

GENERAL NOTES:

1. 24 GAGE GALVANIZED BERTHA STEEL STORM PANEL (2" DEEP) SHOWN ON THIS PRODUCT EVALUATION DOCUMENT (P. E. D.) HAS BEEN VERIFIED FOR COMPLIANCE IN ACCORDANCE WITH THE 2006 EDITIONS OF THE INTERNATIONAL BUILDING CODE, (I.B.C.) AND INTERNATIONAL RESIDENTIAL CODE, (I.R.C.) WITH THE 2006 TEXAS REVISIONS, EFFECTIVE JANUARY 1, 2008.

24 GAGE GALVANIZED BERTHA STEEL STORM PANEL (2" DEEP) SHALL BE INSTALLED AT SEAWARD AND INLAND AREAS, AS DEFINED BY THE TEXAS DEPARTMENT OF INSURANCE. DESIGN WIND LOADS SHALL BE DETERMINED AS PER SECTION 1609 OF THE INTERNATIONAL BUILDING CODE, FOR A BASIC WIND SPEED AS REQUIRED BY THE JURISDICTION WHERE SHUTTER WILL BE INSTALLED, AND FOR A DIRECTIONALITY FACTOR $K_d=0.85$, IN ACCORDANCE W/ ASCE 7-05 STANDARD.

24 GAGE GALVANIZED BERTHA STEEL STORM PANEL (2" DEEP) ADEQUACY FOR IMPACT AND CYCLIC RESISTANCE HAS BEEN VERIFIED IN ACCORDANCE WITH SECTIONS 1609.1.2 AND R301.1.3 OF THE ABOVE MENTIONED CODES, RESPECTIVELY, AS PER AMERICAN TEST LAB OF SOUTH FLORIDA REPORT # 0926.01-03, 1220.01-05 & 0304.01-08 PER ASTM E 1886, E 1996 AND E 330 STANDARDS, QUALIFYING INSTALLATIONS FOR WIND ZONES 1, 2 & 3, MISSILE TYPE D, AND FOR INSTALLATIONS AT NON ESSENTIAL FACILITIES AS DEFINED BY SECTIONS 6.2.1.1, 6.2.1.2 AND 8.3 OF ASTM E 1996-04.

2. ALL STEEL SHEET METAL PANELS SHALL HAVE STRUCTURAL QUALITY ASTM A-653, GRADE 80 WITH MIN $F_y = 85.8$ ksi, WITH G-90 GALVANIZED STEEL DESIGNATION.

3. ALL ALUMINUM EXTRUSIONS SHALL BE ALUMINUM ASSOCIATION 6063-T6 ALLOY & TEMPER UNLESS OTHERWISE NOTED. THE THICKNESS OF ALL EXTRUSIONS SHALL BE AS SHOWN ON THIS DRAWING WITH STANDARD TOLERANCES IN ACCORDANCE WITH THE "ALUMINUM STANDARDS AND DATA 2006 EDITION", ALUMINUM ASSOCIATION INCORPORATED, WASHINGTON D.C. STORM PANEL COMPONENTS (10) STUDDER SNAP TRACK AND (11) FEMALE COVER CAP ARE PATENT PENDING.

4. ALL SCREWS & BOLTS INSTALLED AT SEAWARD AREAS TO BE STAINLESS STEEL 304 OR 316 AISI SERIES AND MEET ASTM A167, OR HOT DIPPED GALVANIZED (AFTER FABRICATION) CARBON STEEL AS PER ASTM A123 OR ASTM A153, OR HOT DIPPED GALVANIZED OR GALVANNEALED (PRIOR TO FABRICATION) AND MEET ASTM A653 WITH 50 ksi YIELD STRENGTH AND 90 ksi TENSILE STRENGTH, PER 2006 TEXAS REVISIONS TO SECTION 1716.1.1 OF THE 2006 I.B.C. AND SECTION R325.1.1 OF THE 2006 I.R.C.

5. ALL SCREWS & BOLTS INSTALLED AT INLAND I AREAS TO BE STAINLESS STEEL 304 OR 316 AISI SERIES AND MEET ASTM A167, OR HOT DIPPED GALVANIZED (AFTER FABRICATION) CARBON STEEL AS PER ASTM A123 OR ASTM A153, OR HOT DIPPED GALVANIZED OR GALVANNEALED (PRIOR TO FABRICATION) AND MEET ASTM A653; HOT DIP GALVANIZED OR ELECTRO GALVANIZED PER ASTM A641, MECHANICALLY DEPOSITED ZINC COATINGS PER ASTM B695 OR ELECTRO DEPOSITED ZINC COATINGS PER ASTM B633, PER THE 2006 TEXAS REVISIONS TO SECTION 1716.1.2 OF THE 2006 I.B.C. AND TO SECTION R325.1.2 OF THE 2006 I.R.C.

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

- (A) TO EXISTING POURED CONCRETE, $f'_c = 3192$ psi. MIN.
 - 1/4" ϕ TAPCON ANCHORS AS MANUFACTURED BY I.T.W. BUILDEX.
 - 1/4" ϕ S.G. TAPCONS AS MANUFACTURED BY I.T.W. BUILDEX.
 - 1/4" ϕ x 3/4" ALL POINTS SOLID-SET ANCHORS AS DISTRIBUTED BY ALL POINTS SCREW, BOLT & SPECIALTY COMPANY.

NOTES:

- A.1) MINIMUM EMBEDMENT INTO POURED CONCRETE OF TAPCON ANCHORS IS 1 3/4";
- A.2) MINIMUM EMBEDMENT OF 1/4" ϕ x 3/4" ALL POINTS SOLID-SET ANCHORS SHALL BE 7/8" INTO THE POURED CONCRETE. NO EMBEDMENT INTO STUCCO SHALL BE PERMITTED. 1/4" ϕ -20 S.S. MACHINE SCREW (SIDEWALK BOLT OR TRUSS HEAD) 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, ASTM C-90 UNITS:
 - 1/4" ϕ TAPCON ANCHORS AS MANUFACTURED BY I.T.W. BUILDEX
 - 1/4" ϕ S.G. TAPCONS AS MANUFACTURED BY I.T.W. BUILDEX W/ $f'_m = 1500$ psi. MIN.
 - 1/4" ϕ x 3/4" ALL POINTS SOLID-SET ANCHORS AS DISTRIBUTED BY ALL POINTS SCREW, BOLT & SPECIALTY COMPANY W/ $f'_m = 1800$ psi. MIN.

NOTES:

- B.1) MINIMUM EMBEDMENT OF TAPCON INTO CONCRETE BLOCK UNIT SHALL BE 1 1/4".
- B.2) MINIMUM EMBEDMENT OF 1/4" ϕ x 3/4" ALL POINTS SOLID-SET ANCHORS SHALL BE 7/8" INTO THE CONCRETE BLOCK. NO EMBEDMENT INTO STUCCO SHALL BE PERMITTED. 1/4" ϕ -20 S.S. MACHINE SCREW (SIDEWALK BOLT OR TRUSS HEAD) 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 B.1) AND B.2) ABOVE.

- (C) TO EXISTING WOOD FRAME BUILDINGS, WITH SPECIFIC GRAVITY $G = 0.55$
 - 1/4" ϕ TAPCON ANCHORS AS MANUFACTURED BY I.T.W. BUILDEX.
 - 1/4" ϕ S.G. TAPCONS AS MANUFACTURED BY I.T.W. BUILDEX.
 - 1/4" ϕ SAMMYS SCREW ANCHORS (SSC) AS MANUFACTURED BY ITW BUILDEX.

NOTES:

- C.1) MINIMUM THREADED PENETRATION OF TAPCONS, S.G OR SAMMYS SCREW ANCHORS (SSC) INTO WOOD UNIT SHALL BE 1 1/2".
- C.2) ANCHORAGE SHALL BE PERFORMED BEYOND ANY FINISH MATERIAL AT WALL LIKE BRICK VENEER, STUCCO OR ANY OTHER FINISH. ANCHORAGE SHALL BE AS INDICATED ON NOTE C.1) ABOVE.

(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 5 (SHEETS 4 & 5 FOR CONCRETE/BLOCK SUBSTRATES) AND ALTERNATIVES 1 THRU 6 (SHEETS 8 & 9 FOR WOOD SUBSTRATES) EXCEPT THAT HEADERS 2, 2A, 3 & 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 POURED CONCRETE, 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. 24 GAGE GALVANIZED BERTHA STEEL STORM PANEL (2" DEEP) SHALL COMPLY WITH SPECIFICATIONS INDICATED IN THIS DRAWING PLUS ANY BUILDING AND ZONING REGULATIONS PROVIDED BY THE JURISDICTION WHERE PERMIT IS APPLIED TO.

11. (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.

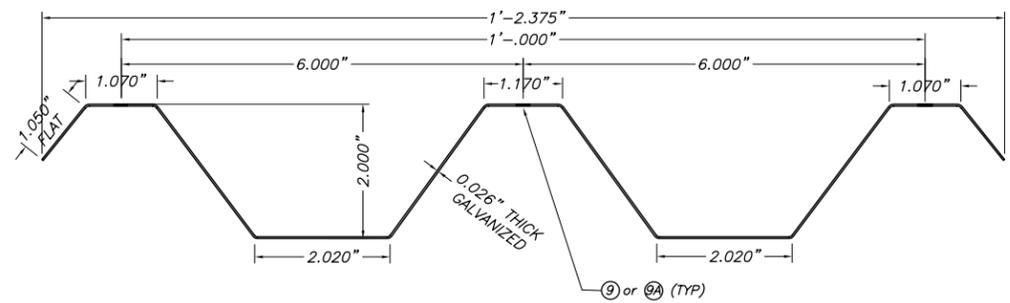
(c) THIS P.E.D. WILL BE CONSIDERED INVALID IF ALTERED BY ANY MEANS.

(d) SITE SPECIFIC PROJECTS SHALL BE PREPARED BY A PROFESSIONAL ENGINEER OR REGISTERED 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.

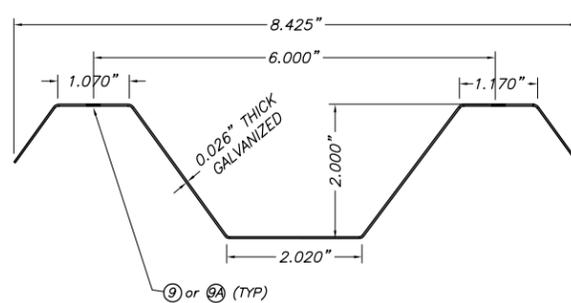
(e) THIS P.E.D. SHALL BEAR THE DATE AND ORIGINAL SEAL AND SIGNATURE OF THE PROFESSIONAL ENGINEER OF RECORD THAT PREPARED IT.

