

GENERAL NOTES:

1. STORM PANEL SHOWN ON THIS PRODUCT EVALUATION DOCUMENT (P.E.D.) HAS BEEN VERIFIED FOR COMPLIANCE IN ACCORDANCE WITH THE 2017 (6th EDITION) OF THE FLORIDA BUILDING CODE. THIS STORM PANEL SHALL **NOT** BE INSTALLED AT HIGH VELOCITY HURRICANE ZONES (MIAMI-DADE / BROWARD COUNTIES).

DESIGN WIND LOADS SHALL BE DETERMINED AS PER SECTION 1609 OF THE ABOVE MENTIONED CODE. FOR A WIND SPEED AS REQUIRED BY THE JURISDICTION WHERE THESE SHUTTERS WILL BE INSTALLED AND FOR A DIRECTIONALITY FACTOR Kd=0.85. USING ASCE 7-10 FOR INSTALLATIONS UNDER 2017 FBC AND SHALL NOT EXCEED THE MAXIMUM (A.S.D.) DESIGN PRESSURE RATINGS INDICATED ON SHEETS 2, 7, 9 THRU 17.

IN ORDER TO VERIFY THE ABOVE CONDITION, ULTIMATE DESIGN WIND LOADS DETERMINED PER ASCE 7-10 SHALL BE FIRST REDUCED TO A.S.D. DESIGN WIND LOADS BY MULTIPLYING THEM BY 0.6 IN ORDER TO TO COMPARE THESE W/ MAX. (A.S.D) DESIGN PRESSURE RATINGS INDICATED ON SHEETS 2, 7, 9 THRU 17.

IN ORDER TO VERIFY THAT COMPONENTS AND ANCHORS ON THIS P.E.D. AS TESTED WERE NOT OVER STRESSED, A 33% INCREASE IN ALLOWABLE STRESS FOR WIND LOADS WAS NOT USED IN THEIR ANALYSIS. A DURATION FACTOR CD=1.60 WAS USED FOR VERIFICATION OF FASTENERS IN WOOD.

STORM PANEL'S ADEQUACY FOR IMPACT AND FATIGUE RESISTANCE HAS BEEN VERIFIED IN ACCORDANCE WITH SECTION 1609.1.2 OF THE ABOVE MENTIONED CODE AS PER AMERICAN TEST LAB REPORTS # 0321.01-05, # 0812.01-05 AND # 0119.01-06, PER ASTM E 1886-02, E 1996-02 AND ASTM E-330 STANDARDS. QUALIFIED FOR WIND ZONES 1, 2 AND 3. MISSILE TYPE D (BASIC PROTECTION ONLY) AND FOR INSTALLATION AT NON ESSENTIAL FACILITIES AS DEFINED BY SECTIONS 6.2.1.1 AND 6.2.1.2 OF ASTM E 1996-02.

2. ALL ALUMINUM SHEET METAL PANELS SHALL HAVE 5052-H32 OR 3004-H34 ALLOY.

3. ALL ALUMINUM EXTRUSIONS SHALL BE ALUMINUM ASSOCIATION 6063-T6 ALLOY & TEMPER UNLESS OTHERWISE NOTED. STORM PANEL COMPONENTS (14) STUDDED PLATE AND (15) SNAP CAP ARE PATENT PENDING.

4. ALL SCREWS TO BE STAINLESS STEEL 304 OR 316 AISI SERIES OR CORROSION RESISTANT COATED CARBON STEEL AS PER DIN 50018 W/ 50 ksi YIELD STRENGTH AND 90 ksi TENSILE STRENGTH & SHALL COMPLY W/ FLORIDA BUILDING CODE SECTION 2411.3.3.4.

5. BOLTS TO BE ASTM A-307 GALVANIZED STEEL OR AISI 304 SERIES STAINLESS STEEL, WITH 35 ksi MINIMUM YIELD STRENGTH.

6. ANCHORS TO WALL SHALL BE AS FOLLOWS: (UNLESS OTHERWISE NOTED)

- 1/4"Ø TAPCON ANCHORS AS MANUFACTURED BY I.T.W./BUILDEX.
- 1/4"Ø S.G. TAPCONS AS MANUFACTURED BY ITW/ BUILDEX.
- 1/4"Ø PANEL MATES ANCHORS MALE OR TVAS AS MANUFACTURED BY ELCO CONSTRUCTION PRODUCTS.
- 1/4"Ø X 3/4" SOLID SET ANCHORS, AS DISTRIBUTED BY ALL POINTS SCREW, BOLT & SPECIALTY COMPANY.

NOTES:

A.1) MINIMUM EMBEDMENT INTO POURED CONCRETE OF TAPCON ANCHORS AND S.G. TAPCONS IS 1 3/4"; FOR ELCO PANELMATE AND ELCO TVAS IS 2".

A.2) 3/4"Ø SOLID SET ANCHORS SHALL BE ENTIRELY EMBEDDED INTO THE POURED CONCRETE. NO EMBEDMENT INTO STUCCO SHALL BE PERMITTED.
-1/4"Ø -20 SCREWS USED SHALL BE 1 1/2" LONG MINIMUM SHOULD STUCCO EXIST, AND 1" MINIMUM FOR WALLS WITH NO STUCCO.

A.3) IN CASE THAT PRECAST STONE, PRECAST CONCRETE PANELS, OR PAVERS BE FOUND ON THE EXISTING WALL OR FLOOR, ANCHORS SHALL BE LONG ENOUGH TO REACH THE MAIN STRUCTURE BEHIND SUCH PANELS, ANCHORAGE SHALL BE AS INDICATED ON NOTES A.1) & A.2) ABOVE.

(B) TO EXISTING CONCRETE BLOCK WALL:

- 1/4"Ø TAPCON ANCHORS AS MANUFACTURED BY I.T.W./BUILDEX.
- 1/4"Ø S.G. TAPCONS AS MANUFACTURED BY ITW/ BUILDEX.
- 1/4"Ø PANEL MATES ANCHORS MALE OR TVAS AS MANUFACTURED BY ELCO CONSTRUCTION PRODUCTS.
- 1/4"Ø x 3/4" SOLID SET ANCHORS, AS DISTRIBUTED BY ALL POINTS SCREW, BOLT & SPECIALTY COMPANY.

NOTES:

B.1) MINIMUM EMBEDMENT OF TAPCON ANCHORS, S.G. TAPCONS, ELCO PANELMATE, ELCO TVAS.

B.2) -3/4"Ø SOLID SET ANCHORS SHALL BE ENTIRELY EMBEDDED INTO THE CONCRETE BLOCK UNIT NO EMBEDMENT INTO STUCCO SHALL BE PERMITTED.
1/4"Ø-20 SCREWS USED SHALL BE 1 1/2" LONG MINIMUM SHOULD STUCCO EXIST, AND 1" MINIMUM FOR WALLS WITH NO STUCCO.

B.3) IN CASE THAT PRECAST STONE OR PRECAST CONCRETE PANELS BE FOUND ON THE EXISTING WALL, ANCHORS SHALL BE LONG ENOUGH TO REACH THE MAIN STRUCTURE BEHIND SUCH PANELS. ANCHORAGE SHALL BE AS INDICATED ON NOTES IN B.1) & B.2) ABOVE.

(C) TO EXISTING WOOD FRAME BUILDINGS, SEE SPECIFICATIONS ON SHEETS 12, 13, 14 & 15. ANCHORAGE SHALL BE PERFORMED BEYOND ANY FINISH MATERIAL AT WALL LIKE BRICK VENEER, STUCCO OR ANY OTHER FINISH.

(D) ANCHORS SHALL BE INSTALLED FOLLOWING ALL OF THE RECOMMENDATIONS AND SPECIFICATIONS OF THE ANCHOR'S MANUFACTURER.

7. PANELS MAY ALSO BE INSTALLED HORIZONTALLY FOLLOWING INSTALLATION DETAILS SHOWN ON SECTIONS 1 THRU 13 (SHEET 4 THRU 8) EXCEPT THAT HEADERS 2, 3, 3A & 4 SHALL NOT BE USED.

8. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO VERIFY THE SOUNDNESS OF THE STRUCTURE WHERE SHUTTER IS TO BE ATTACHED TO INSURE PROPER ANCHORAGE. THIS SHUTTER SHALL ONLY BE ATTACHED TO CONCRETE, BLOCK OR WOOD FRAME BUILDINGS.

9. THE INSTALLATION CONTRACTOR IS TO SEAL/CAULK ALL SHUTTER COMPONENT EDGES WHICH REMAIN IN CONTINUOUS CONTACT WITH THE BUILDING TO PREVENT WIND/RAIN INTRUSION. CAULK AND SEAL SHUTTER TRACKS ALL AROUND FULL LENGTH.

10. (a) THIS P.E.D. PREPARED BY THIS ENGINEER IS GENERIC AND DOES NOT PROVIDE INFORMATION FOR A SITE SPECIFIC PROJECT; i.e. WHERE THE SITE CONDITIONS DEVIATE FROM THE P.E.D.

(b) CONTRACTOR TO BE RESPONSIBLE FOR THE SELECTION, PURCHASE AND INSTALLATION INCLUDING LIFE SAFETY OF THIS PRODUCT, BASED ON THIS P.E.D. PROVIDED HE/SHE DOES NOT DEVIATE FROM THE CONDITIONS DETAILED ON THIS DOCUMENT. CONSTRUCTION SAFETY AT SITE IS THE CONTRACTOR'S RESPONSIBILITY.

(c) THIS P.E.D. WILL BE CONSIDERED INVALID IF ALTERED BY ANY MEANS.

(d) SITE SPECIFIC PROJECTS SHALL BE PREPARED BY A FLORIDA REGISTERED ENGINEER OR ARCHITECT WHICH WILL BECOME THE ENGINEER OF RECORD (E.O.R.) FOR THE PROJECT AND WHO WILL BE RESPONSIBLE FOR THE PROPER USE OF THE P.E.D. ENGINEER OF RECORD, ACTING AS A DELEGATED ENGINEER TO THE P.E.D. ENGINEER, SHALL SUBMIT TO THIS LATTER THE SITE SPECIFIC DRAWINGS FOR REVIEW.

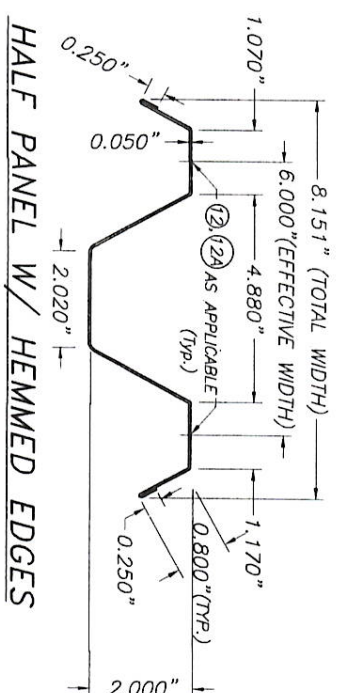
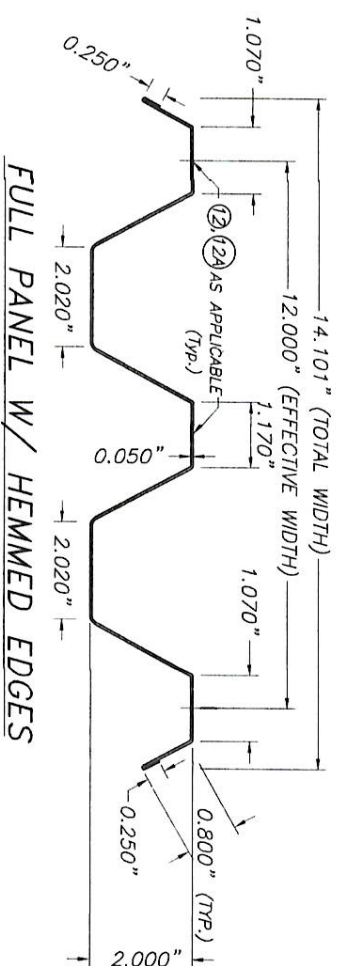
(e) THIS P.E.D. SHALL BEAR THE DATE AND ORIGINAL SEAL AND SIGNATURE OF THE PROFESSIONAL ENGINEER OF RECORD THAT PREPARED IT.

11. SHUTTER MANUFACTURER'S LABEL SHALL BE LOCATED ON A READILY VISIBLE LOCATION AT STORM PANEL IN ACCORDANCE WITH SECTION 1709.9.3 OF FLORIDA BUILDING CODE. ONE LABEL SHALL BE PLACED FOR EVERY OPENING. LABELING TO COMPLY WITH SECTION 1709.9.2 OF THE FLORIDA BUILDING CODE.



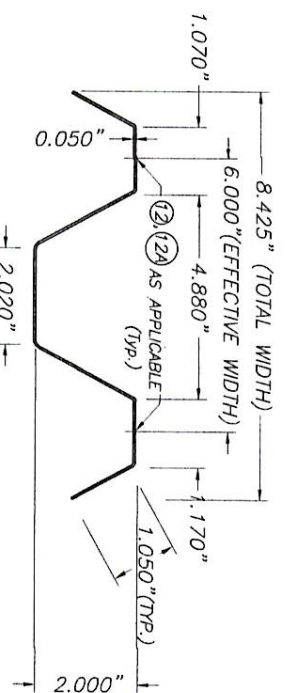
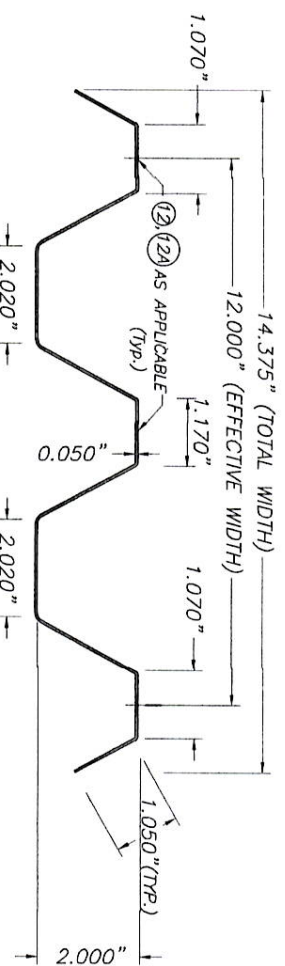
THIS DRAWING SHALL ONLY BE USED TO
OBTAIN PERMITS IN THE STATE OF FLORIDA

© 2017 TILTECO, INC.		FLORIDA BUILDING CODE (Non High Velocity Hurricane Zone)			
0.050" BERTHA ALUMINUM STORM PANEL (2.00" DEEP)		L.C. DRAWN BY: 07/26/17 DATE:			
TILTECO inc.		EASTERN METAL SUPPLY, INC			
TILLIT TESTING & ENGINEERING COMPANY 6335 N.W. 36th St., Ste. 305, VIRGINIA GARDENS, FL 33166 Phone : (305)971-1530, Fax : (305)971-1531 EB-0006719 WALTER A. TILLIT JR., P.E. FLORIDA Lic. 44167		4268 WEST ROADS DRIVE WEST PALM BEACH, FL 33407 PHONE: (361)209-8263, FAX: (361)541-1716			
REV. NO	DESCRIPTION	DATE	REV. NO	DESCRIPTION	DATE
1	OLD 15-045	07/26/17	3		
2			4		
				17-097 DRAWING No	
				SHEET 1 OF 17	



FULL PANEL W/ HEMMED EDGES

HALF PANEL W/ HEMMED EDGES

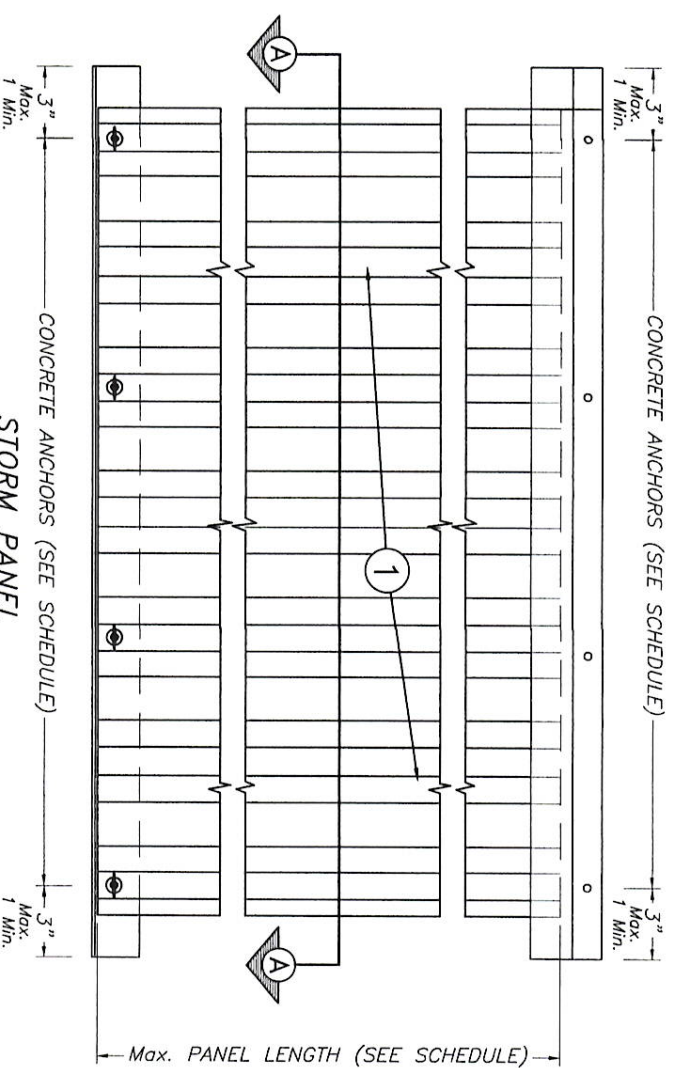


OPTIONAL FULL PANEL W/O HEMMED EDGES

OPTIONAL HALF PANEL W/O HEMMED EDGES

① STORM PANEL

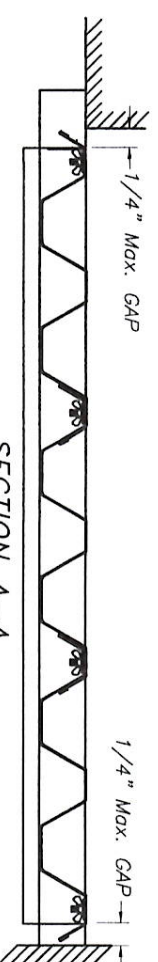
SCALE : 1/4" = 1"



STORM PANEL

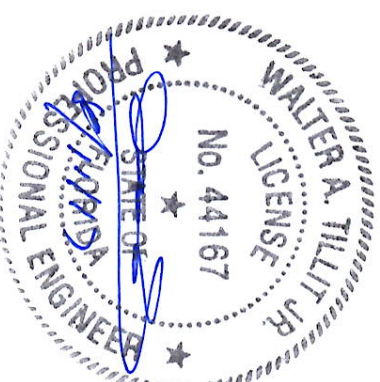
TYPICAL ELEVATION

N. T. S.



SECTION A-A

N. T. S.



PANELS RETAINED AT BOTH
ENDS WITH TRACKS
5 6 7 8 9 10 11 14
OR DIRECT MOUNTED *

PANELS RETAINED AT LEAST
IN ONE OF THEIR ENDS
WITH TRACKS
② ③ ③④ OR ④ *

MAXIMUM A.S.D. DESIGN PRESSURE RATING (p.s.f.) AND
CORRESPONDING MAXIMUM PANEL LENGTH "L" SCHEDULE

MAXIMUM A.S.D. DESIGN PRESSURE RATING (p.s.i.)	Max. PANEL LENGTH L (ft.)
+30.0, -30.0	13'-0"
+35.0, -35.0	12'-8"
+40.0, -40.0	12'-4"
+45.0, -45.0	12'-0"
+50.0, -50.0	11'-0"
+55.0, -55.0	10'-0"
+60.0, -60.0	9'-4"
+70.0, -70.0	8'-0"
+80.0, -80.0	7'-0"
+90.0, -90.0	6'-3"
+90.0, -100.0	5'-7"
+90.0, -110.0	5'-1"
+90.0, -120.0	4'-8"
+90.0, -130.0	4'-0"

MAXIMUM A.S.D. DESIGN PRESSURE RATING (p.s.i.)	Max. PANEL LENGTH L (ft.)
+30.0, -30.0	13'-0"
+35.0, -35.0	12'-0"
+40.0, -40.0	11'-3"
+45.0, -45.0	10'-0"
+50.0, -50.0	9'-0"
+55.0, -55.0	8'-2"
+60.0, -60.0	7'-6"
+70.0, -70.0	6'-5"
+80.0, -80.0	5'-8"
+90.0, -90.0	5'-0"
+90.0, -100.0	5'-0"
+90.0, -110.0	5'-0"
+90.0, -120.0	4'-9"
+90.0, -130.0	4'-4 1/2"

* NOTE:

MAX. A.S.D. DESIGN PRESSURE RATING & MAXIMUM
PANEL LENGTH
FOR INTERNALLY REMOVABLE PANELS AS PER
MOUNTING INSTALLATIONS ON SHEET 7 OF 17 IS
+ 50.0, - 50.0 p.s.f. w/ 88" MAX. PANEL
LENGTH.

