

Research material in support of application towards Certificate of Appropriateness for the rebuilding of the roof for: 412 Hawthorne, Westmoreland Historic District, Houston, TX 77006

Research materials assembled by: Erin Lofgreen

Key reasons for rebuilding the roof:

- Shingles are past end of usable life; numerous leak points; insurance declined due to roof condition
- Chimney leaning out of plumb by about 1 foot causing serious structural damage to the trusses
- Major rain damage to structural members at several places of the roof, must be repaired to prevent further damage
- Severe damage to non-structural members (decking, shingles, eaves, fascia, and gable facades) due to poor maintenance, weather damage, age
- Damage is undermining integrity of structure, and has already caused water damage to the attic and interior of home
- Roof structural members are warped and rotting
- Windows have severe damage and rotting wood
- To restore integrity to significant character-defining details of the gables which have deteriorated

Proposed design for rebuilding the roof:

- Complete roof replacement including decking, shingles, eaves, fascia, and gable facades.
- Replace damaged structural members (rafters, gable studs), as necessary.
- Removal of chimney: chimney is small and plain in the middle of the house and has no defining architectural characteristics; it is not visible from sidewalk and barely visible from the street. If chimney is not removed, it will lead to further structural damage of the building envelope.
- Replace exterior roofing material with metal or composite roofing material.
- Attempt to reuse existing wood siding on gables. If existing siding is unable to be reused, replace wood siding, with wood or cement fiber board matching "same profile same profile, texture, and dimensions as the original siding." (Criterion #6 of the Historic Preservation Manual, City of Houston Planning and development Department).
- Attempt to reuse existing wood windows on gables. If existing wood windows require a majority of the wood components to be rebuilt, replace windows with double hung windows that visually match the originals in "depth, sashes, muntins and profile are complimentary to the original." (Criterion #6 of the Historic Preservation Manual, City of Houston Planning and development Department). Replacements window will retain the same "Kings Cross" muntins that appear on the original window.
- Maintains all same roof dimensions, elevations and pitches, with the exception of replacing the rear hip with a full gable. Rear gable will match dimensions of existing front gable.
- Change of rear roof profile from hip to gable meets all criteria of a rear addition per HAHC regulations, therefore is eligible for a mandatory approval:
  - It is not taller than the existing structure; and
  - It is set back from the side property lines at least as much as the structural walls of the existing structure; and
  - It is not wider than the wall to which it is attached; and
  - It does not require the demolition of any portion of the existing structure, except for the rear wall to which the addition will be attached; and
  - It has a roof pitch that is less than or equal to the existing structure; and
  - It is not constructed on a building that has had an addition approved under this chapter.



VIEW FROM SOUTHEAST



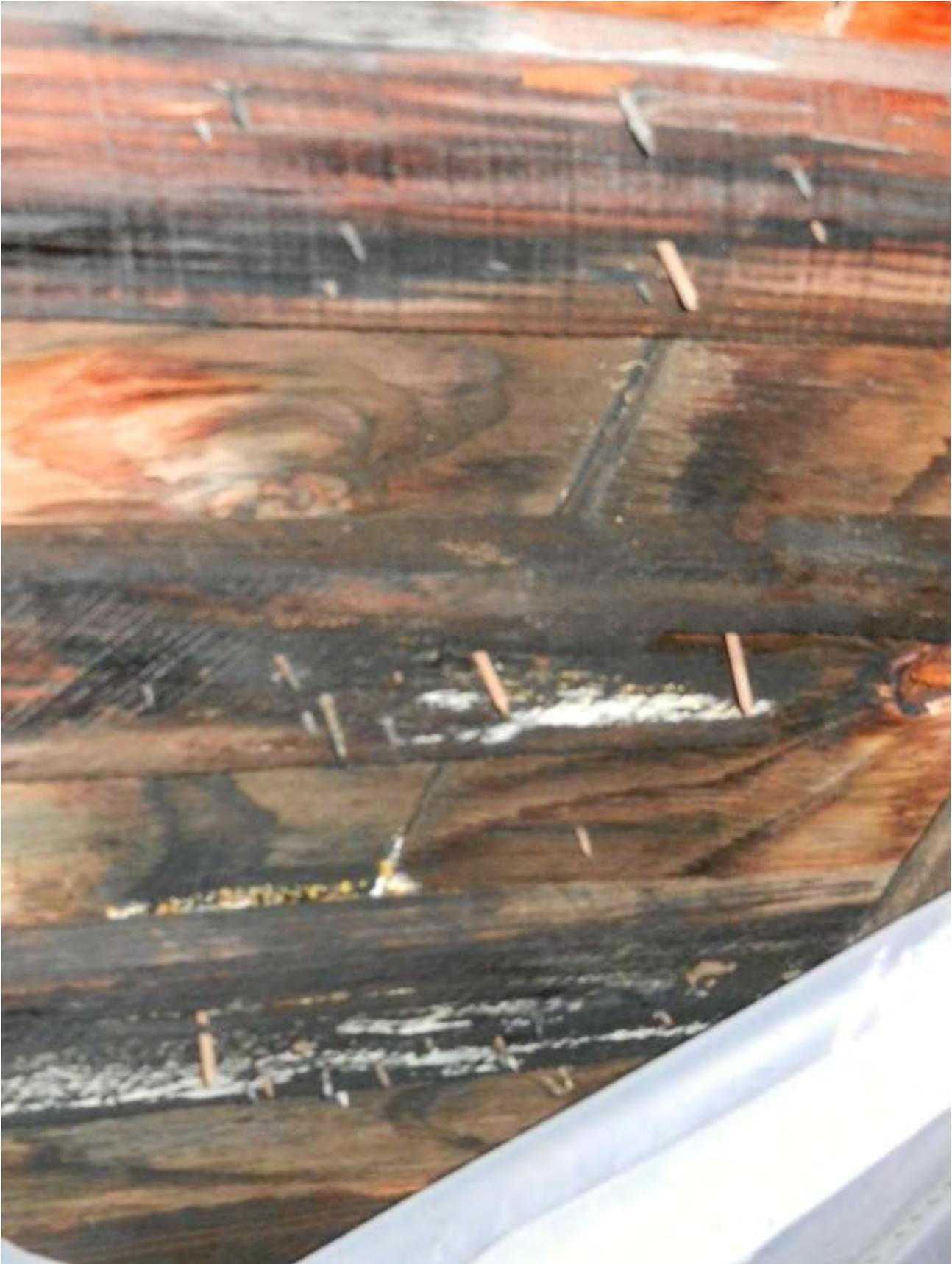
VIEW FROM NORTHEAST



VIEW FROM SOUTHWEST



CHIMNEY LEANING OUT OF PLUMB:  
BUBBLE IN LEVEL SHOWING  
SEVERITY OF DISPLACEMENT



WATER DAMAGE AND ROTTING  
WOOD



MAJOR CRACKS IN GABLE SIDING  
AND LARGE GAPS AROUND  
DAMAGED WINDOWS



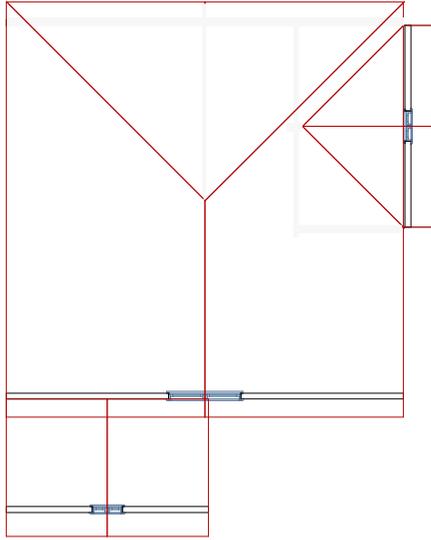
GABLE SIDING WITH WATER  
DAMAGE AND ROTTING WOOD



LARGE GAPS AROUND THE WINDOW  
SHOW THE SEVERITY OF WARPING/  
WRACKING

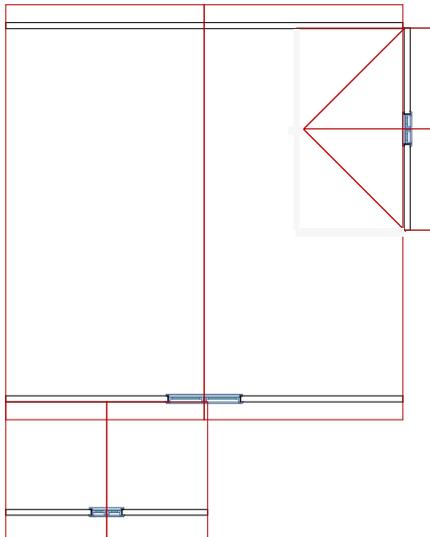


WATER DAMAGE AND ROTTING  
WOOD ON GABLE WINDOWS, LACK  
OF APPROPRIATE GABLE STRUCTURE



EXISTING ROOF PLAN

SCALE: 1/16" = 1'



PROPOSED ROOF PLAN

SCALE: 1/16" = 1'



PROPOSED ROOF



PHOTOS OF FRONT GABLE WINDOWS



INTERIOR PHOTO OF SIDE GABLE WINDOW

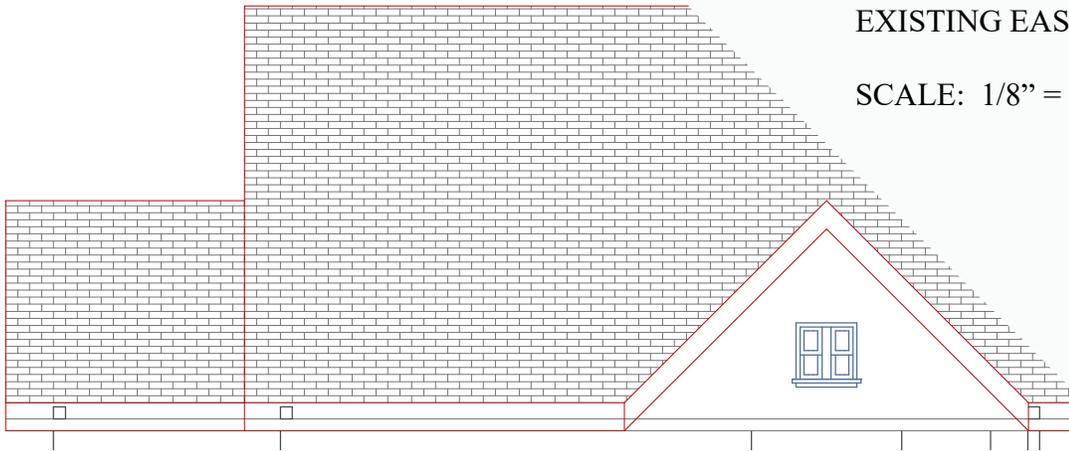
EXISTING SOUTH ROOF ELEVATION

SCALE: 1/8" = 1'



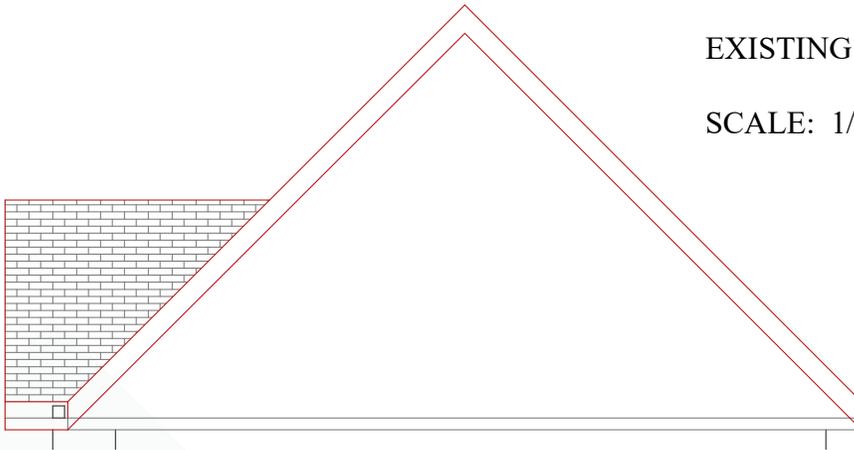
EXISTING EAST ROOF ELEVATION

SCALE: 1/8" = 1'



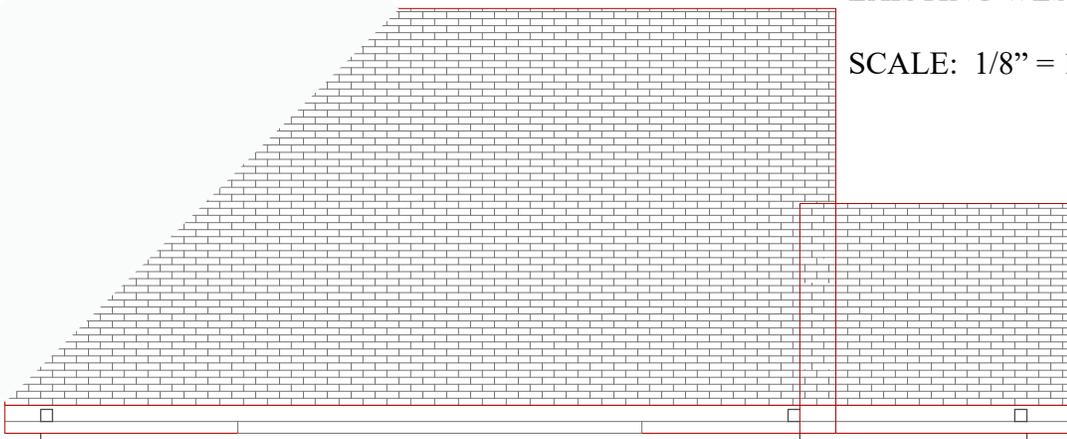
EXISTING NORTH ROOF ELEVATION

SCALE: 1/8" = 1'



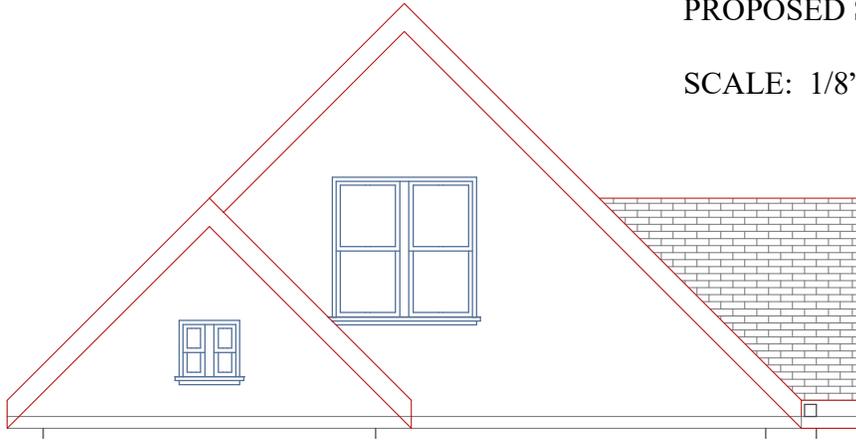
EXISTING WEST ROOF ELEVATION

SCALE: 1/8" = 1'



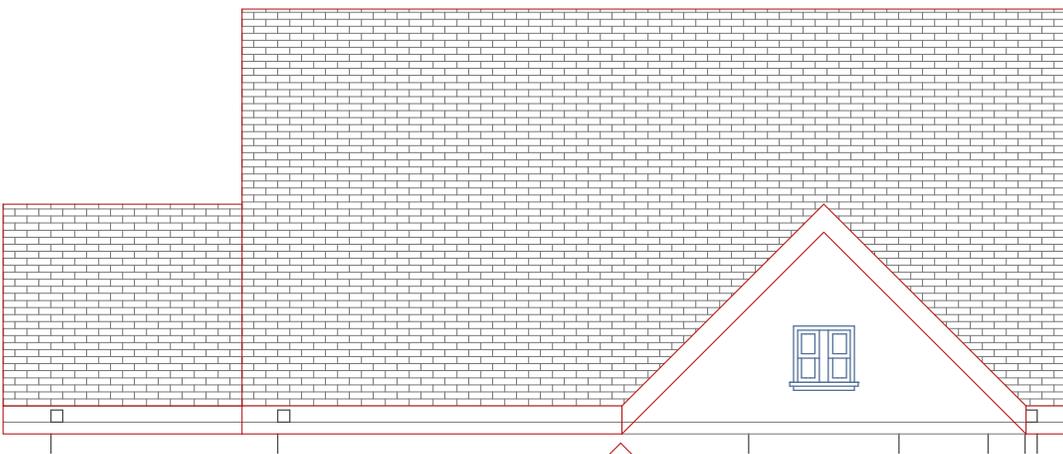
PROPOSED SOUTH ROOF ELEVATION

SCALE: 1/8" = 1'



