

ASSA ABLOY

ASSA ABLOY ENTRANCE SYSTEMS
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ASSA ABLOY

SL500 RESILIENCE R104 SLIDING DOOR SYSTEM (HVHZ)
BI-PARTING AND SINGLE SLIDING

Revisions

Rev	Description	Date	Approved
0	Initial Release		SJF
1	Added Glass Note on Sheet 5.	10/18/19	SJF

GENERAL NOTES:

1. THIS PRODUCT HAS BEEN TESTED PER TAS 201, 202, & 203. IT MEETS ALL OF THE REQUIREMENTS OF THE CURRENT EDITION OF THE FLORIDA BUILDING CODE, INCLUDING THE HVHZ PROVISIONS. GLASS TYPES 1-3 ARE LARGE AND SMALL IMPACT RESISTANT, AND DO NOT REQUIRE SHUTTERS IN WINDBORNE DEBRIS REGIONS. GLASS TYPE 4 IS NOT IMPACT RESISTANT. IMPACT RESISTANT SHUTTERS ARE REQUIRED IN WINDBORNE DEBRIS REGIONS.

2. MAX. DESIGN PRESSURES ARE LISTED ON SHEET 4.

3. THIS DOOR SYSTEM IS NOT TESTED OR RATED FOR WATER INFILTRATION RESISTANCE. IT IS INTENDED FOR USE ONLY IN LOCATIONS WHERE WATER INFILTRATION RESISTANCE IS NOT REQUIRED OR WHERE IT IS PROTECTED BY AN OVERHANG MEETING THE REQUIREMENTS OF FBC SECTION 1709.5.1.

4. OPENING SUBSTRATES, WOOD BUCKS (OPTIONAL), AND WOOD BUCK FASTENERS ARE BY OTHERS AND MUST BE DESIGNED AND INSTALLED PER FBC REQUIREMENTS TO SAFELY TRANSFER THE LOADS FROM THIS SYSTEM TO THE BUILDING STRUCTURE. SUBSTRATES SHALL MEET THE MINIMUM STRENGTH REQUIREMENTS LISTED IN THE ANCHOR CHART ON SHEET 13.

5. ANCHOR TYPE, SIZE, SPACING, AND EMBEDMENT SHALL BE AS LISTED IN THE ANCHOR CHART ON SHEET 13, AND AS DETAILED IN THESE DRAWINGS. ANCHOR EMBEDMENT IN SUBSTRATE SHALL BE BEYOND WALL DRESSING OR STUCCO.

6. ALL FASTENERS PENETRATING INTO PRESSURE TREATED WOOD SHALL BE CAPABLE OF PREVENTING CORROSION DUE TO REACTION WITH PRESSURE TREATMENT CHEMICALS.

7. THE 4/3 INCREASE IN ALLOWABLE STRESS FOR SHORT-TERM LOADING HAS NOT BEEN USED IN THE DESIGN OF THIS SYSTEM. THE 1.6 Cd FACTOR HAS BEEN USED IN THE ANALYSIS OF WOOD SCREWS ONLY.

8. DISSIMILAR MATERIALS THAT COME INTO CONTACT SHALL BE PROTECTED TO PREVENT GALVANIC REACTIONS IN ACCORDANCE WITH FBC CHAPTERS 20 AND 23.

SYSTEM NOTES:

1. ALL ALUMINUM PARTS SHALL BE 6063-T5 ALUMINUM ALLOY AND TEMPER, UNLESS OTHERWISE NOTED.

2. FOR GLAZING DETAILS, SEE SHEET 5.

3. THE GLAZING MATERIALS IN BOTH FIXED AND SLIDING PANELS OF ALL SLIDING DOORS MUST COMPLY WITH THE REQUIREMENTS IN THE PERFORMANCE SPECIFICATIONS AND METHODS OF TEST FOR SAFETY GLAZING MATERIALS USED IN BUILDINGS, PER FBC REQUIREMENTS.

4. THIS SYSTEM HAS NOT BEEN TESTED PER ANSI Z97.1.

CORNER CONSTRUCTION:

5. FRAME CORNERS ARE SQUARE CUT AND MECHANICALLY FASTENED AT THE HEAD WITH M6x30 SCREWS USING A BEAM END PLATE (SEE SHEET 12),

6. PANEL CORNERS ARE SQUARE CUT AND MECHANICALLY FASTENED AT EACH CORNER USING ANTI-TWIST BRACKETS, THEN REINFORCED WITH (2) FULL WIDTH 3/8" THREADED TIE IN THE TOP AND BOTTOM RAILS.

Sheet

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Description

General Notes, Corner Construction

Bi-Part Elevation, Jamb Anchoring Locations

Single Slide Elevation, Jamb Anchoring Locations

Design Pressure Charts

Glazing Details

Bi-Part Section Views

Bi-Part Head and Sill Anchoring Locations

Single Slide Section Views

Single Slide Head and Sill Anchoring Locations

Door Connections and Head Section Views

Locking Details, Muntin Details

Frame Connection Details

Threshold Anchoring Details, Installation Anchor Table

Head and Jamb Anchoring Details

Profiles

Bill of Materials, Sheet 1 of 2

Bill of Materials, Sheet 2 of 2

Panic Exit Device Interior Profile

Panic Exit Device Exterior Profile

Panic Exit Device Installation Details, Sheet 1 of 2

Panic Exit Device Installation Details, Sheet 2 of 2

DESIGN PRESSURE

IMPACT RATING

SEE TABLES ON SHEET 4

SEE TABLES ON SHEET 4 AND GLAZING DETAILS ON SHEET 5

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SEAL: No 62354

STATE OF FLORIDA
APR 25 2023
PROFESSIONAL ENGINEER

DWG NO.
SL500-R104-HVHZ

DRAWN BY
SJF

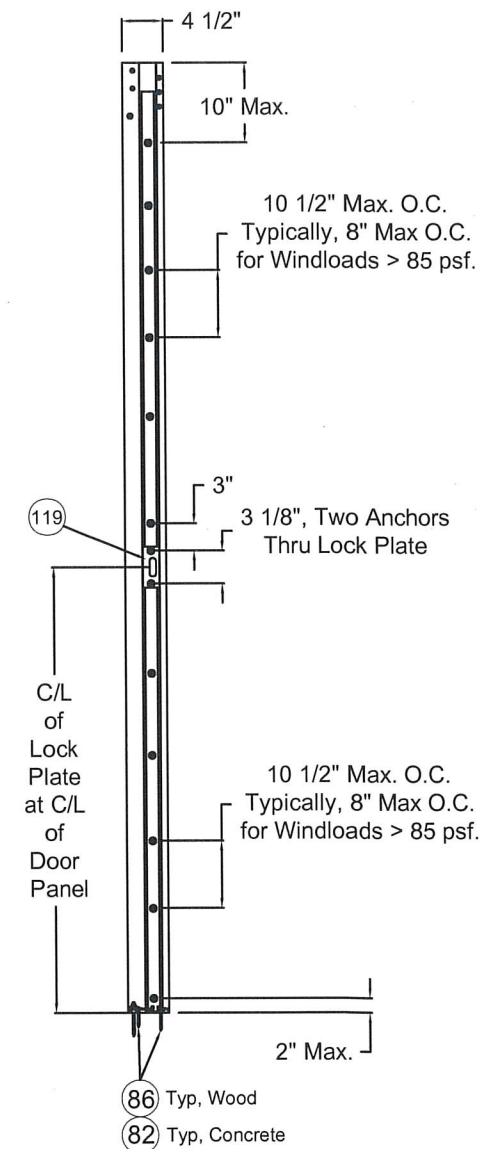
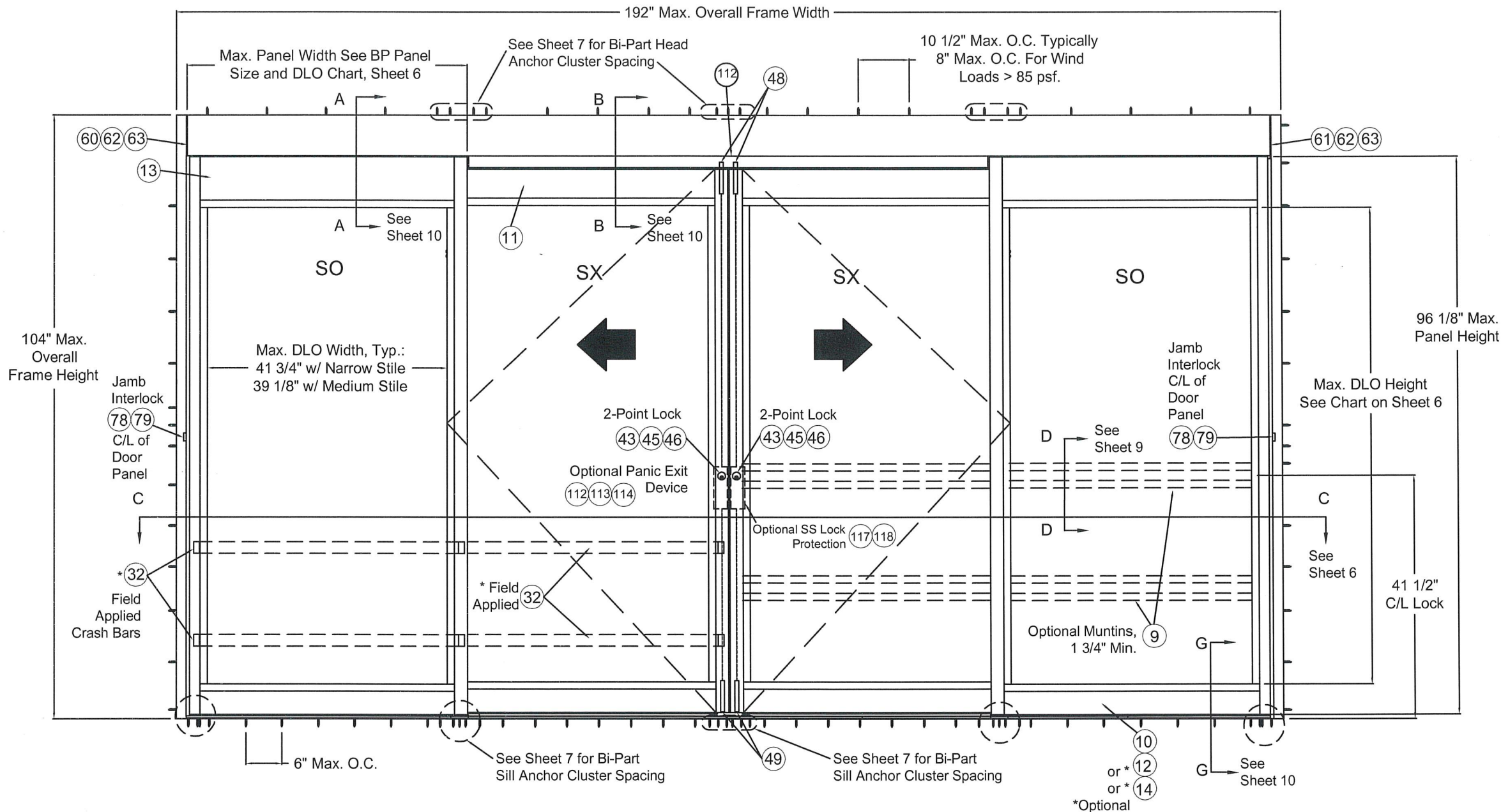
DATE
7/19/2019

SHEET DESCRIPTION

SHEET NO.
1 OF 21

ASSA ABLOY

Revisions			
Rev	Description	Date	Approved
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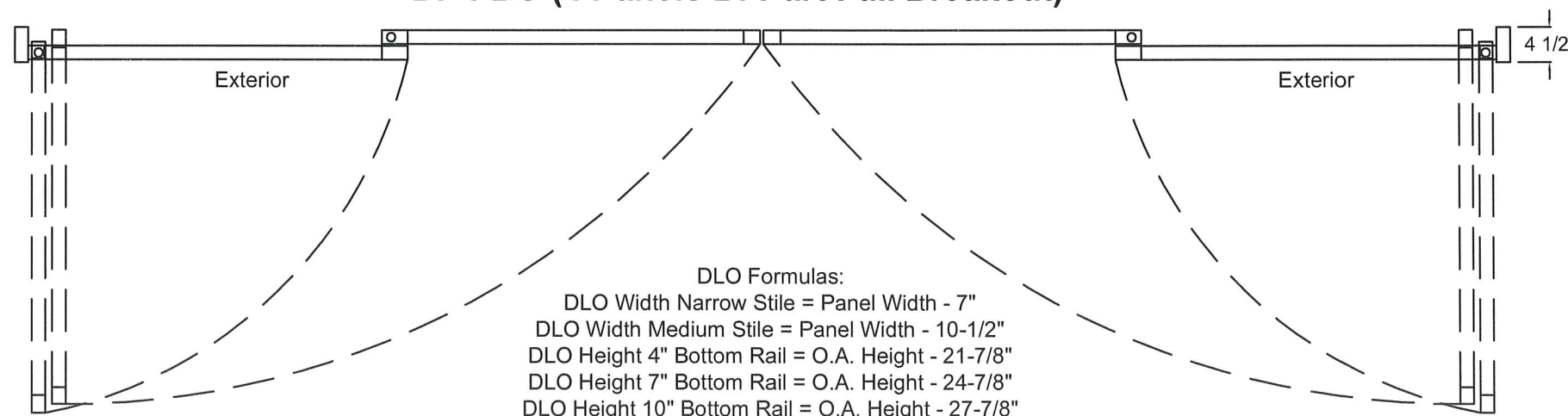
SIDELITE JAMB
(TYP. BOTH JAMBS)

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BP FBO (4 Panels Bi-Part Full Breakout)

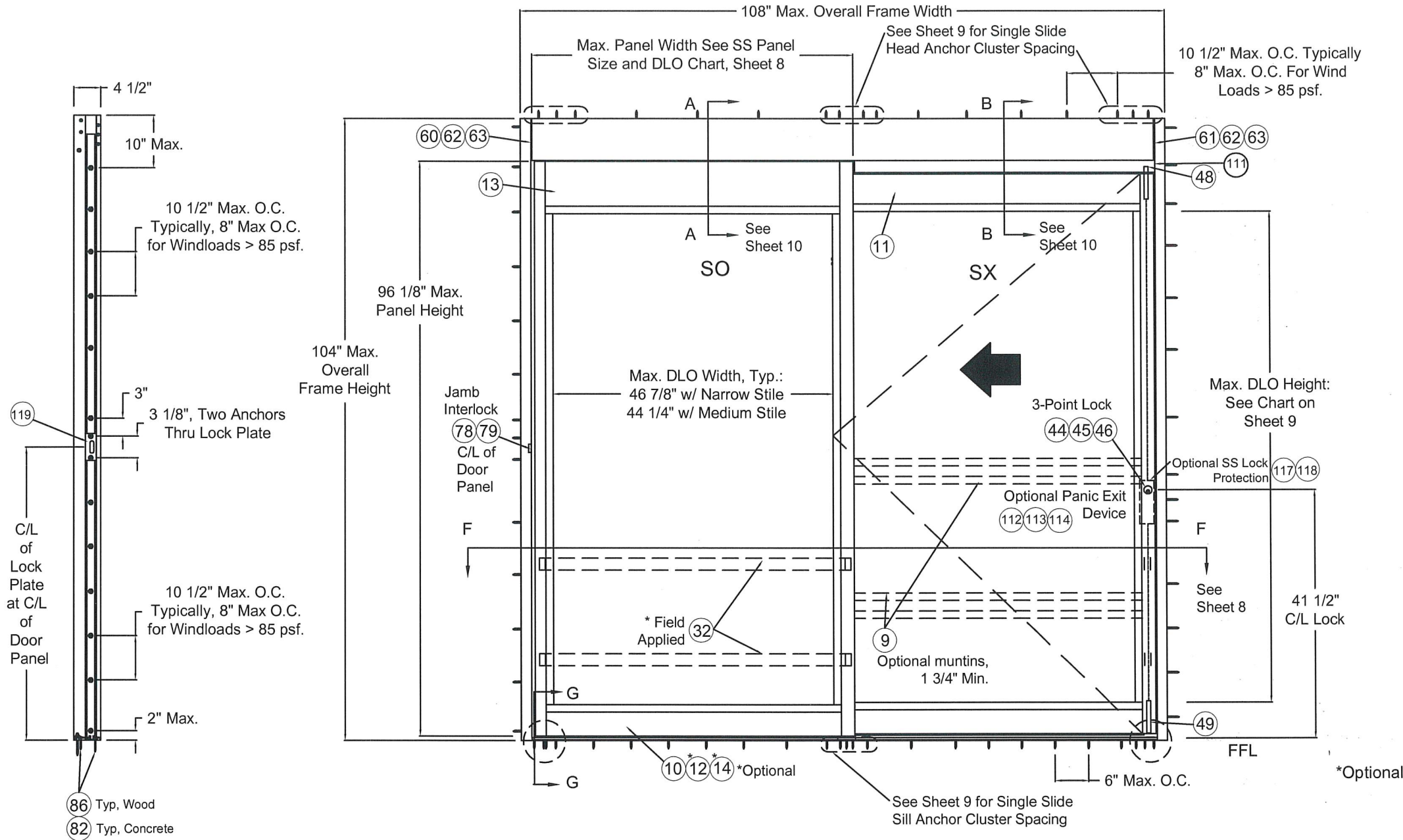


DLO Formulas:
DLO Width Narrow Stile = Panel Width - 7"
DLO Width Medium Stile = Panel Width - 10-1/2"
DLO Height 4\"/>

