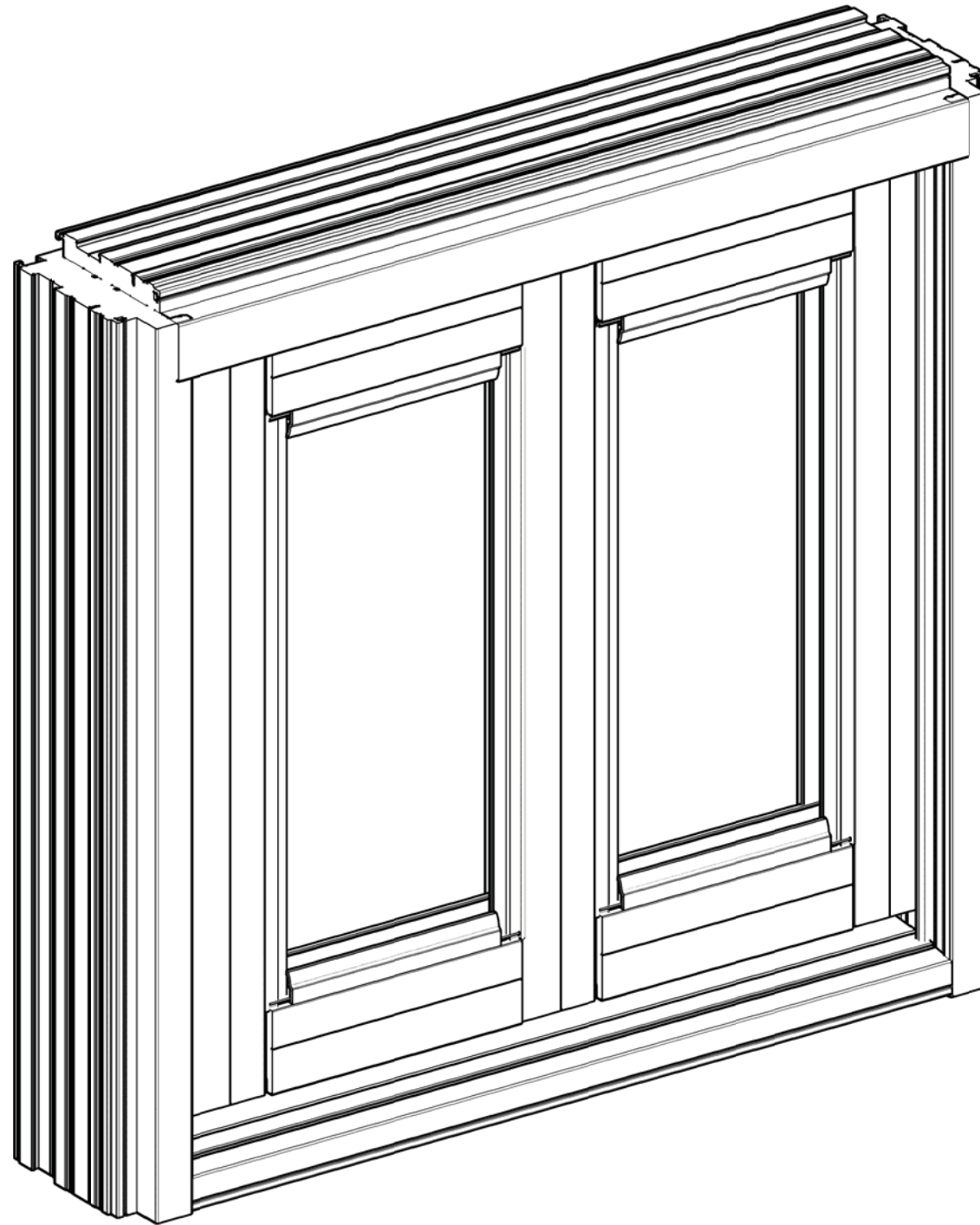


FOUR SEASONS SOLAR PRODUCTS, LLC

SERIES 4500 IN-SWING PATIO DOOR (NON-IMPACT)



GENERAL NOTES:

- THIS SYSTEM AND GLASS TYPES DESCRIBED HEREIN COMPLY AND HAVE BEEN DESIGNED AND TESTED IN ACCORDANCE WITH THE FLORIDA BUILDING CODE SEVENTH EDITION (2020) PER
 - ASTM E 283, ASTM E 330
 - AAMA/WDMA/CSA 101/I.S.2/A440-11
- SITE-SPECIFIC REQUIRED DESIGN PRESSURES SHALL BE CALCULATED BY A LICENSED PROFESSIONAL ENGINEER FOR USE WITH THIS DOCUMENT PER CURRENT ADOPTED EDITION OF ASCE 7 AND WITH LOCAL CODE REQUIREMENTS.
- THIS SYSTEM IS NON-IMPACT, NON-HVHZ RATED.
- DESIGN PRESSURES NOTED HEREIN ARE BASED ON MAXIMUM TESTED PRESSURES DIVIDED BY A 1.5 SAFETY FACTOR.
- NO 33-1/3% INCREASE IN ALLOWABLE STRESS HAS BEEN USED IN THE DESIGN OF THIS SYSTEM. WIND LOAD DURATION FACTOR $C_d=1.6$ HAS BEEN USED FOR WOOD ANCHOR DESIGN.
- 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.
- 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.
- THE CONTRACTOR IS RESPONSIBLE TO INSULATE ALL MEMBERS FROM DISSIMILAR MATERIALS TO PREVENT ELECTROLYSIS.
- FASTENERS SHALL BE CADMIUM-PLATED OR OTHERWISE CORROSION-RESISTANT MATERIAL AND SHALL COMPLY WITH "SPECIFICATIONS FOR ALUMINUM STRUCTURES" SECTION J.3.7.2 BY THE ALUMINUM ASSOCIATION, INC., & ANY APPLICABLE FEDERAL, STATE, AND/OR LOCAL CODES
- 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.
- EXCEPT AS EXPRESSLY PROVIDED HEREIN, NO ADDITIONAL CERTIFICATIONS OR AFFIRMATIONS ARE INTENDED.
- PRESSURE VALUES ON THIS APPROVAL ARE (ASD) ALLOWABLE DESIGN PRESSURES.
- ALTERATIONS, ADDITIONS, OR OTHER MARKINGS TO THIS DOCUMENT ARE NOT PERMITTED AND INVALIDATE THIS CERTIFICATION.
- SAFEGUARDS MUST BE OBSERVED (NOT IN THIS CERTIFICATION)
- PRODUCT SHALL BE PERMANENTLY LABELED WITH A MINIMUM OF ONE LABEL PER SYSTEM CONTAINING THE FOLLOWING:

SHEET INDEX

# SHEET	DESCRIPTION
01	COVER SHEET
02	ELEVATIONS
03	GLASS TYPES
04	ANCHOR CHARTS AND FASTENER SCHEDULE
05-08	STANDARD FRAMING DETAILS
09	PART LIST
10	BILL OF MATERIALS
10	TOTAL

VISIT ECALC.IO/39093

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



FRANK BENNARDO, P.E.
PE# 0046549 CA# 9885



05/11/2021

FL#38465.1



CORPORATE OFFICE:
160 SW 12th AVE, SUITE 106
DEERFIELD BEACH, FL 33442
(954) 354-0660 | (866) 396-9999
TEAM@ENGINEERINGEXPRESS.COM
ENGINEERINGEXPRESS.COM

FOUR SEASONS SOLAR PRODUCTS, LLC.

5005 VETERANS MEMORIAL HIGHWAY

HOLBROOK, NY 11741

PH: (631) 563-4000

SERIES 4500 IN-SWING
PVC SWING DOORS

REMARKS	DRWN	CHKD	DATE
INIT ISSUE	TAE	AJP	4/14/21

COPYRIGHT ENGINEERING EXPRESS®

21-39093a

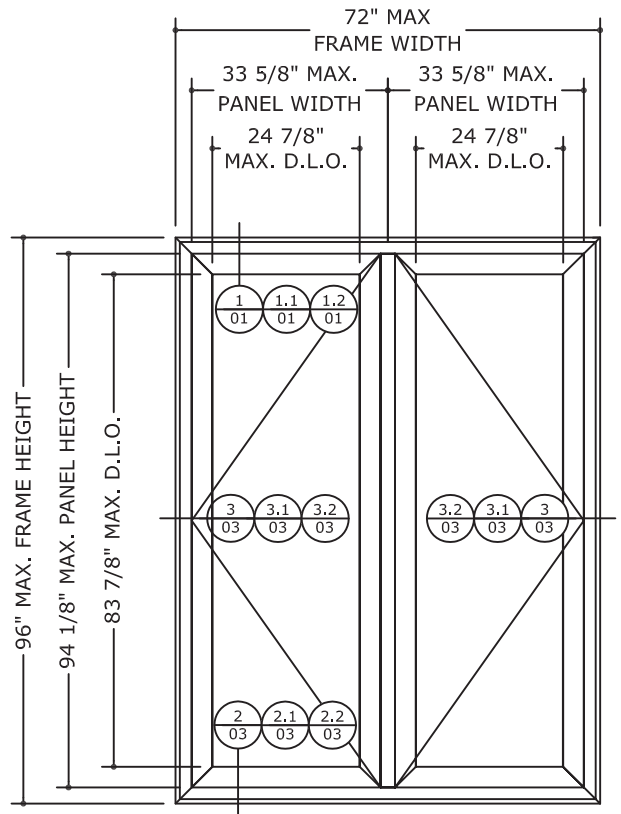
SCALE: NTS UNLESS NOTED

01 OF 10

C:\Users\thayer\Engineering\Express\Production - Documents\Projects\21-39093 Vinyl Swing Doors - 2020 FBC\Work\Drawings & CAD\21-39093 PVC In-Swing Door (2020 FSA).dwg

