LAWS AND BUILDING AND SAFETY CODES GOVERNING THE DESIGN AND USE OF GLAZED ENTRANCE, WINDOW, AND CURTAIN WALL PRODUCTS VARY WIDELY. KAWNEER DOES NOT CONTROL THE SELECTION OF PRODUCT CONFIGURATIONS, OPERATING HARDWARE, OR GLAZING MATERIALS, AND ASSUMES NO RESPONSIBILITY THEREFOR.

Metric (SI) conversion figures are included throughout these details for reference. Numbers in parentheses ( ) are millimeters unless otherwise noted.

The following metric (SI) units are found in these details:

m – meter
cm – centimeter
mm – millimeter
s – second
Pa – pascal
MPa – megapascal

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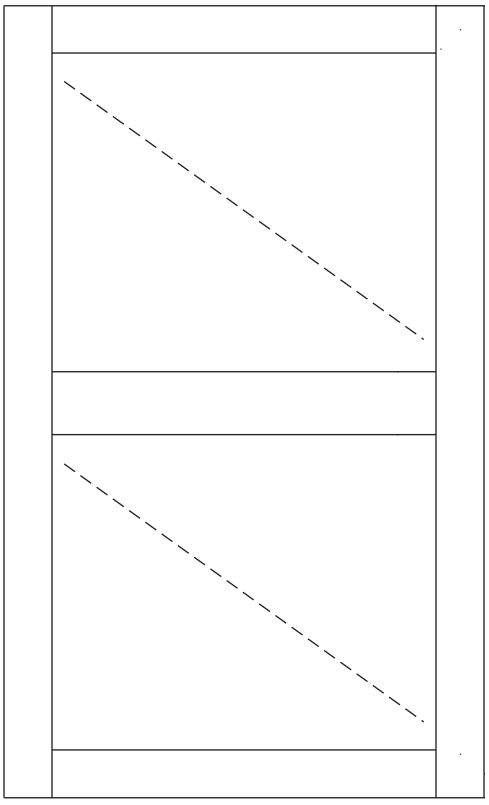
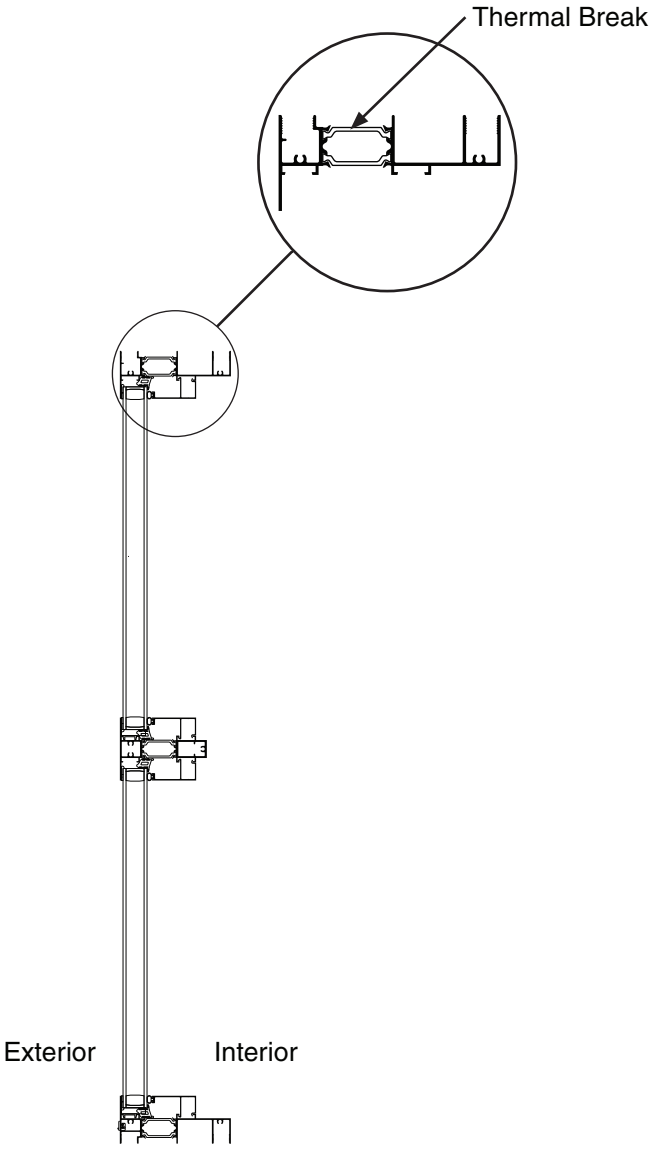
Standard Features

- High Performance Architectural Grade Window
- Tested to U.S. and Canadian Standards
- Polyamide Thermal Break
- Screw and Spline Frame Corner Joinery
- Factory Silicone Glazed
- Interior Applied Glazing Bead
- Architectural Anodized Finishes and Applied Coatings
- Interior and Exterior Dual Finish Options
- Two Year Manufacturer's Warranty



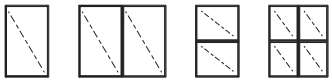


Fixed Window

For specific product applications,
Consult your Kawneer representative.

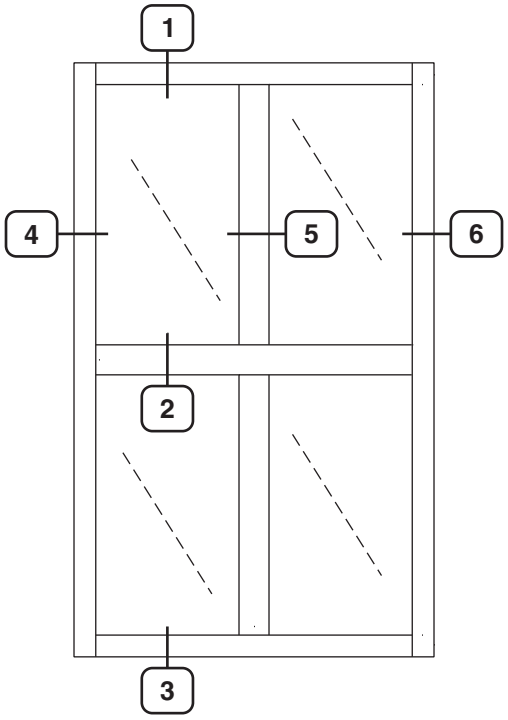
AA™5450 Ultra Thermal Window

FIXED WINDOW

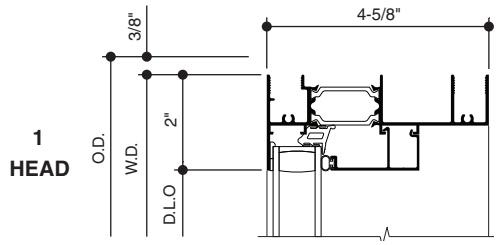
CLASS and GRADE	CLASS AW-PG70-FW
TESTING METHOD	AAMA / WDMA / CSA / 101 / I.S.2 / A440 (NAFS)
FRAME DEPTH	4-5/8" Overall Frame Depth
TYPICAL WALL THICKNESS	0.070" Nominal
TYPICAL MAXIMUM WINDOW SIZE	60" X 99"
TYPICAL MINIMUM WINDOW SIZE	17" X 17"
TYPICAL CONFIGURATIONS	
STANDARD INFILL OPTIONS	1" and 1-1/2"
STANDARD HARDWARE	Not Applicable
OPTIONAL HARDWARE	Not Applicable
OTHER OPTIONS	Between the Glass Muntins Historic Beveled Exterior Glazed-in Muntins (1-1/2" max. overall thickness) Exterior and Interior Tape Applied Muntins Perimeters and Sills Exterior Pannings and Interior Trims True Intermediate Muntin Structural Mullions H-Mullion for vertical stacking Strap Anchors Male/Female horizontally stacked

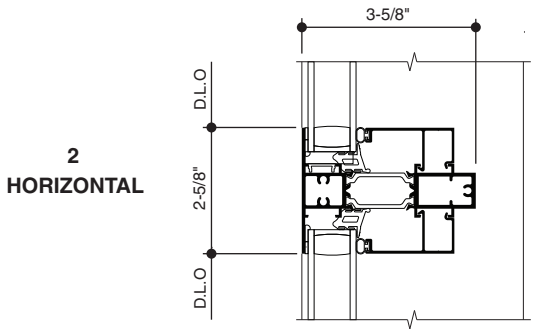
SCALE : 3" = 1'-0"

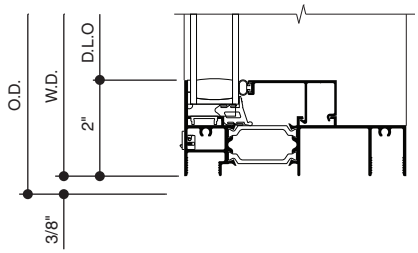
AA™5450 FIXED WINDOW
(1" Double Glazed)

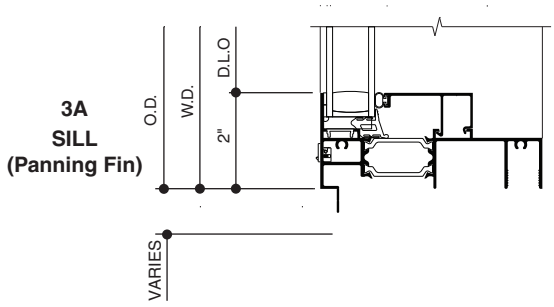


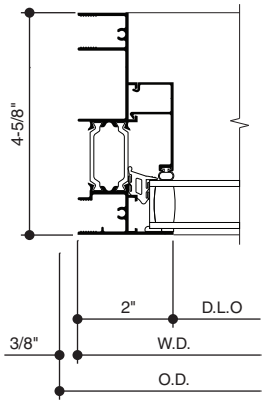
TYPICAL ELEVATION
Log onto www.kawneer.com for other configurations











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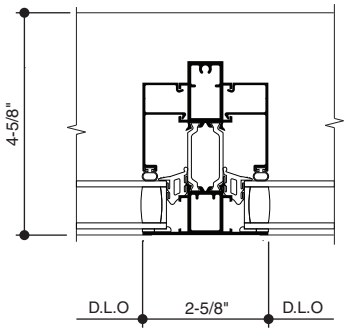
JAMB



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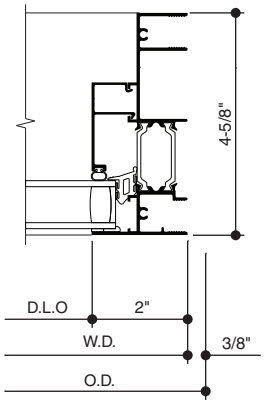
VERTICAL



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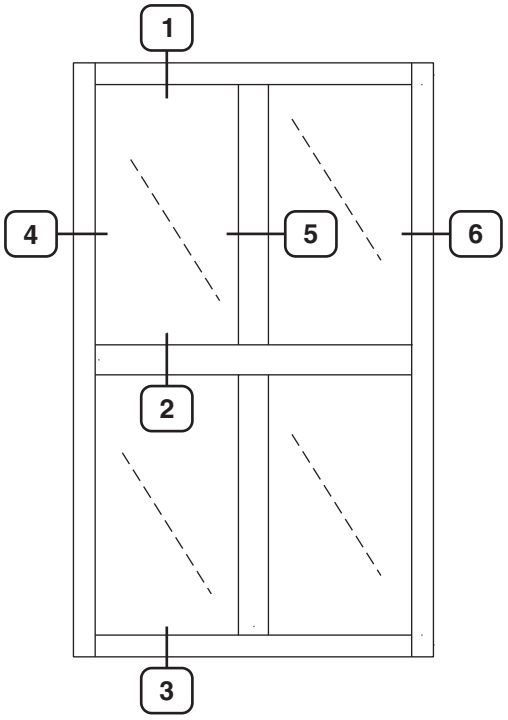
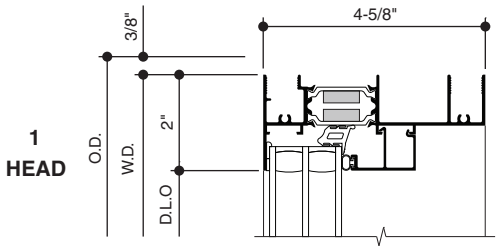
JAMB

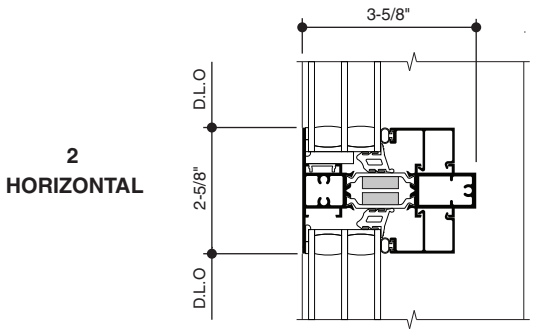
SCALE : 3" = 1'-0"

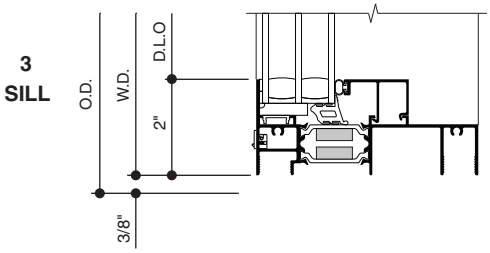
AA™5450 FIXED WINDOW
(1-1/2" Triple Glazed)

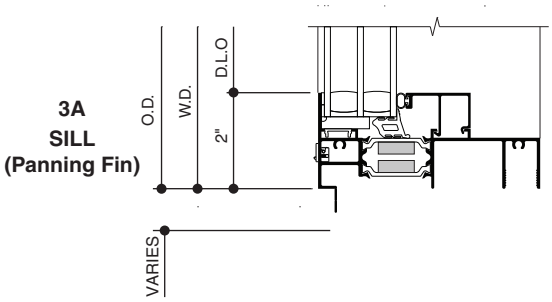


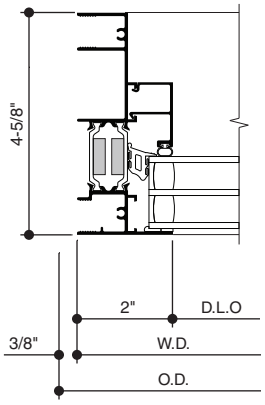
TYPICAL ELEVATION
Log onto www.kawneer.com for other configurations











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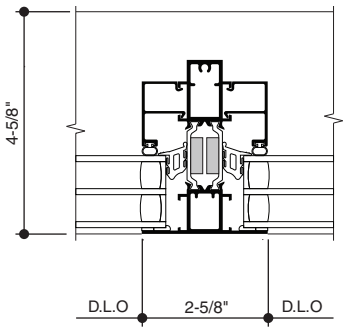

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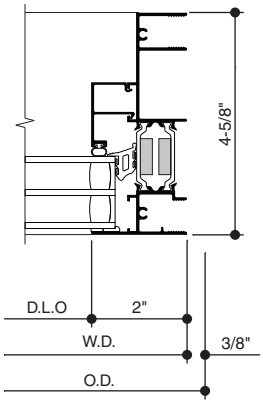
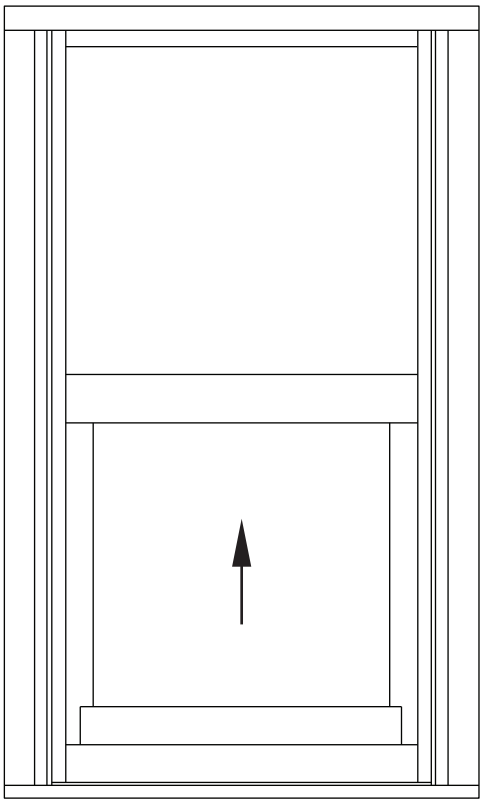


