCHEDULE. A PENALTY FEE MAY BE CHARGED IF THE PROJECT MUST BE MOVED FROM THE FABRICATION AND / OR SHIPPING SCHEDULE, AS LONG AS THE MANUF.'S DESIGN AND DETAILING APPROACH COMPLIES WITH THE PURCHASE ORDER.

THE BUILDER / CONTRACTOR OR A/E FIRM ARE RESPONSIBLE FOR THE OVERALL PROJECT CONDITION, ALL INTERFACE AND COMPATIBILITY CONCERNING ANY MATERIALS NOT FURNISHED BY THE MANUF, ARE TO BE CONSIDERED AND COORDINATED BY THE BUILDER / CONTRACTOR OR A/E FIRM. UNLESS SPECIFIC DESIGN CRITERIA CONCERNING THIS INTERFACE BETWEEN MATERIALS IS FURNISHED AS PART OF THE PURCHASE ORDER. THE METAL BUILDING MANNUF.'S ASSUMPTIONS WILL GOVERN.

THE BUILDER / CONTRACTOR IS RESPONSIBLE TO INSURE THAT ALL OTHER PROJECT PLANS AND SPECIFICATIONS COMPLY WITH THE APPLICABLE REQUIREMENTS OF ANY GOVERNING BUILDING AUTHORITY. SUPPLYING SEALED ENGINEERING DESIGN DATA AND DRAWINGS BY THE BUILDING MANUF. DOES NOT IMPLY OR CONSTITUTE AN AGREEMENT THAT THE BUILDING MANUF. OR ITS DESIGN ENGINEER IS ACTING AS THE ENGINEER OF RECORD OR DESIGN PROFESSIONAL FOR THE CONSTRUCTION PROJECT. THESE DRAWINGS AND DESIGN DATA ARE SEALED AS TO THE STRUCTURAL SYSTEM FURNISHED BY THE METAL BUILDING MANUF. IN COMPLIANCE WITH ALL REQUIREMENTS OF THE PURCHASE ORDER.

THE BUILDER / CONTRACTOR IS RESPONSIBLE FOR SETTING OF ANCHOR BOLTS AND ERECTION OF STEEL BUILDING COMPONENTS IN ACCORDANCE WITH THE METAL BUILDING MANUF.'S "FOR CONSTRUCTION" DRAWINGS. TEMPORARY SUPPORTS OR BRACING REQUIRED FOR THE BUILDING ERECTION WILL BE THE RESPONSIBILITY OF THE ERECTOR TO DETERMINE, FURNISH, AND INSTALL.

THE METAL BUILDING MANUF. DOES NOT WARRANT STRUCTURAL INTEGRITY OF ANY COMPONENTS FIELD MODIFIED OR DESIGNED AND FABRICATED BY OTHERS. NEITHER DO WE ACCEPT DESIGN RESPONSIBILTY FOR THE EFFECTS NON STANDARD COMPONENTS DESIGNED BY OTHERS MAY HAVE ON THE SYSTEM IN GENERAL.

AS TAKEN FROM THE THIRTEENTH EDITION OF THE AISC MANUAL PAGE 16.3-53 PARAGRAPH 7.14 - READS AS FOLLOWS "THE CORRECTION OF MINOR MISFITS BY MODERATE AMOUNTS OF REAMING, GRINDINGS, WELDING OR CUTTING, AND THE DRAWING OF ELEMENTS INTO LINE WITH DRIFT PINS, SHALL BECONSIDERED TO BE NORMAL ERECTION OPERATIONS."

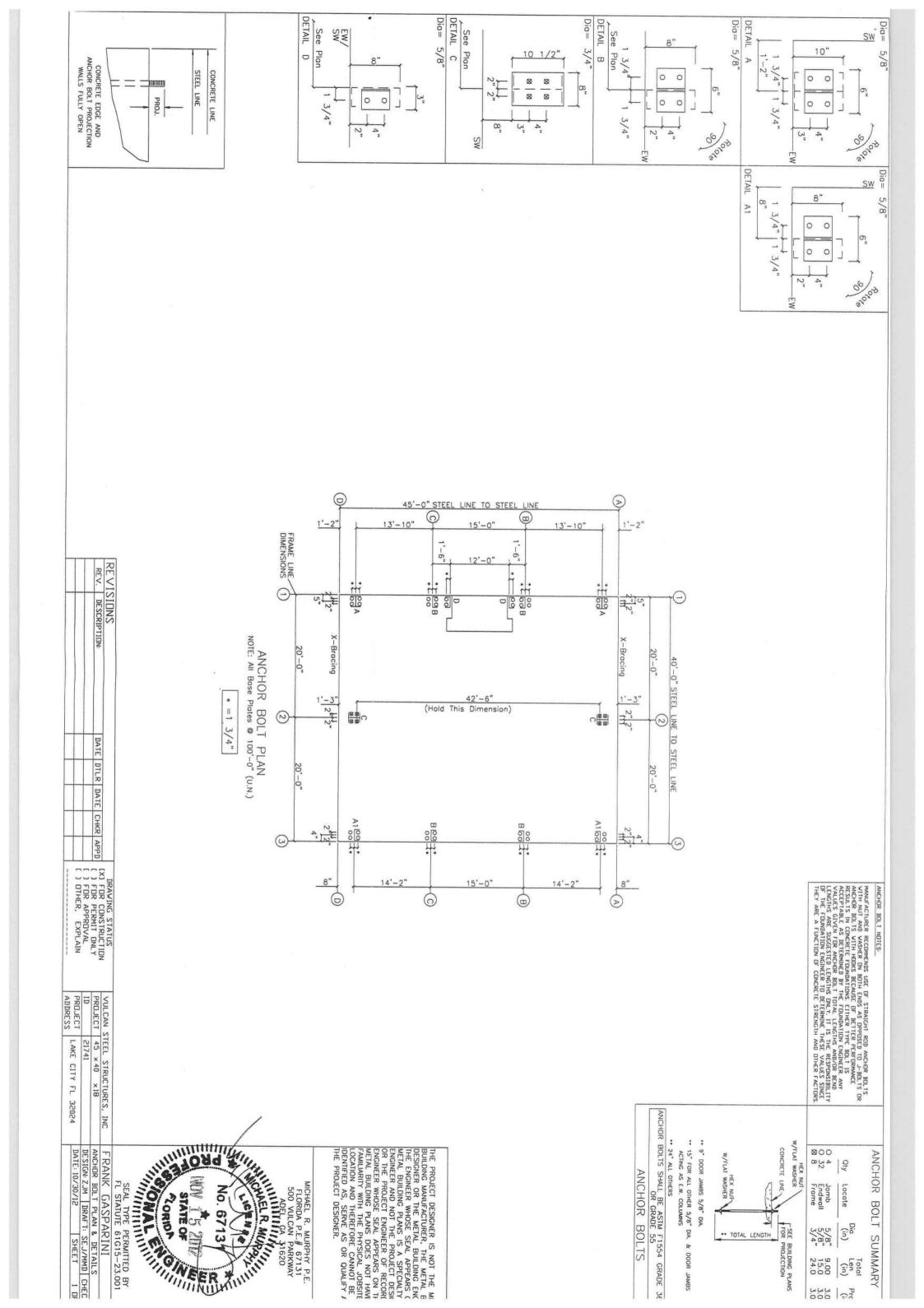
RECOGNIZING THE FLORIDA BUILDING CODE REQUIRES EXPOSURE C AS THE DEFAULT WIND EXPOSURE. IT IS RESPONSIBILITY OF THE PROJECT DESIGNER TO DETERMINE, VERIFY AND PROVE EXPOSURE "B" IS APPLICABLE BASED ON THE BUILDING LOCATION AND THAT EXPOSURE B IS ACCEPTABLE TO LOCAL BUILDING/CODE OFFICIALS OR AUTHORITIES HAVING JURISDICTION. IT IS THE ABSOLUTE RESPONSIBILITY OF THE BUYER TO RETAIN SERVICES OF AN INDIVIDUAL OR FIRM PROPERLY QUALIFIED TO PERFORM THE DUTIES REQUIRED OF A PROJECT DESIGNER TO INCLUDE:

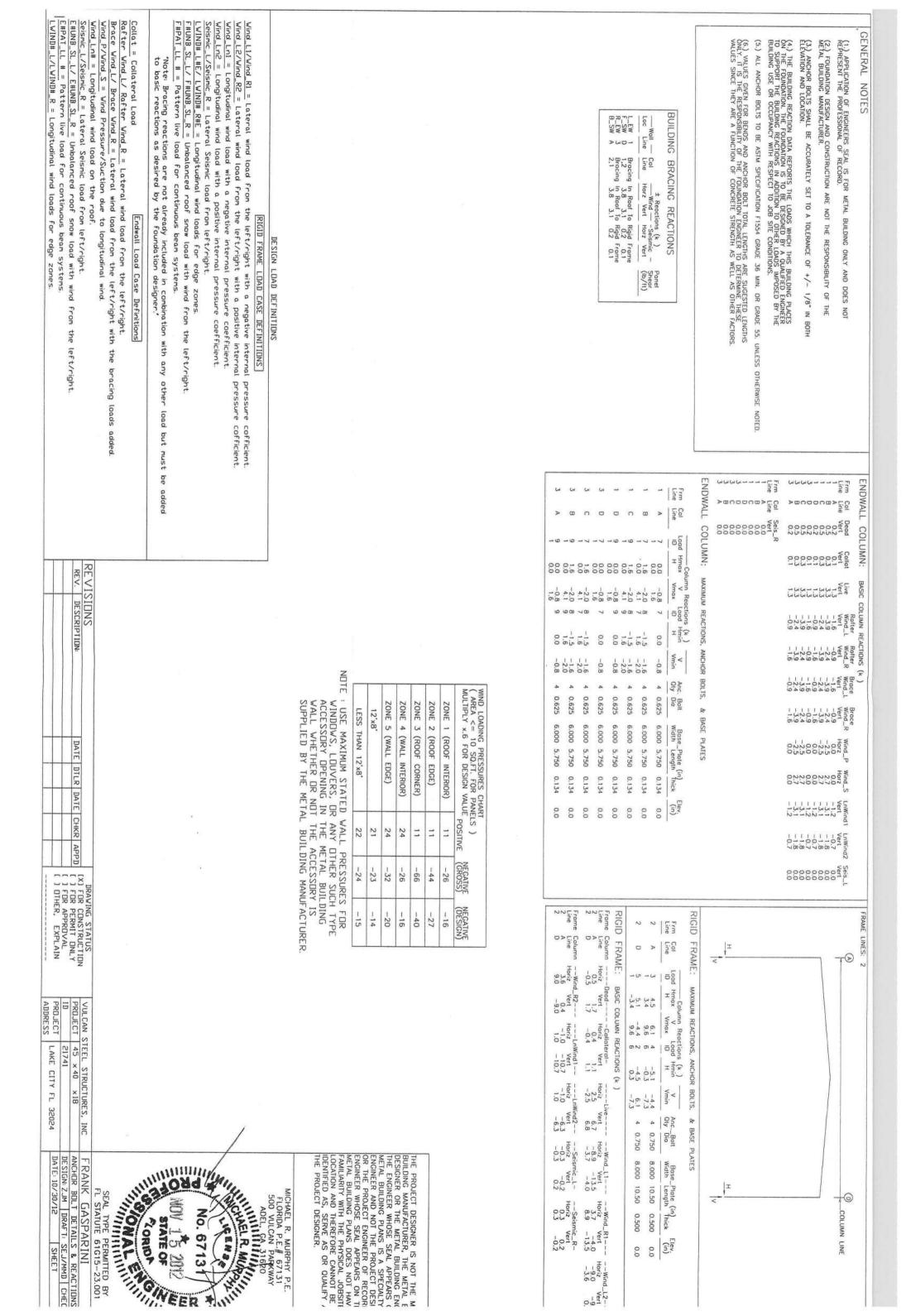
A PROJECT DESIGNER IS RESPONSIBLE FOR DETERMINING THE SITING OF (DETERMINATION OF WIND EXPOSURE) AND SPECIFYING THE GEOMETRY, LOADS AND MATERIALS FOR A BUILDING PROJECT.

