

CHAPTER 10A

INTEGRITY ALL ULTREX CASEMENT/AWNING

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ATTENTION:

- Specifications and technical data are subject to change without notice.
- Dimensions in parenthesis are in millimeters or square meters
- Allow 1/16" (2) tolerance on all measurements.
- For answers to technical questions about Integrity products you may call our Integrity Support Line: 1-800-587-2712.
- Website: www.marvin.com

UNIT FEATURES

FRAME AND SASH:

The frame and sash exteriors are made of Ultrex[®], an advanced fiber reinforced material that is resistant to thermal conductance. Ultrex patented coating system meets all the requirements of AAMA 624-10. Exterior colors: Stone White, Pebble Gray, Bronze, Evergreen, Cashmere, or Ebony. The interior coating meets all the requirements of 00022716 in Stone White.

FRAME:

Composite frame thickness is 1 1/2" (38). Total frame depth is 3 3/32" (79). Ultrex is 0.070" – 0.077" (2) thick.

SASH:

Composite sash thickness is 15/16" (24). Ultrex is 0.070" – 0.077" (2) thick. Sash can be replaced but not reglazed.

JAMB EXTENSION:

Standard jamb depth is 2" (51). 4 9/16" (116) and 6 9/16" (167) maintenance free jamb extension available.

HARDWARE (CASEMENT):

Standard Casement hardware includes top and bottom hinges. The hinge track is stainless steel with an injected molded hinge shoe. The hinge arm is coated with E-Gard. A snubber on the jamb and stile, certain heights have 0, 1 or 2 sets, interlock the sash to the frame on the hinge side. The locking hardware consists of a multi-point locking mechanism that is actuated from a single point of operation. The roto operator is Zinc die cast with an E-Gard coating. The hardware finish options are: Stone White, Almond Frost, Brass, Satin Nickel and Oil Rubbed Bronze. Optional factory applied Window Opening Control Device is available (min size: 18 9/16" (471) x 23 1/2" (597) – max size 35 1/2" (902) x 71 1/2" (1816). This device works in accordance to ASTM 2090–10 standard specification for window fall prevention devices with emergency escape. Available in almond frost and white finishes. Optional coastal hardware is available.

HARDWARE (AWNING):

Standard Awning hardware includes left and right hinges. The hinge track is stainless steel with an injected molded hinge shoe. The hinge arm is coated with E-Gard. A single point lock on each jamb/stile, and a roto operator. The hardware finish options are: Stone White, Almond Frost, Brass, Satin Nickel, and Oil Rubbed Bronze. Optional coastal hardware is available. Optional factory installed or field applied stainless steel sash limiter is available.

INSTALLATION:

Factory applied folding nailing fin. Optional installation brackets for masonry applications are available. Factory supplied field mull kits are available for standard assemblies.

GLAZING:

All units are manufactured with a 11/16" (17) IG with Low E2, E3, E1, or E3/ERS coatings including argon gas fill. Tempered glass and/or obscure glass, and California Fire glass (annealed exterior and tempered interior glazing configuration) are available as an option. All glass is of a select quality complying with ASTM C 1036. Insulating glass is manufactured and tested to pass level ASTM E 2190 and is IGCC certified. The glazing seal is a silicone bedding on both interior and exterior surfaces utilized in a sandwich style sash. STC/OITC values are available for 3.1/3.1 standard glass. Optional 3.1/4.7 STC/OITC Upgrade glass is available. STC and OITC ratings are tested in accordance with ASTM E 90-09. See the Product Performance chapter for values.

WEATHER STRIP:

The primary weather strip is a black extruded PVC foam filled bulb that attaches to all four sides of the frame. The secondary weather strip is a black extruded PVC hollow that is attached to the sash.

INSECT SCREEN:

Charcoal color fiberglass screen cloth. Rolled form aluminum frame finish is Stone White. Features a bottom rail lift and top rail mounted springs that allow it to be removed from the interior of the unit.

GRILLES–BETWEEN–THE–GLASS:

23/32" (18mm) contoured aluminum bar placed between two panes of glass. Patterns: Standard rectangular pattern or optional 9 lite Prairie cut. Exterior color will match exterior of sash color. The interior finish is always Stone White. GBGs are not available on Impact units.

ACCESSORIES:

Field applied j-channel, a 1" (25) or a 3" (76) frame expander, or flush fin installation kit. Factory applied: sheet rock return for 1/2" (13) or 5/8" (16) drywall, a 3/4" (19) receiver, a frame filler or a flush fin. General: mull kits are available for field assembly. Kits include instructions, mull covers, mull plugs and brackets.

EXTERIOR CASING:

Non-integral to the unit. Fastened to the exterior wall with barb and kerf 2" (51) brick mould as a full surround or with sill nosing. 3 1/2" (89) flat casing available as full surround or with sill nosing. Also available with 1" (25) ranch style sill and header overhang.

NOTE: NFRC Values are now located on www.marvin.com

Certified Sizes and Rating

Integrity All Ultrex Swinging Window Picture									
Standard Sizes and WDMA Ratings									
Nominal Height	Frame Height, in	Nominal Width							
		Frame Width, inches							
		16	20	26	30	36	40	50	60
		17.5	23.5	29.5	35.5	41.5	47.5	59.5	71.5
20	23.5	FW - LC40	FW - LC40	FW - LC40	FW - LC40	FW - LC40	FW - LC40	FW - LC40	FW - LC40
26	29.5	FW - LC40	FW - LC40	FW - LC40	FW - LC40	FW - LC40	FW - LC40	FW - LC40	FW - LC40
30	35.5	FW - LC40	FW - LC40	FW - LC40	FW - LC40	FW - LC40	FW - LC40	FW - LC40	FW - LC40
36	41.5	FW - LC40	FW - LC40	FW - LC40	FW - LC40	FW - LC40	FW - LC40	FW - LC40	FW - LC40
40	47.5	FW - LC40	FW - LC40	FW - LC40	FW - LC40	FW - LC40	FW - LC40	FW - LC40	FW - LC40
46	53.5	FW - LC40	FW - LC40	FW - LC40	FW - LC40	FW - LC40	FW - LC40	FW - LC40	FW - LC40
50	59.5	FW - LC40	FW - LC40	FW - LC40	FW - LC40	FW - LC40	FW - LC40	FW - LC40	FW - LC40
56	65.5	FW - LC40	FW - LC40	FW - LC40	FW - LC40	FW - LC40	FW - LC40	FW - LC40	FW - LC40
60	71.5	FW - LC40	FW - LC40	FW - LC40	FW - LC40	FW - LC40	FW - LC40	FW - LC40	FW - LC40

Integrity All Ultrex Swinging Window Transom									
Standard Sizes and WDMA Ratings									
Nominal Height	Frame Height, in	Nominal Width							
		Frame Width, inches							
		16	20	26	30	36	40	50	60
		17.5	23.5	29.5	35.5	41.5	47.5	59.5	71.5
10	11.5	FW - LC40	FW - LC40	FW - LC40	FW - LC40	FW - LC40	FW - LC40	FW - LC40	FW - LC40
16	17.5	FW - LC40	FW - LC40	FW - LC40	FW - LC40	FW - LC40	FW - LC40	FW - LC40	FW - LC40
20	23.5	FW - LC40	FW - LC40	FW - LC40	FW - LC40	FW - LC40	FW - LC40	FW - LC40	FW - LC40

Integrity All Ultrex Awning							
Standard Sizes and WDMA Ratings							
Nominal Height	Frame Height, in	Nominal Width					
		Frame Width, inches					
		16	20	26	30	36	40
		17.5	23.5	29.5	35.5	41.5	47.5
16	17.5	AP-LC40	AP-LC40	AP-LC40	AP-LC40	AP-LC40	AP-LC40
20	23.5	AP-LC40	AP-LC40	AP-LC40	AP-LC40	AP-LC40	AP-LC40
26	29.5	AP-LC40	AP-LC40	AP-LC40	AP-LC40	AP-LC40	AP-LC40
30	35.5	AP-LC40	AP-LC40	AP-LC40	AP-LC40	AP-LC40	AP-LC40

