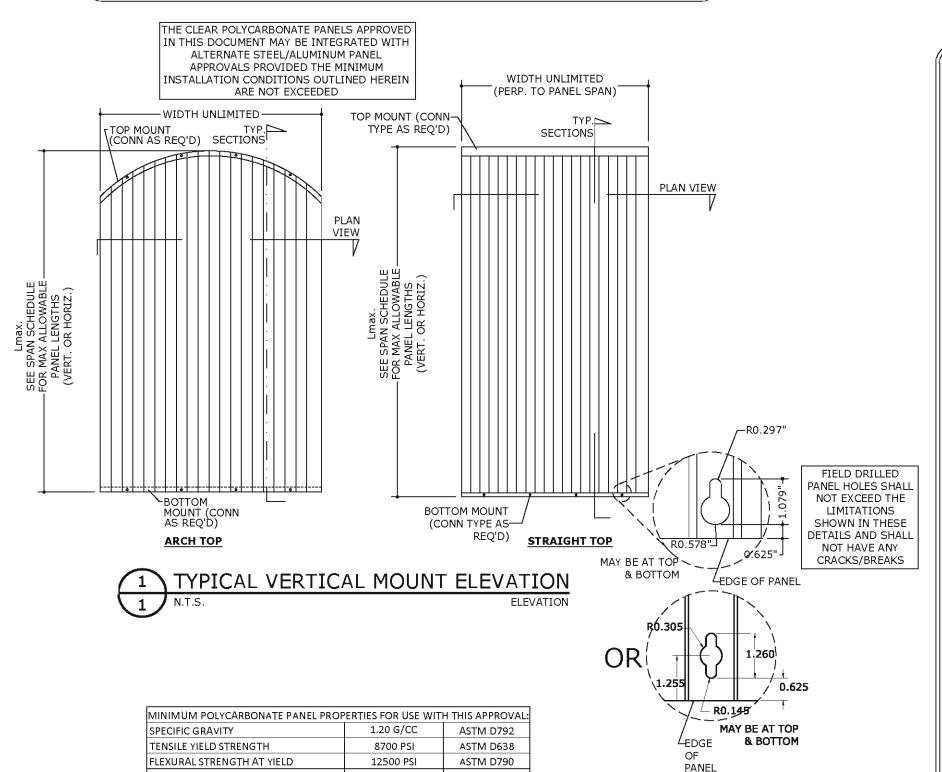
EASTERN METAL SUPPLY

2" CLEAR BERTHA STORM PANEL (HVHZ & NON-HVHZ)



340000 PSI

18 FT-LB/IN

75 MAX

C-1 CLASS MAX

650 DEG. F

ASTM D790

ASTM D256

ASTM D2843

ASTM D635

ASTM D1929

FLEXURAL MODULUS

NOTCHED IZOD

SELF IGNITION

SMOKE DENSITY

RATE OF BURNING

DESIGN NOTES:

POSITIVE & NEGATIVE (ASD) DESIGN PRESSURES FOR USE WITH THIS SYSTEM SHALL BE DETERMINED ON A SITE-SPECIFIC BASIS AND COMPARED TO LIMITING FACTORS AS STIPULATED HEREIN. THEY SHALL BE CALCULATED IN ACCORDANCE WITH THE GOVERNING CODE REQUIREMENTS & IN ACCORDANCE WITH ASCE 7 AND CHAPTER 1609 OF THE FLORIDA BUILDING CODE. THEY SHALL BE LESS THAN OR EQUAL TO THE POSITIVE OR NEGATIVE DESIGN PRESSURE CAPACITY VALUES LISTED HEREIN FOR ANY ASSEMBLY AS SHOWN.

TOP & BOTTOM DETAILS SHOWN MAY BE INTERCHANGED AS FIELD CONDITIONS DICTATE. PANELS MAY BE MOUNTED VERTICALLY OR HORIZONTALLY AS APPLICABLE.

MAXIMUM ALLOWABLE **DESIGN PRESSURES:**

AS NOTED IN DESIGN SCHEDULES

GENERAL NOTES:

1. THIS SPECIFICATION HAS BEEN DESIGNED AND SHALL BE FABRICATED IN ACCORDANCE WITH THE REQUIREMENTS OF THE FLORIDA BUILDING CODE ACCORDANCE WITH THE REQUIREMENTS OF THE FLORIDA BUILDING CODE SEVENTH EDITION (2020) FOR USE INSIDE AND OUTSIDE OF THE HYHZ, PER TAS 201, 202 & 203 AND ASTM E330, E1886 & E1996 TEST PROTOCOLS. CONTRACTOR SHALL INVESTIGATE AND CONFORM TO ALL LOCAL BUILDING CODE AMENDMENTS WHICH MAY APPLY. DESIGN CRITERIA BEYOND AS STATED HEREIN MAY REQUIRE ADDITIONAL SITE-SPECIFIC SEALED ENGINEERING. 2. NO 33-1/3% INCREASE IN ALLOWABLE STRESS HAS BEEN USED IN THE DESIGN OF THIS SYSTEM.

DESIGN OF THIS SYSTEM.

3. THE ARCHITECT/ENGINEER OF RECORD FOR THE PROJECT SUPERSTRUCTURE WITH WHICH THIS DESIGN IS USED SHALL BE RESPONSIBLE FOR THE INTEGRITY OF ALL SUPPORTING SURFACES TO THIS DESIGN WHICH SHALL BE COORDINATED BY THE PERMITTING CONTRACTOR.

4. SEPARATE SITE-SPECIFIC SIGNED AND SEALED ENGINEERING SHALL BE REQUIRED IN ORDER TO DEVIATE, INTERPOLATE, AND EXTRAPOLATE FROM LOADS, DEFLECTIONS, OR SPANS CONTAINED HEREIN. CONTACT THIS ENGINEER AND VISIT THE ACCOMPANYING DIGITAL INFORMATION REFERENCED HEREIN FOR ALTERNATE SPAN CALCULATIONS AS MAY BE REQUIRED.

5. THE SYSTEM DETAILED HEREIN IS GENERIC AND DOES NOT PROVIDE INFORMATION FOR A SPECIFIC SITE. FOR SITE CONDITIONS DIFFERENT FROM THE CONDITIONS DETAILED HEREIN, A LICENSED ENGINEER OR REGISTERED ARCHITECT SHALL PREPARE SITE SPECIFIC DOCUMENTS FOR USE IN

ARCHITECT SHALL PREPARE SITE SPECIFIC DOCUMENTS FOR USE IN CONJUNCTION WITH THIS DOCUMENT.

