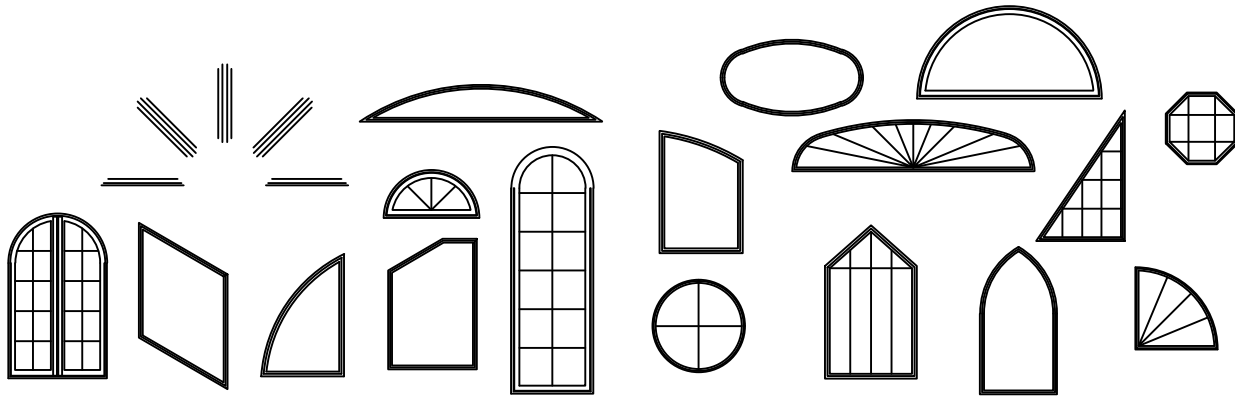

TABLE OF CONTENTS

General Information	19-2
Elevation Notes	19-3
Lite Cut Information	19-4
Clear Opening Information	19-5
Unit Sizing	19-6
Trim Options	19-7
Sections	19-8

GENERAL INFORMATION

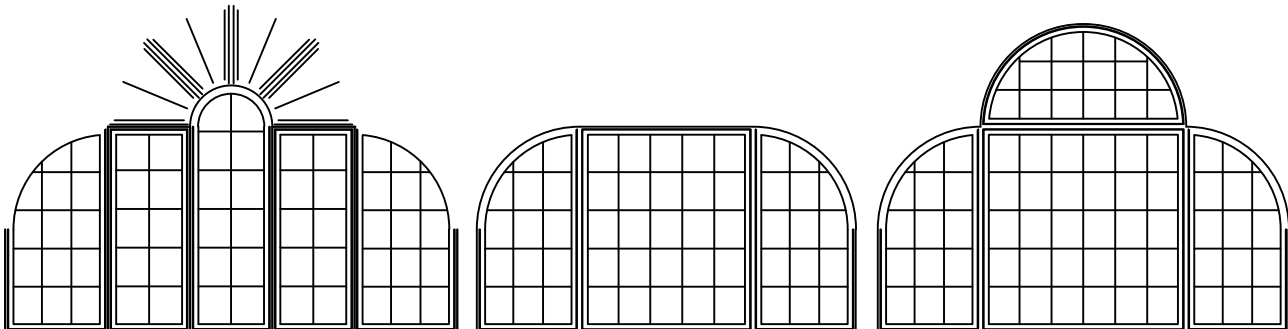
STANDARD SIZES & DESIGNS

Custom clad geometric in sash windows are produced one-at-a-time to customer order, and are available in a nearly infinite range of sizes and shapes. Specified sizes, angles, and radii can be attained in finished units, to meet the most demanding architectural requirements.



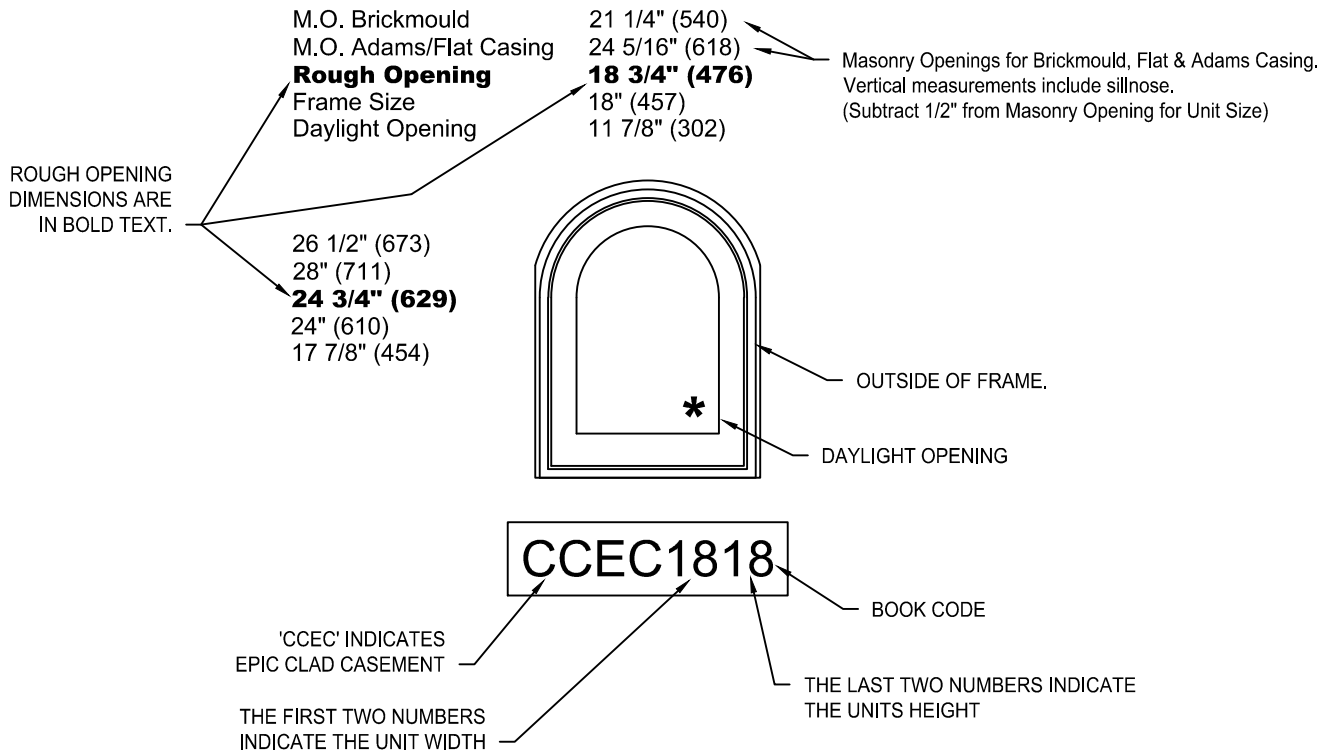
MULTIPLE ASSEMBLIES

Custom clad In Sash geometric windows may be mullled above, below, or beside other clad geometric windows, or other clad window or patio door products. Factory assembled mulls are limited in height (100"), width (150").