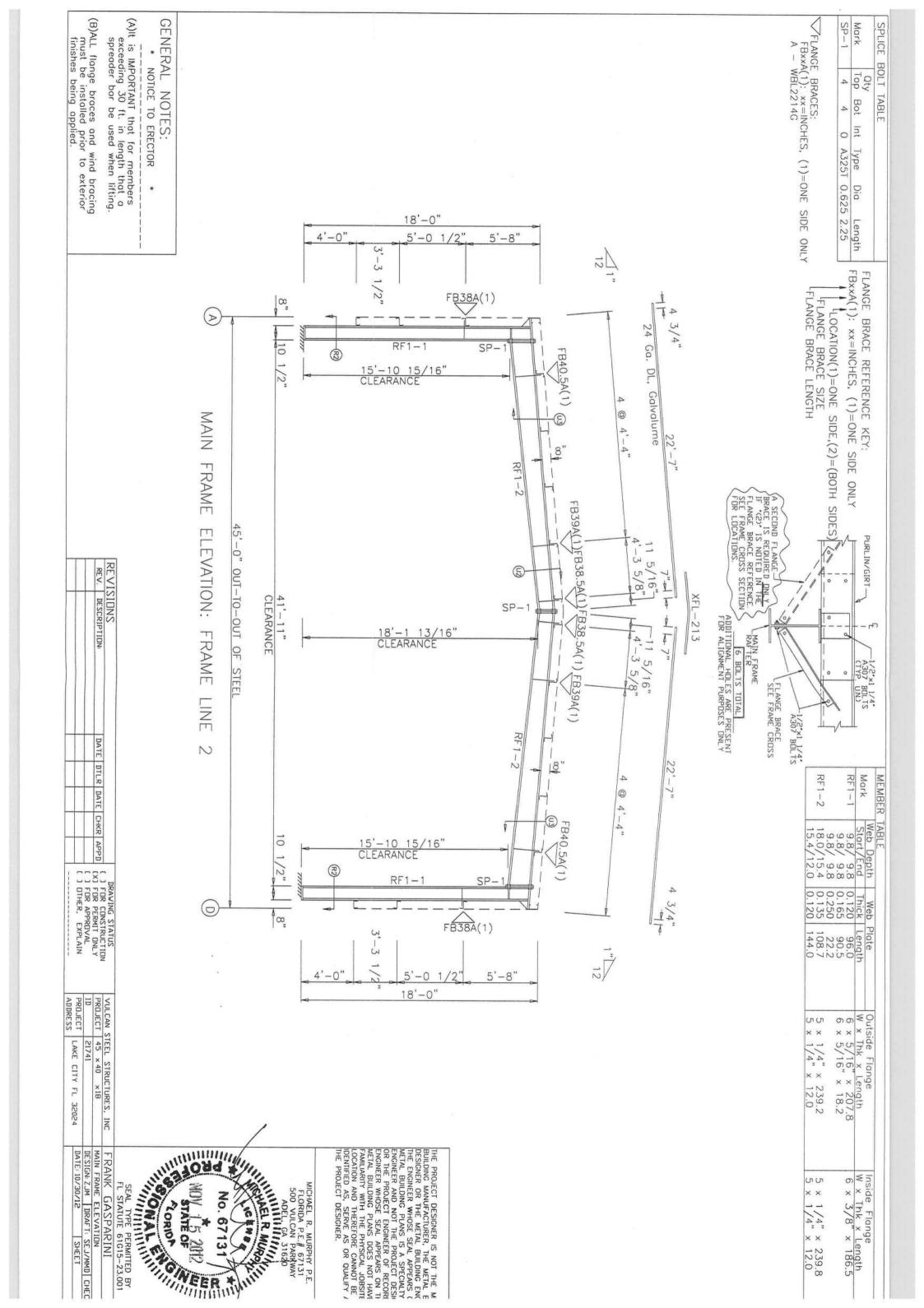
- * A PROJECT DESIGNER IS RESPONSIBLE FOR DETERMINING GEOMETRY PARAMETERS INCLUDE DEFINITION OF WIDTH, LENGTH, HEIGHT, SLOPE, BAYS, INGRESS AND EGRESS REQUIREMENTS AS APPLICABLE AND NECESSARY FOR THE DESIRED OCCUPANCY USAGE CATEGORY.
- * A PROJECT DESIGNER IS RESPONSIBLE FOR DETERMINING LOAD PARAMETERS INCLUDING DEFINITION OF THE BUILDING CODE AND APPLICABLE EDITION (YEAR), DETERMINATION OF IMPORTANCE FACTORS, DEFINITION OF ALL LOADS REQUIRED FOR THE DESIGN OF THE STRUCTURE INCLUDING DEAD LOADS, COLLATERAL LOADS, LIVE LOADS, WIND SPEED AND EXPOSURE CATEGORY, HVAC UNIT LOADS, FLOOR AND OTHER APPLIED LOADS (IF APPLICABLE). NEITHER THE METAL BUILDING MANUFACTURER OR THE METAL BUILDING ENGINEER ARE RESPONSIBLE FOR LOAD OR EXPOSURE CATEGORY DETERMINATION.
- * A PROJECT DESIGNER IS RESPONSIBLE FOR DETERMINING MATERIAL PARAMETERS INCLUDE DEFINITION OF ALL EXTERIOR COVERING MATERIALS AS WELL AS ALL INTERIOR SURFACES AND FINISHES.

