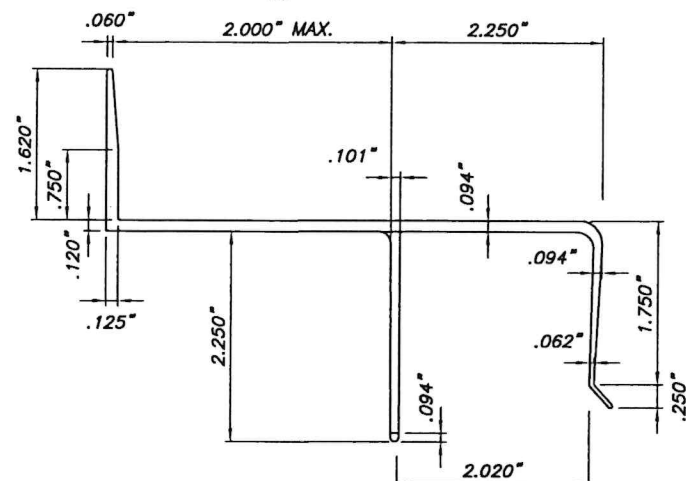
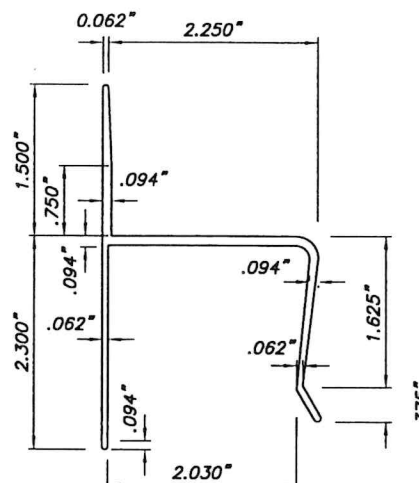


① PANEL



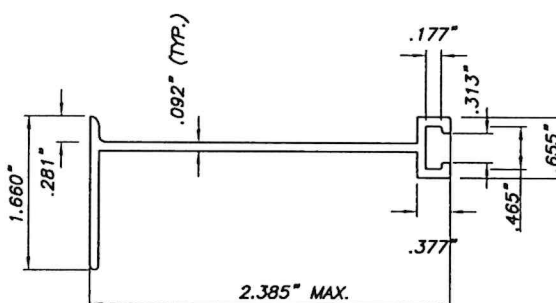
③ B.O. HEADER

(6005-T5 ALUMINUM ALLOY)
SCALE: 1/2" = 1"



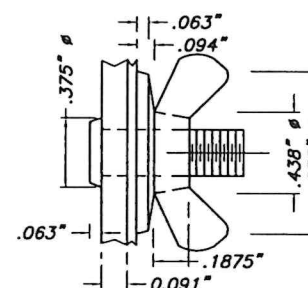
② h HEADER

(6005-T5 ALUMINUM ALLOY)
SCALE: 1/2" = 1"



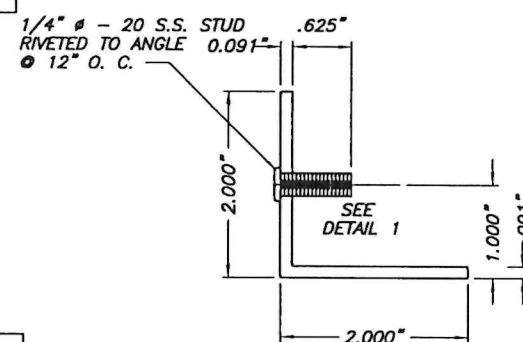
④ B.O. "F" ANGLE

SCALE: 1/2" = 1"



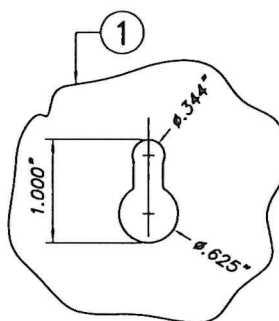
DETAIL 1:

STUD W/ WING NUT
N.T.S.



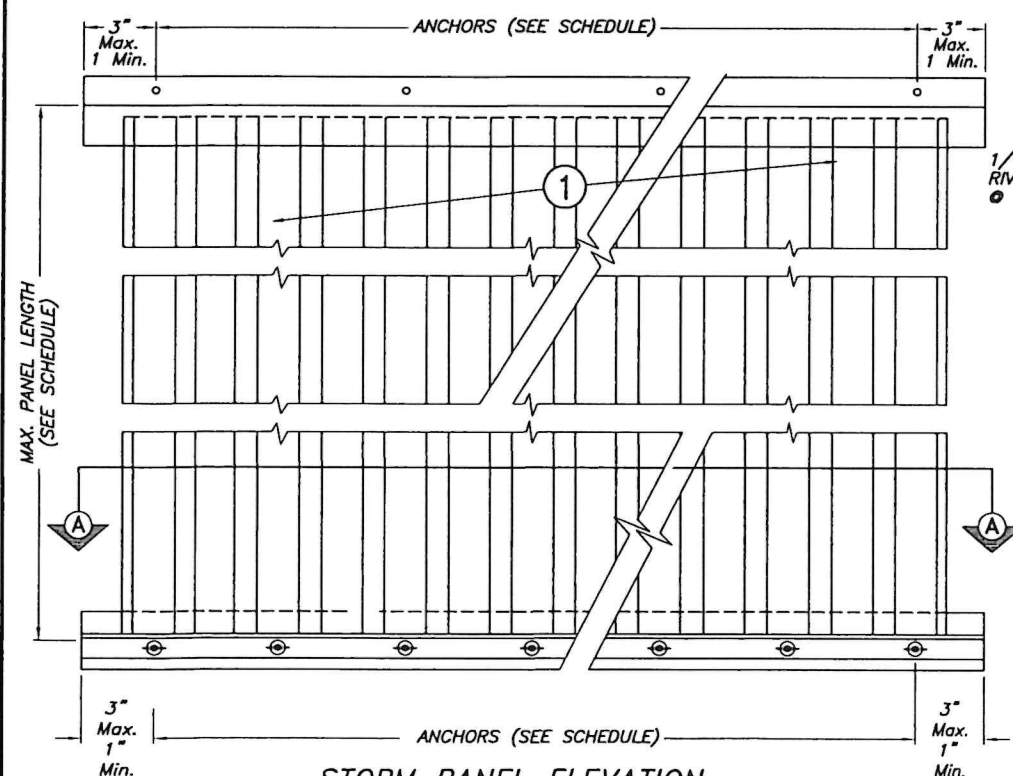
⑤ ANGLE WITH STUD

SCALE: 1/2" = 1"



⑥ KEY HOLE AT PANEL

N.T.S.



STORM PANEL ELEVATION

SCALE = NTS

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

SECTION A-A

SCALE = NTS

GENERAL NOTES:

- STORM PANEL SHOWN ON THIS PRODUCT EVALUATION DOCUMENT (P.E.D.) HAS BEEN VERIFIED FOR CODE COMPLIANCE IN ACCORDANCE WITH THE 2023 (8th EDITION) OF THE FLORIDA BUILDING CODE.
DESIGN WIND LOADS SHALL BE DETERMINED AS PER SECTION 1609 OF THE ABOVE MENTIONED CODE, FOR A BASIC WIND SPEED AS REQUIRED BY THE JURISDICTION WHERE THESE SHUTTERS WILL BE INSTALLED.
FOR A DIRECTIONALITY FACTOR $K_d=0.85$, USING ASCE 7-22 AND SHALL NOT EXCEED THE MAXIMUM (A.S.D.) DESIGN PRESSURE RATINGS INDICATED ON SHEETS 4 & 5.
IN ORDER TO VERIFY THE ABOVE CONDITION, ULTIMATE DESIGN WIND LOADS DETERMINED PER ASCE 7-22 SHALL BE FIRST REDUCED TO A.S.D. DESIGN WIND LOADS BY MULTIPLYING THEM BY 0.6 IN ORDER TO COMPARE THESE W/ MAX. (A.S.D.) DESIGN PRESSURE RATINGS INDICATED ON SHEET 4 & 5.
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 FENESTRATION TESTING LAB REPORTS # 2619,2653 & # 4676,4677, PER SSTD 12-99 STANDARD & TAS 202 PROTOCOL.
- ALL ALUMINUM SHEET METAL PANELS SHALL HAVE 5052-H32 ALLOY.
- ALL ALUMINUM EXTRUSIONS SHALL BE 6063-T6 ALLOY UNLESS OTHERWISE NOTED. ALL ALUMINUM EXTRUSIONS IN CONTACT WITH DISSIMILAR MATERIALS SHALL COMPLY WITH SECTION III-6 OF THE 2020 ALUMINUM DESIGN MANUAL.
- ALL SCREWS TO BE STAINLESS STEEL 304 OR 316 AISI SERIES OR CORROSION RESISTANT COATED CARBON STEEL AS PER DIN 50018 WITH 50 ksi YIELD STRENGTH AND 90 ksi TENSILE STRENGTH AND SHALL COMPLY W/ FLORIDA BUILDING CODE SECTION 2411.3.3.4.
- BOLTS TO BE ASTM A-307, GALVANIZED OR AISI 304 SERIES STAINLESS STEEL, WITH 36 ksi MINIMUM YIELD STRENGTH
- ANCHORS TO WALL SHALL BE AS FOLLOWS: (UNLESS OTHERWISE NOTED)