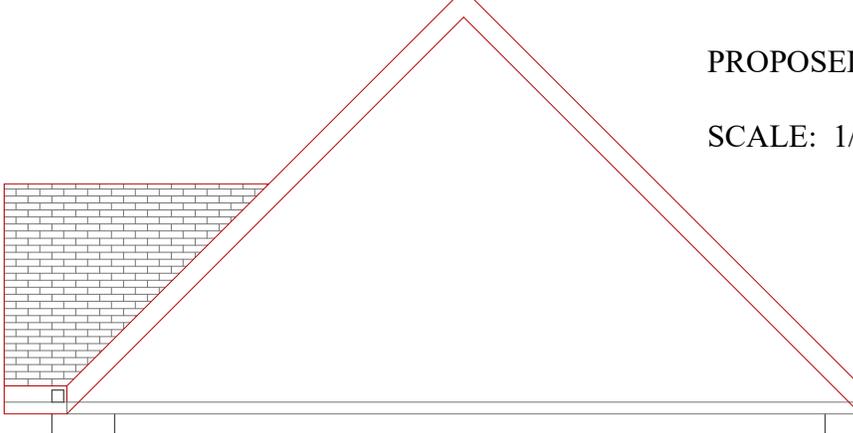
PROPOSED EAST ROOF ELEVATION

SCALE: 1/8" = 1'



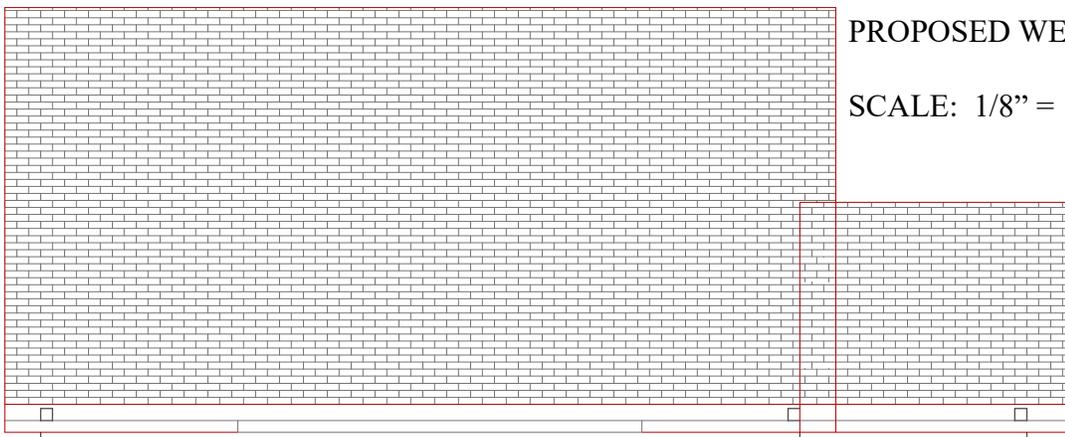
PROPOSED NORTH ROOF ELEVATION

SCALE: 1/8" = 1'



PROPOSED WEST ROOF ELEVATION

SCALE: 1/8" = 1'



# Accessories

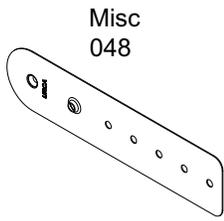
Installation Bracket, Nailing Fin, Drip Cap and Jamb Extension .....	1
Interior Trim and Interior Round Top Trim.....	3
Wood Exterior Mullion Trim and Wood Exterior Casing .....	4
Wood Special Profile Exterior Casings.....	5
Clad Extrusion / Clad Casing .....	7
Clad Special Subsill Profiles.....	9
Lineal Subsill Caps / End Caps .....	10
Round Top Shapes .....	11
Clad Special Application for Windows - Casing All Sides .....	12
Clad Special Application for Windows - Columbus Casing Stick Construction .....	13
Clad Special Application for Windows - Columbus Casing Masonry Construction .....	14
Clad Special Casing for Windows - Grayson Casing Stick Construction .....	15
Clad Special Casing for Windows - Grayson Casing Masonry Construction .....	16
Clad Special Casing for Windows - Kinsley Casing Masonry Construction .....	17
Clad Special Casing for Windows - Kinsley Round Top.....	18
Clad Special Casing for Windows - Ridgeland Casing Masonry Construction.....	19
Clad Special Casing for Windows - Stratton Casing Masonry .....	20
Clad Special Casing for Windows - Thorton Casing Masonry Construction .....	21
Clad Special Casing for Windows - Potter Casing Wood Frame Construction .....	22
Clad Special Casing for Windows - Potter with Trim Casing Masonry Construction.....	23
Wood Special Casing for Windows - Special Casing 3 (SPC3) .....	24
Wood Special Casing for Windows - Special Casing 7 (SPC7) .....	25
Wood Special Casing for Windows - Special Casing 21 (SPC21) .....	26
Wood Special Casing for Windows - Special Casing 18 (SPC18) .....	27
Wood Special Casing for Windows - Special Casing 26 (SPC26) .....	28
Clad Special Casing for Doors - Wood Frame Construction - All Casings Options .....	29
Clad Special Casing for Doors - Masonry Construction - All Casing Options .....	30
Clad Applications.....	31



# Accessories

## Installation Bracket, Nailing Fin, Drip Cap and Jamb Extension

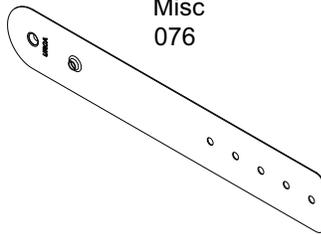
Not to Scale



Misc 048

**Installation Bracket**

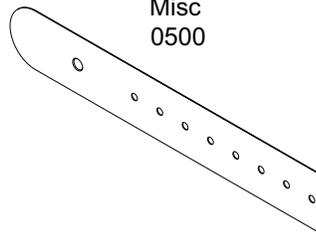
Misc. 048 - 6 3/8" (162) length  
Includes flathead wood screws



Misc 076

**Installation Bracket**

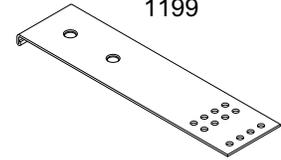
Misc. 076 - 9 3/8" (238) lengths  
Includes flathead wood screws



Misc 0500

**Installation Bracket**

Misc. 0500 - 15 3/8" (391) lengths  
Includes flathead wood screws



Misc 1199

**Structural Bracket**

Misc. 1199 - 6 3/8" (391) or 10" (254) lengths  
Includes flathead wood screws

### Installation Fin / Drip Cap



V084  
NAILING FIN



V087  
CONNECTING BARB



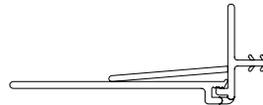
V088  
NAILING FIN Radius, for use at Round Top Unit



V104  
NAILING FIN - For use at Side jambs



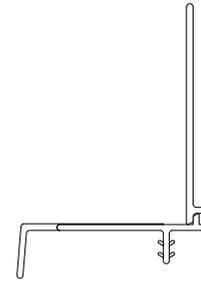
V226  
DRIP CAP - VINYL  
- For use at Head Jamb.  
Optional for Wood Round Top units



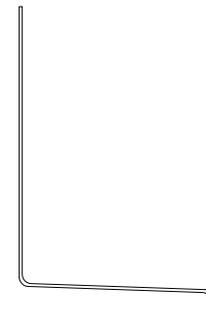
V110  
HINGED VINYL NAILING FIN  
- For use with Clad Round Top Units



V112  
HINGED VINYL NAILING FIN-SIDE  
- For use at side jambs and sill for Bow and Bay assemblies



V119  
DRIP CAP-VINYL  
- For use at Head Jamb.  
For use with wood or clad unit including Brick Mould Casing.

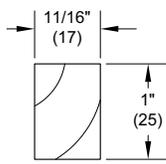


A100  
DRIP CAP-ALUMINIUM  
  
-For use at Head Jamb.  
For use with wood or clad unit including Brick Mould Casing.  
Available in Bronze, Brown, Evergreen, Pebble Gray and White

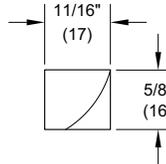
# Accessories

## Jamb Extension

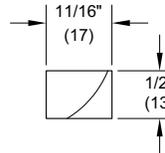
Not to Scale



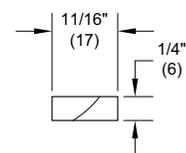
W6120 - 1" (25)  
W6279 - 2' (51)  
W6378 - 3" (76)  
W6380 - 12" (305)



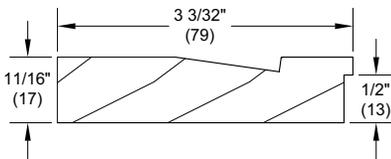
W6012  
4 9/16" to 5 3/16"  
(116 to 132)



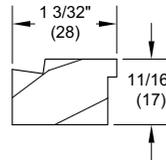
W6011  
4 9/16" to 5 1/16"  
(116 to 129)



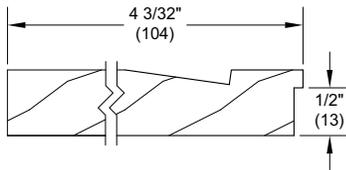
W6010  
4 9/16" to 4 13/16"  
(116 to 122)



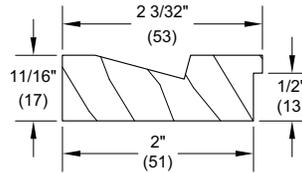
W1071 - 3" (76) For CUDH



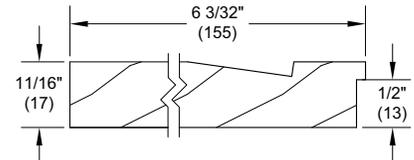
W2109 - 1" (25) For CUDH



W1069 - 4" (102) For CUDH



W2059 - 2" (51) For CUDH



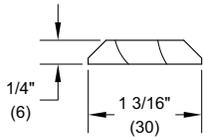
W1067 - 6" (152) For CUDH

# Accessories

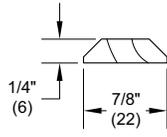
## Interior Trim and Interior Round Top Trim

Not to Scale

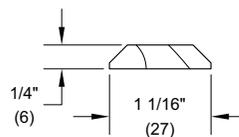
### Interior Trim



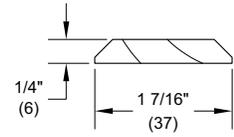
**W1065 - Mullion Trim  
For CUDH Vertical**



**W1195 - Mullion Trim  
For Inswing French Door**

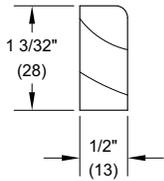


**W1241 - Mullion Trim  
Tilt-Turn, Hopper**

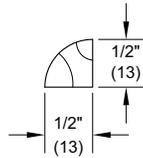


**W1242 - Mullion Trim**

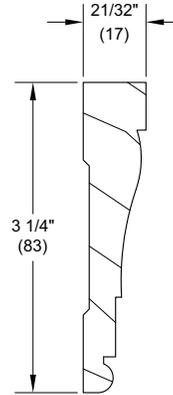
### Interior Round Top (Available in Oak, Pine, or Cedro Macho)



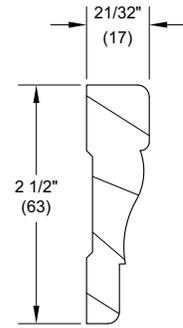
**W7013 - Mullion Trim  
For RT and Polygon**



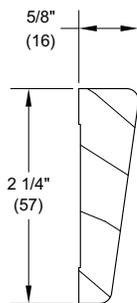
**W7003 - Mullion Trim  
Inside Stop for Magnum  
Double Hung Picture Units**



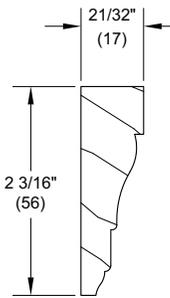
**W1445- Used as optional  
interior casing for RT and  
Arch French Door Only**



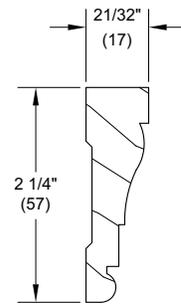
**W1351 - Used as optional  
interior casing for RT and  
Arch French Door Only**



**W1144 - Used as optional  
interior casing for RT and  
Arch French Door Only**



**W1366 - Used as optional  
interior casing for RT and  
Arch French Door Only**



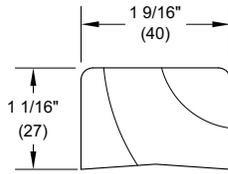
**W1376 - Used as optional  
interior casing for RT and  
Arch French Door Only**

Accessories

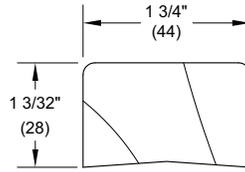
Wood Exterior Mullion Trim and Wood Exterior Casing

Not to Scale

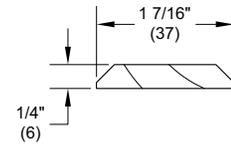
Wood Exterior Mullion Trim



**W1034 - For Ultimate Gilder**

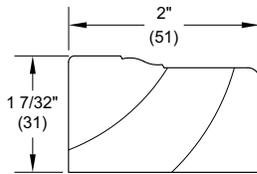


**W1094 - For Magnum Double Hung**

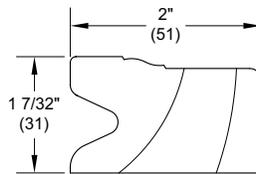


**W1242 - for 3/8\"/>**

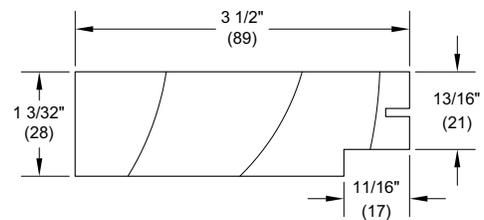
Exterior Casing



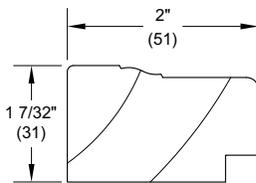
**W1047 - Brick Mould Casing**



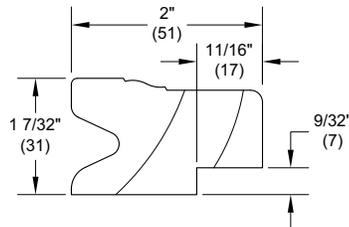
**W1039 - Stucco Brick Mould Casing**



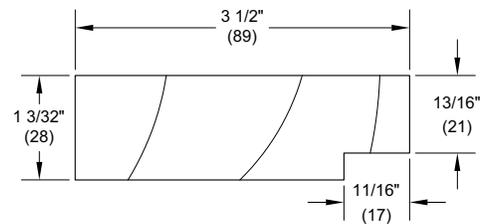
**W1047 - Flat Casing**  
Top casing for Sliding, Swinging and French Doors Includes Screen Kerf



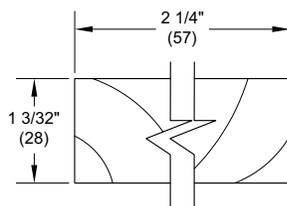
**W6533 - Brick Mould Casing**  
For Sliding French Door



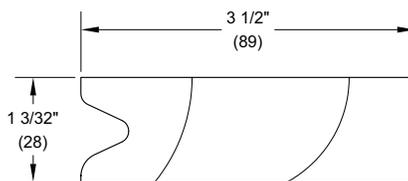
**W1049 - Stucco Brick Mould Casing**  
Side Casing for Sliding, Swinging and French Doors



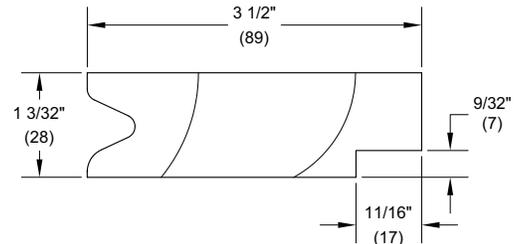
**W1076 - Flat Casing**  
Side Casing for Sliding, Swinging and French Doors



**Flat Casing**  
available from 2\"/>



**W1035 - Stucco Flat Casing**  
3 1/2\"/>



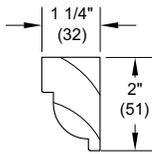
**W1030 - Stucco Flat Casing**  
3 1/2\"/>

NOTE: 5/4 casing greater than 10\", contact your Marvin representative

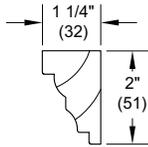
## Accessories

### Wood Special Profile Exterior Casings

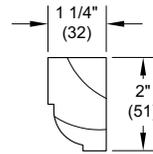
These sections illustrate the profile of each special casing and their dimensions. Each casing is labeled with its availability for lineal and/or round top units. Not all casings are applicable and varying conditions may require consideration for units including screens, combinations, mullions, etc. and may require extended sills. Illustrations shown are not to scale.



