

GENERAL NOTES:

1. BERTHA H.V. COLONIAL SHUTTER SHOWN ON THIS PRODUCT EVALUATION DOCUMENT (P.E.D.) HAS BEEN VERIFIED FOR COMPLIANCE IN ACCORDANCE WITH THE **2020 (7th EDITION)** OF THE FLORIDA BUILDING CODE. THIS COLONIAL SHUTTER SHALL **NOT** BE INSTALLED AT HIGH VELOCITY HURRICANE ZONES (MIAMI DADE/BROWARD COUNTY).

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 $K_d=0.85$. **ASCE 7-16** AND SHALL NOT EXCEED THE MAXIMUM (A.S.D.) DESIGN PRESSURE RATINGS INDICATED ON NOTE 2.

IN ORDER TO VERIFY THE ABOVE CONDITION, ULTIMATE DESIGN WIND LOADS DETERMINED PER **ASCE 7-16** SHALL BE FIRST REDUCED TO A.S.D. DESIGN WIND LOADS BY MULTIPLYING THEM BY 0.6 IN ORDER TO TO COMPARE THESE W/ MAX. (A.S.D) DESIGN PRESSURE RATINGS INDICATED ON NOTE 2.

IN ORDER TO VERIFY THAT ANCHORS ON THIS P.E.D., AS TESTED, WERE NOT OVERSTRESSED, A 33% INCREASE IN ALLOWABLE STRESS FOR WIND LOADS WAS NOT USED IN THEIR ANALYSIS. HOWEVER, FOR CONNECTIONS INTO WOOD, A 1.60 WIND LOAD DURATION FACTOR WAS USED TO CALCULATE SCREWS SPACINGS.

BERTHA H.V. COLONIAL SHUTTER'S ADEQUACY FOR IMPACT AND CYCLIC RESISTANCE HAS BEEN VERIFIED IN ACCORDANCE WITH SECTION **1609.1.2** OF THE ABOVE MENTIONED CODE AS PER ATL REPORTS # 1215.01-06, # 0131.01-07 WITH ADDENDUM, AND 1222.01-20 AS PER ASTM E 1886, ASTM E 1996 AND ASTM E 330 STANDARDS, QUALIFIED FOR WIND ZONES 1, 2 & 3, MISSILE TYPE D & SMALL MISSILE (BASIC PROTECTION).

2. SEE ELEVATIONS ON SHEETS 3, 3A, 4 & 9 FOR MAX. A.S.D. DESIGN PRESSURE RATING & MAX. SHUTTERS DIMENSIONS.

3. ALL ALUMINUM EXTRUSIONS SHALL BE ALUMINUM ASSOCIATION 6063-T6 ALLOY AND TEMPER, WITH $F_y= 25.0$ ksi MINIMUM (UNLESS OTHERWISE NOTED). ALL ALUMINUM EXTRUSIONS IN CONTACT WITH DISSIMILAR MATERIALS SHALL COMPLY WITH SECTION III-6 OF THE 2015 ALUMINUM DESIGN MANUAL.

4. ALL SCREWS TO BE STAINLESS STEEL 304 OR 316 AISI SERIES WITH 50 ksi YIELD POINT AND 90 ksi TENSILE STRENGTH & SHALL COMPLY W/ FLORIDA BUILDING CODE SECTION 2411.3.3.4.

5. BOLTS TO BE AISI 304 SERIES STAINLESS STEEL WITH 35 ksi MINIMUM YIELD STRENGTH.

6. ALL ALUMINUM POP RIVETS TO BE 5052 ALUMINUM ALLOY WITH ALUMINUM MANDREL.

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

(A) TO EXISTING WOOD FRAME WALL: SOUTHERN PINE No.2, $G=0.55$.
- 1/4" \varnothing TAPCON ANCHORS AS MANUFACTURED BY I.T.W. BUILDEX, INC.

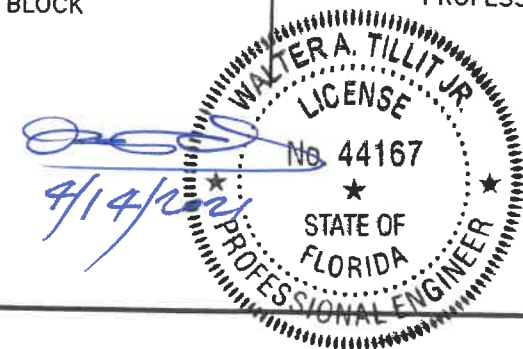
NOTES:

A.1) MINIMUM THREADED PENETRATION OF TAPCON ANCHORS INTO WOOD SHALL BE 1 1/2".

A.2) 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 A.1).

(B) TO EXISTING POURED CONCRETE MIN. ($f'_c = 3192$ p.s.i) OR ASTM C-90 CONCRETE BLOCK - 1/4" \varnothing TAPCON ANCHORS AS MANUFACTURED BY I.T.W./BUILDEX.

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



NOTES:

B.1) MINIMUM EMBEDMENT OF TAPCON ANCHORS INTO THE POURED CONCRETE UNIT SHALL BE 1 3/4" AND IN CONCRETE BLOCK UNIT SHALL BE 1 1/4".

B.2) 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).

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

8. EACH SHUTTER SHALL HAVE A LEGIBLE AND READILY VISIBLE MARKING INSTRUCTING OWNER OR TENANT TO SECURE SHUTTER WITH STORM BARS & SAFETY PINS DURING PERIODS OF HURRICANE WARNINGS.

9. 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. CONTRACTOR TO SEAL/CAULK ALL SHUTTER COMPONENT EDGES WHICH REMAIN IN CONTINUOUS CONTACT WITH THE BUILDING TO PREVENT WIND/RAIN INTRUSION.

10. OWNER TO BE RESPONSIBLE FOR PROVIDING A SUITABLE PLATFORM OR BALCONY WHEN SECURING UNIT DURING HURRICANE WARNINGS.

11. BERTHA H.V. COLONIAL SHUTTER'S INSTALLATION SHALL COMPLY WITH SPECS INDICATED IN THIS DRAWING PLUS ANY BUILDING AND ZONING REGULATIONS PROVIDED BY THE JURISDICTION WHERE PERMIT IS APPLIED TO.

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

13. (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 PRODUCT EVALUATION DOCUMENT, PROVIDED HE/SHE DOES NOT DEVIATE FROM THE CONDITIONS DETAILED ON THIS DOCUMENT. CONSTRUCTION SAFETY AT SITE IS THE CONTRACTOR'S RESPONSIBILITY.

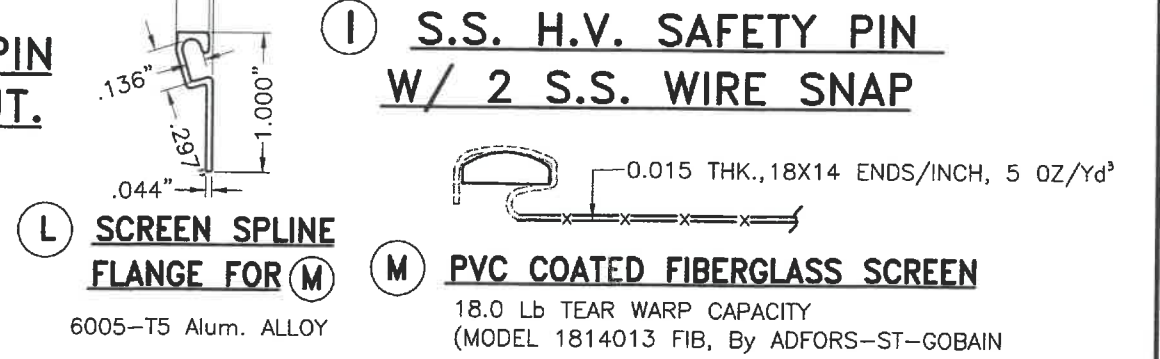
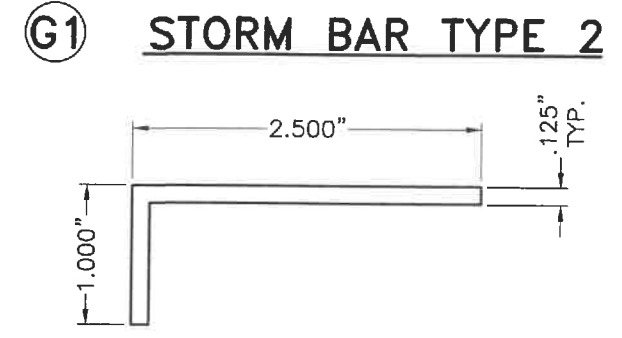
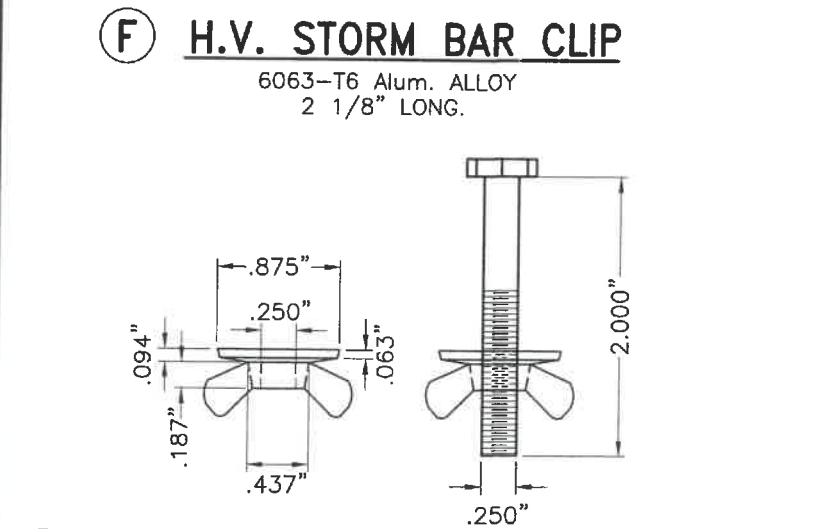
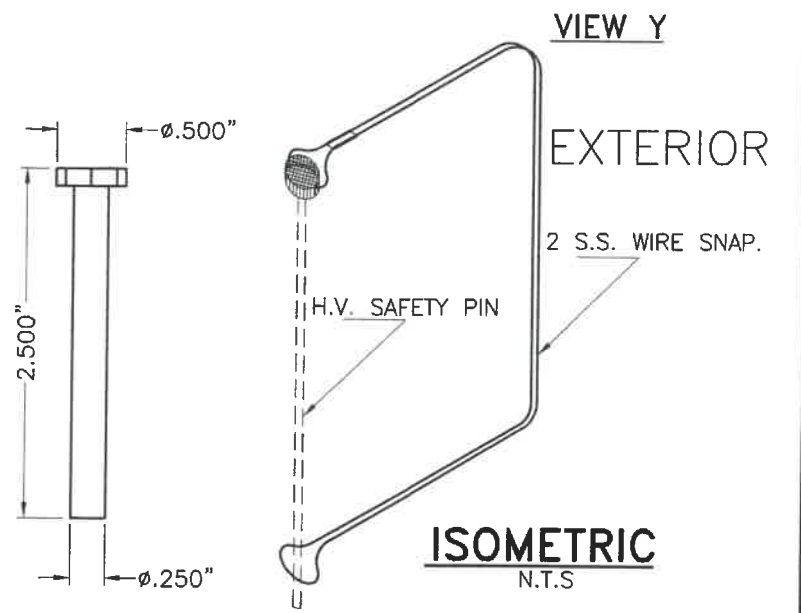
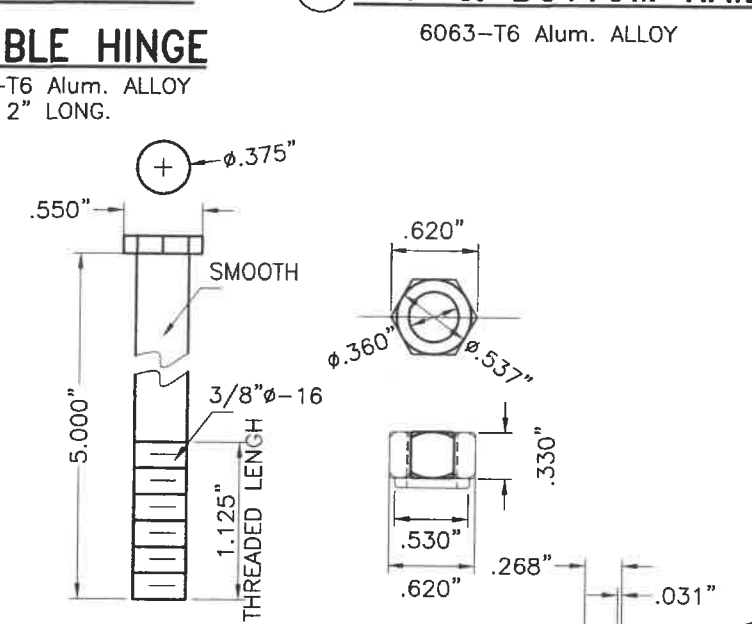
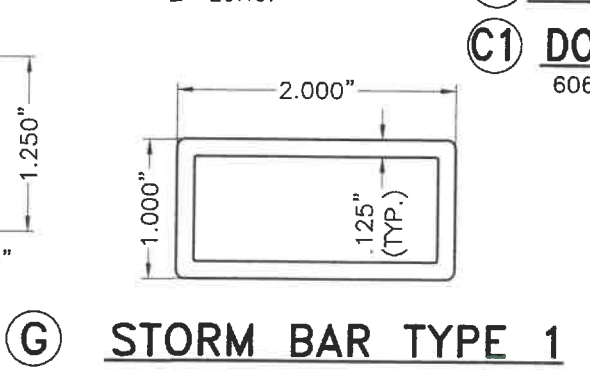
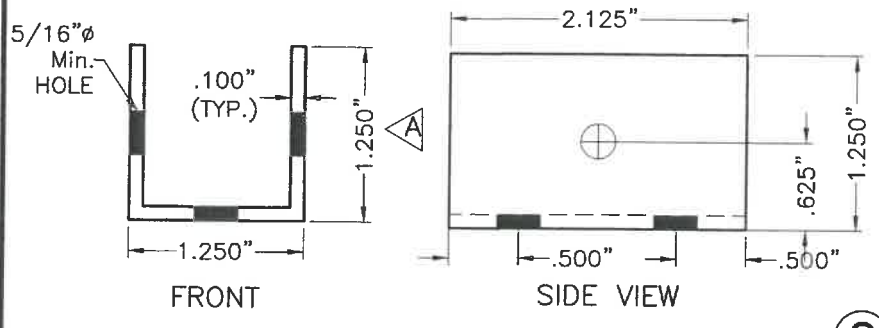
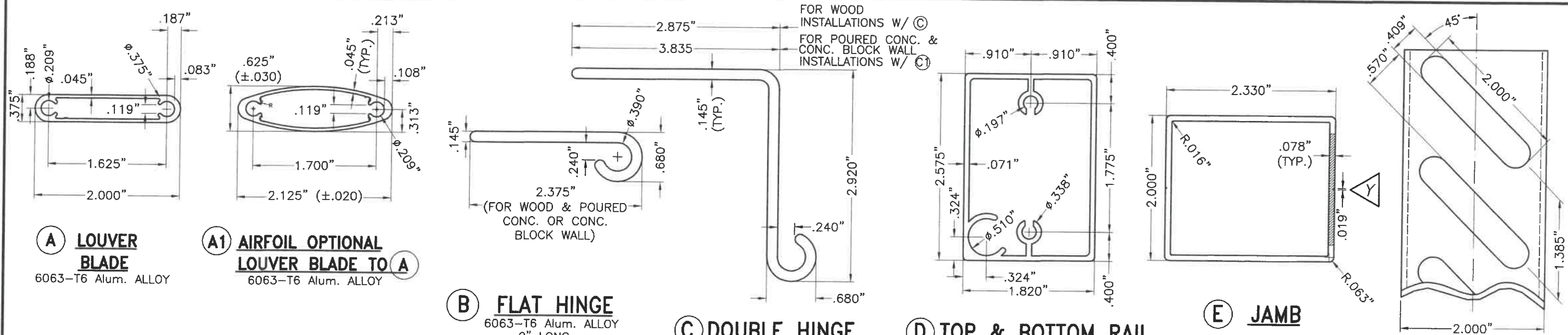
(C) THIS PRODUCT EVALUATION DOCUMENT WILL BE CONSIDERED INVALID IF ALTERED BY ANY MEANS.

