Engineering Evaluation Report 9020SM101222

Prepared by:
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Manufacturer:
WinDoor Incorporated
104 Triple Diamond Blvd.
North Venice, FL 34275
(833) 554-5432

Product Description:
9020A Series Aluminum SMI HVHZ Fixed Window – FL15709

Compliance:
The above-mentioned product has been evaluated for compliance with the requirements of the Florida Department of Business and Professional Regulation for Statewide Acceptance per Rule 61 G20-3.005 method 1(d). The product listed herein complies with requirements of the current Florida Building Code.

Supporting Technical Documentation:
1. Approval Document: drawing number 9020FPA-SM-1, signed and sealed by A. Lynn Miller, P.E.
2. Test Report No.:
   a. NCTL 210-3778-1, 210-3778-2 & 210-3778-3 signed and sealed by Gerard J. Ferrara, P.E.
      National Certified Testing Laboratories, Orlando, FL.
      TAS 201-94, TAS 202-94, TAS 203-94
   b. NCTL 210-3778-1A, 210-3778-2A & 210-3778-3A signed and sealed by Gerard J. Ferrara, P.E.
      National Certified Testing Laboratories, Orlando, FL.
      AAMA/WDMA/CSA 101/I.S.2/A440-08, ASTM E1886-05, ASTM E1996-06
3. Anchor Calculations and Comparative Analysis, report number 512298-1A and -2A, prepared, signed and sealed by Luis Roberto Lomas, P.E.
4. Anchor Calculations prepared, signed and sealed by A. Lynn Miller, P.E. 5/27/22

Limitations and Conditions of use:
- Units must be glazed per ASTM E1300-04/09, refer to approval document for glazing details.
- This product is rated to be used in the HVHZ.
- This product is impact resistant and does not require impact protection in wind borne debris regions when installed above 30’ height.
- Frame material to be extruded aluminum 6063-T6.
- Units must be installed in accordance with Approval Document.



SERIES PW9020A IMPACT RESISTANT FIXED WINDOW

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

2) SHUTTERS ARE NOT REQUIRED WHEN USED IN WIND-BORNE DEBRIS REGIONS AND INSTALLED ABOVE A HEIGHT OF 30 FT.

3) MASONRY ANCHORS MAY BE USED INTO WOOD AS PER TABLE 1. ALL WOOD BUCKS LESS THAN 1-1/2" THICK ARE TO BE CONSIDERED 1X INSTALLATIONS. 1X WOOD BUCKS ARE OPTIONAL IF UNIT IS INSTALLED DIRECTLY TO SUBSTRATE. WOOD BUCKS DEPICTED AS 2X ARE 1-1/2" THICK OR GREATER. 1X AND 2X BUCKS (WHEN USED) SHALL BE DESIGNED TO PROPERLY TRANSFER LOADS TO THE STRUCTURE. WOOD BUCK DESIGN AND INSTALLATION IS THE RESPONSIBILITY OF THE ENGINEER OR ARCHITECT OF RECORD.

4) ANCHOR EMBEDMENT TO BASE MATERIAL SHALL BE BEYOND WALL DRESSING OR STUCCO. USE ANCHORS OF SUFFICIENT LENGTH. ANCHORS AND FRAME CORNERS SHOULD BE SEALED. OVERALL SEALING/FLASHING STRATEGY FOR WATER RESISTANCE OF INSTALLATION SHALL BE DONE BY OTHERS AND IS BEYOND THE SCOPE OF THESE INSTRUCTIONS.

5) SHIMS ARE REQUIRED AT EACH ANCHOR LOCATION WHERE THE PRODUCT IS NOT FLUSH TO THE SUBSTRATE. USE SHIMS CAPABLE OF TRANSFERRING APPLIED LOADS. WOOD BUCKS, BY OTHERS, MUST BE SUFFICIENTLY ANCHORED TO RESIST LOADS IMPOSED ON THEM BY THE WINDOW.

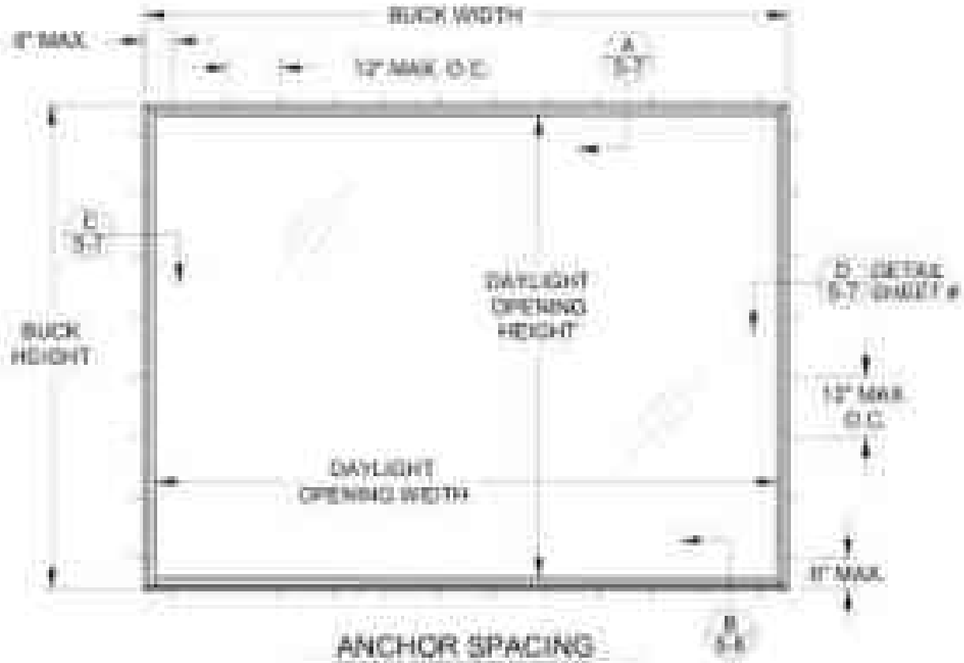
6) THE ANCHORAGE METHODS SHOWN HAVE BEEN DESIGNED TO RESIST THE WIND LOADS CORRESPONDING TO THE REQUIRED DESIGN PRESSURE. THE 33-1/3% STRESS INCREASE HAS NOT BEEN USED IN THE DESIGN OF THIS PRODUCT. THE 1.6 LOAD DURATION FACTOR WAS USED FOR THE EVALUATION OF ANCHORS INTO WOOD. ANCHORS THAT COME INTO CONTACT WITH OTHER DISSIMILAR MATERIALS SHALL MEET THE REQUIREMENTS OF THE FLORIDA BUILDING CODE FOR CORROSION RESISTANCE.

TABLE 1

Anchor Type	Substrate	Min. Edge Distance	Min. O.C. Distance	Min. Embedment or Metal Thickness
#12 Steel SMS (Gr. 8) or 410 SS SMS	Southern Pine (SG = 0.55)	9/16"	1"	1-3/8"
	6063-T6 Aluminum	3/8"	1"	0.125"
	A36 Steel	3/8"	1"	0.060" (16 Ga)
	Steel Stud, Gr. 33	3/8"	1"	0.060" (16 Ga)
1/4" DeWalt UltraCon+	Concrete (min. 3.0 ksi)	1-3/4"	4"	1-3/8"
	Grout-filled CMU (ASTM C90)	1-3/4"	4"	1-3/4"
	Hollow CMU (ASTM C90)	4"	3"	1-1/4"
	Southern Pine (SG = 0.55)	1"	1"	1-3/8"
1/4" 410 SS Elco ChekPlex	Concrete (min. 3.35 ksi)	1-1/4"	8"	1-3/4"
	Hollow or Grout-filled CMU (ASTM C90)	1-3/4"	8"	1-1/4"
	Southern Pine (SG = 0.55)	1"	1"	1-3/8"

1) ALL ANCHOR HEAD TYPES ARE APPLICABLE.
2) ANCHORS MUST BE OF SUFFICIENT LENGTH SO THAT A MINIMUM OF 3 THREADS EXTEND BEYOND METAL SUBSTRATE.

FLORIDA PRODUCT APPROVAL #7570



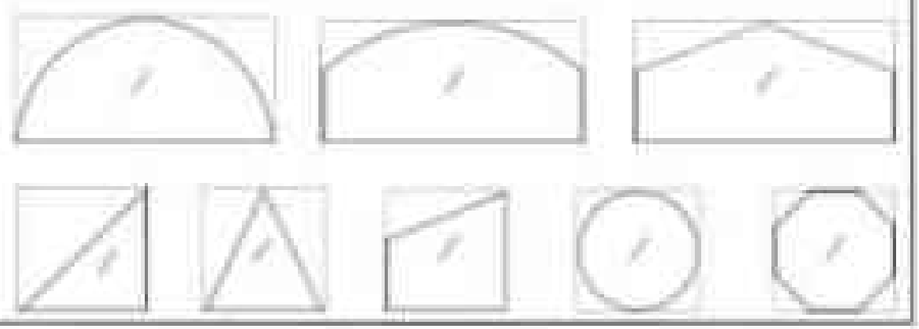
ANCHOR SPACING

SEE TABLES 2 & 3 FOR DP & MAX. SIZES

DLO = BUCK WIDTH OR HEIGHT - (2.29") - (2.297) USING STANDARD RAILS.
IF USING OPTIONAL TALL RAILS, SEE SHEET 5 FOR FRAME MEMBER HEIGHT DEDUCTIONS.