T.D.I. 2006

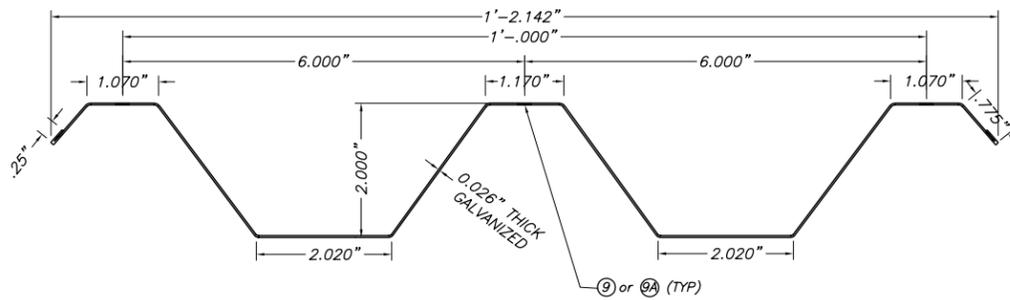
WALTER A. TILLIT Jr. P.E. PROFESSIONAL ENGINEER 6355 N.W. 36 STREET, STE. 305 VIRGINIA GARDENS, FL 33166 PHONE (305) 871-1530 FAX (305) 871-1531 TEXAS LIC. # 90691		24 GAGE GALVANIZED BERTHA STEEL STORM PANEL (2" DEEP)		F.P. DRAWN BY:	
		EASTERN METAL SUPPLY, INC 9400 TELGE ROAD HOUSTON, TX. 77095 PHONE: (800)996-6061 FAX: (281)656-2297		01/23/08 DATE	
				08-006 DRAWING No	
REV. No	DESCRIPTION	DATE	REV. No	DESCRIPTION	DATE
1	TITLE BLOCK / P.E. #	10/29/08	3		
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					SHEET 1 OF 10



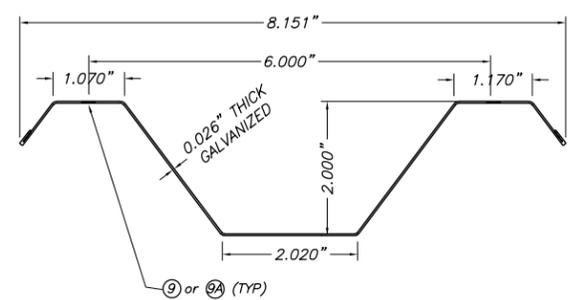
FULL PANEL W/O HEMMED EDGES



HALF PANEL W/O HEMMED EDGES

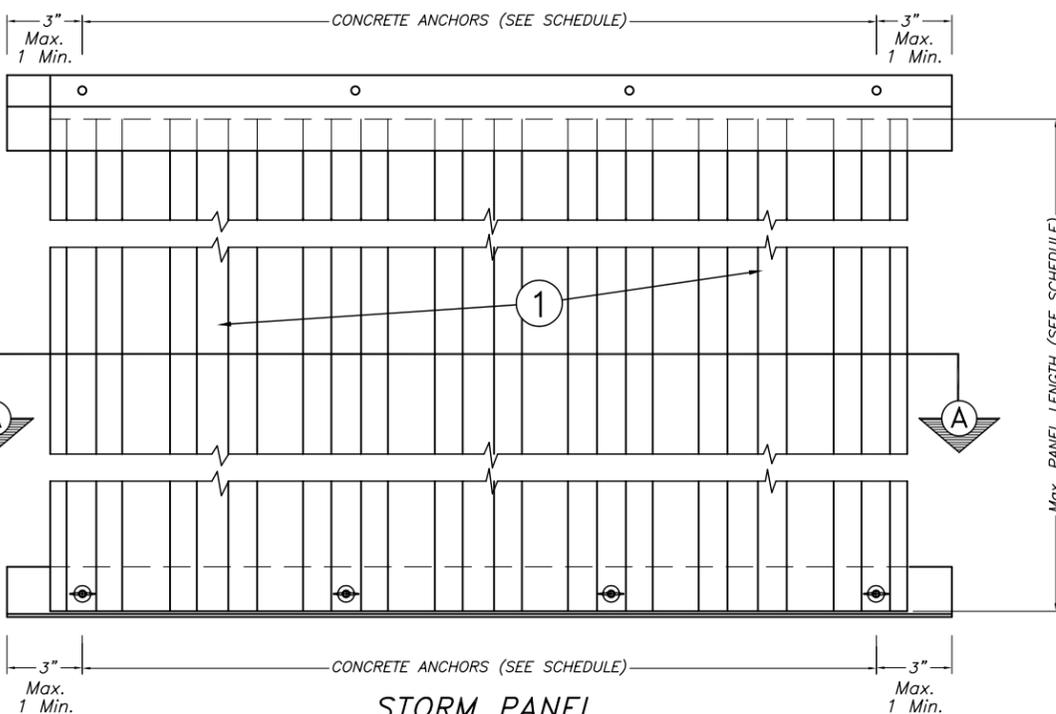


FULL PANEL W/ HEMMED EDGES



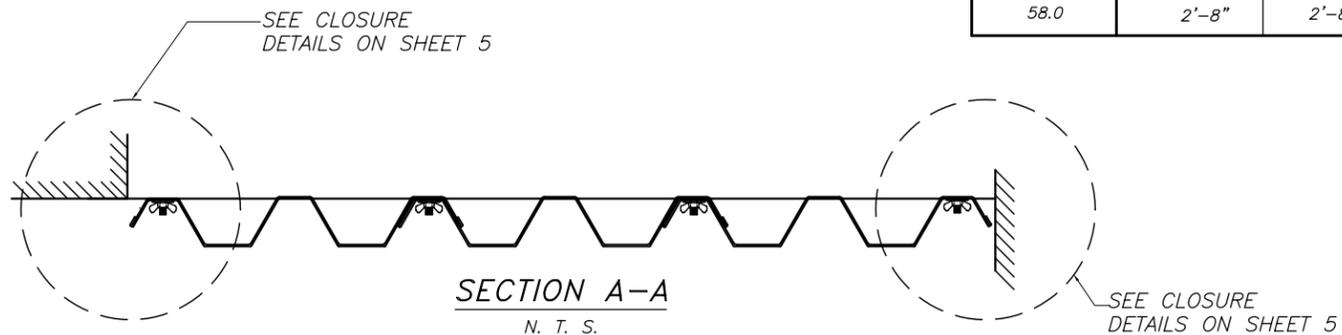
HALF PANEL W/ HEMMED EDGES

① **STORM PANEL**
SCALE 3/8" = 1"



STORM PANEL
TYPICAL ELEVATION

N. T. S.



SECTION A-A

N. T. S.

MAXIMUM DESIGN PRESSURE RATING "W"
(p.s.f.) AND CORRESPONDING MAXIMUM
PANEL LENGTH "L"

◆ **NOTES:**

- (1) L+: MAXIMUM ALLOWABLE PANEL LENGTH FOR A GIVEN POSITIVE DESIGN LOAD.
L-: MAX. ALLOWABLE PANEL LENGTH FOR A GIVEN NEGATIVE DESIGN LOAD.
- (2) PROCEDURE TO DETERMINE MAXIMUM PANEL LENGTH FOR WALL MOUNTINGS OR FLOOR/CEILING:
GIVEN A POSITIVE DESIGN LOAD, DETERMINE MAXIMUM PANEL LENGTH "L+" FROM SCHEDULE.
GIVEN A NEGATIVE DESIGN LOAD, DETERMINE MAXIMUM PANEL LENGTH "L-" FROM SCHEDULE.
FINAL MAXIMUM ALLOWABLE PANEL LENGTH IS EQUAL TO THE MINIMUM DETERMINED PANEL LENGTH BETWEEN "L+" AND "L-".

SCHEDULE # 1

VALID FOR POURED CONCRETE, CONCRETE BLOCK AND WOOD SUBSTRATE INSTALLATIONS*

MAXIMUM DESIGN PRESSURE RATING W (p.s.f.) (+ or -)	MAXIMUM PANEL LENGTH "L+" OR "L-" (ft.) ◆	
	CONCRETE, CONCRETE BLOCK & WOOD INSTALLATIONS	
	Max. PANEL LENGTH L+ (ft.)	Max. PANEL LENGTH L- (ft.)
32.6	9'-10"	9'-10"
34.0	9'-7"	9'-10"
36.0	9'-4"	9'-10"
38.0	9'-1"	9'-10"
40.0	8'-10"	9'-10"
42.0	8'-7"	9'-10"
44.0	8'-5"	9'-6"
46.0	8'-3"	9'-1"
48.0	8'-1"	8'-8"
50.0	7'-11"	8'-4"
52.0	7'-9"	8'-0"
54.0	7'-7"	7'-8"
56.0	7'-5"	7'-5"
57.0	7'-4"	7'-4"
58.0	2'-8"	2'-8"

WALTER A. TILLIT Jr. P.E.
PROFESSIONAL ENGINEER

6355 N.W. 36 STREET, STE. 305
VIRGINIA GARDENS, FL 33166
PHONE (305) 871-1530 FAX (305) 871-1531

TEXAS LIC. # 90691

24 GAGE GALVANIZED BERTHA STEEL STORM PANEL
(2" DEEP)

EASTERN METAL SUPPLY, INC

9400 TELGE ROAD
HOUSTON, TX. 77095
PHONE: (800)996-6061 FAX: (281)656-2297

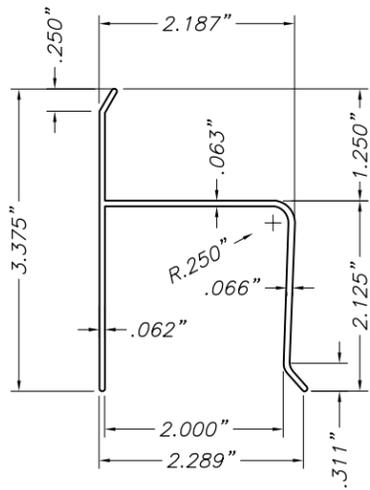
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T.D.I. 2006

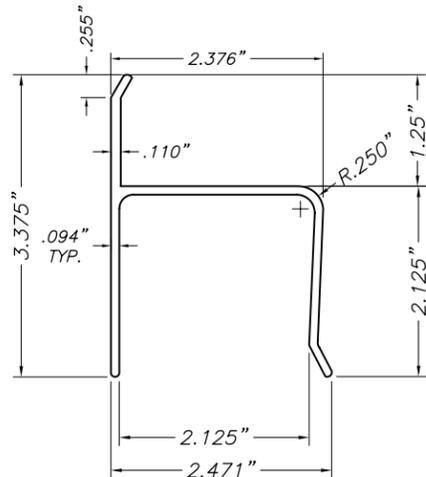
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01/23/08
DATE

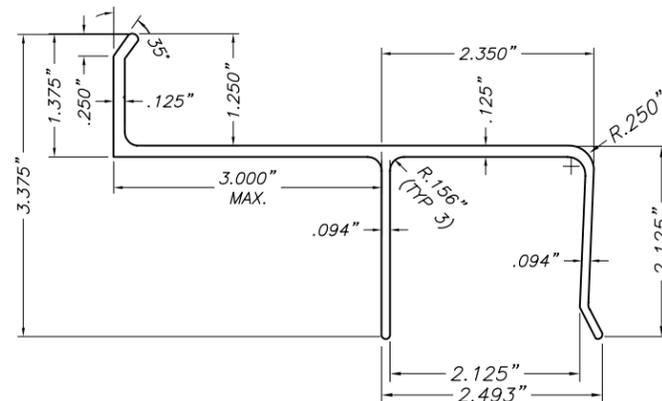
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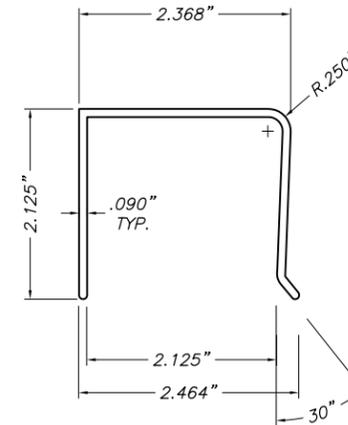
② "h" HEADER



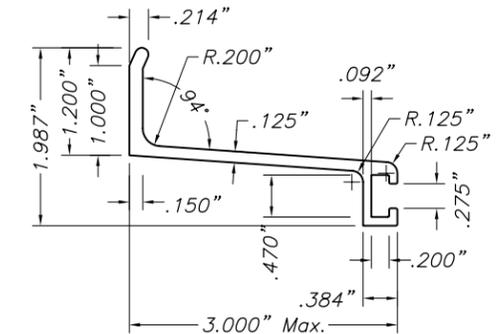
②A "h" HEADER (OPTIONAL)



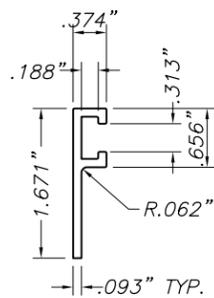
③ BUILD OUT "h" HEADER (3" MAX.)