(A) TO EXISTING POURED CONCRETE:

- 1/4" # TAPCON OR ULTRACON ANCHORS AS MANUFACTURED BY DE WALT INC OR ITW BUILDEX.
- 1/4" # x 7/8" CALK-IN ANCHORS AS MANUFACTURED BY DEWALT, INC.
- 1/4" # MALE PANEL MATES AS MANUFACTURED BY ELCO CONSTRUCTION PRODUCTS.

NOTES:

- MINIMUM EMBEDMENT INTO POURED CONCRETE OF TAPCON OR ULTRACON ANCHORS AND PANEL MATES IS 1 3/4".
- 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. SCREWS SHALL HAVE 3/4" # HEAD FOR DIRECT MOUNTED PANELS, AND 3/4" # OR 9/16" # HEAD FOR ALL TRACKS OR PLATES.
- 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 OR ULTRACON ANCHORS BY DE WALT INC OR ITW BUILDEX.
- 1/4" # x 7/8" CALK-IN ANCHORS AS MANUFACTURED BY DEWALT, INC.
- 1/4" # MALE PANEL MATES AS MANUFACTURED BY ELCO CONSTRUCTION PRODUCTS.

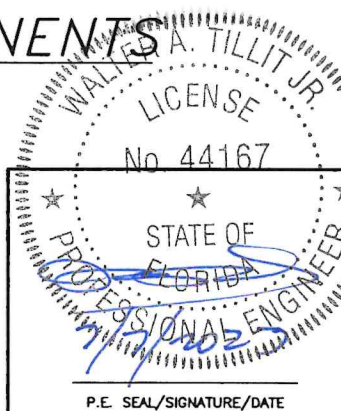
NOTES:

- MINIMUM EMBEDMENT OF TAPCON OR ULTRACON ANCHORS AND PANEL MATES INTO THE CONCRETE BLOCK UNIT SHALL BE 1 1/4".
- 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. SCREWS SHALL HAVE 3/4" # HEAD FOR DIRECT MOUNTED PANELS, AND 3/4" # OR 9/16" # HEAD FOR ALL TRACKS OR PLATES.
- 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 1 1/4" MINIMUM FOR ANCHORS MENTIONED IN B.1). & 7/8" FOR ANCHORS MENTIONED IN B.2).

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

- PANELS MAY ALSO BE INSTALLED HORIZONTALLY FOLLOWING INSTALLATION DETAILS SHOWN ON SECTIONS 1 THRU 5 (SHEET 2 & 3 OF 7) EXCEPT THAT HEADER ② & ③ & SHALL NOT BE USED.
- 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.
- (a) THIS PRODUCT EVALUATION DOCUMENT (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 PRODUCT EVALUATION DOCUMENT (P.E.D.) WILL BE CONSIDERED INVALID IF MODIFIED.
(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) ORIGINAL P.E.D. SHALL BEAR THE DATE AND ORIGINAL SEAL AND SIGNATURE OF THE PROFESSIONAL ENGINEER OF RECORD THAT PREPARED IT.
- SHUTTER MANUFACTURER'S LABEL SHALL BE LOCATED ON A READILY VISIBLE LOCATION AT PANEL IN ACCORDANCE WITH SECTION 1709.9.1 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.

FLORIDA BUILDING CODE (Non High Velocity Hurricane Zone)

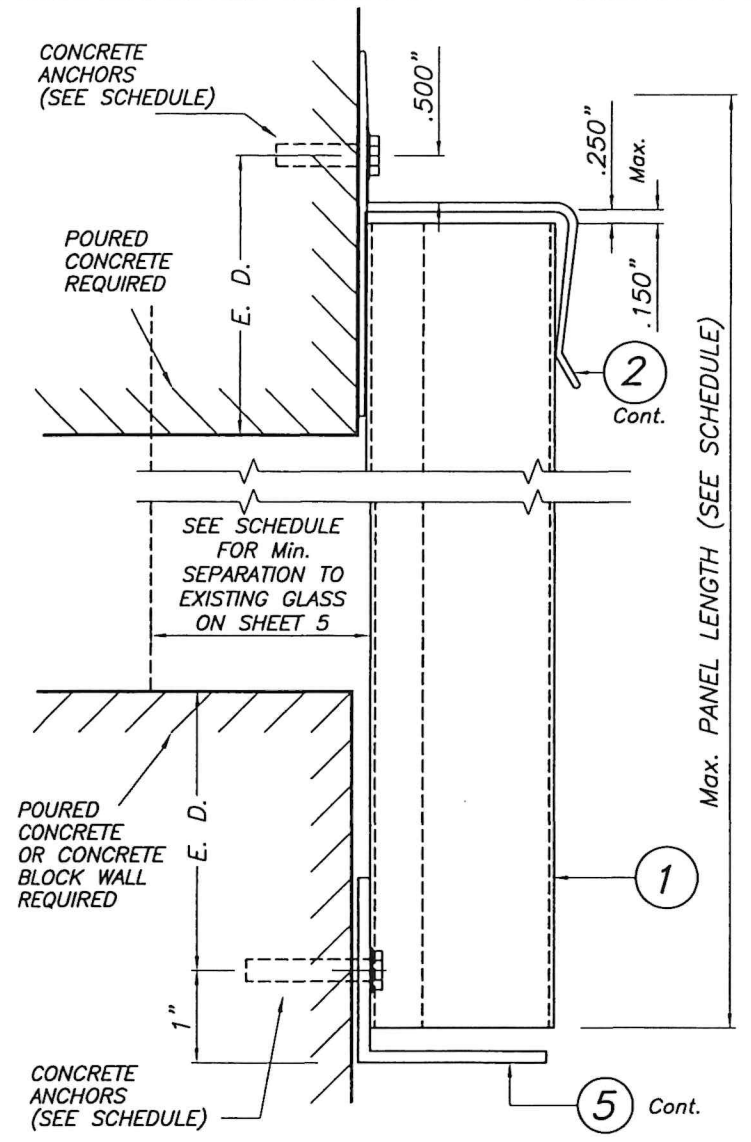


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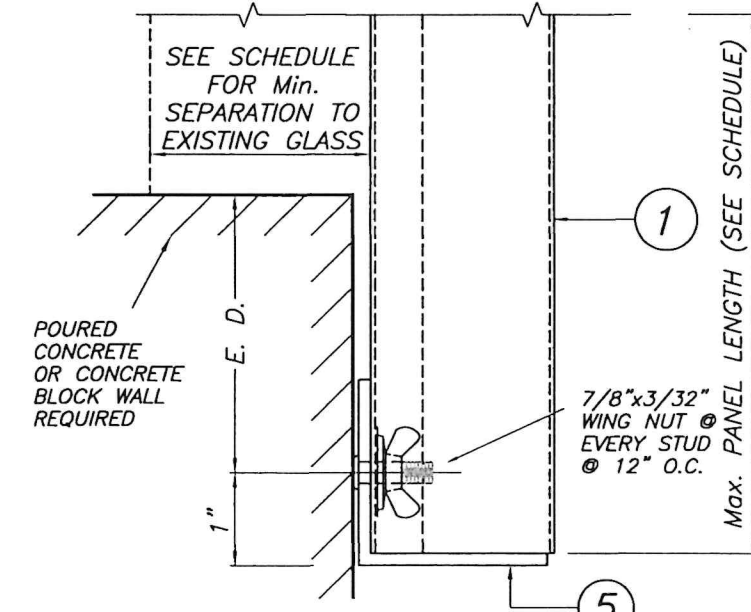
TILTECO INC.