ALL TEMPERED AND/OR LAMINATED GLASS OPTIONS IN THIS APPROVAL HAVE BEEN CERTIFIED BY THE IGCC FOR COMPLIANCE TO ANSI Z97.1, CLASS A AND CPSC 16 CFR 1201, CATEGORY II. THIS INCLUDES LAMINATED GLASS THAT IS MANUFACTURED WITH ANNEALED GLASS PLIES. FOR APPLICATIONS WHERE THE WINDOW IS BEING USED AS A GUARD, HEAT STRENGTHENED OR TEMPERED LAMINATED GLASS MUST BE USED.

ALL ARCHITECTURAL WINDOW SHAPES WITH ALL ALUMINUM OR THERMALLY BROKEN RAILS QUALIFIED. COMMON EXAMPLES SHOWN BELOW. INSCRIBE THE SHAPE IN A BLOCK (SEE EXAMPLES BELOW), AND OBTAIN DESIGN PRESSURES FOR THAT BLOCK SIZE FROM DESIGN PRESSURE TABLES.



DESIGN PRESSURE RATING
SEE TABLES 2 - 3

IMPACT RATING
RATED FOR SMALL MISSILE IMPACT RESISTANCE ONLY.
MISSILE LEVEL A, WINDBORNE

GENERAL NOTES 1
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JESSE WOODWORTH	05/12/11
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WINDOOR	
PW9020A	1 OF 10

ANTHONY LYNN MILLER
LICENSE
No. 66708
STATE OF FLORIDA
PROFESSIONAL ENGINEER

TABLE 2

Maximum Design Pressure (psf) for Units with Glass Type A

Buck Height (in)	Buck Width (in)																							
	28		30		36		42		48		54		60		66		72		78		84		90		96	
	Pos	Neg	Pos	Neg	Pos	Neg	Pos	Neg	Pos	Neg	Pos	Neg	Pos	Neg	Pos	Neg	Pos	Neg	Pos	Neg	Pos	Neg	Pos	Neg	Pos	Neg
24	147.3	147.3	146.0	146.0	144.7	144.7	143.3	143.3	142.0	142.0	140.7	140.7	139.3	139.3	138.0	138.0	136.7	136.7	135.3	135.3	134.0	134.0	132.7	132.7	131.3	131.3
30	146.0	146.0	145.8	145.8	144.2	144.2	142.8	142.8	140.8	140.8	139.2	139.2	137.5	137.5	135.8	135.8	134.2	134.2	132.5	132.5	130.8	130.8	129.2	129.2	127.5	127.5
36	144.7	144.7	144.2	144.2	144.0	144.0	142.0	142.0	140.0	140.0	138.0	138.0	136.0	136.0	134.0	134.0	132.0	132.0	130.0	130.0	128.0	128.0	126.0	126.0	124.0	124.0
42	143.3	143.3	142.5	142.5	142.0	142.0	141.8	141.8	139.5	139.5	137.2	137.2	134.8	134.8	132.5	132.5	130.2	130.2	127.8	127.8	125.5	125.5	123.2	123.2	120.8	120.8
48	142.0	142.0	140.8	140.8	140.0	140.0	139.8	139.5	139.2	139.2	136.7	136.7	134.0	134.0	131.3	131.3	128.7	128.7	126.0	126.0	123.3	123.3	120.7	120.7	118.0	118.0
54	140.7	140.7	139.2	139.2	138.0	138.0	137.2	137.2	136.7	136.7	136.0	136.0	133.5	133.5	130.8	130.8	128.2	128.2	125.5	125.5	122.8	122.8	120.2	120.2	117.5	117.5
60	139.3	139.3	137.5	137.5	136.0	136.0	134.8	134.8	134.0	134.0	133.3	133.3	133.3	133.3	130.0	130.0	128.7	128.7	123.3	123.3	120.0	120.0	116.7	116.7	113.3	113.3
66	138.0	138.0	135.8	135.8	134.0	134.0	132.5	132.5	131.3	131.3	130.5	130.5	130.0	130.0	129.8	129.8	128.2	128.2	122.5	122.5	118.8	118.8	115.2	115.2	111.5	111.5
72	136.7	136.7	134.2	134.2	132.0	132.0	130.2	130.2	128.7	128.7	127.5	127.5	126.7	126.7	126.2	126.2	125.0	126.0	122.0	122.0	118.0	118.0	114.0	114.0	110.0	110.0
78	135.3	135.3	132.5	132.5	130.0	130.0	127.8	127.8	126.0	126.0	124.8	124.8	123.3	123.3	122.5	122.5	122.0	122.0	121.8	121.8	117.5	117.5	–	–	–	–
84	134.0	134.0	130.8	130.8	128.0	128.0	125.8	125.8	123.3	123.3	121.8	121.8	120.0	120.0	118.8	118.8	118.0	118.0	117.8	117.8	–	–	–	–	–	–
90	132.7	132.7	129.2	129.2	126.0	126.0	123.2	123.2	120.7	120.7	118.8	118.8	116.7	116.7	115.2	115.2	114.0	114.0	–	–	–	–	–	–	–	–
96	131.3	131.3	127.5	127.5	124.0	124.0	120.8	120.8	118.0	118.0	115.8	115.8	113.3	113.3	111.5	111.5	110.0	110.0	–	–	–	–	–	–	–	–
102	130.0	130.0	125.8	125.8	122.0	122.0	118.8	118.5	116.3	116.3	112.8	112.8	110.0	110.0	107.8	107.8	–	–	–	–	–	–	–	–	–	–
108	128.7	128.7	124.2	124.2	120.0	120.0	116.2	116.2	112.7	112.7	109.8	109.8	106.7	106.7	–	–	–	–	–	–	–	–	–	–	–	–
114	127.3	127.3	123.5	123.5	118.0	118.0	113.8	113.8	110.0	110.0	106.5	106.5	103.3	103.3	–	–	–	–	–	–	–	–	–	–	–	–
120	126.0	126.0	122.8	122.8	116.0	116.0	111.5	111.5	107.3	107.3	103.5	103.5	100.0	100.0	–	–	–	–	–	–	–	–	–	–	–	–
126	124.7	124.7	119.2	119.2	114.0	114.0	109.2	109.2	104.7	104.7	100.8	100.8	–	–	–	–	–	–	–	–	–	–	–	–	–	–
132	123.3	123.3	117.5	117.5	112.0	112.0	106.8	106.8	102.0	102.0	97.5	97.5	–	–	–	–	–	–	–	–	–	–	–	–	–	–
138	122.0	122.0	115.8	115.8	110.0	110.0	104.5	104.5	99.3	99.3	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
144	120.7	120.7	114.2	114.2	108.3	108.0	102.2	102.2	96.7	96.7	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–

NOTES:
1) FOR SIZES NOT SHOWN, ROUND UP TO THE NEXT AVAILABLE DIMENSION.

WINDOOR

ALUMINUM FIXED WINDOW (SN)

DESIGN PRESSURE TABLES

ENGINEERING

ANTHONY LYNN MILES
LICENSE
No. 68708
STATE OF FLORIDA
PROFESSIONAL ENGINEER

TABLE 3:

Maximum Design Pressure (psf) for Units with Glass Type B

Rough Height (in)	Rough Width (in)																							
	24		30		36		42		48		54		60		66		72		78		84		90		96	
	Pos	Neg	Pos	Neg	Pos	Neg	Pos	Neg	Pos	Neg	Pos	Neg	Pos	Neg	Pos	Neg	Pos	Neg	Pos	Neg	Pos	Neg	Pos	Neg	Pos	Neg
24	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	124.0	124.0	122.7	122.7	121.3	121.3
30	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	124.3	124.3	122.9	122.9	120.8	120.8	119.2	119.2	117.5	117.5
36	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	124.0	124.0	122.0	122.0	120.0	120.0	118.0	118.0	116.0	116.0	114.0	114.0
42	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	124.8	124.8	123.9	123.9	120.2	120.2	117.8	117.8	115.5	115.5	113.2	113.2	110.8	110.8
48	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	124.0	124.0	121.3	121.3	118.7	118.7	116.0	116.0	113.3	113.3	110.7	110.7	108.0	108.0
54	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	125.0	123.5	123.5	122.5	122.5	117.5	117.5	114.5	114.5	111.5	111.5	108.5	108.5	105.5	105.5
60	125.0	125.0	125.0	125.0	125.0	125.0	124.8	124.8	124.0	124.0	123.5	123.5	123.3	123.3	120.0	120.0	116.7	116.7	113.3	113.3	110.0	110.0	106.7	106.7	103.3	103.3
66	125.0	125.0	125.0	125.0	124.0	124.0	122.5	122.5	121.3	121.3	120.5	120.5	120.0	120.0	118.8	118.8	116.2	116.2	112.5	112.5	108.8	108.8	105.2	105.2	101.5	101.5
72	125.0	125.0	124.2	124.2	122.0	122.0	120.2	120.2	118.7	118.7	117.5	117.5	116.7	116.7	116.2	116.2	116.0	116.0	112.0	112.0	108.0	108.0	104.0	104.0	100.0	100.0
78	125.0	125.0	123.5	123.5	120.0	120.0	117.8	117.8	116.0	116.0	114.5	114.5	113.3	113.3	112.5	112.5	112.0	112.0	111.8	111.8	107.5	107.5	–	–	–	–
84	124.0	124.0	120.8	120.8	116.0	116.0	115.5	115.5	113.2	113.2	111.5	111.5	110.0	110.0	108.8	108.8	108.0	108.0	107.5	107.5	–	–	–	–	–	–
90	122.7	122.7	119.2	119.2	116.0	116.0	113.2	113.2	110.7	110.7	108.5	108.5	106.7	106.7	105.2	105.2	104.0	104.0	–	–	–	–	–	–	–	–
96	121.3	121.3	117.5	117.5	114.0	114.0	110.8	110.8	108.0	108.0	106.0	106.0	103.3	103.3	101.8	101.8	100.0	100.0	–	–	–	–	–	–	–	–
102	120.0	120.0	116.8	116.8	112.0	112.0	108.5	108.5	105.3	105.3	102.5	102.5	100.0	100.0	97.8	97.8	–	–	–	–	–	–	–	–	–	–
108	118.7	118.7	114.2	114.2	110.0	110.0	106.2	106.2	102.7	102.7	99.5	99.5	96.7	96.7	–	–	–	–	–	–	–	–	–	–	–	–
114	117.3	117.3	112.5	112.5	108.0	108.0	103.8	103.8	100.0	100.0	96.5	96.5	93.3	93.3	–	–	–	–	–	–	–	–	–	–	–	–
120	116.0	116.0	110.8	110.8	106.0	106.0	101.5	101.5	97.3	97.3	93.5	93.5	90.0	90.0	–	–	–	–	–	–	–	–	–	–	–	–
126	114.7	114.7	109.2	109.2	104.0	104.0	99.2	99.2	94.7	94.7	90.5	90.5	–	–	–	–	–	–	–	–	–	–	–	–	–	–
132	113.3	113.3	107.5	107.5	102.0	102.0	96.8	96.8	92.0	92.0	87.5	87.5	–	–	–	–	–	–	–	–	–	–	–	–	–	–
138	112.0	112.0	105.8	105.8	100.0	100.0	94.5	94.5	89.3	89.3	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
144	110.7	110.7	104.2	104.2	98.0	98.0	92.2	92.2	86.7	86.7	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–

NOTES:
1) FOR SIZES NOT SHOWN, ROUND UP TO THE NEXT AVAILABLE DIMENSION.

WINDOOR

ALUMINUM FIXED WINDOW (SM)

DESIGN PRESSURE TABLES

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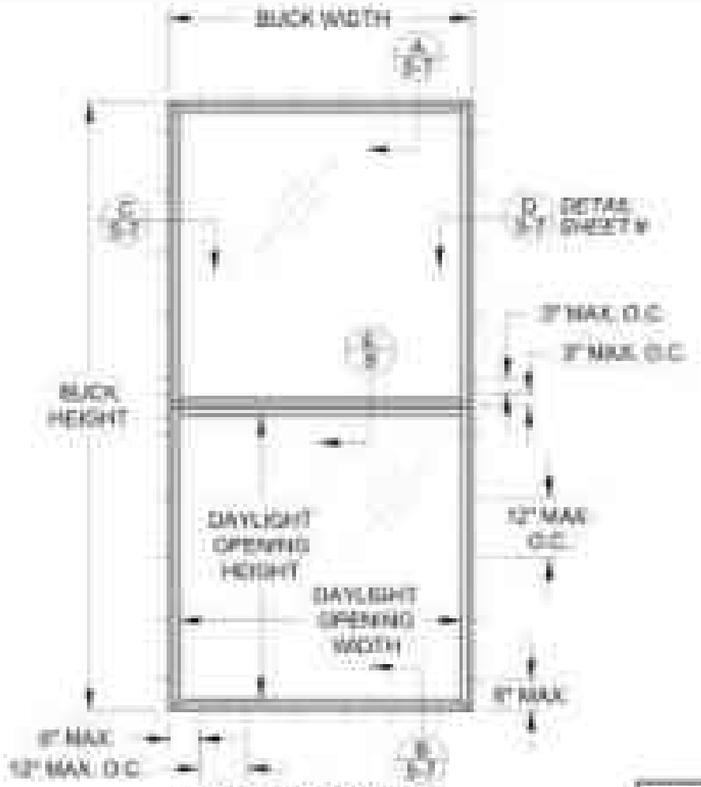
3 OF 10

05/12/11

JENS KOSOWSKY

9207PA.SM

ANTHONY LYNN MILLER
LICENSE
No. 69726
STATE OF FLORIDA
PROFESSIONAL ENGINEER



ANCHOR SPACING

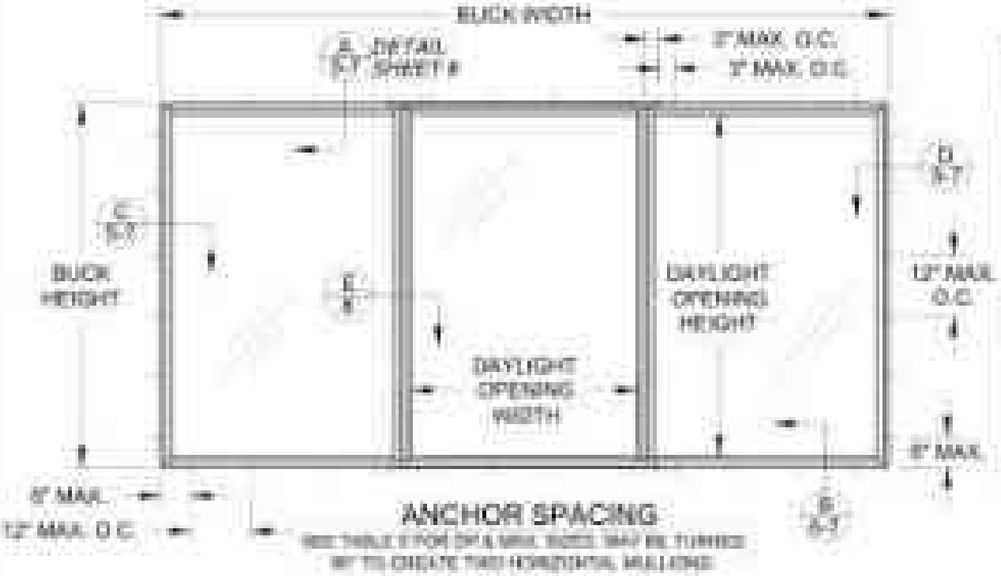
SEE TABLE 4 FOR DP & MAX. SIZES. MAY BE TURNED 90° TO CREATE A SINGLE VERTICAL MULLION

