

TYPICAL MULLION ARRANGEMENT

**NARROW STEEL MULLION SYSTEM
WINDOW FRAME MEMBERS INCLUDED IN PROPERTIES**

DESIGN LOAD RATING FOR THIS MULLION TO BE AS PER CHARTS SHOWN ON SHEETS 4 AND 5.

APPROVAL APPLIES TO MULLIONS COMBINATIONS WITH FRAME MEMBERS OF ANDERSEN CORPORATION WINDOW AND DOORS IN ANY COMBINATIONS SEE SHEET 2 FOR WINDOW FRAME MEMBER DETAILS. SEE SHEET 3 FOR DOOR FRAME MEMBER DETAILS.

SEE SEPARATE APPROVAL FOR WINDOW/DOOR ANCHORS AND DESIGN LOAD CAPACITY.

LOWEST VALUE RESULTING FROM MULLION, WINDOW OR DOOR APPROVAL WILL APPLY TO ENTIRE SYSTEM.

MULLION SYSTEM IS RATED FOR LARGE MISSILE IMPACT. AND CAN BE USED WITH ALL F.B.C. APPROVED IMPACT AND NON-IMPACT RESISTANT PRODUCTS.

THIS PRODUCT HAS BEEN DESIGNED AND TESTED TO COMPLY WITH THE REQUIREMENTS OF THE FLORIDA BUILDING CODE INCLUDING HIGH VELOCITY HURRICANE ZONE (HVHZ).

ALL GLAZING PRODUCTS USED WITH THESE MULLIONS MUST MEET THE APPLICABLE BUILDING CODE REQUIREMENTS I.E: WIND LOAD, WATER INFILTRATION, FORCED ENTRY RESISTANCE, SAFEGUARDS ETC.

WOOD BUCKS BY OTHERS, MUST BE ANCHORED PROPERLY TO TRANSFER LOADS TO THE STRUCTURE.

ANCHORS SHALL BE AS LISTED, SPACED AS SHOWN ON DETAILS, EMBEDMENT TO BASE MATERIAL SHALL BE BEYOND WALL COVERING (STUCCO, TILE ETC.).

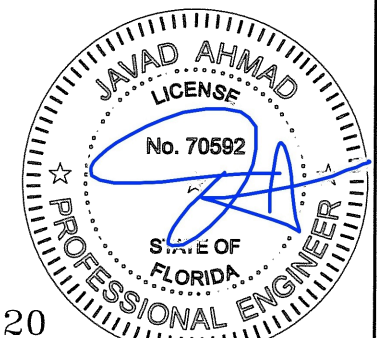
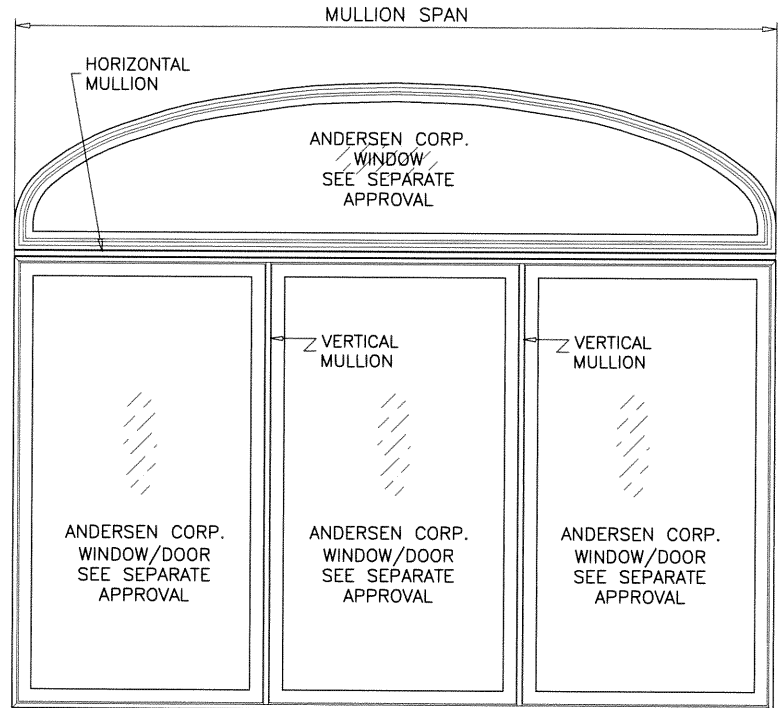
ANCHORING CONDITIONS OTHER THAN THOSE SHOWN IN THESE DETAILS ARE NOT PART OF THIS APPROVAL.

A LOAD DURATION INCREASE IS USED IN DESIGN OF ANCHORS INTO WOOD ONLY.

MATERIALS INCLUDING BUT NOT LIMITED TO STEEL/METAL SCREWS, THAT COME INTO CONTACT WITH OTHER DISSIMILAR MATERIALS SHALL MEET THE REQUIREMENTS OF THE FLORIDA BUILDING CODE.

MANUFACTURER'S LABEL SHALL BE LOCATED ON A READILY VISIBLE LOCATION IN ACCORDANCE WITH SECTION 1710.8.3 OF FLORIDA BUILDING CODE. LABELING TO COMPLY WITH SECTION 1710.8.2.

- A- THIS PRODUCT EVALUATION DOCUMENT (P.E.D.) PREPARED BY THIS ENGINEER IS GENERIC AND DOES NOT PROVIDE INFORMATION FOR A SITE SPECIFIC PROJECT; I.E. WHERE THE SITE CONDITIONS DEVIATE FROM THE P.E.D.
- B- CONTRACTOR TO BE RESPONSIBLE FOR THE SELECTION, PURCHASE AND INSTALLATION OF THIS PRODUCT BASED ON THIS PRODUCT EVALUATION PROVIDED HE/SHE DOES NOT DEVIATE FROM THE CONDITIONS DETAILED ON THIS DOCUMENT.
- C- THIS PRODUCT EVALUATION DOCUMENT WILL BE CONSIDERED INVALID IF ALTERED BY ANY MEANS.
- D- SITE SPECIFIC PROJECTS SHALL BE PREPARED BY A FLORIDA REGISTERED ENGINEER OR ARCHITECT WHICH WILL BECOME THE ENGINEER OF RECORD (E.O.R.) FOR THE PROJECT AND WHO WILL BE RESPONSIBLE FOR THE PROPER USE OF THE P.E.D. ENGINEER OF RECORD, ACTING AS A DELEGATED ENGINEER TO THE P.E.D. ENGINEER SHALL SUBMIT TO THIS LATTER THE SITE SPECIFIC DRAWINGS FOR REVIEW.
- E- THIS P.E.D. SHALL BEAR THE DATE AND ORIGINAL SEAL AND SIGNATURE OF THE PROFESSIONAL ENGINEER OF RECORD THAT PREPARED IT.



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Date & Time: 05/01/15 16:15

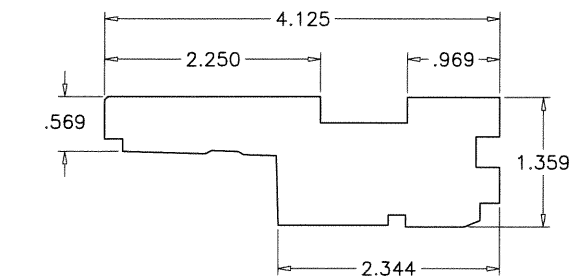
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AL-FAROOQ CORPORATION
 ENGINEERS & PRODUCT DEVELOPMENT
 1235 S.W. 87 AVE
 MIAMI, FLORIDA 33174
 TEL. (305) 264-8100 FAX. (305) 262-6978
 MULLION\M15-03AC

ANDERSEN CORPORATION
 100 FOURTH AVE. NORTH
 BAYPORT, MN. 55003-1096
 TEL. (800) 426-7691 FAX (-)
 NARROW STEEL MULLION SYSTEM

no	date	by	description

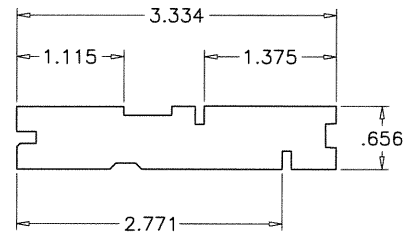
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drawing no.
M15-03
 sheet 1 of 11

