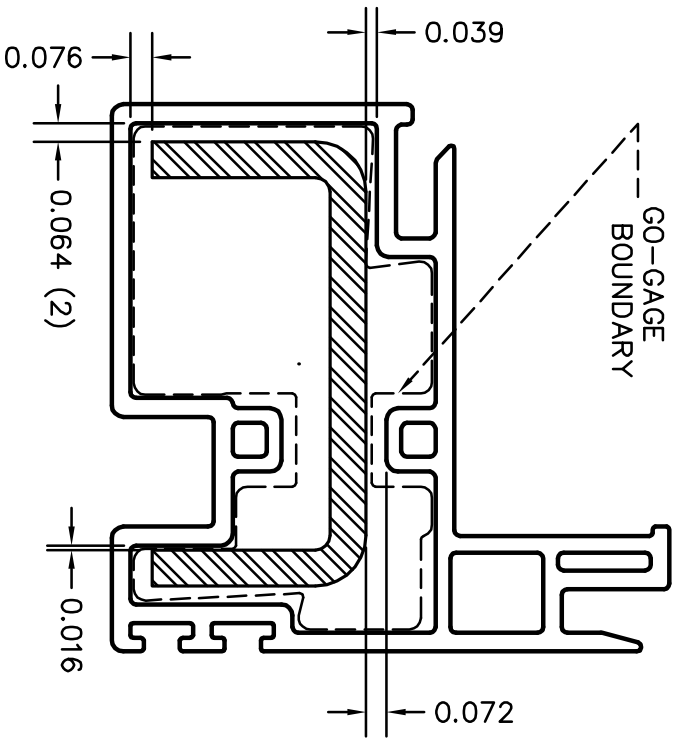


Structural Performance: SS93WW OX Uneq. Single Slider (Small Sash)

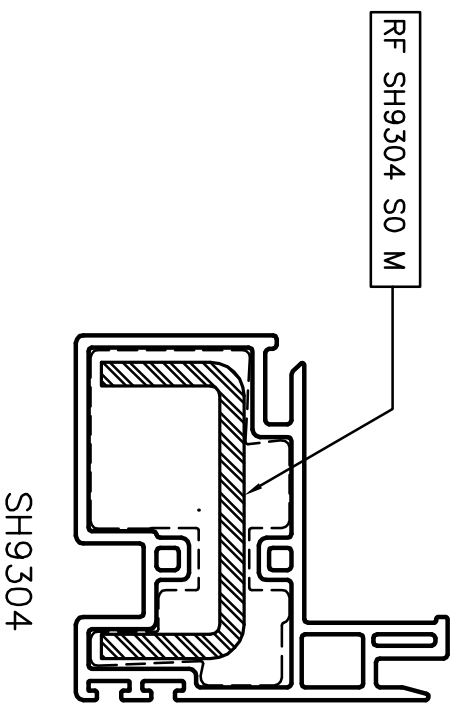
Window Width: 71.000		Nominal Size: 6052		Rev.7-Jun-11	
Window Height: 62.000		Velocity: Test: Design:			
		MPH: 132.6 108.2			
		PSF: 45.00 30.00			
		D.L. Glass Area (Sq. Ft.): 13.7			
		D.L. Glass Short Side to Long Side Ratio: 1 to 1.8			
Vent Sash Width: 35.938		Vent Glass Area (Sq. Ft.): 13.0			
Vent Sash Height: 58.875		Vent Glass Short Side to Long Side Ratio: 1 to 1.7			
Vent\DL Glass Width: 33.313		Notes: 1" I.G. unit of (1) DS pane AN & of (1) DS pane AN			
Vent Glass Height: 56.250		RF SH9304 S0 M (1/8" Galv. steel) is in SH9304 Fixed Meeting Rail.			
D.L. Glass Height: 59.313		RF SE9346b S0 M (1/8" galv. steel) is in SE9346 Lock Rail.			
Span: 62.000		Full Exposure		Spacers used: Steel	
Span Profiles Mass Properties:		Moments of Inertia:		Material: Extreme Fibers (Max.) Modulus	
Profiles:		Pcs.		At Exterior At Interior E (PSI)	
SH9304 Fixed Mtg. Rail		1		PVC 1.1625 1.2095 405,400	
SE9346 Sm. Lock Rail		1		AL. 6063-T5 NA NA 1.00E+07	
N.A.		N.A.		AL. 6063-T6 NA NA 1.00E+07	
N.A.		N.A.		AL. 6005-T5 NA NA 1.00E+07	
N.A.		N.A.		Steel G90 0.873 0.7715 3.00E+07	
N.A.		N.A.		S.S. AISI 201 0.385 0.385 2.80E+07	
N.A.		N.A.		Glass 0.0575 0.0575 1.04E+07	
RF SE9346b S0 M Lock R. Stl.		1		Total Loading (Lb.) Bending Moment:	
N.A.		N.A.		490.9 4,748 In-#	
N.A.		N.A.		Sash Tilt Latch/ Head Overlap:	
