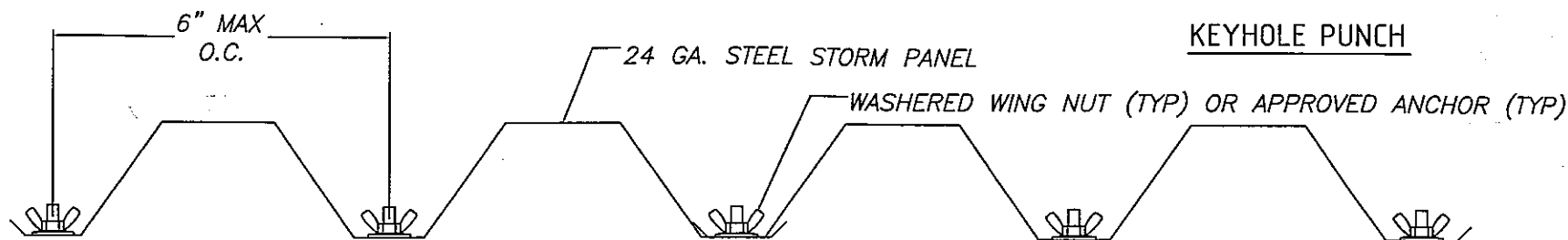
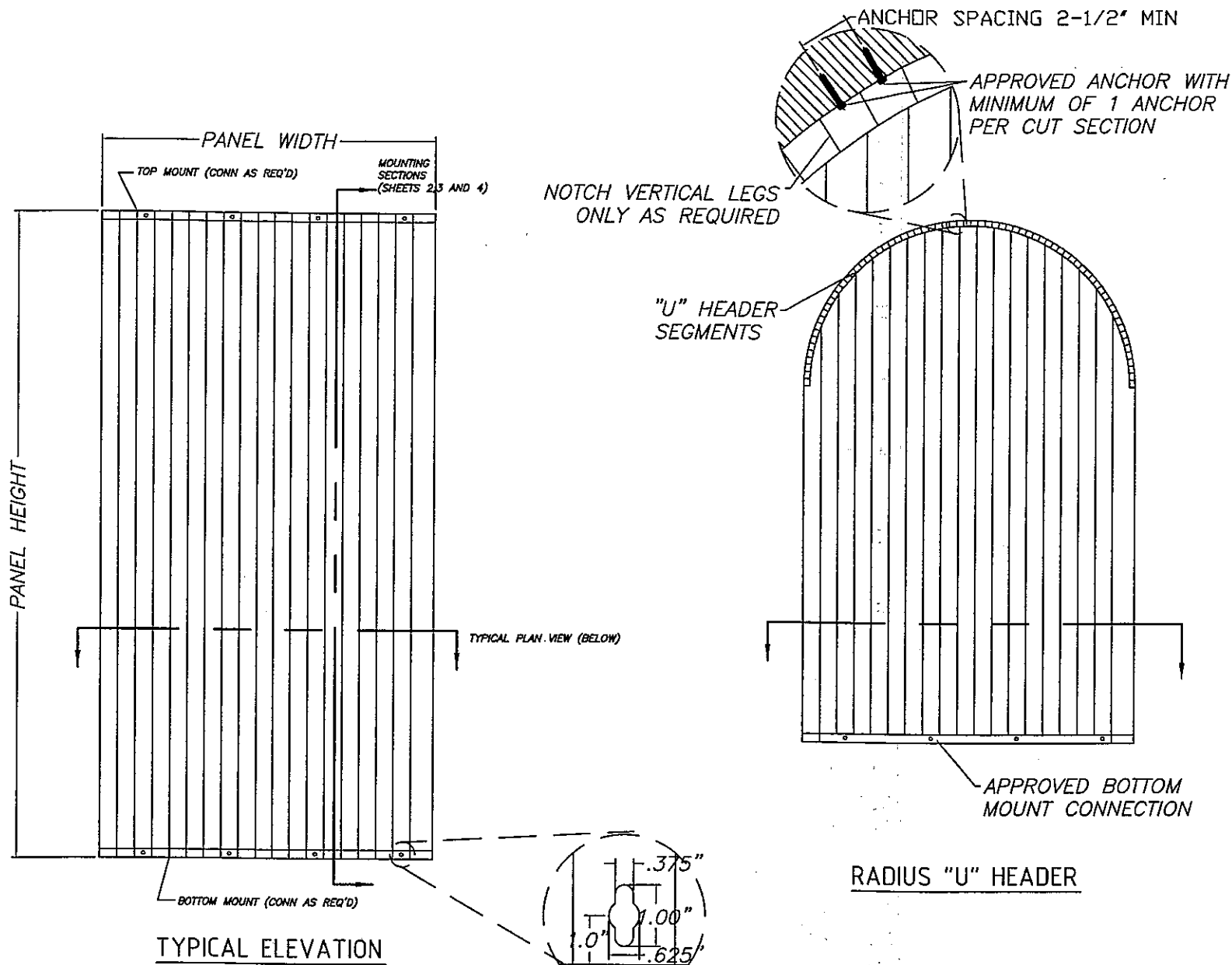


- 24 GAGE GALVANIZED STEEL STORM PANELS. STEEL SHALL CONFORM TO ASTM A653, STRUCTURAL QUALITY GRADE 40, WITH G60 GALVANIZED COATING AND MINIMUM $F_y=44$ KSI.
- THIS SYSTEM HAS BEEN TESTED AND EVALUATED AS A LARGE MISSILE IMPACT PROTECTIVE SYSTEM COMPLYING WITH SECTION 1609.1.4 OF THE 2007 FLORIDA BUILDING CODE AND ASTM STANDARDS E1886/E1996 & E330. PROVEN PERFORMANCE IS MISSILE LEVEL 'D', WIND ZONE 3.
- THESE PRODUCT EVALUATION DOCUMENTS ARE PREPARED BY THE PRODUCT ENGINEER AND ARE GENERIC. THEY DO NOT INCLUDE INFORMATION PREPARED FOR A SPECIFIC SITE.
- USE OF THESE APPROVAL DOCUMENTS SHALL COMPLY WITH CHAPTER 61G15-23 OF THE FLORIDA ADMINISTRATIVE CODE.
- THE 33-1/3% INCREASE IN ALLOWABLE STRESS HAS NOT BEEN USED IN THE DESIGN OF THIS PRODUCT.
- PERMIT HOLDER SHALL VERIFY THE ADEQUACY OF THE EXISTING STRUCTURE TO WITHSTAND ANCHORAGE LOADS IMPARTED TO THE STRUCTURE.
- ALL ALUMINUM EXTRUSIONS SHALL BE 6063-T6 UNLESS OTHERWISE NOTED. TOP & BOTTOM MOUNTING DETAILS MAY BE INTERCHANGED AS FIELD CONDITIONS DICTATE. PANELS MAY BE MOUNTED HORIZONTALLY WHERE APPLICABLE.
- ALL BOLTS & WASHERS SHALL BE ZINC COATED STEEL, GALVANIZED STEEL, STAINLESS STEEL OR 2024-T4 ALUMINUM ALLOY WITH A MINIMUM TENSILE YIELD STRENGTH OF 33 KSI.
- STORM PANELS ARE NOT AIR PERMEABLE. THEREFORE, MINIMUM SPACING BETWEEN PANEL AND GLAZING IS NOT REQUIRED. FRACTURE OF GLAZING IS ACCEPTABLE WITH THIS PRODUCT.
- SHUTTER'S MANUFACTURER LABEL SHALL CONTAIN THE MINIMUM INFORMATION OF:

TOWN & COUNTRY INDUSTRIES
FT. LAUDERDALE, FLORIDA

LIMITATIONS

THIS PRODUCT HAS BEEN EVALUATED AND IS IN COMPLIANCE WITH THE 2007 FLORIDA BUILDING CODE EXCLUDING "HIGH VELOCITY HURRICANE ZONE." MISSILE IMPACT TESTING WAS PERFORMED TO WIND ZONE 3 (BASIC WIND SPEED < 140 MPH) MISSILE LEVEL D REQUIREMENTS. THIS PRODUCT HAS NOT BEEN EVALUATED FOR ENHANCED PROTECTION OF ESSENTIAL FACILITIES AS DEFINED IN ASTM E1996.