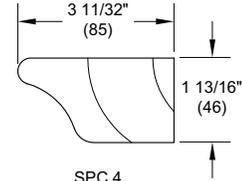
SPC 1  
Lineal Only



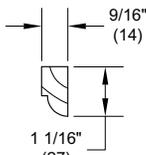
SPC 2  
Lineal & Round Top



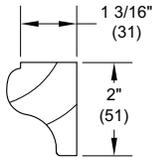
SPC 3  
Lineal & Round Top



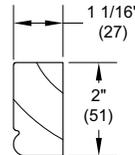
SPC 4  
Lineal & Round Top



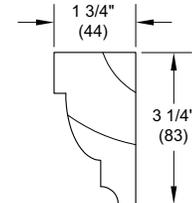
SPC 5  
Lineal Only



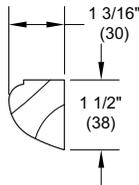
SPC 6  
Lineal & Round Top



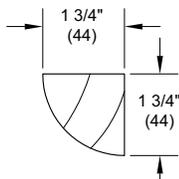
SPC 7  
Lineal & Round Top



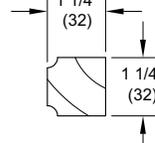
SPC 8  
Lineal & Round Top



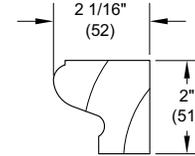
SPC 9  
Lineal & Round Top



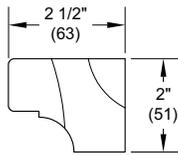
SPC 10  
Lineal & Round Top



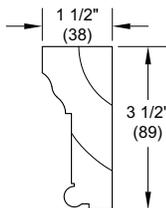
SPC 11  
Lineal Only



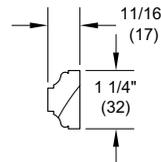
SPC 12  
Lineal & Round Top



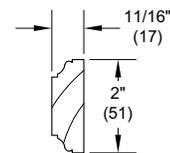
SPC 13  
Lineal & Round Top



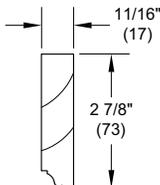
SPC 14  
Lineal & Round Top



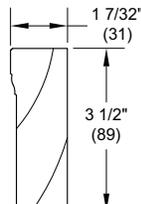
SPC 15  
Lineal Only



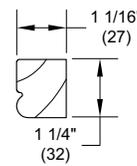
SPC 16  
Lineal Only



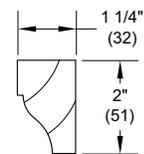
SPC 17  
Lineal Only



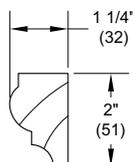
SPC 18  
Lineal & Round Top



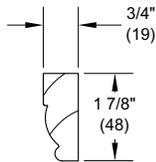
SPC 19  
Lineal & Round Top



SPC 20  
Lineal & Round Top



SPC 21  
Lineal & Round Top

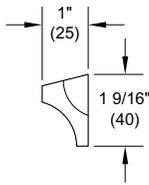


SPC 22  
Lineal Only

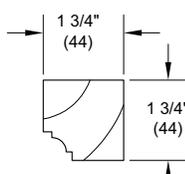
# Accessories

## Wood Special Profile Exterior Casings

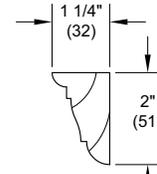
Not to Scale



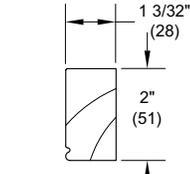
SPC 23  
Lineal Only



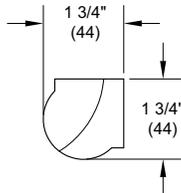
SPC 24  
Lineal & Round Top



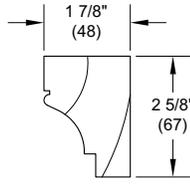
SPC 25  
Lineal & Round Top



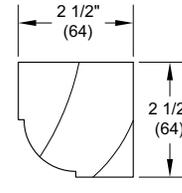
SPC 26  
Lineal & Round Top



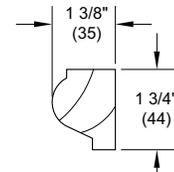
SPC 27  
Lineal Only



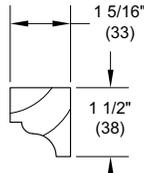
SPC 28  
Lineal & Round Top



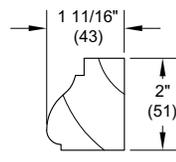
SPC 29  
Lineal & Round Top



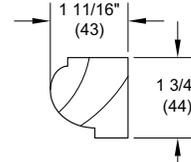
SPC 30  
Lineal & Round Top



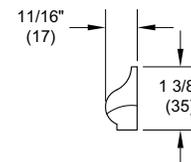
SPC 31  
Lineal & Round Top



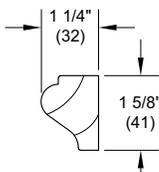
SPC 33  
Lineal Only



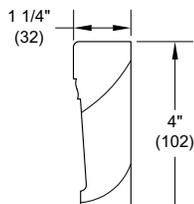
SPC 34  
Lineal Only



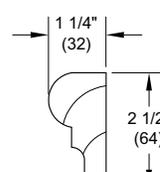
SPC 35  
Lineal Only



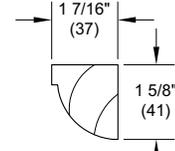
SPC 36  
Lineal & Round Top



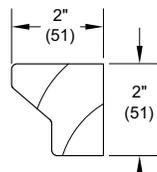
SPC 37  
Lineal Only



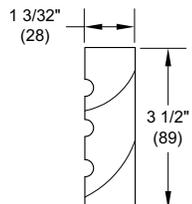
SPC 38  
Lineal Only



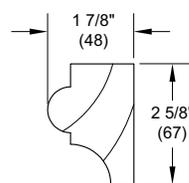
SPC 39  
Lineal Only



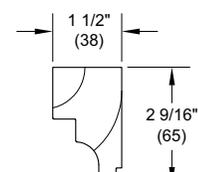
SPC 40  
Lineal Only



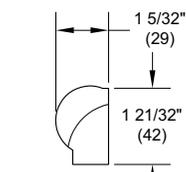
SPC 41  
Lineal Only



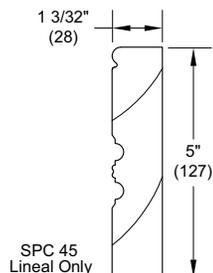
SPC 42  
Lineal & Round Top



SPC 43  
Lineal & Round Top



SPC 44  
Lineal & Round Top



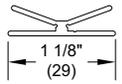
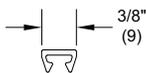
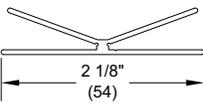
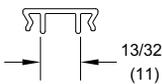
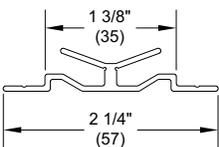
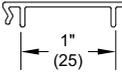
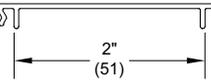
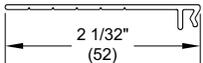
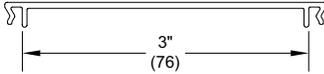
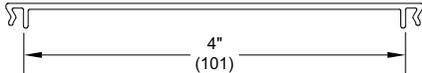
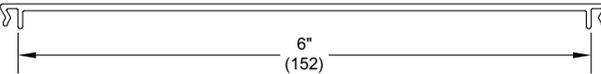
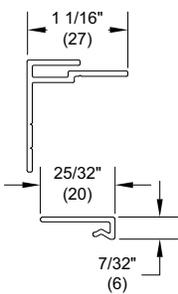
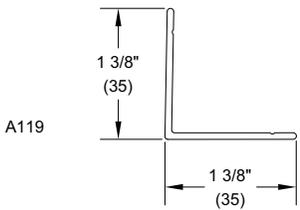
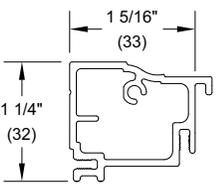
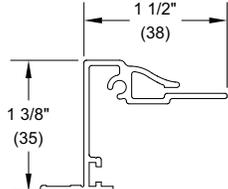
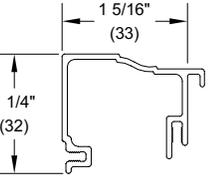
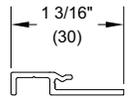
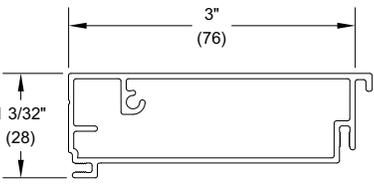
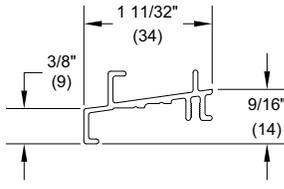
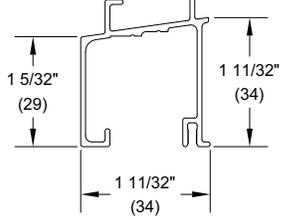
SPC 45  
Lineal Only

*NOTE: Please contact your Marvin representative for specific information and requirements of special casing.*

# Accessories

## Clad Extrusion / Clad Casing

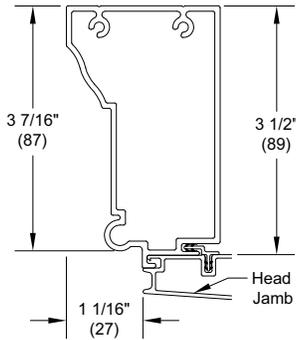
Not to Scale

	<b>Mull Expander A107 - 1" (25)</b>		<b>Mullion Cap A104</b>
	<b>Mull Expander A108 - 2" (51)</b>		<b>Mullion Cover A117 - 13/32" (11)</b>
	<b>Mull Expander 118 - 1" (25)</b>		<b>Mullion Cover A111 - 1" (25)</b>
	<b>Frame Expander A110 - 2" (51)</b>		<b>Mullion Cover A112 - 2" (51)</b>
	<b>Frame Expander A109 - 3" (76)</b>		<b>Mullion Cover A113 - 3" (76)</b>
	<b>Extender- Jamb Extension A126</b>		<b>Mullion Cover A114 - 4" (102)</b>
	<b>Frame Expander A120-90 Degree</b>		<b>Mullion Cover A116 - 6" (152)</b>
	<b>Side Trim A148-Applied at the perimeter of the unit to enclose opening at the space mullion</b>		<b>Corner Cover A119</b>
	<b>Clad Brick Mould Casing A898 Field Applied Only</b>		<b>Adjustable Brick Mould A130</b>
	<b>Clad Brick Mould Casing A797 Factory Applied</b>		<b>Sill Adapter A129 For use with A130</b>
	<b>Clad Flat Casing A243</b>		<b>Clad Casing Subsill A246</b>
			<b>Clad Casing A217 For use with clad units</b>

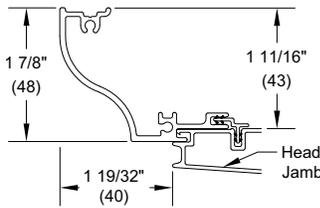
Accessories

**Clad Special Casing Profiles**

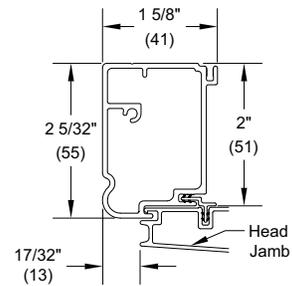
Not to Scale



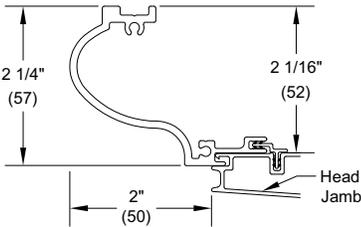
**Columbus  
A1440 Casing**



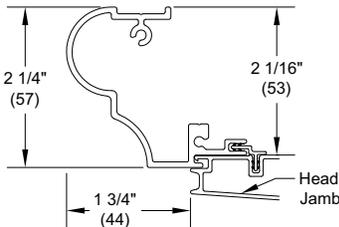
**Thorton  
A1443**



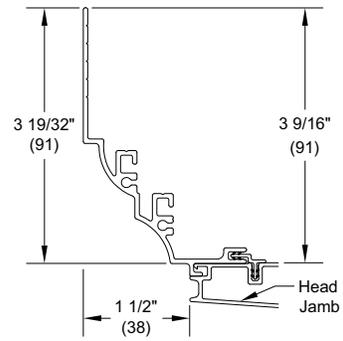
**Grayson  
A1442**



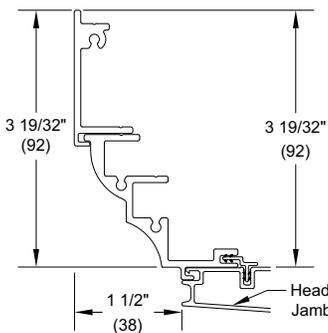
**Ridgeland  
A1446**



**Stratton  
A1449 Casing**

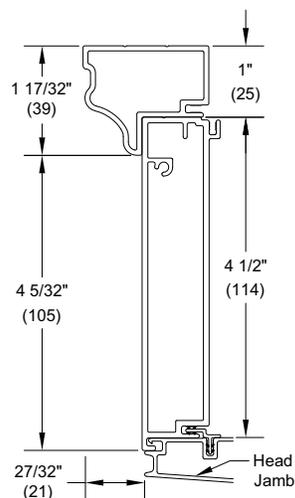
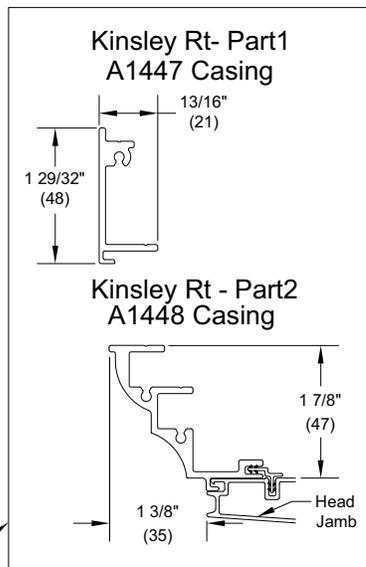


**Kinsley  
A1441 Casing**



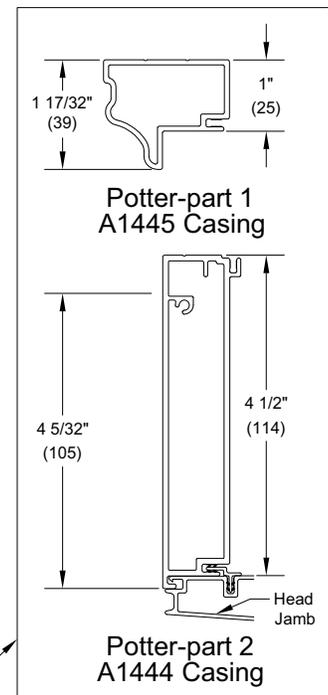
**Kinsley Rt  
A1447/ A1448 Casing**

Exploded



**Potter  
A1444/ A1445 Casing**

Exploded

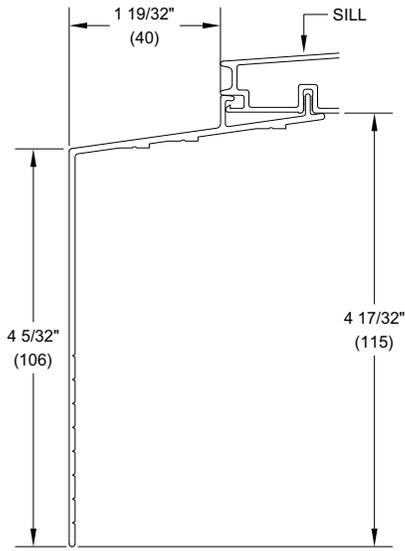


**Potter-part 2  
A1444 Casing**

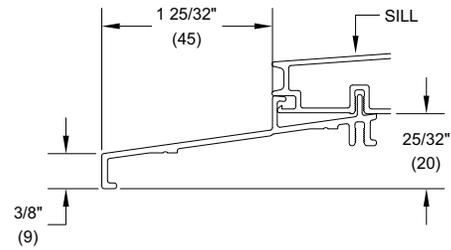
# Accessories

## Clad Special Subsill Profiles

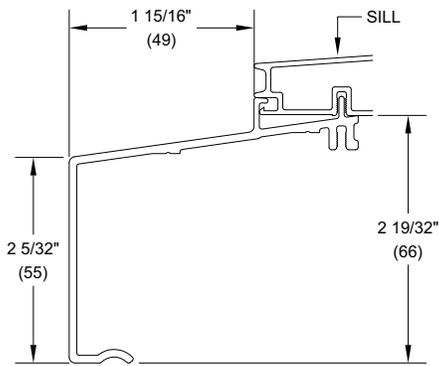
Not to Scale



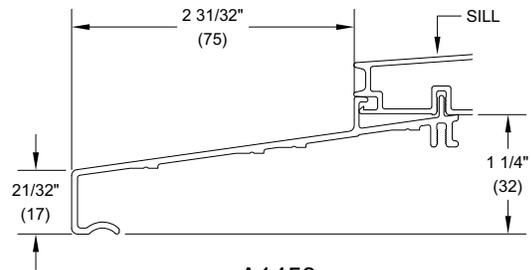
A1451



A1450



A1452



A1453

*NOTE: Maximum R.O. width of 144 R.O. height 96 not to exceed 80 square feet.*

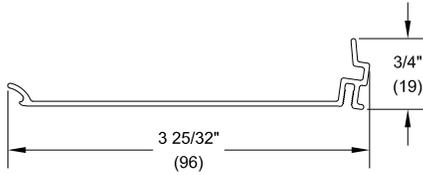
*Not all subsills are compatible with all casings. Please refer to detail pages for compatibility.*