RF SH9304 S0 M Fixed Mtg. Stl.		1		Nominal: 0.355	
Spacers		2		Under Load: 0.352	
I.G. Unit Iyy:		2		Acceptable	
Deflection at Mid-Span:				Water Hd: 0.864 at 4.5 psf	
Inches: 0.279				Resisting water Hd: 1.514	
L/175: 0.354				Water test met:* R to CW	
Probable AAMA Class: CW-PG 30.0				* Exterior-Interior equalizing not factored in.	
Materials:		PVC 6005-T5 6063-T6		S.S. AISI 201 Steel G90	
Will help unit resist loading:		CERTAIN N.A. N.A.		CERTAIN CERTAIN	
OK:		TRUE		Desired Gateway Size met.	
Region:		Mtg. Rails		Size	
<i>Note: The rating may represent an Optional Performance Class (R, LC, C, HC, or AW) of AAMA/WDMA /CSA 101/I.S.2/A440-08. Please check the glass with ASTM E1300-02 or equivalent software.</i>					
Stress in Extreme Fibers (PSD):					
				Prob. Stress Allowable	
Material		At Exterior At Interior		Strength	
		(- Load) (+ Load)			
PVC		335 349		100.00% 6,556 (Tensile)	
Alum. 6063-T5		N.A. N.A.		N.A. 16,000 (Ult. Yield) (spacers or rebars)	
Alum. 6005-T5		N.A. N.A.		N.A. 35,000 (Ult. Yield)	
Alum. 6063-T6		N.A. N.A.		N.A. 25,000 (Ult. Yield)	
Steel (Hot Dipped Galv. G90)**		18,644 16,476		100.00% 42,000 (Ult. Yield)*	
Stainless Steel (AISI 201)		7,674 7,674		100.00% 90,000 (Ult. Yield) (IG unit spacers)	
Glass***		426 426		0.2 breaks per 1000 O.K.	
**Note: Ultimate yield of this steel ranges from 35,000 to 49,000 psi.					
***The glass breakage & stress results pertain only to the side of the structural members herein investigated.					

