Engineering Express®
Product Evaluation Report

April 16, 2021

Application Number:	FL#13707.1-R5
EX Project Number:	21-38282
Product Manufacturer:	American Products, Inc.
Manufacturer Address:	13909 Lynmar Blvd. Tampa, FL 33626
Product Name & Description:	Med-Stile Aluminum Outswing Door (Non-Impact)

Scope of Evaluation:

This Product Evaluation Report is being issued in accordance with the requirements of the Florida Department of Business and Professional Regulation (Florida Building Commission) Rule Chapter 61G20-3.005, F.A.C., for statewide acceptance per Method 1 (d). The product noted above has been tested and/or evaluated as summarized herein to show compliance with standard ASCE 7-16 (ASD) and Florida Building Code Seventh Edition (2020) and is, for the purpose intended, at least equivalent to that required by the Standard and Code. Re-evaluation of this product shall be required following pertinent Florida Building Code or ASCE Standard modifications or revisions.

Substantiating Data:

- **PRODUCT EVALUATION DOCUMENTS**

EX Installation Drawing #21-38282 titled Med-Stile Aluminum Outswing Door, Non-Impact Resistant", prepared by Engineering Express, Inc., signed & sealed by Frank Bennardo, P.E. is an integral part of this Evaluation Report, pages 1 through 4.

- **TEST REPORTS**

Uniform static structural performance has been tested in accordance with ASTM E330-02 test standards per test report(s) #94492.01-401-44 signed and sealed by Joseph A Reed P.E. for Architectural Testing, Inc. (ATI).

- **STRUCTURAL ENGINEERING CALCULATIONS**

Structural engineering calculations have been prepared which evaluate the product based on comparative and/or rational analysis to qualify the following design criteria:

1. Anchor Spacing
2. Glass Capacity per ASTM E1300-04
3. Anchor Capacity

No 33% increase in allowable stress has been used in the design of this product.

Impact Resistance:

Large / Small Missile Impact Resistance has NOT been demonstrated as evidenced in previously listed test reports and is accounted for in the engineering design of this product.

American Products, Inc.: Med-Stile Aluminum Outswing Door (Non-Impact)

Wind Load Resistance

This product has been designed to resist wind loads as indicated on its respective Product Evaluation Document (i.e. engineering document).

Installation

The product listed above shall be installed in strict compliance with the Product Evaluation Document (i.e. engineering document), along with all components noted therein.

The product components shall be of the material specified in the Product Evaluation Document (i.e. engineering document).

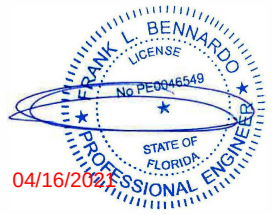
Limitations & Conditions of Use:

Use of each product shall be in strict accordance with its respective Product Evaluation Document (i.e. engineering document) as noted herein.

All supporting host structures shall be designed to resist all superimposed loads and shall be of a material listed in each product's respective anchor schedule. Host structure conditions which are not accounted for in each product's respective anchor schedule shall be designed for on a site-specific basis by a registered professional engineer.

All components which are permanently installed shall be protected against corrosion, contamination, and other such damage at all times. Any alteration to the respective Product Evaluation Document will invalidate it. This product has been designed for use outside of the High Velocity Hurricane Zone (NON-HVHZ).

Respectfully,



Frank Bennardo, PE
ENGINEERING *EXPRESS*®
#PE0046549 | Cert. Auth. 9885

April 16, 2021

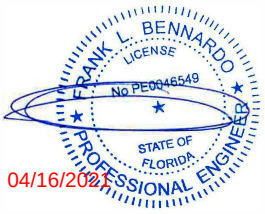
Product Approval Administrator
DBPR Codes and Standards
2601 Blair Stone Road
Tallahassee, FL 32399

Regarding: American Products, Inc
Med-Stile Aluminum Outswing Door – FL#13707.1– EX# 21-38282
Narrow Stile Aluminum Outswing Door – FL#13707.2– EX# 21-38286

To Whom It May Concern:

Please be advised that the below-signed engineer does not have nor will acquire a financial interest in the company manufacturing or distributing the product(s) for which an evaluation report or validation certification has been prepared, as referenced above. This engineer is not owned, operated, nor controlled by the manufacturer or distributor noted above and does not have any financial interest in any other entity involved in the approval process of the above-noted product(s).

Respectfully,



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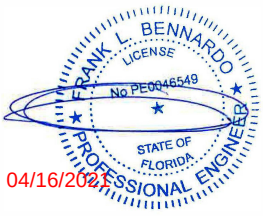
Narrow Stile Aluminum Outswing Door – FL#13707.2– EX# 21-38286

To Whom It May Concern:

This office has reviewed test reports showing structural performance of the above-noted product. These test reports pertain to testing performed in accordance with the referenced standards in the table shown below. These noted standards are not adopted in the Florida Building Code Seventh Edition (2020); however, for the purpose of determining the performance of the product, this standard is equivalent to the corresponding standards, which are adopted standards in the above referenced building code.