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Florida License No. 19354

12" EFFECTIVE WIDTH
24 GAUGE STORM-LDC
GALVANIZED SHUTTER SYSTEM

400 WEST McNABB ROAD
FT. LAUDERDALE, FL 33309
Tel: (954) 970-7700

REVISIONS		DESCRIPTION
NO.	DATE	BY
1	6 JULY 07	ANR
		CHANGED OWNER

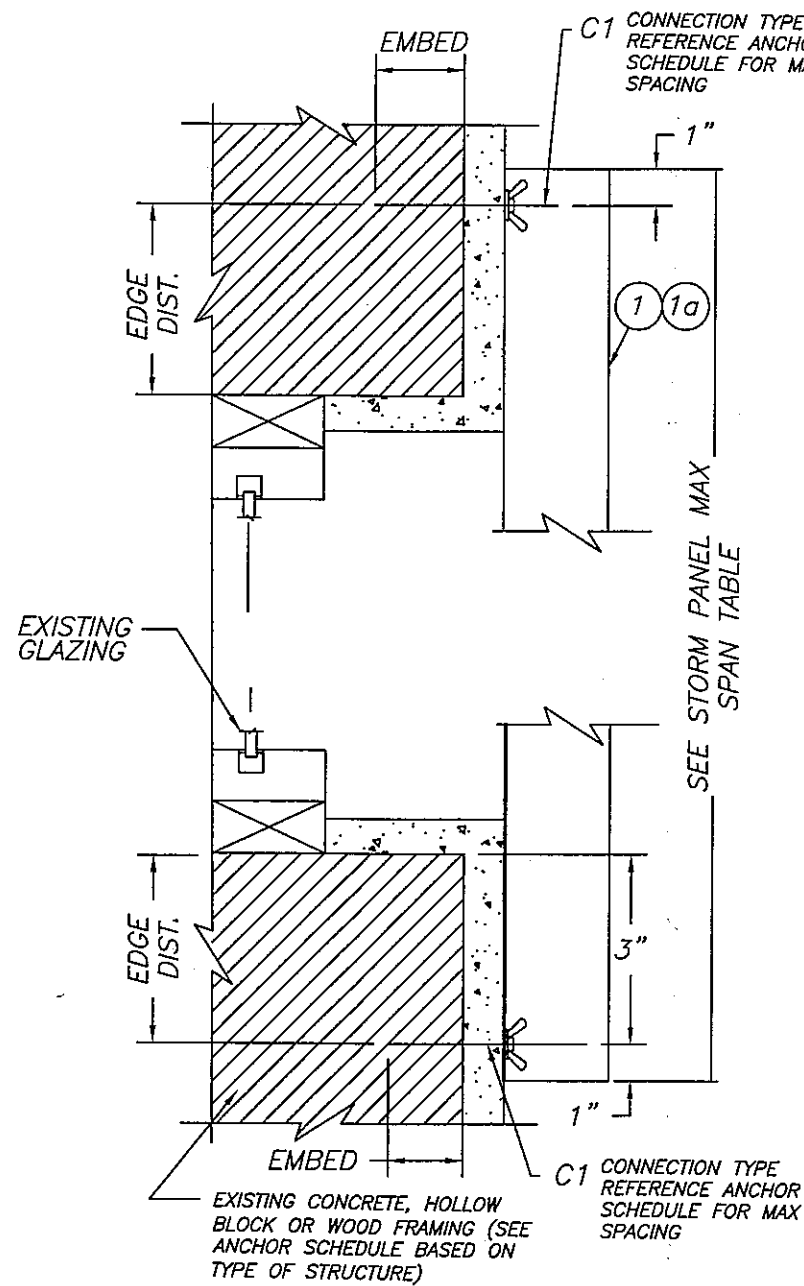
TOWN & COUNTRY INDUSTRIES

DATE: 28 NOV. 2006

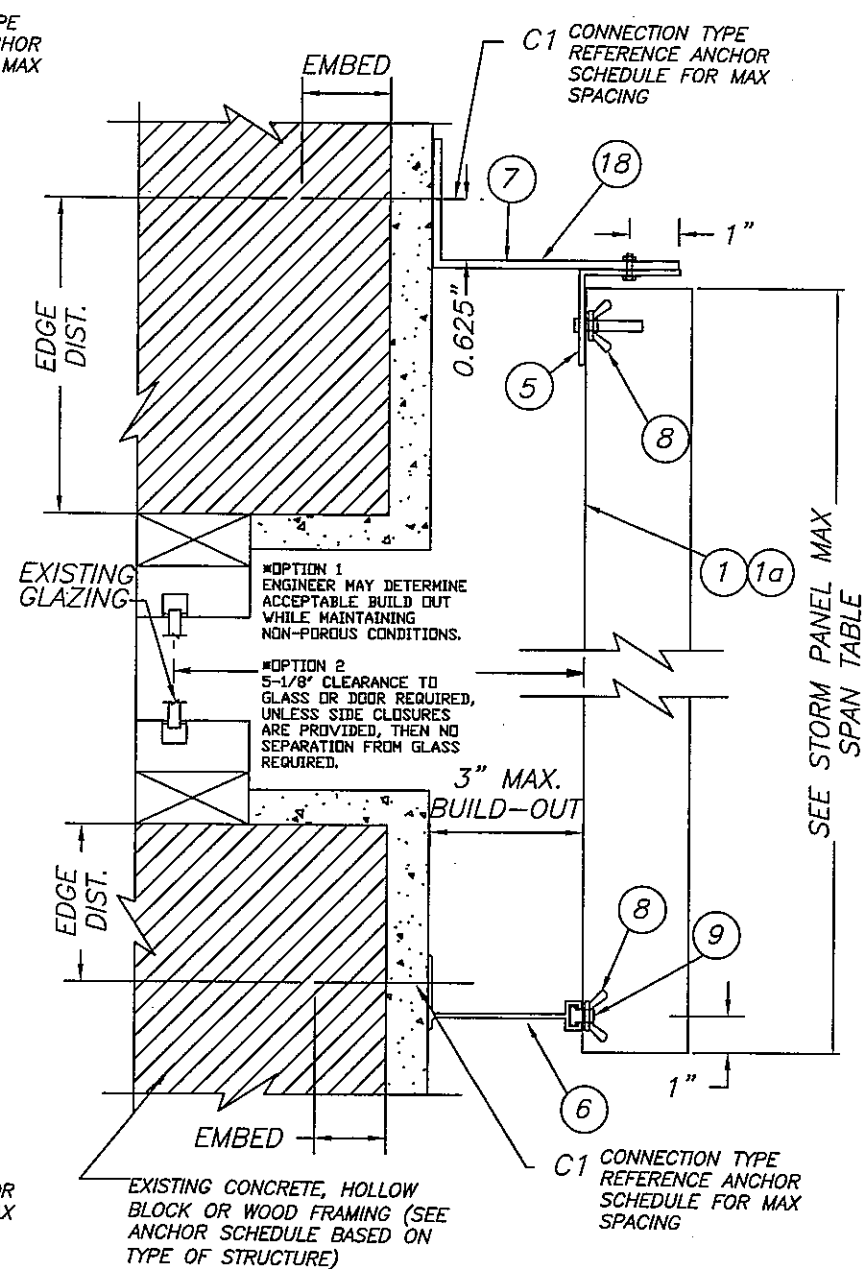
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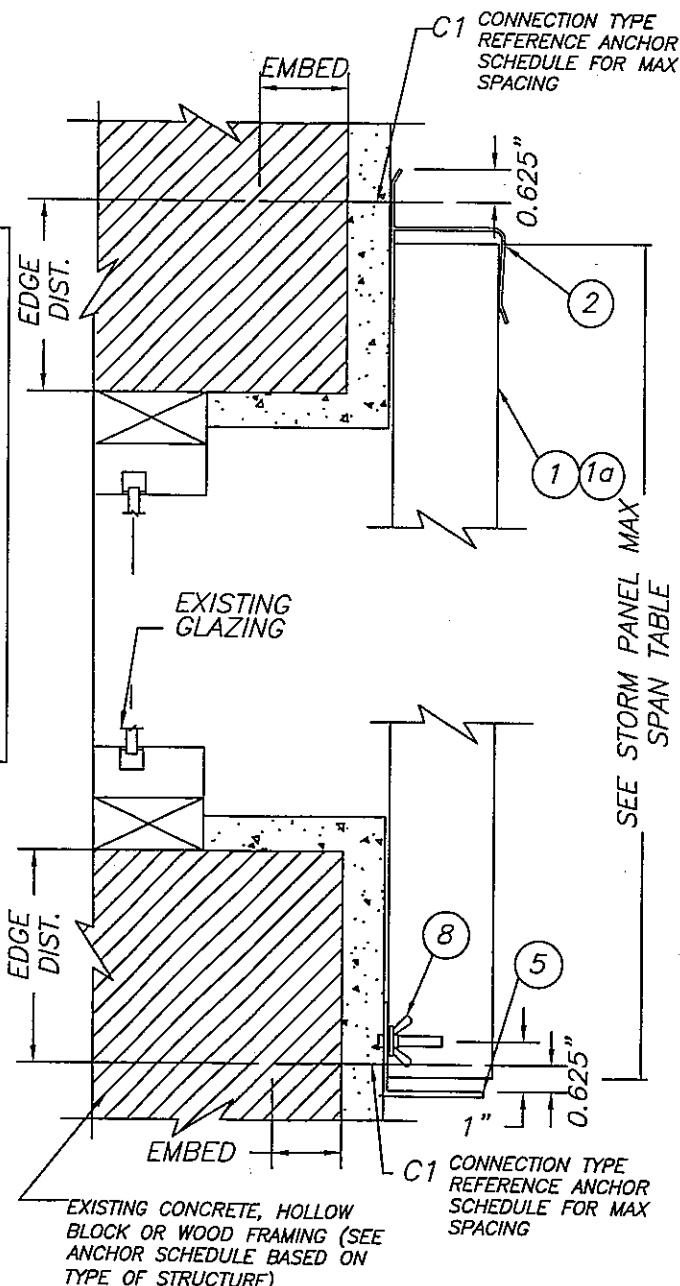
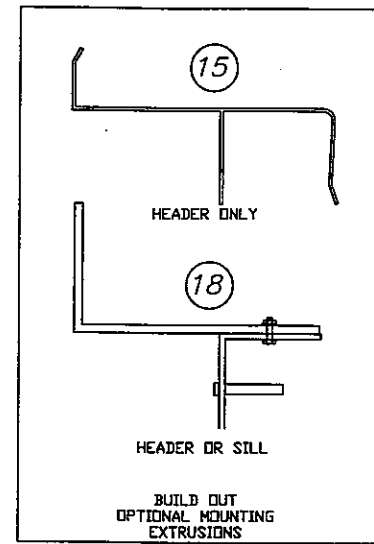
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22 DECEMBER 2008