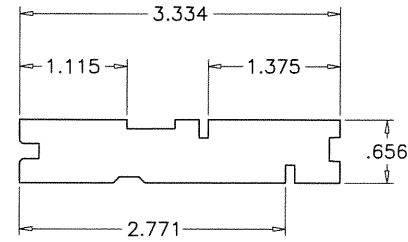


CASEMENT
FRAME HEAD/SILL
30835
WOOD

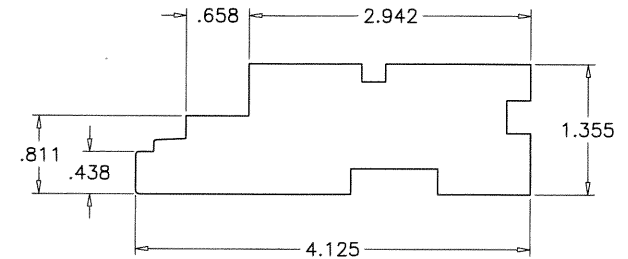
AWNING
FRAME JAMB
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WOOD



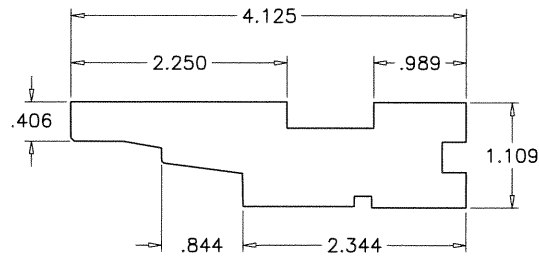
TILT-WASH DOUBLE HUNG
FRAME HEAD
WOOD



WOODWRIGHT DOUBLE HUNG
FRAME HEAD/JAMB
WOOD

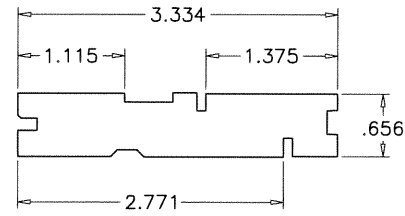


SPECIALITY DIRECT SET (CTC & CTQC)
FRAME SILL
27230
WOOD



CASEMENT
FRAME JAMB
30838
WOOD

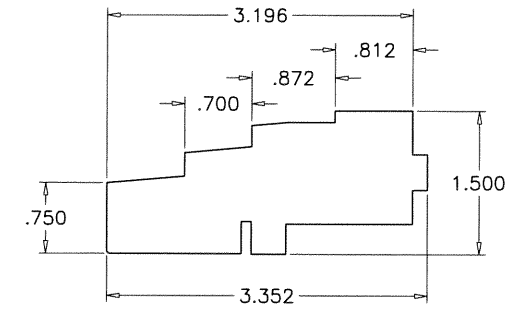
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WOOD



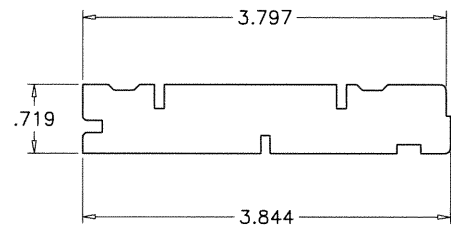
TILT-WASH DOUBLE HUNG
FRAME JAMB
WOOD

TILT-WASH FIXED
FRAME HEAD/SILL/JAMB
WOOD

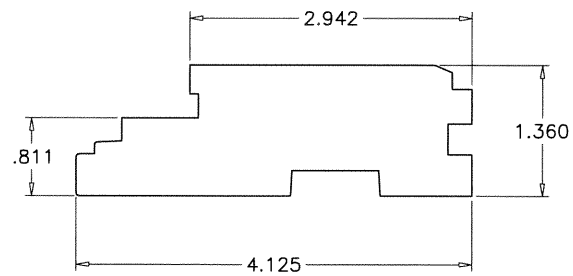
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WOOD



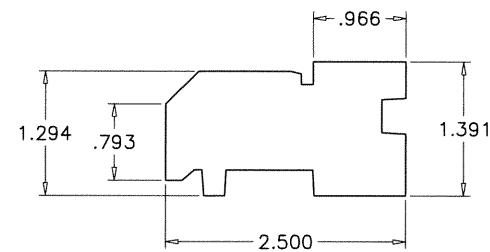
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FRAME SILL
27122
WOOD



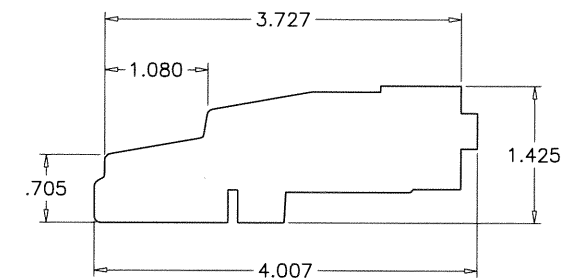
PSNL
FRAME HEAD/SILL/JAMB
WOOD



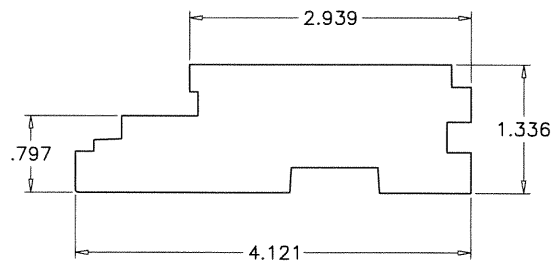
CASEMENT PICTURE
FRAME HEAD/SILL/JAMB
WOOD



FLEXIFRAME FIXED
FRAME HEAD/SILL/JAMB
WOOD



SPECIALITY DIRECT SET (ET)
FRAME SILL
53103
WOOD



CASEMENT PICTURE (P)
FRAME HEAD/SILL/JAMB
30394
WOOD

af c
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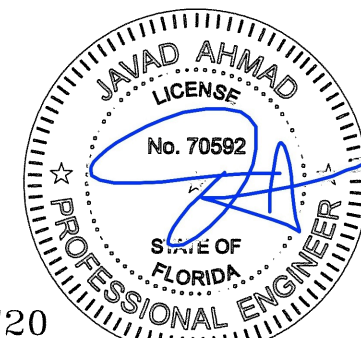
NARROW STEEL MULLION SYSTEM
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100 FOURTH AVE. NORTH
BAYPORT, MN. 55003-1096
TEL. (800) 426-7691 FAX (-)
ANDERSEN
AW

revisions:	no	date	by	description

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dr. by: HAMID
chk. by:

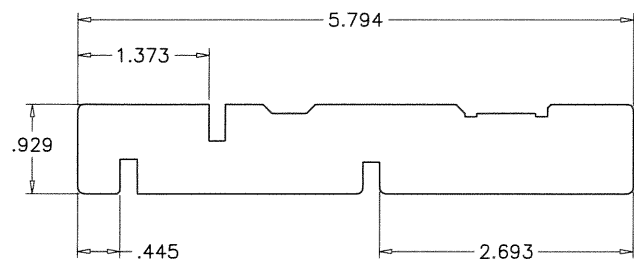
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sheet 2 of 11

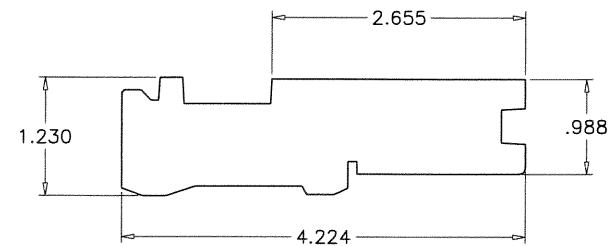


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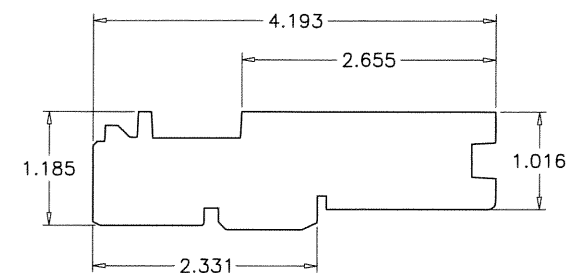
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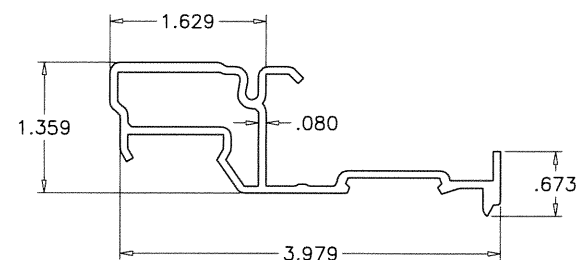
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GLIDING DOOR FRAME HEAD
WOOD