ELEVATION NOTES

ELEVATION DRAWINGS UTILIZE A LIMITED NUMBER OF PROJECTED LINES TO PRODUCE A RUDIMENTARY DRAWING INTENDED TO BE USED IN A SMALL GRAPHICAL SCALE. ELEVATIONS ARE VIEWED PERPENDICULAR FROM THE EXTERIOR OF THE STRUCTURE. IF MORE DIMENSIONS ARE NEEDED, USE THE SECTION DRAWINGS (Pages 14 & 15) FOR MORE COMPLETE DEPICTIONS.



GENERAL NOTES

1. UNIT ELEVATIONS ARE SHOWN WITHOUT EXTERIOR TRIM.
2. VALUES IN BRACKETS ARE MILLIMETER CONVERSIONS.

ELEVATION SYMBOL LEGEND:

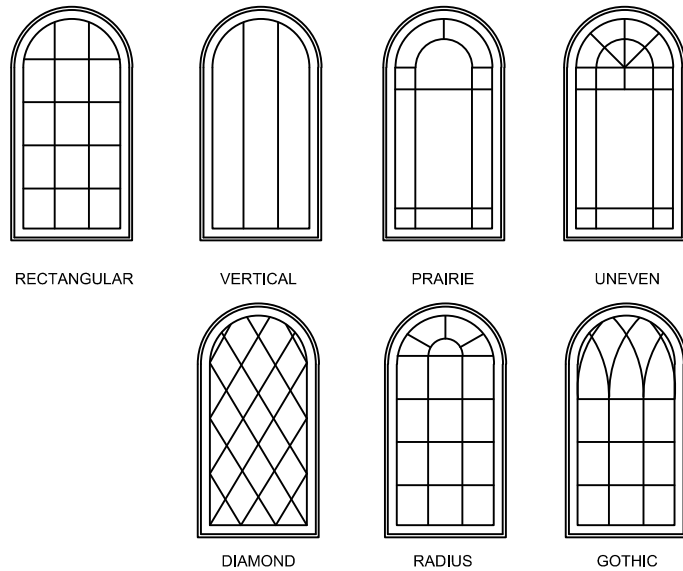
- E** BASIC UNIT CLEAR OPENING EXCEEDS 20" IN WIDTH, 24" IN HEIGHT & A MINIMUM OF 5.7 SQ. FT.
- *** THESE UNITS ARE ONLY AVAILABLE AS STATIONARY (FIXED).
- **** THESE UNITS ARE LIMITED OPERATION.
- ##** NUMBER INDICATES DESIGN PRESSURE (DP) RATING WITH STANDARD GLAZING.

LITE CUT INFORMATION

Custom clad insash geometric windows are available with removable grilles in 7/8", 1-1/8" and 1-3/8" widths, Airspace (between the panes) grilles, and Simulated Divided Lites. Standard lite cuts are rectangular, and conform to the layouts noted in the charts on the next page. To use the chart, refer to the appropriate table by the type of window and type of bars or grilles the section drawings illustrate. Then simply cross reference the frame Height and Width to determine the standard lite cut.

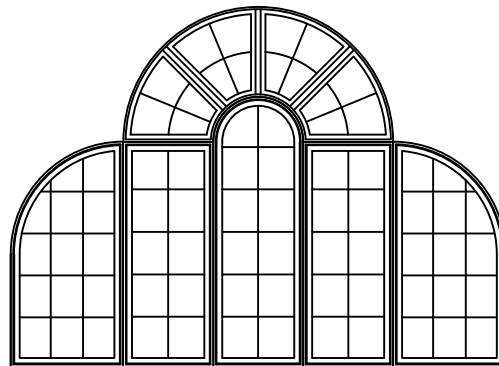
LITE CUT OPTIONS

Special lite cut patterns can include a wide variety of straight line and radius patterns. The illustrations shown here represent just a few of the possibilities. Rectangular, horizontal, vertical and Prairie lite patterns are available in all standard size clad insash geometric windows. Uneven, diamond, radius and Gothic lite cuts are available, subject to approval. Approvals are based on the ability to fulfill the design requirement while maintaining the construction integrity of the finished product.



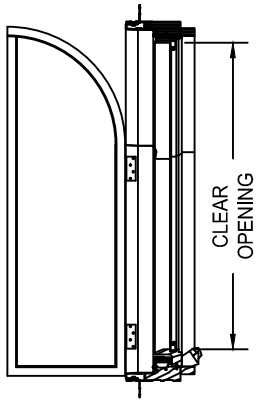
BAR ALIGNMENT

Alignment of divided lite muntin bars from one window to the next is often required by fine architectural design. Wood grilles, Airspace grilles, and Simulated Divided Lites may be specified with muntin bars aligned.

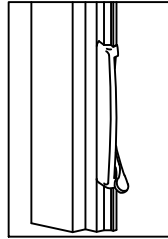


CLEAR OPENING INFORMATION

ADIUS OPERATING UNITS



QUARTER ROUND
HANDED SECTOR

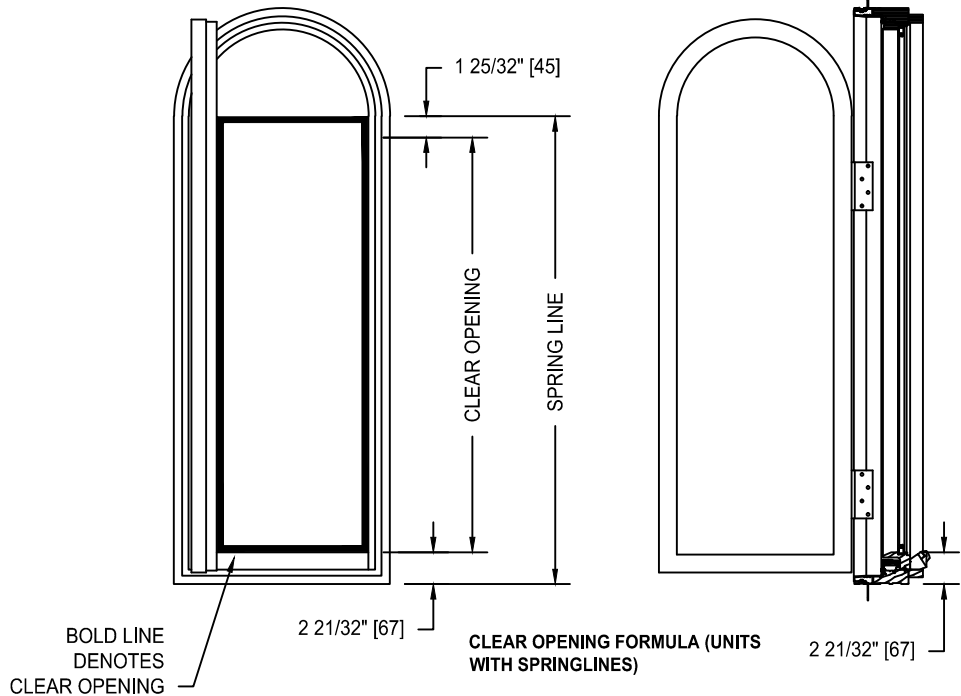


CONCEALED
LOCKING SYSTEM

SASH LOCK RESTRICTIONS

UNITS WITH A SPRINGLINE HEIGHT,
OR FRAME HEIGHT FOR
RECTANGULAR UNITS, OF 15" [381] OR
GREATER MAY UTILIZE THE
CONEALED LOCKING SYSTEM.