DWG NO.	SL500-R104-HVHZ
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SHEET DESCRIPTION	SHEET NO. 2 OF 21

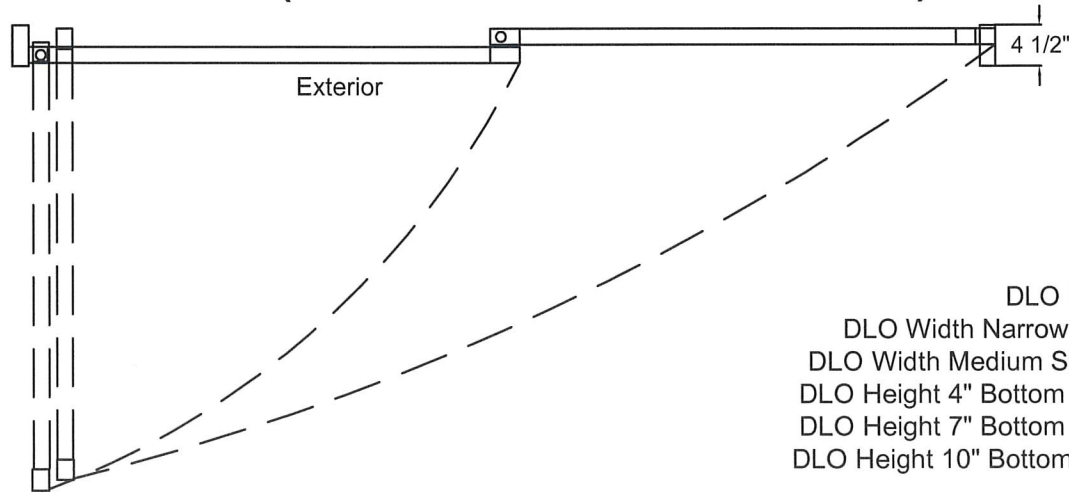
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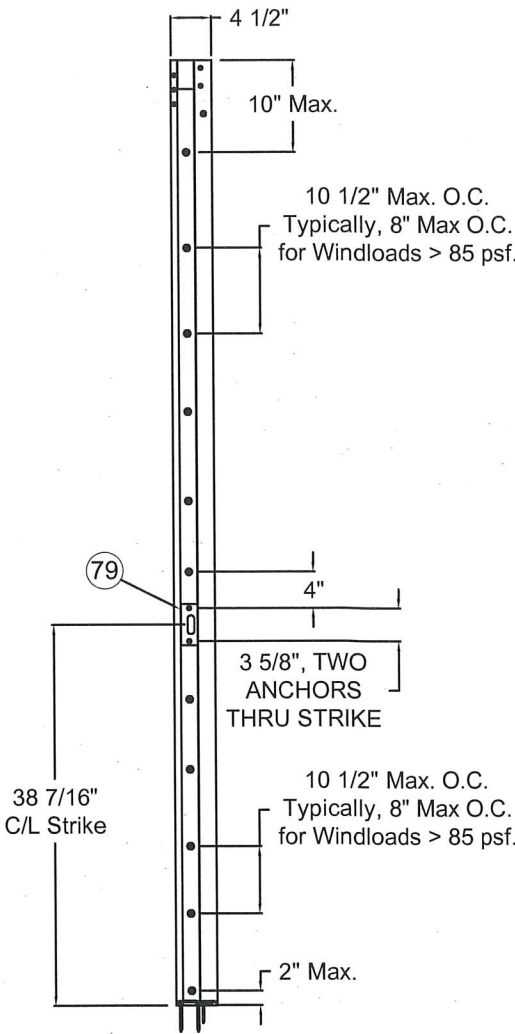


SIDELITE JAMB

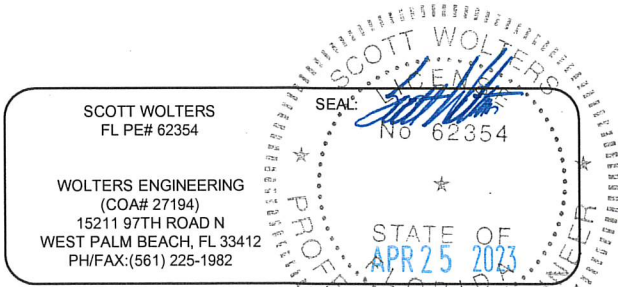
LH FBO (2 Panels Left-Hand Full Breakout)



DLO Formulas:
DLO Width Narrow Stile = Panel Width - 7"
DLO Width Medium Stile = Panel Width - 10 1/2"
DLO Height 4" Bottom Rail = O.A. Height - 21 7/8"
DLO Height 7" Bottom Rail = O.A. Height - 24 7/8"
DLO Height 10" Bottom Rail = O.A. Height - 27 7/8"



ACTIVE JAMB



DWG NO.	SL500-R104-HVHZ
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SINGLE SLIDE - MAXIMUM DESIGN PRESSURE				
GLASS TYPE	IMPACT RATING	LOCKING HARDWARE	MAX. FRAME SIZE (in)	MAX. DESIGN PRESSURE (psf)
GLASS TYPES 1 & 2	LMI - MISSILE D	3 PT. LOCK ADAMS-RITE 8600	SEE CHART BELOW 108" x 104"	SEE CHART BELOW 80
GLASS TYPE 3	LMI - MISSILE E	3 PT. LOCK ADAMS-RITE 8600	108" x 104" 108" x 104"	80 80
GLASS TYPE 4	NON-IMPACT**	3 PT. LOCK ADAMS-RITE 8600	SEE CHART BELOW SEE CHART BELOW	SEE CHART BELOW SEE CHART BELOW

** SHUTTERS ARE REQUIRED FOR WINDBORNE DEBRIS REGIONS

BI-PARTING - MAXIMUM DESIGN PRESSURE				
GLASS TYPE	IMPACT RATING	LOCKING HARDWARE	MAX. FRAME SIZE (in)	MAX. DESIGN PRESSURE (psf)
GLASS TYPES 1 & 2	LMI - MISSILE D	4 PT. LOCK ADAMS-RITE 9600	SEE CHART BELOW 192" x 104"	SEE CHART BELOW 80
GLASS TYPE 3	LMI - MISSILE E	4 PT. LOCK ADAMS-RITE 9600	192" x 104" 192" x 104"	80 80
GLASS TYPE 4	NON-IMPACT**	4 PT. LOCK ADAMS-RITE 9600	SEE CHART BELOW SEE CHART BELOW	SEE CHART BELOW SEE CHART BELOW

** SHUTTERS ARE REQUIRED FOR WINDBORNE DEBRIS REGIONS

ALLOWABLE PRESSURES FOR GLASS TYPES 1 & 2 (LMI LEVEL D)						
SINGLE SLIDE WITH 3-POINT LOCK						
FRAME HEIGHT (in)	FRAME WIDTH (in)	MAX DESIGN PRESSURE +/- (psf)		FRAME HEIGHT (in)	FRAME WIDTH (in)	MAX DESIGN PRESSURE +/- (psf)
90	80	125.0		98	80	118.8
90	84	119.0		98	84	113.1
90	88	113.6		98	88	108.0
90	92	108.7		98	92	103.3
90	96	104.2		98	96	99.0
90	100	100.0		98	100	95.0
90	104	96.2		98	104	91.4
90	108	92.6		98	108	88.0
92	80	123.5		100	80	117.4
92	84	117.6		100	84	111.8
92	88	112.3		100	88	106.7
92	92	107.4		100	92	102.1
92	96	102.9		100	96	97.8
92	100	98.8		100	100	93.9
92	104	95.0		100	104	90.3
92	108	91.5		100	108	87.0
94	80	121.9		102	80	116.2
94	84	116.0		102	84	110.6
94	88	110.8		102	88	105.6
94	92	106.0		102	92	101.0
94	96	101.5		102	96	96.8
94	100	97.5		102	100	92.9
94	104	93.7		102	104	89.3
94	108	90.3		102	108	86.0
96	80	120.2		104	80	114.8
96	84	114.4		104	84	112.0
96	88	109.2		104	88	104.3
96	92	104.5		104	92	99.8
96	96	100.1		104	96	95.6
96	100	96.1		104	100	91.8
96	104	92.4		104	104	88.3
96	108	89.0		104	108	85.0

MAX DESIGN PRESSURE FOR GLASS TYPE 4 (NON-IMPACT)						
SINGLE SLIDE						
FRAME HEIGHT (in)	FRAME WIDTH (in)	MAX DESIGN PRESSURE +/- (psf)		FRAME HEIGHT (in)	FRAME WIDTH (in)	MAX DESIGN PRESSURE +/- (psf)
90	80	132.6		98	80	121.8
90	84	126.3		98	84	116.0
90	88	120.5		98	88	110.7
90	92	115.3		98	92	105.9
90	96	110.5		98	96	101.5
90	100	106.1		98	100	97.4
90	104	102.0		98	104	93.7
90	108	98.2		98	108	90.2
92	80	129.7		100	80	119.3
92	84	123.5		100	84	113.6
92	88	117.9		100	88	108.5
92	92	112.8		100	92	104.0
92	96	108.1		100	96	99.5
92	100	103.8		100	100	95.5
92	104	99.8		100	104	91.8
92	108	96.1		100	108	88.4
94	80	127.0		102	80	117.0
94	84	120.9		102	84	111.4
94	88	115.4		102	88	106.4
94	92	110.4		102	92	101.7
94	96	105.8		102	96	97.5
94	100	101.6		102	100	93.6
94	104	97.7		102	104	90.0
94	108	94.0		102	108	86.7
96	80	124.3		104	80	114.8
96	84	118.4		104	84	109.3
96	88	113.0		104	88	104.3
96	92	108.1		104	92	99.8
96	96	103.6		104	96	95.6
96	100	99.5		104	100	91.8
96	104	95.6		104	104	88.3
96	108	92.1		104	108	85.0

MAX DESIGN PRESSURE FOR GLASS TYPES 1 & 2 (LMI LEVEL D)					
BI-PARTING WITH 4-POINT LOCK					
FRAME HEIGHT (in)	FRAME WIDTH (in)	MAX DESIGN PRESSURE +/- (psf)	FRAME HEIGHT (in)	FRAME WIDTH (in)	MAX DESIGN PRESSURE +/- (psf)
90	120	115.0	98	120	105.6
90	144	107.5	98	144	98.7
90	168	99.9	98	168	91.8
90	192	92.4	98	192	84.9
92	120	112.5	100	120	103.5
92	144	105.1	100	144	96.7
92	168	97.8	100	168	90.0
92	192	90.4	100	192	83.2
94	120	110.1	102	120	101.5
94	144	102.9	102	144	94.9
94	168	95.7	102	168	88.2
94	192	88.5	102	192	81.6
96	120	107.8	104	120	99.5
96	144	100.8	104	144	93.0
96	168	93.7	104	168	86.5
96	192	86.7	104	192	80.0

MAX DESIGN PRESSURE FOR GLASS TYPE 4 (NON-IMPACT)					
BI-PARTING					
FRAME HEIGHT (in)	FRAME WIDTH (in)	MAX DESIGN PRESSURE +/- (psf)	FRAME HEIGHT (in)	FRAME WIDTH (in)	MAX DESIGN PRESSURE +/- (psf)
90	120	129.4	98	120	118.9
90	144	107.9	98	144	99.0
90	168	92.4	98	168	84.9
90	192	80.9	98	192	74.3
92	120	126.6	100	120	116.5
92	144	105.5	100	144	97.1
92	168	90.4	100	168	83.2
92	192	79.1	100	192	72.8
94	120	123.9	102	120	114.2
94	144	103.3	102	144	95.2
94	168	88.5	102	168	81.6
94	192	77.4	102	192	71.4
96	120	121.3	104	120	112.0
96	144	101.1	104	144	93.3
96	168	86.7	104	168	80.0
96	192	75.8	104	192	70.0

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 APR 25 2023
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SHEET DESCRIPTION		SHEET NO. 4 OF 21	

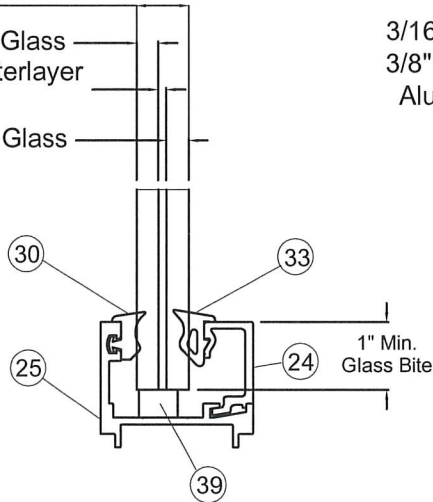
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0	Initial Release		SJF
1	Added Note for Glass Type 4	10/18/19	SJF

Glass Type 1
9/16" LAMINATED GLASS

9/16" Laminated 'D' Impact Glass
(.590" actual)

1/4" Heat Strengthened Glass
.090" Sentryglas Interlayer
by Kuraray
1/4" Heat Strengthened Glass

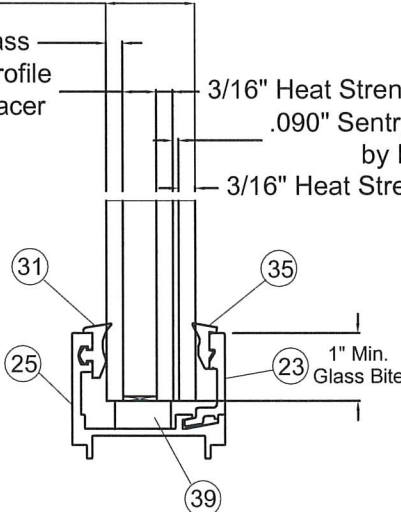


FBC 2411.3.3.1
Compliant Setting Blocks
80 Durometer Neoprene
2 per Glass Edge

Glass Type 2
1" INSULATED LAMINATED GLASS

1" O.A. Insulating Impact Glass
(1" actual)

3/16" Full Tempered Glass
3/8" Air Gap with Low Profile
Aluminum Ramapo Spacer
3/16" Heat Strengthened Glass
.090" Sentryglas Interlayer
by Kuraray
3/16" Heat Strengthened Glass



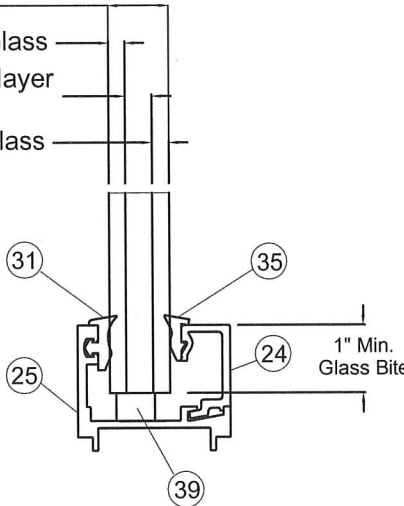
FBC 2411.3.3.1
Compliant Setting Blocks
80 Durometer Neoprene
2 per Glass Edge

LEVEL D LARGE
AND SMALL MISSILE IMPACT

Glass Type 3
9/16" LAMINATED GLASS

9/16" Laminated 'E' Impact Glass
(.680" actual)

1/4" Heat Strengthened Glass
.180" Sentryglas Interlayer
by Kuraray
1/4" Heat Strengthened Glass



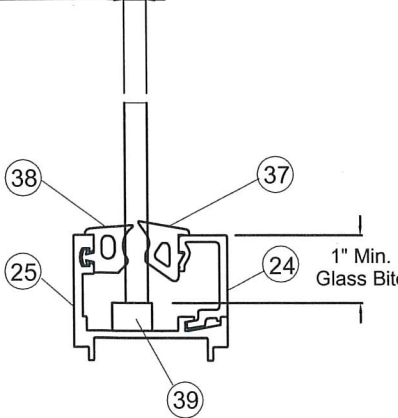
FBC 2411.3.3.1
Compliant Setting Blocks
80 Durometer Neoprene
2 per Glass Edge

LEVEL E LARGE
AND SMALL MISSILE IMPACT

Glass Type 4
1/4" TEMPERED GLASS

GLASS TYPE 4 IS NOT IMPACT
RESISTANT. AN IMPACT RESISTANT
SHUTTER SYSTEM IS REQUIRED FOR
USE IN WINDBORNE DEBRIS REGIONS.

