

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 $K_d=0.85$ 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 (3) STUDDED PLATE AND (5) 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" S.G. TAPCONS AS MANUFACTURED BY ITW/BUILDEX.
- 1/4" S.G. TAPCONS AS MANUFACTURED BY ITW/ BUILDEX.
- 1/4" PANEL MATES ANCHORS MALE OR TVAS AS MANUFACTURED BY ELCO CONSTRUCTION PRODUCTS.
- 1/4" 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" SOLID SET ANCHORS SHALL BE ENTIRELY EMBEDDED INTO THE POURED CONCRETE. NO EMBEDMENT INTO STUCCO SHALL BE PERMITTED.
-1/4" -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" S.G. TAPCONS AS MANUFACTURED BY ITW/BUILDEX.
- 1/4" S.G. TAPCONS AS MANUFACTURED BY ITW/ BUILDEX.
- 1/4" PANEL MATES ANCHORS MALE OR TVAS AS MANUFACTURED BY ELCO CONSTRUCTION PRODUCTS.
- 1/4" 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.

INTO THE CONCRETE BLOCK UNIT SHALL BE 1 1/4".

B.2) -3/4" SOLID SET ANCHORS SHALL BE ENTIRELY EMBEDDED INTO THE CONCRETE BLOCK UNIT

NO EMBEDMENT INTO STUCCO SHALL BE PERMITTED.

1/4"-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 6) 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. (c) 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.

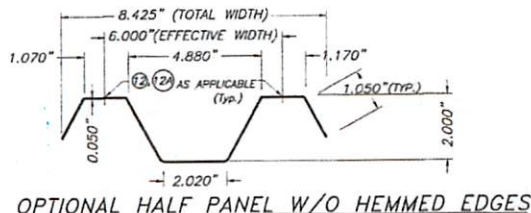
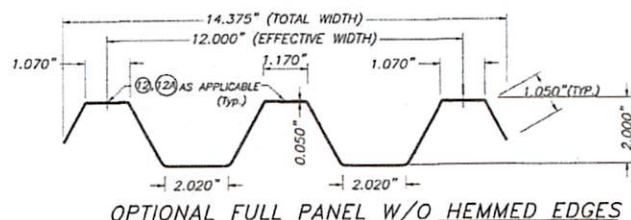
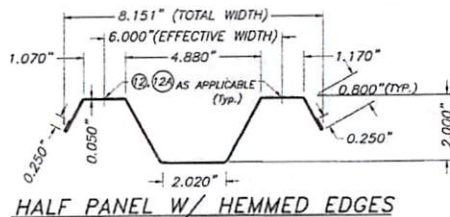
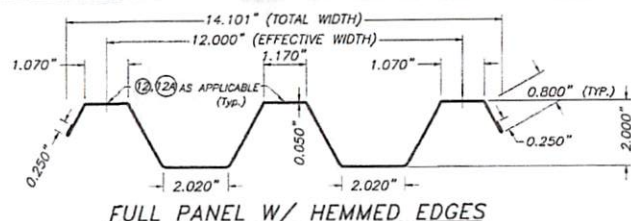
11. SHUTTER MANUFACTURER'S LABEL SHALL BE LOCATED ON A READILY VISIBLE LOCATION AT STORM PANEL IN ACCORDANCE WITH SECTION 1709.9.3 OF FLORIDA BUILDING CODE. ONE LABEL SHALL BE PLACED FOR EVERY OPENING. LABELING TO COMPLY WITH SECTION 1709.9.2 OF THE FLORIDA BUILDING CODE.



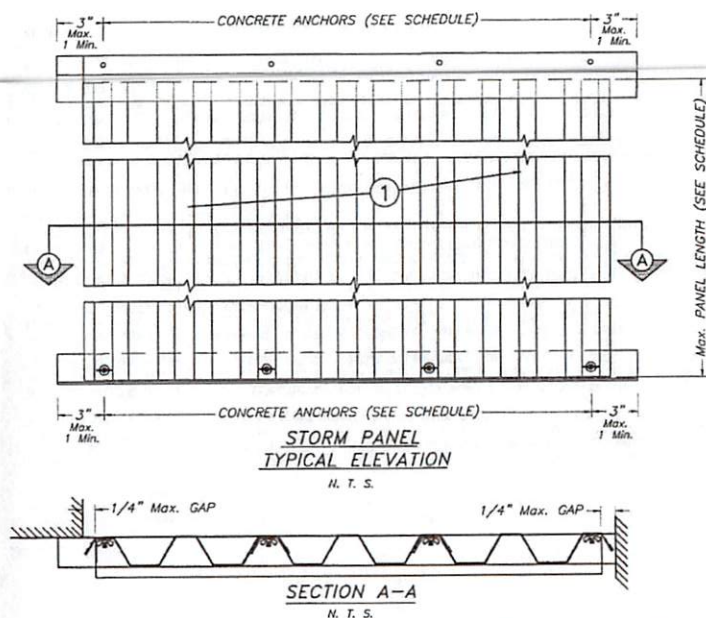
THIS DRAWING SHALL ONLY BE USED TO OBTAIN PERMITS IN THE STATE OF FLORIDA

FLORIDA BUILDING CODE (Non High Velocity Hurricane Zone)

©2017 TILTECO, INC.		0.050" BERTHA ALUMINUM STORM PANEL (2.00" DEEP)		L.C. DRAWN BY:	
TILLIT TESTING & ENGINEERING COMPANY 6330 N.W. 36th St., Ste. 200, VIRGINIA GARDENS, FL 33160 Phone: (305)871-1530, Fax: (305)871-1531 EB-0006719 WALTER A. TILLIT JR., P.E. FLORIDA Lic. 44167		EASTERN METAL SUPPLY, INC		07/26/17 DATE:	
		4268 WEST ROADS DRIVE WEST PALM BEACH, FL 33407 PHONE: (561)209-5263, FAX: (561)841-1718		17-097 DRAWING No	
REV. NO.	DESCRIPTION	DATE	REV. NO.	DESCRIPTION	DATE
1	CLD 15-045	07/26/17	1		
2			2		



① STORM PANEL
SCALE: 1/4" = 1"



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

**PANELS RETAINED AT BOTH
ENDS WITH TRACKS
⑤⑥⑦⑧⑨⑩⑪⑫
OR DIRECT MOUNTED ***

MAXIMUM A.S.D. DESIGN PRESSURE RATING (p.s.f.)	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"

**PANELS RETAINED AT LEAST
IN ONE OF THEIR ENDS
WITH TRACKS
②③④A OR ④***

MAXIMUM A.S.D. DESIGN PRESSURE RATING (p.s.f.)	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"

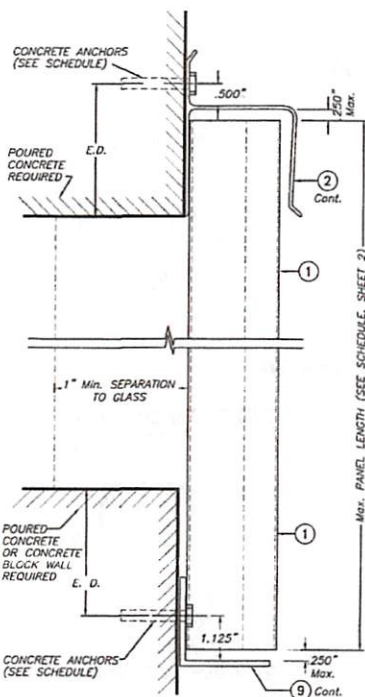
*** NOTE:**

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/ 68" MAX. PANEL
LENGTH.

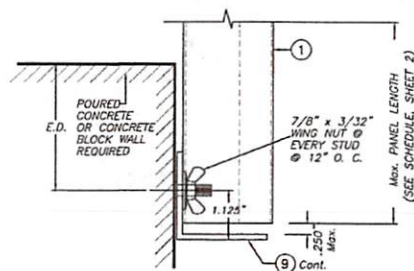
MAX. A.S.D. DESIGN PRESSURE RATING & MAXIMUM
PANEL LENGTH
FOR MOUNTING AS PER ALTERNATIVE #11 AND 14
ON SHEET 14A AND 15 OF 17, RESPECTIVELY, ARE
+50.0, -60.0 p.s.f. FOR 78" MAX. PANEL LENGTH,
AND +50.0, -50.0 p.s.f. FOR UP TO 108" PANEL
LENGTH.

