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ADDITIONAL DETAILS:

FOR SPECIAL SITE CONDITION, CONTACT HARTMAN WINDOWS AND DOORS, LLC. TO OBTAIN AUTOCAD/REVIT COMPATIBLE DETAILS OF THIS PRODUCT, KINDLY GET IN TOUCH WITH US BY SCANNING THE QR CODE PROVIDED BELOW OR CONTACTING US VIA OUR OFFICIAL EMAIL ADDRESS: CONTACT@JA-PE.COM.

DESIGN PRESSURES:
SEE SHEETS 102 AND 103 FOR DESIGN PRESSURES.

WATER INFILTRATION:
SEE SILL DETAILS ON SHEET 105/108 FOR WATER INFILTRATION APPROVED SILL CONFIGURATIONS.

GENERAL NOTES

1. THIS SYSTEM PRESENTED HEREIN HAS UNDERGONE DESIGN AND TESTING IN FULL COMPLIANCE WITH THE FLORIDA BUILDING CODE EIGHTH EDITION (2023) AND IS INTENDED FOR USE BOTH WITHIN AND OUTSIDE THE HIGH-VELOCITY HURRICANE ZONE (HVHZ) PER TAS 201/202/203.

2. THE GLASS CAPACITIES SPECIFIED IN THE CHARTS OF THIS CERTIFICATION ARE BASED ON ASTM E1300-16, UTILIZING A 3-SECOND GUST WIND SCENARIO.

3. THE DESIGN PRESSURES OUTLINED IN THIS DOCUMENT ARE DERIVED FROM MAXIMUM TESTED PRESSURES AND INCORPORATE A 1.5 SAFETY FACTOR.

4. THE PRESSURES PROVIDED IN THIS CERTIFICATION ARE DETERMINED USING THE ALLOWABLE STRESS DESIGN METHOD (ASD).

5. THIS PRODUCT HAS BEEN RIGOROUSLY TESTED IN ACCORDANCE WITH THE STANDARDS DESCRIBED IN NOTE 1 OF THE GENERAL NOTES. IT IS CONFIRMED TO BE RESISTANT TO LARGE MISSILE IMPACT, THEREBY NOT NECESSITATING THE USE OF IMPACT-RESISTANT SHUTTERS.

6. THE DESIGN OF THIS SYSTEM DOES NOT INCORPORATE A 33-1/3% INCREASE IN ALLOWABLE STRESS. FOR WOOD ANCHOR DESIGN, A WIND LOAD DURATION FACTOR OF CD=1.6 HAS BEEN EMPLOYED.

7. THE ARCHITECT/ENGINEER OF RECORD RESPONSIBLE FOR THE PROJECT'S SUPERSTRUCTURE, WITH WHICH THIS DESIGN IS ASSOCIATED, SHALL ENSURE THE INTEGRITY OF ALL SUPPORTING SURFACES. COORDINATION WITH THE PERMITTING CONTRACTOR IS REQUIRED, AND PROPER ANCHORING OF WOOD BUCKS (BY OTHERS) MUST FACILITATE LOAD TRANSFER TO THE EXISTING STRUCTURE.

8. THE DETAILS OF THE SYSTEM PROVIDED HEREIN ARE OF A GENERIC NATURE AND DO NOT OFFER SPECIFIC SITE INFORMATION. FOR SITE CONDITIONS THAT DIFFER FROM THOSE SPECIFIED HERE, A LICENSED ENGINEER OR REGISTERED ARCHITECT MUST PREPARE SITE-SPECIFIC DOCUMENTS FOR USE IN CONJUNCTION WITH THIS CERTIFICATION.

9. THE CONTRACTOR IS ACCOUNTABLE FOR INSULATING ALL MEMBERS FROM DISSIMILAR MATERIALS TO PREVENT ELECTROLYSIS (E.G., STEEL WITH ALUMINUM).

10. THE SUBSTITUTION OF FASTENERS DESCRIBED IN THIS CERTIFICATION IS PERMISSIBLE, PROVIDED THE ALTERNATIVE ANCHOR EXHIBITS STRENGTH EQUAL TO OR GREATER THAN THE ORIGINALLY SPECIFIED ANCHOR. FINAL APPROVAL OF SUBSTITUTED ANCHORS SHALL BE GRANTED BY RELEVANT AUTHORITIES.

11. THE WOOD SCREWS REFERENCED IN THIS CERTIFICATION MUST MEET A MINIMUM GRADE OF 2 (FU = 74,000 PSI).

12. FASTENERS MUST BE CADMIUM PLATED OR COMPOSED OF OTHERWISE CORROSION-RESISTANT MATERIAL, CONFORMING TO "SPECIFICATIONS FOR ALUMINUM STRUCTURES" AS OUTLINED IN SECTION J.3 OF THE CURRENT CODE BY THE ALUMINUM ASSOCIATION, INC., IN ADDITION TO ANY APPLICABLE FEDERAL, STATE, AND/OR LOCAL CODES.

13. THE ENGINEER'S SEAL AFFIXED HERE VALIDATES THE STRUCTURAL DESIGN AS PRESENTED SOLELY. ANY USE OF THIS SPECIFICATION BY THE CONTRACTOR OR OTHERS INDEMNIFIES AND SAVES THE ENGINEER HARMLESS FROM ALL COSTS AND DAMAGES, INCLUDING LEGAL FEES AND APPELLATE FEES

ARISING FROM MATERIAL FABRICATION, SYSTEM ERECTION, AND CONSTRUCTION PRACTICES BEYOND THE SCOPE CALLED FOR BY LOCAL, STATE, AND FEDERAL CODES OR DEVIATIONS FROM THE PLAN.

14. NO ADDITIONAL CERTIFICATIONS OR AFFIRMATIONS ARE INTENDED BEYOND WHAT IS EXPRESSLY PROVIDED IN THIS DOCUMENT.

15. ALTERATIONS, ADDITIONS, OR ANY MARKINGS TO THIS DOCUMENT ARE STRICTLY PROHIBITED AND WILL INVALIDATE THIS CERTIFICATION.

16. PROPER SAFETY MEASURES MUST BE OBSERVED DURING THE INSTALLATION AND USE OF THIS SYSTEM, EVEN THOUGH THEY ARE NOT EXPLICITLY LISTED IN THIS CERTIFICATION.

17. EACH PRODUCT SHALL BE PERMANENTLY LABELED WITH A MINIMUM OF ONE LABEL PER SYSTEM, CONTAINING THE FOLLOWING REQUIRED INFORMATION:

HARTMAN WINDOWS AND DOORS, LLC

2107 WEST BLUE HERON BLVD

WEST PALM BEACH, FLORIDA 33404

TAS 201/202/203

APPROVED BY FLORIDA BUILDING COMMISSION

FLORIDA PRODUCT APPROVAL NUMBER FL# 20652.6

HARTMAN WINDOWS & DOORS, LLC.

EUROPEAN WOOD OUTSWING BI-FOLD DOOR

(LARGE AND SMALL MISSILE IMPACT RATED)

FL# 20652.6

JAVAD AHMAD PE, inc

7875 NW 12th St., Suite 102
Doral, FL 33126
Ph: (305) 424-8001
support@ja-pe.com

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BI-FOLD DOOR
(LARGE AND SMALL MISSILE IMPACT RATED)

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FAX: (561) 296-9601

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								No.		

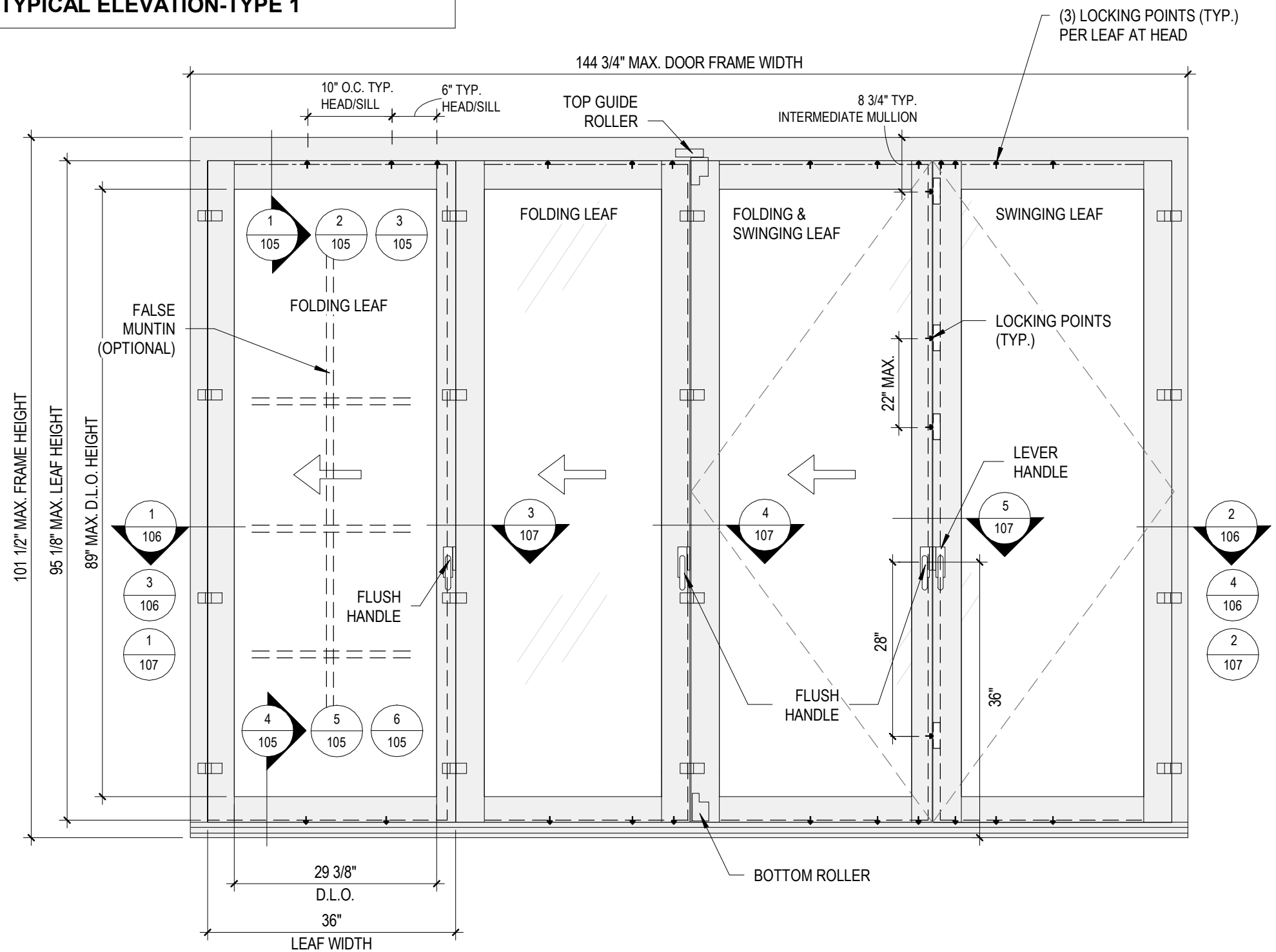
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101

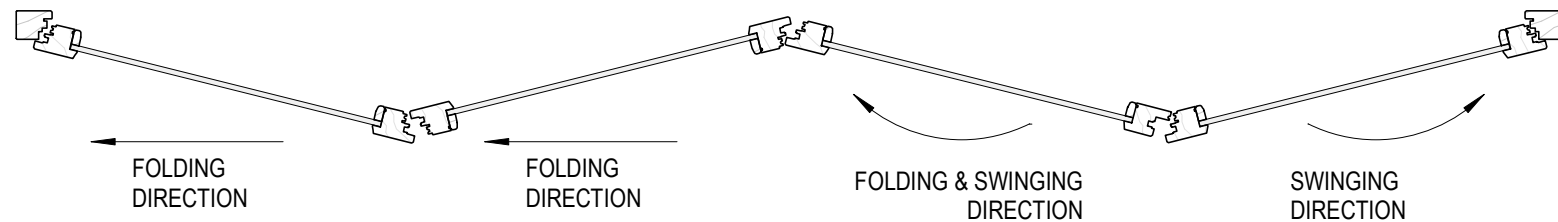
101 OF 116

THIS PRODUCT IS APPROVED FOR IMPACT RESISTANCE LEVEL 'D'

TYPICAL ELEVATION-TYPE 1



1
102 DOOR ELEVATION-TYPE 1
NOT TO SCALE



2
102 DOOR PLAN- TYPE 1
NOT TO SCALE

FL# 20652.6

PANEL SIZE:
LEAF WIDTH = (DOOR FRAME WIDTH-0.75")/4
LEAF HEIGHT = DOOR FRAME HEIGHT-6.375"

DAYLIGHT OPENINGS:
DLO WIDTH = LEAF WIDTH -6.750"
DLO HEIGHT = LEAF HEIGHT-6.125"

FOUR PANEL DOOR CONFIGURATION WITH FOLDING AND SWING PANELS SHOWN. DOOR MAY HAVE MORE PANELS PROVIDED STILE COMBINATIONS SHOWN IN THIS DRAWING ARE USED AND THE TOTAL AREA DOES NOT EXCEED 151.7 SQ.FT. AND PANEL AREA NOT EXCEEDED.

DESIGN LOADS:
ALL GLASS (EXCEPT GLASS TYPE "HI") = +80/-80 P.S.F.
GLASS TYPE "HI" & WOOD PANELS= +70/-70 P.S.F.

BI-FOLD HARDWARE:
LOCKS FOR TYPE 1 BY 'G.U.' TYPE 2 BY 'KfV'.

SWINGING LEAF:
FLUSH MOUNT METALLIC MULTI POINT LOCK SYSTEM WITH LEVER TYPE ACTIVATING HANDLE ON INTERIOR OF MTG. STILE AT 36" FROM BOTTOM.
FASTENED WITH (35) #8 X 1-1/2" FH SMS
ENGAGING SIMULTANEOUSLY
(3) LOCKING POINTS AT HEAD
(3) LOCKING POINTS AT SILL
(5) LOCKING POINTS AT MTG. STILE.

SWINGING & FOLDING LEAF:
FLUSH MOUNT METALLIC MULTI POINT LOCK SYSTEM WITH FLUSH TYPE ACTIVATING HANDLE ON INTERIOR OF MTG. STILE AT 36" FROM BOTTOM. FASTENED WITH (35) #8 X 1-1/2" FH SMS
ENGAGING SIMULTANEOUSLY
(3) LOCKING POINTS AT HEAD
(3) LOCKING POINTS AT SILL

SURFACE MOUNT METALLIC KEEPERS FACING LOCKING POINTS AT MTG. STILE
EACH KEEPER FASTENED WITH (2) #8 X 3/4" FH SMS

FOLDING LEAF:
FLUSH MOUNT METALLIC MULTI POINT LOCK SYSTEM WITH FLUSH TYPE ACTIVATING HANDLE ON INTERIOR OF MTG. STILE AT 36" FROM BOTTOM. FASTENED WITH (35) #8 X 1-1/2" FH SMS
ENGAGING SIMULTANEOUSLY
(3) LOCKING POINTS AT HEAD
(3) LOCKING POINTS AT SILL

SWINGING, SWINGING & FOLDING, FOLDING LEAFS:
SURFACE MOUNT METALLIC KEEPERS FACING LOCKING POINTS AT HEAD AND SILL
EACH KEEPER FASTENED WITH (2) #10 x 1-3/4" FH SMS