A WALL MOUNT SECTION



B BUILD-OUT SECTION



C "h" HEADER SECTION

SPECIAL NOTES: ANCHOR, ANCHOR EMBED AND ANCHOR EDGE DISTANCE SHALL BE AS SPECIFIED ON SHEET 8/9 AND 9/9. ALL ANCHORS SHALL BE INSTALLED PER MANUFACTURER'S INSTRUCTIONS.

STORM PANELS ARE NOT AIR PERMEABLE. THEREFORE, MINIMUM SPACING BETWEEN PANEL AND GLAZING IS NOT REQUIRED. FRACTURE OF GLAZING IS ACCEPTABLE WITH THIS PRODUCT

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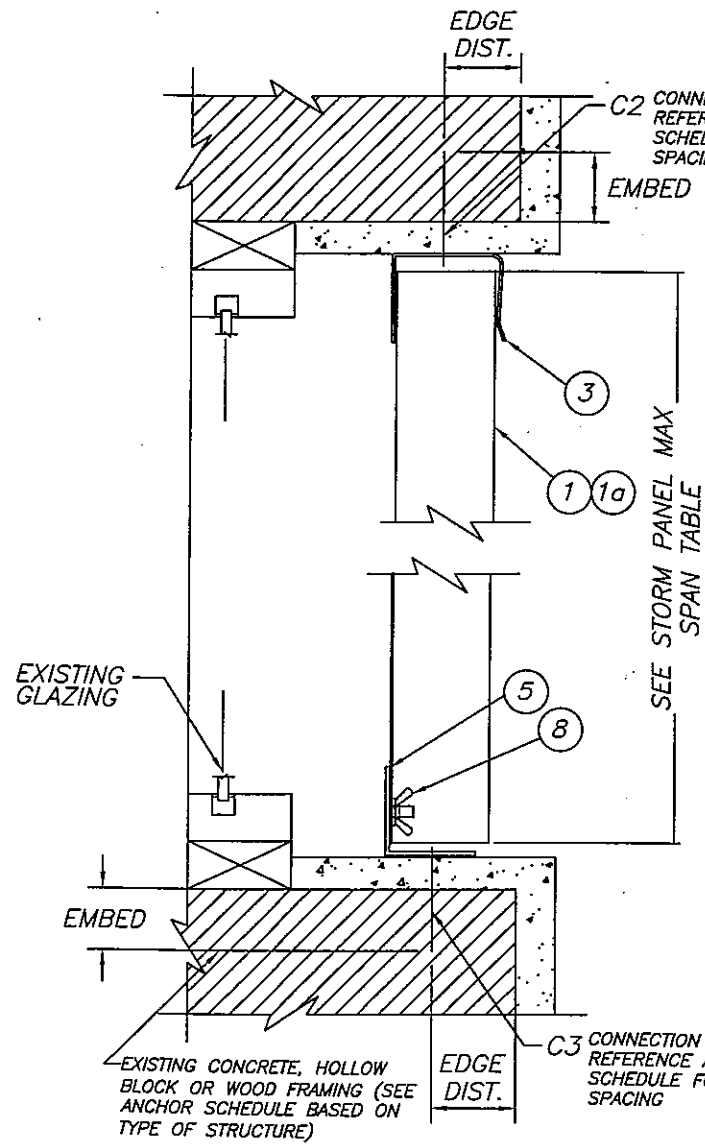
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DRAWN: BWM
 CHECKED: ANR

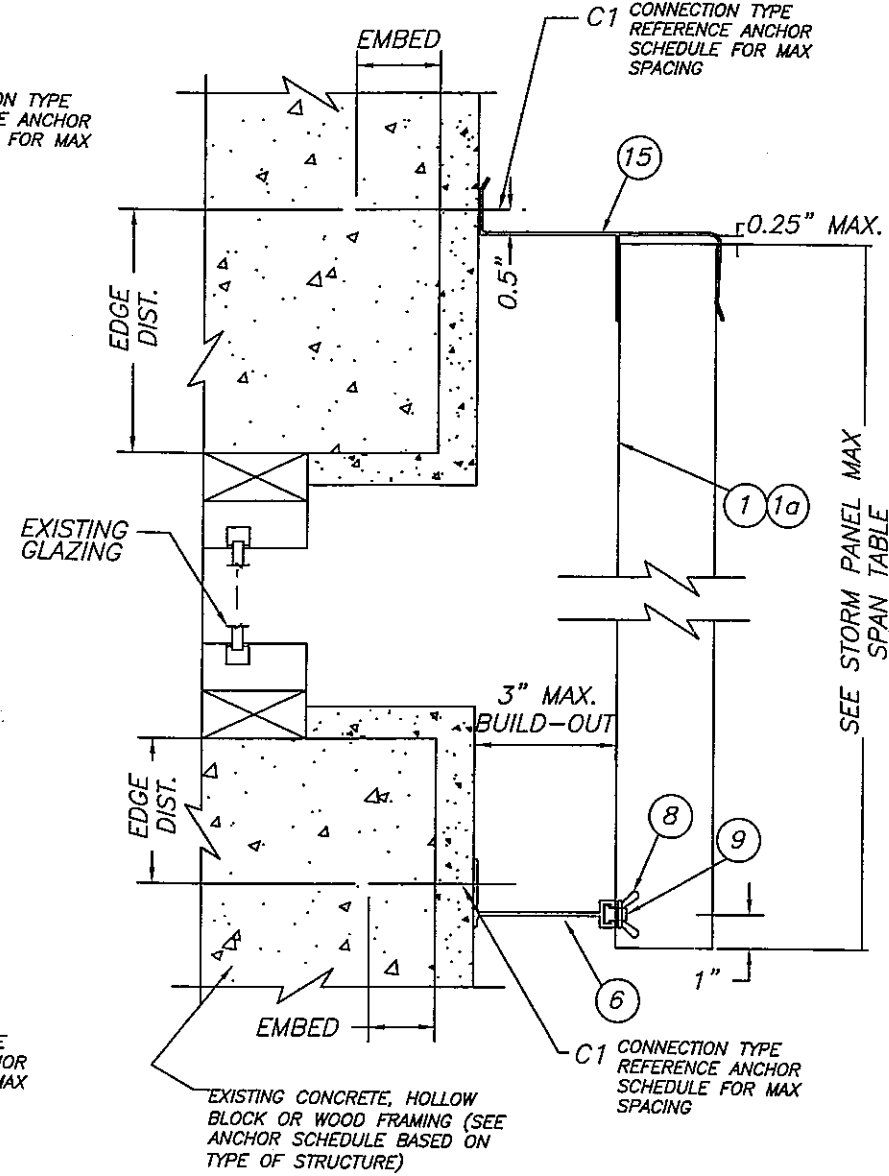
PROJECT NUMBER
 0610009 &
 07070009
 08120002