VERTICAL CLEAR OPENING



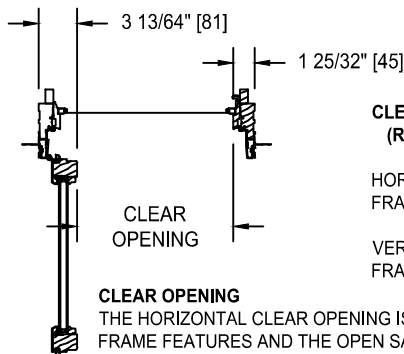
BOLD LINE
DENOTES
CLEAR OPENING

**CLEAR OPENING FORMULA (UNITS
WITH SPRINGLINES)**

HORIZONTAL CLEAR OPENING:
FRAME - 5 3/8" [137]

VERTICAL CLEAR OPENING:
SPRINGLINE - 4 7/16" [113]

HORIZONTAL CLEAR OPENING



**CLEAR OPENING FORMULA
(RECTANGULAR UNIT)**

HORIZONTAL CLEAR OPENING:
FRAME - 5 3/8" [137]

VERTICAL CLEAR OPENING:
FRAME - 4 7/16" [113]

CLEAR OPENING

THE HORIZONTAL CLEAR OPENING IS THE UNOBSTRUCTED LINEAR DIMENSION BETWEEN FRAME FEATURES AND THE OPEN SASH. THE VERTICAL CLEAR OPENING IS THE UNOBSTRUCTED LINEAR DIMENSION BETWEEN THE OPERATOR COVER AT THE SILL AND THE POINT THE FRAME DEVIATES FROM VERTICAL (INTERIOR SPRINGLINE). THIS ASSUMES THE WINDOW IS OPEN FULLY THROUGH NORMAL OPERATION FROM THE INSIDE.

SPRINGLINE

THE SPRINGLINE IS THE DIMENSION FROM THE BOTTOM OF THE FRAME TO THE POINT THE FRAME DEVIATES FROM VERTICAL. ALL UNIT SPRINGLINES ARE DEFINED FROM THE OUTSIDE (WALL SIDE) OF THE FRAME, AS SHOWN ABOVE.

UNIT SIZING, ROUGH OPENINGS & MASONRY OPENINGS

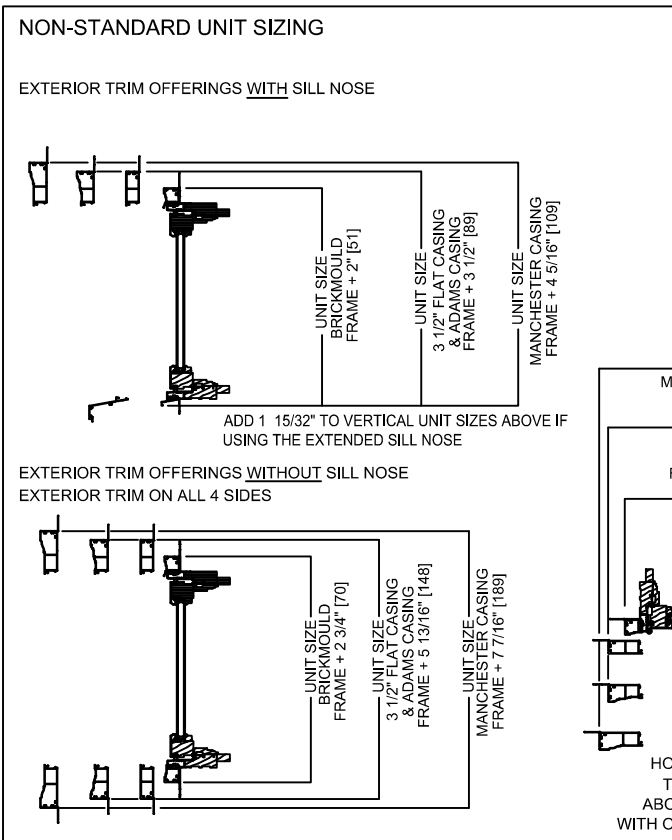
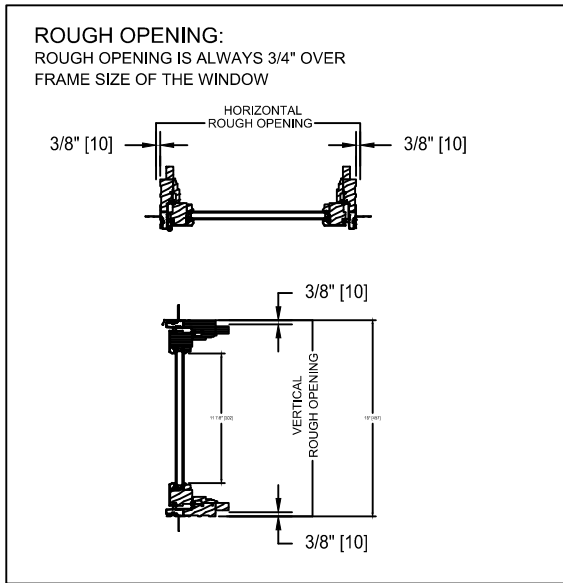
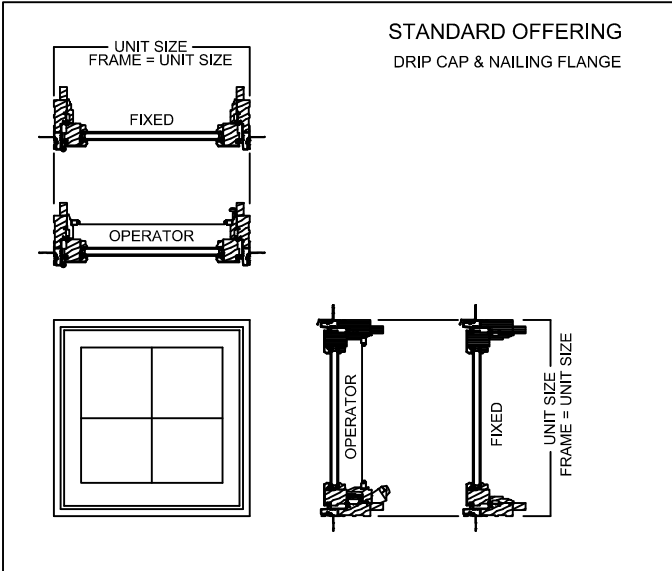
GENERAL NOTES:

UNITS WITH NO TRIM AND SILL NOSE:
UNIT SIZE = FRAME SIZE

UNIT SIZE IS ALWAYS THE
EXTREME SIZE OF THE WINDOW
WITH OR WITHOUT TRIM
(DRIP CAP & NAILING FLANGE ARE
NOT ADDED TO ANY UNIT SIZING)