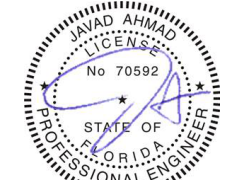


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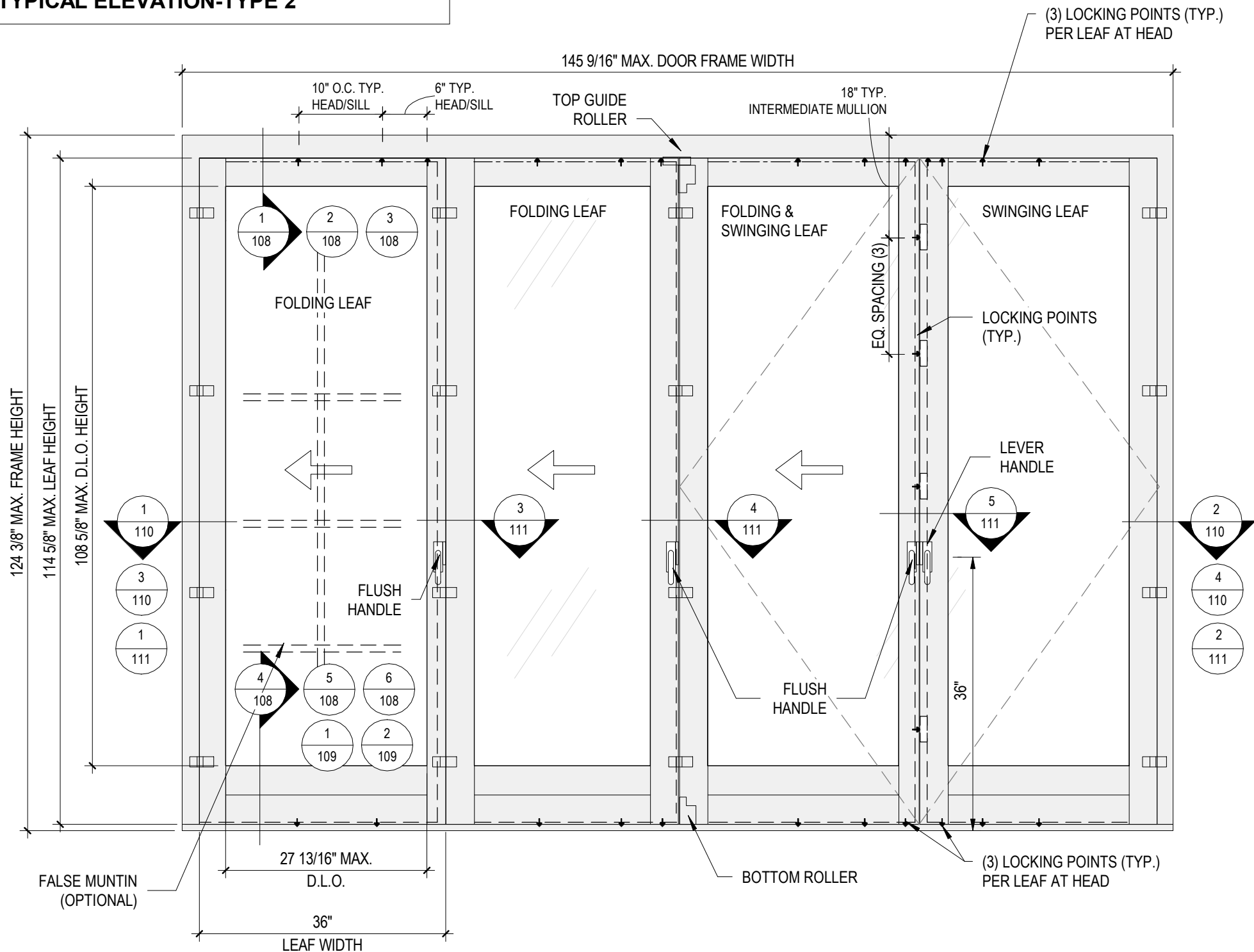
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TYPICAL ELEVATION-TYPE 2

FL# 20652.6



PANEL SIZE:
LEAF WIDTH = (DOOR FRAME WIDTH-0.75")/4
LEAF HEIGHT = DOOR FRAME HEIGHT-6.375"

DAYLIGHT OPENINGS:
DLO WIDTH = LEAF WIDTH - 6.750"
DLO HEIGHT = LEAF HEIGHT - 6.125"

FOUR PANEL DOOR CONFIGURATION WITH FOLDING AND SWING PANELS SHOWN. DOOR MAY HAVE MORE PANELS PROVIDED STILE COMBINATIONS SHOWN IN THIS DRAWING ARE USED AND THE TOTAL AREA DOES NOT EXCEED 188.5 SQ.FT. AND PANEL AREA NOT EXCEEDED.

DESIGN LOADS:
ALL GLASS & WOOD PANELS= +/- 65 P.S.F.

BI-FOLD HARDWARE:
LOCK OPTION 1 FOR TYPE 1 BY 'G.U.' TYPE 2 BY 'K.FV'.

SWINGING LEAF:
FLUSH MOUNT METALLIC MULTI POINT LOCK SYSTEM WITH LEVER TYPE ACTIVATING HANDLE ON INTERIOR OF MTG. STILE AT 36" FROM BOTTOM. FASTENED WITH (35) #8 X 1-1/2" FH SMS ENGAGING SIMULTANEOUSLY
(3) LOCKING POINTS AT HEAD
(3) LOCKING POINTS AT SILL
(4) LOCKING POINTS AT MTG. STILE.

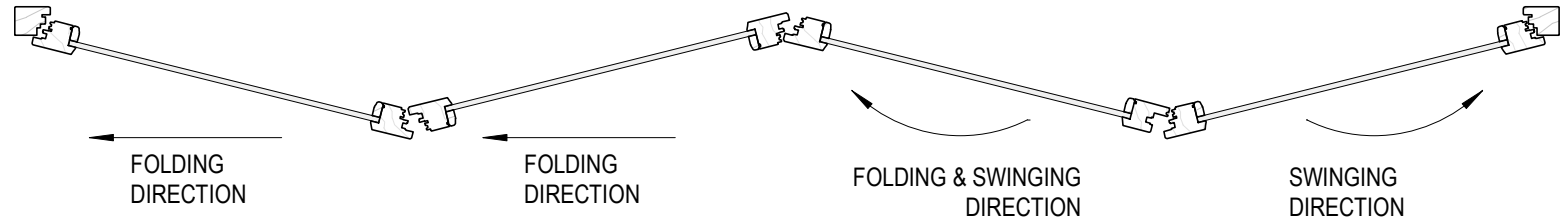
SWINGING & FOLDING LEAF:
FLUSH MOUNT METALLIC MULTI POINT LOCK SYSTEM WITH FLUSH TYPE ACTIVATING HANDLE ON INTERIOR OF MTG. STILE AT 36" FROM BOTTOM. FASTENED WITH (35) #8 X 1-1/2" FH SMS ENGAGING SIMULTANEOUSLY
(3) LOCKING POINTS AT HEAD
(3) LOCKING POINTS AT SILL

SURFACE MOUNT METALLIC KEEPERS FACING LOCKING POINTS AT MTG. STILE
EACH KEEPER FASTENED WITH (2) #8 X 3/4" FH SMS

FOLDING LEAF:
FLUSH MOUNT METALLIC MULTI POINT LOCK SYSTEM WITH FLUSH TYPE ACTIVATING HANDLE ON INTERIOR OF MTG. STILE AT 36" FROM BOTTOM. FASTENED WITH (35) #8 X 1-1/2" FH SMS ENGAGING SIMULTANEOUSLY
(3) LOCKING POINTS AT HEAD
(3) LOCKING POINTS AT SILL

SWINGING, SWINGING & FOLDING, FOLDING LEAFS:
SURFACE MOUNT METALLIC KEEPERS FACING LOCKING POINTS AT HEAD AND SILL
EACH KEEPER FASTENED WITH (2) #10 x 1-3/4" FH SMS AT HEAD AND SILL

1 DOOR ELEVATION-TYPE 2
103 NOT TO SCALE



2 DOOR PLAN- TYPE 2
103 NOT TO SCALE



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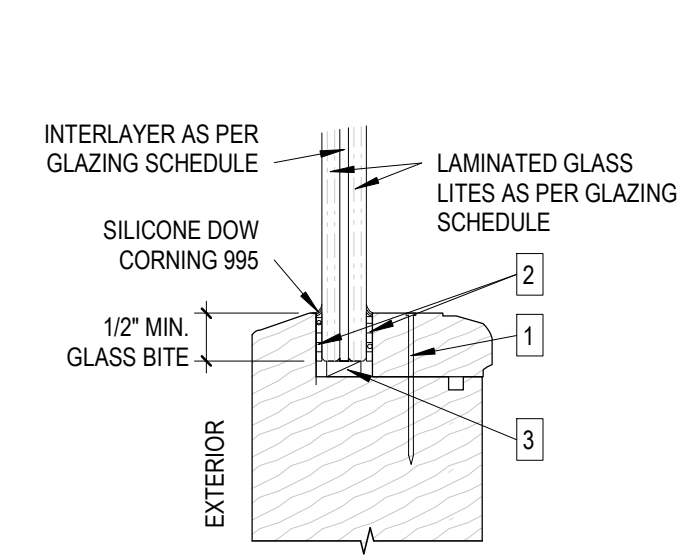
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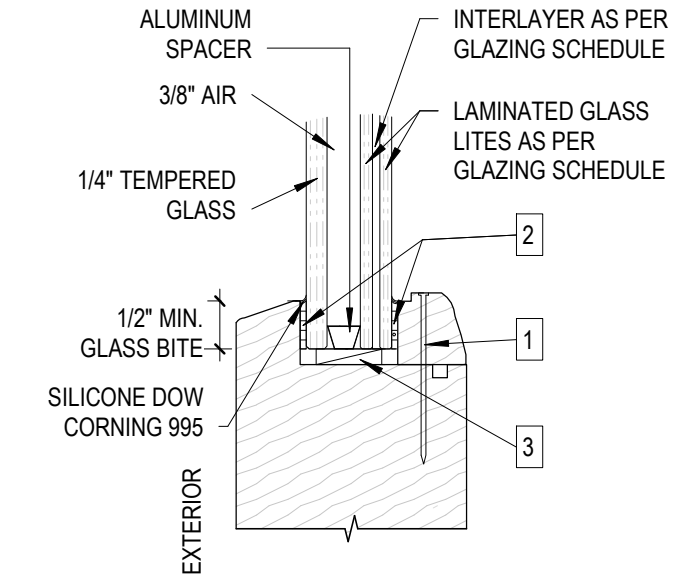
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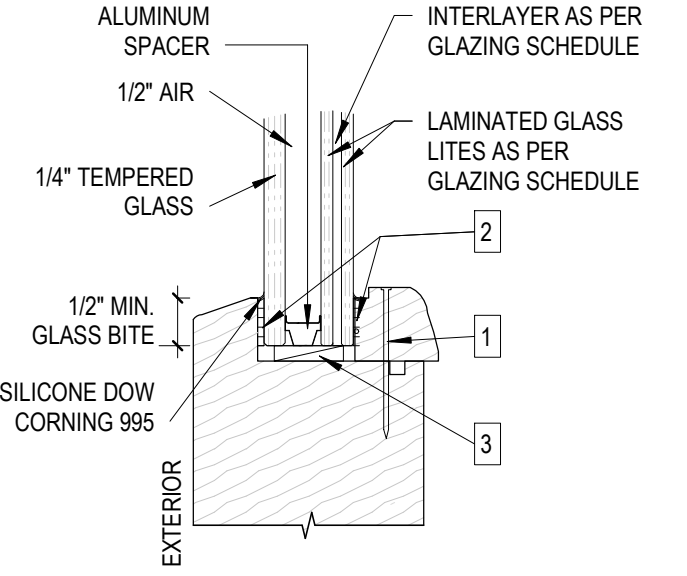
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1
104 GLAZING DETAIL FOR GLASS TYPE A,B,C,D,E,F
NOT TO SCALE

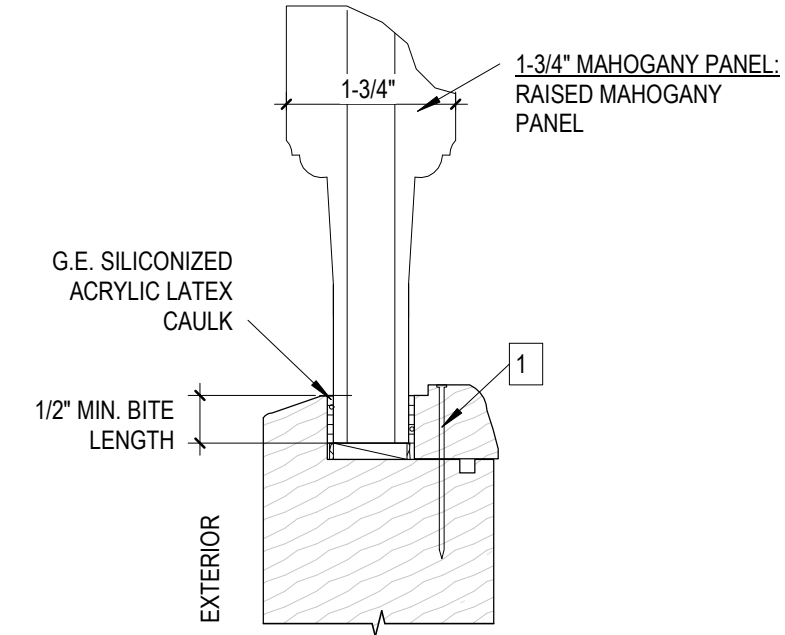


2
104 GLAZING DETAIL FOR GLASS TYPE HI, II
NOT TO SCALE

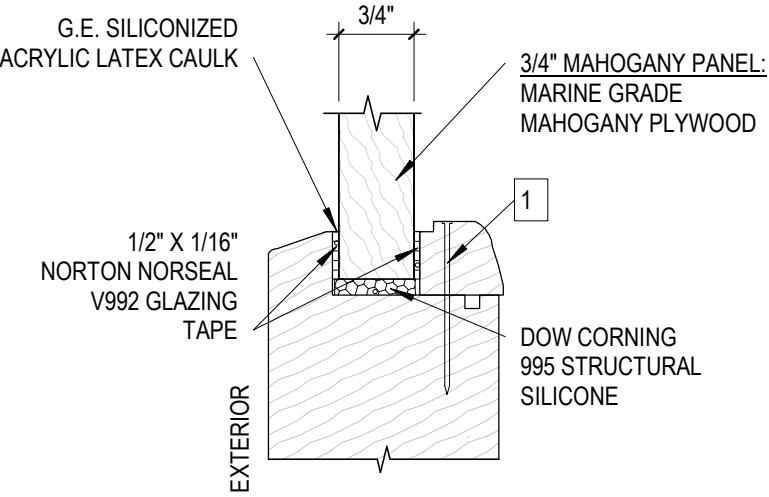


3
104 GLAZING DETAIL FOR GLASS TYPE GI, JI
NOT TO SCALE

- 1
- 18 GA. X 1-1/2" BRAD NAILS AT 3" FROM ENDS AND 8" O.C. MAX.
- 2
- GLAZING TAPE 1/16" X 1/2" NORTON HPF970
- 3
- NEOPRENE SETTING BLOCK 80 + / - 5 DUROMETER AT 1/4 POINTS



4
104 GLAZING DETAIL FOR WOOD PANEL TYPE K
NOT TO SCALE



5
104 GLAZING DETAIL FOR WOOD PANEL TYPE L
NOT TO SCALE

GLAZING SCHEDULE				REF. DETAIL
GLASS TYPE	LAMINATED GLASS LITE	INTERLAYER		
A	3/16" ANNEALED GLASS	0.09" PVB INTERLAYER		1/ 104
B	3/16" HEAT STREN'D GLASS	0.09" PVB INTERLAYER		
C	3/16" HEAT STREN'D GLASS	0.09" SENTRYGLAS INTERLAYER		
D	3/16" ANNEALED GLASS	0.09" SENTRYGLAS INTERLAYER		
E	1/4" HEAT STREN'D GLASS	0.09" SENTRYGLAS INTERLAYER		
F	1/4" HEAT STREN'D GLASS	0.075" PVB INTERLAYER		
GLASS TYPE	EXTERIOR GLASS LITE	LAMINATED GLASS LITE	INTERLAYER	REF. DETAIL
GI	1/4" TEMPERED GLASS	3/16" HEAT STREN'D GLASS	0.075" PVB INTERLAYER	3/ 104
HI	1/4" TEMPERED GLASS	1/8" ANNEALED GLASS	0.09" SENTRYGLAS INTERLAYER	2/ 104
II	1/4" TEMPERED GLASS	1/4" HEAT STREN'D GLASS	0.09" SENTRYGLAS INTERLAYER	2/ 104
JI	3/16" TEMPERED GLASS	3/16" HEAT STREN'D GLASS	0.09" SENTRYGLAS INTERLAYER	3/ 104

NOTE:

- ALL PVB INTERLAYERS ARE BY EASTMAN CHEMICAL COMPANY
- ALL SENTRYGLAS INTERLAYERS ARE BY KURARAY AMERICA, INC.