(D) SITE SPECIFIC PROJECTS SHALL BE PREPARED BY A FLORIDA REGISTERED ENGINEER OR ARCHITECT WHICH WILL BECOME THE ENGINEER OF RECORD (E.O.R.) FOR THE PROJECT AND WHO WILL BE RESPONSIBLE FOR THE PROPER USE OF THE P.E.D. ENGINEER OF RECORD, ACTING AS A DELEGATED ENGINEER TO THE P.E.D. ENGINEER, SHALL SUBMIT TO THIS LATTER THE SITE SPECIFIC DRAWINGS FOR REVIEW.

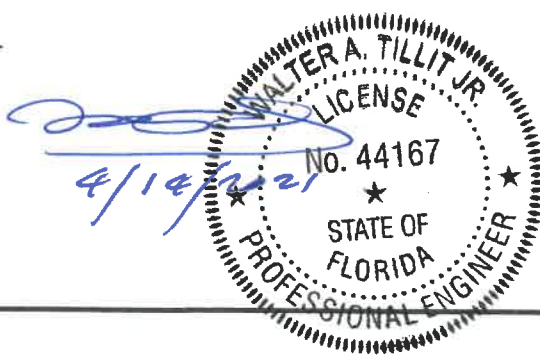
(E) ORIGINAL P.E.D. SHALL BEAR THE DATE AND ORIGINAL SEAL AND SIGNATURE OF THE PROFESSIONAL ENGINEER OF RECORD THAT PREPARED IT.

FLORIDA BUILDING CODE (Non High Velocity Hurricane Zone)

<p>©2020 TILTECO, INC.</p> <p>TILLIT TESTING & ENGINEERING COMPANY 6355 N.W. 36th St., Ste. 305, VIRGINIA GARDENS, FL 33166 Phone : (305)871-1530 . Fax : (305)871-1531 CA-0006719 WALTER A. TILLIT Jr. P.E. FLORIDA Lic. # 44167</p>	<p>ASSA / BERTHA H.V. COLONIAL SHUTTER (LARGE & SMALL MISSILE)</p> <p>AMERICAN SHUTTER SYSTEMS ASSOC., INC.</p> <p>4268 WEST ROADS DRIVE WEST PALM BEACH, FL 33407 PHONE: (800)432-2204 FAX: (561)209-8380</p>	<p>M.P DRAWN BY:</p> <p>7/6/2020 DATE:</p> <p>20-170 DRAWING No:</p> <p>SHEET 1 OF 14</p>																		
<table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th>REV. No</th> <th>DESCRIPTION</th> <th>DATE</th> <th>REV. No</th> <th>DESCRIPTION</th> <th>DATE</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>OLD 17-218</td> <td>7/6/2020</td> <td>3</td> <td></td> <td></td> </tr> <tr> <td>2</td> <td>COMP. </td> <td>5/30/2021</td> <td>4</td> <td></td> <td></td> </tr> </tbody> </table>			REV. No	DESCRIPTION	DATE	REV. No	DESCRIPTION	DATE	1	OLD 17-218	7/6/2020	3			2	COMP.	5/30/2021	4		
REV. No	DESCRIPTION	DATE	REV. No	DESCRIPTION	DATE															
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2	COMP.	5/30/2021	4																	



COMPONENTS
SCALE: 3/4" = 1"



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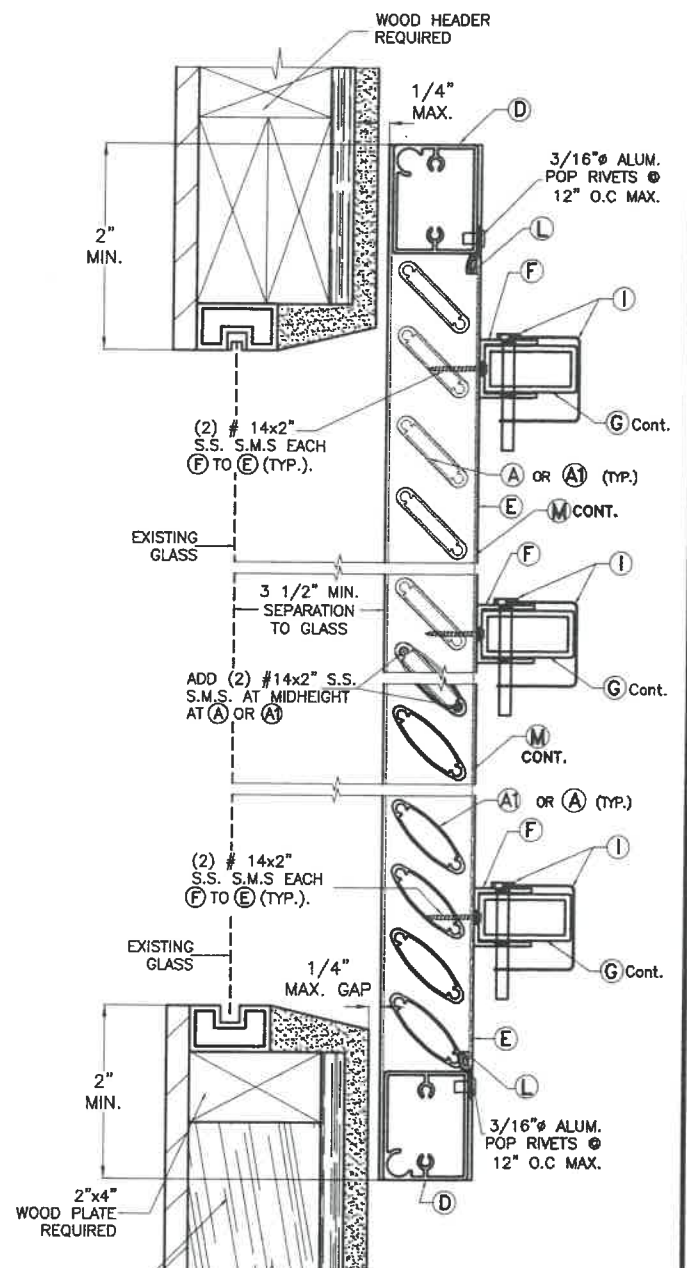
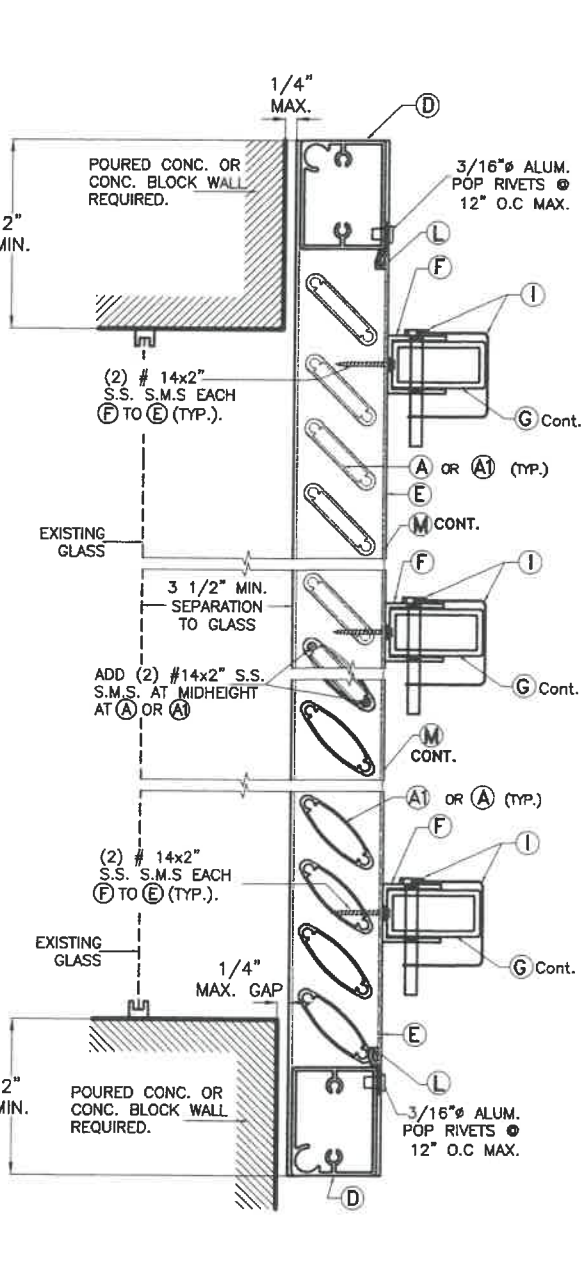
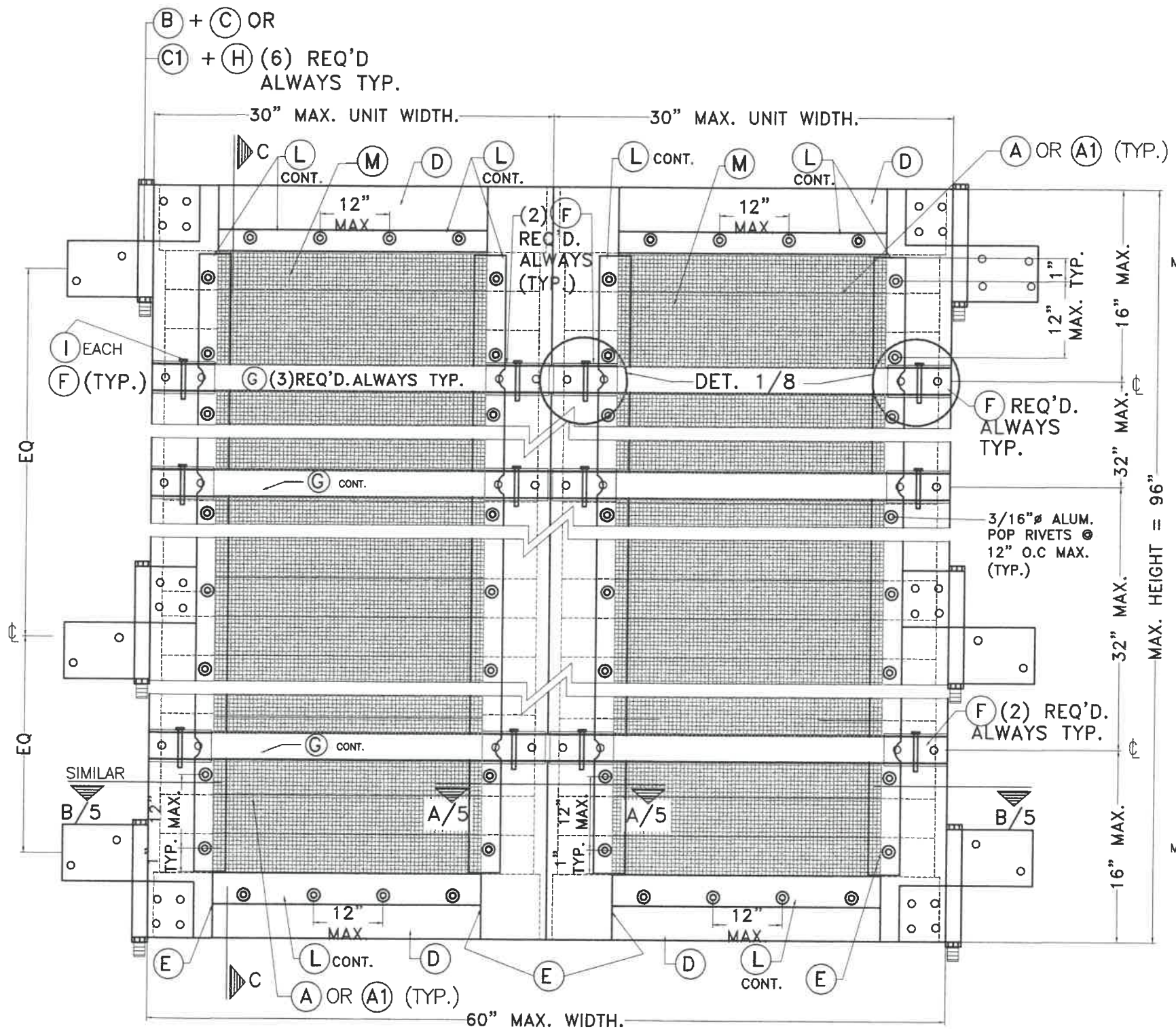
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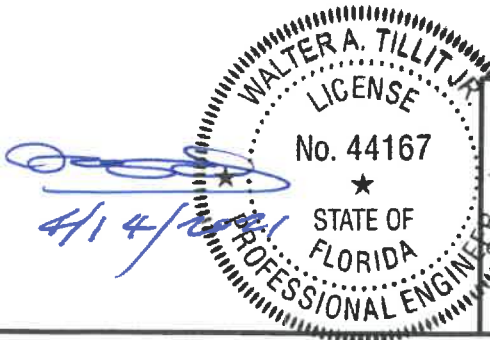
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7/6/2020 DATE:
20-170 DRAWING No:
SHEET 2 OF 14

REV. No	DESCRIPTION	DATE	REV. No	DESCRIPTION	DATE
1	OLD 17-216	7/6/2020	3		
2	COMP. (L, M)	5/30/2021	4		



TYPICAL EXTERIOR ELEV. DOUBLE PANEL FOR WOOD OR CONCRETE (HURRICANE POSITION)
N.T.S.