1/4" Fully Tempered
(.250" actual)



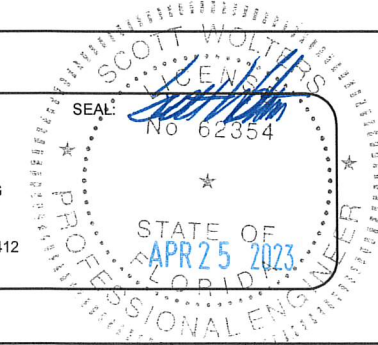
FBC 2411.3.3.1
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NON-IMPACT

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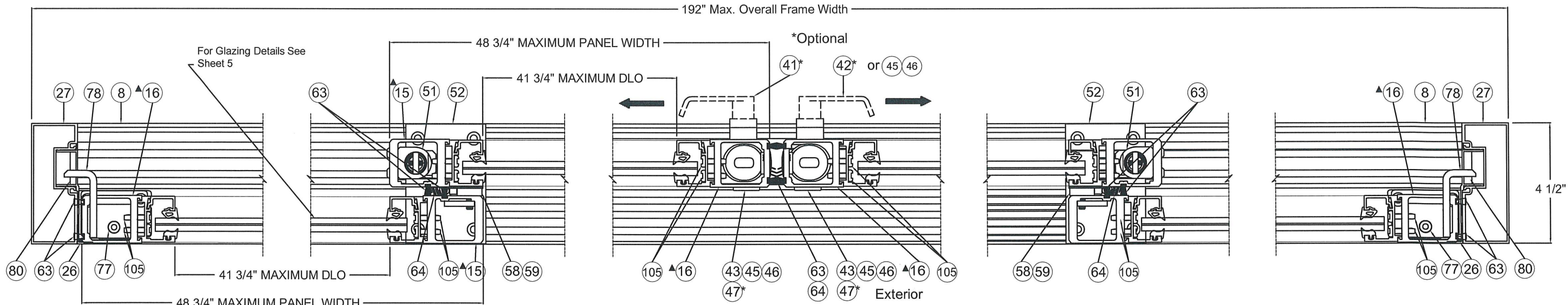
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No 62354



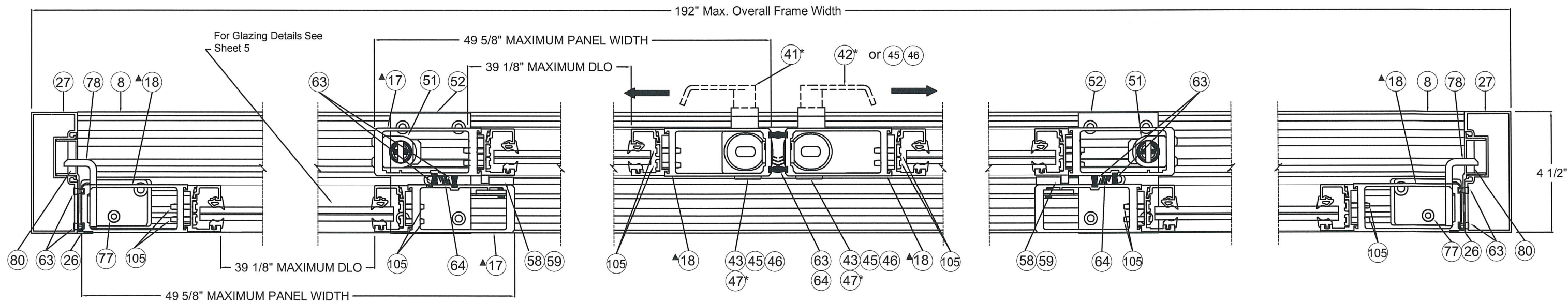
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Revisions			
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▲ US Patent 11,448,003 B2



Section C-C, Narrow Stile
BI-PARTING FULL BREAKOUT SHOWN



Section C-C, Medium Stile
BI-PARTING FULL BREAKOUT SHOWN

BP Panel Size and Daylight Opening Chart		
Door Stile	Maximum Panel Width	Maximum DLO Width
Narrow	48 3/4"	41 3/4"
Medium	49 5/8"	39 1/8"
Bottom Rail	Maximum Panel Height	Maximum DLO Height
4"	96 1/8"	82 1/8"
7"	96 1/8"	79 1/8"
10"	96 1/8"	76 1/8"

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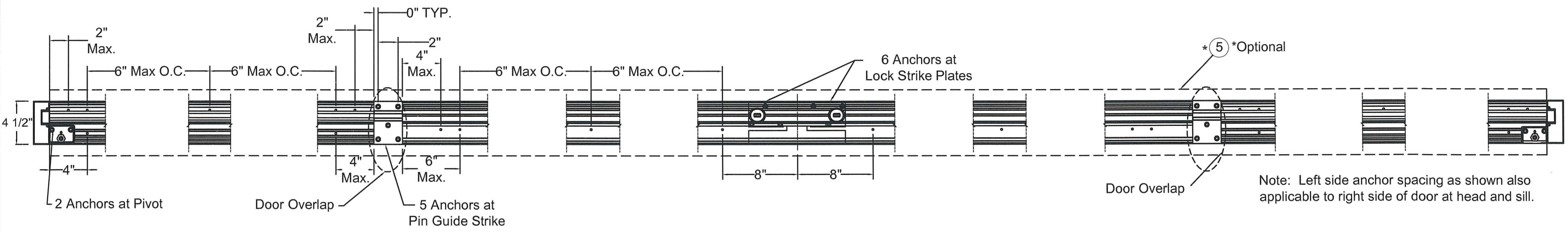
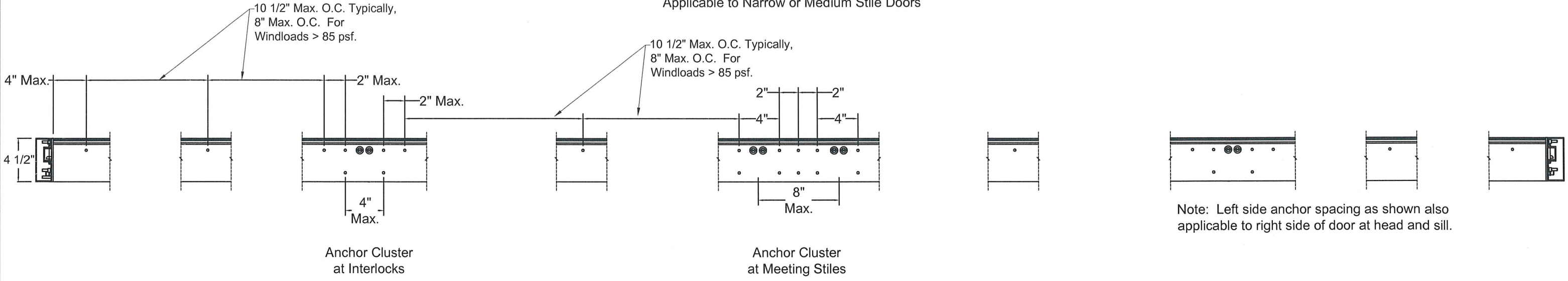
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BI-PART HEAD ANCHOR LOCATIONS

Applicable to Narrow or Medium Stile Doors



BI-PART SILL ANCHOR LOCATIONS

Applicable to Narrow or Medium Stile Doors

BP Panel Size and Daylight Opening Chart		
Door Stile	Maximum Panel Width	Maximum DLO Width
Narrow	48 3/4"	41 3/4"
Medium	49 5/8"	39 1/8"
Bottom Rail	Maximum Panel Height	Maximum DLO Height
4"	96 1/8"	82 1/8"
7"	96 1/8"	79 1/8"
10"	96 1/8"	76 1/8"

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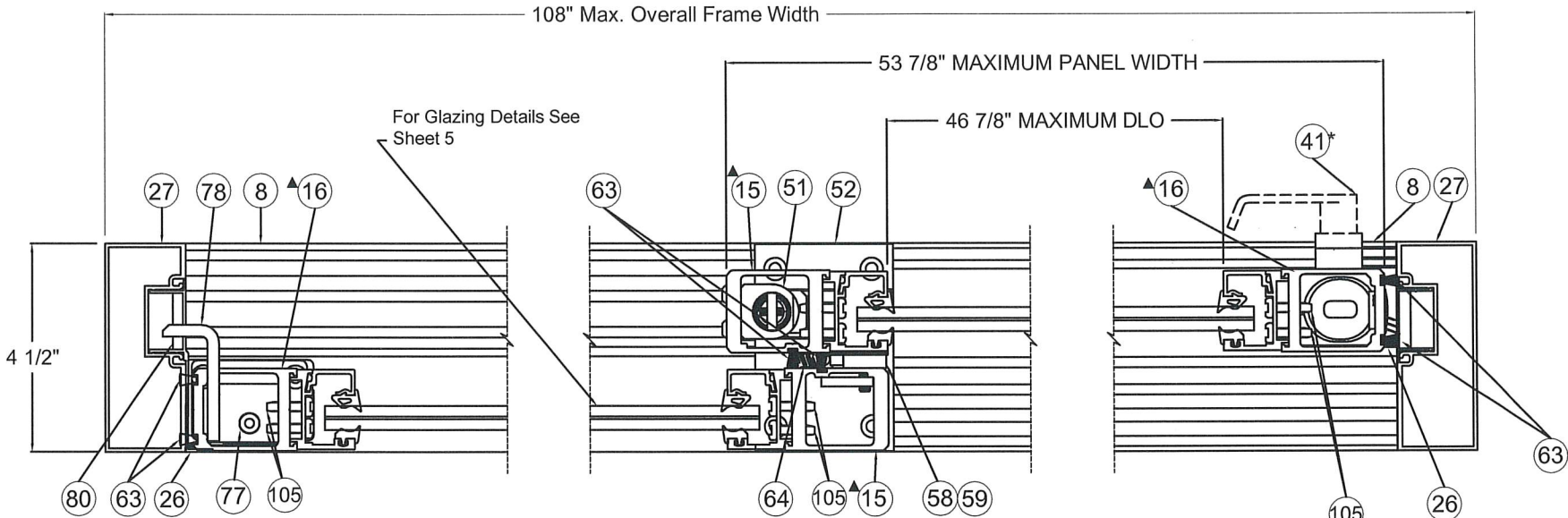
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SHEET DESCRIPTION SHEET NO. 7 OF 21

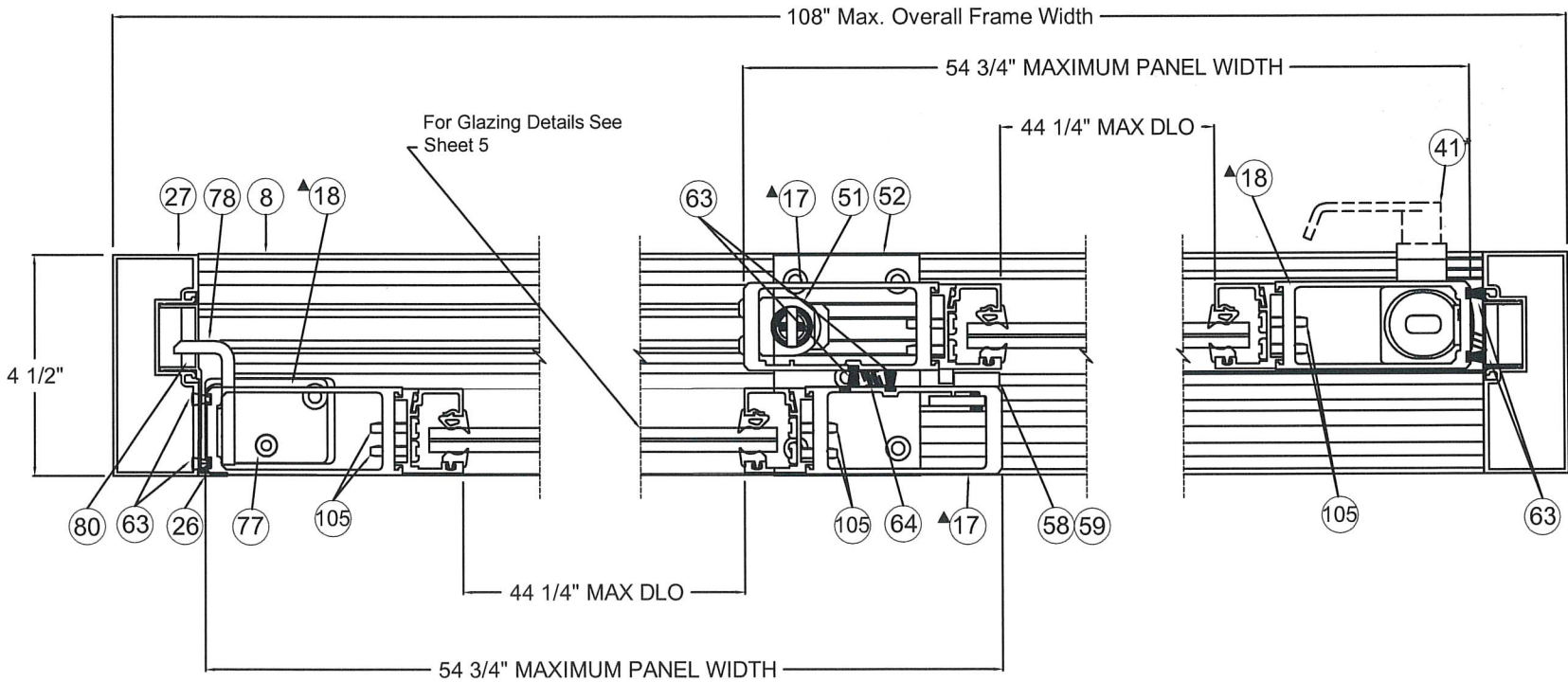
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▲ US Patent 11,448,003 B2



Section F-F, Narrow Stile
SINGLE SLIDE FULL BREAKOUT SHOWN



Section F-F, Medium Stile
SINGLE SLIDE FULL BREAKOUT SHOWN

Single Slide Panel Size and Daylight Opening Chart		
Door Stile	Maximum Panel Width	Maximum DLO Width
Narrow	53 7/8"	46 7/8"
Medium	54 3/4"	44 1/4"
Bottom Rail	Maximum Panel Height	Maximum DLO Height
4"	96 1/8"	82 1/8"
7"	96 1/8"	79 1/8"
10"	96 1/8"	76 1/8"

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FL PE# 62354

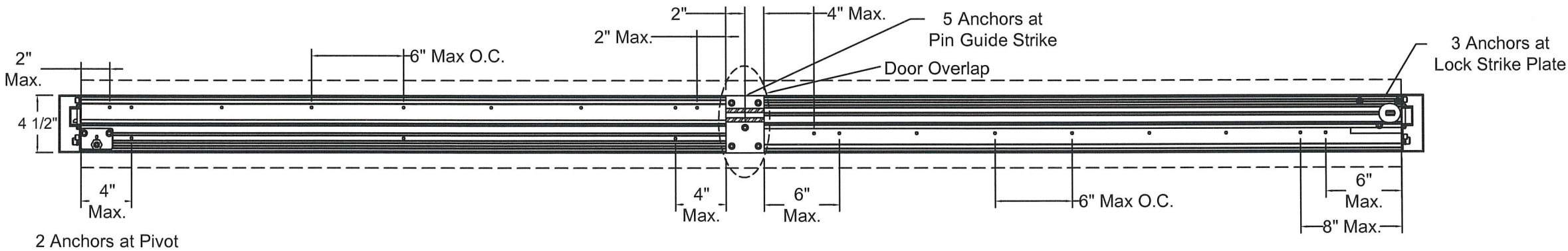
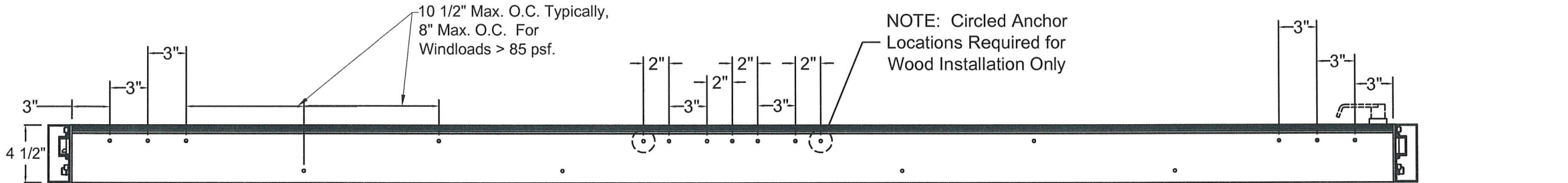
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SINGLE-SLIDE HEAD ANCHOR LOCATIONS



SINGLE-SLIDE SILL ANCHOR LOCATIONS

Single Slide Panel Size and Daylight Opening Chart		
Door Stile	Maximum Panel Width	Maximum DLO Width
Narrow	53 7/8"	46 7/8"
Medium	54 3/4"	44 1/4"
Bottom Rail	Maximum Panel Height	Maximum DLO Height
4"	96 1/8"	82 1/8"
7"	96 1/8"	79 1/8"
10"	96 1/8"	76 1/8"

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FL PE# 62354

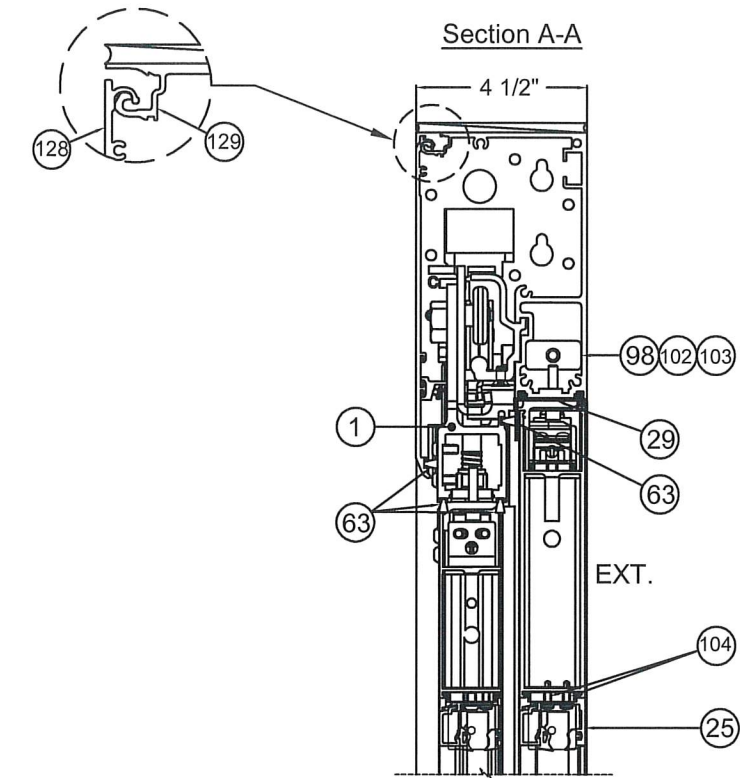
WOLTERS ENGINEERING
(COA# 27194)
15211 97TH ROAD N
WEST PALM BEACH, FL 33412
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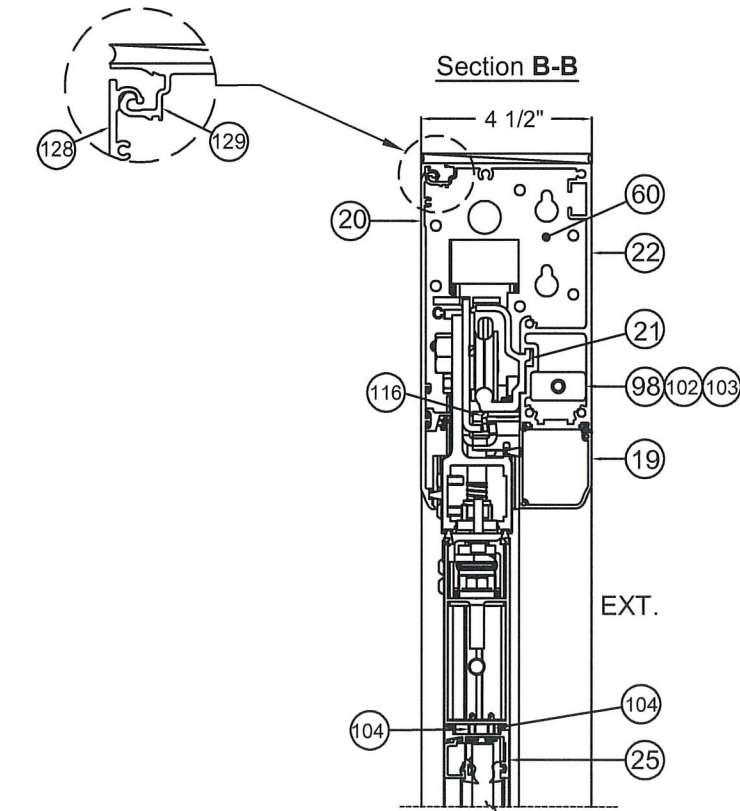
DWG NO. SL500-R104-HVHZ	
DRAWN BY SJF	DATE 7/19/2019
SHEET DESCRIPTION	SHEET NO. 9 OF 21