FLORIDA BUILDING CODE (Non High Velocity Hurricane Zone)

©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. 25th St., Ste. 202, VERO BEACH, FL 33407 Phone: (305)671-1532 Fax: (305)671-1531 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)841-1718		07/26/17 DATE:
REV. NO.		DESCRIPTION		17-097 DRAWING No
1	OLD 15-045	07/26/17	3	
2			4	
				SHEET 2 OF 17



SECTION @ ANCHOR

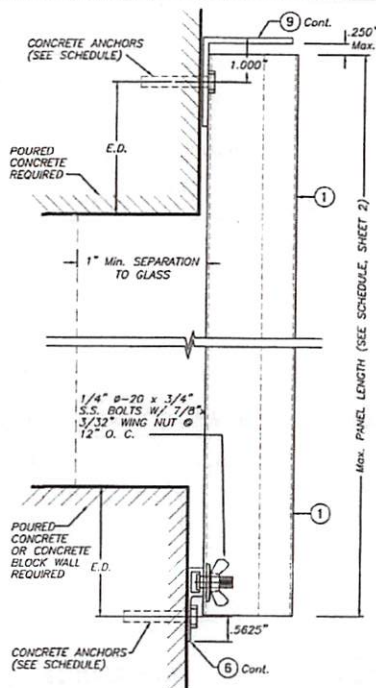


SECTION @ STUD

WALL MOUNTING INSTALLATION SECTION 1

SCALE: 1/2" = 1"

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

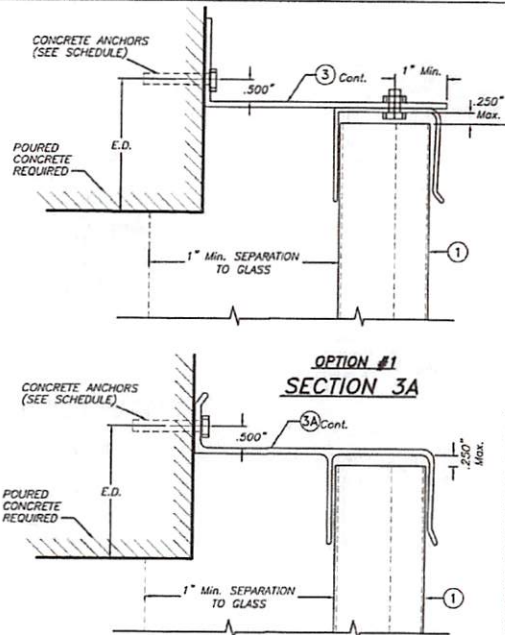


WALL MOUNTING INSTALLATION SECTION 2

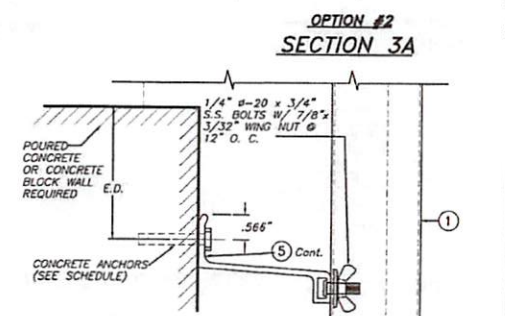
SCALE: 1/2" = 1"

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.



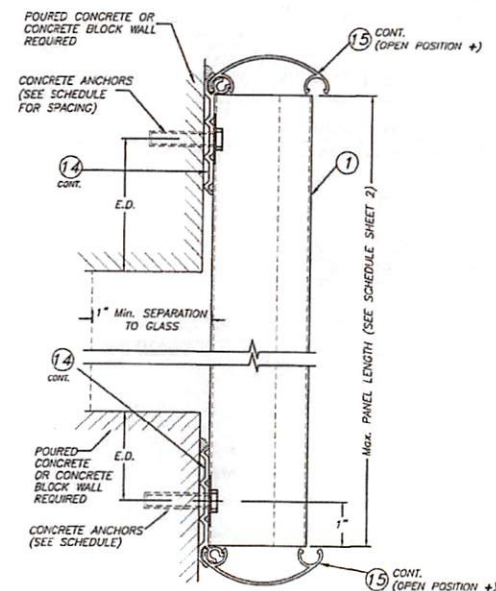
OPTION #1 SECTION 3A



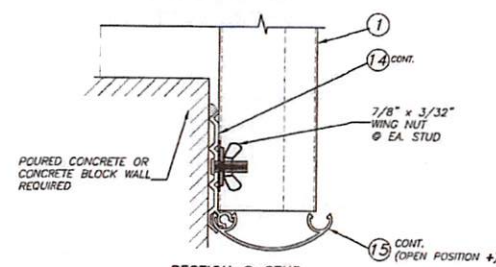
OPTION #2 SECTION 3A

BUILD-OUT INSTALLATION SECTION 3

* NOTE: SNAP CAP (15) TO
REMAIN CLOSED AT NON
HURRICANE CONDITIONS.



SECTION @ ANCHOR



SECTION @ STUD
TYP. TOP/BOTTOM

WALL MOUNTING INSTALLATION SECTION 4

SCALE: 1/2" = 1"



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TILTECO INC.
TILLIT TESTING & ENGINEERING COMPANY
6305 N.W. 36th St., Ste. 305, VIRGINIA GARDENS, FL 33165
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FBI-0006719
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)841-1715

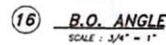
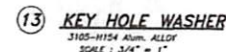
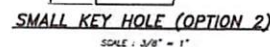
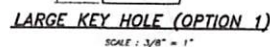
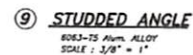
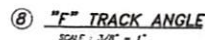
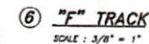
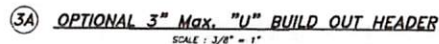
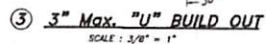
REV. NO.	DESCRIPTION	DATE	REV. NO.	DESCRIPTION	DATE
1	OLD 15-045	07/26/17	3		
2			4		

L.C.
DRAWN BY:

07/26/17
DATE:

17-097
DRAWING No

SHEET 4 OF 17



FLORIDA BUILDING CODE (Non High Velocity Hurricane Zone)

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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)841-1715

17-097

DRAWING No

SHEET 3 OF 17

TILTECO INC.
TILLIT TESTING & ENGINEERING COMPANY
6355 N.W. 36th St., Ste. 305, VIRGINIA GARDENS, FL 33166
Phone : (305)871-1539 • Fax : (305)871-1531
EB-0006719
WALTER A. TILLIT Jr., P.E.
FLORIDA Lic. 44187

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

SOLID SET OR ELCO male PANELMATE OR S.G. TAPCONS

@ 12 OR 12A W/1/4"-20 SIDEWALK BOLT OR @
12 OR 12A W/13 W/1/4"-20 TRUSSHEAD BOLT + +
(SEE SCHEDULE FOR SPACING)

7/8" x 3/32"
WING NUTS @ 12" O.C.
AT PANELMATES OR
S.G. TAPCONS

POURED
CONCRETE
REQUIRED

1" Min. SEPARATION
TO GLASS

7/8" x 3/32"
WING NUT @
EVERY STUD
@ 12" O. C.

POURED
CONCRETE
OR CONCRETE
BLOCK WALL
REQUIRED

CONCRETE ANCHORS
(SEE SCHEDULE)

Max. PANEL LENGTH (SEE SCHEDULE, SHEET 2)

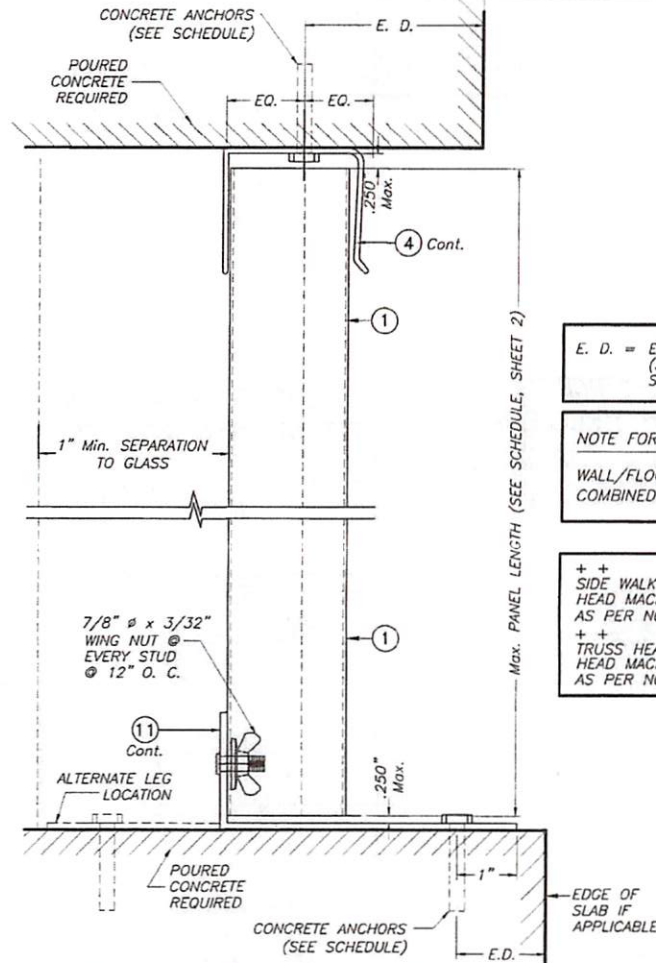
250" Max.

Cont.

WALL MOUNTING INSTALLATION

SECTION 9

SCALE : 1/2" = 1"



CEILING & FLOOR MOUNTING INSTALLATION



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.

+ +
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)

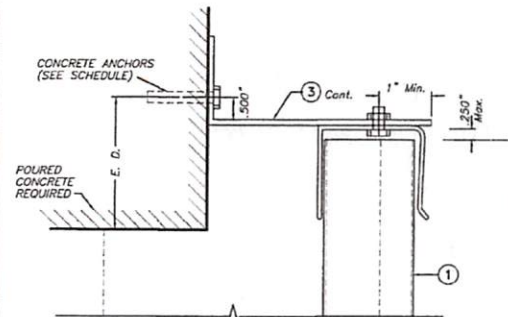
FLORIDA BUILDING CODE (Non High Velocity Hurricane Zone)

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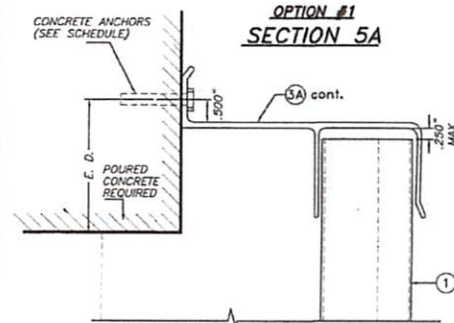
TILTECO INC.