MAXIMUM A.S.D. DESIGN PRESSURE RATING = +45, -55 psf.



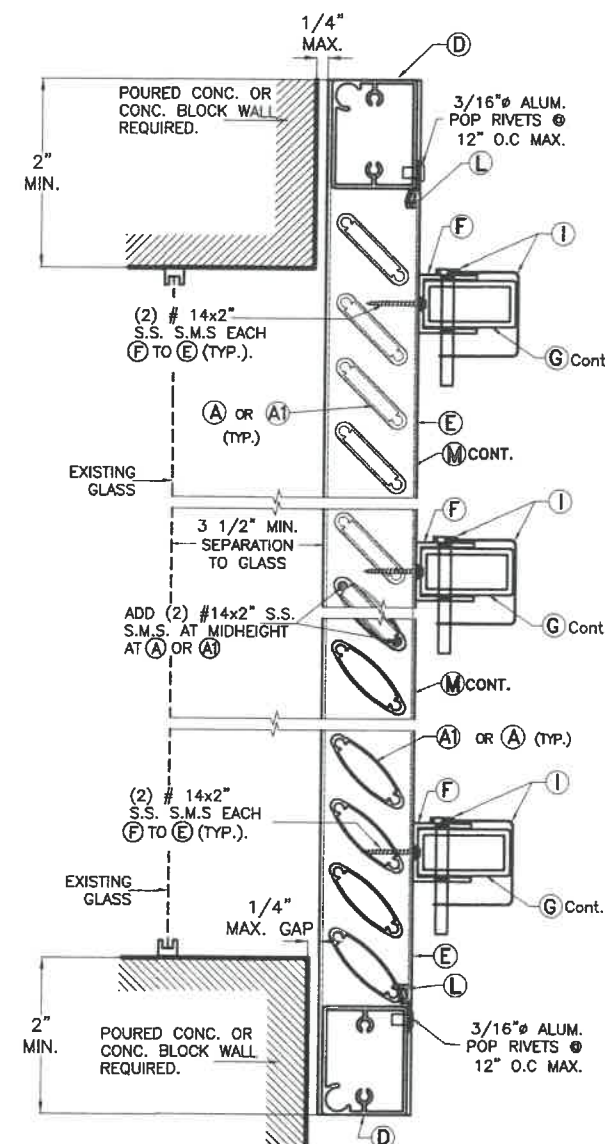
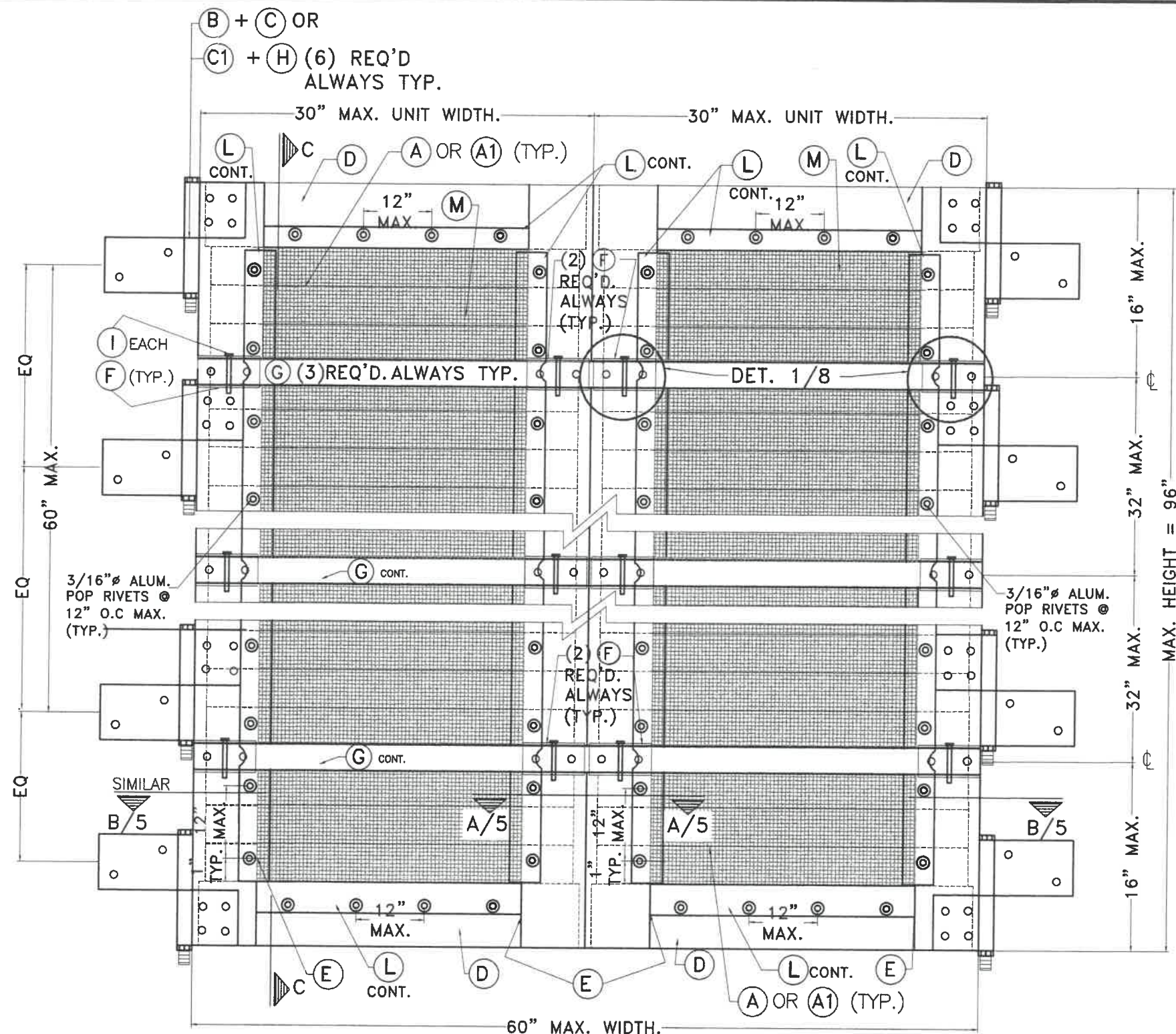
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M.P. DRAWN BY:
7/6/2020 DATE:
20-170
DRAWING No:

REV. No	DESCRIPTION	DATE	REV. No	DESCRIPTION	DATE
1	OLD 17-216	7/6/2020	3		
2	COMP. ①, ②	3/30/2021	4		

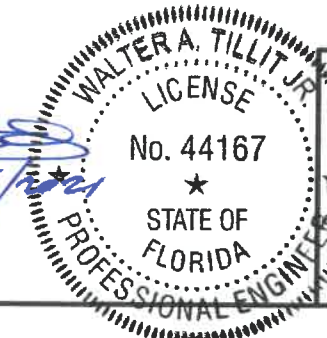


SECTION C-C
(WALL MOUNT)
HURRICANE POSITION
SCALE: 1/4" = 1"

**TYPICAL EXTERIOR ELEV. DOUBLE PANEL FOR CONCRETE BLOCK.
(HURRICANE POSITION)**

N.T.S.

MAXIMUM A.S.D. DESIGN PRESSURE RATING = +45, -55 psf.



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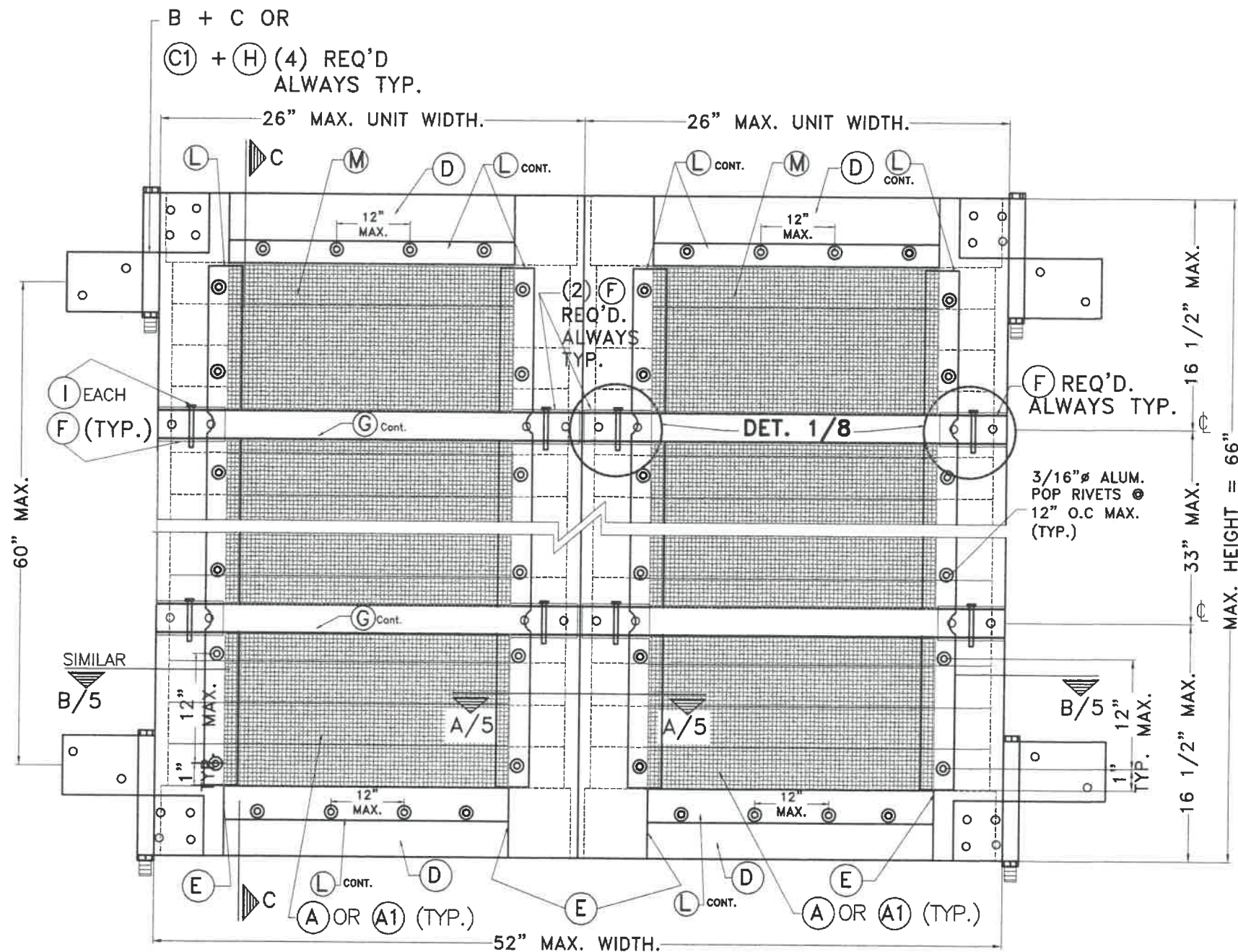
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DRAWN BY:
7/6/2020
DATE:
20-170
DRAWING No:

REV. No	DESCRIPTION	DATE	REV. No	DESCRIPTION	DATE
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2	COMP. ①	3/30/2021	4		

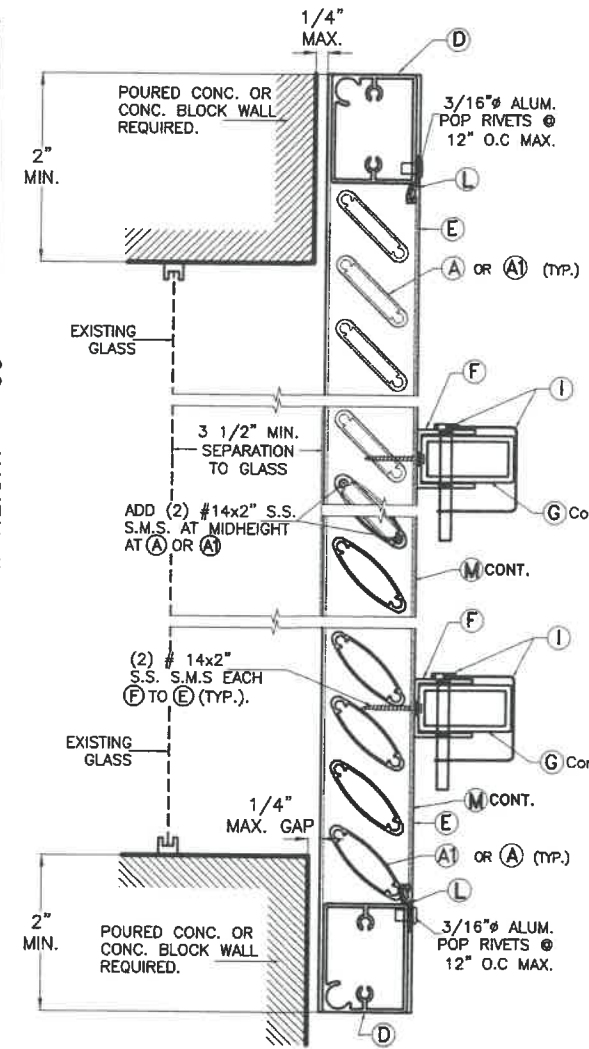
SHEET 3A OF 14



**TYPICAL EXTERIOR ELEV. DOUBLE PANEL
(HURRICANE POSITION)**

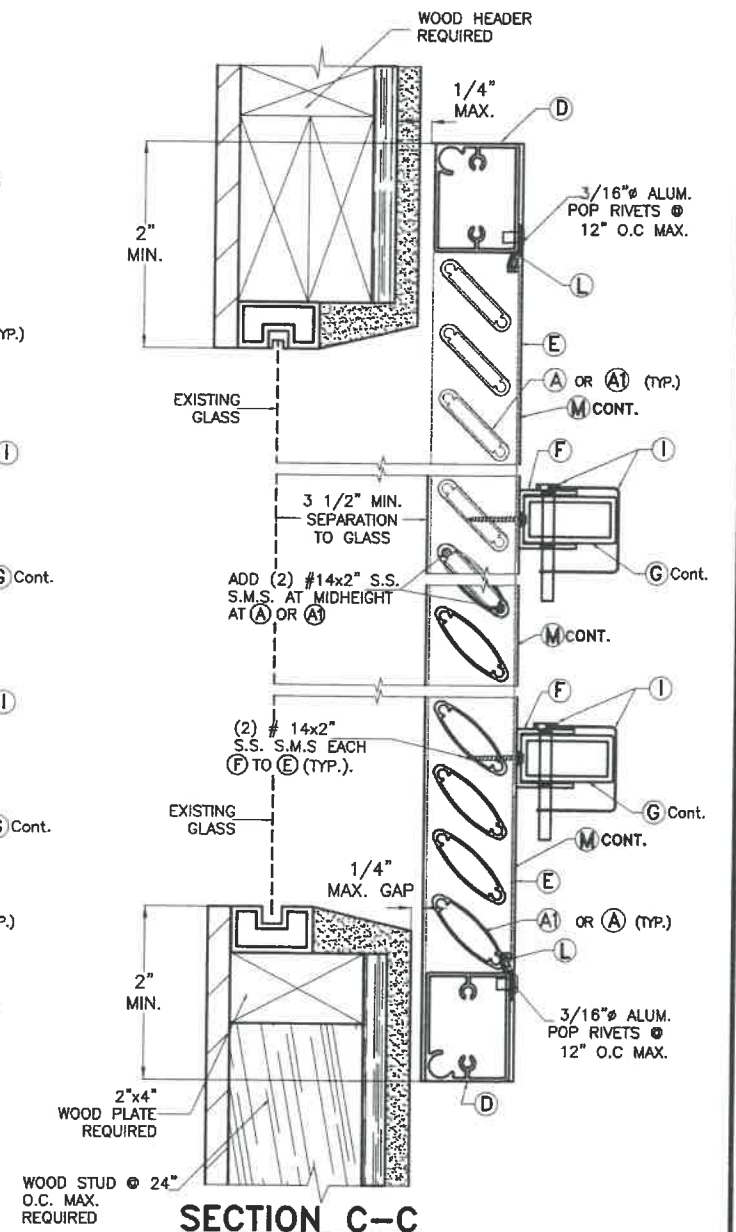
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**MAXIMUM A.S.D. DESIGN
PRESSURE RATING = +45, -55 psf.**