SHEET 2 OF 9

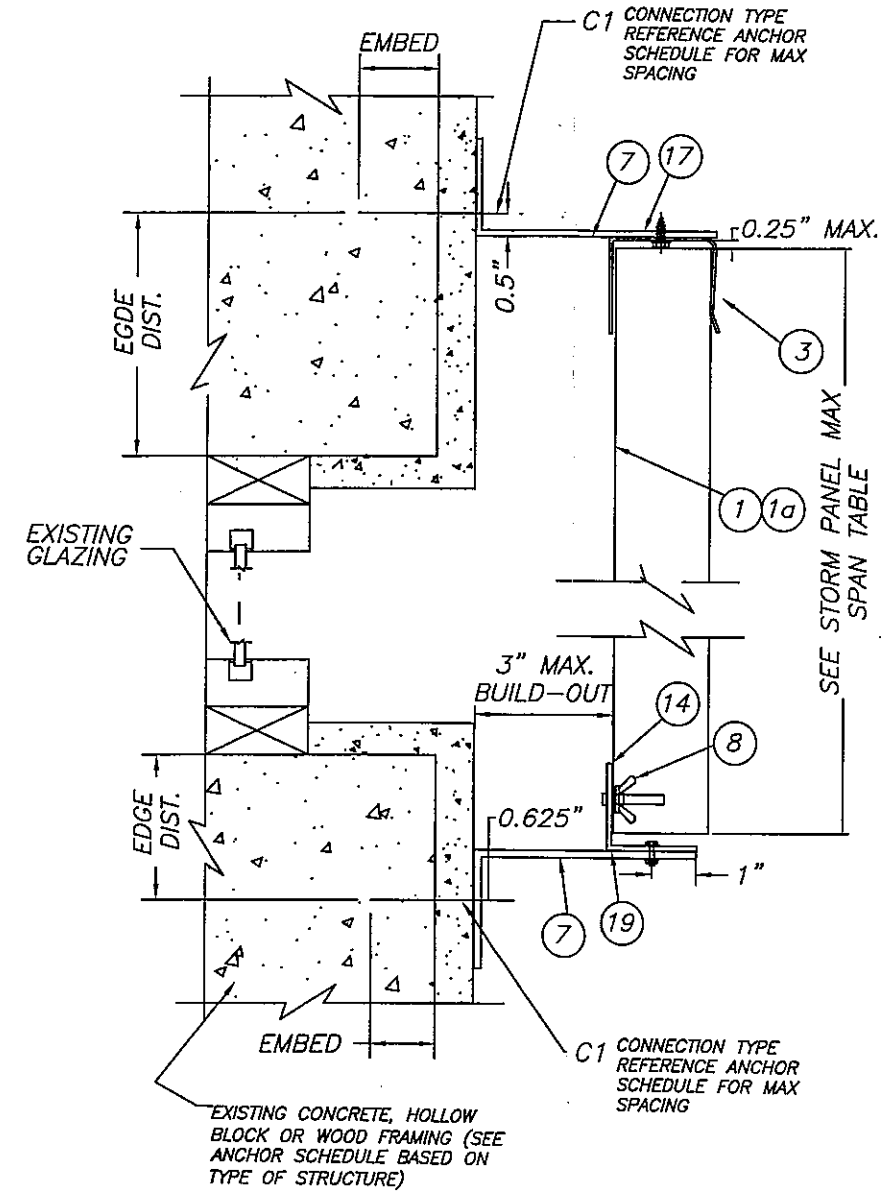
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 22 DECEMBER 2008



D "U" HEADER SECTION



E BUILD-OUT SECTION SPECIAL HEADER



F BUILD-OUT SECTION SPECIAL HEADER

SPECIAL NOTES: ANCHOR, ANCHOR EMBED AND ANCHOR EDGE DISTANCE SHALL BE AS SPECIFIED ON SHEET 8/9 AND 9/9. ALL ANCHORS SHALL BE INSTALLED PER MANUFACTURER'S INSTRUCTIONS.

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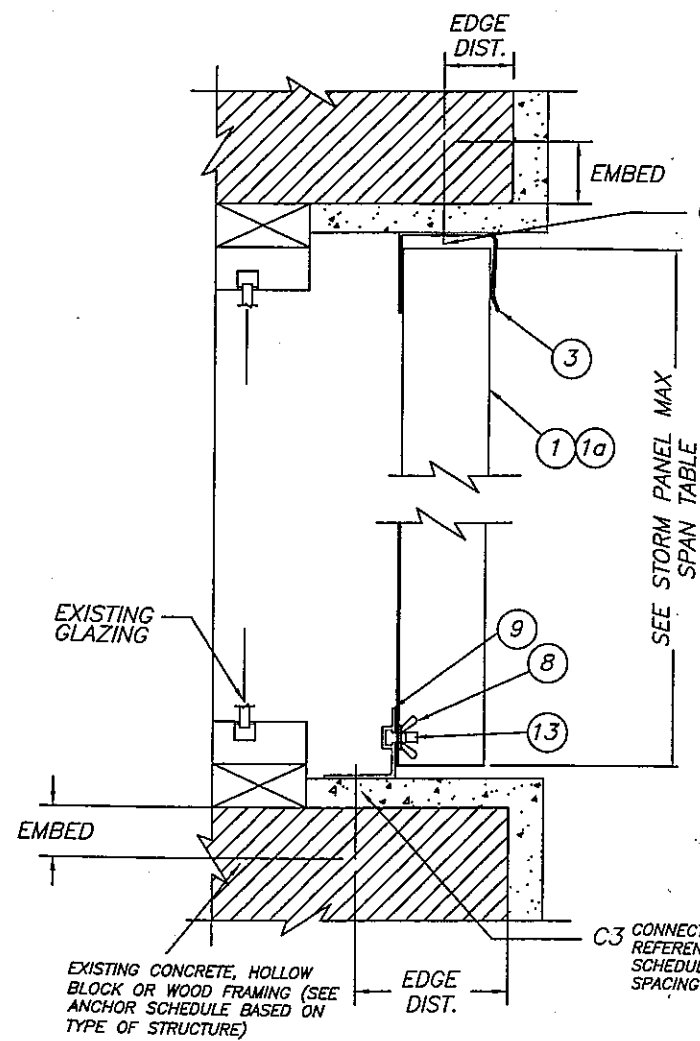
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1	6 JULY 07	ANR	CHANGED OWNER