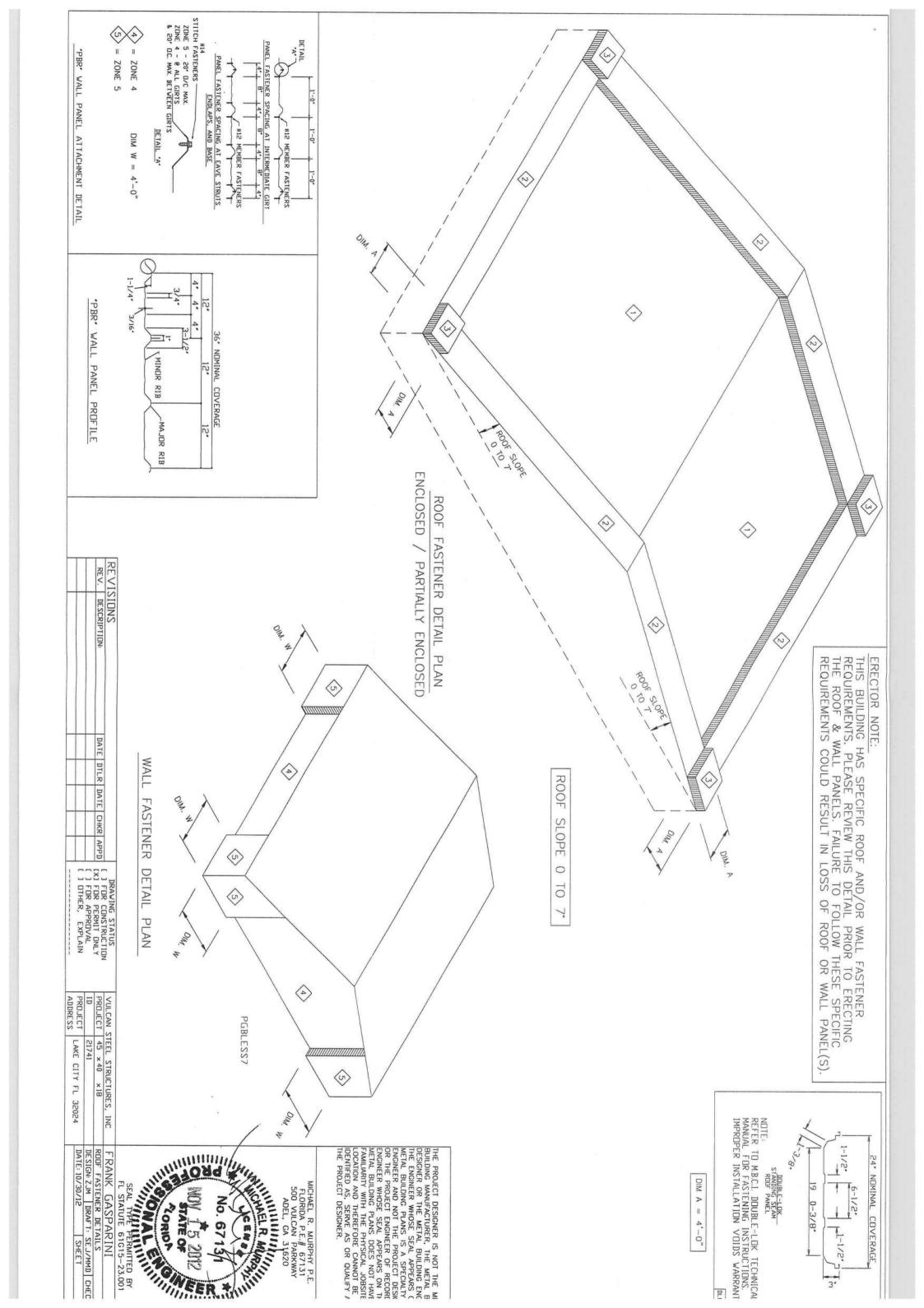
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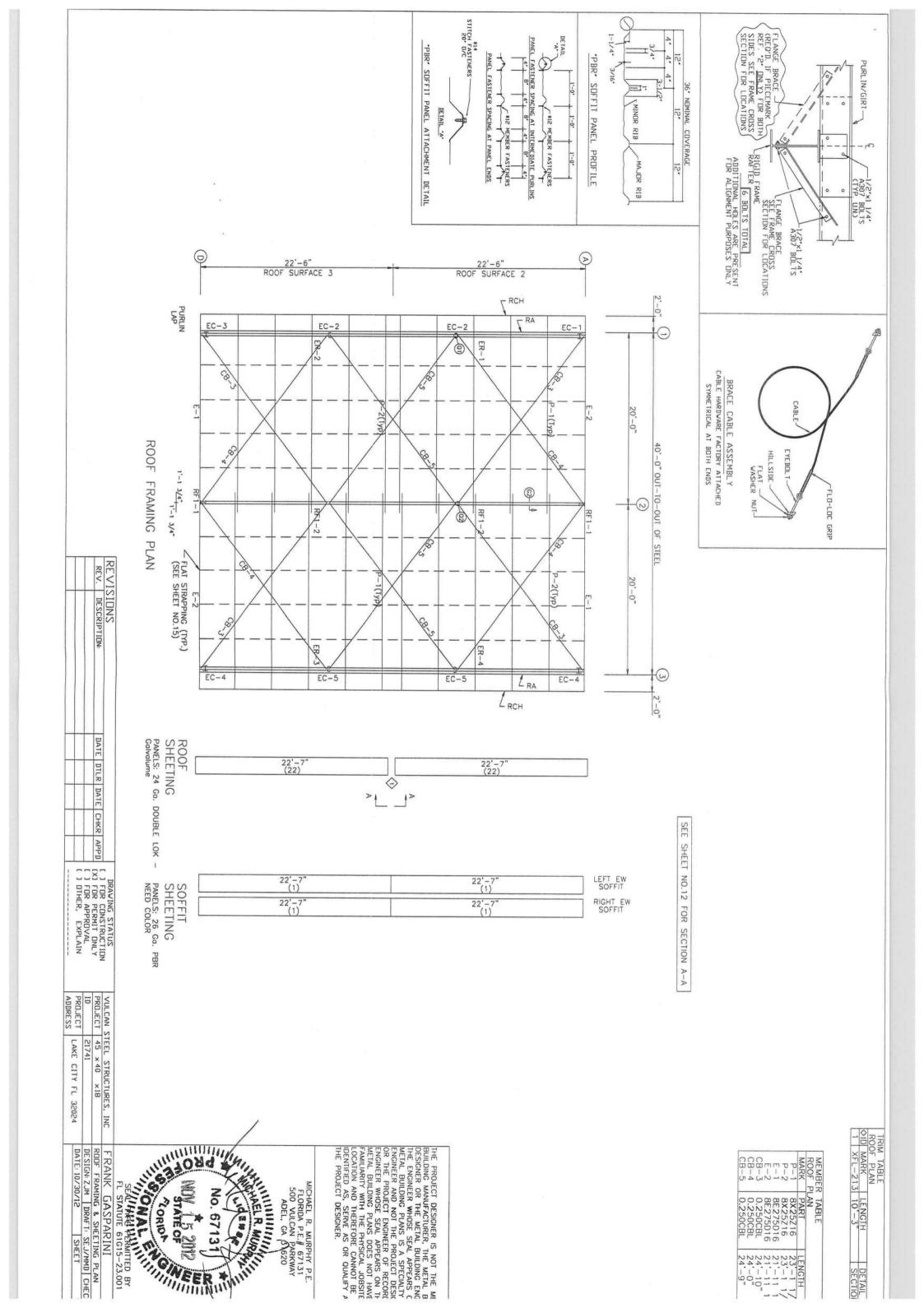
MICHAEL R. MURPHY P.E.
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WILLIAM 194520
NO. 6713
NO. 6