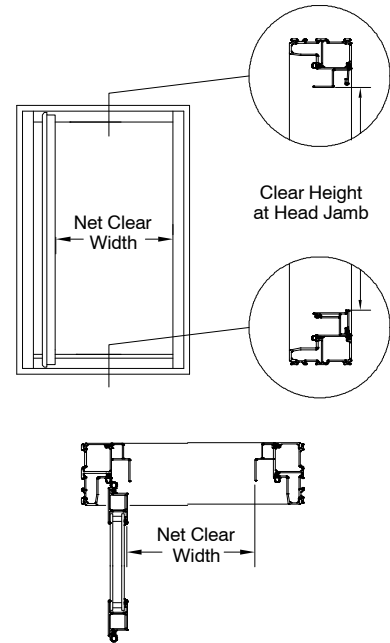
Certified Sizes and Rating

Integrity All Ultrex Casement					
Standard Sizes and WDMA Ratings					
Nominal Height	Frame Height, in	Nominal Width			
		Frame Width, inches			
		16	20	26	30
		17.5	23.5	29.5	35.5
20	23.5	C-LC40	C-LC40	C-LC40	C-LC40
26	29.5	C-LC40	C-LC40	C-LC40	C-LC40
30	35.5	C-LC40	C-LC40	C-LC40	C-LC40
36	41.5	C-LC40	C-LC40	C-LC40	C-LC40
40	47.5	C-LC40	C-LC40	C-LC40	C-LC40
46	53.5	C-LC40	C-LC40	C-LC40	C-LC40
50	59.5	C-LC40	C-LC40	C-LC40	C-LC40
56	65.5	C-LC40	C-LC40	C-LC40	C-LC40
60	71.5	C-LC40	C-LC40	C-LC40	C-LC40

EGRESS LITE AND VENT MEASUREMENTS

EGRESS, LITE, AND VENT MEASUREMENTS						
Call #	Clear Opening (sq. ft)	Clear Opening Width	Clear Opening Height	Floor to Sill Height	Vent Opening (sq. ft)	Daylight Opening (sq. ft)
ALL ULTREX CASEMENT OPERATOR						
IFCA 1620	1.10	8.67	18.32	61.00	1.10	1.46
1626	1.46	8.67	24.32	55.00	1.46	1.96
1630	1.83	8.67	30.32	49.00	1.83	2.45
1636	2.19	8.67	36.32	43.00	2.19	2.94
1640	2.55	8.67	42.32	37.00	2.55	3.43
1646	2.91	8.67	48.32	31.00	2.91	3.93
1650	3.27	8.67	54.32	25.00	3.27	4.42
1656	3.63	8.67	60.32	19.00	3.63	4.91
1660T	3.99	8.67	66.32	13.00	3.99	5.40
2020	1.87	14.67	18.32	61.00	1.87	2.21
2026	2.48	14.67	24.32	55.00	2.48	2.95
2030	3.09	14.67	30.32	49.00	3.09	3.69
2036	3.70	14.67	36.32	43.00	3.70	4.43
2040	4.31	14.67	42.32	37.00	4.31	5.18
2046	4.92	14.67	48.32	31.00	4.92	5.92
2050	5.53	14.67	54.32	25.00	5.53	6.66
2056	6.15	14.67	60.32	19.00	6.15	7.40
2060T	6.76	14.67	66.32	13.00	6.76	8.15
*2620	2.63	20.67	18.32	61.00	2.63	2.95
*2626	3.49	20.67	24.32	55.00	3.49	3.94
*2630	4.35	20.67	30.32	49.00	4.35	4.93
*2636	5.21	20.67	36.32	43.00	5.21	5.93
*2640E	6.07	20.67	42.32	37.00	6.07	6.92
*2646E	6.94	20.67	48.32	31.00	6.94	7.91
*2650E	7.80	20.67	54.32	25.00	7.80	8.90
*2656E	8.66	20.67	60.32	19.00	8.66	9.90
*2660TE	9.52	20.67	66.32	13.00	9.52	10.89
*3020	3.39	26.67	18.32	61.00	3.39	3.69
*3026	4.50	26.67	24.32	55.00	4.50	4.93
*3030	5.62	26.67	30.32	49.00	5.62	6.18
*3036E	6.73	26.67	36.32	43.00	6.73	7.42
*3040E	7.84	26.67	42.32	37.00	7.84	8.66
*3046E	8.95	26.67	48.32	31.00	8.95	9.90
*3050E	10.06	26.67	54.32	25.00	10.06	11.15
*3056E	11.17	26.67	60.32	19.00	11.17	12.39
*3060TE	12.28	26.67	66.32	13.00	12.28	13.63

EGRESS MEASUREMENTS FOR OPERATING CASEMENTS



Code restrictions may vary depending on your local building codes. For additional information contact your local code department for IBC and IRC requirements.

CASEMENT EGRESS CALCULATIONS FOR CUSTOM SIZE UNITS	
DESIRED DIMENSION	FORMULA
Egress opening width (inches)	= Frame OM width - 8.827
Egress opening height (inches)	= Frame OM height - 5.184
Egress opening area (SF)	= (Egress width x egress height)/144

NOTES:

Call numbers with an E meet the National Egress Codes requiring 5.7 SF clear opening. 20" (508) clear width and 24" (610) clear height, not to exceed a floor to sill height of 44. Code restrictions may vary depending on local building codes.

T= Tempered glass is standard for this size unit.

Floor to sill height is based on a rough opening height of 6' 10 1/2" (2096) (Inside opening height of 6' 10 1/4" (2090)).

These units (*) may optionally include a window opening control device tested to ASTM F 2090-10, which can be released from the inside without the use of a key, tool, special knowledge, or force greater than that required for normal unit operation. This device is designed to stop your window at a specified location. This device is not designed to prevent child falls.

Units with a frame size of 18 9/16" (472) x 23 1/2" (597) - 35 1/2" (902) x 71 1/2" (1816) can have an optional "window opening control device" installed at the factory. This device is designed to meet the ASTM F 2090-10 standard specification for window fall prevention device.

EGRESS, LITE, AND VENT MEASUREMENTS

LITE AND VENT MEASUREMENTS									
Call #	Vent Opening (SF)	Daylight Opening (SF)	Unit #	Vent Opening (SF)	Daylight Opening (SF)	Unit #	Vent Opening (SF)	Daylight Opening (SF)	
ALL ULTREX AWNING									
IFAWN 1616	0.74	0.97	IFAWN 2616	1.77	1.96	IFAWN 3616	2.79	2.94	
1620	1.10	1.46	2620	2.63	2.95	3620	4.16	4.43	
1626	1.46	1.96	2626	3.49	3.94	3626	5.52	5.93	
1630	1.83	2.45	2630	4.35	4.93	3630	6.88	7.42	
2016	1.25	1.46	3016	2.28	2.45	4016	3.31	3.43	
2020	1.87	2.21	3020	3.39	3.69	4020	4.92	5.18	
2026	2.48	2.95	3026	4.50	4.93	4026	6.53	6.92	
2030	3.09	3.69	3030	5.62	6.18	4030	8.14	8.66	
ALL ULTREX SWINGING WINDOW PICTURE, TRANSOM AND CASEMENT/AWNING STATIONARY									
Call #	Daylight Opening (SF)	Call #	Daylight Opening (SF)	Call #	Daylight Opening (SF)	Call #	Daylight Opening (SF)		
IFSWP 1610	0.48	IFSWP 2610	0.96	IFSWP 3610	1.45	IFSWP 5010	2.18		
1616	0.97	2616	1.96	3616	2.94	5016	4.42		
1620	1.46	2620	2.95	3620	4.43	5020	6.66		
1626	1.96	2626	3.94	3626	5.93	5026	8.90		
1630	2.45	2630	4.93	3630	7.42	5030	11.15		
1636	2.94	2636	5.93	3636	8.91	5036	13.39		
1640	3.43	2640	6.92	3640	10.40	5040	15.63		
1646	3.93	2646	7.91	3646	11.90	5046	17.87		
1650	4.42	2650	8.90	3650	13.39	5050	20.12		
1656	4.91	2656	9.90	3656	14.88	5056	22.36		
1660T	5.40	2660T	10.89	3660T	16.37	5060T	24.60		
2010	0.72	3010	1.21	4010	1.69	6010	2.66		
2016	1.46	3016	2.45	4016	3.43	6016	5.40		
2020	2.21	3020	3.69	4020	5.18	6020	8.15		
2026	2.95	3026	4.93	4026	6.92	6026	10.89		
2030	3.69	3030	6.18	4030	8.66	6030	13.63		
2036	4.43	3036	7.42	4036	10.40	6036	16.37		
2040	5.18	3040	8.66	4040	12.15	6040	19.12		
2046	5.92	3046	9.90	4046	13.89	6046	21.86		
2050	6.66	3050	11.15	4050	15.63	6050	24.60		
2056	7.40	3056	12.39	4056	17.37	6056	27.34		
2060T	8.15	3060T	13.63	4060T	19.12	6060T	30.09		