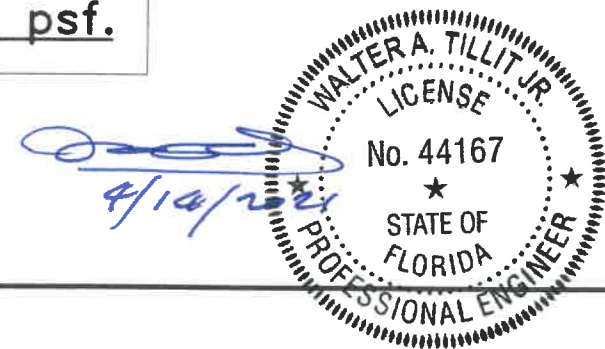
SECTION C-C

(WALL MOUNT)
HURRICANE POSITION
SCALE: 1/4" = 1"



SECTION C-C

(WALL MOUNT)
HURRICANE POSITION
SCALE: 1/4" = 1"



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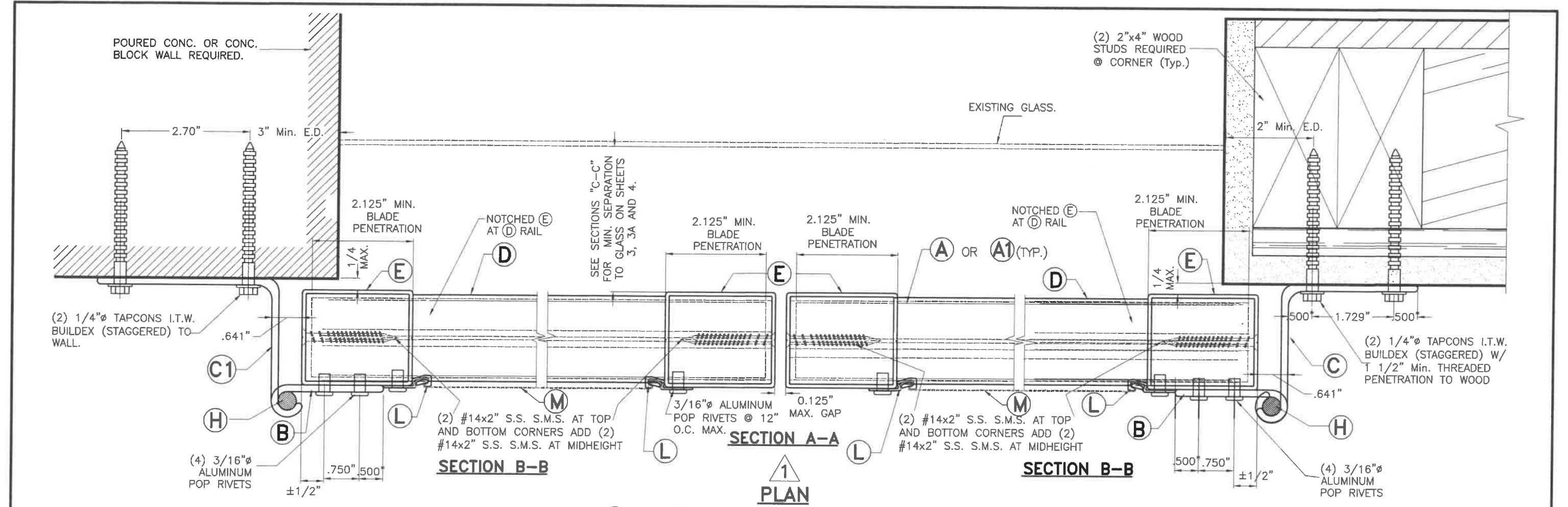
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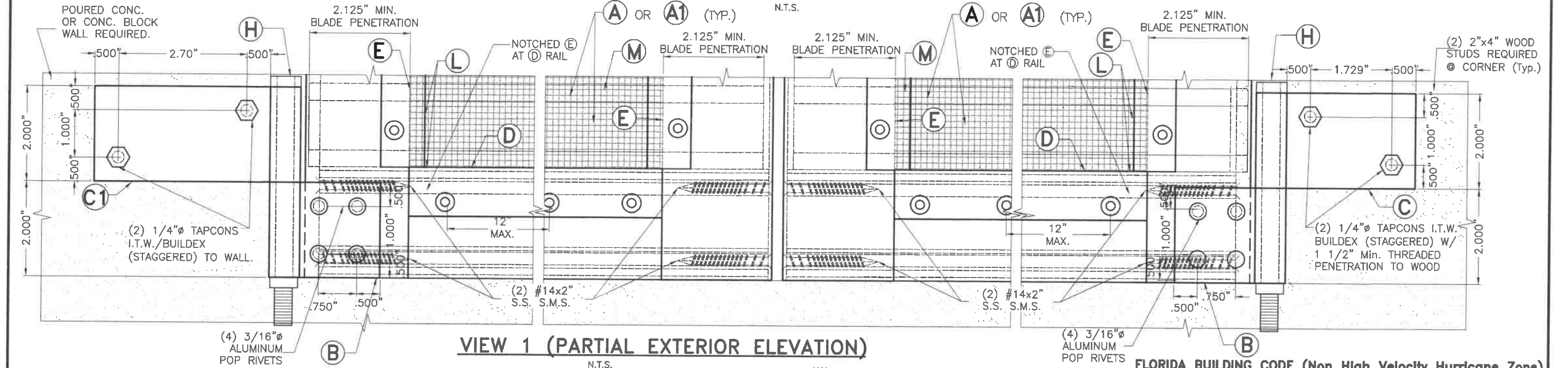
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1	OLD 17-216	7/6/2020	3		
2	COMP. D. Ⓞ	5/30/2021	4		



PLAN
N.T.S.



VIEW 1 (PARTIAL EXTERIOR ELEVATION)
N.T.S.

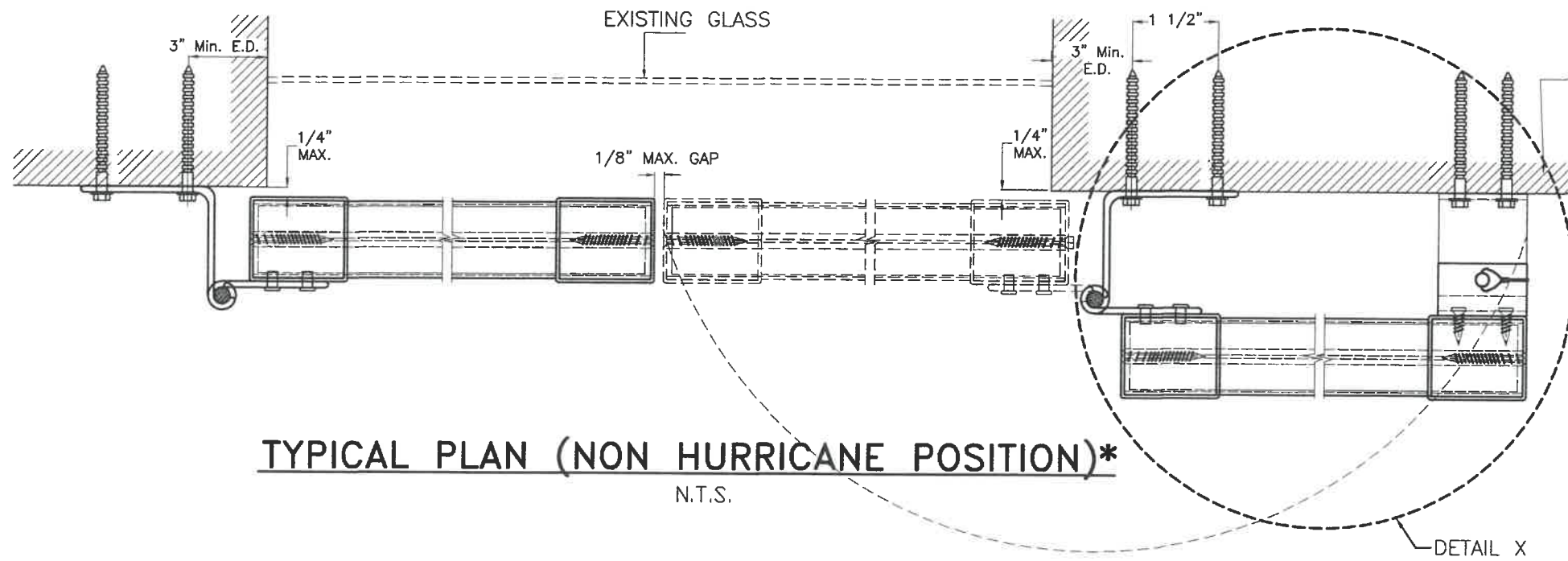
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LICENSE
No. 44167
STATE OF FLORIDA
PROFESSIONAL ENGINEER

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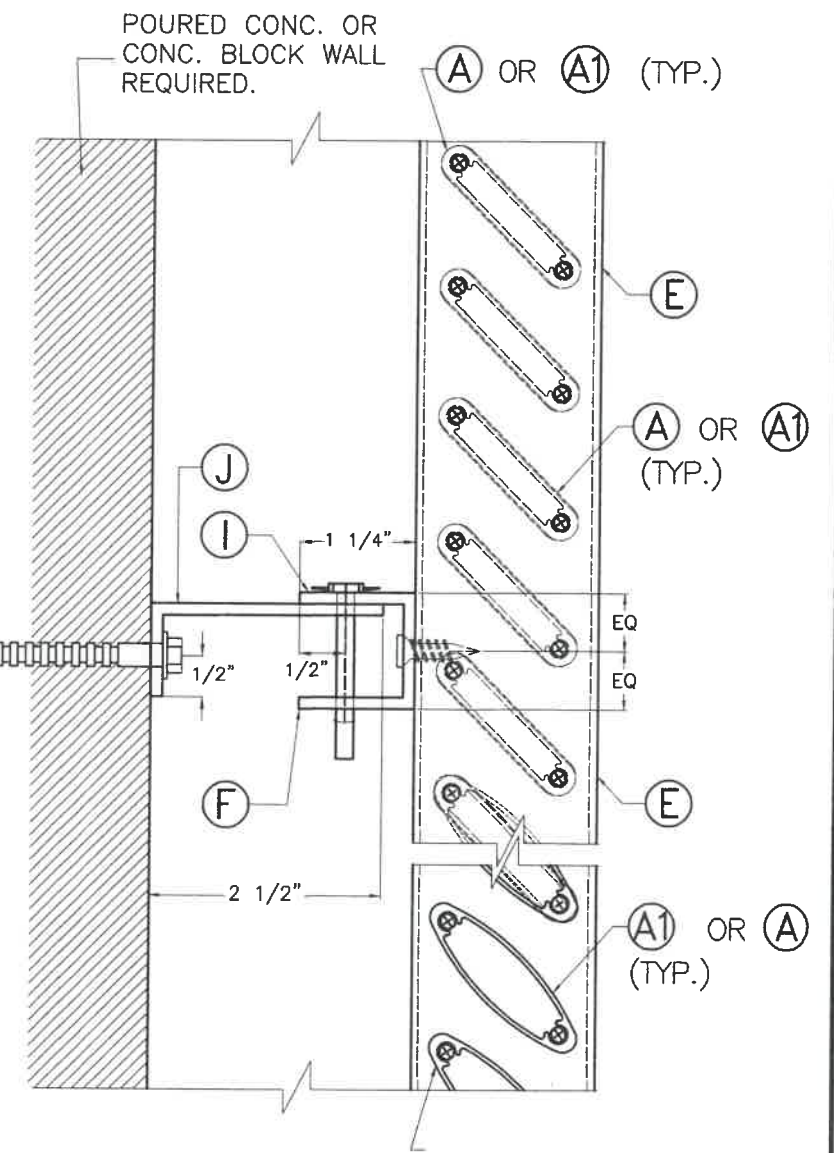
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DRAWN BY:
7/6/2020
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20-170
DRAWING No:
SHEET 5 OF 14

