

GENERAL NOTES:

1. STORM PANEL SHOWN ON THIS PRODUCT EVALUATION DOCUMENT (P.E.D.) HAS BEEN VERIFIED FOR COMPLIANCE IN ACCORDANCE WITH THE 2004 EDITION OF THE FLORIDA BUILDING CODE, WITH THE 2005, 2006 AND 2007 SUPPLEMENTS. THE STORM PANEL SHALL NOT BE INSTALLED AS HIGH VELOCITY HURRICANE ZONES (UNIMATED / BROWARD COUNTIES). DESIGNED LOADS SHALL BE DETERMINED AT PER SECTION 1609 OF THE ABOVE MENTIONED CODE. FOR A BASIC WIND SPEED AS WITH ASCE 7-02 STRONG WIND CODE, STORM PANEL WILL BE INSTALLED AND FOR A DIRECTIONALITY FACTOR K_d=0.85, IN ACCORDANCE STRESSER, A 15% INCREASE IN ALLOWED STRESS FOR WIND LOADS WAS NOT USED IN THEIR ANALYSIS. A DURATION FACTOR C_d=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 1608.1.4 OF THE ABOVE MENTIONED CODE AS PER ALL REPORTS # 012101-99R, # 032901-00, #051201-03 AND 061201-04 AS PER STD 12-99 STANDARD.

2. ALL STEEL SHEET METAL PANELS SHALL HAVE STRUCTURAL QUALITY ASTM A-653, GRADE 40, WITH G-60 GALVANIZED STEEL DESIGNATION.
3. ALL ALUMINUM EXTRUSIONS SHALL BE ALUMINUM ASSOCIATION 6063-T6 ALLOY & TEMPER UNLESS OTHERWISE NOTED.
4. ALL STORM PANEL COMPONENTS 12 STUDDED PLATE AND (3) SWAP CAP ARE PATENT PENDING.
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)
 - (A) TO EXISTING POURED CONCRETE:
 - 1/4" TAPCON ANCHORS AS MANUFACTURED BY LITW. BUILDER.
 - 1/4" OF TAP-GRIP ANCHORS (BERTHA STUD-CON), AS MANUFACTURED BY TRU-FAST CORPORATION.
 - 1/4" Z-MAG MALL ANCHORS AS MANUFACTURED BY POWER FASTENERS, INC.
 - 1/4" x 7/8" CALK-IN ANCHORS OR ELCO IMOLE & FEMOLE "PANELMATE" AS MANUFACTURED BY POWER FASTENERS, INC. AND ELCO TEXTON, RESPECTIVELY.
 - 1/4" x 3/4" ALL POINTS SOLID-SET ANCHORS AS DISTRIBUTED BY ALL POINTS SCREW, BOLT & SPECIALTY COMPANY.
 - 1/4" RED HEAD DYNAMO-BOLT SLEEVE ANCHORS AS MANUFACTURED BY LITW. BUILDER/PANMSET.

7. PANELS MAY ALSO BE INSTALLED HORIZONTALLY FOLLOWING INSTALLATION DETAILS SHOWN ON SECTIONS 1 THRU 8 (SHEET 2 & 3 OF 8) EXCEPT THAT HEADERS 2, 3 & 4 SHALL NOT BE USED.
8. IF 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 TRIMMS 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.
- (e) THIS P.E.D. SHALL BEAR THE DATE AND ORIGINAL SEAL AND SIGNATURE OF THE PROFESSIONAL ENGINEER OF RECORD THAT PREPARED IT.

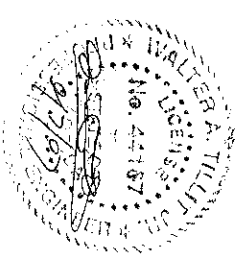
11. SHUTTER MANUFACTURER'S LABEL SHALL BE PLACED ON A READY AND VISIBLE LOCATION AT PANEL. ONE LABEL SHALL BE PLACED ON EVERY OPENING. EASTERN METAL SUPPLY, INC. WEST PALM BEACH, FL. FLORIDA STATEWIDE PRODUCT APPROVED.

- A.1) MINIMUM EMBEDMENT INTO POURED CONCRETE OF TAPCON ANCHORS IS 1 3/4"; FOR Z-MAG MALL ANCHORS IS 1 3/8"; FOR ELCO PANELMATE ANCHORS IS 1 3/4"; FOR RED HEAD DYNAMO-BOLT SLEEVE ANCHORS IS 1 1/8"; AND FOR OF TAP-GRIP ANCHORS IS 1 1/4".
- A.2) 7/8" CALK-IN 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) MINIMUM EMBEDMENT OF 1/4" 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" #-20 S.S. MACHINE SCREW USED SHALL BE 1 1/2" LONG MINIMUM SHOULD STUCCO EXIST, AND 1" MINIMUM FOR WALLS WITH NO STUCCO.
- A.4) 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" TAPCON ANCHORS AS MANUFACTURED BY LITW. BUILDER.
 - 1/4" OF TAP-GRIP ANCHORS (BERTHA STUD-CON), AS MANUFACTURED BY TRU-FAST CORPORATION.
 - 1/4" Z-MAG MALL ANCHORS AS MANUFACTURED BY POWER FASTENERS, INC.
 - 1/4" x 7/8" CALK-IN ANCHORS OR ELCO IMOLE & FEMOLE "PANELMATE" AS MANUFACTURED BY POWER FASTENERS, INC. AND ELCO TEXTON, RESPECTIVELY.
 - 1/4" x 3/4" ALL POINTS SOLID-SET ANCHORS AS DISTRIBUTED BY ALL POINTS SCREW, BOLT & SPECIALTY COMPANY.
 - 1/4" RED HEAD DYNAMO-BOLT SLEEVE ANCHORS AS MANUFACTURED BY LITW. BUILDER.