MAX. A.S.D. DESIGN PRESSURE RATING & MAXIMUM PANEL LENGTH
FOR MOUNTING AS PER ALTERNATIVE #11 AND 14 ON SHEET 144 AND 15 OF "1", RESPECTIVELY, ARE
+50.0, -60.0 p.s.f. FOR 78" MAX. PANEL LENGTH,
AND +50.0, -50.0 p.s.f. FOR UP TO 108" PANEL LENGTH.

FLORIDA BUILDING CODE (Non High Velocity Hurricane Zone)

0.050" BERTHA ALUMINUM STORM PANEL
(2.00" DEEP)

THE ECO INC.

TILLIT TESTING & ENGINEERING COMPANY
6355 N.W. 36th, Ste. 305, VIRGINIA GARDENS, FL. 33166
Phone : (305)871-1530 . Fax : (305)871-1531
EB-0006719
WALTER A. TILLIT Jr., P.E.
FLORIDA Lic. 44167

EASTERN METAL SUPPLY, INC

4268 WEST ROADS DRIVE
WEST PALM BEACH, FL. 33407
PHONE: (561)209-8263, FAX: (561)841-1716

DATE: 07/26/17

DRAWING NO

SHEET 2 OF 1

© 2017 TILTECO, INC.

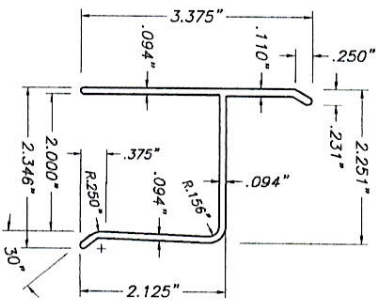
L.C.

DATE: 07/26/17

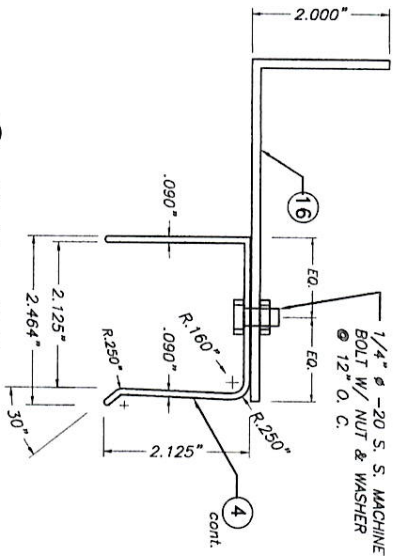
REV. NO		DESCRIPTION	DATE	REV. NO	DESCRIPTION	DATE
1		OLD 15-045	07/26/17	3		
2				4		

DRAWING No

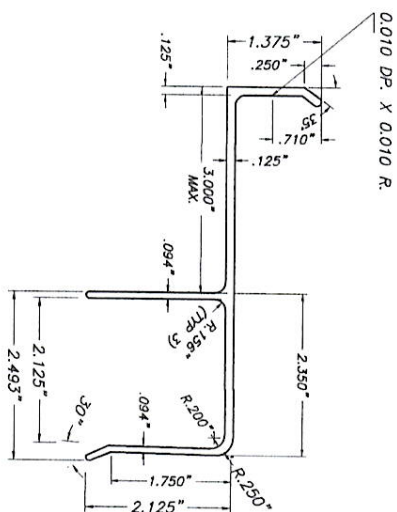
SHEET 2 OF 1



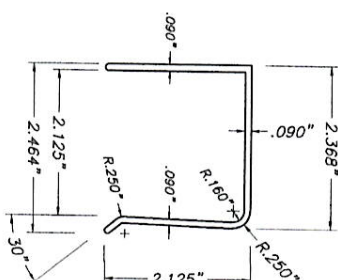
② 2" H" HEADER
SCALE: 3/8" = 1"



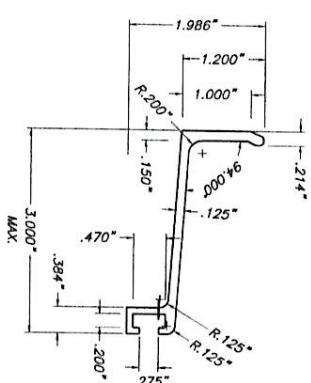
③ 3" MAX. "U" BUILD OUT
SCALE: 3/8" = 1"



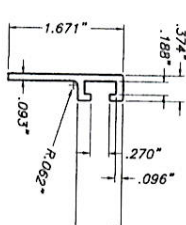
③A OPTIONAL 3" MAX. "U" BUILD OUT HEADER
SCALE: 3/8" = 1"



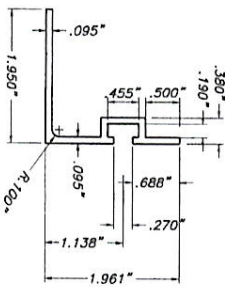
④ "U" HEADER
SCALE: 3/8" = 1"



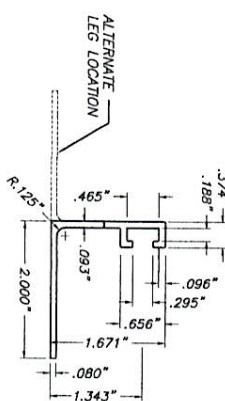
⑤ 3" MAX. ANGLE BUILD OUT BRACKET
SCALE: 3/8" = 1"



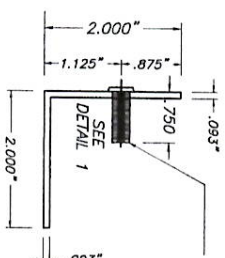
⑥ "F" TRACK
SCALE: 3/8" = 1"



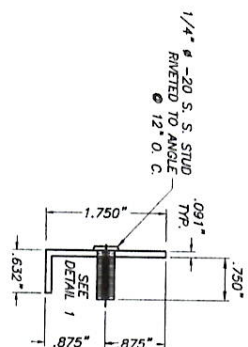
⑦ REVERSED "F" ANGLE TRACK
SCALE: 3/8" = 1"



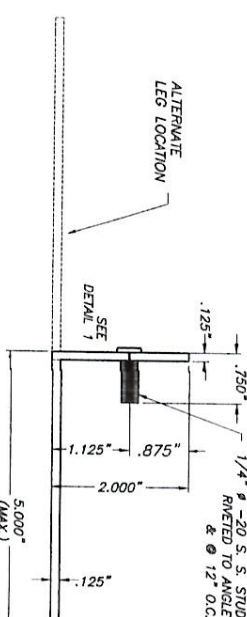
⑧ "F" TRACK ANGLE
SCALE: 3/8" = 1"



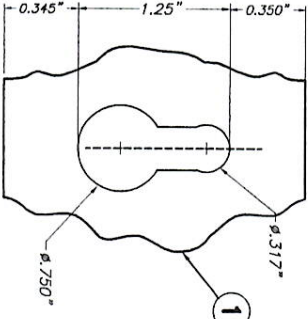
⑨ STUDDED ANGLE
6063-T5 ALUM. ALLOY
SCALE: 3/8" = 1"



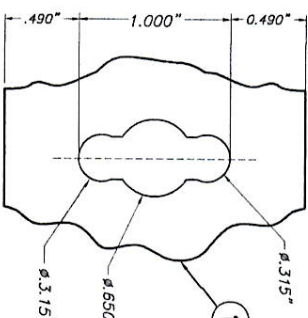
⑩ MINI WALL 1.75"x0.632" ANGLE WITH STUD
SCALE: 1/2" = 1"



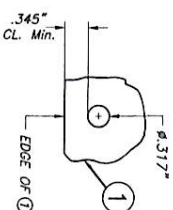
⑪ 2"x5"(MAX.)x1/8" ANGLE WITH STUD
SCALE: 3/8" = 1"



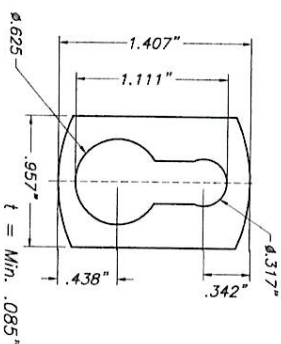
LARGE KEY HOLE (OPTION 1)
SCALE: 3/8" = 1"



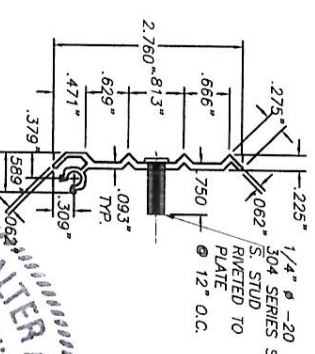
SMALL KEY HOLE (OPTION 2)
SCALE: 3/8" = 1"



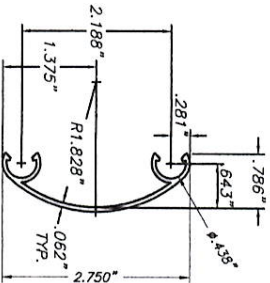
⑫A ROUND HOLE AT PANEL



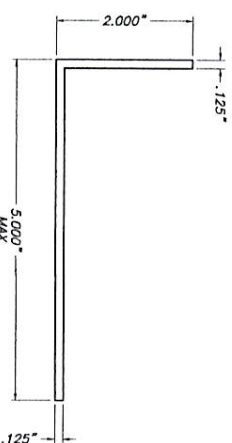
⑬ KEY HOLE WASHER
3105-H154 ALUM. ALLOY
SCALE: 3/4" = 1"



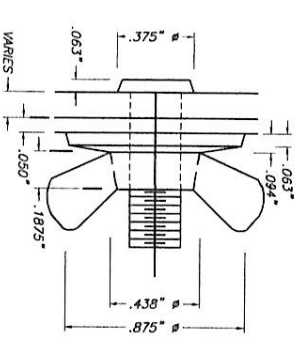
⑭ STUDDED PLATE
6063-T6 ALUM.
SCALE: 3/8" = 1"



⑮ SNAP CAP
6063-T6 ALUM.
SCALE: 3/8" = 1"



⑯ B.O. ANGLE
SCALE: 3/4" = 1"

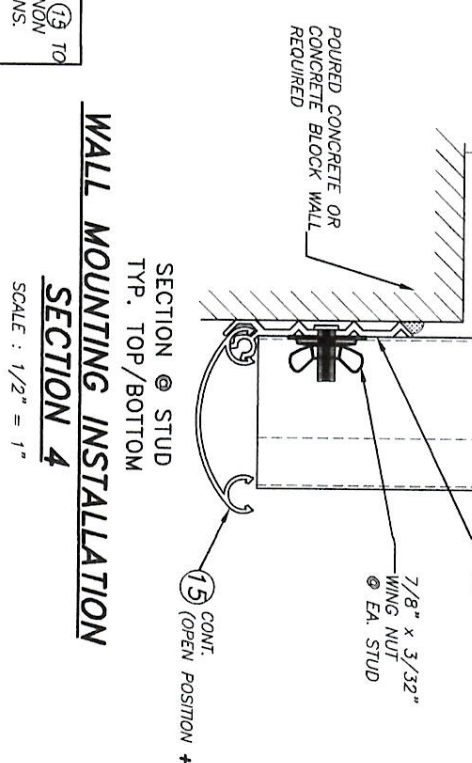
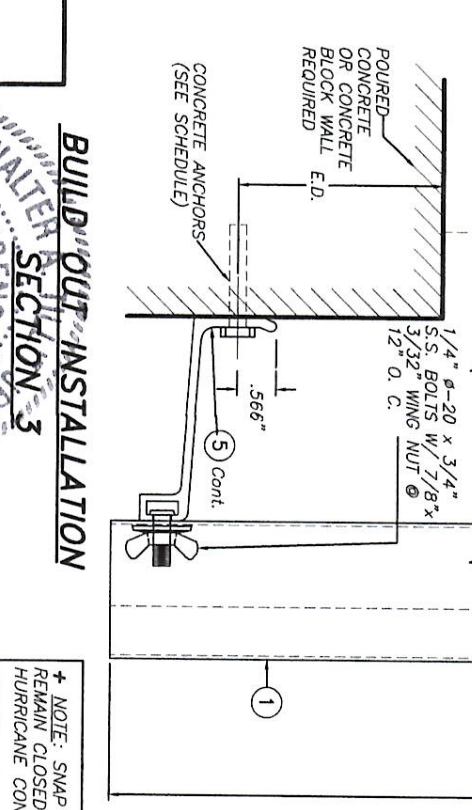
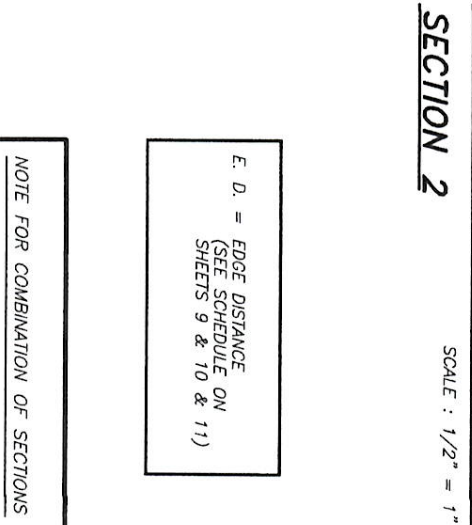
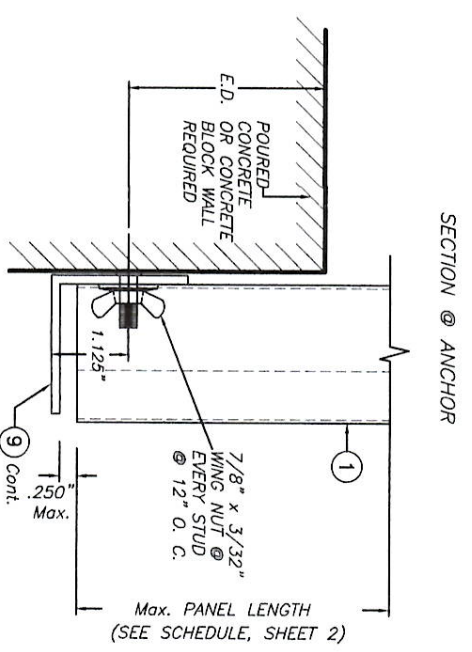
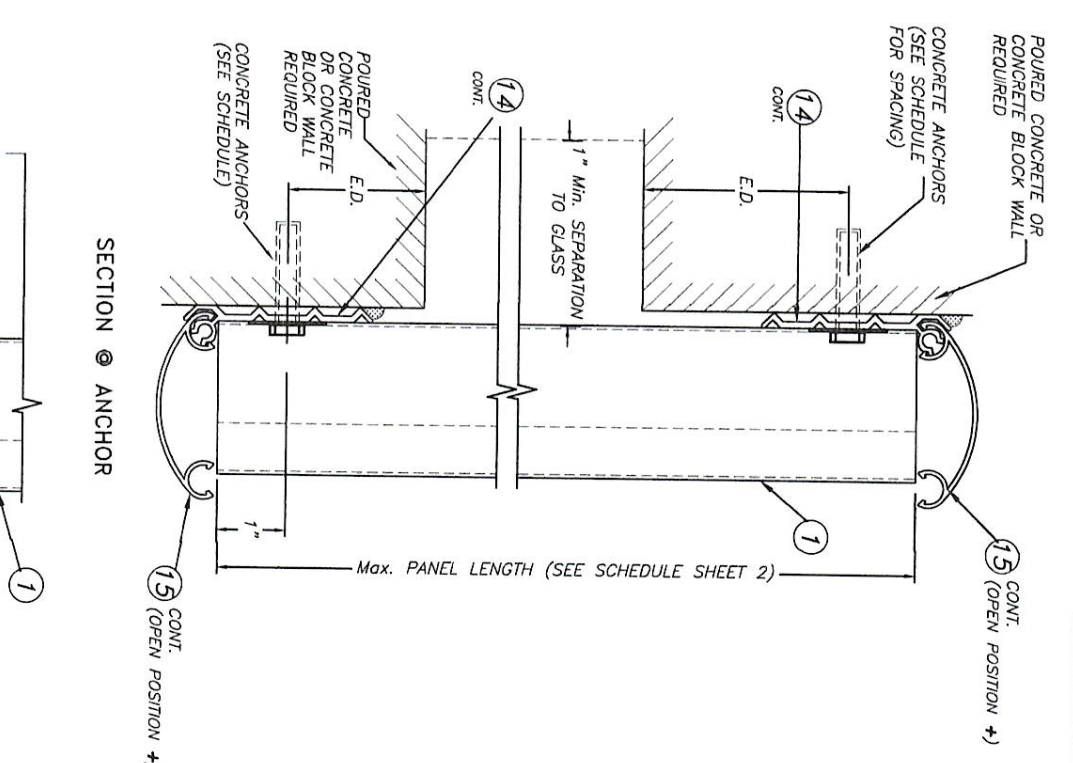
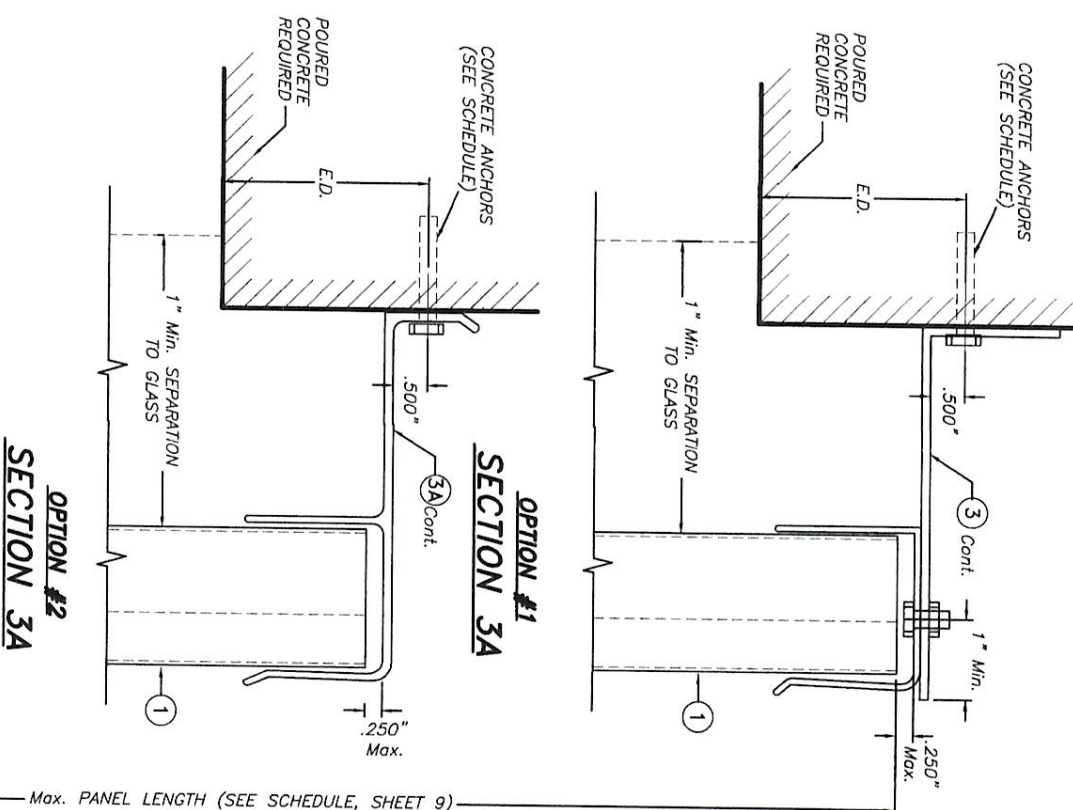
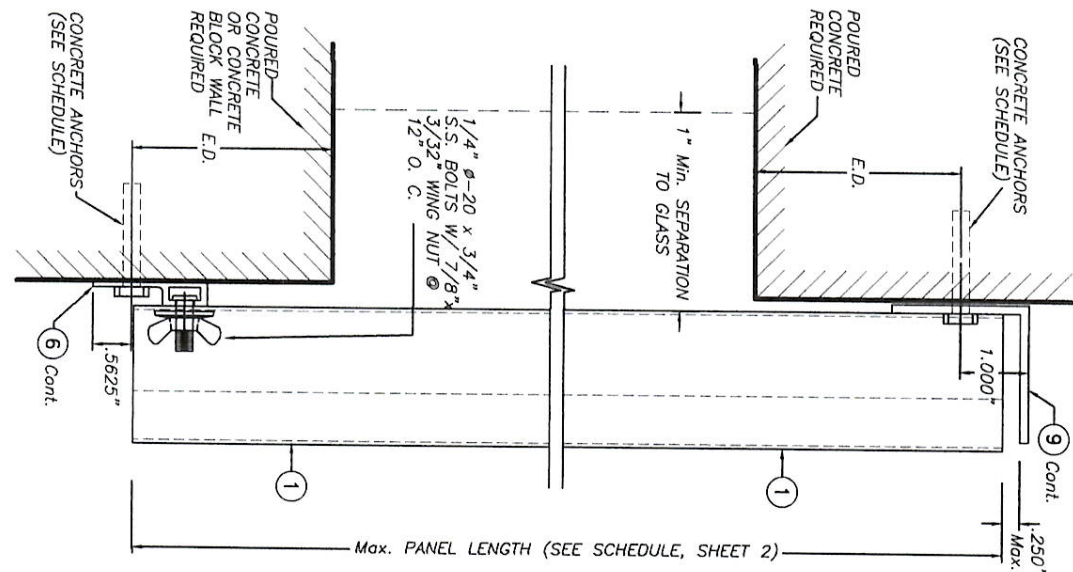
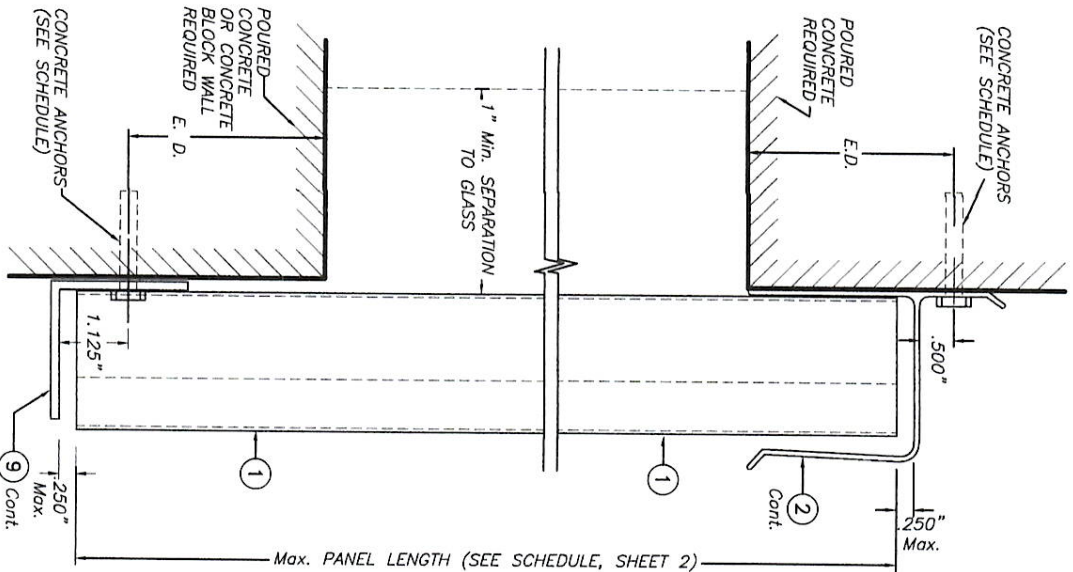