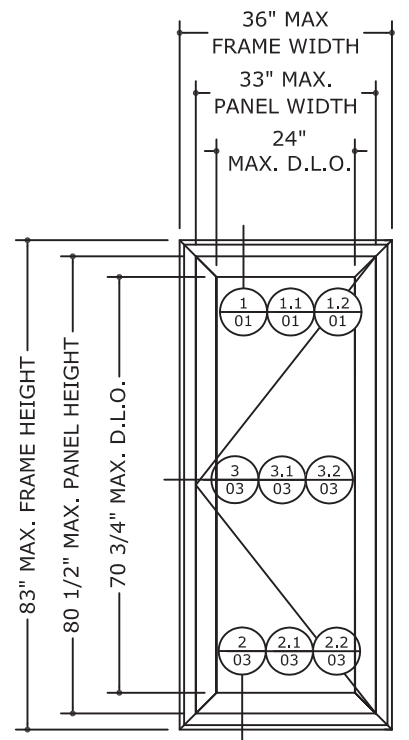
05/11/2021 - 2:23pm thayer

ELEVATIONS



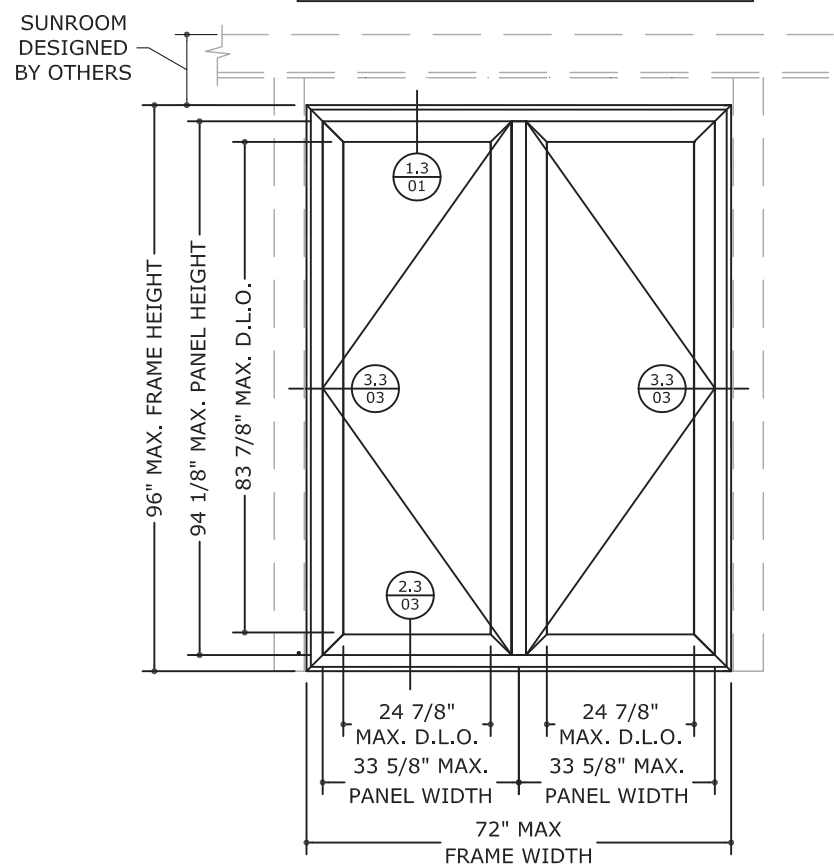
TYPICAL PAIR (XX) DOOR ELEVATION

MAXIMUM PRESSURE RATING = +40/-55 PSF (ASD)



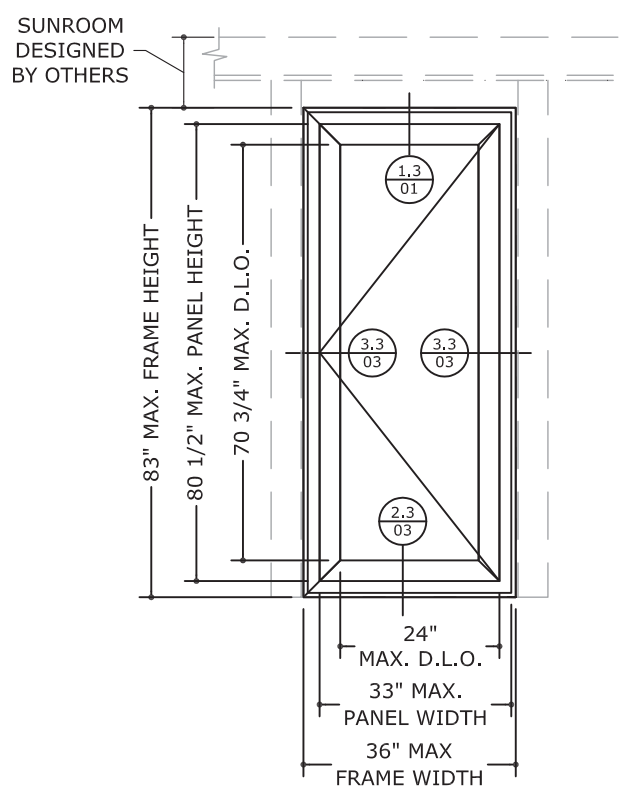
TYPICAL SINGLE (X) DOOR ELEVATION

MAXIMUM PRESSURE RATING = +60/-60 PSF (ASD)



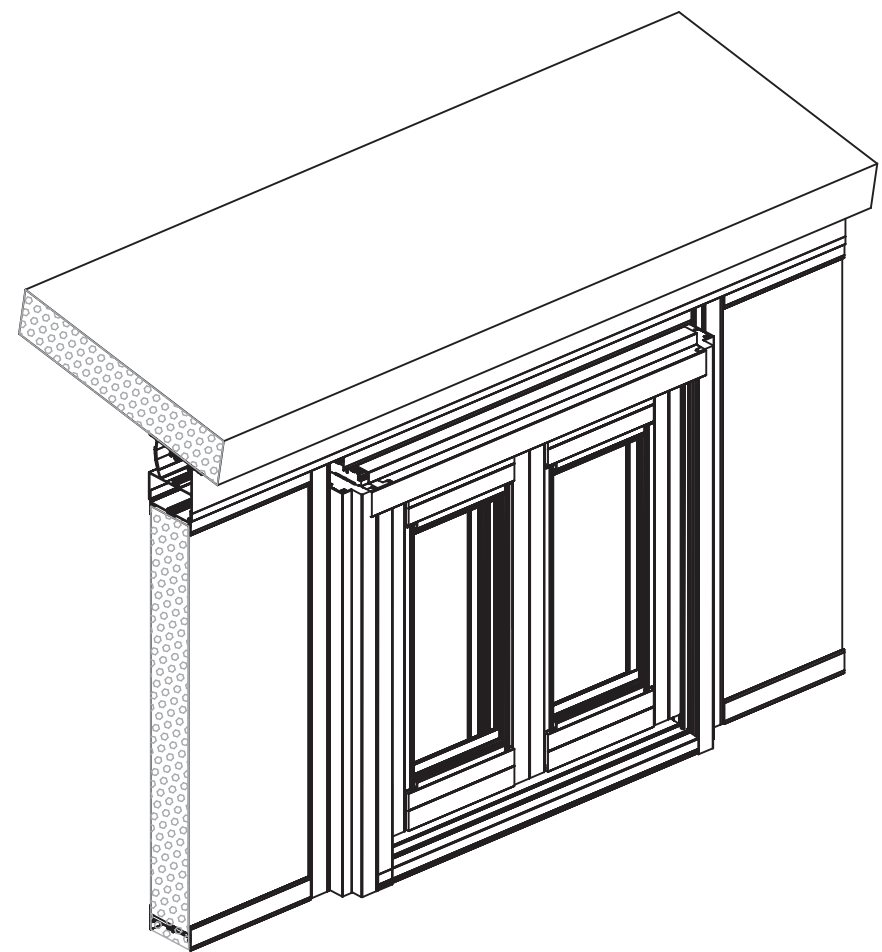
SUNROOM ELEVATION

MAXIMUM PRESSURE RATING = +40/-55 PSF (ASD)



SUNROOM ELEVATION

MAXIMUM PRESSURE RATING = +60/-60 PSF (ASD)



DOOR INSIDE SUNROOM OPTION

MAXIMUM PANEL AREA:
 PAIR (XX) CONFIGURATION PANEL AREA NOT TO EXCEED 21.84 SQ. FT.
 SINGLE (X) CONFIGURATION PANEL AREA NOT TO EXCEED 18.51 SQ. FT.

MAXIMUM PANEL D.L.O. AREA:
 PAIR (XX) CONFIGURATION PANEL AREA NOT TO EXCEED 14.49 SQ. FT.
 SINGLE (X) CONFIGURATION PANEL AREA NOT TO EXCEED 12.28 SQ. FT.