TILT TESTING & ENGINEERING COMPANY
6325 N.W. 20th St., Ste. 202, VIRGINIA GARDENS, FL 33146
Phone : (305)871-1530 - Fax : (305)871-1531
EB-0006719
WALTER A. TILT JR., P.E.
FLORIDA Lic. 44167

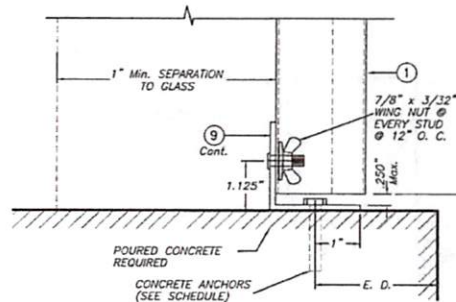
0.050" BERTHA ALUMINUM STORM PANEL (2.00" DEEP)				L.C.
EASTERN METAL SUPPLY, INC				DRAWN BY:
4268 WEST ROADS DRIVE WEST PALM BEACH, FL 33407 PHONE: (561)209-8263, FAX: (561)841-1718				07/26/17 DATE:
REV. NO. DESCRIPTION DATE REV. NO. DESCRIPTION DATE				17-097 DRAWING No
1	OLD 15-045	07/26/17	3	
2			4	
				SHEET 6 OF 17



**OPTION #1
SECTION 5A**

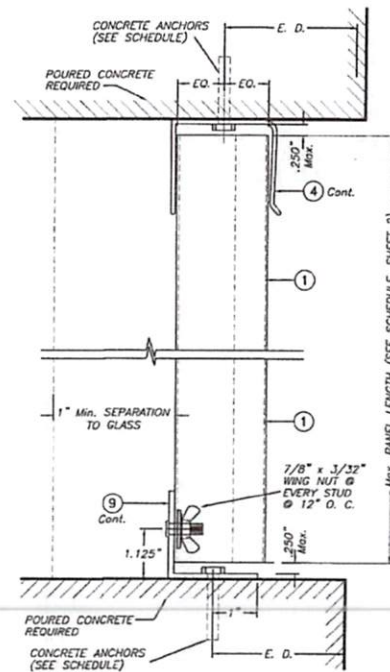


**OPTION #2
SECTION 5A**



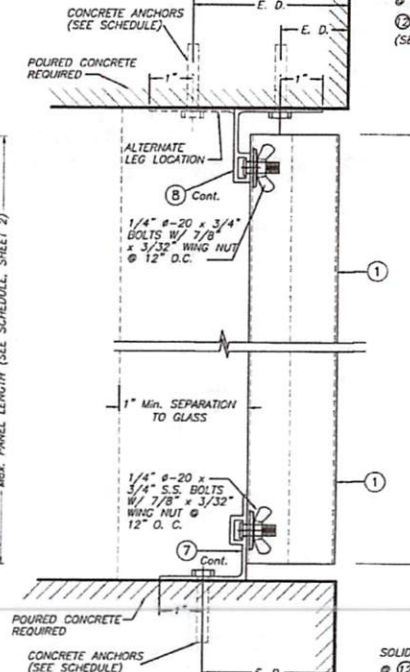
**BUILD-OUT & FLOOR MOUNTING
INSTALLATION - SECTION 5**

SCALE : 1/2" = 1"



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

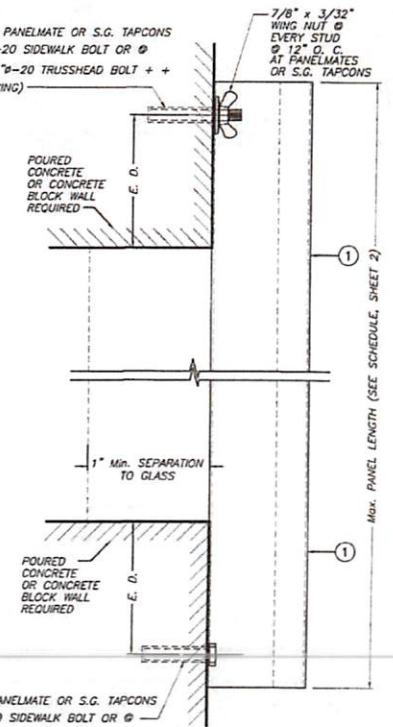
SCALE : 1/2" = 1"



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

SCALE : 1/2" = 1"

SOLID SET OR ELCO male PANELMATE OR S.G. TAPCONS
Ø 12 OR 24 W/1/4"-20 SIDEWALK BOLT OR Ø
2 OR 24 W/1/4"-20 TRUSSHEAD BOLT + +
(SEE SCHEDULE FOR SPACING)



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

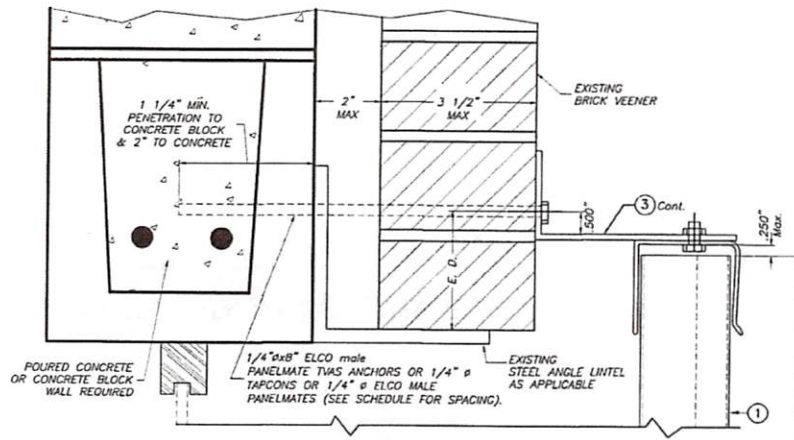
SCALE : 1/2" = 1"

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

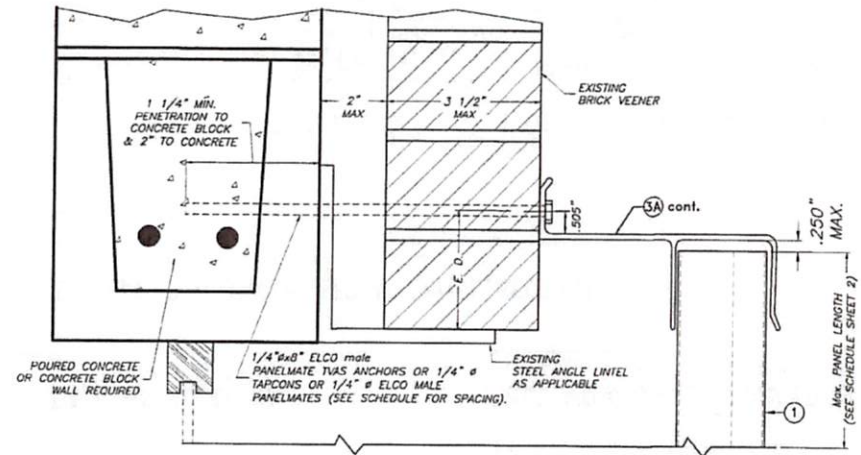
NOTE FOR COMBINATION OF SECTIONS :
WALL/FLOOR/CEILING MOUNTING SECTIONS CAN BE
COMBINED IN ANY WAY TO SUIT ANY INSTALLATION.



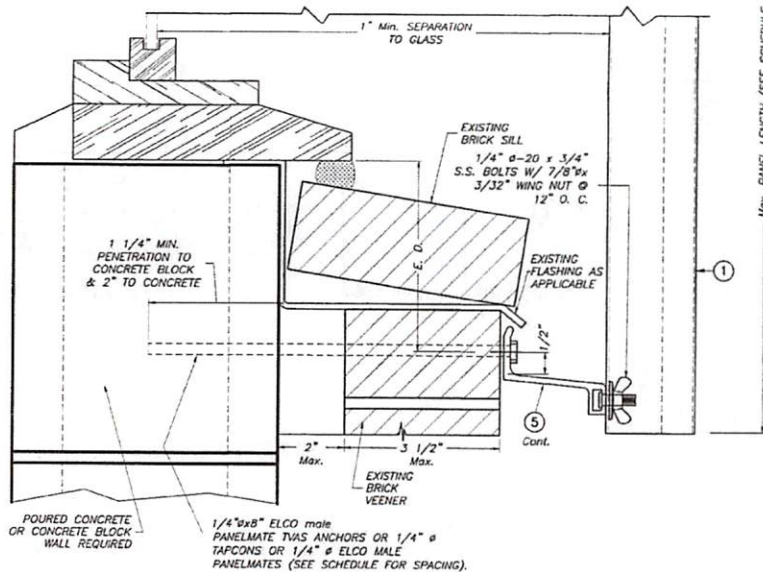
FLORIDA BUILDING CODE (Non High Velocity Hurricane Zone)			
0.050" BERTHA ALUMINUM STORM PANEL (2.00" DEEP)		L.C. DRAWN BY:	
EASTERN METAL SUPPLY, INC.		07/26/17	
4268 WEST ROADS DRIVE WEST PALM BEACH, FL 33407 PHONE: (561)209-8263, FAX: (561)841-1716		DATE:	
TILLIT TESTING & ENGINEERING COMPANY 8355 N.W. 26th St., Ste. 325, VIRGINIA GARDENS, FL 33165 Phone: (305)871-1530, Fax: (305)871-1531 E.E.-0008719 WALTER A. TILLIT JR., P.E. FLORIDA Lic. 44167		17-097	
REV. NO.	DESCRIPTION	DATE	REV. NO.
1	GLD 18-048	07/26/17	3
2			4
		DRAWING No	
		SHEET 5 OF 17	



OPTION #1
SECTION 11A



OPTION #2
SECTION 11A



BUILD OUT INSTALLATION
SECTION 11

SCALE: 3/8" = 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.