Code Title	Tests Performed according to:	Current Equivalent Standard
Test Method for Structural Performance of Exterior Windows, Curtain Walls, and Doors by Uniform Static Air Pressure Difference	ASTM E330 - 02	ASTM E330 -14
Practice for Determining Load Resistance of Glass in Buildings	ASTM E1300 - 04	ASTM E1300 - 16

Respectfully,



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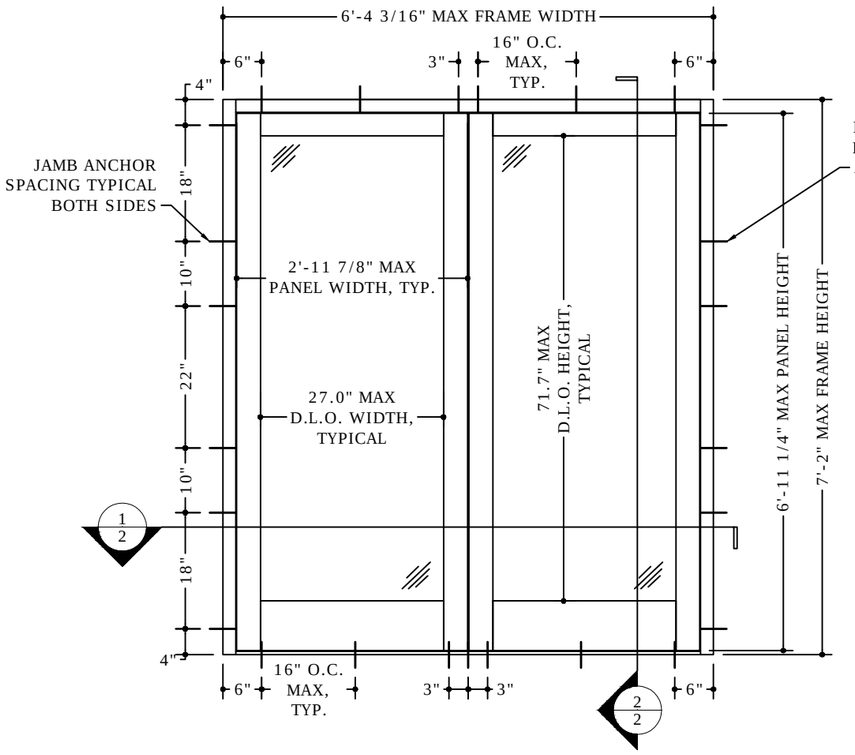
MED-STILE ALUMINUM OUTSWING DOOR

NON-IMPACT RESISTANT



1/1 TYPICAL ANCHOR ELEVATION

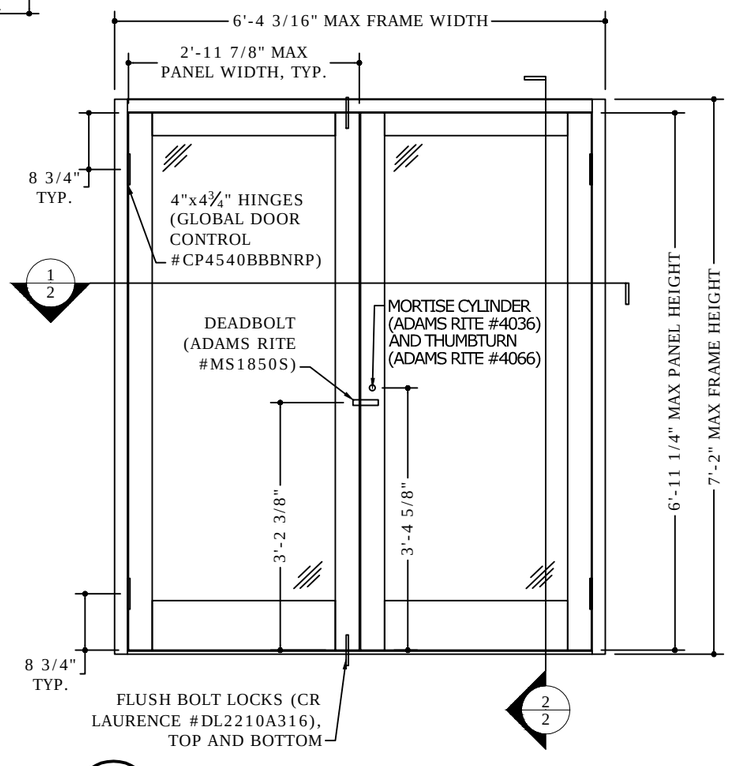
1/2" = 1'-0" EXTERIOR ELEV

ALLOWABLE DESIGN PRESSURES*

+30.0 PSF

-30.0 PSF

*NOTE: THIS SYSTEM IS NOT APPROVED FOR USE WHERE WATER INFILTRATION REQUIREMENTS ARE REQUIRED.