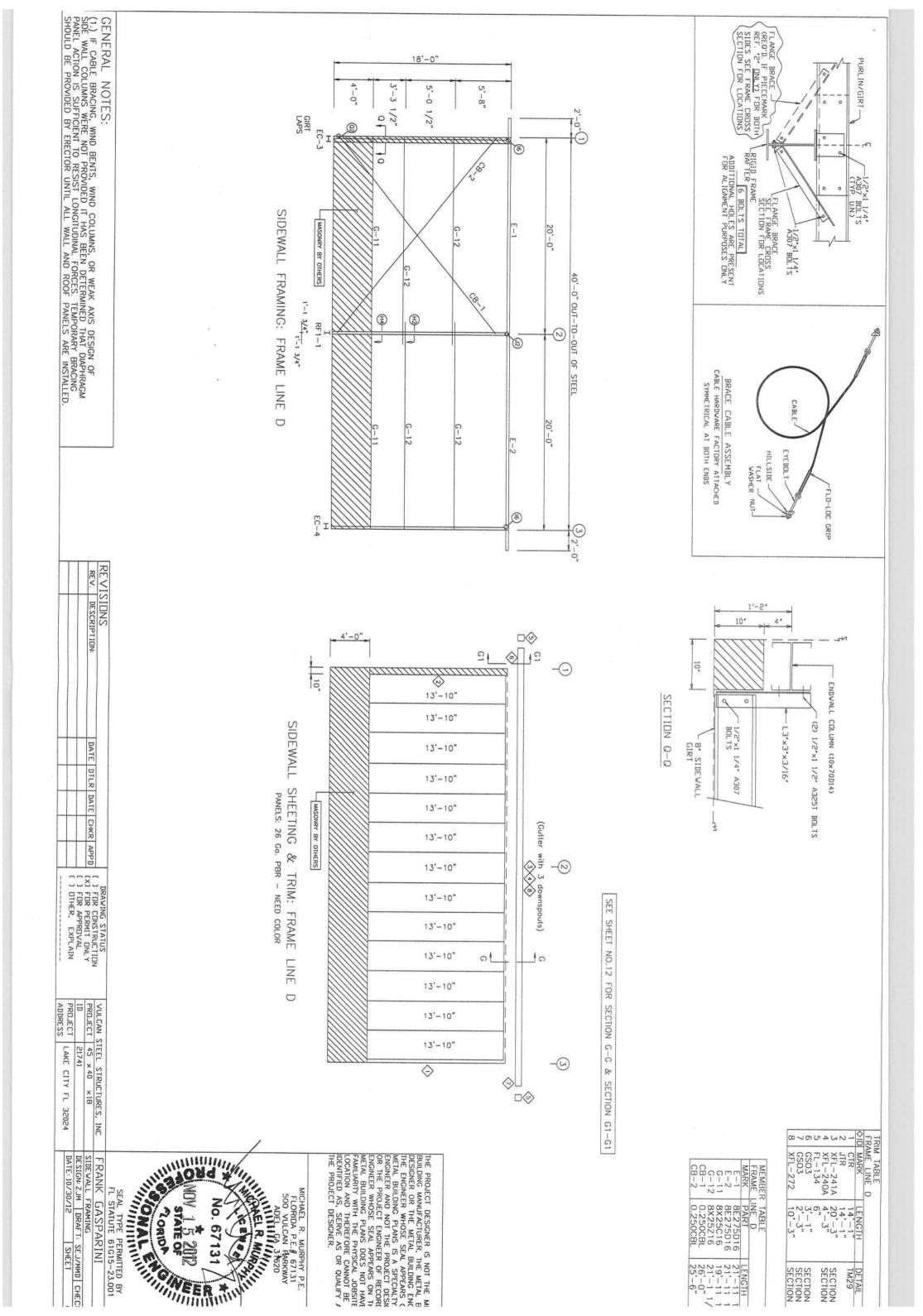


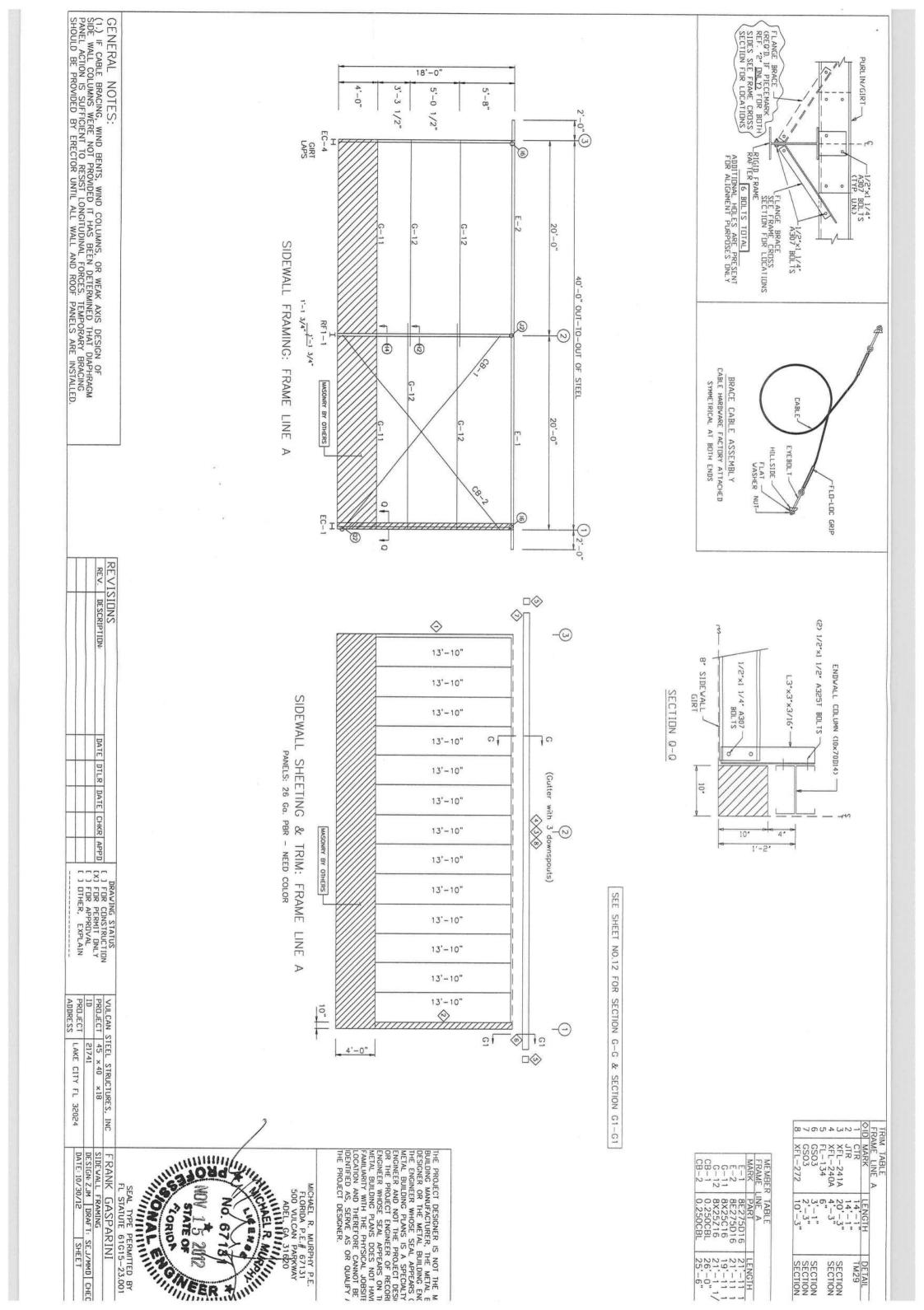


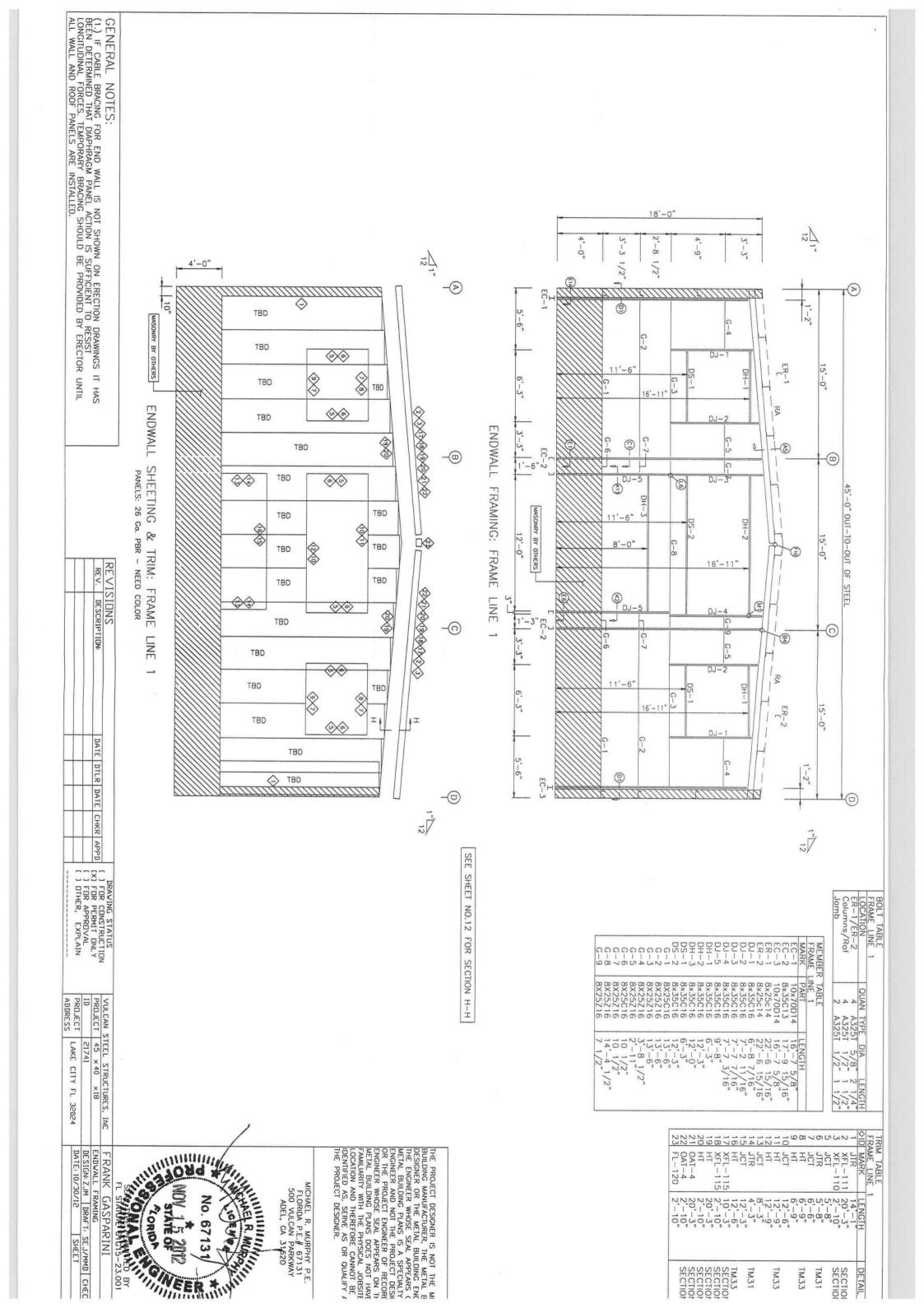


