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Product Approval
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OFFICE OF THE SECRETARY

FL #	FL8523-R6								
Application Type	Revision								
Code Version	2017								
Application Status	Approved								
Comments									
Archived	<input type="checkbox"/>								
Product Manufacturer	American Shutter Systems Association, Inc.								
Address/Phone/Email	4268 Westroads Drive West Palm Beach, FL 33407 (561) 209-8263 bfeeley@easternmetal.com								
Authorized Signature	Bill Feeley lrodriguez@easternmetal.com								
Technical Representative									
Address/Phone/Email									
Quality Assurance Representative									
Address/Phone/Email									
Category	Shutters								
Subcategory	Bahama								
Compliance Method	Evaluation Report from a Florida Registered Architect or a Licensed Florida Professional Engineer <input type="checkbox"/> Evaluation Report - Hardcopy Received								
Florida Engineer or Architect Name who developed the Evaluation Report	Walter A. Tillit Jr.								
Florida License	PE-44167								
Quality Assurance Entity	National Accreditation and Management Institute								
Quality Assurance Contract Expiration Date	12/31/2020								
Validated By	John Henry Kampmann Jr. <input checked="" type="checkbox"/> Validation Checklist - Hardcopy Received								
Certificate of Independence	FL8523_R6_COI_AMERICAN_SHUTTER_SYSTEMS_ASSOC.,_INC._DRAWING_17-109_CERTIFICATE_OF_INDEPENDENCE.PDF								
Referenced Standard and Year (of Standard)	<table border="0"> <thead> <tr> <th>Standard</th> <th>Year</th> </tr> </thead> <tbody> <tr> <td>ASTM E 330</td> <td>2002</td> </tr> <tr> <td>ASTM E-1886-05</td> <td>2005</td> </tr> <tr> <td>ASTM E-1996-05</td> <td>2005</td> </tr> </tbody> </table>	Standard	Year	ASTM E 330	2002	ASTM E-1886-05	2005	ASTM E-1996-05	2005
Standard	Year								
ASTM E 330	2002								
ASTM E-1886-05	2005								
ASTM E-1996-05	2005								
Equivalence of Product Standards Certified By									
Sections from the Code									

GENERAL NOTES:

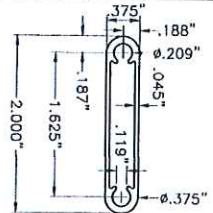
1. BERTHA H.V. BAHAMA SHUTTER SHOWN ON THIS PRODUCT EVALUATION DOCUMENT (P.E.D.) HAS BEEN VERIFIED FOR COMPLIANCE IN ACCORDANCE WITH THE 2017 (6th EDITION) OF THE FLORIDA BUILDING CODE. THIS BAHAMA SHUTTER SHALL NOT BE INSTALLED AT HIGH VELOCITY HURRICANE ZONES. (MIAMI DADE/BROWARD COUNTY)
- DESIGN WIND 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 IN A DIRECTIONALITY FACTOR $K_d=0.85$, USING ASCE 7-10 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 7-10 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 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. BAHAMA 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 # 0510.01-06 AND 0621.01-07 AS PER ASTM E 1888-05, ASTM E 1996-05 AND ASTM E-330 STANDARDS, QUALIFIED FOR WIND ZONE 3, MISSILE TYPE D, BASIC PROTECTION ONLY.
2. SEE MAXIMUM A.S.D. DESIGN PRESSURE RATINGS & MAXIMUM SHUTTER DIMENSIONS ON SCHEDULE ON SCHEDULE ON SHEET '7'.
3. ALL ALUMINUM EXTRUSIONS SHALL BE ALUMINUM ASSOCIATION 6063-T6 ALLOY AND TEMPER, WITH $F_y = 25.0$ KSI MINIMUM (UNLESS OTHERWISE NOTED).
4. ALL SCREWS TO BE STAINLESS STEEL 304 OR 316 AISI SERIES WITH 50 KSI YIELD POINT AND 90 KSI TENSILE STRENGTH AND 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 UNITS: SOUTHERN PINE No.2, G=0.55.
 - 1/4" ϕ TAPCON ANCHORS AS MANUFACTURED BY I.T.W. BUILDEX, INC.
 - 1/4" ϕ x 1 7/16" PANELMATE INSERTS AS MANUFACTURED BY ELCO CONSTRUCTION PRODUCTS. NOTES:
 - A.1) MINIMUM THREADED PENETRATION OF TAPCON ANCHORS INTO WOOD SHALL BE 1 1/2".
 - A.2) MINIMUM THREADED PENETRATION OF PANELMATE INSERT INTO WOOD SHALL BE 1 5/8".
 - A.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 A.1 AND A.2).
 - (B) TO EXISTING POURED MIN. $f'c=3192$ PSI CONCRETE OR CONCRETE ASTM C-90 BLOCK UNITS:
 - 1/4" ϕ TAPCON ANCHORS AS MANUFACTURED BY I.T.W. BUILDEX, INC.
 - 1/4" ϕ x 3/4" ALL POINTS SOLID-SET ANCHORS AS DISTRIBUTED BY ALL POINTS SCREW, BOLT & SPECIALTY COMPANY.
 - 1/4" ϕ x 1 7/16" PANELMATE INSERTS AS MANUFACTURED BY ELCO FASTENING SYSTEMS, LLC.
 - (C) MINIMUM EMBEDMENT OF TAPCON ANCHORS INTO POURED CONCRETE SHALL BE 1 3/4" OR CONCRETE HOLLOW BLOCK SHALL BE 1 1/4".
 - (D) MINIMUM EMBEDMENT OF 1/4" ϕ x 3/4" ALL POINTS SOLID-SET ANCHORS INTO POURED CONCRETE SHALL BE 7/8" OR INTO CONCRETE HOLLOW BLOCK SHALL BE ENTIRELY EMBEDDED.
 - (E) NO EMBEDMENT INTO STUCCO SHALL BE PERMITTED. 1/4" ϕ -20 S.S. MACHINE SCREW USED SHALL BE 1 1/2" LONG MINIMUM SHOULD STUCCO EXIST, AND 1" MINIMUM FOR WALLS WITH NO STUCCO



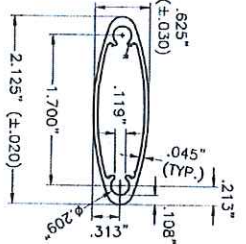
TILECO INC.
 TILE TESTING & ENGINEERING COMPANY
 4225 N.W. 25th St., Suite 200, West Palm Beach, FL 33411
 Phone: (800) 433-2204 Fax: (561) 709-8386
 e-mail: info@tileco.com
 WALTER A. TILLIT, P.E.
 LICENSE NO. 194187

THIS DRAWING SHALL ONLY BE USED TO OBTAIN PERMITS IN THE STATE OF FLORIDA	
FLORIDA BUILDING CODE (Non High Velocity Hurricane Zone)	ASSA / BERTHA H.V. BAHAMA SHUTTER
AMERICAN SHUTTER SYSTEMS ASSOC., INC.	4225 WEST PALM BEACH, FLORIDA 33407
DATE	07/28/17
DRAWING NO	17-109
SHEET 1 OF 7	

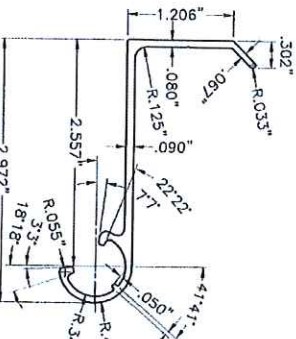
10. BERTHA H.V. BAHAMA SHUTTER'S INSTALLATION SHALL COMPLY WITH SPECS INDICATED IN THIS DRAWING PLUS ANY BUILDING AND ZONING REGULATIONS PROVIDED BY THE JURISDICTION WHERE PERMIT IS APPLIED TO.
 11. SHUTTER'S MANUFACTURER LABEL SHALL BE LOCATED ON A READILY VISIBLE LOCATION AT EXPOSED SURFACE OF THE BAHAMA FRAME (A) OR (B) 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.
 12. (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.
- B.3) MINIMUM EMBEDMENT OF PANELMATE INSERTS INTO CONCRETE OR CONCRETE BLOCK SHALL BE 1 5/8" FOR CONCRETE AND 1 1/4" FOR BLOCK, RESPECTIVELY. 1/4" ϕ -20 S.S. TRUSS HEAD MACHINE SCREW USED SHALL BE 1 1/4" LONG 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 B.1, B.2 AND B.3).
 - (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 SILL BRACKETS 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/CALK ALL SHUTTER COMPONENT EDGES WHICH REMAIN IN CONTINUOUS CONTACT WITH THE BUILDING TO PREVENT WIND/RAIN INTRUSION.