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EUROPEAN WOOD OUTSWING BI-FOLD DOOR
(LARGE AND SMALL MISSILE IMPACT RATED)

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		No.	DATE	BY	

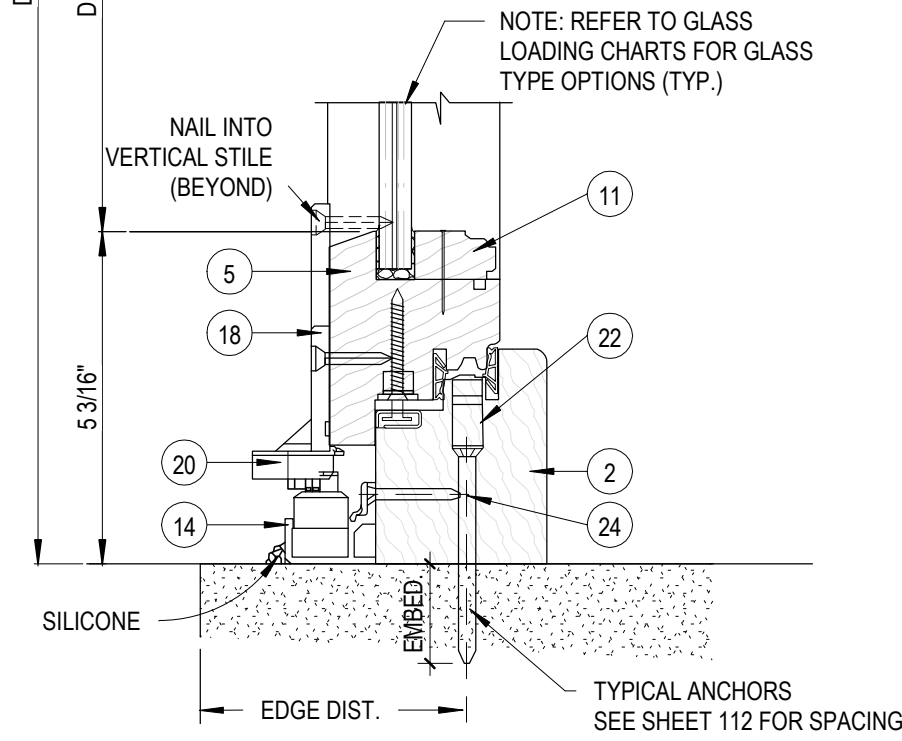
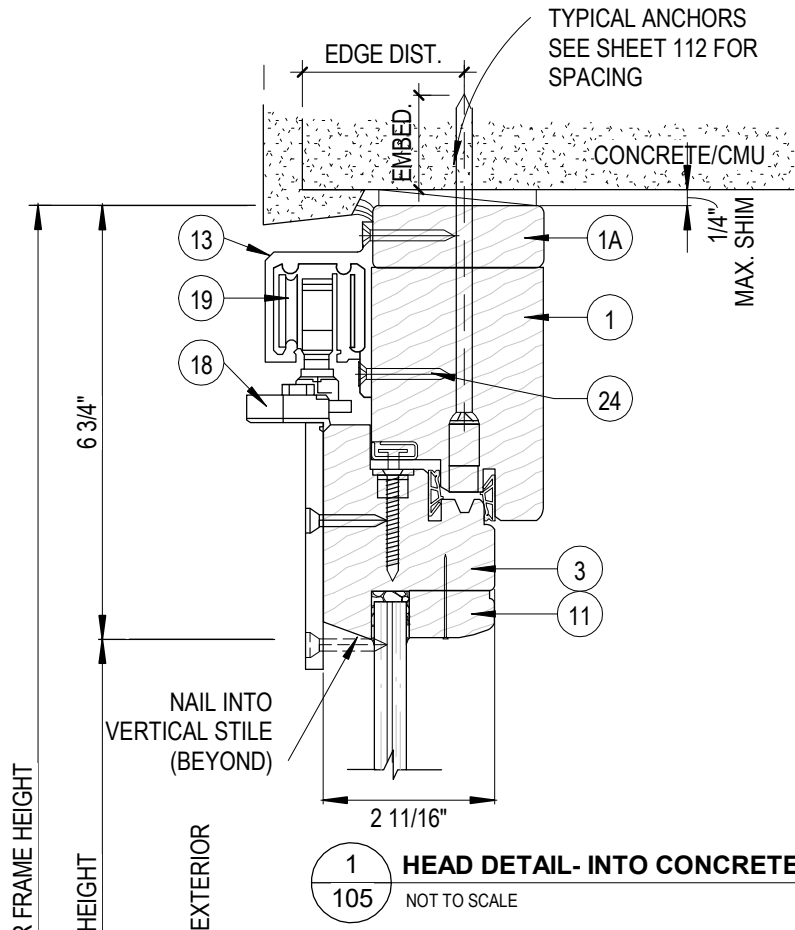
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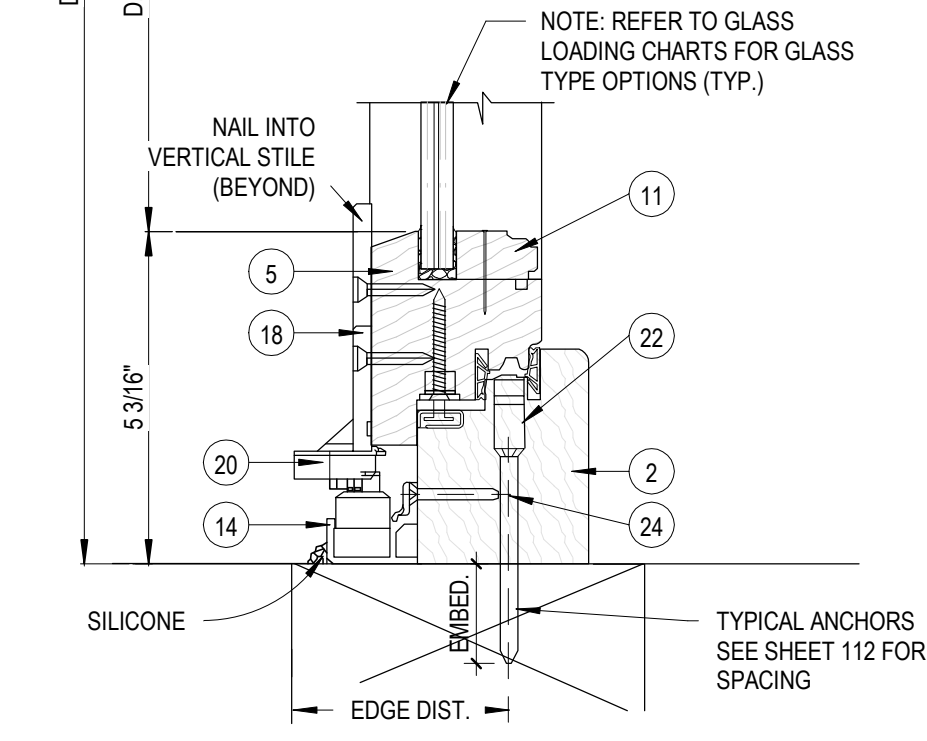
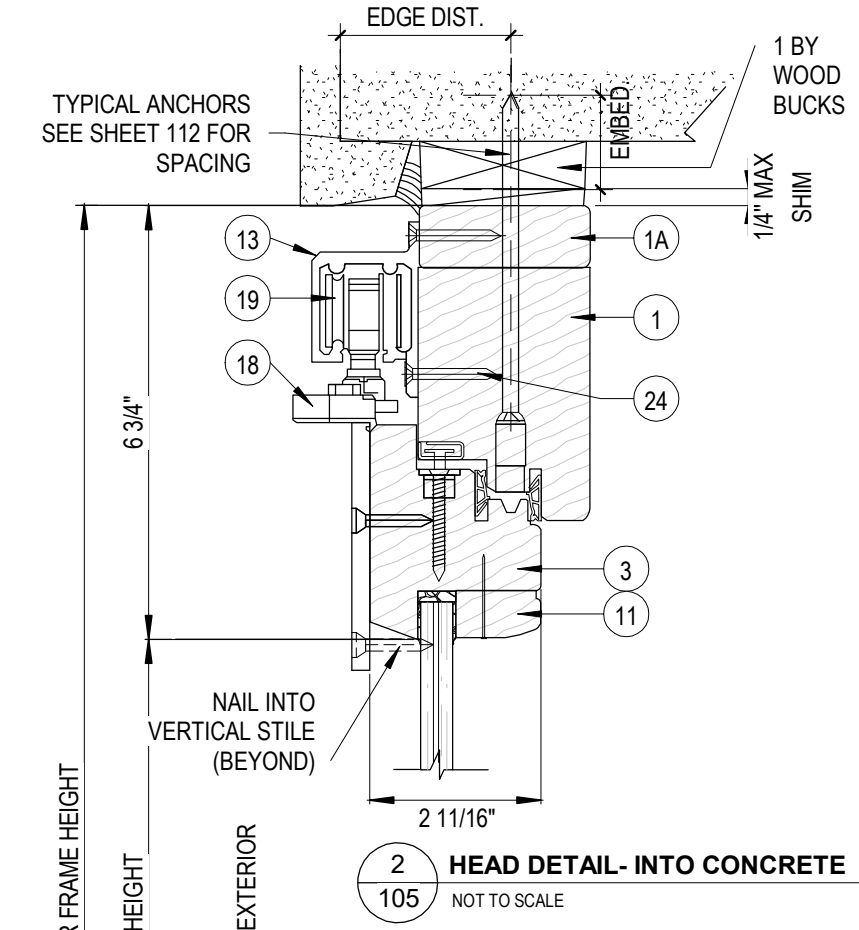
SECTIONAL DETAILS

DOOR TYPE 1

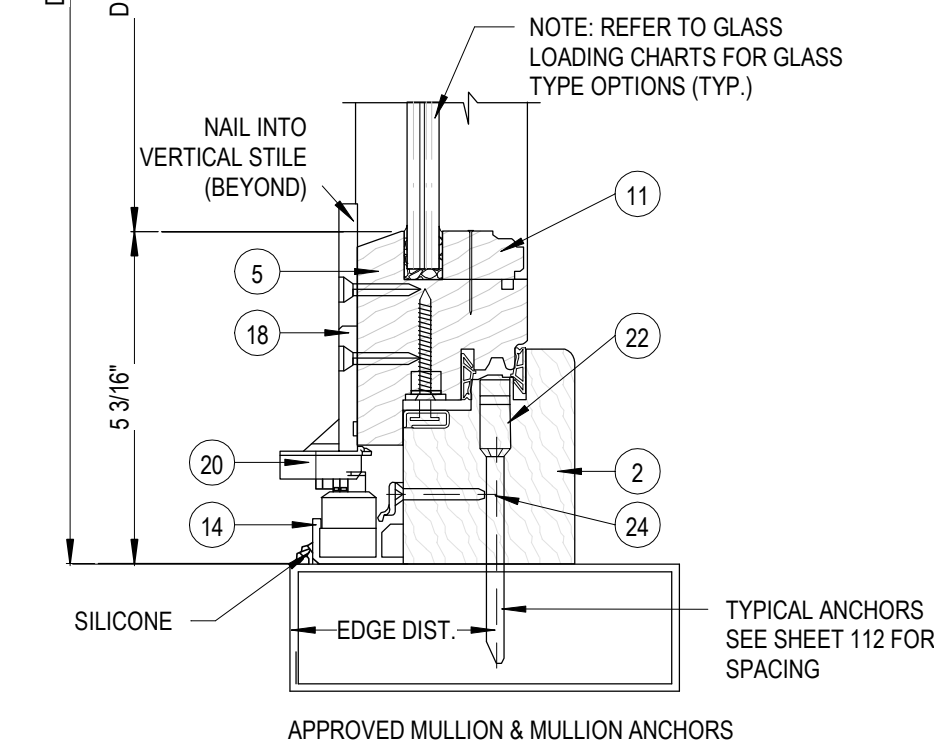
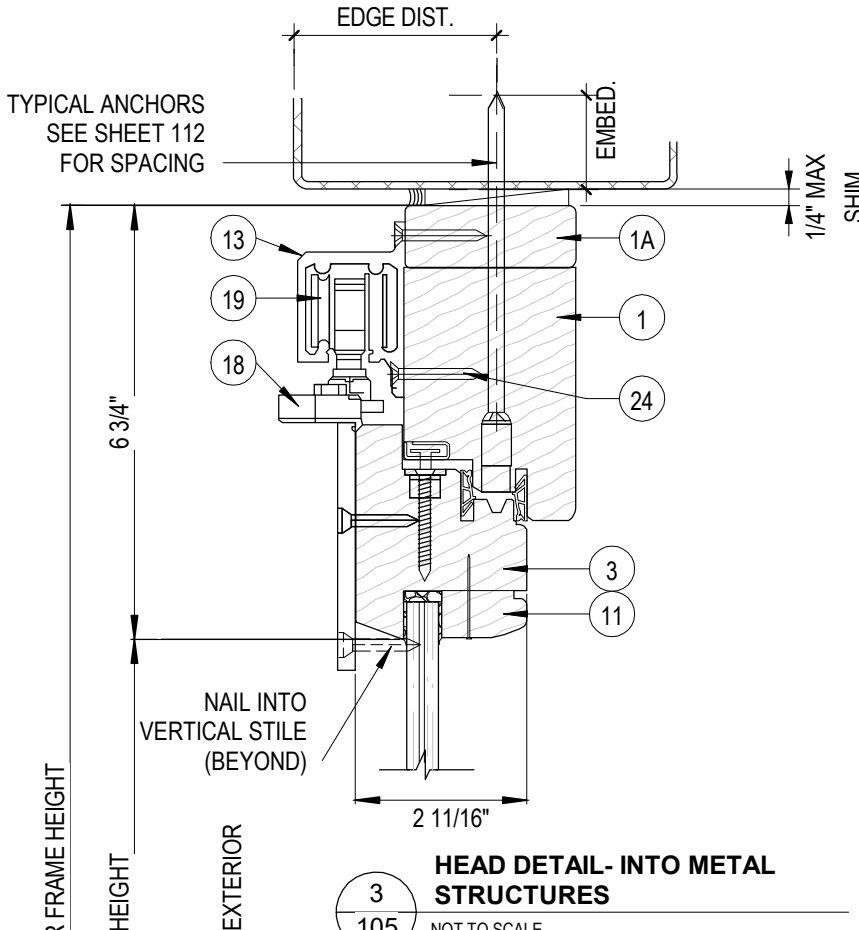
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APPROVED FOR WATER RESISTANCE



APPROVED FOR WATER RESISTANCE



APPROVED FOR WATER RESISTANCE



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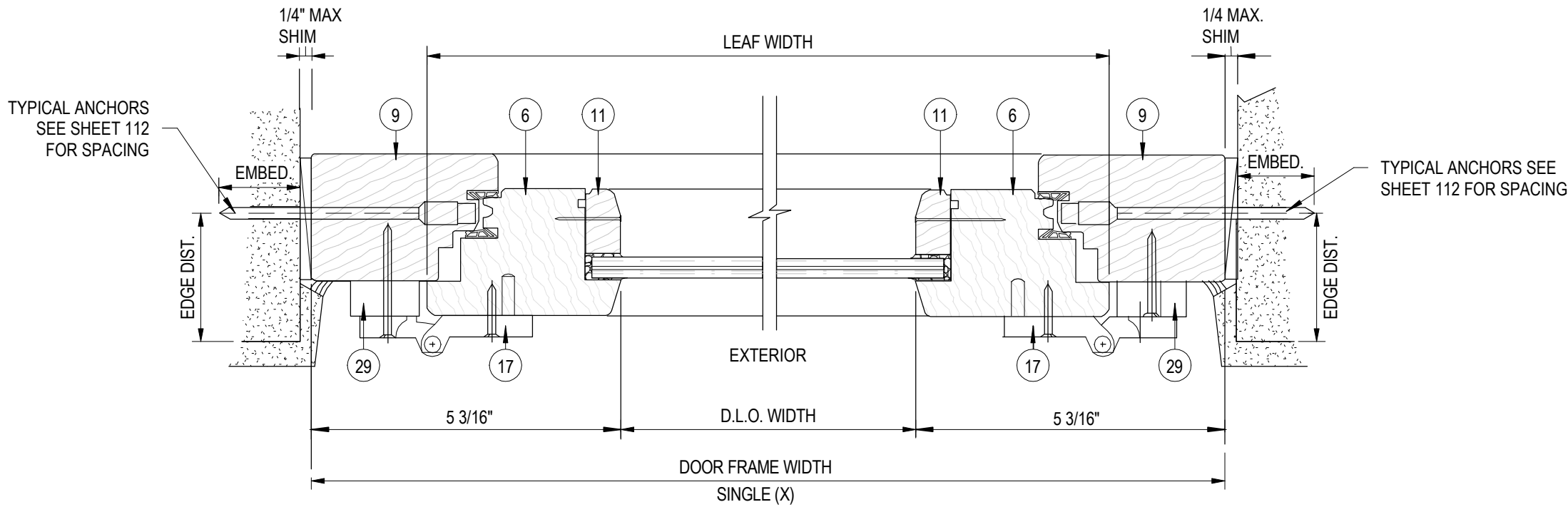
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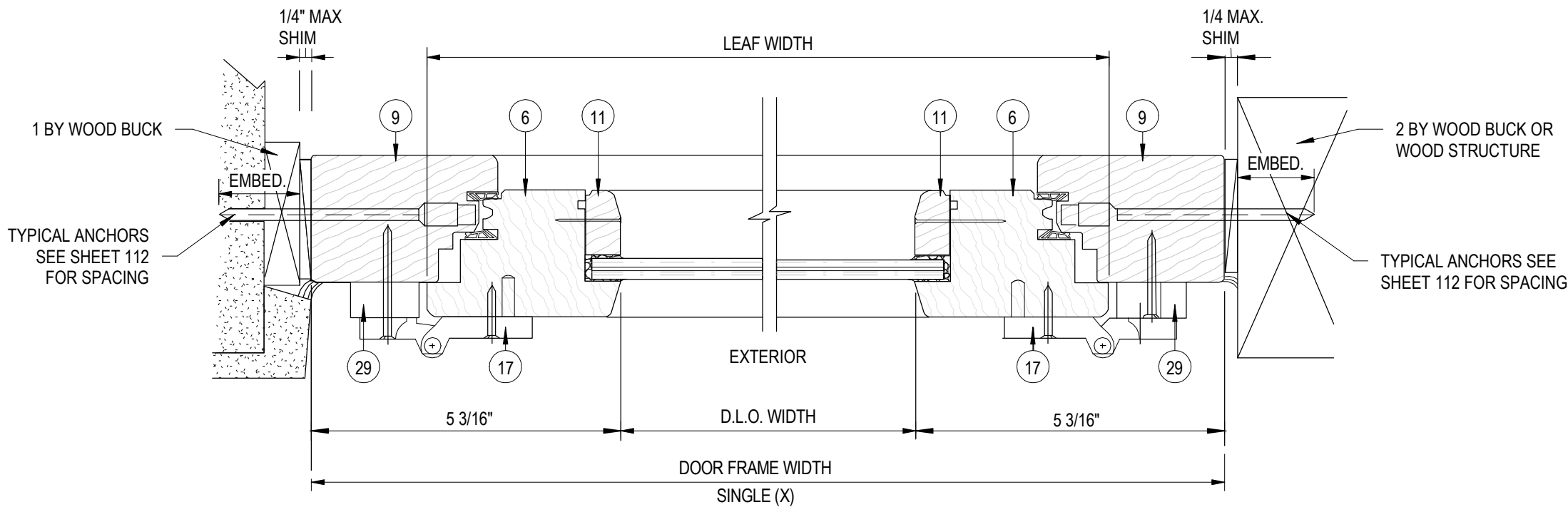
105