T= Tempered glass is standard for this size unit.

FORMULA TO CALCULATE UNIT DAYLIGHT OPENING FOR TRANSOM OR PICTURE:

R.O. Width – 6 3/16" (157) = Daylight Opening Width

R.O. Height – 6 3/16" (157) = Daylight Opening Height

I.O. Width– 6 1/16" (154) = Daylight Opening Width

I.O. Height–5 15/16" (151) = Daylight Opening Height

SIZING GUIDELINES AND MEASUREMENT CONVERSIONS

MULTIPLE ASSEMBLIES – Factory Mull Configuration. Mulls and Reinforced Mulls available. Field mull kits are available. Mulling beyond limitations is not recommended.

MAXIMUM ASSEMBLY UP TO 6W1H:

Rough Opening 114" (2896) X 78" (1981), Inside Opening 113 7/8" (2892) X 77 3/4" (1975)

MAXIMUM ASSEMBLY UP TO 5W5H :

Rough Opening 96" (2438) X 96" (2438), Inside Opening 95 7/8" (2435) X 95 3/4" (2432)

Packaged Terminal Air Conditioner (PTAC) Mulling – Factory mull below an Integrity Swinging Picture unit.

Mull options can not affect unit or RO size. Height of PTAC window frame will accommodate all PTAC sizes.

Standard PTAC height is 19 1/4" (489); standard PTAC width will match the upper unit width.

MAXIMUM ROUGH OPENING ASSEMBLY UP TO 1W2H: 72" (1829) X 96" (2438)

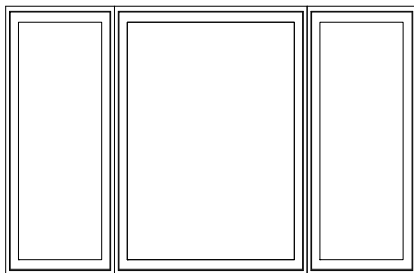
CALCULATING TOTAL OPENING FOR ASSEMBLIES

WIDTH: Rough Opening = Frame Widths + 1/2" (13) per mull + 1/2" (13), Inside Opening = Frame Widths + 1/2" (13) per mull + 3/8" (10).

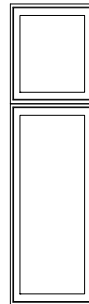
Tolerance = 1/4" (6) from frame to Rough Opening at left and right jamb, 3/16" (5) from frame to Inside Opening at left and right jamb.

HEIGHT: Rough Opening = Frame Heights + 1/2" (13) per mull + 1/2" (13), Inside Opening = Frame Height + 1/2" (13) per mull + 1/4" (6).

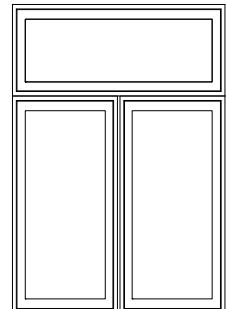
Tolerance = 1/2" (13) from Frame to Rough Opening at head jamb. 1/4" (6) from Frame to Inside Opening at head jamb.



2 vertical mulls



1 horizontal mull






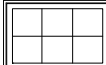



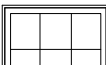



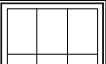



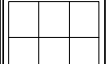



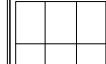



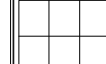



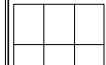







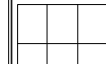
1 vertical mull
1 horizontal mull

SIZING GUIDELINES AND MEASUREMENT CONVERSIONS

Measurement Conversion Table					
Unit		Width		Height	
From	To				
Frame Measurements		Inches	Metric	Inches	Metric
Masonry Opening	Rough Opening	0	(0)	+ 1/4	(6)
Frame OM	Rough Opening	+ 1/2	(13)	+ 1/2	(13)
J-Channel OM	Rough Opening	-3/4	(19)	-3/4	(19)
Glass Size	Rough Opening	+ 5 1/16	(129)	+ 5 1/16	(129)
Sash Opening	Rough Opening	+ 2 5/32	(55)	+ 2 5/32	(55)
Masonry Opening	Inside Opening	-1/8	(3)	0	(0)
OM of Frame	Inside Opening	+ 3/8	(10)	+ 1/4	(6)
J-Channel OM	Inside Opening	-7/8	(22)	-1	(25)
Glass Size	Inside Opening	+ 4 15/16	(126)	+ 4 13/16	(122)
Sash Opening	Inside Opening	+ 2 1/32	(52)	+ 1 29/32	(49)
Sash		Inches	Metric	Inches	Metric
Glass Size	OM of Sash	+ 2 19/32	(66)	+ 2 19/32	(66)
OM of Sash	Rough Opening	+ 2 15/32	(63)	+ 2 15/32	(63)
OM of Sash	Inside Opening	+ 2 11/32	(60)	+ 2 7/32	(57)
Glass Size	Daylight Opening	-1 7/64	(28)	-1 7/64	(28)
Rough Opening	Daylight Opening	-6 11/64	(157)	-6 11/64	(157)
Inside Opening	Daylight Opening	-6 3/64	(154)	-5 59/64	(151)
Screen		Inches	Metric	Inches	Metric
Rough Opening	OM of Screen	-4 49/64	(121)	-5 11/64	(131)
Inside Opening	OM of Screen	-4 41/64	(118)	-4 59/64	(125)
Glass Size	OM of Screen	+ 19/64	(8)	-7/64	(3)
Daylight Opening	OM of Screen	+ 1 27/64	(36)	+ 1 1/64	(26)

ELEVATIONS – ALL ULTREX CASEMENT UNITS Not To Scale

M.O..	1-6 (457)	2-0 (610)	2-6 (762)	3-0 (914)
R.O..	1-6 (457)	2-0 (610)	2-6 (762)	3-0 (914)
I.O..	1-5 7/8 (454)	1-11 7/8 (606)	2-5 7/8 (759)	2-11 7/8 (911)
Frame Size	1-5 1/2 (445)	1-11 1/2 (597)	2-5 1/2 (749)	2-11 1/2 (902)

(603) 1-11 3/4 (610) 2-0 (603) 1-11 1/2 (597)				
IFCA1620	IFCA2020	IFCA2620	IFCA3020	
(756) 2-5 3/4 (762) 2-6 (756) 2-5 3/4 (749)				
IFCA1626	IFCA2026	IFCA2626	IFCA3026	
(908) 2-11 3/4 (914) 3-0 (908) 2-11 3/4 (902)				
IFCA1630	IFCA2030	IFCA2630	IFCA3030	
(1060) 3-5 3/4 (1067) 3-6 (1060) 3-5 3/4 (1054)				
IFCA1636	IFCA2036	IFCA2636	IFCA3036E	
(1213) 3-11 3/4 (1219) 4-0 (1213) 3-11 3/4 (1207)				
IFCA1640	IFCA2040	IFCA2640E	IFCA3040E	
(1365) 4-5 3/4 (1372) 4-6 (1365) 4-5 3/4 (1359)				
IFCA1646	IFCA2046	IFCA2646E	IFCA3046E	
(1518) 4-11 3/4 (1524) 5-0 (1518) 4-11 3/4 (1511)				
IFCA1650	IFCA2050	IFCA2650E	IFCA3050E	
(1670) 5-5 3/4 (1676) 5-6 (1670) 5-5 3/4 (1664)				
IFCA1656	IFCA2056	IFCA2656E	IFCA3056E	
(1822) 5-11 3/4 (1829) 6-0 (1822) 5-11 3/4 (1816)				
IFCA1660T	IFCA2060T	IFCA2660TE	IFCA3060TE	

NOTE:

E=These windows meet National Egress Codes for fire evacuation. Local codes may differ.