*Accessories*

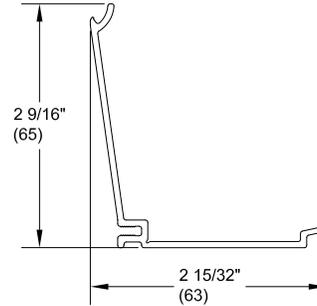
**Lineal Subsill Caps / End Caps**

Not to Scale

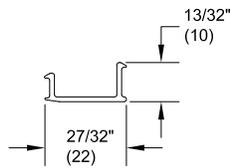
**Lineal Subsill Caps**



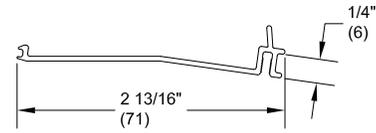
**A1458 Subsill Lineal Cap**  
For A1453



**A1460 Subsill Lineal Cap**  
For A1452

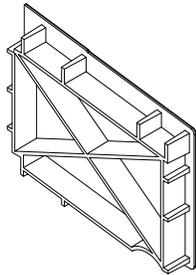


**A1462 Subsill Lineal Cap**  
For A217

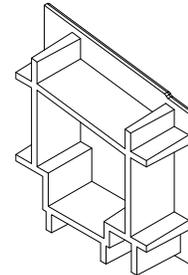


**A1463 Subsill Lineal Cap**  
For A1450

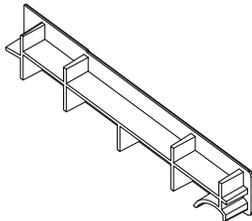
**Subsill End Caps**



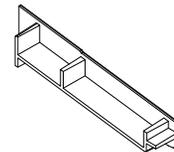
**Subsill End Cap for A1452**



**Subsill End Cap for A217**



**Subsill End Cap for A1453**

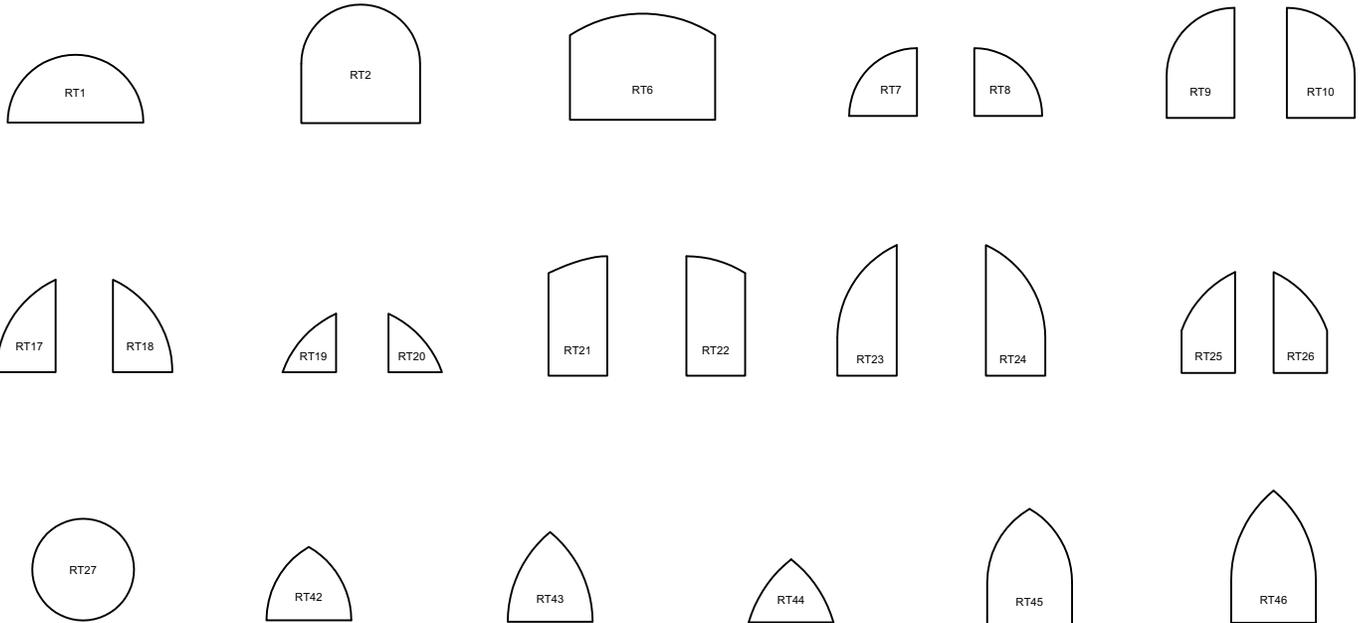


**Subsill End Cap for A1450**

# Accessories

## Round Top Shapes

Not to Scale



Minimum Frame Radius for Round Tops:

Kinsley RT 12 1/2" (318)

Columbus, Grayson, Stratton, Thorton 20" (508)

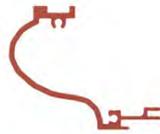
Ridgeland 18 1/2" (470)

Potter - 2 part 60" (1524)

*NOTE: The following casing apply to the shapes shown above.*



Columbus



Ridgeland



Thorton



Grayson



Kinsley RT



Stratton



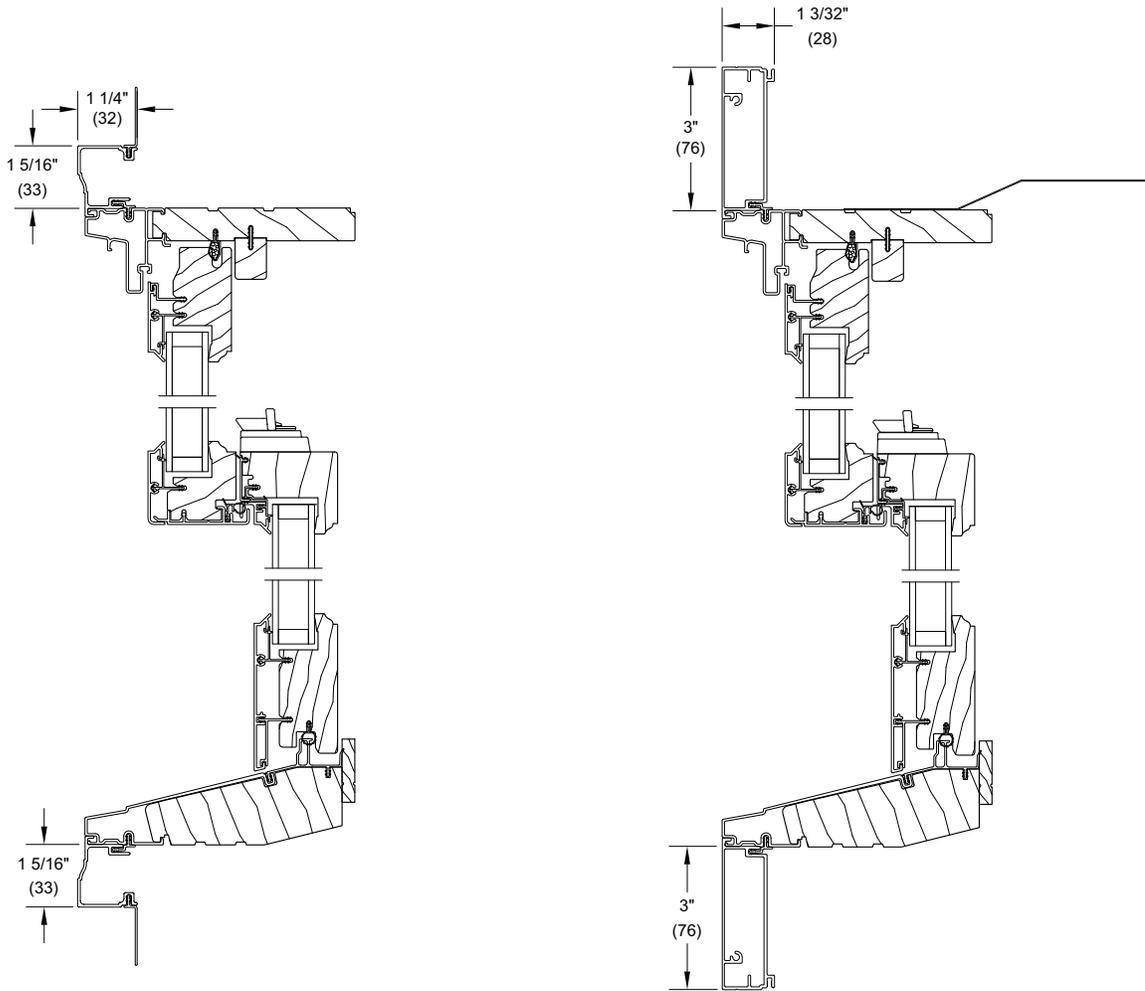
Potter (2 part)

*NOTE: Bows/Bays and Arch Top Doors require Architectural approval. For more information please contact your local Marvin representative*

Accessories

**Clad Special Application for Windows - Casing All Sides**

Not to Scale



Head Jamb and Sill  
with Clad Brick Mould Casing  
Four Sides

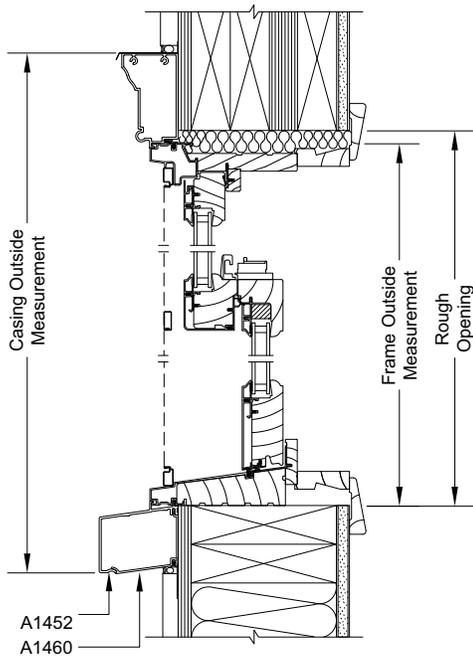
Head Jamb and Sill  
with Clad Flat Casing  
Four Sides

Unit Measurement		Width		Height	
From	To	in	mm	in	mm
<b>Rough Opening</b>					
Masonry Opening w/BMC (all sides)	Rough Opening	-2 1/8	(54)	-1 27/32	(47)
Masonry Opening w/Flat Casing (all sides)	Rough Opening	-5 1/2	(140)	-5 7/32	(133)

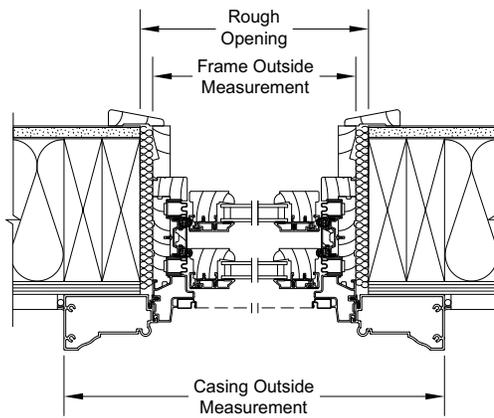
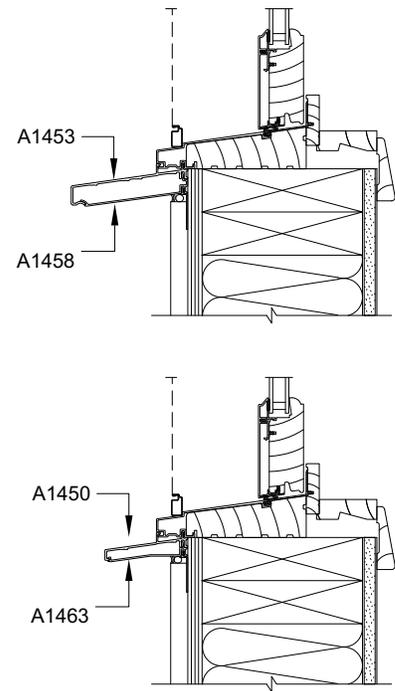
# Accessories

## Clad Special Application for Windows - Columbus Casing Stick Construction

Not to Scale



### Applicable subsills

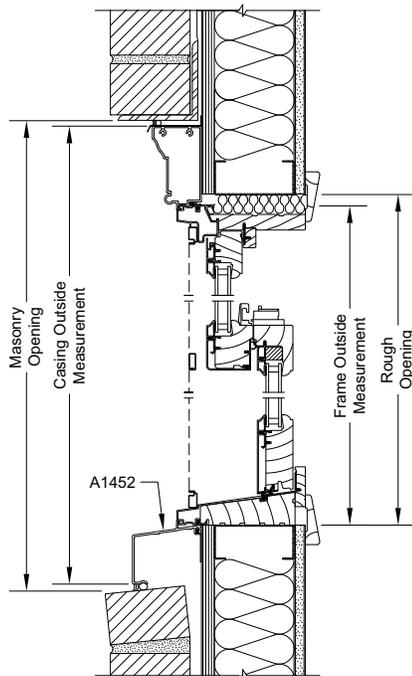


Measurement Conversions for Special Casing Windows				
Casing Type	Subsill Type	RO to FOM	FOM to COM	Masonry Opening
A1440 Columbus	A1450	Width -1.0 Height -1/2	Width +7.0 Height +4 9/32	*Width COM + (Sealant Gap x 2) Height COM + (Sealant Gap x 1)
	A1451	Width -1.0 Height -1/2	Width +7.0 Height +8 1/32	*Width COM + (Sealant Gap x 2) Height COM + (Sealant Gap x 1)
	A1452	Width -1.0 Height -1/2	Width +7.0 Height +6 3/32	*Width COM + (Sealant Gap x 2) Height COM + (Sealant Gap x 1)
	A1453	Width -1.0 Height -1/2	Width +7.0 Height +4 3/4	*Width COM + (Sealant Gap x 2) Height COM + (Sealant Gap x 1)

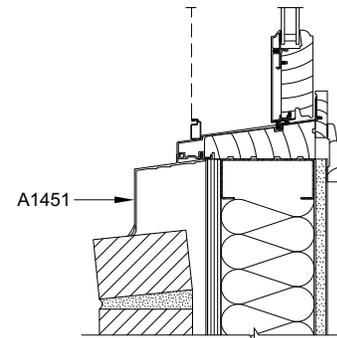
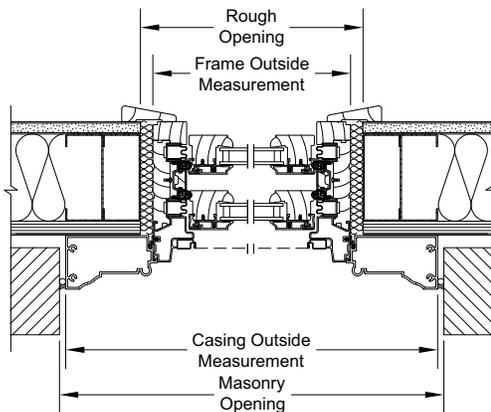
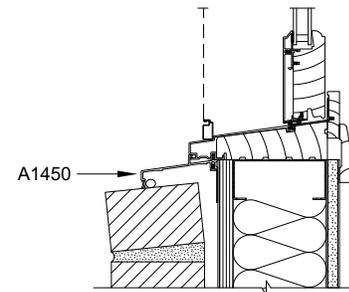
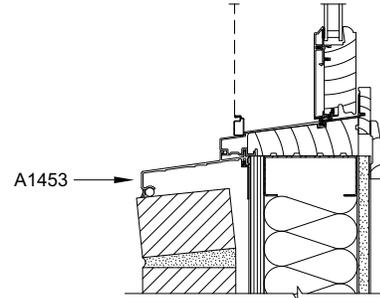
RO: Rough Opening  
FOM: Frame Outside Measurement  
COM: Casing Outside Measurement

NOTE: Sealant gap to be determined by others. Minimum of 1/4" on all four sides recommended

**Clad Special Application for Windows - Columbus Casing Masonry Construction**



Applicable subsills



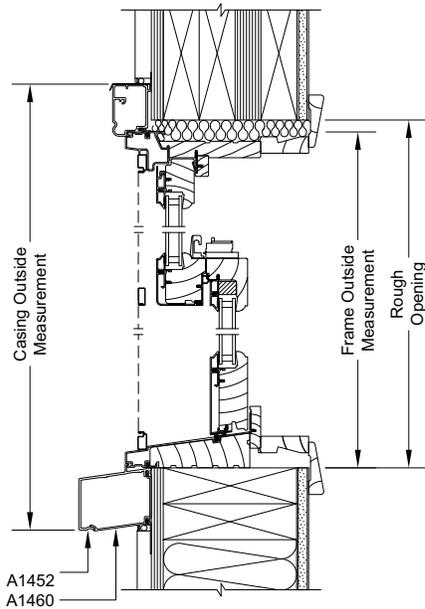
Measurement Conversions for Special Casing Windows				
Casing Type	Subsill Type	RO to FOM	FOM to COM	Masonry Opening
A1440 Columbus	A1450	Width -1.0 Height -1/2	Width +7.0 Height +4 9/32	*Width COM + (Sealant Gap x 2) Height COM + (Sealant Gap x 1)
	A1451	Width -1.0 Height -1/2	Width +7.0 Height +8 1/32	*Width COM + (Sealant Gap x 2) Height COM + (Sealant Gap x 1)
	A1452	Width -1.0 Height -1/2	Width +7.0 Height +6 3/32	*Width COM + (Sealant Gap x 2) Height COM + (Sealant Gap x 1)
	A1453	Width -1.0 Height -1/2	Width +7.0 Height +4 3/4	*Width COM + (Sealant Gap x 2) Height COM + (Sealant Gap x 1)