Revisions			
Rev	Description	Date	Approved
0	Initial Release		SJF

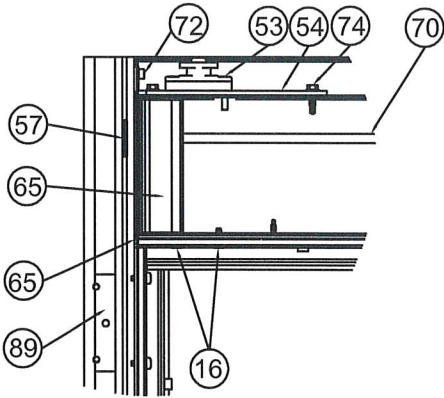
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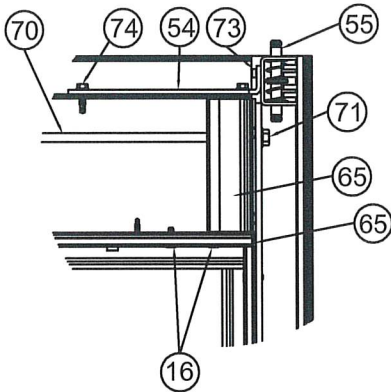
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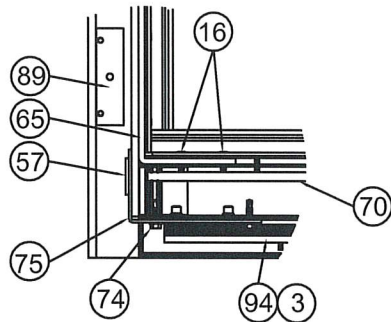
Sidelite Top Corner- Lead Side



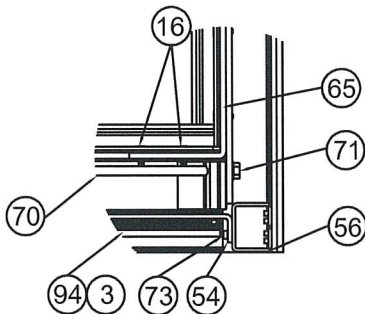
Sidelite Top Corner- Pivot Side



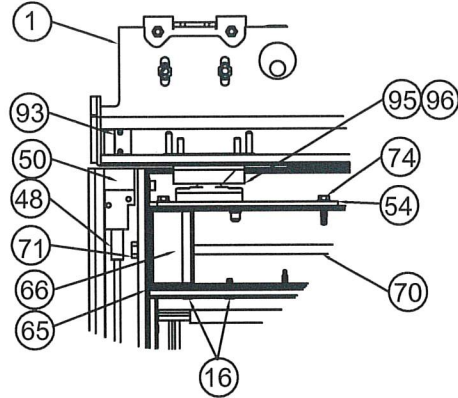
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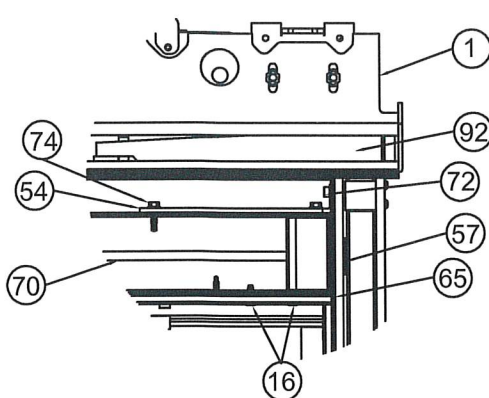
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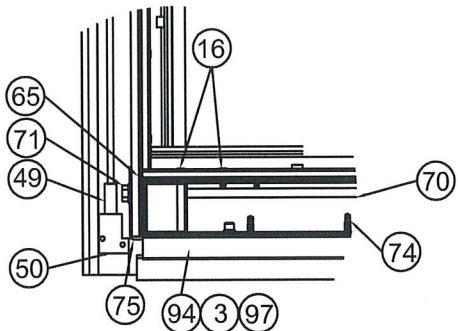
Active Leaf Top Corner- Lead Side



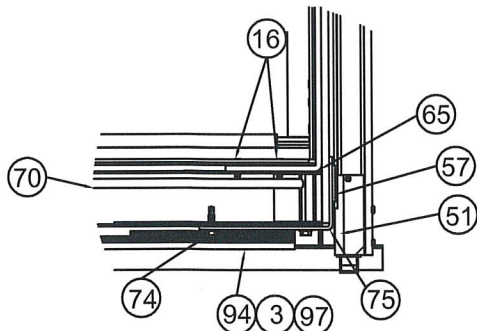
Active Leaf Top Corner-Pivot Side



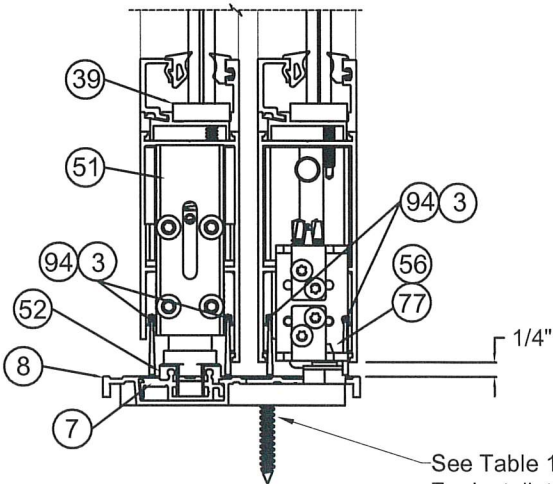
Active Leaf Bottom Corner- Lead Side



Active Leaf Bottom Corner-Pivot Side



Section G-G



See Table 1 on Sheet 13
For Installation Anchor Info.

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SEAL: NO 62354

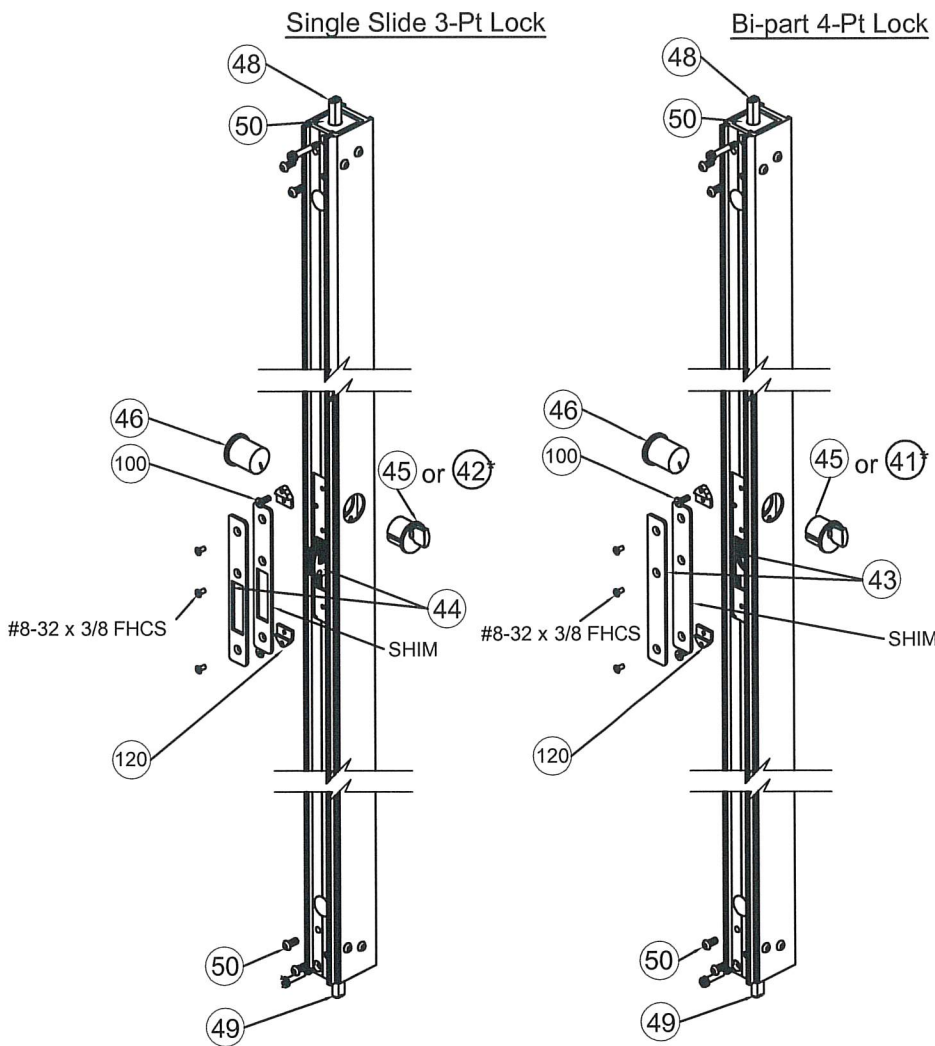
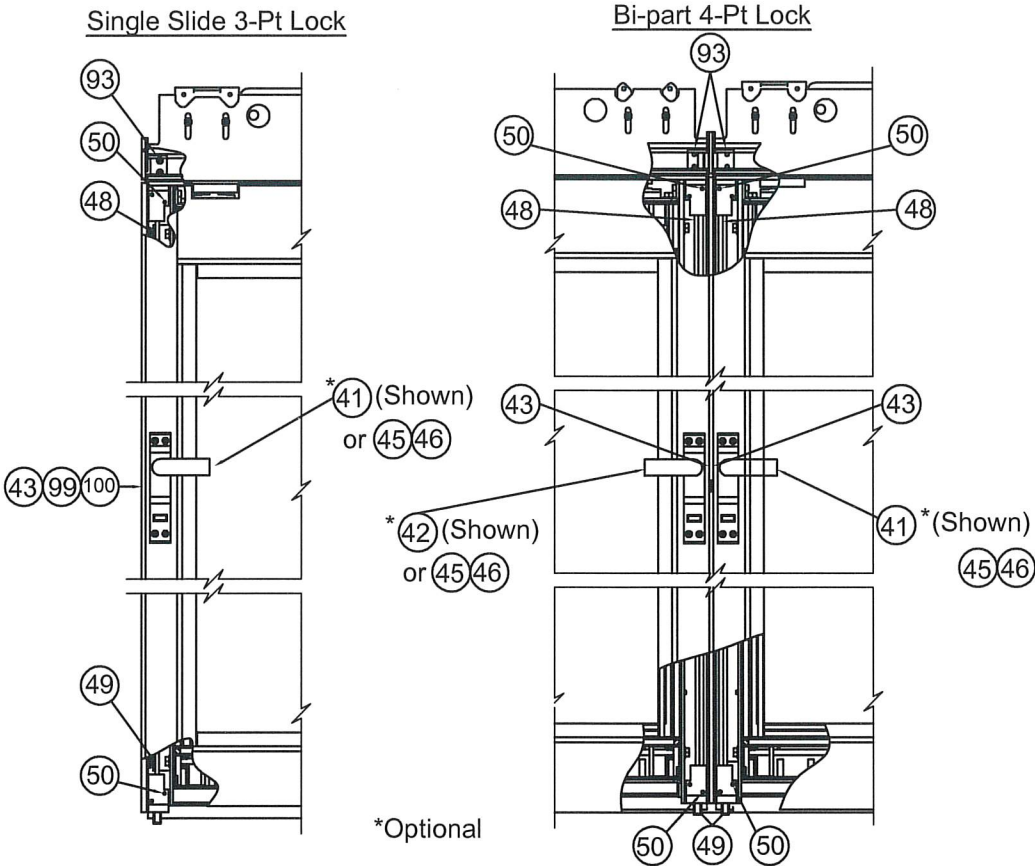
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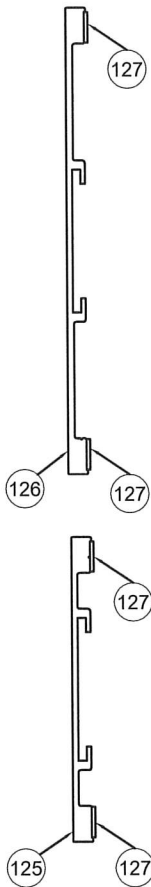
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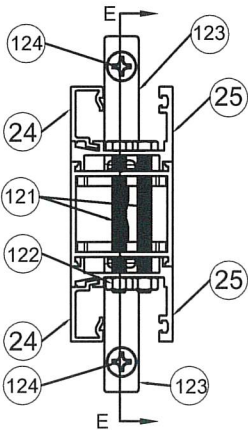
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Rev	Description	Date	Approved
0	Initial Release		SJF



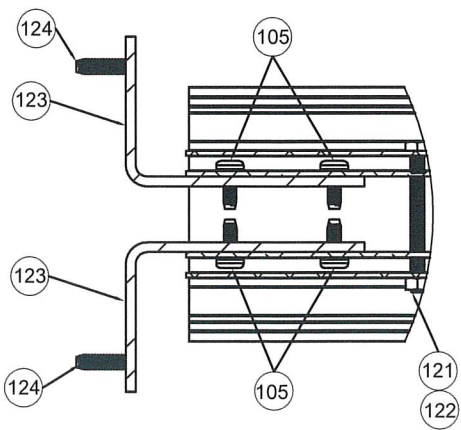
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SURFACE APPLIED
MUNTIN



Section D-D
TRUE DIVIDED
MUNTIN

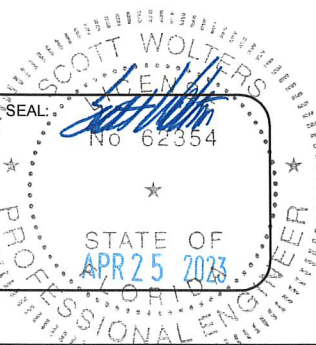


Section E-E
TRUE DIVIDED
MUNTIN



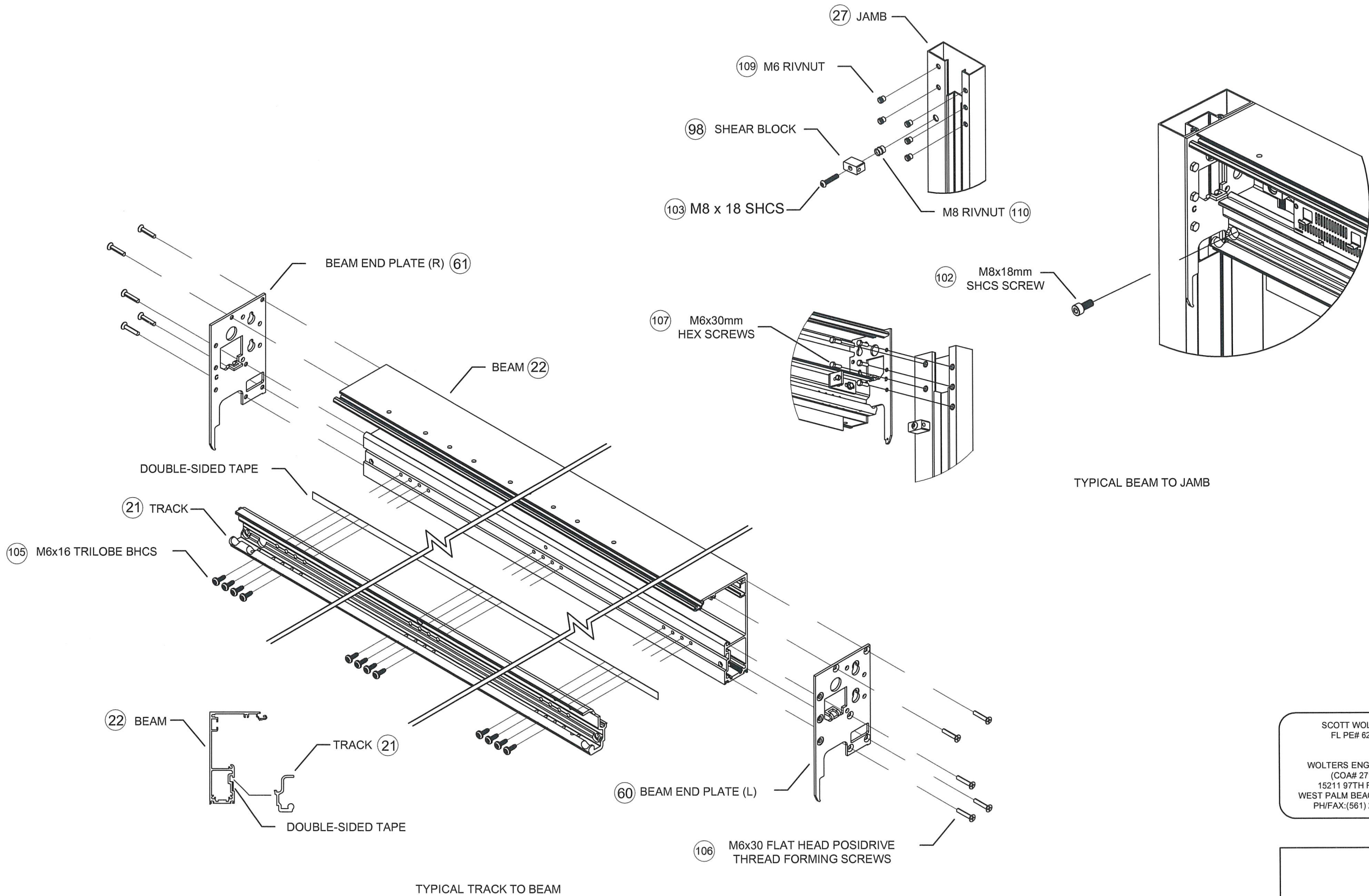
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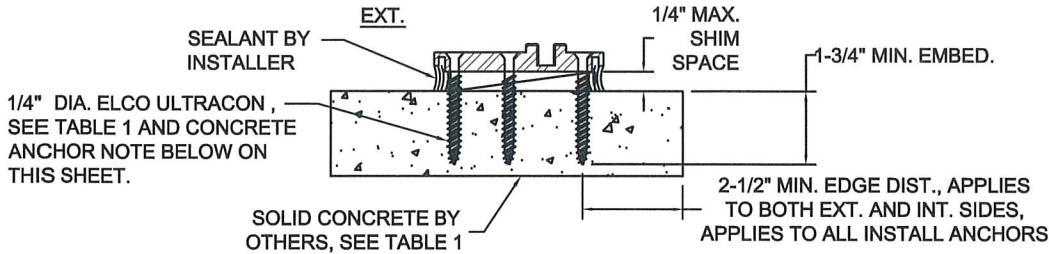
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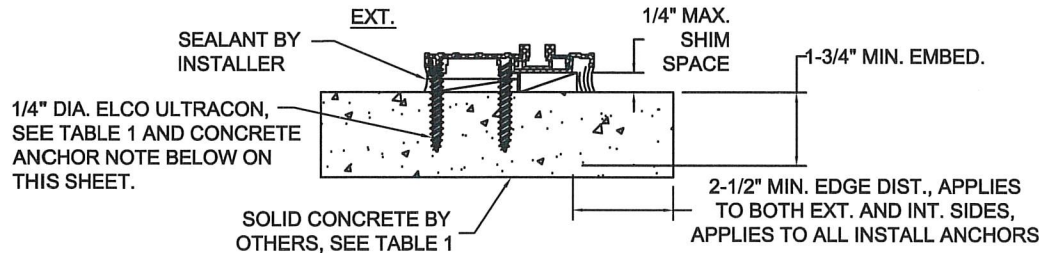
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SHEET DESCRIPTION		SHEET NO. 12 OF 21	