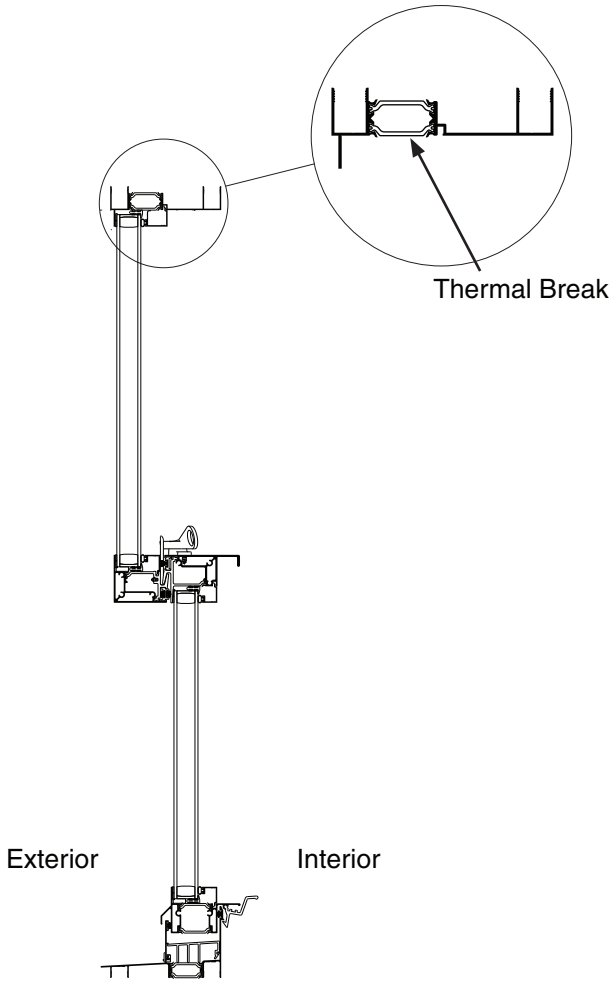
6
JAMB

Standard Features

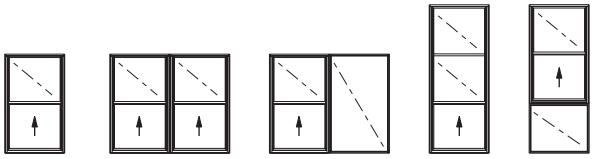
- High Performance Architectural Grade Window
- Tested to U.S. and Canadian Standards
- Polyamide Thermal Break
- Screw and Spline Frame Corner Joinery
- Factory Silicone Glazed
- Interior Applied Glazing Bead
- Architectural Anodized Finishes and Applied Coatings
- Interior and Exterior Dual Finish Options
- Two Year Manufacturer's Warranty



Single Hung Window

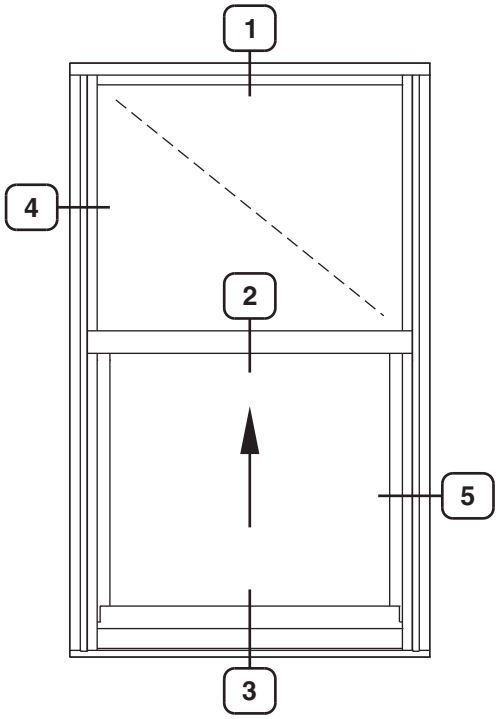


For specific product applications,
Consult your Kawneer representative.

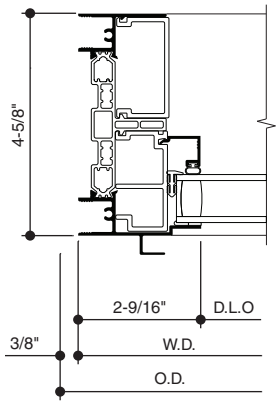
CLASS and GRADE	CLASS AW-PG50-H
TESTING METHOD	AAMA / WDMA / CSA / 101 / I.S.2 / A440 (NAFS)
FRAME DEPTH	4-5/8" Overall Frame Depth
TYPICAL WALL THICKNESS	0.070" Nominal
TYPICAL MAXIMUM WINDOW SIZE	60" X 99"
TYPICAL MINIMUM WINDOW SIZE	24" X 36"
TYPICAL CONFIGURATIONS	
STANDARD INFILL OPTIONS	1" and 1-1/2"
STANDARD HARDWARE	Heavy Duty Balances White Bronze Sweep Locks Sash Stops
OPTIONAL HARDWARE	Sill Auto Locks
OTHER OPTIONS	Between the Glass Muntins Historic Beveled Exterior Glazed-in Muntins (1-1/2" max. overall thickness) Exterior and Interior Tape Applied Muntins Perimeters and Sills Exterior Pannings and Interior Trims True Intermediate Muntin Structural Mullions Male /Female horizontally stacked H-Mullion for vertical stacking Tri-lite Configuration Strap Anchors

SCALE : 3" = 1'-0"

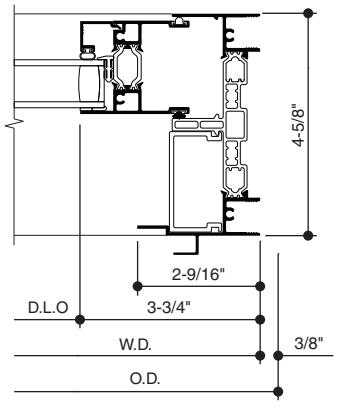
AA™5450 SINGLE HUNG WINDOW
(1" Double Glazed)



TYPICAL ELEVATION
Log onto www.kawneer.com for other configurations



4
FIXED JAMB



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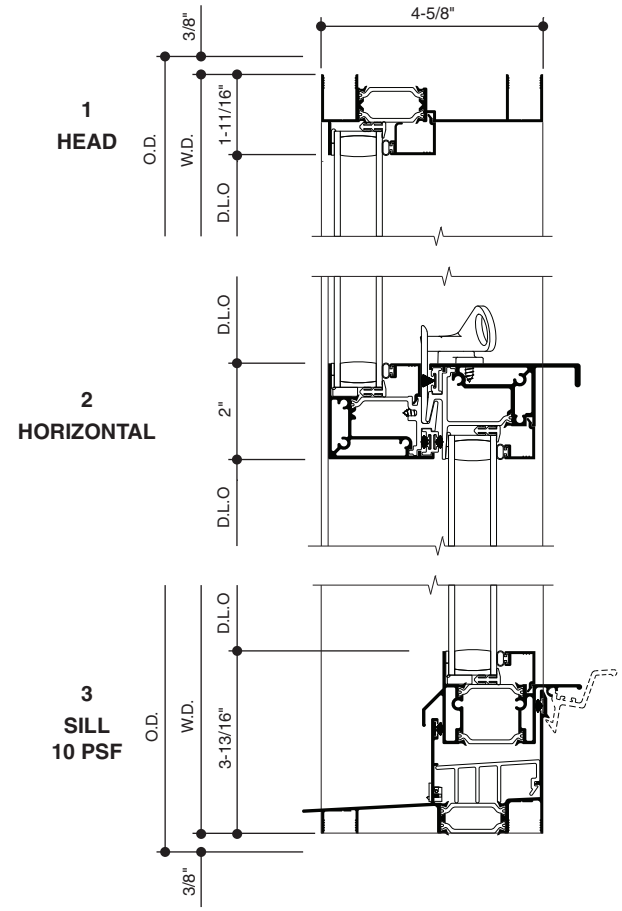
OPERABLE JAMB



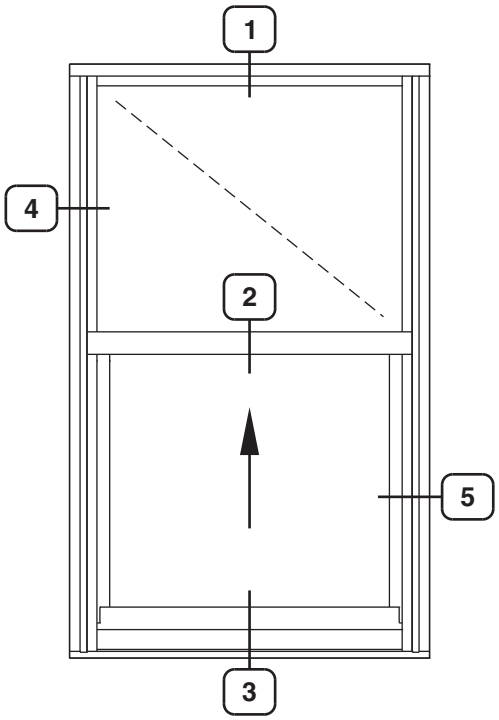
Note:
15 PSF Sill also available with panning fin.

AA™5450 Ultra Thermal Window

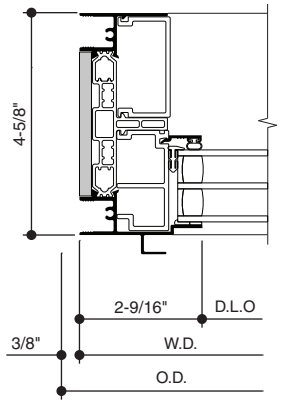
SINGLE HUNG WINDOW

SCALE : 3" = 1'-0"

AA™5450 SINGLE HUNG WINDOW
(1-1/2" Triple Glazed)



TYPICAL ELEVATION
Log onto www.kawneer.com for other configurations



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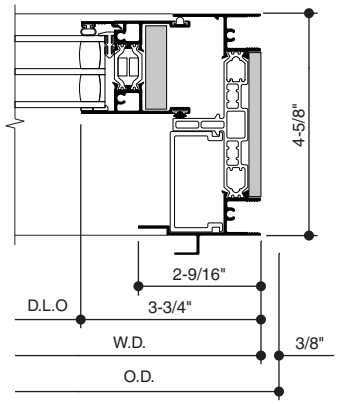

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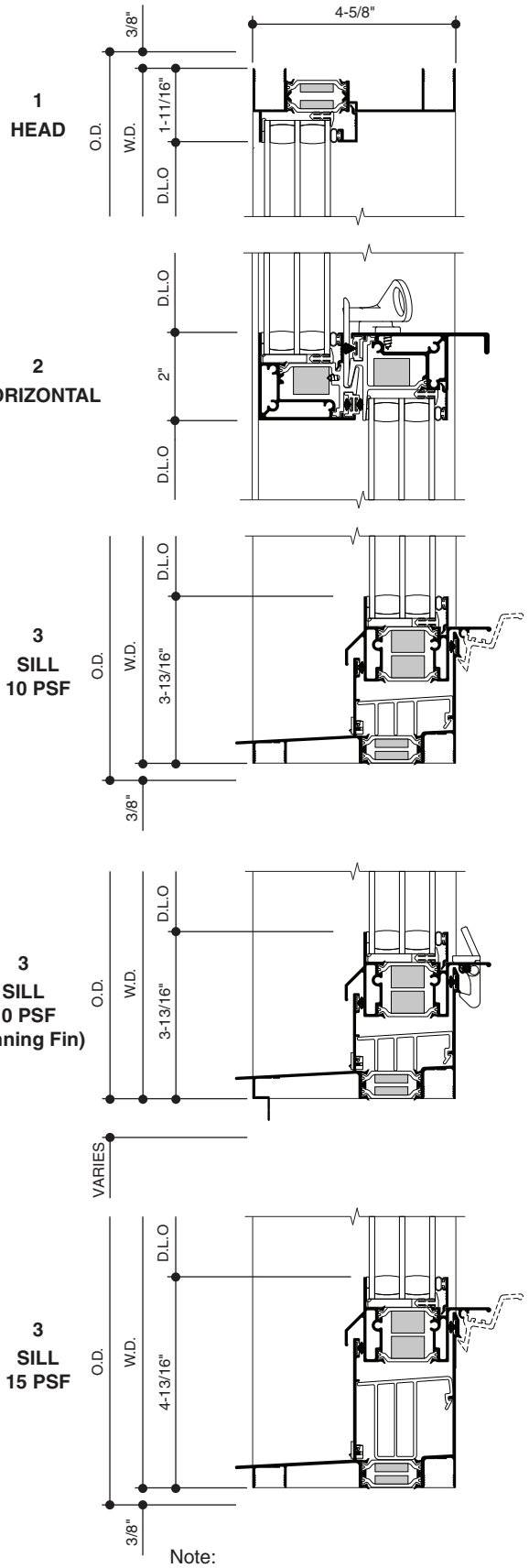
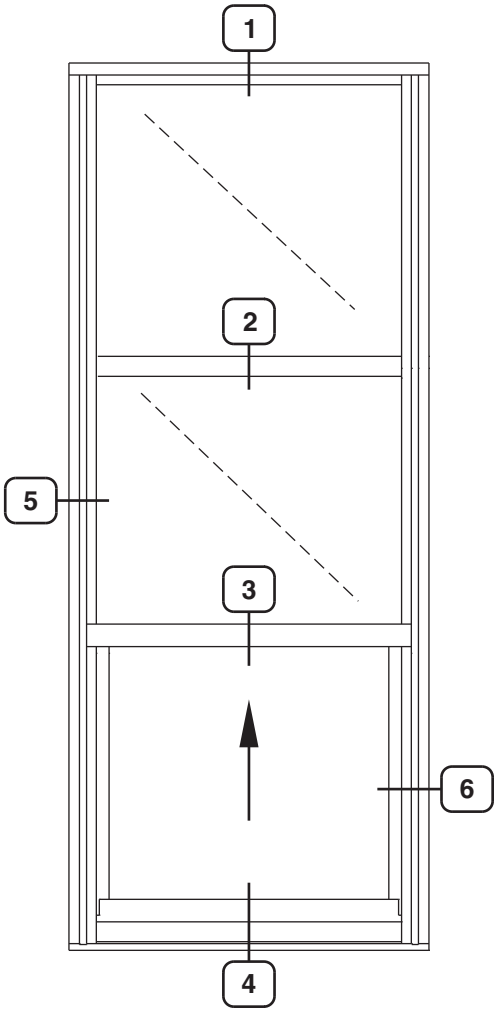
OPERABLE JAMB



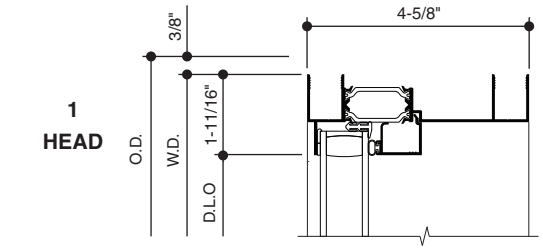
Note:
15 PSF Sill also available with panning fin.