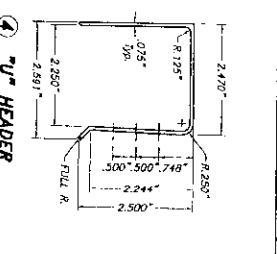
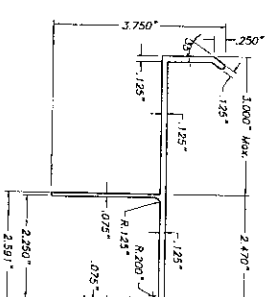
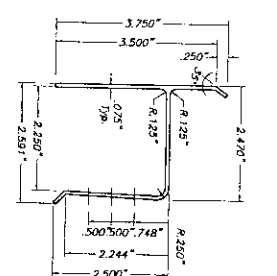
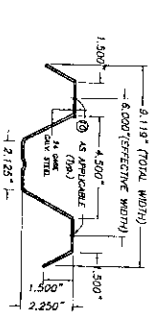
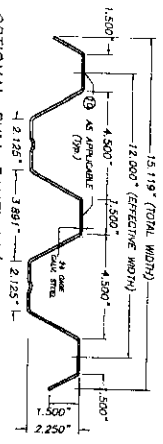
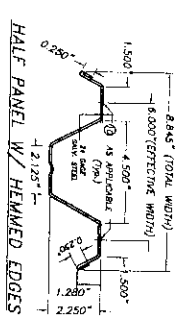
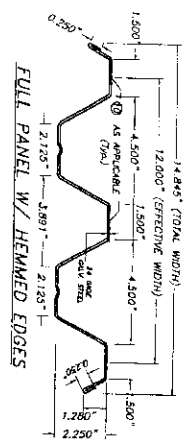
- B.1) MINIMUM EMBEDMENT OF TAPCON, ELCO PANELMATE, AND OF TAP-GRIP ANCHORS INTO CONCRETE BLOCK UNIT SHALL BE 1 1/4"; 1 3/8" FOR Z-MAG MALL ANCHORS AND 1 1/8" FOR RED HEAD DYNAMO-BOLT SLEEVE ANCHORS
- B.2) 7/8" CALK-IN ANCHORS SHALL BE ENTIRELY EMBEDDED INTO THE CONCRETE BLOCK UNIT. NO EMBEDMENT INTO 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) MINIMUM EMBEDMENT OF 1/4" x 3/4" ALL POINTS SOLID-SET ANCHORS SHALL BE 7/8" INTO THE CONCRETE BLOCK AND EMBEDMENT INTO STUCCO SHALL BE PERMITTED. 1/4" #-20 S.S. MACHINE SCREW USED SHALL BE 1 1/2" LONG MINIMUM SHOULD STUCCO EXIST, AND 1" MINIMUM FOR WALLS WITH NO STUCCO.
- B.4) 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) AND B.2) ABOVE.

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



		TILECO INC. 4288 WEST HIGGS DRIVE WEST PALM BEACH, FL 33407	
24 GAUGE GALVANIZED BERTHA STEEL STORM PANEL (2.25" DEEP)	L.G. DRAWN BY:	DATE: 9/6/05	SHEET 1 OF 8
EASTERN METAL SUPPLY, INC.	DATE: 05-271	DRAWING NO.	SHEET 1 OF 8

F.B.C. (Non High Velocity Hurricane Zone)

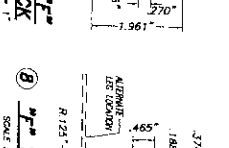
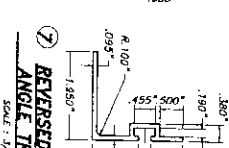
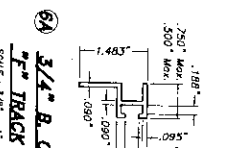
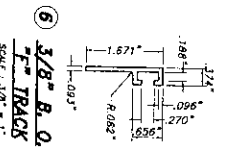
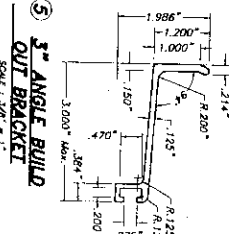


2 1/2" HEADER
SCALE: 3/8" = 1"

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

"U" HEADER
SCALE: 3/8" = 1"

OPTIONAL FULL PANEL W/O HEMMED EDGES
1 SOLID STORM PANEL
SCALE: 3/16" = 1"



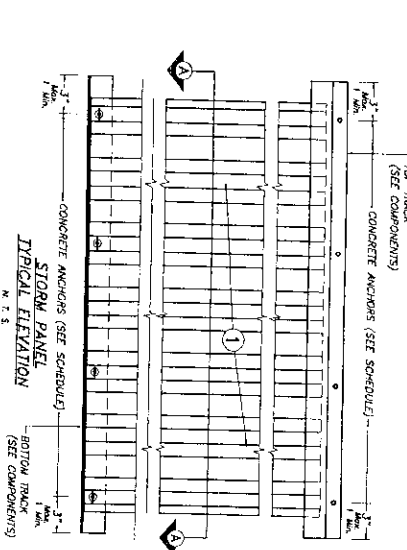
5 3" ANGLE BUILD OUT BRACKET
SCALE: 3/8" = 1"

6 3/8" R.O. F" TRACK
SCALE: 3/8" = 1"

6 3/4" R.O. F" TRACK
SCALE: 3/8" = 1"

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

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



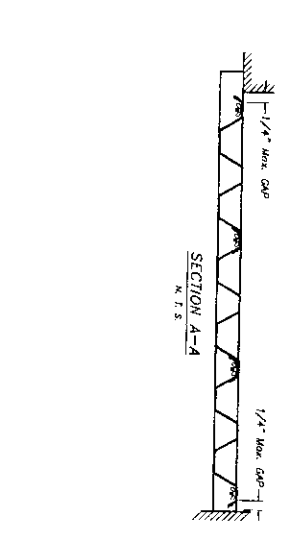
9 STUDDED ANGLE
SCALE: 3/8" = 1"

DETAIL 1: STUD W/ DIE CAST ZINC NICKEL PLATED WIND NUT
SCALE: 3/8" = 1"

10 KEY-HOLE AT PANEL
SCALE: 3/8" = 1"

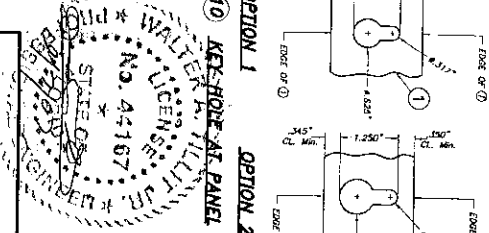
10A ROUND HOLE AT PANEL (OPTION TO 10)
SCALE: 3/8" = 1"

11 KEY HOLE WASHER
SCALE: 3/8" = 1"



12 STUDDED PLATE
SCALE: 3/8" = 1"

13 SNAP CAP
SCALE: 3/8" = 1"



TILECO, INC.
TILT TESTING & ENGINEERING COMPANY
4335 N.W. 140th Ave., Suite 100, Ft. Lauderdale, FL 33309
Phone: (754) 971-8300 Fax: (754) 971-1511
WALTER K. HILL, P.E.
FLORIDA LICENSE # 44167