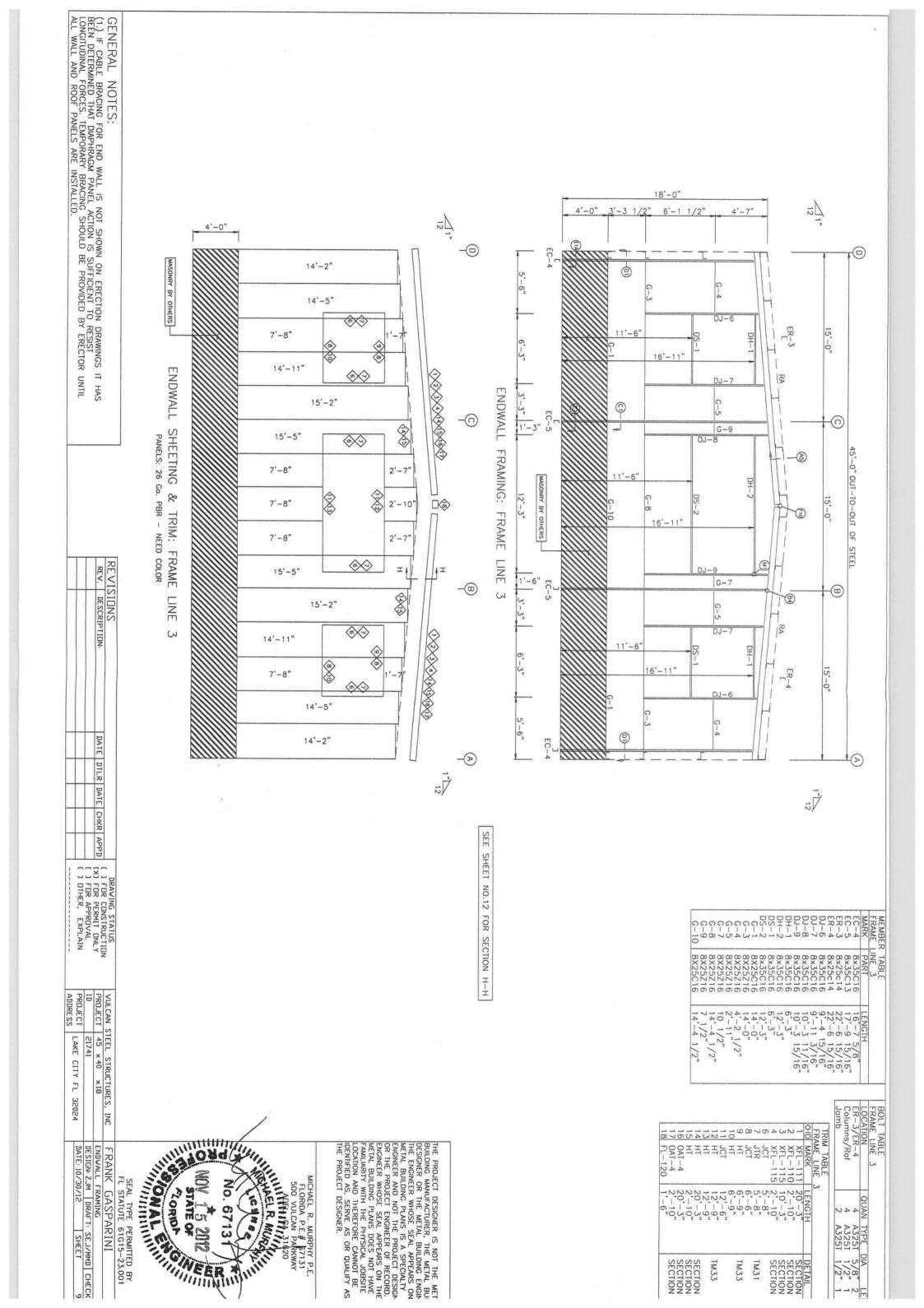


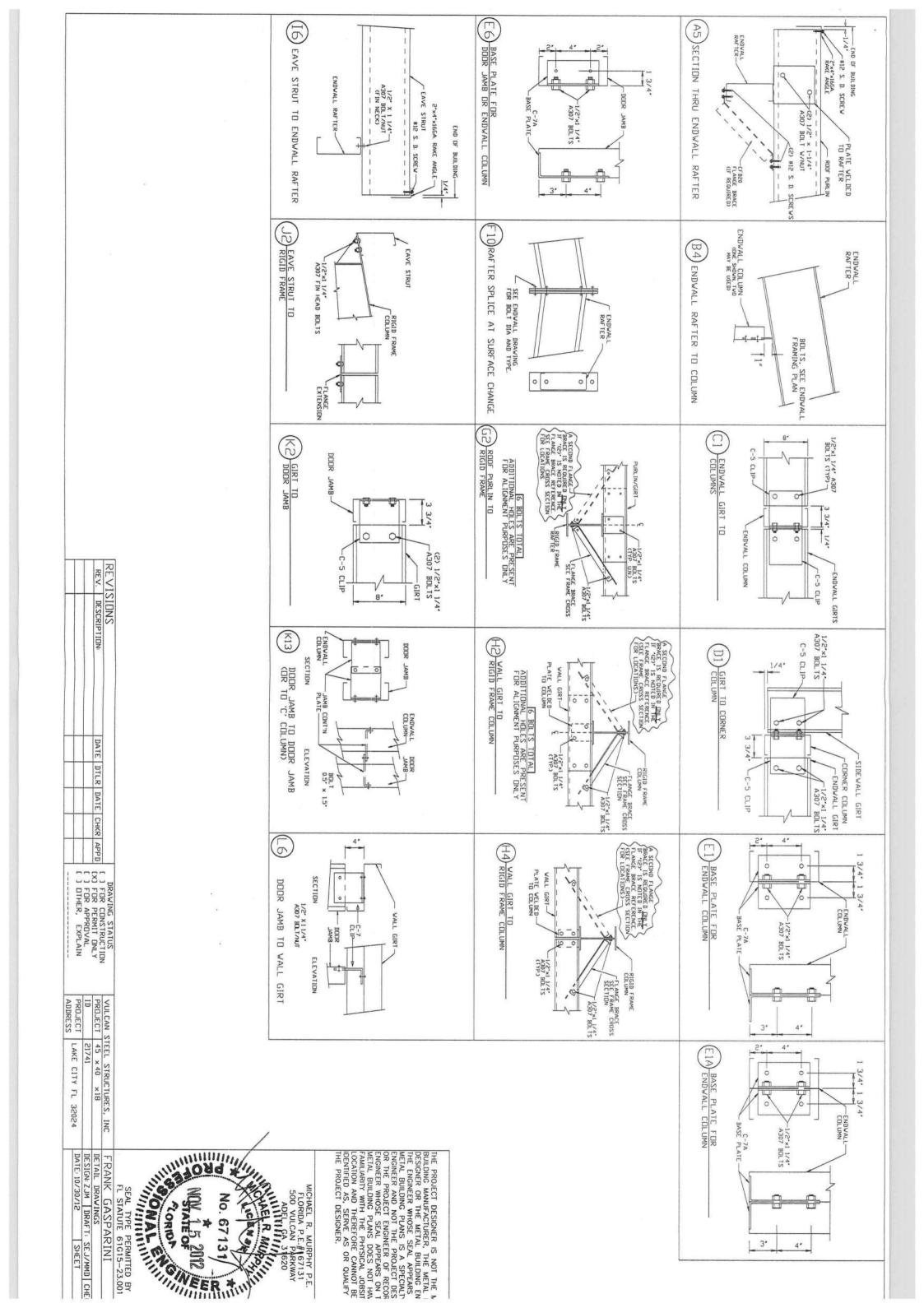


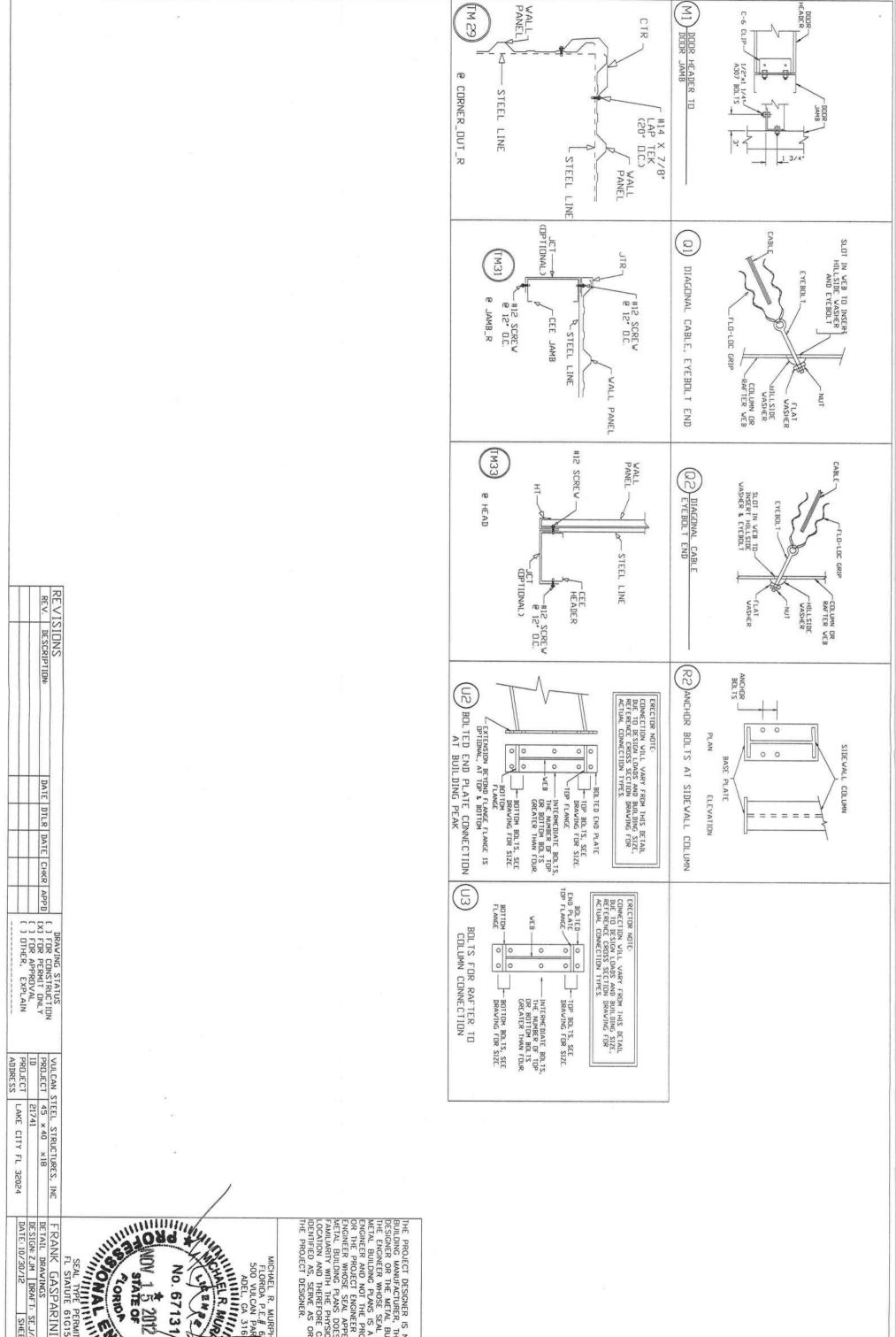












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500 VULCAN PARKWAY ADEL, GA 316½0