DETAIL 1: STUD W/ WING NUT
VARIES

COMPONENTS

© 2017 TILTECO, INC.						0.050" BERTHA ALUMINUM STORM PANEL (2.00" DEEP)		L.C. DRAWN BY: DATE:					
TILTECO INC. TILIT TESTING & ENGINEERING COMPANY 6355 N.W. 36th St., Ste. 305, VIRGINIA GARDENS, FL 33166 Phone : (305)871-1530, Fax : (305)871-1531 EB-0006719 WALTER A. TILIT Jr., P.E. FLORIDA Lic. 44167						EASTERN METAL SUPPLY, INC 4268 WEST ROADS DRIVE WEST PALM BEACH, FL 33407 PHONE: (561)209-8263, FAX: (561)841-1716						07/26/17	
REV. NO		DESCRIPTION		DATE		REV. NO		DESCRIPTION		DATE			
1		QUD 15-045		07/26/17		3							
2						4							
SHEET 3 OF 17						DRAWING No							
17-097													





WALL MOUNTING INSTALLATION **SECTION 1** SCALE : 1/2" = 1"

NOTE : DETAIL OF SECTION @ STUD VALID ALSO FOR WALL MOUNTING INSTALLATION - SECTION 2 (TOP)

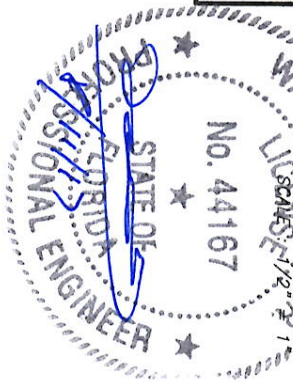
WALL MOUNTING INSTALLATION **SECTION 2** SCALE : 1/2" = 1"

E. D. = EDGE DISTANCE (SEE SCHEDULE ON SHEETS 9 & 10 & 11)

NOTE FOR COMBINATION OF SECTIONS : WALL MOUNTING SECTIONS CAN BE COMBINED IN ANY WAY TO SUIT ANY INSTALLATION.

BUILD-OUT INSTALLATION **SECTION 3** SCALE : 1/2" = 1"

* NOTE: SNAP CAP (19) TO REMAIN CLOSED AT NON HURRICANE CONDITIONS.



© 2017 TILTECO, INC.

TILTECO inc.

TILTIT TESTING & ENGINEERING COMPANY
6355 N.W. 36th St., Ste. 305, Virginia Gardens, FL 33166
Phone : (305)971-1531
FB-0006719
WALTER A. TILTIT JR., P.E.
FLORIDA LIC. 44167

FLORIDA BUILDING CODE (Non High Velocity Hurricane Zone)

0.050" BERTHA ALUMINUM STORM PANEL (2.00" DEEP)

EASTERN METAL SUPPLY, INC

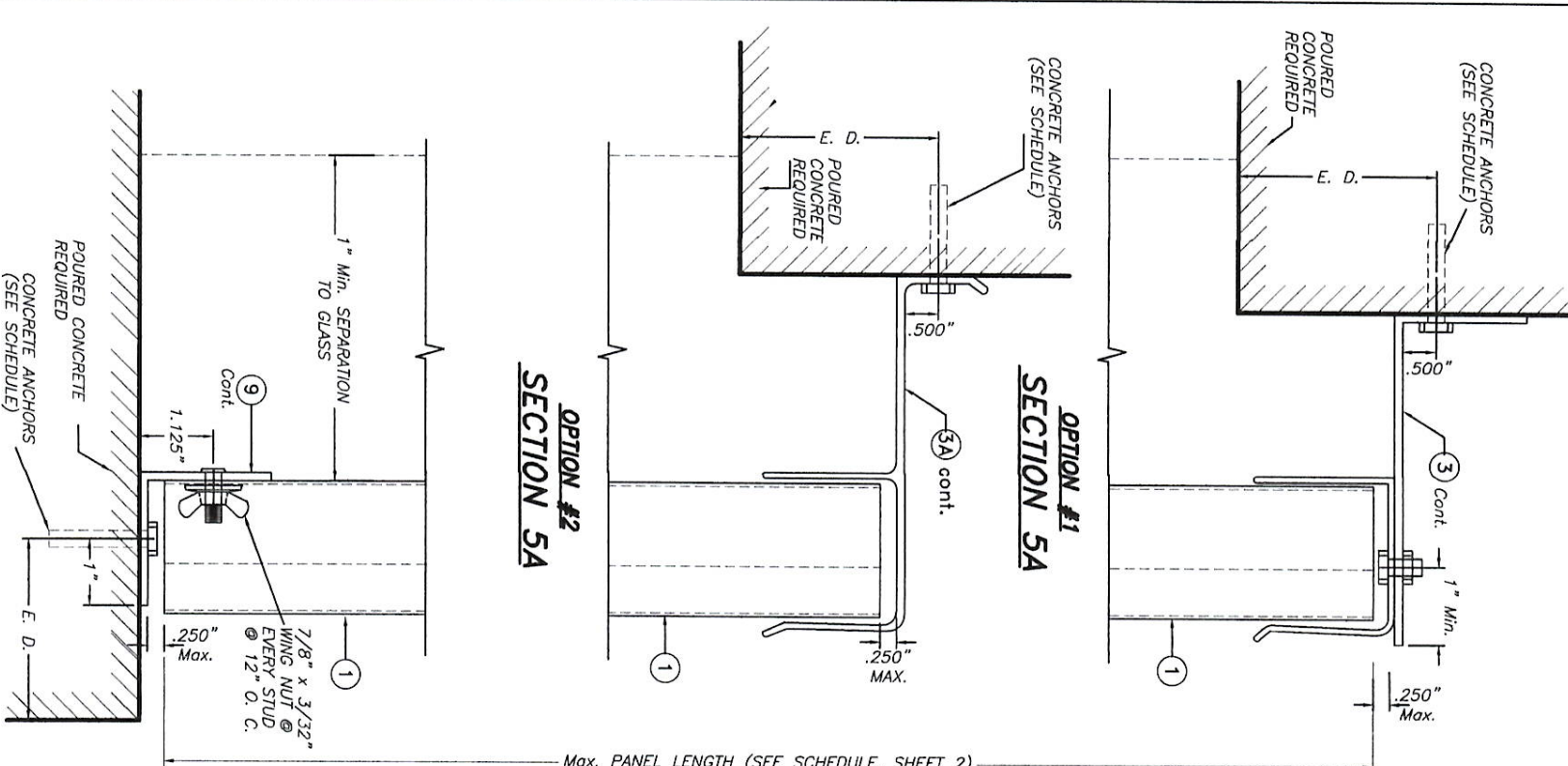
4268 WEST ROADS DRIVE
WEST PALM BEACH, FL 33407
PHONE: (561)209-8263, FAX: (561)841-1716

17-097
DRAWING No

L.C.
DRAWN BY:
07/26/17
DATE:

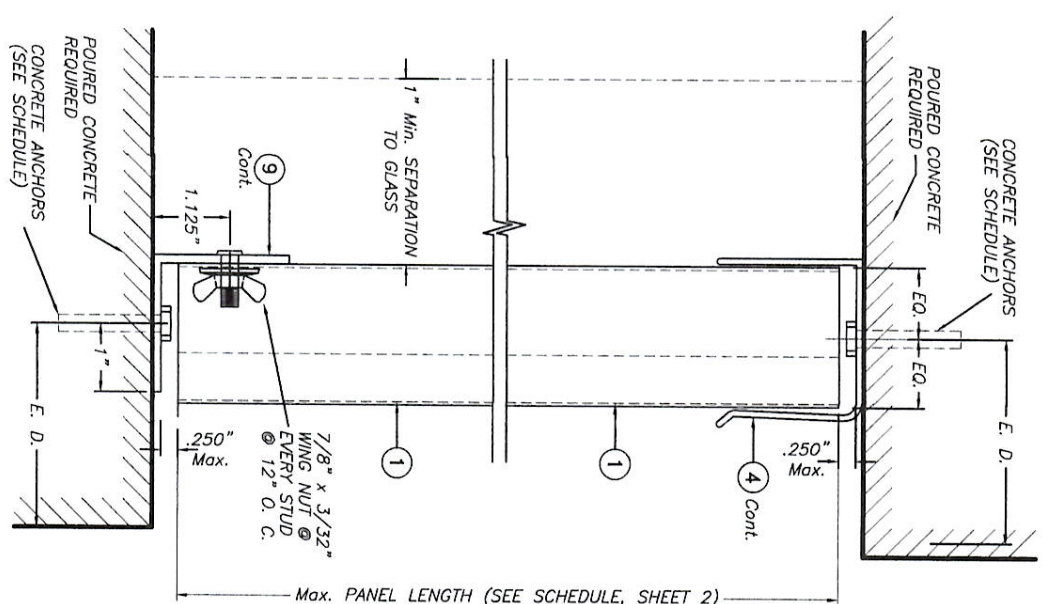
1
2
REV. NO
DESCRIPTION
DATE
REV. NO
DESCRIPTION
DATE

SHEET 4 OF 17



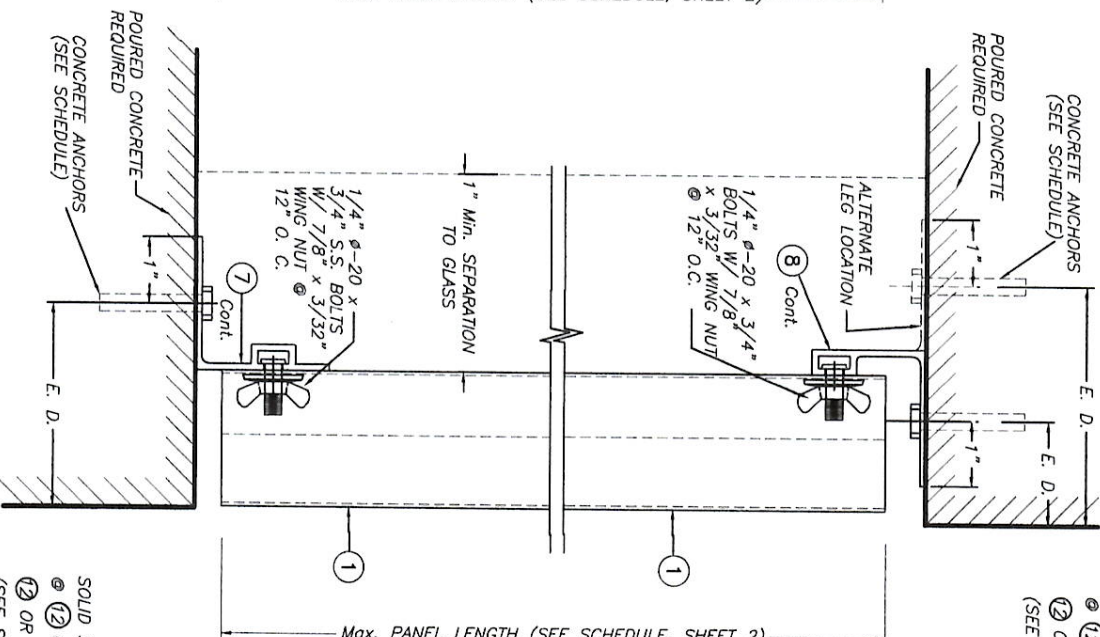
**BUILD-OUT & FLOOR MOUNTING
INSTALLATION – SECTION 5**

SCALE : 1/2" = 1"



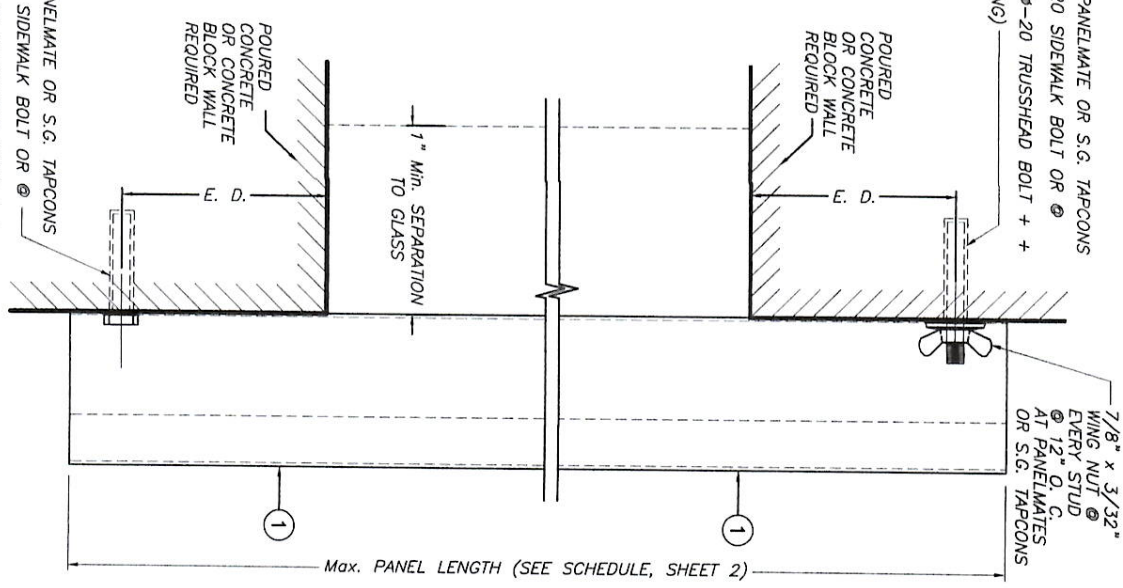
**CEILING & FLOOR MOUNTING
INSTALLATION – SECTION 6**

SCALE : 1/2" = 1"



**CEILING & FLOOR MOUNTING
INSTALLATION – SECTION 7**

SCALE : 1/2" = 1"



**DIRECT WALL MOUNTING INSTALLATION (D. M.)
– SECTION 8**

SCALE : 1/2" = 1"

E. D. = EDGE DISTANCE
(SEE SCHEDULE ON
SHEETS 9 & 10 & 11)

NOTE FOR COMBINATION OF SECTIONS :
WALL/FLOOR/CEILING MOUNTING SECTIONS CAN BE
COMBINED IN ANY WAY TO SUIT ANY INSTALLATION.



© 2017 TILTECO, INC.

TILTECO inc.

TILTIT TESTING & ENGINEERING COMPANY
6355 NW 36th St., Ste. 305, Virginia Gardens, FL 33166
Phone : (305)971-1300 / (305)871-1531

WALTER A. TILTIT JR., P.E.
FLORIDA LIC. 44167

FLORIDA BUILDING CODE (Non High Velocity Hurricane Zone)

0.050" BERTHA ALUMINUM STORM PANEL
(2.00" DEEP)

EASTERN METAL SUPPLY, INC

4268 WEST ROADS DRIVE
WEST PALM BEACH, FL 33407
PHONE: (561)209-8263, FAX: (561)841-1716

17-097
DRAWING No

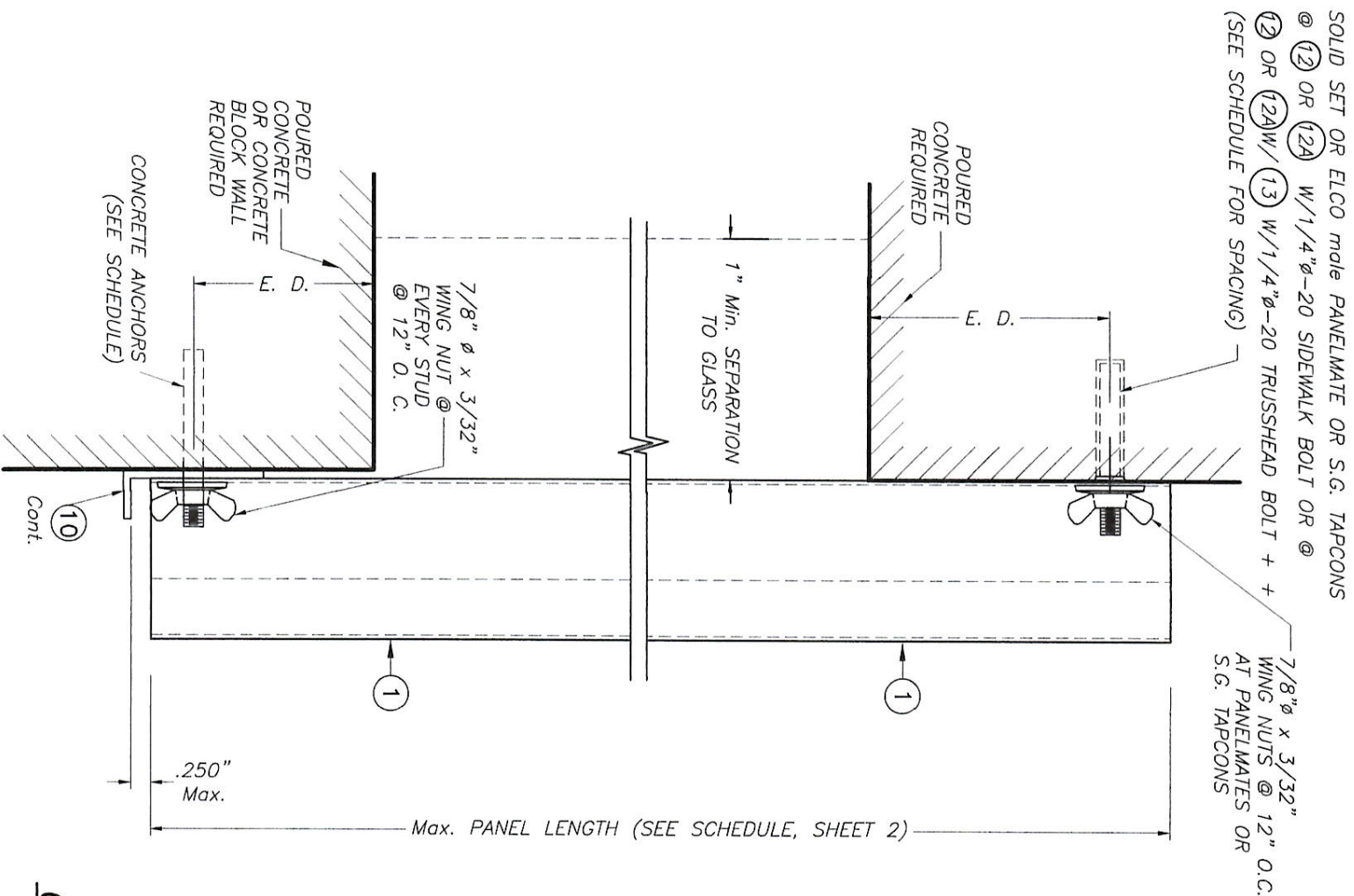
L.C.
DRAWN BY:

07/26/17
DATE:

17-097
DRAWING No

REV. NO	DESCRIPTION	DATE	REV. NO	DESCRIPTION	DATE
1	OLD 15-045	07/26/17	3		
2			4		

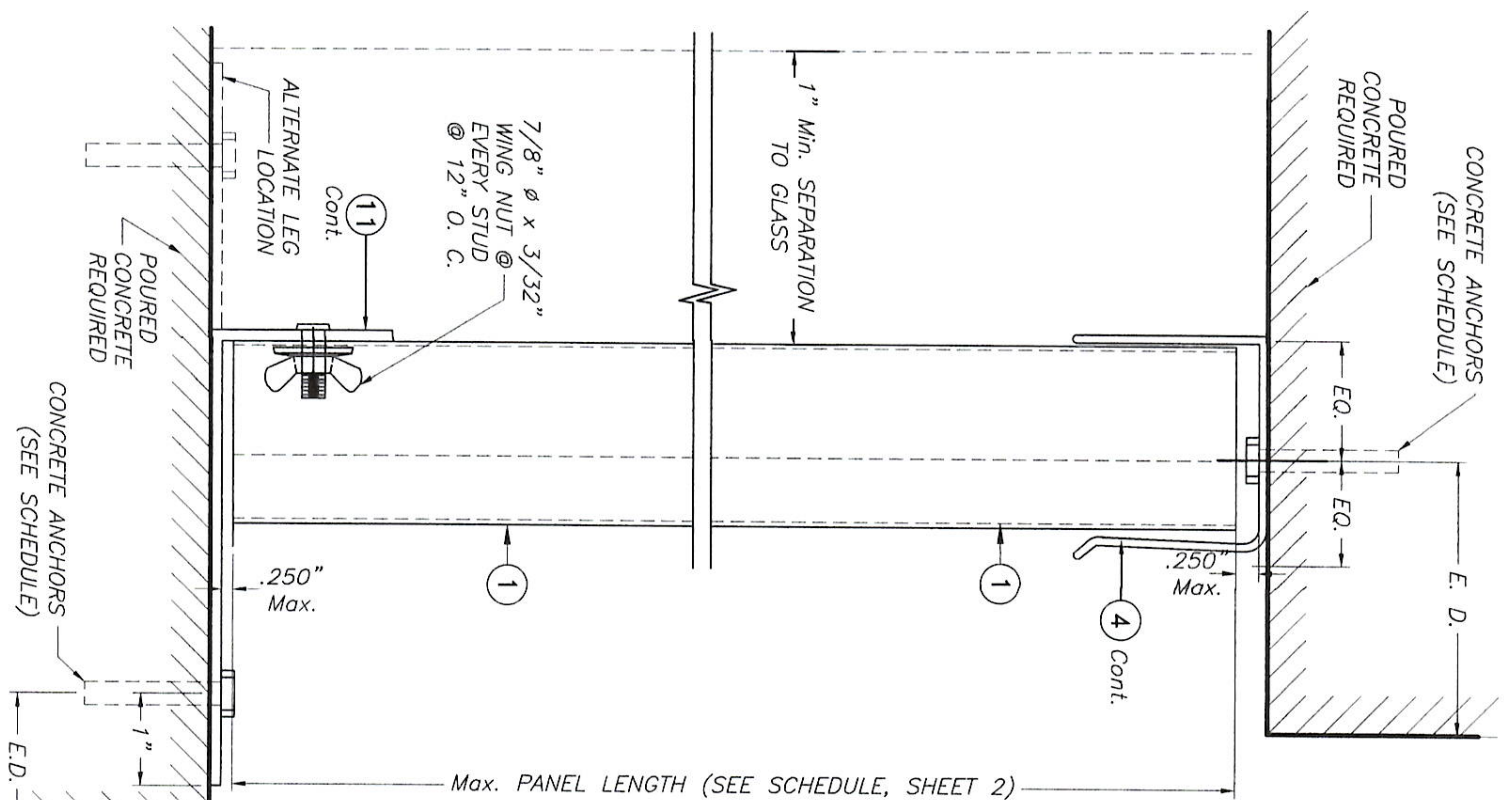
SHEET 5 OF 17



WALL MOUNTING INSTALLATION

SECTION 9

SCALE : 1/2" = 1"



CEILING & FLOOR MOUNTING INSTALLATION

SECTION 10

++ SIDE WALK BOLTS ARE 3/4"x3/32"THICK HEAD MACHINE SCREW W/LENGTH AS PER NOTES A.2 & B.2 (SHEET 1)
++ TRUSS HEAD BOLTS ARE 1/2"x1/8"THICK HEAD MACHINE SCREW W/LENGTH AS PER NOTES A.2 & B.2 (SHEET 1)

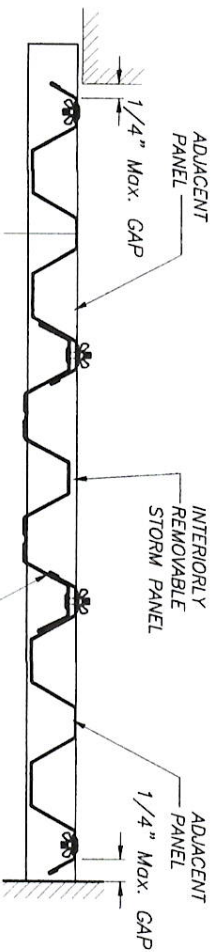
E. D. = EDGE DISTANCE
(SEE SCHEDULE ON SHEETS 9 & 10 & 11)

NOTE FOR COMBINATION OF SECTIONS :
WALL/FLOOR/CEILING MOUNTING SECTIONS CAN BE COMBINED IN ANY WAY TO SUIT ANY INSTALLATION.

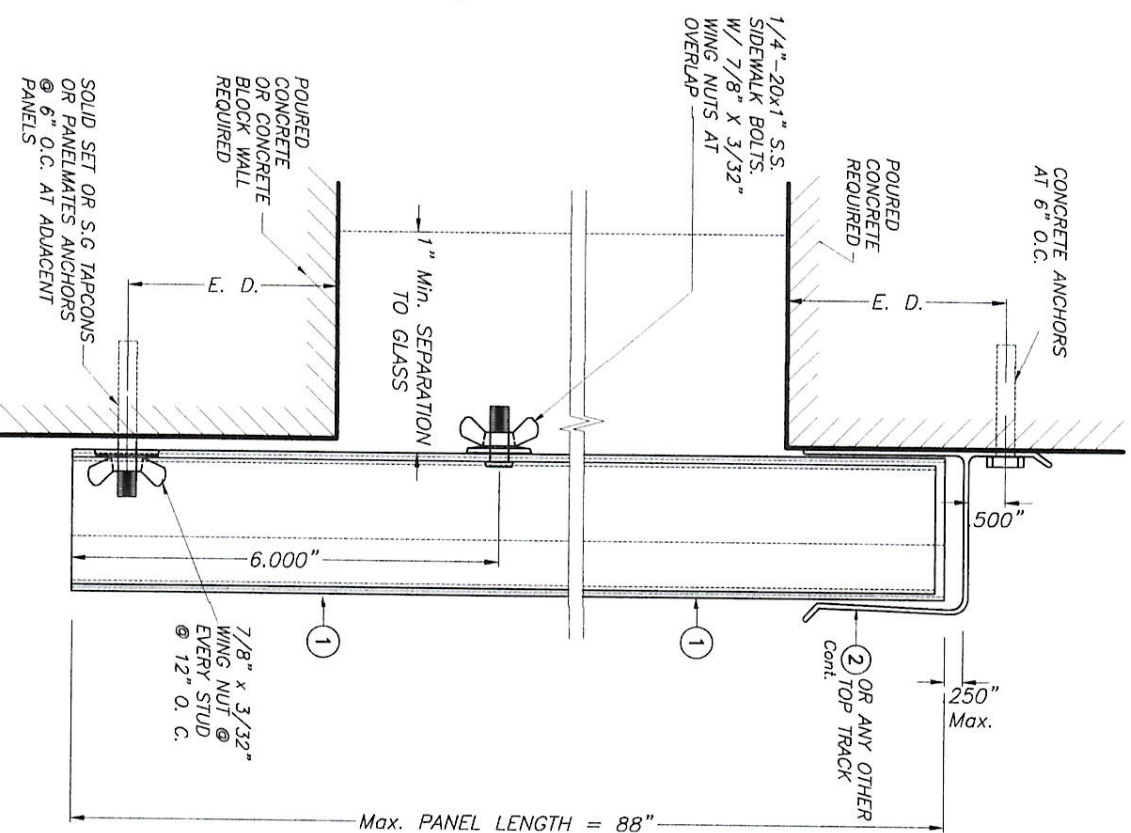
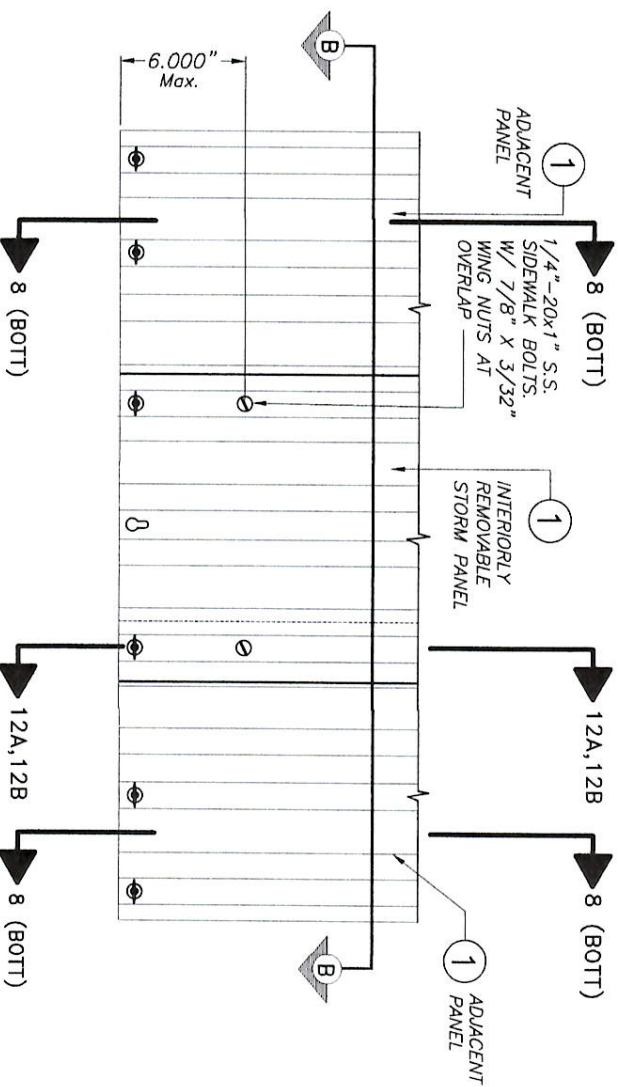


© 2017 TILTECO, INC. 0.050" BERTHA ALUMINUM STORM PANEL (2.00" DEEP)				L.C. DRAWN BY:	
TILTECO inc. TILLIT TESTING & ENGINEERING COMPANY 6355 N.W. 36th St., Ste. 305, Virginia Gardens, FL 33166 Phone : (305)871-1530, Fax : (305)871-1531 WALTER A. TILLITT JR., P.E. FLORIDA LIC. 44167				17-097 DRAWING No	
EASTERN METAL SUPPLY, INC. 4268 WEST ROADS DRIVE WEST PALM BEACH, FL 33407 PHONE: (561)209-8263, FAX: (561)841-1716				07/26/17 DATE:	
REV. NO	DESCRIPTION	DATE	REV. NO	DESCRIPTION	DATE
1	OLD 15-045	07/26/17	3		
2			4		
SHEET 6 OF 17					

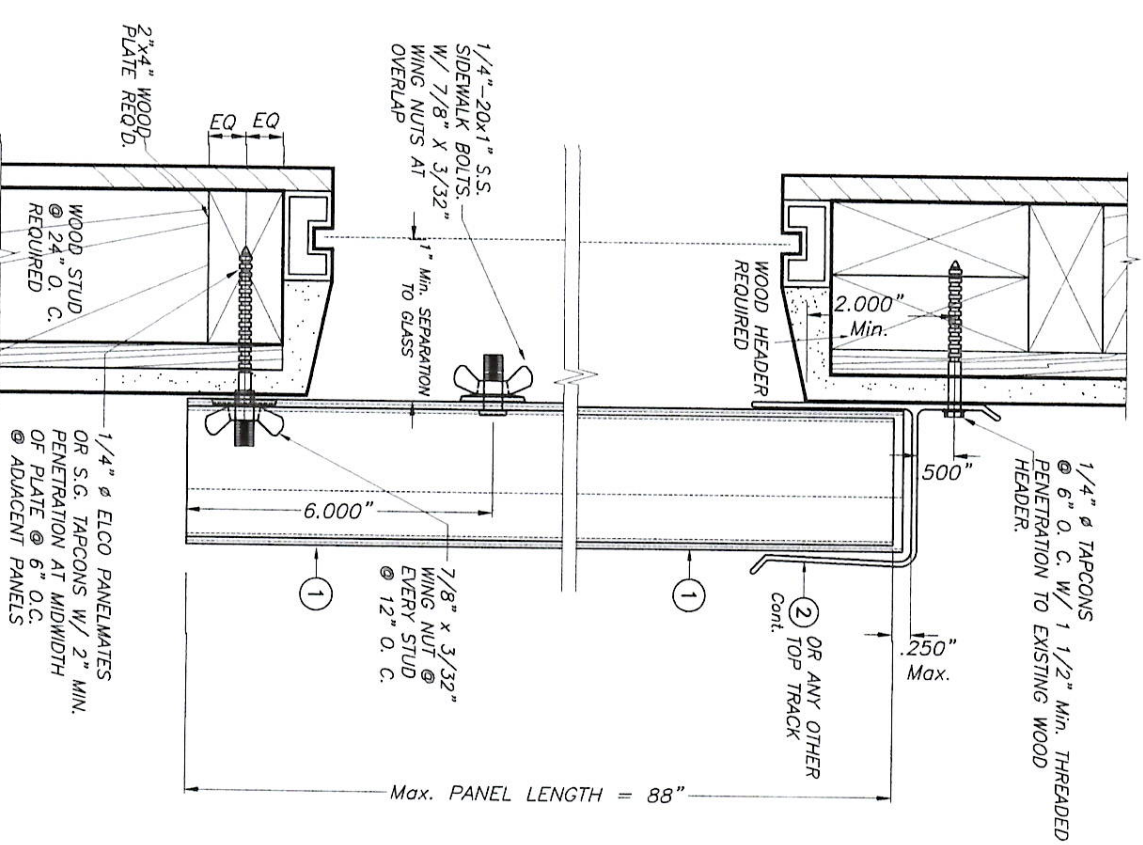
FLORIDA BUILDING CODE (Non High Velocity Hurricane Zone)



SECTION B-B
SCALE : 1 1/2" = 1"



WALL MOUNTING INSTALLATION
SECTION 12A
SCALE : 1/2" = 1"



WALL MOUNTING INSTALLATION
SECTION 12B
SCALE : 1/2" = 1"

INTERIORLY REMOVABLE STORM PANEL PARTIAL ELEVATION

SCALE : 1 1/2" = 1"

INTERIORLY REMOVABLE STORM PANEL SECTIONS MAX. A.S.D DESIGN PRESSURE RATING = +50.0, -50.0 p.s.f.



© 2017 TILTECO, INC.

TILTECO inc.

TILLIT TESTING & ENGINEERING COMPANY
6335 N.W. 36th St., Ste. 305, Fort Lauderdale, FL 33309
Phone: (954) 971-1531, Fax: (954) 971-1531
WALTER A. TILLIT JR., P.E.
FLORIDA Lic. 44167

FLORIDA BUILDING CODE (Non High Velocity Hurricane Zone)

0.050" BERTHA ALUMINUM STORM PANEL
(2.00" DEEP)

EASTERN METAL SUPPLY, INC
4268 WEST ROADS DRIVE
WEST PALM BEACH, FL 33407
PHONE: (561) 209-8263, FAX: (561) 841-1716

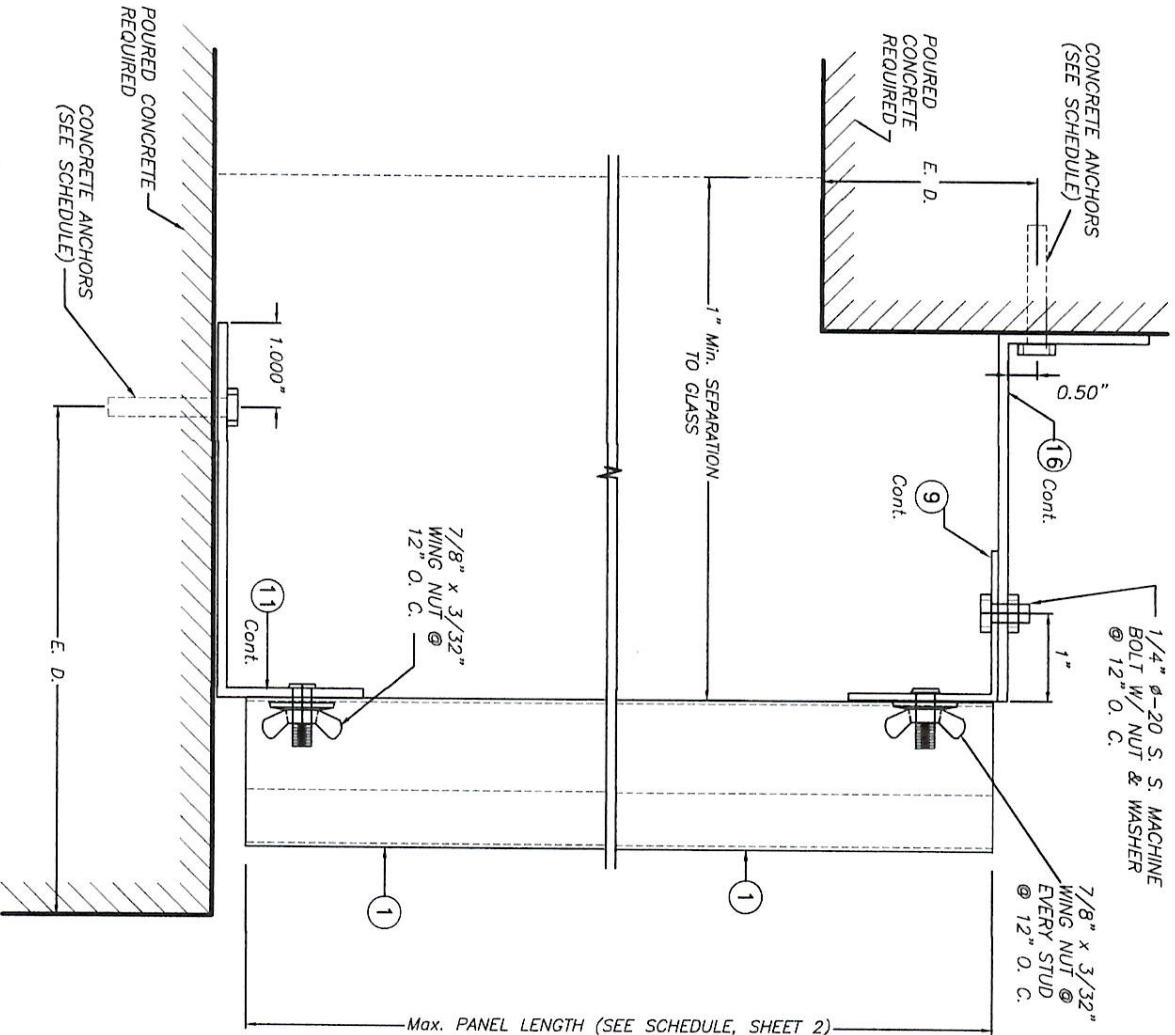
17-097
DRAWING No

REV. NO	DESCRIPTION	DATE	REV. NO	DESCRIPTION	DATE
1	QAD 15-045	07/26/17	3		
2			4		

L.C.
DRAWN BY:

07/26/17
DATE:

SHEET 7 OF 17

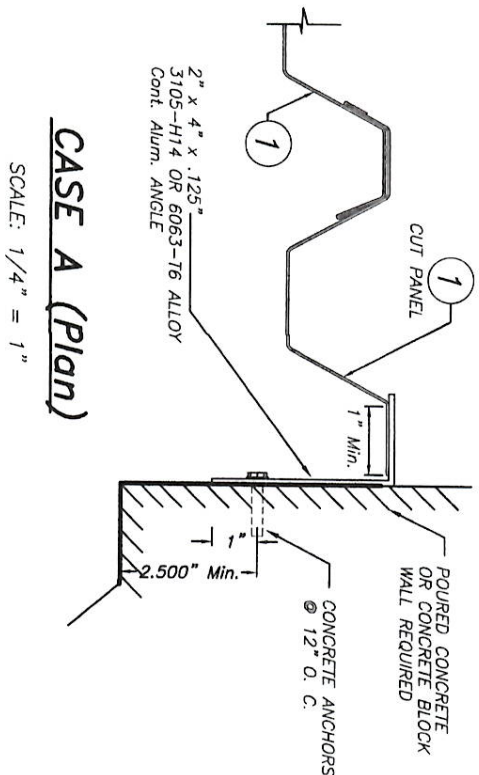


CEILING & FLOOR MOUNTING INSTALLATION - SECTION 13

SCALE: 1/2" = 1"

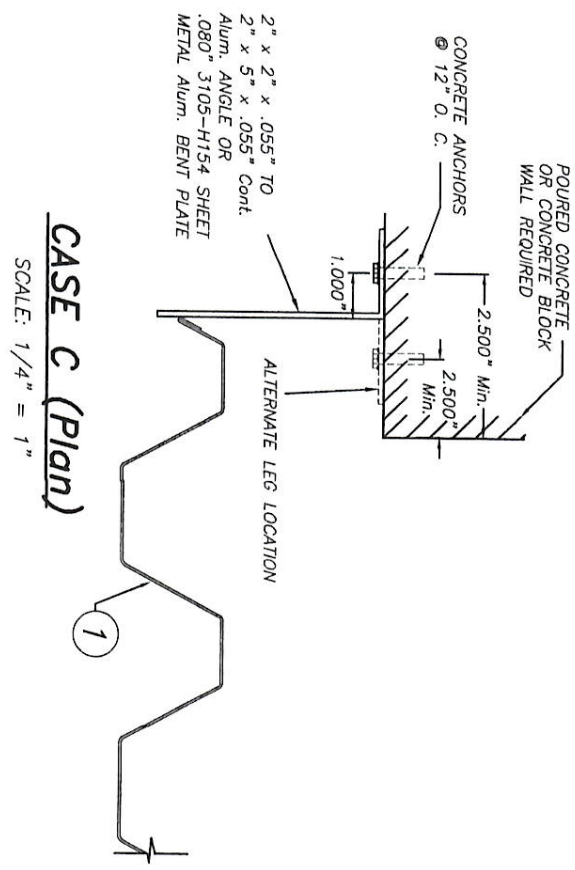
E.D. = EDGE DISTANCE
(SEE SCHEDULE ON
SHEETS 9, 10 & 11)

NOTE FOR COMBINATION OF SECTIONS:
WALL/FLOOR/CEILING MOUNTING SECTIONS CAN BE
COMBINED IN ANY WAY TO SUIT ANY INSTALLATION.