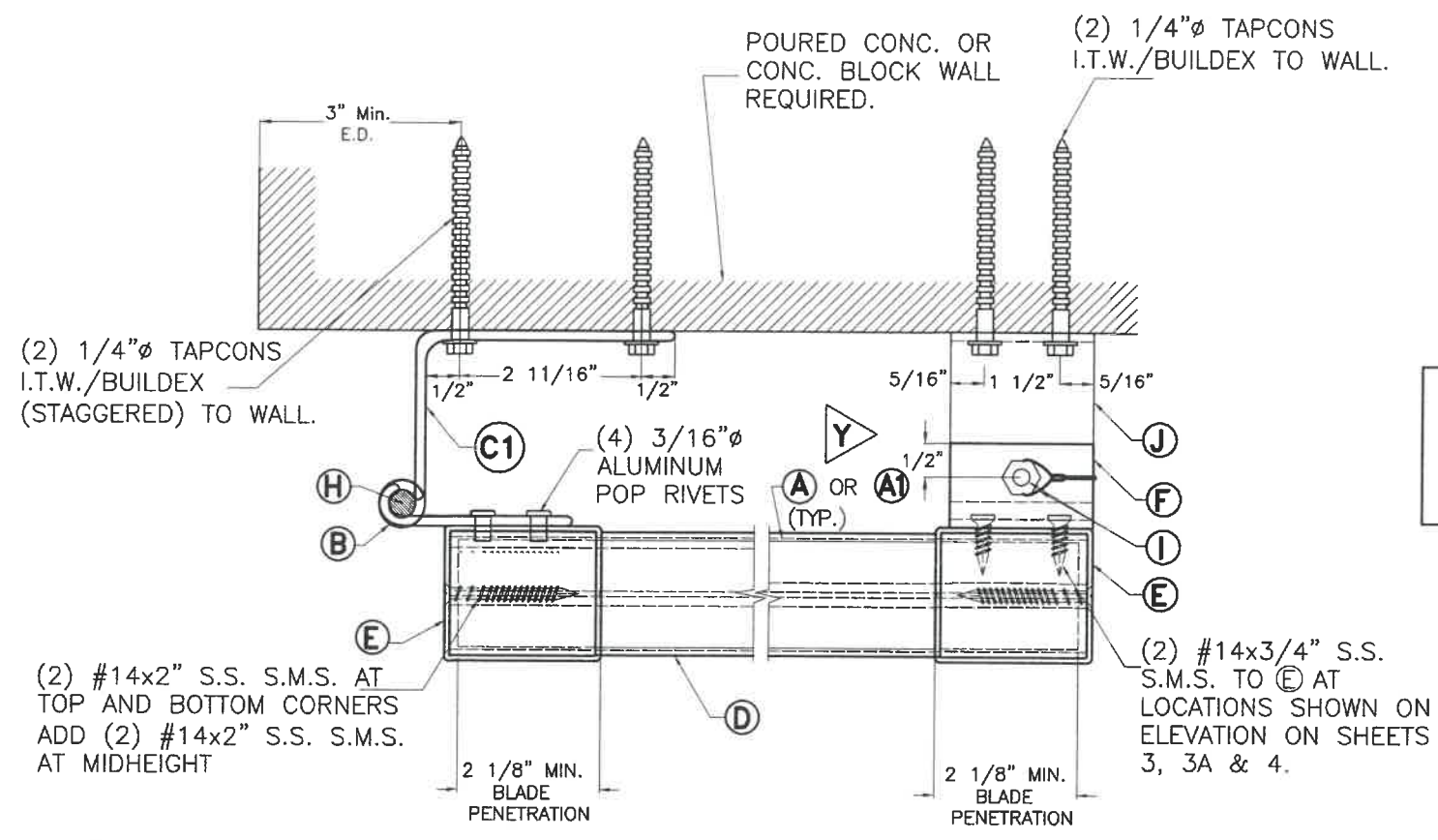


TYPICAL PLAN (NON HURRICANE POSITION)*
N.T.S.

POURED CONC. OR CONC. BLOCK WALL REQUIRED.

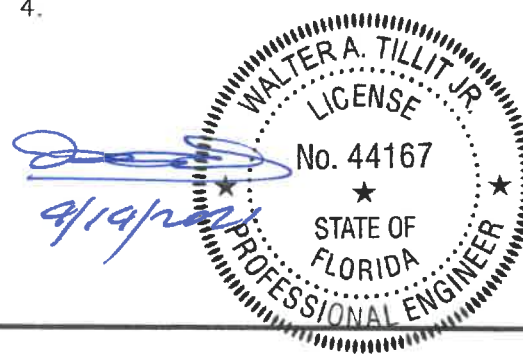


ELEVATION Y-Y
SCALE: 1/2"=1"



DETAIL X (NON HURRICANE POSITION)
SCALE: 3/8"=1"

***NOTE:**
SCREEN (M) & (L) NOT SHOWN FOR CLARITY (SEE ELEVATIONS)



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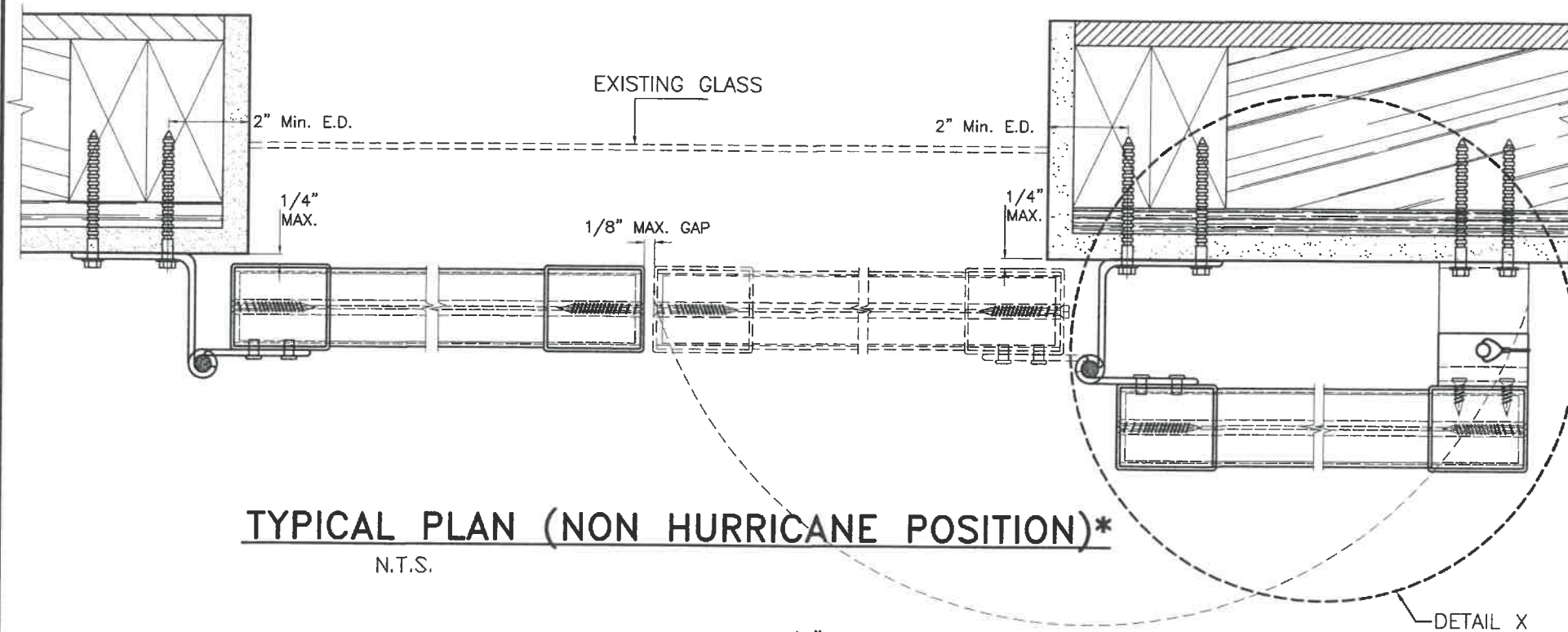
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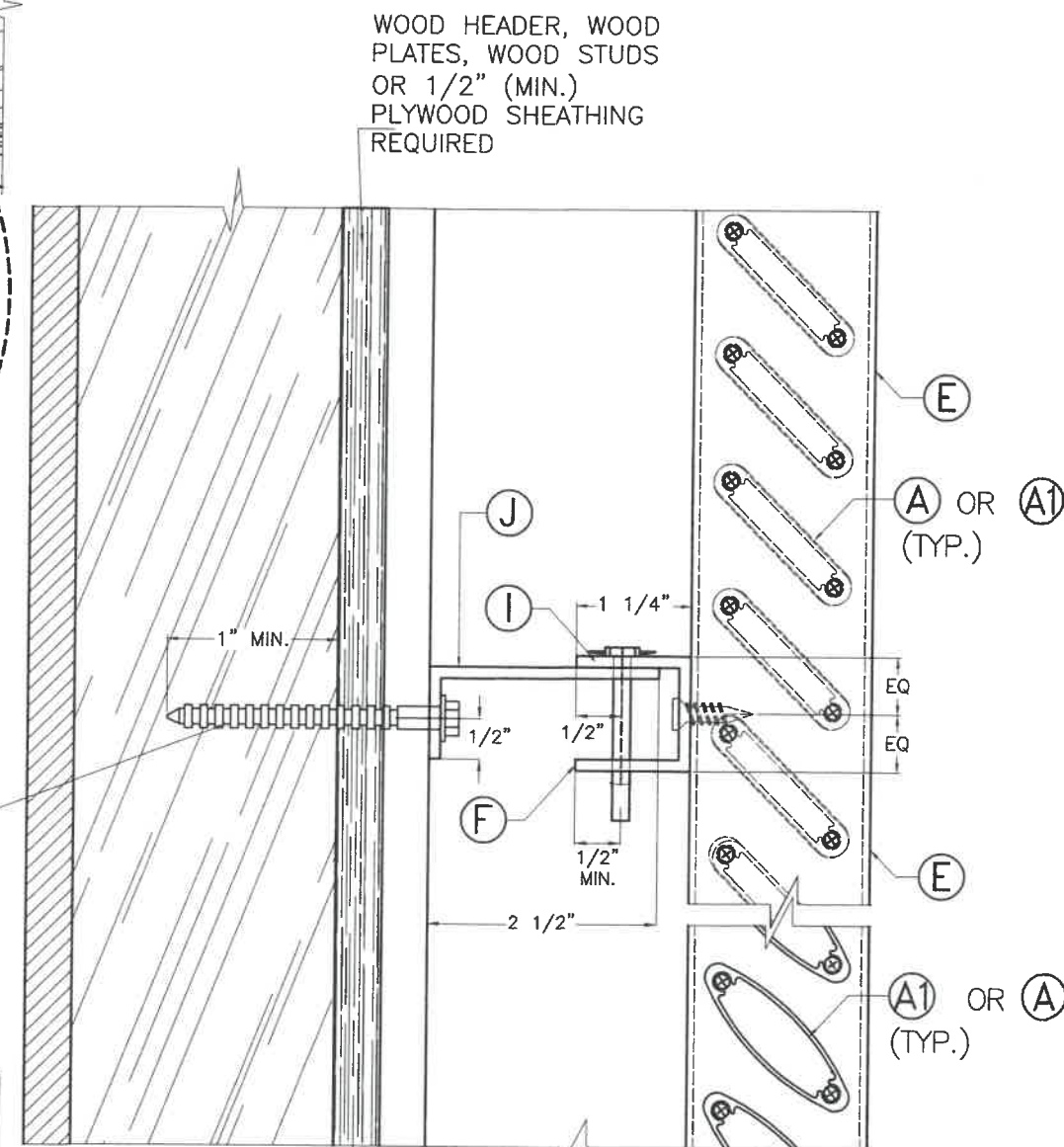
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SHEET 6 OF 14

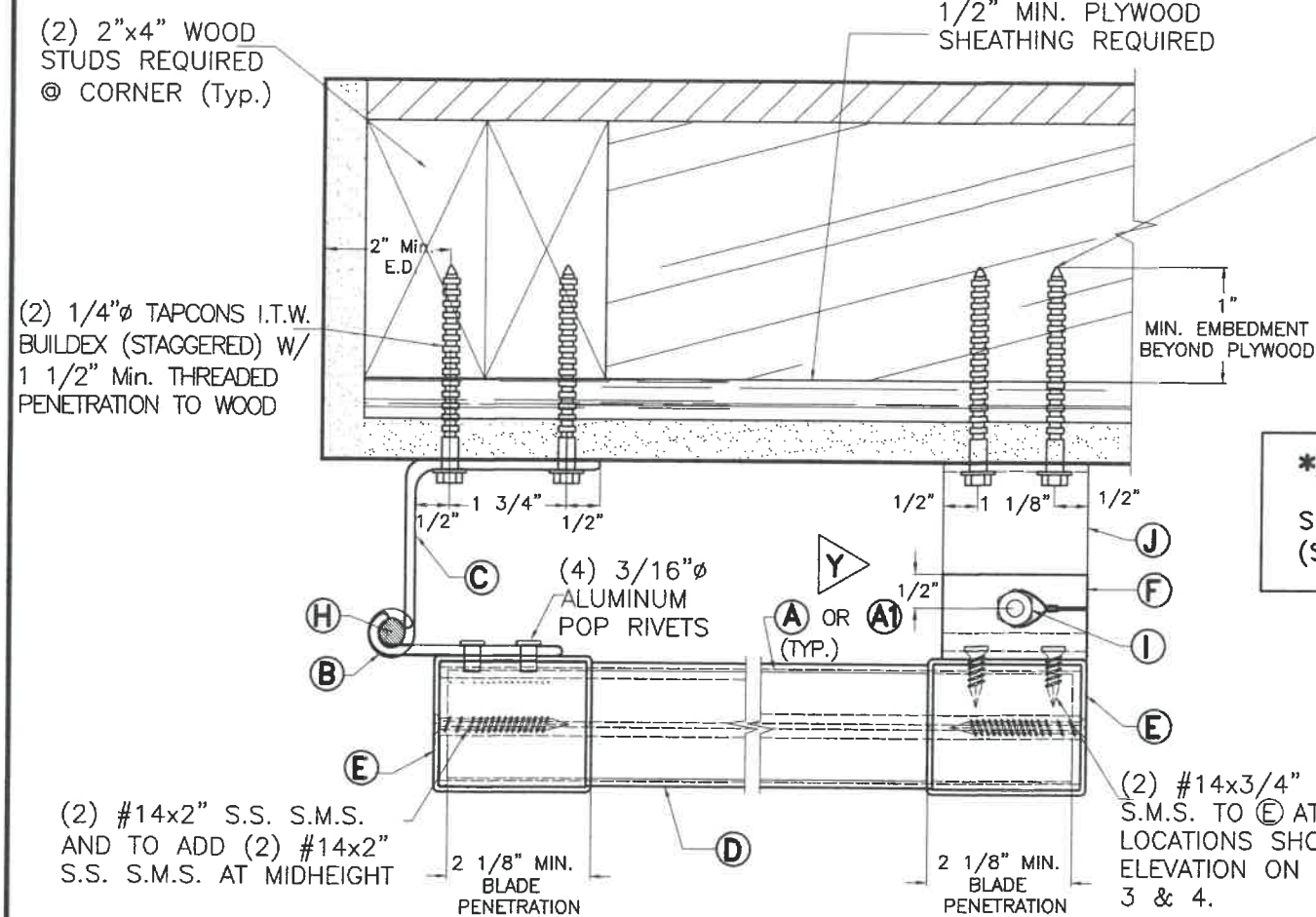
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TYPICAL PLAN (NON HURRICANE POSITION)*
N.T.S.