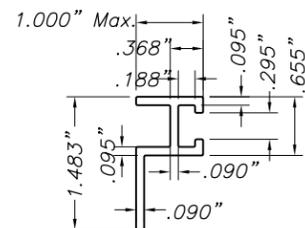
④ "U" HEADER



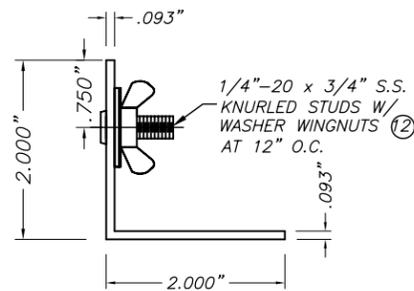
⑤ 3" ANGLE BUILD OUT BRACKET



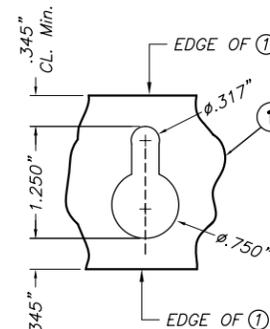
⑥ "F" TRACK



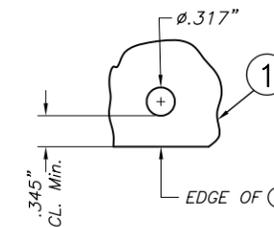
⑦ 1" STUCCO TRACK



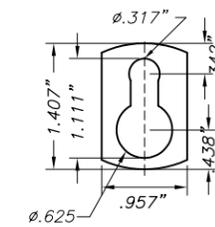
⑧ STUDDED ANGLE



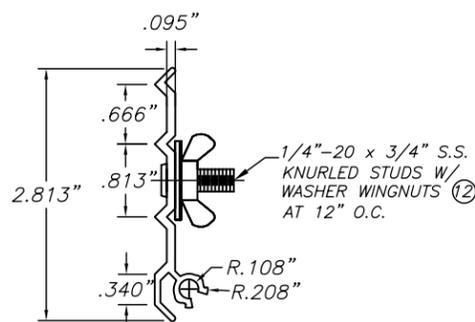
⑨ LARGE KEY HOLE



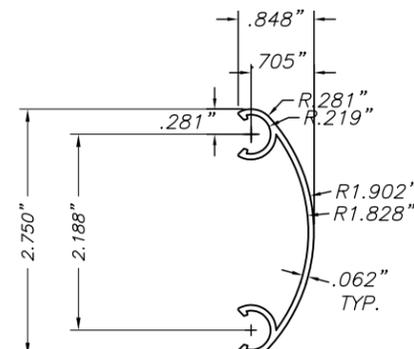
⑨A ROUND HOLE AT PANEL



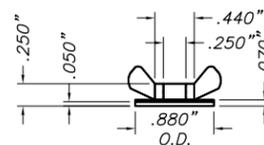
⑨B KEY HOLE WASHER
3105-H154 ALUM. ALLOY



⑩ STUDDED SNAP TRACK



⑪ FEMALE COVER CAP



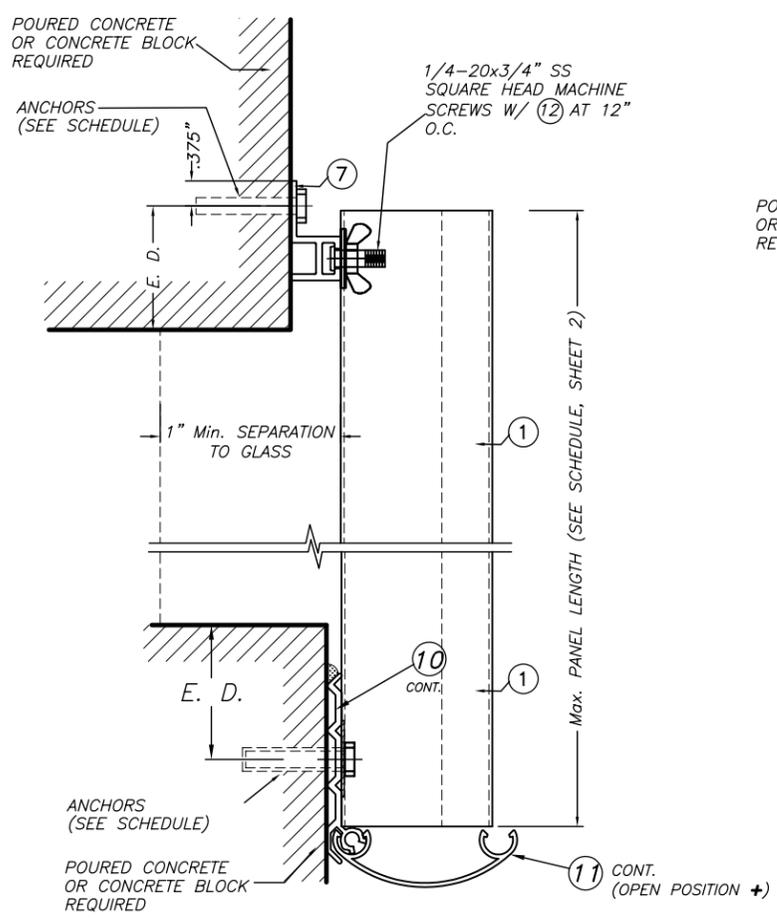
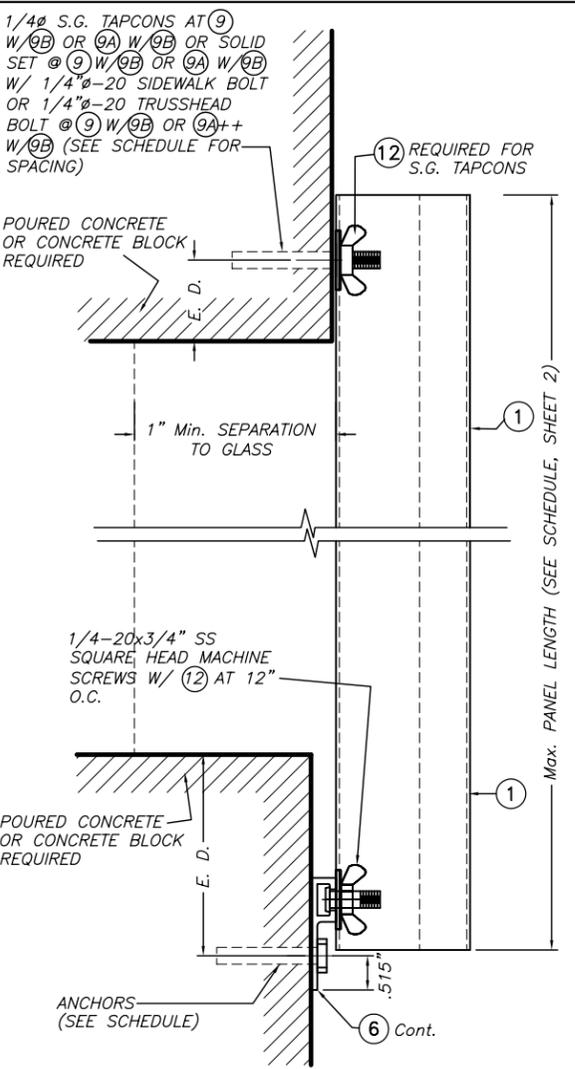
⑫ WASHERED WING NUT
DIE CAST (ZINC # 7)
NICKEL PLATED

COMPONENTS

SCALE : 1/2" = 1"

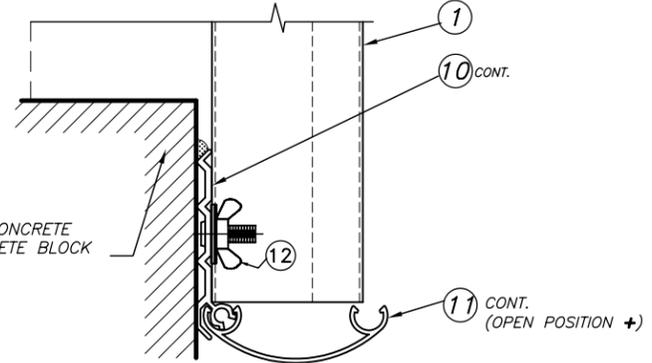
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TEXAS LIC. # 90691				08-006 DRAWING No	
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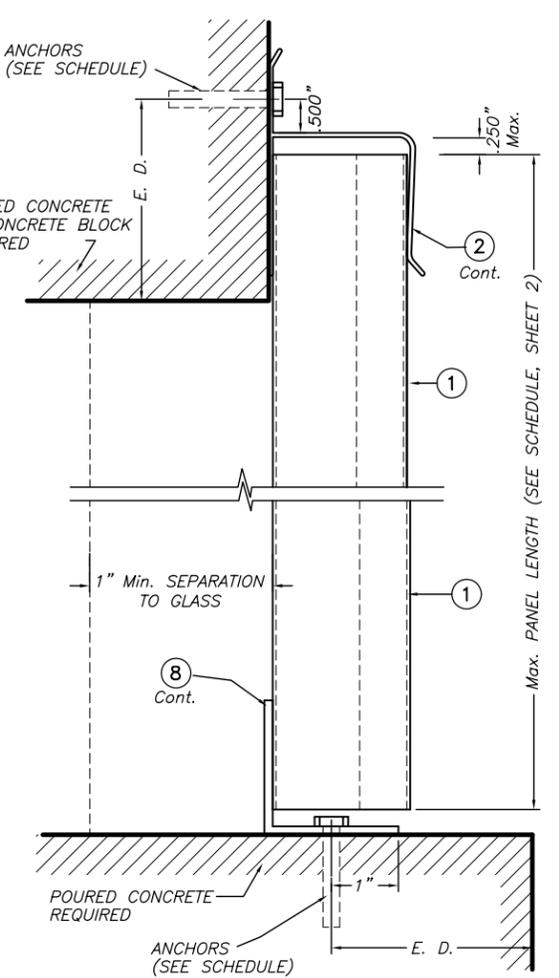
SECTION @ ANCHOR

+ NOTE: FEMALE COVER CAP (1) TO REMAIN CLOSED AT NON HURRICANE CONDITIONS.