SEE SHEET 9 FOR MULLION & FRAME REINFORCING SOLUTIONS REQUIRED TO OBTAIN DP'S

TABLE 4

Maximum Design Pressure (psf) for Units with Glass Types A or B

Buck Height (in)	Buck Width (in)													
	24		30		36		42		48		54		60	
	Pos	Neg	Pos	Neg	Pos	Neg	Pos	Neg	Pos	Neg	Pos	Neg	Pos	Neg
24	100.0	125.0	100.0	125.0	100.0	125.0	100.0	125.0	100.0	125.0	100.0	125.0	100.0	125.0
30	100.0	125.0	100.0	125.0	100.0	125.0	100.0	125.0	100.0	125.0	100.0	125.0	100.0	125.0
36	100.0	125.0	100.0	125.0	100.0	125.0	100.0	125.0	100.0	125.0	100.0	125.0	100.0	125.0
42	100.0	125.0	100.0	125.0	100.0	125.0	100.0	125.0	100.0	125.0	100.0	125.0	100.0	125.0
48	100.0	125.0	100.0	125.0	100.0	125.0	100.0	125.0	100.0	125.0	100.0	125.0	100.0	125.0
54	100.0	125.0	100.0	125.0	100.0	125.0	100.0	125.0	100.0	125.0	100.0	125.0	100.0	125.0
60	100.0	125.0	100.0	125.0	100.0	125.0	100.0	125.0	100.0	125.0	100.0	125.0	100.0	125.0
66	100.0	125.0	100.0	125.0	100.0	125.0	100.0	125.0	100.0	125.0	100.0	125.0	100.0	125.0
72	100.0	125.0	100.0	125.0	100.0	125.0	100.0	125.0	100.0	125.0	100.0	125.0	100.0	119.0
78	100.0	125.0	100.0	125.0	100.0	125.0	100.0	125.0	100.0	125.0	100.0	125.0	100.0	114.0
84	100.0	125.0	100.0	125.0	100.0	125.0	100.0	125.0	100.0	125.0	100.0	125.0	100.0	109.8
90	100.0	125.0	100.0	125.0	100.0	125.0	100.0	125.0	100.0	125.0	100.0	125.0	100.0	106.7
96	100.0	125.0	100.0	125.0	100.0	125.0	100.0	125.0	100.0	125.0	100.0	125.0	100.0	104.2
102	100.0	125.0	100.0	125.0	100.0	125.0	100.0	125.0	100.0	125.0	100.0	123.8	100.0	102.3
108	100.0	125.0	100.0	125.0	100.0	125.0	100.0	125.0	100.0	125.0	100.0	123.5	100.0	101.0
114	100.0	125.0	100.0	125.0	100.0	125.0	100.0	125.0	100.0	125.0	100.0	123.0	100.0	100.2
120	100.0	125.0	100.0	125.0	100.0	125.0	100.0	125.0	100.0	125.0	100.0	122.5	100.0	100.0



ANCHOR SPACING

SEE TABLE 5 FOR DP & MAX. SIZES. MAY BE TURNED 90° TO CREATE TWO HORIZONTAL MULLIONS

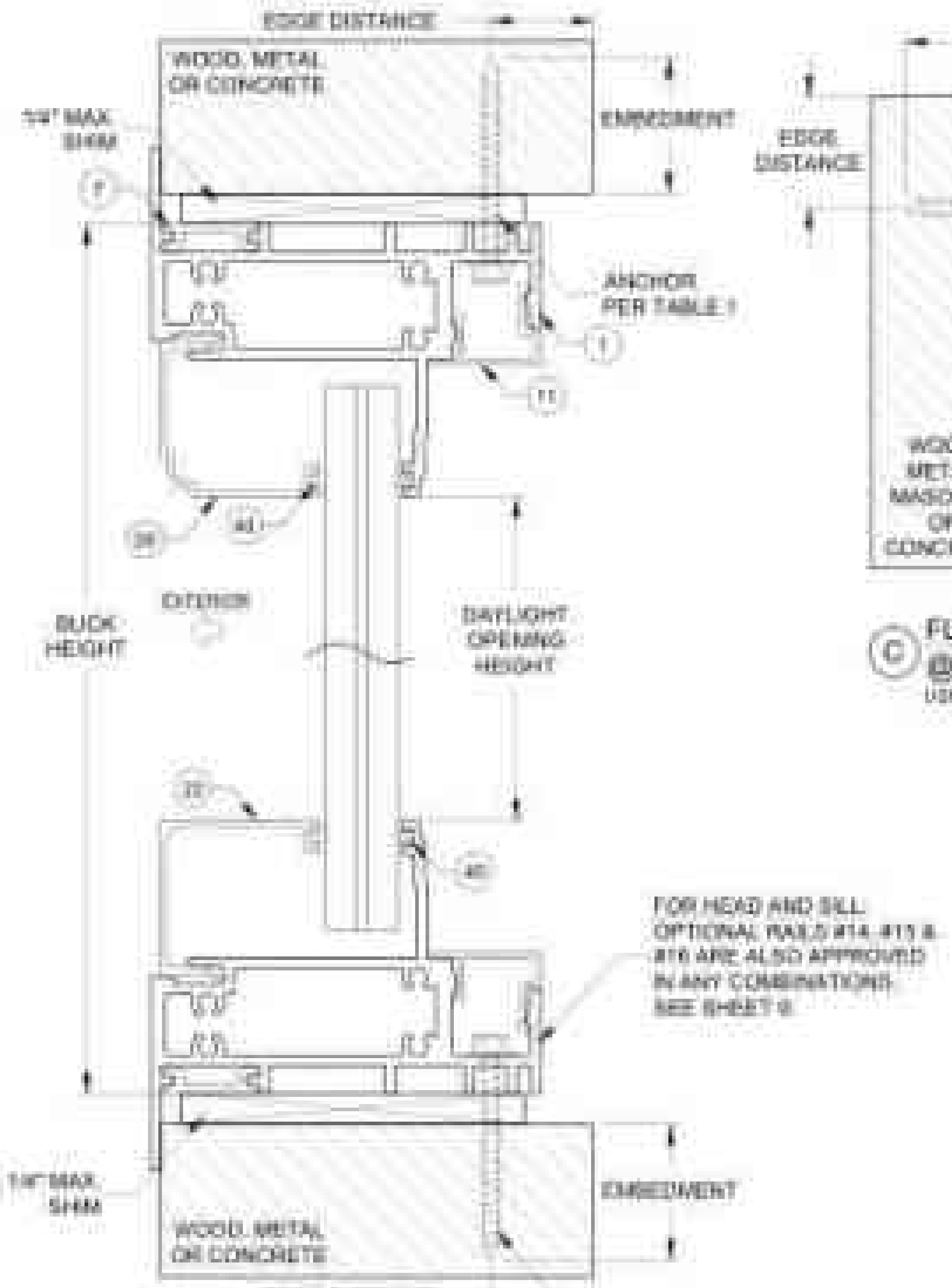
TABLE 5

Maximum Design Pressure (psf) for Units with Glass Types A or B

Buck Height (in)	Buck Width (in)													
	36		54		72		90		108		126		144	
	Pos	Neg	Pos	Neg	Pos	Neg	Pos	Neg	Pos	Neg	Pos	Neg	Pos	Neg
24	75.0	125.0	75.0	125.0	75.0	125.0	75.0	125.0	75.0	125.0	75.0	125.0	75.0	125.0
30	75.0	125.0	75.0	125.0	75.0	125.0	75.0	125.0	75.0	125.0	75.0	125.0	75.0	125.0
36	75.0	125.0	75.0	125.0	75.0	125.0	75.0	125.0	75.0	125.0	75.0	125.0	75.0	125.0
42	75.0	125.0	75.0	125.0	75.0	125.0	75.0	125.0	75.0	125.0	75.0	125.0	75.0	125.0
48	75.0	125.0	75.0	125.0	75.0	125.0	75.0	125.0	75.0	125.0	75.0	125.0	75.0	125.0
54	75.0	125.0	75.0	125.0	75.0	125.0	75.0	125.0	75.0	123.6	75.0	124.7	75.0	120.0
60	75.0	125.0	75.0	125.0	75.0	125.0	75.0	125.0	75.0	114.3	75.0	116.5	75.0	109.0
66	75.0	125.0	75.0	125.0	75.0	125.0	75.0	112.9	75.0	106.0	75.0	91.4	75.0	89.7
72	75.0	125.0	75.0	125.0	75.0	125.0	75.0	101.1	75.0	98.9	75.0	80.7	75.0	75.0