TILLIT TESTING & ENGINEERING COMPANY
6355 N.W. 38th St., Ste. 305, VIRGINIA GARDENS, FL 33186
Phone: (305)871-1530 • Fax: (305)871-1531
CA-0006719
WALTER A. TILLIT JR., P.E.
FLORIDA Lic. 44167

0.050" ALUMINUM STORM PANEL						Y.M. DRAWN BY:
RELIABLE SHUTTER COMPANY						7/7/2023 DATE
180-8 RICH STREET VENICE, FL 34292 PHONE: (800)282-4299 FAX: (941)484-7407						23-078 DRAWING No
REV. NO	DESCRIPTION	DATE	REV. No	DESCRIPTION	DATE	SHEET 1 OF 7
1	OLD 20-191	7/7/2023	3	-	-	
2	-	-	4	-	-	



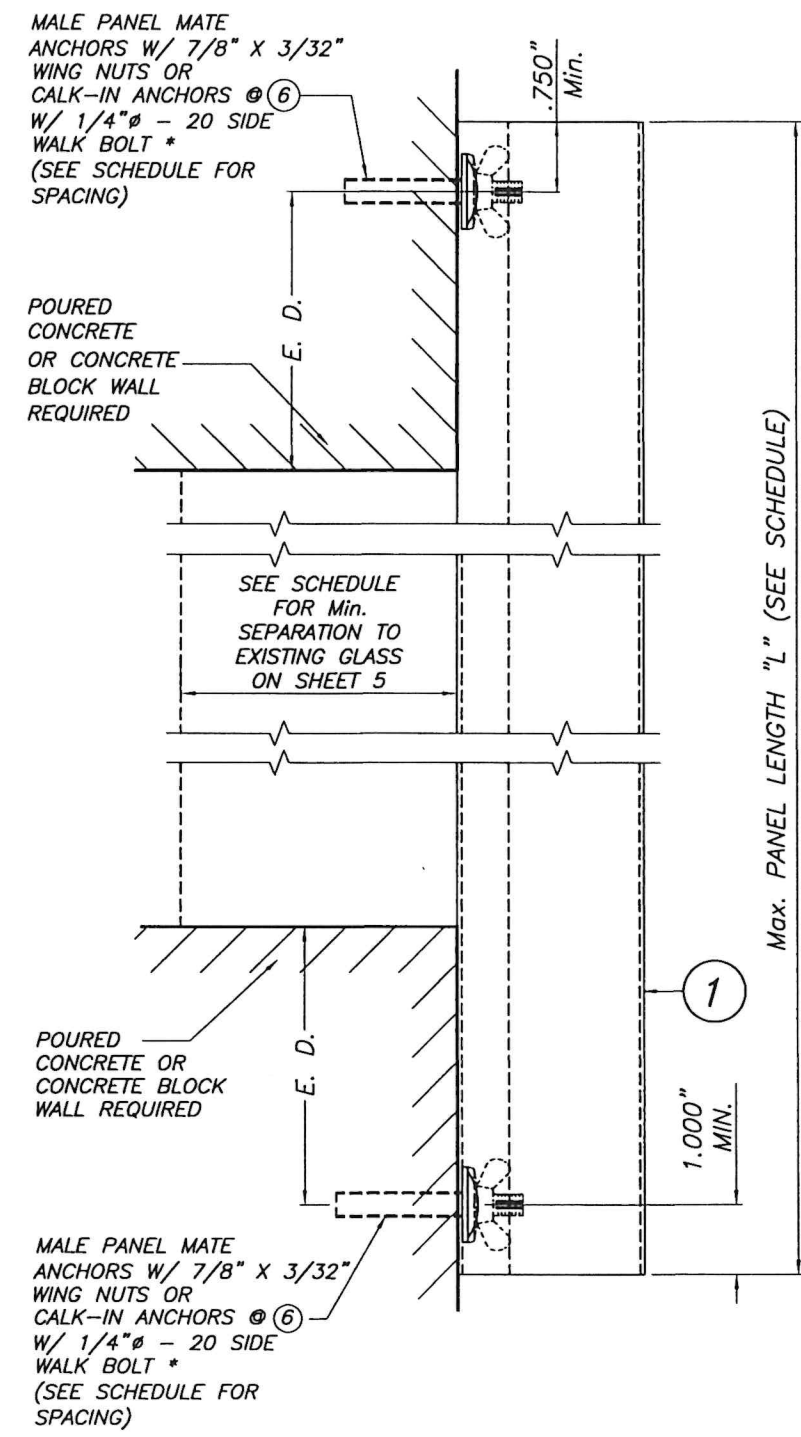
SECTION @ ANCHOR



SECTION @ STUD

WALL MOUNT. INSTALL. - SECTION 1

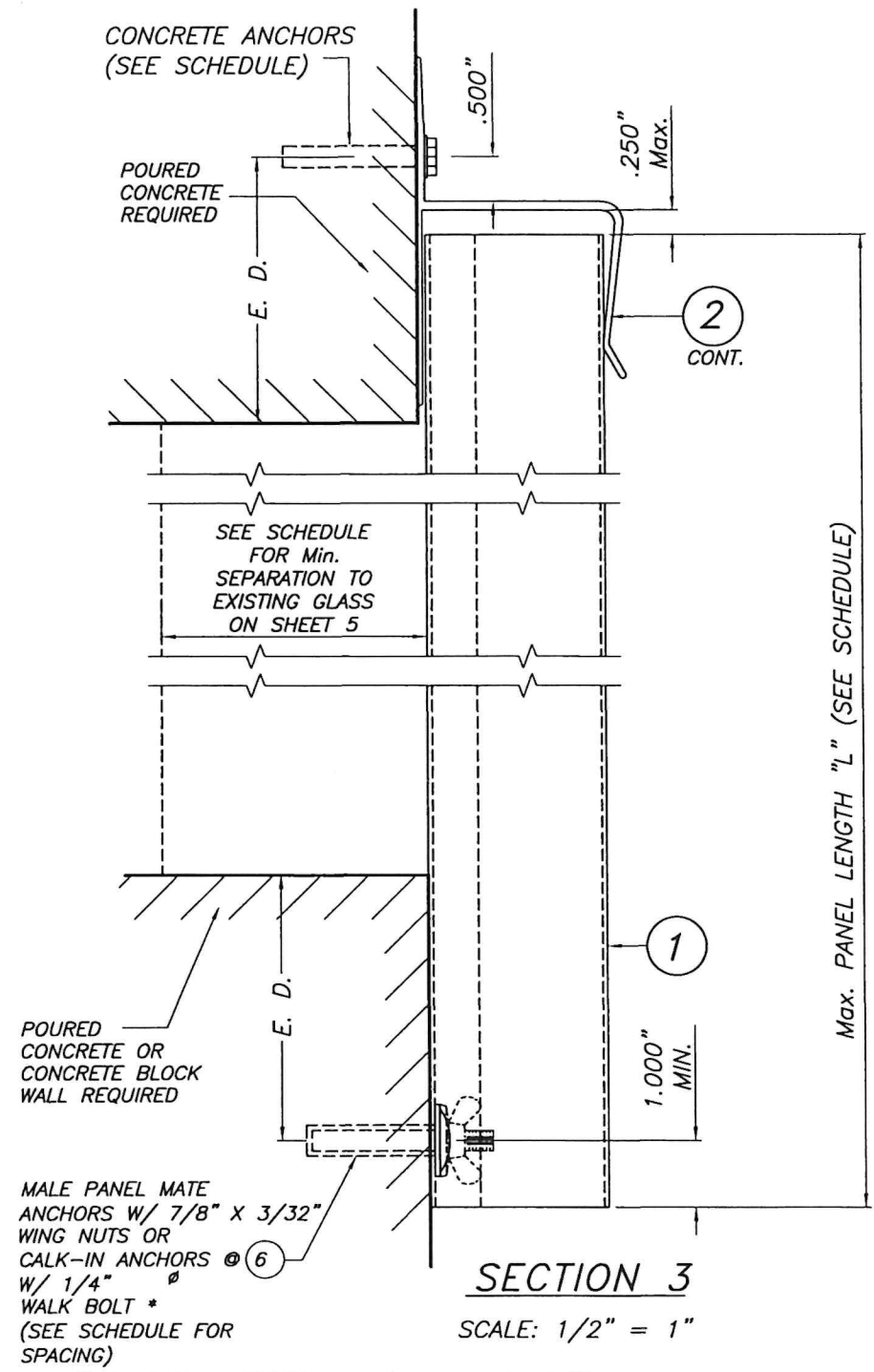
SCALE: 1/2" = 1"