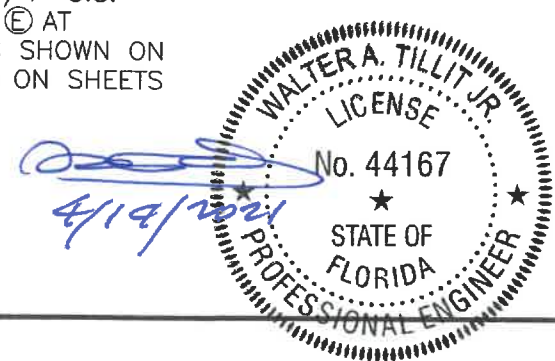


ELEVATION Y-Y
SCALE: 1/2"=1"



DETAIL X (NON HURRICANE POSITION)
SCALE: 3/8"=1"

***NOTE:**
SCREEN (M) & (L) NOT SHOWN FOR CLARITY (SEE ELEVATIONS).



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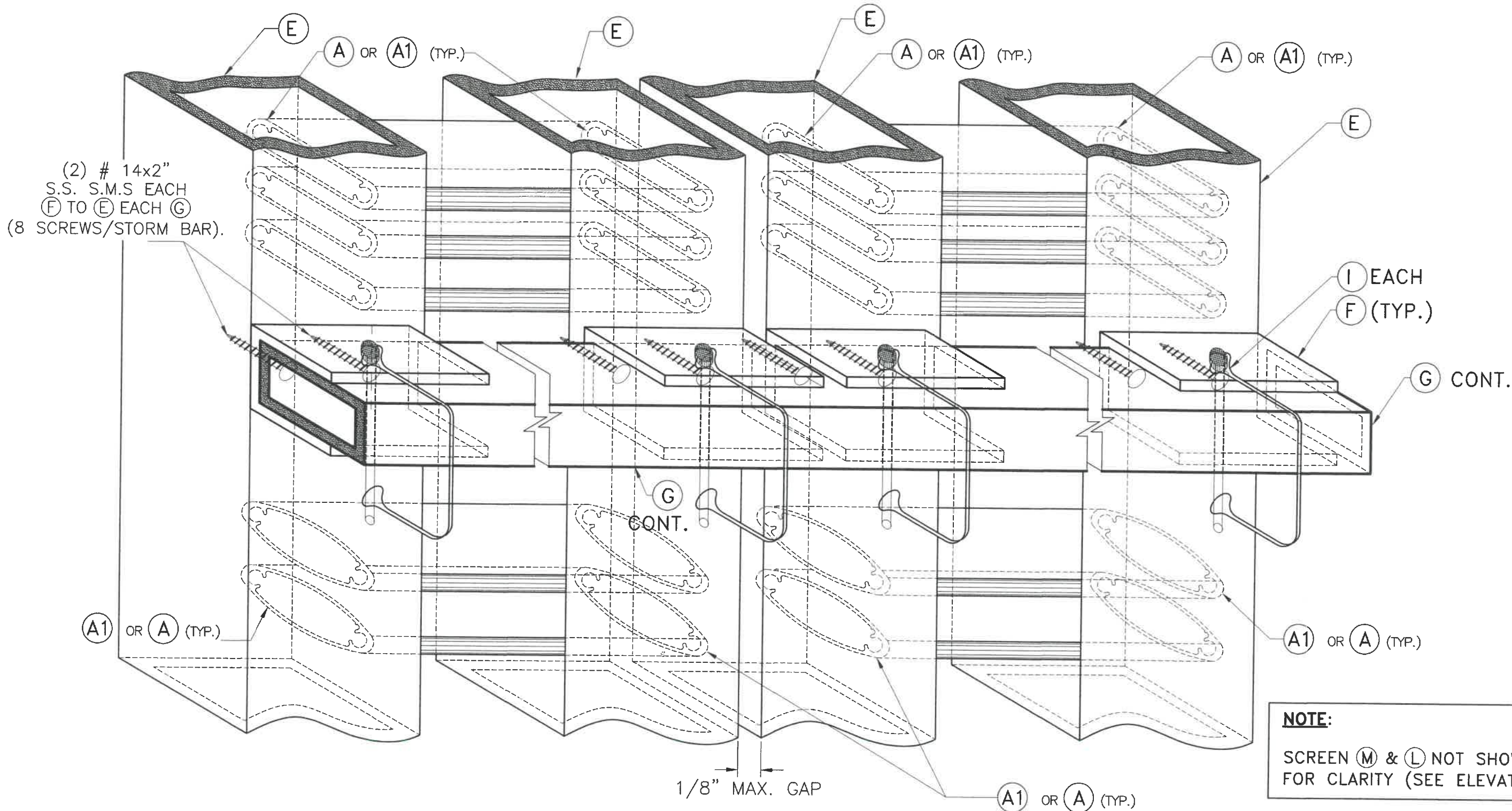
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426B WEST ROADS DRIVE
WEST PALM BEACH, FL 33407
PHONE: (800)432-2204
FAX: (561)209-8380

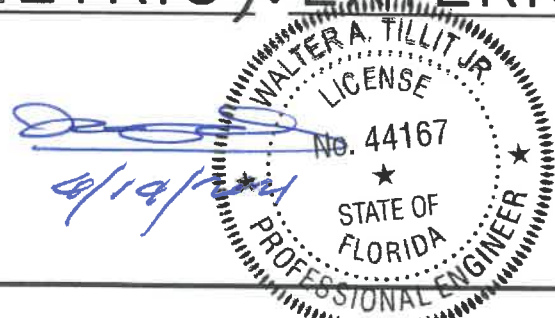
REV. No	DESCRIPTION	DATE	REV. No	DESCRIPTION	DATE
1	OLD 17-218	7/6/2020	3		
2	COMP. (D, E)	3/30/2021	4		

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DETAIL 1 (ISOMETRIC): EXTERIOR VIEW

N.T.S



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 CA-0006719
 WALTER A. TILLIT Jr. P.E.
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FLORIDA BUILDING CODE (Non High Velocity Hurricane Zone)

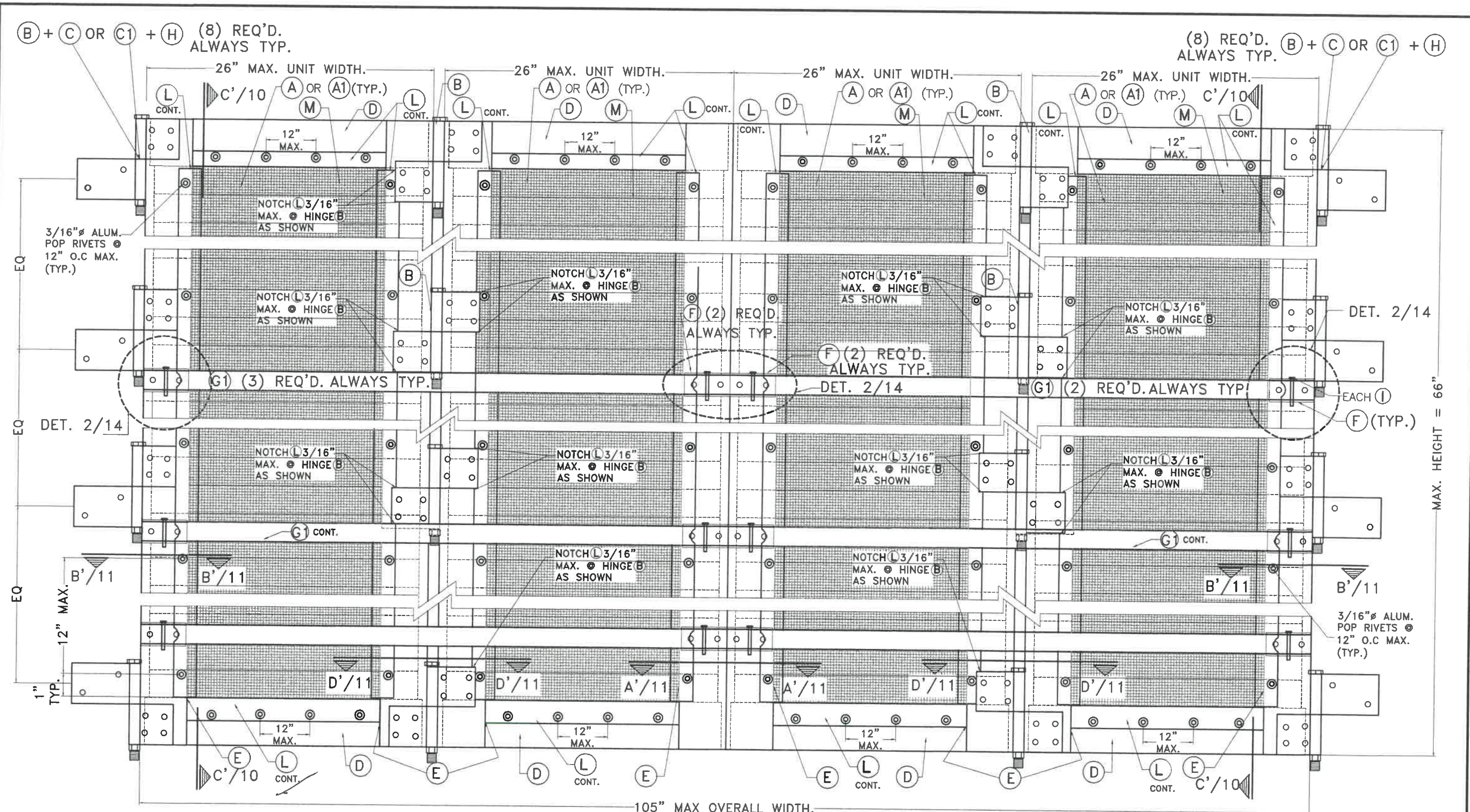
ASSA / BERTHA H.V. COLONIAL SHUTTER (LARGE & SMALL MISSILE)

AMERICAN SHUTTER SYSTEMS ASSOC., INC.

4268 WEST ROADS DRIVE
 WEST PALM BEACH, FL 33407
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 FAX: (561)209-8380

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SHEET 8 OF 14	

REV. No	DESCRIPTION	DATE	REV. No	DESCRIPTION	DATE
1	OLD 17-216	7/6/2020	3		
2	COMP. ©, ®	3/30/2021	4		



**TYPICAL EXTERIOR ELEV. QUADRUPLE PANEL
(HURRICANE POSITION)**

N.T.S.

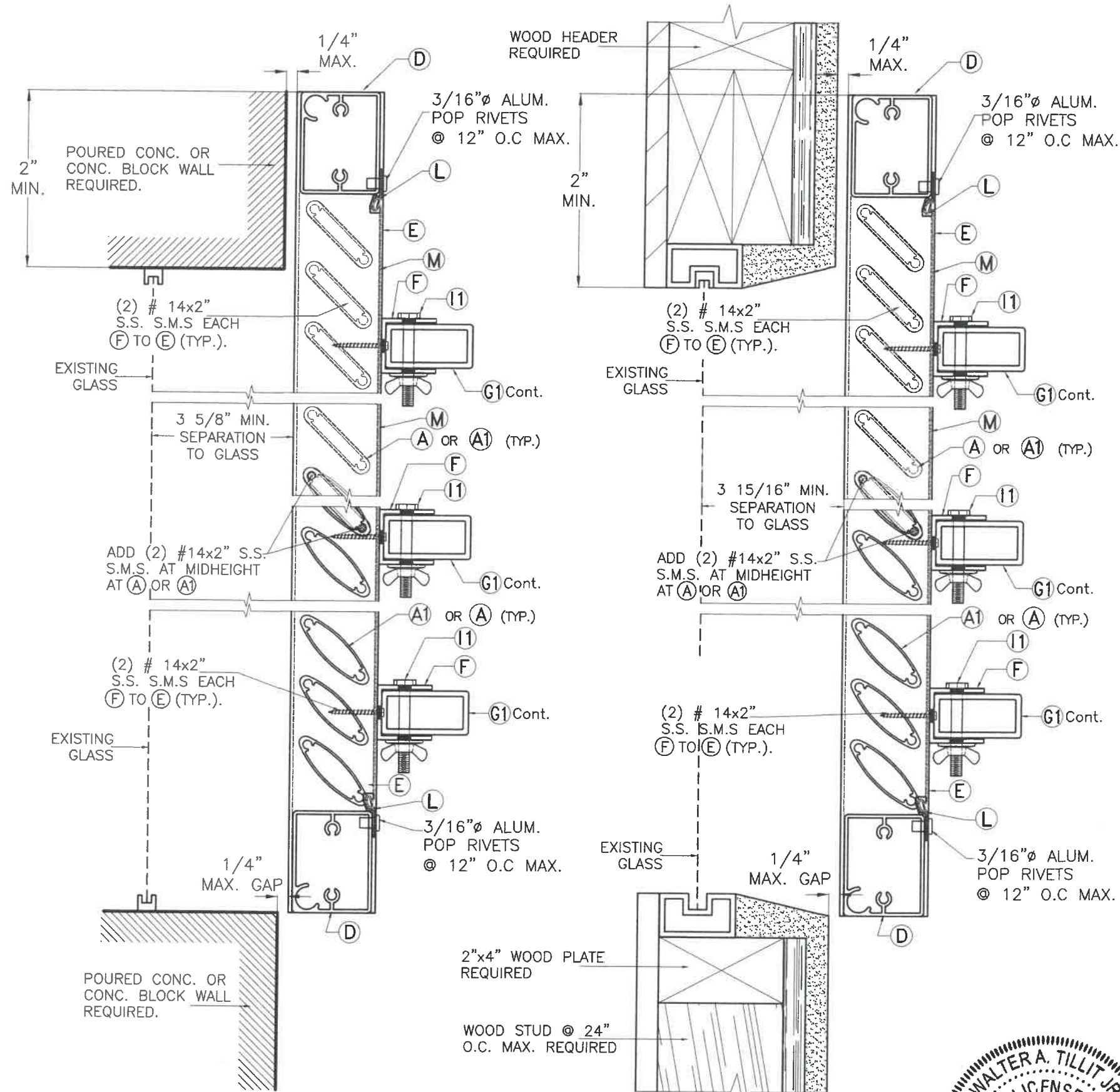
- MAXIMUM A.S.D. DESIGN PRESSURE RATING: +45,-45 PSF FOR CONCRETE OR CONCRETE BLOCK WALL.
- MAXIMUM A.S.D. DESIGN PRESSURE RATING: +40,-45 PSF FOR WOOD.