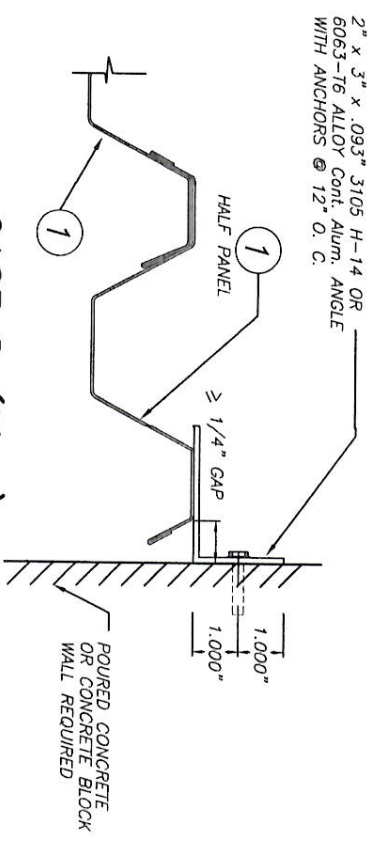
CASE A (Plan)

SCALE: 1/4" = 1"



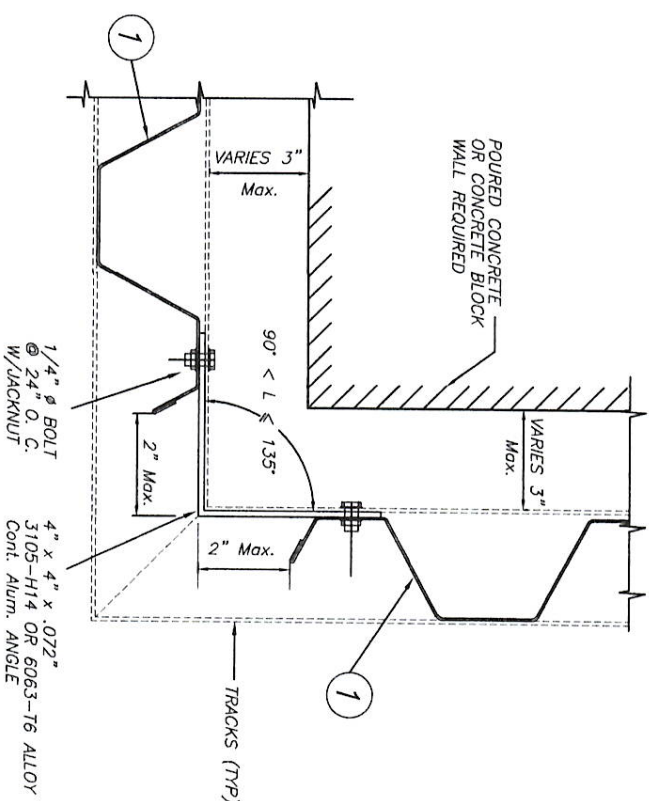
CASE C (Plan)

SCALE: 1/4" = 1"



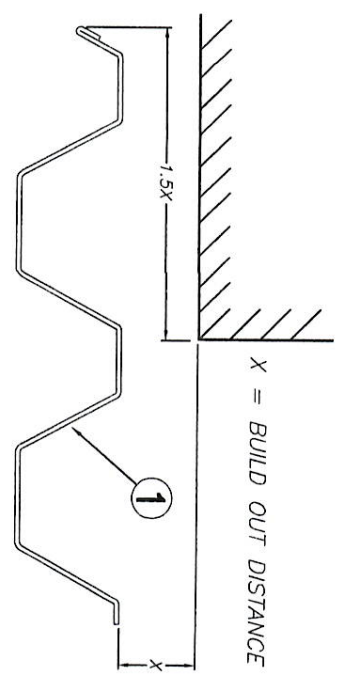
CASE D (Plan)

SCALE: 1/4" = 1"



CASE B (Plan)

SCALE: 1/4" = 1"



CASE E (Plan)

SCALE: 1/4" = 1"

END CLOSURES DETAILS



© 2017 TILTECO, INC.		0.050" BERTHA ALUMINUM STORM PANEL (2.00" DEEP)		L.C. DRAWN BY:	
TILTECO inc. TILIT TESTING & ENGINEERING COMPANY 6335 N.W. 36th St., Ste. 305, VIRGINIA GARDENS, FL 33166 Phone : (305) 971-1530, (305) 971-1531 FAX : (305) 971-1531 WALTER A. TILIT JR., P.E. FLORIDA Lic. 44167		EASTERN METAL SUPPLY, INC 4268 WEST ROADS DRIVE WEST PALM BEACH, FL 33407 PHONE: (561)209-8263, FAX: (561)841-1716		07/26/17 DATE:	
REV. NO	DESCRIPTION	DATE	REV. NO	DESCRIPTION	DATE
1	QAD 15-045	07/26/17	3		
2			4		
SHEET 8 OF 17			17-097 DRAWING No		

MAXIMUM A.S.D. DESIGN PRESSURE RATING (p.s.f.) AND CORRESPONDING MAXIMUM ANCHOR SPACING SCHEDULE FOR INSTALLATIONS IN CONCRETE AND CONCRETE BLOCK STRUCTURES

MAXIMUM A.S.D. DESIGN PRESSURE RATING (p.s.f.)	MAXIMUM ANCHORS SPACING FOR E. D. = 3 1/2" **										APPLICABLE TO SECTIONS & ANY COMBINATION OF THEM	MAXIMUM PANEL LENGTH L _p (ft.)
	REGULAR TAPCONS TO CONCRETE	TO MASONRY	TO CONCRETE	TO MASONRY	S.G./TAPCON TO CONCRETE	TO MASONRY	PANELMATES TO CONCRETE	TO MASONRY	PANELMATE TYS TO CONCRETE	TO MASONRY		
+40.0, -40.0 OR LESS	12"	N/A	12"	N/A	12"	N/A	12"	N/A	12"	N/A	1 (TOP)	8'-0" OR LESS
	12"	11"	12"	12"	12"	12"	12"	12"	12"	12"	1 (BOTTOM)	
	12"	N/A	12"	N/A	12"	N/A	12"	N/A	12"	N/A	2 (TOP)	
	9"	9"	9"	9"	9"	9"	9"	9"	9"	9"	2 (BOTTOM)	
	9"	N/A	9"	N/A	9"	N/A	9"	N/A	9"	N/A	3A (TOP)	
	9"	9"	9"	9"	9"	9"	9"	9"	9"	9"	3 (BOTTOM)	
	12"	11"	12"	12"	12"	12"	12"	12"	12"	12"	4 (TOP)	
	12"	11"	12"	12"	12"	12"	12"	12"	12"	12"	4 (BOTTOM)	
	9"	N/A	9"	N/A	9"	N/A	9"	N/A	9"	N/A	5A (TOP)	
	12"	N/A	12"	N/A	12"	N/A	12"	N/A	12"	N/A	5 (BOTTOM)	
	12"	N/A	12"	N/A	12"	N/A	12"	N/A	12"	N/A	6 (TOP)	
	12"	N/A	12"	N/A	12"	N/A	12"	N/A	12"	N/A	6 (BOTTOM)	
	12"	N/A	12"	N/A	12"	N/A	12"	N/A	12"	N/A	7 (TOP)	
+40.0, -40.0 OR LESS	12"	N/A	12"	N/A	12"	N/A	12"	N/A	12"	N/A	7 (BOTTOM)	8'-0" OR LESS
	N/A	N/A	12"	12"	12"	12"	12"	12"	12"	12"	8 (TOP)	
	N/A	N/A	12"	12"	12"	12"	12"	12"	12"	12"	8 (BOTTOM)	
	N/A	N/A	12"	12"	12"	12"	12"	12"	12"	12"	9 (TOP)	
	12"	11"	12"	12"	12"	12"	12"	12"	12"	12"	9 (BOTTOM)	
	12"	N/A	12"	N/A	12"	N/A	12"	N/A	12"	N/A	10 (TOP)	
	6"	N/A	6"	N/A	6"	N/A	6"	N/A	6"	N/A	10 (BOTTOM)	
	9"	N/A	9"	N/A	9"	N/A	9"	N/A	9"	N/A	11A (TOP)	
	9"	9"	9"	9"	9"	9"	9"	9"	9"	9"	11 (BOTTOM)	
	6"	N/A	6"	N/A	6"	N/A	6"	N/A	6"	N/A	13 (TOP)	
	6"	N/A	6"	N/A	6"	N/A	6"	N/A	6"	N/A	13 (BOTTOM)	
	6"	N/A	6"	N/A	6"	N/A	6"	N/A	6"	N/A	13 (BOTTOM)	
	6"	N/A	6"	N/A	6"	N/A	6"	N/A	6"	N/A	13 (BOTTOM)	

* USE 6" OC FOR PANEL LENGTHS LARGER THAN 10' - 0" AND USE 12" OC AS SHOWN ON SCHEDULE FOR PANELS LENGTHS EQUAL OR SHORTER THAN 10' - 0'

MAXIMUM A.S.D. DESIGN PRESSURE RATING (p.s.f.)	MAXIMUM ANCHORS SPACING FOR E. D. = 3 1/2" **										APPLICABLE TO SECTIONS & ANY COMBINATION OF THEM	MAXIMUM PANEL LENGTH L _p (ft.)
	REGULAR TAPCONS TO CONCRETE	TO MASONRY	TO CONCRETE	TO MASONRY	S.G./TAPCON TO CONCRETE	TO MASONRY	PANELMATES TO CONCRETE	TO MASONRY	PANELMATE TYS TO CONCRETE	TO MASONRY		
+40.0, -40.0 OR LESS	12"	N/A	12"	N/A	12"	N/A	12"	N/A	12"	N/A	1 (TOP)	> 8'-0" UP TO 13'-0" **
	12"	7"	12"	12"	12"	12"	12"	12"	12"	12"	1 (BOTTOM)	
	12"	N/A	12"	N/A	12"	N/A	12"	N/A	12"	N/A	2 (TOP)	
	9"	9"	9"	9"	9"	9"	9"	9"	9"	9"	2 (BOTTOM)	
	9"	N/A	9"	N/A	9"	N/A	9"	N/A	9"	N/A	3A (TOP)	
	9"	9"	9"	9"	9"	9"	9"	9"	9"	9"	3 (BOTTOM)	
	12"	7"	12"	12"	12"	12"	12"	12"	12"	12"	4 (TOP)	
	12"	7"	12"	12"	12"	12"	12"	12"	12"	12"	4 (BOTTOM)	
	9"	N/A	9"	N/A	9"	N/A	9"	N/A	9"	N/A	5A (TOP)	
	9"	N/A	9"	N/A	9"	N/A	9"	N/A	9"	N/A	5 (BOTTOM)	
	9"	N/A	11 1/2"	N/A	12"	N/A	12"	N/A	12"	N/A	6 (TOP)	
	9"	N/A	11"	N/A	12"	N/A	12"	N/A	12"	N/A	6 (BOTTOM)	
	9"	N/A	11"	N/A	12"	N/A	12"	N/A	12"	N/A	7 (TOP)	
+40.0, -40.0 OR LESS	9"	N/A	11"	N/A	12"	N/A	12"	N/A	12"	N/A	7 (BOTTOM)	> 8'-0" UP TO 13'-0" **
	N/A	N/A	12"*	12"*	12"*	12"*	12"*	12"*	12"*	12"*	8 (TOP)*	
	N/A	N/A	12"*	12"*	12"*	12"*	12"*	12"*	12"*	12"*	8 (BOTTOM)*	
	N/A	N/A	12"*	12"*	12"*	12"*	12"*	12"*	12"*	12"*	9 (TOP)*	
	12"	7"	12"	12"	12"	12"	12"	12"	12"	12"	9 (BOTTOM)	
	9"	N/A	11 1/2"	N/A	12"	N/A	12"	N/A	12"	N/A	10 (TOP)	
	6"	N/A	6"	N/A	6"	N/A	6"	N/A	6"	N/A	10 (BOTTOM)	
	9"	N/A	9"	N/A	9"	N/A	9"	N/A	9"	N/A	11A (TOP)	
	9"	9"	9"	9"	9"	9"	9"	9"	9"	9"	11 (BOTTOM)	
	6"	N/A	6"	N/A	6"	N/A	6"	N/A	6"	N/A	13 (TOP)	
	6"	N/A	6"	N/A	6"	N/A	6"	N/A	6"	N/A	13 (BOTTOM)	
	6"	N/A	6"	N/A	6"	N/A	6"	N/A	6"	N/A	13 (BOTTOM)	
	6"	N/A	6"	N/A	6"	N/A	6"	N/A	6"	N/A	13 (BOTTOM)	

ANCHORS LEGEND

ANCHOR TYPE	MIN. ANCHOR SPACING
TAPCON (REGULAR OR S.G.) PANELMATE OR PANELMATE TYS	3"
SOLID SET	3"

E. D. = EDGE DISTANCE

**MAXIMUM ANCHOR SPACINGS ARE VALID FOR 3 1/2" EDGE DISTANCE. FOR E. D. LESS THAN 3 1/2", REDUCE ANCHOR SPACING BY MULTIPLYING SPACING SHOWN ON SCHEDULE BY THE FOLLOWING FACTORS. (NOTE: MIN. E. D. FOR SOLIDSET ANCHORS IS 3") FOR THIS OPERATION TO BE POSSIBLE, REDUCED SPACING OBTAINED USING FACTOR SHALL NOT BE LESS THAN MINIMUM SPACING INDICATED FOR EACH ANCHOR TYPE AT ANCHORS LEGEND.			
ACTUAL E. D.	FACTOR		
	TAPCON (REGULAR)	S.G. TAPCON, PANELMATE OR PANELMATE TYS	SOLID SET
3"	-	.86	.75
2 1/2"	-	.71	.50
2"	-	.50	-
1 1/2"	.35	-	-



© 2017 TILTECO, INC.

FLORIDA BUILDING CODE (Non High Velocity Hurricane Zone)

0.050" BERTHA ALUMINUM STORM PANEL (2.00" DEEP)

L.C.

DRAWN BY:

TILTECO inc.

TILIT TESTING & ENGINEERING COMPANY

6335 N.W. 36th St., Ste. 305, VIRGINIA GARDENS, FL 33165

Phone : (352)919-0061, 9 (352)871-1331

WALTER A. TILIT JR., P.E.

FLORIDA LIC. 44167

4268 WEST ROADS DRIVE

WEST PALM BEACH, FL 33407

PHONE: (561)209-8263, FAX: (561)841-1716

17-097

DRAWING No

07/26/17

DATE:

17-097

DRAWING No

SHEET 9 OF 17

MAXIMUM A.S.D. DESIGN PRESSURE RATING (p.s.f.) AND CORRESPONDING MAXIMUM ANCHOR SPACING SCHEDULE FOR INSTALLATIONS IN CONCRETE AND CONCRETE BLOCK STRUCTURES

MAXIMUM A.S.D. DESIGN PRESSURE ($p \leq 1$)	MAXIMUM ANCHORS SPACING FOR E. O. = 3 1/2"										APPLICABLE TO SECTIONS # & ANY COMBINATION OF THEM
	REGULAR TIE-ONS		SOLID SET		S.G. TACON		PANELMATS		PANELMATE TYAS		
	TO CONCRETE	TO MASONRY	TO CONCRETE	TO MASONRY	TO CONCRETE	TO MASONRY	TO CONCRETE	TO MASONRY	TO CONCRETE	TO MASONRY	
+40.0, -40.0 UP TO +60.0, -60.0	12"	N/A	12"	N/A	12"	N/A	12"	N/A	12"	N/A	1 (TOP)
	12"	7"	12"	12"	12"	12"	12"	12"	12"	12"	1 (BOTTOM)
	12"	N/A	12"	N/A	12"	N/A	12"	N/A	12"	N/A	2 (TOP)
	9"	7"	9"	9"	9"	9"	9"	9"	9"	9"	2 (BOTTOM)
	9"	N/A	9"	N/A	9"	N/A	9"	N/A	9"	N/A	3A (TOP)
	9"	7"	9"	9"	9"	9"	9"	9"	9"	9"	3 (BOTTOM)
	12"	7"	12"	12"	12"	12"	12"	12"	12"	12"	4 (TOP)
	12"	7"	12"	12"	12"	12"	12"	12"	12"	12"	4 (BOTTOM)
	9"	N/A	9"	N/A	9"	N/A	9"	N/A	9"	N/A	5A (TOP)
	10"	N/A	12"	N/A	12"	N/A	12"	N/A	12"	N/A	5 (BOTTOM)
	10"	N/A	12"	N/A	12"	N/A	12"	N/A	12"	N/A	6 (TOP)
	10"	N/A	12"	N/A	12"	N/A	12"	N/A	12"	N/A	6 (BOTTOM)
	10"	N/A	12"	N/A	12"	N/A	12"	N/A	12"	N/A	7 (TOP)
	10"	N/A	12"	N/A	12"	N/A	12"	N/A	12"	N/A	7 (BOTTOM)
	N/A	N/A	12"	12"	12"	12"	12"	12"	12"	12"	8 (TOP)
	N/A	N/A	12"	12"	12"	12"	12"	12"	12"	12"	8 (BOTTOM)
	N/A	N/A	12"	12"	12"	12"	12"	12"	12"	12"	9 (TOP)
	N/A	N/A	12"	12"	12"	12"	12"	12"	12"	12"	9 (BOTTOM)
	10"	N/A	12"	N/A	12"	N/A	12"	N/A	12"	N/A	10 (TOP)
	6"	N/A	6"	N/A	6"	N/A	6"	N/A	6"	N/A	10 (BOTTOM)
9"	7"	N/A	N/A	N/A	N/A	9"	7"	9"	7"	11A (TOP)	
9"	7"	N/A	N/A	N/A	N/A	9"	7"	9"	7"	11 (BOTTOM)	
6"	N/A	6"	N/A	6"	N/A	6"	N/A	6"	N/A	13 (TOP)	
6"	N/A	6"	N/A	6"	N/A	6"	N/A	6"	N/A	13 (BOTTOM)	