DATE: 28 NOV. 2006

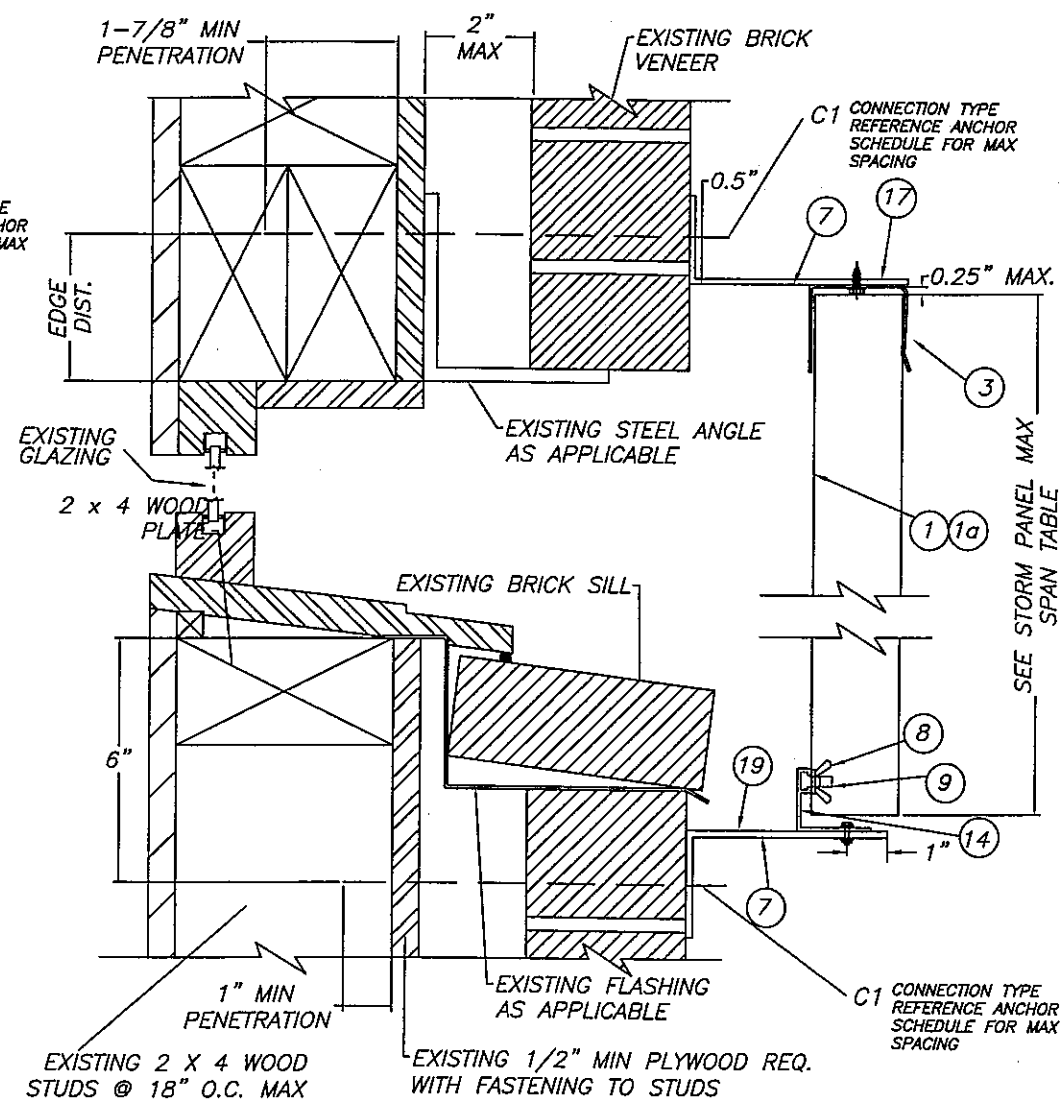
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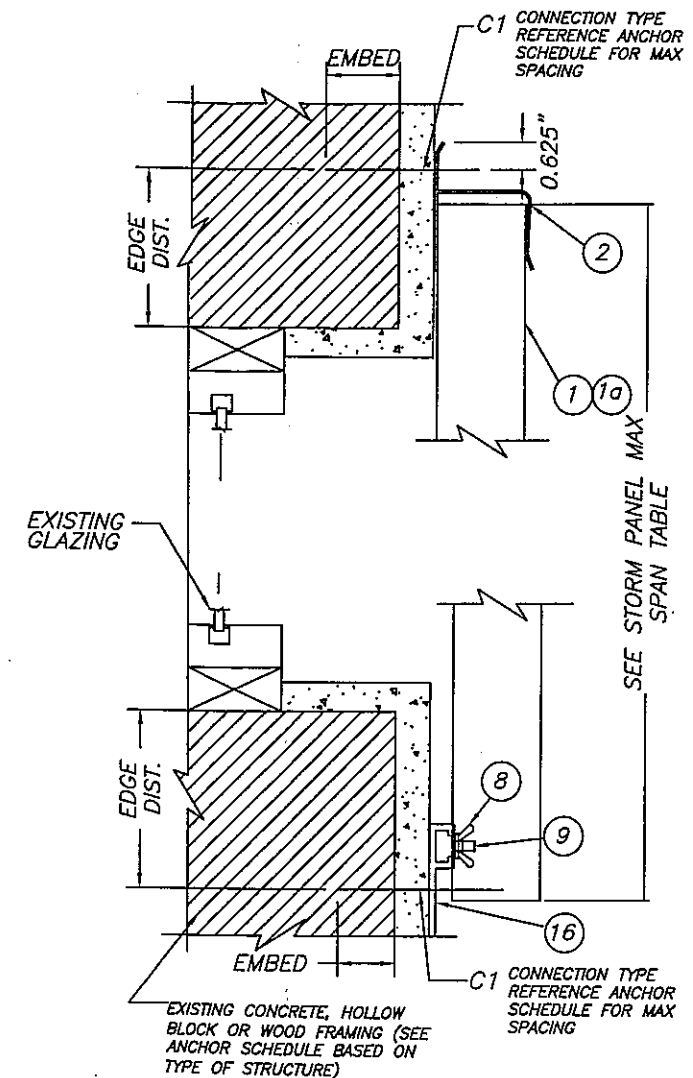
SHEET 3 OF 9



G "U" HEADER SECTION



H BUILD-OUT SECTION BRICK VENEER



I "F" TRACK MOUNTING

SPECIAL NOTES: ANCHOR, ANCHOR EMBED AND ANCHOR EDGE DISTANCE SHALL BE AS SPECIFIED ON SHEET B/9 AND 9/9. ALL ANCHORS SHALL BE INSTALLED PER MANUFACTURER'S INSTRUCTIONS.

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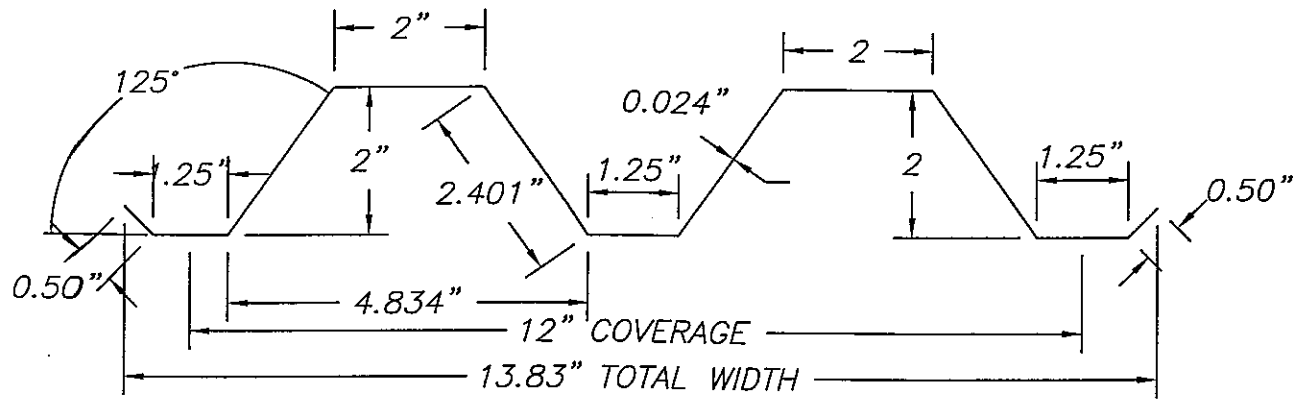
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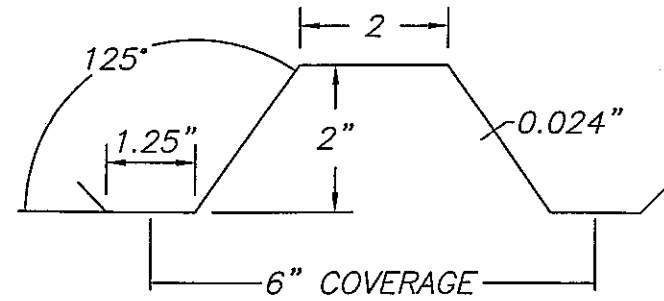
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SHEET 4 OF 9

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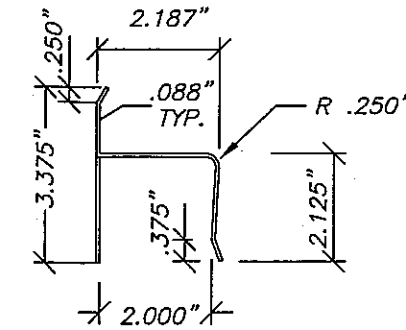