NOTES:
1) FOR SIZES NOT SHOWN, ROUND UP TO THE NEXT AVAILABLE DIMENSION

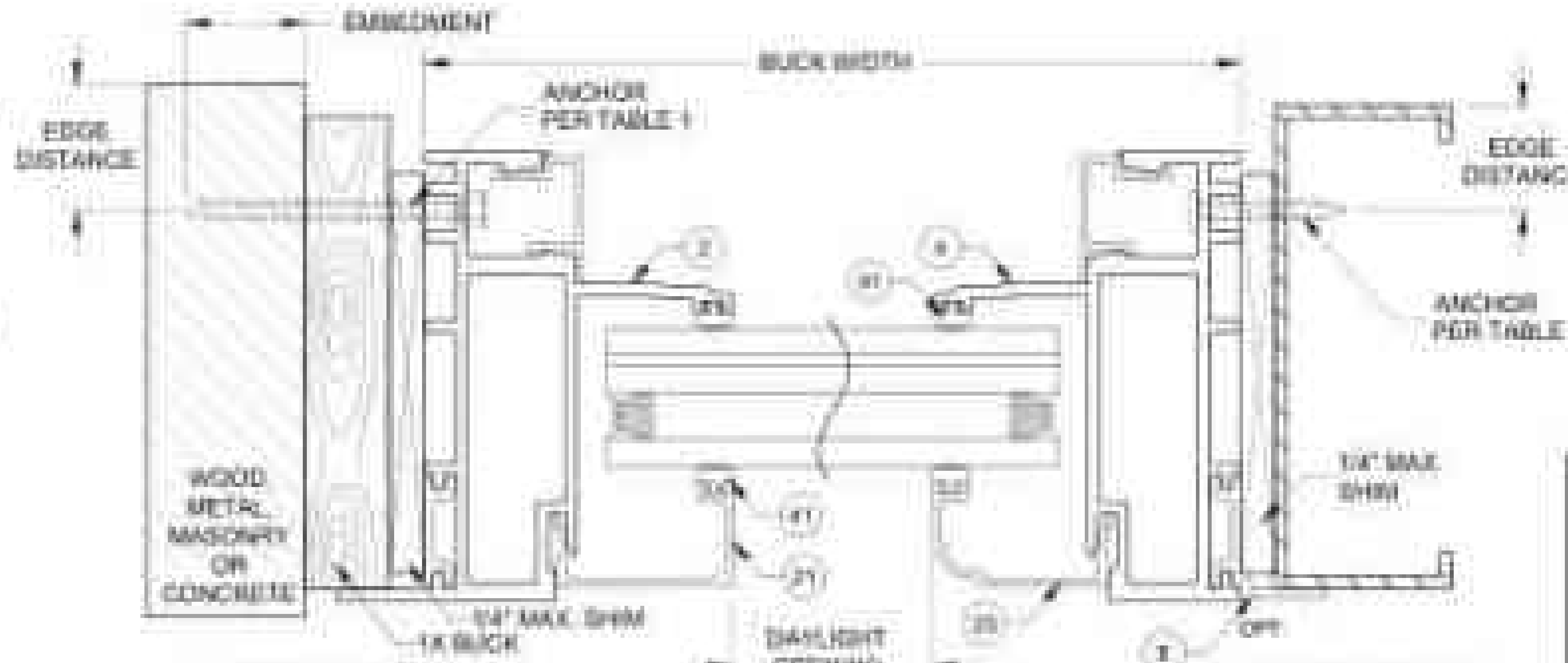
WINDOOR
ALUMINUM FIXED WINDOW (SM)
DESIGN PRESSURE TABLES
PW9020A
4 OF 10
06/12/11
JESSE RODOMSKY
ANTHONY LYNN MILLER
LICENSE
No. 66726
STATE OF FLORIDA
PROFESSIONAL ENGINEER



A FLANGE FRAME @ HEAD

B FLANGE FRAME @ SILL

FOR HEAD AND SILL: OPTIONAL RAILS #14, #15 & #16 ARE ALSO APPROVED IN ANY COMBINATIONS. SEE SHEET 9.



C FLANGE FRAME @ LEFT JAMB
USING 1X BUCK

D FLANGE FRAME @ RIGHT JAMB
METAL SUBSTRATE (SHOWN WITH OPT. FLANGE ADAPTER)

INSTALLATION NOTES:

1) SEE SHEET 1 FOR SPACING REQUIREMENTS.

2) USE ONLY SUBSTRATE APPROPRIATE ANCHORS LISTED IN TABLE 1. FOLLOW EMBEDMENT AND EDGE DISTANCE DIMENSIONS FROM TABLE 1 AND O.C. DIMENSION FROM THE ELEVATION ON SHEETS 1 OR 2.

3) ANY INSTALLATION OPTION SHOWN (2X BUCK, 1X BUCK, DIRECT TO MASONRY, STEEL STUD) MAY BE USED ON ANY SIDE OF THE WINDOW.

4) GLASS SHOWN IS FOR ILLUSTRATIVE PURPOSES ONLY AND MAY DIFFER TO MEET DESIGN REQUIREMENTS.

5) FLANGE MAY BE REMOVED IN FIELD.

6) SHIM THICKNESS TO BE 1/4". IF SHIMS ARE REQUIRED, SHIM AT EACH ANCHOR LOCATION.

7) CONCRETE ANCHOR LOCATIONS MUST BE ADJUSTED TO MAINTAIN THE MINIMUM EDGE DISTANCE TO MORTAR JOINTS. ADDITIONAL CONCRETE ANCHORS MAY BE REQUIRED TO ENSURE THE O.C. DIMENSION IS NOT EXCEEDED.

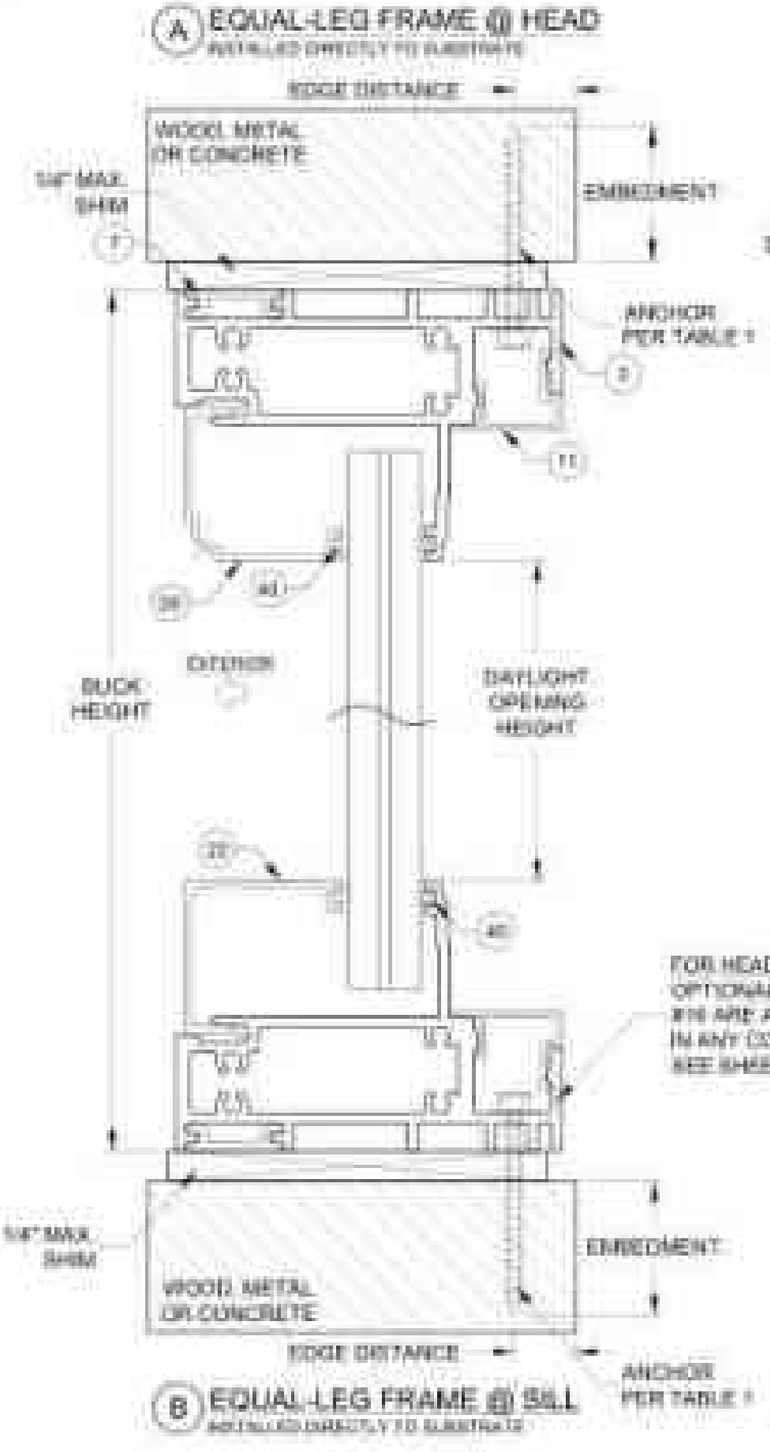
WinDoor

ALUMINUM FIXED WINDOW (SM)