8'-0"
OR
LESS

MAXIMUM A.S.D. DESIGN PRESSURE RATING (p.s.f.)	MAXIMUM ANCHORS SPACING FOR E. D. = 3 1/2" *										APPLICABLE TO SECTIONS # & ANY COMBINATION OF THEM	MAXIMUM PANEL LENGTH 7' (ft.)
	REGULAR IRONS		SOLID SET		S.G. IRONCON		PANELMETES		PANELMETE TRYS			
	TO CONCRETE	TO MASONRY	TO CONCRETE	TO MASONRY	TO CONCRETE	TO MASONRY	TO CONCRETE	TO MASONRY	TO CONCRETE	TO MASONRY		
+80.0, -60.0 UP TO +80.0, -90.0	11"	N/A	11"	N/A	11"	N/A	11"	N/A	11"	N/A	1 (TOP)	9'-0" OR LESS
	11"	4"	11"	11"	11"	11"	11"	7"	11"	7"	1 (BOTTOM)	
	11"	N/A	11"	N/A	11"	N/A	11"	N/A	11"	N/A	2 (TOP)	
	8"	4"	9"	9"	9"	9"	7"	7"	9"	7"	2 (BOTTOM)	
	9"	N/A	9"	N/A	9"	N/A	9"	N/A	9"	N/A	3A (TOP)	
	8"	4"	9"	9"	9"	9"	7"	7"	9"	7"	3 (BOTTOM)	
	11"	4"	11"	11"	11"	11"	11"	7"	11"	7"	4 (TOP)	
	11"	4"	11"	11"	11"	11"	11"	7"	11"	7"	4 (BOTTOM)	
	9"	N/A	9"	N/A	9"	N/A	9"	N/A	9"	N/A	5A (TOP)	
	5"	8"	7"	N/A	9"	N/A	8"	N/A	N/A	N/A	5 (BOTTOM)	
	9"	N/A	10"	N/A	12"	N/A	11"	N/A	N/A	N/A	6 (TOP)	
	8"	N/A	7"	N/A	9"	N/A	8"	N/A	N/A	N/A	6 (BOTTOM)	
	5"	N/A	7"	N/A	9"	N/A	8"	N/A	N/A	N/A	7 (TOP)	
	5"	N/A	7"	N/A	9"	N/A	8"	N/A	N/A	N/A	7 (BOTTOM)	
	N/A	N/A	12"	12"	12"	12"	12"	6"	12"	6"	8 (TOP)	
	N/A	N/A	12"	12"	12"	12"	12"	6"	12"	6"	8 (BOTTOM)	
	N/A	N/A	12"	12"	12"	12"	12"	6"	12"	6"	9 (TOP)	
	11"	4"	11"	11"	11"	11"	11"	7"	11"	7"	9 (BOTTOM)	
	9"	N/A	10"	N/A	12"	N/A	11"	N/A	N/A	N/A	10 (TOP)	
	6"	N/A	6"	N/A	6"	N/A	6"	N/A	N/A	N/A	10 (BOTTOM)	
	8"	4"	N/A	N/A	N/A	N/A	9"	7"	9"	7"	11A (TOP)	
	8"	4"	N/A	N/A	N/A	N/A	9"	7"	9"	7"	11 (BOTTOM)	
	6"	N/A	6"	N/A	6"	N/A	6"	N/A	N/A	N/A	13 (TOP)	
	6"	N/A	12"	N/A	6"	N/A	6"	N/A	N/A	N/A	13 (BOTTOM)	

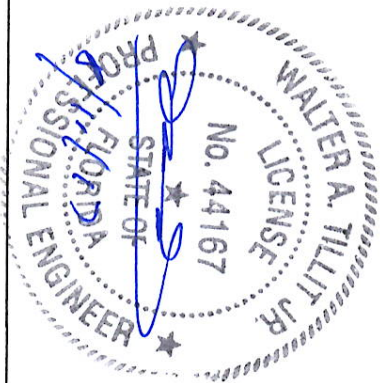
ANCHORS LEGEND

ANCHOR TYPE	Min. ANCHOR SPACING
TAPCON (REGULAR OR S.G.) PANELMATE OR PANELMATE TIAS	3"
SOLID SET	3"

***MAXIMUM ANCHOR SPACINGS ARE VALID FOR 3 1/2" EDGE DISTANCE OR E.D. LESS THAN 3 1/2"
REDUCE ANCHOR SPACING BY MULTIPLYING SPACING SHOWN ON SCHEDULE BY THE FOLLOWING FACTORS.
(NOTE: MIN. E.D. FOR SOLIDEST ANCHORS IS 3")
FOR THIS OPERATION TO BE POSSIBLE, REDUCED SPACING OBTAINED USING FACTOR SHALL NOT BE
LESS THAN MINIMUM SPACING INDICATED FOR EACH ANCHOR TYPE AT ANCHORS LEGEND.

***MAXIMUM ANCHOR SPACINGS ARE VALID FOR 3 1/2" EDGE DISTANCE, FOR E.D. LESS THAN 3 1/2".
REDUCE ANCHOR SPACING BY MULTIPLYING SPACING SHOWN ON SCHEDULE BY THE FOLLOWING FACTORS.
(NOTE: MIN. E.D. FOR SOLIDSET ANCHORS IS 3")
FOR THIS OPERATION TO BE POSSIBLE, REDUCED SPACING OBTAINED USING FACTOR SHALL NOT BE
LESS THAN MINIMUM SPACING INDICATED FOR EACH ANCHOR TYPE AT ANCHORS LEGEND.

ACTUAL E. D.	FACTOR		
	TAPCON (REGULAR)	S.G. TAPCON, PANELMATE OR PANELMATE TWS	SOLID SET
3"	-	.86	.75
2 1/2"	-	.71	.50
2"	-	.50	-
1 1/2"	.35	-	-



				TILIT TESTING & ENGINEERING COMPANY 6355 N.W. 36th St., Ste. 305, VEROBEACH, FL 33466 Phone : (365)871-1530, Fax : (365)871-1531 EB-0006719 WALTER A. TILIT JR., P.E. FLORIDA LIC. 44167			
FLORIDA BUILDING CODE (Non High Velocity Hurricane Zone)				@ 2017 TILECO, INC.			
0.050" BERTHA ALUMINUM STORM PANEL (2.00" DEEP)				L.C. DRAWN BY:			
EASTERN METAL SUPPLY, INC. 4268 WEST ROADS DRIVE WEST PALM BEACH, FL 33407 PHONE: (561)209-8263, FAX: (561)841-1716				07/26/17 DATE:			
REV. NO	DESCRIPTION	DATE	REV. NO	DESCRIPTION	DATE	DRAWING NO	
1	OLD 15-045	07/26/17	3			17-097	
2			4			DRAWING NO	
						SHEET 10 OF 17	

MAXIMUM A.S.D. DESIGN PRESSURE RATING (p.s.f.) AND CORRESPONDING MAXIMUM ANCHOR SPACING SCHEDULE FOR INSTALLATIONS IN CONCRETE AND CONCRETE BLOCK STRUCTURES

MAXIMUM A.S.D. DESIGN PRESSURE RATING (p.s.f.)	MAXIMUM ANCHORS SPACING FOR E. D. = 3 1/2" **										APPLICABLE TO SECTIONS # & ANY COMBINATION OF THEM	MAXIMUM PANEL LENGTH L (ft.)
	REGULAR TAPCONS TO CONCRETE	TO MASONRY	SOLID SET TO CONCRETE	TO MASONRY	S.G. TAPCON TO CONCRETE	TO MASONRY	PANELMATES TO CONCRETE	TO MASONRY	PANELMATE TYS TO CONCRETE	TO MASONRY		
	12"	N/A	12"	N/A	12"	N/A	12"	N/A	12"	N/A	1 (TOP)	>8'-0" UP TO 12'-6"
	12"	4 1/2"	12"	12"	12"	12"	12"	8 1/2"	12"	8 1/2"	1 (BOTTOM)	
	12"	N/A	12"	N/A	12"	N/A	12"	N/A	12"	N/A	2 (TOP)	
	9"	4 1/2"	9"	9"	9"	9"	9"	8 1/2"	9"	8 1/2"	2 (BOTTOM)	
	9"	N/A	9"	N/A	9"	N/A	9"	N/A	9"	N/A	3A (TOP)	
	9"	4 1/2"	9"	9"	9"	9"	9"	8 1/2"	9"	8 1/2"	3 (BOTTOM)	
	12"	4 1/2"	12"	12"	12"	12"	12"	8 1/2"	12"	8 1/2"	4 (TOP)	
	12"	4 1/2"	12"	12"	12"	12"	12"	8 1/2"	12"	8 1/2"	4 (BOTTOM)	
	9"	N/A	9"	N/A	9"	N/A	9"	N/A	9"	N/A	5A (TOP)	
	6 1/2"	N/A	7 1/2"	N/A	8"	N/A	7 1/2"	N/A	N/A	N/A	5 (BOTTOM)	
	9"	N/A	9 1/2"	N/A	10"	N/A	9 1/2"	N/A	N/A	N/A	6 (TOP)	>8'-0" UP TO 12'-6"
	6 1/2"	N/A	7 1/2"	N/A	8"	N/A	7 1/2"	N/A	N/A	N/A	6 (BOTTOM)	
	6"	N/A	6 1/2"	N/A	7"	N/A	6 1/2"	N/A	N/A	N/A	7 (TOP)	
	N/A	N/A	12"	12"	12"	12"	12"	6"	12"	6"	8 (TOP)	
	N/A	N/A	12"	12"	12"	12"	12"	6"	12"	6"	8 (BOTTOM)	
	12"	4 1/2"	12"	12"	12"	12"	12"	8 1/2"	12"	8 1/2"	9 (TOP)	
	9"	N/A	9 1/2"	N/A	10"	N/A	9 1/2"	N/A	N/A	N/A	10 (TOP)	
	6"	N/A	6"	N/A	6"	N/A	6"	N/A	N/A	N/A	10 (BOTTOM)	
	9"	4 1/2"	N/A	N/A	N/A	N/A	9"	4 1/2"	9"	4 1/2"	11A (TOP)	
	9"	4 1/2"	N/A	N/A	N/A	N/A	9"	4 1/2"	9"	4 1/2"	11 (BOTTOM)	
	6"	N/A	6"	N/A	6"	N/A	6"	N/A	N/A	N/A	13 (TOP)	>8'-0" UP TO 12'-6"
	6"	N/A	6"	N/A	6"	N/A	6"	N/A	N/A	N/A	13 (BOTTOM)	
	6"	N/A	6"	N/A	6"	N/A	6"	N/A	N/A	N/A	13 (BOTTOM)	
	6"	N/A	6"	N/A	6"	N/A	6"	N/A	N/A	N/A	13 (BOTTOM)	
	6"	N/A	6"	N/A	6"	N/A	6"	N/A	N/A	N/A	13 (BOTTOM)	
	6"	N/A	6"	N/A	6"	N/A	6"	N/A	N/A	N/A	13 (BOTTOM)	
	6"	N/A	6"	N/A	6"	N/A	6"	N/A	N/A	N/A	13 (BOTTOM)	
	6"	N/A	6"	N/A	6"	N/A	6"	N/A	N/A	N/A	13 (BOTTOM)	
	6"	N/A	6"	N/A	6"	N/A	6"	N/A	N/A	N/A	13 (BOTTOM)	
	6"	N/A	6"	N/A	6"	N/A	6"	N/A	N/A	N/A	13 (BOTTOM)	

* USE 6" OC FOR PANEL LENGTHS LARGER THAN 10'-0" AND USE 12" AS SHOWN ON SCHEDULE FOR PANELS LENGTHS EQUAL OR SHORTER THAN 10'-0"

ANCHORS LEGEND

ANCHOR TYPE	MIN. ANCHOR SPACING
TAPCON (REGULAR OR S.G.) PANELMATE OR PANELMATE TYS	3"
SOLID SET	3"

E. D. = EDGE DISTANCE

**MAXIMUM ANCHOR SPACINGS ARE VALID FOR 3 1/2" EDGE DISTANCE. FOR E.D. LESS THAN 3 1/2" REDUCE ANCHOR SPACING BY MULTIPLYING SPACING SHOWN ON SCHEDULE BY THE FOLLOWING FACTORS. (NOTE: MIN. E.D. FOR SOLIDSET ANCHORS IS 3")			
FOR THIS OPERATION TO BE POSSIBLE. REDUCED SPACING OBTAINED USING FACTOR SHALL NOT BE LESS THAN MINIMUM SPACING INDICATED FOR EACH ANCHOR TYPE AT ANCHORS LEGEND.			
ACTUAL E. D.	FACTOR		
	TAPCON (REGULAR)	S.G. TAPCON, PANELMATE OR PANELMATE TYS	SOLID SET
3"	-	.86	.75
2 1/2"	-	.71	.50
2"	-	.50	-
1 1/2"	.35	-	-

MAXIMUM A.S.D. DESIGN PRESSURE RATING (p.s.f.)	MAXIMUM ANCHORS SPACING FOR E. D. = 3 1/2" **										APPLICABLE TO SECTIONS # & ANY COMBINATION OF THEM	MAXIMUM PANEL LENGTH L (ft.)
	REGULAR TAPCONS TO CONCRETE	TO MASONRY	SOLID SET TO CONCRETE	TO MASONRY	S.G. TAPCON TO CONCRETE	TO MASONRY	PANELMATES TO CONCRETE	TO MASONRY	PANELMATE TYS TO CONCRETE	TO MASONRY		
	8 1/2"	N/A	9"	N/A	9"	N/A	9"	N/A	9"	N/A	1 (TOP)	7'-0" OR LESS
	9"	7"	9"	9"	9"	9"	9"	7"	9"	7"	1 (BOTTOM)	
	9"	N/A	9"	N/A	9"	N/A	9"	N/A	9"	N/A	2 (TOP)	
	9"	4"	9"	9"	9"	9"	9"	7"	9"	7"	2 (BOTTOM)	
	8"	N/A	9"	N/A	9"	N/A	9"	N/A	9"	N/A	3A (TOP)	
	9"	4"	9"	9"	9"	9"	9"	7"	9"	7"	3 (BOTTOM)	
	9"	7"	9"	9"	9"	9"	9"	7"	9"	7"	4 (TOP)	
	9"	7"	9"	9"	9"	9"	9"	7"	9"	7"	4 (BOTTOM)	
	8"	N/A	9"	N/A	9"	N/A	9"	N/A	9"	N/A	5A (TOP)	
	5"	N/A	6"	N/A	7"	N/A	7"	N/A	N/A	N/A	5 (BOTTOM)	
	7"	N/A	8"	N/A	10"	N/A	8"	N/A	N/A	N/A	6 (TOP)	7'-0" OR LESS
	5"	N/A	6"	N/A	7"	N/A	7"	N/A	N/A	N/A	6 (BOTTOM)	
	5"	N/A	6"	N/A	7"	N/A	7"	N/A	N/A	N/A	7 (TOP)	
	N/A	N/A	12"	12"	12"	12"	12"	6"	12"	6"	8 (TOP)	
	N/A	N/A	12"	12"	12"	12"	12"	6"	12"	6"	8 (BOTTOM)	
	N/A	N/A	12"	12"	12"	12"	12"	6"	12"	6"	9 (TOP)	
	9"	7"	9"	9"	9"	9"	9"	7"	9"	7"	9 (BOTTOM)	
	7"	N/A	8"	N/A	10"	N/A	8"	N/A	N/A	N/A	10 (TOP)	
	5"	N/A	6"	N/A	7"	N/A	7"	N/A	N/A	N/A	10 (BOTTOM)	
	5"	4"	N/A	N/A	N/A	N/A	7"	7"	7"	7"	11A (TOP)	
	6"	N/A	6"	N/A	6"	N/A	6"	N/A	6"	N/A	11 (BOTTOM)	7'-0" OR LESS
	6"	N/A	6"	N/A	6"	N/A	6"	N/A	6"	N/A	13 (TOP)	
	6"	N/A	6"	N/A	6"	N/A	6"	N/A	6"	N/A	13 (BOTTOM)	
	6"	N/A	6"	N/A	6"	N/A	6"	N/A	6"	N/A	13 (BOTTOM)	
	6"	N/A	6"	N/A	6"	N/A	6"	N/A	6"	N/A	13 (BOTTOM)	
	6"	N/A	6"	N/A	6"	N/A	6"	N/A	6"	N/A	13 (BOTTOM)	
	6"	N/A	6"	N/A	6"	N/A	6"	N/A	6"	N/A	13 (BOTTOM)	
	6"	N/A	6"	N/A	6"	N/A	6"	N/A	6"	N/A	13 (BOTTOM)	
	6"	N/A	6"	N/A	6"	N/A	6"	N/A	6"	N/A	13 (BOTTOM)	
	6"	N/A	6"	N/A	6"	N/A	6"	N/A	6"	N/A	13 (BOTTOM)	



© 2017 TILTECO, INC.

TILTECO inc.

TILTIT TESTING & ENGINEERING COMPANY
6355 N.W. 36th St., Ste. 305, VERONA GARDENS, FL 33165
Phone : (305)978-0006 / 19 (305)971-1531
WALTER A. TILTIT JR., P.E.
FLORIDA Lic. 44167

FLORIDA BUILDING CODE (Non High Velocity Hurricane Zone)

0.050" BERTHA ALUMINUM STORM PANEL
(2.00" DEEP)

L.C.
DRAWN BY:
07/26/17
DATE:

EASTERN METAL SUPPLY, INC
4268 WEST ROADS DRIVE
WEST PALM BEACH, FL 33407
PHONE: (561)209-8263, FAX: (561)841-1716

17-097
DRAWING No

REV. NO
1
2

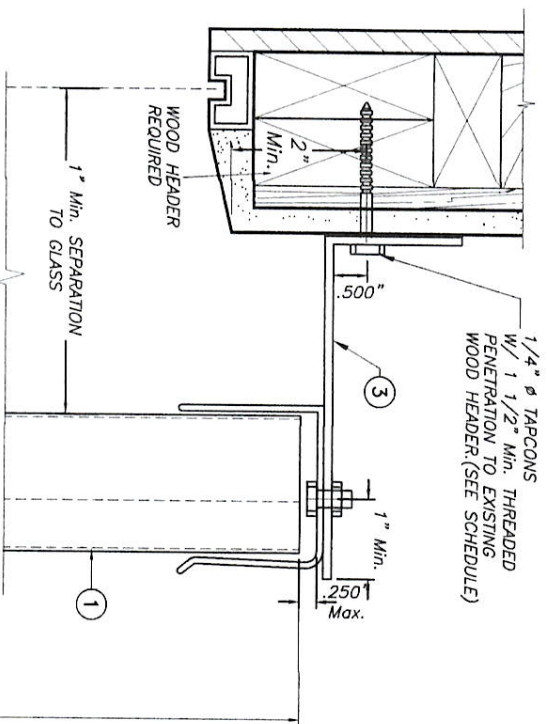
DESCRIPTION
OLD 15-045
07/26/17

REV. NO
3
4

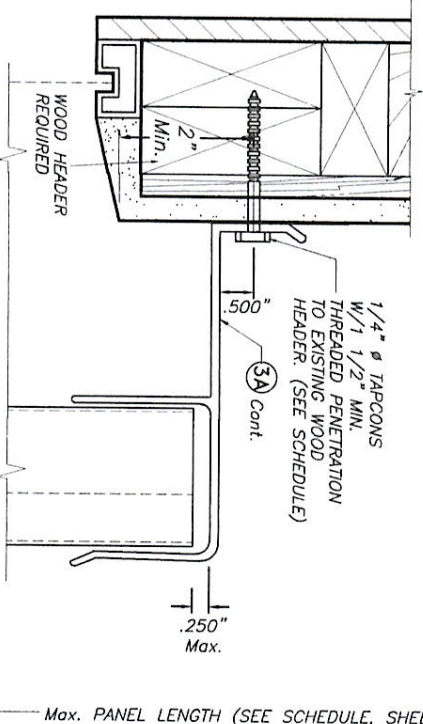
DESCRIPTION
DATE

SHEET 11 OF 17

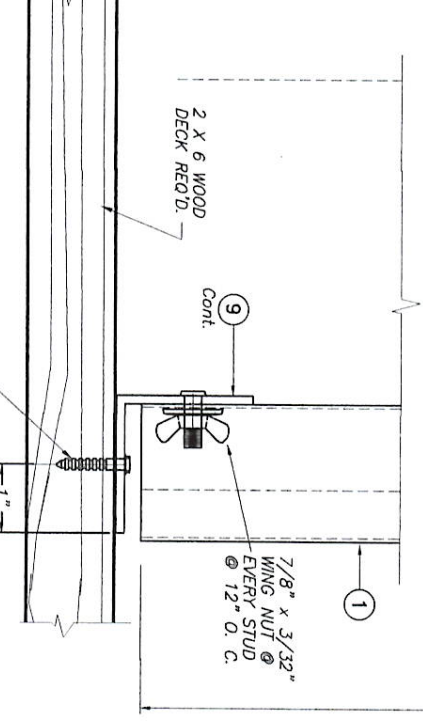
PROFESSIONAL ENGINEER
FLORIDA
NO. 44467
JULY 1997
15 (open position +)