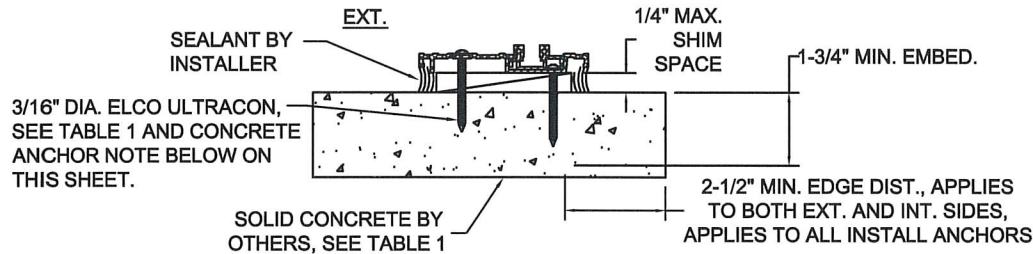
TYPICAL SILL ANCHOR DETAILS IN CONCRETE



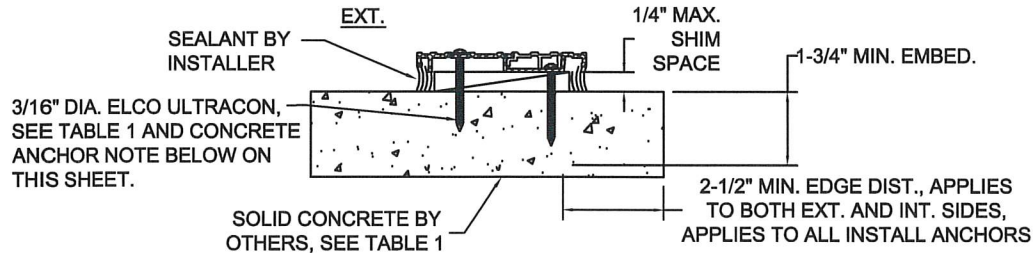
AT PIN GUIDE STRIKES



AT LOCK STRIKE PLATES

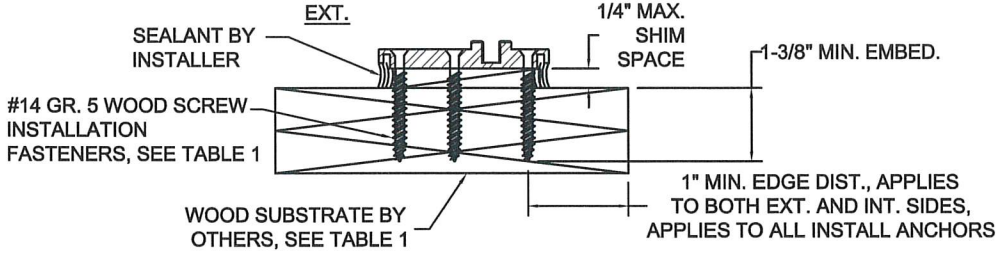


AT SIDELITE THRESHOLD

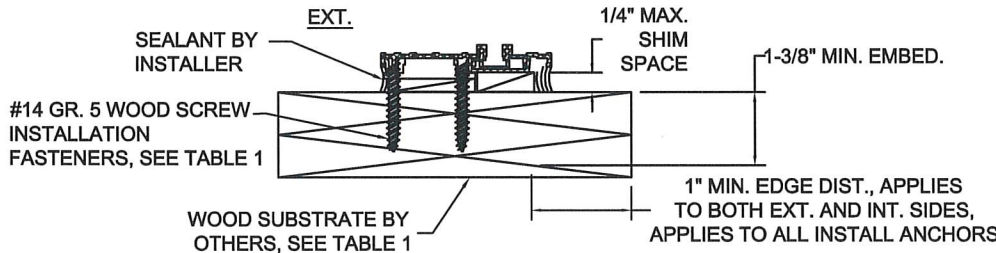


AT OPERABLE THRESHOLD

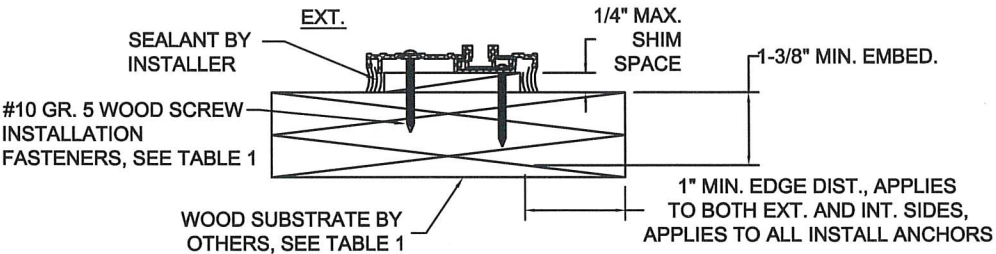
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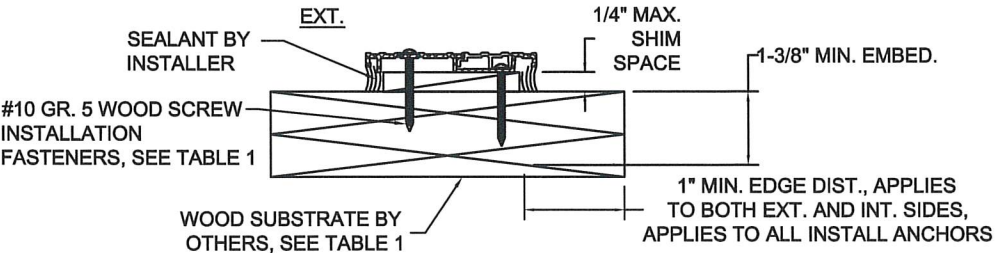
AT PIN GUIDE STRIKES



AT LOCK STRIKE PLATES



AT SIDELITE THRESHOLD



AT OPERABLE THRESHOLD

GENERAL ANCHOR NOTES:

1. INSTALL ANCHOR AS INDICATED IN DETAILS ON SHEETS 3 THRU 8 AT EACH LOCATION SHOWN IN THE ELEVATIONS ON SHEETS 3 AND 6.
2. INSTALL SHIMS AT EACH ANCHOR LOCATION WHERE A GAP OF 1/16" OR GREATER EXISTS BETWEEN PRODUCT FRAME AND SUBSTRATE.
3. 1/4" MAX. SHIMS SHALL BE LOAD-BEARING (PLASTIC OR METALLIC) AND CAPABLE OF TRANSFERRING LOADS TO SUBSTRATE.
4. SPECIFIED ANCHOR EMBEDMENT TO SUBSTRATE SHALL BE BEYOND WALL FINISH OR STUCCO, BY OTHERS. FOR ATTACHMENT TO METAL SUBSTRATES ENSURE FULL THREAD ENGAGEMENT THROUGH METAL WALL WITH MIN. 3 THREADS BEYOND.
5. IN CMU (AT JAMBS ONLY) ENSURE 3" MIN. ON-CENTER SPACING BETWEEN ANY TWO INSTALLATION ANCHORS IN JAMB ANCHOR CLUSTERS (SEE VERTICAL SECTION DETAILS ON SHEETS 3 AND 6), AND 6" MIN. ON-CENTER ELSEWHERE AT CMU JAMBS. FOR ALL OTHER ANCHOR/SUBSTRATE TYPES (SEE TABLE 1) ENSURE 1 1/2" MIN. ON-CENTER SPACING BETWEEN ANY TWO INSTALLATION ANCHORS.
6. OPTIONAL (1x MAX) WOOD BUCKS, IF USED, MUST BE ADEQUATELY ANCHORED TO PREVENT INSTALLATION ANCHOR BENDING.

Revisions			
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TABLE 1: INSTALLATION ANCHOR REQUIREMENTS

SUBSTRATE TYPE	ANCHOR TYPE	MINIMUM EMBEDMENT	MINIMUM EDGE DISTANCE
CONCRETE (2.85 ksi MIN)	1/4" DIA. ELCO ULTRACON (TYPICALLY)	1 3/4"	2 1/2"
	3/16" DIA. ELCO ULTRACON (AT THRESHOLD ONLY)	1 3/4"	2 1/2"
HOLLOW OR GROUT FILLED CMU (ASTM C90 MIN) (JAMBS ONLY)	1/4" DIA. ELCO ULTRACON	1 3/4"	2 1/2"
2X P.T. WOOD (S.G.=0.55, MIN)	#14 GR. 5 WOOD SCREW (TYPICALLY)	1 3/8"	1"
	#10 GR. 5 WOOD SCREW (AT THRESHOLD ONLY)		
STEEL STUD (16 Ga, 45 ksi MIN)	1/4" DIA. ITW TEKS SELF-DRILLING SCREW	FULL**	1/2"
1/8" ALUMINUM (6063-T5 MIN)	1/4" DIA. ITW TEKS SELF-DRILLING SCREW	FULL**	1/2"

** FULLY PENETRATES METAL WITH 3 THREADS BEYOND

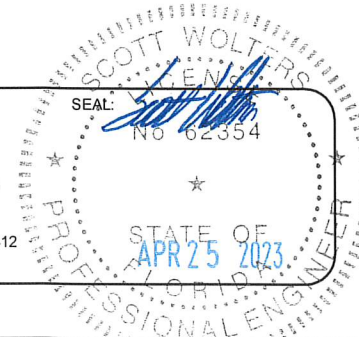
NOTE: ANCHORS ARE FLATHEAD AT ALL PLATE/STRIKE LOCATIONS AND ROUND/PAN/HEX-WASHER HEAD ELSEWHERE

CONCRETE ANCHORS AT THRESHOLD: CONCRETE ANCHORS THAT PENETRATE THE THRESHOLD ONLY ARE 3/16" DIA. ELCO ULTRACONS. ANCHORS THAT PENETRATE DOOR HARDWARE OR STRIKE PLATES ARE 1/4" DIA. ELCO ULTRACONS.

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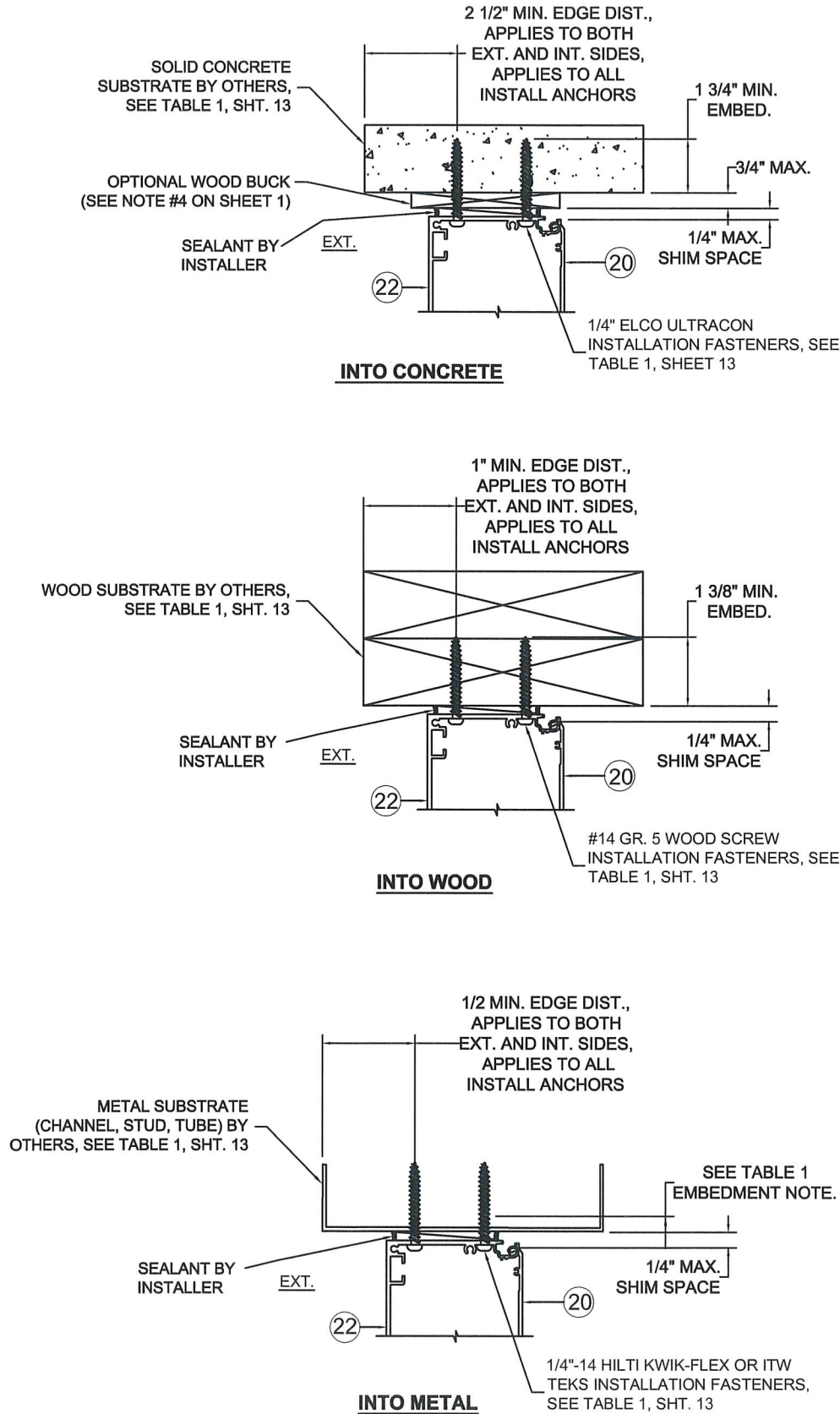
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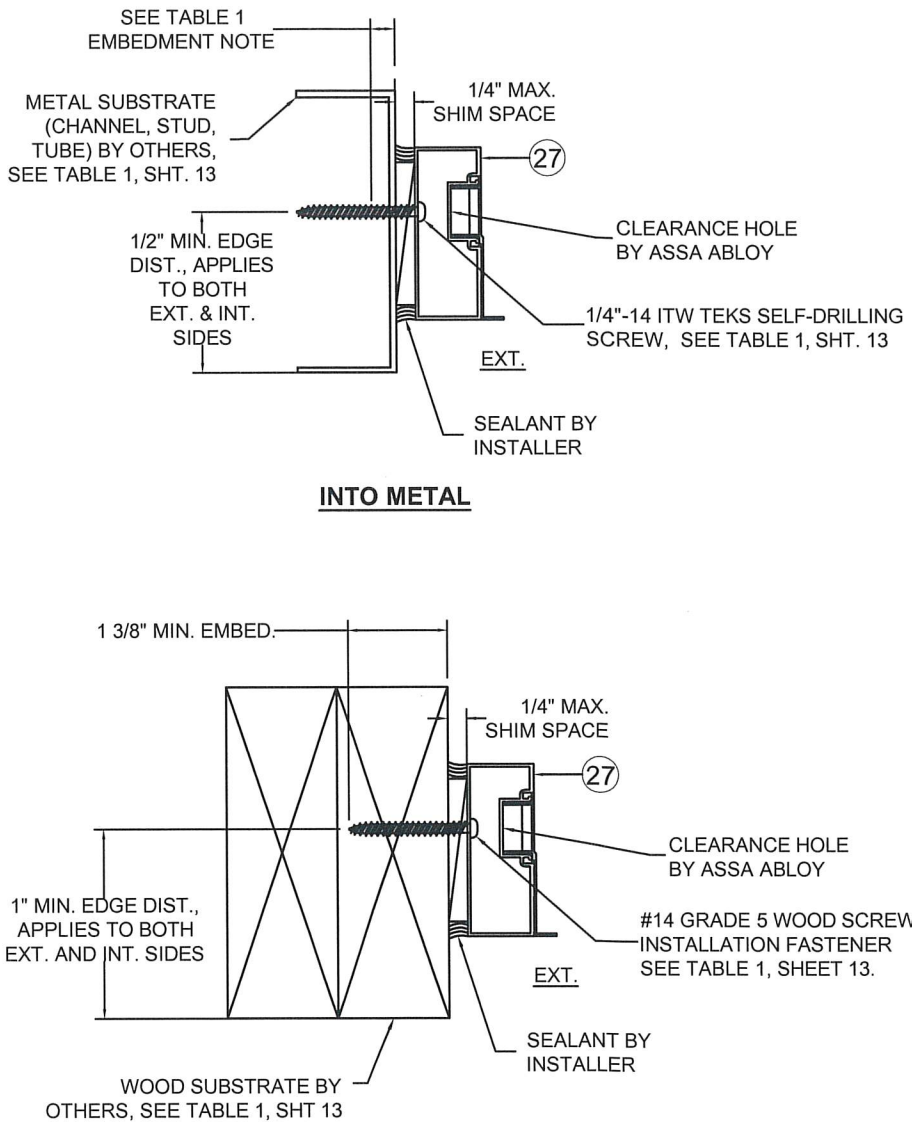
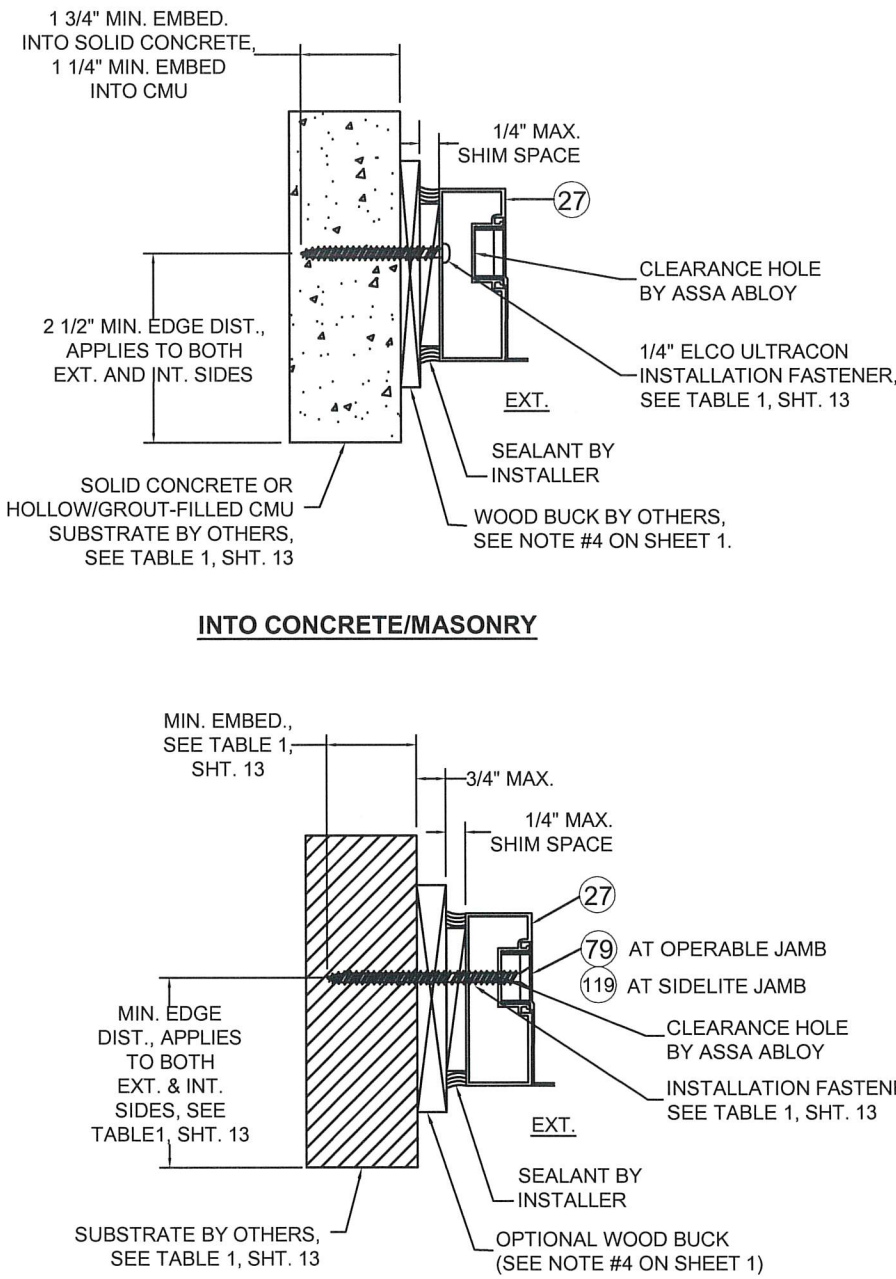
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DRAWN BY	SJF
DATE	7/19/2019
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TYPICAL HEAD ANCHOR DETAILS