T=Tempered glass is standard for this size.

Standard GBGs patterns shown in above units.
Optional: Customer specified equal lite cut patterns are available. Units are available with or without GBGs.

Imperial and metric dimensions are shown. Metric dimensions are in millimeters.

All units viewed from exterior.

ELEVATIONS – ALL ULTREX AWNING AND TRANSOM UNITS Not To Scale

AWNING

M.O.	1-6	(457)	2-0	(610)	2-6	(762)	3-0	(914)	3-6	(1067)	4-0	(1219)
R.O.	1-6	(457)	2-0	(610)	2-6	(762)	3-0	(914)	3-6	(1067)	4-0	(1219)
I.O.	1-5 7/8	(454)	1-11 7/8	(606)	2-5 7/8	(759)	2-11 7/8	(911)	3-5 7/8	(1064)	3-11 7/8	(1216)
Frame Size	1-5 1/2	(445)	1-11 1/2	(597)	2-5 1/2	(749)	2-11 1/2	(902)	3-5 1/2	(1054)	3-11 1/2	(1207)
(451)												
1-5 3/4	IFAWN1616	IFAWN2016	IFAWN2616	IFAWN3016	IFAWN3616	IFAWN4016						
1-6												
1-5 3/4												
1-5 1/2												
(603)												
1-11 3/4	IFAWN1620	IFAWN2020	IFAWN2620	IFAWN3020	IFAWN3620	IFAWN4020						
2-0												
1-11 3/4												
1-11 1/2												
(756)												
2-5 3/4	IFAWN1626	IFAWN2026	IFAWN2626	IFAWN3026	IFAWN3626	IFAWN4026						
2-6												
2-5 3/4												
2-5 1/2												
(908)												
2-11 3/4	IFAWN1630	IFAWN2030	IFAWN2630	IFAWN3030	IFAWN3630	IFAWN4030						
3-0												
2-11 3/4												
2-11 1/2												
M.O.												
R.O.												
I.O.												
Frame Size												

TRANSOM

M.O.	1-6	(457)	2-0	(610)	2-6	(762)	3-0	(914)	3-6	(1067)	4-0	(1219)	5-0	(1524)	6-0	(1829)
R.O.	1-6	(457)	2-0	(610)	2-6	(762)	3-0	(914)	3-6	(1067)	4-0	(1219)	5-0	(1524)	6-0	(1829)
I.O.	1-5 7/8	(454)	1-11 7/8	(606)	2-5 7/8	(759)	2-11 7/8	(911)	3-5 7/8	(1064)	3-11 7/8	(1216)	4-11 7/8	(1521)	5-11 7/8	(1826)
Frame Size	1-5 1/2	(445)	1-11 1/2	(597)	2-5 1/2	(749)	2-11 1/2	(902)	3-5 1/2	(1054)	3-11 1/2	(1207)	4-11 1/2	(1511)	5-11 1/2	(1816)
(298)																
11 3/4	IFSWT1610	IFSWT2010	IFSWT2610	IFSWT3010	IFSWT3610	IFSWT4010	IFSWT5010	IFSWT6010								
1-0																
11 3/4																
11 1/2																
(451)																
1-5 3/4	IFSWT1616	IFSWT2016	IFSWT2616	IFSWT3016	IFSWT3616	IFSWT4016	IFSWT5016	IFSWT6016								
1-6																
1-5 3/4																
1-5 1/2																
(603)																
1-11 3/4	IFSWT1620	IFSWT2020	IFSWT2620	IFSWT3020	IFSWT3620	IFSWT4020	IFSWT5020	IFSWT6020								
2-0																
1-11 3/4																
1-11 1/2																
M.O.																
R.O.																
I.O.																
Frame Size																

NOTE:

T=Tempered glass is standard for this size.

Standard GBGs patterns shown in above units. Optional: Customer specified equal lite cut patterns are available. Units are available with or without GBGs.

Imperial and metric dimensions are shown. Metric dimensions are in millimeters.

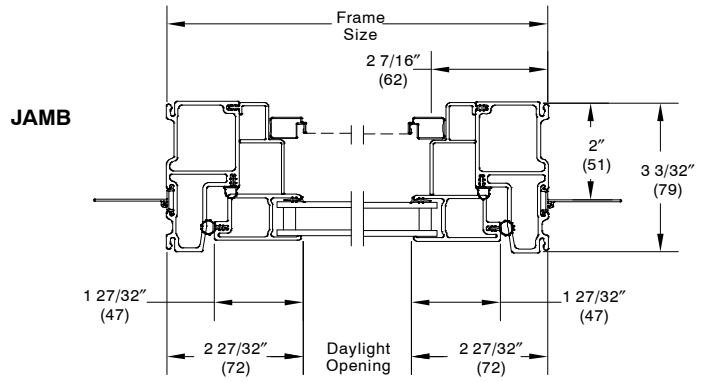
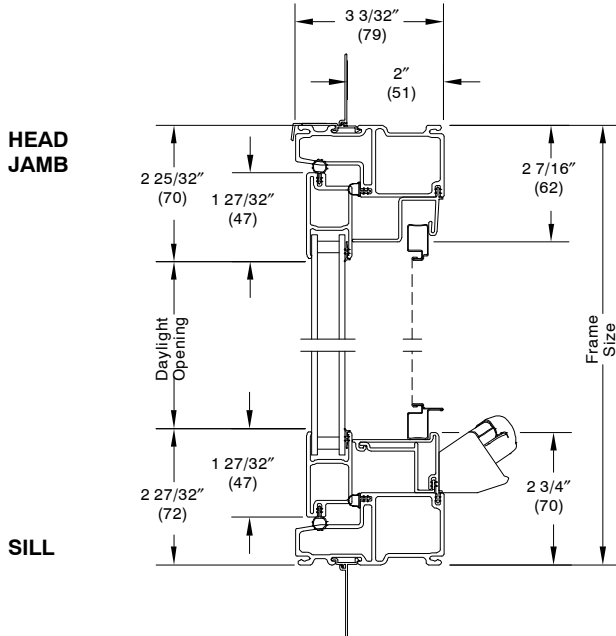
All units viewed from exterior.