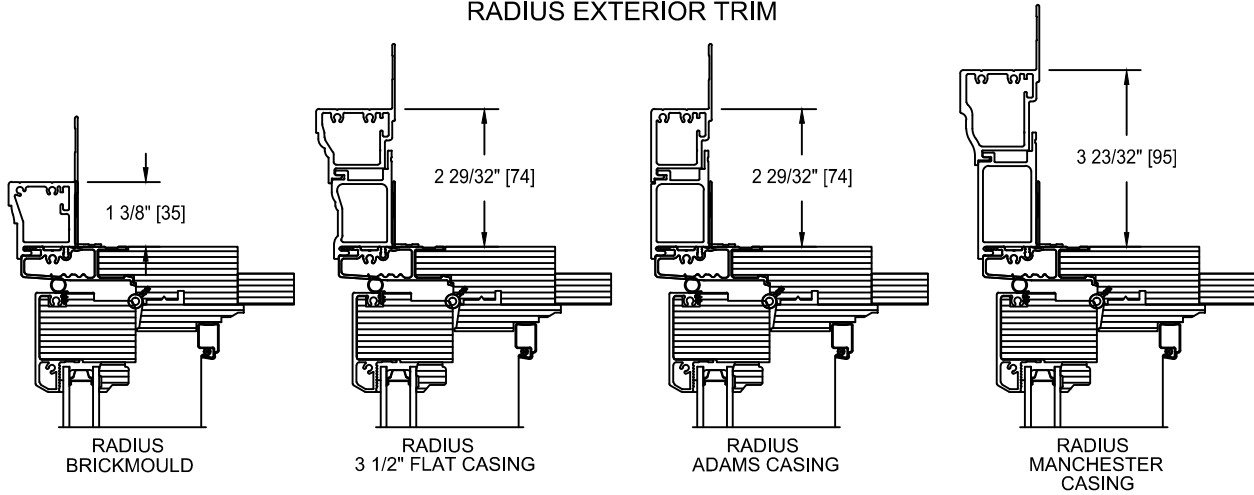
MASONRY OPENING:
MASONRY OPENING IS ALWAYS 1/2" OVER
THE UNIT SIZE OF THE WINDOW