SCALE : 3" = 1'-0"

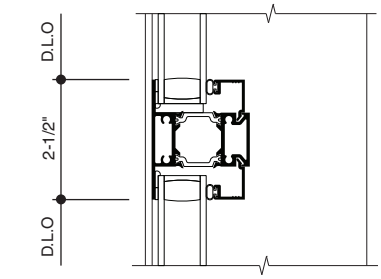
AA™5450 SINGLE HUNG WINDOW
(Tri-Lite 1" Double Glazed)



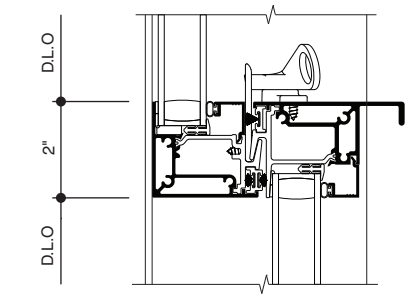
TYPICAL ELEVATION
Log onto www.kawneer.com for other configurations



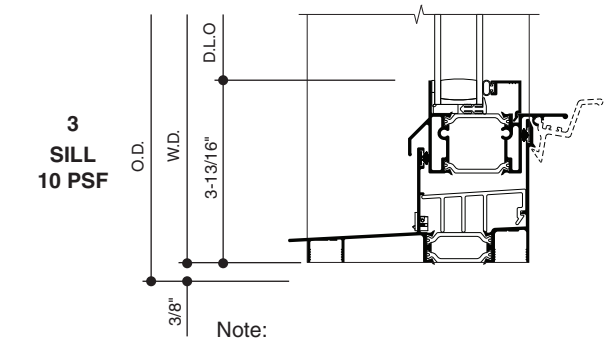
1
HEAD



2
HORIZONTAL

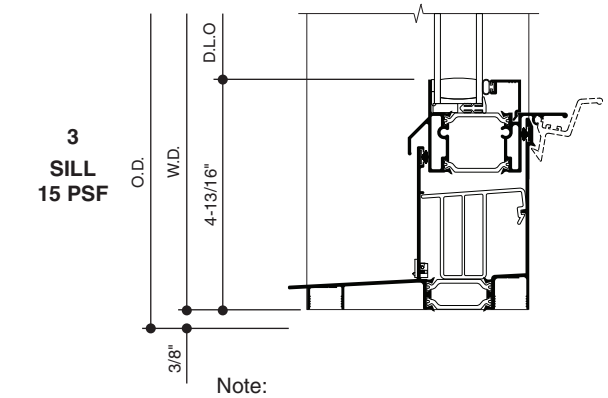


2
HORIZONTAL



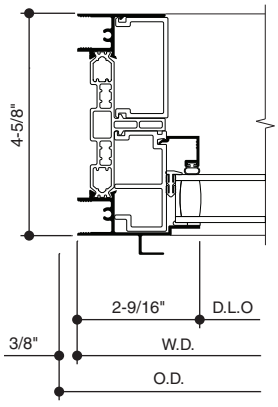
3
SILL
10 PSF

Note:
10 PSF Sill also available with panning fin.

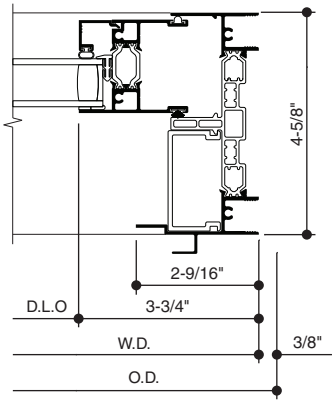


3
SILL
15 PSF

Note:
15 PSF Sill also available with panning fin.



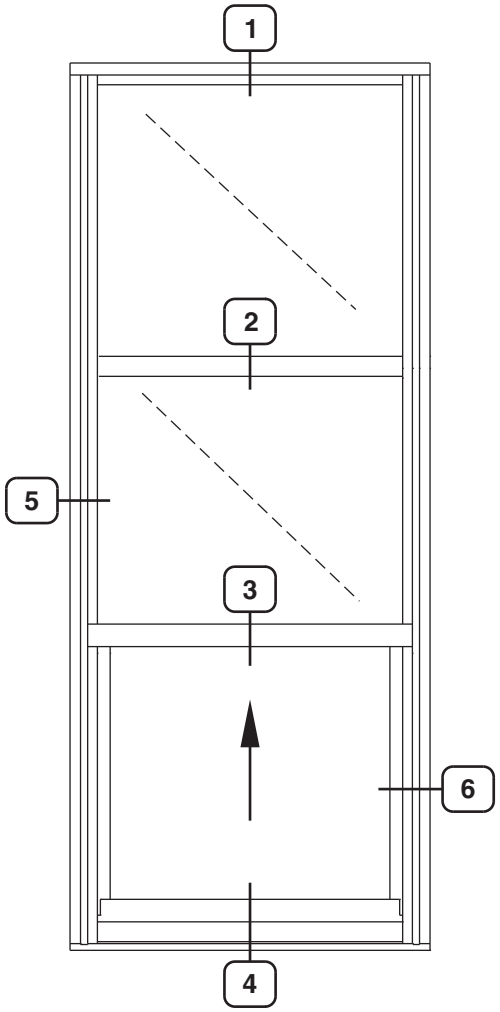
4
FIXED JAMB



5
OPERABLE JAMB

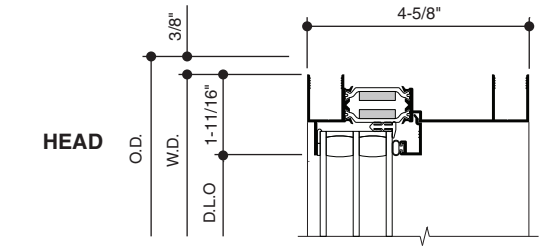
SCALE : 3" = 1'-0"

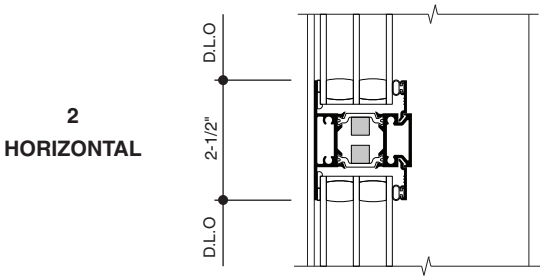
AA™5450 SINGLE HUNG WINDOW
(Tri-Lite 1-1/2" Triple Glazed)

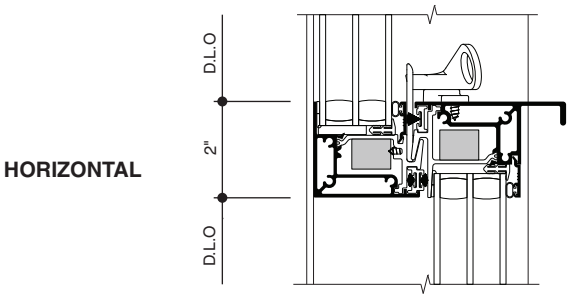


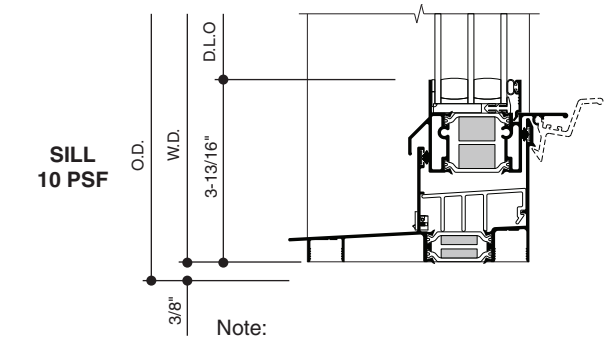
TYPICAL ELEVATION

Log onto www.kawneer.com for other configurations

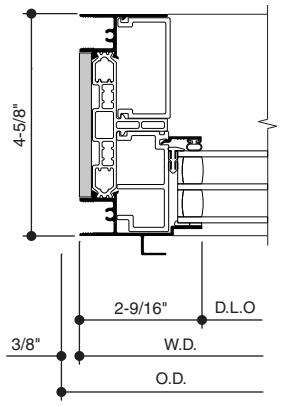








Note:
10 PSF Sill also available with panning fin.



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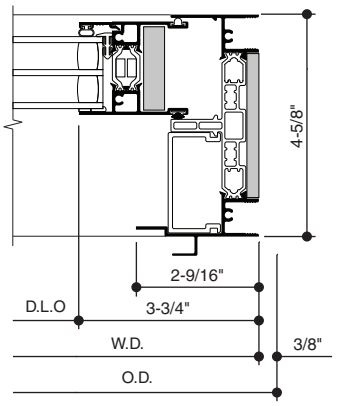
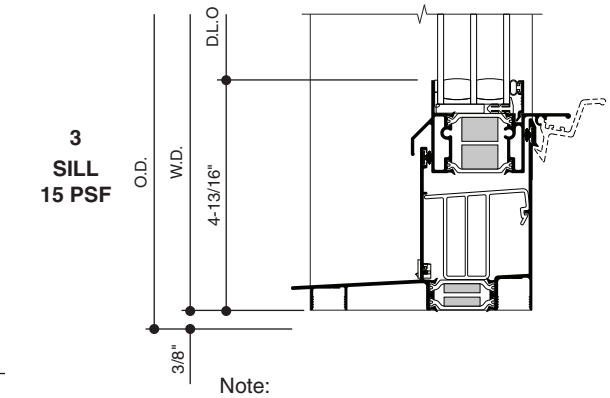
FIXED JAMB

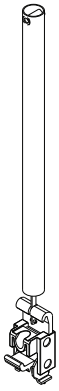


5
OPERABLE JAMB



Note:
15 PSF Sill also available with panning fin.

HEAVY DUTY BALANCES

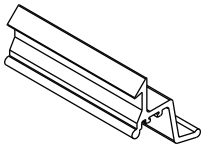


A class 5 adjustable spiral balance with excellent operating forces capable of balancing heavier sash weights. The balance utilizes stainless steel components and is cycle tested for longevity.

SWEEP LOCK AND KEEPER

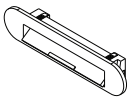
White Bronze sweep locks and keepers with a durable brushed nickel finish and cycle tested for longevity.

AUTO LOCK



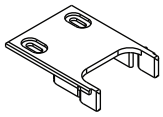
An optional spring operated auto lock conveniently located under the sash lift handle or an optional white bronze spring operated autolock located on the handle. The lock automatically engages the integral sill keeper upon closing the sash.

COVERED WEEPS



Weep with an integral hinged cover to allow maximum drainage of infiltrating water with a positive closing cover to block drafts and insects. The weep is available in black and white finishes.

SASH CAMS



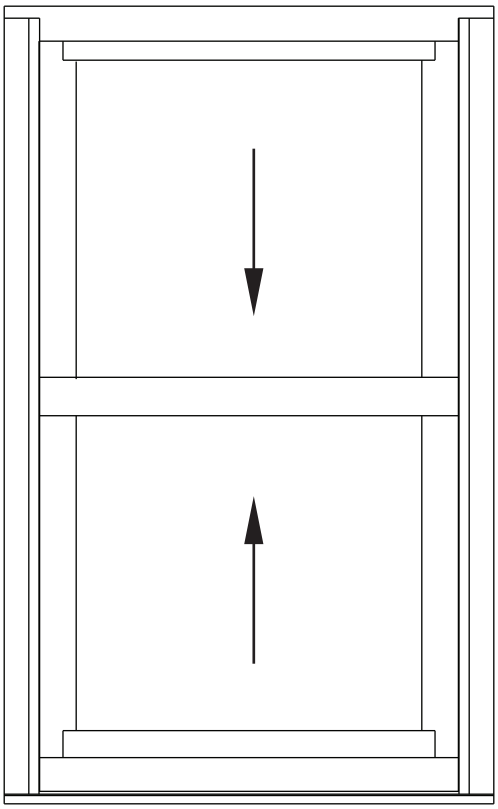
Adjustable glass filled nylon cams located left and right on the sash ensure proper alignment and smooth operation.

SASH STOPS

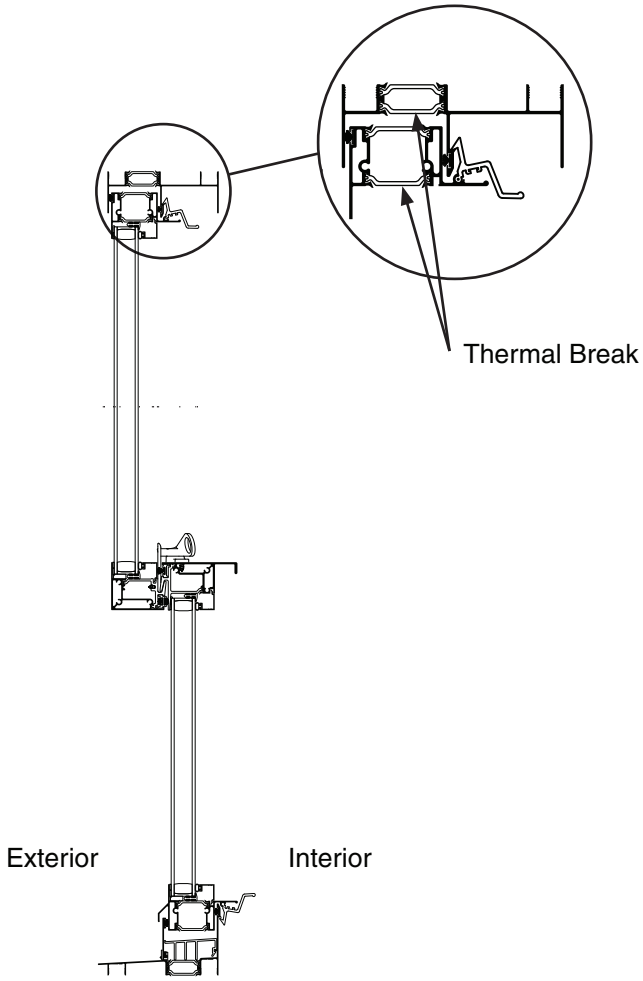
Black rigid vinyl sash stops are inserted into the vertical jambs without exposed fasteners to prevent excessive sash travel.

Standard Features

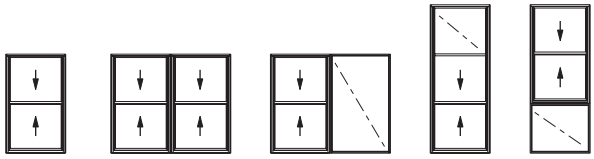
- High Performance Architectural Grade Window
- Tested to U.S. and Canadian Standards
- Polyamide Thermal Break
- Screw and Spline Frame Corner Joinery
- Factory Silicone Glazed
- Interior Applied Glazing Bead
- Architectural Anodized Finishes and Applied Coatings
- Interior and Exterior Dual Finish Options
- Two Year Manufacturer's Warranty



Double Hung Window

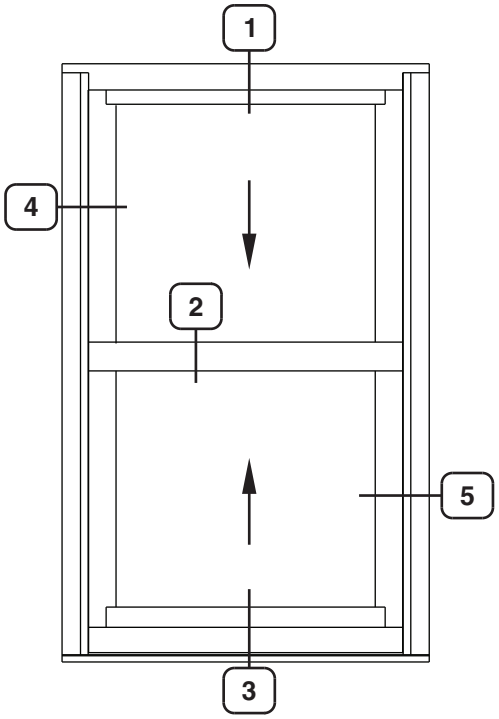


For specific product applications,
Consult your Kawneer representative.