WATER INFILTRATION NOTE:
 PAIR (XX) CONFIGURATION: WATER RESISTANCE PER ASTM E 547 = 6.06 P.S.F
 SINGLE (X) CONFIGURATION: WATER RESISTANCE PER ASTM E 547 = 6.06 P.S.F

MAXIMUM ALLOWABLE DESIGN PRESSURES:
 PAIR (XX) CONFIGURATION: +40.0 PSF, -55.0 PSF
 SINGLE (X) CONFIGURATION: +60.0 PSF, -60.0 PSF

FRANK BENNARDO, P.E.
 PE# 0046549 CA# 9885

05/11/2021

FL#38465.1

ENGINEERING EXPRESS

CORPORATE OFFICE:
 160 SW 12th AVE, SUITE 106
 DEERFIELD BEACH, FL 33442
 (954) 354-0660 | (866) 396-9999
 TEAM@ENGINEERINGEXPRESS.COM
 ENGINEERINGEXPRESS.COM

FOUR SEASONS SOLAR PRODUCTS, LLC.
 5005 VETERANS MEMORIAL HIGHWAY
 HOLBROOK, NY 11741
 PH: (631) 563-4000

SERIES 4500 IN-SWING
 PVC SWING DOORS

REMARKS	DRWN	CHKD	DATE
INIT ISSUE	TAE	AJP	4/14/21

COPYRIGHT ENGINEERING EXPRESS®

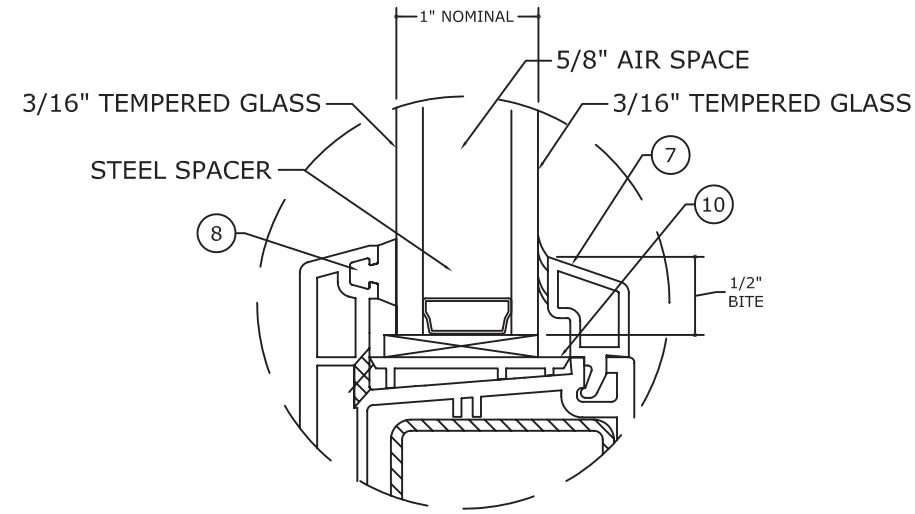
21-39093a

SCALE: NTS UNLESS NOTED

02 OF 10

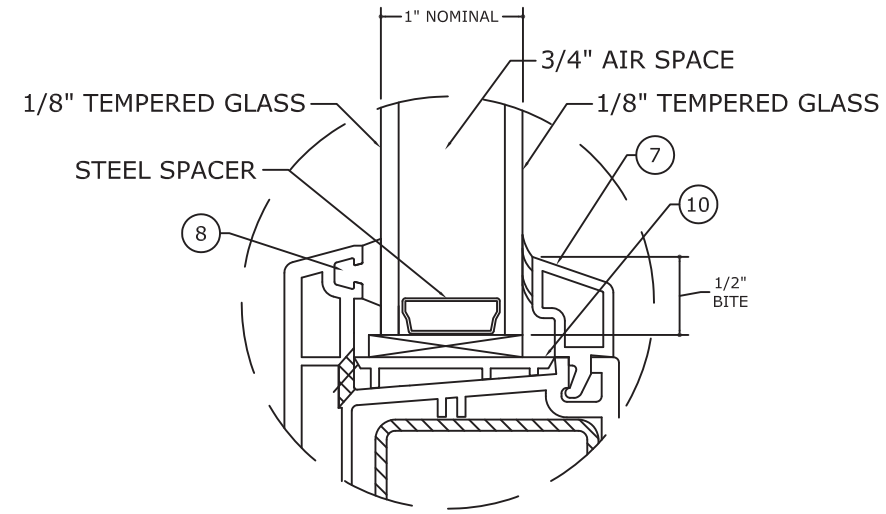
GLASS TYPES

NOTE: GLASS SIZE = DLO + 1"



GLASS TYPE **G1**

GLAZING DETAIL
N.T.S.

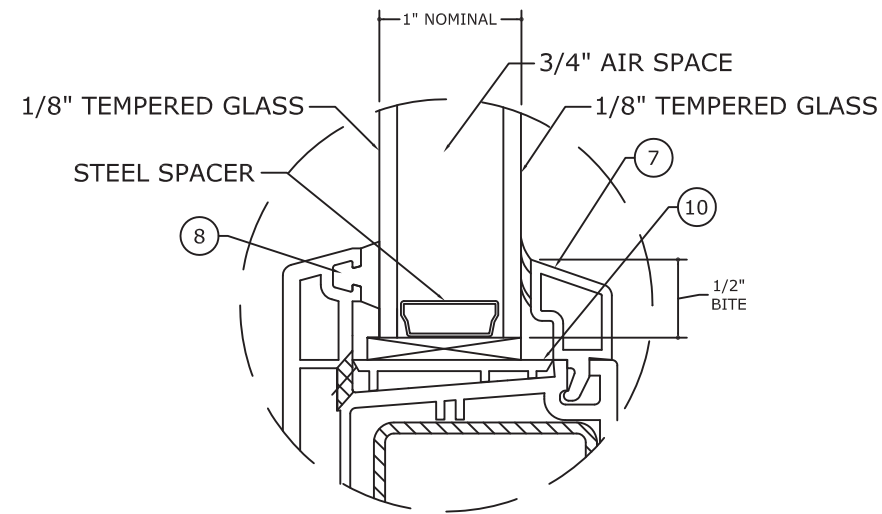


GLASS TYPE **G2**

GLAZING DETAIL
N.T.S.

PAIR DOOR (XX) GLASS TYPES:

SINGLE DOOR (X) GLASS TYPES:

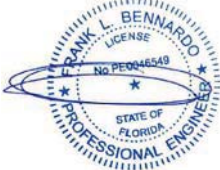


GLASS TYPE **G2**

GLAZING DETAIL
N.T.S.

NOTE:
GLAZING TYPE COMPLIES WITH
ASTM E1300 REQUIREMENTS .

FRANK BENNARDO, P.E.
PE# 0046549 CA# 9885



05/11/2021

FL#38465.1

ENGINEERING EXPRESS
CORPORATE OFFICE:
160 SW 12th AVE, SUITE 106
DEERFIELD BEACH, FL 33442
(954) 354-0660 | (866) 396-9999
TEAM@ENGINEERINGEXPRESS.COM
ENGINEERINGEXPRESS.COM

FOUR SEASONS SOLAR PRODUCTS, LLC.
5005 VETERANS MEMORIAL HIGHWAY
HOLBROOK, NY 11741
PH: (631) 563-4000
SERIES 4500 IN-SWING
PVC SWING DOORS

REMARKS	DRWN	CHKD	DATE
INIT ISSUE	TAE	AJP	4/14/21

COPYRIGHT ENGINEERING EXPRESS®

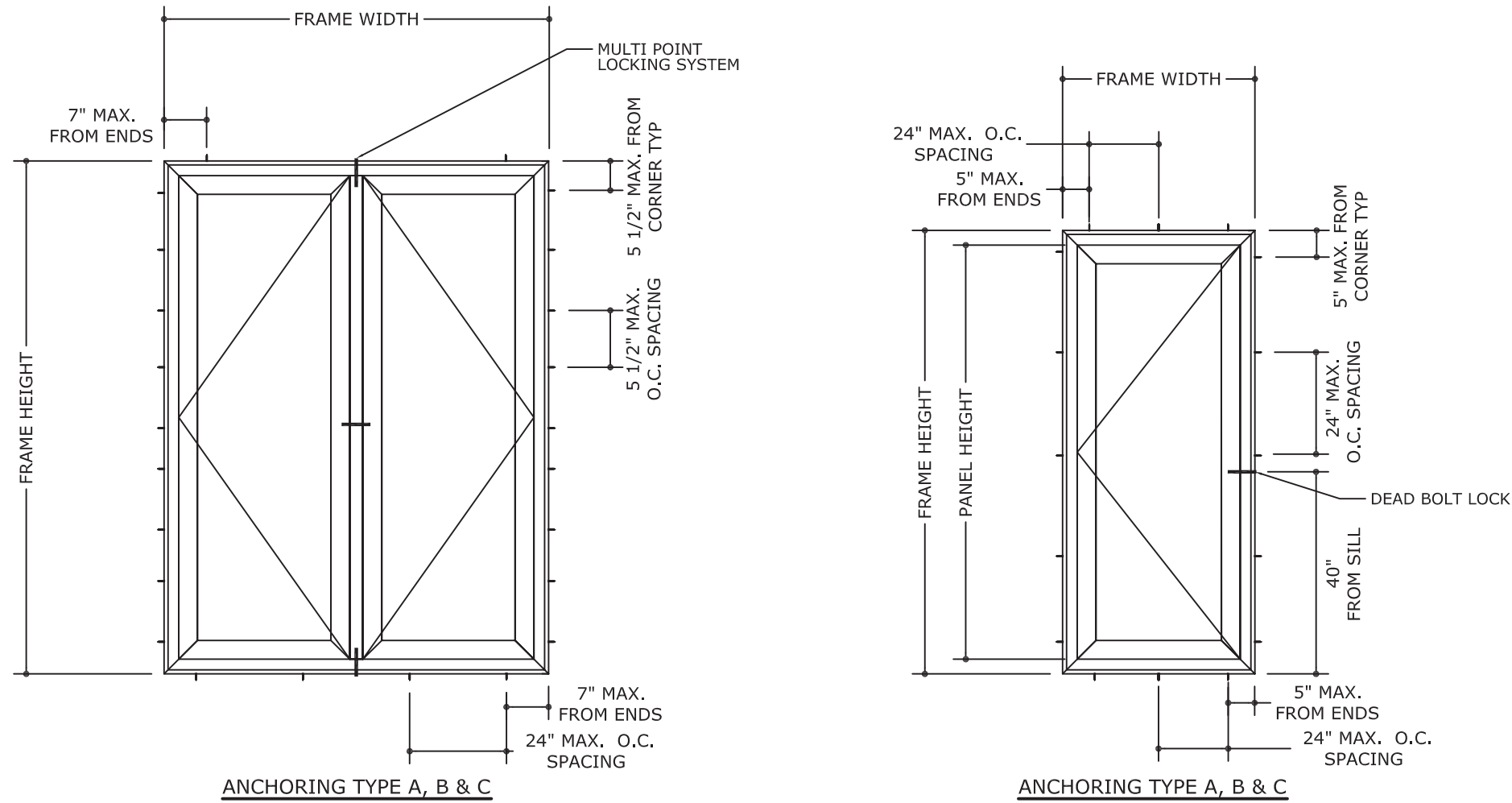
21-39093a

SCALE: NTS UNLESS NOTED

03 OF 10

C:\Users\thayer\Engineering\Express\Production - Documents\Projects\21-39093 Vinyl Swing Doors - 2020 FBC\Work\Drawings & CAD\21-39093 PVC In-Swing Door (2020 FSA).dwg
thayer
05/11/2021 - 2:24pm