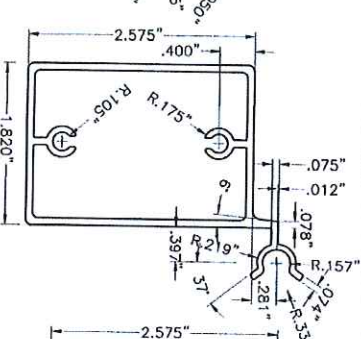
A LOUVER BLADE
6063-T6 Alum. ALLOY



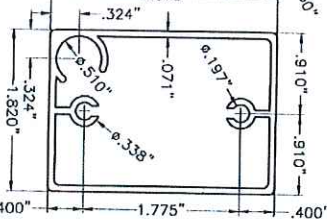
A1 HIGH VISIBILITY LOUVER BLADE
6063-T6 Alum. ALLOY



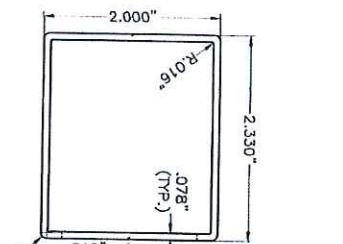
B 1/4" B.O. FEMALE HINGE



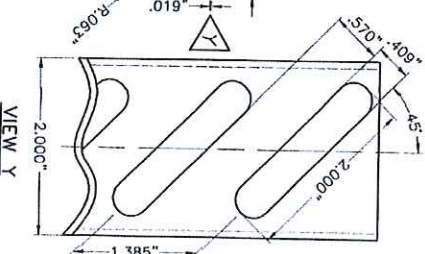
C TOP RAIL/MALE HINGE



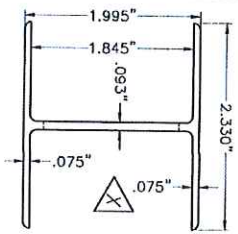
D BOTTOM RAIL



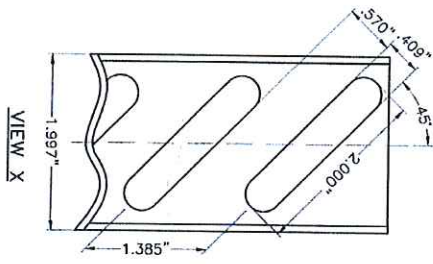
E JAMB



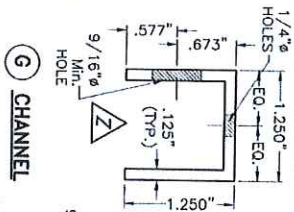
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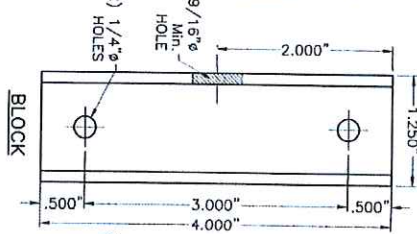
F PRE-PUNCHED CENTER MULLION



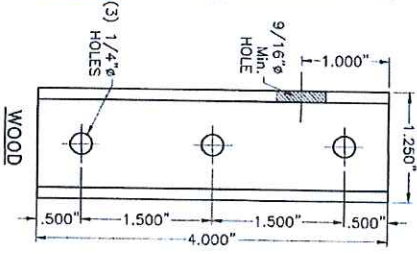
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G CHANNEL

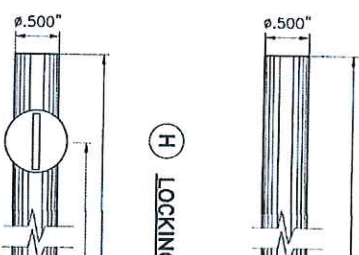


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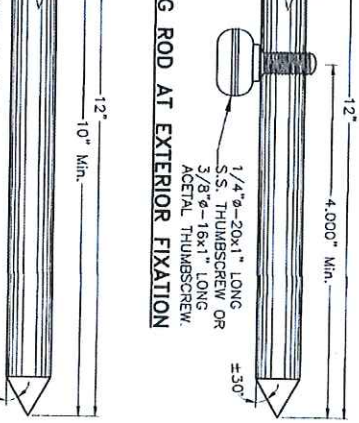


WOOD

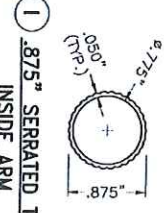
VIEWS Z



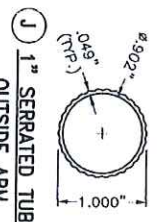
H LOCKING ROD AT EXTERIOR FIXATION



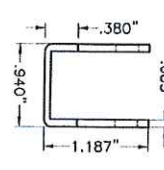
H LOCKING ROD AT INTERIOR FIXATION



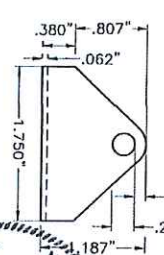
I .875" SERRATED TUBE INSIDE ARM



J 1" SERRATED TUBE OUTSIDE ARM



K CAMEL BACK HINGE



K CAMEL BACK HINGE



FLORIDA BUILDING CODE (Non High Velocity Hurricane Zone)

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ASSA / BERTHA H.V. BAHAMA SHUTTER

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TITLICO TESTING & ENGINEERING COMPANY
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WALTER A. TULLITT, JR., P. E.
FLORIDA LIC. # 24167