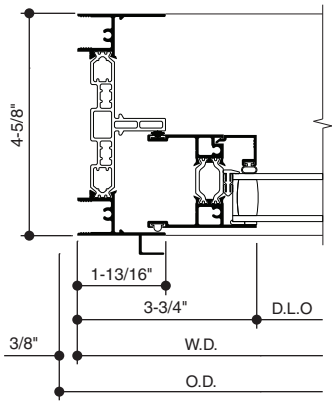
CLASS and GRADE	CLASS AW-PG50-H
TESTING METHOD	AAMA / WDMA / CSA / 101 / I.S.2 / A440 (NAFS)
FRAME DEPTH	4-5/8" Overall Frame Depth
TYPICAL WALL THICKNESS	0.070" Nominal
TYPICAL MAXIMUM WINDOW SIZE	60" X 99"
TYPICAL MINIMUM WINDOW SIZE	24" X 36"
TYPICAL CONFIGURATIONS	
STANDARD INFILL OPTIONS	1" and 1-1/2"
STANDARD HARDWARE	Heavy Duty Balances Zinc Die Cast Sweep Locks Sash Stops Aluminum Upper Sash Auto Lock
OPTIONAL HARDWARE	Aluminum or White Bronze Sill Auto Locks
OTHER OPTIONS	Between the Glass Muntins Historic Beveled Exterior Glazed-in Muntins (1-1/2" max. overall thickness) Exterior and Interior Tape Applied Muntins Perimeters and Sills Exterior Pannings and Interior Trims True Intermediate Muntin Structural Mullions Male/Female horizontally stacked H-Mullion for vertical stacking Strap Anchors

SCALE : 3" = 1'-0"

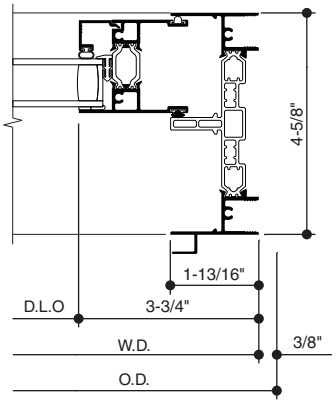
AA™5450 DOUBLE HUNG WINDOW
(1" Double Glazed)



TYPICAL ELEVATION
Log onto www.kawneer.com for other configurations

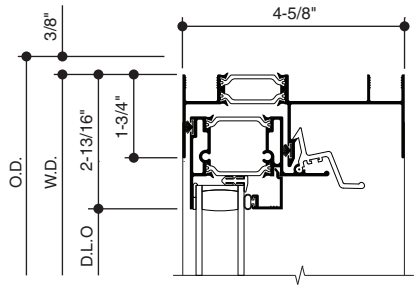


4
JAMB

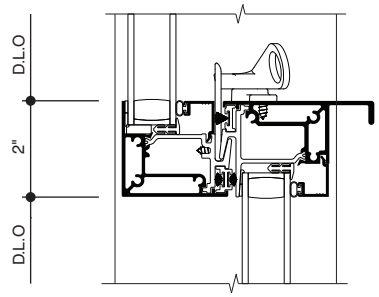


5
JAMB

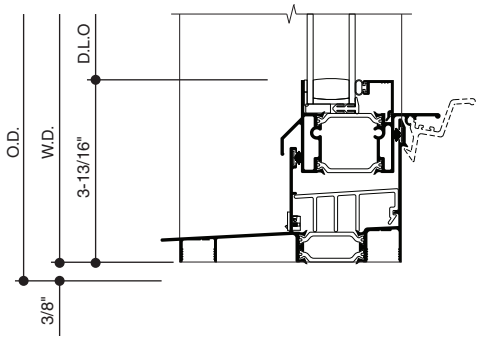
1
HEAD



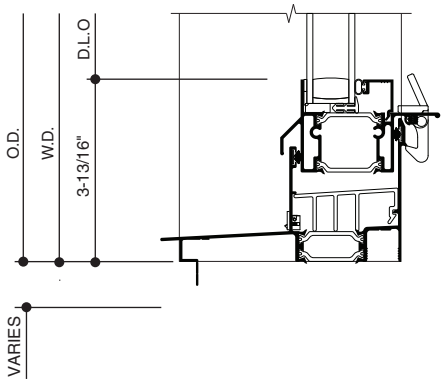
2
HORIZONTAL



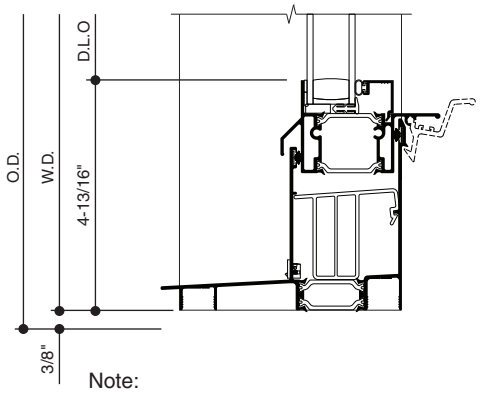
3
SILL
10 PSF



3
SILL
10 PSF
(Panning Fin)



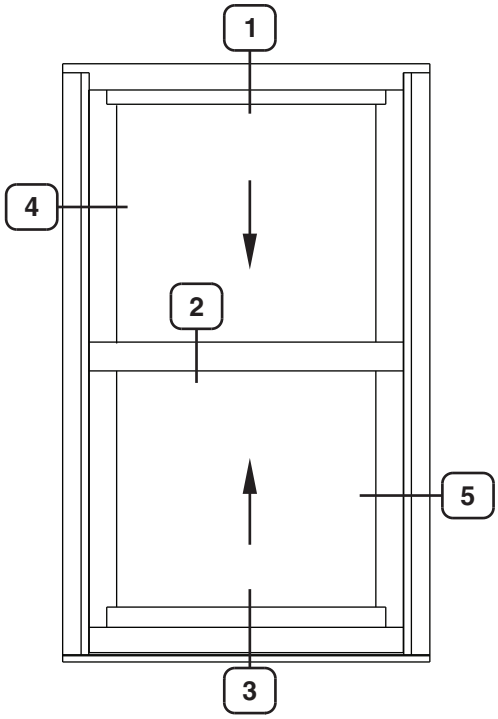
3
SILL
15 PSF



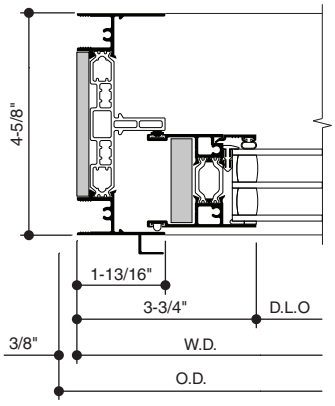
Note:
15 PSF Sill also available with panning fin.

SCALE : 3" = 1'-0"

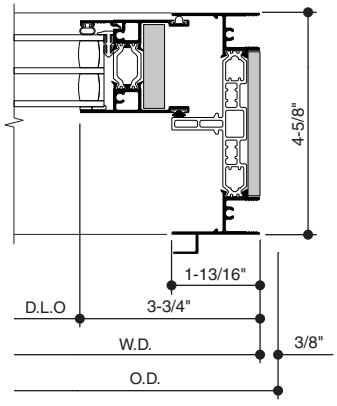
AA™5450 DOUBLE HUNG WINDOW (1-1/2" Triple Glazed)



TYPICAL ELEVATION
Log onto www.kawneer.com for other configurations

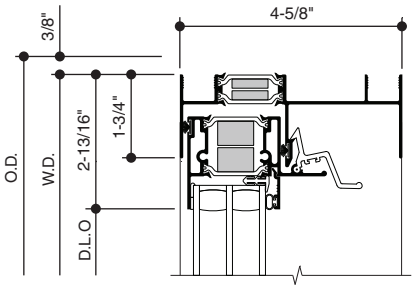


4
FIXED JAMB

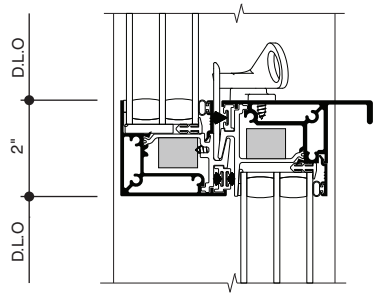


5
OPERABLE JAMB

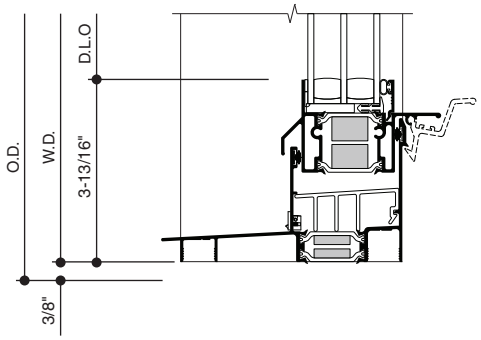
1
HEAD



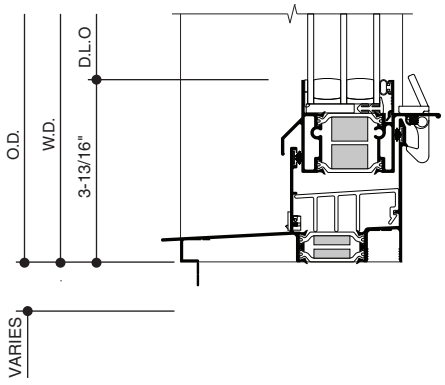
2
HORIZONTAL



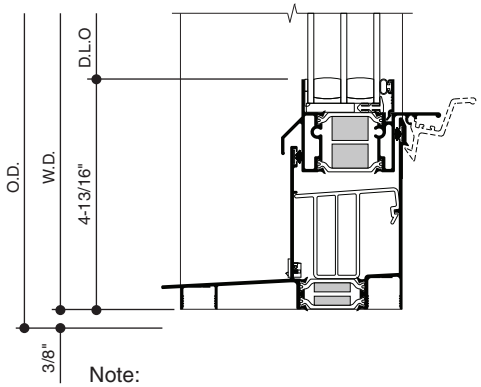
3
SILL
10 PSF



3
SILL
10 PSF
(Panning Fin)



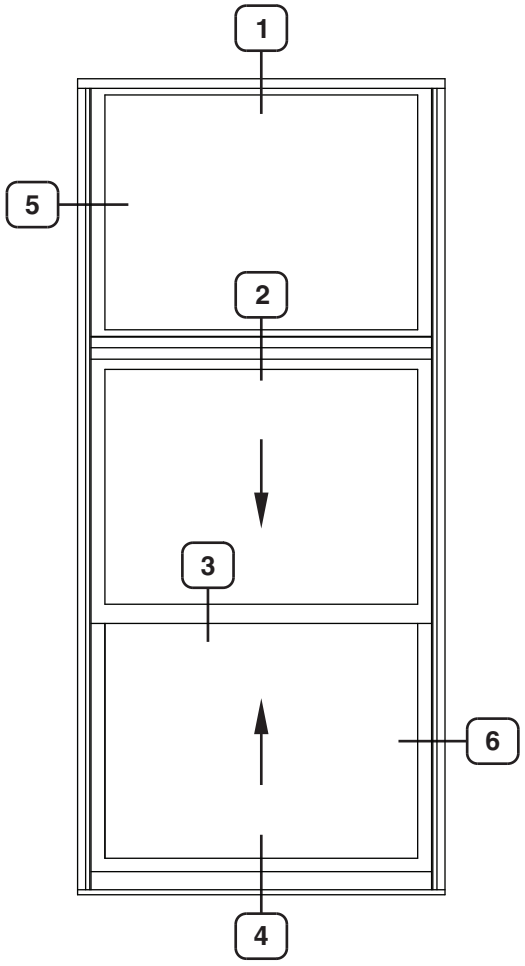
3
SILL
15 PSF



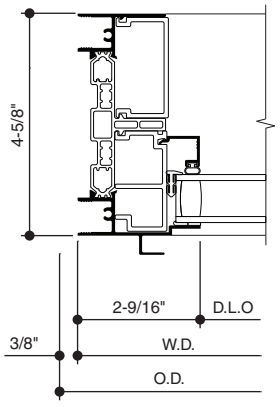
Note:
15 PSF Sill also available with panning fin.

SCALE : 3" = 1'-0"

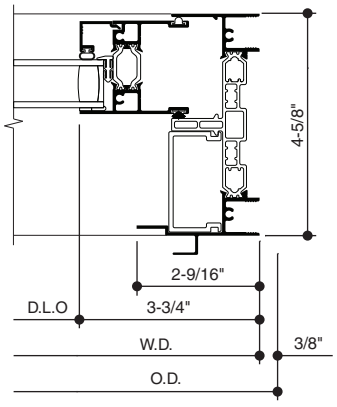
AA™5450 DOUBLE HUNG WINDOW
(Tri-Lite 1" Double Glazed)



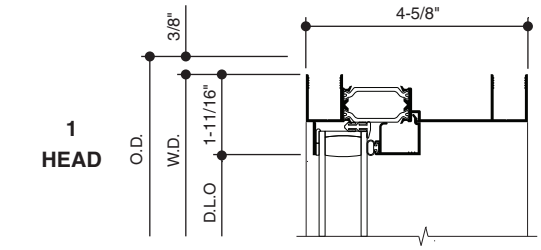
TYPICAL ELEVATION
Log onto www.kawneer.com for other configurations

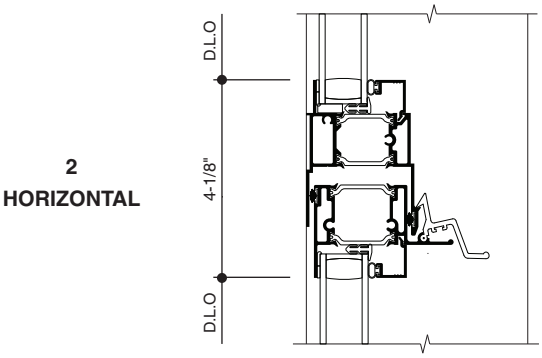


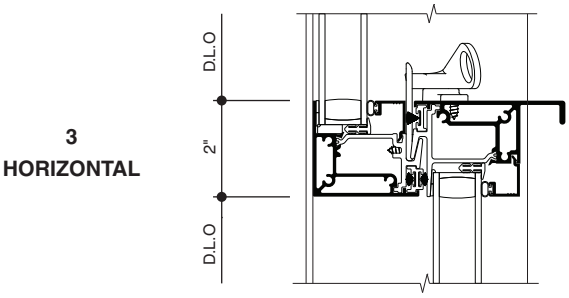
5
FIXED JAMB

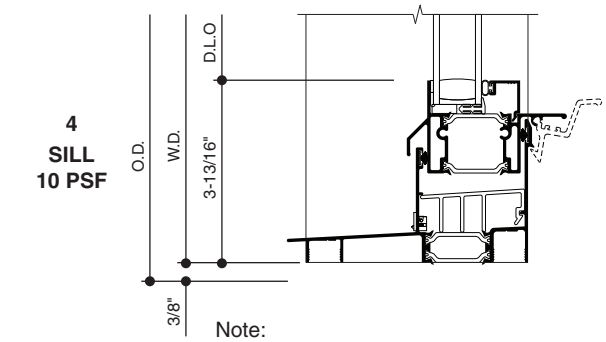


6
OPERABLE JAMB

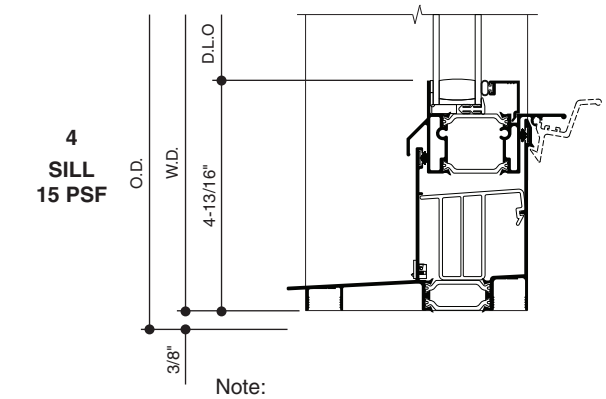








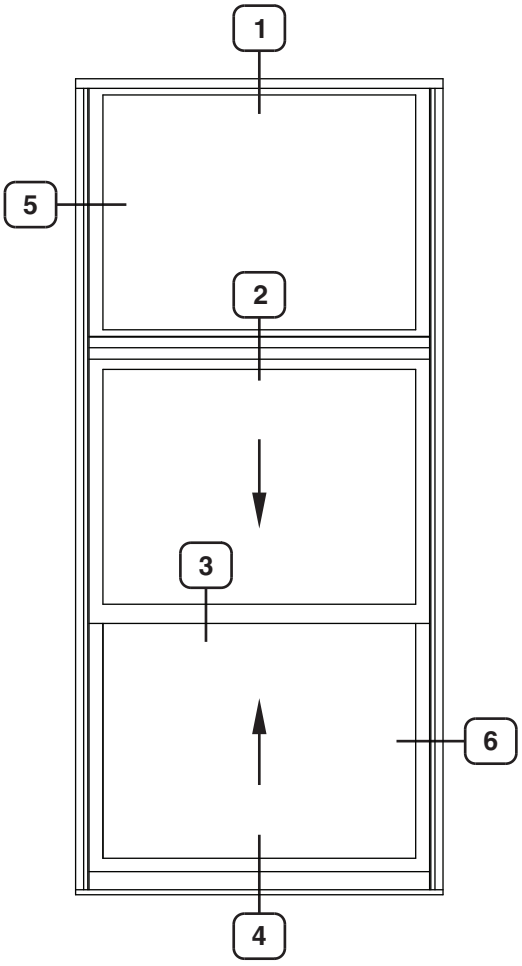
Note:
10 PSF Sill also available with panning fin.