105 OF 116



1 JAMB DETAIL- INTO CONCRETE
106 NOT TO SCALE

2 JAMB DETAIL- INTO CONCRETE
106 NOT TO SCALE



3 JAMB DETAIL- INTO CONCRETE
106 NOT TO SCALE

4 JAMB DETAIL- INTO WOOD
106 NOT TO SCALE



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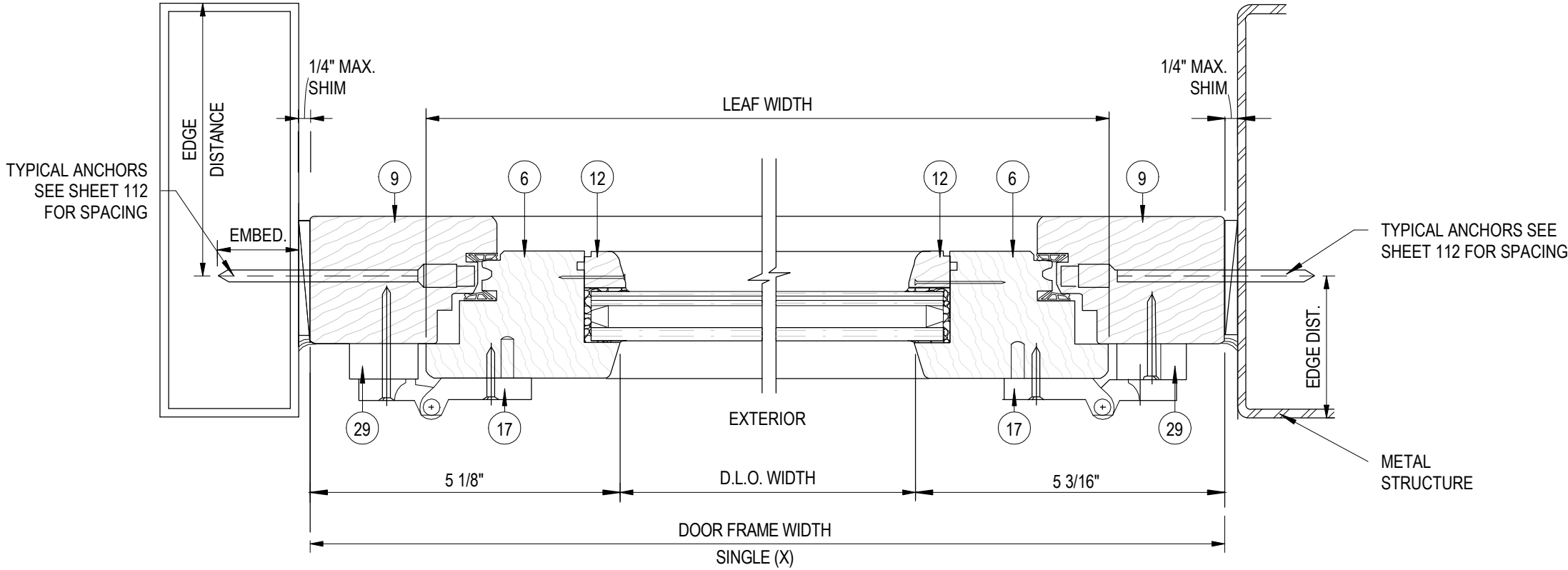
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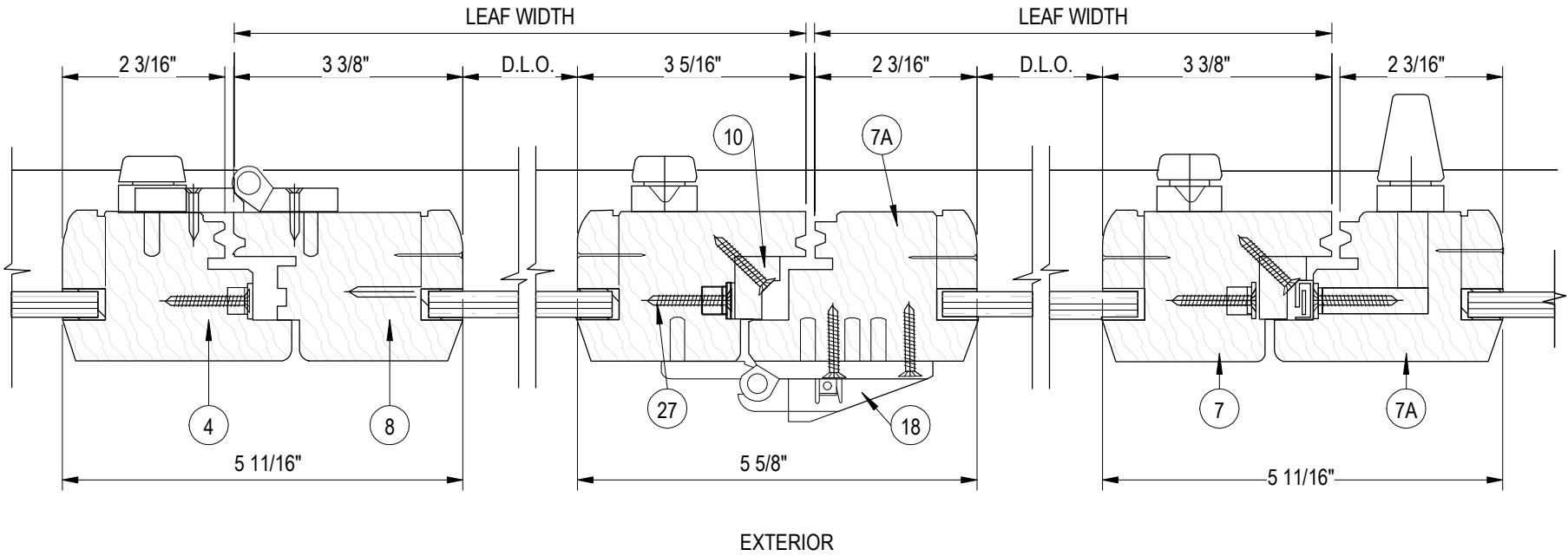


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1 JAMB DETAIL- INTO MULLION
107 NOT TO SCALE

2 JAMB DETAIL- INTO METAL STRUCTURE
107 NOT TO SCALE



3 HINGE STILE DETAIL
107 (EXTERIOR) NOT TO SCALE

4 HINGE STILE DETAIL
107 (INTERIOR) NOT TO SCALE

5 LOCK STILE DETAIL
107 NOT TO SCALE



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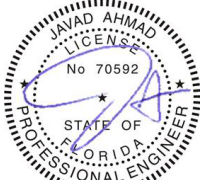
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SECTIONAL DETAILS

DOOR TYPE 2

FL# 20652.6



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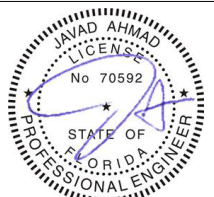
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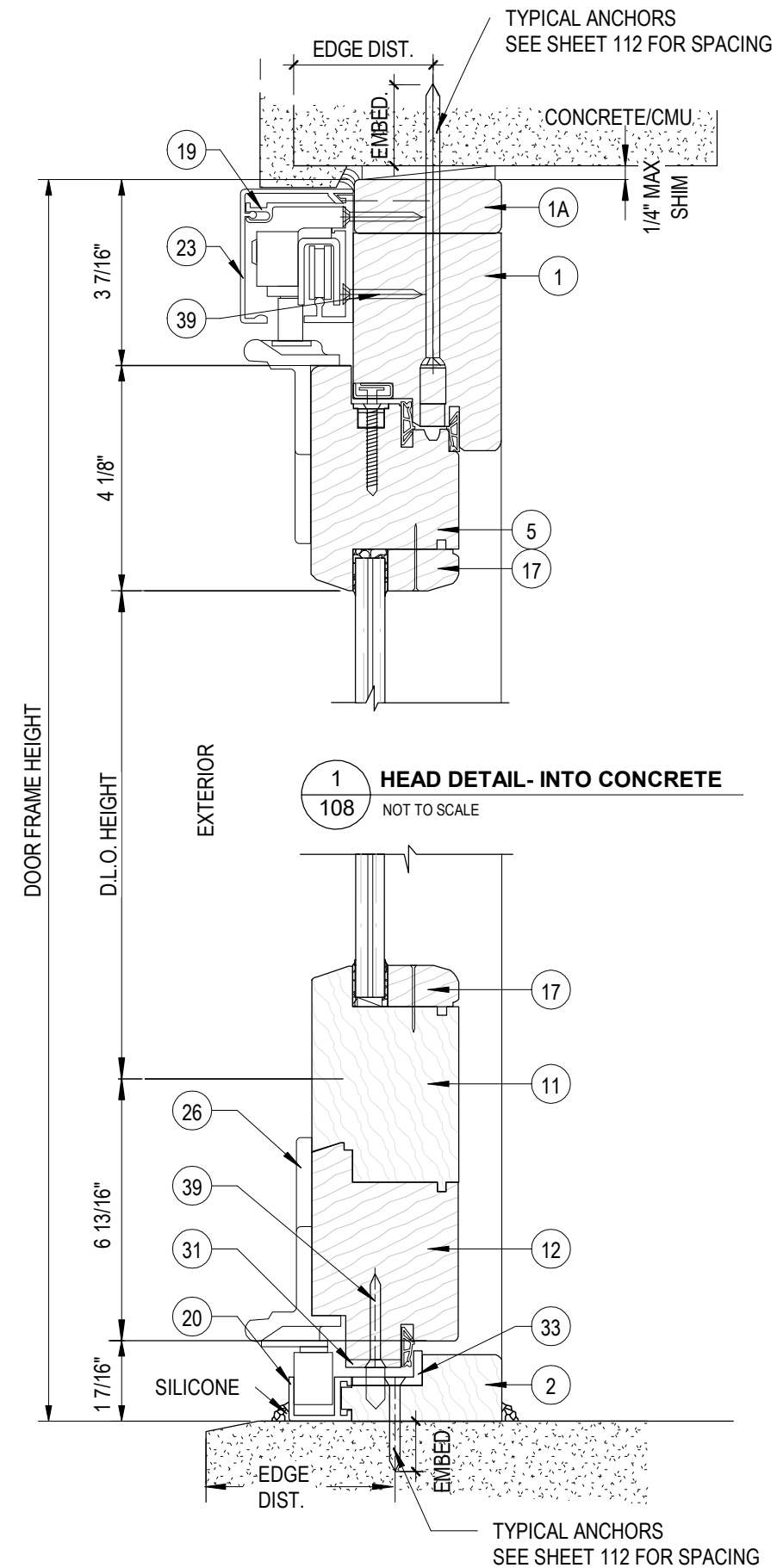
drawing no.	JA-1425-23	drawn by:	BS																								
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REVISION <table border="1"> <thead> <tr> <th>No.</th> <th>DATE</th> <th>BY</th> <th>DESCRIPTION</th> </tr> </thead> <tbody> <tr><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td></tr> </tbody> </table>				No.	DATE	BY	DESCRIPTION																				
No.	DATE	BY	DESCRIPTION																								



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108

108 OF 116

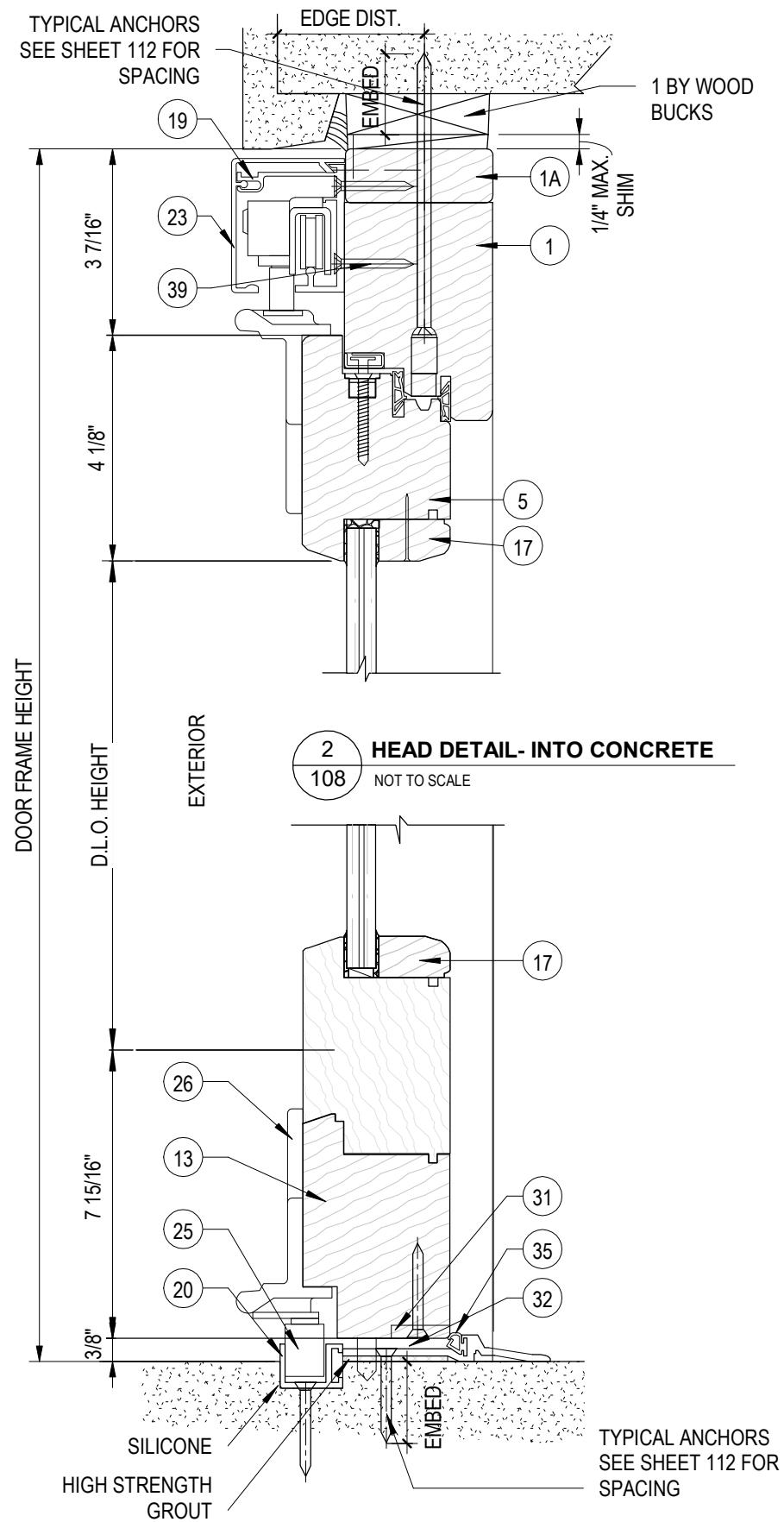


APPROVED FOR
WATER RESISTANCE

4 **SILL DETAIL- INTO CONCRETE**
108 NOT TO SCALE

NOT APPROVED FOR
WATER RESISTANCE

5 **SILL DETAIL- INTO CONCRETE**
108 NOT TO SCALE



EDGE DIST.

EMBED.