FASTENER SCHEDULE



TYPICAL ANCHOR SPACING LAYOUT

TYPE 'A'	
CONCRETE / GROUT-FILLED CMU	3/16" DIA. "HWH ULTRACONS+" BY 'DEWALT' DIRECTLY INTO CONCRETE . GROUT-FILLED CMU (3000PSI /fm = 2000PSI. MIN)(Fu=164 KSI, Fy=117 KSI) 2-1/2" MIN. EDGE DISTANCE 3-3/8" MIN. EMBEDMENT
TYPE 'B'	
WOOD	#10-16 PAN-HEAD, SMS / TEK SCREWS (GRADE 5 MIN.) DIRECTLY INTO 2X WOOD BUCKS OR WOOD STRUCTURES (SPF#2 WOOD, SG=0.42 MIN., 1-1/2" MIN. THICKNESS) 2-1/4" MIN. EDGE DISTANCE 1-1/2" MIN. EMBEDMENT
TYPE 'B'	
METAL	#10-16 PAN-HEAD / HWH SMS / TEK SCREWS (GRADE 5 MIN.) DIRECTLY INTO METAL STRUCTURES ALUMINUM: 1/8" THICKNESS (6063-T5 MIN.) STEEL: 1/8" THICKNESS (Fy=36 KSI MIN.) (STEEL IN CONTACT WITH ALUMINUM TO BE PLATED OR COATED TO PREVENT ELECTROLYSIS.) 3/4" MIN. EDGE DISTANCE 3 PITCHES PAST THREAD PLANE

FRANK BENNARDO, P.E.
PE# 0046549 CA# 9885



05/11/2021

FL#38465.1



CORPORATE OFFICE:
160 SW 12th AVE, SUITE 106
DEERFIELD BEACH, FL 33442
(954) 354-0660 | (866) 396-9999
TEAM@ENGINEERINGEXPRESS.COM
ENGINEERINGEXPRESS.COM

FOUR SEASONS SOLAR PRODUCTS, LLC.
5005 VETERANS MEMORIAL HIGHWAY
HOLBROOK, NY 11741
PH: (631) 563-4000

SERIES 4500 IN-SWING
PVC SWING DOORS

REMARKS	DRWN	CHKD	DATE
INIT ISSUE	TAE	AJP	4/14/21

COPYRIGHT ENGINEERING EXPRESS®

21-39093a

SCALE: NTS UNLESS NOTED

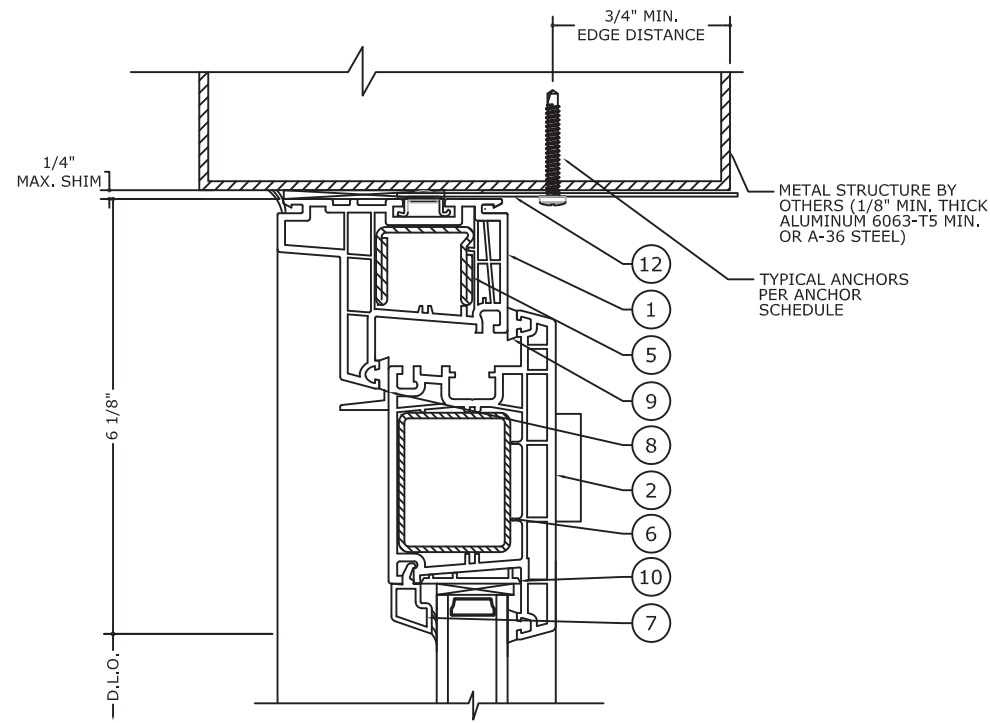
04 OF 10

C:\Users\thayer\Engineering\Express\Production - Documents\Projects\21-39093 Vinyl Swing Doors - 2020 FBC\Work\Drawings & CAD\21-39093 PVC In-Swing Door (2020 FSA).dwg