2/1 TYPICAL HARDWARE ELEVATION

1/2" = 1'-0" EXTERIOR ELEV

DESIGN NOTES

DESIGN PRESSURE CAPACITY: +30PSF/-30PSF
POSITIVE AND NEGATIVE DESIGN PRESSURES CALCULATED FOR USE WITH THIS SYSTEM SHALL BE DETERMINED BY OTHERS ON A JOB-SPECIFIC BASIS IN ACCORDANCE WITH THE GOVERNING CODE. SITE-SPECIFIC PRESSURE REQUIREMENTS AS DETERMINED IN ACCORDANCE WITH ASCE 7-16 AND THE FLORIDA BUILDING CODE SEVENTH EDITION (2020) SHALL BE LESS THAN OR EQUAL TO THE POSITIVE OR NEGATIVE DESIGN PRESSURE CAPACITY VALUES LISTED HEREIN FOR ANY ASSEMBLY AS SHOWN.

GENERAL NOTES:

1. THIS SYSTEM DESCRIBED HEREIN HAS BEEN DESIGNED AND TESTED IN ACCORDANCE WITH THE FLORIDA BUILDING CODE SEVENTH EDITION (2020) FOR NON-IMPACT USE OUTSIDE OF THE HVHZ ONLY PER ASTM E330.
2. DESIGN PRESSURES NOTED HEREIN ARE BASED ON MAXIMUM TESTED PRESSURES DIVIDED BY A 1.5 SAFETY FACTOR.
3. THE SYSTEM DETAILED HEREIN IS GENERIC AND DOES NOT PROVIDE INFORMATION FOR A SPECIFIC SITE. FOR SITE CONDITIONS DIFFERENT FROM THE CONDITIONS DETAILED HEREIN, A LICENSED ENGINEER OR REGISTERED ARCHITECT SHALL PREPARE SITE SPECIFIC DOCUMENTS FOR USE IN CONJUNCTION WITH THIS DOCUMENT.
4. NO 33-1/3% INCREASE IN ALLOWABLE STRESS HAS BEEN USED IN THE DESIGN OF THIS SYSTEM. WIND LOAD DURATION FACTOR Cd=1.6 HAS BEEN USED FOR WOOD ANCHOR DESIGN.
5. ALUMINUM IN CONTACT WITH DISSIMILAR MATERIALS SHALL BE PROTECTED PER CODE.
6. THE ARCHITECT/ENGINEER OF RECORD FOR THE PROJECT SUPERSTRUCTURE WITH WHICH THIS DESIGN IS USED SHALL BE RESPONSIBLE FOR THE INTEGRITY OF ALL SUPPORTING SURFACES TO THIS DESIGN WHICH SHALL BE COORDINATED BY THE PERMITTING CONTRACTOR.WOOD BUCKS (BY OTHERS) SHALL BE ANCHORED PROPERLY TO TRANSFER LOADS TO THE EXISTING STRUCTURE.
7. UNLESS OTHERWISE NOTED ALL BOLTS & WASHERS SHALL BE ZINC COATED STEEL, GALVANIZED STEEL, OR STAINLESS STEEL WITH A MINIMUM TENSILE YIELD STRENGTH OF 60 KSI. ALL 3/16"Ø OR 1/4"Ø POP RIVETS SHALL BE 5056-H32 ALUMINUM ALLOY OR STRONGER.
8. ALL STEEL IN CONTACT WITH ALUMINUM SHALL BE PAINTED OR PLATED AS PRESCRIBED IN THE ABOVE-NOTED BUILDING CODE.
9. ALL EXTRUSIONS SHALL BE 6063-T5 ALUMINUM ALLOY, UNLESS NOTED OTHERWISE.
10. EXTERIOR SEAM OF FRAME CORNERS AND FULL EXTERIOR PERIMETER SHALL BE SEALED WITH SILICONE.
11. THE CONTRACTOR IS RESPONSIBLE TO INSULATE ALL MEMBERS FROM DISSIMILAR MATERIALS TO PREVENT ELECTROLYSIS.
12. ENGINEER SEAL AFFIXED HERE TO VALIDATES STRUCTURAL DESIGN AS SHOWN ONLY. USE OF THIS SPECIFICATION BY CONTRACTOR, et. al. INDEMNIFIES & SAVES HARMLESS THIS ENGINEER FOR ALL COST & DAMAGES INCLUDING LEGAL FEES & APPELLATE FEES RESULTING FROM MATERIAL FABRICATION, SYSTEM ERECTION, & CONSTRUCTION PRACTICES BEYOND THAT WHICH IS CALLED FOR BY LOCAL, STATE, & FEDERAL CODES & FROM DEVIATIONS OF THIS PLAN.
13. EXCEPT AS EXPRESSLY PROVIDED HEREIN, NO ADDITIONAL CERTIFICATIONS OR AFFIRMATIONS ARE INTENDED.
14. ALTERATIONS, ADDITIONS, HIGHLIGHTING, OR OTHER MARKINGS TO THIS DOCUMENT ARE NOT PERMITTED AND INVALIDATE THIS CERTIFICATION.
15. THE SYSTEM DETAILED HEREIN HAS BEEN TESTED PER ASTM E330 AS REFERENCED IN TEST REPORT #94492.01-401-44 BY ARCHITECTURAL TESTING, INC. PRODUCT SHALL BE PERMANENTLY LABELED WITH A MINIMUM OF ONE LABEL PER SYSTEM CONTAINING THE FOLLOWING:
AMERICAN PRODUCTS, INC.
TAMPA, FLORIDA
ASTM E330
APPROVED BY FLORIDA BUILDING COMMISSION