ELEVATIONS – ALL ULTREX PICTURE UNITS Not To Scale

M.O. R.O. L.O. Frame Size	1-6 (457) 1-6 (457) 1-5 7/8 (454) 1-5 1/2 (445)	2-0 (610) 2-0 (610) 1-11 7/8 (606) 1-11 1/2 (597)	2-6 (762) 2-6 (762) 2-5 7/8 (759) 2-5 1/2 (749)	3-0 (914) 3-0 (914) 2-11 7/8 (911) 2-11 1/2 (902)	3-6 (1067) 3-6 (1067) 3-5 7/8 (1064) 3-5 1/2 (1054)	4-0 (1219) 4-0 (1219) 3-11 7/8 (1216) 3-11 1/2 (1207)	5-0 (1524) 5-0 (1524) 4-11 7/8 (1521) 4-11 1/2 (1511)	6-0 (1829) 6-0 (1829) 5-11 7/8 (1826) 5-11 1/2 (1816)
603 1-11 3/4 2-0 1-11 3/4 1-11 1/2 (597)								
756 2-5 3/4 2-6 2-5 3/4 2-5 1/2 (749)								
908 2-11 3/4 3-0 (914) 2-11 3/4 (908) 2-11 1/2 (902)								
1060 3-5 3/4 3-6 3-5 3/4 3-5 1/2 (1054)								
1213 3-11 3/4 4-0 (1219) 3-11 3/4 (1213) 3-11 1/2 (1207)								
1365 4-5 3/4 4-6 4-5 3/4 4-5 1/2 (1359)								
1518 4-11 3/4 5-0 (1524) 4-11 3/4 (1518) 4-11 1/2 (1511)								
1670 5-5 3/4 5-6 5-5 3/4 5-5 1/2 (1664)								
1822 5-11 3/4 6-0 (1829) 5-11 3/4 (1822) 5-11 1/2 (1816)								

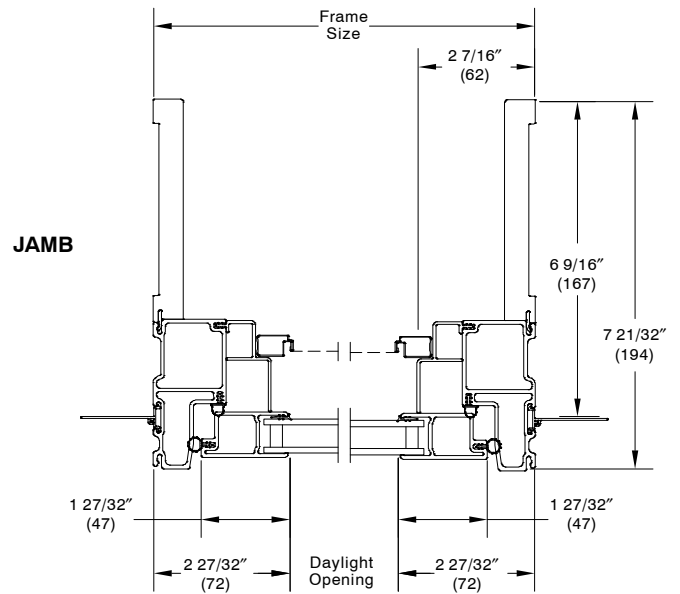
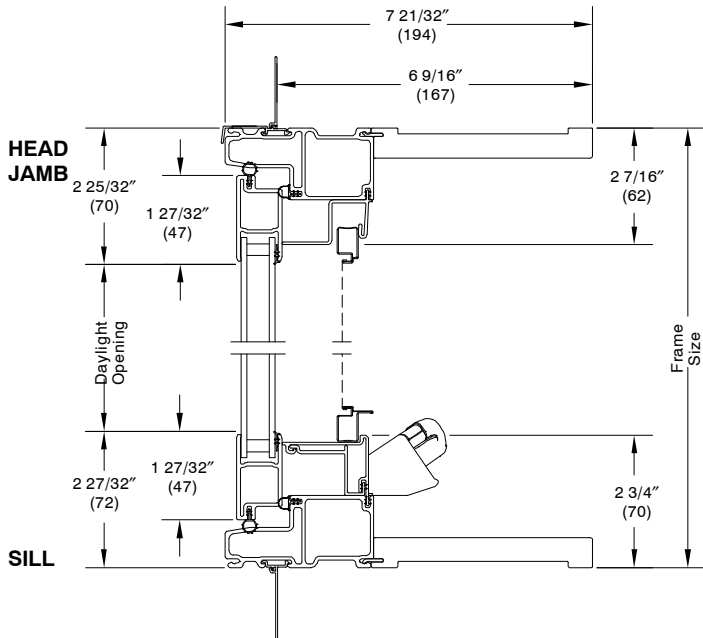
SECTION DETAILS SCALE: 3" = 1'0"

CASEMENT/AWNING



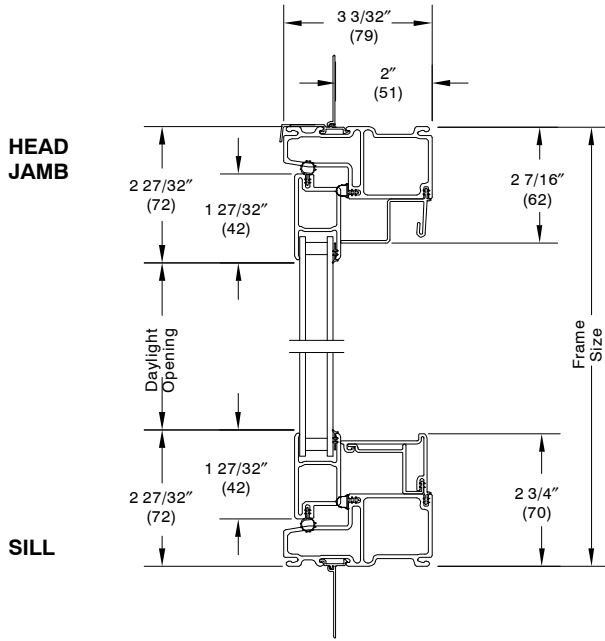
NOTE: Units also available with 4 9/16" jamb. Same jamb extension profile as 6 9/16" jamb extension shown.

CASEMENT/AWNING - 6 9/16"

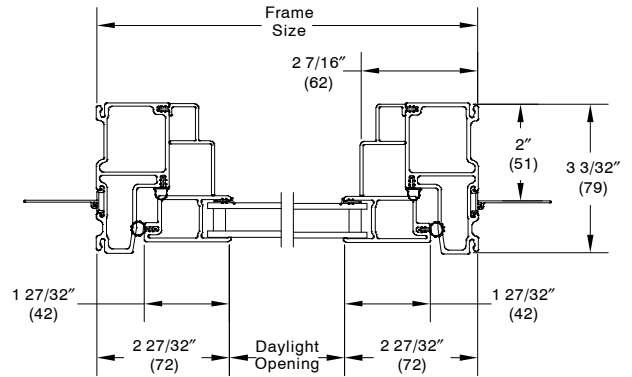


SECTION DETAILS SCALE: 3" = 1'0"