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STATE OF FLORIDA
PROFESSIONAL ENGINEER

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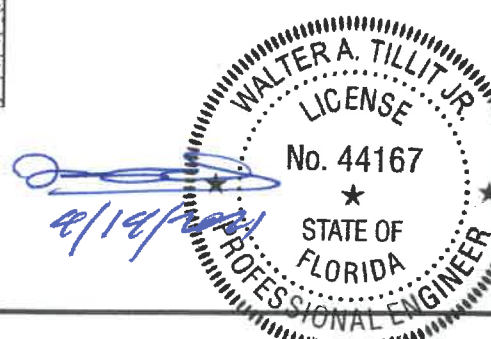
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SECTION C-C
(WALL MOUNT)
HURRICANE POSITION
SCALE: 1/4" = 1"

SECTION C-C
(WALL MOUNT)
HURRICANE POSITION
SCALE: 1/4" = 1"



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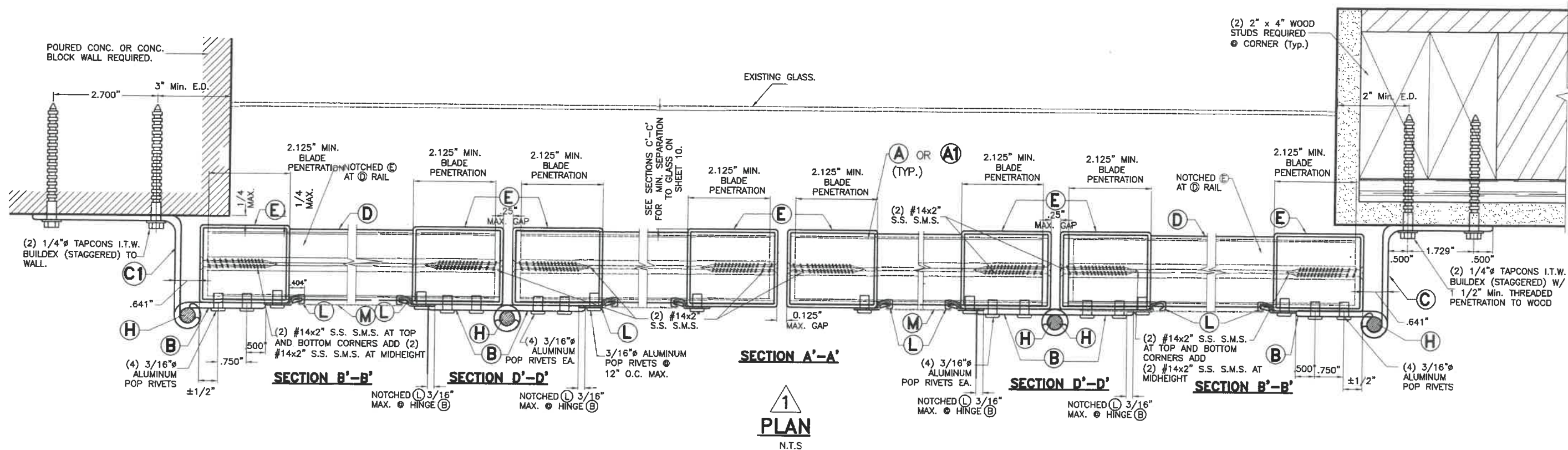
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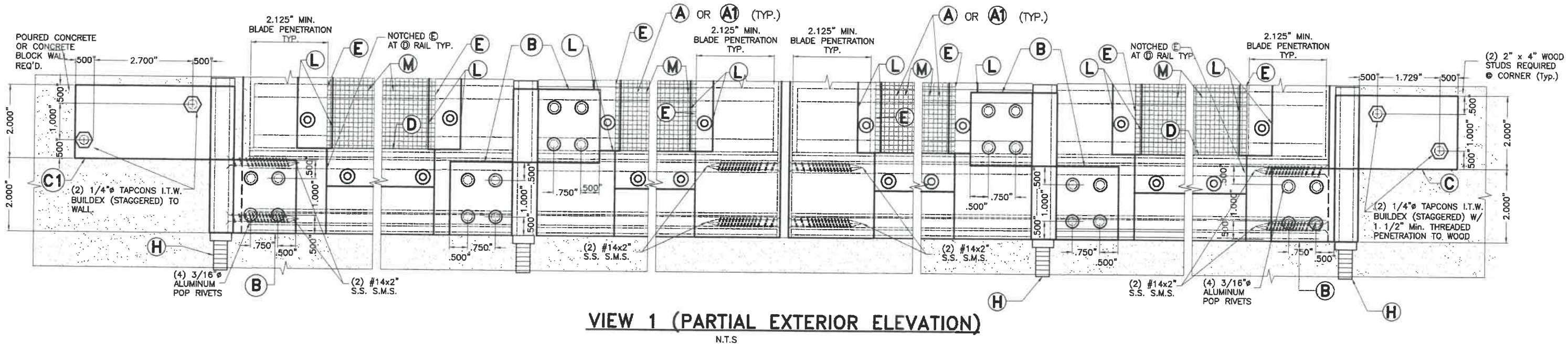
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1	OLD 17-216	7/6/2020	3		
2	COMP. 1, 2	3/30/2021	4		

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1
PLAN
N.T.S.



VIEW 1 (PARTIAL EXTERIOR ELEVATION)
N.T.S.

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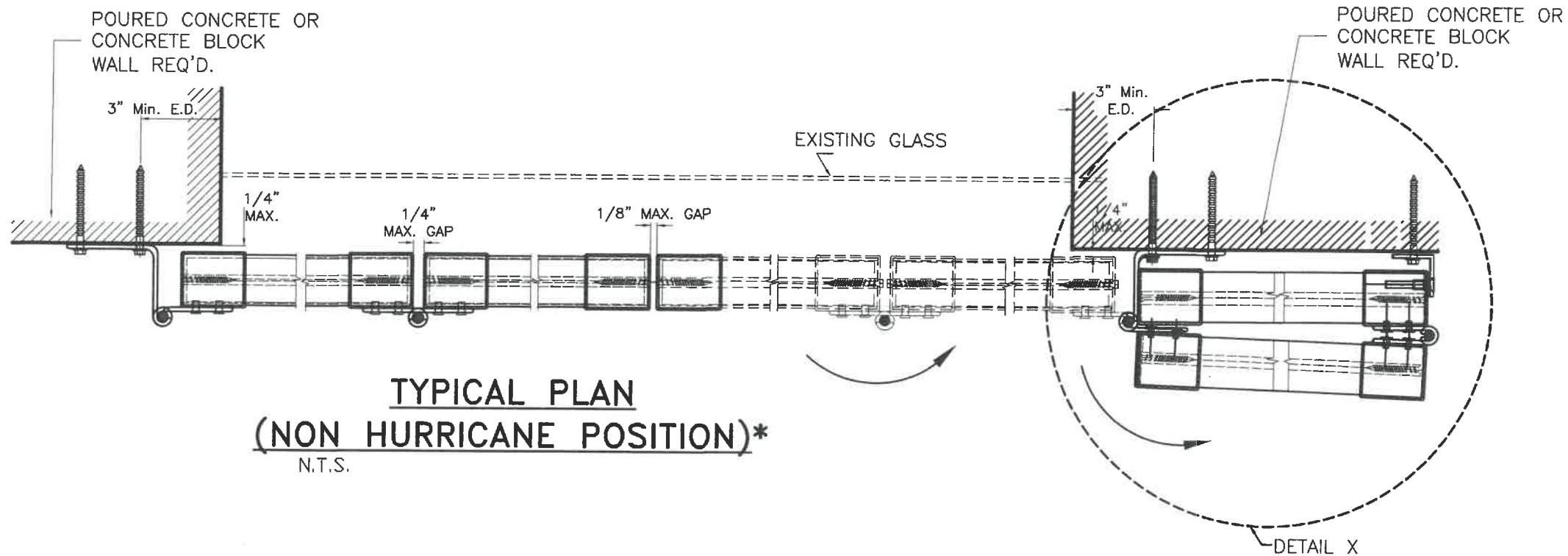
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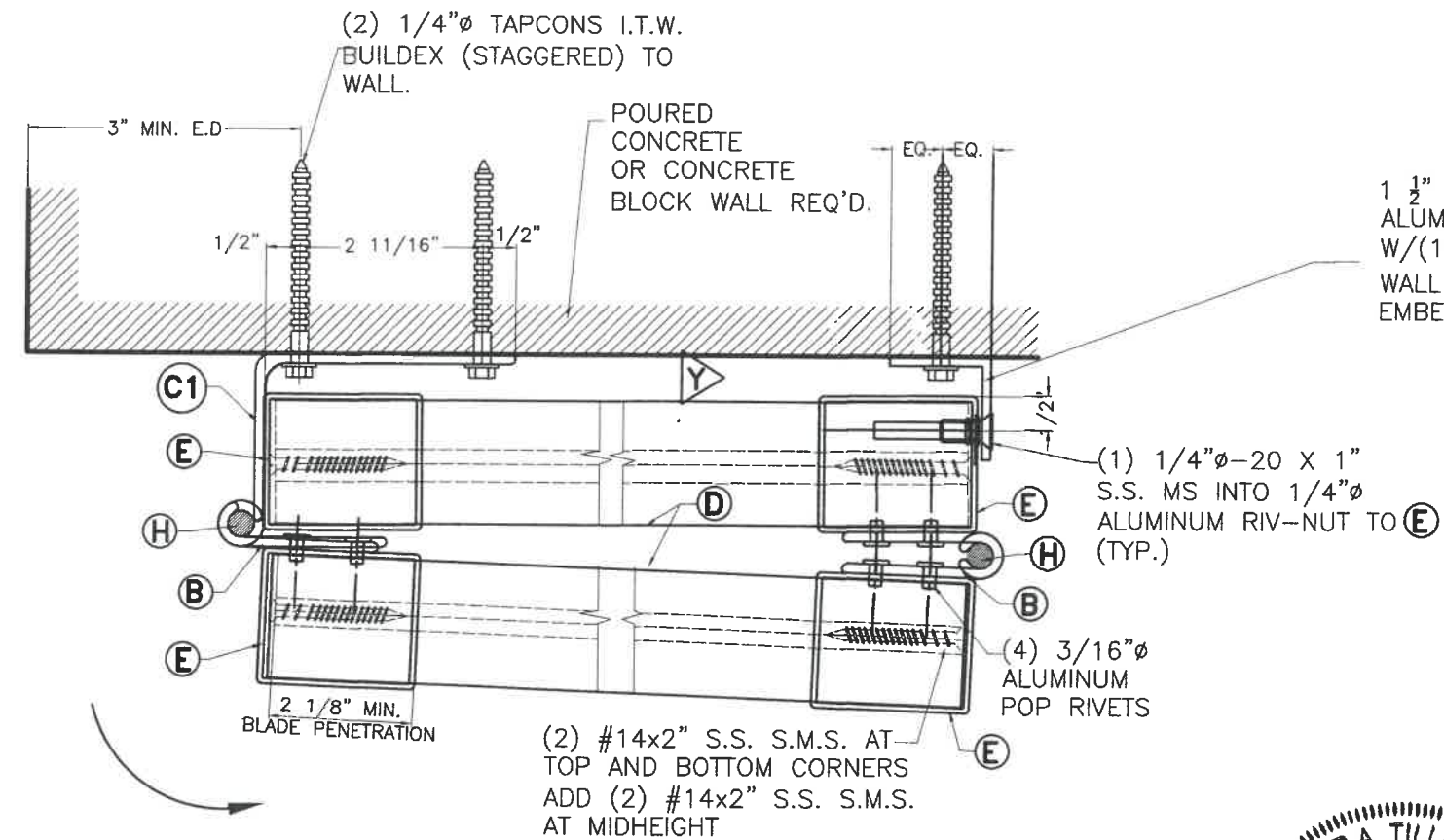
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DRAWING No:
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REV. No	DESCRIPTION	DATE	REV. No	DESCRIPTION	DATE
1	OLD 17-216	7/6/2020	3		
2	COMP. D. & E.	3/30/2021	4		



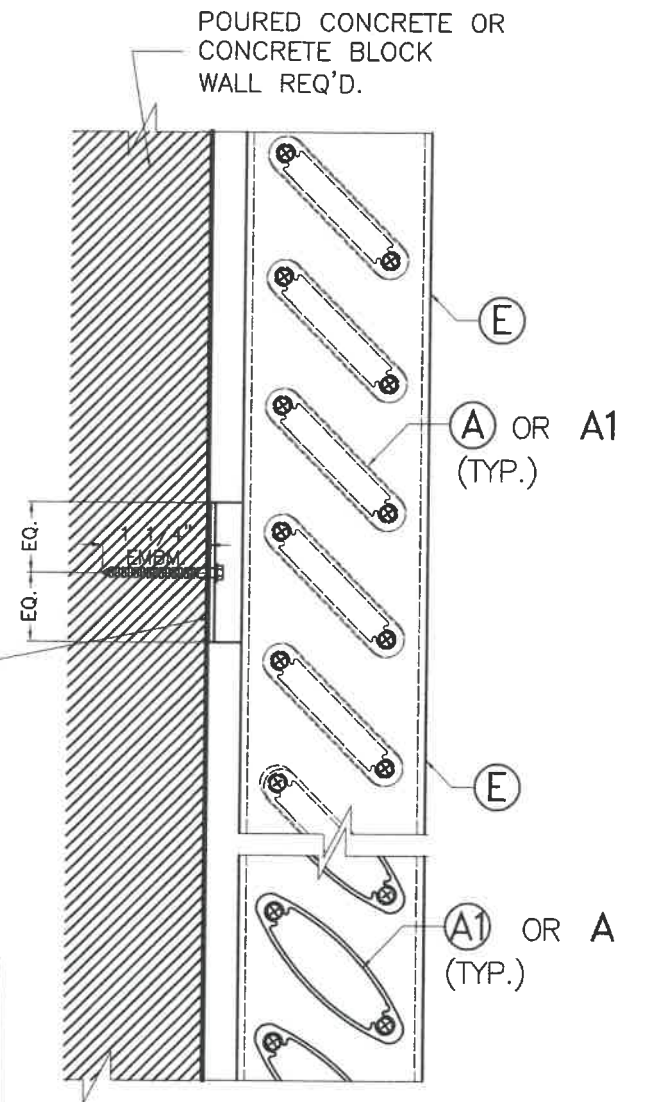
TYPICAL PLAN
(NON HURRICANE POSITION)*
 N.T.S.