Structural Performance: SS93WW OX Uneq. Single Slider (Small Sash)

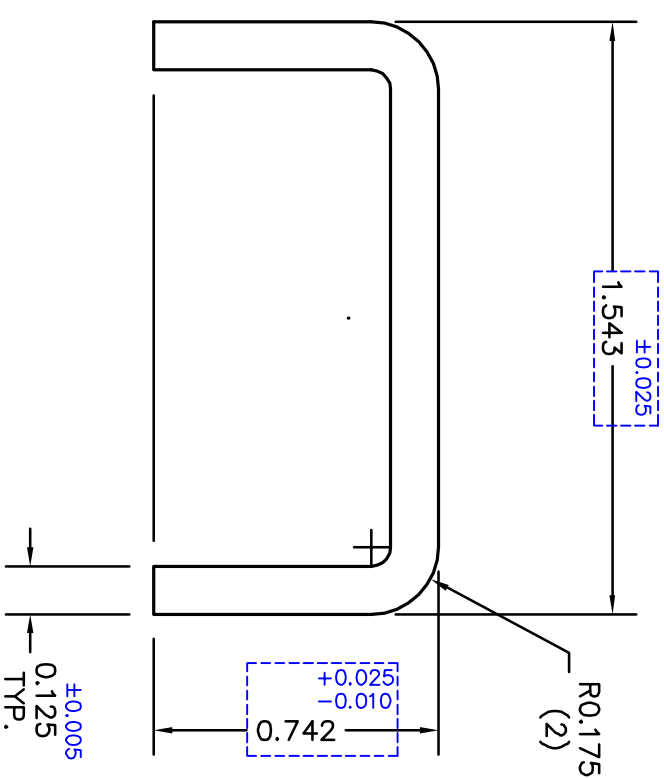
Window Width: 76.000 Window Height: 54.000		Nominal Size: 6446 Velocity: Test: Design: MPH: 171.2 139.7 PSF: 75.00 50.00		Rev.7-Jun-11	
		D.L. Glass Area (Sq. Ft.): 12.8 D.L. Glass Short Side to Long Side Ratio: 1 to 1.4			
Vent Sash Width: 38.438 Vent Sash Height: 50.875		Vent Glass Area (Sq. Ft.): 12.0 Vent Glass Short Side to Long Side Ratio: 1 to 1.3			
Vent\DL Glass Width: 35.813 Vent Glass Height: 48.250 D.L. Glass Height: 51.313		Notes: <i>1" I.G. unit of (1) DS pane AN & of (1) DS pane AN</i> RF SH9304 S0 M (1/8" Galv. steel) is in SH9304 Fixed Meeting Rail. RF SE9346b S0 M (1/8" galv. steel) is in SE9346 Lock Rail.			
Span: 54.000		<i>Full Exposure</i> Spacers used: <i>Steel</i>			
Span Profiles Mass Properties:		Moments of Inertia:		Material: Extreme Fibers (Max.) Modulus	
Profiles: Pcs.				At Exterior At Interior E (PSI)	
SH9304 Fixed Mtg. Rail 1		0.2608		PVC 1.1625 1.2095 405,400	
SE9346 Sm. Lock Rail 1		0.2759		AL. 6063-T5 NA NA 1.00E+07	
N.A. N.A.		N.A.		AL. 6063-T6 NA NA 1.00E+07	
N.A. N.A.		N.A.		AL. 6005-T5 NA NA 1.00E+07	
N.A. N.A.		N.A.		Steel G90 0.873 0.7715 3.00E+07	
N.A. N.A.		N.A.		S.S. AISI 201 0.385 0.385 2.80E+07	
N.A. N.A.		N.A.		Glass 0.0575 0.0575 1.04E+07	
RF SE9346b S0 M Lock R. Stl. 1		0.0975		Total Loading (Lb.) 692.7 Bending Moment: 6,023 In-#	
N.A. N.A.		N.A.		Sash Tilt Latch/ Head Overlap: Nominal: 0.355 Under Load: 0.352	
N.A. N.A.		N.A.		Acceptable Water Hd: 1.44 at 7.5 psf Resisting water Hd: 1.514 Water test met: * R to CW	
RF SH9304 S0 M Fixed Mtg. Stl. 1		0.1093		* Exterior-Interior equalizing not factored in.	
Spacers 2		0.002077			
I.G. Unit Iyy: 2		0.00616			
Deflection at Mid-Span: Inches: 0.267 L/175: 0.309					
Probable AAMA Class: CW-PG 50.0*					
Materials: PVC 6005-T5 6063-T6 S.S. AISI 201 Steel G90					
Will help unit resist loading: CERTAIN N.A. N.A. CERTAIN CERTAIN					
OK: TRUE		Largest sash compliance desired.			
Region: Mtg. Rails		Size			
Note: The rating may represent an Optional Performance Class (R, LC, C, HC, or AW) of AAMA/WDMA /CSA 101/I.S.2/A440-08. Please check the glass with ASTM E1300-02 or equivalent software.					
Stress in Extreme Fibers (PSD):				Prob. Stress Allowable	
				Allowable Strength	
Material		At Exterior (- Load) At Interior (+ Load)		Remarks	
PVC		426 443		100.00% 6,556 (Tensile)	
Alum. 6063-T5		N.A. N.A.		N.A. 16,000 (Ult. Yield) (spacers or rebars)	
Alum. 6005-T5		N.A. N.A.		N.A. 35,000 (Ult. Yield)	
Alum. 6063-T6		N.A. N.A.		N.A. 25,000 (Ult. Yield)	
Steel (Hot Dipped Galv. G90)**		23,665 20,914		100.00% 42,000 (Ult. Yield)*	
Stainless Steel (AISI 201)		9,741 9,741		100.00% 90,000 (Ult. Yield) (IG unit spacers)	
Glass***		540 540		0.2 breaks per 1000 O.K.	
Note: Ultimate yield of this steel ranges from 35,000 to 49,000 psi. *The glass breakage & stress results pertain only to the side of the structural members herein investigated.					