TRANSOM/PICTURE

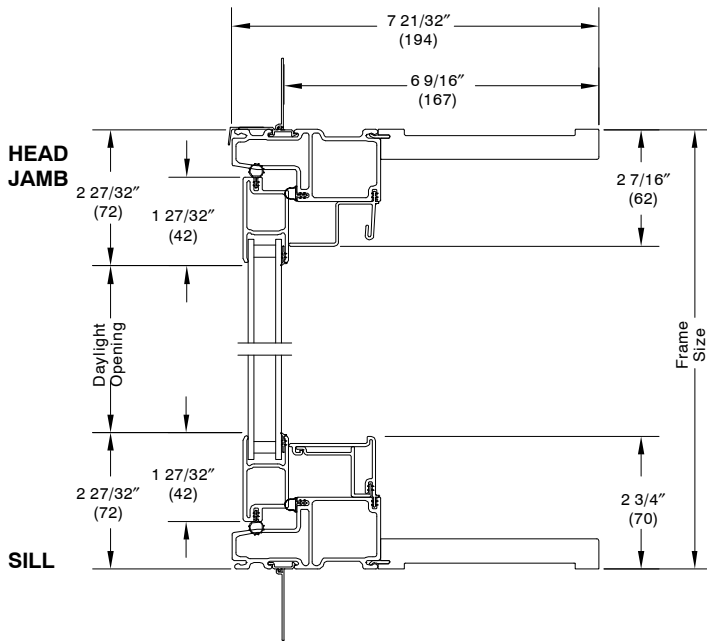


JAMB

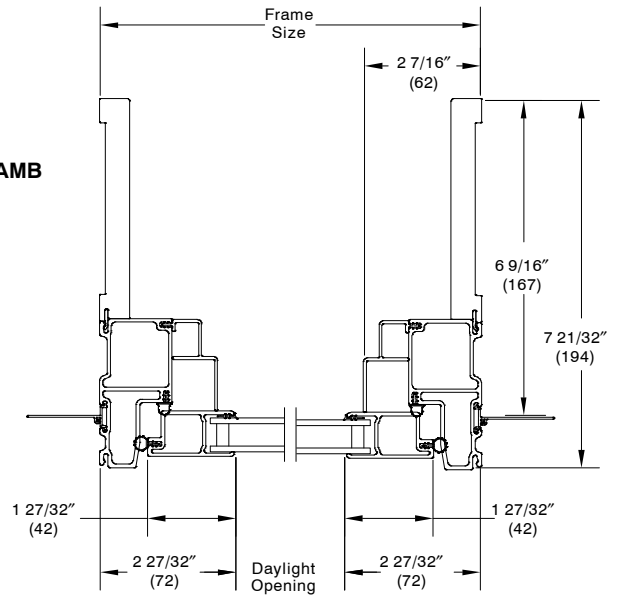


NOTE: Units also available with 4 9/16" jamb. Same jamb extension profile as 6 9/16" jamb extension shown.

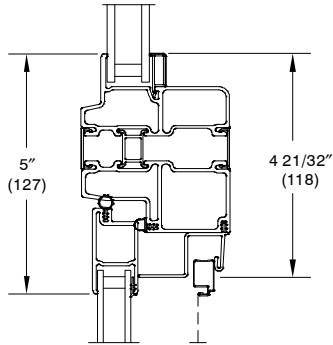
TRANSOM/PICTURE - 6 9/16"



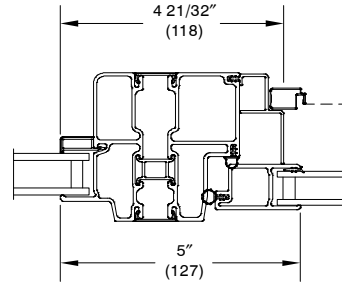
JAMB



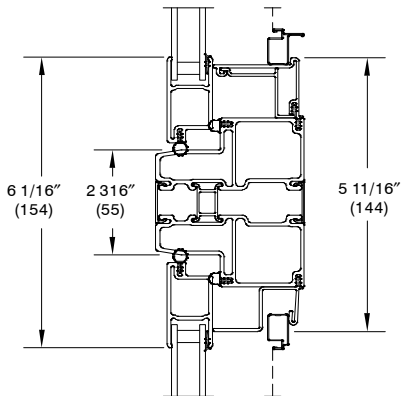
MULLIONS



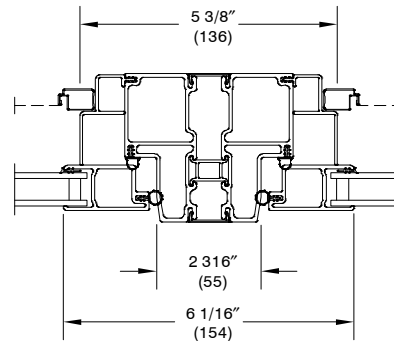
HORIZONTAL
IFDGP TO IFCA/IFAWN/IFSWT/IFSWP



VERTICAL
IFDGP TO IFCA/IFAWN/IFSWT/IFSWP

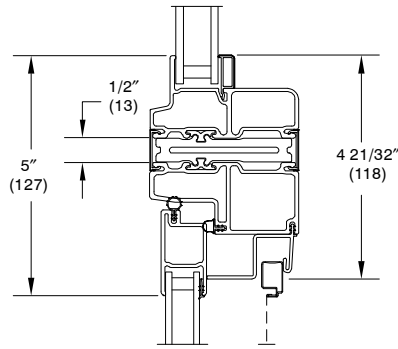


HORIZONTAL
IFCA/IFAWN/IFSWT/IFSWP TO
IFCA/IFAWN/IFSWT/IFSWP

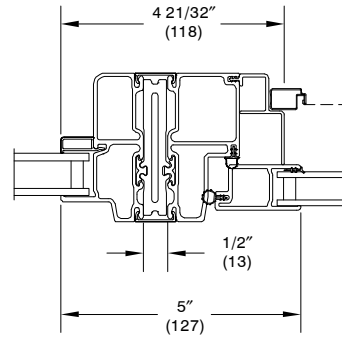


VERTICAL
IFCA/IFAWN/IFSWT/IFSWP TO
IFCA/IFAWN/IFSWT/IFSWP

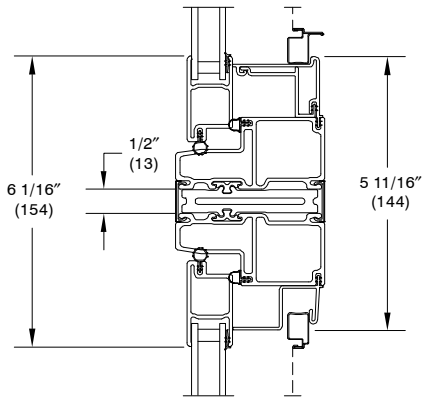
SECTION DETAILS – REINFORCED MULLIONS SCALE: 3" = 1'0"



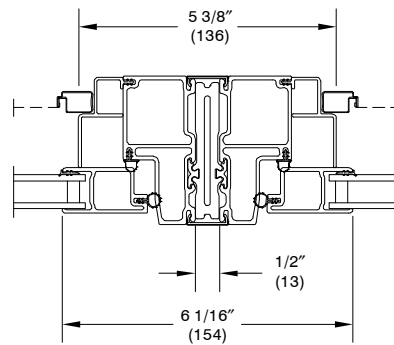
**HORIZONTAL REINFORCED MULL
IFDGP TO IFCA/IFAWN/IFSWT/IFSWP**



**VERTICAL REINFORCED MULL
IFDGP TO IFCA/IFAWN/IFSWT/IFSWP**



**HORIZONTAL REINFORCED MULL
IFCA/IFAWN/IFSWT/IFSWP TO
IFCA/IFAWN/IFSWT/IFSWP**



**VERTICAL REINFORCED MULL
IFCA/IFAWN/IFSWT/IFSWP TO
IFCA/IFAWN/IFSWT/IFSWP**

GBG LITE CUTS

DIVIDED LITE OPTIONS

ALUMINUM GRILLE BETWEEN GLASS

Equal GBG Lite Cuts for IFCA, IFAWN, IFSWP and IFSWT									
Nominal Height	Frame Height, inches	Nominal Width Frame Width, inches							
		16 17.5	20 23.5	26 29.5	30 35.5	36 41.5	40 47.5	50 59.5	60 71.5
10	11.5	2W1H	2W1H	3W1H	3W1H	4W1H	4W1H	5W1H	7W1H
16	17.5	2W1H	2W1H	3W1H	3W1H	4W1H	4W1H	5W1H	7W1H
20	23.5	2W2H	2W2H	3W2H	3W2H	4W2H	4W2H	5W2H	7W2H
26	29.5	2W2H	2W2H	3W2H	3W2H	4W2H	4W2H	5W2H	7W2H
30	35.5	2W2H	2W2H	3W2H	3W2H	4W2H	4W2H	5W2H	7W2H
36	41.5	2W3H	2W3H	3W3H	3W3H	4W3H	4W3H	5W3H	7W3H
40	47.5	2W3H	2W3H	3W3H	3W3H	4W3H	4W3H	5W3H	7W3H
46	53.5	2W4H	2W4H	3W4H	3W4H	4W4H	4W4H	5W4H	7W4H
50	59.5	2W4H	2W4H	3W4H	3W4H	4W4H	4W4H	5W4H	7W4H
56	65.5	2W5H	2W5H	3W5H	3W5H	4W5H	4W5H	5W5H	***
60	71.5	2W5H	2W5H	3W5H	3W5H	4W5H	4W5H	5W5H	***