DETAIL "X"
(NON HURRICANE POSITION)
 SCALE: 3/8"=1"

1 1/2" X 1 1/2" X 1/8" X 0'-2"
 ALUMINUM L EA. STORM BAR
 W/(1) 1/4"Ø TAPCON TO
 WALL W/ 1 1/4" MIN.
 EMBEDMENT

***NOTE:**
 SCREEN (M) & (L) NOT SHOWN FOR CLARITY
 (SEE ELEVATIONS).



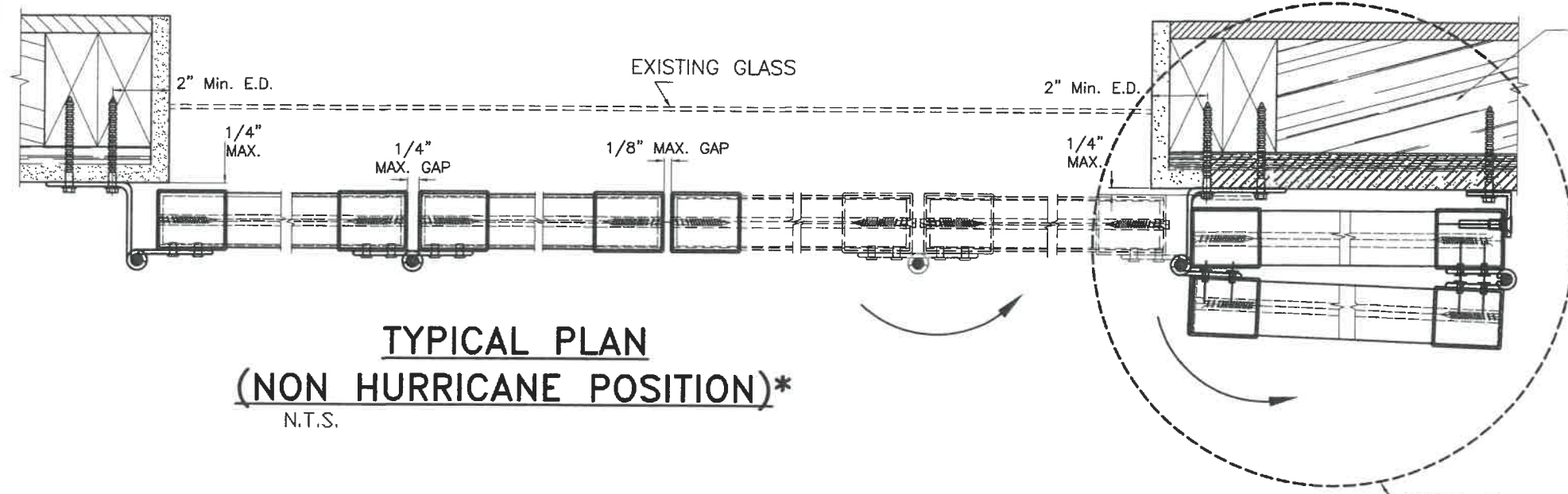
ELEVATION Y-Y
 SCALE: 1/2"=1"

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 4/19/2020

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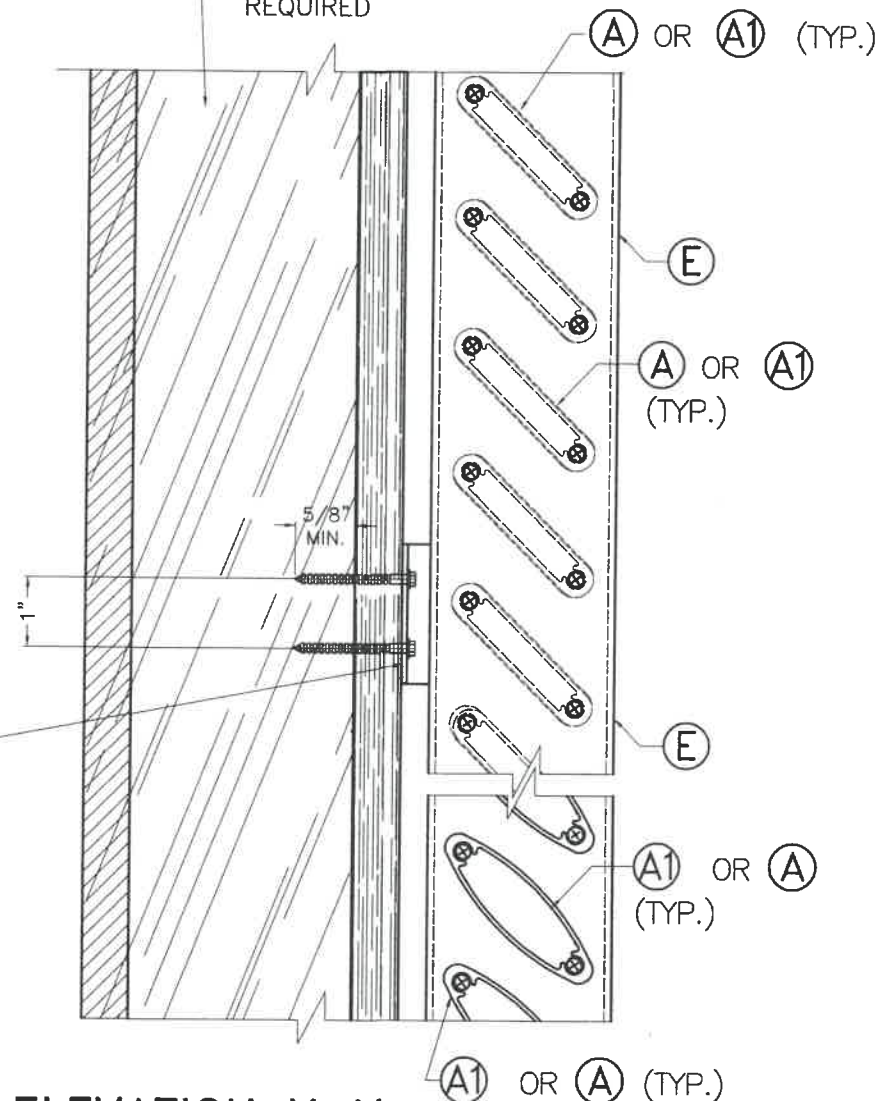
ASSA / BERTHA H.V. COLONIAL SHUTTER (LARGE & SMALL MISSILE)		M.P. DRAWN BY:
AMERICAN SHUTTER SYSTEMS ASSOC., INC.		7/6/2020 DATE:
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REV. No	DESCRIPTION	DATE
1	OLD 17-216	7/6/2020
2	COMP. (D), (E)	3/30/2021



**TYPICAL PLAN
(NON HURRICANE POSITION)***
N.T.S.

WOOD HEADER, WOOD PLATES, WOOD STUDS OR 1/2" (MIN.) PLYWOOD SHEATHING REQUIRED

WOOD HEADER, WOOD PLATES, WOOD STUDS OR 1/2" (MIN.) PLYWOOD SHEATHING REQUIRED



ELEVATION Y-Y
SCALE: 1/2"=1"

***NOTE:**
SCREEN (M) & (L) NOT SHOWN FOR CLARITY (SEE ELEVATIONS).

1 1/2" X 1 1/2" X 1/8" X 0'-2" ALUMINUM L EA. STORM BAR W/(2) 1/4"Ø TAPCON TO WALL @ 1" O.C. W/ 5/8 MIN. PENETRATION BEYOND PLYWOOD.

(1) 1/4"Ø-20 X 1" S.S. MS INTO 1/2" Ø ALUMINUM RIV-NUT TO (E) (TYP.)

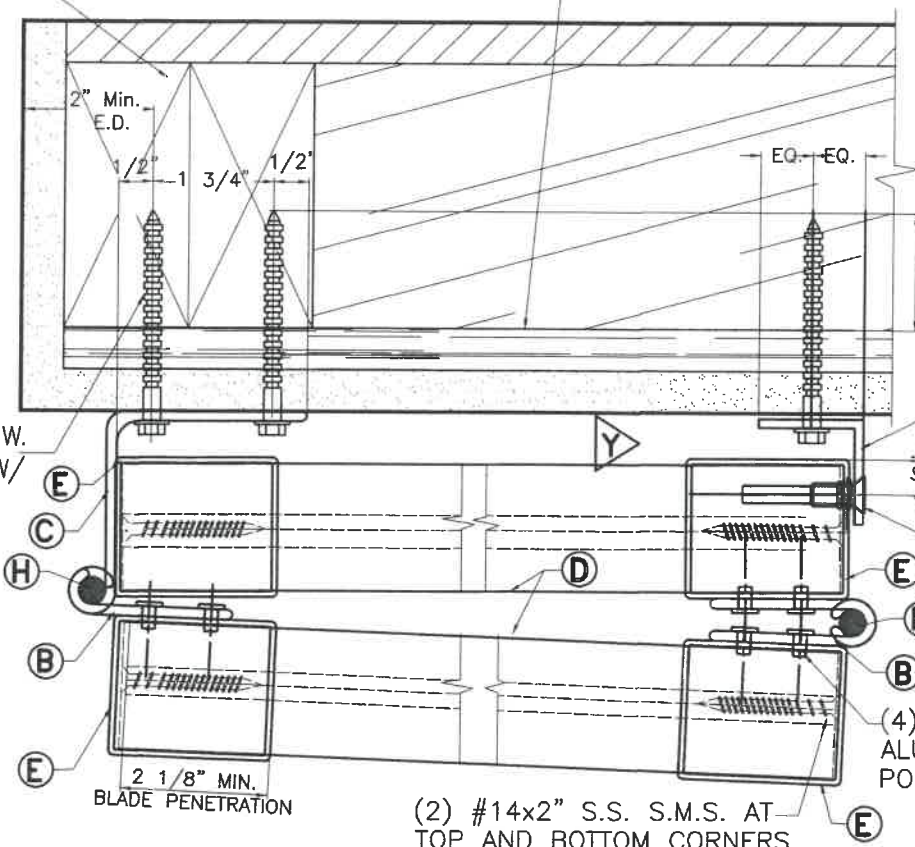
(4) 3/16"Ø ALUMINUM POP RIVETS

(2) #14x2" S.S. S.M.S. AT TOP AND BOTTOM CORNERS ADD (2) #14x2" S.S. S.M.S. AT MIDHEIGHT

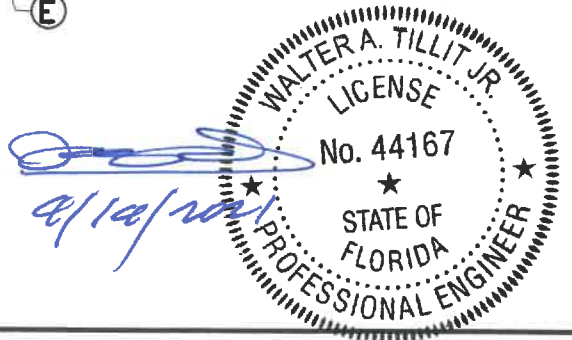
(2) 2" x 4" WOOD STUDS REQUIRED @ CORNER (Typ.)

1/2" MIN. PLYWOOD SHEATHING REQUIRED

(2) 1/4"Ø TAPCONS I.T.W. BUILDEX (STAGGERED) W/ 1 1/2" Min. THREADED PENETRATION TO WOOD



**DETAIL X
(NON HURRICANE POSITION)**
SCALE: 3/8"=1"



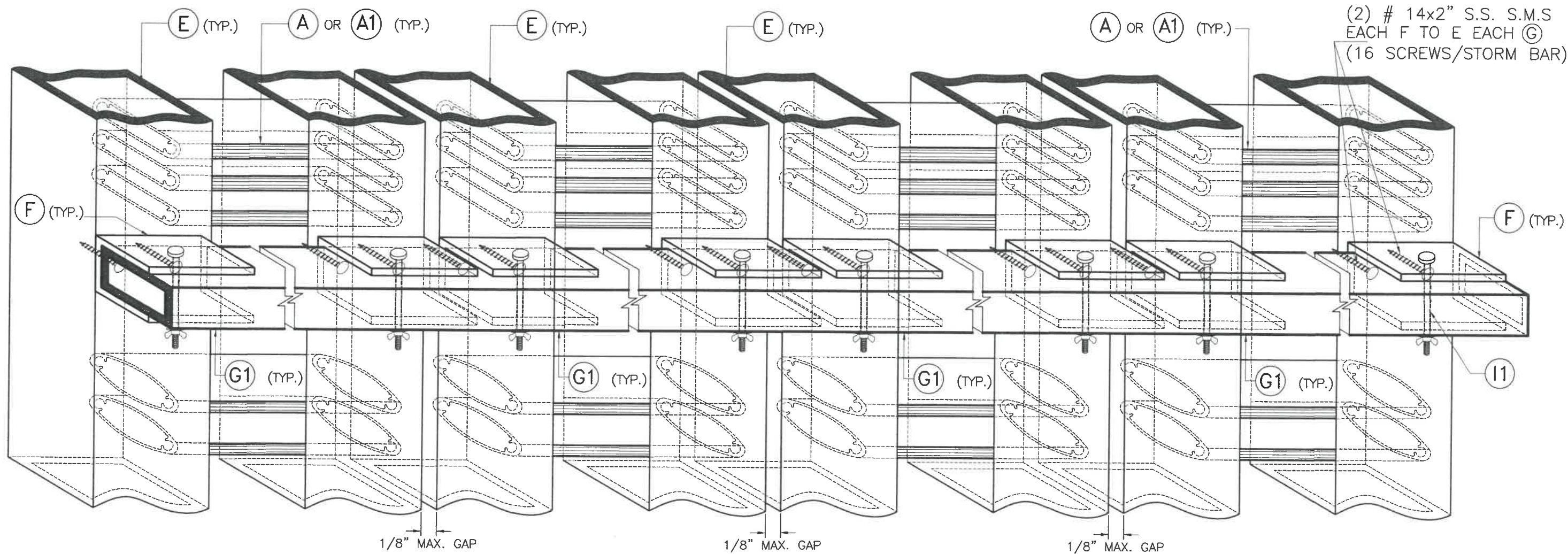
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1	OLD 17-216	7/6/2020	3		
2	COMP. (1) (2)	5/30/2021	4		

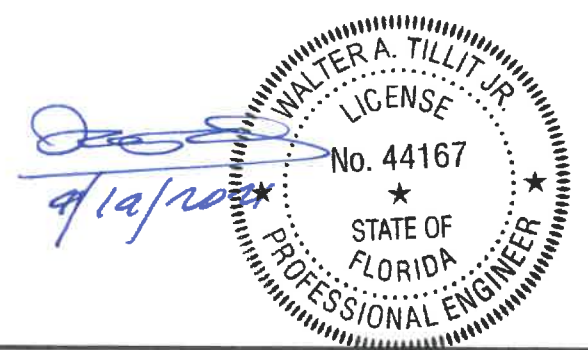
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20-170
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DETAIL 1 (ISOMETRIC): EXTERIOR VIEW

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NOTE:
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1	OLD 17-216	7/6/2020	3		
2	COMP. (M) & (L)	5/30/2021	4		

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20-170 DRAWING No:
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