EASTERN METAL SUPPLY, INC.
4008 WEST ROADS DRIVE
WEST PALM BEACH, FL 33407

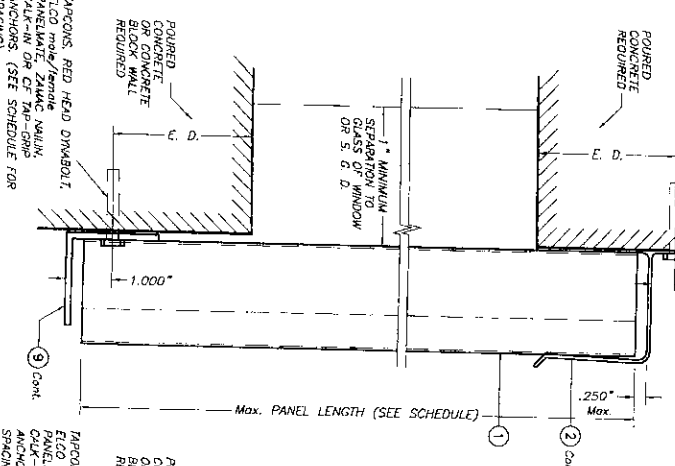
REV.	DATE	DESCRIPTION	BY	CHK.
1	02-28-02	REVISED	W.K.H.	W.K.H.
2	02-28-02	REVISED	W.K.H.	W.K.H.

24 GAUGE GALVANIZED BERTHA STEEL STORM PANEL
(2.25" DEEP)

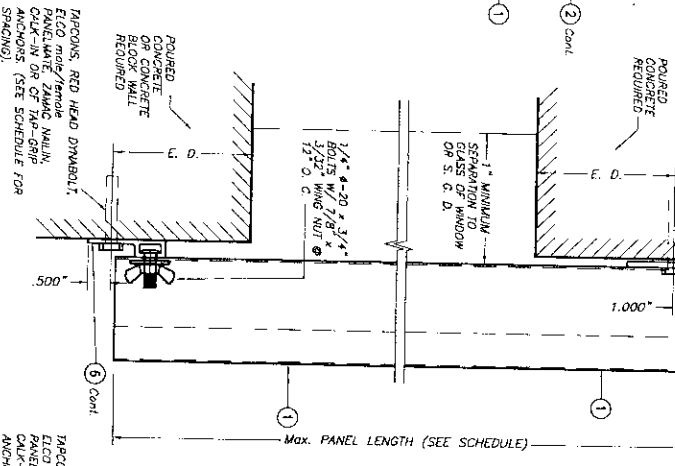
F.A.C./Non High Velocity Hurricane Zone)

CG-271
DATE: 9/9/05
DRAWN BY: L.G.
SHEET 1A OF 8

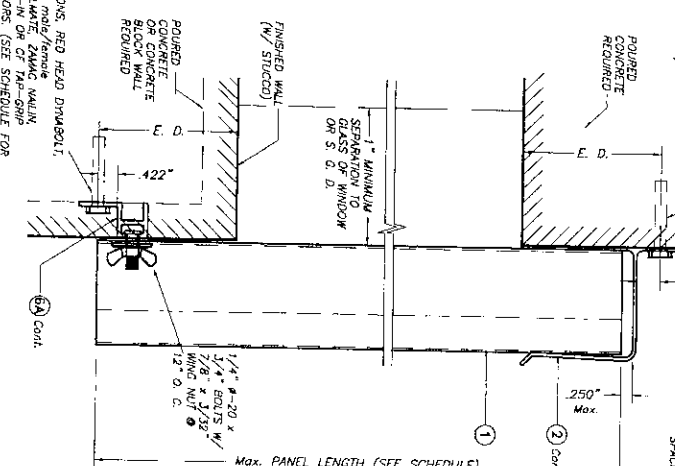
TAPCONS, RED HEAD DYNAMBOLT, ELOD male/female PANELMATE, ZMANG NAILIN, CALK-IN OR CF TAP-GRIP ANCHORS (SEE SCHEDULE FOR SPACING)



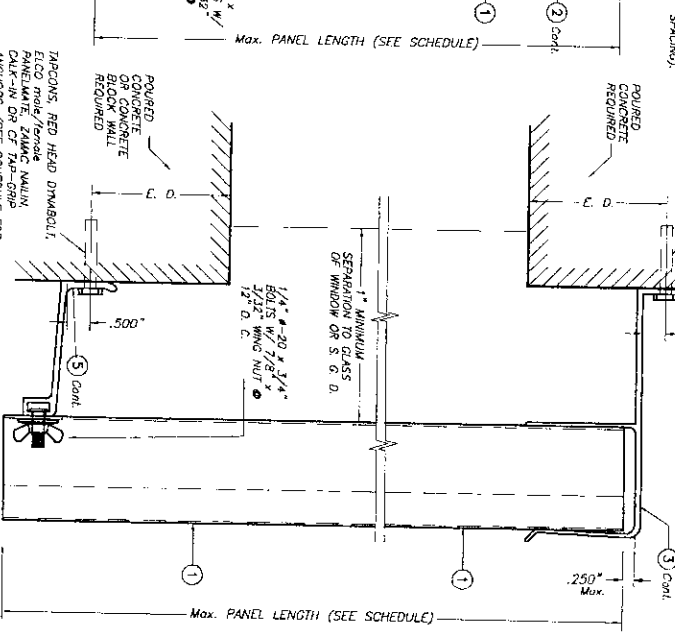
TAPCONS, RED HEAD DYNAMBOLT, ELOD male/female PANELMATE, ZMANG NAILIN, CALK-IN OR CF TAP-GRIP ANCHORS (SEE SCHEDULE FOR SPACING)



TAPCONS, RED HEAD DYNAMBOLT, ELOD male/female PANELMATE, ZMANG NAILIN, CALK-IN OR CF TAP-GRIP ANCHORS (SEE SCHEDULE FOR SPACING)



TAPCONS, RED HEAD DYNAMBOLT, ELOD male/female PANELMATE, ZMANG NAILIN, CALK-IN OR CF TAP-GRIP ANCHORS (SEE SCHEDULE FOR SPACING)



SECTION 1
SCALE: 3/8" = 1"

NOTE: DETAIL OF SECTION 2 STUD WALL ALSO FOR WALL MOUNTING INSTALLATION - SECTION 2 (100)

SECTION 2
SCALE: 3/8" = 1"

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

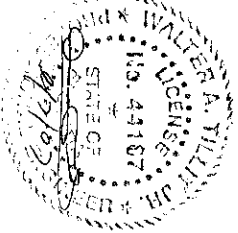
SECTION 3
SCALE: 3/8" = 1"

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

SECTION 4
SCALE: 3/8" = 1"