1 12" PANEL PROFILE

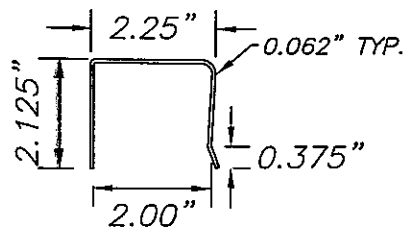


1a 6" PANEL PROFILE

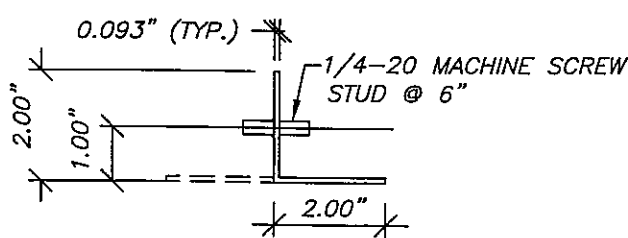
NOTE: CAN ONLY BE USED AS AN END PANEL TO CLOSE THE REMAINING OPENING THAT MAY BE LESS THAN A FULL PANEL WIDTH



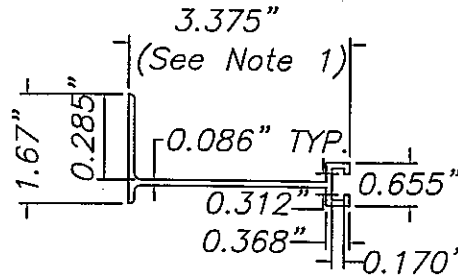
2 "h" HEADER



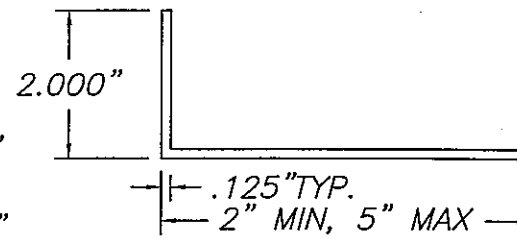
3 "U" HEADER



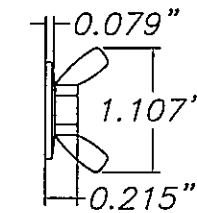
5 STUDDED ANGLE



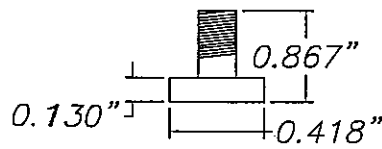
6 BUILD-OUT "F" TRACK



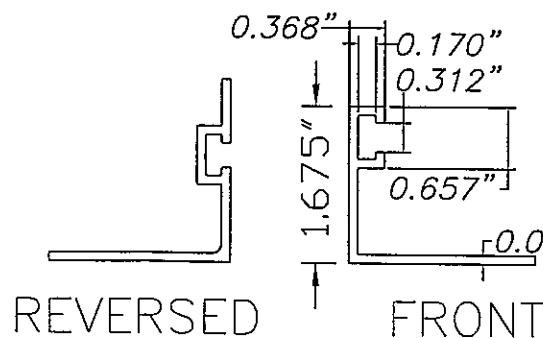
7 ALUMINUM ANGLE BUILD-OUT/CLOSURE



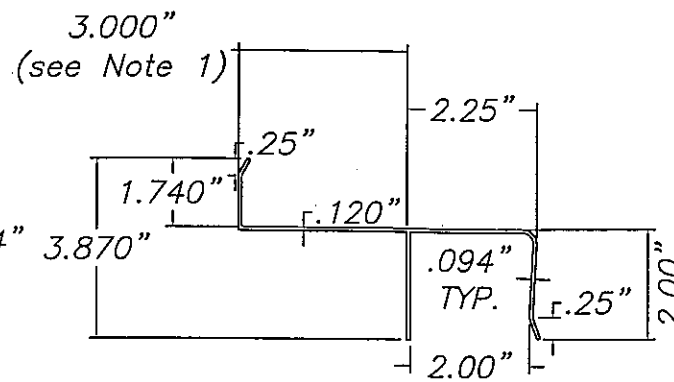
8 WING NUT



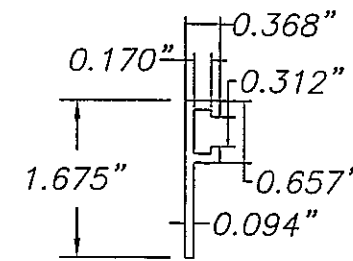
9 1/4"-20 SQUARE HEADED BOLT



14 "E" TRACK



15 SPECIAL BUILD-OUT HEADER



16 "F" TRACK

NOTES:

- 1) TESTING QUALIFIES 1" AND 2" LENGTHS ALSO
- 2) TESTING QUALIFIES AS-TESTED EXTRUSION THICKNESS AND THICKER

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12" EFFECTIVE WIDTH
 24 GAUGE STORM-LOC
 GALVANIZED SHUTTER SYSTEM
 400 WEST McNABB ROAD
 FT. LAUDERDALE, FL 33309
 Tel: (954) 970-7700

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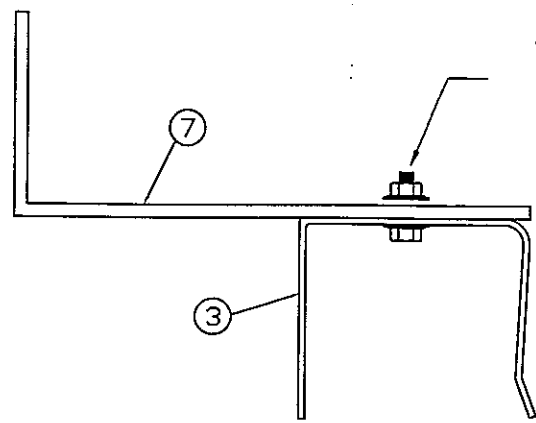
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SHEET 5 OF 9

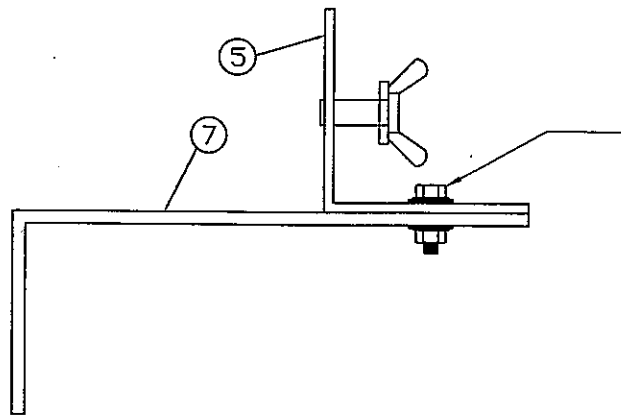
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SELECTED ASSEMBLIES OF COMPONENTS



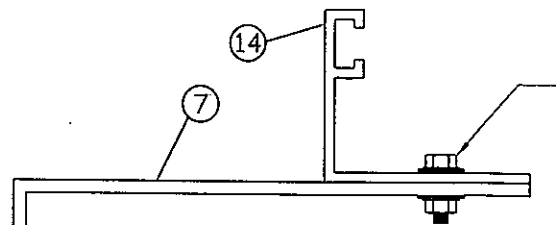
1/4"-20 Sidewalk
Bolt W/Nut @ 12" O.C.
or #14 SMS @ 8" O.C.

17 BUILD-OUT WITH "U" HEADER



1/4"-20 Sidewalk
Bolt W/Nut @ 12" O.C.
or #14 SMS @ 8" O.C.

18 BUILD-OUT WITH STUDDED ANGLE



1/4"-20 Sidewalk
Bolt W/Nut @ 12" O.C.
or #14 SMS @ 8" O.C.