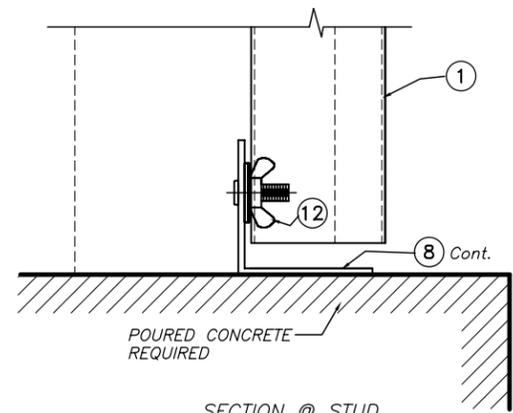


SECTION @ STUD

SECTION 2

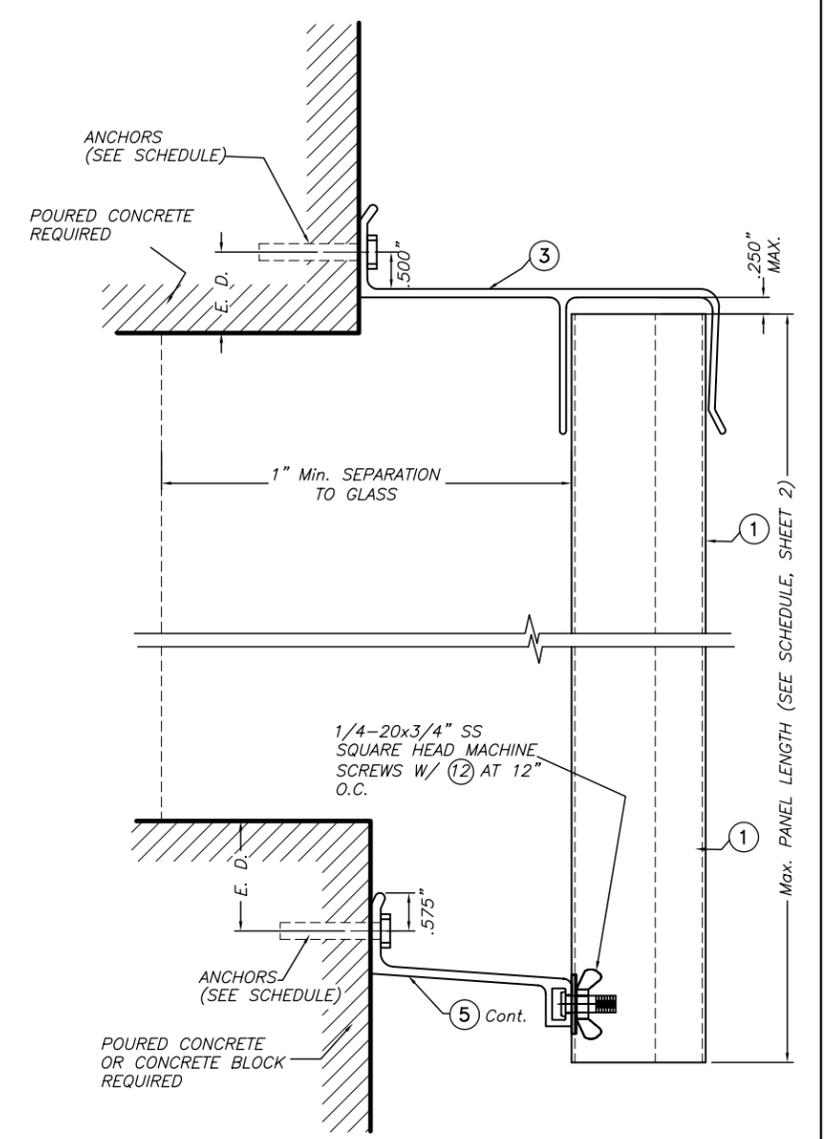


SECTION @ ANCHOR



SECTION @ STUD

WALL & FLOOR MOUNTING INSTALLATION SECTION 3



BUILD OUT INSTALLATION SECTION 4

++ 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)

SECTION 1

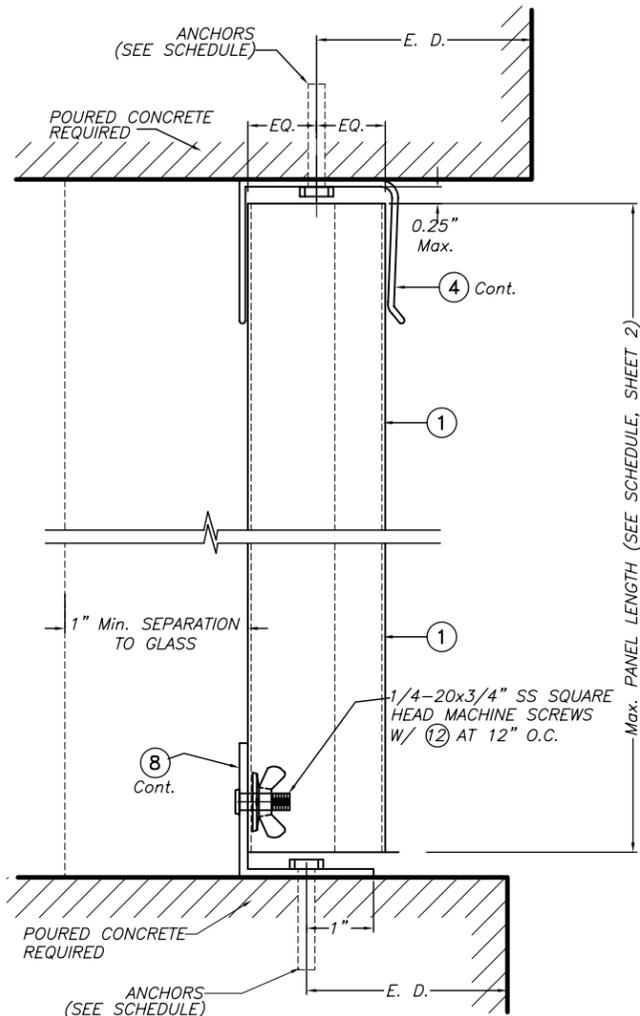
WALL MOUNTING INSTALLATION

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

E. D. = EDGE DISTANCE (SEE SCHEDULE ON SHEET 7)

T.D.I. 2006

WALTER A. TILLIT Jr. P.E. PROFESSIONAL ENGINEER		24 GAGE GALVANIZED BERTHA STEEL STORM PANEL (2" DEEP)		F.P. DRAWN BY:	
6355 N.W. 36 STREET, STE. 305 VIRGINIA GARDENS, FL 33166 PHONE (305) 871-1530 FAX (305) 871-1531		EASTERN METAL SUPPLY, INC		01/23/08 DATE	
TEXAS LIC. # 90691		9400 TELGE ROAD HOUSTON, TX. 77095 PHONE: (800)996-6061 FAX: (281)656-2297		08-006 DRAWING No	
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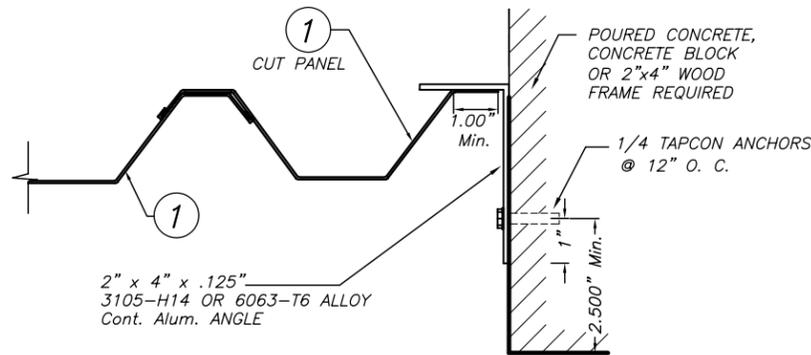


**CEILING & FLOOR MOUNTING
INSTALLATION - SECTION 5**

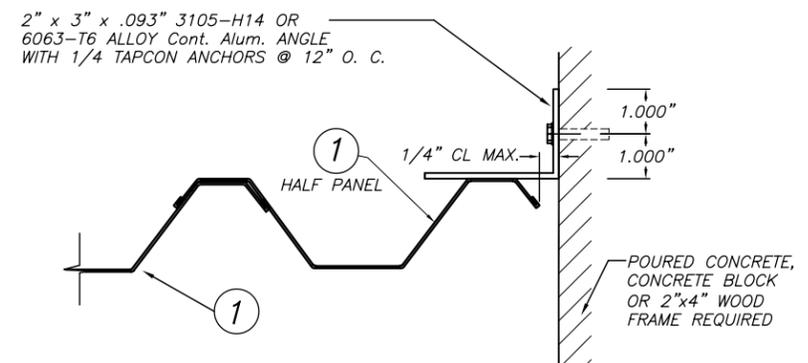
SCALE : 3/8" = 1"

E. D. = EDGE DISTANCE
(SEE SCHEDULE ON
SHEET 6)

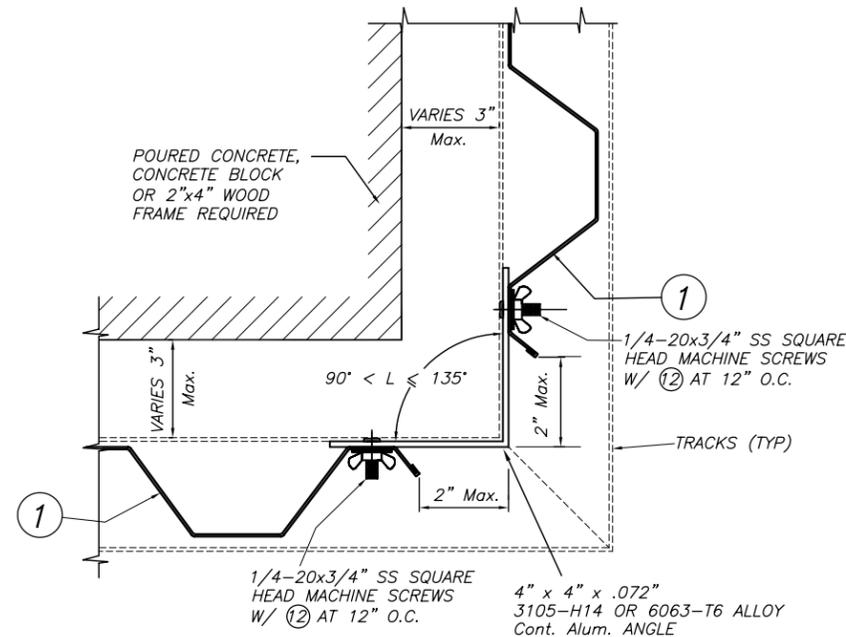
NOTE FOR COMBINATION OF SECTIONS :
WALL/FLOOR/CEILING MOUNTING SECTIONS CAN BE
COMBINED IN ANY WAY TO SUIT ANY INSTALLATION.