CONJUNCTION WITH THIS DOCUMENT.

6. DESIGN PRESSURES NOTED HEREIN ARE BASED ON MAXIMUM TESTED PRESSURES DIVIDED BY A 1.5 SAFETY FACTOR.

7. ALL FASTENERS TO BE 1.5 WO OR GREATER SAE GRADE 5 UNLESS NOTED OTHERWISE. FASTENERS SHALL BE CADMIUM-PLATED OR OTHERWISE CORROSION-RESISTANT MATERIAL AND SHALL COMPLY WITH "SPECIFICATIONS FOR ALUMINUM STRUCTURES" SECTION J.3 BY THE ALUMINUM ASSOCIATION, INC., & ANY APPLICABLE FEDERAL, STATE, AND/OR LOCAL CODES.

8. ALL STORM PANELS SHALL BE CLEAR POLYCARBONATE, t=0.100" AND CONFORM TO THE SPECIFICATIONS LISTED HEREIN.

9. ALL ALUMINUM EXTRUSIONS SHALL BE 6063-T6 ALUMINUM ALLOY OR BETTER. UNLESS NOTED OTHERWISE.

BETTER, UNLESS NOTED OTHERWISE.

10. CONCRETE ANCHORS NOTED HEREIN SHALL BE EMBEDDED TO

10. CONCRETE ANCHORS NOTED HEREIN SHALL BE EMBEDDED TO NON-CRACKED CONCRETE ONLY. INSTALL ALL CONCRETE ANCHORS PER MANUFACTURER'S RECOMMENDATIONS.

11. THE CONTRACTOR IS RESPONSIBLE TO INSULATE OR PROTECT ALL MEMBERS FROM DISSIMILAR MATERIALS TO PREVENT ELECTROLYSIS.

12. ENGINEER SEAL AFFIXED HERE TO VALIDATES STRUCTURAL DESIGN AS SHOWN ONLY, USE OF THIS SPECIFICATION BY CONTRACTOR, et. al. INDEMNIFIES & SAVES HARMLESS THIS ENGINEER FOR ALL COST & DAMAGES INCLUDING LEGAL FEES & APPELLATE FEES RESULTING FROM MATERIAL

FABRICATION, SYSTEM ERECTION, & CONSTRUCTION PRACTICES BEYOND THAT WHICH IS CALLED FOR BY LOCAL, STATE, & FEDERAL CODES & FROM DEVIATIONS OF THIS PLAN.

13. EXCEPT AS EXPRESSLY PROVIDED HEREIN, NO ADDITIONAL

CERTIFICATIONS OR AFFIRMATIONS ARE INTENDED.

14. ALTERATIONS, ADDITIONS, OR OTHER MARKINGS TO THIS DOCUMENT ARE NOT PERMITTED AND INVALIDATE THIS CERTIFICATION.

PANELS SHALL BE PERMANENTLY LABELED WITH A MINIMUM OF (1) LABEL PER PANEL, CONTAINING THE FOLLOWING INFORMATION

> EASTERN METAL SUPPLY, INC. WEST PALM BEACH, FL TAS 201, TAS 202 & TAS 203 ASTM E330, ASTM E1886 & ASTM E1996 FLORIDA PRODUCT APPROVAL NUMBER

VISIT ECALC.IO/28341

FOR SITE SPECIFIC DEVIATIONS & MORE INFORMATION ABOUT THIS DOCUMEN OR SCAN THIS QR CODE

VISIT ENGINEERINGEXPRESS.COM/EASTERN
FOR ADDITIONAL PLANS, REPORTS & RESOURCES



CORPORATE OFFICE:

50 SW 12th AVE, SUITE 106

EERFIELD BEACH, FL 33442

(954) 354-0560 | (866) 396-9999

TEAM@ENGINEERINGEYPP 160 SW DEERFIE

FRANK BENNARDO, PE PE# 0046549 CA#9885

SUPPLY

4268 WESTROADS D WEST PALM BEACH , (800) 432-2204

METAI

STERN

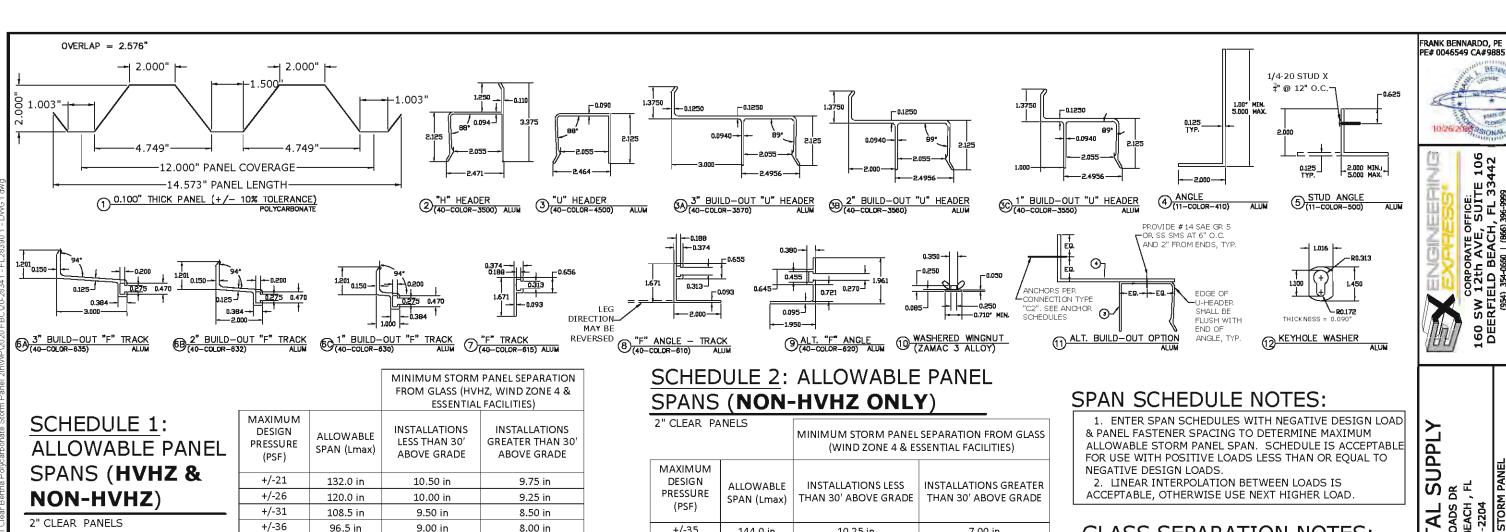
Ę

20-28341

SCALE: NTS UNLESS NOTED



5



		MINIMUM STORM PANEL SEPARATION FROM GLASS (WIND ZONE 4 & ESSENTIAL FACILITIES)						
MAXIMUM DESIGN PRESSURE (PSF)	ALLOWABLE SPAN (Lmax)	INSTALLATIONS LESS THAN 30' ABOVE GRADE	INSTALLATIONS GREATER THAN 30' ABOVE GRADE					
+/-35	144.0 in	10.25 in	7.00 in					
+/-40	133.0 in	9.75 in	6.25 in					
+/-45	122.0 in	9.50 in	5.50 in					
+/-50	111.0 in	9.00 in	4.75 in					
+/-55	100.0 in	8.50 in	4.00 in					
+/-60	89.0 in	8.00 in	3.00 in					

- SEE SHEET 5 FOR ANCHORAGE OPTIONS
- SPANS AND SEP. FROM GLASS LISTED IN THIS TABLE ARE ONLY APPLICABLE FOR CONNECTION TYPES C1 AND C2 ONLY.
- "H" HEADER, "U" HEADER AND "C3" CONNECTION OPTIONS SHALL NOT BE USED WITH THIS TABLE
- MINIMUM PANEL SPAN IS 36.0". UTILIZE GLASS SEPARATION FOR 89" SPAN TIER

GLASS SEPARATION NOTES:

- 1. ENTER SPAN SCHEDULE WITH POSITIVE DESIGN LOAD TO DETERMINE MINIMUM ALLOWABLE SEPARATION FROM THE OPENING TO BE PROTECTED.
- 2. SCHEDULE IS REQUIRED FOR USE WITH POSITIVE LOADS ONLY. INTERPOLATION BETWEEN LOADS IS ACCEPTABLE, OTHERWISE USE NEXT HIGHER LOAD.
- 3. FOR INSTALLATIONS OUTSIDE OF THE HVHZ AND OUTSIDE OF ESSENTIAL FACILITIES IN ASTM WIND ZONES 1 THROUGH 3, THE GLASS SEPARATION SCHEDULE IS NOT REQUIRED AND NO MINIMUM SEPARATION FROM THE PROTECTED OPENING IS REQUIRED.

1.500

FOR SPANS LESS THAN SHOWN IN TABLE −0.25" MAX. 0.25"] EXISTING CONCRETE HOLLOW BLOCK OR MAX. OVERLAP OF WALL BEYOND EXISTING CONCRETE WINDOW SHALL BE 1.5X HOLLOW BLOCK OR GREATER THAN BUILD-OUT WOOD FRAMIN DISTANCE, TYP WALL MOUNT CLOSURE DETAIL N.T.S. (A) CORNER CLOSURE DETAIL -0.25" MAX. EXISTING CONCRETE EXISTING CONCRETE HOLLOW BLOCK EXISTING BAY WINDOW BUILD-OUT HOLLOW BLOCK OF __3.820" OR WOOD FRAMING. SEE ANCHOR WOOD FRAMING. DISTANCE SCHEDULE BASED ON TYPE OF STRUCTURE. MAX. ALUM. ANGLE (SEE DETAIL -1.000' FASTENER @ 18" O.C. FOR DESIGN 1.500" LOADS LESS THAN OR EQUAL TO 60 MIN. FASTENER @ 18" O.C. FOR DESIGN LOADS LESS THAN OR 1.0000 EXISTING CONCRETE HOLLOW BLOCK OR WOOD (E) BUILD-OUT MOUNT CLOSURE DETAIL N.T.S. B CORNER CLOSURE DETAIL SCHEDULE BASED ON TYPE TRAP MOUNT CLOSURE DETAIL N.T.S.

4268 WESTROADS D WEST PALM BEACH, (800) 432-2204 METAI ES EA

CORPORATE OFFICE: 12th AVE, SUITE 106 ELD BEACH, FL 33442

160 SW DEERFIE

20-28341

SCALE: NTS UNLESS NOTED 5

6

+/-41

+/-46

+/-51

+/-56

+/-60

(1)

18 GA, GALV. STEEL BENT

PLATE OR 2"x2"x.125

6063-T6 ALUM. ANGLE

¥"-20 SIDEWALK OR

WASHERED WINGNUT @

¾"-20 SIDEWALK OR MACHINE BOLT & __

O.C. TYP.

WASHERED WINGNUT @ 24"

18 GA. GALV. STEEL

. 125" 6063-T6 ALUM

84.5 in

73.0 in

61.0 in

49.5 in

40.0 in

- SEE SHEET 4 FOR ANCHORAGE OPTIONS

EXISTING

WINDOW

1.000'

OVERLAP

1.000"