VISIT ECALC.IO/38282

FOR HELPFUL RESOURCES, SITE SPECIFIC JOB ORDERING & MORE INFORMATION ABOUT THIS PRODUCT & RELATED SERVICES

SCAN HERE:

FRANK BENNARDO, P.E.
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04/16/2021

FL#13707.1

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TEAM@ENGINEERINGEXPRESS.COM
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AMERICAN PRODUCTS, INC.

13909 LYNMAR BLVD.
TAMPA, FL 33626
Phn. (813) 925-0144 / FAX: (813) 925-1414

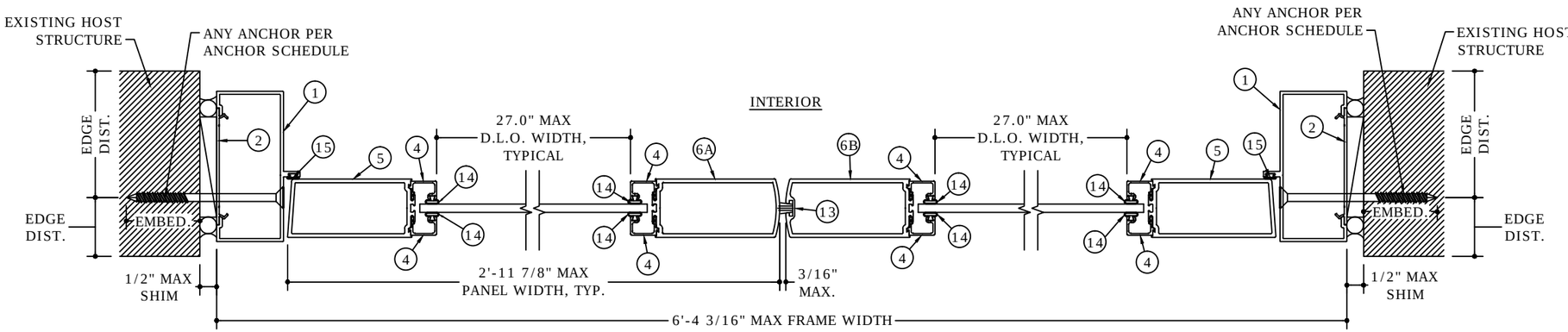
SERIES MEDIUM STILE DOOR
FLORIDA STATEWIDE APPROVAL
FLORIDA BUILDING CODE SEVENTH EDITION (2020)

REMARKS	DRWN	CHKD	DATE
INT ISSUE	JEM	FLB	08/24/12
REV FOR FBC (2014)	JAC	RWN	12/14/15
NEW TEST ADDED	SSQ	FLB	06/14/16
REV FOR FBC (2017)	LAO	FLB	10/11/17
FBC 2020 UPDATE	TAE	AJP	03/17/21

21-38282

SCALE: NTS UNLESS NOTED

01 OF 4



1/2 TYPICAL HORIZONTAL SECTION

3" = 1'-0" HORIZ SECTION

ANCHOR SCHEDULE:

TO HOLLOW CONCRETE BLOCK OR 3192 PSI CONCRETE:

- 1/4" ITW TAPCONS THRU WOOD BUCKS OR DIRECTLY INTO MASONRY/CONCRETE WITH 1-1/4" MIN EMBED.