DIRECT MOUNTING INSTALLATION
SECTION 2

SCALE: 1/2" = 1"

* SIDE WALK BOLT TO BE
3/4"Ø x 3/32" THICK HEAD
MACHINE SCREW W/ LENGTH AS
PER NOTES A.2 & B.2 (SHEET 1)



SECTION 3

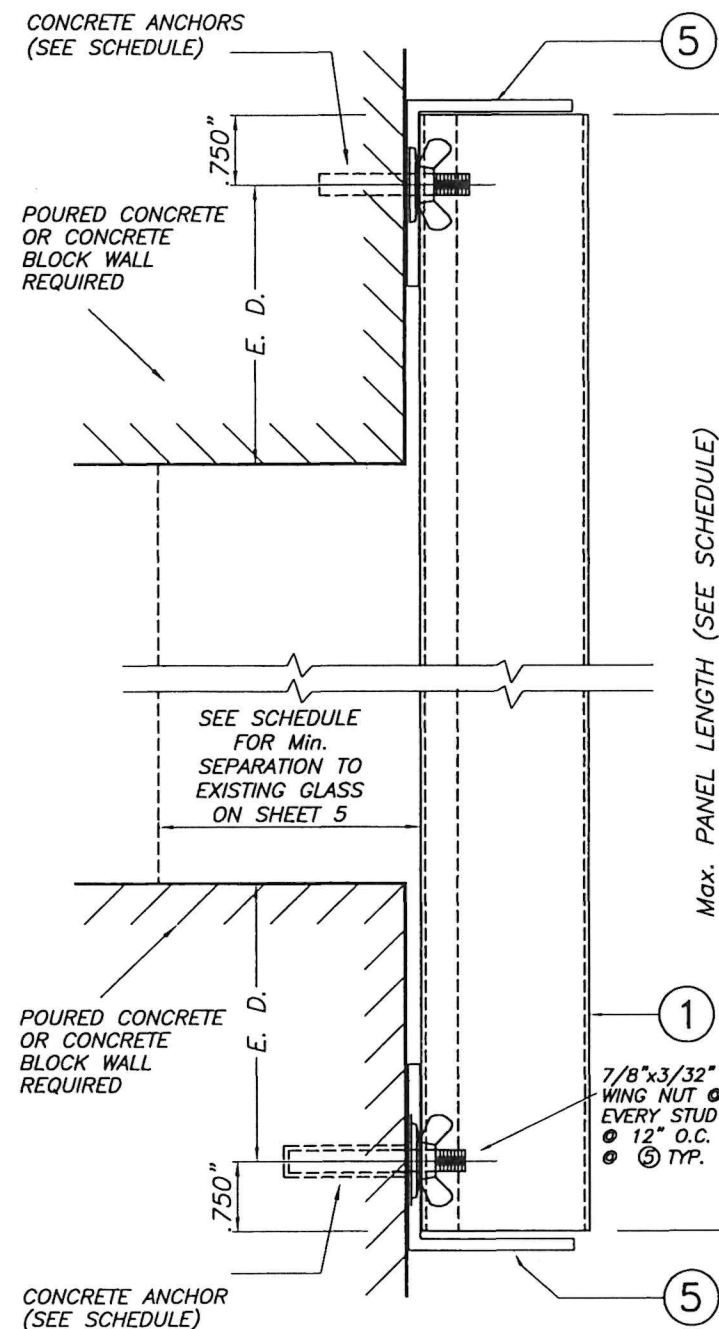
SCALE: 1/2" = 1"

NOTE:
FOR COMBINATION OF SECTIONS : TOP &
BOTTOM INSTALLATIONS INDICATED FOR
SECTIONS 1 THRU 3 CAN BE COMBINED IN ANY
WAY TO SUIT ANY INSTALLATION.

WALTER A. TILLIT JR.
LICENSE
No. 44167
STATE OF FLORIDA
PROFESSIONAL ENGINEER
P.E. SEAL/SIGNATURE/DATE

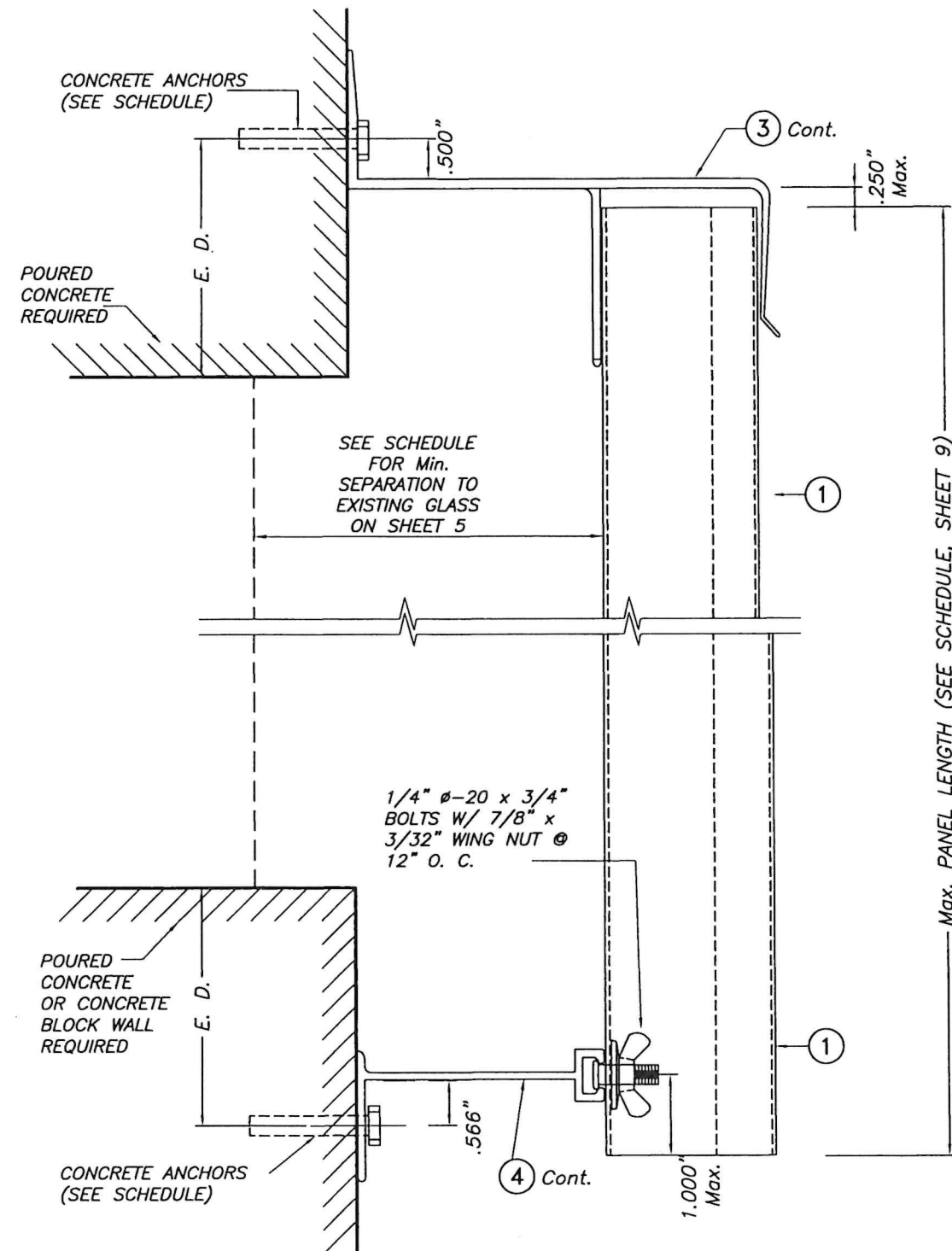
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0.050" ALUMINUM STORM PANEL				Y.M. DRAWN BY:	
RELIABLE SHUTTER COMPANY				7/7/2023 DATE	
180-B RICH STREET VENICE, FL 34292 PHONE: (800)282-4299 FAX: (941)484-7407				23-078 DRAWING No	
REV. NO	DESCRIPTION	DATE	REV. No	DESCRIPTION	DATE
1	OLD 20-191	7/7/2023	3	-	-
2	-	-	4	-	-



WALL MOUNTING INSTALLATION **(D. M.) - SECTION 4**

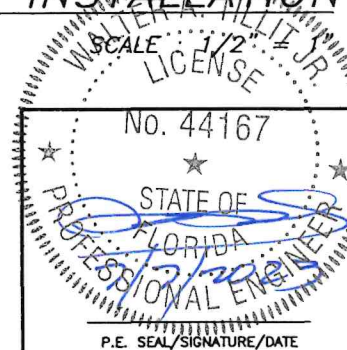
SCALE: 1/2" = 1"



BUILD OUT INSTALLATION **SECTION 5**

E. D. = EDGE DISTANCE
(SEE SCHEDULE ON
SHEET 4 OF 7)

NOTE:
FOR COMBINATION OF SECTIONS : TOP &
BOTTOM INSTALLATIONS INDICATED FOR
SECTIONS 4 & 5 CAN BE COMBINED IN ANY
WAY TO SUIT ANY INSTALLATION.