19 BUILD-OUT WITH REV. "E"

SELECTED ANCHORS

- (a) 1/4" X 2-1/2" PANELMATE (MALE)
- (b) 1/4" X 7-3/8" PANELMATE (MALE) FOR BRICK VENEER
- (c) 1/4" X 2-1/2" PANELMATE (FEMALE)
- (d) 1/4" X 2-1/4" SAMMY ANCHOR (FEMALE)
- (e) 1/4" X 2-1/2" QUICKSET CONCRETE ANCHOR
- (f) 1/4" X 2-1/2" TAPCON
- (g) 1/4" X 2-1/2" WOOD LAG SCREW
- (h) 1/4"-20 X 5/8" SLOTTED BRASS BUSHING (FEMALE)
- (i) 1/4"-20 X 2-1/8" PANELMATE INSERT
- (j) 1/4"-20 X 1" TAMPIN
- (k) 1/4"-20 X 1/2' TO 2-1/2' SIDEWALK S.S. BOLT

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INDUSTRIES

REVISIONS	
NO.	DESCRIPTION
1	6 JULY 07 ANR CHANGED OWNER

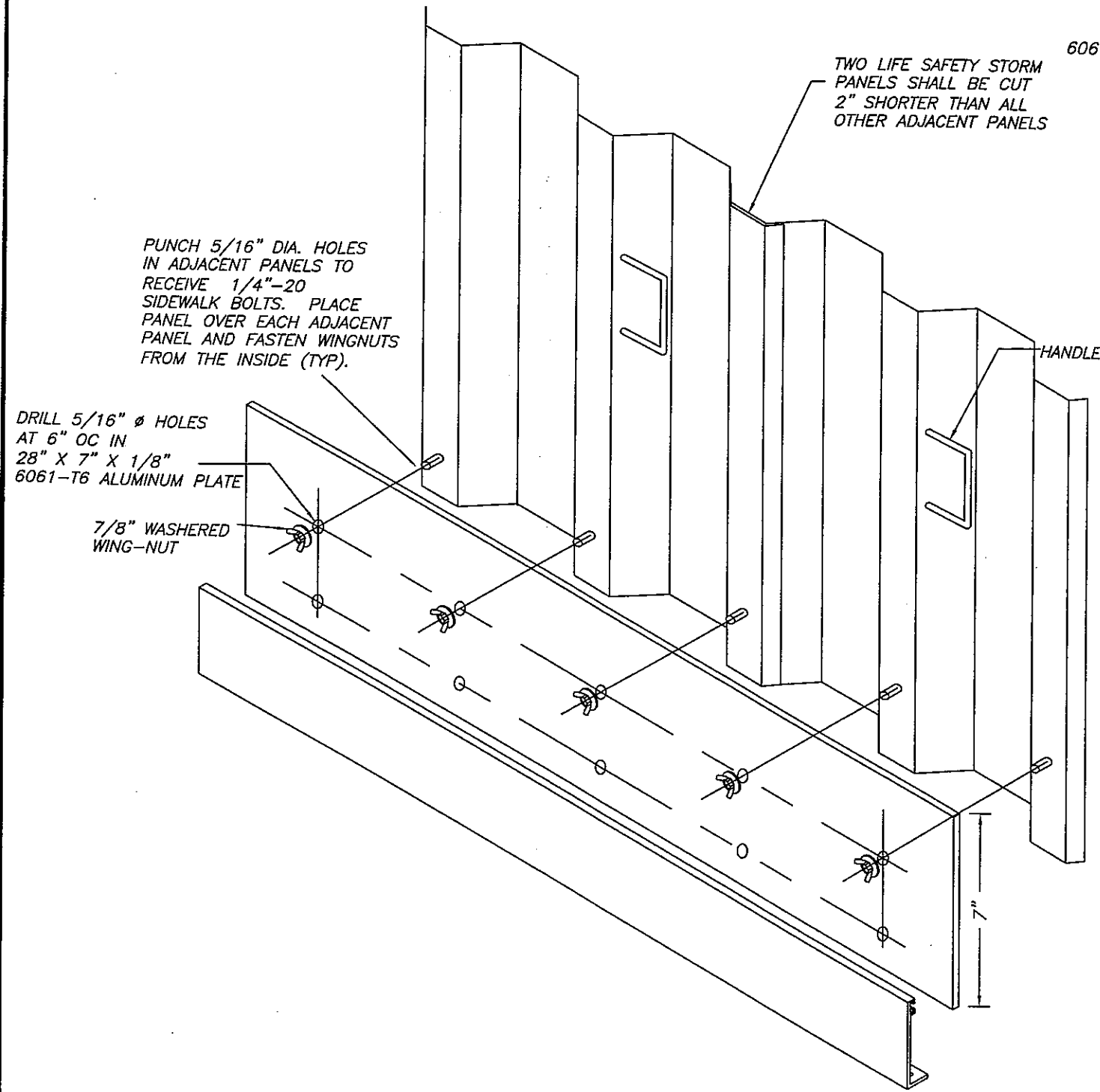
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SHEET 6 OF 9

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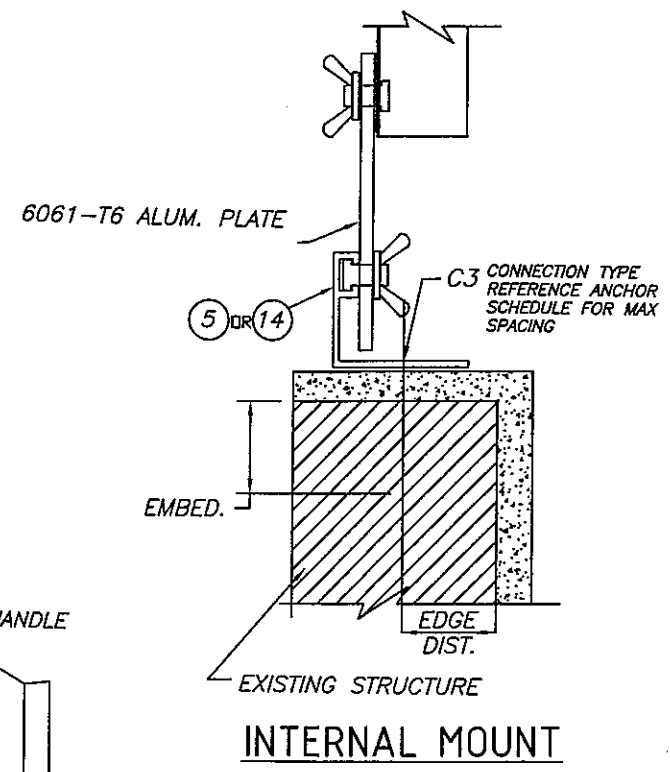
DRILL 5/16" Ø HOLES AT 6" OC IN 28" X 7" X 1/8" 6061-T6 ALUMINUM PLATE

7/8" WASHERED WING-NUT

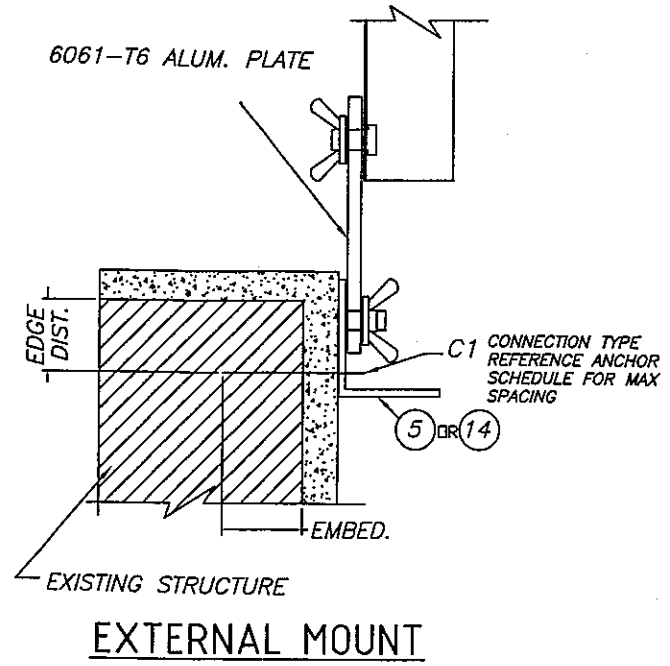
PUNCH 5/16" DIA. HOLES IN ADJACENT PANELS TO RECEIVE 1/4"-20 SIDEWALK BOLTS. PLACE PANEL OVER EACH ADJACENT PANEL AND FASTEN WINGNUTS FROM THE INSIDE (TYP).