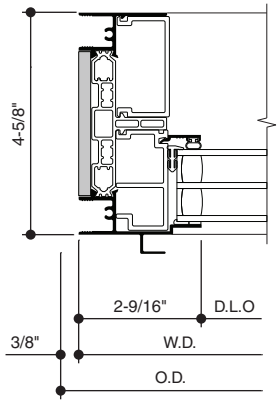
Note:
15 PSF Sill also available with panning fin.

SCALE : 3" = 1'-0"

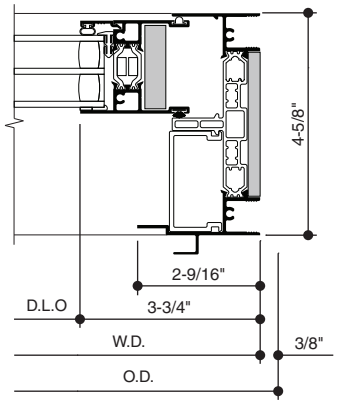
AA™5450 DOUBLE HUNG WINDOW
(Tri-Lite 1-1/2" Double Glazed)



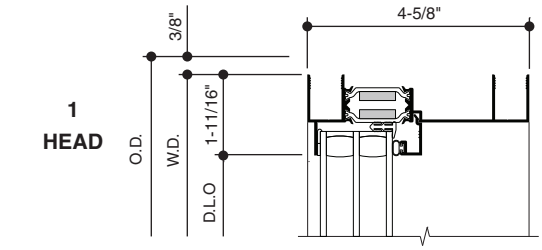
TYPICAL ELEVATION
Log onto www.kawneer.com for other configurations

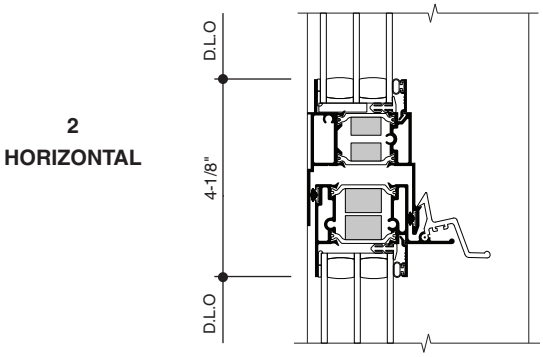


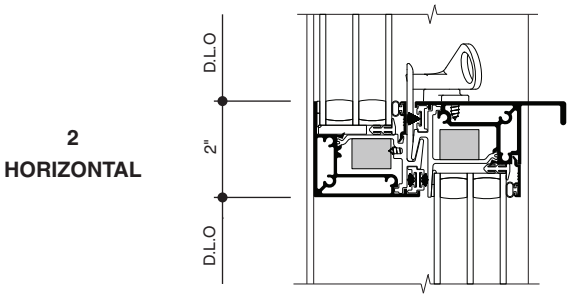
4
FIXED JAMB

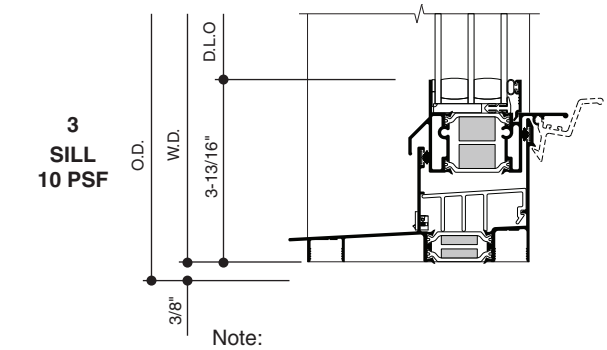


5
OPERABLE JAMB

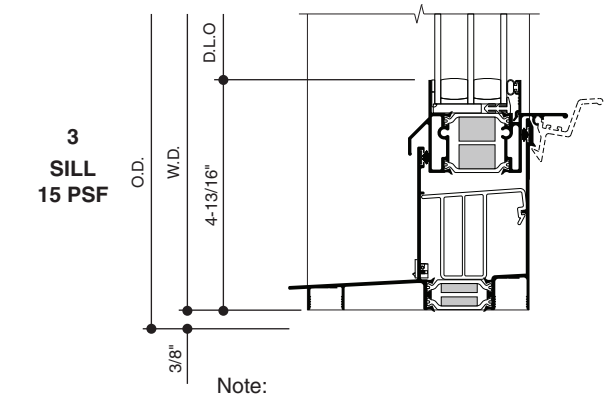








Note:
10 PSF Sill also available with panning fin.

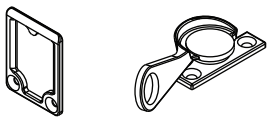


Note:
15 PSF Sill also available with panning fin.

HEAVY DUTY BALANCES

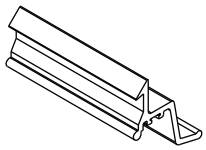
A class 5 adjustable spiral balance with excellent operating forces capable of balancing heavier sash weights. The balance utilizes stainless steel components and is cycle tested for longevity.

SWEEP LOCK AND KEEPER



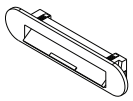
White Bronze sweep locks and keepers with a durable brushed nickel finish and cycle tested for longevity.

AUTO LOCK AND KEEPER



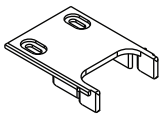
An aluminum spring operated auto lock located on the upper sash. The lock automatically engages the integral keeper securing the sash in the closed position. The auto lock is an option for the lower sash, but is standard for the upper sash.

COVERED WEEPS



A weep with an integral hinged cover to allow maximum drainage of infiltrating water with a positive closing cover to block drafts and insects. The weep is available in black and white finishes.

SASH CAMS

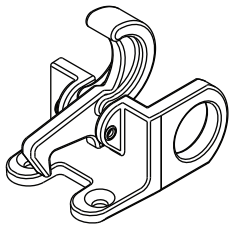


Adjustable glass filled nylon cams located left and right on the sash ensure proper alignment and smooth operation.

SASH STOPS

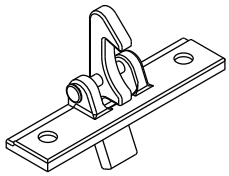
Black rigid vinyl sash stops are inserted into the vertical jambs without exposed fasteners to prevent excessive sash travel.

UPPER SASH SNAP LOCK



A White Bronze spring operated auto lock located on the upper sash. The lock automatically engages the integral keeper securing the upper sash in the closed position. The snap lock is an option for the upper sash.

WHITE BRONZE SILL AUTO LOCK



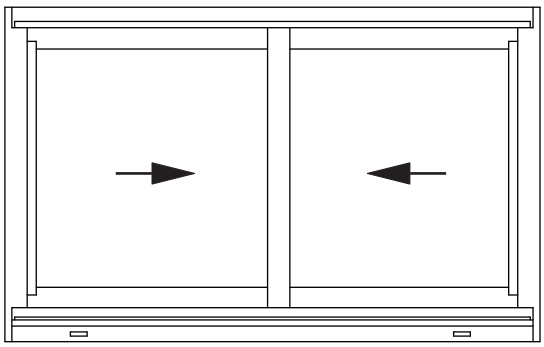
A White Bronze spring operated auto lock located on the lower sash. The lock automatically engages the integral keeper securing the lower sash in the closed position. The auto lock is an option for the lower sash.

AA™5450 Ultra Thermal Window

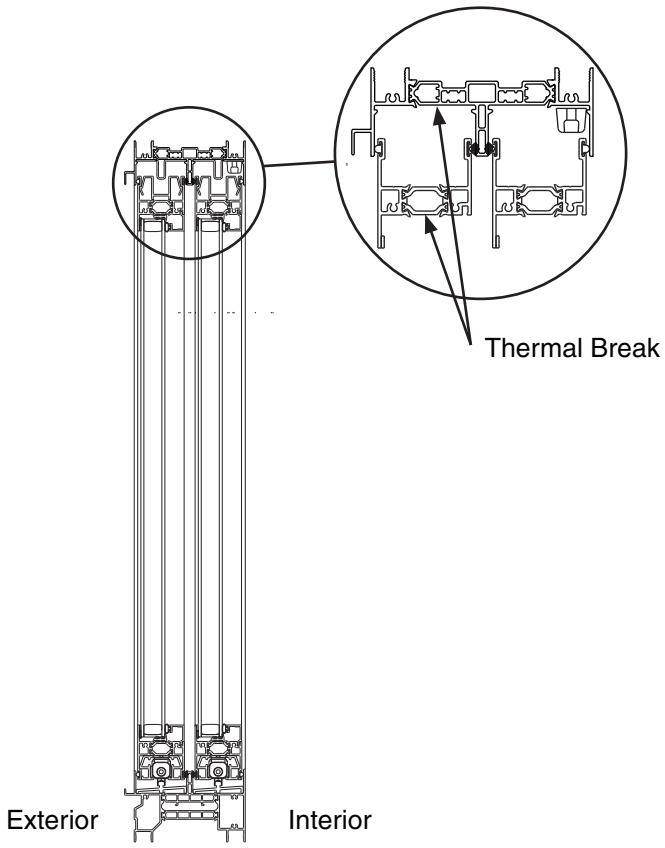
HORIZONTAL SLIDING WINDOW

Standard Features

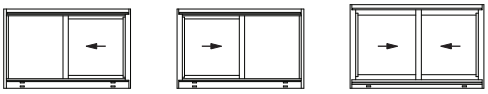
- High Performance Architectural Grade Window
- Tested to U.S. and Canadian Standards
- Polyamide Thermal Break
- Screw and Spline Frame Corner Joinery
- Factory Silicone Glazed
- Interior Applied Glazing Bead
- Architectural Anodized Finishes and Applied Coatings
- Interior and Exterior Dual Finish Options
- Two Year Manufacturer's Warranty



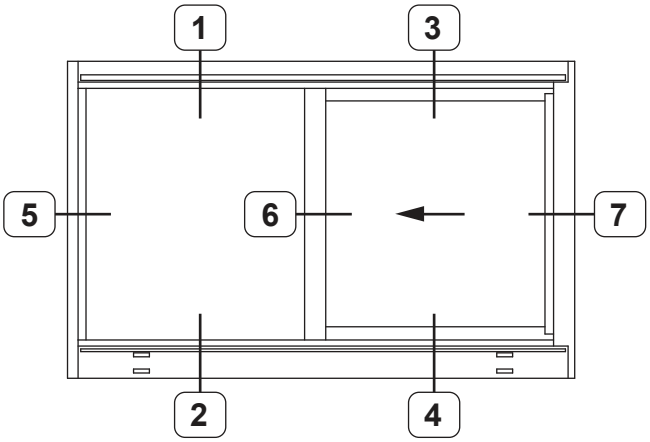
Horizontal Sliding Window



For specific product applications,
Consult your Kawneer representative.

CLASS and GRADE	CLASS AW-PG50-HS
TESTING METHOD	AAMA / WDMA / CSA / 101 / I.S.2 / A440 (NAFS)
FRAME DEPTH	4-5/8" Overall Frame Depth
TYPICAL WALL THICKNESS	0.070" Nominal
TYPICAL MAXIMUM WINDOW SIZE	99"X 79"
TYPICAL MINIMUM WINDOW SIZE	36" X 24"
TYPICAL CONFIGURATIONS	
STANDARD INFILL OPTIONS	1" and 1-1/2"
STANDARD HARDWARE	White Bronze Sweep Locks Sash Stops Aluminum Sash Auto Lock (At XX Inactive Sash)
OPTIONAL HARDWARE	Aluminum Auto Locks
OTHER OPTIONS	Between the Glass Muntins Historic Beveled Exterior Glazed-in Muntins (1-1/2" max. overall thickness) Exterior and Interior Tape Applied Muntins Perimeters and Sills Exterior Pannings and Interior Trims 3 Piece Structural Mullions Male/Female horizontally stacked H-Mullion for vertical stacking Strap Anchors

OX HORIZONTAL SLIDING WINDOW
(Keyed to details on pages 25 and 26)

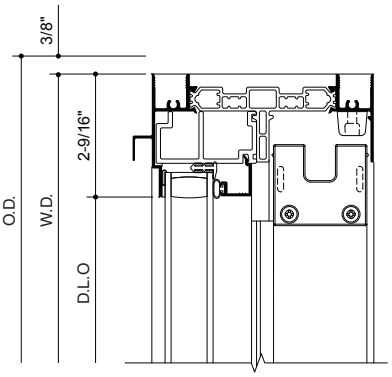


TYPICAL ELEVATION
Log onto www.kawneer.com for other configurations

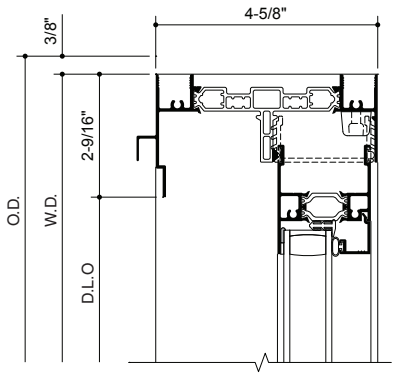
SCALE : 3" = 1'-0"

OX HORIZONTAL SLIDING WINDOW
(1" Double Glazed)