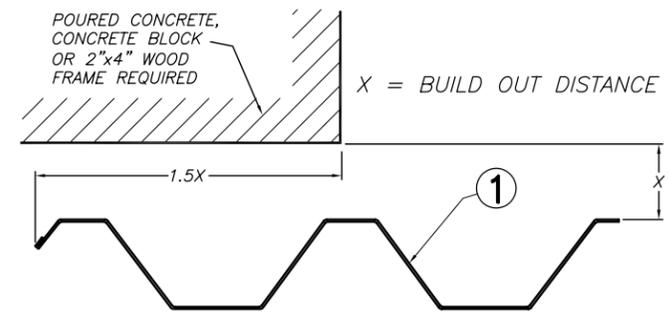
CASE A (Plan)



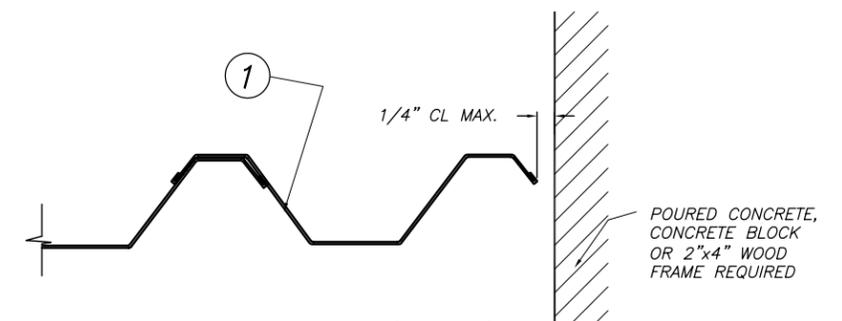
CASE D (Plan)



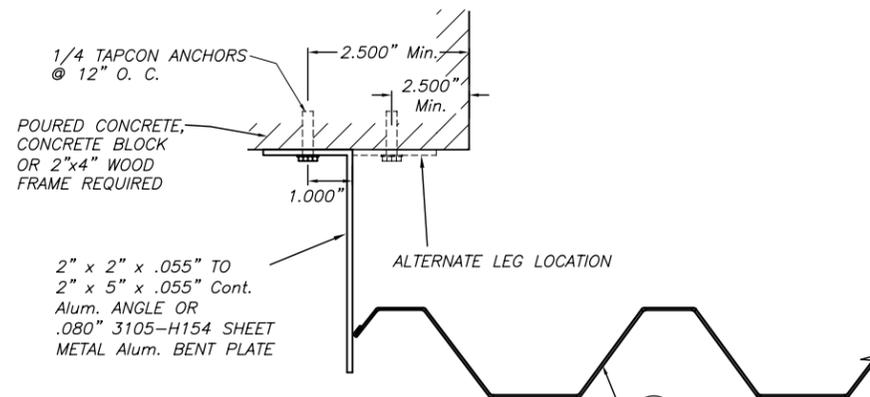
CASE B (Plan)



CASE E (Plan)



CASE F (Plan)



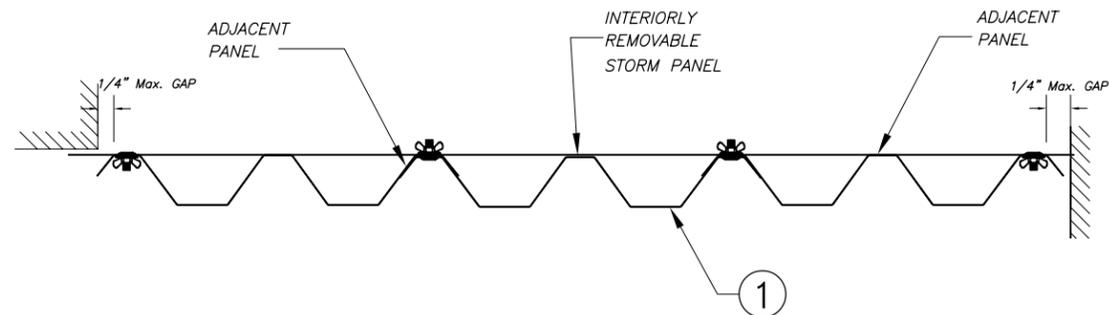
CASE C (Plan)

END CLOSURES DETAILS

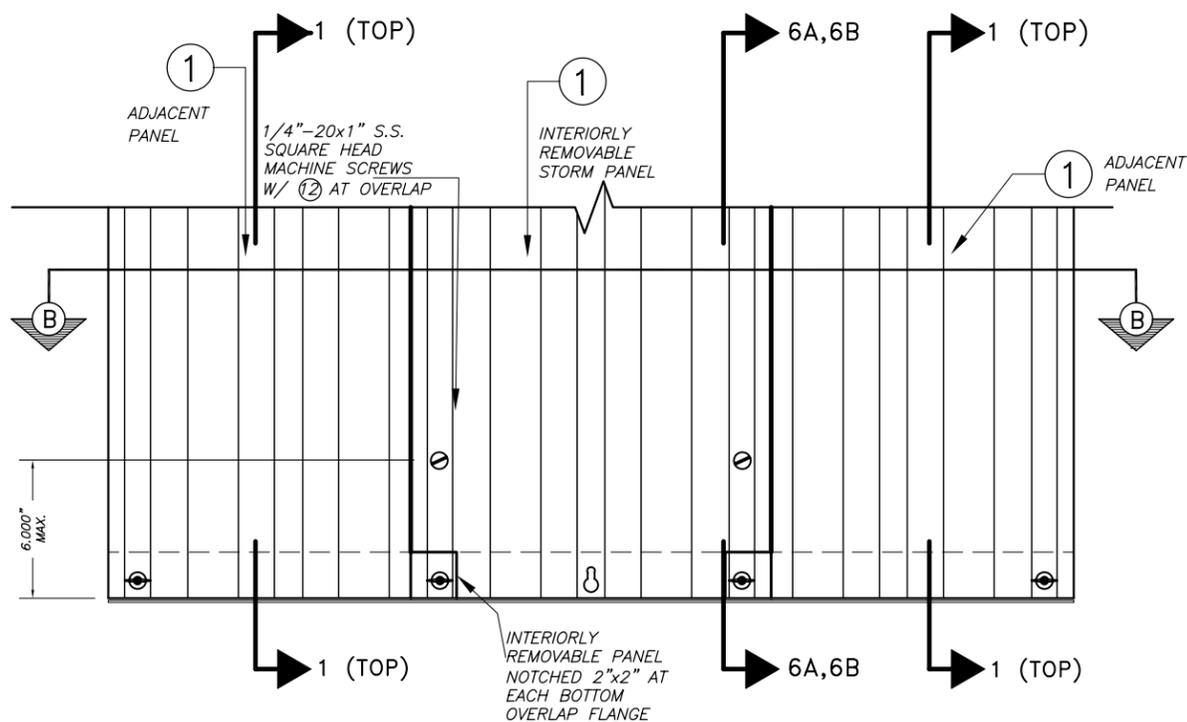
SCALE: 1/4" = 1"

T.D.I. 2006

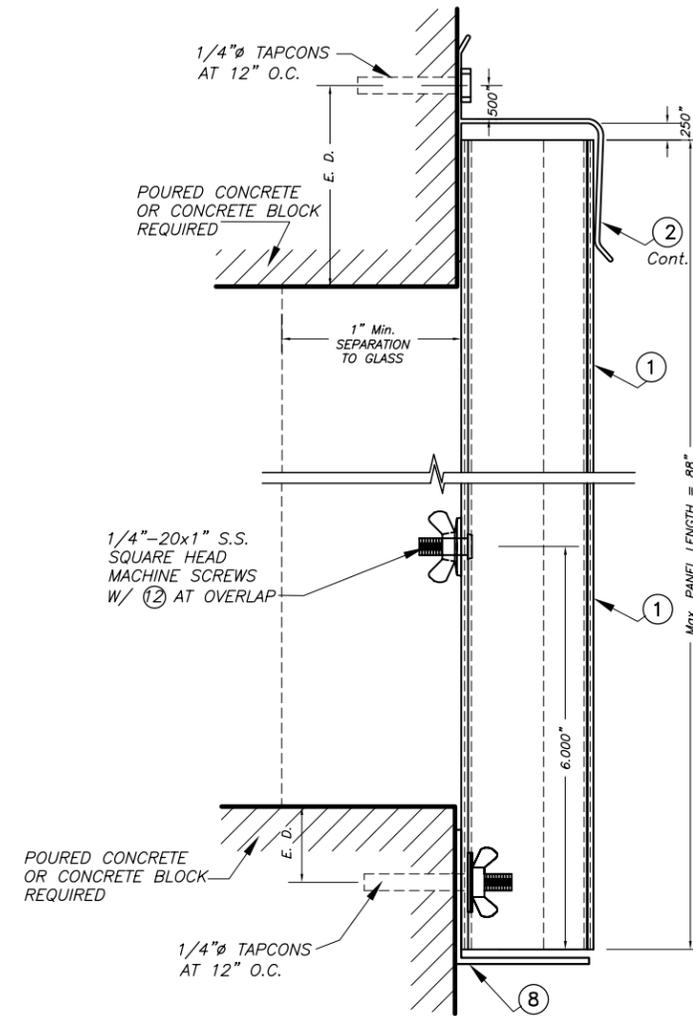
WALTER A. TILLIT Jr. P.E. PROFESSIONAL ENGINEER		24 GAGE GALVANIZED BERTHA STEEL STORM PANEL (2" DEEP)		F.P. DRAWN BY:	
6355 N.W. 36 STREET, STE. 305 VIRGINIA GARDENS, FL 33166 PHONE (305) 871-1530 FAX (305) 871-1531		EASTERN METAL SUPPLY, INC 9400 TELGE ROAD HOUSTON, TX. 77095 PHONE: (800)996-6061 FAX: (281)656-2297		01/23/08 DATE	
TEXAS LIC. # 90691				08-006 DRAWING No	
REV. No	DESCRIPTION	DATE	REV. No	DESCRIPTION	DATE
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2			4		



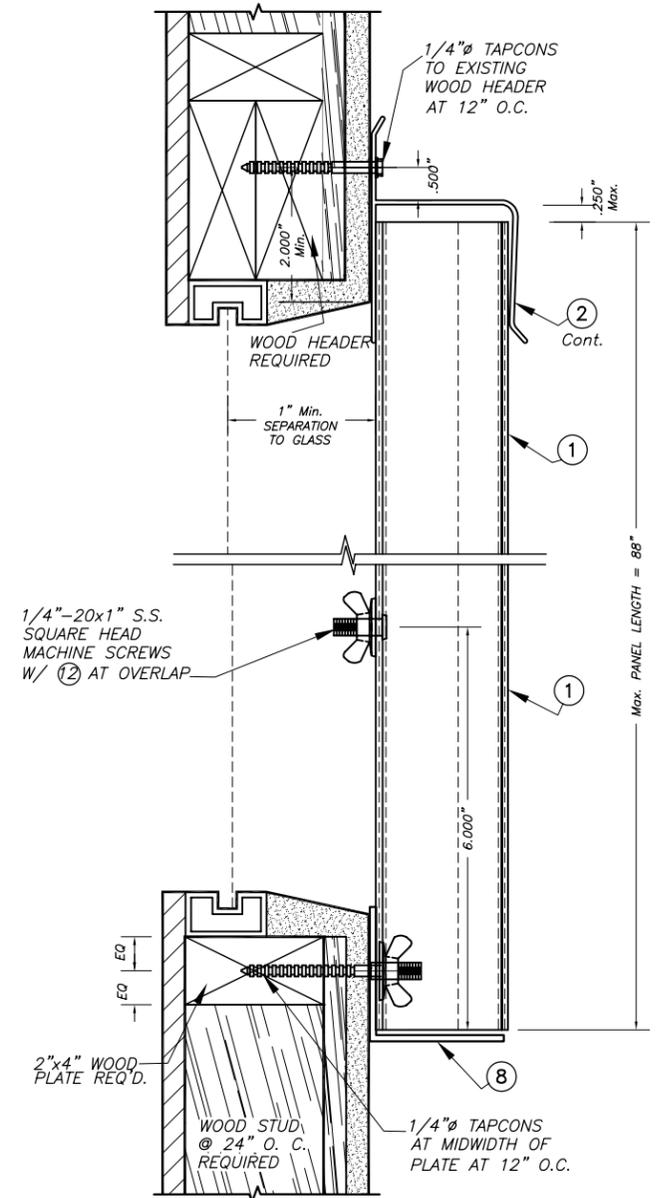
SECTION B-B
SCALE : N.T.S.