++ 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)



FLORIDA BUILDING CODE (Non High Velocity Hurricane Zone)

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TILTECO INC.
TILLIT TESTING & ENGINEERING COMPANY
6355 N.W. 25th St., Ste. 305, VERO BEACH, FL 33467
Phone: (352)971-1530 Fax: (352)971-1531
EB-0006719
WALTER A. TILLIT JR., P.E.
FLORIDA Lic. 44167

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)941-1716

L.C.
DRAWN BY:
07/26/17
DATE:
17-097
DRAWN

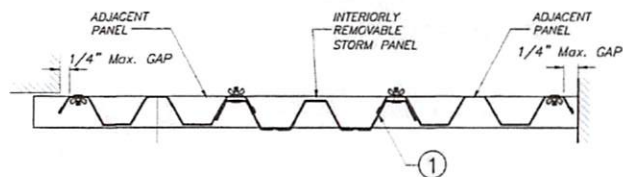
REV. NO	DESCRIPTION	DATE	REV. NO	DESCRIPTION	DATE
1	ELB 15-045	07/26/17	1		
2			2		

SHEET 6A OF 17

17-097

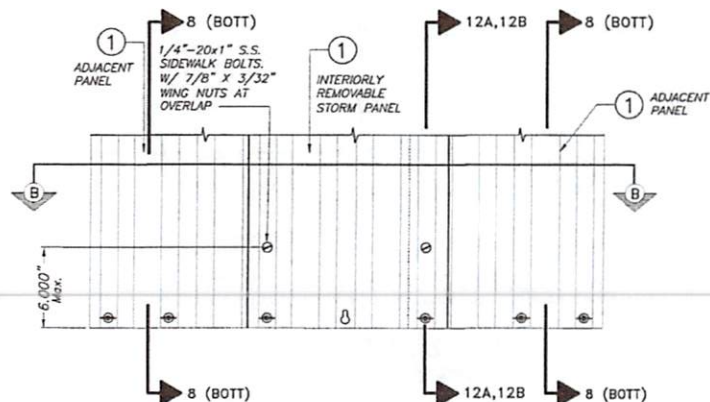
DRAWING No

SHEET 6A OF 17



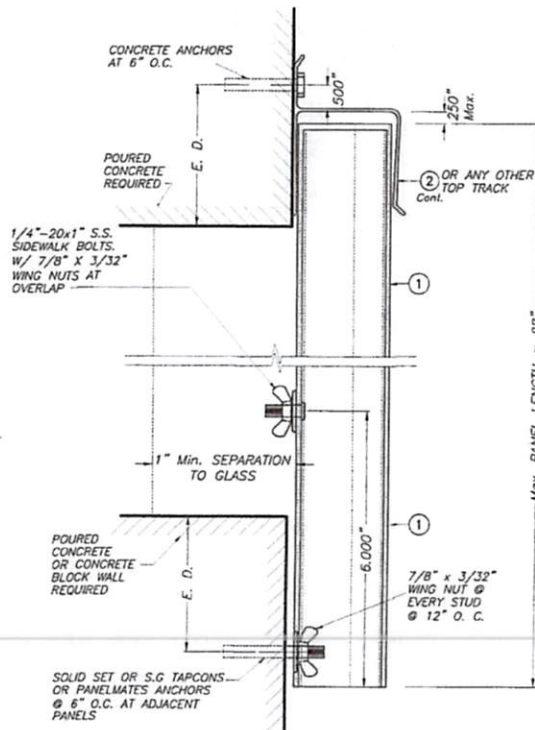
SECTION B-B

SCALE : 1 1/2" = 1"



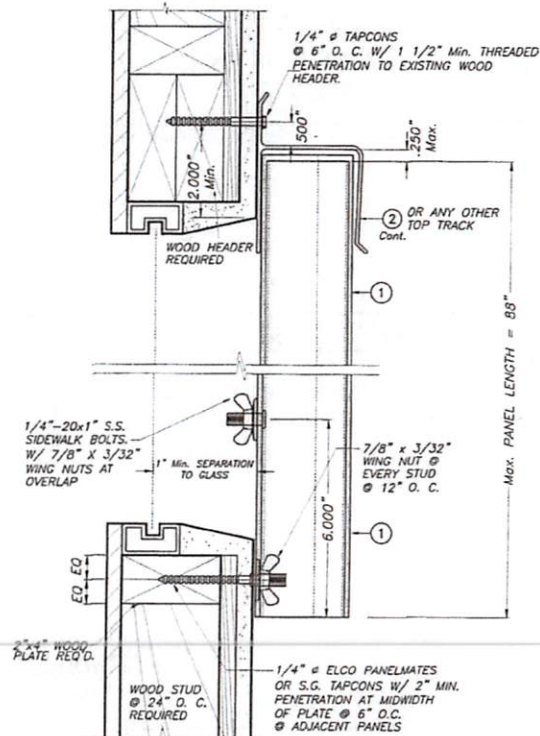
INTERIORLY REMOVABLE STORM PANEL PARTIAL ELEVATION

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 SECTIONS

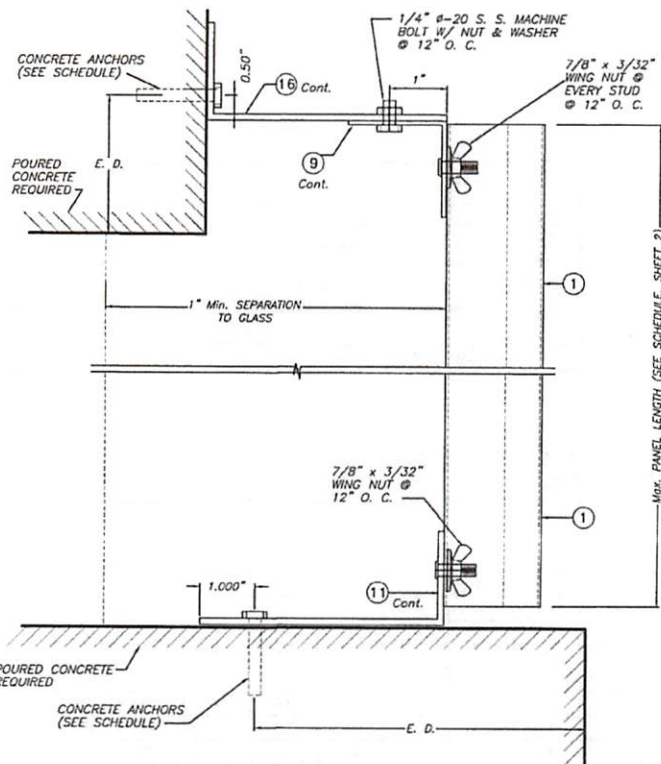
MAX. A.S.D DESIGN PRESSURE RATING = +50.0, -50.0 p.s.f.



FLORIDA BUILDING CODE (Non High Velocity Hurricane Zone)

© 2017 TILTECO, INC.		0.050" BERTHA ALUMINUM STORM PANEL (2.00" DEEP)		L.C.
TILTECO INC. TILIT TESTING & ENGINEERING COMPANY 6305 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		EASTERN METAL SUPPLY, INC 4268 WEST ROADS DRIVE WEST PALM BEACH, FL 33407 PHONE: (561)209-8263, FAX: (561)841-1718		DRAWN BY:
				07/26/17
				DATE:
				17-097
				DRAWING No
REV. NO	DESCRIPTION	DATE	REV. NO	DESCRIPTION
1	OLD 15-045	05/26/17	2	
2			4	

SHEET 7 OF 17

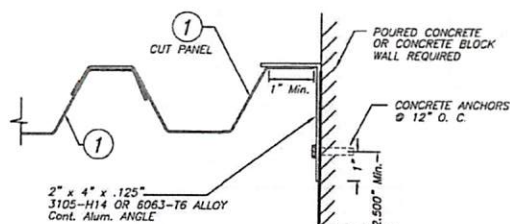


CEILING & FLOOR MOUNTING INSTALLATION - SECTION 13

SCALE: 1/2" = 1"

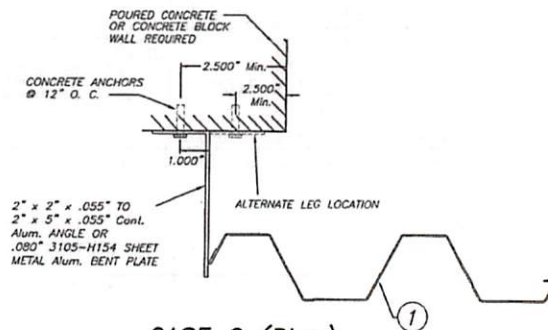
E. D. = EDGE DISTANCE
(SEE SCHEDULE ON
SHEETS 9, 10 & 11)

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



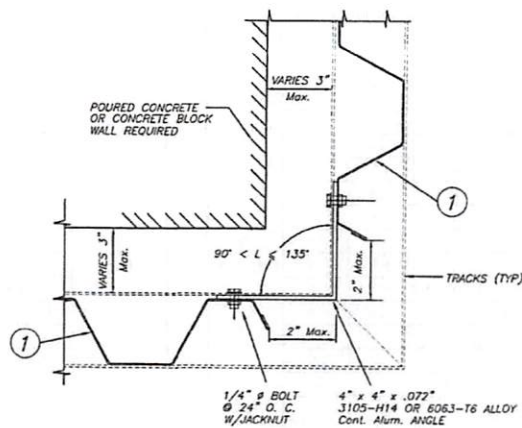
CASE A (Plan)

SCALE: 1/4" = 1"



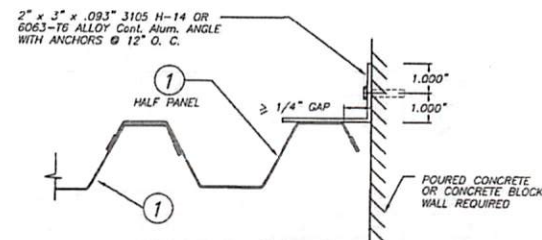
CASE C (Plan)

SCALE: 1/4" = 1"