ROUGH OPENING:
ROUGH OPENING IS ALWAYS 3/4" OVER
FRAME SIZE OF THE WINDOW

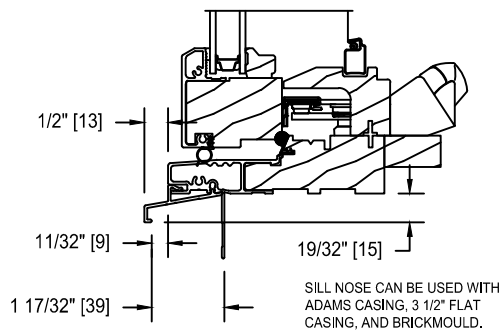


TRIM OPTIONS

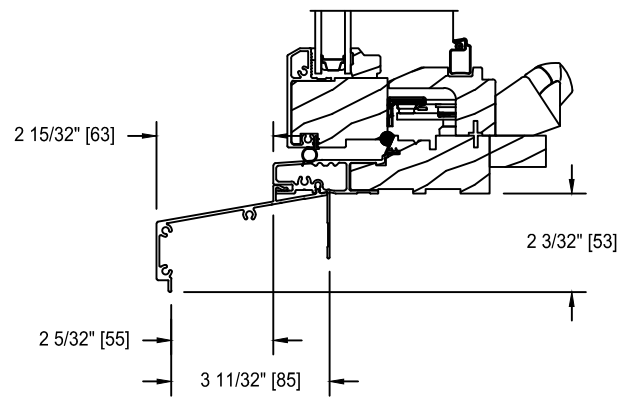
RADIUS EXTERIOR TRIM



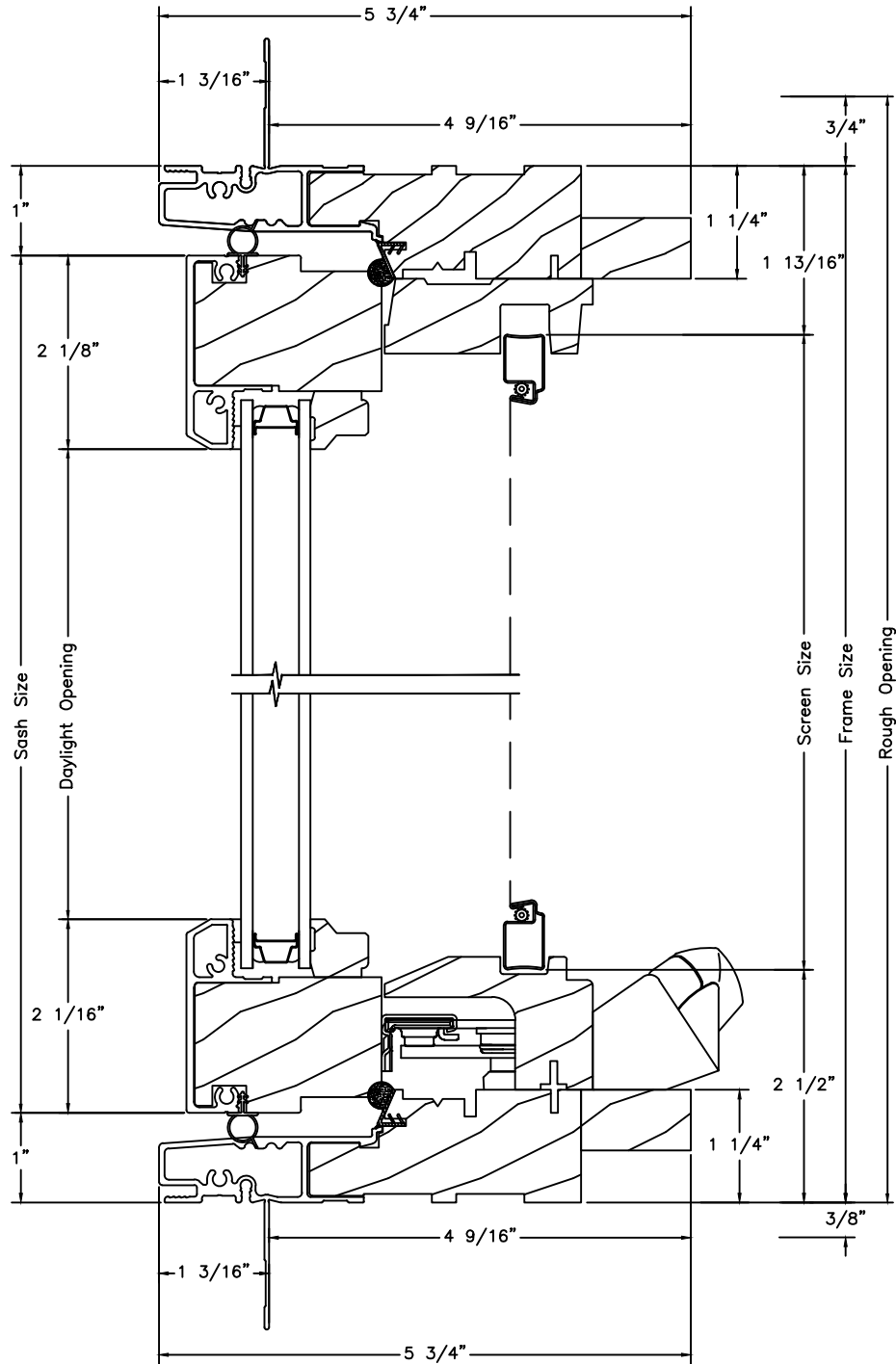
SILL NOSE



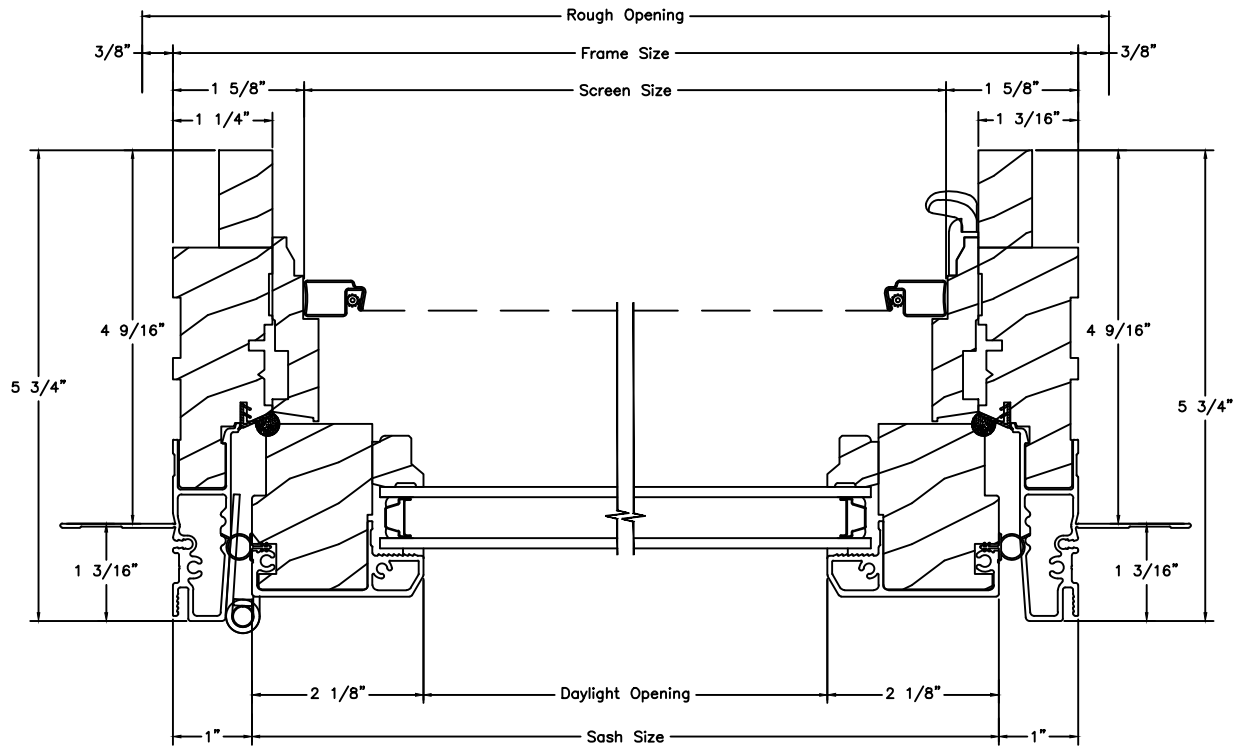