TYPICAL JAMB ANCHOR DETAILS



TYPICAL ALT. JAMB INSTALLATION THRU LOCK PLATE/STRIKE

SEE GENERAL ANCHOR NOTES
AND TABLE 1, SHEET 1

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FL PE# 62354

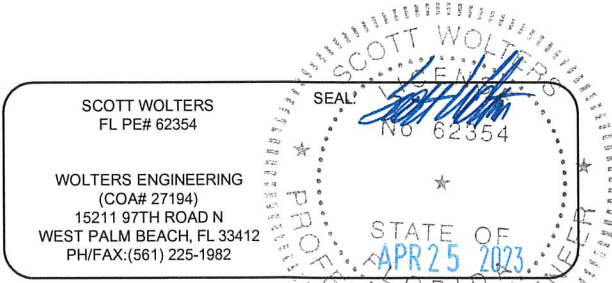
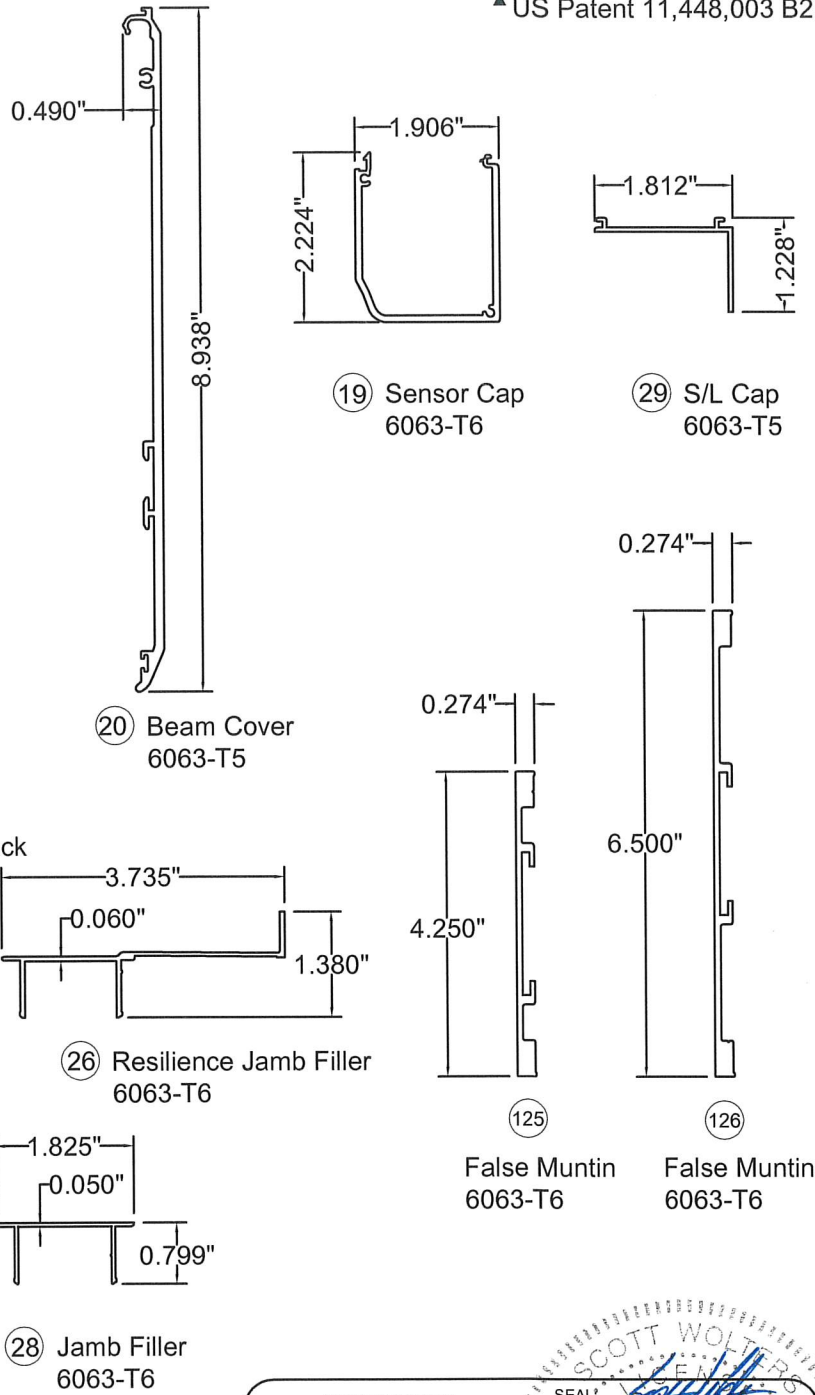
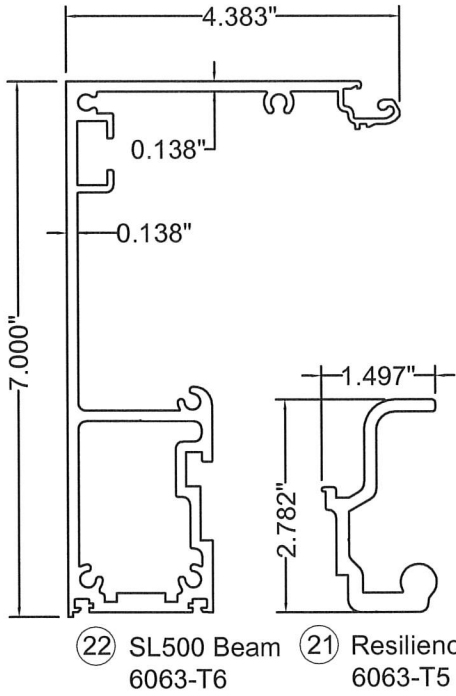
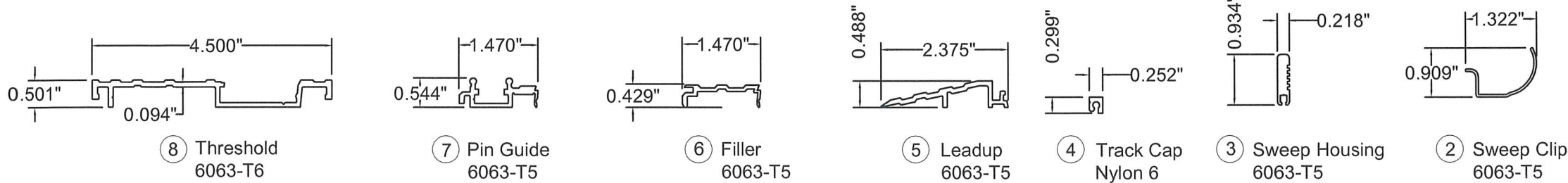
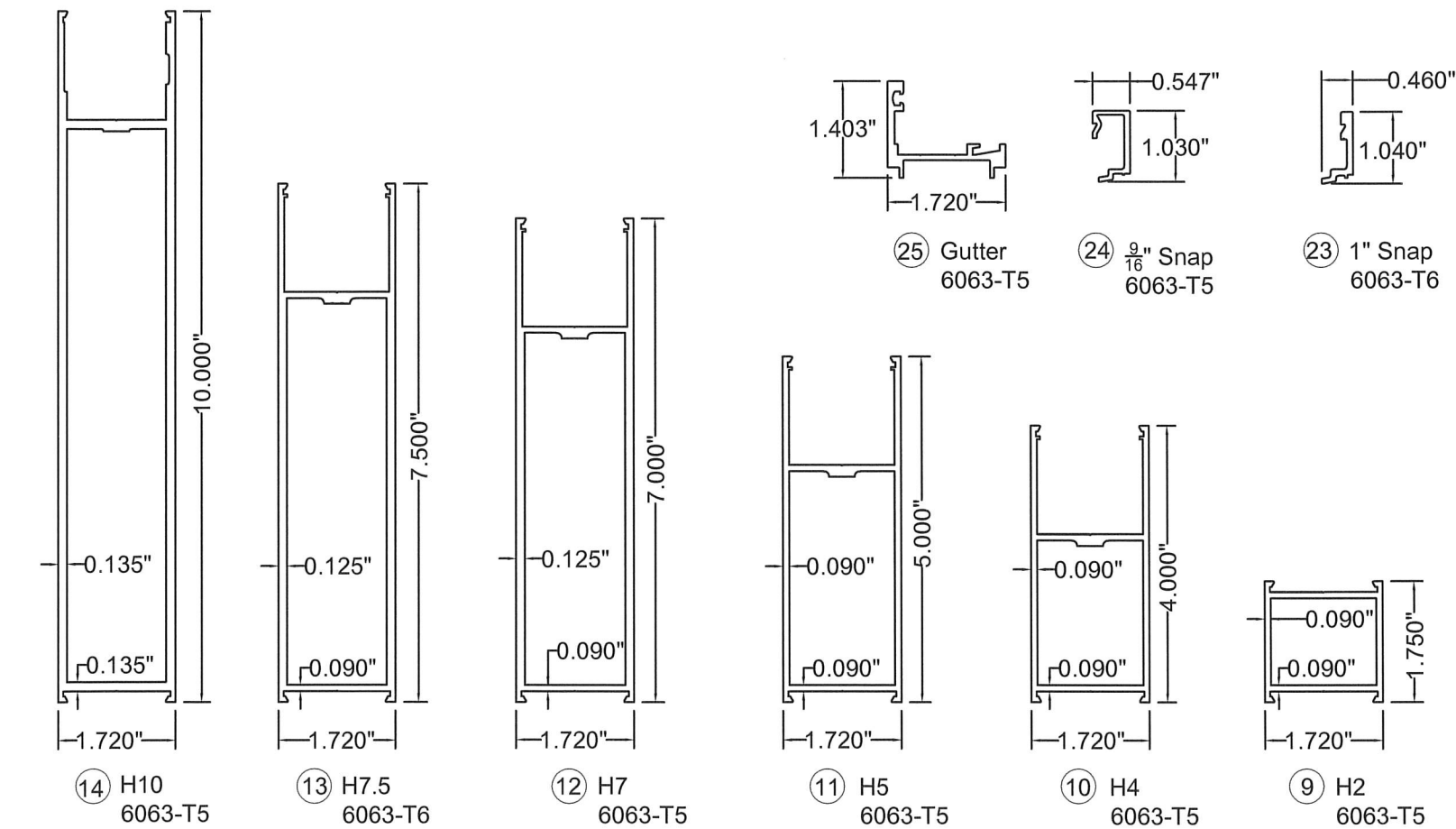
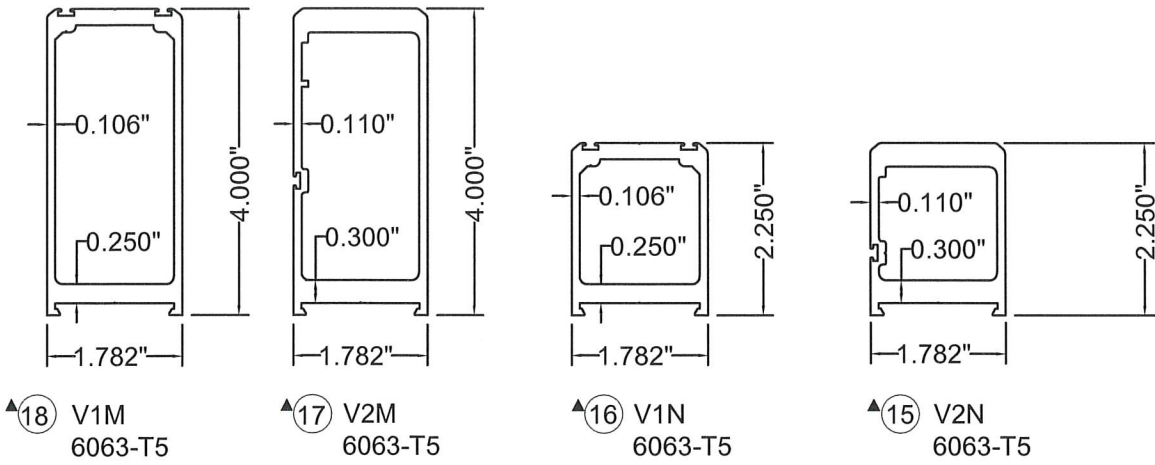
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Rev	Description	Date	Approved
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DATE	7/19/2019
SHEET DESCRIPTION	SHEET NO. 15 OF 21

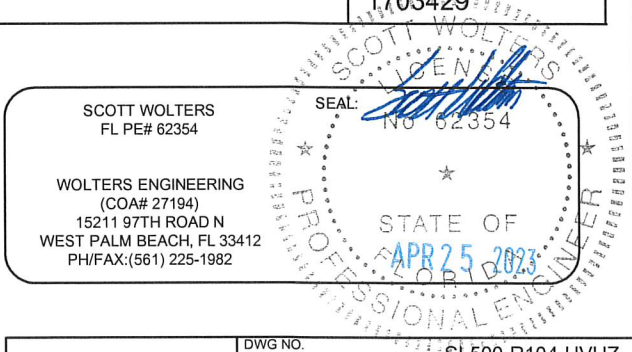


ASSA ABLOY
SL500 RESILIENCE R104 SLIDING DOOR SYSTEM (HVHZ)
BI-PARTING AND SINGLE SLIDING

Revisions			
Rev	Description	Date	Approved
0	Initial Release		SJF

41	Deadbolt Lever, AR4550, RH, CL (Optional)	US05-0771-01
42	Deadbolt Lever, AR4550, LH, CL (Optional)	US05-0771-03
43	2 PT Lock	1703500
44	3 PT Lock	1703501
45	Thumbturn	50-06-106
46	Cylinder, Key Alike	US06-1404-02
47	Lock Indicator	50-06-161
48	Lock Pin Assembly, Top	1016991
49	Lock Pin Assembly, Bottom	1016992
50	Kit, Lock Pin Guide	1018060
51	Resilience Pin Guide Assembly	1016658
52	Pin Guide Strike	1016611
53	SL500 Resil Ball Catch Kit	1017039
54	Anti-Twist Bracket	1016628
55	Top Pivot Assembly	1012549
56	Bottom Pivot Assembly	1012548
57	Square Threaded Rod Nut	1016327
58	Kit, Resilience Interlock Bar	1018093
59	Kit, Interlock Hook	1018059
60	Resilience Beam End Cap, Left	1016614
61	Resilience Beam End Cap, Right	1016613
62	M6 x 20 Hex Head Screw	93-09-723187
63	Tall Weatherstrip	US20-0905-01
64	Seal	US20-1658-01
65	7.5" Rail Clip	1019594
66	5" Anti-Twist Assembly Clip	1013803-3
67	4" Anti-Twist Assembly Clip	1013803-2
68	7" Anti-Twist Assembly Clip	1013897-2
69	10" Anti-Twist Assembly Clip	1013897-1
70	Rod,Threaded,3/8"	50-09-100
71	Nut,3/8-16 Whiz flange zinc	50-09-132
72	M6x12mm SHCS BLK Zinc	1703632
73	M5x8mm BHCS	1703508
74	Screw, HWH, 1/4-14x1"TEK	US09-1294-01
75	Anti-Twist Bracket	1019248
77	Resilience S/L Pivot Base Kit	1019262
78	Kit, Resilience Jamb Interlock Hook	1018092
79	Resilience Jamb Lock Strike	1017900
80	Lock Plate	US04-0948-01
Pos.	Description	Part.no.