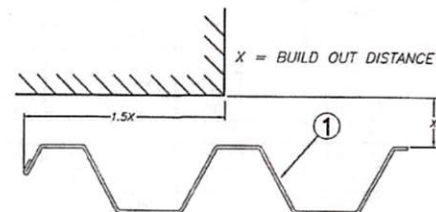
CASE B (Plan)

SCALE: 1/4" = 1"



CASE D (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.
TILTECO INC.		EASTERN METAL SUPPLY, INC.		DRAWN BY:
TILLIT TESTING & ENGINEERING COMPANY 8355 N.W. 56th St., Ste. 305, VIRGINIA GARDENS, FL 33166 Phone: (305)871-1530 - Fax: (305)871-1531 ED-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		07/26/17 DATE:
REV. NO.	DESCRIPTION	DATE	REV. No.	DESCRIPTION
1	OLD 15-045	07/26/17	2	
2			4	
				17-097 DRAWING No
				SHEET 8 OF 17

FLORIDA BUILDING CODE (Non High Velocity Hurricane Zone)

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 ANCHOR SPACING FOR E. D. = 3 1/2" **										APPLICABLE TO SECTIONS 1 & ANY COMBINATION OF THEM	MAXIMUM PANEL LENGTH 1" (ft.)
	REGULAR TAPCONS		SOLID SET		S.G. TAPCON		PANELMATES		PANELMATE TWS			
	TO CONCRETE	TO MASONRY	TO CONCRETE	TO MASONRY	TO CONCRETE	TO MASONRY	TO CONCRETE	TO MASONRY	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	N/A	N/A	5 (BOTTOM)	
	12"	N/A	12"	N/A	12"	N/A	12"	N/A	N/A	N/A	6 (TOP)	
	12"	N/A	12"	N/A	12"	N/A	12"	N/A	N/A	N/A	6 (BOTTOM)	
	12"	N/A	12"	N/A	12"	N/A	12"	N/A	N/A	N/A	7 (TOP)	
	12"	N/A	12"	N/A	12"	N/A	12"	N/A	N/A	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)	
	12"	11"	12"	12"	12"	12"	12"	12"	12"	12"	9 (BOTTOM)	
	12"	N/A	12"	N/A	12"	N/A	12"	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"	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	N/A	N/A	13 (BOTTOM)	

MAXIMUM A.S.D. DESIGN PRESSURE RATING (p.s.f.)	MAXIMUM ANCHOR SPACING FOR E. D. = 3 1/2" **										APPLICABLE TO SECTIONS 1 & ANY COMBINATION OF THEM	MAXIMUM PANEL LENGTH " (ft.)
	REGULAR TAPCONS		SOLID SET		S.G. TAPCON		PANELMATES		PANELMATE TWS			
	TO CONCRETE	TO MASONRY	TO CONCRETE	TO MASONRY	TO CONCRETE	TO MASONRY	TO CONCRETE	TO MASONRY	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	11"	N/A	12"	N/A	12"	N/A	N/A	N/A	5 (BOTTOM)	
	9"	N/A	11 1/2"	N/A	12"	N/A	12"	N/A	N/A	N/A	6 (TOP)	
	9"	N/A	11"	N/A	12"	N/A	12"	N/A	N/A	N/A	6 (BOTTOM)	
	9"	N/A	11"	N/A	12"	N/A	12"	N/A	N/A	N/A	7 (TOP)	
	9"	N/A	11"	N/A	12"	N/A	12"	N/A	N/A	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)*	
	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	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"	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)	

* 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 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	-	-

ANCHORS LEGEND

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

E. D. = EDGE DISTANCE



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TILTECO INC.		0.050" BERTHA ALUMINUM STORM PANEL (2.00" DEEP)	
TILLIT TESTING & ENGINEERING COMPANY 8350 N.W. 36th St., Ste. 205, VIRGINIA GARDENS, FL 33166 Phone: (305)871-1530 - Fax: (305)871-1531 E: 0006719		EASTERN METAL SUPPLY, INC 4268 WEST ROADS DRIVE WEST PALM BEACH, FL 33407 PHONE: (561)209-8263, FAX: (561)841-1716	
REV. NO.	DESCRIPTION	DATE	REV. NO.
1	OLD 15-048	07/26/17	3
2			4
WALTER A. TILL JR., P.E. FLORIDA Lic. 44167		L.C. DRAWN BY: 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 RATING (p.s.f.)	MAXIMUM ANCHOR SPACING FOR E. D. = 3 1/2" **										APPLICABLE TO SECTIONS # & ANY COMBINATION OF THEM	MAXIMUM PANEL LENGTH " (ft.)
	REGULAR TAPCONS		SOLID SET		S.G. TAPCON		PANELMATES		PANELMATE TVAS			
	TO CONCRETE	TO MASONRY	TO CONCRETE	TO MASONRY	TO CONCRETE	TO MASONRY	TO CONCRETE	TO MASONRY	TO CONCRETE	TO MASONRY		
	12"	N/A	12"	N/A	12"	N/A	12"	N/A	12"	N/A	1 (TOP)	
	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)	
	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)	
	6"	N/A	6 1/2"	N/A	7"	N/A	6 1/2"	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) *	
	12"	4 1/2"	12"	12"	12"	12"	12"	8 1/2"	12"	8 1/2"	9 (BOTTOM)	
	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)	
	6"	N/A	6 "	N/A	6"	N/A	6"	N/A	N/A	N/A	13 (BOTTOM)	

+40.0, -40.0
UP TO
+60.0, -60.0

>8"-0"
UP TO
12"-6"

MAXIMUM A.S.D. DESIGN PRESSURE RATING (p.s.f.)	MAXIMUM ANCHOR SPACING FOR E. D. = 3 1/2" **										APPLICABLE TO SECTIONS # 4 ANY COMBINATION OF THEM	MAXIMUM PANEL LENGTH "L" (ft.)
	REGULAR TAPCONS		SOLID SET		S.G. TAPCON		PANELMATES		PANELMATE TVAS			
	TO CONCRETE	TO MASONRY	TO CONCRETE	TO MASONRY	TO CONCRETE	TO MASONRY	TO CONCRETE	TO MASONRY	TO CONCRETE	TO MASONRY		
+90.0, -90.0 UP TO +100.0, -130.0	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"	9"	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"	9"	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)	
	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)	
	5"	N/A	6"	N/A	7"	N/A	7"	N/A	N/A	N/A	7 (BOTTOM)	
	N/A	N/A	12"	6"	12"	6"	12"	6"	12"	6"	8 (TOP)	
	N/A	N/A	12"	6"	12"	6"	12"	6"	12"	6"	8 (BOTTOM)	
	N/A	N/A	12"	6"	12"	6"	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	5"	N/A	6"	N/A	N/A	N/A	10 (BOTTOM)	
5"	4"	N/A	N/A	N/A	N/A	7"	7"	7"	7"	11A (TOP)		
5"	4"	N/A	N/A	N/A	N/A	7"	7"	7"	7"	11 (BOTTOM)		
6"	N/A	6"	N/A	6"	N/A	6"	N/A	N/A	N/A	13 (TOP)		
5"	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"

** 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 TVAS	SOLID SET
3"	-	.86	.75
2 1/2"	-	.71	.50
2"	-	.50	-
1 1/2"	.35	-	-

ANCHORS LEGEND

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

E. D. = EDGE DISTANCE



FLORIDA BUILDING CODE (Non High Velocity Hurricane Zone)

© 2017 TILTECO, INC.		0.050" BERTHA ALUMINUM STORM PANEL (2.00" DEEP)		L.C. DRAWN BY:
TILTECO INC. TILLIT TESTING & ENGINEERING COMPANY 4355 N.W. 36th St., Ste. 305, VIRGINIA GARDENS, FL 33166 Phone: (305)871-1530 Fax: (305)871-1531 E: 0006719		EASTERN METAL SUPPLY, INC. 4388 WEST ROADS DRIVE WEST PALM BEACH, FL 33407 PHONE: (561)209-8263, FAX: (561)841-1718		07/26/17 DATE:
WALTER A. TILLIT JR., P.E. FLORIDA Lic. 44167		REV. NO. DESCRIPTION DATE REV. No. DESCRIPTION DATE		17-097 DRAWING No
		1 OLD 15-045 07/26/17 2		
		2		
				SHEET 11 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 ANCHOR SPACING FOR E. D. = 3 1/2"										APPLICABLE TO SECTIONS # 8 ANY COMBINATION OF THEM	MAXIMUM PANEL LENGTH "L" (ft.)
	REGULAR TAPCONS		SOLID SET		S.G. TAPCON		PANELMATES		PANELMATE TWAS			
	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)	8'-0" OR LESS
	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)	
	12"	7"	12"	12"	12"	12"	12"	12"	12"	12"	9 (BOTTOM)	
	10"	N/A	12"	N/A	12"	N/A	12"	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"	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	N/A	N/A	13 (TOP)	
	6"	N/A	6"	N/A	6"	N/A	6"	N/A	N/A	N/A	13 (BOTTOM)	

MAXIMUM A.S.D. DESIGN PRESSURE RATING (p.s.f.)	MAXIMUM ANCHOR SPACING FOR E. D. = 3 1/2"										APPLICABLE TO SECTIONS # & COMBINATION OF THEM	MAXIMUM PANEL LENGTH "L" (ft.)
	REGULAR TAPCONS		SOLID SET		S.G. TAPCON		PANELMATES		PANELMATE TWIS			
	TO CONCRETE	TO MASONRY	TO CONCRETE	TO MASONRY	TO CONCRETE	TO MASONRY	TO CONCRETE	TO MASONRY	TO CONCRETE	TO MASONRY		
+60.0, -60.0 UP TO +80.0, -80.0	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"	9"	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"	9"	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)	