EXTENDED SILL NOSE



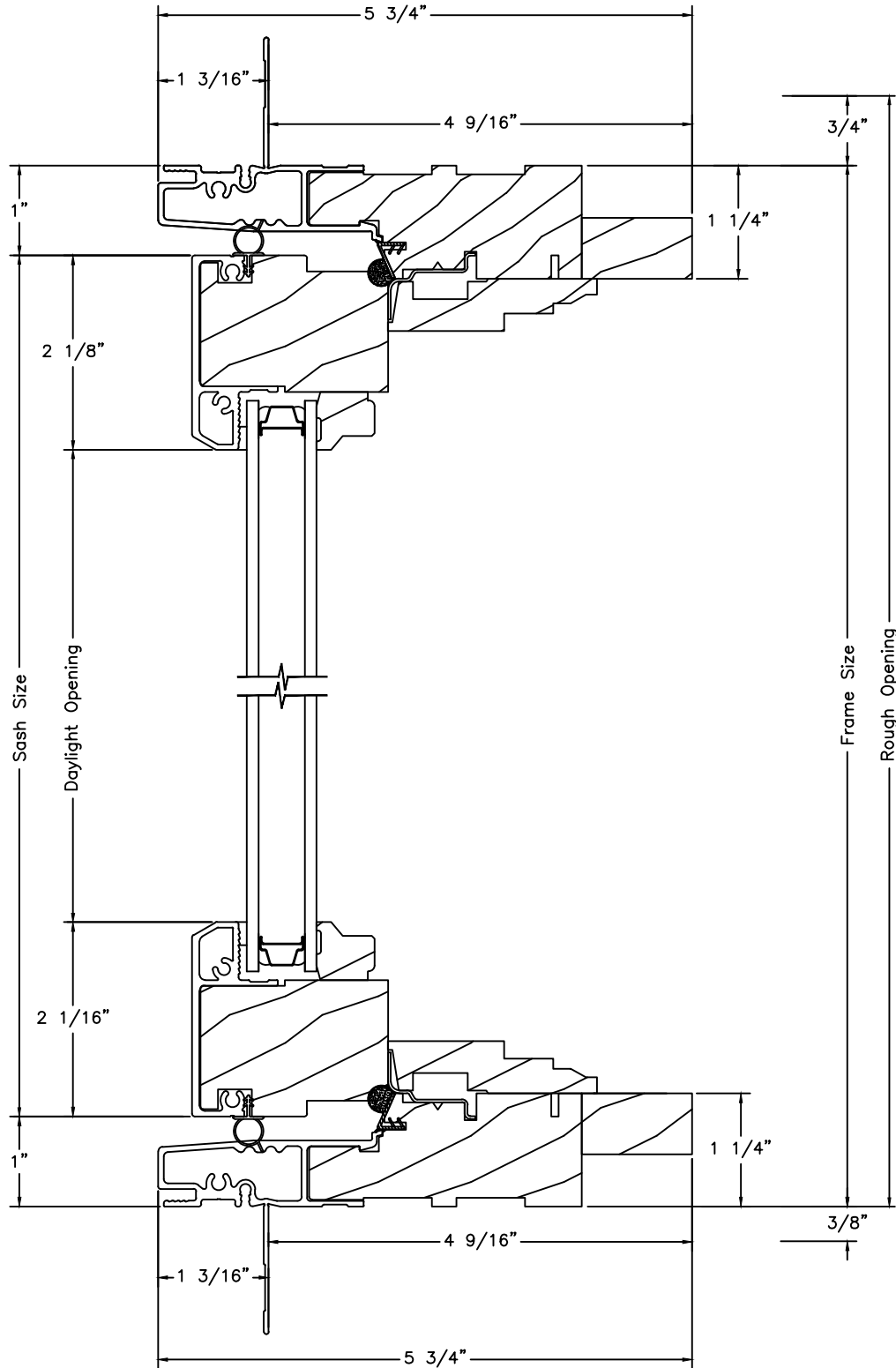
**VERTICAL SECTION
OPERATOR - STRAIGHTLINE GEOMETRIC**



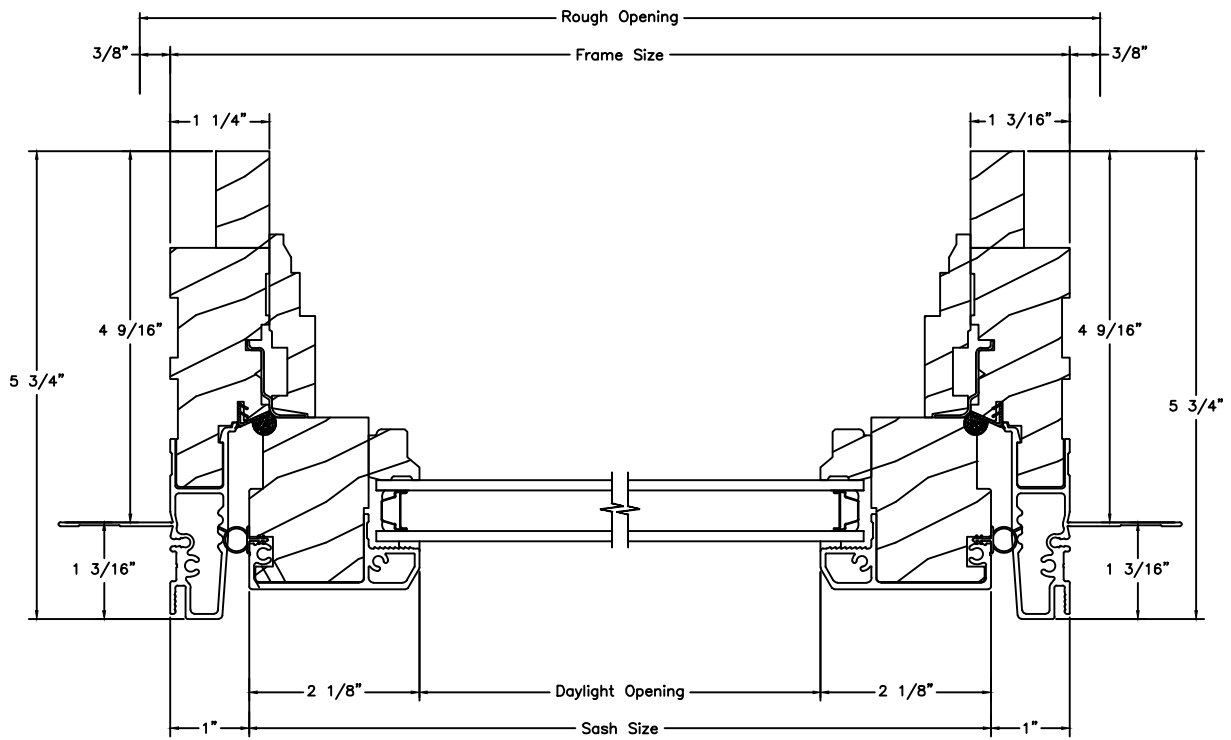
HORIZONTAL SECTION
OPERATOR - STRAIGHTLINE GEOMETRIC



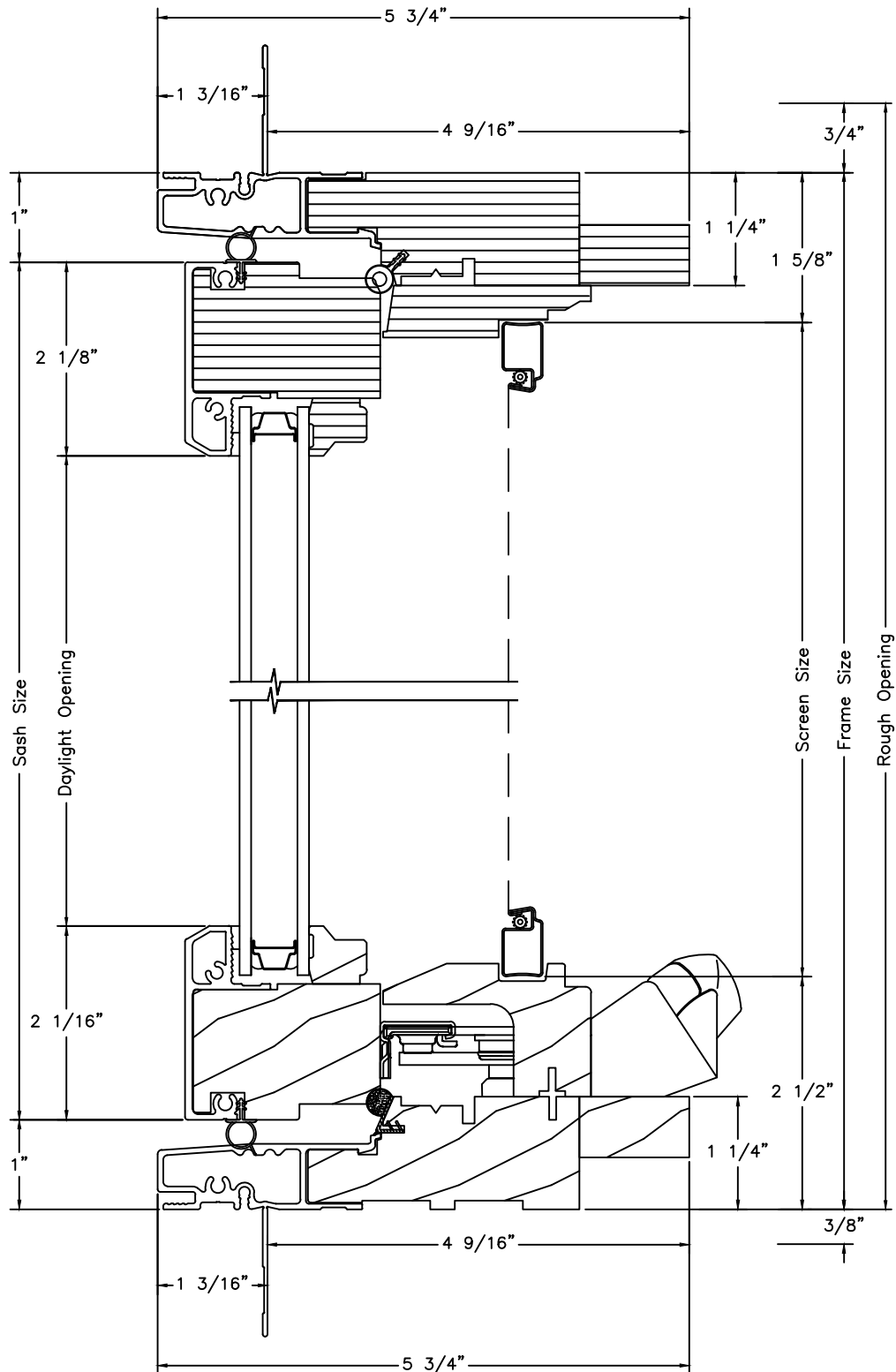
VERTICAL SECTION
FIXED - STRAIGHTLINE GEOMETRIC