FLANGE FRAME INSTALLATION

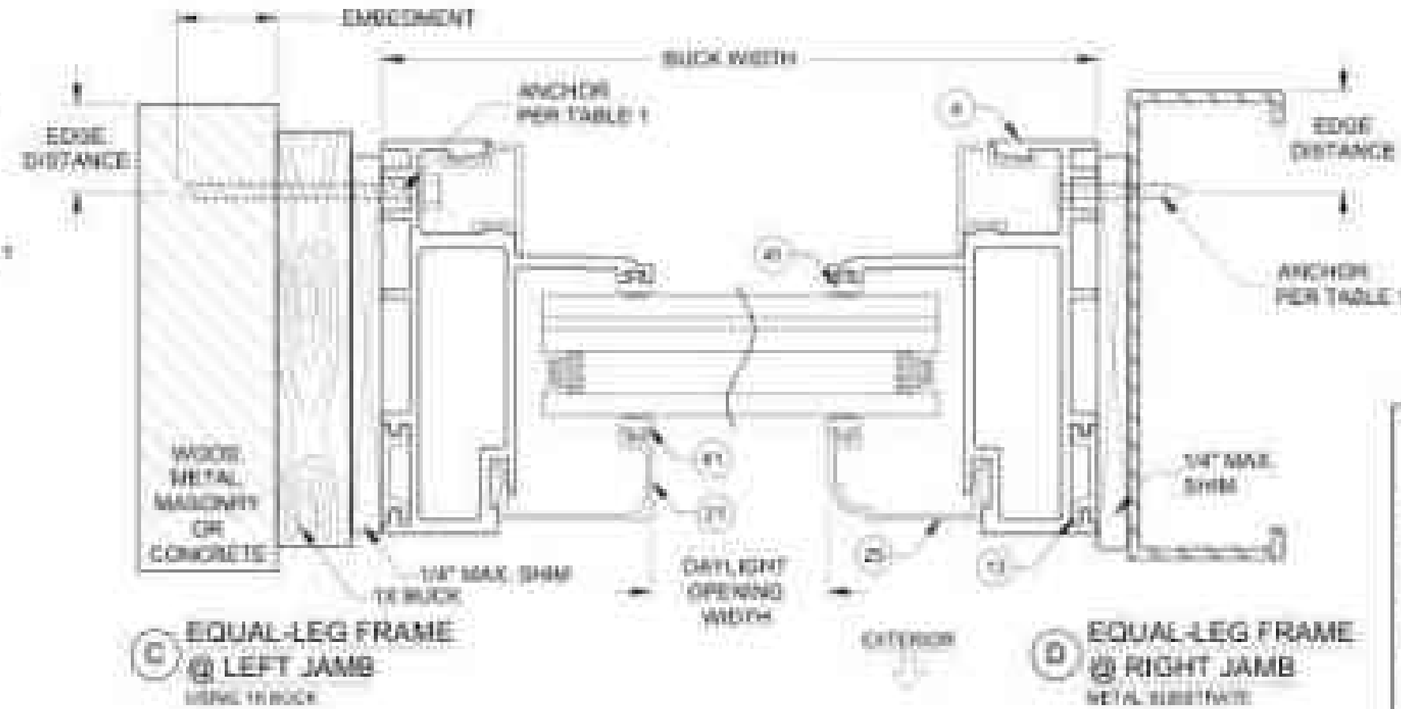
5 OF 10





A EQUAL-LEG FRAME @ HEAD
INSTALLED DIRECTLY TO SUBSTRATE

B EQUAL-LEG FRAME @ SILL
INSTALLED DIRECTLY TO SUBSTRATE



C EQUAL-LEG FRAME @ LEFT JAMB
USING 1X BUCK

D EQUAL-LEG FRAME @ RIGHT JAMB
METAL SUBSTRATE

INSTALLATION NOTES:

1) SEE SHEET 1 FOR SPACING REQUIREMENTS.

2) USE ONLY SUBSTRATE APPROPRIATE ANCHORS LISTED IN TABLE 1. FOLLOW EMBEDMENT AND EDGE DISTANCE DIMENSIONS FROM TABLE 1 AND O.C. DIMENSION FROM THE ELEVATION ON SHEETS 1 OR 2.

3) ANY INSTALLATION OPTION SHOWN (2X BUCK, 1X BUCK, DIRECT TO MASONRY, STEEL STUD) MAY BE USED ON ANY SIDE OF THE WINDOW.

4) GLASS SHOWN IS FOR ILLUSTRATIVE PURPOSES ONLY AND MAY DIFFER TO MEET DESIGN REQUIREMENTS.

5) MAX. SHIM THICKNESS TO BE 1/4". IF SHIMS ARE REQUIRED, SHIM AT EACH ANCHOR LOCATION.

6) CONCRETE ANCHOR LOCATIONS MUST BE ADJUSTED TO MAINTAIN THE MINIMUM EDGE DISTANCE TO MORTAR JOINTS. ADDITIONAL CONCRETE ANCHORS MAY BE REQUIRED TO ENSURE THE O.C. DIMENSION IS NOT EXCEEDED.

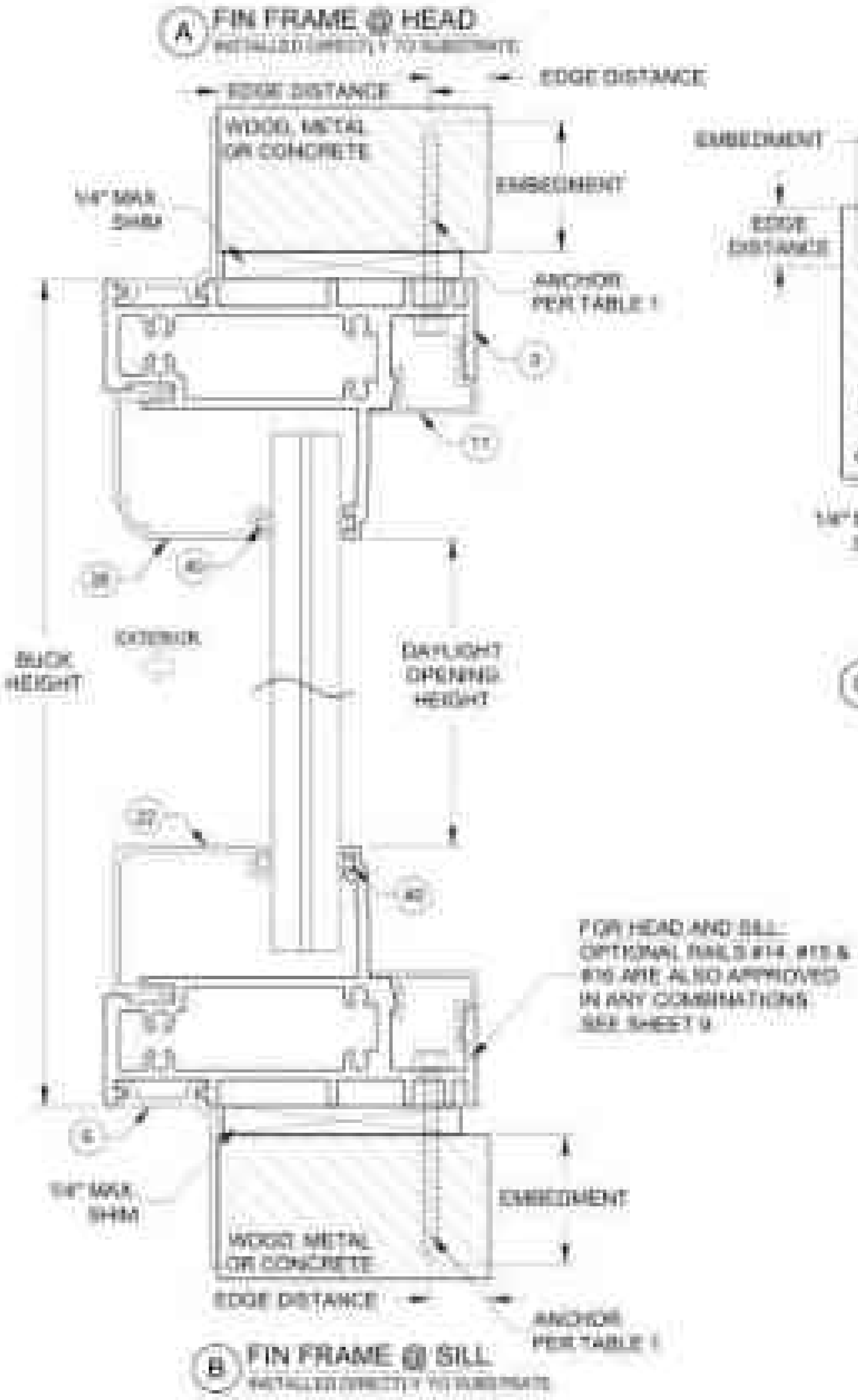
REVISIONS	
DATE	06/12/11
DRAWN BY	JESSE WOODWORTH
APPROVED BY	
SCALE	
SHEET	8 OF 10
DRAWING NO.	PW8004