**MAXIMUM ANCHOR SPACINGS ARE VALID FOR 3 1/2" EDGE DISTANCE. FOR E.D. LESS THAN 3 1/2", REDUCE ANCHOR SPACINGS 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 TWAS	SOLID SET
3"	-	.86	.75
2 1/2"	-	.71	.50
2"	-	.50	-
1 1/2"	.35	-	-

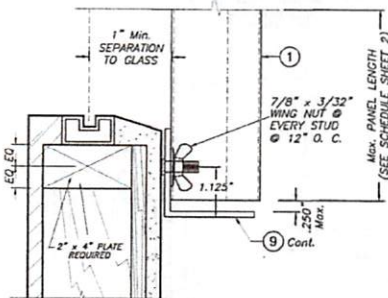
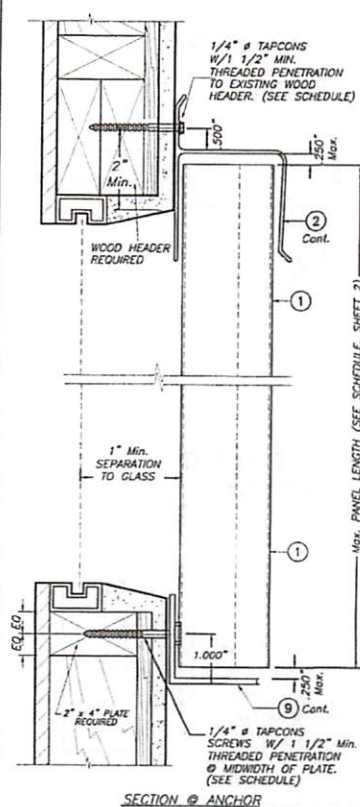
ANCHORS LEGEND

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

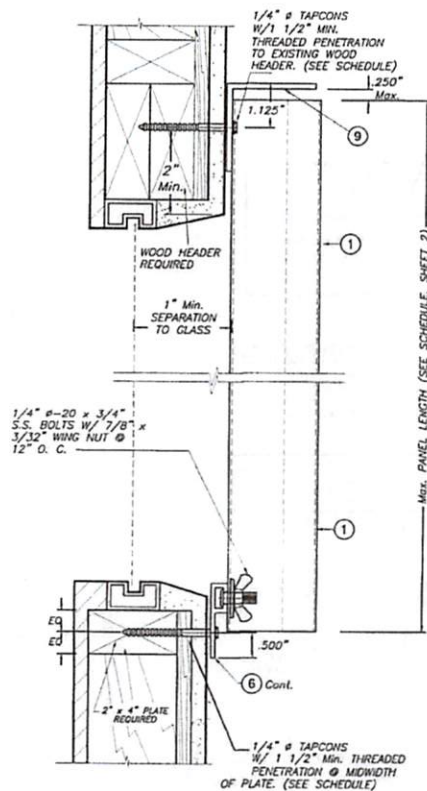


FLORIDA BUILDING CODE (Non High Velocity Hurricane Zone)

0.050" BERTHA ALUMINUM STORM PANEL (2.00" DEEP)	L.C. DRAWN BY: 07/26/17 DATE: 17-097
EASTERN METAL SUPPLY, INC. 4268 WEST ROADS DRIVE WEST PALM BEACH, FL 33407 PHONE: (561) 209-8263, FAX: (561) 241-1718	DRAWING No. SHEET 10 OF 17
REV. NO. DESCRIPTION DATE REV. NO. DESCRIPTION DATE	
1 OLD 15-045 09/26/17	2



SECTION @ STUD
ALTERNATIVE 1
SCALE: 1/2" = 1"

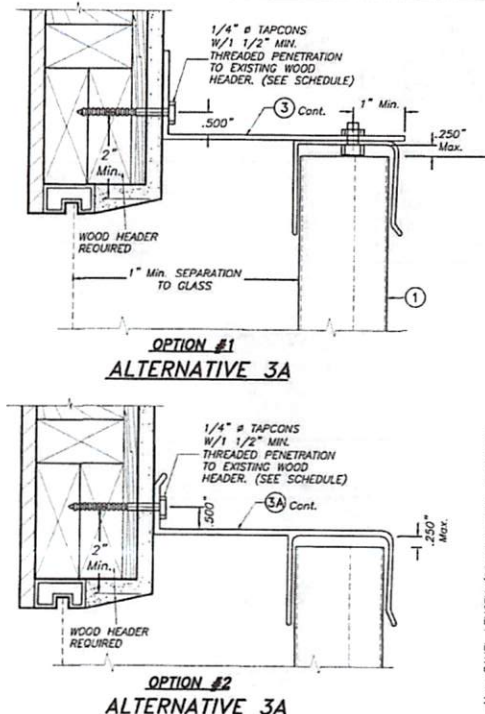


ALTERNATIVE 2
SCALE: 1/2" = 1"

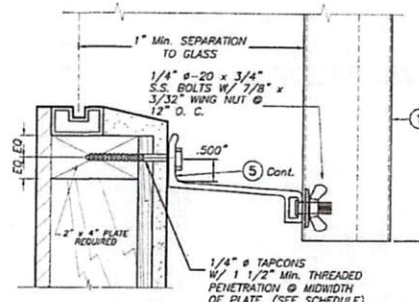
NOTE FOR COMBINATION OF SECTIONS:
WALL MOUNTING SECTIONS CAN BE
COMBINED IN ANY WAY TO SUIT ANY INSTALLATION.

NOTES:

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

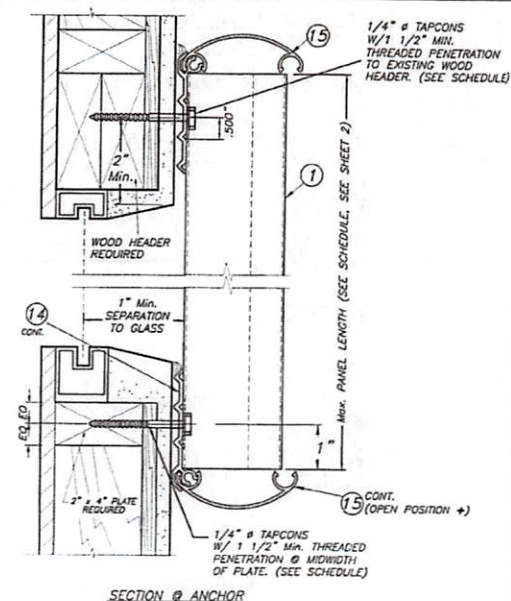


OPTION #2
ALTERNATIVE 3A



ALTERNATIVE 3
SCALE: 1/2" = 1"

* NOTE: SNAP CAP (15) TO
REMAIN CLOSED AT NON
HURRICANE CONDITIONS.



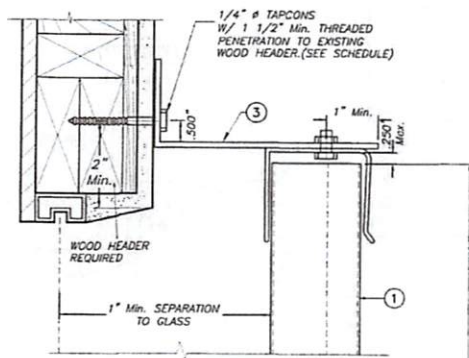
SECTION @ STUD
ALTERNATIVE 4
SCALE: 1/2" = 1"

FLORIDA BUILDING CODE (Non High Velocity Hurricane Zone)

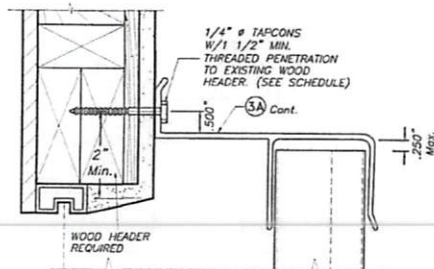
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TILECO INC.
TILIT TESTING & ENGINEERING COMPANY
4355 N.W. 26th St., Ste. 205, VIRGINIA GARDENS, FL 33166
Phone: (561) 209-1533, Fax: (561) 209-1531
EB-0006710
WALTER A. TILIT, JR., P.E.
FLORIDA LIC. 44167

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) 841-1718
REV. NO. DESCRIPTION DATE REV. NO. DESCRIPTION DATE
1 OLD TS-045 01/26/17 2
2
L.C.
DRAWN BY:
07/26/17
DATE:
17-097
DRAWING No
SHEET 12 OF 17

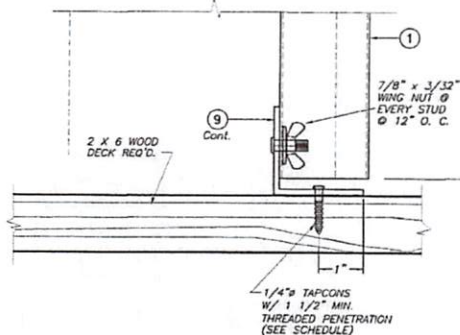




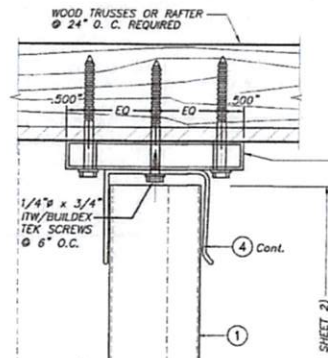
**OPTION #1
ALTERNATIVE 5A**



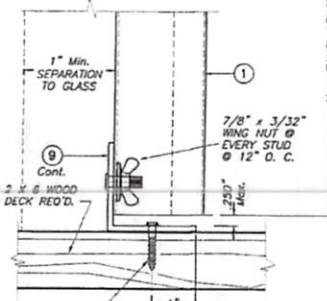
**OPTION #2
ALTERNATIVE 5A**



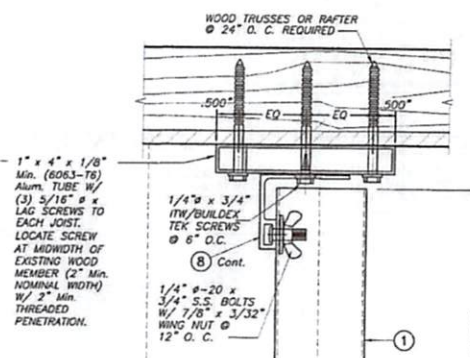
ALTERNATIVE 5
SCALE: 1/2" = 1"