**INTERIORLY REMOVABLE STORM PANEL
PARTIAL ELEVATION**
SCALE : N.T.S.



**WALL MOUNTING INSTALLATION
SECTION 6A**
SCALE : 3/8" = 1"



**WALL MOUNTING INSTALLATION
SECTION 6B**
SCALE : 3/8" = 1"

INTERIORLY REMOVABLE STORM PANEL SECTIONS

++
SIDE WALK BOLTS ARE 3/4"Øx3/32" THICK HEAD MACHINE SCREW W/LENGTH AS PER NOTES A.2 & B.2 (SHEET 1)
++
TRUSS HEAD BOLTS ARE 1/2"Øx1/8" THICK HEAD MACHINE SCREW W/LENGTH AS PER NOTES A.2 & B.2 (SHEET 1)

MAX. DESIGN LOAD = +57.0, -57.0 p.s.f.

T.D.I. 2006

WALTER A. TILLIT Jr. P.E. PROFESSIONAL ENGINEER 6355 N.W. 36 STREET, STE. 305 VIRGINIA GARDENS, FL 33166 PHONE (305) 871-1530 FAX (305) 871-1531 TEXAS LIC. # 90691		24 GAGE GALVANIZED BERTHA STEEL STORM PANEL (2" DEEP) EASTERN METAL SUPPLY, INC 9400 TELGE ROAD HOUSTON, TX. 77095 PHONE: (800)996-6061 FAX: (281)656-2297		F.P. DRAWN BY: 01/23/08 DATE 08-006 DRAWING No	
REV. No 1 2	DESCRIPTION TITLE BLOCK / P.E. #	DATE 10/29/08	REV. No 3 4	DESCRIPTION 	DATE

MAXIMUM DESIGN PRESSURE RATING "W" (p.s.f.) AND CORRESPONDING MAXIMUM ANCHOR SPACING SCHEDULE FOR INSTALLATIONS IN CONCRETE AND CONCRETE BLOCK STRUCTURES (MASONRY)

MAXIMUM DESIGN LOAD W (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		SOLID SET		S.G.TAPCON			
	TO CONCRETE	TO MASONRY	TO CONCRETE	TO MASONRY	TO CONCRETE	TO MASONRY		
+40.0, -40.0 OR LESS	N/A	N/A	12"	12"	12"	12"	1 (TOP)	6'-0" OR LESS
	12"	12"	12"	12"	12"	12"	1 (BOTTOM)	
	12"	12"	12"	12"	12"	12"	2 (TOP)	
	12"	12"	12"	12"	12"	12"	2 (BOTTOM)	
	12"	12"	12"	12"	12"	12"	3 (TOP)	
	12"	N/A	12"	N/A	12"	N/A	3 (BOTTOM)	
	12"	N/A	12"	N/A	12"	N/A	4 (TOP)	
	12"	12"	12"	12"	12"	12"	4 (BOTTOM)	
	12"	12"	12"	12"	12"	12"	5 (TOP)	
	12"	12"	12"	12"	12"	12"	5 (BOTTOM)	

MAXIMUM DESIGN LOAD W (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		SOLID SET		S.G.TAPCON			
	TO CONCRETE	TO MASONRY	TO CONCRETE	TO MASONRY	TO CONCRETE	TO MASONRY		
+40.0, -40.0 UP TO +57.0, -57.0	N/A	N/A	12"	12"	12"	12"	1 (TOP)	> 6'-0" UP TO 7'-4"
	12"	11"	12"	12"	12"	12"	1 (BOTTOM)	
	12"	11"	12"	12"	12"	12"	2 (TOP)	
	12"	12"	12"	12"	12"	12"	2 (BOTTOM)	
	12"	11"	12"	12"	12"	12"	3 (TOP)	
	12"	N/A	12"	N/A	12"	N/A	3 (BOTTOM)	
	12"	N/A	12"	N/A	12"	N/A	4 (TOP)	
	12"	11"	12"	12"	12"	12"	4 (BOTTOM)	
	12"	12"	12"	12"	12"	12"	5 (TOP)	
	12"	12"	12"	12"	12"	12"	5 (BOTTOM)	

MAXIMUM DESIGN LOAD W (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		SOLID SET		S.G.TAPCON			
	TO CONCRETE	TO MASONRY	TO CONCRETE	TO MASONRY	TO CONCRETE	TO MASONRY		
+40.0, -40.0 OR LESS	N/A	N/A	12"	12"	12"	12"	1 (TOP)	> 6'-0" UP TO 9'-10"
	12"	11"	12"	12"	12"	12"	1 (BOTTOM)	
	12"	11"	12"	12"	12"	12"	2 (TOP)	
	12"	12"	12"	12"	12"	12"	2 (BOTTOM)	
	12"	11"	12"	12"	12"	12"	3 (TOP)	
	12"	N/A	12"	N/A	12"	N/A	3 (BOTTOM)	
	12"	N/A	12"	N/A	12"	N/A	4 (TOP)	
	12"	11"	12"	12"	12"	12"	4 (BOTTOM)	
	12"	12"	12"	12"	12"	12"	5 (TOP)	
	12"	12"	12"	12"	12"	12"	5 (BOTTOM)	

MAXIMUM DESIGN LOAD W (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		SOLID SET		S.G.TAPCON			
	TO CONCRETE	TO MASONRY	TO CONCRETE	TO MASONRY	TO CONCRETE	TO MASONRY		
+58.0, -58.0 OR LESS	N/A	N/A	12"	12"	12"	12"	1 (TOP)	2'-8" OR LESS
	12"	12"	12"	12"	12"	12"	1 (BOTTOM)	
	12"	12"	12"	12"	12"	12"	2 (TOP)	
	12"	12"	12"	12"	12"	12"	2 (BOTTOM)	
	12"	12"	12"	12"	12"	12"	3 (TOP)	
	12"	N/A	12"	N/A	12"	N/A	3 (BOTTOM)	
	12"	N/A	12"	N/A	12"	N/A	4 (TOP)	
	12"	12"	12"	12"	12"	12"	4 (BOTTOM)	
	12"	12"	12"	12"	12"	12"	5 (TOP)	
	12"	12"	12"	12"	12"	12"	5 (BOTTOM)	

MAXIMUM DESIGN LOAD W (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		SOLID SET		S.G.TAPCON			
	TO CONCRETE	TO MASONRY	TO CONCRETE	TO MASONRY	TO CONCRETE	TO MASONRY		
+40.0, -40.0 UP TO +50.0, -50.0	N/A	N/A	12"	12"	12"	12"	1 (TOP)	6'-0" OR LESS
	12"	12"	12"	12"	12"	12"	1 (BOTTOM)	
	12"	12"	12"	12"	12"	12"	2 (TOP)	
	12"	12"	12"	12"	12"	12"	2 (BOTTOM)	
	12"	12"	12"	12"	12"	12"	3 (TOP)	
	12"	N/A	12"	N/A	12"	N/A	3 (BOTTOM)	
	12"	N/A	12"	N/A	12"	N/A	4 (TOP)	
	12"	12"	12"	12"	12"	12"	4 (BOTTOM)	
	12"	12"	12"	12"	12"	12"	5 (TOP)	
	12"	12"	12"	12"	12"	12"	5 (BOTTOM)	

** MAXIMUM ANCHOR SPACINGS ARE VALID FOR 3" EDGE DISTANCE. FOR E. D. LESS THAN 3", 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 OR S.G.)	SOLID SET
3"	.86	.75
2 1/2"	.71	.50
2"	.50	-

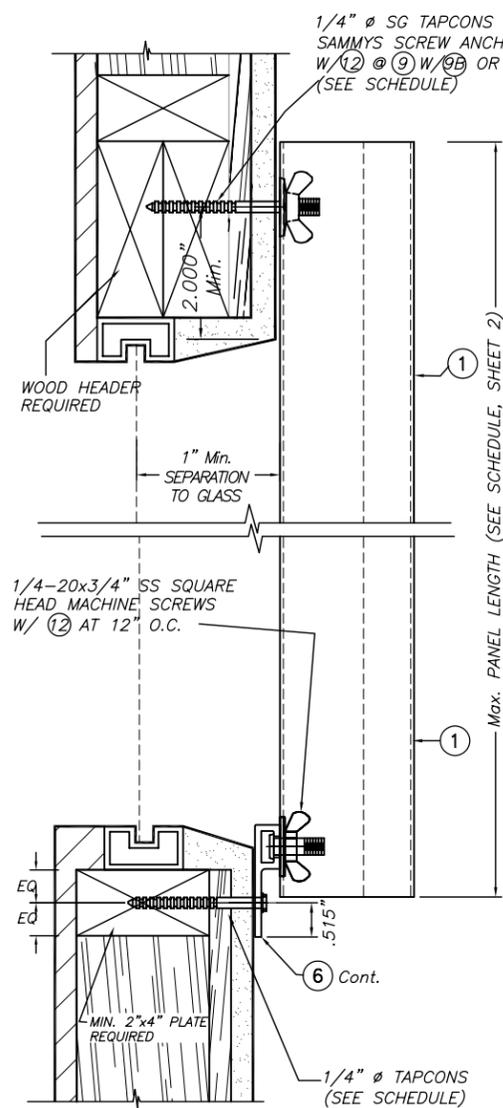
ANCHORS LEGEND

ANCHOR TYPE	Min. ANCHOR SPACING
TAPCON (REGULAR OR S.G.)	3.0"
SOLID SET	2.5"