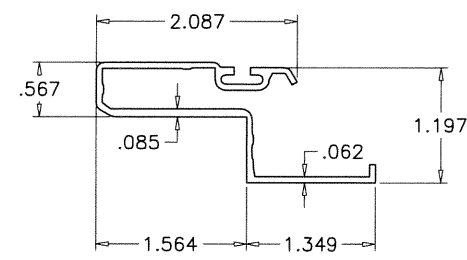
FWH
HINGED DOOR HEAD/JAMB (OPERATING/STATIONARY)
52253
WOOD



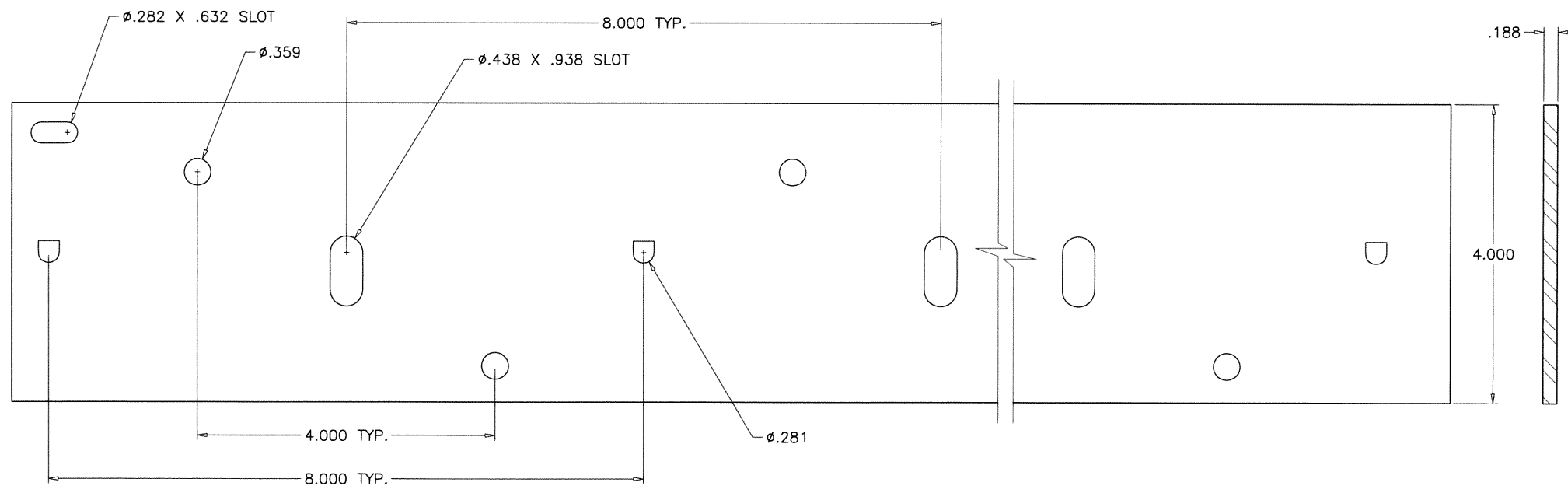
FWO
OUTSWING DOOR HEAD/JAMB (OPERATING/STATIONARY)
57019
WOOD



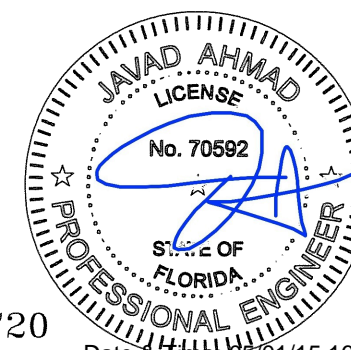
FWH
HINGED HEAD/JAMB COVER (OPERATING/STATIONARY)
52225
FIBERGLASS



FWO
OUTSWING HEAD/JAMB COVER (OPERATING/STATIONARY)
57031
FIBERGLASS



NARROW MULLION
ZINC PLATED STEEL



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ANDERSEN
AW

revisions:	no	date	by	description

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dr. by: HAMID
chk. by:

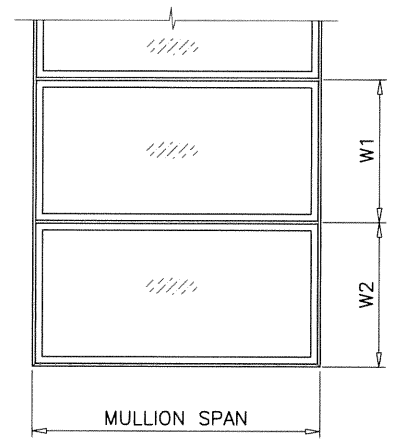
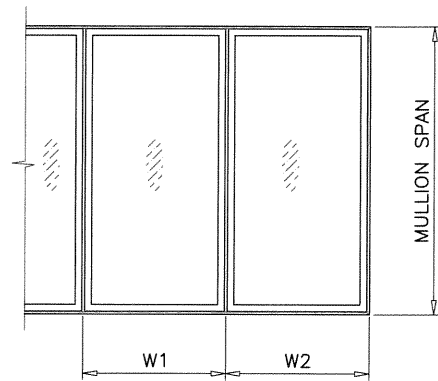
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sheet 3 of 11

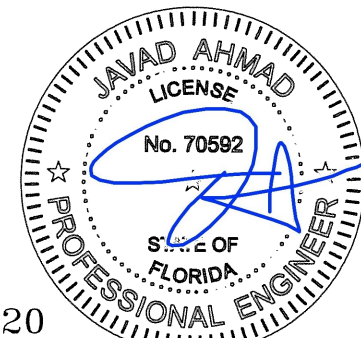
DESIGN LOAD CAPACITY - PSF W/O INTERMEDIATE HORIZONTALS			
WINDOW DIMS.		EXT. (+) INT. (-)	
WIDTH (W)	MULL SPAN		
12"	60"	100.0	
15"		100.0	
18"		100.0	
21"		94.2	
24"		85.0	
27"		78.0	
30"		72.5	
33"		68.2	
36"		64.8	
39"		62.0	
42"		59.8	
45"		58.0	
48"		56.7	
12"		66"	100.0
15"			100.0
18"			95.4
21"	84.0		
24"	75.6		
27"	69.1		
30"	64.0		
33"	59.9		
36"	56.7		
39"	54.0		
42"	51.8		
45"	50.0		
48"	48.6		
12"	72"		100.0
15"			100.0
18"			86.3
21"		75.8	
24"		68.0	
27"		62.0	
30"		57.3	
33"		53.5	
36"		50.4	
39"		47.8	
42"		45.7	
45"		44.0	
48"		42.5	
12"		78"	100.0
15"			92.6
18"			78.8
21"	69.1		
24"	61.8		
27"	56.2		
30"	51.8		
33"	48.2		
36"	45.3		
39"	42.9		
42"	40.9		

DESIGN LOAD CAPACITY - PSF W/O INTERMEDIATE HORIZONTALS			
WINDOW DIMS.		EXT. (+) INT. (-)	
WIDTH (W)	MULL SPAN		
12"	84"	100.0	
15"		85.3	
18"		72.5	
21"		63.4	
24"		56.7	
27"		51.4	
30"		47.3	
33"		44.0	
36"		41.2	
39"		38.9	
12"		90"	97.1
15"			79.1
18"			67.2
21"			58.7
24"			52.3
27"			47.4
30"	43.5		
33"	40.4		
36"	37.8		
12"	96"		90.7
15"			73.8
18"			62.5
21"			54.5
24"			48.6
27"			44.0
30"			40.3
33"		37.3	
36"		34.9	
12"		102"	85.0
15"			69.1
18"			58.5
21"			51.0
24"			45.3
27"			41.0
30"			37.5
33"	34.7		
12"	108"		80.0
15"			65.0
18"			54.9
21"			47.8
24"			42.5
27"			38.4
30"			35.1
12"			114"
15"		61.3	
18"		51.8	
21"		45.1	
24"		40.0	
27"		36.1	
30"		33.0	