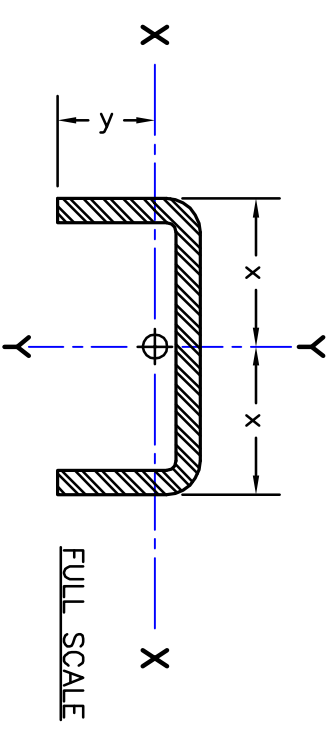
CLEARANCES
1.5X SCALE



FULL SCALE



PART NO.
RF SH9304 SO M
2X SCALE



PROFILE PROPERTIES	
MATERIAL:	0.125 Galv. Steel
AREA:	0.3350 IN. ²
WEIGHT:	1.139 #/Ft.
MOMENTS OF INERTIA:	
I _{xx} :	0.0165 IN. ⁴
I _{yy} :	0.109 IN. ⁴
EXTREME FIBER DISTANCE:	
x:	0.7715 IN.
y:	0.508 IN.
SECTION MODULI:	
S _{xx} :	0.0324 IN. ³
S _{yy} :	0.142 IN. ³

NOTE: DIMENSIONS ARE IN INCHES

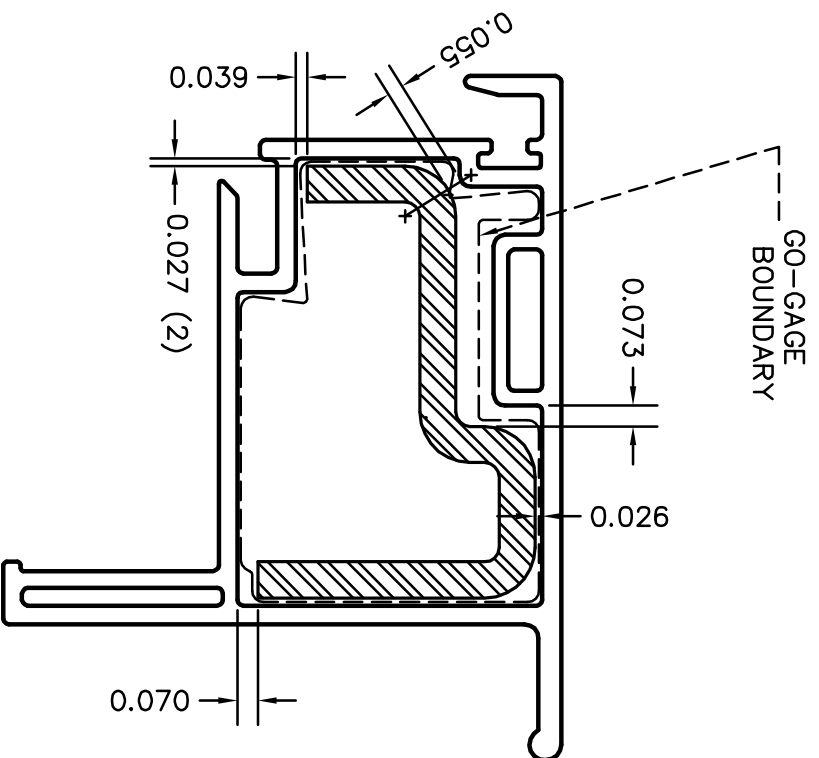


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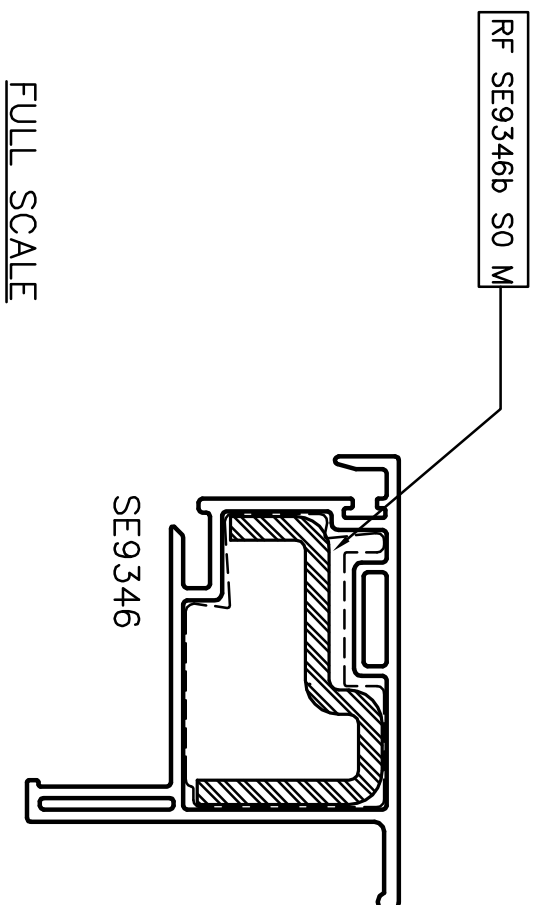
DRAWN: JJS	DATE: 7 MAR 11	SCALE: AS NOTED
CHK'D: TJF	DATE: 9 MAR 11	APP'VD: WGR
TITLE SERIES 93: GALV. STEEL REINFORCING FOR FIXED MTG. RAIL		DWG. # RF SH9304 SO M