RO: Rough Opening  
FOM: Frame Outside Measurement  
COM: Casing Outside Measurement

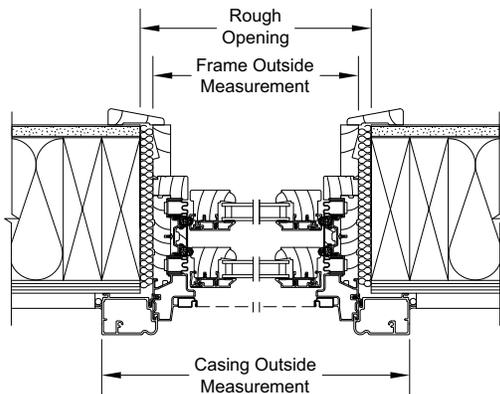
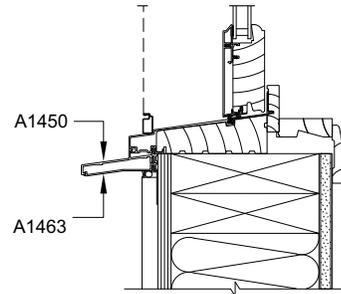
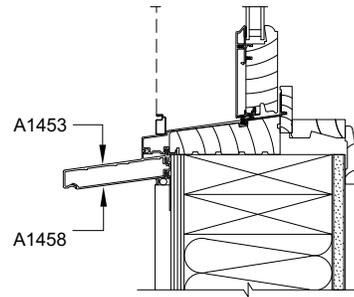
NOTE: Sealant gap to be determined by others. Minimum of 1/4" on all four sides recommended

Accessories

Clad Special Casing for Windows - Grayson Casing Stick Construction



Applicable subsills



Measurement Conversions for Special Casing Windows				
Casing Type	Subsill Type	RO to FOM	FOM to COM	Masonry Opening
A1442 Grayson	A1450	Width -1.0 Height -1/2	Width +4.0 Height +2 25/32	*Width COM + (Sealant Gap x 2) Height COM + (Sealant Gap x 1)
	A1451	Width -1.0 Height -1/2	Width +4.0 Height +6 17/32	*Width COM + (Sealant Gap x 2) Height COM + (Sealant Gap x 1)
	A1452	Width -1.0 Height -1/2	Width +4.0 Height +4 19/32	*Width COM + (Sealant Gap x 2) Height COM + (Sealant Gap x 1)
	A1453	Width -1.0 Height -1/2	Width +4.0 Height +3 1/4	*Width COM + (Sealant Gap x 2) Height COM + (Sealant Gap x 1)

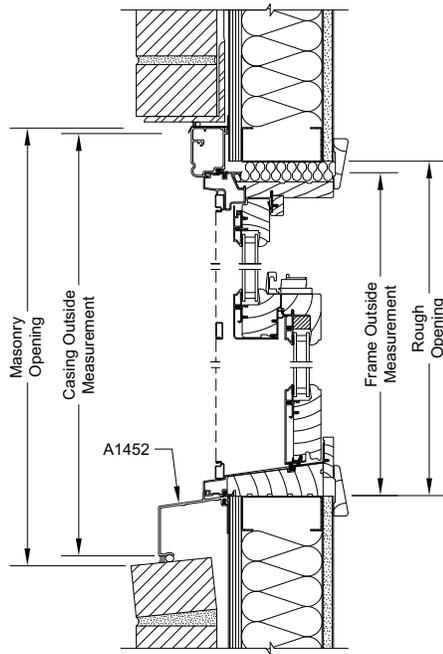
RO: Rough Opening  
FOM: Frame Outside Measurement  
COM: Casing Outside Measurement

NOTE: Sealant gap to be determined by others. Minimum of 1/4" on all four sides recommended

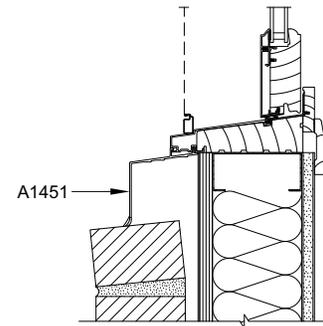
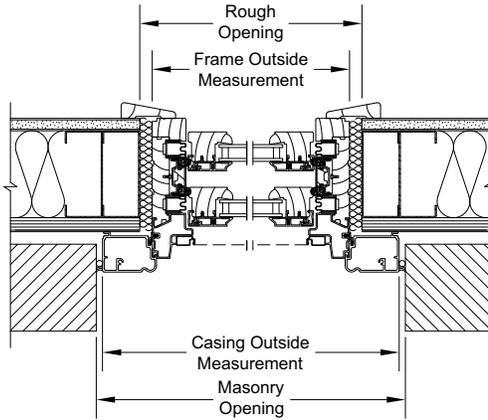
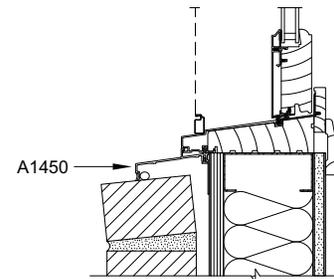
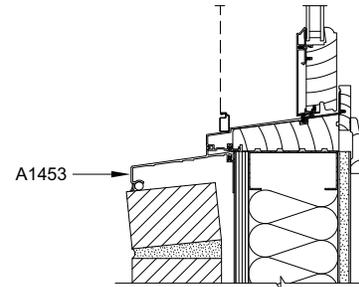
Accessories

**Clad Special Casing for Windows - Grayson Casing Masonry Construction**

Not to Scale



Applicable subsills



Measurement Conversions for Special Casing Windows				
Casing Type	Subsill Type	RO to FOM	FOM to COM	Masonry Opening
A1442 Grayson	A1450	Width -1.0 Height -1/2	Width +4.0 Height +2 25/32	*Width COM + (Sealant Gap x 2) Height COM + (Sealant Gap x 1)
	A1451	Width -1.0 Height -1/2	Width +4.0 Height +6 17/32	*Width COM + (Sealant Gap x 2) Height COM + (Sealant Gap x 1)
	A1452	Width -1.0 Height -1/2	Width +4.0 Height +4 19/32	*Width COM + (Sealant Gap x 2) Height COM + (Sealant Gap x 1)
	A1453	Width -1.0 Height -1/2	Width +4.0 Height +3 1/4	*Width COM + (Sealant Gap x 2) Height COM + (Sealant Gap x 1)

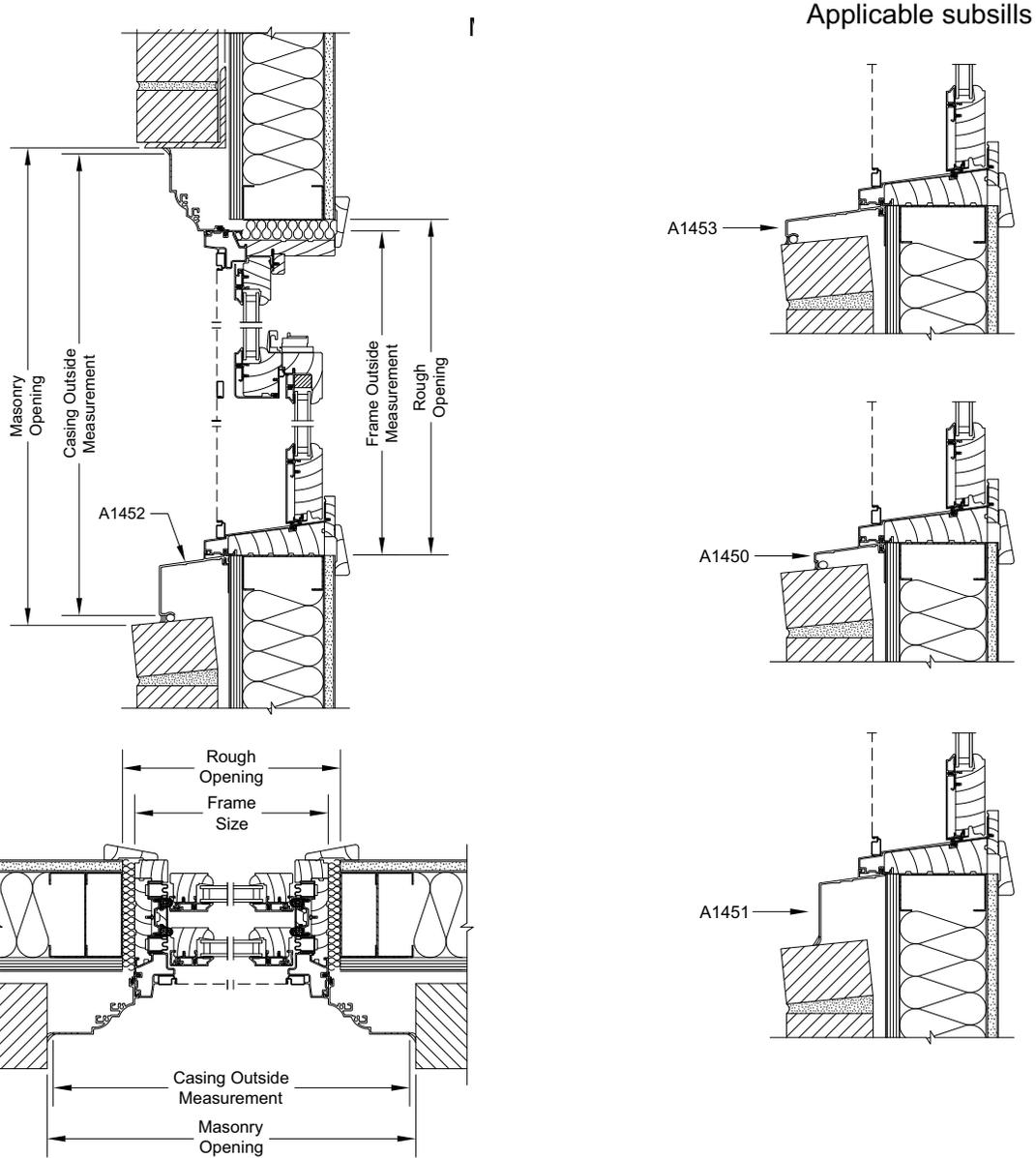
RO: Rough Opening  
FOM: Frame Outside Measurement  
COM: Casing Outside Measurement

NOTE: Sealant gap to be determined by others. Minimum of 1/4" on all four sides recommended

Accessories

**Clad Special Casing for Windows - Kinsley Casing Masonry Construction**

Not to Scale



Applicable subsills

Measurement Conversions for Special Casing Windows				
Casing Type	Subsill Type	RO to FOM	FOM to COM	Masonry Opening
A1441 Kinsley	A1450	Width -1.0 Height -1/2	Width +7 3/16 Height +4 3/8	*Width COM + (Sealant Gap x 2) Height COM + (Sealant Gap x 1)
	A1451	Width -1.0 Height -1/2	Width +7 3/16 Height +8 1/8	*Width COM + (Sealant Gap x 2) Height COM + (Sealant Gap x 1)
	A1452	Width -1.0 Height -1/2	Width +7 3/16 Height +6 3/16	*Width COM + (Sealant Gap x 2) Height COM + (Sealant Gap x 1)
	A1453	Width -1.0 Height -1/2	Width +7 3/16 Height +4 27/32	*Width COM + (Sealant Gap x 2) Height COM + (Sealant Gap x 1)

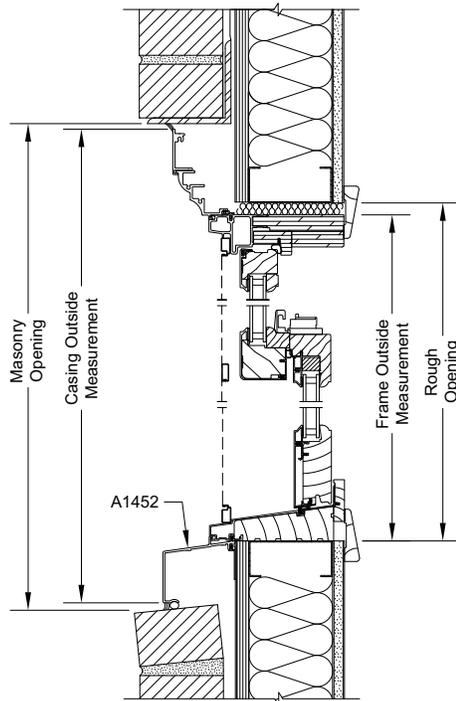
RO: Rough Opening  
FOM: Frame Outside Measurement  
COM: Casing Outside Measurement

NOTE: Sealant gap to be determined by others. Minimum of 1/4" on all four sides recommended

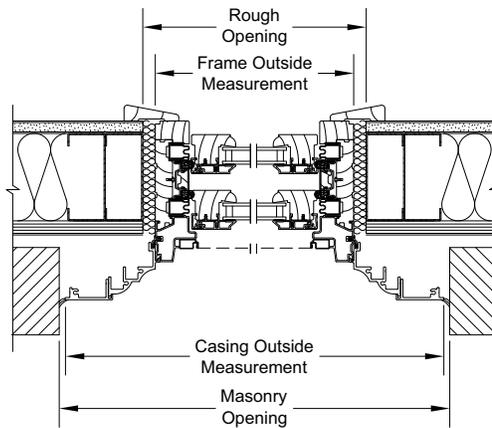
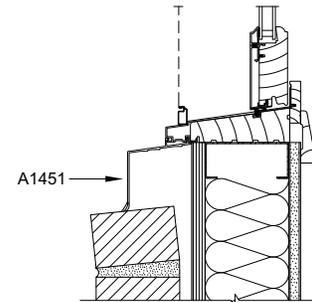
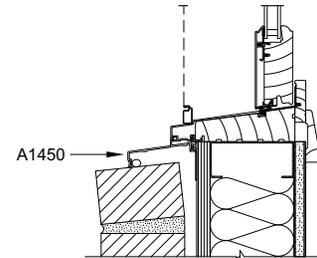
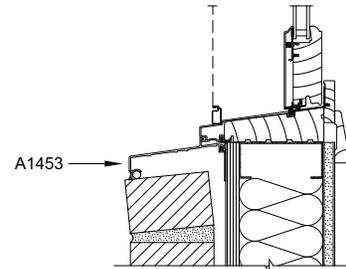
Accessories

**Clad Special Casing for Windows - Kinsley Round Top**

Not to Scale



Applicable subsills



Measurement Conversions for Special Casing Windows				
Casing Type	Subsill Type	RO to FOM	FOM to COM	Masonry Opening
A1441/A1448 Kinsley RT	A1450	Width -1.0	Width +7 3/16	*Width COM + (Sealant Gap x 2)
		Height -1/2	Height +4 3/8	Height COM + (Sealant Gap x 1)
	A1451	Width -1.0	Width +7 3/16	*Width COM + (Sealant Gap x 2)
		Height -1/2	Height +8 1/8	Height COM + (Sealant Gap x 1)
A1452	Width -1.0	Width +7 3/16	*Width COM + (Sealant Gap x 2)	
	Height -1/2	Height +6 3/16	Height COM + (Sealant Gap x 1)	
A1453	Width -1.0	Width +7 3/16	*Width COM + (Sealant Gap x 2)	
	Height -1/2	Height +4 27/32	Height COM + (Sealant Gap x 1)	

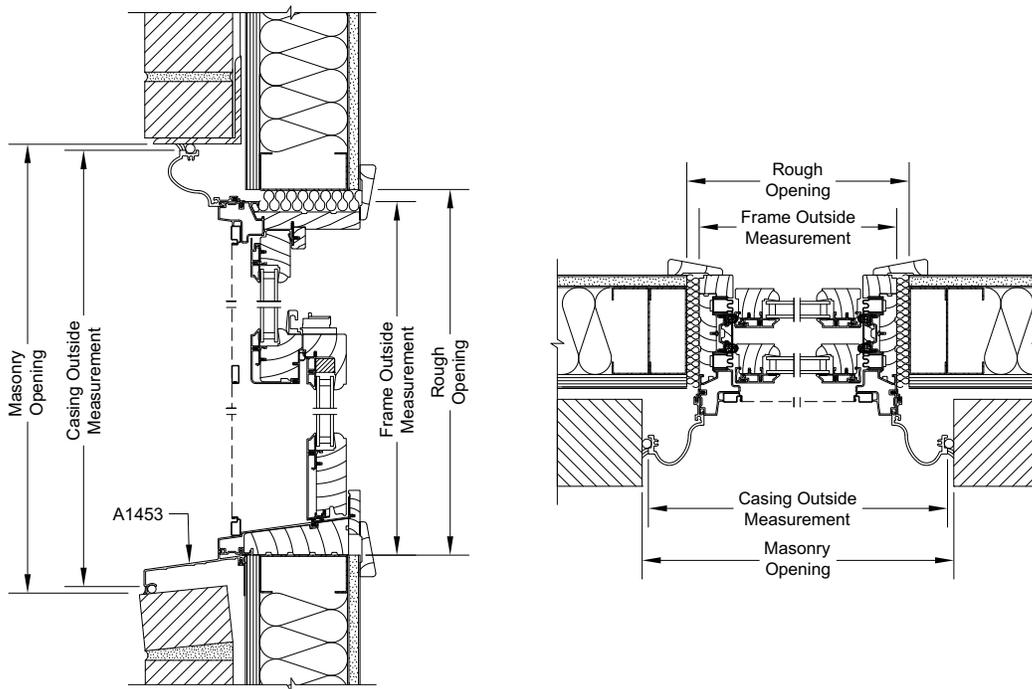
RO: Rough Opening  
FOM: Frame Outside Measurement  
COM: Casing Outside Measurement