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

E. D. = EDGE DISTANCE (SEE SCHEDULE ON SHEETS 5 & 6 OF B)



TILECO INC.
TILT TESTING & ENGINEERING COMPANY
233 N.W. 36th St., 3rd Floor, West Palm Beach, FL 33407
Phone: (561) 831-4330 Fax: (561) 831-4331
WALTER A. TILLET, P.E.
FLORIDA LICENSE # 44187

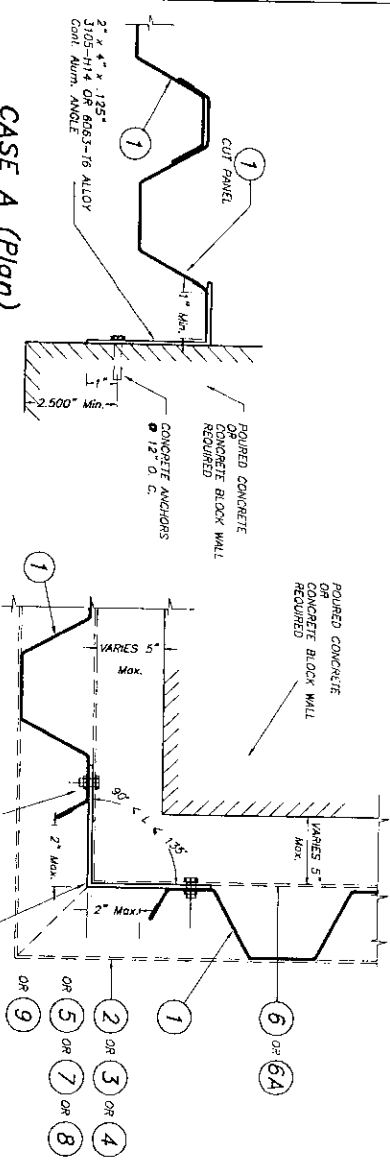
24 GAGE GALVANIZED BERTHA STEEL STORM PANEL (2.25" DEEP)		L.C.	9/6/05
EASTERN METAL SUPPLY, INC.		DRAWN BY:	
1428 WEST ROADS DRIVE WEST PALM BEACH, FL 33407		DATE	05-271
REV. NO.	DESCRIPTION	DATE	
1	OLD DMC 02-253 (7/9/04)		
SHEET 2 OF 8		DRAWING NO.	

F.B.C. (Non High Velocity Hurricane Zone)

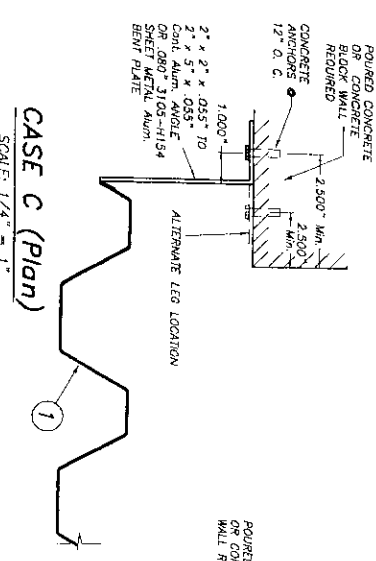
MAXIMUM DESIGN PRESSURE RATING "W" (P.S.F.) AND
CORRESPONDING MAXIMUM PANEL LENGTH "L" (FT.) SCHEDULE

MAXIMUM DESIGN PRESSURE RATING W (P.S.F.)	Max. PANEL LENGTH L (FT.)		
	1/2" MOUNTING W/ 2" HEADERS	3/4" MOUNTING W/ 2" HEADERS	1" MOUNTING W/ 2" HEADERS
+35.0, -40.0	9'-8"	9'-8"	9'-8"
+40.0, -45.0	9'-2"	9'-2"	9'-2"
+45.0, -50.0	8'-9"	8'-9"	8'-9"
+50.0, -55.0	8'-4"	8'-4"	8'-4"
+60.0, -65.0	7'-8"	7'-2"	7'-8"
+70.0, -80.0	7'-2"	6'-3"	7'-2"

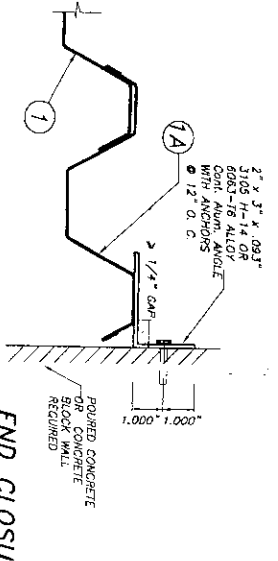
NOTE: MINIMUM PANEL LENGTH IS 3'-0"



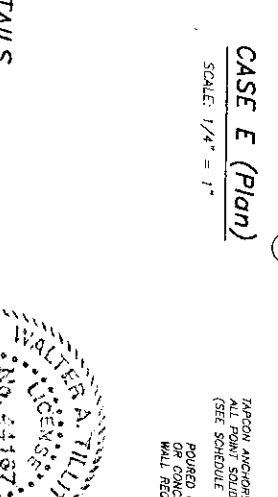
CASE A (Plan)
SCALE: 1/4" = 1"



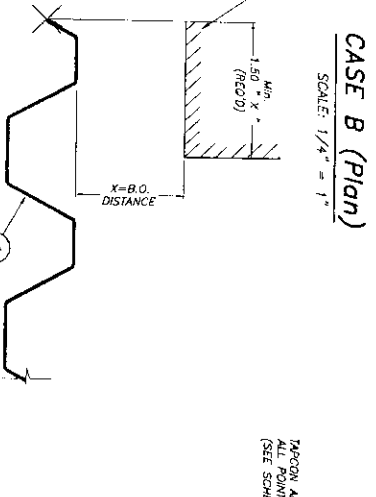
CASE B (Plan)
SCALE: 1/4" = 1"



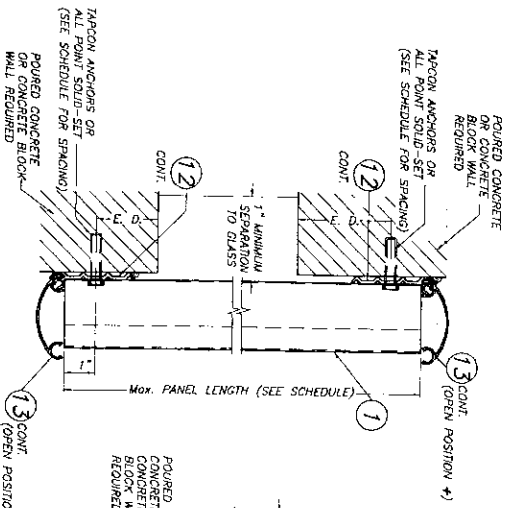
CASE C (Plan)
SCALE: 1/4" = 1"