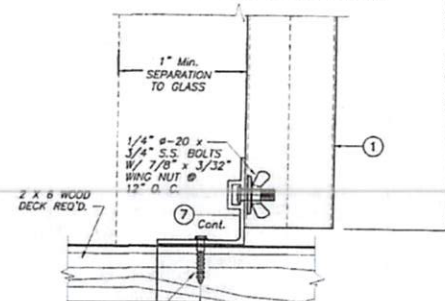
ALTERNATIVE 6A
SCALE: 1/2" = 1"
(LIMITED TO +60.0, -66.0 p.s.f. DESIGN LOAD
AND UP TO 9'-0" MAX. PANEL LENGTH)



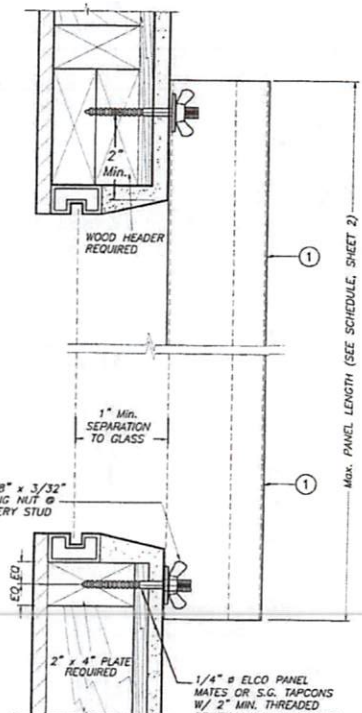
ALTERNATIVE 6
SCALE: 1/2" = 1"



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:

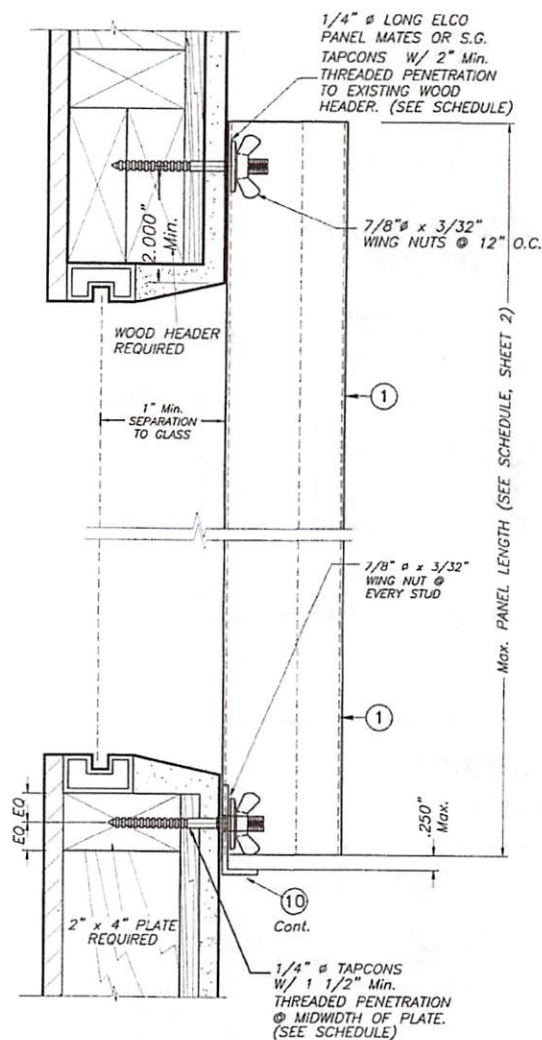
WALL/FLOOR/CEILING MOUNTING SECTIONS CAN BE COMBINED IN ANY WAY TO SUIT ANY INSTALLATION.



FLORIDA BUILDING CODE (Non High Velocity Hurricane Zone)

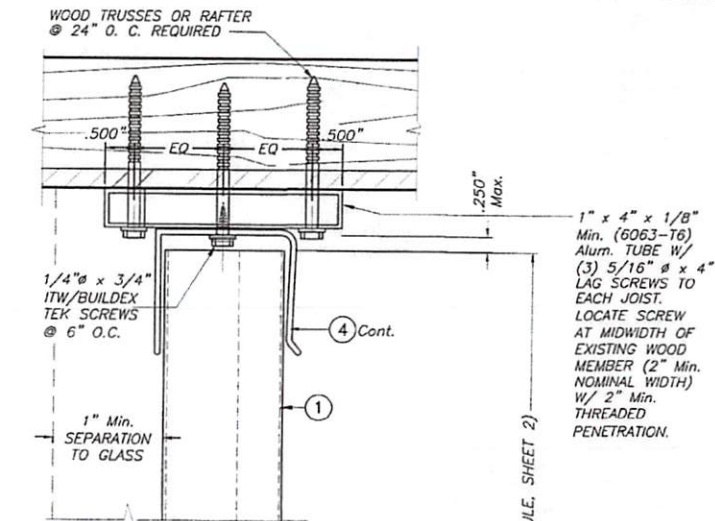
TILTECO INC.
TILLIT TESTING & ENGINEERING COMPANY
6205 N.W. 36th St., Ste. 205, MIAMI GARDENS, FL 33166
Phone: (305)871-1530 Fax: (305)871-1531
EB-0006719
WALTER A. TILLIT JR., P.E.
FLORIDA Lic. 44167

0.050" BERTHA ALUMINUM STORM PANEL
(2.00" DEEP)
EASTERN METAL SUPPLY, INC
4288 WEST ROADS DRIVE
WEST PALM BEACH, FL 33407
PHONE: (561)209-8263, FAX: (561)841-1716
L.C. DRAWN BY:
07/26/17 DATE:
17-097 DRAWING NO
SHEET 13 OF 17



ALTERNATIVE 9

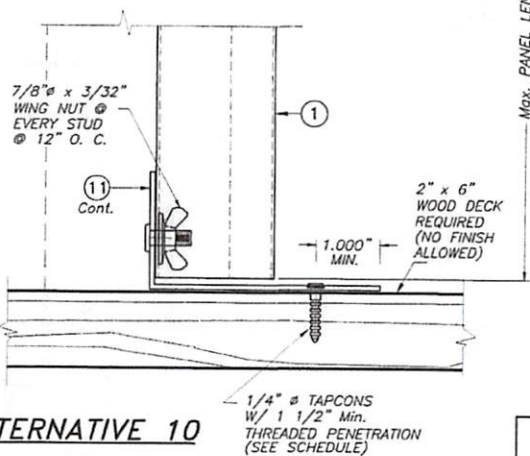
SCALE : 1/2" = 1"



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"

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 :

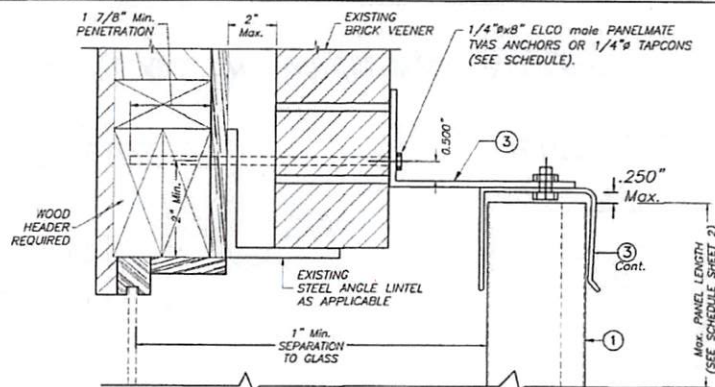
WALL/FLOOR/CEILING MOUNTING SECTIONS CAN BE
COMBINED IN ANY WAY TO SUIT ANY INSTALLATION.



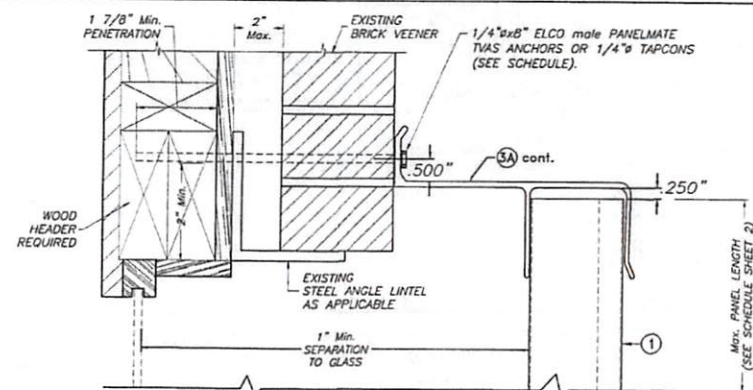
FLORIDA BUILDING CODE (Non High Velocity Hurricane Zone)