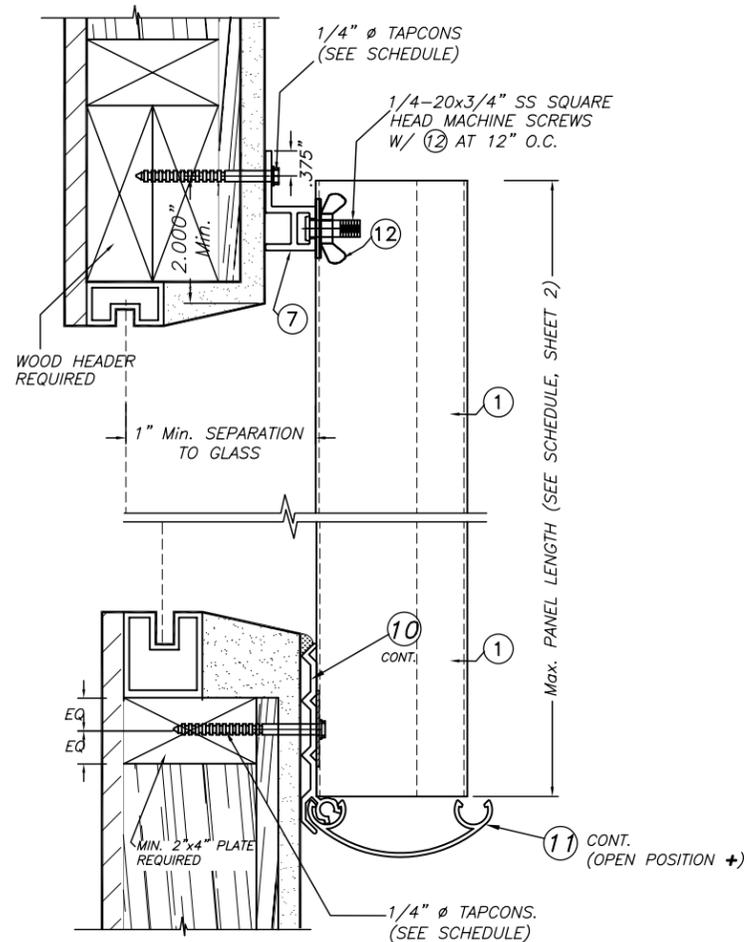
E. D. = EDGE DISTANCE

T.D.I. 2006

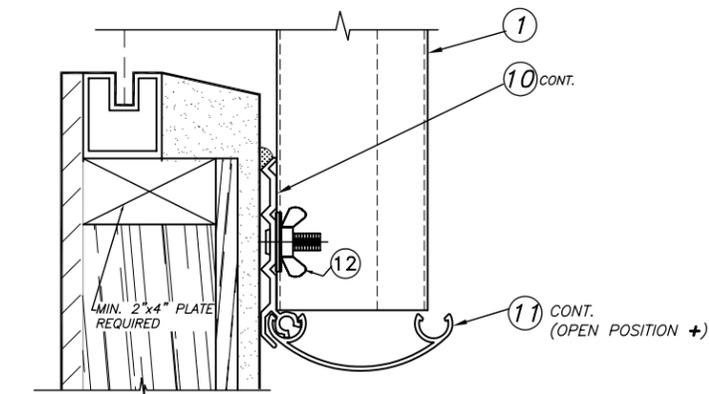
WALTER A. TILLIT Jr. P.E. PROFESSIONAL ENGINEER 6355 N.W. 36 STREET, STE. 305 VIRGINIA GARDENS, FL 33166 PHONE (305) 871-1530 FAX (305) 871-1531 TEXAS LIC. # 90691	24 GAGE GALVANIZED BERTHA STEEL STORM PANEL (2" DEEP)	F.P. DRAWN BY: 01/23/08 DATE																		
	EASTERN METAL SUPPLY, INC 9400 TELGE ROAD HOUSTON, TX. 77095 PHONE: (800)996-6061 FAX: (281)656-2297	08-006 DRAWING No	SHEET 7 OF 10																	
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REV. No	DESCRIPTION	DATE	REV. No	DESCRIPTION	DATE															
1	TITLE BLOCK / P.E. #	10/29/08	3																	
2			4																	



ALTERNATIVE 1



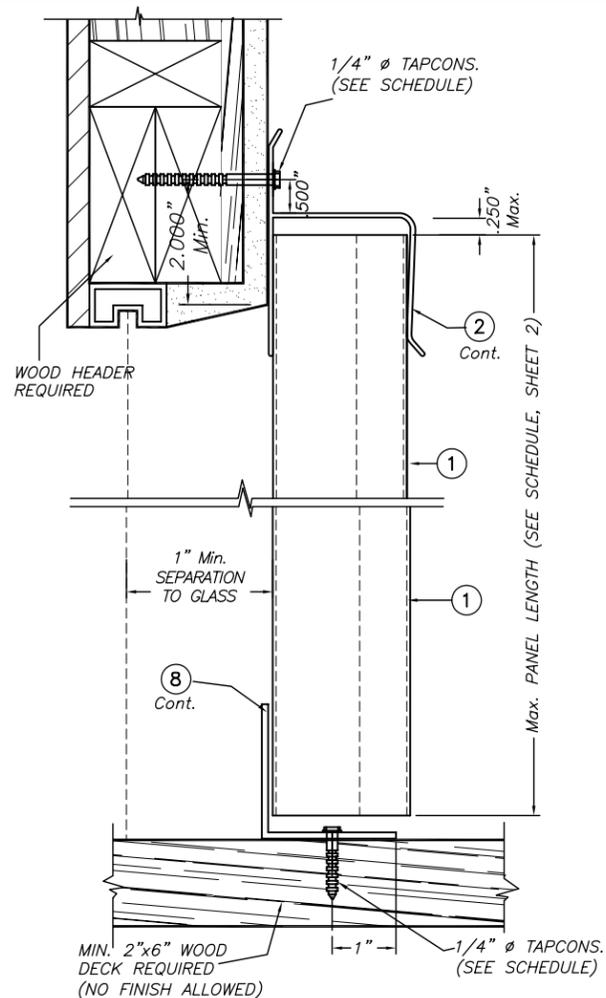
SECTION @ ANCHOR



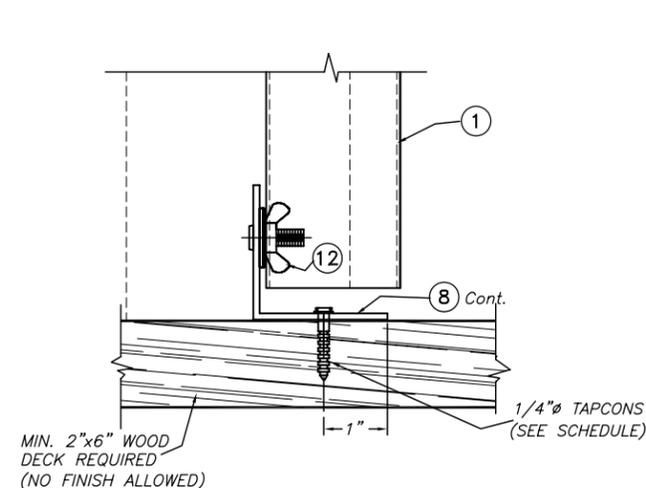
SECTION @ STUD

ALTERNATIVE 2

+ NOTE: FEMALE COVER CAP (1) TO REMAIN CLOSED AT NON HURRICANE CONDITIONS.

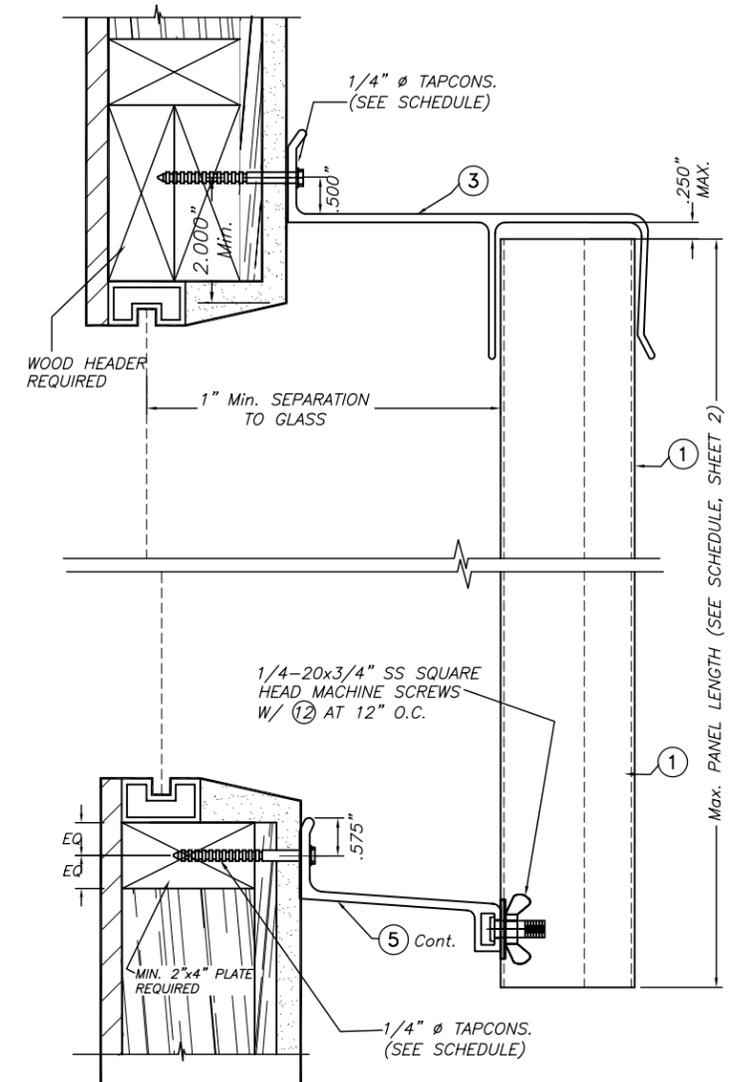


SECTION @ ANCHOR



SECTION @ STUD

WALL & FLOOR MOUNTING INSTALLATION ALTERNATIVE 3



BUILD OUT INSTALLATION ALTERNATIVE 4

WALL MOUNTING INSTALLATION

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

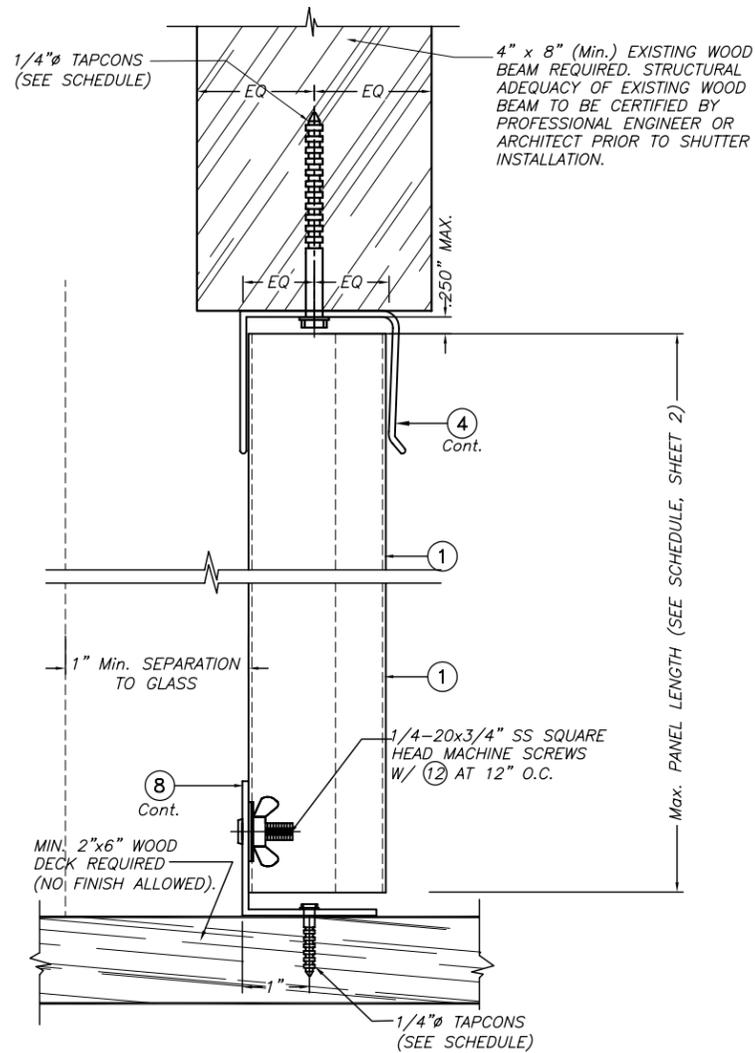
WALTER A. TILLIT Jr. P.E.
PROFESSIONAL ENGINEER
6355 N.W. 36 STREET, STE. 305
VIRGINIA GARDENS, FL 33166
PHONE (305) 871-1530 FAX (305) 871-1531
TEXAS LIC. # 90691