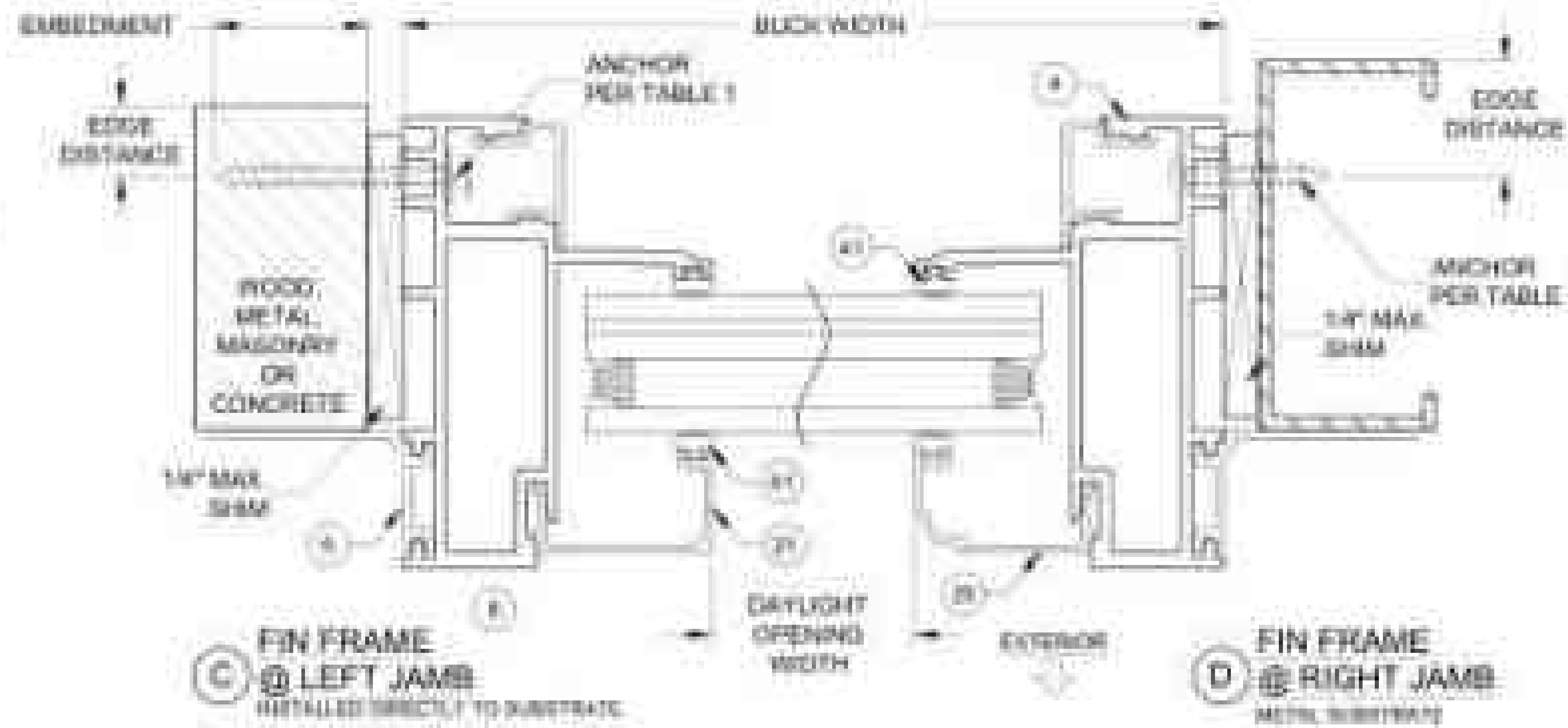
WINDOOR
ENGINEERED PRODUCTS

ALUMINUM FIXED WINDOW (EW)

EQUAL LEG FRAME INSTAL

ANTHONY LYNN MILLER
LICENSE
No. 66708
STATE OF
FLORIDA
PROFESSIONAL ENGINEER





INSTALLATION NOTES:

1) SEE SHEET 1 FOR SPACING REQUIREMENTS.

2) USE ONLY SUBSTRATE APPROPRIATE ANCHORS LISTED IN TABLE 1. FOLLOW EMBEDMENT AND EDGE DISTANCE DIMENSIONS FROM TABLE 1 AND O.C. DIMENSION FROM THE ELEVATION ON SHEETS 1 OR 2.

3) ANY INSTALLATION OPTION SHOWN (2X BUCK, 1X BUCK, DIRECT TO MASONRY, STEEL STUD) MAY BE USED ON ANY SIDE OF THE WINDOW.

4) GLASS SHOWN IS FOR ILLUSTRATIVE PURPOSES ONLY AND MAY DIFFER TO MEET DESIGN REQUIREMENTS.

5) MAX. SHIM THICKNESS TO BE 1/4". IF SHIMS ARE REQUIRED, SHIM AT EACH ANCHOR LOCATION.

6) CONCRETE ANCHOR LOCATIONS MUST BE ADJUSTED TO MAINTAIN THE MINIMUM EDGE DISTANCE TO MORTAR JOINTS. ADDITIONAL CONCRETE ANCHORS MAY BE REQUIRED TO ENSURE THE O.C. DIMENSION IS NOT EXCEEDED.

WINDOOR

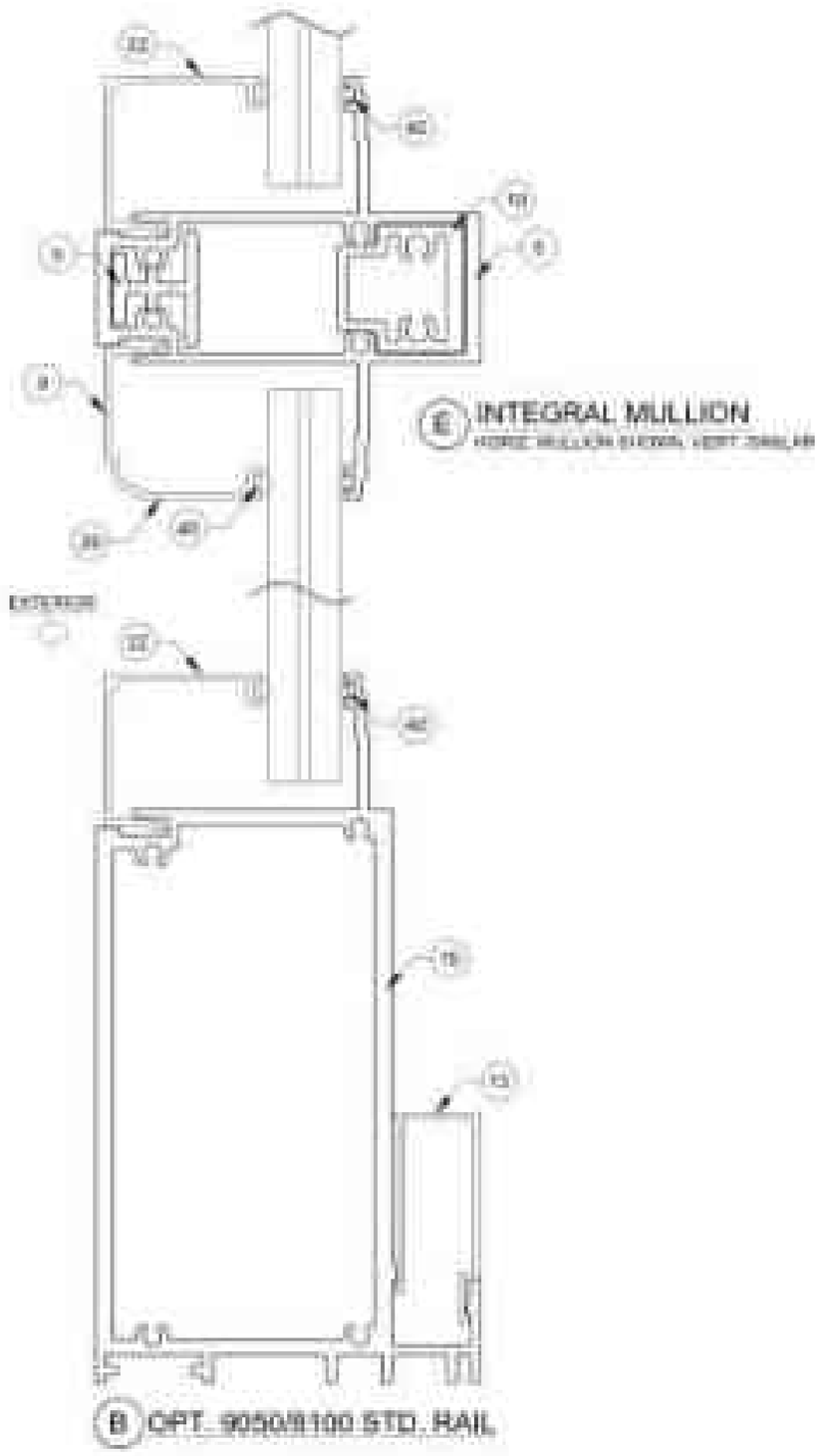
ALUMINUM FIXED WINDOW (SM)

FIN FRAME INSTALLATION

06/12/11

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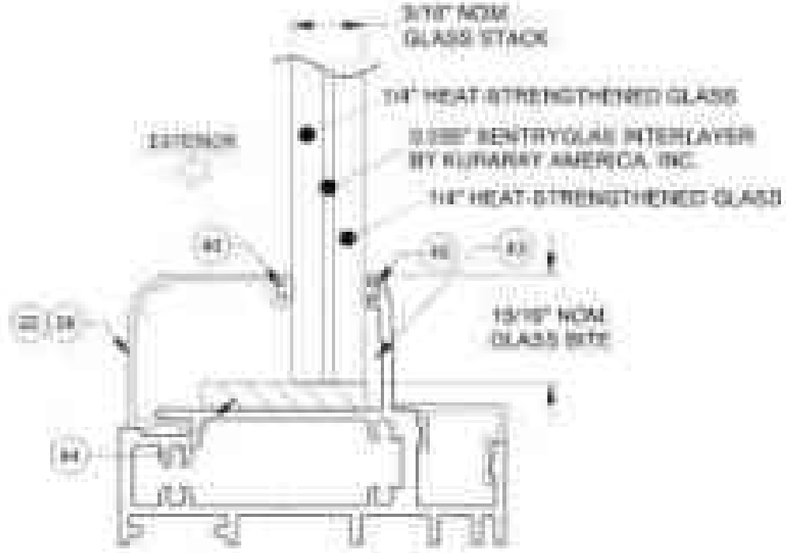
ANTHONY LYNN MILLER
LICENSE
No. 58705
STATE OF FLORIDA
PROFESSIONAL ENGINEER