OVERLAP

4" MAX.-

8.50 in

8.00 in

7.50 in

7.00 in

6.50 in

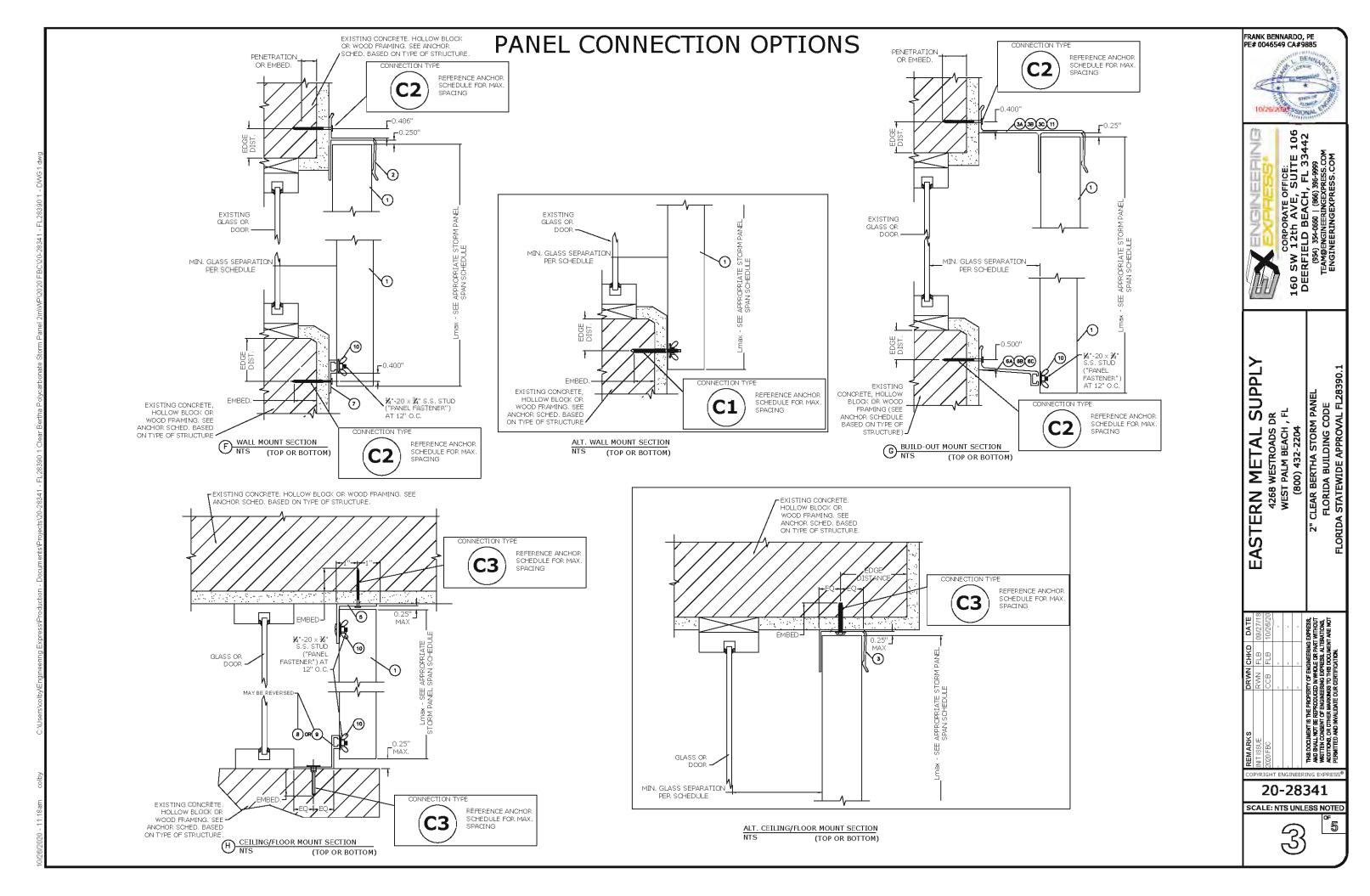
7.25 in

6.75 in

6.00 in

5.25 in

4.75 in



			EDGE DISTANCES AS NOTED									
H			Spans Up To 3'-4" (40") Spans Up To 7'-0"									
lb≅		LOAD		NECTION			NECTION			NECTION		
HOST STRUCT.	ANCHOR	(psf)	C1	C2	С3	C1	C2	С3	C1	l c2	Гсз	
	1/4" ITW TAPCON WITH 1-3/4" EMBED AND	21	12.0"	12.0"	12.0"	12.0"	12.0"	12.0"	12.0"	12.0"	12.0"	
	1-1/2" MIN. EDGE DISTANCE (3192 psi MIN	31	12.0"	12.0"	12.0"	12.0"	12.0"	12.0"	11111	7777	11111	
	CONCRETE)		12.0"	12.0"	12.0"	12.0"	12.0"	12.0"				
	FI wasanan	51	12.0"	12.0"	12.0"	/////	/////					
		60	12.0"	12.0"	12.0"							
	1/4" DEWALT ULTRACON WITH 1-3/4" EMBED	21	12.0"	12.0"	12.0"	12.0"	12.0"	12.0"	12.0"	12.0"	12.0"	
	AND 1" MIN. EDGE DISTANCE (2846 psi MIN	31	12.0"	12.0"	12.0"	12.0"	12.0"	12.0"				
	CONCRETE)	41	12.0"	12.0"	12.0"	12.0"	12.0"	12.0"				
	- Aconstructures		12.0"	12.0"	12.0"							
ш			12.0"	12.0''	12.0"							
l ⊢	1/4" DEWALT PANELMATE (FEMALE, MALE, or	21	12.0"	12.0''	12.0"	12.0"	12.0"	12.0"	12.0"	12.0"	12.0"	
쀭	PLUS) W/ 2" EMBED AND 2-1/2" MIN. EDGE	31	12.0"	12.0"	12.0"	12.0"	12.0"	12.0"				
N N	DISTANCE (3350 psi MIN CONC)	41	12.0"	12.0''	12.0"	12.0"	12.0"	12.0"				
ΙZ		51	12.0"	12.0"	12.0"							
8	7 1 4	60	12.0"	12.0"	12.0"				<u> </u>			
~	1/4" ITW TAPCON STORM GAURD W/ 1-3/4"	21	12.0"	12.0"	12.0"	12.0"	12.0"	12.0"	12.0"	12.0"	12.0"	
	EMBED AND 1-1/4" MIN. EDGE DISTANCE	31	12.0"	12.0"	12.0"	12.0"	12.0"	12.0"				
	(3295 psi MIN CONCRETE)	41	12.0"	12.0"	12.0"	12.0"	12.0"	12.0"	<i>\\\\\</i>			
	*	51	12.0"	12.0"	12.0"							
		60	12.0"	12.0"	12.0"				/////	/////	////	
	1/4-20 ALL POINTS SOLID- SET WITH 7/8"	21	12.0"	12.0"	12.0"	12.0"	12.0"	12.0"	12.0"	12.0"	12.0"	
	EMBED AND 1-1/4" MIN. EDGE DISTANCE	31	12.0"	12.0"	12.0"	12.0"	12.0"	12.0"				
	(3000 psi MIN CONCRETE)	41	12.0"	12.0"	12.0"	12.0"	12.0"	10.0"	<i>\////</i>		<i>\///</i>	
	* •	51	12.0"	12.0"	12.0"							
	Timmer I	60	12.0"	12.0"	12.0"	/////		/////	<i>V////</i>	<i>Y////</i>	<i>Y////</i>	