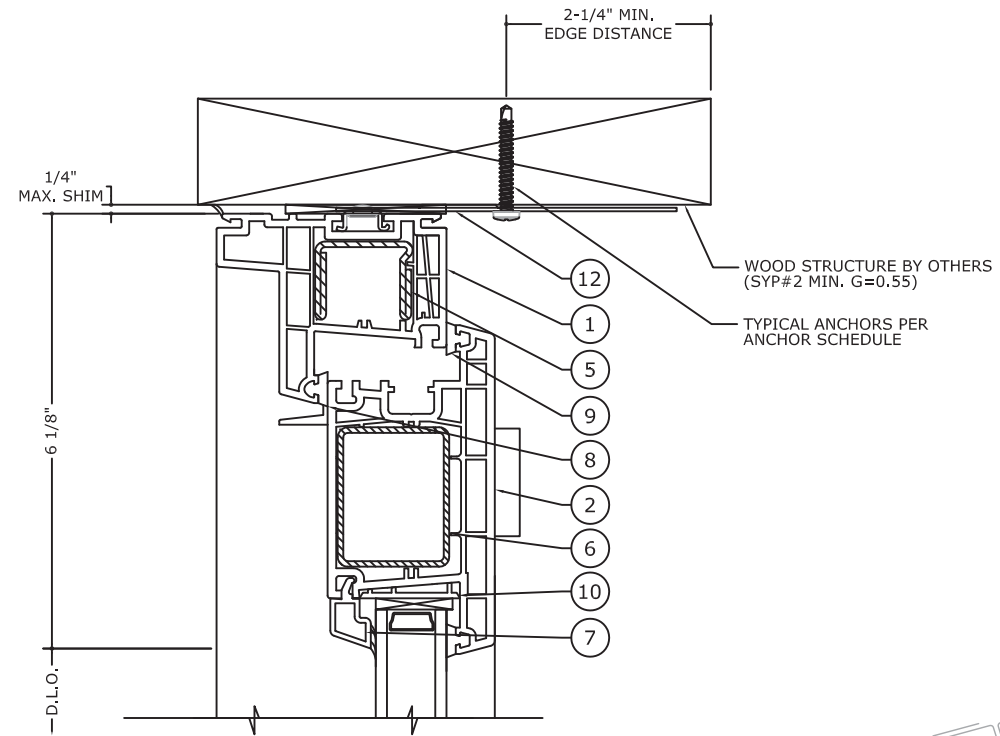
thayer

05/11/2021 - 2:24pm

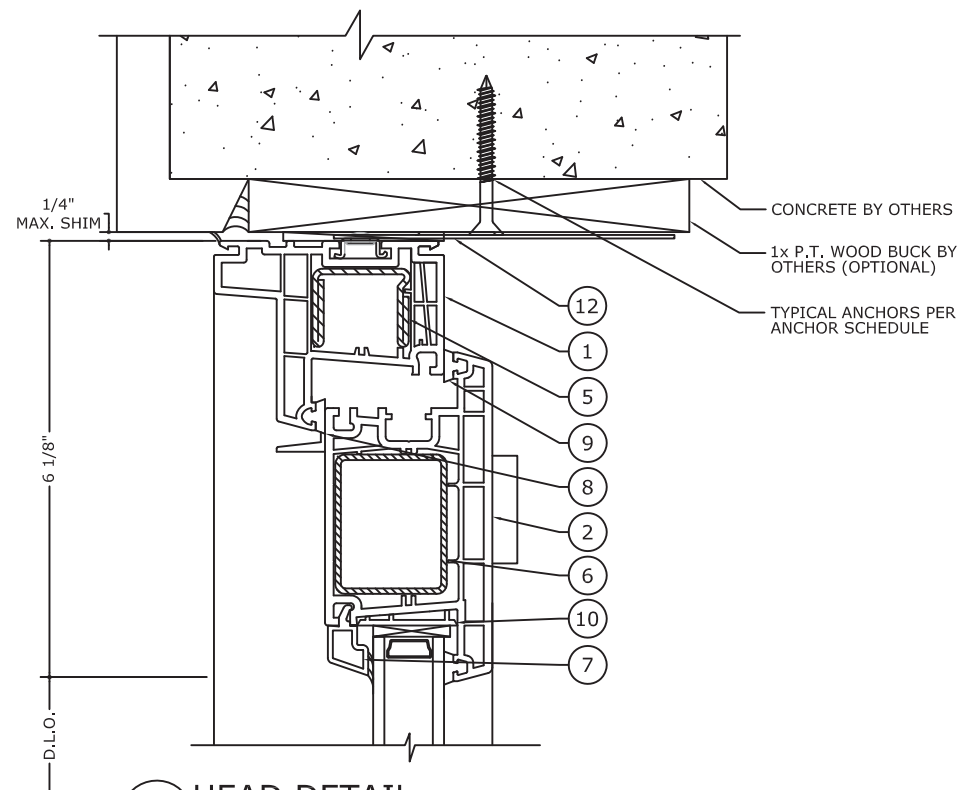
HEAD DETAILS



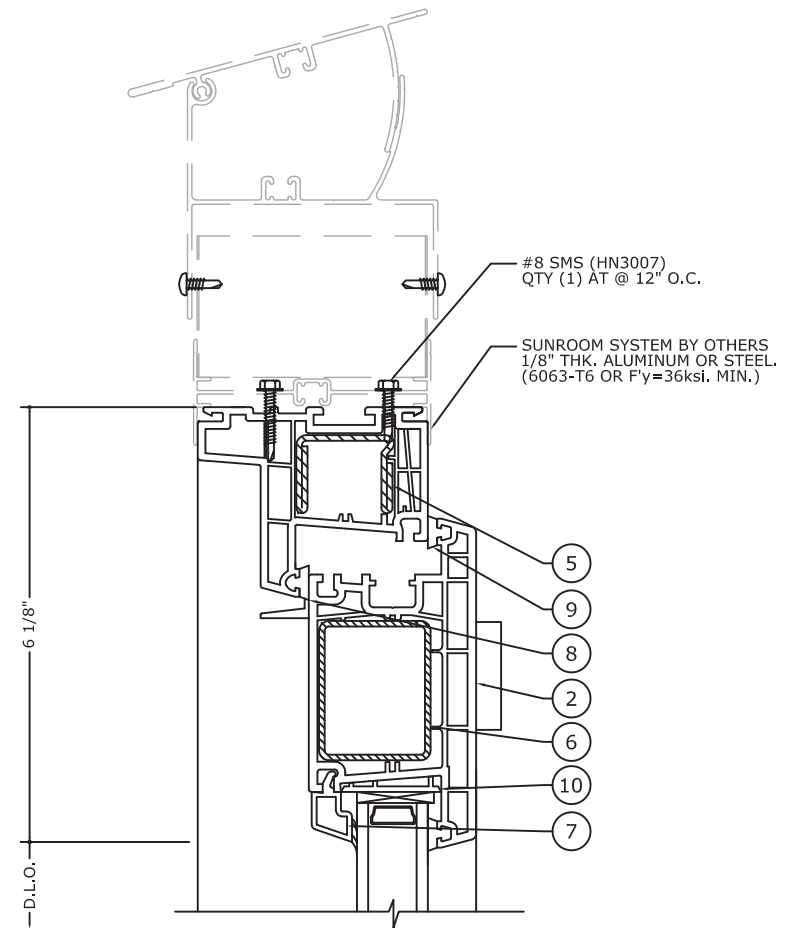
1 HEAD DETAIL
ALUMINUM / STEEL



1.1 HEAD DETAIL
WOOD CONDITION



1.2 HEAD DETAIL
CONCRETE CONDITION



1.3 HEAD DETAIL
SUNROOM CONDITION

NOTE: REFER TO SYSTEM INSTALLATION MANUAL FOR FABRICATION AND ASSEMBLY INSTRUCTIONS.

FRANK BENNARDO, P.E.
PE# 0046549 CA# 9885



05/11/2021

FL#38465.1



CORPORATE OFFICE:
160 SW 12th AVE, SUITE 106
DEERFIELD BEACH, FL 33442
(954) 354-0660 | (866) 396-9999
TEAM@ENGINEERINGEXPRESS.COM
ENGINEERINGEXPRESS.COM

FOUR SEASONS SOLAR PRODUCTS, LLC.
5005 VETERANS MEMORIAL HIGHWAY
HOLBROOK, NY 11741
PH: (631) 563-4000

SERIES 4500 IN-SWING
PVC SWING DOORS

REMARKS	DRWN	CHKD	DATE
INIT ISSUE	TAE	AJP	4/14/21

COPYRIGHT ENGINEERING EXPRESS®

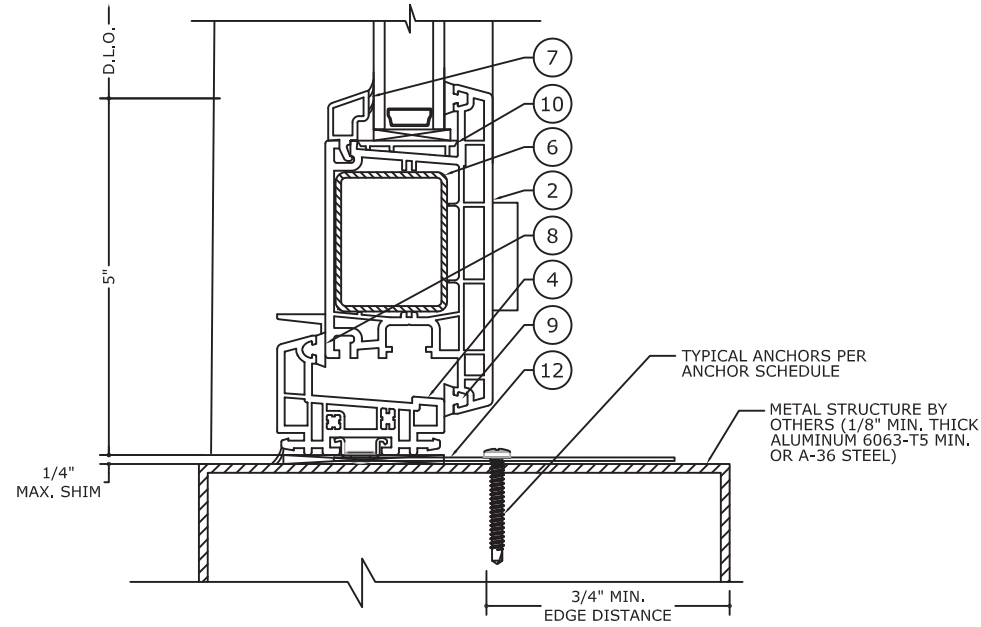
21-39093a

SCALE: NTS UNLESS NOTED

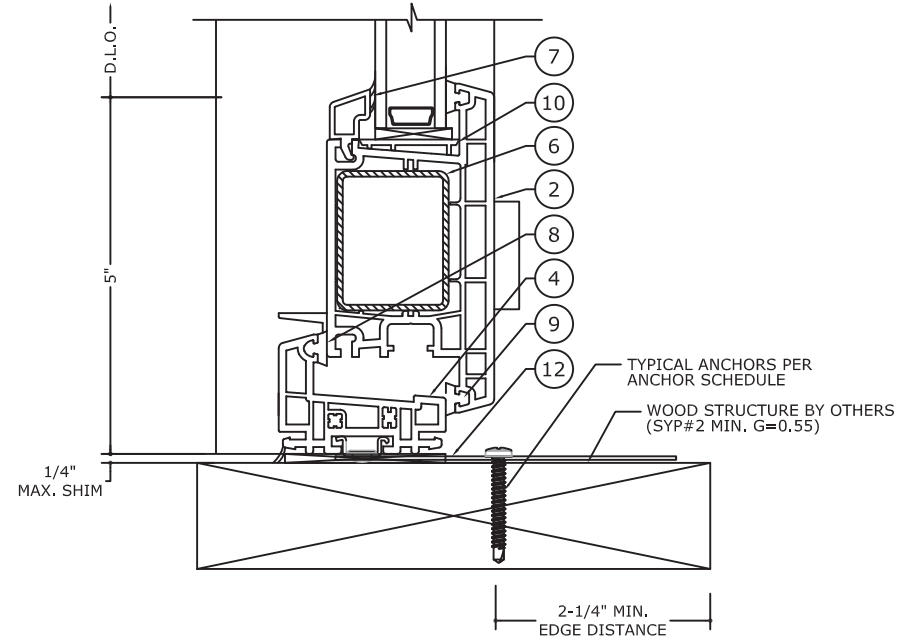
05 OF 10

SILL DETAILS

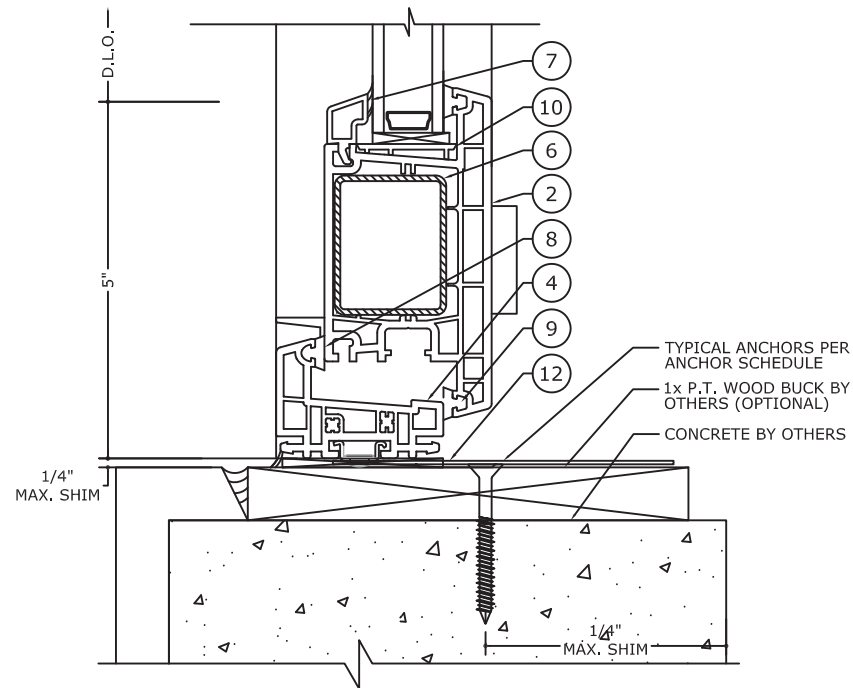
2 SILL DETAIL
ALUMINUM / STEEL



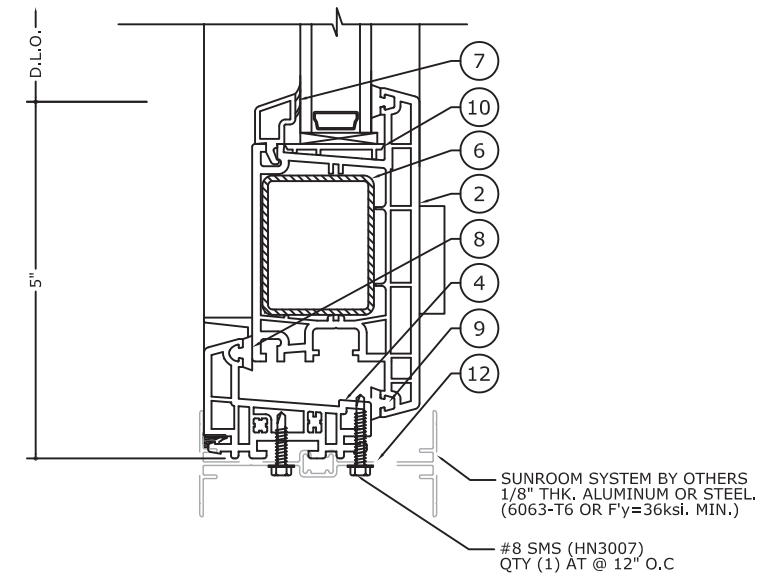
2.1 SILL DETAIL
WOOD CONDITION



2.2 SILL DETAIL
CONCRETE CONDITION



2.3 SILL DETAIL
SUNROOM CONDITION



NOTE: REFER TO SYSTEM INSTALLATION MANUAL FOR FABRICATION AND ASSEMBLY INSTRUCTIONS.