DESIGN LOAD CAPACITY - PSF W/O INTERMEDIATE HORIZONTALS			
WINDOW DIMS.		EXT. (+) INT. (-)	
WIDTH (W)	MULL SPAN		
12"	120"	71.6	
15"		58.0	
18"		49.0	
21"		42.6	
24"		37.8	
27"		34.1	
12"		126"	68.0
15"			55.1
18"	46.5		
21"	40.4		
24"	35.8		
27"	32.2		
12"	132"		64.8
15"			52.4
18"		44.2	
21"		38.1	
24"		33.4	
12"		138"	60.6
15"			48.5
18"			40.5
21"	34.8		
24"	30.5		
12"	144"		55.3
15"			44.3
18"			37.0
21"		31.7	
24"		27.8	



$$\text{WIDTH (W)} = \frac{W1 + W2}{2}$$



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 MULLION M15-03AC

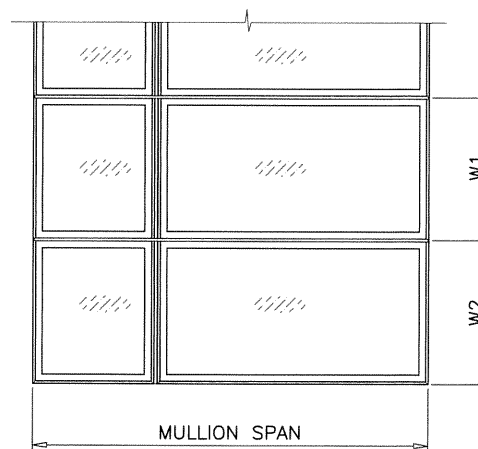
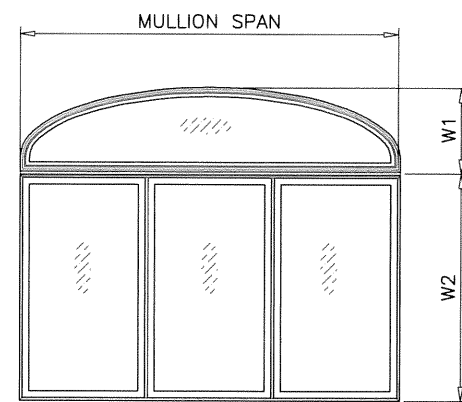
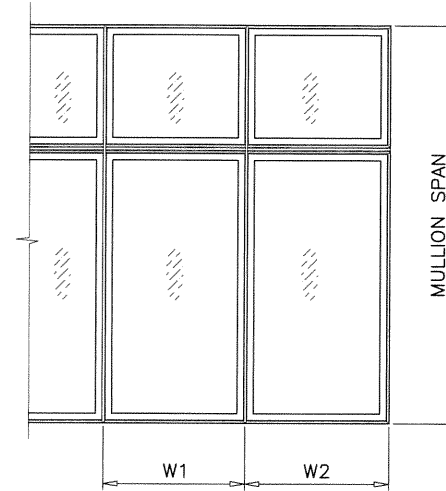
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revisions:	no	date	by	description
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dr. by:	HAMID	chk. by:		
drawing no.	M15-03	sheet	4 of 11	

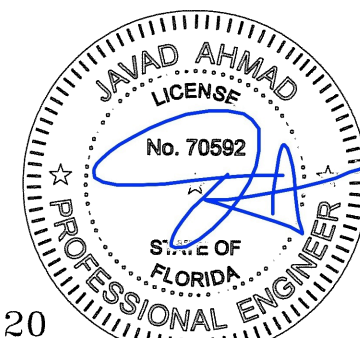
DESIGN LOAD CAPACITY - PSF WITH INTERMEDIATE HORIZONTALS		
WINDOW DIMS.		EXT. (+) INT. (-)
WIDTH (W)	MULL SPAN	
12"	60"	100.0
15"		100.0
18"		100.0
21"		94.2
24"		85.0
27"		78.0
30"		72.5
33"		68.2
36"		64.8
39"		62.0
42"		59.8
45"		58.0
48"	56.7	
12"	66"	100.0
15"		100.0
18"		95.4
21"		84.0
24"		75.6
27"		69.1
30"		64.0
33"		59.9
36"		56.7
39"		54.0
42"		51.8
45"		50.0
48"	48.6	
12"	72"	100.0
15"		100.0
18"		86.3
21"		75.8
24"		68.0
27"		62.0
30"		57.3
33"		53.5
36"		50.4
39"		47.8
42"		45.7
45"		44.0
48"	42.5	
12"	78"	100.0
15"		92.6
18"		78.8
21"		69.1
24"		61.8
27"		56.2
30"		51.8
33"		48.2
36"		45.3
39"		42.9
42"		40.9

DESIGN LOAD CAPACITY - PSF WITH INTERMEDIATE HORIZONTALS			
WINDOW DIMS.		EXT. (+) INT. (-)	
WIDTH (W)	MULL SPAN		
12"	84"	100.0	
15"		85.3	
18"		72.5	
21"		63.4	
24"		56.7	
27"		51.4	
30"		47.3	
33"		44.0	
36"		41.2	
39"		38.9	
12"		90"	97.1
15"			79.1
18"	67.2		
21"	58.7		
24"	52.3		
27"	47.4		
30"	43.5		
33"	40.4		
36"	37.8		
12"	96"		90.7
15"			73.8
18"			62.5
21"		54.5	
24"		48.6	
27"		44.0	
30"		40.3	
33"		37.3	
36"		34.9	
12"		102"	85.0
15"			69.1
18"			58.5
21"	51.0		
24"	45.3		
27"	41.0		
30"	37.5		
33"	34.7		
12"	108"		80.0
15"			65.0
18"			54.9
21"			47.8
24"		42.5	
27"		38.4	
30"		35.1	
12"		114"	75.6
15"			61.3
18"			51.8
21"			45.1
24"			39.9
27"	35.5		
30"	31.9		

DESIGN LOAD CAPACITY - PSF WITH INTERMEDIATE HORIZONTALS		
WINDOW DIMS.		EXT. (+) INT. (-)
WIDTH (W)	MULL SPAN	
12"	120"	71.6
15"		57.6
18"		48.0
21"		41.1
24"		36.0
27"		32.0
12"	126"	65.3
15"		52.2
18"		43.5
21"		37.3
24"		32.7
27"		29.0
12"	132"	59.5
15"		47.6
18"		39.7
21"		34.0
24"		29.8
12"		138"
15"	43.6	
18"	36.3	
21"	31.1	
24"	27.2	
12"	144"	
15"		39.8
18"		33.2
21"		28.4
24"		24.9



$$\text{WIDTH (W)} = \frac{W1 + W2}{2}$$



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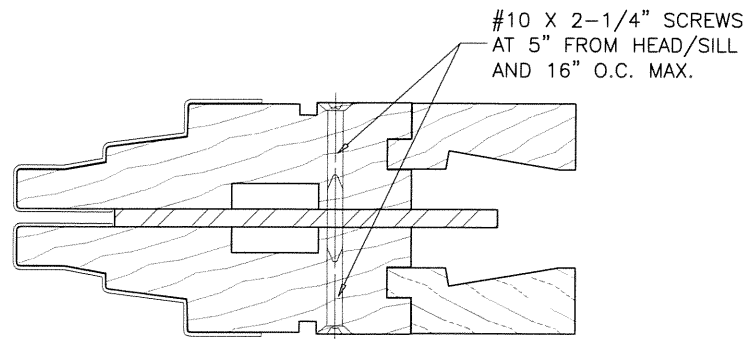
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revisions:	no	date	by	description