			EDGE DICTANGES AS NOTED									
ے ا			EDGE DISTANCES AS NOTED									
ΙLΞ				Jp To 3'-			Jp To 7'-0		Spans Up To 11'-0" (132"			
HOST STRUCT.		LOAD (psf)	CONI	NECTION	TYPE	CONI	ИЕСТІОИ	TYPE	CONNECTION TYPE			
	, wenon	(621)	C1	C2	C3	C1	C2	C3	C1	C2	C3	
LOCK	1/4" ITW TAPCON WITH 1" EMBED AND 2"	21	12.0"	12.0"	12.0"	12.0"	12.0"	11.0"	12.0"	12.0"	7.0''	
18	MIN. EDGE DISTANCE (1900 psi MIN CMU)	31	12.0"	12.0''	12.0"	12.0"	12.0"	7.5"				
בו	_	41	12.0"	12.0''	12.0"	6.0"	9.5"	5.5"				
Δ.		51	12.0"	12.0"	9.5"							
16	ч		12.0"	12.0"	8.0"							
	1/4" DEWALT ULTRACON WITH 1-1/4" EMBED AND 1" MIN. EDGE DISTANCE (1900 psi MIN CMU)	21	12.0"	12.0"	12.0"	12.0"	12.0"	11.0"	12.0"	12.0"	7.0"	
13		31	12.0"	12.0''	12.0"	12.0"	12.0"	7.5"				
-FILLE		41	12.0"	12.0''	12.0"	6.0"	11.5"	5.5"				
1.7	<u> </u>		12.0"	12.0"	9.5"							
OUT			12.0"	12.0''	8.0"							
Ιō	1/4" DEWALT PANELMATE (FEMALE, MALE, or	21	12.0"	12.0"	12.0"	12.0"	12.0"	12.0"	12.0"	12.0"	11.0"	
8	PLUS) W/ 1-1/4" EMBED AND 2" MIN. EDGE	31	12.0"	12.0''	12.0"	12.0"	12.0"	11.5"				
_	DISTANCE (2000 psi MIN CMU)	41	12.0"	12.0''	12.0"	12.0"	12.0"	9.0"				
(OR		51	12.0"	12.0"	12.0"							
		60	12.0"	12.0''	12.0"							
>	1/4-20 ALL POINTS SOLID- SET WITH 7/8"	21	12.0"	12.0''	12.0"	12.0"	12.0"	11.5"	12.0"	12.0"	7.0"	
ноггом	EMBED AND 1-1/4" MIN. EDGE DISTANCE	31	12.0"	12.0"	12.0"	12.0"	12.0"	7.5"				
14	(1800 psi MIN CMU)	41	12.0"	12.0"	12.0"	12.0"	12.0"	5.5"				
10	* 1	51	12.0"	12.0"	9.5"							
Ĭ		60	12.0"	12.0"	8.0"				<i>\////</i>			

			EDGE DISTANCES AS NOTED								
HOST	;	LOAD	Spans Up To 3'-4" (40")			Spans l	Jp To 7'-0	O" (84")	Spans Up To 11'-0" (132"		
12 2	ANCHOR		CONNECTION TYPE			CON	NECTION	TYPE	CONNECTION TYPE		
[문년			C1	C2	C3	C1	C2	C3	C1	C2	C3
	1/4" ITW TAPCON WITH 1-3/8" THREAD	21	12.0"	12.0"	12.0"	12.0''	12.0"	12.0''	12.0"	12.0"	10.0"
	PEN. AND 3/4" MIN. EDGE DISTANCE	31	12.0"	12.0"	12.0"	12.0''	12.0"	11.0"			
	(G=0.42 MIN)	41	12.0"	12.0"	12.0"	12.0"	12.0"	8.0"			
		51	12.0"	12.0"	12.0"						
	4		12.0"	12.0"	12.0"						
	1/4" DEWALT ULTRACON WITH 1-3/8"	21	12.0"	12.0"	12.0"	12.0''	12.0"	12.0"	12.0"	12.0"	10.0"
	THREAD PEN. AND 3/4" MIN. EDGE	31	12.0"	12.0"	12.0"	12.0''	12.0"	11.0"			
	DISTANCE (G=0.42 MIN)		12.0"	12.0"	12.0"	12.0''	12.0"	8.0"			
		51	12.0"	12.0"	12.0"						
	q		12.0"	12.0"	12.0"						
	1/4" DEWALT PANELMATE (FEMALE, MALE,	21	12.0"	12.0"	12.0"	12.0"	12.0"	12.0"	12.0"	12.0"	12.0"
	or PLUS) W/ 1-7/8" EMBED AND 3/4" MIN.	31	12.0"	12.0"	12.0"	12.0''	12.0"	12.0''			
	EDGE DISTANCE (G=0.54 MIN.)	41	12.0"	12.0"	12.0"	12.0''	12.0"	12.0"			
OD			12.0"	12.0"	12.0"						
ା	۲۱٬ ا	60	12.0"	12.0"	12.0"						
Š	1/4" ITW TAPCON STORM GAURD W/ 1-3/4"	21	12.0"	12.0"	12.0"	12.0"	12.0"	12.0"	12.0"	12.0"	10.0"
5	EMBED AND 1-1/4" MIN. EDGE DISTANCE	31	12.0"	12.0"	12.0"	12.0''	12.0"	11.0"			
	(G=0.42 MIN)	41	12.0"	12.0"	12.0"	12.0"	12.0"	8.0"			
	× === ummmmm>	51 60	12.0"	12.0"	12.0"						
			12.0"	12.0"	12.0"						
	1/4-20 PANELMATE INSERT WITH 1-5/8"	21	12.0"	12.0"	12.0"	12.0''	12.0"	12.0"	12.0"	12.0"	11.5"
	EMBED AND 3/4" MIN. EDGE DISTANCE	31	12.0"	12.0"	12.0"	12.0''	12.0"	12.0''			
	(G=0.42 MIN.)	41	12.0"	12.0"	12.0"	12.0"	12.0"	9.0"			
	★ ∃mA 1111111	51	12.0"	12.0"	12.0"						
		60	12.0"	12.0"	12.0"						
	1/4" WOOD OR LAG SCREW WITH 1-3/8"	21	12.0"	12.0"	12.0"	12.0"	12.0"	12.0''	12.0"	12.0"	9.5"
	MIN THREAD PEN. AND 3/4" MIN. EDGE	31	12.0"	12.0"	12.0"	12.0"	12.0"	10.5"			
	DISTANCE (G=0.42 MIN.)	41	12.0"	12.0"	12.0"	12.0"	12.0"	7.5"			
		51	12.0"	12.0"	12.0"				/////		
		60	12.0"	12.0"	11.0"	<i>\////</i>					