TYPICAL ANCHORS
SEE SHEET 112 FOR
SPACING

27 7/16"

4 1/16"

5

17

1

DOOR FRAME HEIGHT

D.I.O. HEIGHT

EXTERIOR

3
108

HEAD DETAIL- INTO METAL
STRUCTURES

NOT TO SCALE

17

11

14

3A

19

7 5/16"

2 1/8"

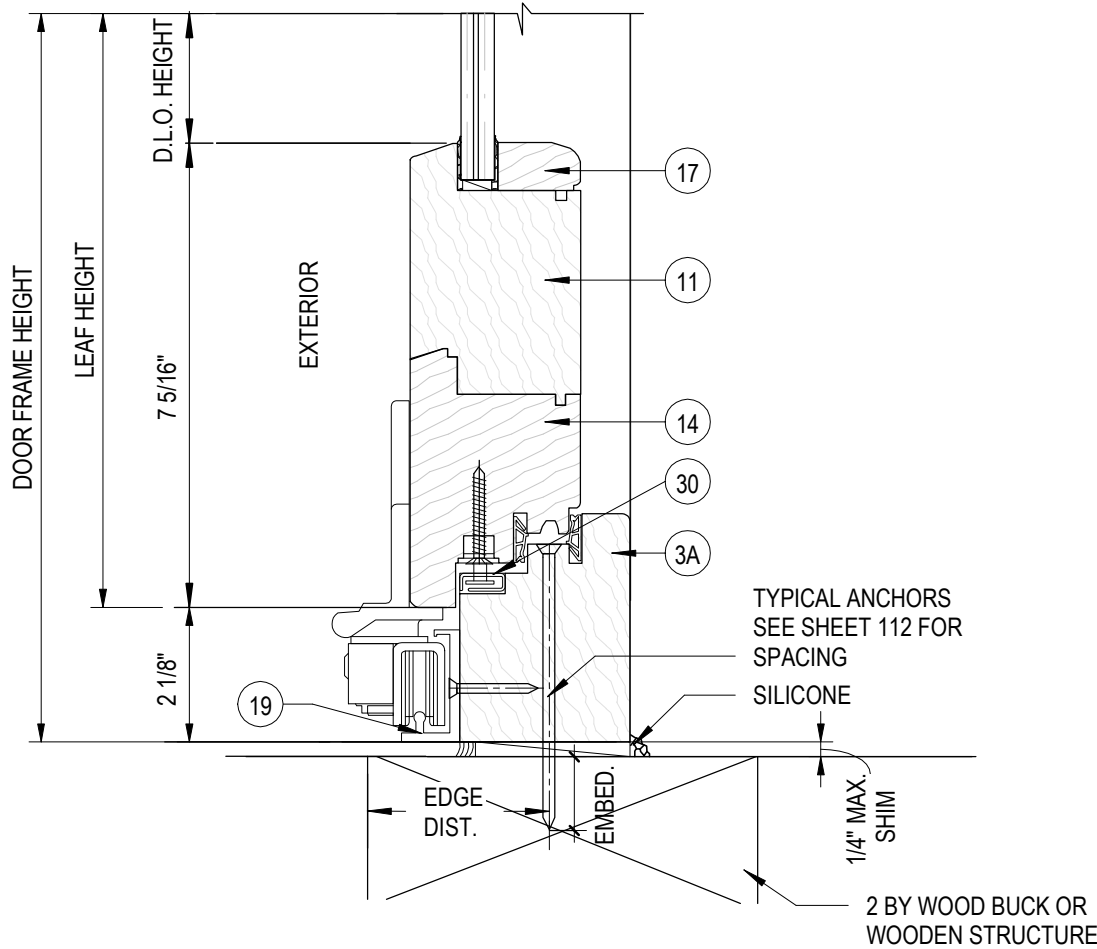
EMBED

TYPICAL ANCHORS
SEE SHEET 112 FOR
SPACING

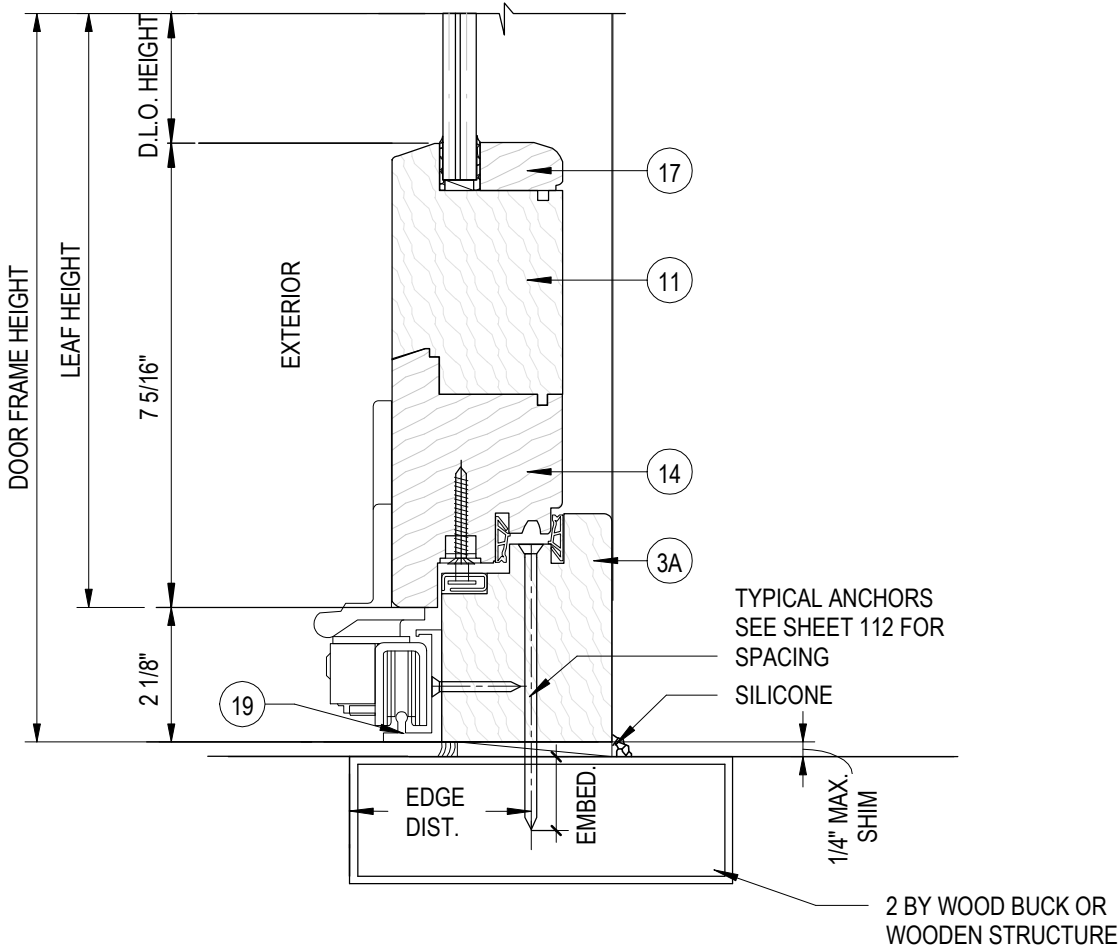
SILICONE

APPROVED FOR
WATER RESISTANCE

6 **SILL DETAIL- INTO CONCRETE**
108 NOT TO SCALE



1
109 SILL DETAIL- INTO WOODEN STRUCTURE
NOT TO SCALE



2
109 SILL DETAIL- INTO METAL STRUCTURE
NOT TO SCALE



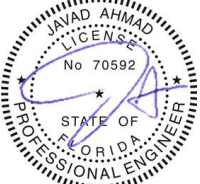
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Doral, FL 33126
Ph: (305) 424-8001
support@ja-pe.com

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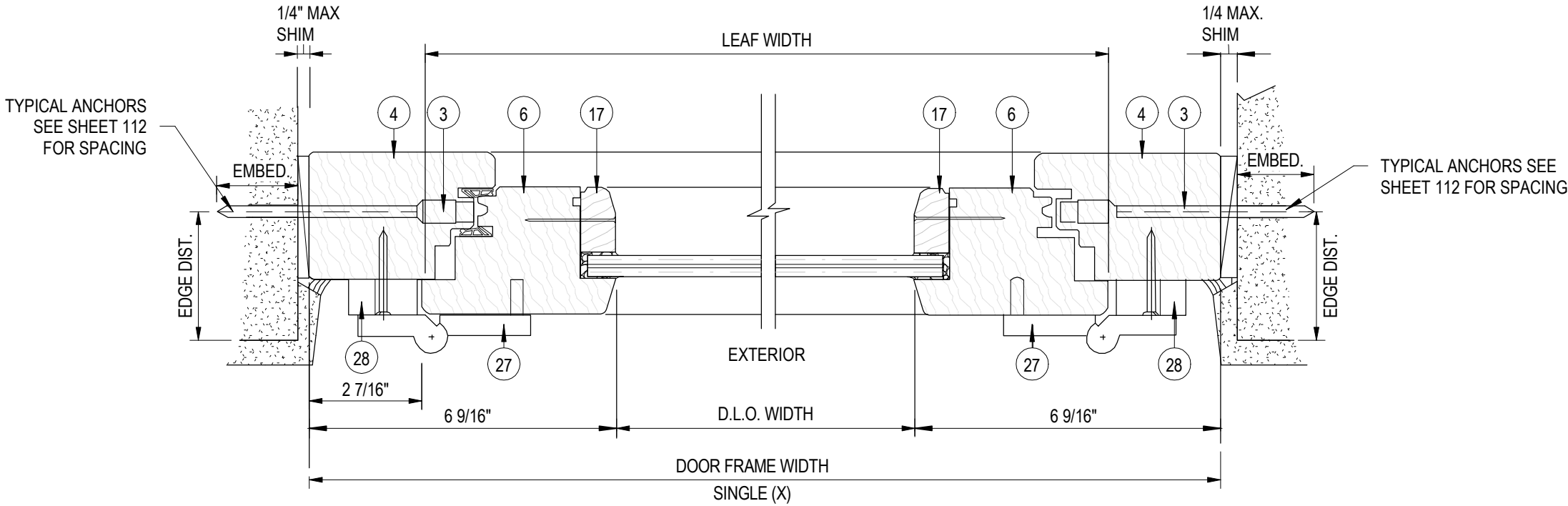
**EUROPEAN WOOD OUTSWING
BI-FOLD DOOR**
(LARGE AND SMALL MISSILE IMPACT RATED)

HARTMAN WINDOWS & DOORS, LLC.
2107 W. BLUE HERON BOULEVARD
WEST PALM BEACH, FL 33404
TELEPHONE: (561) 296-9600
FAX: (561) 296-9601

drawing no.	date:	JA-1425-23	drawn by:	check by:	SJ	REVISION			
						No.	DATE	BY	DESCRIPTION

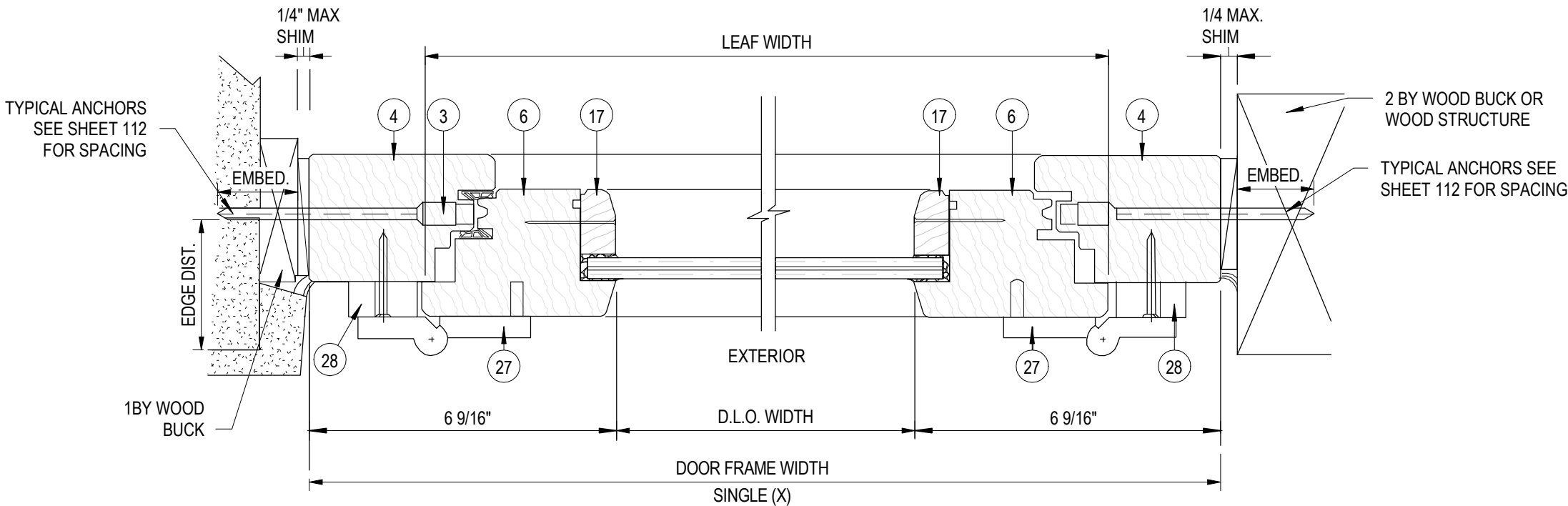


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1 JAMB DETAIL- INTO CONCRETE
110 NOT TO SCALE

2 JAMB DETAIL- INTO CONCRETE
110 NOT TO SCALE



3 JAMB DETAIL- INTO CONCRETE
110 NOT TO SCALE

4 JAMB DETAIL- INTO WOOD
110 NOT TO SCALE



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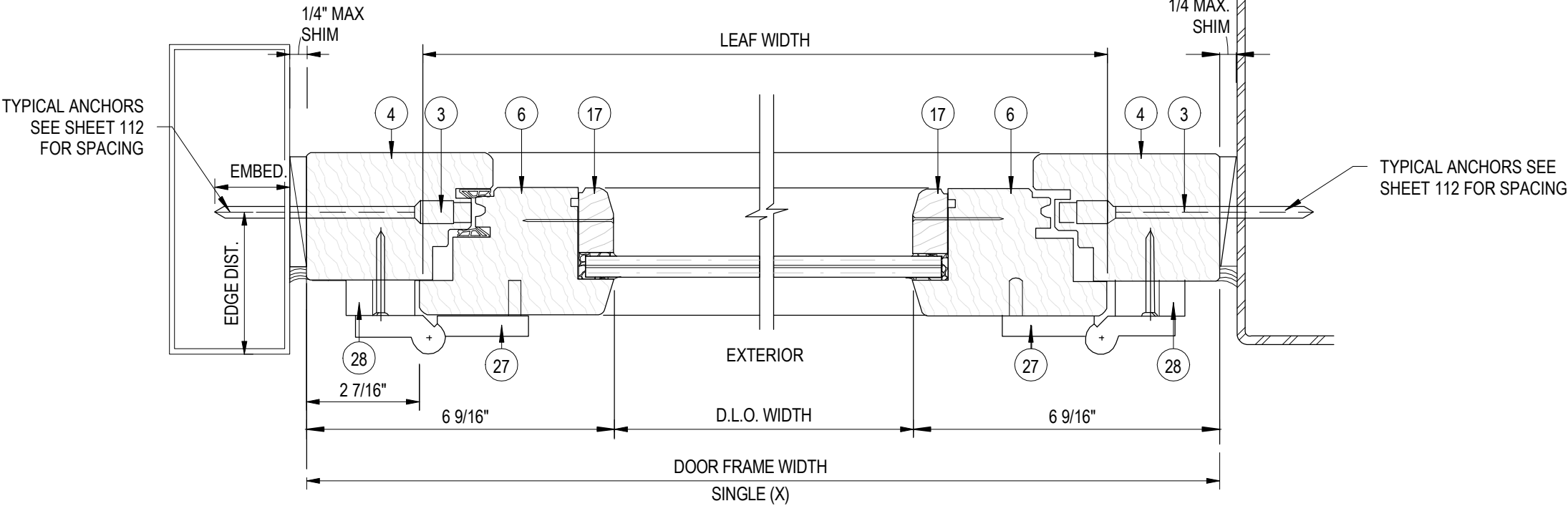
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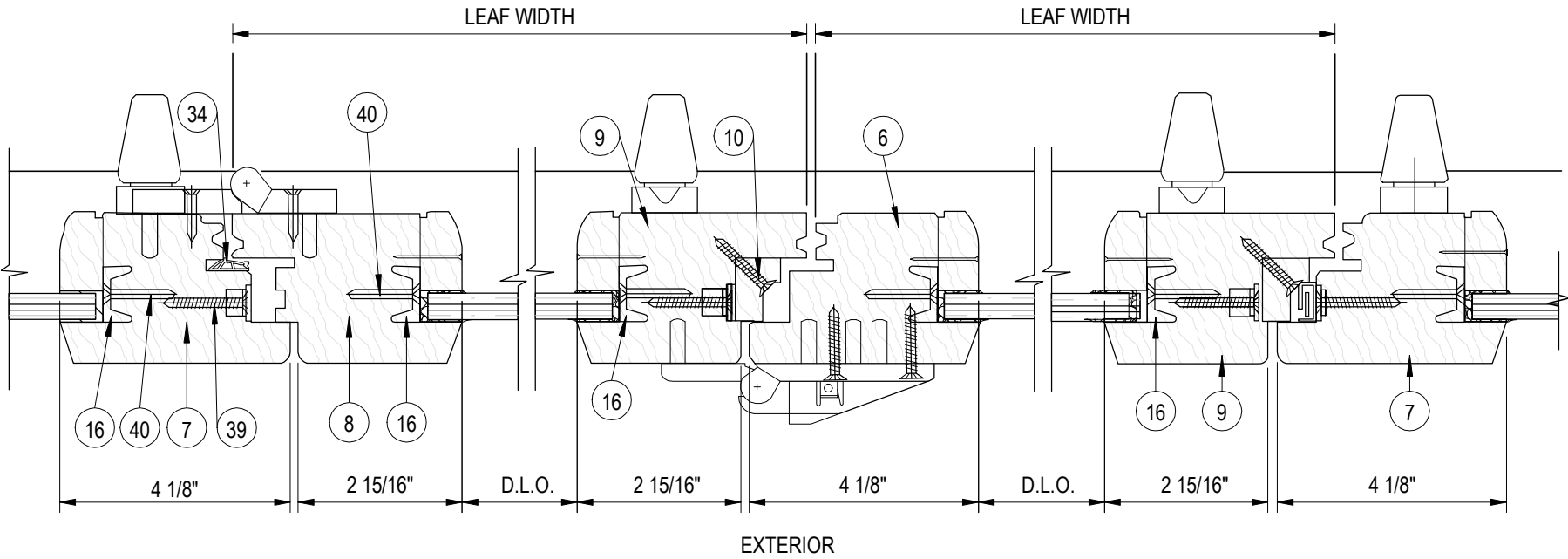