TO WOOD BUCK OR HOST STRUCTURE (G=0.55 MIN):

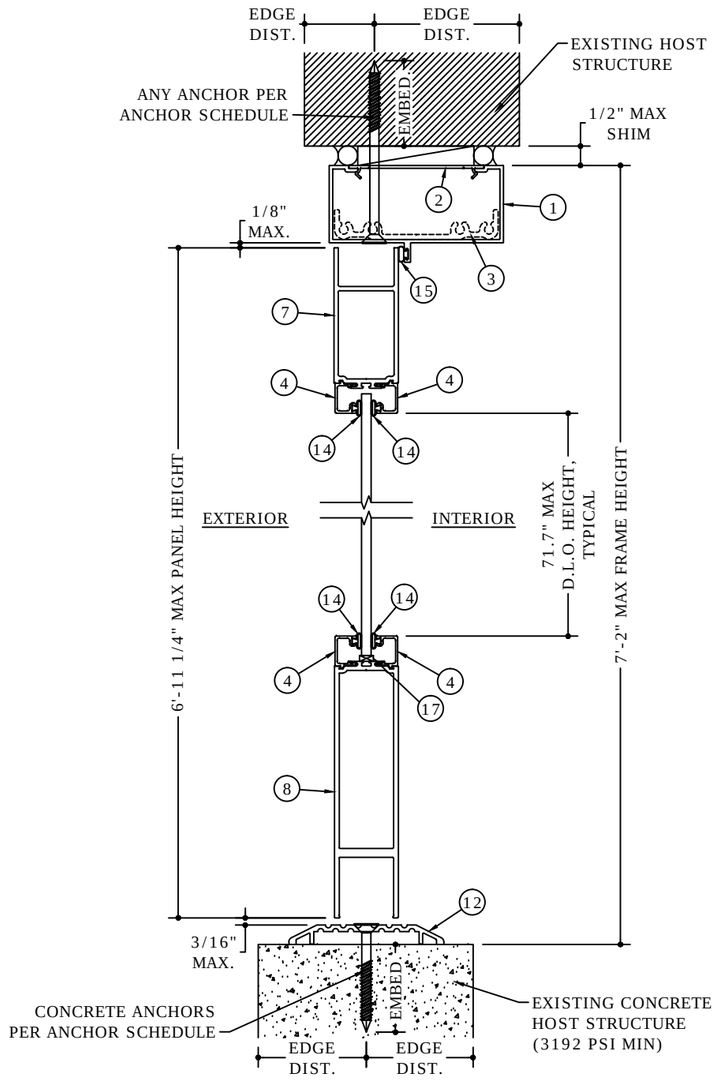
- 1/4" ITW TAPCONS WITH 1-1/2" MIN THREAD PENETRATION.
- #14 WOOD SCREWS WITH 1-1/2" MIN THREAD PENETRATION.

TO STEEL OR 6063-T5 ALUM HOST STRUCTURE (0.125" MIN THICKNESS):

- #14 SAE GRADE 5 SMS OR SDS WITH FULL THREAD PENETRATION THROUGH WALL OF HOST STRUCTURE..

ANCHOR NOTES:

1. SEE EXTERIOR ELEVATION FOR ANCHOR LOCATIONS AND/OR SPACING.
2. ANCHORS SHALL BE INSTALLED IN ACCORDANCE WITH MANUFACTURERS' RECOMMENDATIONS.
3. ENSURE MINIMUM 2-1/2" EDGE DISTANCE FOR ALL ANCHORS TO CONCRETE & TO HOLLOW BLOCK. EDGE DISTANCE OF 1/2" IS ACCEPTABLE FOR ANCHORS TO STEEL OR ALUMINUM.
4. WHERE ANCHORS FASTEN TO NARROW FACE OF STUD FRAMING, ANCHOR SHALL BE LOCATED IN CENTER OF NOMINAL 2x (MIN) WOOD STUD (i.e. 3/4" EDGE DISTANCE IS ACCEPTABLE FOR ANCHORS TO WOOD FRAMING).
5. WOOD HOST STRUCTURE SHALL BE "SOUTHERN PINE" G=0.55 OR GREATER DENSITY.
6. MINIMUM EMBEDMENT SHALL BE AS NOTED IN ANCHOR SCHEDULE. MINIMUM EMBEDMENT AND EDGE DISTANCE EXCLUDES STUCCO, FOAM, BRICK, AND OTHER WALL FINISHES.
7. WHERE EXISTING STRUCTURE IS WOOD FRAMING, EXISTING CONDITIONS MAY VARY. FIELD VERIFY THAT FASTENERS ARE INTO ADEQUATE WOOD FRAMING MEMBERS, NOT INTO PLYWOOD.
8. WOOD BUCKS (BY OTHERS) SHALL BE ANCHORED PROPERLY TO TRANSFER LOADS TO THE EXISTING STRUCTURE.