81	1/4"x 1-3/4" HWH Elco Ultracon Conc. Anchor	1703636
82	3/16"x 1-3/4" HWH Elco Ultracon Conc. Anchor	1703635
83	1/4"x 3-1/4" PFH Elco Ultracon Conc. Anchor	1703634
84	1/4"-14 x 2" HWH #3 Pt SD ITW TEKS Screw	1703633
85	#14 x 2.5" PH Grade 5 Sheetmetal Screw	1703431
86	#10 x 2" PH Grade 5 Sheetmetal Screw	1703427
87	#14 x 4" RH Grade 5 Sheetmetal Screw	1703494
88	#14 x 3in FH Grade 5 Screw	1703426
89	Nut Plate, Interlock	1019247
90	Resilience Beam End Cap, Right	1016613
91	Resilience Beam End Cap, Left	1016614
92	PSA Arm Kit, HD	1017036
93	Resilience Carrier Lock Strike Assembly	1016637
94	Sweep	US20-1627-02
95	Ball Catch Kit, Carrier Portion, Resilience	US05-1609-01
96	Ball Catch Kit, Active Leaf Door Portion, Resilience	1017038
97	Sweep Clip	1013780
98	Resilience Shear Block	1016612
99	XG Lock Body Mounting Block	1019595
100	#10-32 x 1/2" Ultra Low Profile Socket Head Screw	1704073
101	XG Muntin 'L' Bracket, Resilience	1019660
102	M8x40mm BHCS Black	1703691
103	M8 x 18 SHCS	1703495
104	#10-16 x 5/8" PPH Tek Screw	53-09-003
105	M6x16mm Trilobe BHCS	1703493
106	M6 x 30 FH Threadforming Screw	1701704
107	M6x30mm HHCS	93-09-723187
109	M6 Steel Rivnut	US09-1560-01
110	M8 Steel Rivnut	1703429

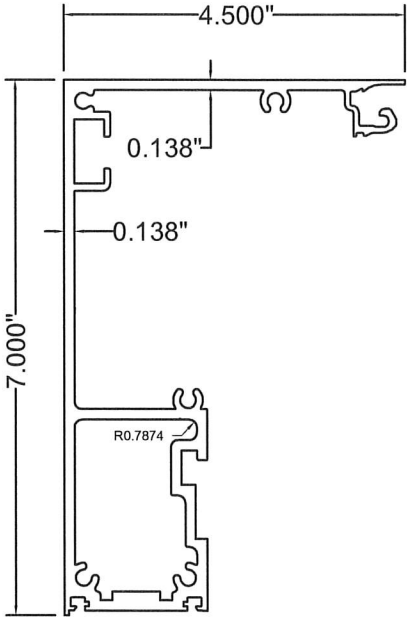


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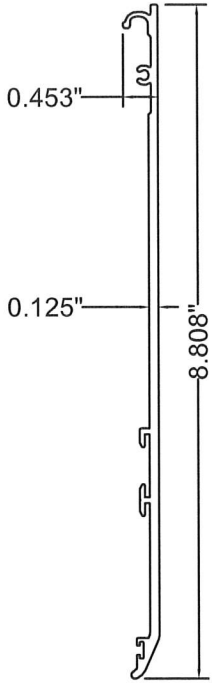


ASSA ABLOY
SL500 RESILIENCE R104 SLIDING DOOR SYSTEM (HVHZ)
BI-PARTING AND SINGLE SLIDING

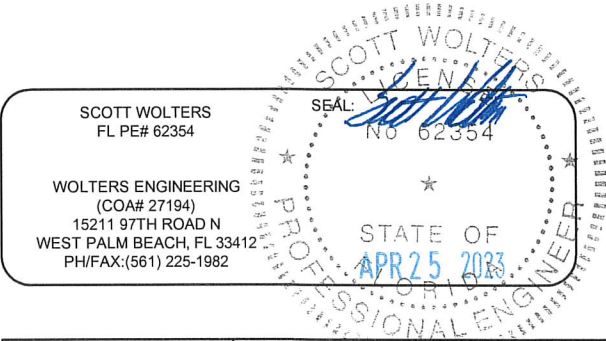
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129 SL500 Beam
6063-T6



128 Beam Cover
6063-T5

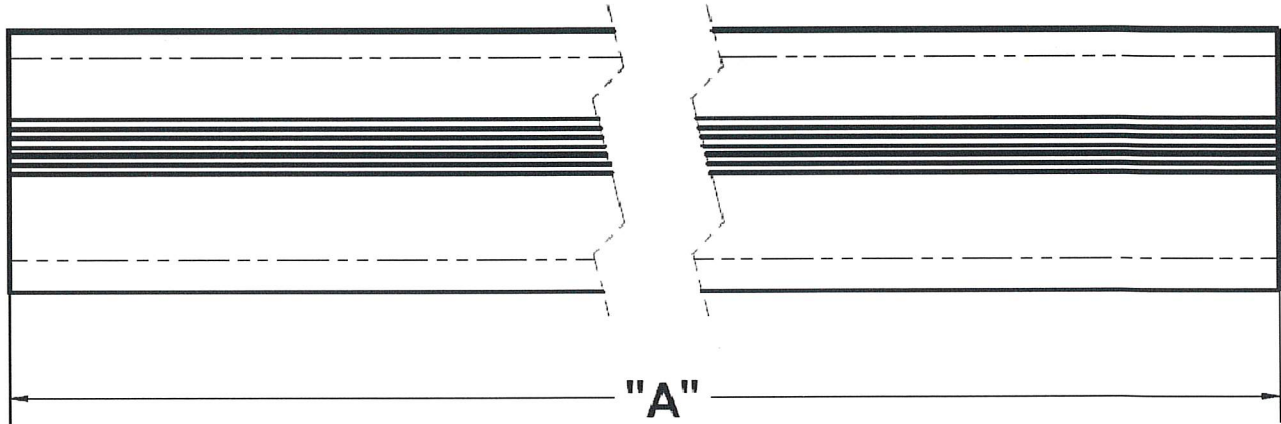
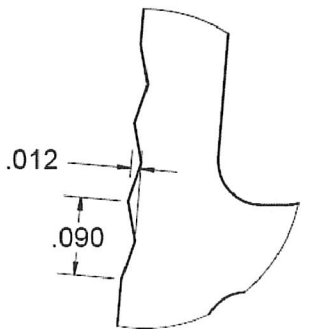
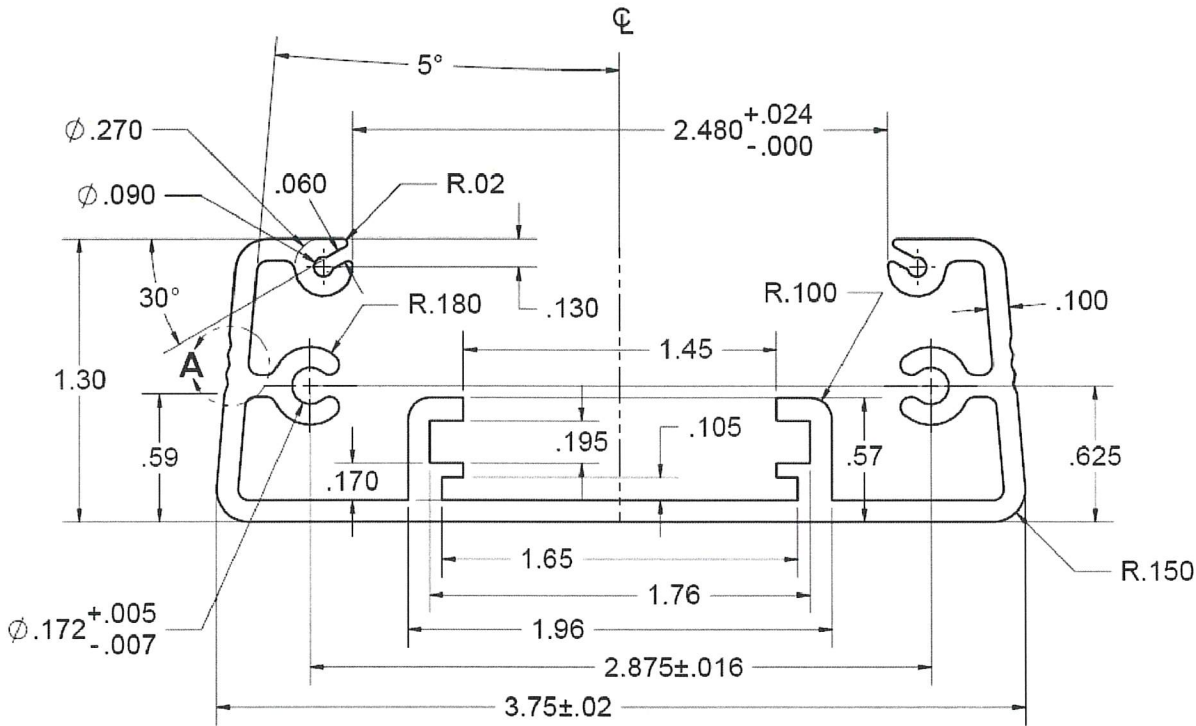


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	ASSA ABLOY		

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ASSA ABLOY SL500 RESILIENCE FULL BREAKOUT
LARGE & SMALL MISSILE IMPACT LEVEL D AND LEVEL E DOOR SYSTEM
ITEM NO. 115 - ADAMS RITE G86 (8600) EXIT DEVICE EXTRUSION
DETAILS - INTERIOR EXTRUSION

EXTRUSION
PUSH BAR G8X



P/N	DIM "A"
24-0870-30-XXX	26.125
24-0870-36-XXX	32.125
24-0870-42-XXX	38.125
24-0870-48-XXX	44.125

- 6. POST BAKE: NONE.
- 5. FINISH: 60 RMS OR BETTER.
- 4. HEAT TREAT: NONE.
- 3. MATERIAL: 6063-T6 ALUMINUM. (13'-8" LONG).
- 2. BREAK ALL SHARP EDGES.
- 1. ALL DIMENSIONS ARE FINISHED DIMENSIONS.

NOTES: UNLESS OTHERWISE SPECIFIED.

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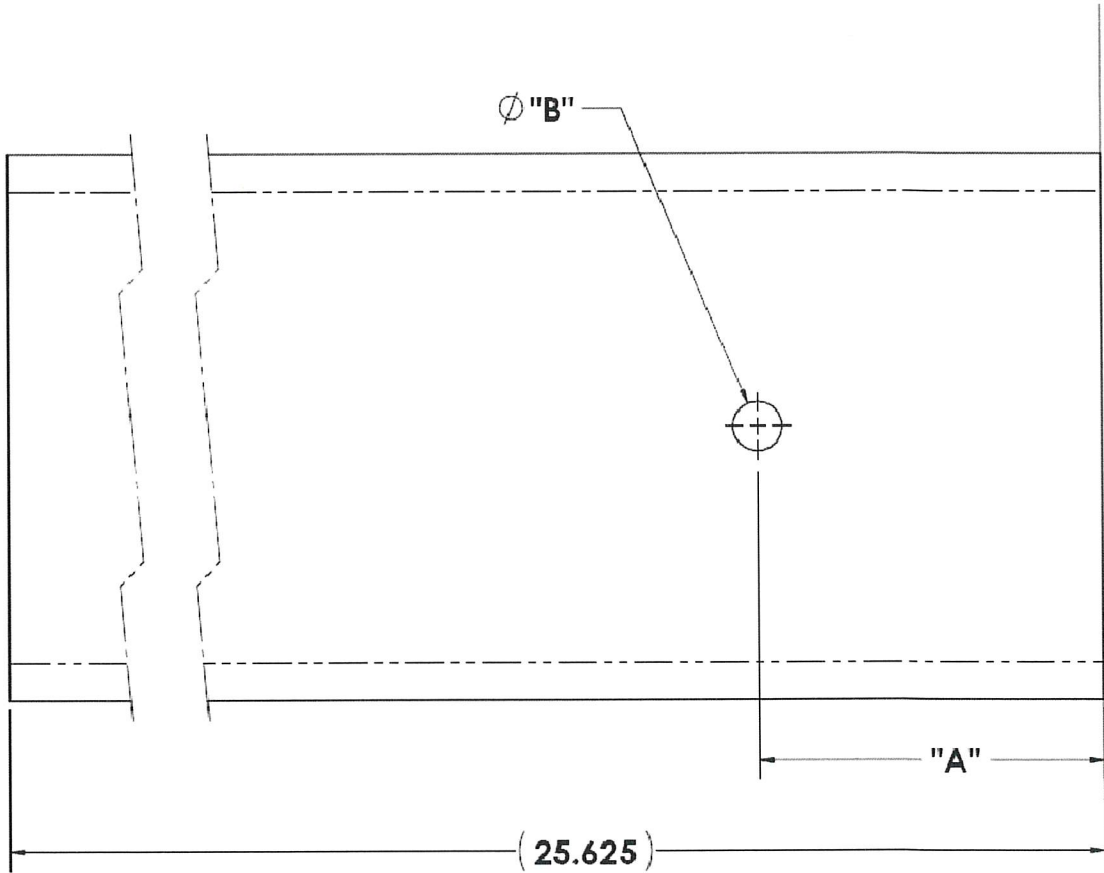
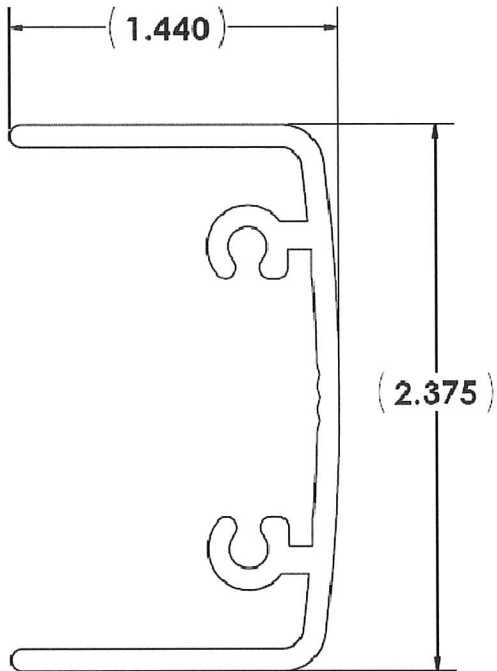
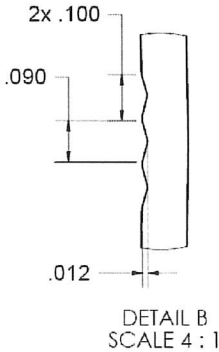
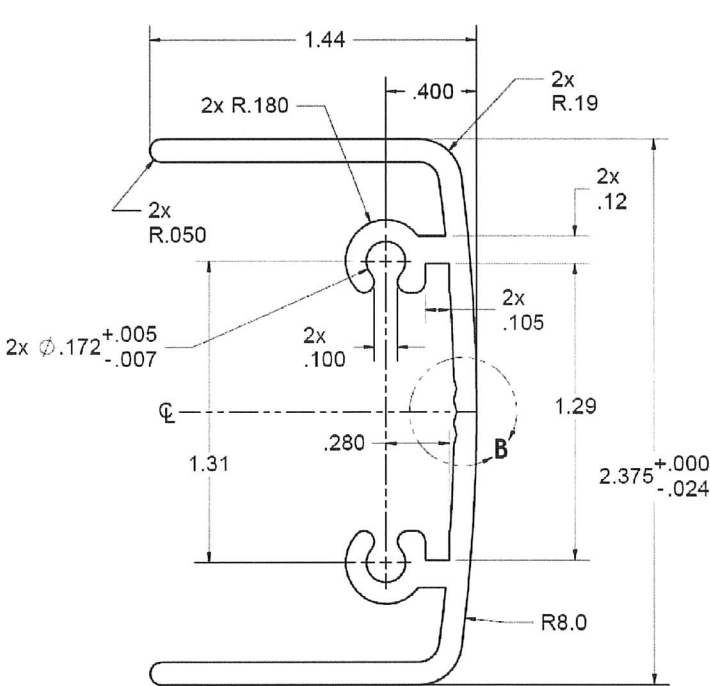
STATE OF FLORIDA
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DRAWN BY	SJF
DATE	7/19/2019
SHEET DESCRIPTION	SHEET NO. 18 of 21

Revisions			
Rev	Description	Date	Approved
0	Initial Release		SJF

**ASSA ABLOY SL500 RESILIENCE FULL BREAKOUT
LARGE & SMALL MISSILE IMPACT LEVEL D AND LEVEL E DOOR SYSTEM
ITEM NO. 115 - ADAMS RITE G86 (8600) EXIT DEVICE EXTRUSION
DETAILS - EXTERIOR EXTRUSION**

EXTRUSION
PUSH BAR G8X



6. POST BAKE: NONE.
 5. FINISH: 60 RMS OR BETTER.
 4. HEAT TREAT: NONE.
 3. MATERIAL: 6063-T6 ALUMINUM. (13'-8" LONG).
 2. BREAK ALL SHARP EDGES.
 1. ALL DIMENSIONS ARE FINISHED DIMENSIONS.
- NOTES: UNLESS OTHERWISE SPECIFIED.