FRANK BENNARDO, P.E.
PE# 0046549 CA# 9885



05/11/2021

FL#38465.1



CORPORATE OFFICE:
160 SW 12th AVE, SUITE 106
DEERFIELD BEACH, FL 33442
(954) 354-0660 | (866) 396-9999
TEAM@ENGINEERINGEXPRESS.COM
ENGINEERINGEXPRESS.COM

FOUR SEASONS SOLAR PRODUCTS, LLC.

5005 VETERANS MEMORIAL HIGHWAY
HOLBROOK, NY 11741
PH: (631) 563-4000
SERIES 4500 IN-SWING
PVC SWING DOORS

REMARKS	DRWN	CHKD	DATE
INIT ISSUE	TAE	AJP	4/14/21

COPYRIGHT ENGINEERING EXPRESS®

21-39093a

SCALE: NTS UNLESS NOTED

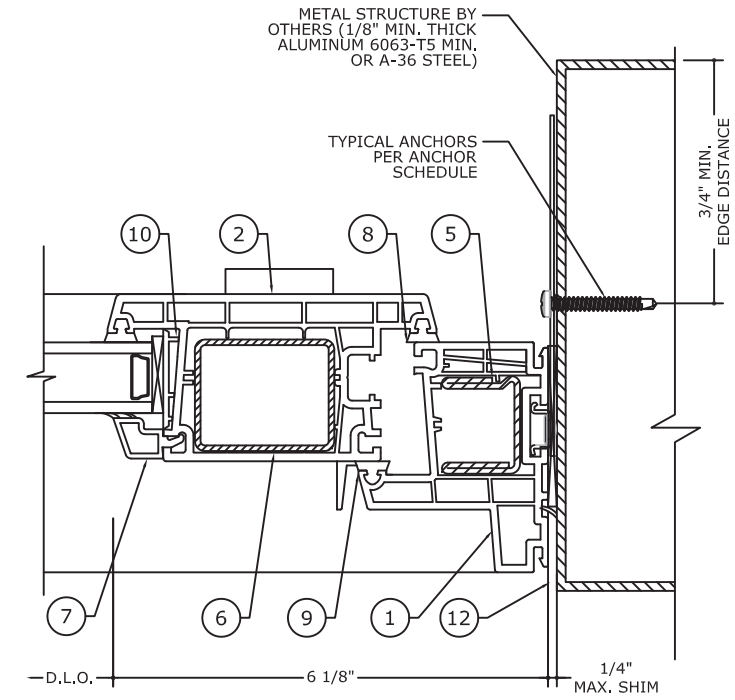
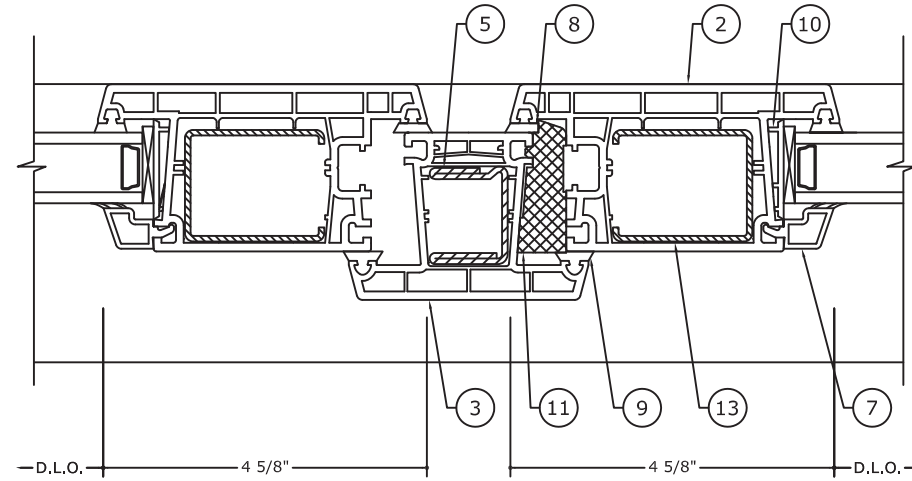
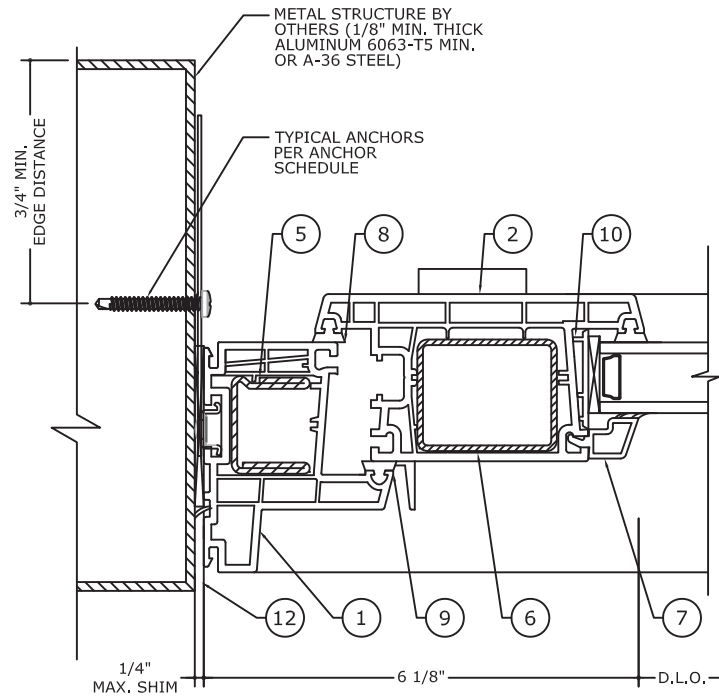
06 OF 10

C:\Users\thayer\Engineering Express\Production - Documents\Projects\21-39093 Vinyl Swing Doors - 2020 FBC\Work\Drawings & CAD\21-39093 PVC In-Swing Door (2020 FSA).dwg

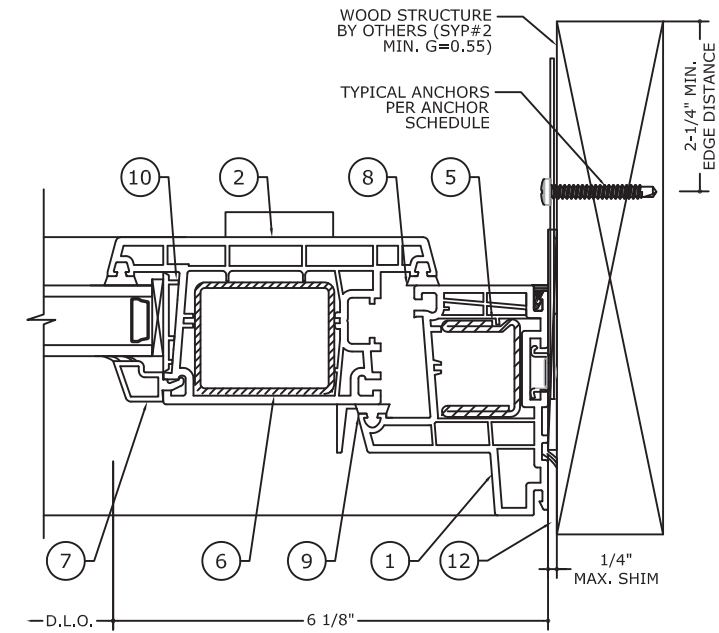
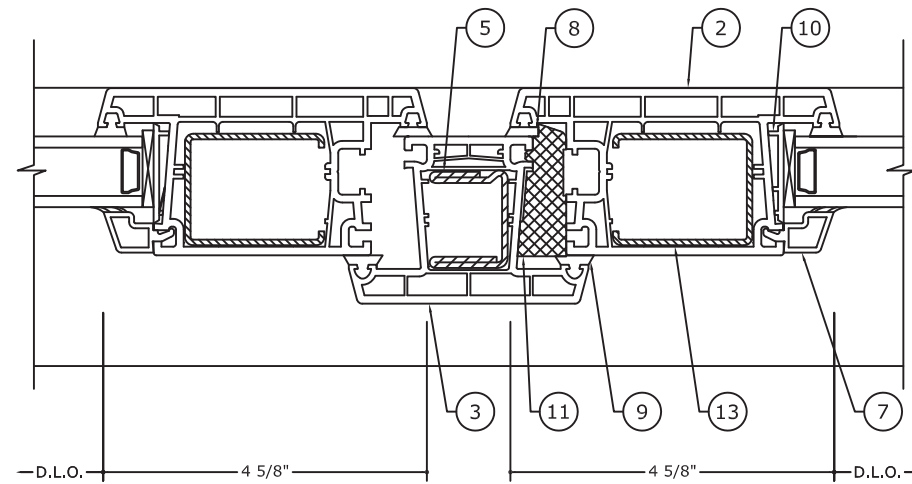
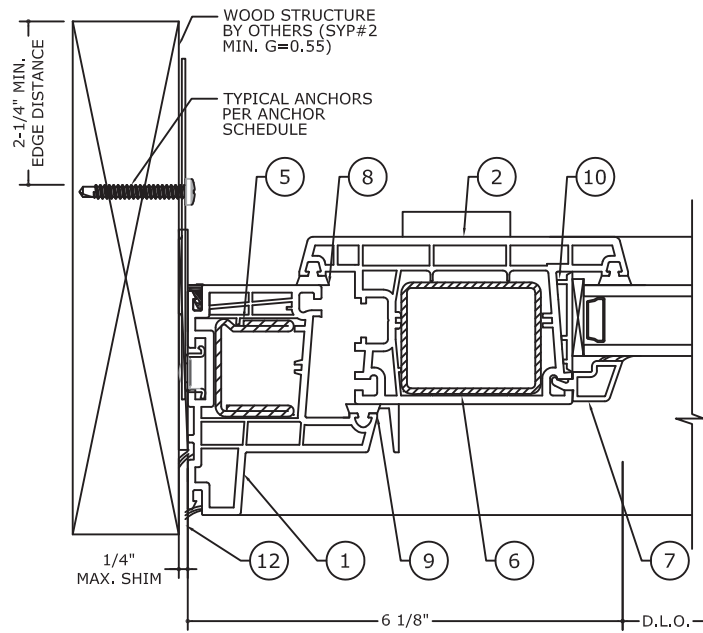
thayer