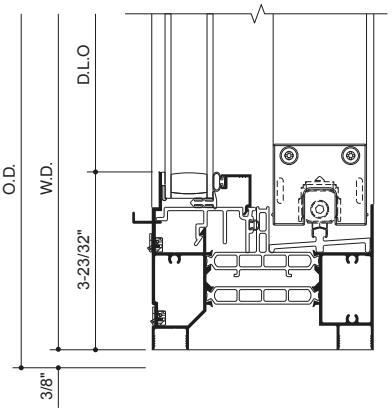
1
FIXED HEAD



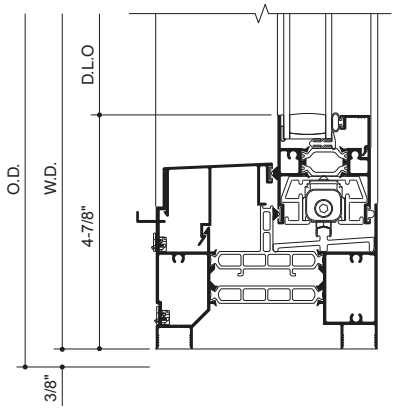
3
SLIDING HEAD



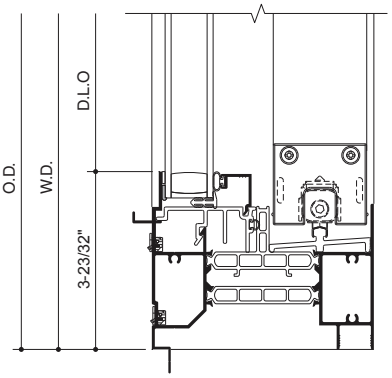
2
FIXED SILL 10 PSF



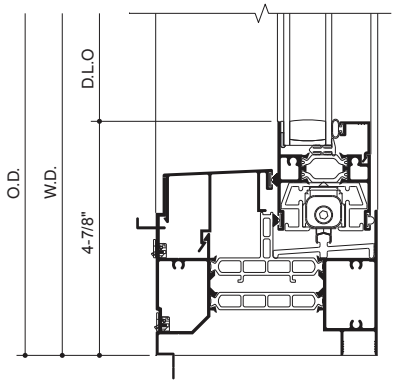
4
SLIDING SILL 10 PSF

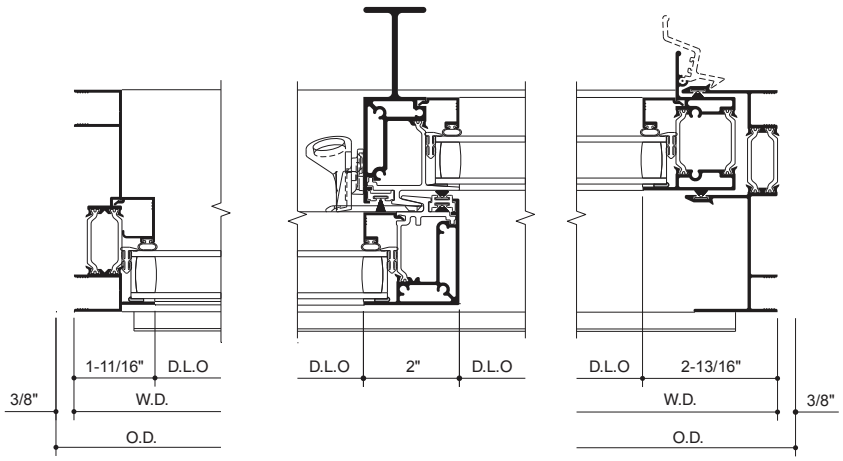


2A
FIXED SILL 10 PSF (Panning Fin)



4A
SLIDING SILL 10 PSF (Panning Fin)





5
FIXED JAMB

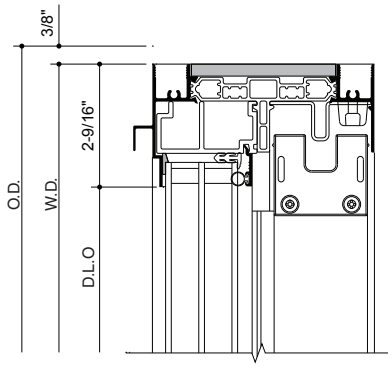
6
INTERLOCKS

7
SLIDING JAMB

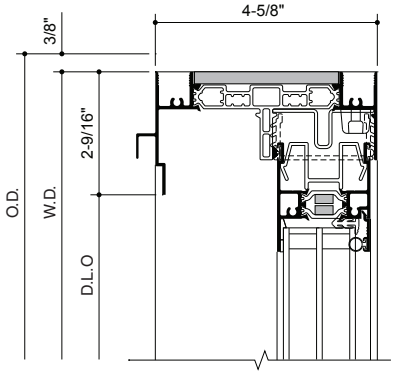
SCALE : 3" = 1'-0"

OX HORIZONTAL SLIDING WINDOW
(1-1/2" Triple Glazed)

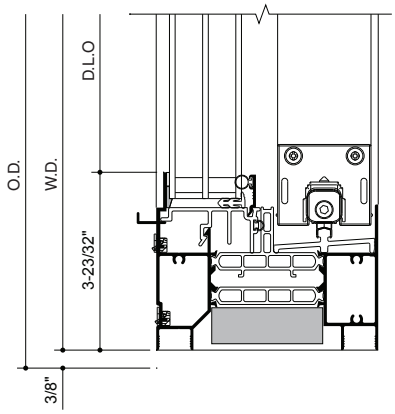
1
FIXED HEAD



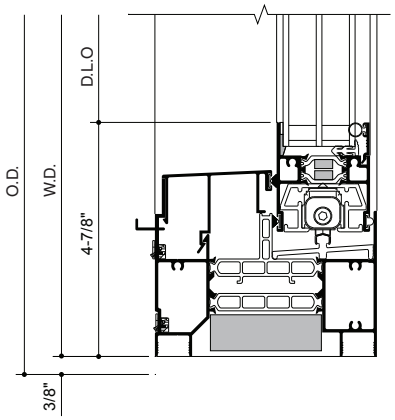
3
SLIDING HEAD



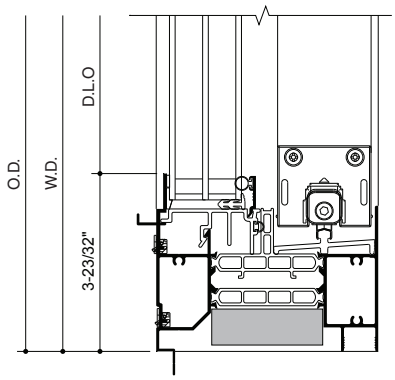
2
FIXED SILL 10 PSF



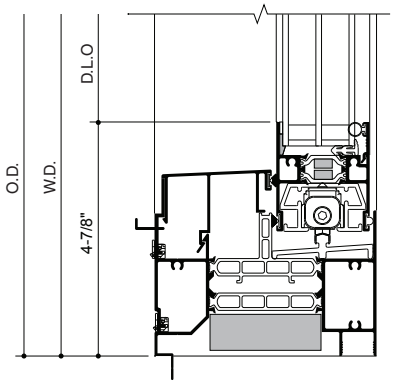
4
SLIDING SILL 10 PSF

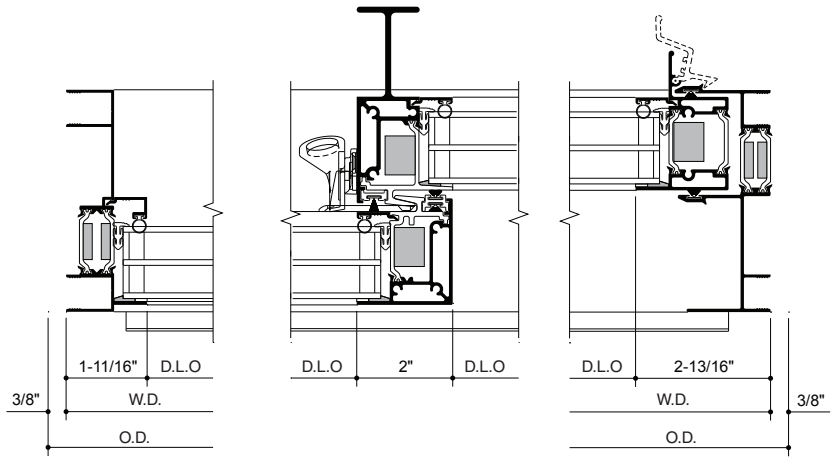


2A
FIXED SILL 10 PSF (Panning Fin)



4A
SLIDING SILL 10 PSF (Panning Fin)



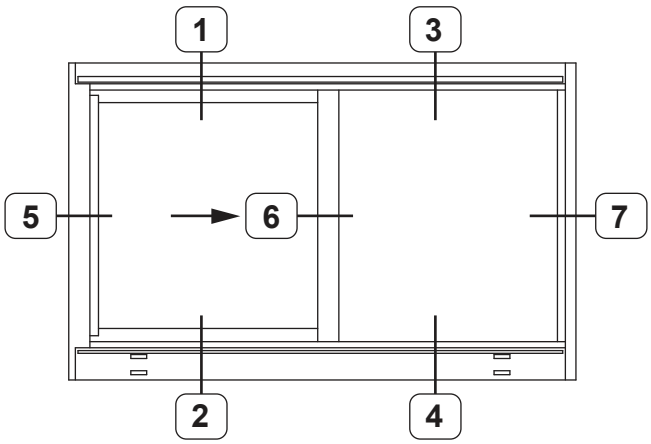


5
FIXED JAMB

6
INTERLOCKS

7
SLIDING JAMB

XO HORIZONTAL SLIDING WINDOW
(Keyed to details on pages 28 and 29)

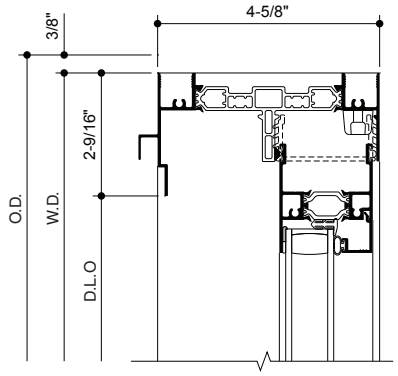


TYPICAL ELEVATION
Log onto www.kawneer.com for other configurations

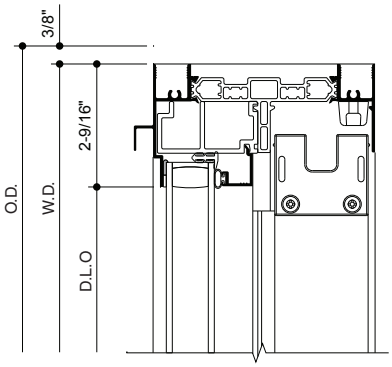
SCALE : 3" = 1'-0"

XO HORIZONTAL SLIDING WINDOW
(1" Double Glazed)

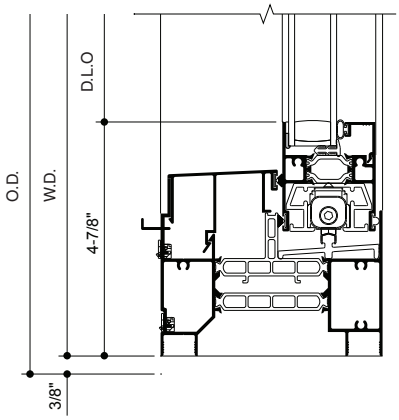
1
SLIDING
HEAD



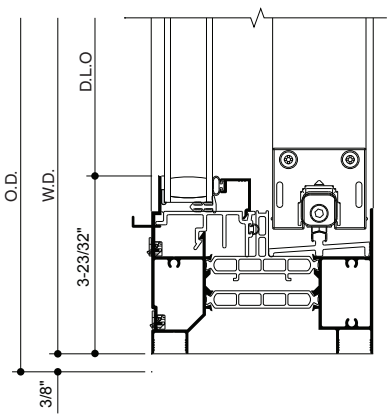
3
FIXED
HEAD



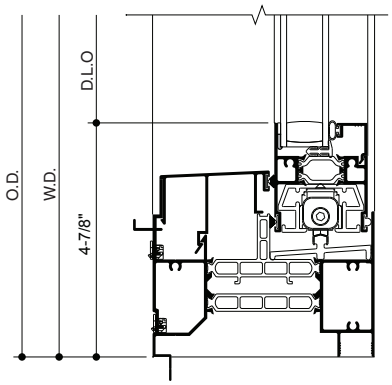
2
SLIDING
SILL
10 PSF



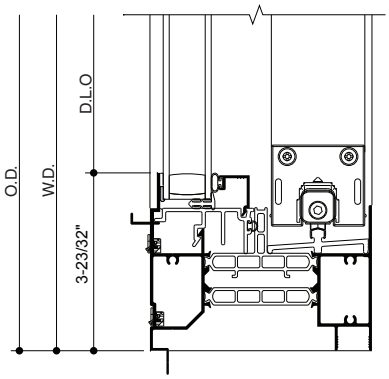
4
FIXED
SILL
10 PSF

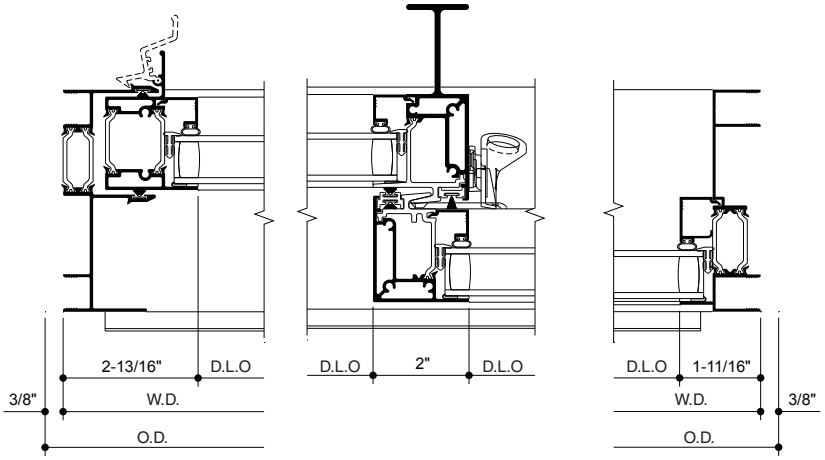


2A
SLIDING
SILL
10 PSF
(Panning Fin)



4A
FIXED
SILL
10 PSF
(Panning Fin)





5
SLIDING JAMB

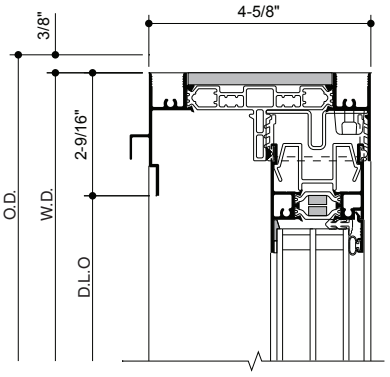
6
INTERLOCKS

7
FIXED JAMB

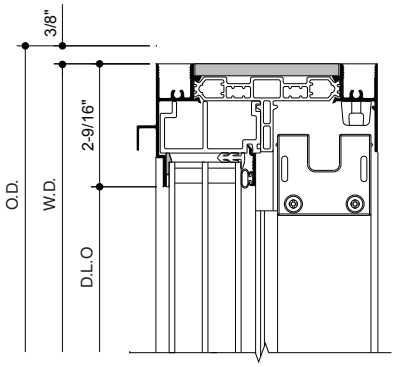
SCALE : 3" = 1'-0"

XO HORIZONTAL SLIDING WINDOW
(1-1/2" Triple Glazed)