P/N	DIM "A"	DIM "B"
24-0871-XXX	1.500	0.218
24-0871CXXX	2.375	1.375

SCOTT WOLTERS
FL PE# 62354

WOLTERS ENGINEERING
(COA# 27194)
15211 97TH ROAD N
WEST PALM BEACH, FL 33412
PH/FAX: (561) 225-1982

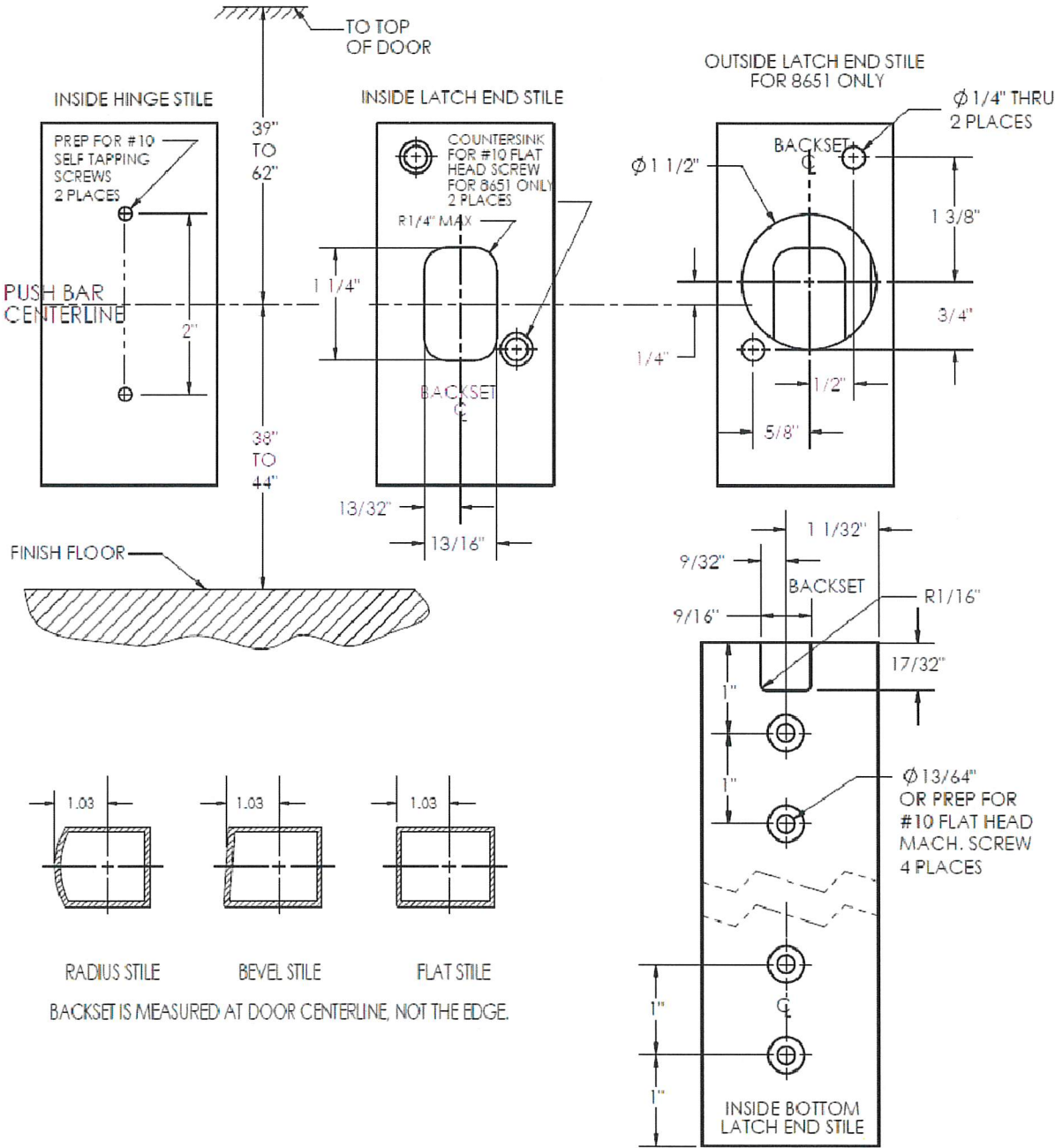
STATE OF FLORIDA
APR 25 2023
PROFESSIONAL ENGINEER

DWG NO.	SL500-R104-HVHZ
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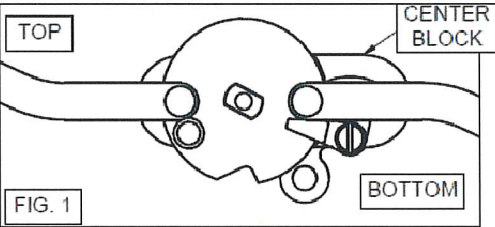
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ASSA ABLOY SL500 RESILIENCE FULL BREAKOUT LARGE & SMALL MISSILE IMPACT LEVEL D AND LEVEL E DOOR SYSTEM ITEM NO. 115 - ADAMS RITE G86 (8600) EXIT DEVICE INSTALLATION DETAIL - SHEET 1

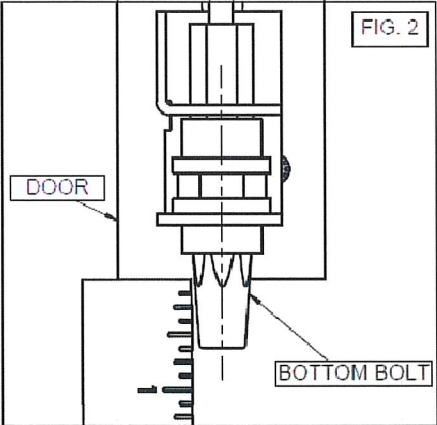
1. Prepare doors as shown. This product must be installed according to all applicable building and life safety codes.



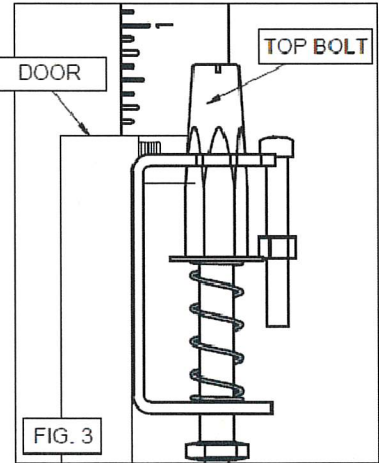
2. Pre-adjust rod assembly.
a. Lay rod assembly on the face of the door with center block protruding into installation hole.
b. Fully extend rods as shown.



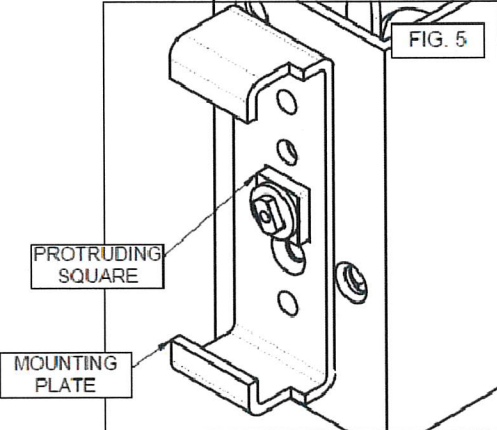
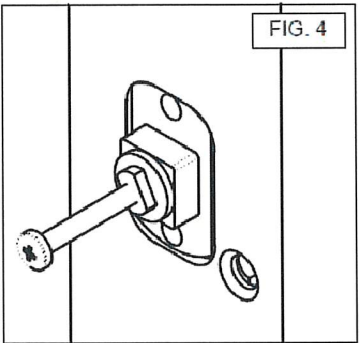
c. Adjust bottom bolt for 5/8" projection from bottom of door.



d. Set the top bolt for 5/8" projection from top of door.



3. Install rod assembly
Note: Be careful not to bend the rods when handling.
a. Turn over and insert rod assembly into door from the top of the door.
b. The bolts should extend beyond the stile.
4. Cutting the bar for custom door widths.
a. The push bar is the correct length for a minimum door width of 30" and does not require cutting.
b. The back bar comes in two standard lengths for 48" and 36" doors. For other door widths, the back bar and cover strip needs to be cut. You will need to cut the same amount from both the back bar and cover strip. And it is recommended to cut them at the same time using a fine tooth blade or panel saw blade. When measuring the back bar length, make sure it will overlap the vertical stiles by at least 1/8" on both sides. The mounting plates on either side are meant to pinch the back bar against the stiles to prevent noise.
5. Insert the back bar onto the scissor cartridge from the scissor end and slide up to within 2" of the lock end.
6. Secure center block
a. You may have to pull bottom bolt down to align center block with cutout.
b. Install a screw #6-32x2" into the center block as shown to aid in pulling and holding the center block into position.
c. Locate the center block in the rectangular hole.
d. If you are installing an exterior key cylinder, see step 20.
e. Align the protruding square of the center block with the square hole in mounting plate and place onto the center block.



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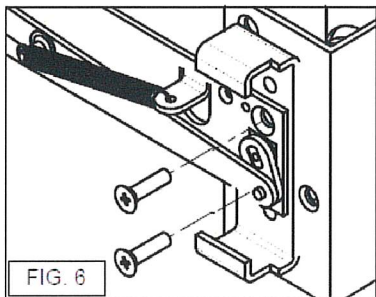
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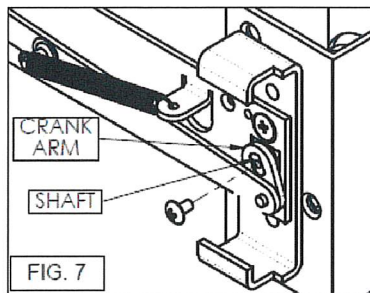
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ASSA ABLOY SL500 RESILIENCE FULL BREAKOUT LARGE & SMALL MISSILE IMPACT LEVEL D AND LEVEL E DOOR SYSTEM ITEM NO. 115 - ADAMS RITE G86 (8600) EXIT DEVICE INSTALLATION DETAIL - SHEET 2

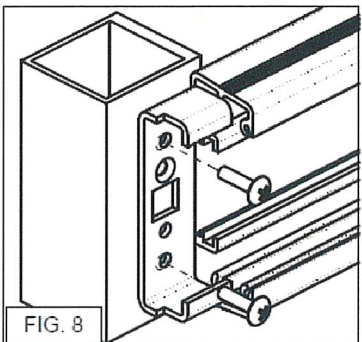
- f. Place scissor cartridge on center block and secure with two 10-32 x 3/4" flat head machine screws.



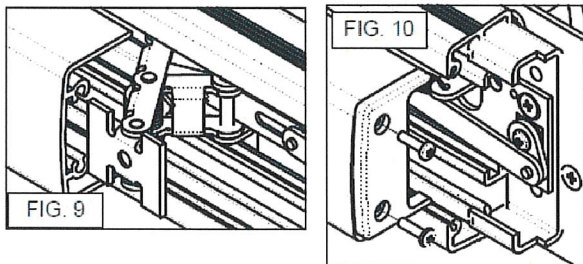
7. Secure crank arm
a. Remove helper screw.
b. Align crank arm with shaft. You may have to operate the push bar scissors to align tab with slot.
c. Secure with one 6-32 x 1/4" truss head machine screw.



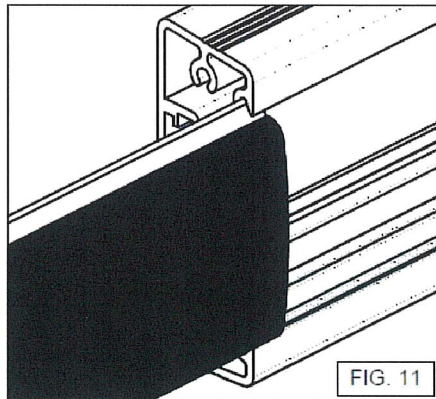
8. Insert mounting plate from the hinge side onto the back bar and secure with two 10-32 x 3/4" self-tapping screws on the triangle side stile.



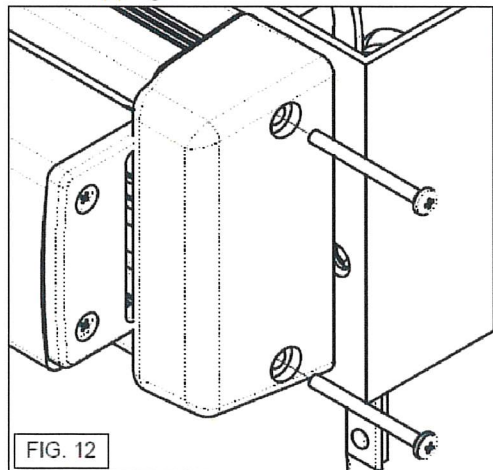
9. Insert push bar and secure end caps with four 10-32 x 1/2" self-tapping screws.



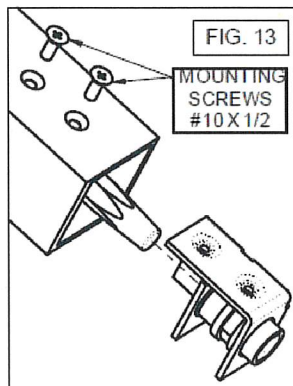
10. Insert cover strip into back bar. Push in until flush with back bar extrusion.



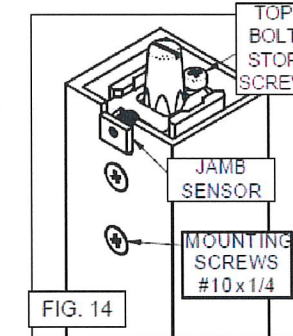
11. Install base caps and secure with four 10-32 x 2" self-tapping screws.



12. Insert bottom bolt (Fig. 13) guide with the plastic guide towards the bottom. And secure with two 10-32x1/2" flat head machine screws. The bottom screw will lock the bottom bolt adjustment, leave this screw loose until final adjustment.



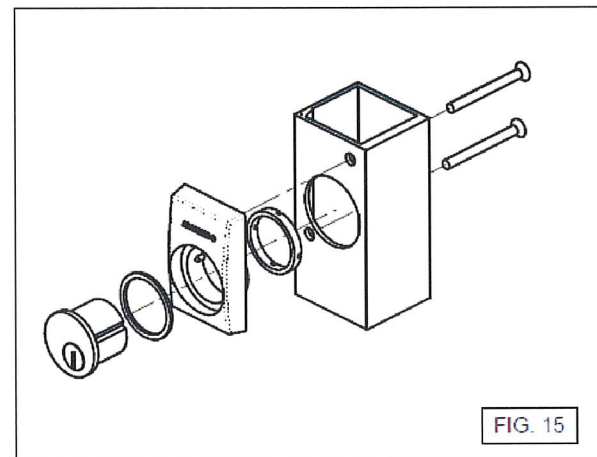
13. Secure top latch (Fig. 14) assembly
a. If necessary, depress the jam sensor to release the top bolt.
b. Secure with two 10-32 x 1/4" flat head machine screws.



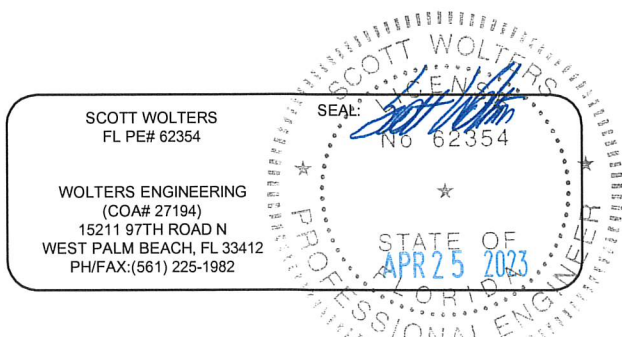
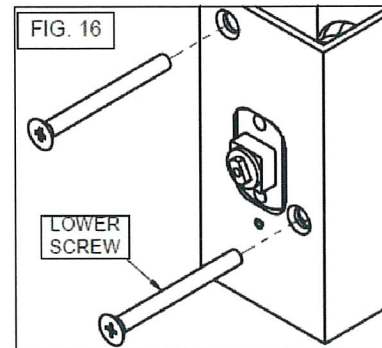
14. Check operation:
a. Fully depress the push bar and release.
b. Top bolt will retract & latch.
c. If it doesn't hold - adjust top bolt stop screw out until top bolt is retained.
d. When the push bar is completely pushed in and then released, you should see about 1/16" movement of the top bolt.

15. Check operation: push top jam sensor.
a. Top bolt will project.
b. If it doesn't - check rods for binding.
16. Now install the door into the frame.
17. Mark the locations for the bolt holes very carefully.
a. Misalignment of these holes will prevent the bolts from fully traveling into the deadlocked position.
b. Don't forget to allow for weather stripping.
18. Drill Ø9/16" holes where required.
19. Now close the door and repeat step 13 - check operation.
20. If you have excessive door gaps at the top or bottom, you may adjust the bolts for greater engagement with the header or threshold.
a. Open the door.
b. Top Adjustment:
i. Measure the door gap at the header. (example: 1/4")
ii. Add to this measurement 1/2" (example: 1/4"+1/2"=3/4")
iii. Push in push bar to retract the top latch.
iv. Adjust the top bolt to extend above the door by sum above. (example: 3/4")
v. Repeat step 14.
c. Bottom Adjustment:
i. Loosen the bottom mounting screw of the bottom bolt guide.

- ii. Turn the bolt until there is approximately 1/16" to 1/8" clearance.
iii. Secure the bottom mounting screw.
21. Installing Key Cylinder (Fig. 15)
a. Once you have completed Step 5, assemble the cylinder escutcheon as shown using the appropriate number of spacers to prevent



- b. the cylinder cam from bottoming out on the center block assembly.
Secure the cylinder escutcheon assembly to the stile with the 2" long flat head screws provided. Note: the lower screw nests into a boss in the center block. (Fig. 16)
c. Once the installation is complete, check operation by turning the key a quarter turn counter clockwise to 'open' the door. Remove the key and close the door, it should lock.
d. To dog the bolts 'open', hold the door open and turn the key clockwise until stop. Check by closing the door, it should remain unlocked. To reset the lock from the dogged position, use the key to 'open' the door.



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