NOTE: Sealant gap to be determined by others. Minimum of 1/4" on all four sides recommended

Accessories

**Clad Special Casing for Windows - Ridgeland Casing Masonry Construction**

Not to Scale



Measurement Conversions for Special Casing Windows				
Casing Type	Subsill Type	RO to FOM	FOM to COM	Masonry Opening
A1446		Width -1.0	Width +4 1/8	*Width COM + (Sealant Gap x 2)
Ridgeland	A1453	Height -1/2	Height +3 5/16	Height COM + (Sealant Gap x 1)

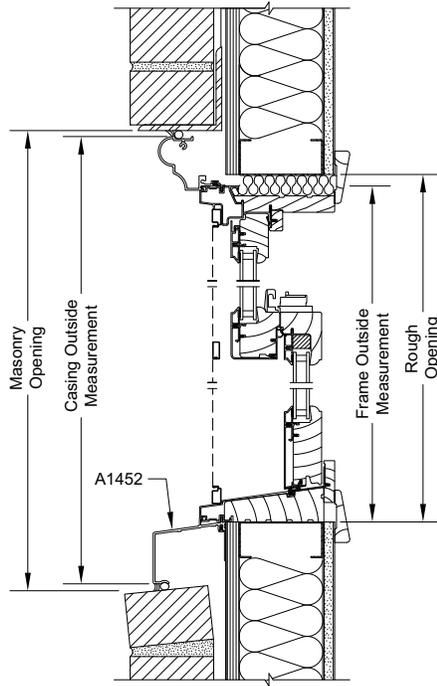
RO: Rough Opening  
FOM: Frame Outside Measurement  
COM: Casing Outside Measurement

NOTE: Sealant gap to be determined by others. Minimum of 1/4" on all four sides recommended

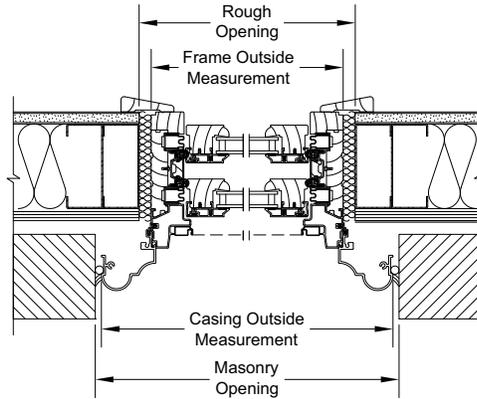
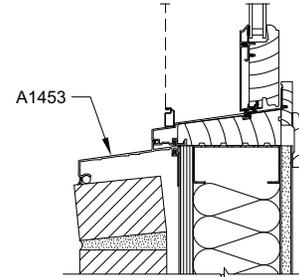
Accessories

**Clad Special Casing for Windows - Stratton Casing Masonry**

Not to Scale



Applicable subsills



Measurement Conversions for Special Casing Windows				
Casing Type	Subsill Type	RO to FOM	FOM to COM	Masonry Opening
A1449 Stratton	A1452	Width -1.0	Width +4 5/32	*Width COM + (Sealant Gap x 2)
		Height -1/2	Height +4 21/32	Height COM + (Sealant Gap x 1)
	A1453	Width -1.0	Width +4 5/32	*Width COM + (Sealant Gap x 2)
		Height -1/2	Height +3 5/16	Height COM + (Sealant Gap x 1)

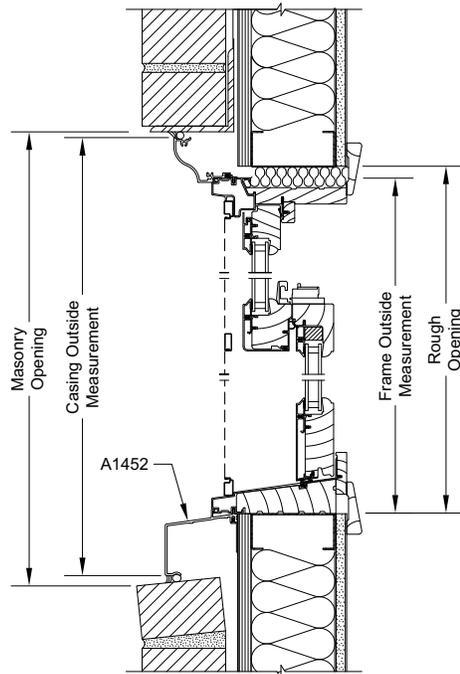
RO: Rough Opening  
FOM: Frame Outside Measurement  
COM: Casing Outside Measurement

NOTE: Sealant gap to be determined by others. Minimum of 1/4" on all four sides recommended

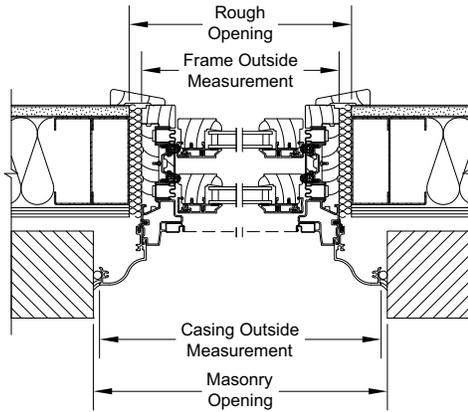
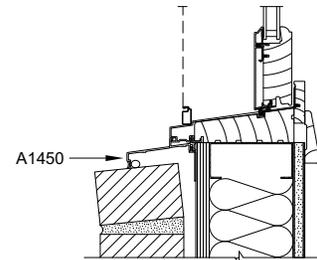
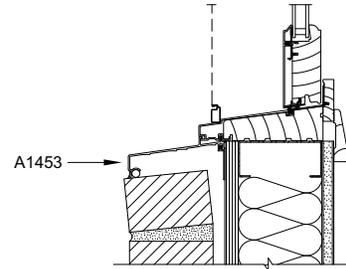
Accessories

**Clad Special Casing for Windows - Thorton Casing Masonry Construction**

Not to Scale



Applicable subsills



Measurement Conversions for Special Casing Windows				
Casing Type	Subsill Type	RO to FOM	FOM to COM	Masonry Opening
A1443 Thorton	A1450	Width -1.0	Width +3 13/32	*Width COM + (Sealant Gap x 2)
		Height -1/2	Height +2 15/32	Height COM + (Sealant Gap x 1)
	A1452	Width -1.0	Width +3 13/32	*Width COM + (Sealant Gap x 2)
		Height -1/2	Height +4 9/32	Height COM + (Sealant Gap x 1)
	A1453	Width -1.0	Width +3 13/32	*Width COM + (Sealant Gap x 2)
		Height -1/2	Height +2 15/16	Height COM + (Sealant Gap x 1)

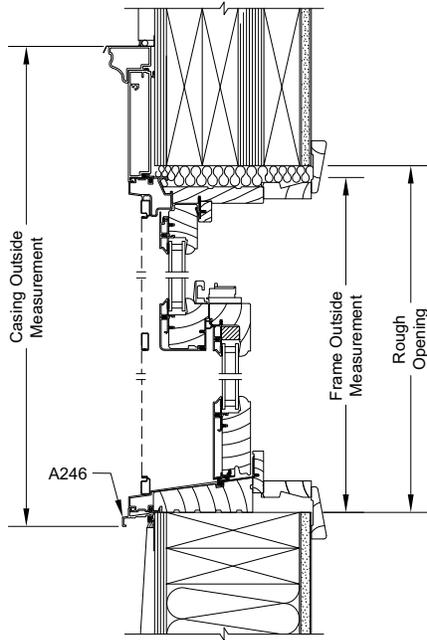
RO: Rough Opening  
FOM: Frame Outside Measurement  
COM: Casing Outside Measurement

NOTE: Sealant gap to be determined by others. Minimum of 1/4" on all four sides recommended

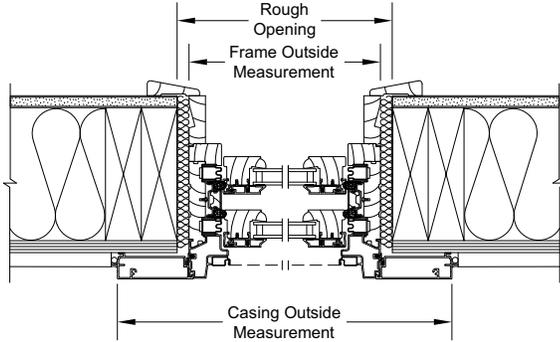
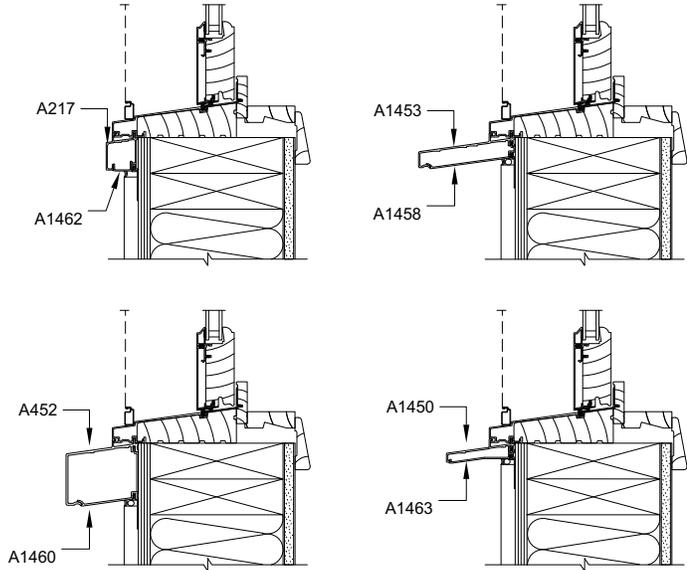
Accessories

**Clad Special Casing for Windows - Potter Casing Wood Frame Construction**

Not to Scale



Applicable Subsills



Measurement Conversions for Special Casing Windows				
Casing Type	Subsill Type	RO to FOM	FOM to COM	Masonry Opening
A1444/A1445 Potter	A1450	Width -1.0 Height -1/2	Width +6.0 Height +6 9/32	*Width COM + (Sealant Gap x 2) Height COM + (Sealant Gap x 1)
	A1451	Width -1.0 Height -1/2	Width +6.0 Height +10 1/32	*Width COM + (Sealant Gap x 2) Height COM + (Sealant Gap x 1)
	A1452	Width -1.0 Height -1/2	Width +6.0 Height +8 3/32	*Width COM + (Sealant Gap x 2) Height COM + (Sealant Gap x 1)
	A1453	Width -1.0 Height -1/2	Width +6.0 Height +6 3/4	*Width COM + (Sealant Gap x 2) Height COM + (Sealant Gap x 1)

RO: Rough Opening  
FOM: Frame Outside Measurement  
COM: Casing Outside Measurement

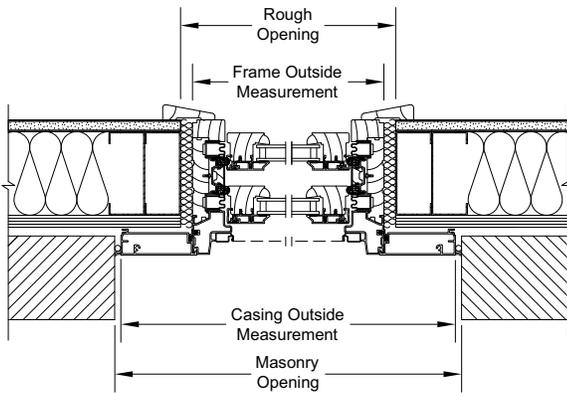
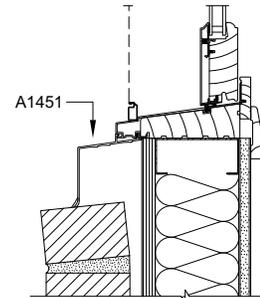
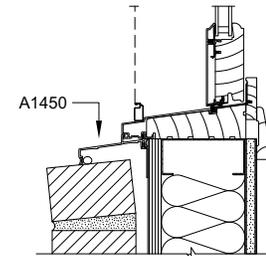
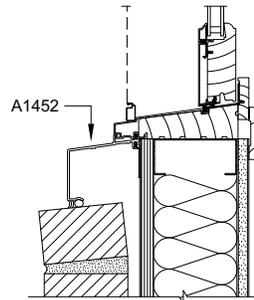
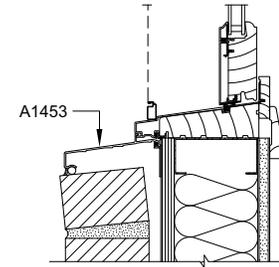
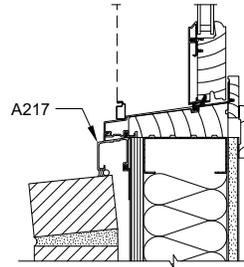
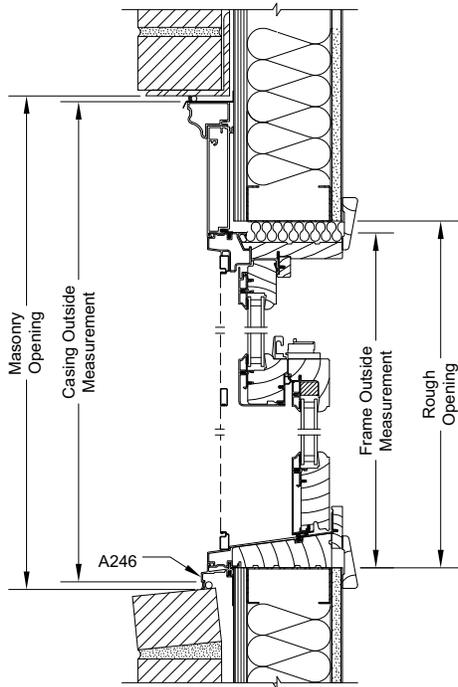
NOTE: Sealant gap to be determined by others. Minimum of 1/4" on all four sides recommended

Accessories

**Clad Special Casing for Windows - Potter with Trim Casing Masonry Construction**

Not to Scale

Applicable subsills



Measurement Conversions for Special Casing Windows				
Casing Type	Subsill Type	RO to FOM	FOM to COM	Masonry Opening
A1444/A1445 Potter w/Trim	A1450	Width -1.0 Height -1/2	Width +6.0 Height +6 9/32	*Width COM + (Sealant Gap x 2) Height COM + (Sealant Gap x 1)
	A1451	Width -1.0 Height -1/2	Width +6.0 Height +10 1/32	*Width COM + (Sealant Gap x 2) Height COM + (Sealant Gap x 1)
	A1452	Width -1.0 Height -1/2	Width +6.0 Height +8 3/32	*Width COM + (Sealant Gap x 2) Height COM + (Sealant Gap x 1)
	A1453	Width -1.0 Height -1/2	Width +6.0 Height +6 3/4	*Width COM + (Sealant Gap x 2) Height COM + (Sealant Gap x 1)

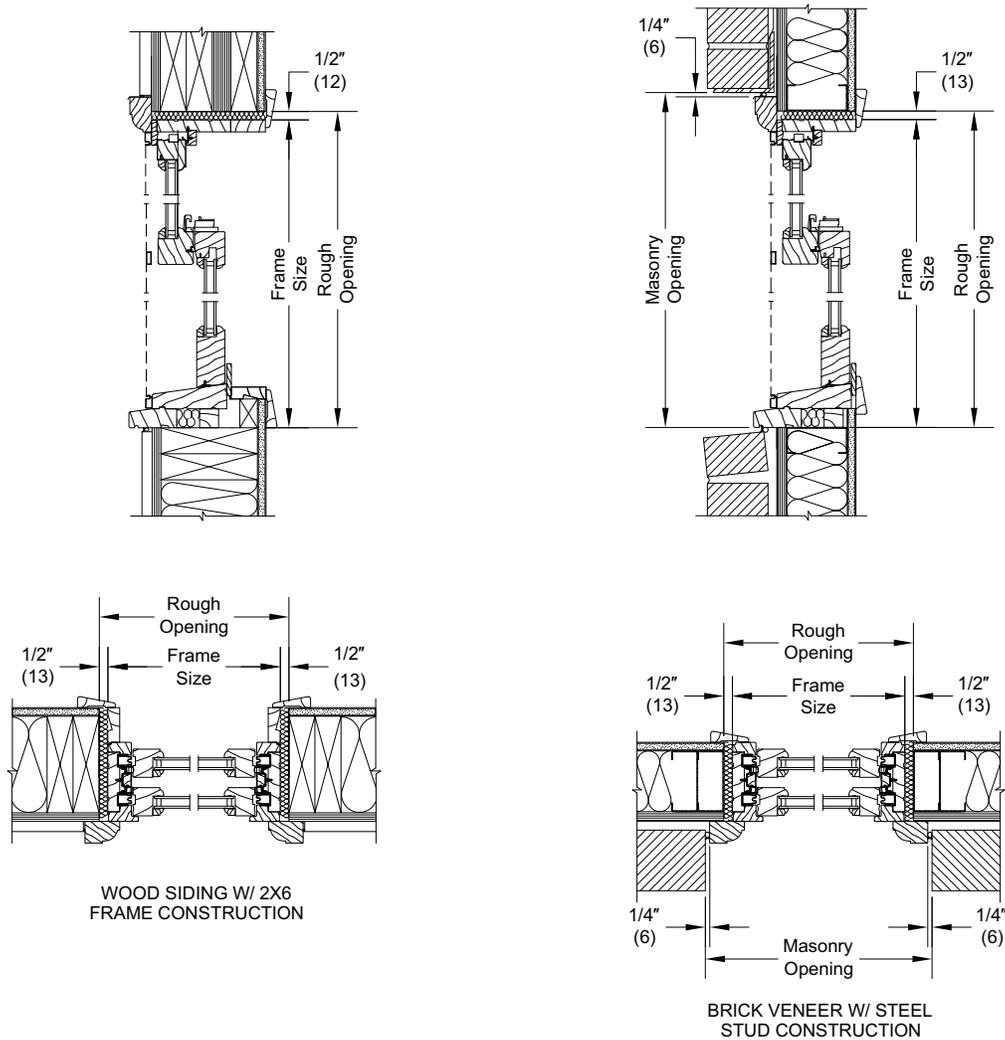
RO: Rough Opening  
FOM: Frame Outside Measurement  
COM: Casing Outside Measurement