REV. NO.	DESCRIPTION	DATE	REV. NO.	DESCRIPTION	DATE
1	GD 15-088	07/28/17	1		
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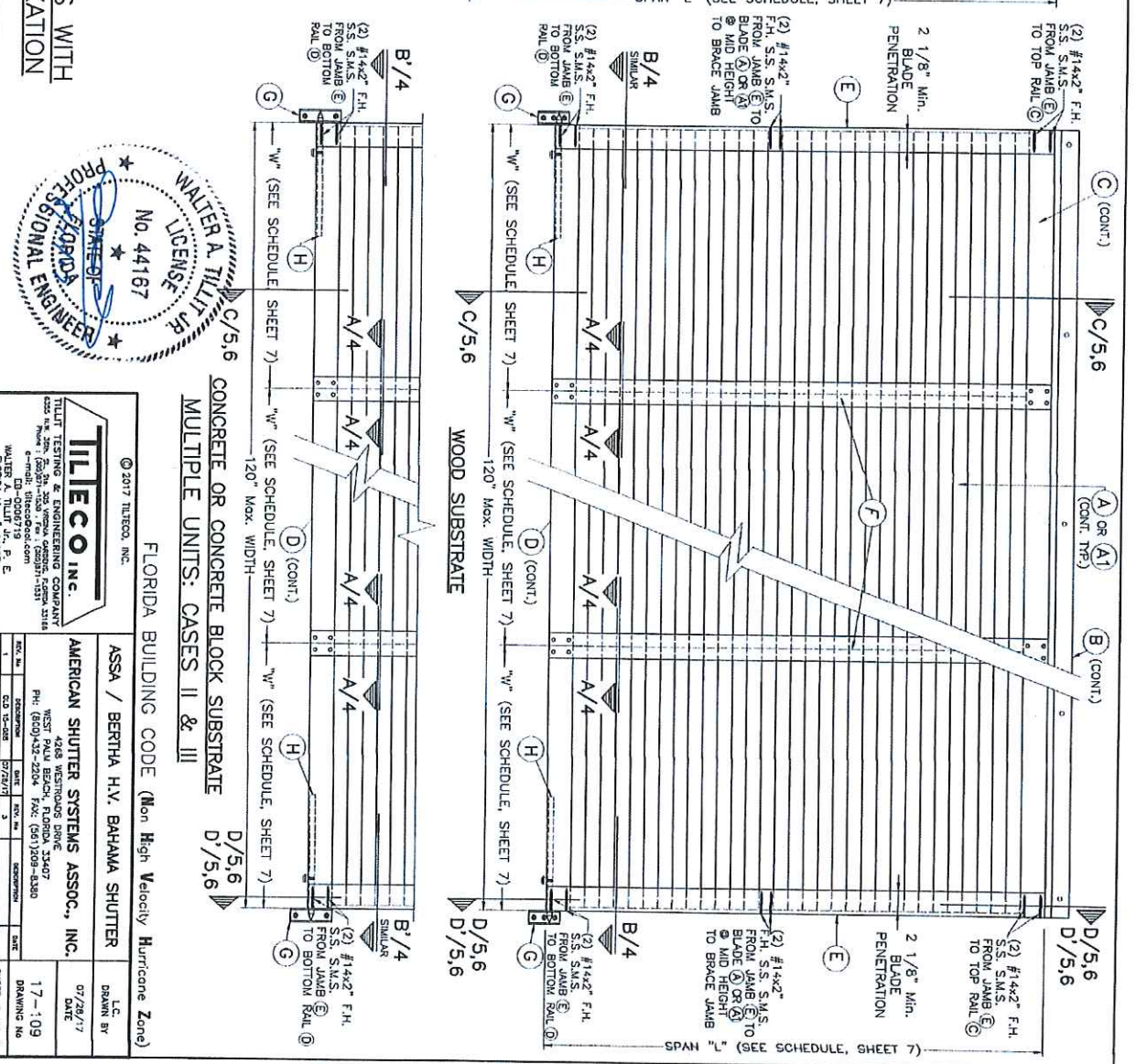
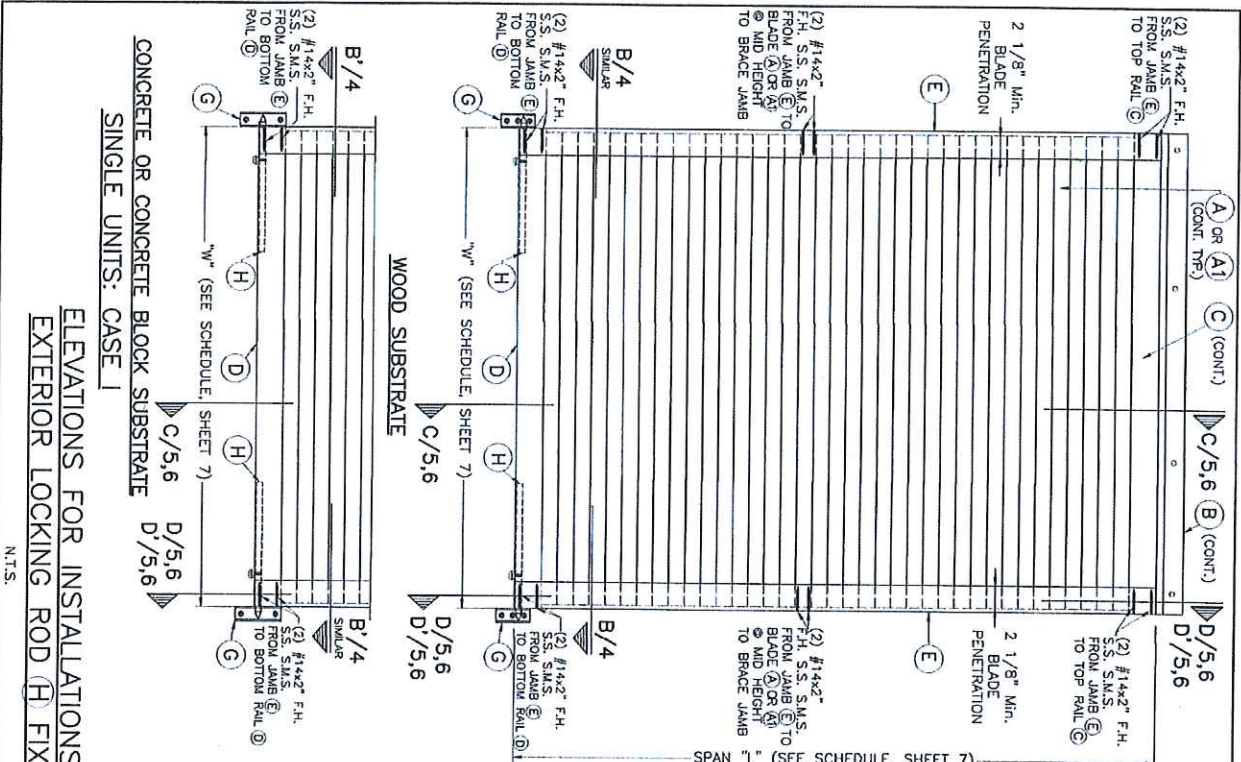
AMERICAN SHUTTER SYSTEMS ASSOC., INC.
WEST PALM BEACH, FLORIDA 33407
PH: (800) 432-2204 FAX: (561) 209-8386

17-109
DRAWING NO

SHEET 2 OF 7

COMPONENTS

SCALE: 3/4" = 1"



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TILTECO INC.

TILT TESTING & ENGINEERING COMPANY
 4268 WESTWOODS DRIVE
 WEST PALM BEACH, FLORIDA 33407
 PH: (800)432-2204 FAX: (561)209-8380
 WALTER A. TILLIT JR., P.E.
 LICENSE NO. 44187
 FLORIDA DEC. 8, 2017

FLORIDA BUILDING CODE (Mon High Velocity Hurricane Zone)

ASSA / BERTHA H.V. BAHAMA SHUTTER

AMERICAN SHUTTER SYSTEMS ASSOC., INC.

4268 WESTWOODS DRIVE
 WEST PALM BEACH, FLORIDA 33407
 PH: (800)432-2204 FAX: (561)209-8380

17-109
 DRAWING NO.