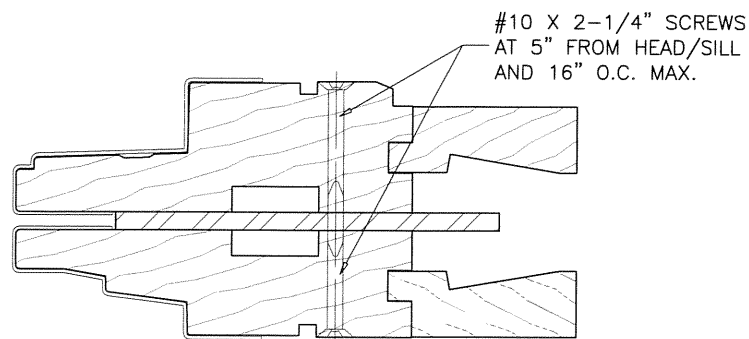
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M15-03
 sheet 5 of 11

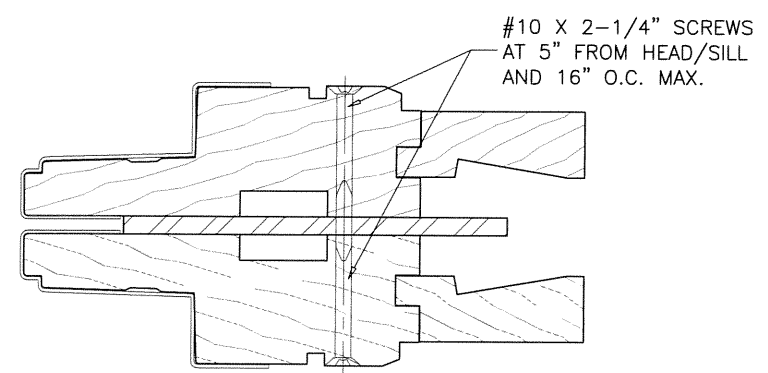


CASEMENT TO CASEMENT
VERTICAL JOIN

AWNING TO AWNING
HORIZONTAL JOIN

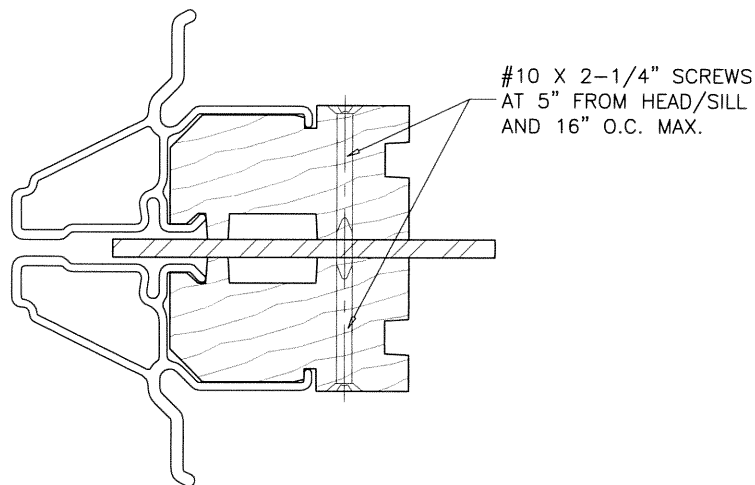


CASEMENT TO AWNING
VERTICAL OR HORIZONTAL JOIN

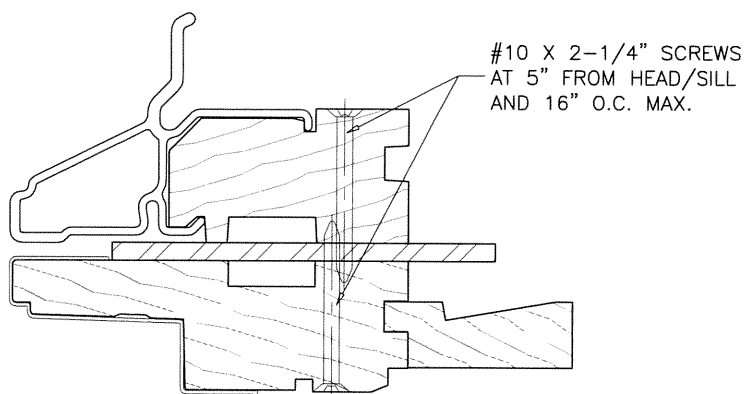


CASEMENT TO CASEMENT
HORIZONTAL JOIN

AWNING TO AWNING
VERTICAL JOIN

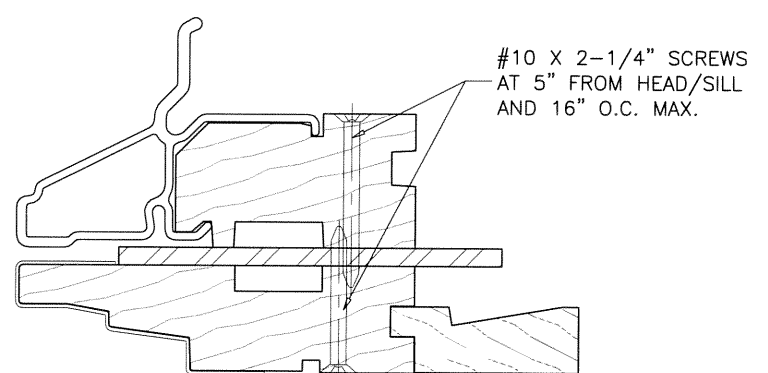


FLEXIFRAME TO FLEXIFRAME
VERTICAL OR HORIZONTAL JOIN



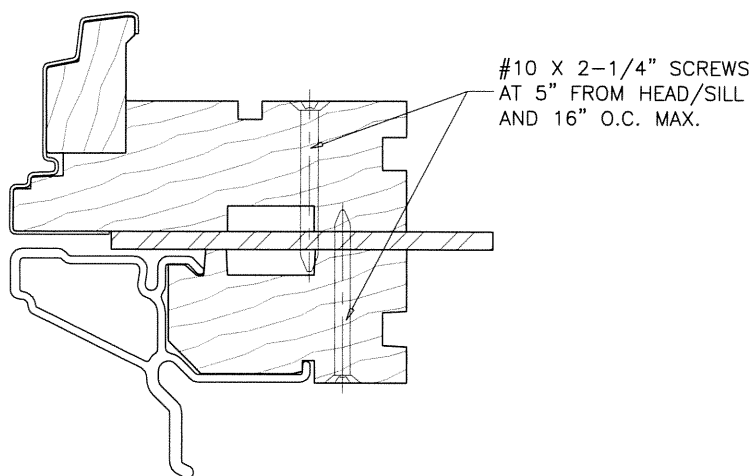
CASEMENT TO FLEXIFRAME
HORIZONTAL JOIN

AWNING TO FLEXIFRAME
VERTICAL JOIN



CASEMENT TO FLEXIFRAME
VERTICAL JOIN

AWNING TO FLEXIFRAME
HORIZONTAL JOIN



FLEXIFRAME TO CIRCLE TOP/QUARTER
VERTICAL OR HORIZONTAL JOIN

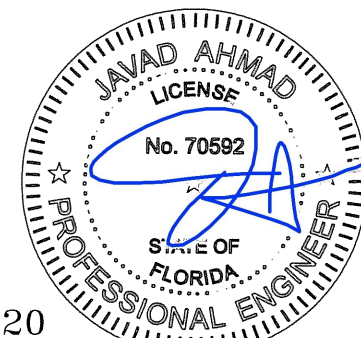
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ANDERSEN CORPORATION
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BAYPORT, MN. 55003-1096
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no	date	by	description