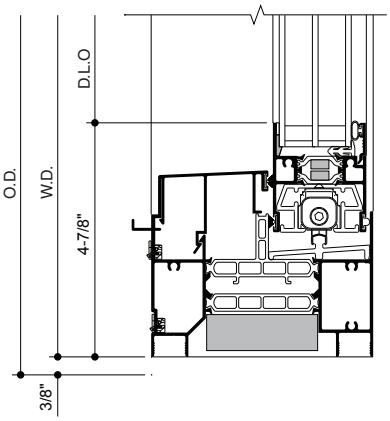
1
SLIDING
HEAD



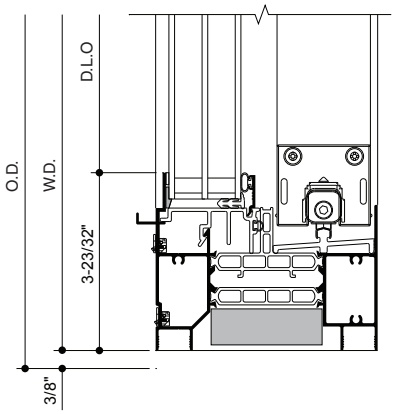
3
FIXED
HEAD



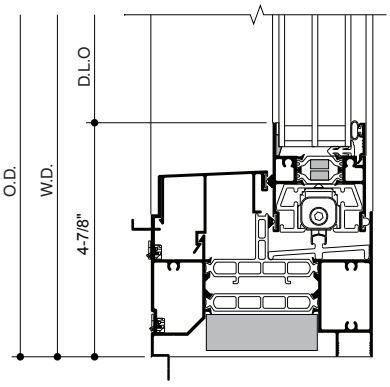
2
SLIDING
SILL
10 PSF



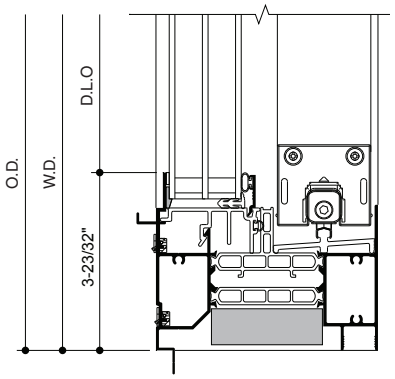
4
FIXED
SILL
10 PSF

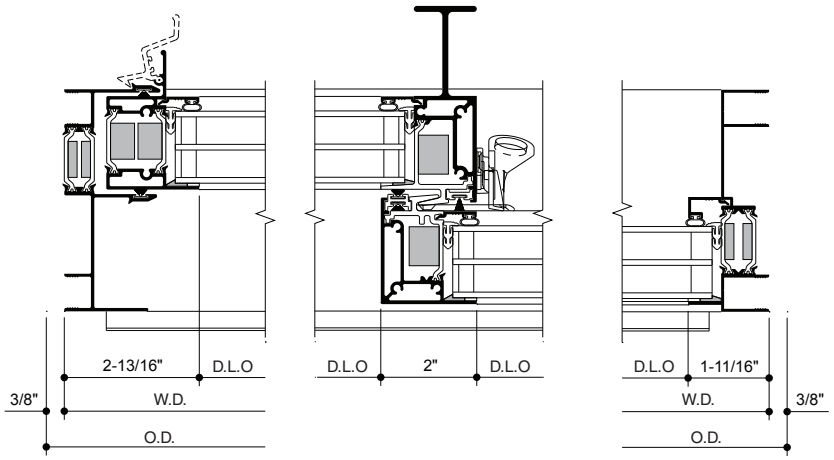


2A
SLIDING
SILL
10 PSF
(Panning Fin)



4A
FIXED
SILL
10 PSF
(Panning Fin)



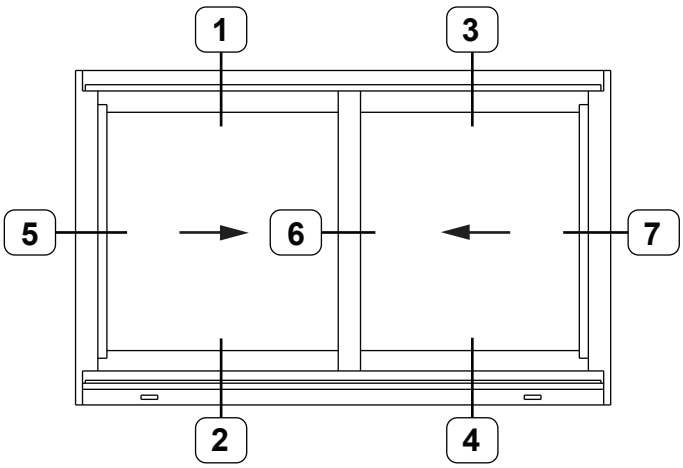


5
SLIDING JAMB

6
INTERLOCKS

7
FIXED JAMB

XX HORIZONTAL SLIDING WINDOW
(Keyed to details on pages 31 and 32)

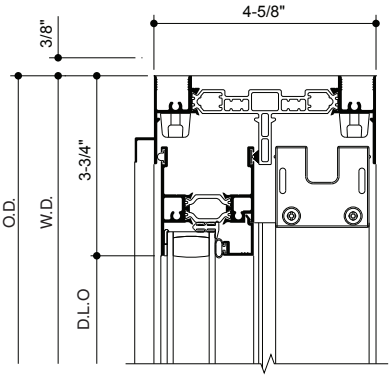


TYPICAL ELEVATION
Log onto www.kawneer.com for other configurations

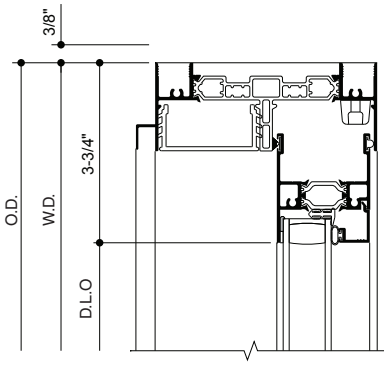
SCALE : 3" = 1'-0"

XX HORIZONTAL SLIDING WINDOW
(1" Double Glazed)

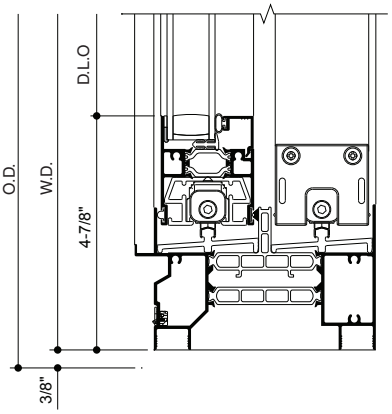
1
SLIDING
HEAD



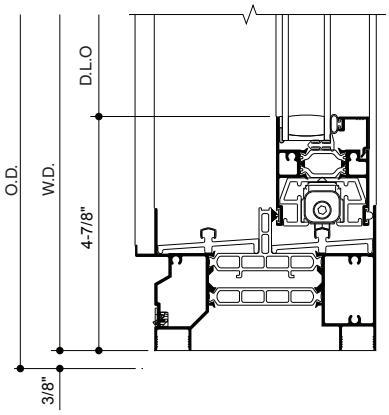
3
SLIDING
HEAD



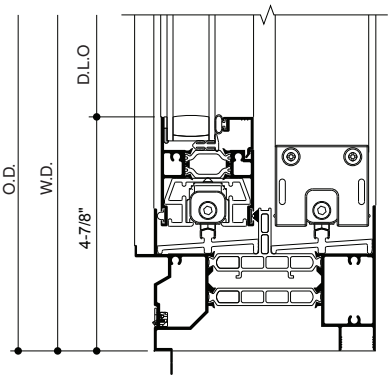
2
SLIDING
SILL
10 PSF



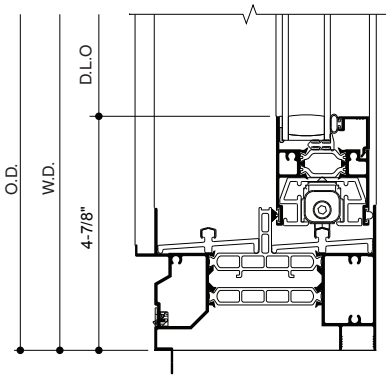
4
SLIDING
SILL
10 PSF

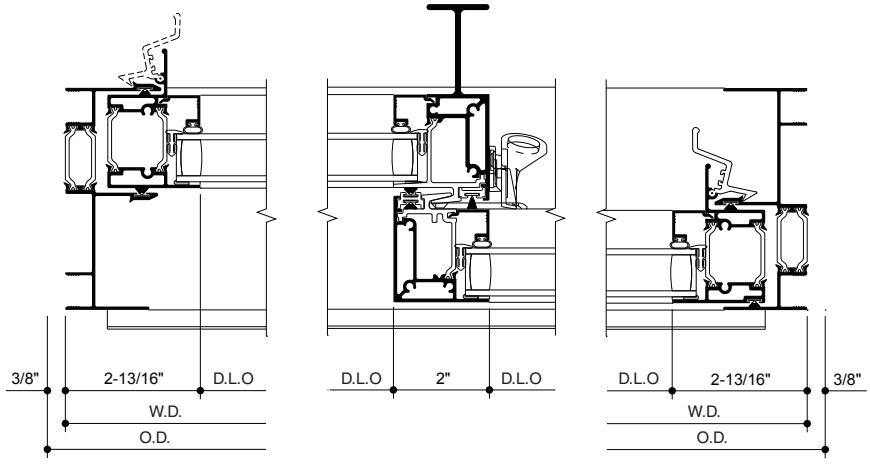


2A
SLIDING
SILL
10 PSF
(Panning Fin)



4A
SLIDING
SILL
10 PSF
(Panning Fin)





5
SLIDING JAMB

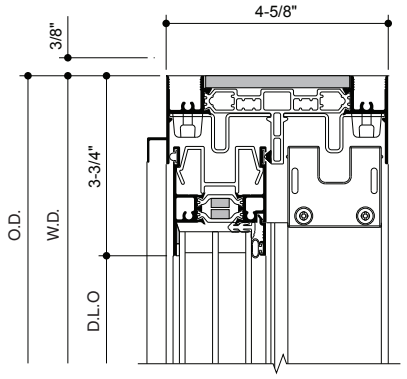
6
INTERLOCKS

7
SLIDING JAMB

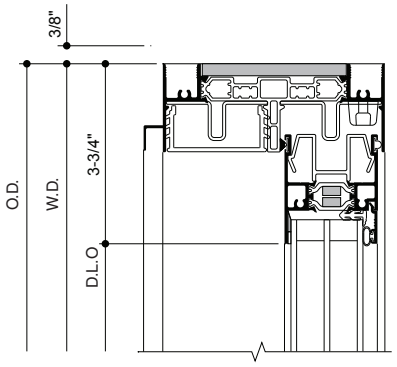
SCALE : 3" = 1'-0"

XX HORIZONTAL SLIDING WINDOW
(1-1/2" Triple Glazed)

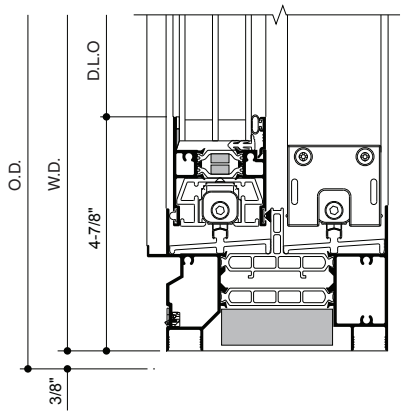
1
SLIDING
HEAD



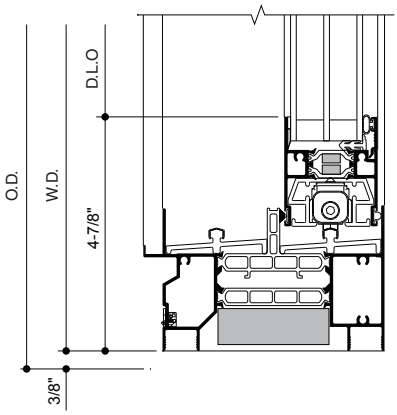
3
SLIDING
HEAD



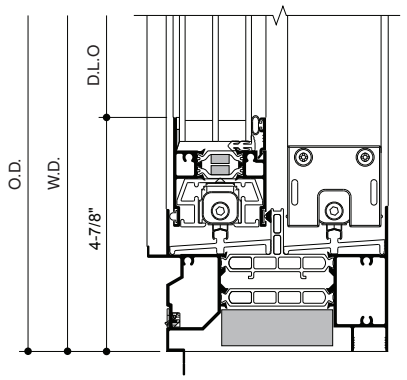
2
SLIDING
SILL
10 PSF



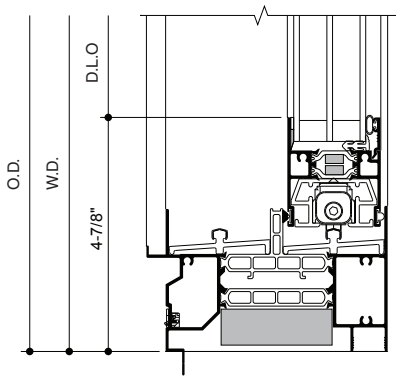
4
SLIDING
SILL
10 PSF



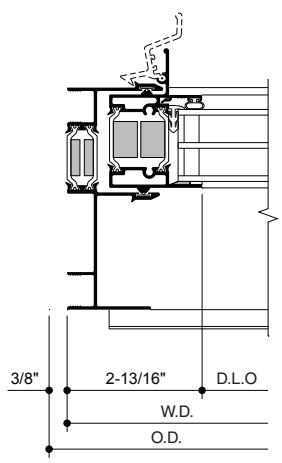
2A
SLIDING
SILL
10 PSF
(Panning Fin)



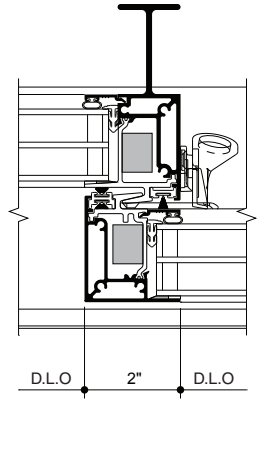
4A
SLIDING
SILL
10 PSF
(Panning Fin)



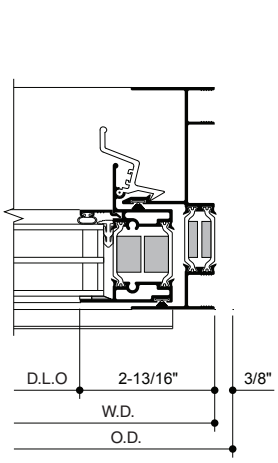
5
SLIDING JAMB



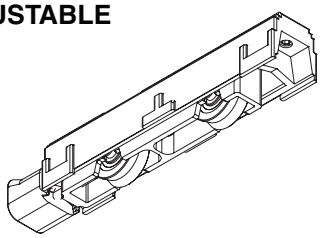
6
INTERLOCKS



7
SLIDING JAMB



COMPOSITE ADJUSTABLE TANDEM ROLLER

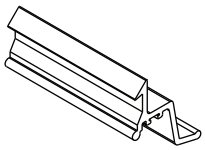


Glass filled nylon housing, die cast zamak roller support, precision sealed ball bearing rollers with nylon tires.

SWEEP LOCK AND KEEPER

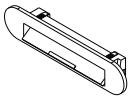
White Bronze sweep locks and keepers with a durable brushed nickel finish and cycle tested for longevity.

AUTO LOCK AND KEEPER



An aluminum spring operated auto lock. The lock automatically engages the integral keeper securing the sash in the closed position. The auto lock is an option for the jamb sash.