DATE

07/28/17

DESIGNED BY

7/28/17

CHECKED BY

7/28/17

APPROVED BY

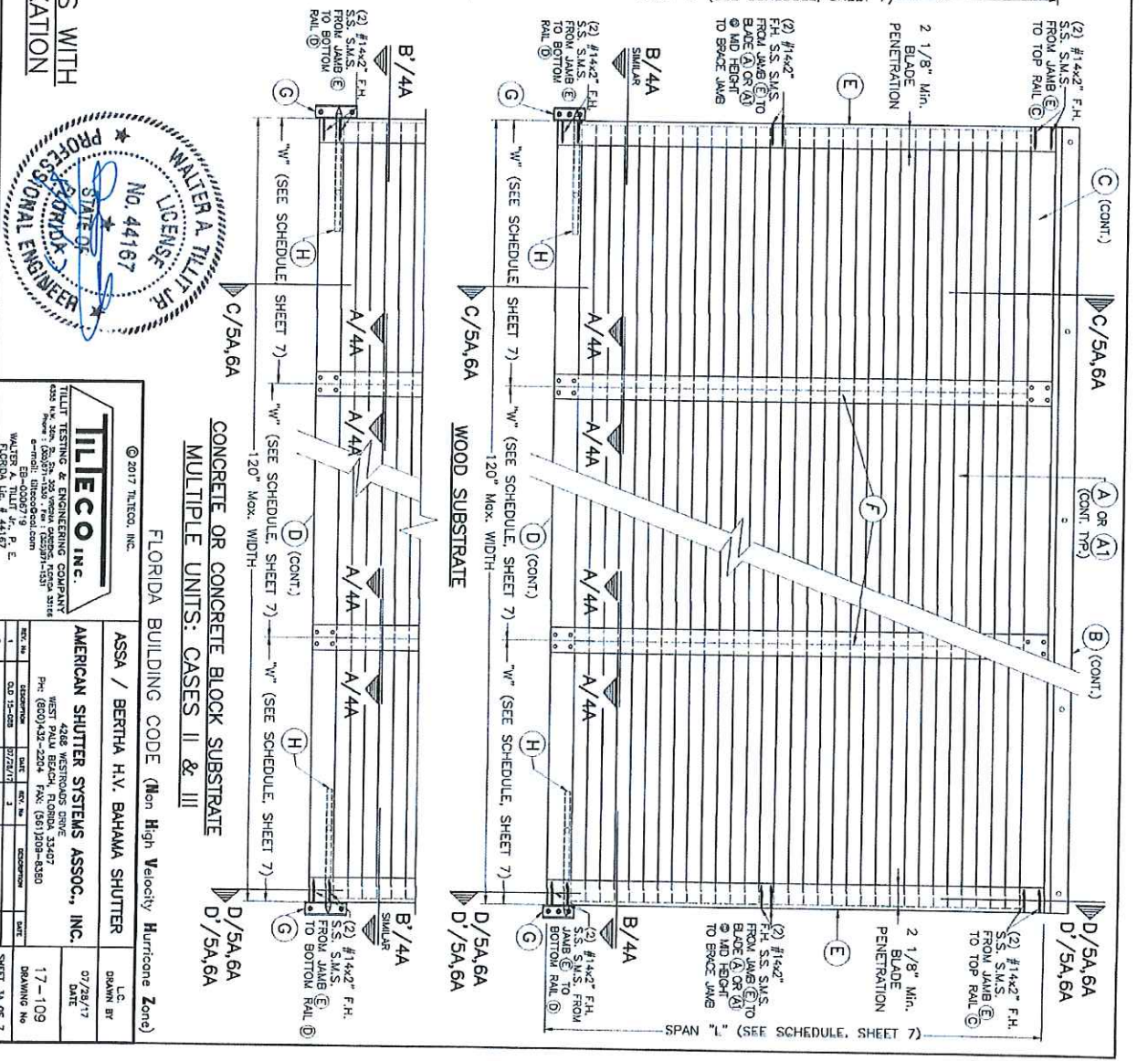
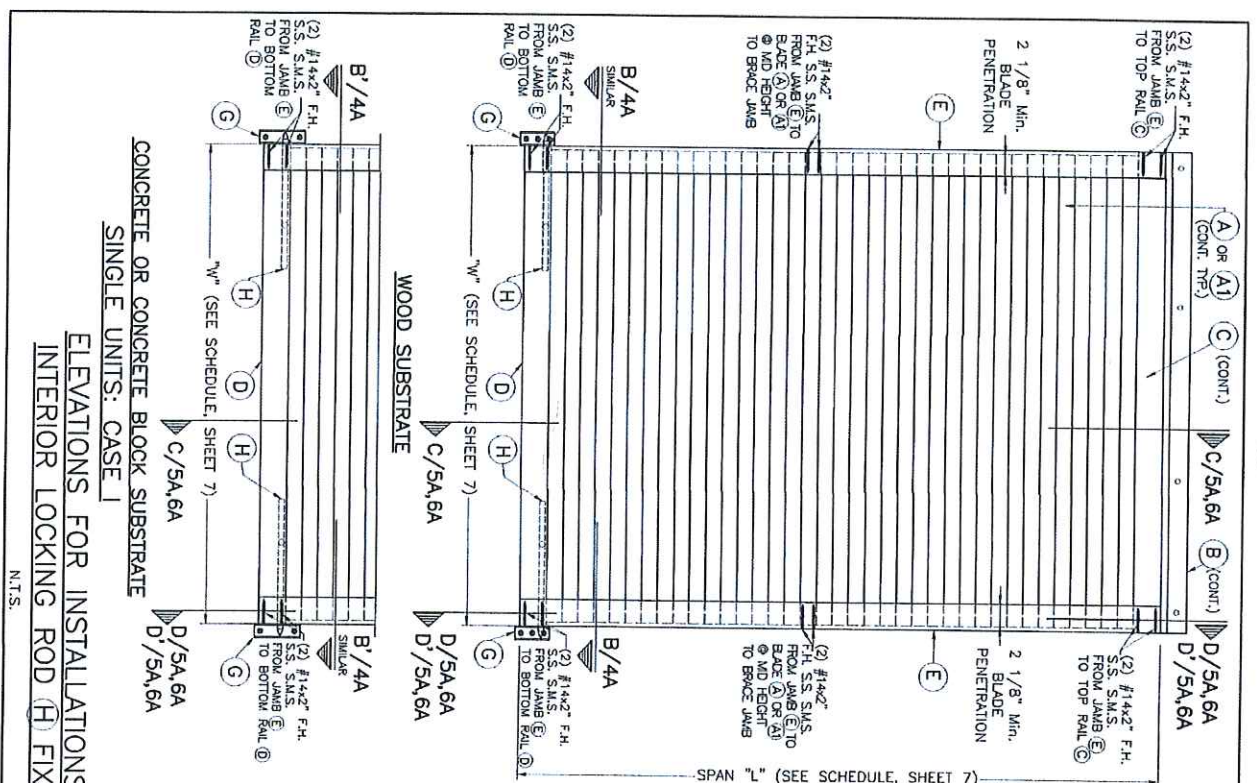
7/28/17

SHEET 3 OF 7

CONCRETE OR CONCRETE BLOCK SUBSTRATE
 SINGLE UNITS: CASE I

ELEVATIONS FOR INSTALLATIONS WITH
 EXTERIOR LOCKING ROD (H) FIXATION

N.T.S.



CONCRETE OR CONCRETE BLOCK SUBSTRATE
 SINGLE UNITS: CASE I
 ELEVATIONS FOR INSTALLATIONS WITH
 INTERIOR LOCKING ROD (H) FIXATION



TILECO INC.
 TILT TESTING & ENGINEERING CONSULTANTS
 6000 N.W. 26th St., 2nd Floor, West Palm Beach, Florida 33407
 Phone: (800) 432-7474 Fax: (561) 208-1531
 Website: www.tileco.com
 Walter A. Tiltit, Jr., P.E.
 Florida Lic. # 44167