NOTE: Sealant gap to be determined by others. Minimum of 1/4" on all four sides recommended

Accessories

Wood Special Casing for Windows - Special Casing 3 (SPC3)

Not to Scale

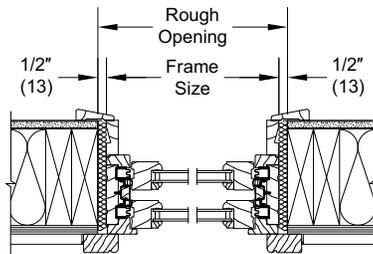
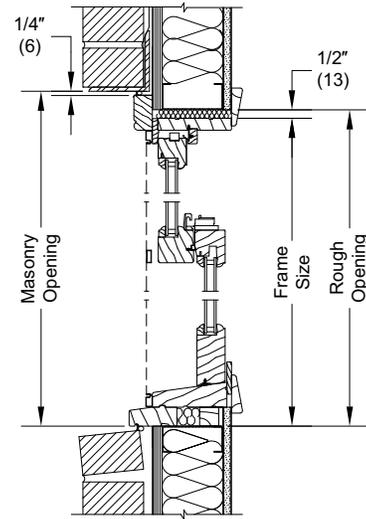
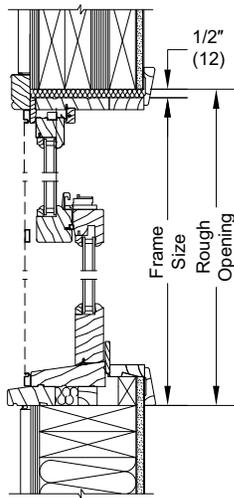


Unit Measurement			Width		Height	
From		To	in	mm	in	mm
WUCA Collection	Masonry Opening w/SPC3	Rough Opening	-2 5/8	(67)	-1 5/16	(33)
WUDH Collection	Masonry Opening w/SPC3	Rough Opening	-2 1/8	(54)	-1 1/16	(27)
Wood Direct Glaze	Masonry Opening w/SPC3	Rough Opening	-2 1/2	(64)	-1 1/4	(32)
Wood Tilt Turn	Masonry Opening w/SPC3	Rough Opening	-2 1/4	(57)	-1 11/16	(43)
All Doors	Masonry Opening w/SPC3	Rough Opening	-2 1/8	(54)	-1 1/16	(27)

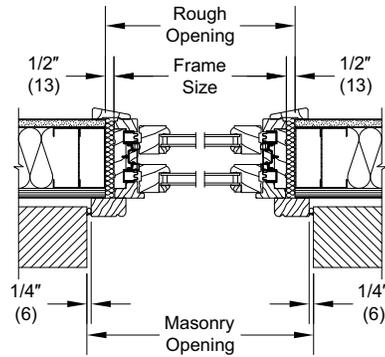
Accessories

Wood Special Casing for Windows - Special Casing 7 (SPC7)

Not to Scale



WOOD SIDING W/ 2X6  
FRAME CONSTRUCTION



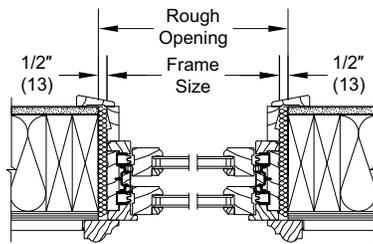
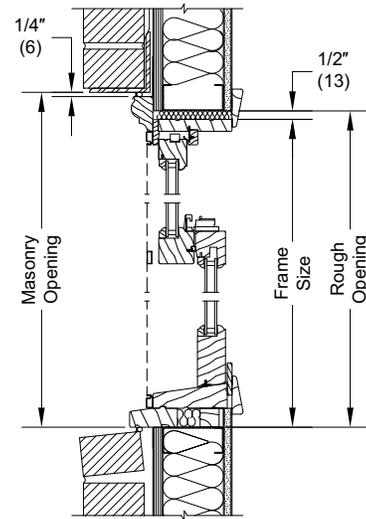
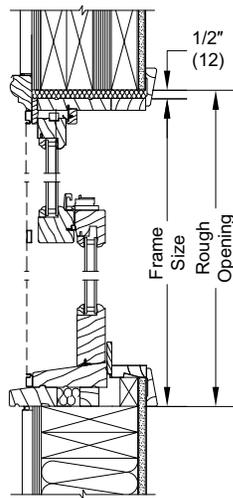
BRICK VENEER W/ STEEL  
STUD CONSTRUCTION

Unit Measurement			Width		Height	
From		To	in	mm	in	mm
WUCA Collection	Masonry Opening w/SPC7	Rough Opening	-2 5/8	(67)	-1 5/16	(33)
WUDH Collection	Masonry Opening w/SPC7	Rough Opening	-2 1/8	(54)	-1 1/16	(27)
Wood Direct Glaze	Masonry Opening w/SPC7	Rough Opening	-2 1/2	(64)	-1 1/4	(32)
Wood Tilt Turn	Masonry Opening w/SPC7	Rough Opening	-2 1/4	(57)	-1 11/16	(43)
All Doors	Masonry Opening w/SPC7	Rough Opening	-2 1/8	(54)	-1 1/16	(27)

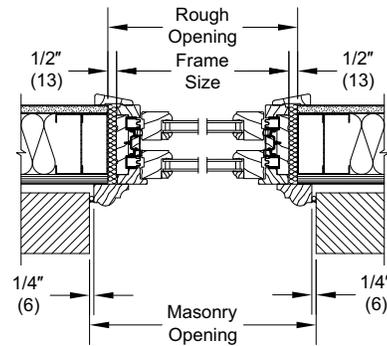
Accessories

Wood Special Casing for Windows - Special Casing 21 (SPC21)

Not to Scale



WOOD SIDING W/ 2X6  
FRAME CONSTRUCTION



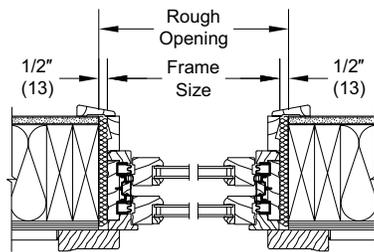
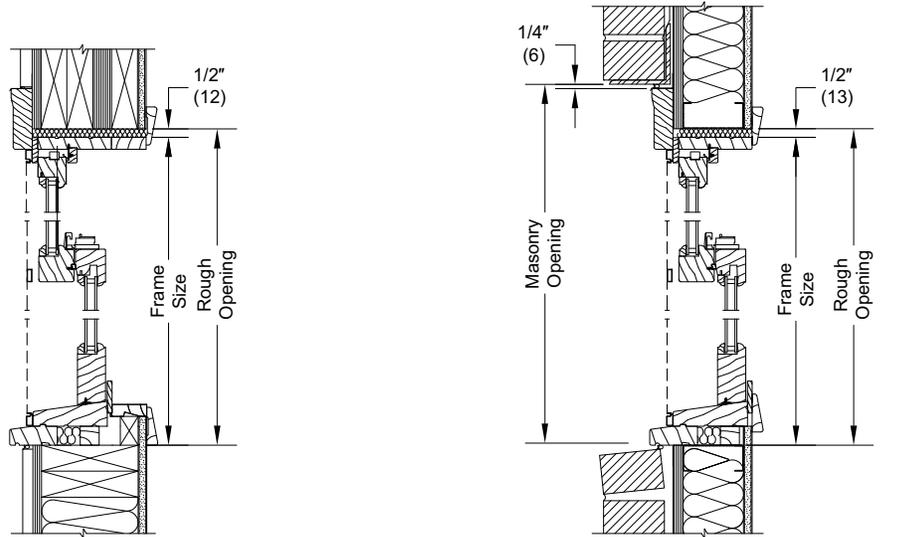
BRICK VENEER W/ STEEL  
STUD CONSTRUCTION

Unit Measurement			Width		Height	
From		To	in	mm	in	mm
WUCA Collection	Masonry Opening w/SPC21	Rough Opening	-2 5/8	(67)	-1 5/16	(33)
WUDH Collection	Masonry Opening w/SPC21	Rough Opening	-2 1/8	(54)	-1 1/16	(27)
Wood Direct Glaze	Masonry Opening w/SPC21	Rough Opening	-2 1/2	(64)	-1 1/4	(32)
Wood Tilt Turn	Masonry Opening w/SPC21	Rough Opening	-2 1/4	(57)	-1 11/16	(43)
All Doors	Masonry Opening w/SPC21	Rough Opening	-2 1/8	(54)	-1 1/16	(27)

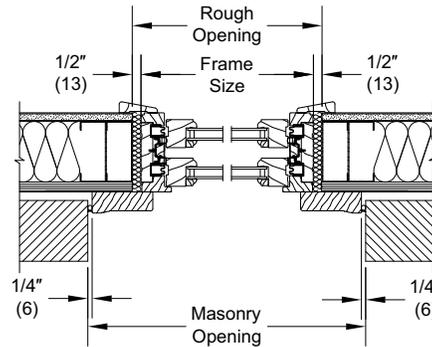
Accessories

Wood Special Casing for Windows - Special Casing 18 (SPC18)

Not to Scale



WOOD SIDING W/ 2X6  
FRAME CONSTRUCTION



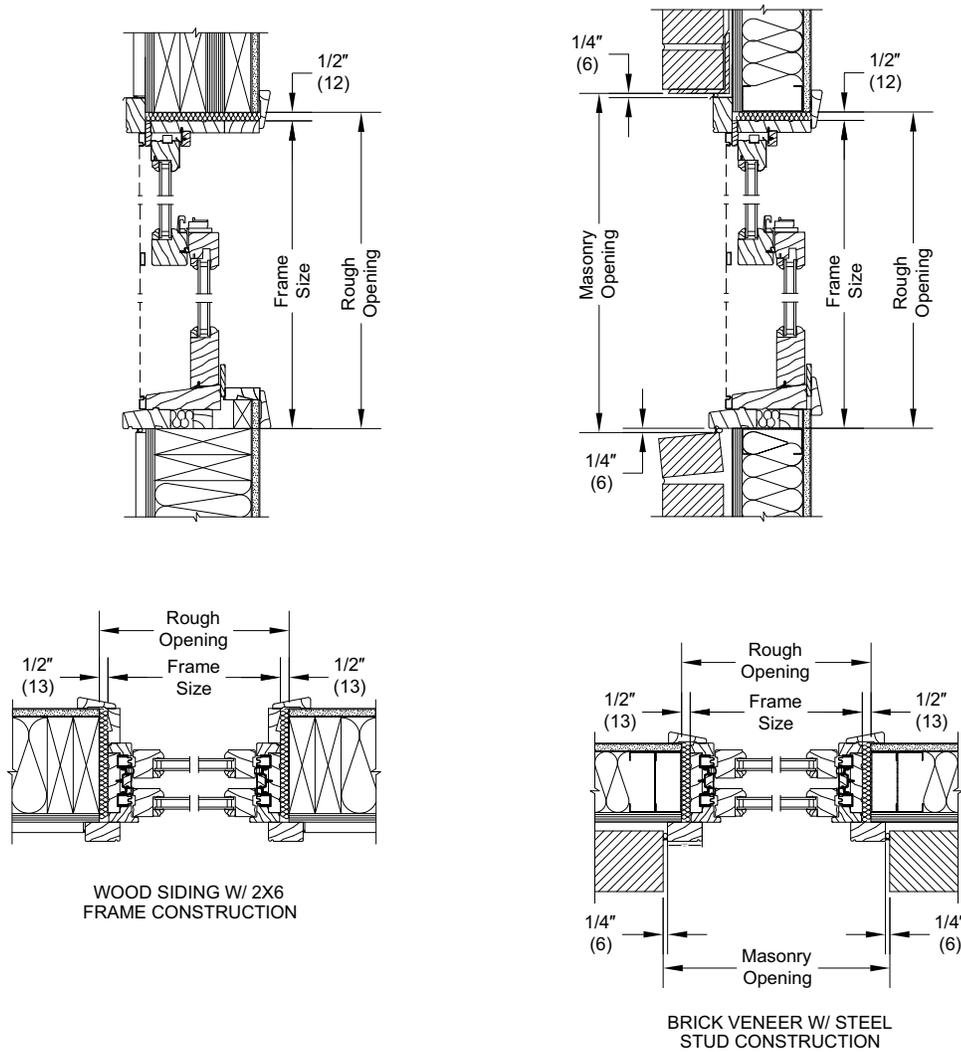
BRICK VENEER W/ STEEL  
STUD CONSTRUCTION

Unit Measurement			Width		Height	
From		To	in	mm	in	mm
WUCA Collection	Masonry Opening w/SPC18	Rough Opening	-5 5/8	(143)	-2 13/16	(71)
WUDH Collection	Masonry Opening w/SPC18	Rough Opening	-5 1/8	(130)	-2 9/16	(65)
Wood Direct Glaze	Masonry Opening w/SPC18	Rough Opening	-5 1/2	(140)	-2 3/4	(70)
Wood Tilt Turn	Masonry Opening w/SPC18	Rough Opening	-5 1/4	(133)	-3 3/16	(81)
All Doors	Masonry Opening w/SPC18	Rough Opening	-5 1/8	(130)	-2 9/16	(65)

Accessories

Wood Special Casing for Windows - Special Casing 26 (SPC26)

Not to Scale

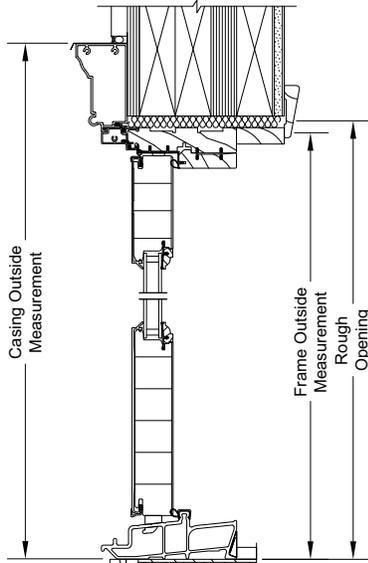


Unit Measurement			Width		Height	
From		To	in	mm	in	mm
WUCA Collection	Masonry Opening w/SPC26	Rough Opening	-2 5/8	(67)	-1 5/16	(33)
WUDH Collection	Masonry Opening w/SPC26	Rough Opening	-2 1/8	(54)	-1 1/16	(27)
Wood Direct Glaze	Masonry Opening w/SPC26	Rough Opening	-2 1/2	(64)	-1 1/4	(32)
Wood Tilt Turn	Masonry Opening w/SPC26	Rough Opening	-2 1/4	(57)	-1 11/16	(43)
All Doors	Masonry Opening w/SPC26	Rough Opening	-2 1/8	(54)	-1 1/16	(27)