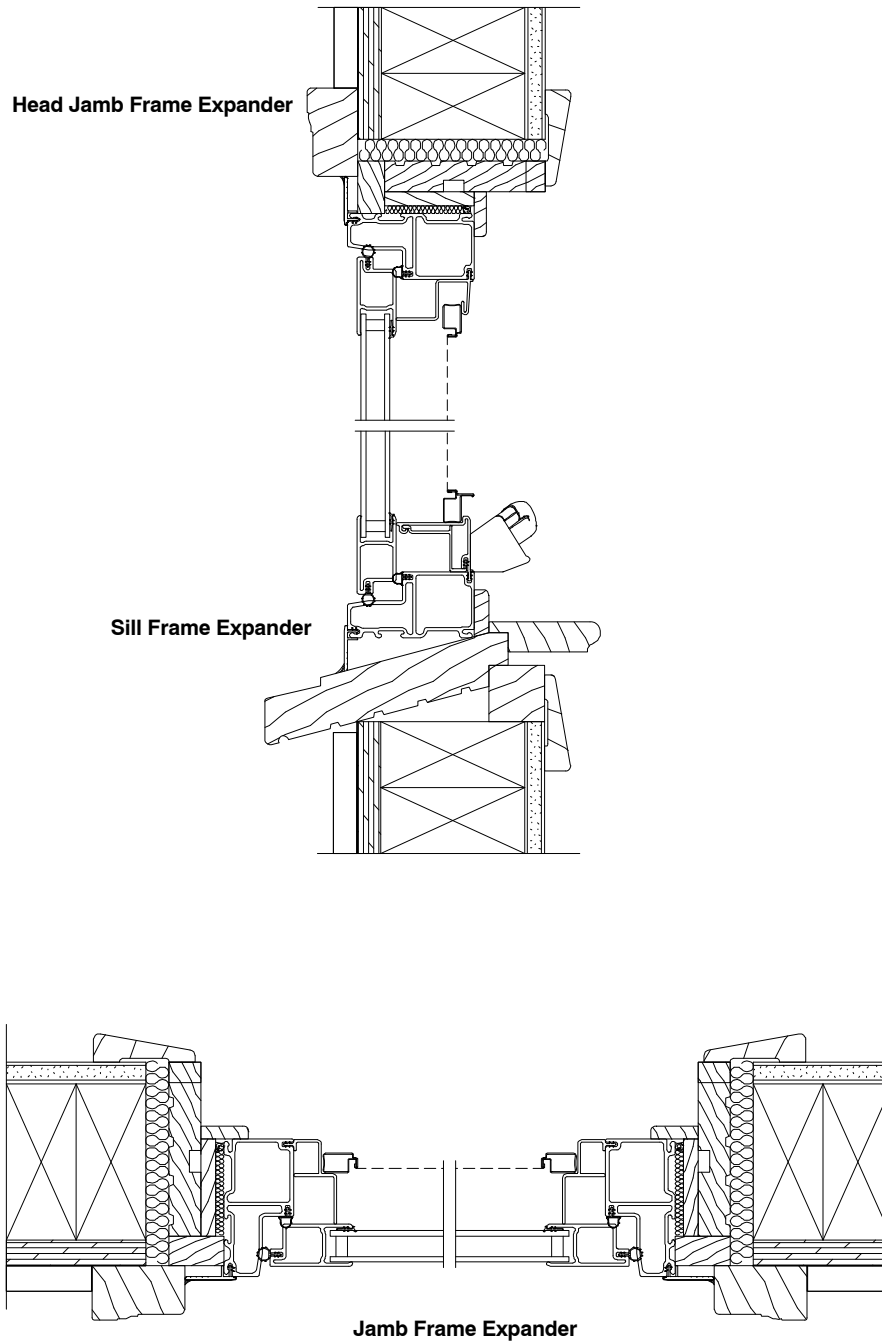
Prairie GBG Lite Cuts for IFCA, IFAWN, IFSWP and IFSWT									
Nominal Height	Frame Height, inches	Nominal Width Frame Width, inches							
		16 17.5	20 23.5	26 29.5	30 35.5	36 41.5	40 47.5	50 59.5	60 71.5
10	11.5	***	***	***	***	***	***	***	***
16	17.5	***	***	***	***	***	***	***	***
20	23.5	***	3W3H	3W3H	3W3H	3W3H	3W3H	3W3H	3W3H
26	29.5	***	3W3H	3W3H	3W3H	3W3H	3W3H	3W3H	3W3H
30	35.5	***	3W3H	3W3H	3W3H	3W3H	3W3H	3W3H	3W3H
36	41.5	***	3W3H	3W3H	3W3H	3W3H	3W3H	3W3H	3W3H
40	47.5	***	3W3H	3W3H	3W3H	3W3H	3W3H	3W3H	3W3H
46	53.5	***	3W3H	3W3H	3W3H	3W3H	3W3H	3W3H	3W3H
50	59.5	***	3W3H	3W3H	3W3H	3W3H	3W3H	3W3H	3W3H
56	65.5	***	3W3H	3W3H	3W3H	3W3H	3W3H	3W3H	***
60	71.5	***	3W3H	3W3H	3W3H	3W3H	3W3H	3W3H	***

NOTES:

N/A – Call numbers not offered.

*** – GBG pattern not offered on these sizes.

INSTALLATION SUGGESTION – Frame Expander



NOTE:

The above wall sections represent typical wall conditions, these details are not intended as installation instructions. Please refer to the installation instructions provided with the purchased units.

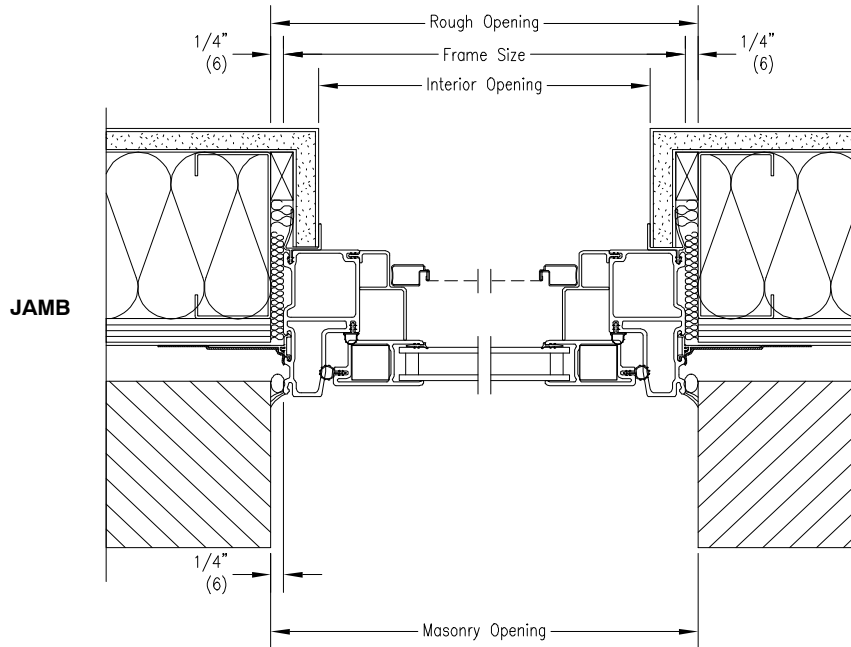
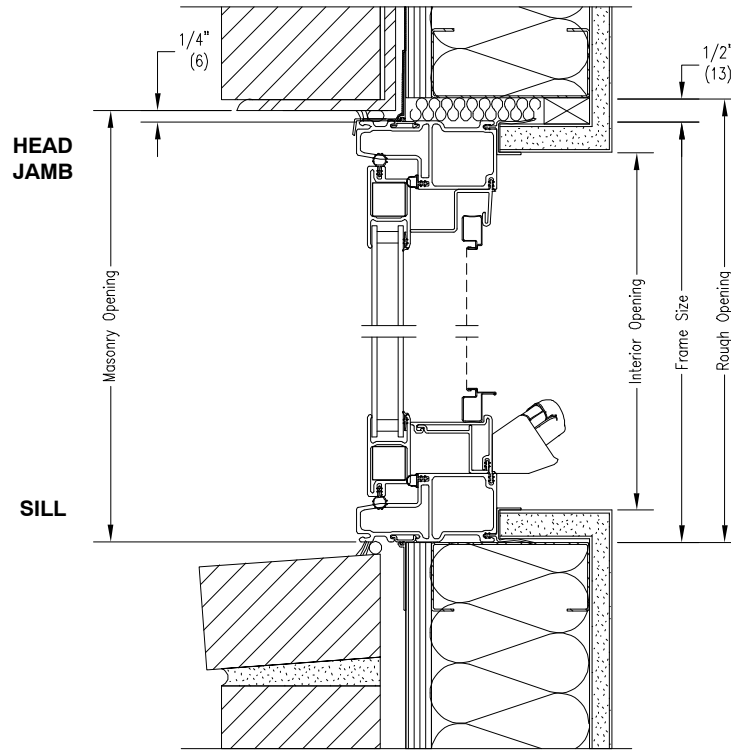