ALTERNATIVE 5A

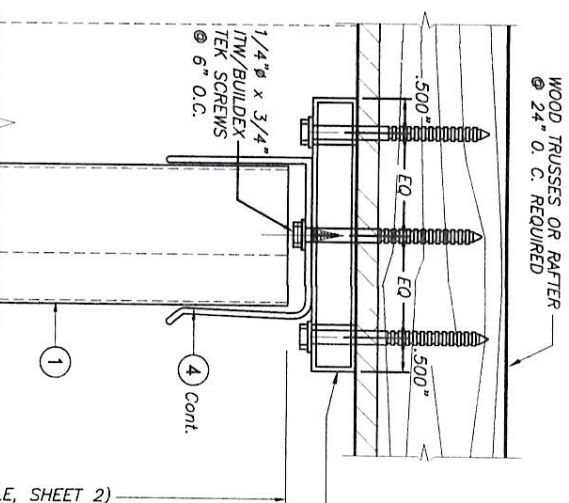


ALTERNATIVE 5A



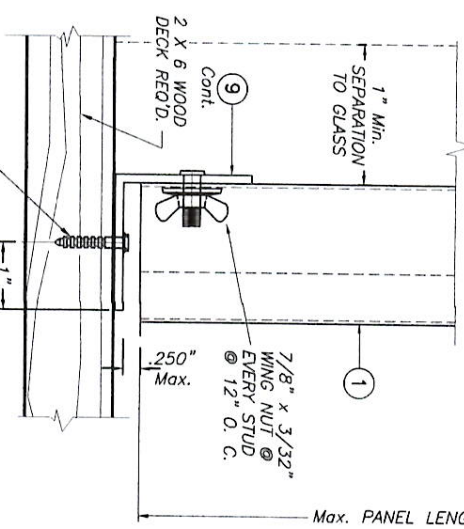
ALTERNATIVE 5

SCALE : 1/2" = 1"



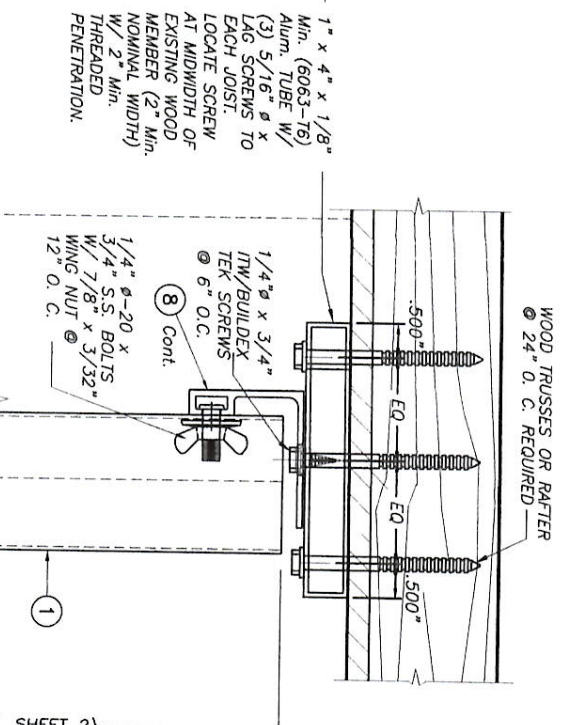
ALTERNATIVE 6A

SCALE : 1/2" = 1"
(LIMITED TO +60.0, -66.0 p.s.f. DESIGN LOAD AND UP TO 9'-0" Max. PANEL LENGTH)



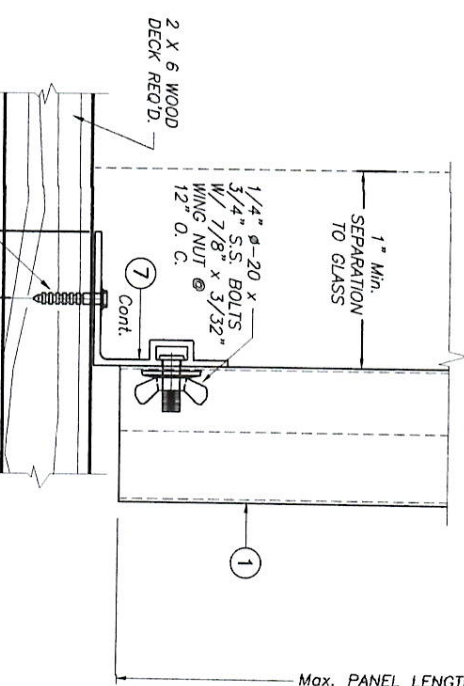
ALTERNATIVE 6

SCALE : 1/2" = 1"



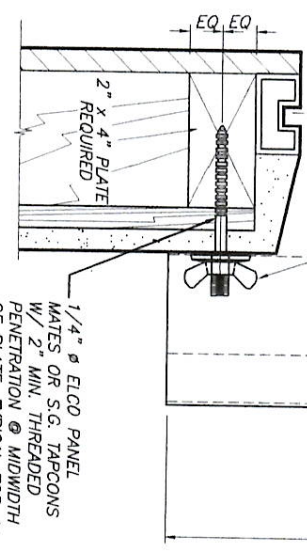
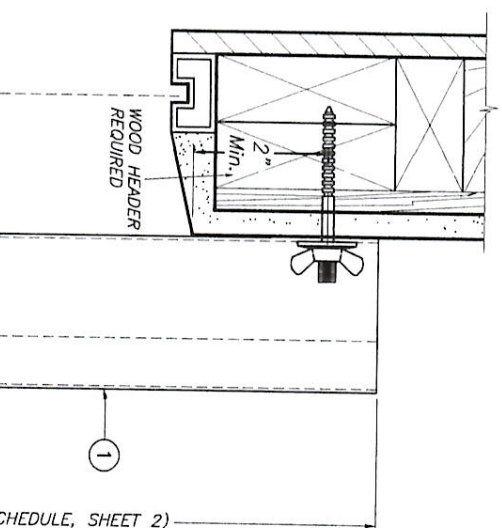
ALTERNATIVE 7A

SCALE : 1/2" = 1"
(LIMITED TO +60.0, -66.0 p.s.f. DESIGN LOAD AND UP TO 9'-0" Max. PANEL LENGTH)



ALTERNATIVE 7

SCALE : 1/2" = 1"



ALTERNATIVE 8

SCALE : 1/2" = 1"

NOTES:

1. INSTALLATIONS ARE ONLY VALID FOR MAX. A.S.D. DESIGN PRESSURE RATING AND PANEL'S LENGTHS AS PER SCHEDULES ON SHEET 2 (EXCEPT AS NOTED)
2. SEE ANCHOR SCHEDULE ON SHEET 16 & 17.
3. FOR NEW WOOD FRAME CONSTRUCTION: WOOD MEMBERS TO BE SOUTHERN PINE No. 2, W/ SPECIFIC DENSITY OF 0.55 OR EQUAL.

NOTE FOR COMBINATION OF SECTIONS :

WALL/FLOOR/CEILING MOUNTING SECTIONS CAN BE COMBINED IN ANY WAY TO SUIT ANY INSTALLATION.

© 2017 TILTECO, INC.

FLORIDA BUILDING CODE (Non High Velocity Hurricane Zone)

0.050" BERTHA ALUMINUM STORM PANEL
(2.00" DEEP)

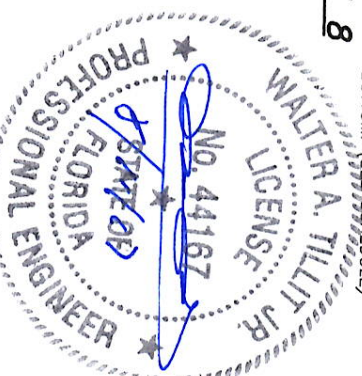
EASTERN METAL SUPPLY, INC

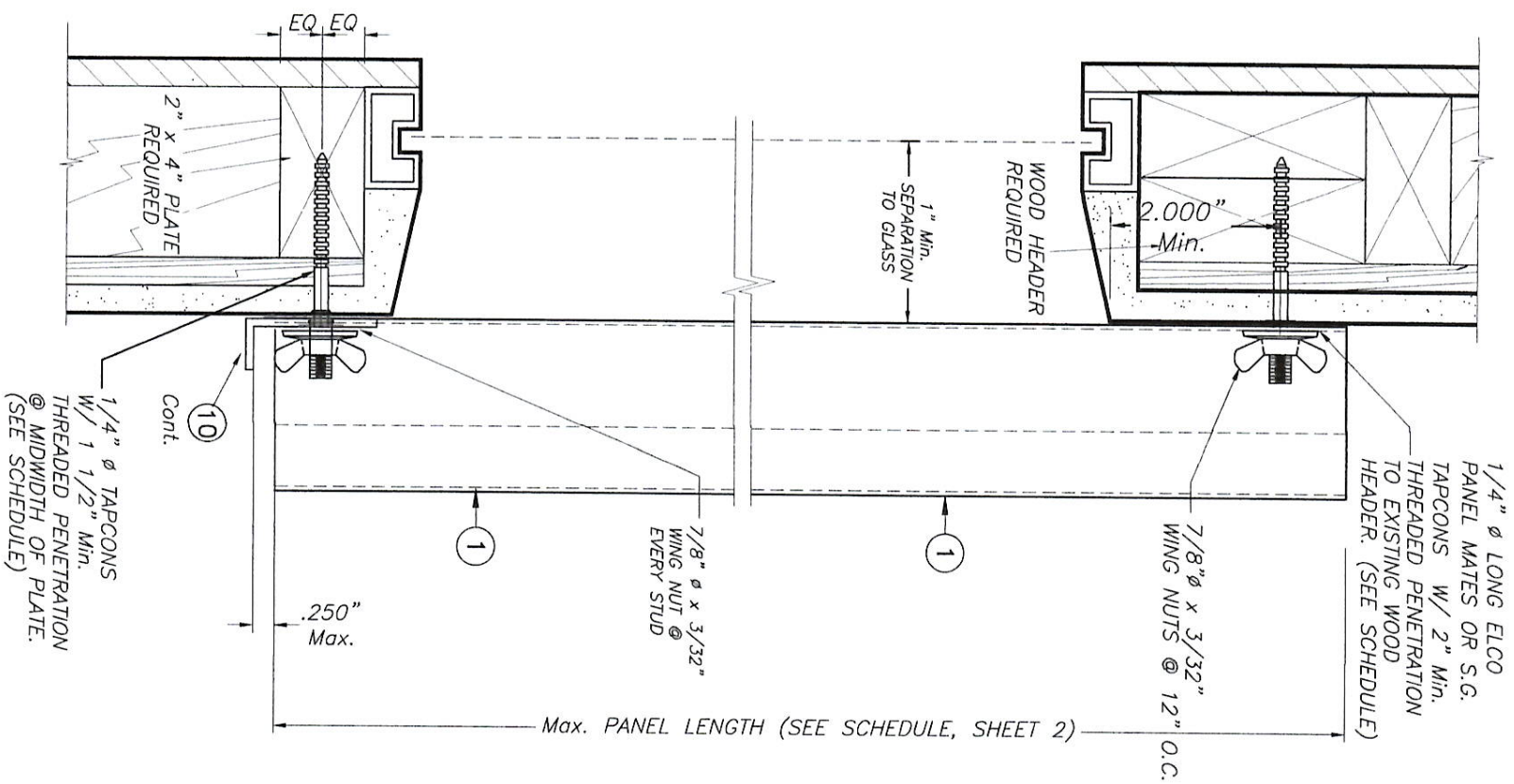
4268 WEST ROADS DRIVE
WEST PALM BEACH, FL. 33407
PHONE: (561)209-8263, FAX: (561)841-1716

TILTECO inc.
TILLIT TESTING & ENGINEERING COMPANY
6355 N.W. 36th, St., Ste. 305, VIRGINIA GARDENS, FL. 33166
Phone : (305)871-1530, Fax : (305)871-1531
EB-0006719
WALTER A. TILLIT JR., P.E.
FLORIDA Lic. 44167

REV. NO	DESCRIPTION	DATE	REV. NO	DESCRIPTION	DATE
1	QUD 15-045	07/26/17	3		
2			4		

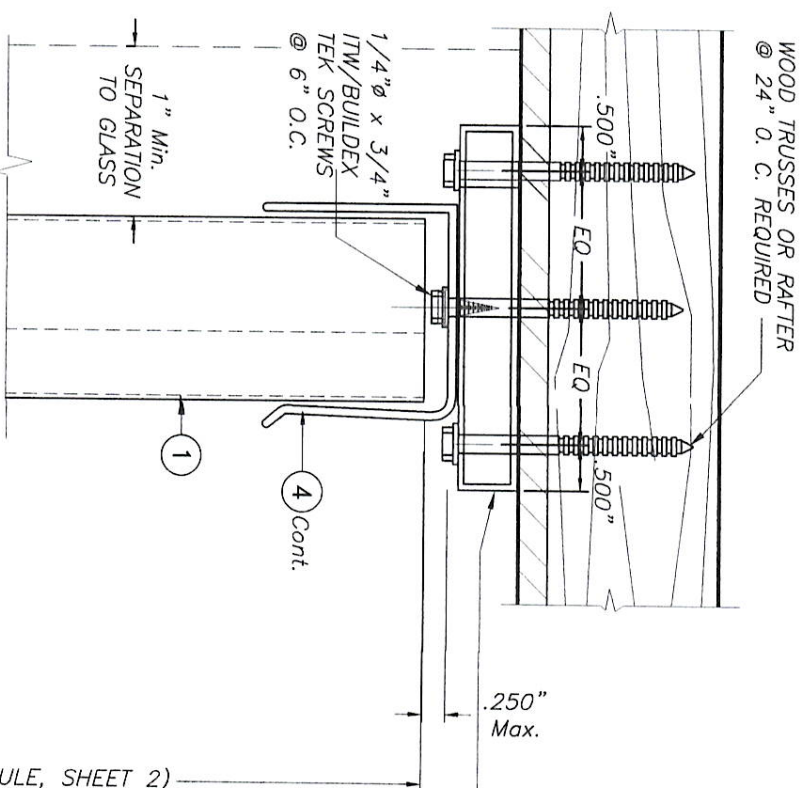
SHEET 13 OF 17





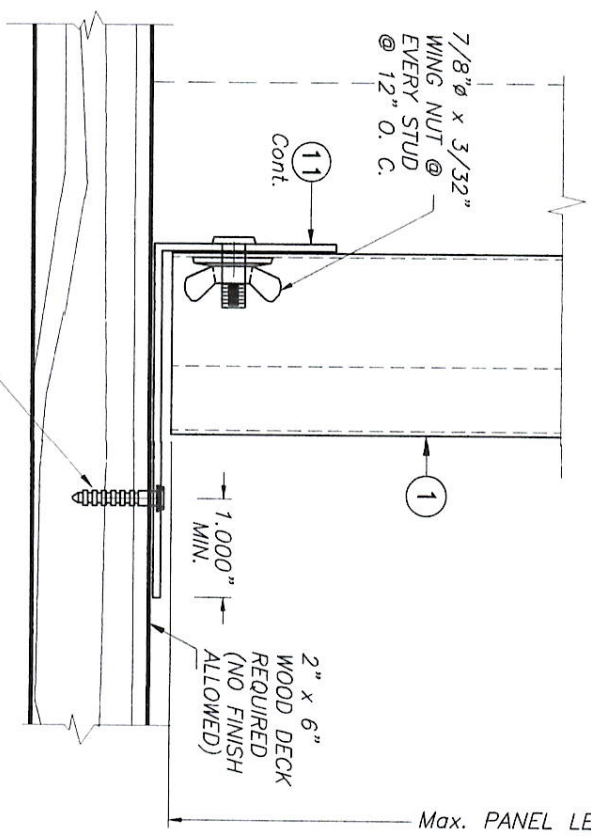
ALTERNATIVE 9
SCALE : 1/2" = 1"

INSTALLATION DETAILS ON EXISTING WOOD BUILDINGS



ALTERNATIVE 10A
SCALE : 1/2" = 1"

(LIMITED TO +60.0, -66.0 p.s.f. DESIGN LOAD AND UP TO 9'-0" Max. PANEL LENGTH)



ALTERNATIVE 10
SCALE : 1/2" = 1"

1" x 4" x 1/8"
Min. (6063-16)
Alum. TUBE W/
(3) 5/16" ø x 4"
LAG SCREWS TO
EACH JOIST.
LOCATE SCREW
AT MIDWIDTH OF
EXISTING WOOD
MEMBER (2" Min.
NOMINAL WIDTH)
W/ 2" Min.
THREADED
PENETRATION.

NOTES:

1. INSTALLATIONS ARE ONLY VALID FOR MAX. A.S.D. DESIGN PRESSURE RATING & PANEL'S LENGTHS AS PER SCHEDULES ON SHEET 2 (EXCEPT AS NOTED)
2. SEE ANCHOR SCHEDULE ON SHEET 16 & 17.
3. FOR NEW WOOD FRAME CONSTRUCTION: WOOD MEMBERS TO BE SOUTHERN PINE No. 2, W/ SPECIFIC DENSITY OF 0.55 OR EQUAL.

NOTE FOR COMBINATION OF SECTIONS :

WALL/FLOOR/CEILING MOUNTING SECTIONS CAN BE COMBINED IN ANY WAY TO SUIT ANY INSTALLATION.

FLORIDA BUILDING CODE (Non High Velocity Hurricane Zone)

0.050" BERTHA ALUMINUM STORM PANEL
(2.00" DEEP)

EASTERN METAL SUPPLY, INC

4268 WEST ROADS DRIVE
WEST PALM BEACH, FL. 33407
PHONE: (561)209-8263, FAX: (561)841-1716

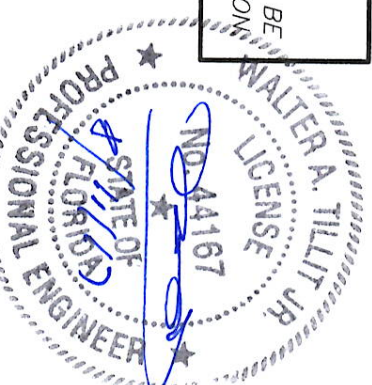
TILTECO inc.
TILLIT TESTING & ENGINEERING COMPANY
6355 N.W. 36th, Ste. 305, VIRGINIA GARDENS, FL. 33166
Phone : (305)971-1530, Fax : (305)971-1531
EB-0006719
WALTER A. TILLIT JR., P.E.
FLORIDA Lic. 44167

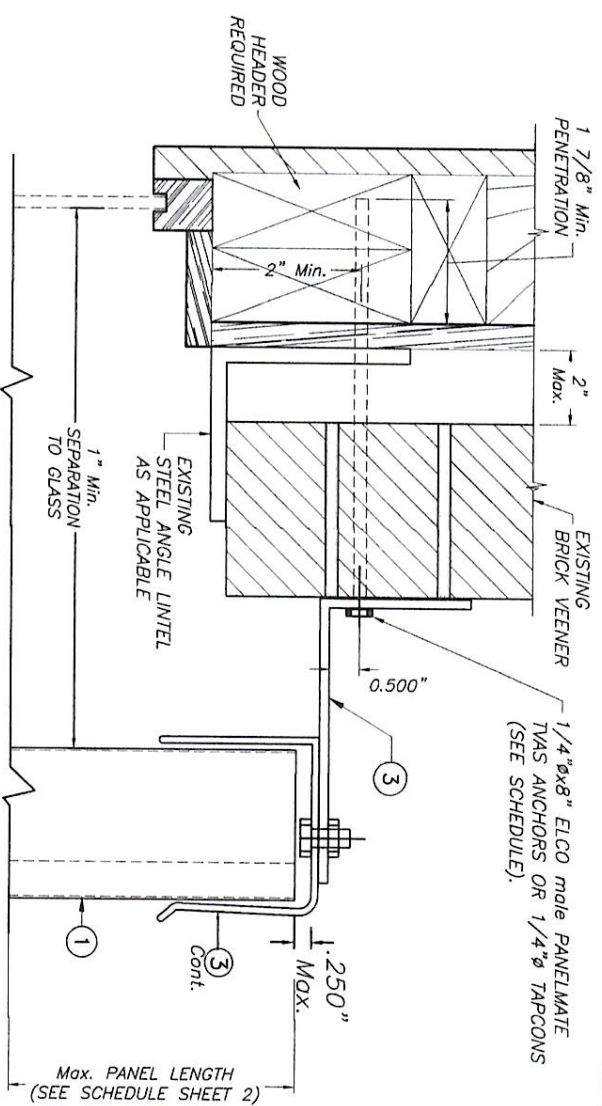
REV. NO	DESCRIPTION	DATE	REV. NO	DESCRIPTION	DATE
1	QAD 15-045	07/26/17	3		
2			4		