CASE D (Plan)
SCALE: 1/4" = 1"

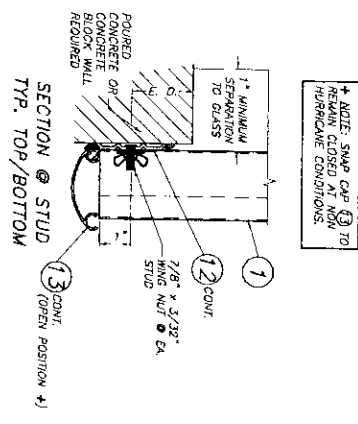


CASE E (Plan)
SCALE: 1/4" = 1"



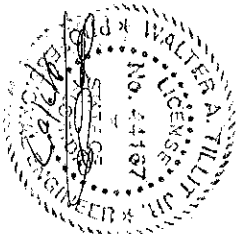
WALL MOUNTING INSTALLATION
SECTION 9

SCALE: 3/8" = 1"



SECTION @ STUD
TYP. TOP/BOTTOM

END CLOSURES DETAILS



TILTECO INC.
TILIT TESTING & ENGINEERING COMPANY
4358 N.W. 20th St., Ft. Lauderdale, FL 33309
Phone: (305) 581-1331
WALTER A. TILIT, Jr., P. E.
FLORIDA LIC. # 44187

EASTERN METAL SUPPLY, INC.
4268 WEST ROADS DRIVE
WEST PALM BEACH, FL 33407

REV. NO.	DESCRIPTION	DATE	BY	APPROVED BY	DATE
1	Q10 DWG 04-507 1/2/70	1/2/70			
2	Q10 DWG 02-035 8/7/70	8/7/70			

L.S. DRAWN BY: 9/9/68
DATE: 05-271
DRAWING NO: SHEET 4 OF 8

THIS SCHEDULE INDICATES REQUIRED ANCHOR SPACING FOR A GIVEN DESIGN LOAD AND PANEL LENGTH. DESIGN LOADS AND PANEL LENGTHS FOR A GIVEN DESIGN LOAD ARE LISTED IN PER SCHEDULE ON SHEET 4 OF 8.

MAXIMUM DESIGN PRESSURE RATING "W" (P.S.F.) AND CORRESPONDING MAXIMUM ANCHOR SPACING SCHEDULE FOR INSTALLATIONS INTO CONCRETE AND CONCRETE BLOCK STRUCTURES *

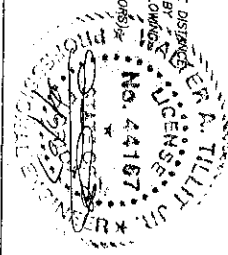
E. D. = EDGE DISTANCE

MAXIMUM DESIGN LOAD W (P.S.F.)	MAXIMUM ANCHORS SPACING FOR E. D. = 3 1/2" **												APPLICABLE TO SECTIONS & PANEL LENGTHS OF THEM		
	FACONS		Z-MAC NAIL/ RED HD. DWABOLT		CALK-IN		SOLID-SET		PANELMATS		CF 1/4" GRP				
	TO TO	TO TO	TO TO	TO TO	TO TO	TO TO	TO TO	TO TO	TO TO	TO TO	TO TO	TO TO	TO TO		
+40.0 -45.0 OR LESS	12"	12"	12"	12"	12"	12"	12"	12"	12"	12"	12"	12"	12"	1 & 3 (TOP)	8'-0" OR LESS
	12"	9"	12"	12"	12"	12"	12"	12"	12"	12"	12"	12"	12"	1, 9' (BOTTOM)	
	12"	12"	12"	12"	12"	12"	12"	12"	12"	12"	12"	12"	12"	2, 9' (TOP)	
	12"	9"	12"	12"	12"	12"	12"	12"	12"	12"	12"	12"	12"	2 (BOTTOM)	
	12"	9"	12"	12"	12"	12"	12"	12"	12"	12"	12"	12"	12"	3 (BOTTOM)	
	12"	12"	12"	12"	12"	12"	12"	12"	12"	12"	12"	12"	12"	4 (TOP)	
	12"	9"	12"	12"	12"	12"	12"	12"	12"	12"	12"	12"	12"	4 (BOTTOM)	
	12"	12"	12"	12"	12"	12"	12"	12"	12"	12"	12"	12"	12"	5 (TOP/BOTTOM)	
	12"	12"	12"	12"	12"	12"	12"	12"	12"	12"	12"	12"	12"	6 (TOP)	
	12"	12"	12"	12"	12"	12"	12"	12"	12"	12"	12"	12"	12"	6 (BOTTOM)	
+40.0 -45.0 OR LESS	12"	12"	12"	12"	12"	12"	12"	12"	12"	12"	12"	12"	12"	7 (BOTTOM)	8'-0" OR LESS
	12"	12"	12"	12"	12"	12"	12"	12"	12"	12"	12"	12"	12"	7 (BOTTOM)	
	12"	12"	12"	12"	12"	12"	12"	12"	12"	12"	12"	12"	12"	8 (TOP/BOTTOM)	
	12"	12"	12"	12"	12"	12"	12"	12"	12"	12"	12"	12"	12"	8 (TOP/BOTTOM)	
	12"	12"	12"	12"	12"	12"	12"	12"	12"	12"	12"	12"	12"	8 (TOP/BOTTOM)	
	12"	12"	12"	12"	12"	12"	12"	12"	12"	12"	12"	12"	12"	8 (TOP/BOTTOM)	
	12"	12"	12"	12"	12"	12"	12"	12"	12"	12"	12"	12"	12"	8 (TOP/BOTTOM)	
	12"	12"	12"	12"	12"	12"	12"	12"	12"	12"	12"	12"	12"	8 (TOP/BOTTOM)	
	12"	12"	12"	12"	12"	12"	12"	12"	12"	12"	12"	12"	12"	8 (TOP/BOTTOM)	
	12"	12"	12"	12"	12"	12"	12"	12"	12"	12"	12"	12"	12"	8 (TOP/BOTTOM)	