05/11/2021 - 2:24pm

JAMB & MEETING STILE DETAILS



3 JAMB & MEETING STILE DETAILS
ALUMINUM / STEEL



3.1 JAMB & MEETING STILE DETAILS
WOOD CONDITION

NOTE: REFER TO SYSTEM INSTALLATION MANUAL FOR FABRICATION AND ASSEMBLY INSTRUCTIONS.

FRANK BERNARDO, P.E.
PE# 0046549 CA# 9885



05/11/2021

FL#38465.1



CORPORATE OFFICE:
160 SW 12th AVE, SUITE 106
DEERFIELD BEACH, FL 33442
(954) 354-0660 | (866) 396-9999
TEAM@ENGINEERINGEXPRESS.COM
ENGINEERINGEXPRESS.COM

FOUR SEASONS SOLAR PRODUCTS, LLC.
5005 VETERANS MEMORIAL HIGHWAY
HOLBROOK, NY 11741
PH: (631) 563-4000

SERIES 4500 IN-SWING
PVC SWING DOORS

REMARKS	DRWN	CHKD	DATE
INIT ISSUE	TAE	AJP	4/14/21

COPYRIGHT ENGINEERING EXPRESS®

21-39093a

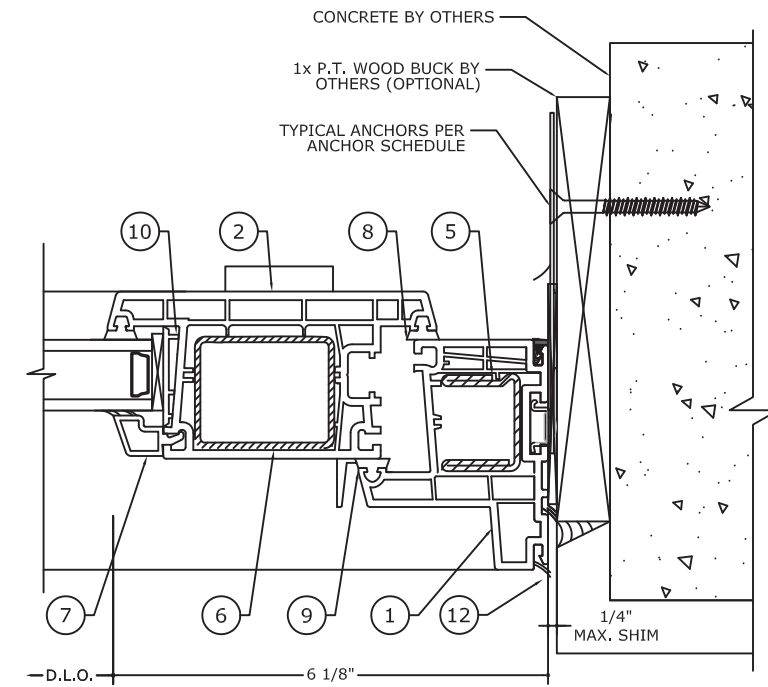
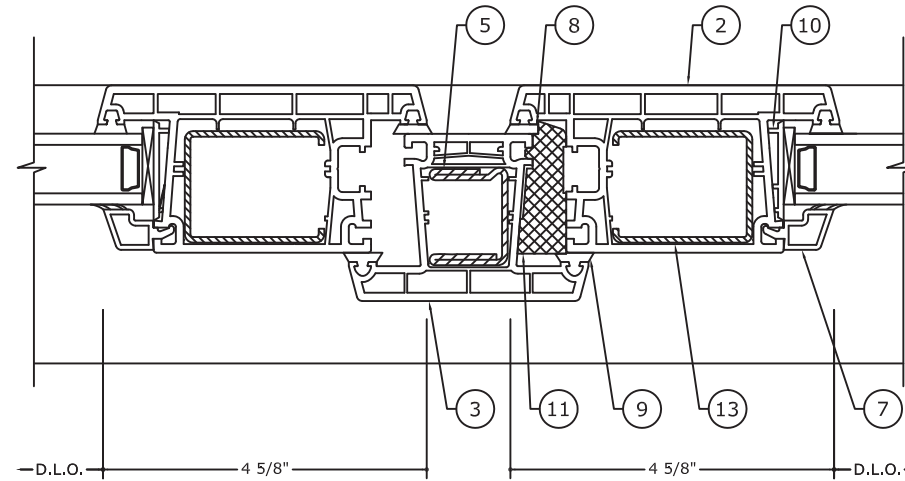
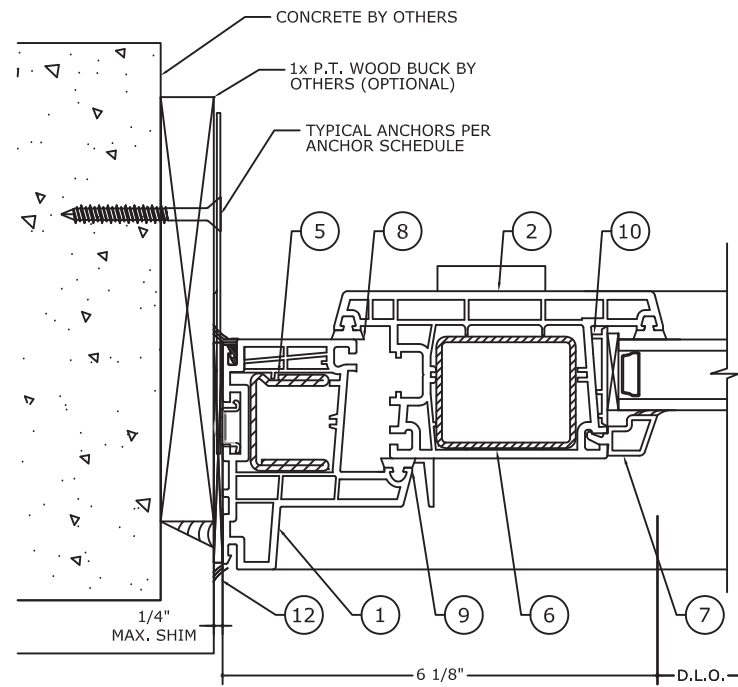
SCALE: NTS UNLESS NOTED