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FLORIDA BUILDING CODE (Non High Velocity Hurricane Zone)

0.050" ALUMINUM STORM PANEL

RELIABLE SHUTTER COMPANY

180-B RICH STREET
VENICE, FL 34292
PHONE: (800)282-4299
FAX: (941)484-7407

Y.M.
DRAWN BY:

7/7/2023
DATE

23-078
DRAWING No

SHEET 3 OF 7

REV. NO	DESCRIPTION	DATE	REV. No	DESCRIPTION	DATE
1	OLD 20-191	7/7/2023	3	-	-
2	-	-	4	-	-

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

E. D. = EDGE DISTANCE

MAXIMUM A.S.D. DESIGN PRESSURE RATING (p.s.f.)	MAXIMUM ANCHORS SPACING FOR E. D. = 3 1/2" **				APPLICABLE TO SECTIONS # & ANY COMBINATION OF THEM	MAXIMUM PANEL LENGTH "L" (ft.)
	TAPCONS		CALK-IN OR MALE PANEL MATE			
	TO CONCRETE	TO MASONRY	TO CONCRETE	TO MASONRY		
+50.0, -50.0 OR LESS	10"	N/A	10"	N/A	1 (TOP)	8'-1 1/4"
	10"	9"	10"	10"	1 (BOTTOM)	
	N/A	N/A	12"	12"	2 (TOP & BOTTOM)	
	10"	N/A	10"	N/A	3 (TOP)	
	N/A	N/A	12"	12"	3 (BOTTOM)	
	10"	9"	10"	10"	4 (TOP)	
	10"	9"	10"	10"	4 (BOTTOM)	
	10"	N/A	10"	N/A	5 (TOP)	
	10"	9"	10"	10"	5 (BOTTOM)	
>+50.0, -50.0 TO +80.0, -80.0	8"	N/A	8"	N/A	1 (TOP)	8'-1 1/4"
	10"	5"	10"	8"	1 (BOTTOM)	
	N/A	N/A	12"	6"	2 (TOP & BOTTOM)	
	8"	N/A	8"	N/A	3 (TOP)	
	N/A	N/A	12"	6"	3 (BOTTOM)	
	10"	5"	10"	8"	4 (TOP)	
	10"	5"	10"	8"	4 (BOTTOM)	
	10"	N/A	10"	N/A	5 (TOP)	
	10"	5"	10"	6"	5 (BOTTOM)	
+65.0, -65.0	10"	N/A	10"	N/A	1 (TOP)	8'-8"
	10"	6"	10"	9"	1 (BOTTOM)	
	N/A	N/A	12"	6"	2 (TOP & BOTTOM)	
	10"	N/A	10"	N/A	3 (TOP)	
	N/A	N/A	12"	6"	3 (BOTTOM)	
	10"	6"	10"	9"	4 (TOP)	
	10"	6"	10"	9"	4 (BOTTOM)	
	10"	N/A	10"	N/A	5 (TOP)	
	10"	6"	10"	9"	5 (BOTTOM)	

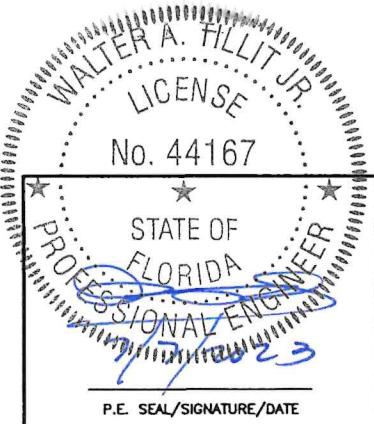
* SEE SHEET 6 & 7 OF 7 FOR ANCHORS TYPE & SPACING FOR INSTALLATIONS INTO WOOD FRAME BUILDINGS.

** MAXIMUM ANCHOR SPACINGS ARE VALID FOR 3 1/2" EDGE DISTANCE. FOR E. D. LESS THAN 3 1/2", REDUCE ANCHOR SPACING BY MULTIPLYING SPACING SHOWN ON SCHEDULE BY THE FOLLOWING FACTORS. (NOTE : Min. E. D. FOR CALK-IN ANCHORS IS 2 1/2"). 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 OR PANELMATE	CALK-IN
3"	.86	.75
2 1/2"	.71	.50
2"	.50	-

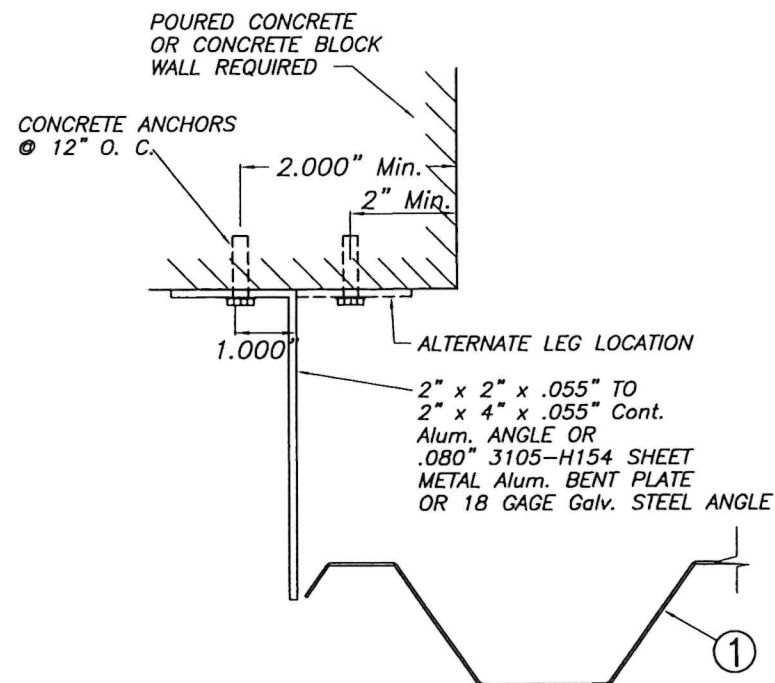
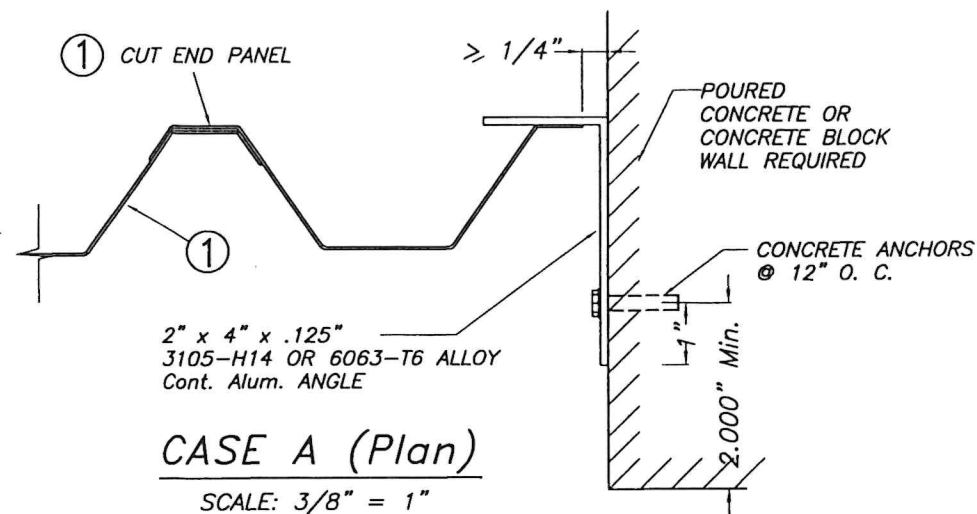
ANCHORS LEGEND

ANCHORS TYPE	ANCHOR MIN. SPACING
TAPCON OR PANELMATE	3.0"
CALK-IN	2.5"