MAXIMUM DESIGN LOAD W (P.S.F.)	MAXIMUM ANCHORS SPACING FOR E. D. = 3 1/2" **												APPLICABLE TO SECTIONS & PANEL LENGTHS OF THEM		
	FACONS		Z-MAC NAIL/ RED HD. DWABOLT		CALK-IN		SOLID-SET		PANELMATS		CF 1/4" GRP				
	TO TO	TO TO	TO TO	TO TO	TO TO	TO TO	TO TO	TO TO	TO TO	TO TO	TO TO	TO TO	TO TO		
+40.0 -45.0 OR LESS	12"	12"	12"	12"	12"	12"	12"	12"	12"	12"	12"	12"	12"	1 & 3 (TOP)	8'-0" OR LESS
	12"	9"	12"	12"	12"	12"	12"	12"	12"	12"	12"	12"	12"	1, 9' (BOTTOM)	
	12"	12"	12"	12"	12"	12"	12"	12"	12"	12"	12"	12"	12"	2, 9' (TOP)	
	12"	9"	12"	12"	12"	12"	12"	12"	12"	12"	12"	12"	12"	2 (BOTTOM)	
	12"	9"	12"	12"	12"	12"	12"	12"	12"	12"	12"	12"	12"	3 (BOTTOM)	
	12"	12"	12"	12"	12"	12"	12"	12"	12"	12"	12"	12"	12"	4 (TOP)	
	12"	9"	12"	12"	12"	12"	12"	12"	12"	12"	12"	12"	12"	4 (BOTTOM)	
	12"	12"	12"	12"	12"	12"	12"	12"	12"	12"	12"	12"	12"	5 (TOP/BOTTOM)	
	12"	12"	12"	12"	12"	12"	12"	12"	12"	12"	12"	12"	12"	6 (TOP)	
	12"	12"	12"	12"	12"	12"	12"	12"	12"	12"	12"	12"	12"	6 (BOTTOM)	
+40.0 -45.0 OR LESS	12"	12"	12"	12"	12"	12"	12"	12"	12"	12"	12"	12"	12"	7 (BOTTOM)	8'-0" OR LESS
	12"	12"	12"	12"	12"	12"	12"	12"	12"	12"	12"	12"	12"	7 (BOTTOM)	
	12"	12"	12"	12"	12"	12"	12"	12"	12"	12"	12"	12"	12"	8 (TOP/BOTTOM)	
	12"	12"	12"	12"	12"	12"	12"	12"	12"	12"	12"	12"	12"	8 (TOP/BOTTOM)	
	12"	12"	12"	12"	12"	12"	12"	12"	12"	12"	12"	12"	12"	8 (TOP/BOTTOM)	
	12"	12"	12"	12"	12"	12"	12"	12"	12"	12"	12"	12"	12"	8 (TOP/BOTTOM)	
	12"	12"	12"	12"	12"	12"	12"	12"	12"	12"	12"	12"	12"	8 (TOP/BOTTOM)	
	12"	12"	12"	12"	12"	12"	12"	12"	12"	12"	12"	12"	12"	8 (TOP/BOTTOM)	
	12"	12"	12"	12"	12"	12"	12"	12"	12"	12"	12"	12"	12"	8 (TOP/BOTTOM)	
	12"	12"	12"	12"	12"	12"	12"	12"	12"	12"	12"	12"	12"	8 (TOP/BOTTOM)	

ACTUAL E. D.	FACTOR			
	TAPCON/Z-MAC NAIL/ RED HD. DWABOLT/ PANELMATS	CALK-IN	SOLID-SET	CF 1/4" GRP
3"	.66	.75	.78	1.00
2 1/2"	.71	.50	-	.80
2"	.50	-	-	-

* ONLY FACON ANCHORS OR ALL POINT SOLID-SET ALLOWED FOR MOUNTING SECTION 9.
 ** ANCHORS SPACING ONLY VALID FOR RED HEAD DWABOLT ANCHORS.
 SEE SHEET 7 & 8 OF 8 FOR ANCHORS TYPE & SPACING FOR INSTALLATIONS INTO WOOD FRAME BUILDINGS.
 MAXIMUM ANCHOR SPACINGS ARE VALID FOR 3 1/2" EDGE DISTANCE. FOR E. D. LESS THAN MAXIMUM ANCHOR SPACING BY MULTIPLYING SPACINGS SHOWN ABOVE BY THE FOLLOWING FACTORS. (Min. E. D. FOR CALK-IN ANCHOR & SOLID-SET PANELMATS IS 2 1/2" AND 3 1/2" FOR SOLID-SET ANCHORS.)



TILTECO INC.
 TILLY TESTING & ENGINEERING COMPANY
 4355 NW 36th St., Ste. 200, Miramar, Florida 33186
 Phone: (305) 233-0653
 FAX: (305) 233-0653
 TILLY, T. A., P. E.
 FLORIDA NO. 44187

24 GAUGE GALVANIZED BERTHA STEEL STORM PANEL
 (2.25" DEEP)
EASTERN METAL SUPPLY, INC.
 4268 WEST ROADS DRIVE
 WEST PALM BEACH, FL 33407
 L.G. GRANN BR.
 9/8/05
 OS-271
 DATE
 SHEET 5 OF 8

MAXIMUM DESIGN PRESSURE RATING "W" (P.S.F.) AND CORRESPONDING MAXIMUM ANCHOR SPACING SCHEDULE FOR INSTALLATIONS INTO CONCRETE AND CONCRETE BLOCK STRUCTURES *

E. D. = EDGE DISTANCE

MAXIMUM DESIGN LOAD W (P.S.F.)	MAXIMUM ANCHORS SPACING FOR E. D. = 3 1/2" **												
	TAPCONS		Z-MAC MASONRY/RED HD DIMENSIONAL		CLAY-IN		SOLID-SET		PANELMATES		CF 1/4" GRP		APPLICABLE TO SECTIONS # & ANY COMBINATION OF THEM
	TO TO	TO TO	TO TO	TO TO	TO TO	TO TO	TO TO	TO TO	TO TO	TO TO	TO TO		
>+50.0 -55.0 TO	8"	12"	12"	12"	12"	12"	12"	12"	12"	12"	12"	1 & 3 (TOP)	12"
	12"	12"	12"	12"	12"	12"	12"	12"	12"	12"	12"	1, 9 (BOTTOM)	12"
	12"	12"	12"	12"	12"	12"	12"	12"	12"	12"	12"	2, 9 (TOP)	12"
	12"	12"	12"	12"	12"	12"	12"	12"	12"	12"	12"	3 (BOTTOM)	12"
	12"	12"	12"	12"	12"	12"	12"	12"	12"	12"	12"	4 (TOP)	12"
+70.0 -80.0	5"	6"	6"	6"	6"	6"	6"	6"	6"	6"	6"	5 (TOP/BOTTOM)	8"-0"
	6"	6"	6"	6"	6"	6"	6"	6"	6"	6"	6"	4 (BOTTOM)	OR LESS
	6"	6"	6"	6"	6"	6"	6"	6"	6"	6"	6"	2 (TOP)	
	6"	6"	6"	6"	6"	6"	6"	6"	6"	6"	6"	6 (TOP)	
	6"	6"	6"	6"	6"	6"	6"	6"	6"	6"	6"	7 (BOTTOM)	

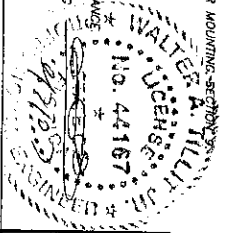
THIS SCHEDULE INDICATES REQUIRED ANCHOR SPACING FOR A GIVEN DESIGN LOAD AND PANEL LENGTH. HOWEVER MAXIMUM PANEL LENGTH FOR A GIVEN ANCHOR SPACING BE DETERMINED AS PER SCHEDULE ON SHEET # 4 OF 8.