2/2 TYPICAL VERTICAL SECTION

3" = 1'-0" VERT SECTION

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21-38282

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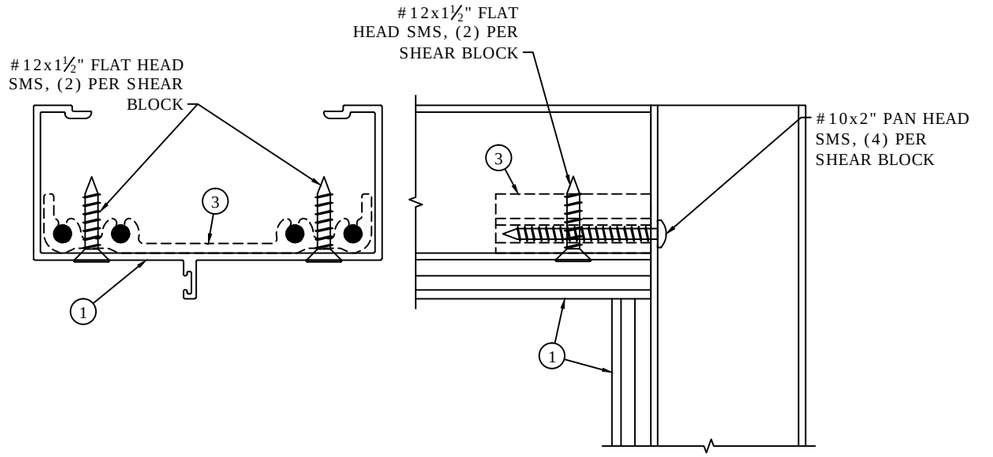
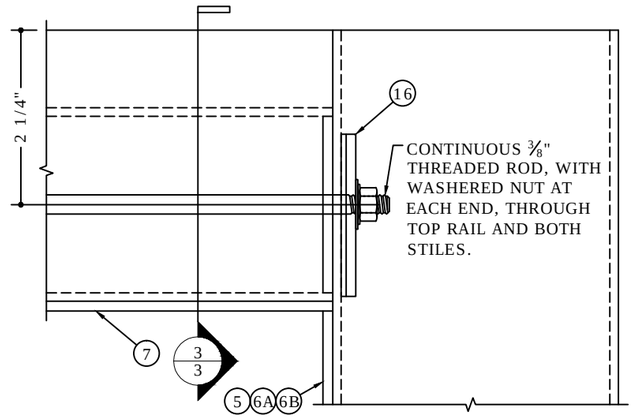
OF 4

02



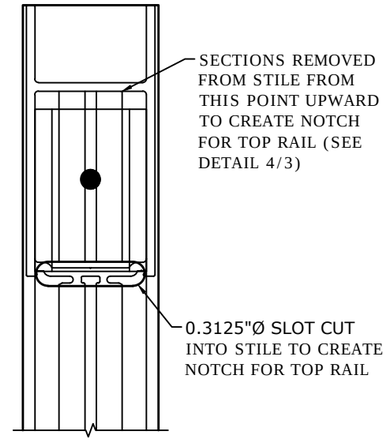
1/3 TYPICAL FRAME CORNER CONSTRUCTION

N.T.S. ELEVATION AND VERT SECTION



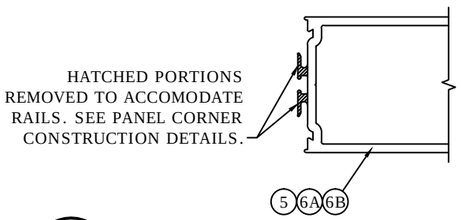
2/3 TYPICAL PANEL CORNER CONSTRUCTION AT TOP

N.T.S. ELEVATION



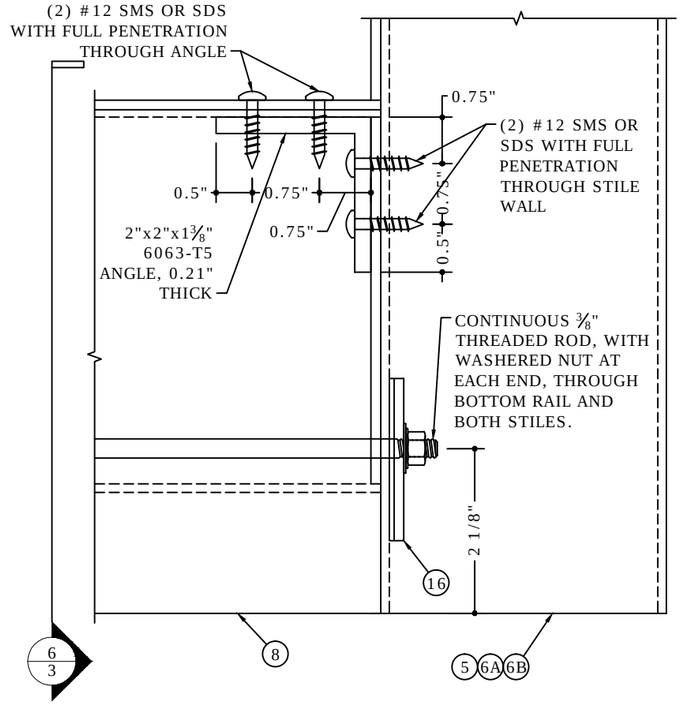
3/3 TYPICAL PANEL CORNER CONSTRUCTION AT TOP