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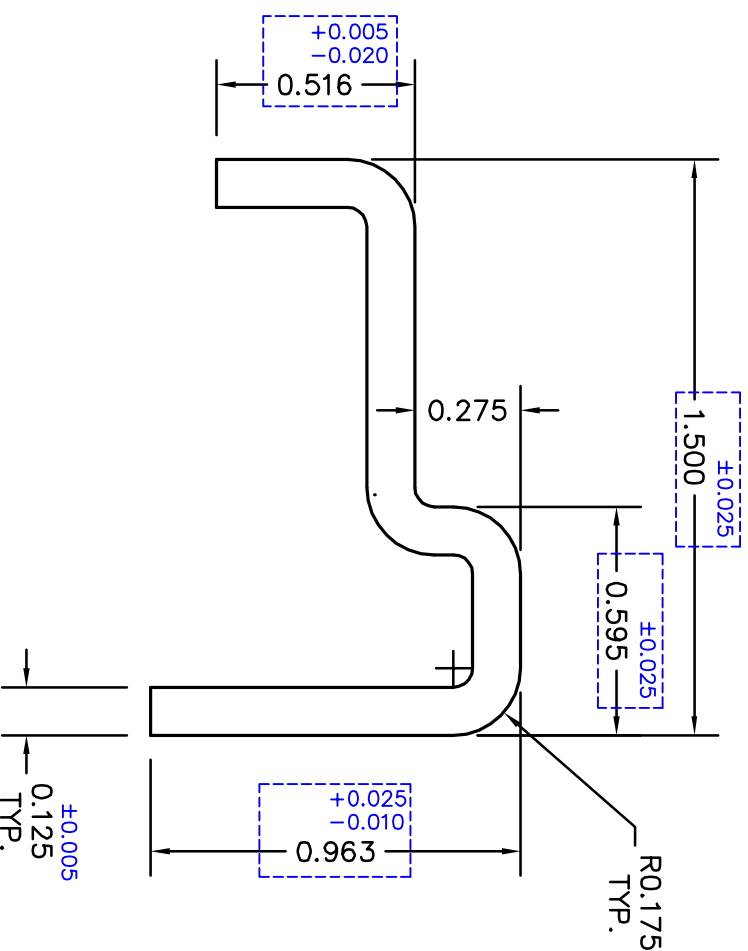
Q.A. NOTE:
=CRITICAL DIMENSION



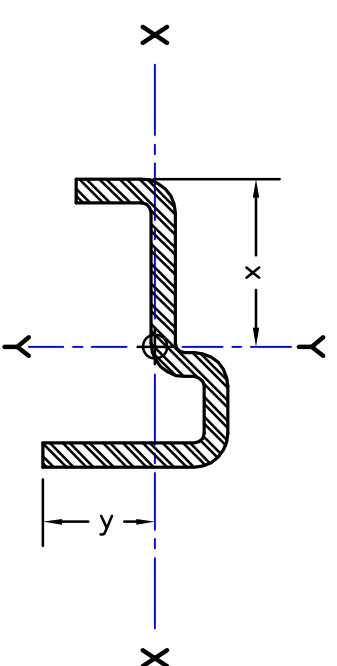
CLEARANCES
1.5X SCALE



FULL SCALE



PART NO.
RF SE9346b SO M
2X SCALE



FULL SCALE

PROFILE PROPERTIES	
MATERIAL:	0.125 Galv. Steel
AREA:	0.3513 IN. ²
WEIGHT:	1.194 #/Ft.
MOMENTS OF INERTIA:	
I _{xx} :	0.0190 IN. ⁴
I _{yy} :	0.0975 IN. ⁴
EXTREME FIBER DISTANCE:	
x:	0.873 IN.
y:	0.583 IN.
SECTION MODULI:	
S _{xx} :	0.0326 IN. ³
S _{yy} :	0.112 IN. ³

NOTE: DIMENSIONS ARE IN INCHES



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REVISIONS	DATE

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Q.A. NOTE:
=CRITICAL DIMENSION

DRAWN: JJS	DATE: 28 APR 11	SCALE: AS NOTED
CHK'D: TJF	DATE: 29 APR 11	APP'VD: KAS
TITLE SERIES 93: OPT. GALV. STEEL REINFORCING FOR SMALL LOCK RAIL	DWG. # RF SE9346b SO M	