07 OF 10

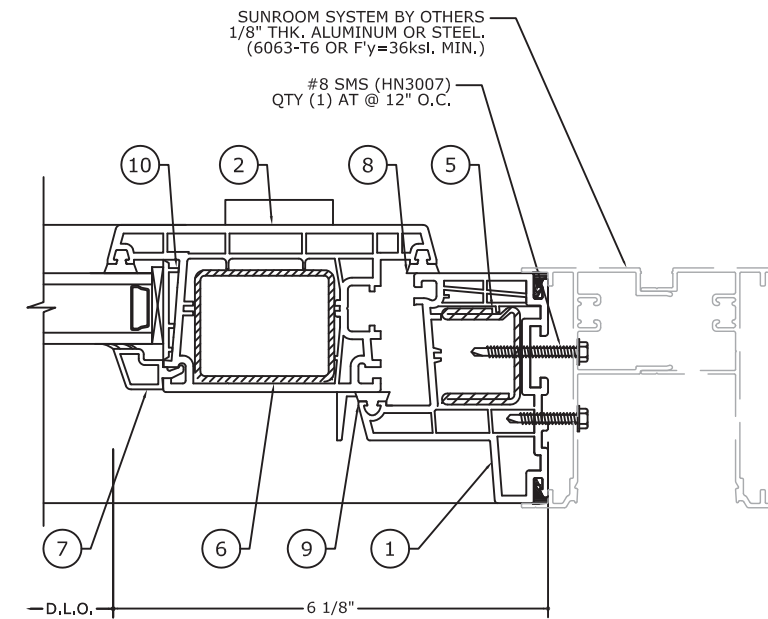
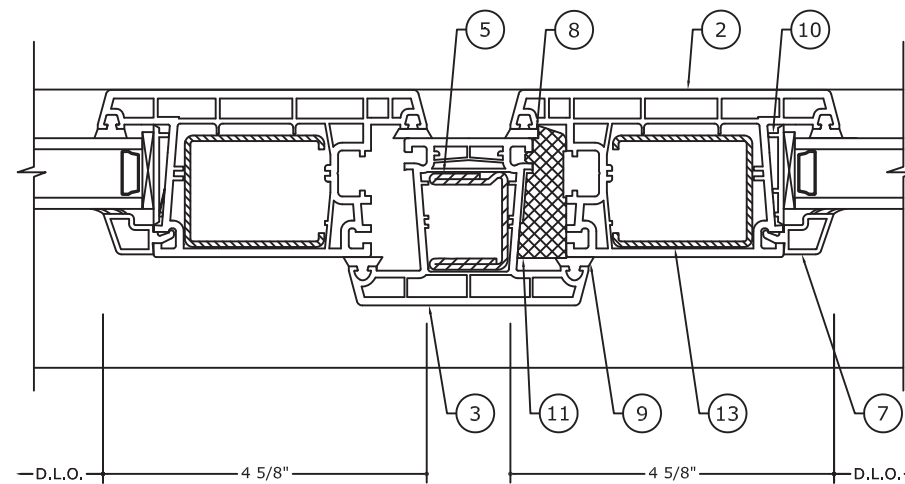
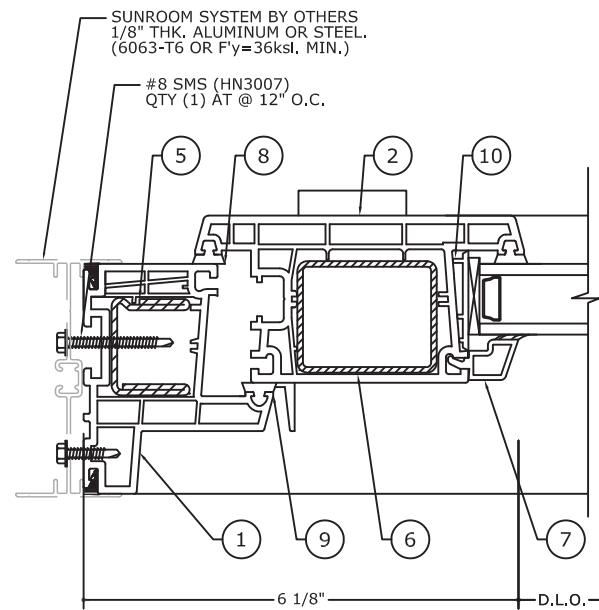
C:\Users\thayer\Engineering Express\Production - Documents\Projects\21-39093 Vinyl Swing Doors - 2020 FBC\Work\Drawings & CAD\21-39093 PVC In-Swing Door (2020 FSA).dwg

05/11/2021 - 2:24pm thayer

JAMB & MEETING STILE DETAILS



3.2 JAMB & MEETING STILE DETAILS CONCRETE CONDITION



3.3 JAMB & MEETING STILE DETAILS SUNROOM CONDITION

NOTE: REFER TO SYSTEM INSTALLATION MANUAL FOR FABRICATION AND ASSEMBLY INSTRUCTIONS.

FRANK BENNARDO, P.E.
PE# 0046549 CA# 9885



05/11/2021

FL#38465.1



CORPORATE OFFICE:
160 SW 12th AVE, SUITE 106
DEERFIELD BEACH, FL 33442
(954) 354-0660 | (866) 396-9999
TEAM@ENGINEERINGEXPRESS.COM
ENGINEERINGEXPRESS.COM

FOUR SEASONS SOLAR PRODUCTS, LLC.
5005 VETERANS MEMORIAL HIGHWAY
HOLBROOK, NY 11741
PH: (631) 563-4000

SERIES 4500 IN-SWING
PVC SWING DOORS

REMARKS	DRWN	CHKD	DATE
INIT ISSUE	TAE	AJP	4/14/21

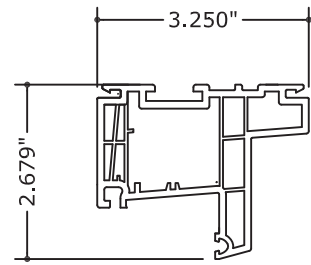
COPYRIGHT ENGINEERING EXPRESS®

21-39093a

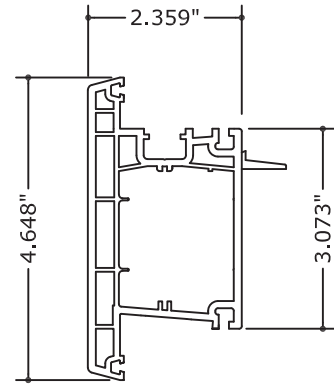
SCALE: NTS UNLESS NOTED

08 OF 10

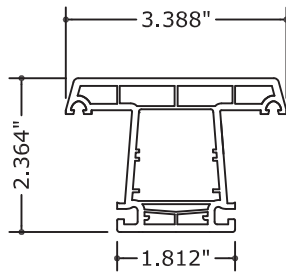
SYSTEM COMPONENTS



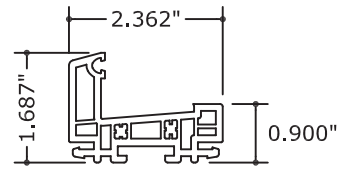
1 FIXED FRAME
601205



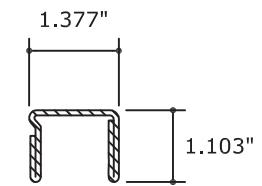
2 DOOR T-SASH
541150



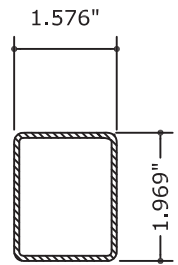
3 T-MULLION
554091



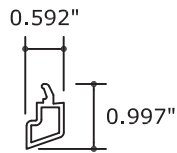
4 VINYL SILL
601235



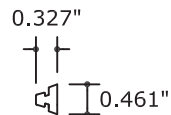
5 REINFORCEMENT
244536



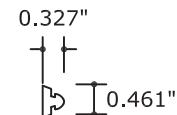
6 REINFORCEMENT
251886



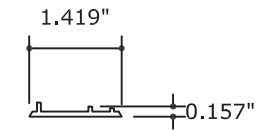
7 GLAZING STOP
560600



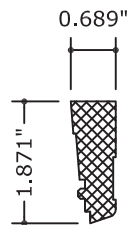
8 GLAZING SPLINE
864992



9 SEALING SPLINE
864952



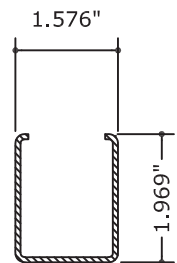
10 SHIM SUPPORT
351164 - 541220



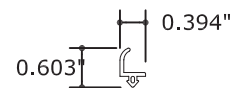
11 DISTANCE PIECE
241043



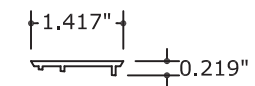
12 ANCHOR CLIP (22 Ga. STEEL)
255485



13 REINFORCEMENT
268742



14 ASTRAGEL SEAL
864940



15 GLAZING SHIM
541220

FRANK BENNARDO, P.E.
PE# 0046549 CA# 9885



05/11/2021

FL#38465.1



CORPORATE OFFICE:
160 SW 12th AVE, SUITE 106
DEERFIELD BEACH, FL 33442
(954) 354-0660 | (866) 396-9999
TEAM@ENGINEERINGEXPRESS.COM
ENGINEERINGEXPRESS.COM

FOUR SEASONS SOLAR PRODUCTS, LLC.

5005 VETERANS MEMORIAL HIGHWAY
HOLBROOK, NY 11741
PH: (631) 563-4000

SERIES 4500 IN-SWING
PVC SWING DOORS

REMARKS	DRWN	CHKD	DATE
INIT ISSUE	TAE	AJP	4/14/21

COPYRIGHT ENGINEERING EXPRESS®

21-39093a

SCALE: NTS UNLESS NOTED

09 OF 10

BILL OF MATERIALS

ITEM NO.	DESCRIPTION	PART NO.	MATERIAL	MANUFACTURER
1	FIXED - FRAME	601205	VINYL	-
2	DOOR T-SASH	541150	VINYL	-
3	T-MULLION	554091	VINYL	-
4	VINYL SILL	601235	VINYL	-
5	REINFORCEMENT - FRAME & T-MULLION	244536	STEEL	-
6	REINFORCEMENT - DOOR T-SASH	251886	STEEL	-
7	GLAZING STOP	560600	VINYL	-
8	GLAZING SPLINE	864992	.	-
9	SEALING SPLINE	864952	.	-
10	SHIM SUPPORT	351164	.	-
11	DISTANCE PIECE	241043	.	-
12	ANCHOR CLIP	255485	.	-
13	REINFORCEMENT - DOOR T-SASH HANDLE	268742	STEEL	-
14	ASTRAGEL SEAL	864940	.	-
15	GLAZING SHIM	541220	.	-
16	LOCKING HARDWARE (SINGLE DOOR) - HALF TURN LEVER LOCK HANDLE SET			
17	LOCKING HARDWARE (PAIR OF DOORS) - MULTI-POINT LOCK AND HANDLE SET			

FRANK BENNARDO, P.E.
PE# 0046549 CA# 9885



05/11/2021

FL#38465.1

ENGINEERING EXPRESS
CORPORATE OFFICE:
160 SW 12th AVE, SUITE 106
DEERFIELD BEACH, FL 33442
(954) 354-0660 | (866) 396-9999
TEAM@ENGINEERINGEXPRESS.COM
ENGINEERINGEXPRESS.COM

FOUR SEASONS SOLAR PRODUCTS, LLC.
5005 VETERANS MEMORIAL HIGHWAY
HOLBROOK, NY 11741
PH: (631) 563-4000
SERIES 4500 IN-SWING
PVC SWING DOORS

REMARKS	DRWN	CHKD	DATE
INIT ISSUE	TAE	AJP	4/14/21

COPYRIGHT ENGINEERING EXPRESS®

21-39093a

SCALE: NTS UNLESS NOTED

10

OF 10

05/11/2021 - 2:24pm thayer C:\Users\thayer\Engineering Express\Production - Documents\Projects\21-39093 Vinyl Swing Doors - 2020 FBC\Work\Drawings & CAD\21-39093 PVC In-Swing Door (2020 FSA).dwg