TWO LIFE SAFETY STORM PANELS SHALL BE CUT 2" SHORTER THAN ALL OTHER ADJACENT PANELS

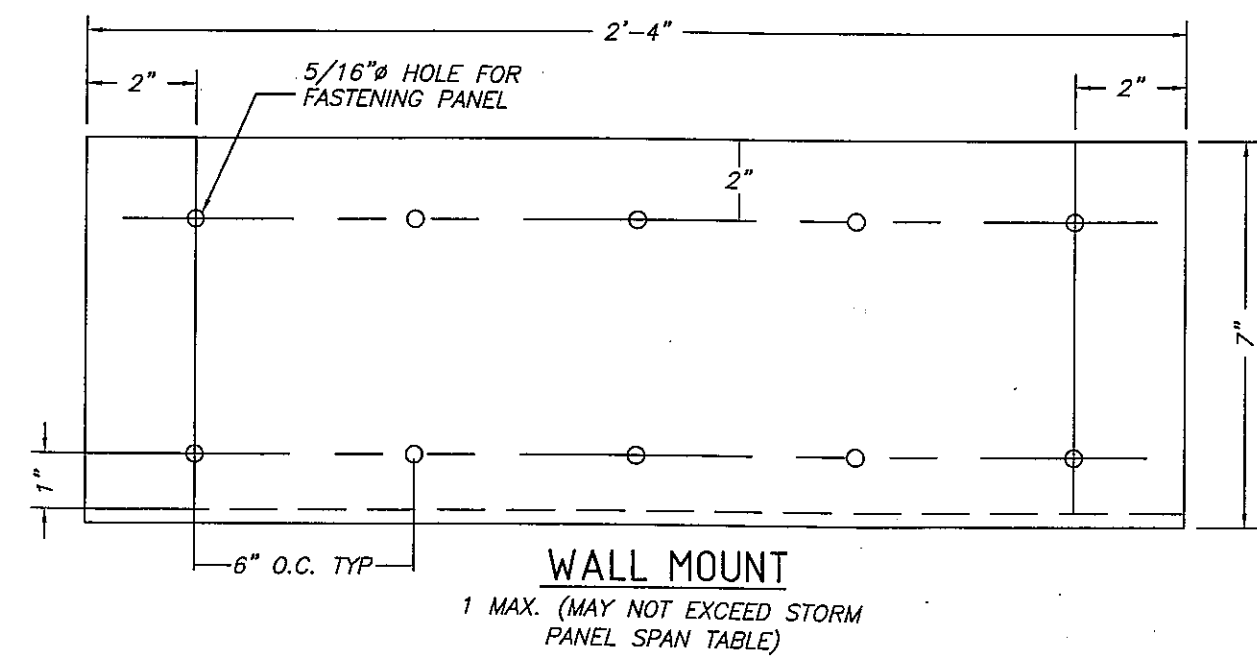
FIRE EGRESS PANEL



INTERNAL MOUNT



EXTERNAL MOUNT



WALL MOUNT

1 MAX. (MAY NOT EXCEED STORM PANEL SPAN TABLE)

REVISIONS	
NO.	DESCRIPTION
1	CHANGED OWNER
DATE	BY
6 JULY 07 ANR	

DATE: 28 NOV. 2006

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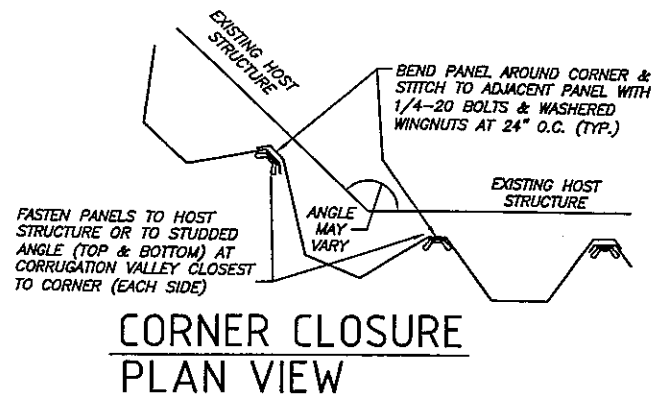
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ANCHOR SCHEDULE

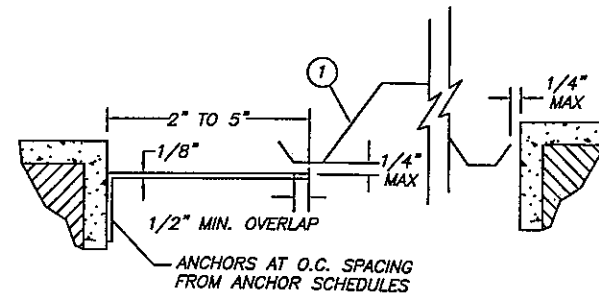
Anchor Schedule, 12" Storm Panel Maximum Allowable Fastener Spacing in Inches

Existing Structure	Anchor Type	Installation Type	Min. 3/4" Edge Distance, Spans 4'-0" to 12'-0"		
			Connection Type		
			C1	C2	C3
Wood	1/4" Ø Lag Screw, 1-27/32" Min. Thread Penetration, Shear Parallel or Perpendicular to Wood Grain	Wall Mount	18	6	5
		Build Out	18	11	10
		Egress Panel	18	12	11
	1/4" Ø Textron Panel-Mate, 1-7/8" Min. Penetration, 1/4-20 Machine Screw for Female, 1/4-20 WWN for Male	Wall Mount	18	11	10
		Build Out	18	18	18
		Egress Panel	18	18	18
	All Points Brass Wood Bushing, 1-1/8" Embedment, 1/4" Ø - 20 x 5/8" Sidewalk Bolt	Wall Mount	7	7	6
		Build Out	14	14	12
		Egress Panel	15	15	14

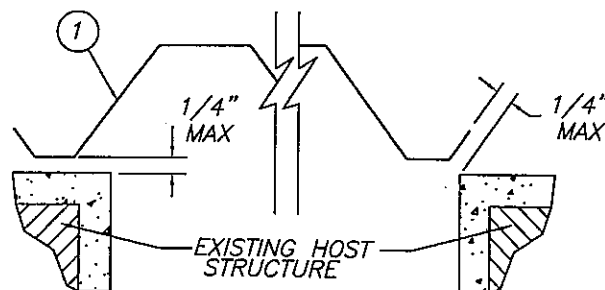
SEE SHEET 9 OF 9 FOR ADDITIONAL ANCHORS



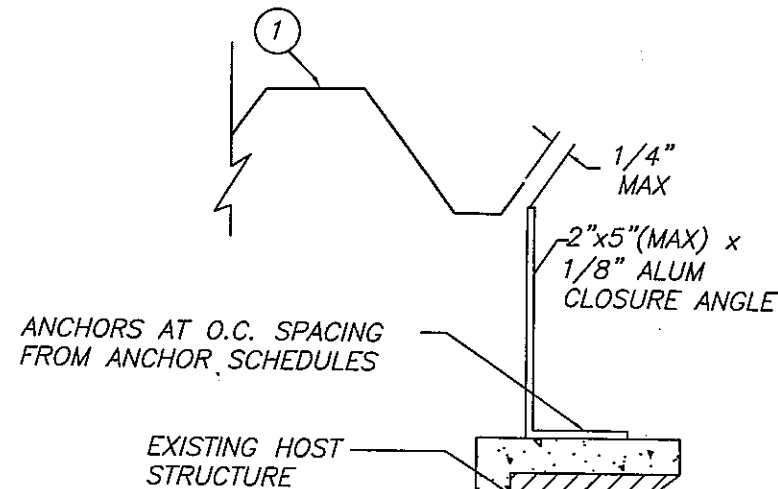
**CORNER CLOSURE
PLAN VIEW**



**TRAP MOUNT CLOSURE
PLAN VIEW**



**WALL MOUNT CLOSURE
PLAN VIEW**



**BUILD-OUT
MOUNT CLOSURE
PLAN VIEW**

SPAN TABLE

12" Storm Panel Allowable Design Wind Pressure

Span Length	Wall Mount (P.S.F.)	Build Out (P.S.F.)	Egress Panel (P.S.F.)
4'-0"	+134.0, -145.0	+67.0, -78.0	+60.5, -70.5
5'-0"	+107.2, -116.0	+53.6, -62.4	+48.4, -56.4
6'-0"	+89.3, -96.7	+44.7, -52.0	+40.3, -47.4
7'-0"	+76.6, -82.9	+38.3, -44.6	+34.6, -40.3
8'-0"	+67.0, -72.5	+33.5, -39.0	+30.2, -35.2
9'-0"	+59.6, -64.4	+29.8, -34.7	+26.9, -31.3
10'-0"	+53.6, -58.0	+26.8, -31.2	+24.2, -28.2
11'-0"	+48.7, -52.7	+24.4, -28.4	+22.0, -25.6
12'-0"	+44.7, -48.2	+22.3, -26.0	+20.2, -23.5

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