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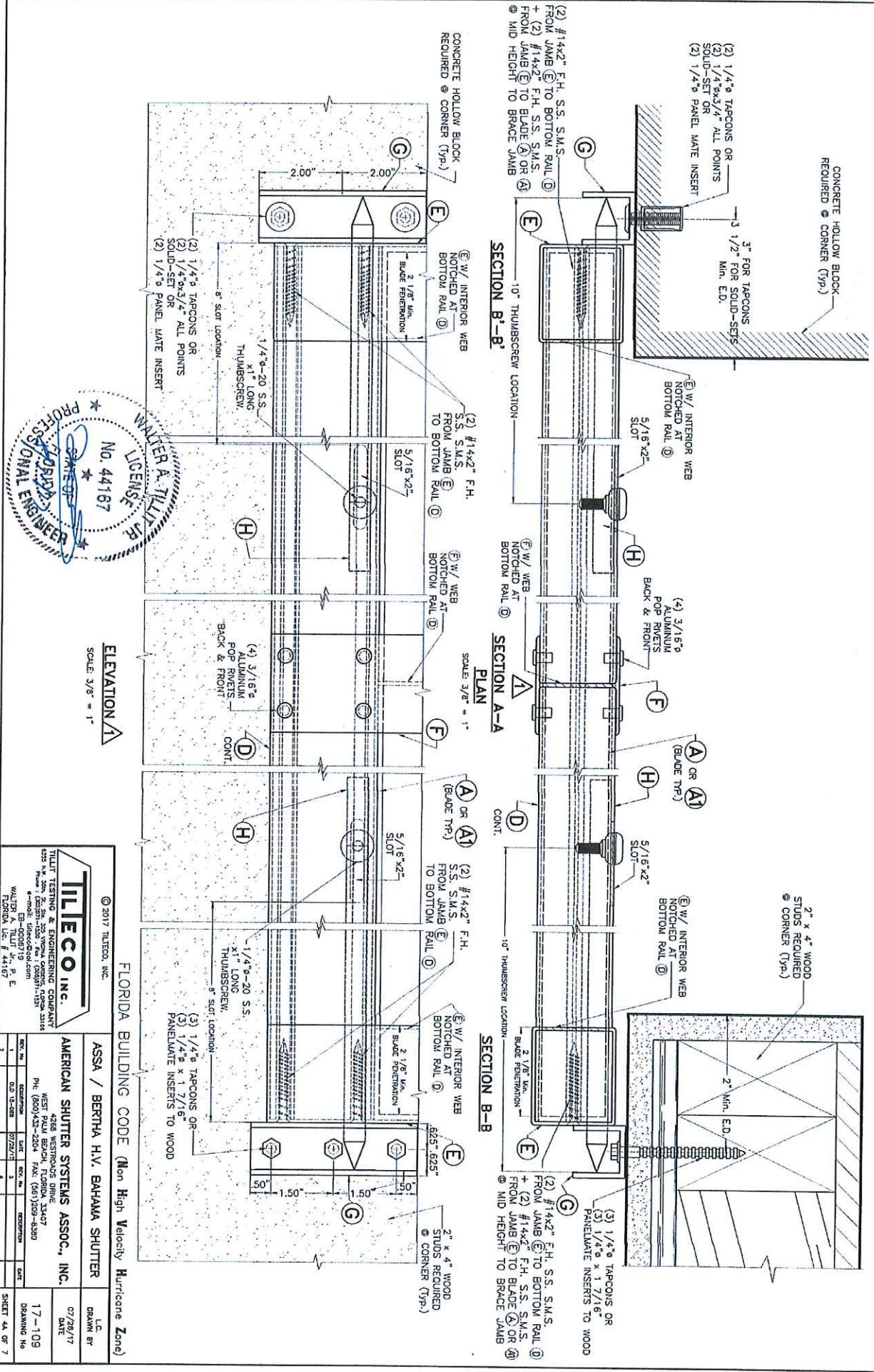
FLORIDA BUILDING CODE (Non High Velocity Hurricane Zone)

ASSA / BERTHA H.V. BAHAMA SHUTTER

AMERICAN SHUTTER SYSTEMS ASSOC., INC.

17 - 109
 DRAWING No

REV. NO.	DESCRIPTION	DATE	REV. NO.	DESCRIPTION	DATE
1	ISSUED FOR PERMIT	07/28/17	1	ISSUED FOR PERMIT	07/28/17
2			2		



(2) #14x2" F.H. S.S. S.M.S. FROM JAMB (E) TO BOTTOM RAIL (D) + (2) #14x2" F.H. S.S. S.M.S. FROM JAMB (E) TO BLADE (A) OR (A1) MID HEIGHT TO BRACE JAMB
 (2) 1/4" x 3/4" ALL POINTS SOLID-SET OR (2) 1/4" PANEL MATE INSERT
 3" FOR TAPCONS 3 1/2" FOR SOLID-SETS MIN. E.D.
 CONCRETE HOLLOW BLOCK REQUIRED @ CORNER (TYP.)
 (E) W/ INTERIOR WEB NOTCHED AT BOTTOM RAIL (D)
 5/16" x 2" SLOT
 (E) W/ INTERIOR WEB NOTCHED AT BOTTOM RAIL (D)
 (4) 3/16" ALUMINUM POP RIVETS BACK & FRONT
 (A) OR (A1) (BLADE TYP.)
 (E) W/ INTERIOR WEB NOTCHED AT BOTTOM RAIL (D)
 2" x 4" WOOD STUDS REQUIRED @ CORNER (TYP.)
 2" MIN. E.D.
 (2) #14x2" F.H. S.S. S.M.S. FROM JAMB (E) TO BOTTOM RAIL (D) + (2) #14x2" F.H. S.S. S.M.S. FROM JAMB (E) TO BLADE (A) OR (A1) FROM MID HEIGHT TO BRACE JAMB
 (3) 1/4" x 3/4" TAPCONS OR (3) 1/4" x 1 7/16" PANELMATE INSERTS TO WOOD
 (E) W/ INTERIOR WEB NOTCHED AT BOTTOM RAIL (D)
 2 1/8" MIN. BLADE PENETRATION
 (E) W/ INTERIOR WEB NOTCHED AT BOTTOM RAIL (D)
 10" THUMBSCREW LOCATION
 (E) W/ INTERIOR WEB NOTCHED AT BOTTOM RAIL (D)
 2" x 4" WOOD STUDS REQUIRED @ CORNER (TYP.)
 (E) W/ INTERIOR WEB NOTCHED AT BOTTOM RAIL (D)
 625" 625"
 (E) W/ INTERIOR WEB NOTCHED AT BOTTOM RAIL (D)
 2 1/8" MIN. BLADE PENETRATION
 (E) W/ INTERIOR WEB NOTCHED AT BOTTOM RAIL (D)
 10" THUMBSCREW LOCATION
 (E) W/ INTERIOR WEB NOTCHED AT BOTTOM RAIL (D)
 1.50" 1.50"

SECTION B-B
 SCALE 3/8" = 1"
 PLAN
 SECTION A-A
 SCALE 3/8" = 1"
 SECTION B-B
 SCALE 3/8" = 1"
 ELEVATION A
 SCALE 3/8" = 1"