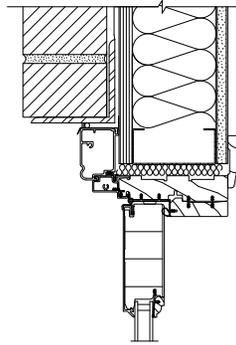
Accessories

**Clad Special Casing for Doors - Wood Frame Construction - All Casings Options**

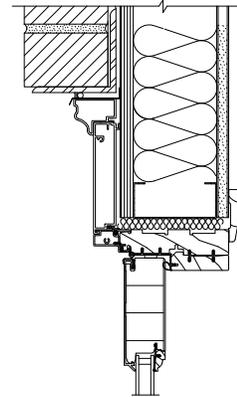
Not to Scale



**A1440 Columbus Casing Stick Construction**



**A1442 Grayson Casing**



**A14424/1445 2 Pc. Potter Casing**

Measurement Conversions for Special Casing Doors			
Casing Type	RO to FOM	FOM to COM	Masonry Opening
<b>A1440</b> Columbus	Width -1.0 Height -1/2	Width +7.0 Height +3 1/2	*Width COM + (Sealant Gap x 2) Height COM + (Sealant Gap x 1)
<b>A1442</b> Grayson	Width -1.0 Height -1/2	Width +4.0 Height +2.0	*Width COM + (Sealant Gap x 2) Height COM + (Sealant Gap x 1)
<b>A1441</b> Kinsley	Width -1.0 Height -1/2	Width +7 3/16 Height +3 19/32	*Width COM + (Sealant Gap x 2) Height COM + (Sealant Gap x 1)
<b>A1447/A1448</b> Kinsley RT	Width -1.0 Height -1/2	Width +7 3/16 Height +3 19/32	*Width COM + (Sealant Gap x 2) Height COM + (Sealant Gap x 1)
<b>A1446</b> Ridgeland	Width -1.0 Height -1/2	Width +4 1/8 Height +2 1/16	*Width COM + (Sealant Gap x 2) Height COM + (Sealant Gap x 1)
<b>A1449</b> Stratton	Width -1.0 Height -1/2	Width +4 5/32 Height +2 1/16	*Width COM + (Sealant Gap x 2) Height COM + (Sealant Gap x 1)
<b>A1443</b> Thorton	Width -1.0 Height -1/2	Width +3 13/32 Height +1 11/16	*Width COM + (Sealant Gap x 2) Height COM + (Sealant Gap x 1)
<b>A1444/A1445</b> Potter	Width -1.0 Height -1/2	Width +6.0 Height +5 1/2	*Width COM + (Sealant Gap x 2) Height COM + (Sealant Gap x 1)

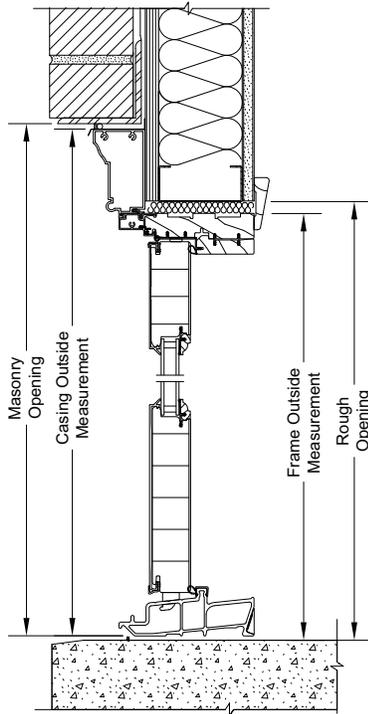
RO: Rough Opening  
FOM: Frame Outside Measurement  
COM: Casing Outside Measurement

NOTE: Sealant gap to be determined by others. Minimum of 1/4" on all four sides recommended

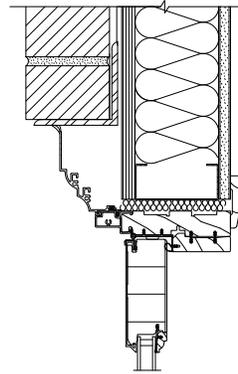
Accessories

**Clad Special Casing for Doors - Masonry Construction - All Casing Options**

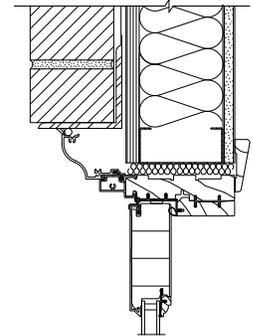
Not to Scale



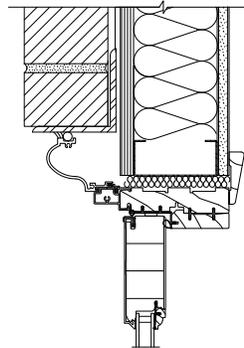
**A1442 Grayson Casing  
Masonry Construction**



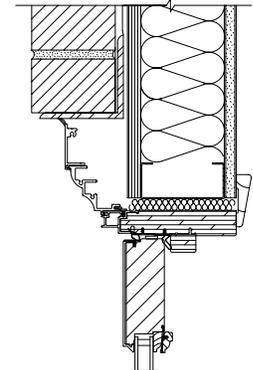
**A1441 Kinsley Casing**



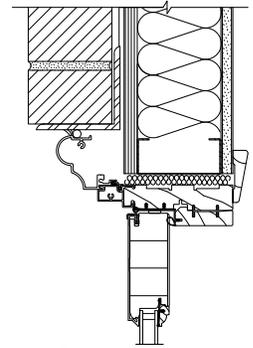
**A1443 Thorton Casing**



**A1446 Ridgeland Casing**



**A1447/A1448  
Kinsley RT Casing**



**A1449 Stratton Casing**

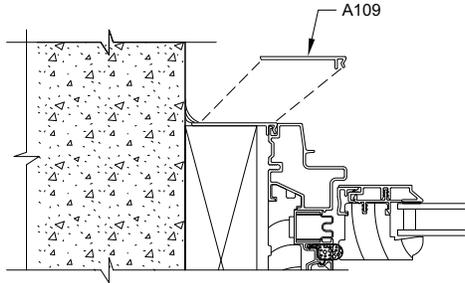
Sealant gap to be determined by others. Minimum of 1/4" on all four sides recommended

**Measurement Conversions for Special Casing Doors**

Casing Type	RO to FOM	FOM to COM	Masonry Opening
<b>A1440 Columbus</b>	Width -1.0 Height -1/2	Width +7.0 Height +3 1/2	*Width COM + (Sealant Gap x 2) Height COM + (Sealant Gap x 1)
<b>A1442 Grayson</b>	Width -1.0 Height -1/2	Width +4.0 Height +2.0	*Width COM + (Sealant Gap x 2) Height COM + (Sealant Gap x 1)
<b>A1441 Kinsley</b>	Width -1.0 Height -1/2	Width +7 3/16 Height +3 19/32	*Width COM + (Sealant Gap x 2) Height COM + (Sealant Gap x 1)
<b>A1447/A1448 Kinsley RT</b>	Width -1.0 Height -1/2	Width +7 3/16 Height +3 19/32	*Width COM + (Sealant Gap x 2) Height COM + (Sealant Gap x 1)
<b>A1446 Ridgeland</b>	Width -1.0 Height -1/2	Width +4 1/8 Height +2 1/16	*Width COM + (Sealant Gap x 2) Height COM + (Sealant Gap x 1)
<b>A1449 Stratton</b>	Width -1.0 Height -1/2	Width +4 5/32 Height +2 1/16	*Width COM + (Sealant Gap x 2) Height COM + (Sealant Gap x 1)
<b>A1443 Thorton</b>	Width -1.0 Height -1/2	Width +3 13/32 Height +1 11/16	*Width COM + (Sealant Gap x 2) Height COM + (Sealant Gap x 1)
<b>A1444/A1445 Potter</b>	Width -1.0 Height -1/2	Width +6.0 Height +5 1/2	*Width COM + (Sealant Gap x 2) Height COM + (Sealant Gap x 1)

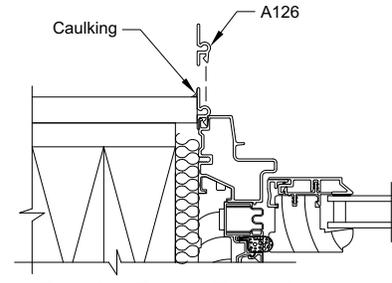
RO: Rough Opening  
FOM: Frame Outside Measurement  
COM: Casing Outside Measurement

**Clad Applications**



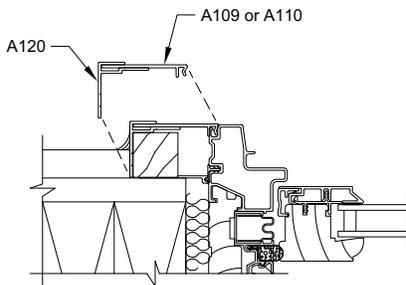
**Frame Expander**

A109 or A110. Used to seal the outer edge by caulking in between the expander and the wall. Frame expander includes intermediate break points to achieve additional widths.



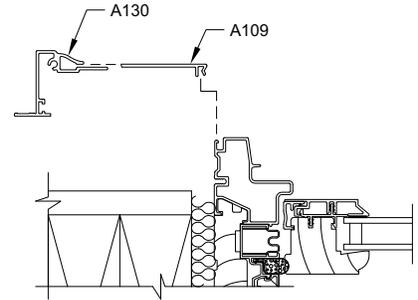
**Exterior Frame Extender**

Used to extend the clad frame past the building siding. Important: Caulking is required to seal between the frame extender and the building exterior.



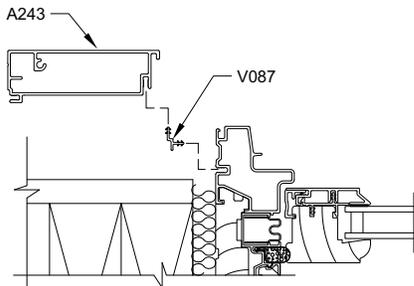
**Frame Expander and 90 Degree Frame Expander**

A109 or A110 with A120. Used to simulate clad flat casing in various widths.



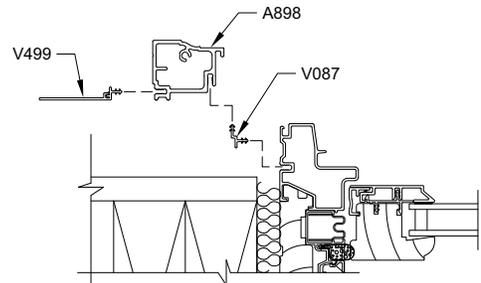
**Clad Adjustable Brick Mould Casing**

Used with A109 or A110 to create an adjustable width Brick Mould Casing for Clad units.



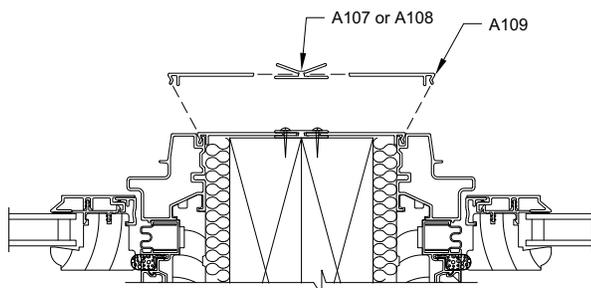
**Clad Flat Casing**

Used to simulate a wood casing for clad units.



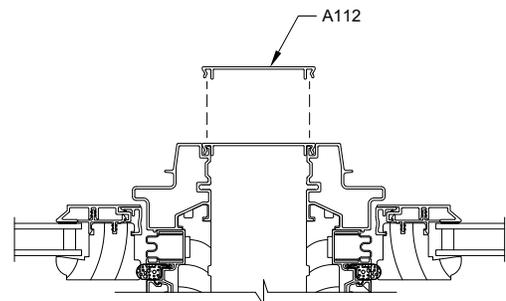
**Clad Brick Mould Casing**

Used to simulate a wood Brick Mould Casing for Clad units.



**Frame Expander with Mullion Expander**

A109 or A110 with A107 or A108. Used to create a solid color matched facade between mullied clad units.



**Mullion Cover**

Used to create a color matched facade between mullied clad units, available in various widths, refer to Clad Extrusions.

*NOTE: All accessories are field applied by others, construction materials supplied by others.*



FIND A DEALER

Zip/Postal Code

SEARCH SITE

Keyword

[INTERNATIONAL](#)

[Homeowner](#) | [Windows](#) | [Double Hung](#) | [Next Generation Ultimate Double Hung](#) | [Design Patterns And Grilles](#)

## NEXT GENERATION ULTIMATE DOUBLE HUNG

[REQUEST INFORMATION](#) • [ENEWS SIGN UP](#)

OVERVIEW

FUNCTIONALITY

INNOVATION

### THE INNOVATION BEHIND THE BEAUTY

View chapters of our Double Hung video and see what makes it our most revolutionary window yet.



Heritage



Craftsmanship



Innovation



Quality & Performance



How to Operate

[find a DEALER](#) ▶

[DOWNLOAD THE BROCHURE](#)

### FEATURES, OPTIONS, AND SPECIFICATIONS

[OPTIONS](#)   [TECHNICAL RESOURCES](#)

[PHOTO GALLERY](#) ▶

[FEATURES AND BENEFITS](#)

[INTEGRATED SHADES SOLUTION](#)

[INTERIOR FINISH OPTIONS](#)

[EXTERIOR FINISH OPTIONS](#)

[DESIGN PATTERNS AND GRILLES](#)

#### Divided Lite Options

Marvin has a variety of ways to bring out the best in your window designs:

- **Simulated Divided Lite with Spacer Bar (SDLS)** - an energy-efficient way to create the look of divided lites. SDLS bars are permanently adhered to both sides of the glass. A spacer bar is installed between the glass, creating the essence of Authentic Divided Lites.
- **Simulated Divided Lite (SDL)** - SDL bars are permanently adhered to both sides of the glass.
- **Grilles-between-the-Glass (GBGs)** - Grilles are permanently installed between the glass panes. This low-maintenance option creates the look of divided lites.

- **GBGs Color Choices for Exterior and Interior** - Color options allow for two tone grilles-between-the-glass. Choose from 13 exterior colors or 4 interior colors.
- **Removable Grilles** - Solid wood Grilles on the interior offer the look of a classic divided lites, but can be easily removed for cleaning.



Simulated Divided Lite with Spacer Bar (SDLS)

Simulated Divided Lite (SDL)



Grilles-between-the-Glass (GBGs)



GBGs Exterior and Interior Color



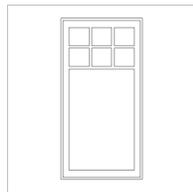
Removable Grilles

**Divided Lite Patterns**

Marvin's custom capabilities allow us to create almost any divided lite pattern you can dream up. Divided lites can feature an array of muntin widths, unique muntin profiles, rectangular or radius cuts and more. Choose from an existing lite cut, specify custom divided lites according to a new design or ask our design professionals to assist in creating a pattern for your needs.

The result is a window or door that combines the detailing and craftsmanship of a small millwork house with the product performance delivered by an industry leader.

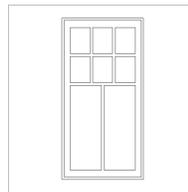
Below are some of our most frequently-requested divided-lite patterns:



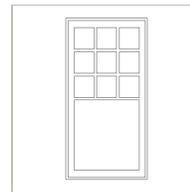
Cottage A



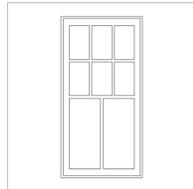
Cottage B



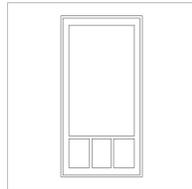
Cottage T



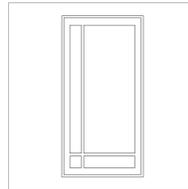
Checkrail



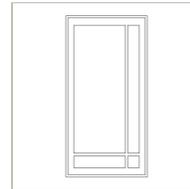
Checkrail T



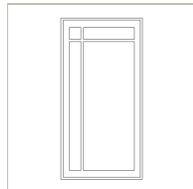
Oriol



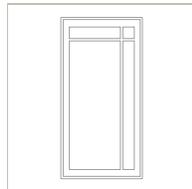
Prairie 4 Bottom-Left



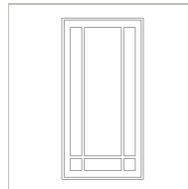
Prairie 4 Bottom-Right



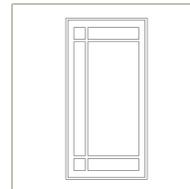
Prairie 4 Top-Left



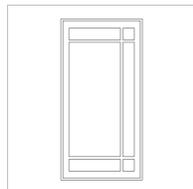
Prairie 4 Top-Right



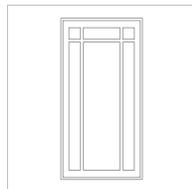
Prairie 6 Bottom



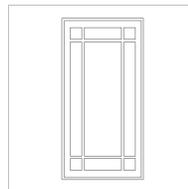
Prairie 6 Left-Hand



Prairie 6 Right-Hand



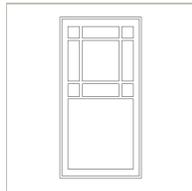
Prairie 6 Top



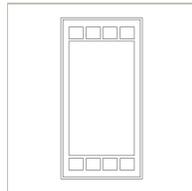
Prairie 9A



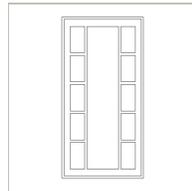
Prairie 9B



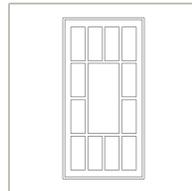
Prairie Checkrail



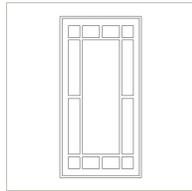
Trellis Horizontal



Trellis Vertical



Victorian



Victorian Prairie

[REQUEST INFORMATION](#) • [ENEWS SIGN UP](#)

[FIND A DEALER](#)

HARDWARE AND ACCESSORIES

GLASS, ENERGY EFFICIENCY AND SCREENS

SIGNATURE SOLUTIONS