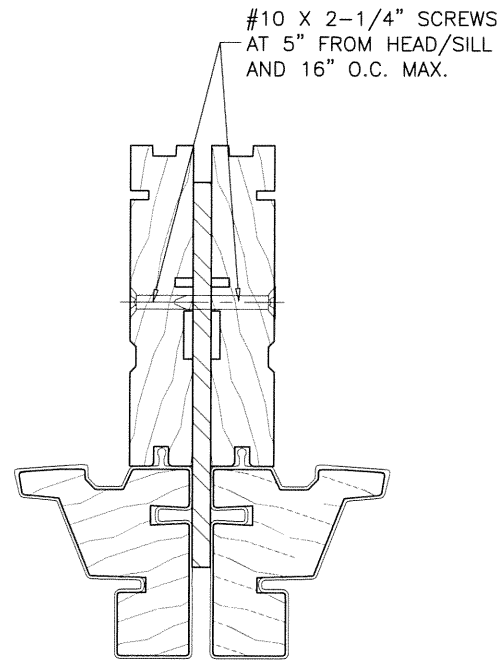
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dr. by: HAMID
chk. by:

drawing no.
M15-03
sheet 6 of 11



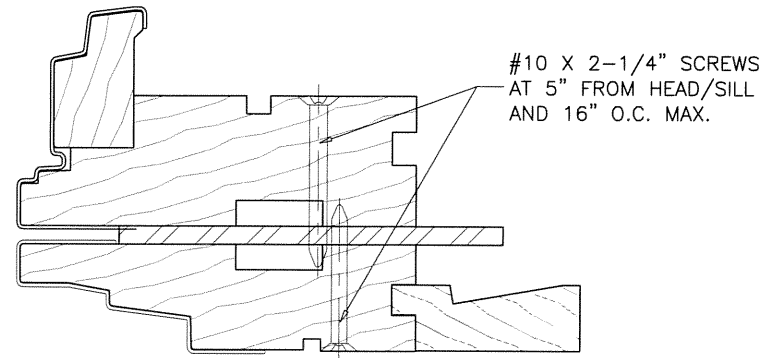
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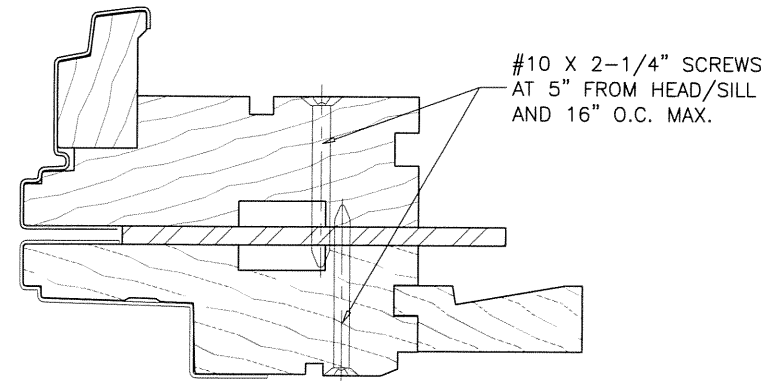


400 TWDH WDW TO 400 TWDH WDW
VERTICAL JOIN

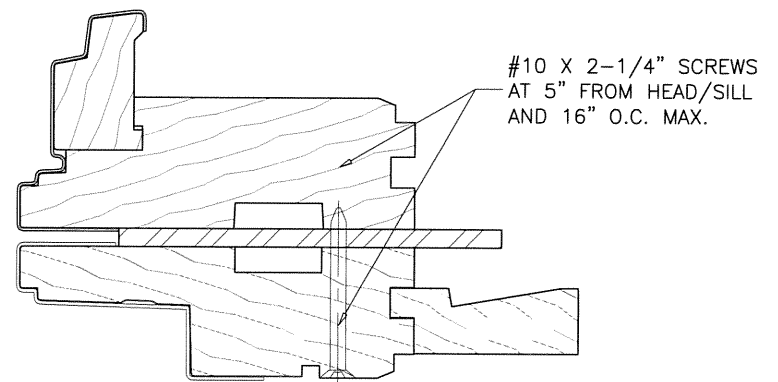
400 TWDH WDW TO 400 TWDH PICTURE WDW
VERTICAL JOIN



CIRCLE TOP TO AWNING
HORIZONTAL JOIN

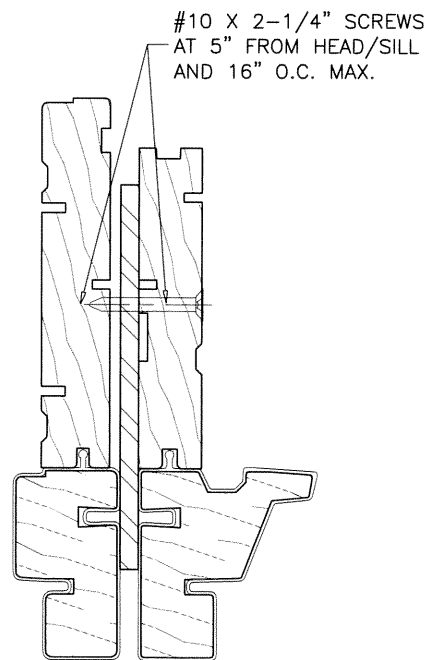


CIRCLE TOP TO CASEMENT
HORIZONTAL JOIN

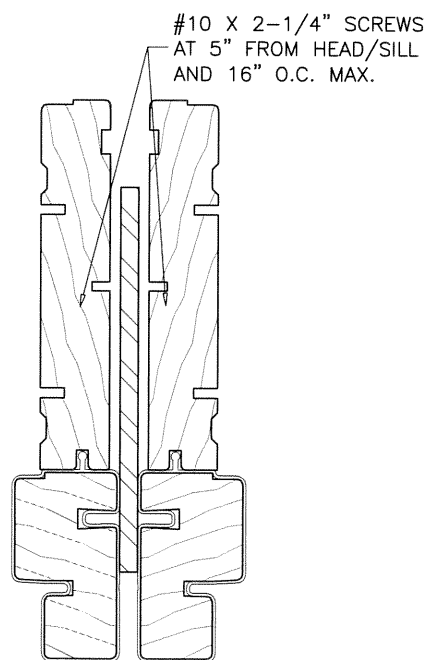


CASMT PICTURE WDW. TO AWNING
VERTICAL JOIN

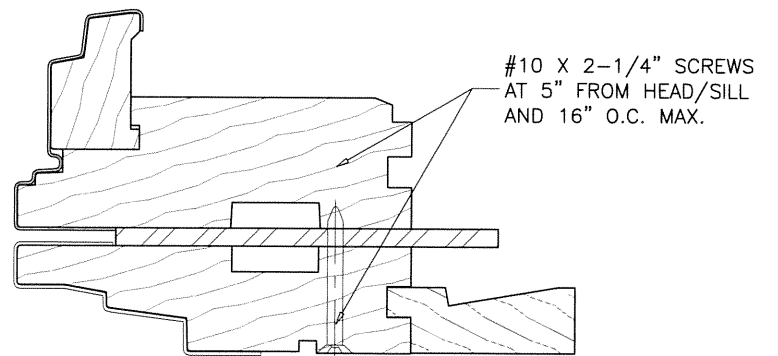
CASMT PICTURE WDW. TO CASEMENT
HORIZONTAL JOIN



PSNL WDW TO 400 TWDH PICTURE WDW
VERTICAL JOIN

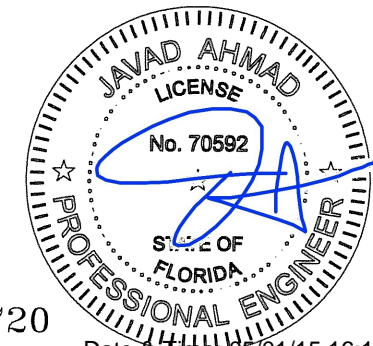


PSNL WDW TO PSNL WDW
VERTICAL JOIN



CASMT PICTURE WDW. TO AWNING
HORIZONTAL JOIN

CASMT PICTURE WDW. TO CASEMENT
VERTICAL JOIN



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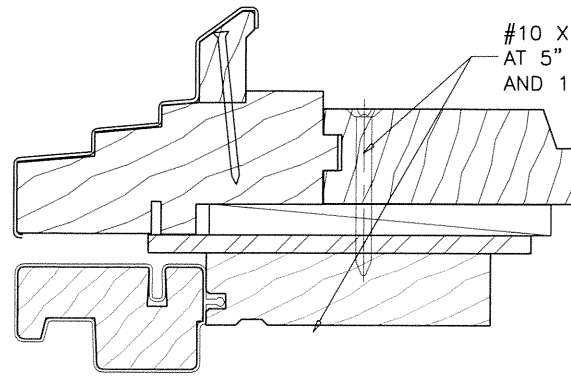
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dr. by: HAMID
chk. by:

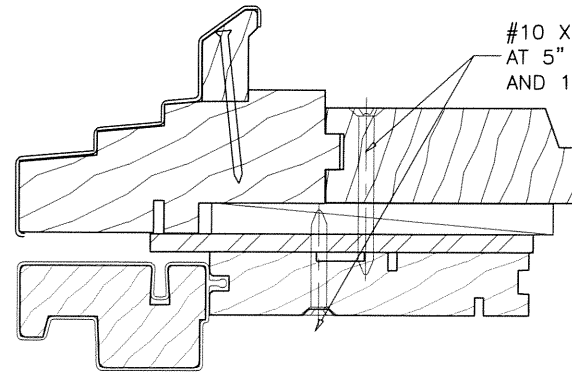
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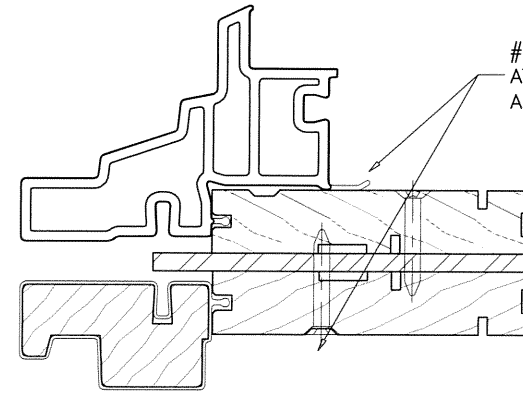
PSNL TO CIRCLE TOP-NL
HORIZONTAL JOIN

#10 X 2-1/2" SCREWS
AT 5" FROM HEAD/SILL
AND 16" O.C. MAX.



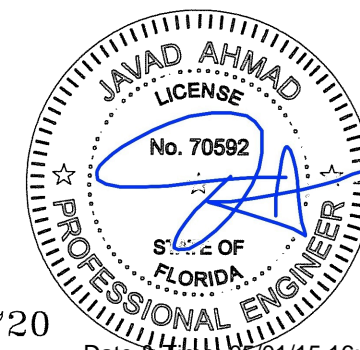
400 TW TO CIRCLE TOP-NL
HORIZONTAL JOIN

#10 X 2-1/2" SCREWS
AT 5" FROM HEAD/SILL
AND 16" O.C. MAX.




400 TW TO TW TRANSOM
HORIZONTAL JOIN

#10 X 2-1/2" SCREWS
AT 5" FROM HEAD/SILL
AND 16" O.C. MAX.



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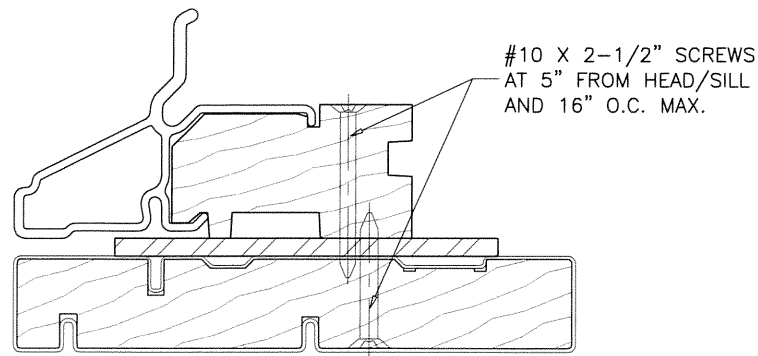


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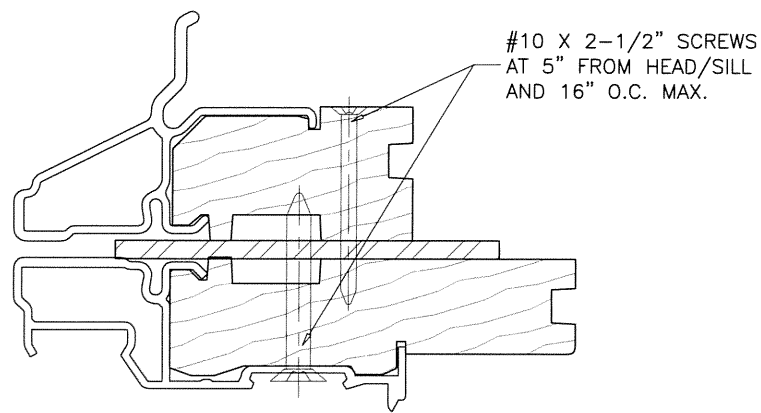
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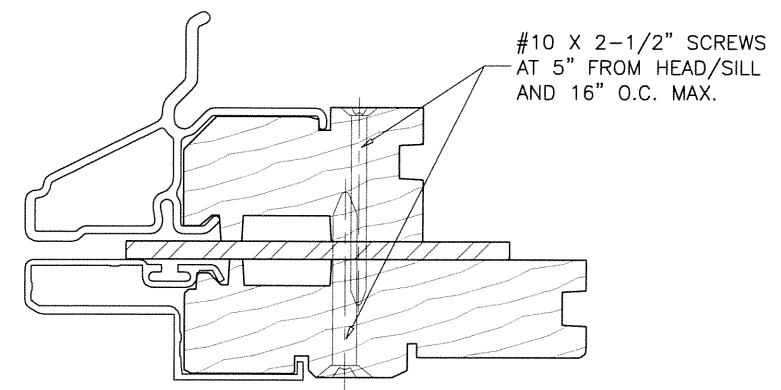
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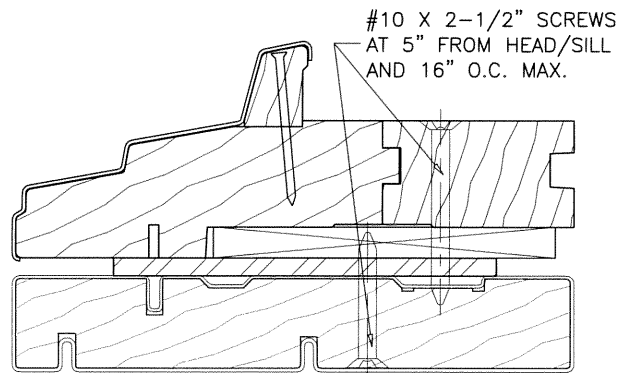
FLEXIFRAME/ARCH/SPRINGLINE TO FW GLIDING DOOR
HORIZONTAL JOIN