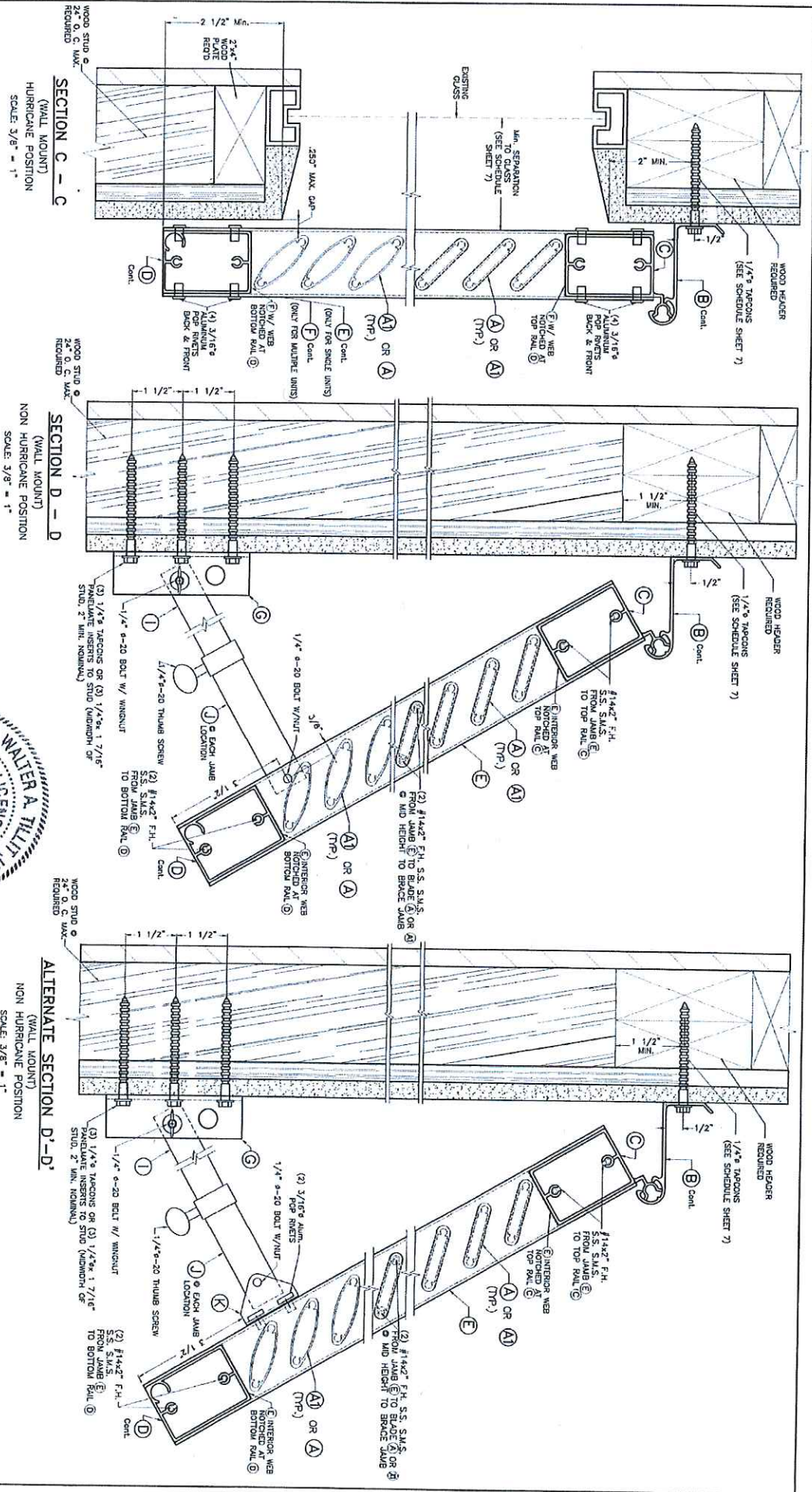
(2) #14x2" F.H. S.S. S.M.S. FROM JAMB (E) TO BOTTOM RAIL (D)
 (E) W/ INTERIOR WEB NOTCHED AT BOTTOM RAIL (D)
 5/16" x 2" SLOT
 (E) W/ WEB NOTCHED AT BOTTOM RAIL (D)
 (E) W/ WEB NOTCHED AT BOTTOM RAIL (D)
 (A) OR (A1) (BLADE TYP.)
 (E) W/ INTERIOR WEB NOTCHED AT BOTTOM RAIL (D)
 5/16" x 2" SLOT
 (A) OR (A1) (BLADE TYP.)
 (2) #14x2" F.H. S.S. S.M.S. FROM JAMB (E) TO BOTTOM RAIL (D)
 (E) W/ INTERIOR WEB NOTCHED AT BOTTOM RAIL (D)
 2 1/8" MIN. BLADE PENETRATION
 (E) W/ INTERIOR WEB NOTCHED AT BOTTOM RAIL (D)
 10" THUMBSCREW LOCATION
 (E) W/ INTERIOR WEB NOTCHED AT BOTTOM RAIL (D)
 1.50" 1.50"

(2) 1/4" x 3/4" ALL POINTS SOLID-SET OR (2) 1/4" PANEL MATE INSERT
 8" SLOT LOCATION
 1/4" x 9" - 20 S.S. x 1" LONG THUMBSCREW
 (4) 3/16" ALUMINUM POP RIVETS BACK & FRONT
 (H)

(2) 1/4" x 3/4" ALL POINTS SOLID-SET OR (2) 1/4" PANEL MATE INSERT
 8" SLOT LOCATION
 1/4" x 9" - 20 S.S. x 1" LONG THUMBSCREW
 (3) 1/4" x 3/4" TAPCONS OR (3) 1/4" x 1 7/16" PANELMATE INSERTS TO WOOD
 (E) W/ INTERIOR WEB NOTCHED AT BOTTOM RAIL (D)
 2 1/8" MIN. BLADE PENETRATION
 (E) W/ INTERIOR WEB NOTCHED AT BOTTOM RAIL (D)
 10" THUMBSCREW LOCATION
 (E) W/ INTERIOR WEB NOTCHED AT BOTTOM RAIL (D)
 1.50" 1.50"

FLORIDA BUILDING CODE (Non High Velocity Hurricane Zone)
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 WALTER A. TILT, P.E.
 FLORIDA LICENSE # 44167

ASSA / BERTHA H.V. BAHAMA SHUTTER	LC	07/28/17
AMERICAN SHUTTER SYSTEMS ASSOC., INC.	DRAWN BY	17-109
4268 WESTWOODS DRIVE	DATE	DRAWING NO
WEST PALM BEACH, FLORIDA 33407		
PH: (850) 432-2504 FAX: (850) 720-4380		
E: tilt@tilteco.com		
WALTER A. TILT, P.E.		
FLORIDA LICENSE # 44167		



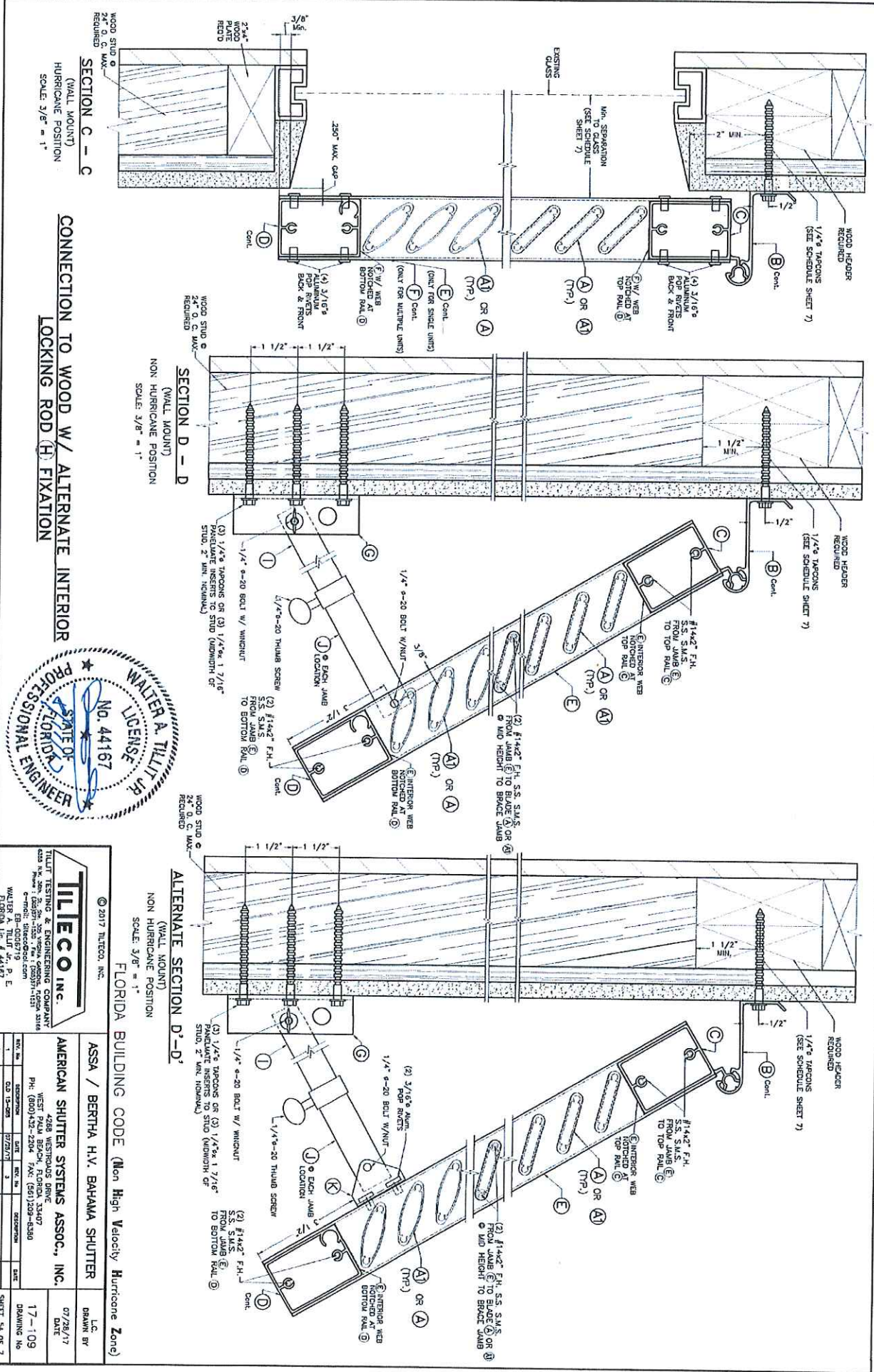
**CONNECTION TO WOOD W/ EXTERIOR
LOCKING ROD (H) FIXATION**



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FLORIDA BUILDING CODE (Non High Velocity Hurricane Zone)