ANCHOR NOTES:

- ANCHOR SCHEDULE APPLIES TO ALL PRODUCTS CERTIFIED HEREIN, BUT ONLY PROVIDES MAXIMUM ALLOWABLE ANCHOR SPACING. MAXIMUM ALLOWABLE SPANS AND PRESSURES INDICATED IN SPAN SCHEDULE
- 2. ENTER ANCHOR SCHEDULE BASED ON PANEL FASTENER SPACING, THE EXISTING STRUCTURE MATERIAL, & ANCHOR TYPE. SELECT DESIGN LOAD GREATER THAN OR EQUAL TO NEGATIVE DESIGN LOAD ON SHUTTER AND SELECT SPAN GREATER THAN OR EQUAL TO SHUTTER SPAN. SELECT CONNECTION TYPE BASED ON APPROPRIATE MOUNTING CONDITION (SEE MOUNTING DETAILS ON SHEET 3 FOR IDENTIFICATION OF CONNECTION TYPE).
- "PANEL FASTENERS" ARE STUDS USED IN CONJUNCTION WITH ALL MOUNTING EXTRUSIONS ("F"-TRACK, STUDDED ANGLE, ETC.). "PANEL FASTENERS" SHALL BE SPACED AT 12" O.C. ALL END PANEL HOLES SHALL HAVE PANEL FASTENERS, TYP.
- ANCHORS SHALL BE INSTALLED IN ACCORDANCE WITH MANUFACTURERS' RECOMMENDATIONS
- HOLLOW BLOCK HOST STRUCTURE SHALL CONFORM TO ASTM C90 BLOCK.
- MINIMUM EMBEDMENT SHALL BE AS NOTED IN ANCHOR SCHEDULE.
- MINIMUM EMBEDMENT AND EDGE DISTANCE EXCLUDES STUCCO, FOAM, BRICK, AND OTHER WALL FINISHES. WALL FINISHES SHALL BE LIMITED TO 1/4" MAX OR SHALL BE VERIFIED BY OTHERS TO ADEQUATELY TRANSFER
- CONCRETE ANCHORS NOTED HEREIN SHALL BE EMBEDDED TO UN-CRACKED CONCRETE ONLY.
- WHERE EXISTING STRUCTURE IS WOOD FRAMING, EXISTING CONDITIONS MAY VARY. FIELD VERIFY THAT FASTENERS ARE INTO ADEQUATE WOOD FRAMING MEMBERS, NOT PLYWOOD. FASTENING TO PLYWOOD IS ACCEPTABLE ONLY FOR SIDE CLOSURE PIECES.
- 10. WHERE ANCHORS FASTEN TO NARROW FACE OF STUD FRAMING, FASTENER SHALL BE LOCATED IN CENTER OF NOMINAL 2" X 4" (MIN.) WOOD STUD (%" EDGE DISTANCE IS ACCEPTABLE FOR WOOD FRAMING). WOOD STUD SHALL BE G=0.42 OR GREATER DENSITY, U.N.O. LAG SCREWS SHALL HAVE PHILLIPS PAN HEAD OR HEX HEAD. 11. REMOVABLE ANCHORS ARE: DEWALT PANELMATE, ALL-POINTS SOLID-SET.
- 12. MACHINE SCREWS SHALL HAVE 1/2" MINIMUM ENGAGEMENT OF THREADS INTO THE BASE ANCHOR AND MAY HAVE EITHER A PAN HEAD, TRUSS HEAD, OR WAFER HEAD (SIDEWALK BOLT) U.N.O.
- 13. MINIMUM EMBEDMENT AND EDGE DISTANCE EXCLUDES STUCCO OR OTHER WALL FINISHES.
- 14. ZZ DESIGNATES ANCHOR CONDITIONS WHICH ARE NOT ACCEPTABLE USES.
- 15. * DIRECT MOUNTING CONDITIONS.
- 16. LINEAR INTERPOLATION IS NOT PERMITTED FOR USE WITH THE ANCHOR SCHEDULES LISTED ON THIS SHEET.
- 17. PROVIDE KEYHOLE WASHER FOR 1/4-20 SIDEWALK BOLTS (OR TRUSS HEAD SCREWS)

FRANK BENNARDO, PE

20-28341 SCALE: NTS UNLESS NOTED



ANCHOR SPACING (FOR SCHEDULE 2 - NON-HVHZ ONLY):