24 GAGE GALVANIZED BERTHA STEEL STORM PANEL
(2" DEEP)
EASTERN METAL SUPPLY, INC
9400 TELGE ROAD
HOUSTON, TX. 77095
PHONE: (800)996-6061 FAX: (281)656-2297

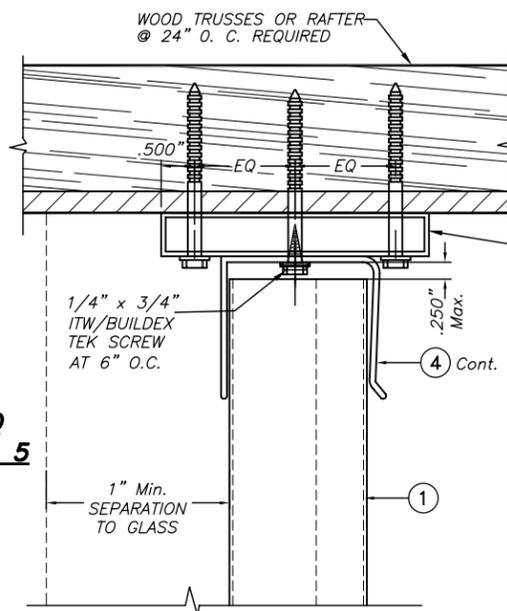
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2			4		

T.D.I. 2006

F.P.
DRAWN BY:
01/23/08
DATE
08-006
DRAWING No



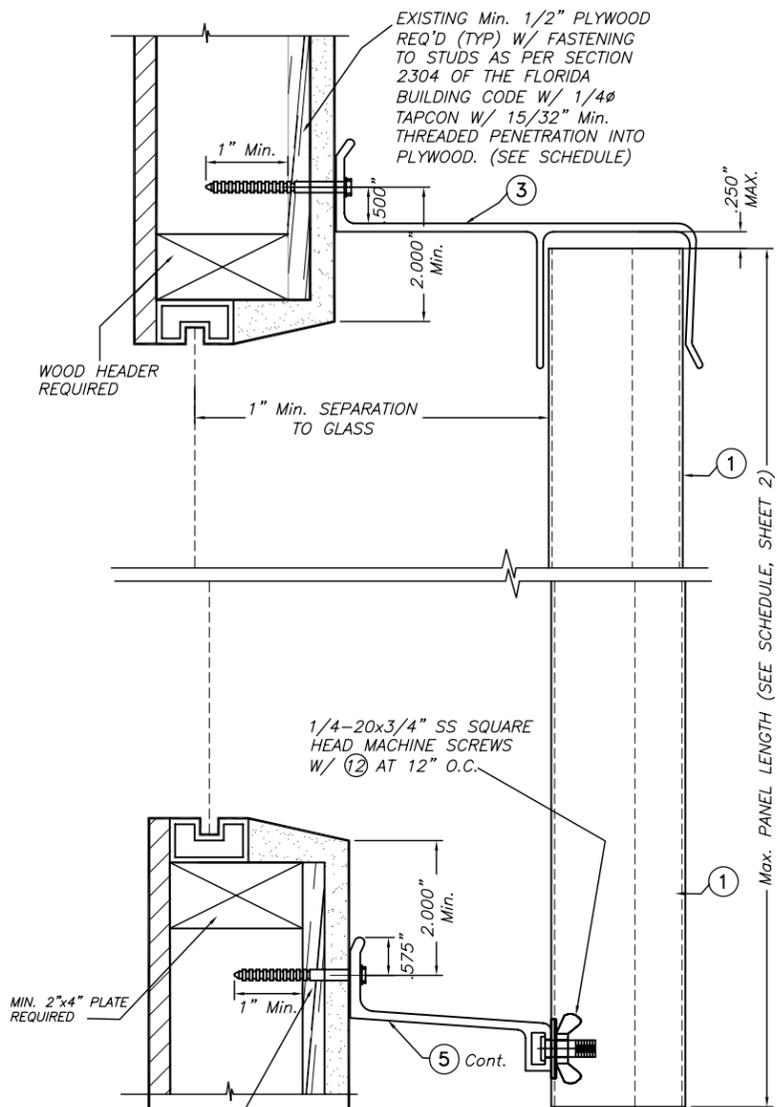
**CEILING & FLOOR MOUNTING INSTALLATION
ALTERNATIVE 5**



**OPTION TO
ALTERNATIVE 5
(TOP)**

1" x 4" x 1/8" MIN. (6063-T6)
ALUM. TUBE W/ (3) 5/16" LAG
SCREWS TO EACH TRUSS OR RAFTER.
LOCATE SCREW AT MIDWIDTH OF
EXISTING WOOD MEMBER (2" MIN.
NOMINAL WIDTH) W/ 2 1/2" MIN.
THREADED PENETRATION.

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



**BUILD OUT INSTALLATION
ALTERNATIVE 6**

WALTER A. TILLIT Jr. P.E.
PROFESSIONAL ENGINEER

6355 N.W. 36 STREET, STE. 305
VIRGINIA GARDENS, FL 33166
PHONE (305) 871-1530 FAX (305) 871-1531

TEXAS LIC. # 90691

24 GAGE GALVANIZED BERTHA STEEL STORM PANEL
(2" DEEP)

EASTERN METAL SUPPLY, INC
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REV. No	DESCRIPTION	DATE	REV. No	DESCRIPTION	DATE
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2			4		

T.D.I. 2006

F.P.
DRAWN BY:

01/23/08
DATE

08-006
DRAWING No

SHEET 9 OF 10

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

MAXIMUM DESIGN LOAD W (p.s.f.)	WOOD FASTENERS			APPLICABLE TO ALTERNATIVES # & ANY COMBINATION OF THEM	MAXIMUM PANEL LENGTH "L" (ft.)
	REGULAR TAPCONS	S.G.TAPCON	SAMMYS SSC		
+40.0, -40.0 OR LESS	N/A	12"	12"	1 (TOP)	6'-0" OR LESS
	12"	12"	N/A	1 (BOTTOM)	
	12"	12"	N/A	2 (TOP)	
	12"	N/A	N/A	2 (BOTTOM)	
	12"	12"	N/A	3 (TOP)	
	12"	12"	N/A	3 (BOTTOM)	
	12"	12"	N/A	4 (TOP)	
	12"	12"	N/A	4 (BOTTOM)	
	11"	11"	N/A	5 (TOP)	
	12"	12"	N/A	5 (BOTTOM)	
	6"	N/A	N/A	6 (TOP)	
	6"	N/A	N/A	6 (BOTTOM)	

MAXIMUM DESIGN LOAD W (p.s.f.)	WOOD FASTENERS			APPLICABLE TO ALTERNATIVES # & ANY COMBINATION OF THEM	MAXIMUM PANEL LENGTH "L" (ft.)
	REGULAR TAPCONS	S.G.TAPCON	SAMMYS SSC		
+40.0, -40.0 UP TO +57.0, -57.0	N/A	12"	12"	1 (TOP)	> 6'-0" UP TO 7'-4"
	12"	12"	N/A	1 (BOTTOM)	
	12"	12"	N/A	2 (TOP)	
	12"	N/A	N/A	2 (BOTTOM)	
	12"	12"	N/A	3 (TOP)	
	7"	7"	N/A	3 (BOTTOM)	
	12"	12"	N/A	4 (TOP)	
	12"	12"	N/A	4 (BOTTOM)	
	6.5"	6.5"	N/A	5 (TOP)	
	7"	7"	N/A	5 (BOTTOM)	
	6"	N/A	N/A	6 (TOP)	
	6"	N/A	N/A	6 (BOTTOM)	

MAXIMUM DESIGN LOAD W (p.s.f.)	WOOD FASTENERS			APPLICABLE TO ALTERNATIVES # & ANY COMBINATION OF THEM	MAXIMUM PANEL LENGTH "L" (ft.)
	REGULAR TAPCONS	S.G.TAPCON	SAMMYS SSC		
+40.0, -40.0 OR LESS	N/A	12"	12"	1 (TOP)	> 6'-0" UP TO 9'-10"
	12"	12"	N/A	1 (BOTTOM)	
	12"	12"	N/A	2 (TOP)	
	12"	N/A	N/A	2 (BOTTOM)	
	12"	12"	N/A	3 (TOP)	
	7.5"	7.5"	N/A	3 (BOTTOM)	
	12"	12"	N/A	4 (TOP)	
	12"	12"	N/A	4 (BOTTOM)	
	7"	7"	N/A	5 (TOP)	
	7.5"	7.5"	N/A	5 (BOTTOM)	
	6"	N/A	N/A	6 (TOP)	
	6"	N/A	N/A	6 (BOTTOM)	

MAXIMUM DESIGN LOAD W (p.s.f.)	WOOD FASTENERS			APPLICABLE TO ALTERNATIVES # & ANY COMBINATION OF THEM	MAXIMUM PANEL LENGTH "L" (ft.)
	REGULAR TAPCONS	S.G.TAPCON	SAMMYS SSC		
+58.0, -58.0 OR LESS	N/A	12"	12"	1 (TOP)	2'-8" OR LESS
	12"	12"	N/A	1 (BOTTOM)	
	12"	12"	N/A	2 (TOP)	
	12"	N/A	N/A	2 (BOTTOM)	
	12"	12"	N/A	3 (TOP)	
	12"	12"	N/A	3 (BOTTOM)	
	12"	12"	N/A	4 (TOP)	
	12"	12"	N/A	4 (BOTTOM)	
	12"	12"	N/A	5 (TOP)	
	12"	12"	N/A	5 (BOTTOM)	
	6"	N/A	N/A	6 (TOP)	
	6"	N/A	N/A	6 (BOTTOM)	

MAXIMUM DESIGN LOAD W (p.s.f.)	WOOD FASTENERS			APPLICABLE TO ALTERNATIVES # & ANY COMBINATION OF THEM	MAXIMUM PANEL LENGTH "L" (ft.)
	REGULAR TAPCONS	S.G.TAPCON	SAMMYS SSC		
+40.0, -40.0 UP TO +50.0, -50.0	N/A	12"	12"	1 (TOP)	6'-0" OR LESS
	12"	12"	N/A	1 (BOTTOM)	
	12"	12"	N/A	2 (TOP)	
	12"	N/A	N/A	2 (BOTTOM)	
	12"	12"	N/A	3 (TOP)	
	10"	10"	N/A	3 (BOTTOM)	
	12"	12"	N/A	4 (TOP)	
	12"	12"	N/A	4 (BOTTOM)	
	9"	9"	N/A	5 (TOP)	
	10"	10"	N/A	5 (BOTTOM)	
	6"	N/A	N/A	6 (TOP)	
	6"	N/A	N/A	6 (BOTTOM)	

T.D.I. 2006

WALTER A. TILLIT Jr. P.E. PROFESSIONAL ENGINEER 6355 N.W. 36 STREET, STE. 305 VIRGINIA GARDENS, FL 33166 PHONE (305) 871-1530 FAX (305) 871-1531 TEXAS LIC. # 90691		24 GAGE GALVANIZED BERTHA STEEL STORM PANEL (2" DEEP)		F.P. DRAWN BY:	
		EASTERN METAL SUPPLY, INC 9400 TELGE ROAD HOUSTON, TX. 77095 PHONE: (800)996-6061 FAX: (281)656-2297		01/23/08 DATE	
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REV. No 2 DESCRIPTION DATE		REV. No 4 DESCRIPTION DATE		SHEET 10 OF 10	