TILTECO INC.
TILT TESTING & ENGINEERING COMPANY
10000 W. US HWY 1, SUITE 11407
WEST PALM BEACH, FLORIDA 33417
PH: (800) 432-2204 FAX: (561) 209-4380
WWW.TILTECO.COM
WALTER A. TILTIT, P. E.
FLORIDA LIC # 44167

AMERICAN SHUTTER SYSTEMS ASSOC., INC.
L.C.
DRAWN BY
07/28/17
DATE
17-109
DRAWING NO
SHEET 5 OF 7



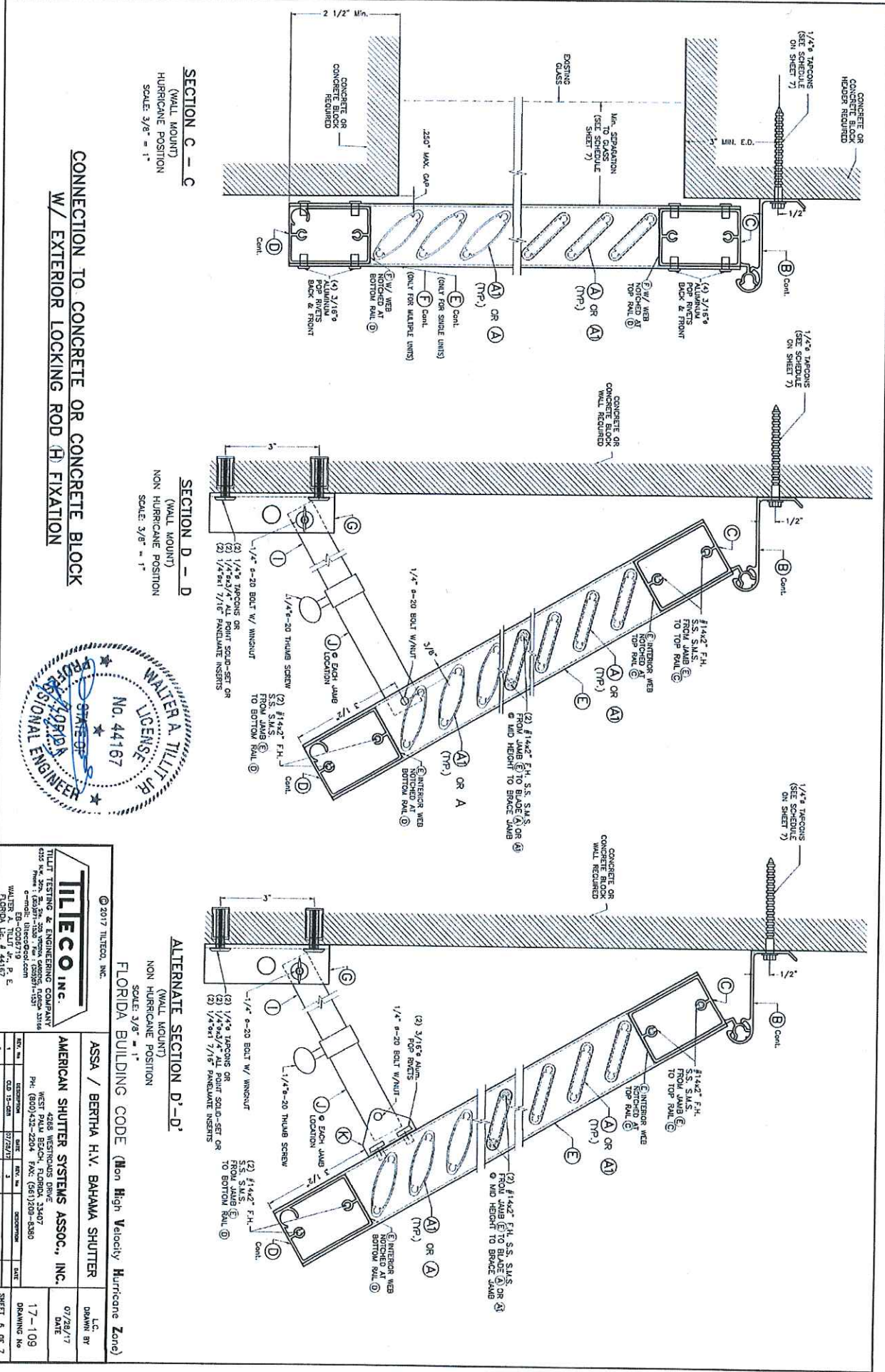
TILECO INC.
2017 TILECO, INC.
TILT TESTING & ENGINEERING COMPANY
4288 PALM BLVD., FORT LAUDERDALE, FL 33407
Phone: (800) 432-2204 Fax: (561) 229-4380
WALTER A. TILT, P. E.
FLORIDA Lic. # 44167

ASSA / BERTHA H.V. BAHAMA SHUTTER
L.C. DRAWN BY
DATE
07/26/17
AMERICAN SHUTTER SYSTEMS ASSOC., INC.
WEST PALM BEACH, FLORIDA 33407
Phone: (800) 432-2204 Fax: (561) 229-4380
17-109
DRAWING No.

REV. No.	DESCRIPTION	DATE	BY	CHECKED
1	ISSUED FOR PERMIT	07/26/17		
2				

SHEET SA OF 7

FLORIDA BUILDING CODE (Non High Velocity Hurricane Zone)



SECTION C - C
 (WALL MOUNT)
 HURRICANE POSITION
 SCALE: 3/8" = 1"

SECTION D - D
 (WALL MOUNT)
 NON HURRICANE POSITION
 SCALE: 3/8" = 1"

ALTERNATE SECTION D'-D'
 (WALL MOUNT)
 NON HURRICANE POSITION
 SCALE: 3/8" = 1"

**CONNECTION TO CONCRETE OR CONCRETE BLOCK
 W/ EXTERIOR LOCKING ROD (H) FIXATION**



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TILTECO INC.
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 4255 N.W. 20th St., 2nd Floor, Fort Lauderdale, FL 33309
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 WALTER A. TILT, Jr., P. E.
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 L.C.
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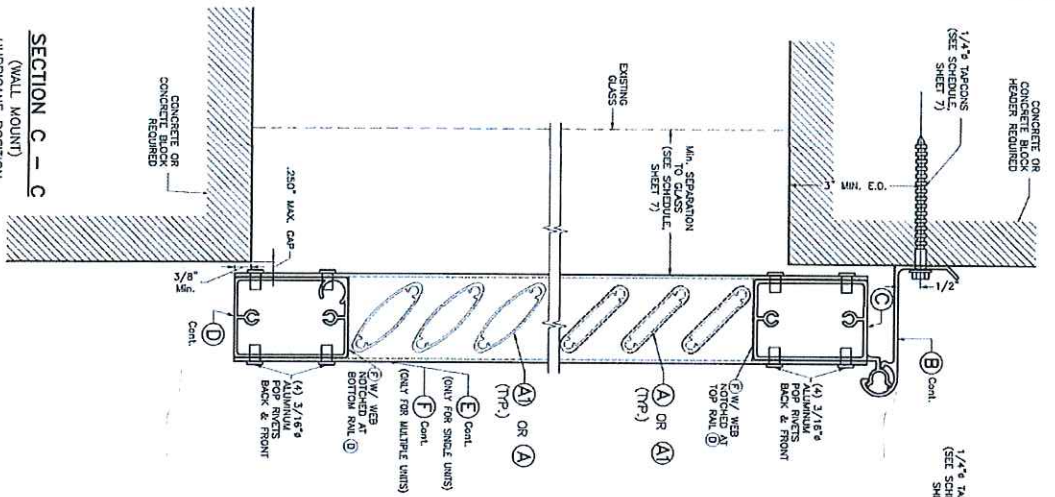
AMERICAN SHUTTER SYSTEMS ASSOC., INC.
 4268 WESTONSHAW DRIVE
 WEST PALM BEACH, FLORIDA 33407
 PH: (800) 432-2204 FAX: (561) 269-4380