l .			EDGE DISTANCES AS NOTED							
I. 5		l. <u>.</u>	Spans Up To 3'-0" Spans Up To 7'-0" Spans Up To 12'-0"							
IS S	ANGUOR	LOAD	СОИИ	TYPE	CONN	TYPE	СОИ	N TYPE		
HOST STRUCT.	ANCHOR	(psf)	C1	C2	C1	C2	C1	C2		
	1/4" ITW TAPCON WITH 1-3/4"	35	12.0"	12.0"	12.0"	12.0"	12.0"	12.0"		
l	EMBED AND 1-1/2" MIN. EDGE	40	12.0"	12.0"	12.0"	12.0"	///			
l	DISTANCE (3192 psi MIN	45	12.0"	12.0"	12.0"	12.0"				
l	CONCRETE)	50	12.0"	12.0"	12.0"	12.0"				
l	F	55	12.0"	12.0"	12.0"	12.0"				
l		60	12.0"	12.0"	12.0"	12.0"	77			
l	1/4" DEWALT ULTRACON WITH 1-3/4"	35	12.0"	12.0"	12.0"	12.0"	12.0"	12.0"		
l	EMBED AND 1" MIN. EDGE DISTANCE	40	12.0"	12.0"	12.0"	12.0"	///			
1	(2846 psi MIN CONCRETE)	45	12.0"	12.0"	12.0"	12.0"				
l	————		12.0"	12.0"	12.0"	12.0"				
l			12.0"	12.0"	12.0"	12.0"				
l			12.0"	12.0"	12.0"	12.0"	Y/J			
ш	1/4" DEWALT PANELMATE (FEMALE,	35	12.0"	12.0"	12.0"	12.0"	12.0"	12.0"		
╽ᇤ	MALE, or PLUS) W/ 2" EMBED AND	40	12.0"	12.0"	12.0"	12.0"	V//			
~	2-1/2" MIN. EDGE DISTANCE (3350	45	12.0"	12.0"	12.0"	12.0"				
CONCRET	psi MIN CONC)	50	12.0"	12.0"	12.0"	12.0"	///			
Ιō			12.0"	12.0"	12.0"	12.0"				
0			12.0"	12.0"	12.0"	12.0"	Y/			
l	1/4" ITW TAPCON STORM GAURD W/	35	12.0"	12.0"	12.0"	12.0"	12.0"	12.0"		
l	1-3/4" EMBED AND 1-1/4" MIN. EDGE	40	12.0"	12.0"	12.0"	12.0"	V//			
l	DISTANCE (3295 psi MIN CONCRETE)	45	12.0"	12.0"	12.0"	12.0"				
l	ماء	50	12.0"	12.0"	12.0"	12.0"				
l		55	12.0"	12.0"	12.0"	12.0"				
1		60	12.0"	12.0"	12.0"	12.0"	Y/Z	I/I		
1	1/4-20 ALL POINTS SOLID- SET	35	12.0"	12.0"	12.0"	12.0"	12.0"	12.0"		
1	WITH 7/8" EMBED AND 1-1/4"	40	12.0"	12.0"	12.0"	12.0"	V/\overline{Z}			
l	MIN. EDGE DISTANCE (3000 psi	45	12.0"	12.0"	12.0"	12.0"				
l	MIN CONCRETE)	50	12.0"	12.0"	12.0"	12.0"				
1	* 1	55	12.0"	12.0"	12.0"	12.0"				
	The state of the s	60	12.0"	12.0"	12.0"	12.0"	Y/Z	///		

_									
1			EDGE DISTANCES AS NOTED Spans Up To 3'-0" Spans Up To 7'-0" Spans Up To 12'-						
1. t	ANCHOR						Spans Up	To 12'-0"	
[2 S			CONN	TYPE	СОИИ	TYPE	CONN TYPE		
HOST STRUCT.	ANCHOR	(psf)	C1	C2	C1	C2	C1	C2	
	1/4" ITW TAPCON WITH 1" EMBED	35	12.0"	12.0"	6.0"	11.5"	6.0"	6.0"	
1	AND 2" MIN. EDGE DISTANCE (1900	40	12.0"	12.0"	6.0"	10.0"	///		
1	psi MIN CMU)	45	12.0"	12.0"	6.0"	9.0"			
$1 \times$		50	12.0"	12.0"	6.0"	8.0"		////	
X	FI	55	12.0"	12.0"	6.0"	7.0"			
١Ä	H	60	12.0"	12.0"	6.0"	6.0"	Y/J	///	
1 🚆	1/4" DEWALT ULTRACON WITH 1-1/4" EMBED AND 1" MIN. EDGE DISTANCE (1900 psi MIN CMU)		12.0"	12.0"	12.0"	12.0"	6.0"	7.0"	
			12.0"	12.0"	12.0"	12.0"		///	
1 5			12.0"	12.0"	6.0"	10.5"			
FILLE		50	12.0"	12.0"	6.0"	9.5"		///	
	F \\	55	12.0"	12.0"	6.0"	8.5"			
15			12.0"	12.0"	6.0"	7.0"	Y/J		
GROUT-	1/4" DEWALT PANELMATE (FEMALE,	35	12.0"	12.0"	12.0"	12.0"	12.0"	11.0"	
ľĚ	MALE, or PLUS) W/ 1-1/4" EMBED	40	12.0"	12.0"	12.0"	12.0"			
_	AND 2" MIN. EDGE DISTANCE (2000	45	12.0"	12.0"	12.0"	12.0"			
8	psi MIN CMU)	50	12.0"	12.0"	12.0"	12.0"			
-		55	12.0"	12.0"	12.0"	12.0"			
≥		60	12.0"	12.0"	12.0"	11.0"	Y//	///	
19	1/4-20 ALL POINTS SOLID- SET WITH	35	12.0"	12.0"	12.0"	12.0"	6.0"	8.5"	
💆	7/8" EMBED AND 1-1/4" MIN. EDGE	40	12.0"	12.0"	12.0"	12.0"			
유	DISTANCE (1800 psi MIN CMU)	45	12.0"	12.0"	12.0"	12.0"			
1 -		50	12.0"	12.0"	6.0"	11.0"			
1		55	12.0"	12.0"	6.0"	10.0"	Y/Z		
	- Internation	60	12.0"	12.0"	6.0"	8.5"	Y/Z		