ALL ULTREX CASEMENT/AWNING

INSTALLATION SUGGESTION – INTERIOR INSTALLATION

NOTE:

The above wall sections represent typical wall conditions, these details are not intended as installation instructions. Please refer to the installation instructions provided with the purchased units.



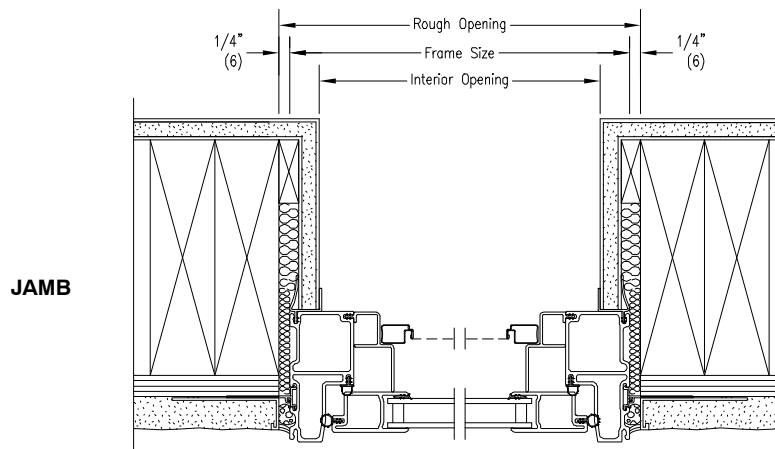
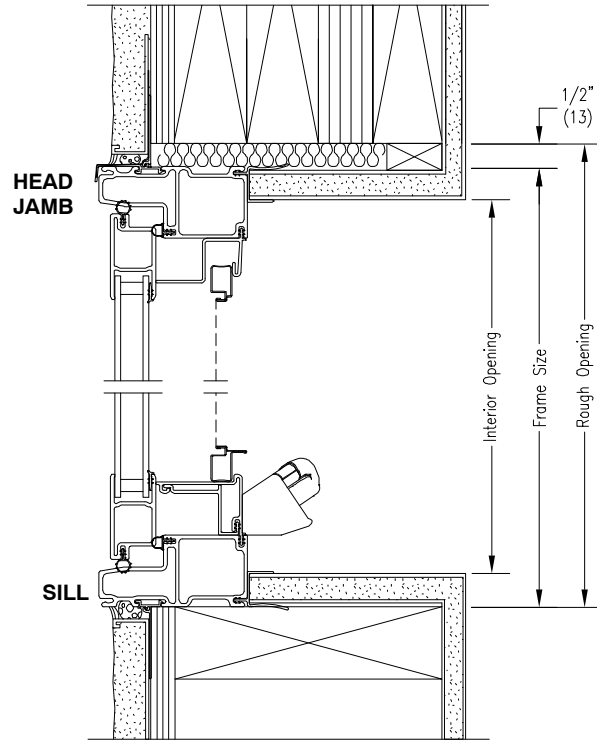
BRICK VENEER WITH STEEL FRAME CONSTRUCTION

NOTE:

Shown with optional sheet rock return.

Picture unit installation similar.

The above wall sections represent typical wall conditions, these details are not intended as installation instructions. Please refer to the installation instructions provided with the purchased units.

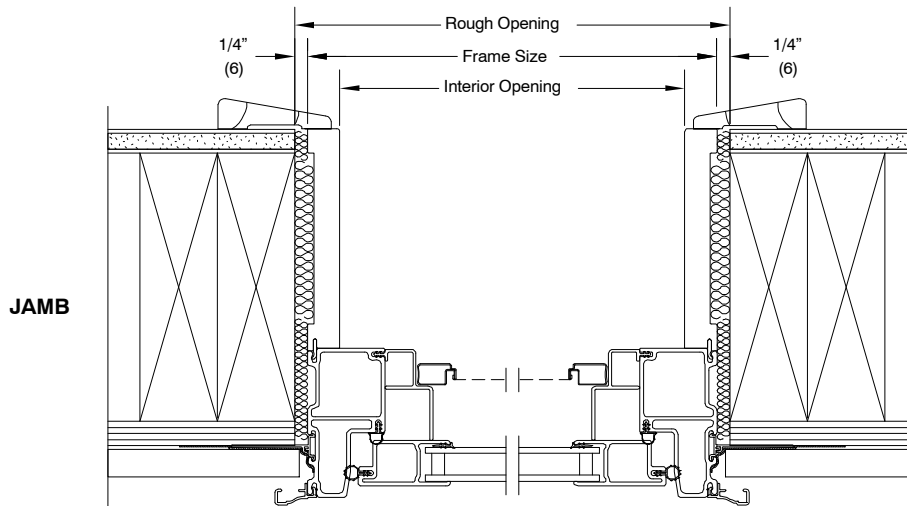
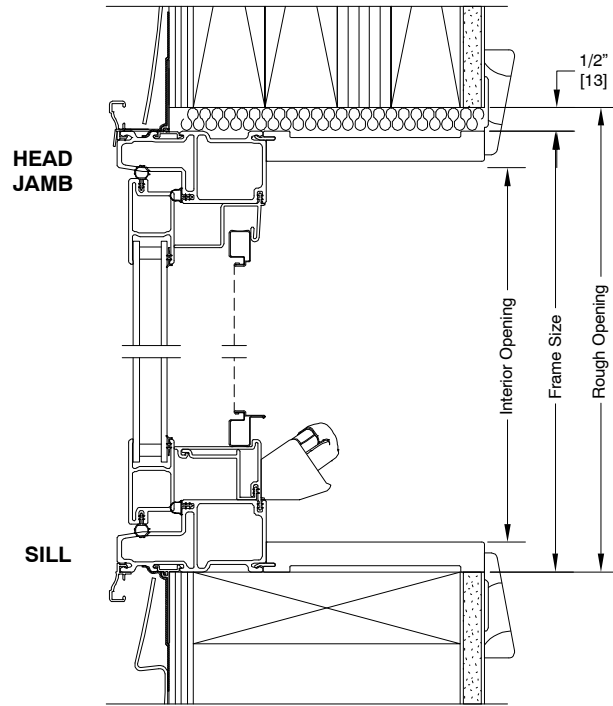


STUCCO SIDING WITH 2X6 FRAME CONSTRUCTION

NOTE:

Shown with optional sheet rock return.
Picture unit installation similar.

The above wall sections represent typical wall conditions, these details are not intended as installation instructions.
Please refer to the installation instructions provided with the purchased units.



VINYL SIDING WITH 2X6 FRAME CONSTRUCTION

NOTE:

Shown with optional jamb extension and J-channels.

Picture unit installation similar.

The above wall sections represent typical wall conditions, these details are not intended as installation instructions.

Please refer to the installation instructions provided with the purchased units.