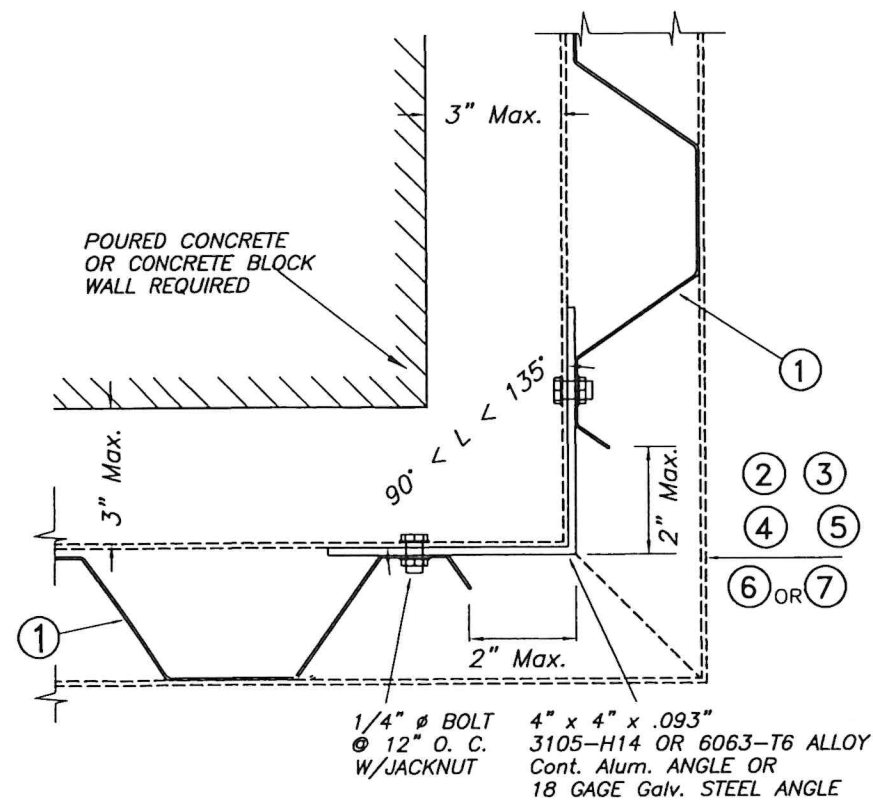
FLORIDA BUILDING CODE (Non High Velocity Hurricane Zone)

©2023 TILTECO, INC.		0.050" ALUMINUM STORM PANEL				Y.M. DRAWN BY:
 TILLIT TESTING & ENGINEERING COMPANY 6355 N.W. 36th St., Ste. 305, VIRGINIA GARDENS, FL 33186 Phone : (305)871-1530 . Fax : (305)871-1531 CA-0006719 WALTER A. TILLIT Jr., P.E. FLORIDA Lic. 44167		RELIABLE SHUTTER COMPANY				7/7/2023 DATE
		180-B RICH STREET VENICE, FL 34292 PHONE: (800)282-4299 FAX: (941)484-7407				23-078 DRAWING No
REV. NO	DESCRIPTION	DATE	REV. No	DESCRIPTION	DATE	SHEET 4 OF 7
1	OLD 20-191	7/7/2023	3	-	-	
2	-	-	4	-	-	



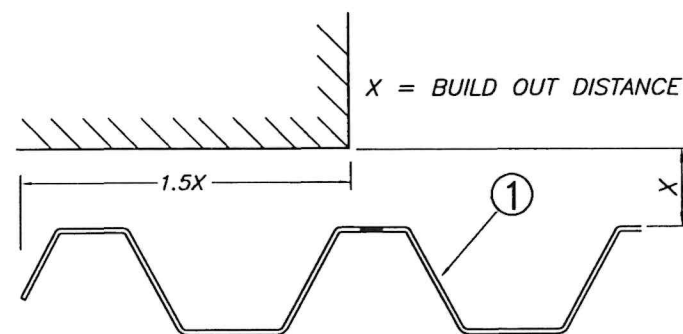
CASE C (Plan)

SCALE: 3/8" = 1"



CASE B (Plan)

SCALE: 3/8" = 1"



CASE D (Plan)

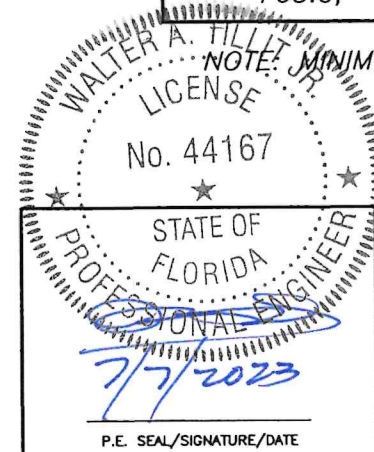
SCALE: 3/8" = 1"

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

MAXIMUM A.S.D. DESIGN PRESSURE RATING (p.s.f.)	Max. PANEL LENGTH L (ft.) (SEE SECTIONS)	MINIMUM SEPARATION TO GLASS	APPLICABLE TO SECTION # AND ANY COMBINATION OF THEM
+80.0, -80.0	8'-0"	1"	1 THRU 5
+65.0, -65.0	8'-7"	1"	1 THRU 5

NOTE: MINIMUM PANEL LENGTH TO BE INSTALLED IS 36"