			EDGE DISTANCES AS NOTED					
I 5			Spans Ur					To 12'-0"
ΓŠΥ	440000	LOAD		I TYPE	CONN		1	N TYPE
HOST STRUCT.	ANCHOR	(psf)	C1	C2	C1	C2	C1	C2
	1/4" ITW TAPCON WITH 1-3/8" THREAD	35	12.0"	12.0"	12.0''	12.0"	12.0"	12.0"
	PEN. AND 3/4" MIN. EDGE DISTANCE		12.0"	12.0"	12.0''	12.0"	///	
	(G=0.42 MIN)	45	12.0"	12.0"	12.0''	12.0"		
		50	12.0"	12.0"	12.0''	12.0"		
	1 ·········	55	12.0"	12.0"	12.0''	12.0"	///	
	H	60	12.0"	12.0"	12.0''	12.0"		
	1/4" DEWALT ULTRACON WITH 1-3/8"	35	12.0"	12.0"	12.0''	12.0"	12.0"	12.0"
	THREAD PEN. AND 3/4" MIN. EDGE	40	12.0"	12.0"	12.0''	12.0"	///	
	DISTANCE (G=0.42 MIN)	45	12.0"	12.0"	12.0''	12.0"		
		50	12.0"	12.0"	12.0''	12.0"		
		55	12.0"	12.0"	12.0''	12.0"		
	4	60	12.0"	12.0"	12.0''	12.0"	///	///
	1/4" DEWALT PANELMATE (FEMALE, MALE,	35	12.0"	12.0"	12.0''	12.0"	12.0"	12.0"
	or PLUS) W/ 1-7/8" EMBED AND 3/4" MIN.	40	12.0"	12.0"	12.0''	12.0"		
	EDGE DISTANCE (G=0.54 MIN.)	45	12.0"	12.0"	12.0''	12.0"		
		50	12.0"	12.0"	12.0''	12.0"	//	
Ω	* =====================================		12.0"	12.0"	12.0''	12.0"		
0			12.0"	12.0"	12.0''	12.0"	///	
WOOD	1/4" ITW TAPCON STORM GAURD W/ 1-3/4"	35	12.0"	12.0"	12.0''	12.0"	12.0"	12.0"
>	EMBED AND 1-1/4" MIN. EDGE DISTANCE	40	12.0"	12.0"	12.0''	12.0"		
	(G=0.42 MIN)	45	12.0"	12.0"	12.0''	12.0"	///	
		50 55	12.0"	12.0"	12.0''	12.0"		
			12.0"	12.0"	12.0''	12.0"		
	·	60	12.0"	12.0"	12.0''	12.0"		
	1/4-20 PANELMATE INSERT WITH 1-5/8"	35	12.0"	12.0"	12.0''	12.0"	12.0"	11.5"
	EMBED AND 3/4" MIN. EDGE DISTANCE	40	12.0"	12.0"	12.0''	12.0"		
	(G=0.42 MIN.)	45	12.0"	12.0"	12.0''	12.0"		
	I N	50	12.0"	12.0"	12.0''	12.0"		
	* 	55	12.0"	12.0"	12.0''	12.0"		
	4 #1111111	60	12.0"	12.0"	12.0''	11.5"	///	
	1/4" WOOD OR LAG SCREW WITH 1-3/8"	35	12.0"	12.0"	12.0''	12.0"	12.0"	11.5"
	MIN THREAD PEN. AND 3/4" MIN. EDGE	40	12.0"	12.0"	12.0''	12.0"	///	
	DISTANCE (G=0.42 MIN.)	45	12.0"	12.0"	12.0''	12.0"		
	<u>_</u>	50	12.0"	12.0"	12.0''	12.0"		
		55	12.0"	12.0"	12.0''	12.0"		
	•	60	12.0"	12.0"	12.0''	11.5"	///	

ANCHOR NOTES:

- 1. ANCHOR SCHEDULE APPLIES TO ALL PRODUCTS CERTIFIED HEREIN, BUT ONLY PROVIDES MAXIMUM ALLOWABLE ANCHOR SPACING. MAXIMUM ALLOWABLE SPANS AND PRESSURES INDICATED IN SPAN SCHEDULE SHALL APPLY.
- 2. ENTER ANCHOR SCHEDULE BASED ON PANEL FASTENER SPACING, THE EXISTING STRUCTURE MATERIAL, & ANCHOR TYPE. SELECT DESIGN LOAD GREATER THAN OR EQUAL TO NEGATIVE DESIGN LOAD ON SHUTTER AND SELECT SPAN GREATER THAN OR EQUAL TO SHUTTER SPAN. THIS SHEET APPLIES TO CONNECTION TYPE "C1" AND "C2" ONLY (SEE MOUNTING DETAILS ON SHEET 3 FOR IDENTIFICATION OF CONNECTION TYPE). "H" HEADER AND "U" HEADER OPTIONS ARE NOT APPLICABLE FOR THESE TABLES.
- ANCHORS SHALL BE INSTALLED IN ACCORDANCE WITH MANUFACTURERS' RECOMMENDATIONS.
- HOLLOW BLOCK HOST STRUCTURE SHALL CONFORM TO ASTM C90 BLOCK.
- MINIMUM EMBEDMENT SHALL BE AS NOTED IN ANCHOR SCHEDULE.
- MINIMUM EMBEDMENT AND EDGE DISTANCE EXCLUDES STUCCO, FOAM, BRICK, AND OTHER WALL FINISHES. WALL FINISHES SHALL BE LIMITED TO 1/4" MAX OR SHALL BE VERIFIED BY OTHERS TO ADEQUATELY TRANSFER LOADS
- CONCRETE ANCHORS NOTED HEREIN SHALL BE EMBEDDED TO UN-CRACKED CONCRETE ONLY.
 WHERE EXISTING STRUCTURE IS WOOD FRAMING, EXISTING CONDITIONS MAY VARY. FIELD VERIFY THAT FASTENERS ARE INTO ADEQUATE WOOD FRAMING MEMBERS, NOT PLYWOOD. FASTENING TO PLYWOOD IS ACCEPTABLE ONLY FOR SIDE CLOSURE PIECES.
- 9. WHERE ANCHORS FASTEN TO NARROW FACE OF STUD FRAMING, FASTENER SHALL BE LOCATED IN CENTER OF NOMINAL 2" X 4" (MIN.) WOOD STUD (¾" EDGE DISTANCE IS ACCEPTABLE FOR WOOD FRAMING). WOOD STUD SHALL BE G=0.42 OR GREATER DENSITY, U.N.O. LAG SCREWS SHALL HAVE PHILLIPS PAN HEAD OR HEX HEAD.
- 10. REMOVABLE ANCHORS ARE: DEWALT PANELMATE, ALL-POINTS SOLID-SET.
- MACHINE SCREWS SHALL HAVE 1/2" MINIMUM ENGAGEMENT OF THREADS INTO THE BASE ANCHOR AND MAY HAVE EITHER A PAN HEAD, TRUSS HEAD, OR WAFER HEAD (SIDEWALK BOLT) U.N.O.
- 12. MINIMUM EMBEDMENT AND EDGE DISTANCE EXCLUDES STUCCO OR OTHER WALL FINISHES.
- 13. ZZI DESIGNATES ANCHOR CONDITIONS WHICH ARE NOT ACCEPTABLE USES.
- 14. * DIRECT MOUNTING CONDITIONS.
- 15. LINEAR INTERPOLATION IS NOT PERMITTED FOR USE WITH THE ANCHOR SCHEDULES LISTED ON THIS SHEET.
- 16. PROVIDE KEYHOLE WASHER FOR 1/4-20 SIDEWALK BOLTS

EASTERN META

FRANK BENNARDO, PE

20-28341

SCALE: NTS UNLESS NOTED