Sealed: 04-23-2024



1 JAMB DETAIL- INTO MULLION
111 NOT TO SCALE

2 JAMB DETAIL- INTO METAL STRUCTURE
111 NOT TO SCALE



3 HINGE STILE DETAIL
111 (EXTERIOR) NOT TO SCALE

4 HINGE STILE DETAIL
111 INTERIOR NOT TO SCALE

5 LOCK STILE DETAIL
111 NOT TO SCALE

NOTE:
STEEL REINF. REQUIRED ONLY AT
DOOR HEIGHTS > 101-1/2"



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						No.	DATE	BY	DESCRIPTION



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TYPICAL ANCHOR TYPES
(APPLIES TO ANCHOR GOING THRU THE DOOR FRAME):

TYPE A - 1/4" DEWALT ULTRAICON (Fu = 177,000 PSI, Fy = 155,000 PSI)
INTO 2BY WOOD* WITH 1-1/2" MIN EMBEDMENT, AND 1-1/4" MIN EDGE DISTANCE

THRU 1BY WOOD INTO CONCRETE, OR HOLLOW/GROUT FILLED MASONRY* WITH 1-3/4" EMBEDMENT, AND 2-1/2" MIN EDGE DISTANCE

DIRECTLY INTO CONCRETE, OR HOLLOW/GROUT FILLED MASONRY* WITH 1-3/4" EMBEDMENT, AND 2-1/2" MIN EDGE DISTANCE

NOTE:

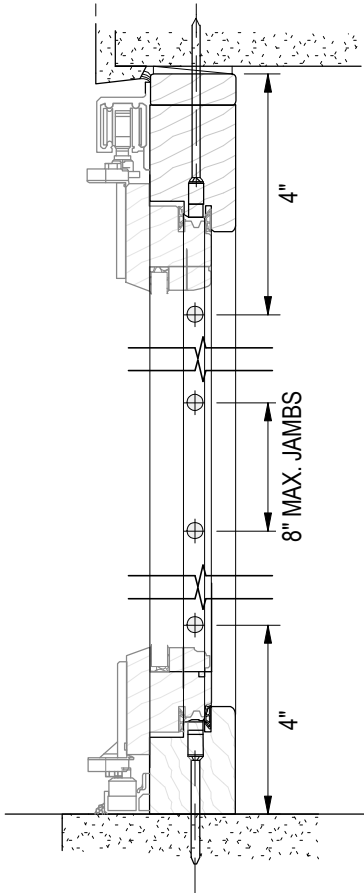
FOR INSTRUCTIONS TO ANCHOR THIS PRODUCT USING CLIPS, STRAPS, OR ANGLES, PLEASE REFER TO PAGES 113 FOR DETAILS REGARDING THE ANCHOR TYPE AND SPACING.

TYPE B - 1/4" "TEKS" SCREWS* SMS OR SDS (GRADE 5 MIN)
INTO ALUMINUM / STEEL* WITH 5 PITCHES PASSED THE THREAD PLANE, AND 1" MIN EDGE DISTANCE

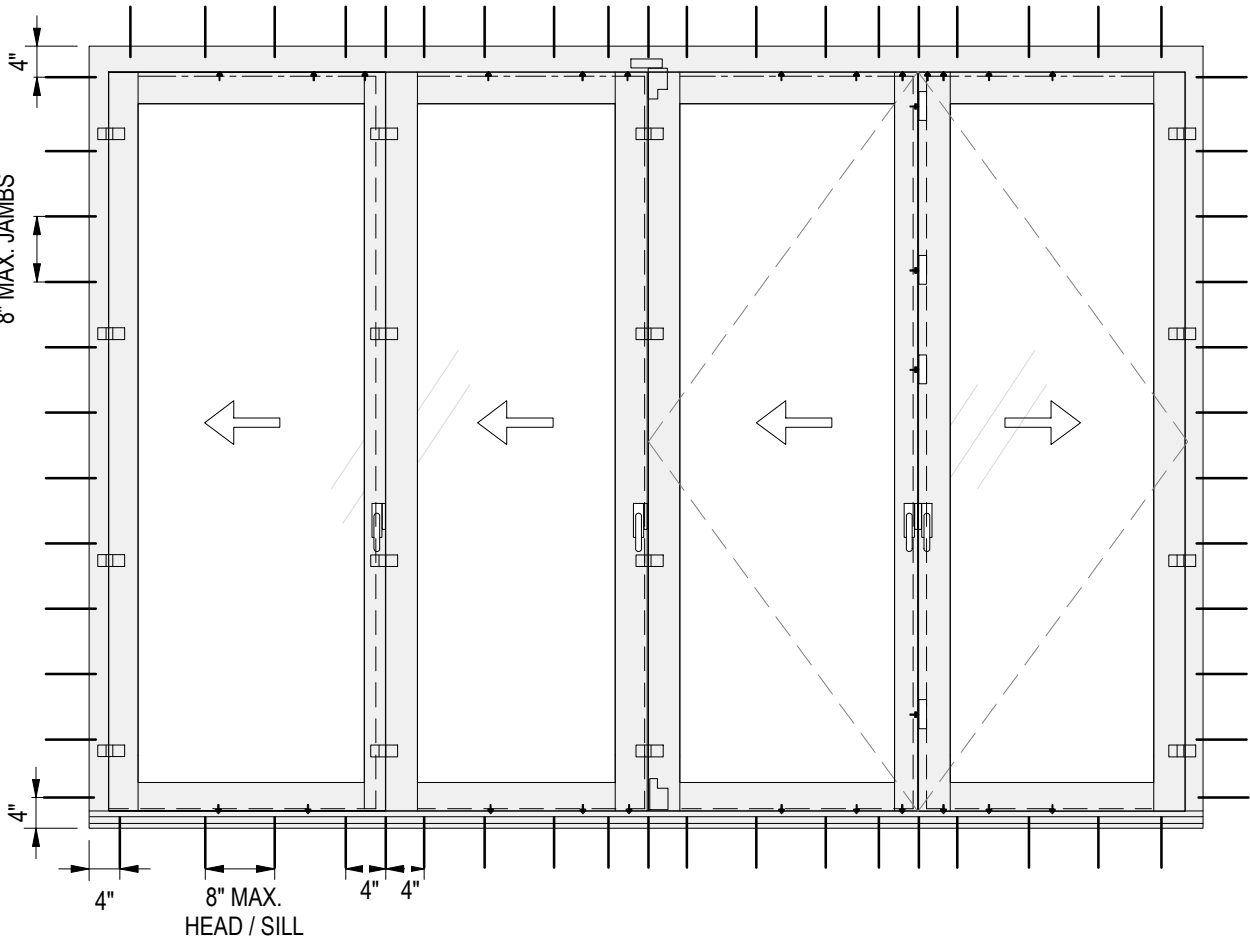
INTO APPROVED MULLIONS* WITH 5 PITCHES PASSED THE THREAD PLANE, AND 3/4" MIN EDGE DISTANCE

ANCHOR / SUBSTRATE NOTES:

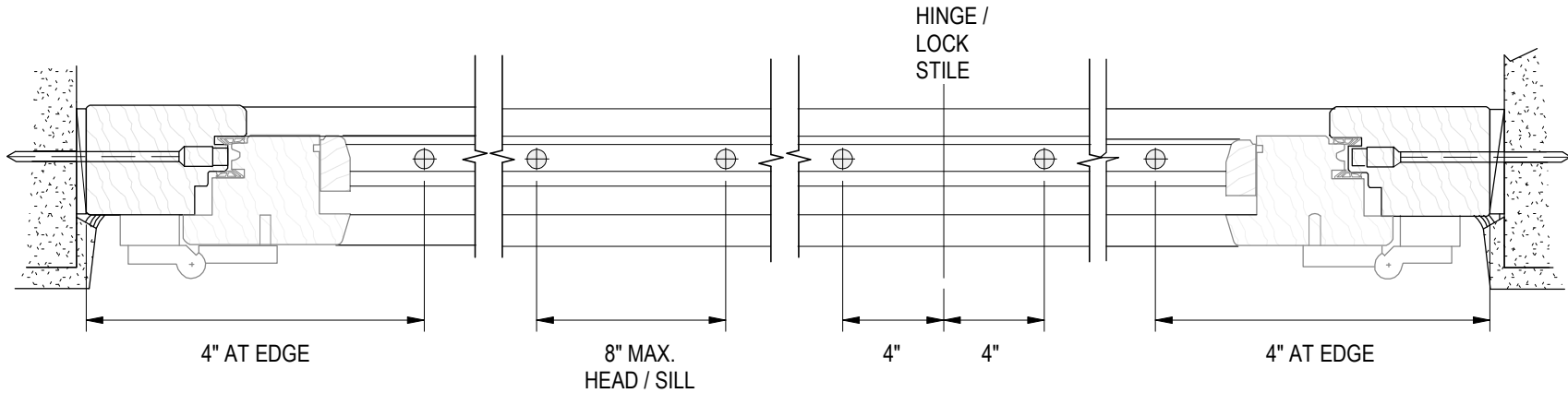
- WOOD AT HEAD, SILL OR JAMBS IS SOUTHERN YELLOW PINE #2 (SG=0.55 MIN.)
- CONCRETE AT HEAD, SILL OR JAMBS f'c= 3000 PSI
- HOLLOW/GROUT FILLED MASONRY UNITS AT JAMBS f'm= 2000 PSI
- STEEL (1/8" THICK, A36 MIN) AT HEAD, SILL OR JAMBS
- ALUMINUM (1/8" THICK, 6063-T6 MIN) AT HEAD, SILL OR JAMBS
- #14 316 SS SMS OR SDS IS PERMITTED TO BE SUBSTITUTED WITH TEKS SCREWS



1
112 DOOR JAMB ANCHOR SPACING
NOT TO SCALE



2
112 DOOR ELEVATION- ANCHOR LAYOUT- DOOR TYPE 1 & 2
NOT TO SCALE



3
112 DOOR HEADER / SILL ANCHOR SPACING
NOT TO SCALE



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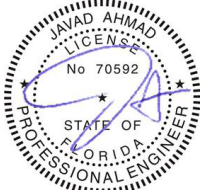
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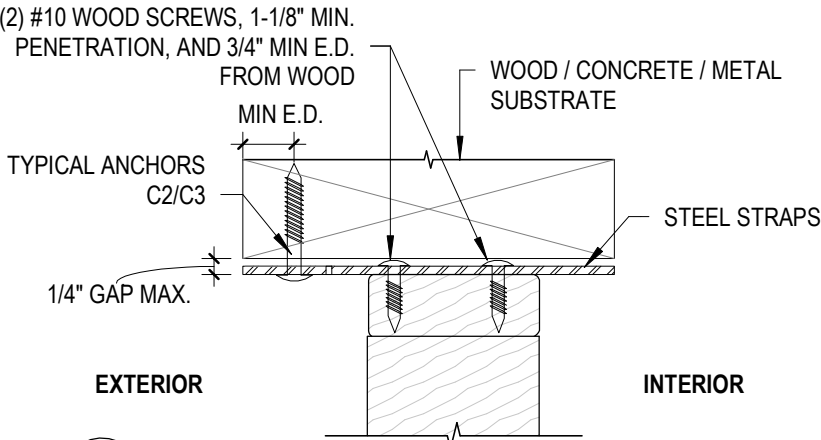
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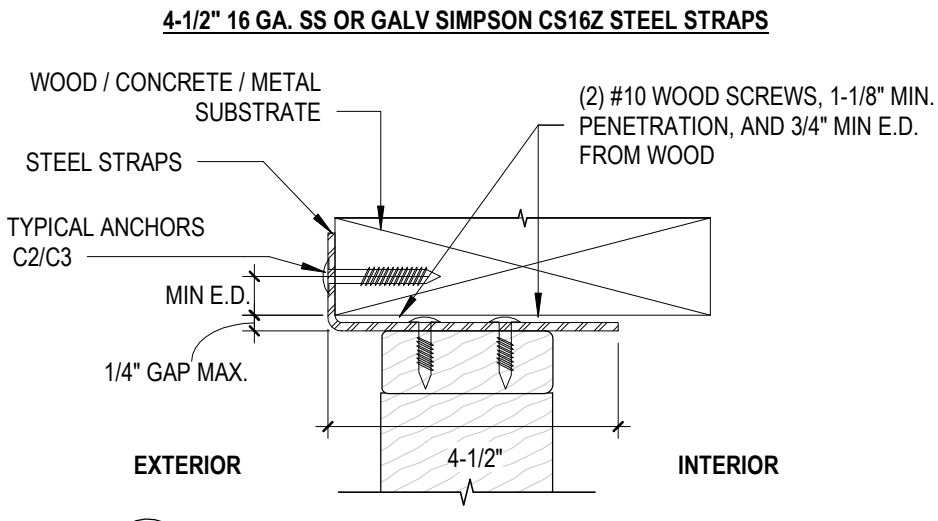
ALTERNATE ANCHORING



1
113

EXTERIOR FLAT STRAP

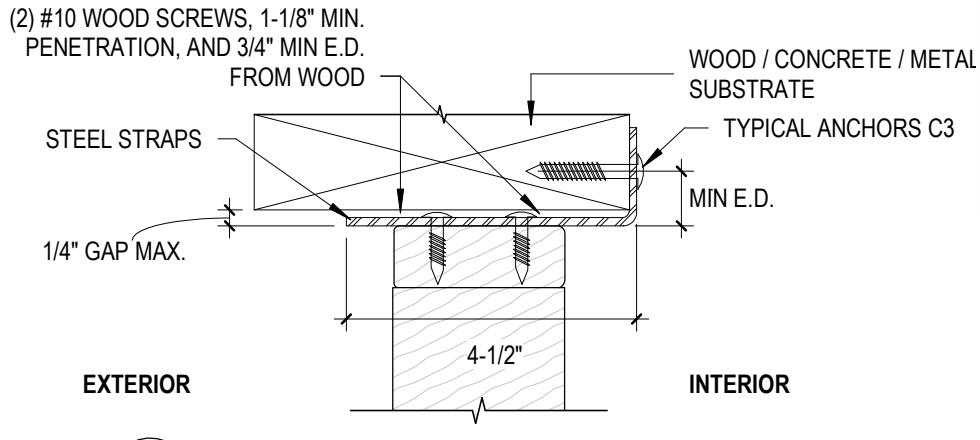
NOT TO SCALE



2
113

EXTERIOR BENT STRAP

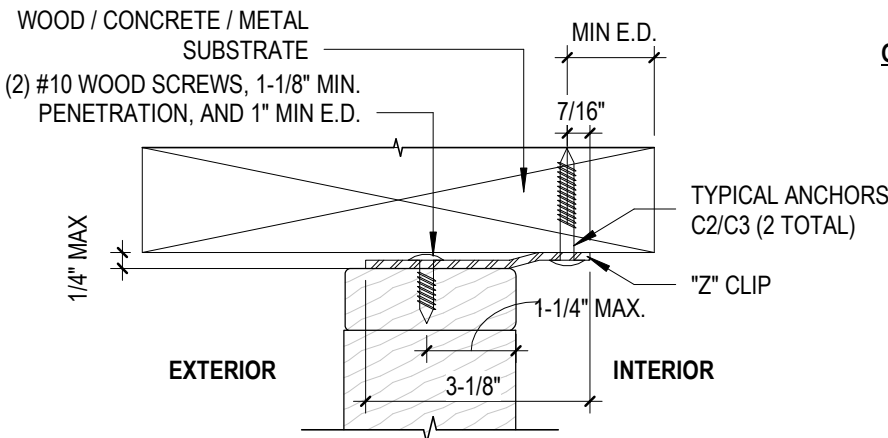
NOT TO SCALE



3
113

INTERIOR BENT STRAP

NOT TO SCALE

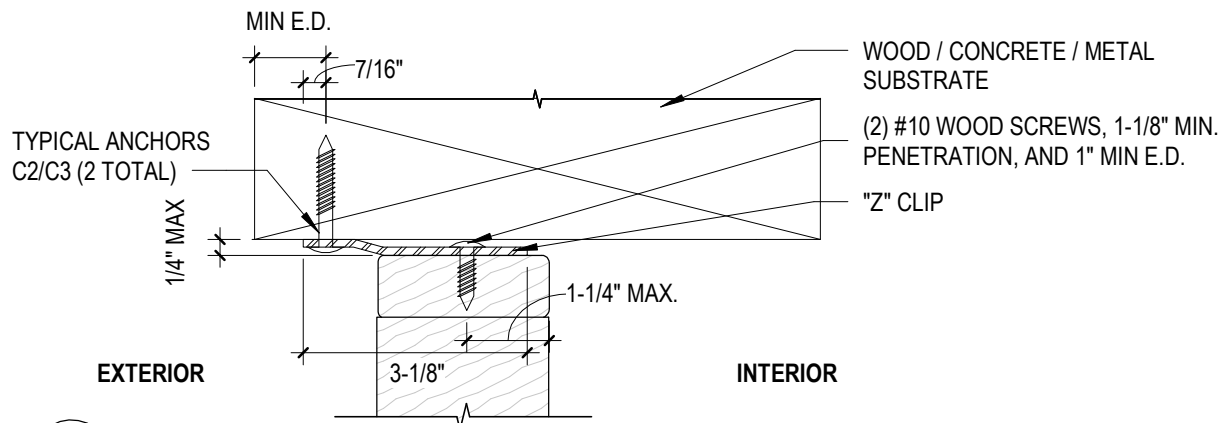


4
113

INTERIOR Z-CLIP STRAP

NOT TO SCALE

GALVANIZED STEEL "Z" CLIP (14 GA)