N.T.S. VERT SECTION



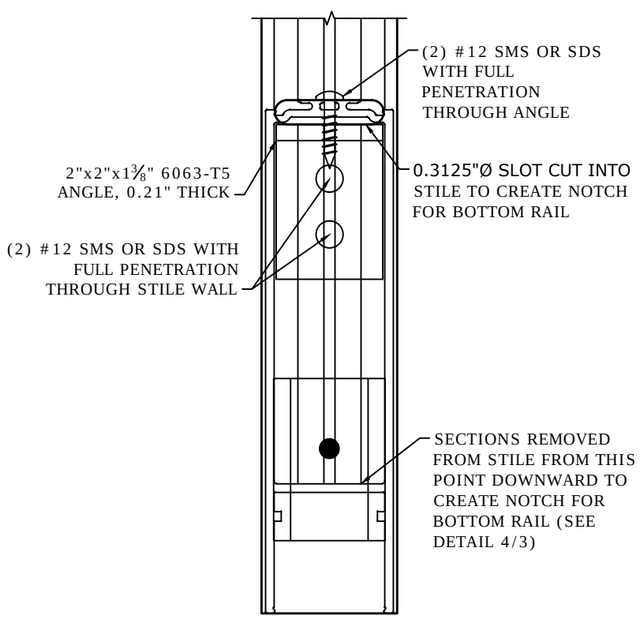
4/3 STILE DETAIL AT CORNERS

N.T.S. HORIZ SECTION



5/3 TYPICAL PANEL CORNER CONSTRUCTION AT BOTTOM

N.T.S. ELEVATION



6/3 TYPICAL PANEL CORNER CONSTRUCTION AT BOTTOM

N.T.S. VERT SECTION

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04/16/2021

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21-38282

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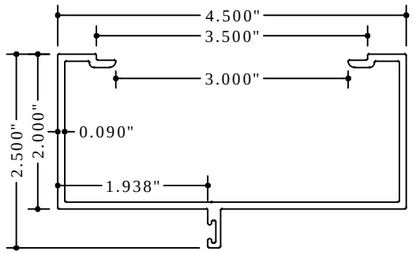
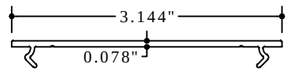
03



1 FRAME HEAD/JAMB

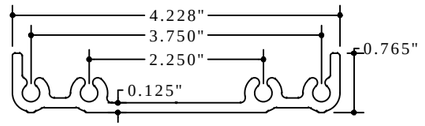
6" = 1'-0" 6063-T5 ALUM.



NOTE: FRAME SNAP PLATE EXTRUSION IS 4" LONG. ONE FRAME SNAP PLATE SHALL BE LOCATED AT EACH ANCHOR LOCATION.

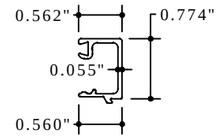
2 FRAME SNAP PLATE

6" = 1'-0" 6063-T5 ALUM.



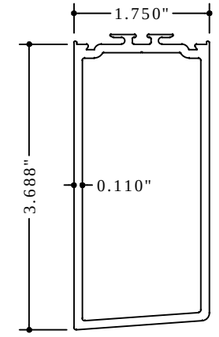
3 SHEAR BLOCK

6" = 1'-0" 6063-T5 ALUM.



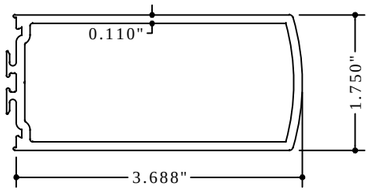
4 GLAZING BEAD

6" = 1'-0" 6063-T5 ALUM.



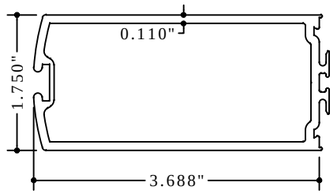
5 BEVELED DOOR STILE

6" = 1'-0" 6063-T5 ALUM.