© 2017 TILTECO, INC. TILTECO INC. TILLIT TESTING & ENGINEERING COMPANY 8355 N.W. 24th St., Ste. 205, VIRGINIA GARDENS, FL 33194 Phone: (561)391-1530 Fax: (561)391-1531 EB-0006719 WALTER A. TILLIT JR., P.E. FLORIDA LIC. 44167	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)841-1718 REV. NO. DESCRIPTION DATE REV. NO. DESCRIPTION DATE 1 OLD 15-045 05/26/17 2 2 L.C. DRAWN BY: 07/26/17 DATE: 17-097 DRAWING No. SHEET 14 OF 17
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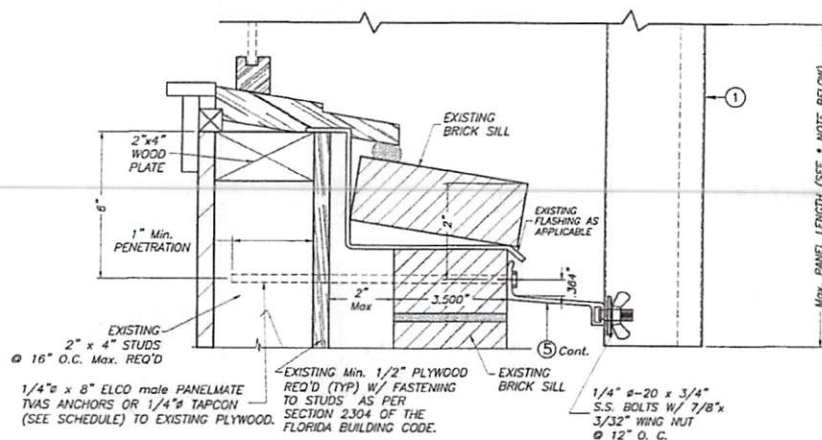
INSTALLATION DETAILS ON EXISTING WOOD BUILDINGS



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

NOTES:

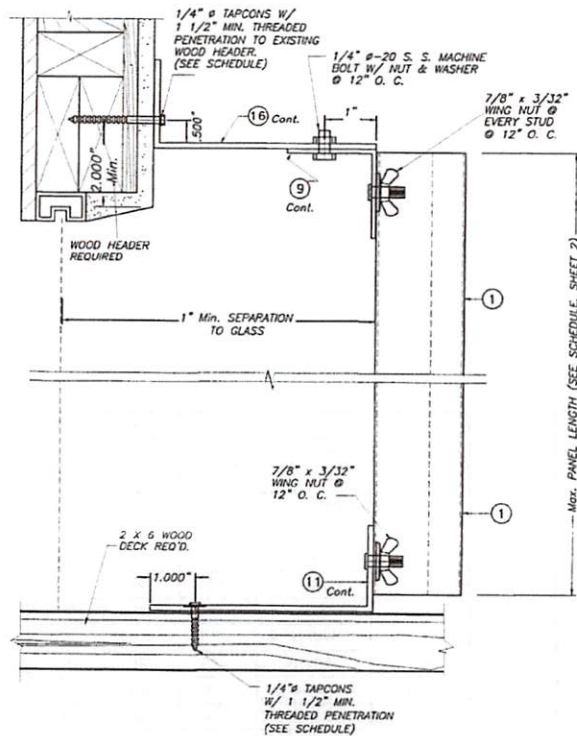
1. INSTALLATIONS ARE ONLY VALID FOR MAX. A.S.D. DESIGN PRESSURE RATING AND PANEL'S LENGTHS AS PER SCHEDULES ON SHEET 2 (EXCEPT AS NOTED)
2. SEE ANCHOR SCHEDULE ON SHEET 16 & 17.
3. FOR NEW WOOD FRAME CONSTRUCTION: WOOD MEMBERS TO BE SOUTHERN PINE No. 2, W/ SPECIFIC DENSITY OF 0.55 OR EQUAL.

NOTE FOR COMBINATION OF SECTIONS:

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



FLORIDA BUILDING CODE (Non High Velocity Hurricane Zone)					
©2017 TILTECO, INC.			0.050" BERTHA ALUMINUM STORM PANEL (2.00" DEEP)		
TILTECO INC.			EASTERN METAL SUPPLY, INC		
TILLIT TESTING & ENGINEERING COMPANY			4258 WEST ROADS DRIVE		
6205 N.W. 36th St., Ste. 305, VIRGINIA GARDENS, FL 33169			WEST PALM BEACH, FL 33407		
Phone: (205)871-1530 Fax: (205)871-1531			PHONE: (561)209-8263, FAX: (561)841-1716		
E8-0006719			17-097		
WALTER A. TILLIT JR., P.E.			DRAWING No		
FLORIDA Lic. 44167			SHEET 14A OF 17		
REV. NO.	DESCRIPTION	DATE	REV. No.	DESCRIPTION	DATE
1	OLD 15-045	03/26/17	3		
2			4		



ALTERNATIVE 13

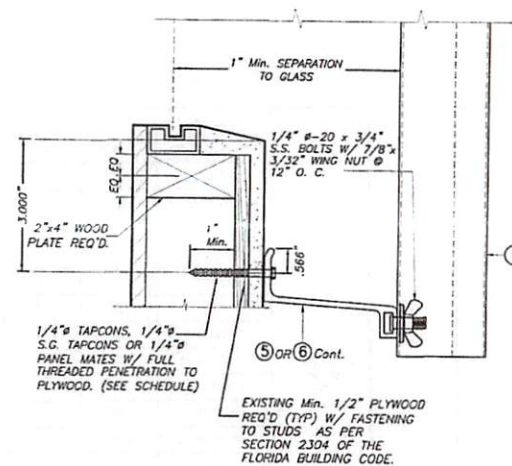
SCALE: 1/2" = 1"

NOTES:

1. INSTALLATIONS ARE ONLY VALID FOR MAX. A.S.D. DESIGN PRESSURE RATING AND PANEL'S LENGTHS AS PER SCHEDULES ON SHEET 2
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 MOUNTING SECTIONS CAN BE COMBINED IN ANY WAY TO SUIT ANY INSTALLATION.



ALTERNATIVE 14

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".



FLORIDA BUILDING CODE (Non High Velocity Hurricane Zone)

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TILTECO INC.
 TILLIT TESTING & ENGINEERING COMPANY
 6355 N.W. 36th St., Ste. 205, VIRGINIA GARDENS, FL 33166
 Phone: (561)209-1530 Fax: (561)209-1531
 EB-0006719
 WALTER A. TILLIT JR., P.E.
 FLORIDA LIC. 44167

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)841-1718

REV. NO	DESCRIPTION	DATE	REV. NO	DESCRIPTION	DATE
1	OLD 15-045	03/26/17	3		
2			4		

L.C.

DRAWN BY:

07/26/17

DATE:

17-097

DRAWING No

SHEET 15 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		
+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)	
	9"	N/A	N/A	6 (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 TWS		
+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 TWS		
+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 108" PANELS LENGTHS.

* 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.



©2017 TILTECO, INC.		FLORIDA BUILDING CODE (Non High Velocity Hurricane Zone)	
TILTECO INC.		0.050" BERTHA ALUMINUM STORM PANEL (2.00" DEEP)	
TILLIT TESTING & ENGINEERING COMPANY 6355 N.W. 36th St., Ste. 205, VIRGINIA GARDENS, FL 33166 Phone: (305)871-1530, Fax: (305)871-1531 ES-0006719		EASTERN METAL SUPPLY, INC 4268 WEST RODES DRIVE WEST PALM BEACH, FL 33407 PHONE: (561)209-8263, FAX: (561)841-1716	
REV. NO.	DESCRIPTION	DATE	REV. NO.
1	CLD 15-048	02/26/17	3
2			4
WALTER A. TILLIT JR., P.E. FLORIDA Lic. 44167		L.C. DRAWN BY: 07/26/17 DATE: 17-097 DRAWING No SHEET 15 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 TUS		
	11"	N/A	N/A	1 (TOP)	
	11"	N/A	N/A	1 (BOTTOM)	
	11"	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)	
	11"	N/A	N/A	4 (TOP)	
	11"	N/A	N/A	4 (BOTTOM)	
	9"	N/A	N/A	5A (TOP)	
	3 1/2"	N/A	N/A	5 (BOTTOM)	
	3 1/2"	N/A	N/A	6 (BOTTOM)	
+60.0, -60.0 UP TO +80.0, -80.0	3 1/2"	N/A	N/A	7 (BOTTOM)	9'-0" OR LESS
	N/A	12"	6"	8 (TOP)	
	N/A	12"	6"	8 (BOTTOM)	
	N/A	12"	6"	9 (TOP)	
	11"	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)	
	3 1/2"	N/A	N/A	13 (BOTTOM)	
	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 TUS		
	12"	N/A	N/A	1 (TOP)	
	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)	
	4"	N/A	N/A	6 (BOTTOM)	
+40.0, -40.0 UP TO +60.0, -60.0	3 1/2"	N/A	N/A	7 (BOTTOM)	>8'-0" UP TO 12'-6"
	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)	
	4"	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 TUS		
	8 1/2"	N/A	N/A	1 (TOP)	
	5"	N/A	N/A	1 (BOTTOM)	
	5"	N/A	N/A	2 (TOP)	
	5"	N/A	N/A	2 (BOTTOM)	
	6"	N/A	N/A	3A (TOP)	
	5"	N/A	N/A	3 (BOTTOM)	
	5"	N/A	N/A	4 (TOP)	
	9"	N/A	N/A	4 (BOTTOM)	
	6"	N/A	N/A	5A (TOP)	
	3"	N/A	N/A	5 (BOTTOM)	
	3"	N/A	N/A	6 (BOTTOM)	
+90.0, -90.0 UP TO +100.0, -130.0	3"	N/A	N/A	7 (BOTTOM)	7'-0" OR LESS
	N/A	12"	6"	8 (TOP)	
	N/A	12"	6"	8 (BOTTOM)	
	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)	
	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.



TILECO INC. TILLIT TESTING & ENGINEERING COMPANY 6355 N.W. 36th St., Ste. 205, VIRGINIA GARDENS, FL 33161 Phone: (305) 871-1530, Fax: (305) 871-1531 EB-0008719 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		L.C. DRAWN BY: 07/26/17 DATE: 17-097 DRAWING No. SHEET 17 OF 17	
REV. NO.	DESCRIPTION	DATE	REV. NO.	DESCRIPTION	DATE
1	OLD 15-045	07/26/17	3		
2			4		