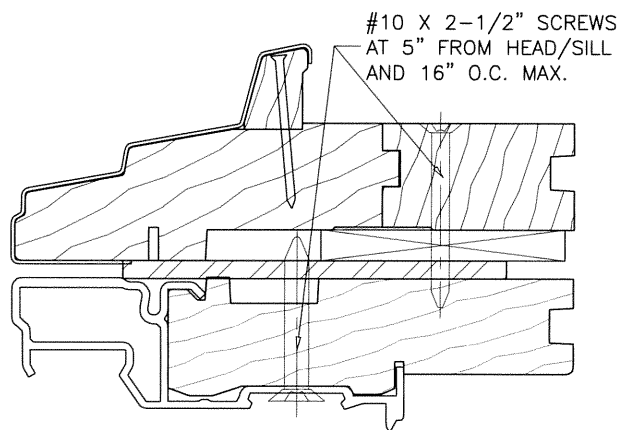
FLEXIFRAME/ARCH/SPRINGLINE TO FWH DOOR
HORIZONTAL JOIN



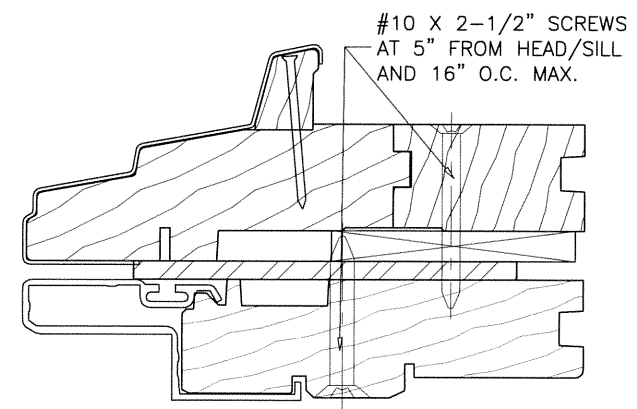
FLEXIFRAME/ARCH/SPRINGLINE TO FWO DOOR
HORIZONTAL JOIN



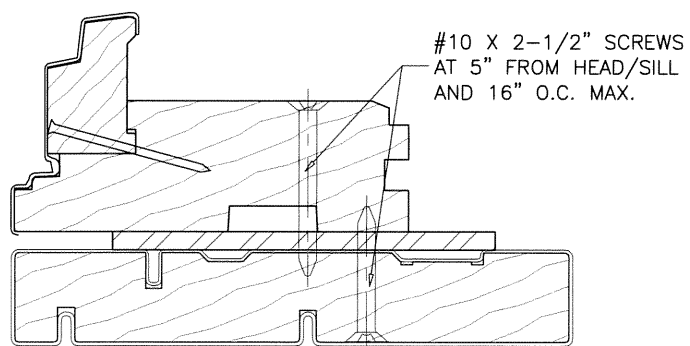
FLEXIFRAME/ARCH/SPRINGLINE TO FW GLIDING DOOR
HORIZONTAL JOIN



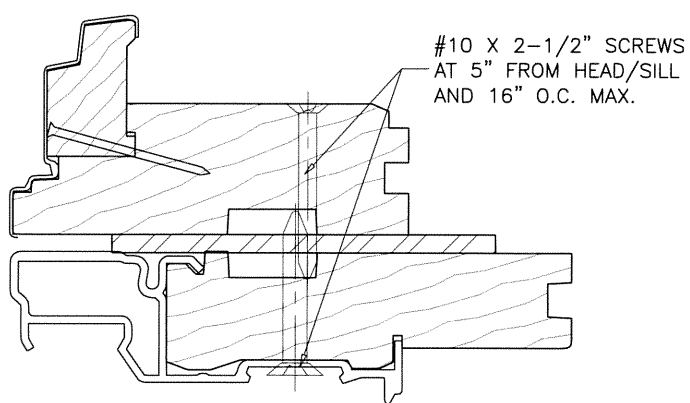
FLEXIFRAME/ARCH/SPRINGLINE TO FWH DOOR
HORIZONTAL JOIN



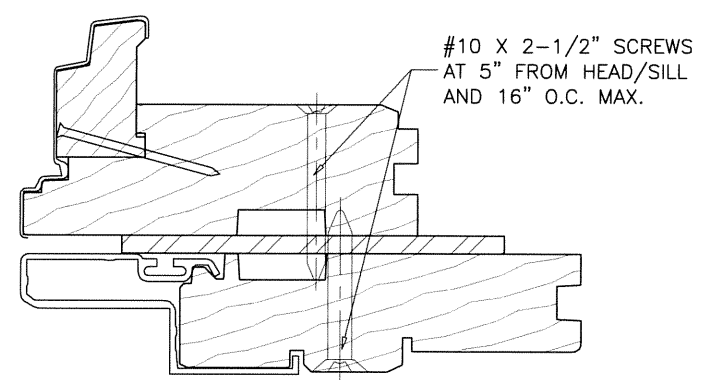
FLEXIFRAME/ARCH/SPRINGLINE TO FWO DOOR
HORIZONTAL JOIN



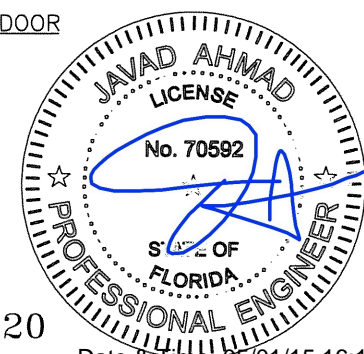
PSCA PICTURE WDW TO FW GLIDING DOOR
HORIZONTAL JOIN



PSCA PICTURE WDW TO FWH DOOR
HORIZONTAL JOIN



PSCA PICTURE WDW TO FWO DOOR
HORIZONTAL JOIN



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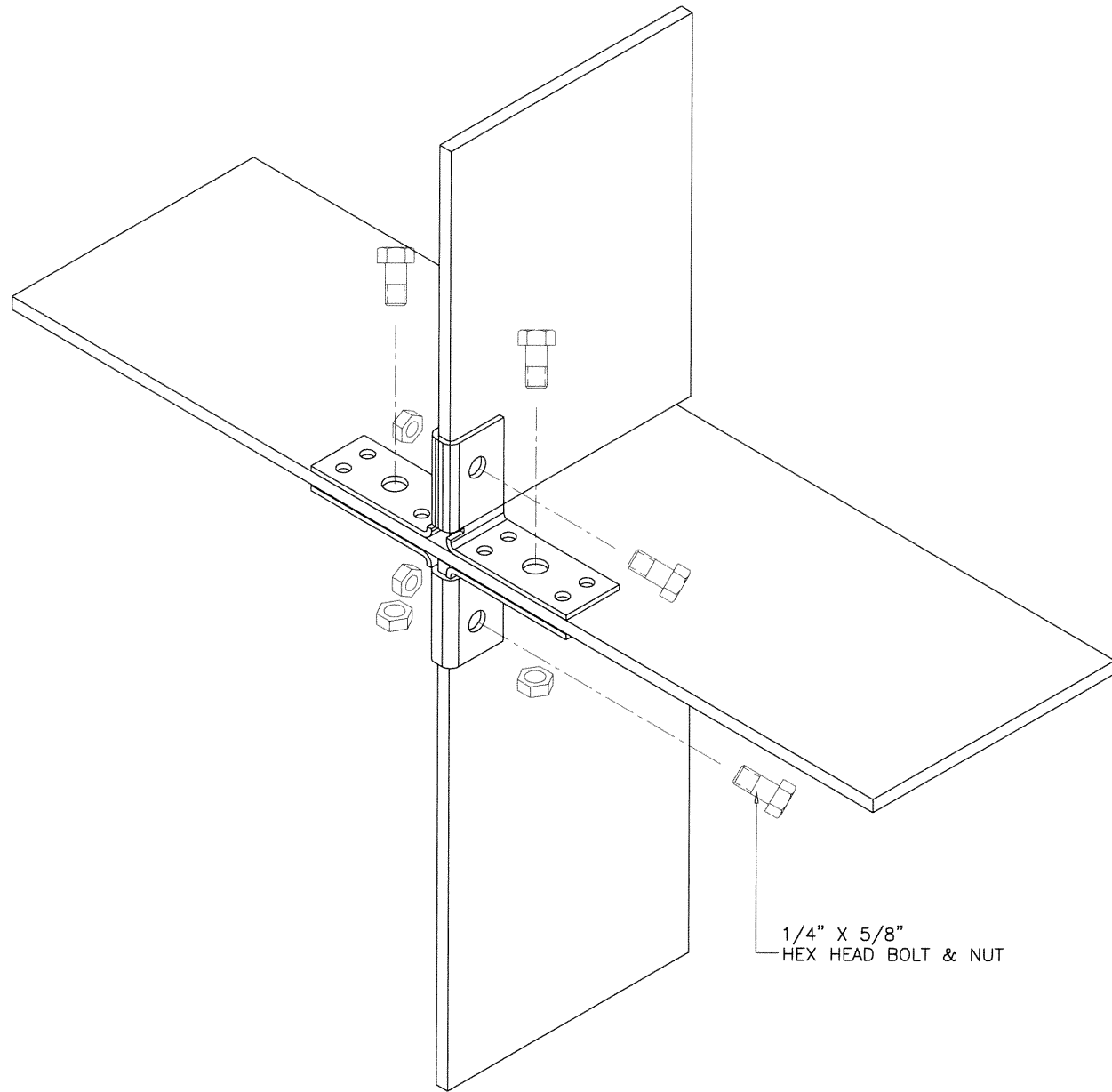
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date: 04-29-15
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chk. by:

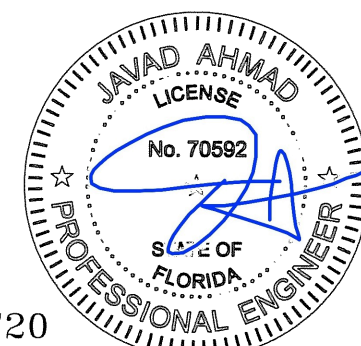
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1/4" X 5/8"
HEX HEAD BOLT & NUT

VERT. MULLION CONNECTION TO HORIZONTAL MULLION



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date: 04-29-15
 scale: 1/2" = 1"
 dr. by: HAMID
 chk. by:

drawing no.
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