17-109
 DRAWING NO

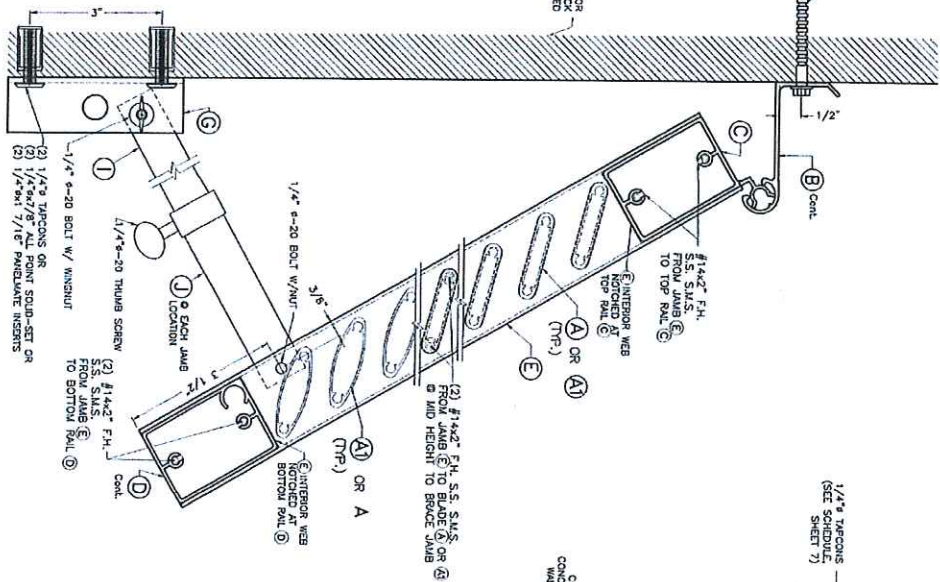
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1	CSO 13-024	07/29/17	J	

SHEET 6 OF 7

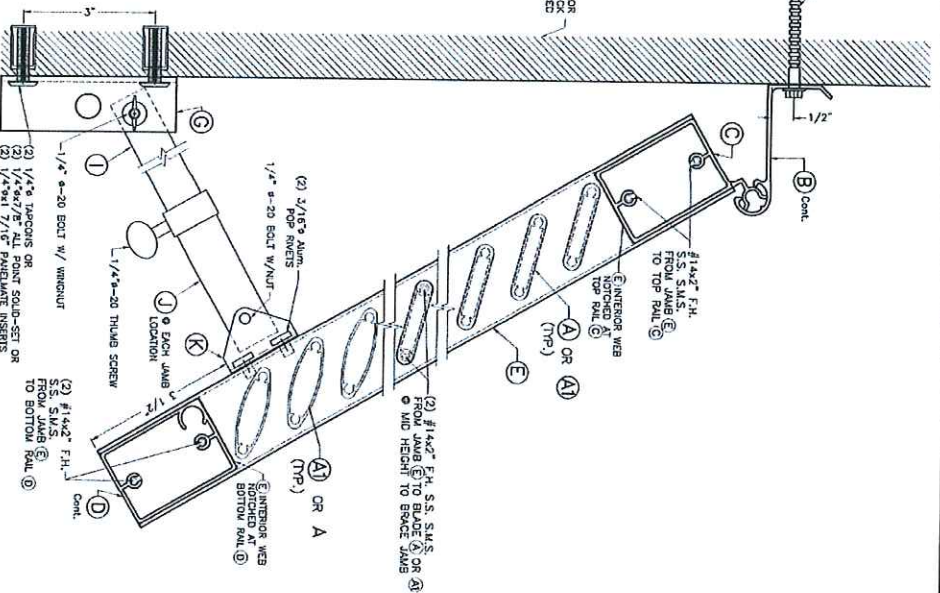
SECTION C - C
(WALL MOUNT)
HURRICANE POSITION
SCALE: 3/8" = 1"



SECTION D - D
(WALL MOUNT)
NON HURRICANE POSITION
SCALE: 3/8" = 1"



ALTERNATE SECTION D'-D'
(WALL MOUNT)
NON HURRICANE POSITION
SCALE: 3/8" = 1"



**CONNECTION TO CONCRETE OR CONCRETE BLOCK
W/ INTERIOR LOCKING ROD (H) FIXATION**

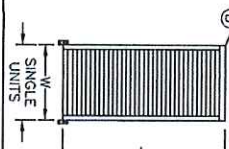
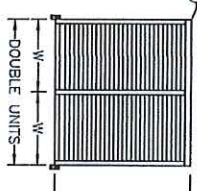
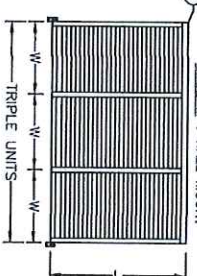


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WALTER A. TILT, Jr., P. E.
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ASSA / BERTHA H.V. BAHAMA SHUTTER		LC
AMERICAN SHUTTER SYSTEMS ASSOC., INC.		DRAWN BY
4268 WESTON DR. #107 WEST PALM BEACH, FLORIDA 33407		DATE
PH: (561) 432-2204 FAX: (561) 203-4380		17-109
REV. NO.	DESCRIPTION	DATE
1	CD 13-208	07/28/17
2		
SHEET 64 OF 7		

SCHEDULE #1

MAXIMUM SHUTTER SPAN "L" (in), MAXIMUM SHUTTER WIDTH "W" (in) FOR SINGLE (CASE I) & MULTIPLE (CASES II & III) UNITS FOR A CORRESPONDING A.S.D. DESIGN PRESSURE RATING FOR INSTALLATIONS INTO POURED CONCRETE, CONCRETE BLOCK OR WOOD SUBSTRATES

CASE	MAXIMUM A.S.D. DESIGN PRESSURE RATING (p.s.f.)	MAXIMUM UNIT WIDTH "W" (IN)	MAXIMUM SPAN "L" (IN)	INTERIOR MULLION TYPE REQUIRED	MINIMUM SEPARATION TO GLASS (IN)	MULTIPLE UNITS ELEVATIONS		
						CASE I : WALL MOUNT	CASE II : WALL MOUNT	CASE III : WALL MOUNT
I	+45.0 , -55.0	42"	96"	N/A	4 5/8"			
II & III	+45.0 , -50.0	40"	70"	(F)	3 5/8"			

SCHEDULE #2

MAXIMUM ANCHOR SPACING AT TOP FEMALE HINGES (B) FOR SINGLE (CASE I) & MULTIPLE (CASES II & III) UNITS FOR A CORRESPONDING A.S.D. DESIGN PRESSURE RATING & SUBSTRATE TYPE

CASE	MAXIMUM A.S.D. DESIGN PRESSURE RATING (p.s.f.)	SUBSTRATE	
		WOOD	POURED CONCRETE OR CONCRETE BLOCK
I	+45.0 , -55.0	12"	7 1/2"
II & III	+45.0 , -50.0	7 1/2"	7 1/2"

FLORIDA BUILDING CODE (Non High Velocity Hurricane Zone)



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 WALTER A. TILTCO, P.E.
 LICENSE NO. EB-0006719
 FLORIDA Lic. # 44167

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LC DRAWN BY
 07/28/17
 17-109
 DRAWING No
 SHEET 7 OF 7

REV. NO.	DESCRIPTION	DATE	REV. NO.	DESCRIPTION	DATE
1	CONSTRUCTION	07/27/17	2		