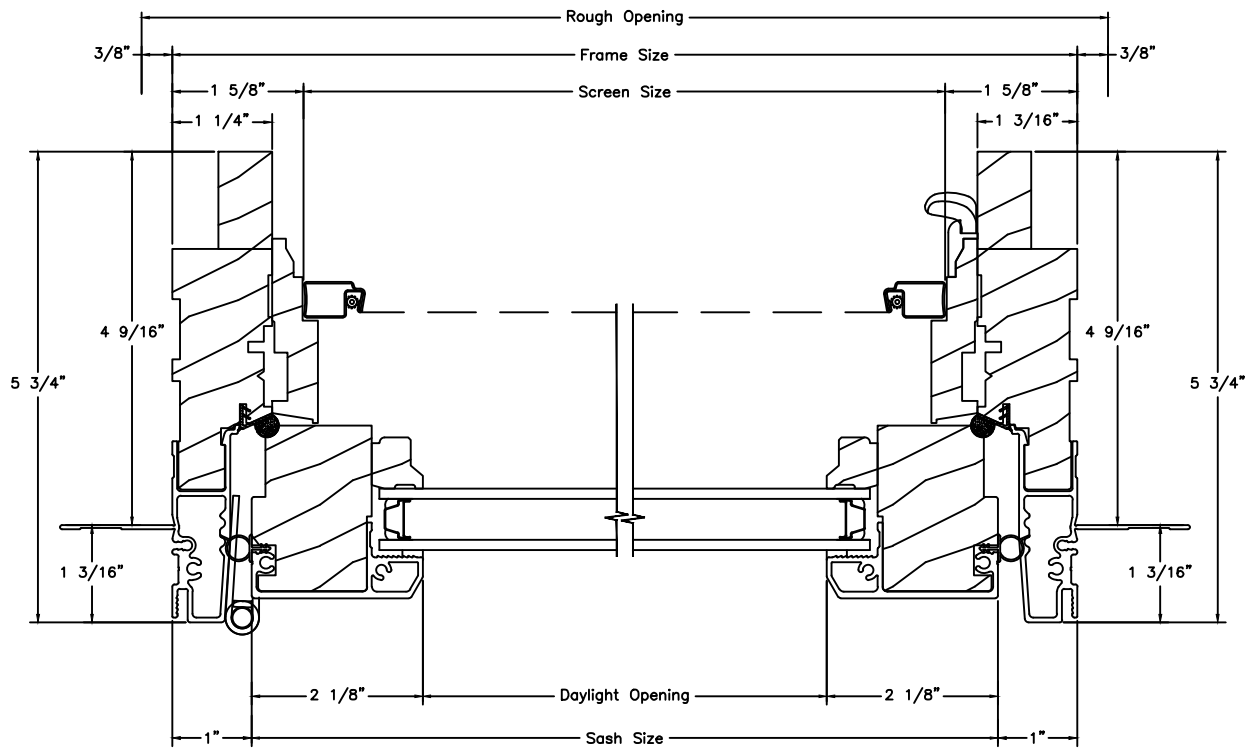
HORIZONTAL SECTION
FIXED - STRAIGHTLINE GEOMETRIC