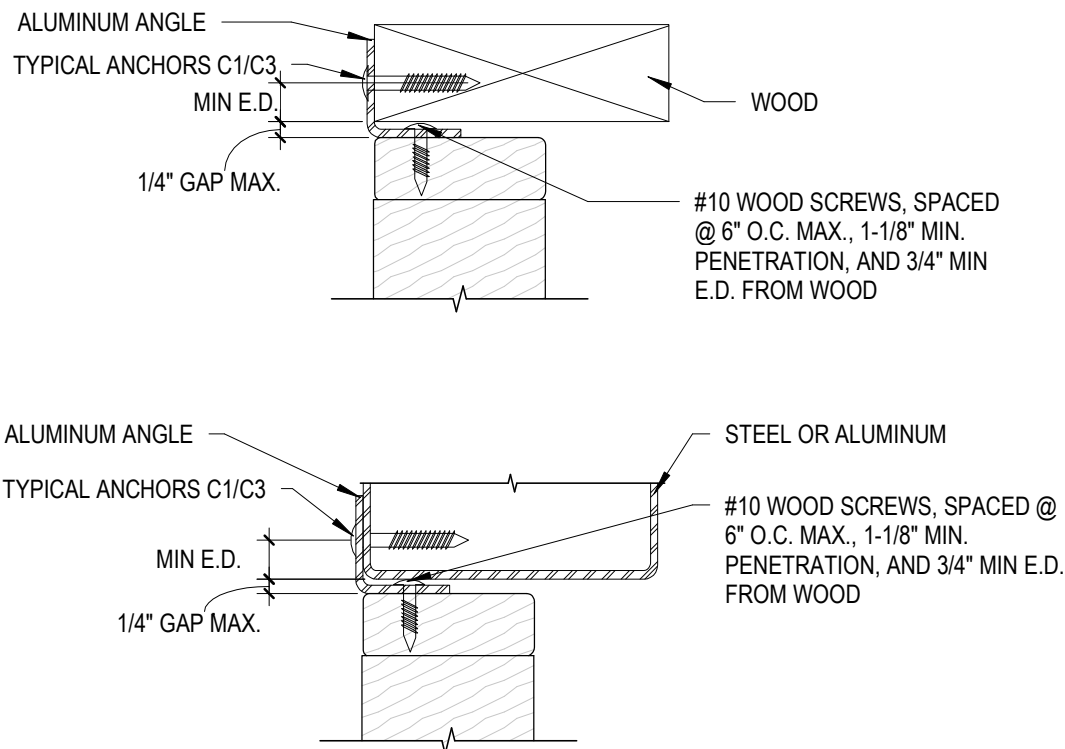


5
113

EXTERIOR Z-CLIP STRAP

NOT TO SCALE

1-1/2" X 1-1/2" X 1/8" ALUMINUM ANGLE (CONT.)



TYPICAL ANCHOR TYPES

TYPE C1 - 1/4" DEWALT ULTRACON (Fu = 177,000 PSI, Fy = 155,000 PSI)

- INTO 2BY WOOD WITH 1-1/2" MIN EMBEDMENT, AND 3/4" MIN EDGE DISTANCE

TYPE C2 - 1/4" DEWALT ULTRACON (Fu = 177,000 PSI, Fy = 155,000 PSI)

- INTO 2BY WOOD WITH 1-1/2" MIN EMBEDMENT, AND 3/4" MIN EDGE DISTANCE
- DIRECTLY INTO CONCRETE, OR HOLLOW/GROUT FILLED MASONRY* WITH 1-3/4" EMBEDMENT, AND 2-1/2" MIN EDGE DISTANCE

TYPE C3 - #12 SMS OR SDS (GRADE 5 MIN/316 SS)

- INTO ALUMINUM / STEEL WITH 5 PITCHES PASSED THE THREAD PLANE, AND 3/4" MIN EDGE DISTANCE
- INTO APPROVED MULLIONS WITH 5 PITCHES PASSED THE THREAD PLANE, AND 3/4" MIN EDGE DISTANCE
- INTO 2BY WOOD WITH 1-1/2" MIN ENGAGEMENT, AND 3/4" MIN EDGE DISTANCE

SUBSTRATE NOTES:

- WOOD AT HEAD, SILL OR JAMBS IS SOUTHERN YELLOW PINE #2 (SG=0.55 MIN.)
- CONCRETE AT HEAD, SILL OR JAMBS f'c= 3000 PSI
- HOLLOW/GROUT FILLED MASONRY UNITS AT JAMBS f'm= 2000 PSI
- STEEL (1/8" THICK, A36 MIN) AT HEAD, SILL OR JAMBS
- ALUMINUM (1/8" THICK, 6063-T6 MIN) AT HEAD, SILL OR JAMBS

NOTE:

CONTRACTOR SHALL BE RESPONSIBLE FOR INSULATING ALL MEMBERS FROM DISSIMILAR MATERIALS TO PREVENT ELECTROLYSIS (EXAMPLE: STEEL WITH ALUMINUM)

ANCHOR LAYOUT / SPACING:

FOR 1-1/2" X 1-1/2" X 1/8" ALUMINUM ANGLE (CONT.):

- ANCHORS C1/C2/C3 SHALL BE PLACED AT-
- MAX. 6" O.C. SPACING
- MAX. 3" FROM UNIT CORNER FOR HEAD
- MAX. 4" FROM UNIT CORNER FOR JAMB

FOR GALVANIZED STEEL "Z" CLIP (14 GA) OR 4-1/2" 16 GA. SS OR GALV SIMPSON CS16Z STEEL STRAPS:

ANCHORS C1/C2/C3 SHALL BE PLACED AS PER ANCHOR LAYOUT SHOWN ON SHEET 112

THE STEEL CLIPS SHALL BE PLACED AT-

- MAX. 8" O.C. SPACING
- MAX. 3" FROM UNIT CORNER FOR HEAD
- MAX. 4" FROM UNIT CORNER FOR JAMB



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EUROPEAN WOOD OUTSWING
BI-FOLD DOOR
(LARGE AND SMALL MISSILE IMPACT RATED)

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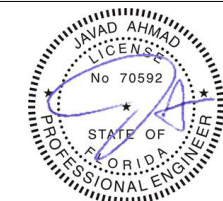
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WEST PALM BEACH, FL 33404

TELEPHONE: (561) 296-9600

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drawing no.	date:	JA-1425-23	drawn by:	check by:	BS	SJ	No.	DATE	BY	DESCRIPTION



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113

113 OF 116

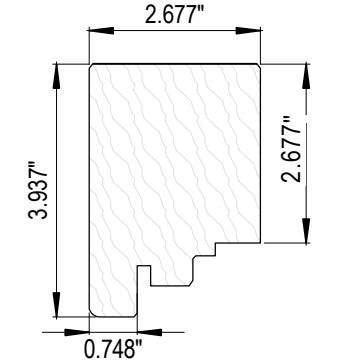
PARTS LIST

NOTE: ALL DIMENSIONS ARE IN INCHES

DOOR TYPE1

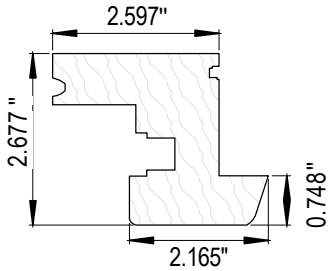
TYPICAL WOOD - AFRICAN MAHOGANY
SPECIFIC GRAVITY = 0.45 MIN
MODULUS OF ELASTICITY E= 1,340000 PSI

FL# 20652.6

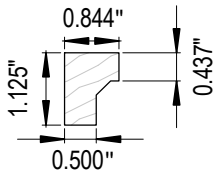


1. FRAME HEAD

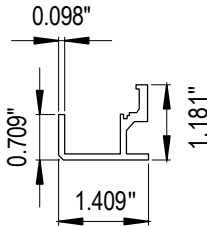
4. FRAME JAMB



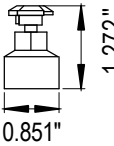
7. INACTIVE STILE W/LOCK



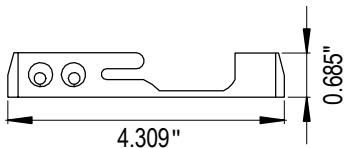
10. LOCK COVER



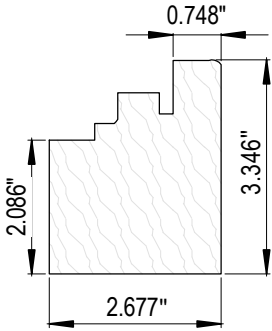
14. EXTRUDED GUIDING RAIL



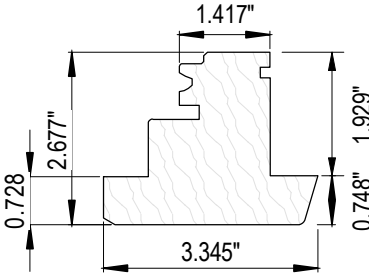
20. GUIDE ROLLER



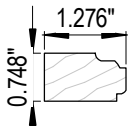
23. UNIVERSAL KEEPER



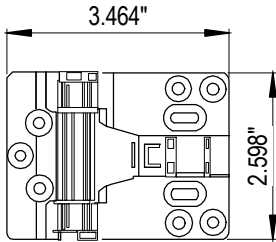
2. FRAME SILL



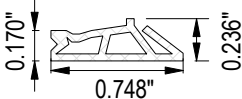
7A. ACTIVE STILE



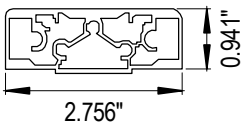
11. GLASS STOP (LAM. GLASS)



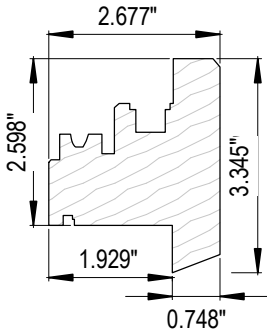
17.ADJUSTABLE HINGE



21. THERMOPLASTIC
GASKET P742

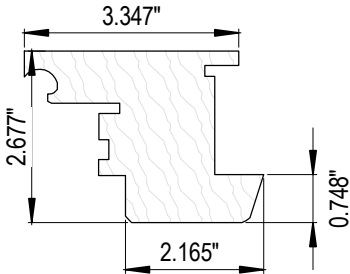


29. SUPPORT PLATE

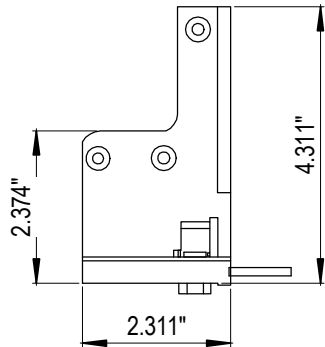


3. TOP RAIL

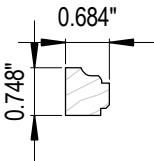
5. BOTTOM RAIL



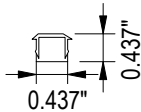
8. INACTIVE STILE



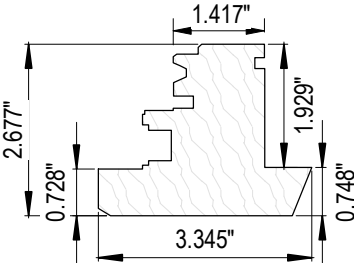
18. CORNER BEARING



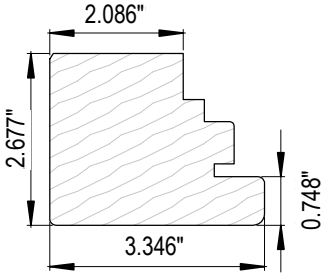
12. GLASS STOP
(INSUL. LAM. GLASS)



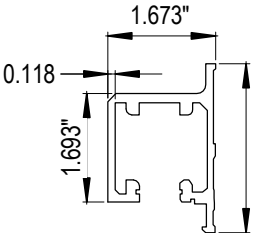
22.SCREW CAP



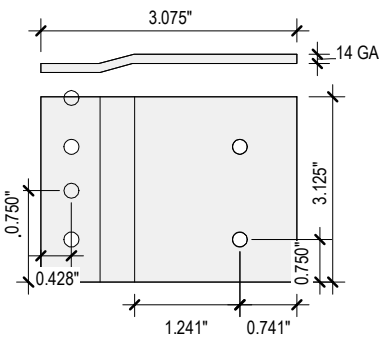
6. JAMB STILE



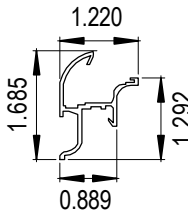
9. FRAME JAMB



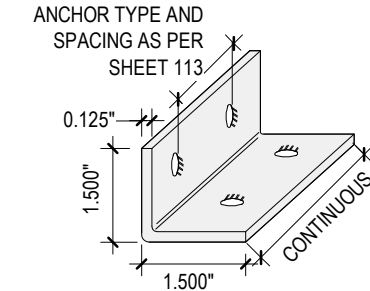
13. EXTRUDED RUNNING RAIL



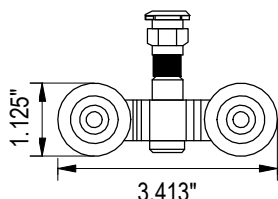
34. GALVANIZED STEEL \"Z\" CLIP



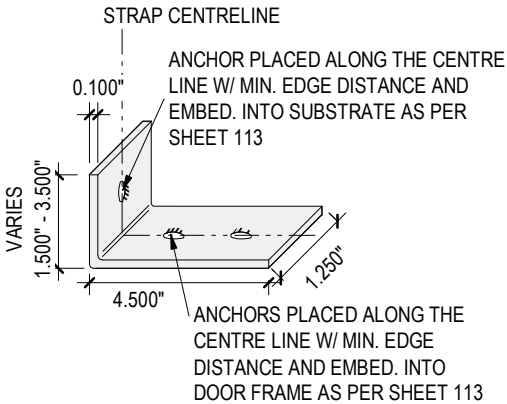
30. EXTRUDED DRAIN
CHANNEL



32. 1-1/2\" X 1-1/2\" X 1/8\"
ALUMINUM ANGLE (CONT.)



19. ROLLER



33. 4-1/2\" 16 GA. SS OR GALV
SIMPSON CS16Z STEEL STRAPS

ITEM #	PART #	REQD.	DESCRIPTION	MATERIAL	MANF./SUPPLIER/REMARKS
1	-	1/ DOOR	FRAME HEAD	WOOD	MAHOGANY
1A	-	1/ DOOR	ALT. FRAME HEAD	WOOD	MAHOGANY
2	-	1/ DOOR	FRAME SILL (WATER RATED)	WOOD	MAHOGANY
3	-	1/ PANEL	TOP RAIL	WOOD	MAHOGANY
4	-	1/ PANEL	FRAME JAMB	WOOD	MAHOGANY
5	-	1/ PANEL	BOTTOM RAIL	WOOD	MAHOGANY
6	-	1/ PANEL	STILE	WOOD	MAHOGANY
7	-	1/ PANEL	INACTIVE STILE W/ LOCK	WOOD	MAHOGANY
7A	-	1/ PANEL	ACTIVE STILE	WOOD	MAHOGANY
8	-	1/ PANEL	INACTIVE STILE	WOOD	MAHOGANY
9	-	1/ DOOR	FRAME JAMB (SIDE)	WOOD	MAHOGANY
10	-	1/ PANEL	LOCK COVER	WOOD	MAHOGANY
11	-	AS REQD.	GLASS STOP (LAM GLASS)	WOOD	MAHOGANY
12	-	AS REQD.	GLASS STOP (LAM INSUL GLASS)	WOOD	MAHOGANY
13	-	1	EXTRUDED RUNNING RAIL	ALUMINUM	6063-75
14	-	1	EXTRUDED GUIDING RAIL	ALUMINUM	5063-75
15	-	AS REQD.	FASTENER	ALUMINUM	1/2\" X 1/2\" X 1/8\" ANGLE
16	-	AS REQD.	FASTENER	GALVANIZED	3/8\" X 5\" STRAP
17	-	AS REQD.	ADJUSTABLE HINGE	-	G.U. OR SIEGENIA
18	-	AS REQD.	CORNER BEARING	-	-
19	-	AS REQD.	ROLLER	-	-
20	-	AS REQD.	GUIDE ROLLER	-	-
21	9-24571	AS REQD.	EPOM GASKET	VINLY	GU-OLIMPIA-AGB
22	-	AS REQD.	SCREW CAP	-	-
23	-	AS REQD.	UNIVERSAL KEEPER	-	-
24	-	AS REQD.	#8 x 1-1/2\" SCREW	S.S.	6\" FROM END & 8\" O.C.
25	-	AS REQD.	18 GA. X 1-1/2\" BRAD NAILS	S.S.	3\" FROM END & 8\" O.C.
26	-	AS REQD.	#8 x 2-1/4\" SCREWS	S.S.	2\" FROM ENDS & 12\" O.C.
27	-	AS REQD.	#8 X 1-1/4\" SCREWS	S.S.	6\" FROM ENDS & 8\" O.C.
28	V992	AS REQD.	NORTON NORSEAL TAPE	-	TOTAL PLASTICS
29	-	AS REQD.	SPACER, 1\" X 5/8\" X 3\" LONG	NYLON	-
30	-	1	EXTRUDED DRAIN CHANNEL	ALUMINUM	6063-T5
31	-	AS REQD.	SPACER	ST STEEL	CARDINAL IG
32	-		1-1/2\" X 1-1/2\" X 1/8\" ANGLE	ALUMINUM	6063-T5 MIN.
33	-		4 1/2\" SIMPSON CS16Z STEEL STRAPS	SS OR GALV	(16 GA.)
34	-		GALVANIZED STEEL \"Z\" CLIP	STEEL	(14 GA.)