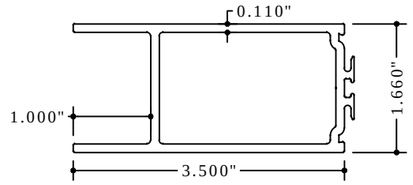
6A SECONDARY LOCK STILE

6" = 1'-0" 6063-T5 ALUM.



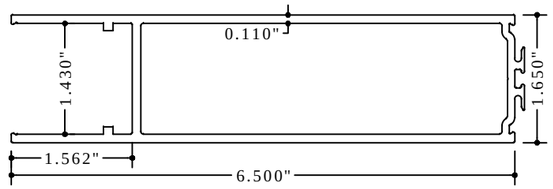
6B PRIMARY LOCK STILE

6" = 1'-0" 6063-T5 ALUM.



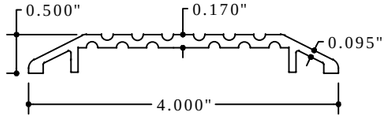
7 TOP RAIL

6" = 1'-0" 6063-T5 ALUM.



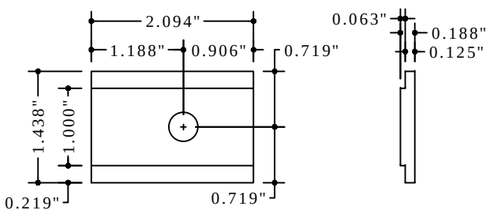
8 BOTTOM RAIL

6" = 1'-0" 6063-T5 ALUM.



12 THRESHOLD

6" = 1'-0" 6063-T5 ALUM.

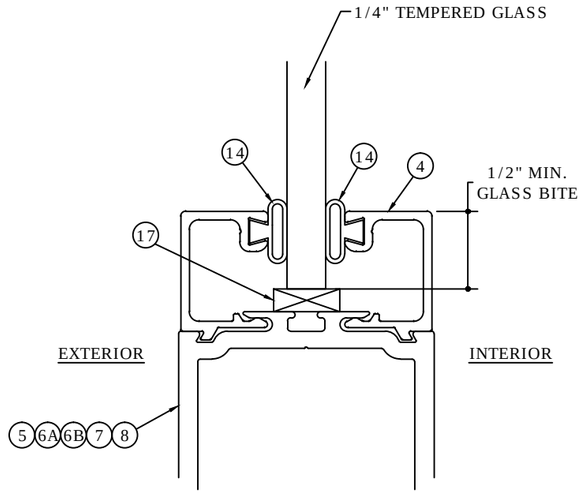


16 SQUARE WASHER

6" = 1'-0" 6063-T5 ALUM.

BILL OF MATERIALS

	PART #	DESCRIPTION	NOTES
1	DE40005	FRAME HEAD/JAMB	6063-T5
2	F20045	FRAME SNAP PLATE	6063-T5, 4" LONG, (1) PER ANCHOR
3	F21020	SHEAR BLOCK	6063-T5
4	DE40055	GLAZING BEAD	6063-T5
5	DE32005	BEVELED DOOR STILE	6063-T5
6A	DE32010	SECONDARY LOCK STILE	6063-T5
6B	DE32015	PRIMARY LOCK STILE	6063-T5
7	DE10350	TOP RAIL	6063-T5
8	DE10650	BOTTOM RAIL	6063-T5
9		MORTISE CYLINDER, THUMBTURN AND DEADBOLT	ADAMS RITE #4036, #4066, #MS1850S
10		FLUSH BOLT	CR LAURENCE #DL2210A316
11		4"x4-3/4" HINGES	GLOBAL DOOR CONTROL #CP4540BBBNRP
12	DE40040	THRESHOLD	6063-T5
13		POLYPILE WEATHER STRIP	
14		GLAZING BEAD BULB GASKET	
15		FRAME BULB GASKET	
16		SQUARE WASHER	6063-T5
17		SETTING BLOCK	70±5 DUROMETER CENTERED AT 1/4 POINTS



1/4 GLAZING DETAIL

N.T.S. NON-IMPACT RESISTANT

FRANK BENNARDO, P.E.
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04/16/2021

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SERIES MEDIUM STILE DOOR
FLORIDA STATEWIDE APPROVAL
FLORIDA BUILDING CODE SEVENTH EDITION (2020)

REMARKS	DRWN	CHKD	DATE
INT ISSUE	JEM	FLB	08/24/12
REV FOR FBC (2014)	JAC	RWN	12/14/15
NEW TEST ADDED	SSQ	FLB	06/14/16
REV FOR FBC (2017)	LAO	FLB	10/11/17
FBC 2020 UPDATE	TAE	AJP	03/17/21

21-38282

SCALE: NTS UNLESS NOTED

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