MAXIMUM DESIGN LOAD W (P.S.F.)	MAXIMUM ANCHORS SPACING FOR E. D. = 3 1/2" **												
	TAPCONS		Z-MAC MASONRY/RED HD DIMENSIONAL		CLAY-IN		SOLID-SET		PANELMATES		CF 1/4" GRP		APPLICABLE TO SECTIONS # & ANY COMBINATION OF THEM
	TO TO	TO TO	TO TO	TO TO	TO TO	TO TO	TO TO	TO TO	TO TO	TO TO	TO TO		
>+50.0 -55.0 TO	6"	12"	12"	12"	12"	12"	12"	12"	12"	12"	12"	1 & 3 (TOP)	12"
	11"	12"	12"	12"	12"	12"	12"	12"	12"	12"	12"	1, 9 (BOTTOM)	12"
	11"	12"	12"	12"	12"	12"	12"	12"	12"	12"	12"	2, 9 (TOP)	12"
	11"	12"	12"	12"	12"	12"	12"	12"	12"	12"	12"	3 (BOTTOM)	12"
	11"	12"	12"	12"	12"	12"	12"	12"	12"	12"	12"	4 (TOP)	12"
+70.0 -80.0	4"	5"	5"	5"	5"	5"	5"	5"	5"	5"	5"	5 (TOP/BOTTOM)	8"-0"
	4"	5"	5"	5"	5"	5"	5"	5"	5"	5"	5"	4 (BOTTOM)	TO
	4"	5"	5"	5"	5"	5"	5"	5"	5"	5"	5"	2 (TOP)	
	4"	5"	5"	5"	5"	5"	5"	5"	5"	5"	5"	6 (TOP)	
	4"	5"	5"	5"	5"	5"	5"	5"	5"	5"	5"	7 (BOTTOM)	

MAXIMUM DESIGN LOAD W (P.S.F.)	MAXIMUM ANCHORS SPACING FOR E. D. = 3 1/2" **												
	TAPCONS		Z-MAC MASONRY/RED HD DIMENSIONAL		CLAY-IN		SOLID-SET		PANELMATES		CF 1/4" GRP		APPLICABLE TO SECTIONS # & ANY COMBINATION OF THEM
	TO TO	TO TO	TO TO	TO TO	TO TO	TO TO	TO TO	TO TO	TO TO	TO TO	TO TO		
>+50.0 -55.0 TO	5"	10"	10"	10"	10"	10"	10"	10"	10"	10"	10"	1 & 3 (TOP)	12"
	10"	10"	10"	10"	10"	10"	10"	10"	10"	10"	10"	1, 9 (BOTTOM)	12"
	10"	10"	10"	10"	10"	10"	10"	10"	10"	10"	10"	2, 9 (TOP)	12"
	10"	10"	10"	10"	10"	10"	10"	10"	10"	10"	10"	3 (BOTTOM)	12"
	10"	10"	10"	10"	10"	10"	10"	10"	10"	10"	10"	4 (TOP)	12"
+70.0 -80.0	4"	5"	5"	5"	5"	5"	5"	5"	5"	5"	5"	5 (TOP/BOTTOM)	8"-0"
	4"	5"	5"	5"	5"	5"	5"	5"	5"	5"	5"	4 (BOTTOM)	TO
	4"	5"	5"	5"	5"	5"	5"	5"	5"	5"	5"	2 (TOP)	
	4"	5"	5"	5"	5"	5"	5"	5"	5"	5"	5"	6 (TOP)	
	4"	5"	5"	5"	5"	5"	5"	5"	5"	5"	5"	7 (BOTTOM)	

ACTUAL E. D.	FACTOR			
	Z-MAC MASONRY/RED DIMENSIONAL PANELMATES	CLAY-IN	SOLID-SET	CF 1/4" GRP
3"	.86	.75	.78	1.00
2 1/2"	.71	.50	—	.80
2"	.50	—	—	—

* ONLY TAPCON ANCHORS OR ALL POINT SOLID-SET ALLOWED FOR MOUNTING SECTIONS ON PANELS.
 ** MAXIMUM ANCHOR SPACING ONLY VALID FOR RED HEAD DIMENSIONAL ANCHORS.
 *** SEE SHEET 7 & 8 OF 8 FOR ANCHORS TYPE & SPACING FOR INSTALLATIONS INTO WOOD FRAME BUILDINGS.
 **** MAXIMUM ANCHOR SPACINGS ARE VALID FOR 3 1/2" EDGE DISTANCE FOR E. D. LESS THAN 3 1/2". REDUCE ANCHOR SPACING BY MULTIPLYING SPACINGS SHOWN ON SCHEDULE BY THE FOLLOWING FACTORS: (Min. E. D. FOR CLAY-IN ANCHORS & ELD PANELMATE IS 2 1/2", AND 3 1/2" FOR SOLID-SET ANCHORS).



TILECO INC.
 TILE TESTING & ENGINEERING COMPANY
 4255 N.W. 26th St., Suite 200, Ft. Lauderdale, FL 33309
 Phone: (954) 581-0000 / (954) 581-1331
 FAX: (954) 581-0000
 WALTER A. TILLET, P. E.
 FLORIDA LIC. # 44167

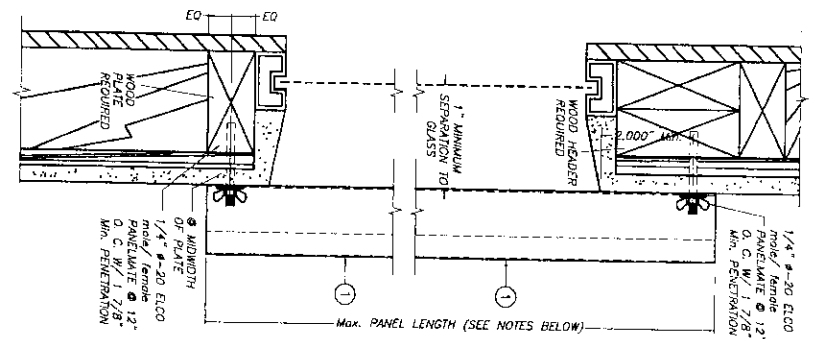
EASTERN METAL SUPPLY, INC.