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EUROPEAN WOOD OUTSWING

BI-FOLD DOOR

(LARGE AND SMALL MISSILE IMPACT RATED)

HARTMAN WINDOWS & DOORS, LLC.

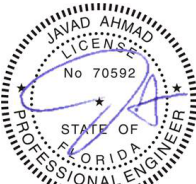
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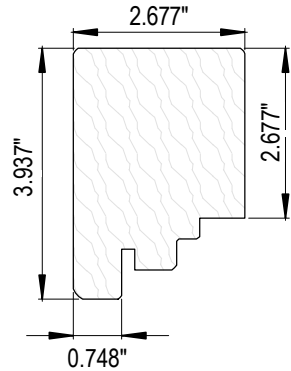
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drawing no.	date:
JA-1425-23	04-23-2024
drawn by:	check by:
JA-1425-23	04-23-2024
revision	description
by	date
no.	



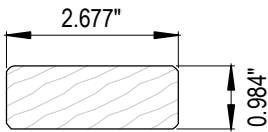
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PARTS LIST

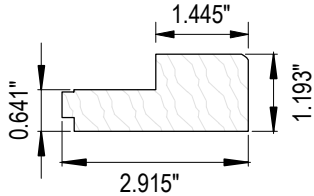
NOTE: ALL DIMENSIONS ARE IN INCHES



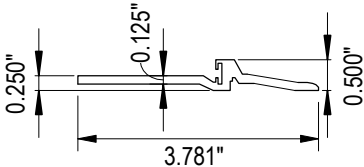
1. FRAME HEAD
4. FRAME JAMB



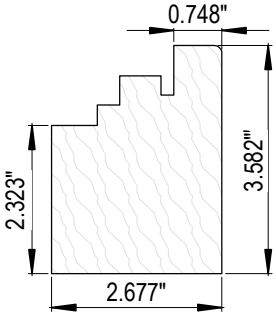
1A. ALT. FRAME HEAD



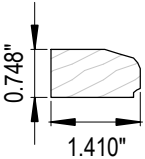
2. FRAME SILL



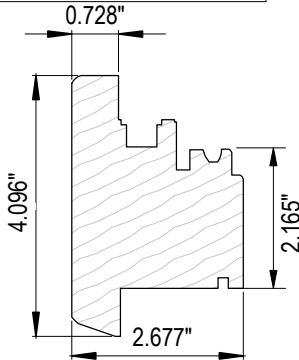
32. ADA SILL



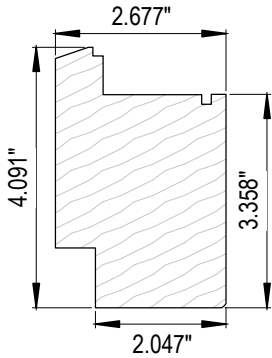
3A ALT. SILL



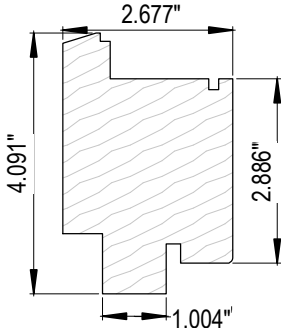
17. GLASS STOP
(LAM. GLASS)



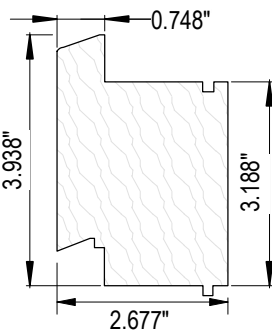
5. TOP RAIL
14. BOTTOM RAIL
9. STILE WITH LOCK



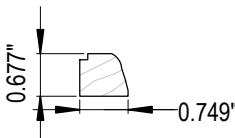
13. BOTTOM RAIL ADA



12. BOTTOM RAIL

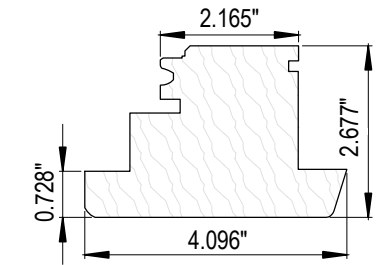


11. BOTTOM RAIL EXTENSION

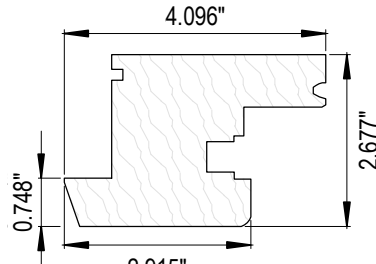


18. GLASS STOP
(INSUL. LAM. GLASS)

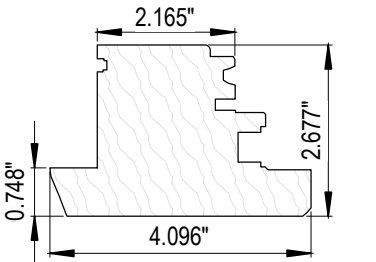
DOOR TYPE 2



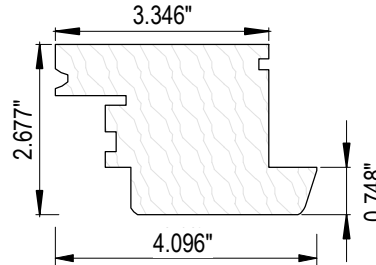
6. STYLE TYPE 1



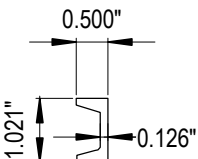
9. STILE TYPE 4



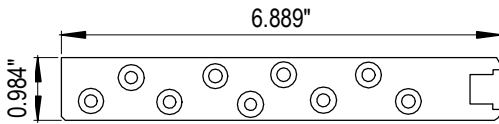
7. STILE TYPE 2



8. STILE TYPE 3

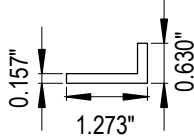


16. STILE REINFORCING

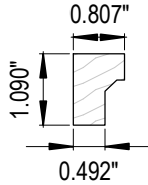


31. SUPPORT PLATE

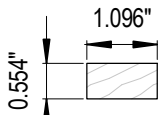
TYPICAL WOOD - AFRICAN MAHOGANY
SPECIFIC GRAVITY = 0.45 MIN
MODULUS OF ELASTICITY E= 1,340000 PSI



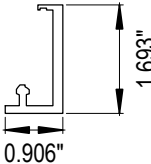
33. 3DMM SILL



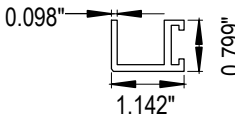
10. LOCK COVER



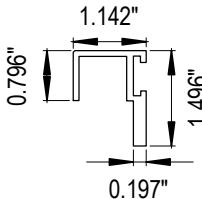
3. PLUG



19. EXTRUDED RUNNING RAIL



20. EXTRUDED GUIDING RAIL



21. EXTRUDED GUIDING RAIL

FL# 20652.6

ITEM #	PART #	REQD.	DESCRIPTION	MATERIAL	MANF./SUPPLIER/ REMARKS
1	-	1/ DOOR	FRAME HEAD	WOOD	MAHOGANY
1A	-	1/ DOOR	ALT. FRAME HEAD	WOOD	MAHOGANY
2	-	1/ DOOR	FRAME SILL (WATER RATED)	WOOD	MAHOGANY
3	-	AS REQD.	PLUG	WOOD	MAHOGANY
3A	-	1/ DOOR	ALT.FRAME SILL (WATER RATED)	WOOD	MAHOGANY
4	-	1/ DOOR	FRAME JAMB (SIDE)	WOOD	MAHOGANY
5	-	1/ PANEL	TOP RAIL	WOOD	MAHOGANY
6	-	1/ PANEL	STILE TYPE 1	WOOD	MAHOGANY
7	-	1/ PANEL	STILE TYPE 2	WOOD	MAHOGANY
8	-	1/ PANEL	STILE TYPE 3	WOOD	MAHOGANY
9	-	1/ PANEL	STILE TYPE 4	WOOD	MAHOGANY
10	-	1/ PANEL	LOCK COVER	WOOD	MAHOGANY
11	-	1/ PANEL	BOTTOM RAIL EXTENSION	WOOD	MAHOGANY
12	-	1/ PANEL	BOTTOM RAIL 30MM	WOOD	MAHOGANY
13	-	1/ PANEL	BOTTOM RAIL ADA	WOOD	MAHOGANY
14	-	1/ PANEL	BOTTOM RAIL 91MM	WOOD	MAHOGANY
15	-	1/ PANEL	ALT. STILE	WOOD	MAHOGANY
16	-	AS REQD.	STILE REINFORCING	STEEL	-
17	-	AS REQD.	GLASS STOP (LAM. GLASS)	WOOD	MAHOGANY
18	-	AS REQD.	GLASS STOP (LAM. INSUL CLASS)	WOOD	MAHOGANY
19	P 1213	1	EXTRUDED RUNNING RAIL	ALUMINUM	GRETSCH-UNITAS / SIEGENIA-AUBI
20	P 1318	1	EXTRUDED GUIDING RAIL	ALUMINUM	GRETSCH-UNITAS / SIEGENIA-AUBI
21	P 1225	1	EXTRUDED GUIDING RAIL	ALUMINUM	GRETSCH-UNITAS / SIEGENIA-AUBI
22	-	1	SUPPORT	ALUMINUM	GRETSCH-UNITAS / SIEGENIA-AUBI
23	-	1	COVER RAIL	ALUMINUM	GRETSCH-UNITAS / SIEGENIA-AUBI
24	-	AS REQD.	RUNNER	-	GRETSCH-UNITAS / SIEGENIA-AUBI
25	-	AS REQD.	GLIDING ROLLER	-	GRETSCH-UNITAS / SIEGENIA-AUBI
26	-	AS REQD.	CORNER BEARING	STEEL	
27	-	AS REQD.	HINGE	STEEL	GRETSCH-UNITAS / SIEGENIA-AUBI
28	-	AS REQD.	SPACER, 1-1/8" x 3/4" x 3" LONG	NYLON	GRETSCH-UNITAS / SIEGENIA-AUBI
29	-	AS REQD.	MULTI POINT LOCK SYSTEM	-	GRETSCH-UNITAS / SIEGENIA-AUBI
30	-	AS REQD.	LOCKING PLATE	-	GRETSCH-UNITAS / SIEGENIA-AUBI
31		AS REQD.	SUPPORT PLATE	BRASS	PROPRIETARY
32	-	1	ADA SILL (NON-WATER RATED)	BRASS	PROPRIETARY
33	-	1	SILL ATTACHMENT	ALUMINUM	PROPRIETARY
34	GS 250M	AS REQD.	EPDM GASKET	EPDM	GS 250M EUROPROFILI
35	GS 250M	AS REQD.	EPDM GASKET	EPDM	GS 250M EUROPROFILI
36	V992	AS REQD.	NORTON NORSEAL TAPE	-	TOTAL PLASTICS
37	-	AS REQD.	18 GA. X 1-1/2" BRAD NAILS	S.S.	3" FROM ENDS & 8" O.C.
38	-	AS REQD.	#8 x 2-1/4" SCREWS	S.S.	2" FROM ENDS & 12" O.C.
39	-	AS REQD.	#8 x 1-1/2" SCREWS	S.S.	6" FROM ENDS & 8" O.C.
40	-	AS REQD.	#8 x 1-1/4" SCREWS	S.S.	6" FROM ENDS & 8" O.C.
41	-	AS REQD.	FASTENER	STEEL	6" FROM ENDS & 8" O.C.
42	-	AS REQD.	FASTENER	ALUMINUM	
43	-	AS REQD.	SPACER	ST. STEEL	CARDINAL IG



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EUROPEAN WOOD OUTSWING

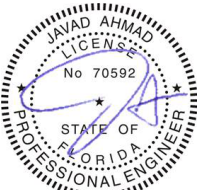
BI-FOLD DOOR

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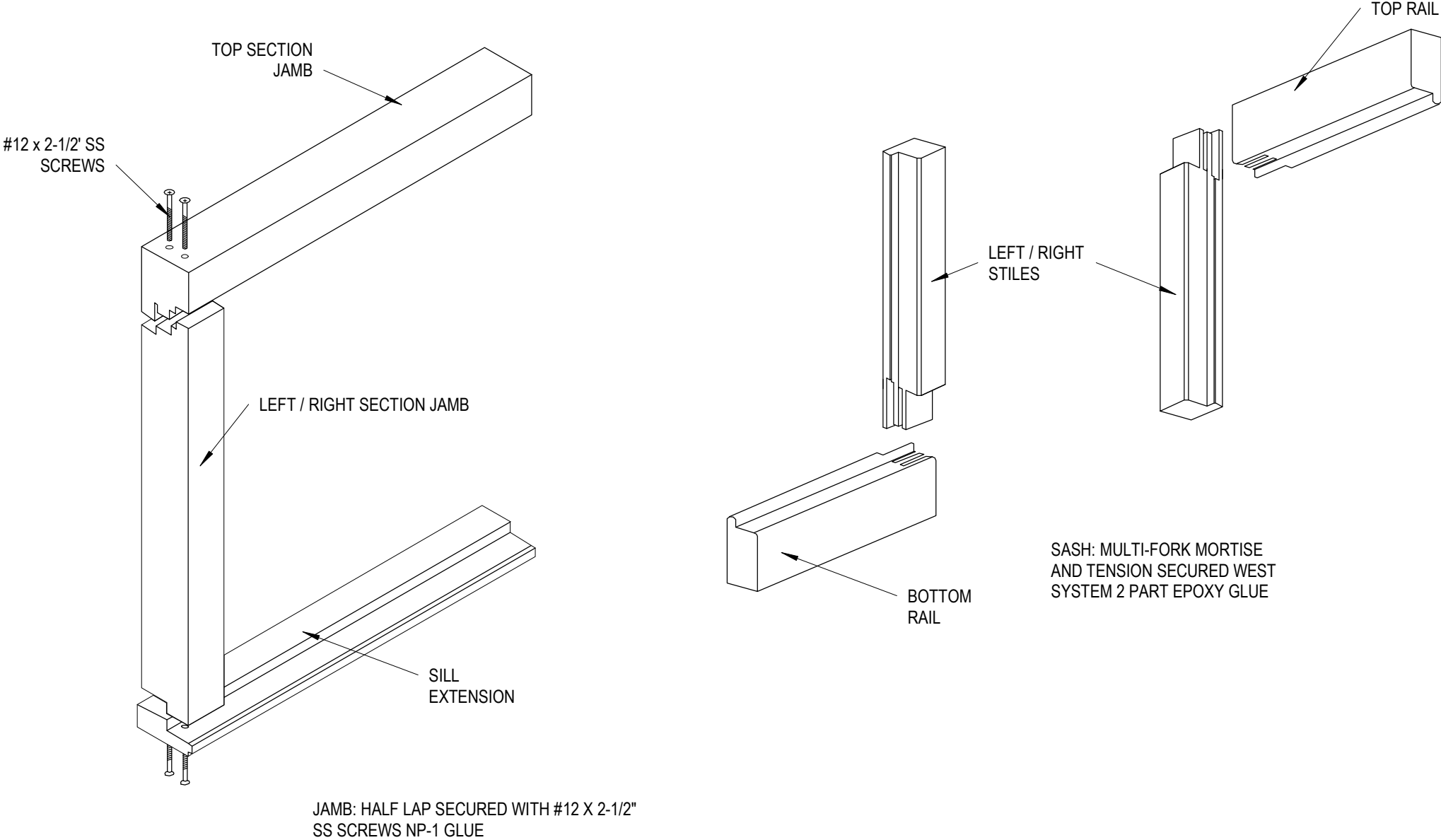
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drawn by:	check by:
JA-1425-23	04-23-2024
drawing no.	date:
REVISION	
No.	DATE
	DESCRIPTION



Sealed: 04-23-2024

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EUROPEAN WOOD OUTSWING
BI-FOLD DOOR
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