END CLOSURES DETAILS



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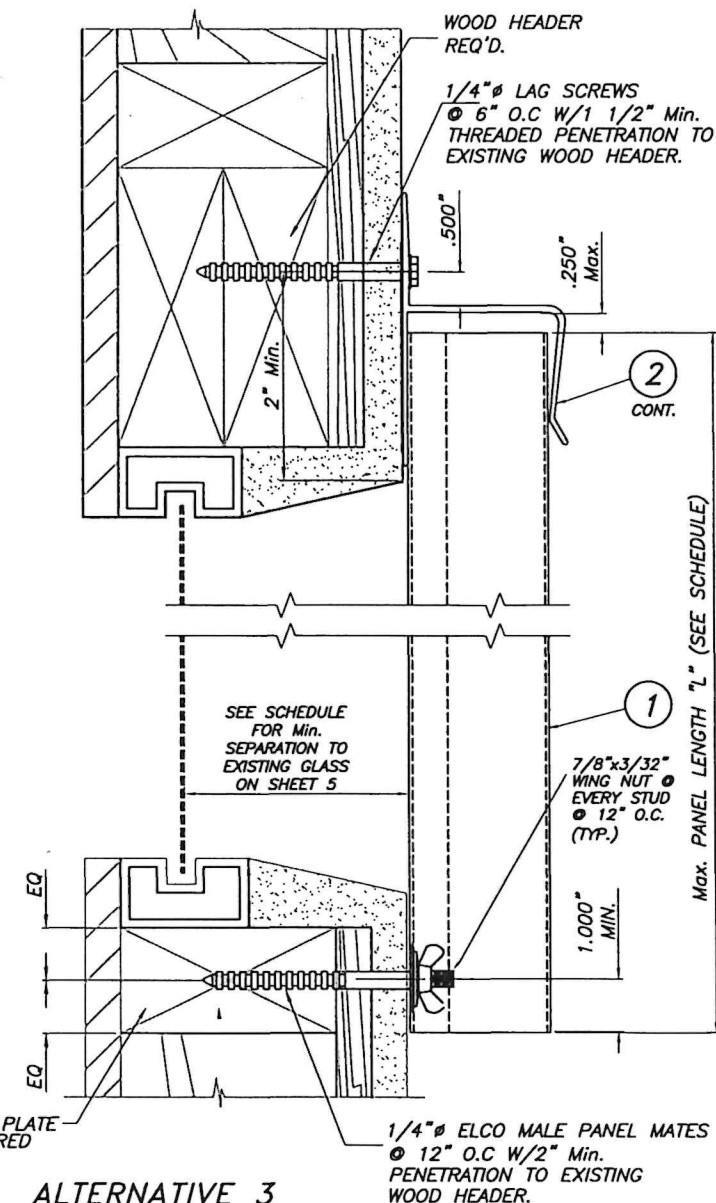
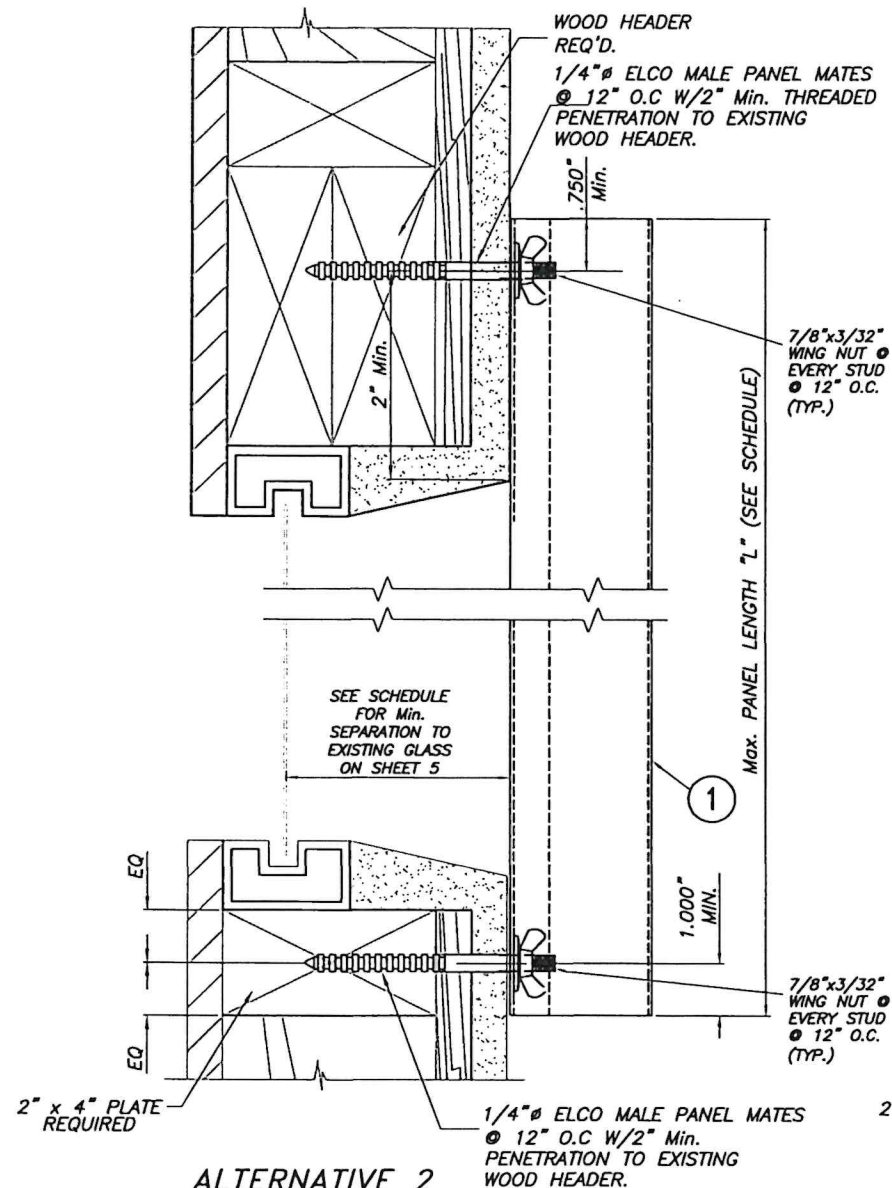
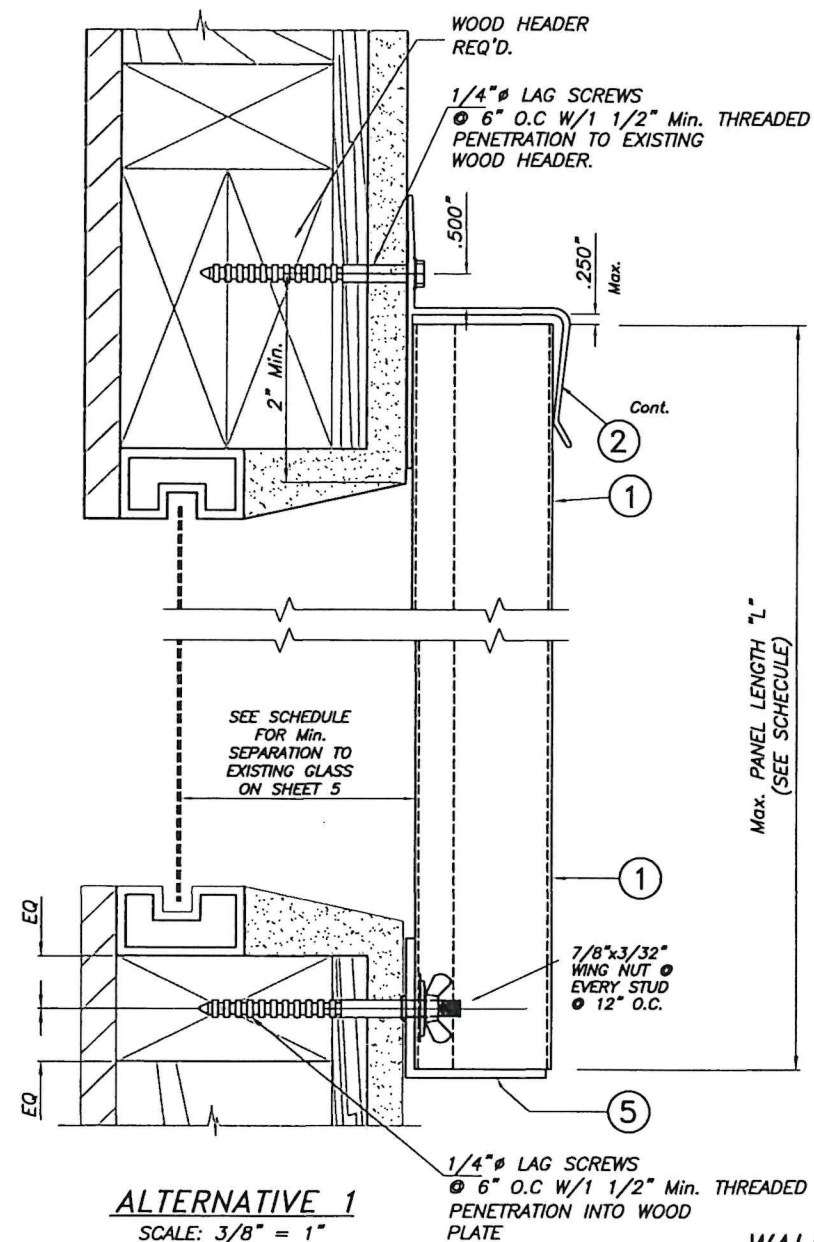
Y.M.
DRAWN BY:

7/7/2023
DATE

23-078
DRAWING No

REV. NO	DESCRIPTION	DATE	REV. No	DESCRIPTION	DATE
1	OLD 20-191	7/7/2023	3	-	-
2	-	-	4	-	-

SHEET 5 OF 7



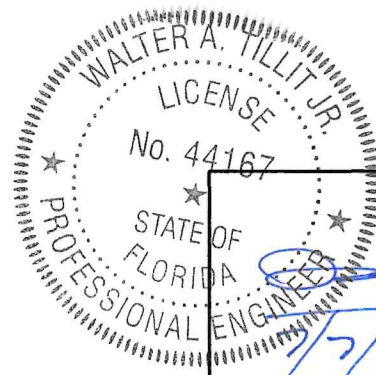
WALL MOUNTING INSTALLATIONS
SECTIONS A

INSTALLATION DETAILS ON EXISTING WOOD BUILDINGS

NOTES:

- INSTALLATIONS ARE VALID ONLY FOR MAX. A.S.D. DESIGN PRESSURE RATING AND Max. PANEL LENGTHS AS PER SCHEDULE ON SHEET 4 OF 7
- 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.