4288 WEST ROADS DRIVE
 WEST PALM BEACH, FL 33407

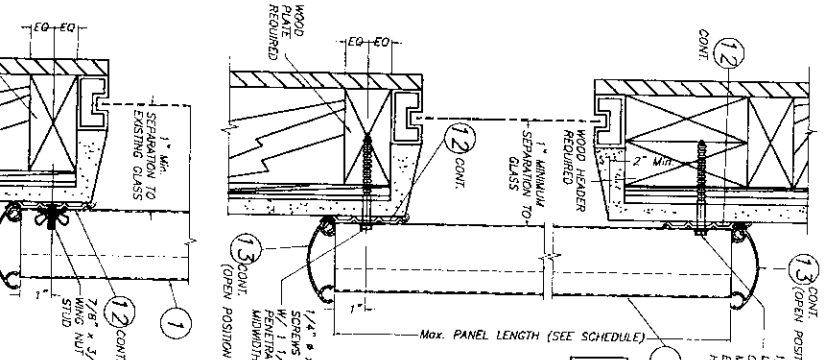
24 GAUGE GALVANIZED BERTHA STEEL STORM PANEL
 (2.25" DEEP)

F.B.C./Non High Velocity Hurricane Zone)

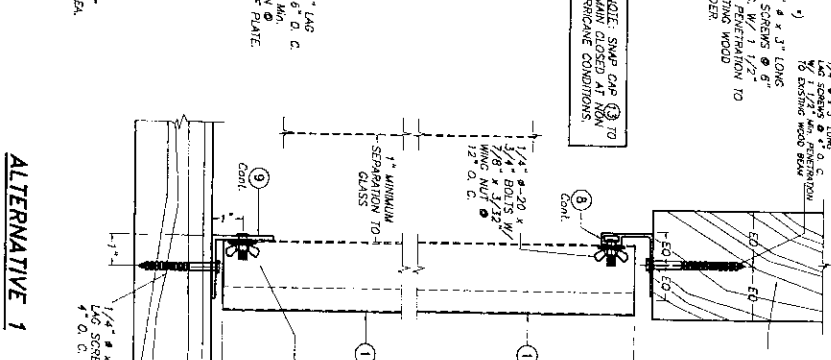
DATE: 3/8/05
 DRAWN BY: L.M.
 DATE: 05-271
 DRAWING NO: 05-271
 SHEET 6 OF 8



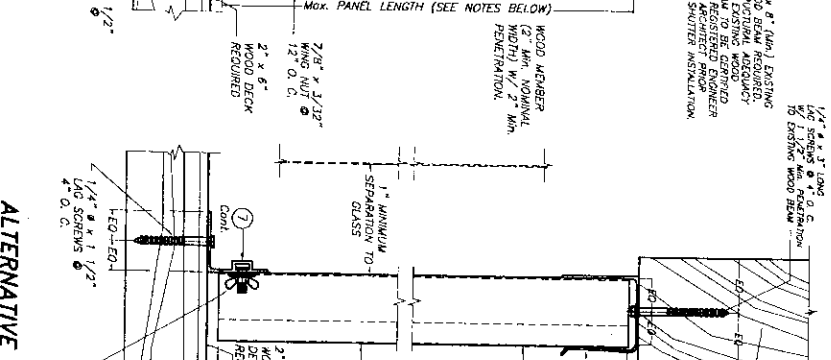
ALTERNATIVE 7



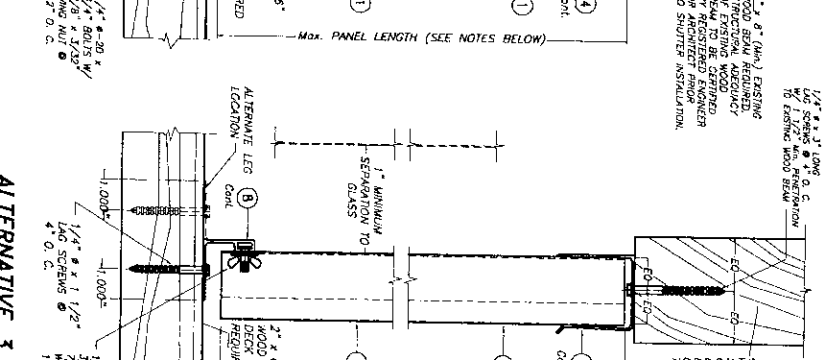
SECTION @ STUD TYP. TOP/BOTTOM
ALTERNATIVE 8



ALTERNATIVE 1



ALTERNATIVE 2



ALTERNATIVE 3

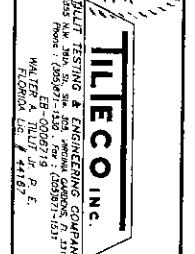
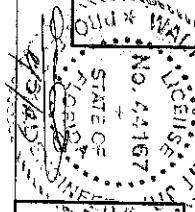
WALL MOUNTING INSTALLATION
SECTION A

INSTALLATION DETAILS ON EXISTING WOOD BUILDINGS

CEILING & FLOOR MOUNTING INSTALLATIONS
SECTIONS B

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

NOTES:
1. INSTALLATIONS ARE ONLY VALID FOR DESIGN WIND LOADS UP TO +60.0
-85.0 PSF AND PANEL LENGTHS UP TO 7'-8".
2. FOR WOOD FRAME CONSTRUCTION, WOOD MEMBERS TO BE SOUTHERN PINE NO. 2, W/ SPECIFIC DENSITY OF 0.35 OR EQUAL.



24 GAUGE GALVANIZED BERTHA STEEL STORM PANEL (2.25" DEEP)		L.C. DRAWN BY:	
EASTERN METAL SUPPLY, INC.		5/8/05	
4288 WEST MOORE DRIVE		DATE	
WEST PALM BEACH, FL 33407		REVISION	
PHONE: (561) 871-1400 FAX: (561) 871-1017		DATE	
WALTER A. TILLY, P.E.		SHEET B OF B	
FLORIDA LIC # 744167			

F.B.C. (Non High Velocity Hurricane Zone)