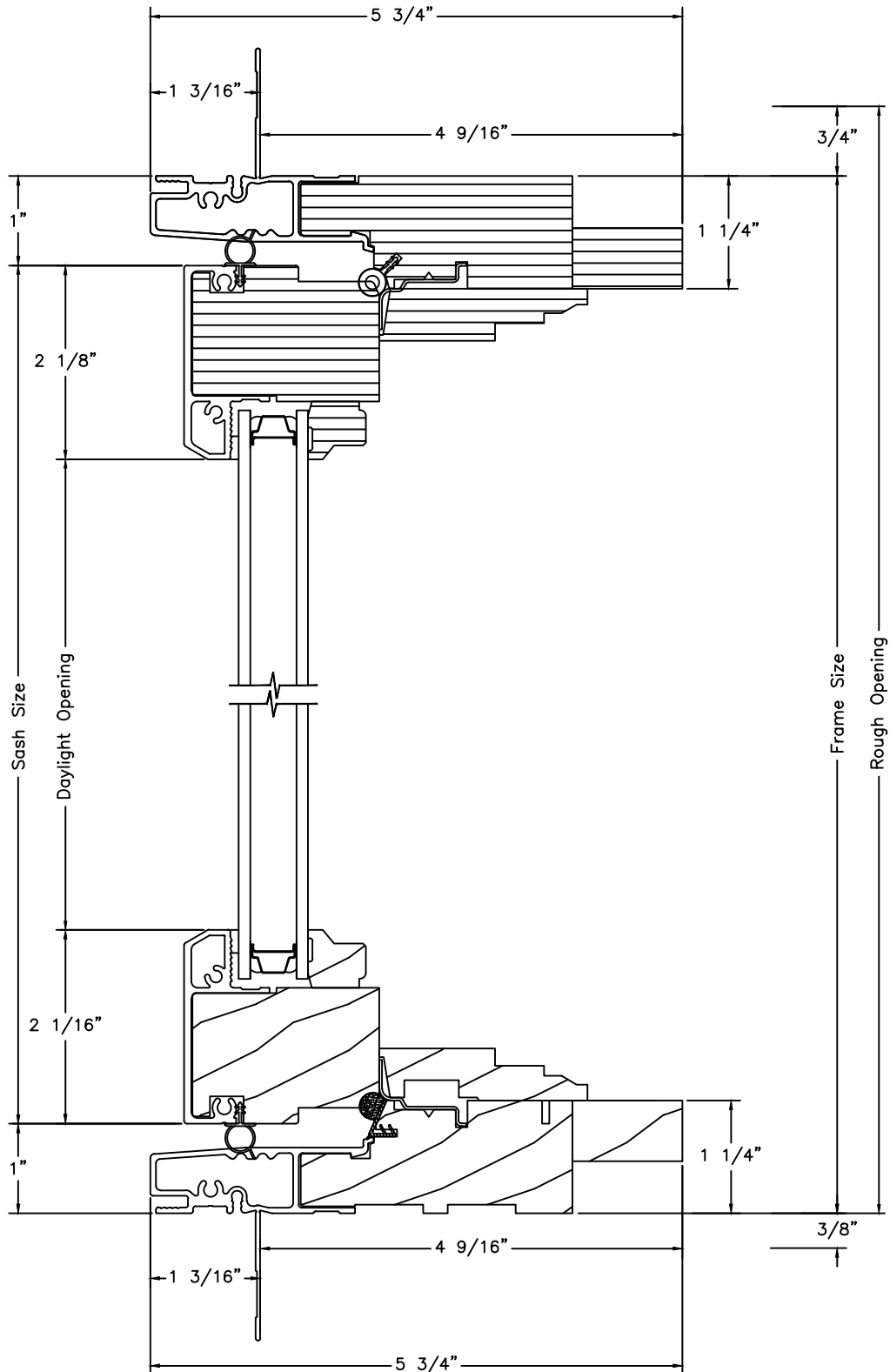
VERTICAL SECTION
RADIUS UNIT



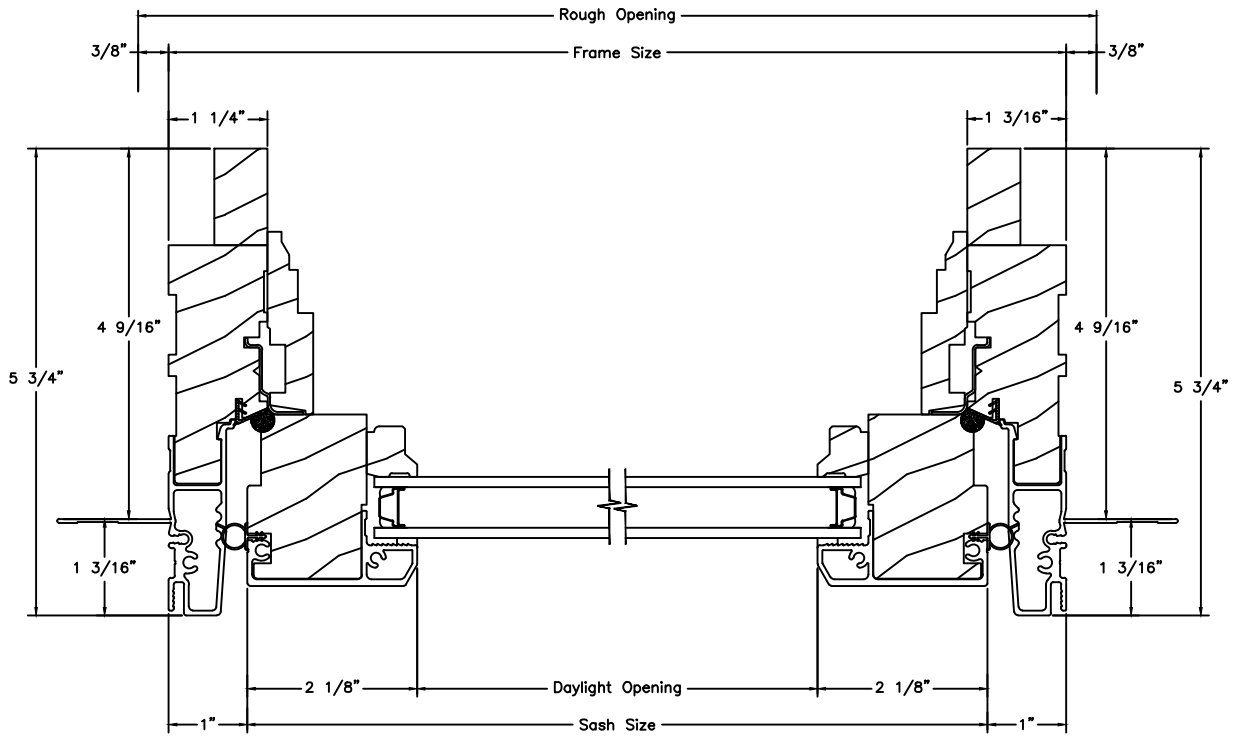
HORIZONTAL SECTION
RADIUS UNIT



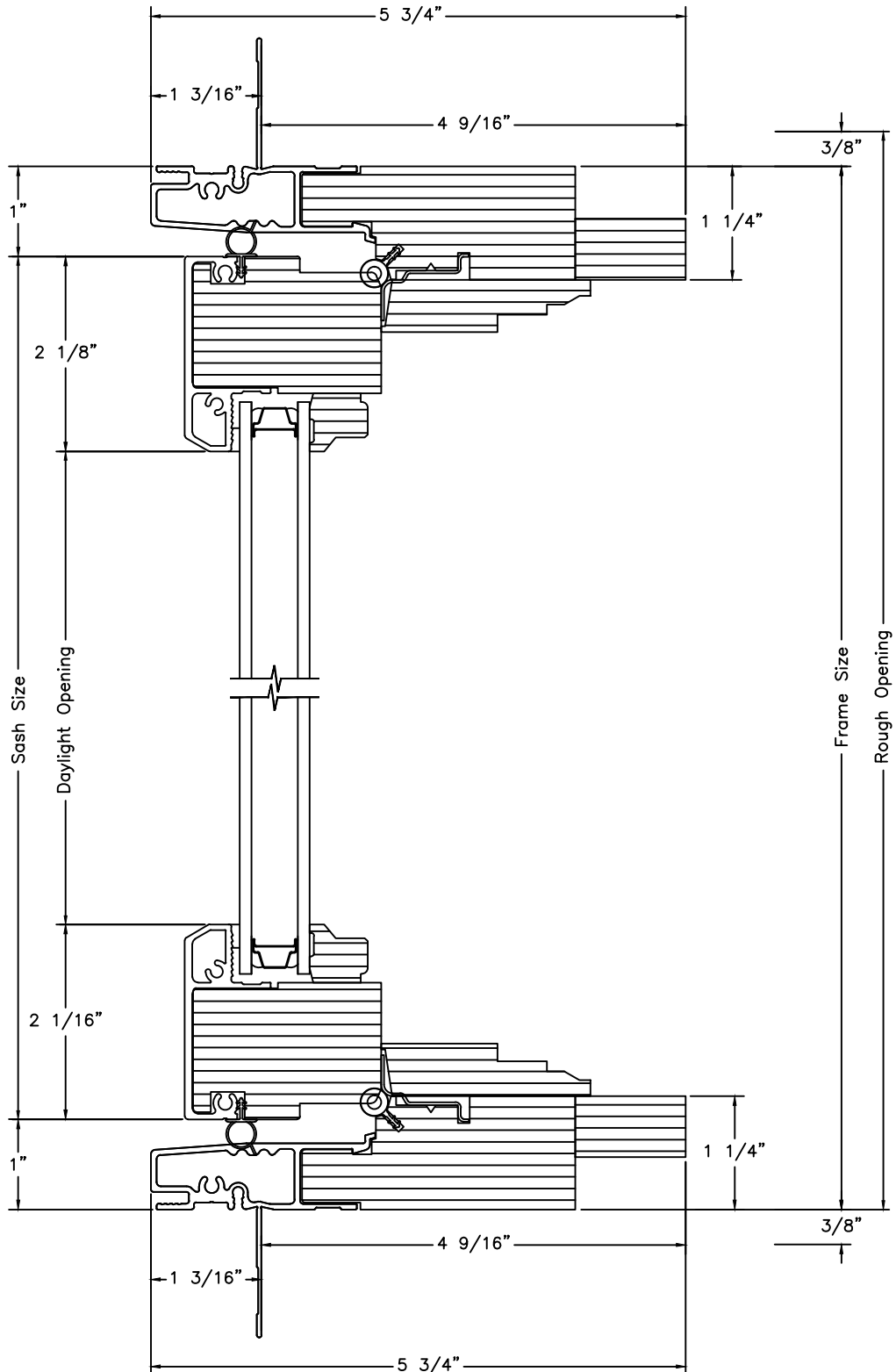
VERTICAL SECTION
FIXED - RADIUS UNIT



HORIZONTAL SECTION
FIXED - RADIUS UNIT



VERTICAL SECTION
FIXED - FULL RADIUS UNIT



HORIZONTAL SECTION
FIXED - FULL RADIUS UNIT