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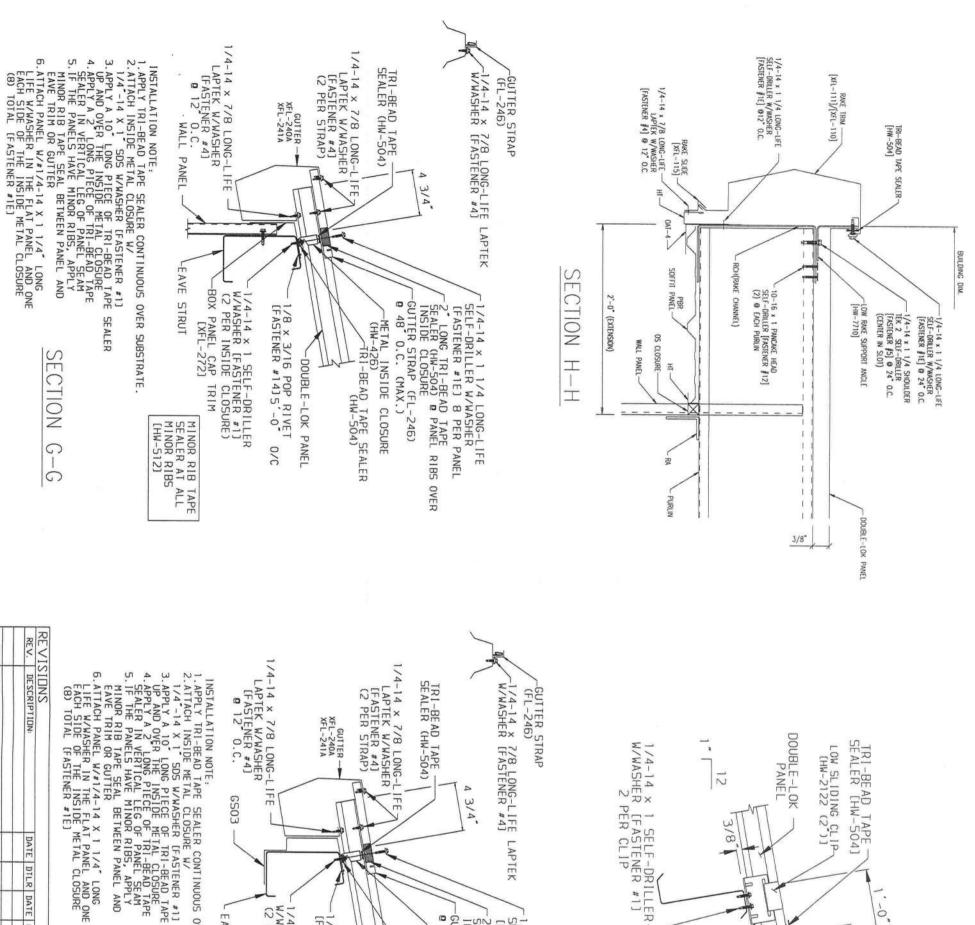
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SEAL TYPE PERMITTED BY FL STATUTE 61615-23.001

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THE PROJECT DESIGNER IS NOT THE M BUILDING MANUFACTURER, THE METAL E DESIGNER OR THE METAL BUILDING ENGUER OF THE ENGINEER WHOSE SEAL APPEARS (METAL BUILDING PLANS IS A SPECIALTY ENGINEER AND NOT THE PROJECT DESIGNEER WHOSE SEAL APPEARS ON THE PROJECT ENGINEER OF RECORD ENGINEER WHOSE SEAL APPEARS ON THE PROJECT ENGINEER OF RECORD ENGINEER WHOSE SEAL APPEARS ON THE PROJECT DESIGNEER WHOSE SEAL APPEARS ON THE PROJECT DESIGNER. JOBSTIT LOCATION AND THEREFORE CANNOT BE IDENTIFIED AS, SERVE AS OR QUALIFY, THE PROJECT DESIGNER.



(FASTENER #1E] 8 PER PANEL

CONG TRI-BEAD TAPE
SEALER (HW-504) PANEL RIBS 0
INSIDE CLOSURE

COUTTER STRAP (FL-246)

PU 48 0.C. (MAX.)

OVER

METAL INSIDE CLOSURE
(HW-426)
TRI-BEAD TAPE SEALER
(HW-504)

-DOUBLE-LOK PANEL

SELF-DRILLER W/WASHER

-1/4-14 x 1 1/4 LONG-LIFE SELF-DRILLER W/WASHER [FASTENER #1E] 6 PER PANEL

PURLIN

SECTION

A-

TRI-BEAD TAPE SEALER CONT. ACROSS PANEL [HW-504]

BACKUP PLATE -[HW-7760] 24"

PANE

3/8

GOUBLE-LOK PANEL

MAX

SELF-D SELF-D IFASTE

I-14 x 1 1/4 LONG-LIFE
F-DRILLER W/WASHER
(STENER #1EJ 3 PER PANEL
1/4-14 x 7/8 LONG-LIFE
LAPTEK W/WASHER
(FASTENER #4J 0 6 0.C.

- OUTSIDE CLOSURE [HW-430] 24 PANEL

RIDGE END [FL-896] U

USE WITH XFL-213

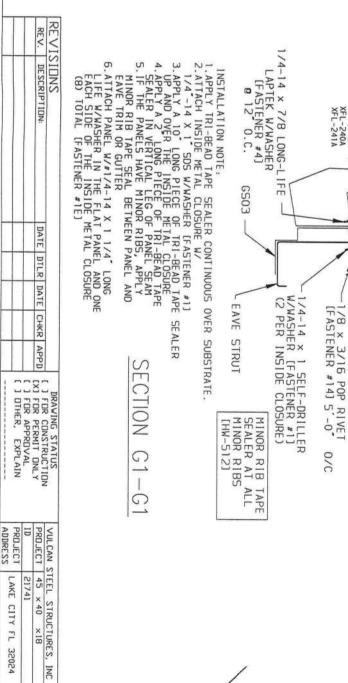
RIDGE FLASHING [XFL-213] 1/4;

: 12

10

N

1/2":12 PITCH



MICHAEL R. MURPHY P.E. FLORIDA P.E. # 67131
SOO VULCAN PARKWAY
MANIEL R. MURO
NO. 67131
NO. 67131
NO. 67131
NO. 67131
NO. 67131
NO. 67131

FRANK GASPARINI
DETAIL DRAWINGS
DESIGN: ZJM | DRAFT: SEJ/MMD | CHEC
DATE: 10/30/12 | SHEET

SEAL TYPE PERMITTED BY FL STATUTE 61G15-23.001

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