P.E. SEAL/SIGNATURE/DATE

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RELIABLE SHUTTER COMPANY

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VENICE, FL 34292
PHONE: (800)282-4299
FAX: (941)484-7407

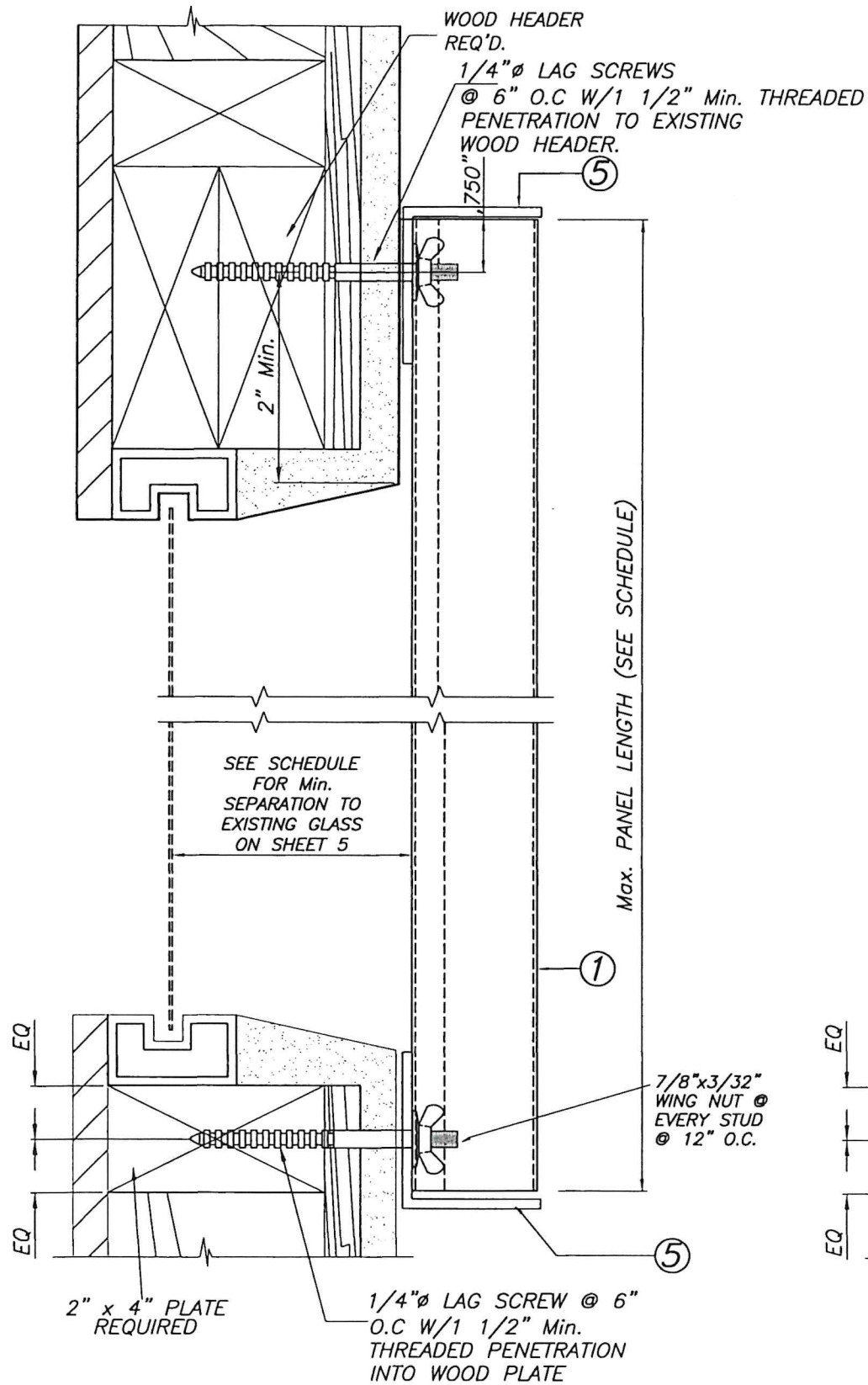
Y.M.
DRAWN BY:

7/7/2023
DATE

23-078
DRAWING No

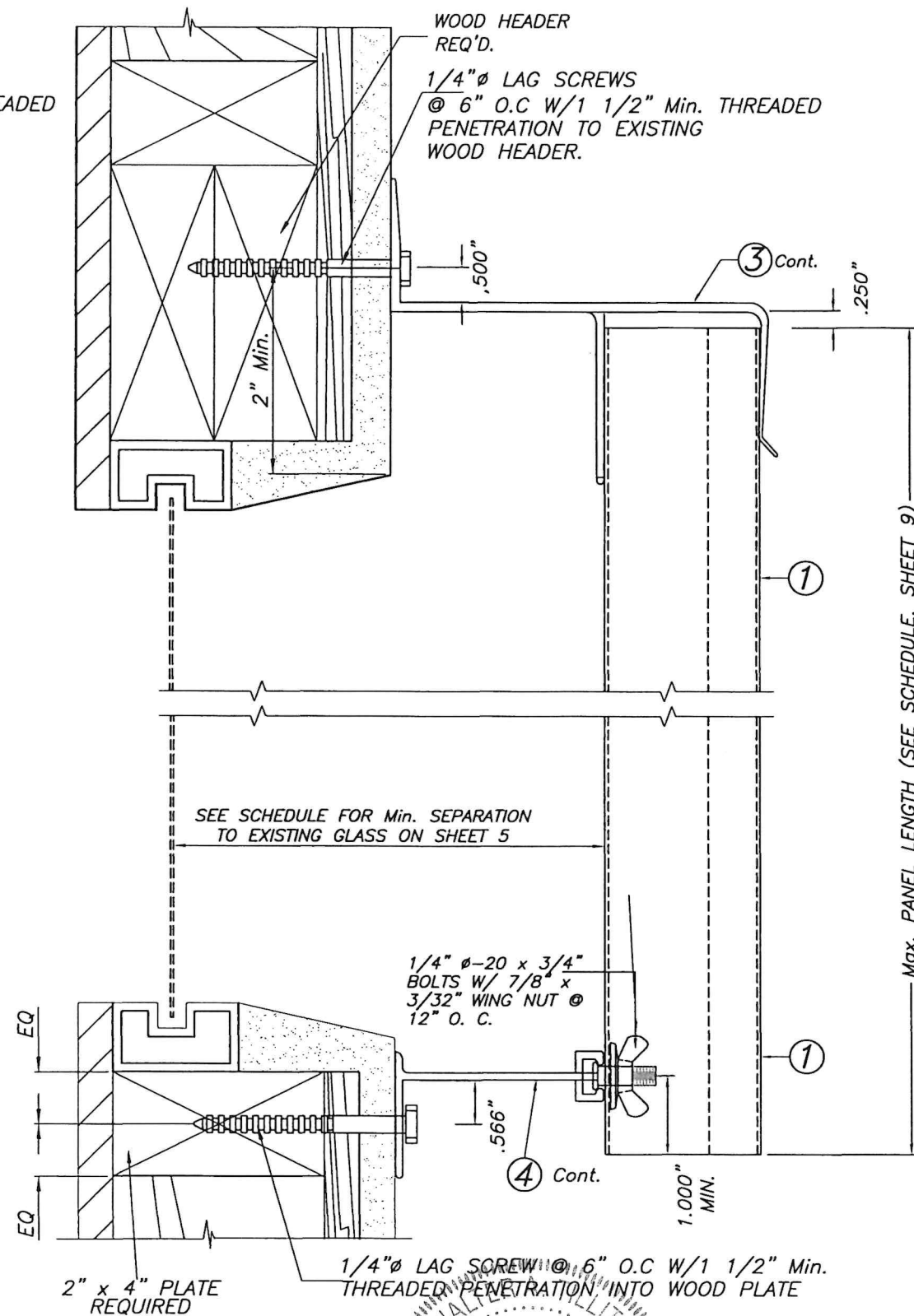
SHEET 6 OF 7

REV. NO	DESCRIPTION	DATE	REV. No	DESCRIPTION	DATE
1	OLD 20-101	7/7/2023	3	-	-
2	-	-	4	-	-



ALTERNATIVE 4

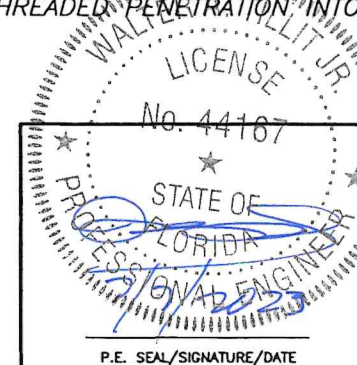
SCALE : 1/2" = 1"



ALTERNATIVE 5

SCALE : 1/2" = 1"

NOTE:
FOR COMBINATION OF SECTIONS : TOP & BOTTOM INSTALLATIONS INDICATED FOR ALTERNATIVES 4 & 5 CAN BE COMBINED IN ANY WAY TO SUIT ANY INSTALLATION.



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TILTECO INC.

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

FLORIDA BUILDING CODE (Non High Velocity Hurricane Zone)

0.050" ALUMINUM STORM PANEL

RELIABLE SHUTTER COMPANY

180-B RICH STREET
VENICE, FL 34292
PHONE: (800)282-4299
FAX: (941)484-7407

Y.M.
DRAWN BY:

7/7/2023
DATE

23-078
DRAWING No

SHEET 7 OF 7

REV. NO	DESCRIPTION	DATE	REV. No	DESCRIPTION	DATE
1	OLD 20-101	7/7/2023	3	-	-
2	-	-	4	-	-