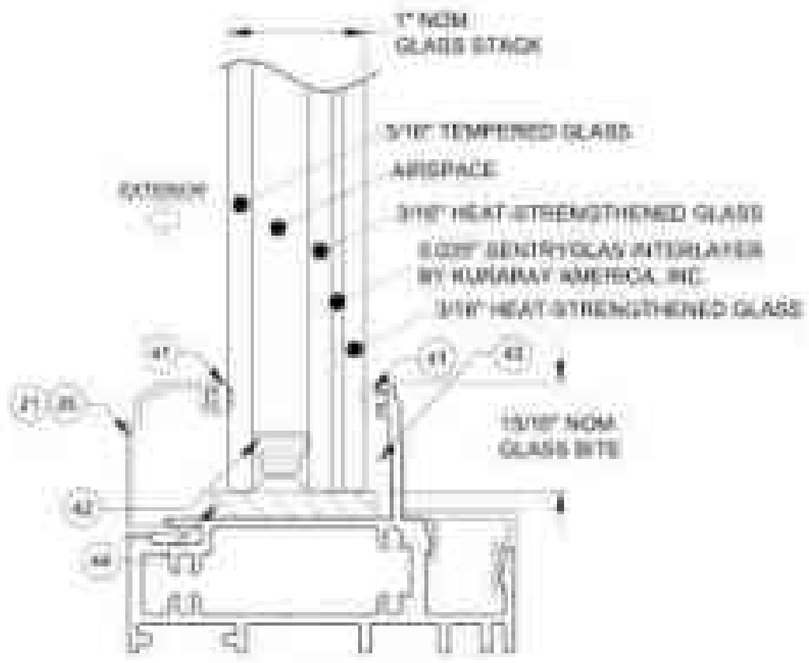
E INTEGRAL MULLION



B OPT. 9050/9100 STD. RAIL



GLASS TYPE A



GLASS TYPE B

WINDOOR

ANTHONY LYNN MILLER
LICENSE
No. 66726
STATE OF
FLORIDA
PROFESSIONAL ENGINEER

ALUMINUM FIXED WINDOW (SW)

SECTION & GLAZING DETAILS

PW9000A

8 OF 10

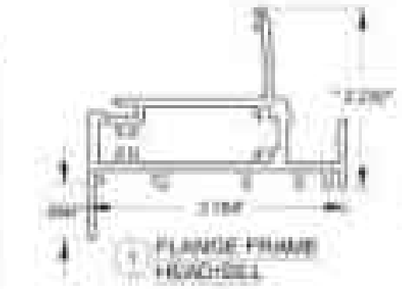
05/12/11

JESSE RODGERS

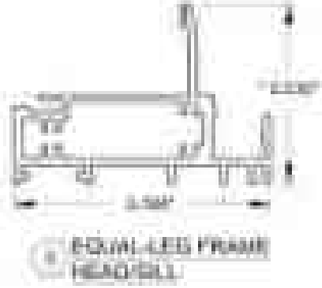
REVISIONS

TABLE 7

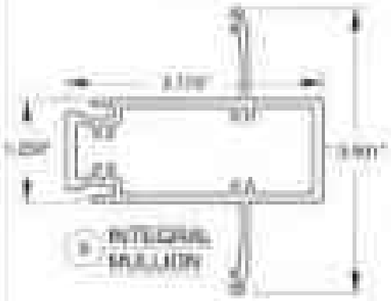
ITEM #	PART #	DESCRIPTION	MATERIAL
1	12012616	Flange Frame Head & Sill	ALUM. 6063-T6
2	12012613	Flange Frame Jamb	ALUM. 6063-T6
3	12012475	Equal leg Frame Head & Sill	ALUM. 6063-T6
4	12012476	Equal leg Frame Jamb	ALUM. 6063-T6
5	12012620	Integral Mullion	ALUM. 6063-T6
6	11040032	Fin Frame Adapter	ALUM. 6063-T6
7	11040030	Flush Frame Adapter	ALUM. 6063-T6
8	11040031	Flange Frame Adapter	ALUM. 6063-T6
9	11035558	Mullion Exterior Reinforcement	ALUM. 6063-T6
10	11035559	Mullion Interior Reinforcement	ALUM. 6063-T6
11	11040028	Std. Screw Cover	ALUM. 6063-T6
12	11052614	Med. Rail Screw Cover	ALUM. 6063-T6
13	11012617	Tall Rail Screw Cover	ALUM. 6063-T6
14	12012619	8100 Top Rail	ALUM. 6063-T6
15	12012617	8050/8100 Std. Rail	ALUM. 6063-T6
16	12012618	8050/8100 Tall Bottom Rail	ALUM. 6063-T6
21	11032536	1" Square Glass Beading	ALUM. 6063-T6
22	11052537	9/16" Square Glass Beading	ALUM. 6063-T6
25	11040084	1" OG Glass Beading	ALUM. 6063-T6
26	11040829	9/16" OG Glass Beading	ALUM. 6063-T6
28	11052409	Narrow Architectural Beading	ALUM. 6063-T6
29	11052388	Wide Architectural Beading	ALUM. 6063-T6
30	121014	#8 x 1" SMS (Frame Assembly)	Stainless Steel
31		#8 x 1-3/4" SMS (Mullion Assembly)	Stainless Steel
34	8020A1.0(D)	Flange Frame Head & Sill, TB	ALUM. 6063-T6
35	8020A2.W(D)	Flange Frame Jamb, TB	ALUM. 6063-T6
36	8020A03.W(D)	Equal leg Frame Head & Sill, TB	ALUM. 6063-T6
37	8020A11.W(D)	Equal leg Frame Jamb, TB	ALUM. 6063-T6
40	121005	Thin Glazing Vinyl, 80 +/-5 Durn.	Vinyl
41	121006	Thick Glazing Vinyl, 80 +/-5 Durn.	Vinyl
42		IG Spacer	varies
43		SikaFlex 552, Dow 795 IMG Backbedding	Silicone
44		Kalling Block, 85 +/-5 Durn.	Rubber



















* FRAME MEMBER DEDUCTION USED TO CALCULATE GLU METRIC THAT HEAD AND SILL VALUES MAY DIFFER











14 8100 TOP RAIL



15 8050/8100 STD. RAIL



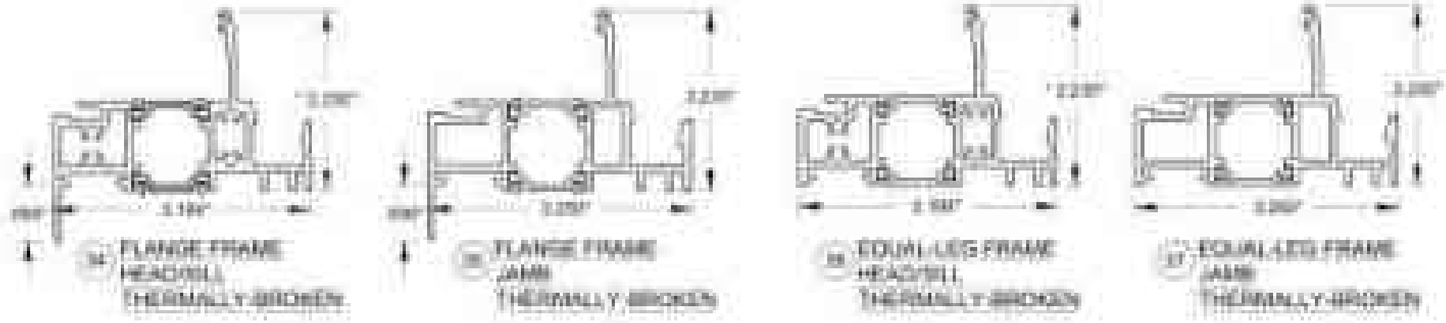
16 8050/8100 TALL BOTTOM RAIL

WINDOOR
AUTOMATED MANUFACTURING
AUMBRELLA FIXED WINDOW (EMI)
8040 & EXTRUSIONS
PW2020
8 OF 10
05/12/11
JESUS RODRIGUEZ

ANTHONY LYNN MILLER
LICENSE
No. 66708
STATE OF FLORIDA
PROFESSIONAL ENGINEER







WINDOOR	ALUMINUM FIXED WINDOW (SM)
	BOM & EXTRUSIONS
	FW9225A
	10 OF 10
	05/12/11
	JESS RODRIGUEZ

ANTHONY LYNN MILLER
LICENSE
No. 66726
STATE OF FLORIDA
PROFESSIONAL ENGINEER