17-097
DRAWING No

07/26/17
DATE

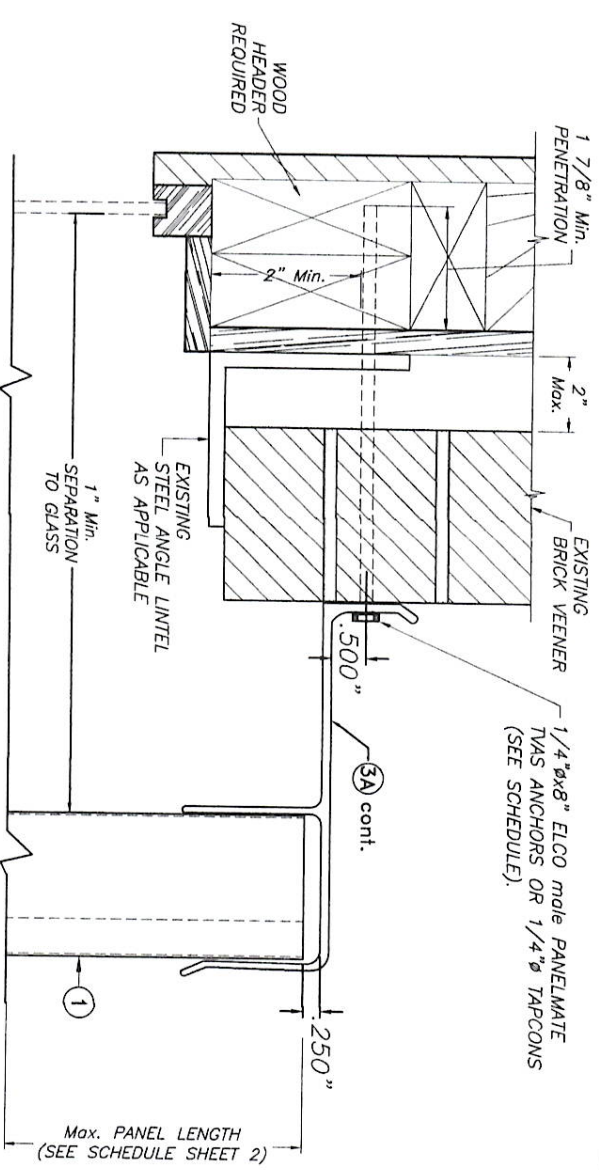
SHEET 14 OF 17





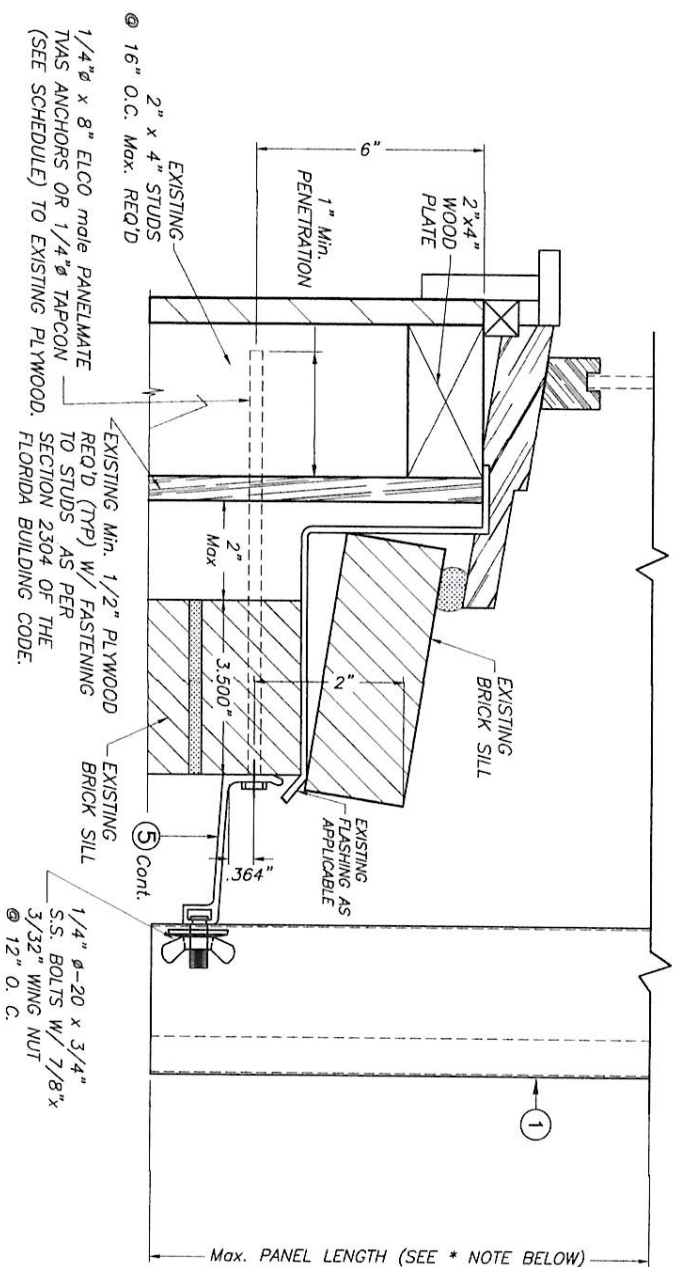
OPTION #1

ALTERNATIVE 11A



OPTION #2

ALTERNATIVE 11A



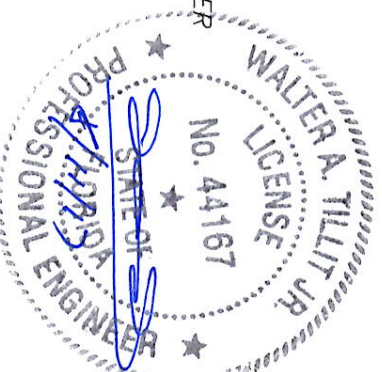
ALTERNATIVE 11

BUILD-OUT INSTALLATION

SCALE : $1/2'' = 1''$

* VALID FOR MAX. A.S.D. DESIGN PRESSURE RATING +50.0, -60.0 p.s.f. FOR UP TO 78" PANELS LENGTHS, AND FOR +50.0, -50.0 p.s.f., FOR PANEL LENGTHS GREATER THAN 78" UP TO 108"

INSTALLATION DETAILS ON EXISTING WOOD BUILDINGS



TILECO inc.

TILLIT TESTING & ENGINEERING COMPANY
 6355 N.W. 26th, St., Ste. 305, VIRGINIA GARDENS, FL. 33166
 Phone : (305)971-1530 , Fax : (305)971-1531
 EB-0006719

WALTER A. TILLIT JR., P.E.
 FLORIDA Lic. 44167

© 2017 TILECO, INC.

0.050" BERTHA ALUMINUM STORM PANEL
 (2.00" DEEP)

L.C.
 DRAWN BY:
 DATE:

EASTERN METAL SUPPLY, INC

4268 WEST ROADS DRIVE
 WEST PALM BEACH, FL. 33407
 PHONE: (561)209-8263, FAX: (561)841-1716

07/26/17
 DATE:

17-097

DRAWING No

REV. NO	DESCRIPTION	DATE	REV. No	DESCRIPTION	DATE
1	OLD 15-045	07/26/17	3		
2			4		

SHEET 14A OF 17

MAXIMUM A.S.D. DESIGN PRESSURE RATING (p.s.f.) AND CORRESPONDING MAXIMUM ANCHOR
SPACING SCHEDULE FOR INSTALLATIONS INTO WOOD FRAME BUILDINGS

MAXIMUM A.S.D. DESIGN PRESSURE RATING (p.s.f.)	WOOD FASTENERS			APPLICABLE TO ALTERNATIVES # & ANY COMBINATION OF THEM	MAXIMUM PANEL LENGTH L" (ft.)
	REGULAR TAPCONS	S.G. TAPCON	PANELMATES OR PANELMATE TMS		
+40.0, -40.0 OR LESS	12"	N/A	N/A	1 (TOP)	8'-0" OR LESS
	12"	N/A	N/A	1 (BOTTOM)	
	12"	N/A	N/A	2 (TOP)	
	9"	N/A	N/A	2 (BOTTOM)	
	9"	N/A	N/A	3A (TOP)	
	9"	N/A	N/A	3 (BOTTOM)	
	12"	N/A	N/A	4 (TOP)	
	12"	N/A	N/A	4 (BOTTOM)	
	9"	N/A	N/A	5A (TOP)	
	9"	N/A	N/A	5 (BOTTOM)	
	8 1/2"	N/A	N/A	7 (BOTTOM)	
	N/A	12"	12"	8 (TOP)	
	N/A	12"	12"	8 (BOTTOM)	
	N/A	12"	12"	9 (TOP)	
	12"	N/A	N/A	9 (BOTTOM)	
	6"	N/A	N/A	10 (BOTTOM)	
	9"	N/A	9"	11A (TOP)	
	4"	N/A	4"	11 (BOTTOM)	
	6"	N/A	N/A	13 (TOP)	
	6"	N/A	N/A	13 (BOTTOM)	
	4"	4"	4"	14 (BOTTOM)	

MAXIMUM A.S.D. DESIGN PRESSURE RATING (p.s.f.)	WOOD FASTENERS			APPLICABLE TO ALTERNATIVES # & ANY COMBINATION OF THEM	MAXIMUM PANEL LENGTH L" (ft.)
	REGULAR TAPCONS	S.G. TAPCON	PANELMATES OR PANELMATE TMS		
+40.0, -40.0 OR LESS	12"	N/A	N/A	1 (TOP)	>8'-0" UP TO 13'-0" *
	12"	N/A	N/A	1 (BOTTOM)	
	12"	N/A	N/A	2 (TOP)	
	9"	N/A	N/A	2 (BOTTOM)	
	9"	N/A	N/A	3A (TOP)	
	9"	N/A	N/A	3 (BOTTOM)	
	12"	N/A	N/A	4 (TOP)	
	12"	N/A	N/A	4 (BOTTOM)	
	9"	N/A	N/A	5A (TOP)	
	5 1/2"	N/A	N/A	5 (BOTTOM)	
	5 1/2"	N/A	N/A	6 (BOTTOM)	
	5 "	N/A	N/A	7 (BOTTOM)	
	N/A	12"	12"	8 (TOP) *	
	N/A	12" *	12" *	8 (BOTTOM) *	
	N/A	12" *	12" *	9 (TOP)	
	12"	N/A	N/A	9 (BOTTOM)	
	5 1/2"	N/A	N/A	10 (BOTTOM)	
	9"	N/A	9"	11A (TOP)	
	4" **	N/A	4" **	11 (BOTTOM) **	
	6"	N/A	N/A	13 (TOP)	
	5 1/2"	N/A	N/A	13 (BOTTOM)	
	4" **	4" **	4" **	14 (BOTTOM)**	

MAXIMUM A.S.D. DESIGN PRESSURE RATING (p.s.f.)	WOOD FASTENERS			APPLICABLE TO ALTERNATIVES # & ANY COMBINATION OF THEM	MAXIMUM PANEL LENGTH L" (ft.)
	REGULAR TAPCONS	S.G. TAPCON	PANELMATES OR PANELMATE TMS		
+40.0, -40.0 UP TO +60.0, -60.0	12"	N/A	N/A	1 (TOP)	8'-0" OR LESS
	12"	N/A	N/A	1 (BOTTOM)	
	12"	N/A	N/A	2 (TOP)	
	9"	N/A	N/A	2 (BOTTOM)	
	9"	N/A	N/A	3A (TOP)	
	9"	N/A	N/A	3 (BOTTOM)	
	12"	N/A	N/A	4 (TOP)	
	12"	N/A	N/A	4 (BOTTOM)	
	9"	N/A	N/A	5A (TOP)	
	8"	N/A	N/A	5 (BOTTOM)	
	8"	N/A	N/A	6 (BOTTOM)	
	5 1/2"	N/A	N/A	7 (BOTTOM)	
	N/A	12"	12"	8 (TOP)	
	N/A	12"	12"	8 (BOTTOM)	
	N/A	12"	12"	9 (TOP)	
	12"	N/A	N/A	9 (BOTTOM)	
	6"	N/A	N/A	10 (BOTTOM)	
	9"	N/A	9"	11A (TOP)	
	4" *	N/A	4" *	11 (BOTTOM) *	
	6"	N/A	N/A	13 (TOP)	
	6"	N/A	N/A	13 (BOTTOM)	
	4" *	4" *	4" *	14 (BOTTOM) *	

* USE 6" OC SPACING FOR PANEL LENGTHS LARGER THAN 10' - 0" AND USE 12" OC
AS SHOWN ON SCHEDULE FOR PANELS LENGTHS EQUAL OR SHORTER THAN 10' - 0"

* VALID ONLY FOR UP TO +50.0, -60.0 p.s.f. MAX. A.S.D. DESIGN PRESSURE
RATING WITH 78" MAX. PANEL LENGTHS OR FOR UP TO +50.0, -50.0 p.s.f.
MAX. A.S.D. DESIGN PRESSURE RATING WITH 96" MAX. PANEL LENGTHS.

** VALID ONLY FOR UP TO 108" PANELS LENGTHS.



© 2017 TILTECO, INC.		FLORIDA BUILDING CODE (Non High Velocity Hurricane Zone)			
0.050" BERTHA ALUMINUM STORM PANEL (2.00" DEEP)		L.C. DRAWN BY: 07/26/17 DATE:			
TILTECO inc.		EASTERN METAL SUPPLY, INC			
TILIT TESTING & ENGINEERING COMPANY 6335 N.W. 36th St., Ste. 305, VIRGINIA GARDENS, FL 33165 Phone : (305)715-1530, Fax : (305)871-1531 WALTER A. TILIT JR., P.E. FLORIDA Lic. 44167		4268 WEST ROADS DRIVE WEST PALM BEACH, FL 33407 PHONE: (561)209-8263, FAX: (561)841-1716 17-097 DRAWING No			
REV. NO	DESCRIPTION	DATE	REV. NO	DESCRIPTION	DATE
1	QLD 15-045	07/26/17	3		
2			4		
					SHEET 16 OF 17

MAXIMUM A.S.D. DESIGN PRESSURE RATING (p.s.f.) AND CORRESPONDING MAXIMUM ANCHOR
SPACING SCHEDULE FOR INSTALLATIONS INTO WOOD FRAME BUILDINGS

MAXIMUM A.S.D. DESIGN PRESSURE RATING (p.s.f.)	WOOD FASTENERS			APPLICABLE TO ALTERNATIVES # & ANY COMBINATION OF THEM	MAXIMUM PANEL LENGTH "L" (ft.)
	REGULAR TAPCONS	S.G. TAPCON	PANELMATES OR PANELMATE TWS		
+60.0, -60.0 UP TO +80.0, -90.0	1 1/2"	N/A	N/A	1 (TOP)	9'-0" OR LESS
	1 1/4"	N/A	N/A	1 (BOTTOM)	
	1 1/4"	N/A	N/A	2 (TOP)	
	9"	N/A	N/A	2 (BOTTOM)	
	9"	N/A	N/A	3A (TOP)	
	9"	N/A	N/A	3 (BOTTOM)	
	1 1/4"	N/A	N/A	4 (TOP)	
	1 1/4"	N/A	N/A	4 (BOTTOM)	
	9"	N/A	N/A	5A (TOP)	
	3 1/2"	N/A	N/A	5 (BOTTOM)	
+60.0, -60.0 UP TO +80.0, -90.0	3 1/2"	N/A	N/A	6 (BOTTOM)	9'-0" OR LESS
	3 1/2"	N/A	N/A	7 (BOTTOM)	
	N/A	12"	6"	8 (TOP)	
	N/A	12"	6"	8 (BOTTOM)	
	N/A	12"	6"	9 (TOP)	
	1 1/4"	N/A	N/A	9 (BOTTOM)	
	3 1/2"	N/A	N/A	10 (BOTTOM)	
	9"	N/A	9"	11A (TOP)	
	N/A	N/A	N/A	11 (BOTTOM)	
	6"	N/A	N/A	13 (TOP)	
+60.0, -60.0 UP TO +80.0, -90.0	3 1/2"	N/A	N/A	13 (BOTTOM)	9'-0" OR LESS
	N/A	N/A	N/A	14 (BOTTOM)	

MAXIMUM A.S.D. DESIGN PRESSURE RATING (p.s.f.)	WOOD FASTENERS			APPLICABLE TO ALTERNATIVES # & ANY COMBINATION OF THEM	MAXIMUM PANEL LENGTH "L" (ft.)
	REGULAR TAPCONS	S.G. TAPCON	PANELMATES OR PANELMATE TWS		
+40.0, -40.0 UP TO +60.0, -80.0	12"	N/A	N/A	1 (TOP)	>8'-0" UP TO 12'-6"
	12"	N/A	N/A	1 (BOTTOM)	
	12"	N/A	N/A	2 (TOP)	
	12"	N/A	N/A	2 (BOTTOM)	
	12"	N/A	N/A	3A (TOP)	
	12"	N/A	N/A	3 (BOTTOM)	
	12"	N/A	N/A	4 (TOP)	
	12"	N/A	N/A	4 (BOTTOM)	
	12"	N/A	N/A	5A (TOP)	
	4"	N/A	N/A	5 (BOTTOM)	
+40.0, -40.0 UP TO +60.0, -80.0	4"	N/A	N/A	6 (BOTTOM)	>8'-0" UP TO 12'-6"
	3 1/2"	N/A	N/A	7 (BOTTOM)	
	N/A	12" *	6" *	8 (TOP) *	
	N/A	12" *	6" *	8 (BOTTOM) *	
	N/A	12"	6"	9 (TOP)	
	12"	N/A	N/A	9 (BOTTOM)	
	4"	N/A	N/A	10 (BOTTOM)	
	12"	N/A	10 1/2"	11A (TOP)	
	4" **	N/A	4" **	11 (BOTTOM) **	
	12"	N/A	N/A	13 (TOP)	
+40.0, -40.0 UP TO +60.0, -80.0	4"	N/A	N/A	13 (BOTTOM)	>8'-0" UP TO 12'-6"
	4" **	4" **	4" **	14 (BOTTOM) **	

MAXIMUM A.S.D. DESIGN PRESSURE RATING (p.s.f.)	WOOD FASTENERS			APPLICABLE TO ALTERNATIVES # & ANY COMBINATION OF THEM	MAXIMUM PANEL LENGTH "L" (ft.)
	REGULAR TAPCONS	S.G. TAPCON	PANELMATES OR PANELMATE TWS		
+90.0, -90.0 UP TO +100.0, -130.0	8 1/2"	N/A	N/A	1 (TOP)	7'-0" OR LESS
	9"	N/A	N/A	1 (BOTTOM)	
	9"	N/A	N/A	2 (TOP)	
	9"	N/A	N/A	2 (BOTTOM)	
	8"	N/A	N/A	3A (TOP)	
	9"	N/A	N/A	3 (BOTTOM)	
	9"	N/A	N/A	4 (TOP)	
	9"	N/A	N/A	4 (BOTTOM)	
	8"	N/A	N/A	5A (TOP)	
	3"	N/A	N/A	5 (BOTTOM)	
+90.0, -90.0 UP TO +100.0, -130.0	3"	N/A	N/A	6 (BOTTOM)	7'-0" OR LESS
	N/A	12"	6"	8 (BOTTOM)	
	N/A	12"	6"	8 (TOP)	
	N/A	12"	6"	9 (TOP)	
	9"	N/A	N/A	9 (BOTTOM)	
	3"	N/A	N/A	10 (BOTTOM)	
	5"	N/A	6"	11A (TOP)	
	N/A	N/A	N/A	11 (BOTTOM)	
	6"	N/A	N/A	13 (TOP)	
	3"	N/A	N/A	13 (BOTTOM)	
+90.0, -90.0 UP TO +100.0, -130.0	N/A	N/A	N/A	14 (BOTTOM)	7'-0" OR LESS
	N/A	N/A	N/A	14 (BOTTOM)	

* USE 6" OC SPACING FOR PANEL LENGTHS LARGER THAN 10' - 0" AND USE 12" OC
AS SHOWN ON SCHEDULE FOR PANELS LENGTHS EQUAL OR SHORTER THAN 10' - 0"
** VALID ONLY FOR UP TO +50.0, -50.0 p.s.f. MAX. A.S.D. DESIGN PRESSURE
RATING WITH 108" Max. PANEL LENGTHS.



© 2017 TILTECO, INC.		FLORIDA BUILDING CODE (Non High Velocity Hurricane Zone)			
0.050" BERTHA ALUMINUM STORM PANEL (2.00" DEEP)		L.C. DRAWN BY:	07/26/17 DATE:		
TILTECO inc.		EASTERN METAL SUPPLY, INC			
TILLIT TESTING & ENGINEERING COMPANY 6355 N.W. 36th St., Ste. 305, VIRGINIA GARDENS, FL 33165 Phone : (305)971-1530 FAX: (305)971-1531 FB-0006719 WALTER A. TILLIT JR., P.E. FLORIDA Lic. 44167		4268 WEST ROADS DRIVE WEST PALM BEACH, FL 33407 PHONE: (561)209-8263, FAX: (561)841-1716			
REV. NO	DESCRIPTION	DATE	REV. NO	DESCRIPTION	DATE
1	OLD 15-045	07/26/17	3		
2			4		
				17-097 DRAWING NO	
				SHEET 17 OF 17	