COVERED WEEPS

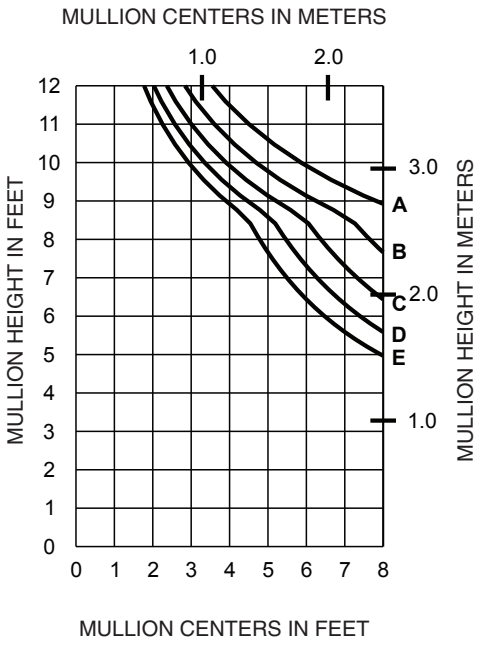


A weep with an integral hinged cover to allow maximum drainage of infiltrating water with a positive closing cover to block drafts and insects. The weep is available in black and white finishes.

AA™5450 Ultra Thermal Window

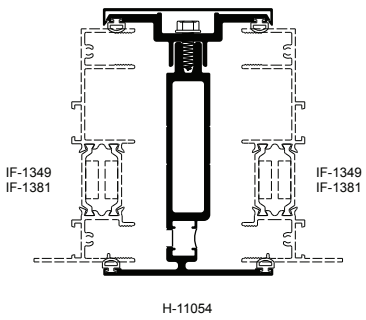
WIND LOAD CHARTS

THESE CHARTS ARE BASED ON A MAXIMUM DEFLECTION OF L\175 AND\OR A MAXIMUM STRESS OF 15,152 psi (104 MPa). If the design wind load is determined through the analytical procedures of ASCE/SEI 7-10 or earlier editions, the load shall be based on the nominal loads used in allowable stress design. A 4/3 increase in allowable stress has not been used to develop these curves.

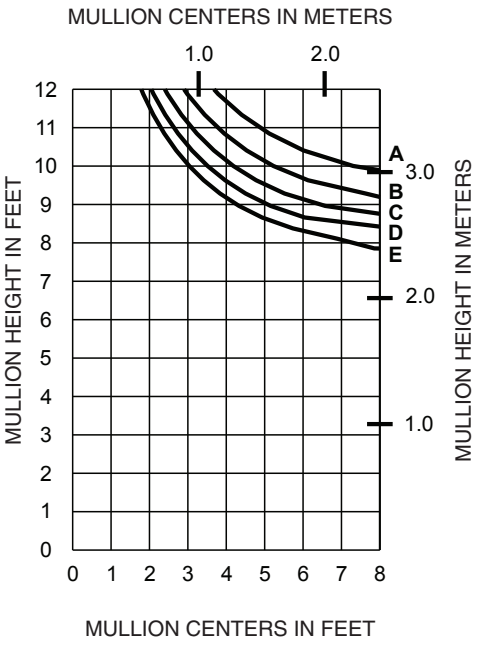


UNITS WITH HORIZONTALS

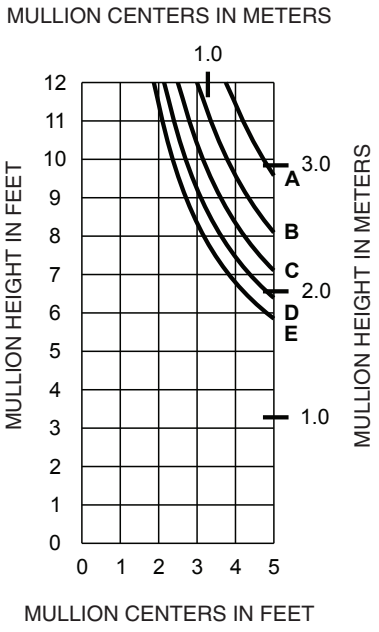
A = 15 PSF (720)
B = 20 PSF (960)
C = 25 PSF (1200)
D = 30 PSF (1440)
E = 35 PSF (1920)



WIND LOAD CHARTS ARE BASED ON COMPOSITE PROPERTIES WHICH ARE CALCULATED IN ACCORDANCE WITH AAMA TIR-8 AND AAMA 505

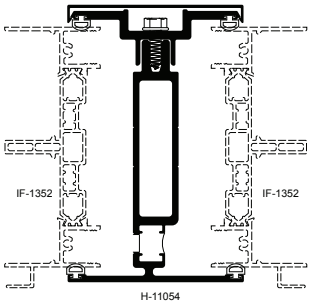


UNITS WITHOUT HORIZONTALS

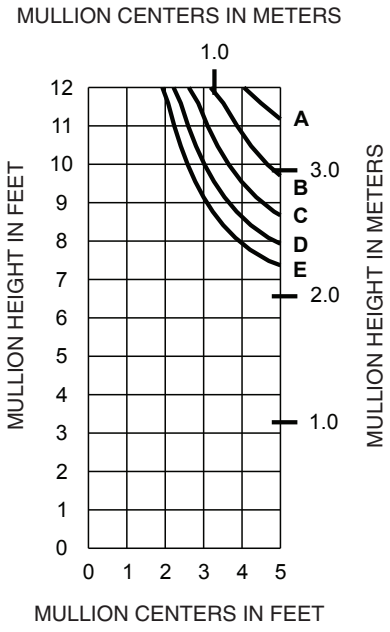


UNITS WITH HORIZONTALS

A = 15 PSF (720)
B = 20 PSF (960)
C = 25 PSF (1200)
D = 30 PSF (1440)
E = 35 PSF (1920)



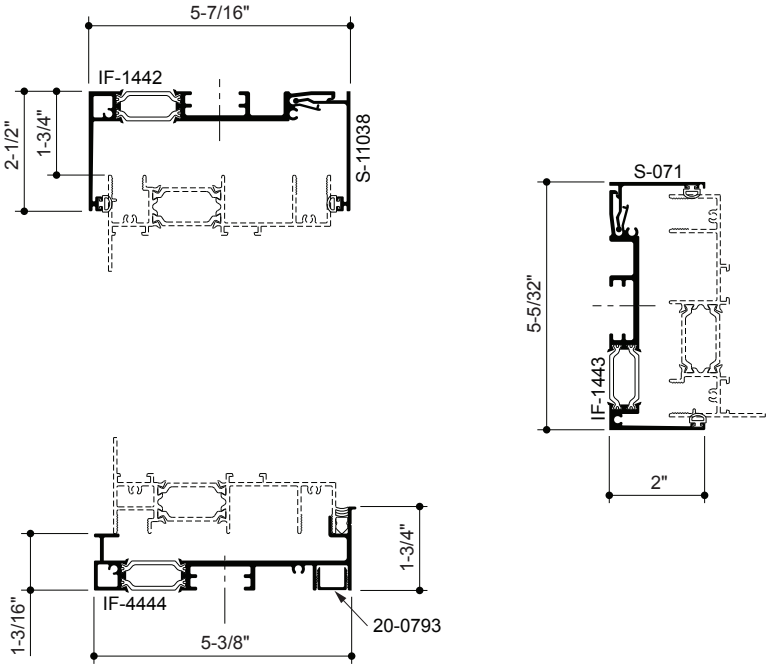
WIND LOAD CHARTS ARE BASED ON COMPOSITE PROPERTIES WHICH ARE CALCULATED IN ACCORDANCE WITH AAMA TIR-8 AND AAMA 505



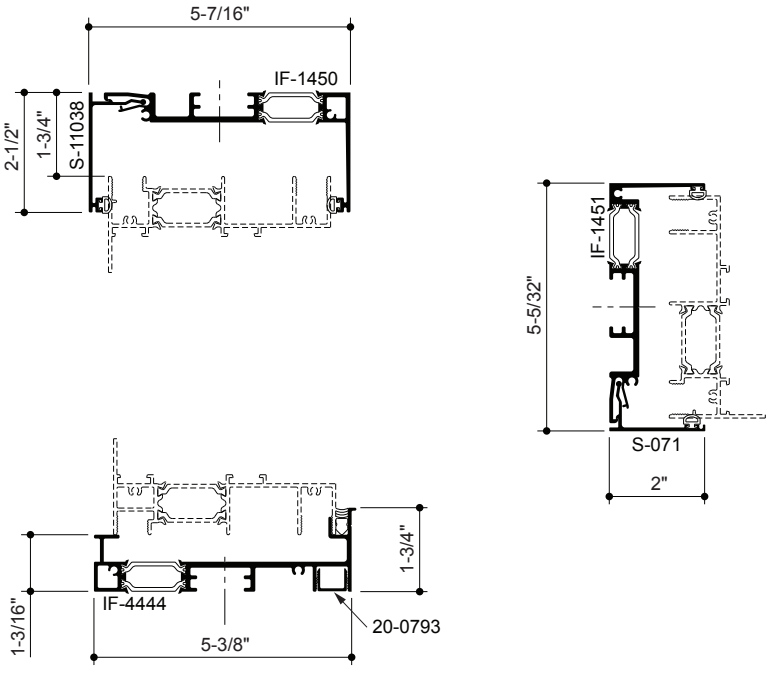
UNITS WITHOUT HORIZONTALS

SCALE : 3" = 1'-0"

RECEPTOR DETAILS



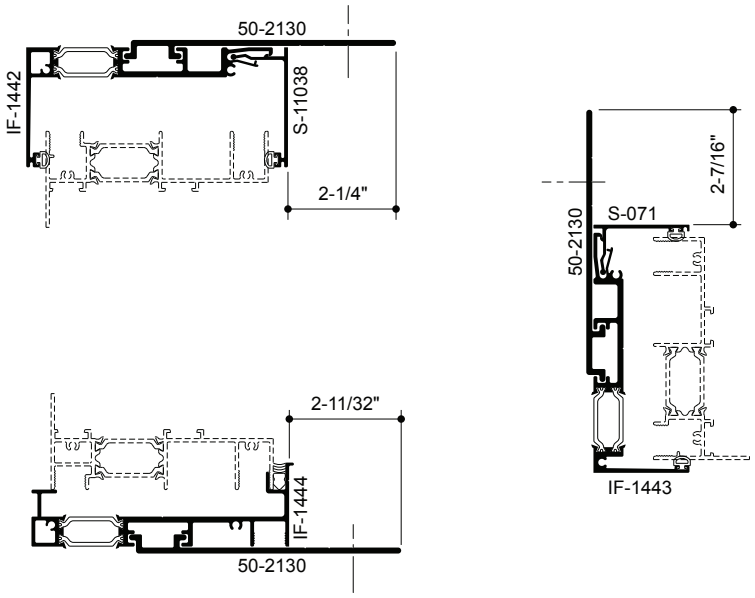
INTERIOR GLAZED



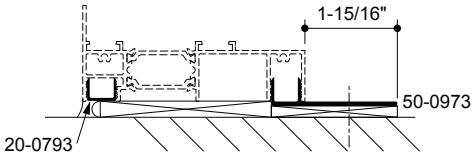
EXTERIOR GLAZED

ANCHOR DETAILS

NOTE:
Interior glazed shown, exterior glazed similar.

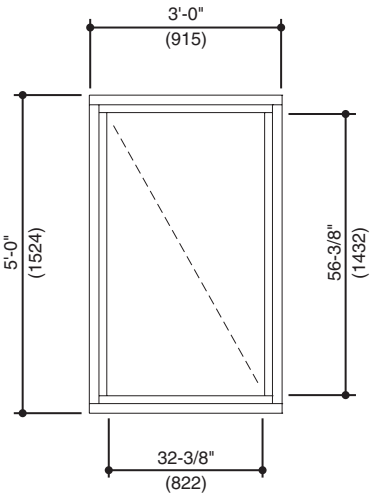


STRAP ANCHOR WITH RECEPTOR



STRAP ANCHOR WITHOUT RECEPTOR

Generic Project Specific U-factor Example Calculation
(Percent of glass will vary on specific products depending on sitelines)



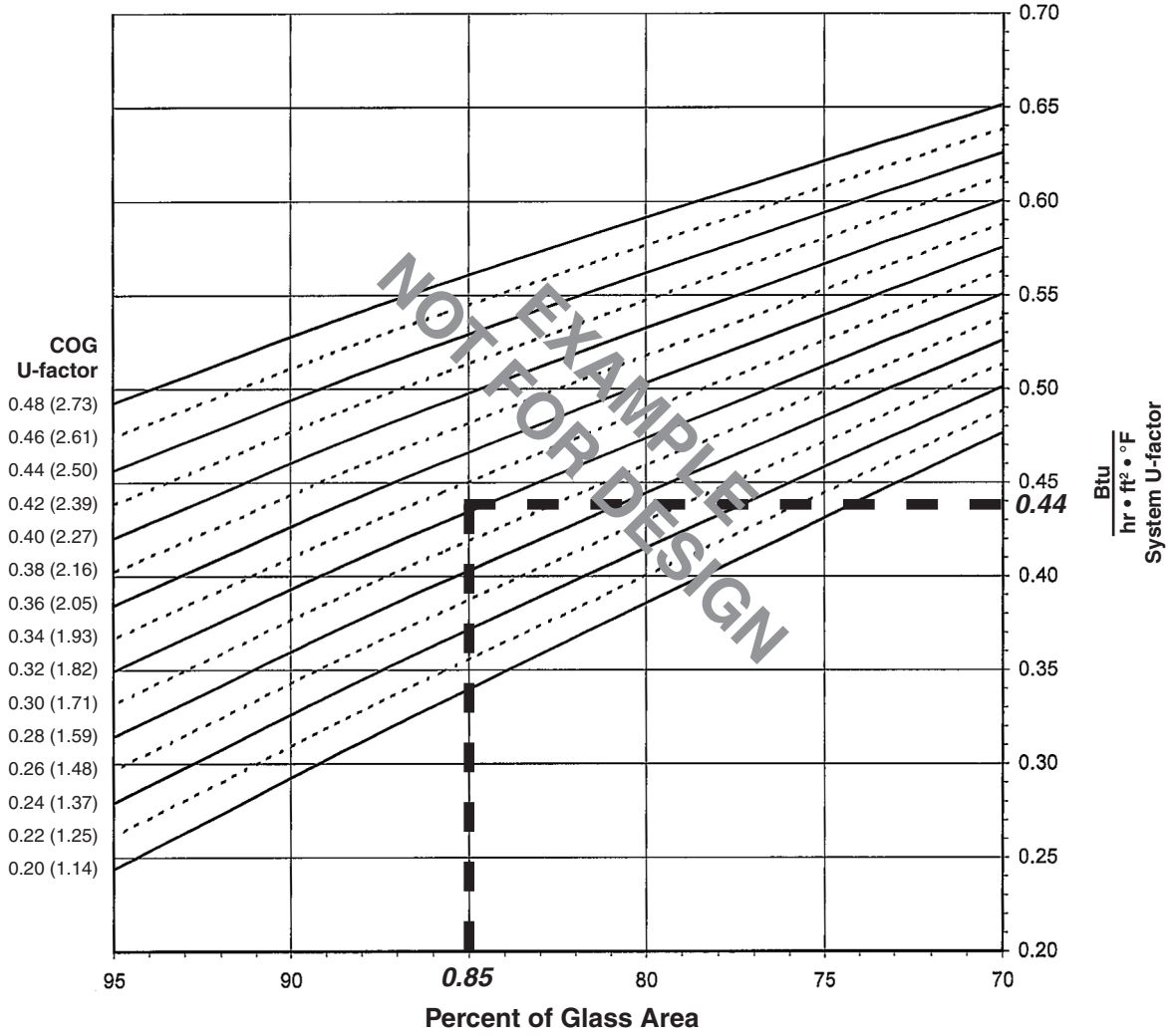
Example Glass U-Factor = 0.42 Btu/hr • ft² • °F

Total Daylight Opening = 32-3/8" • 56-3/8" = 12.67ft²

Total Projected Area = 3'-0" • 5'-0" = 15 ft²

Percent of Glass = (Total Daylight Opening ÷ Total Projected Area)100
= (12.67 ÷ 15)100 = 85%

System U-factor vs Percent of Glass Area

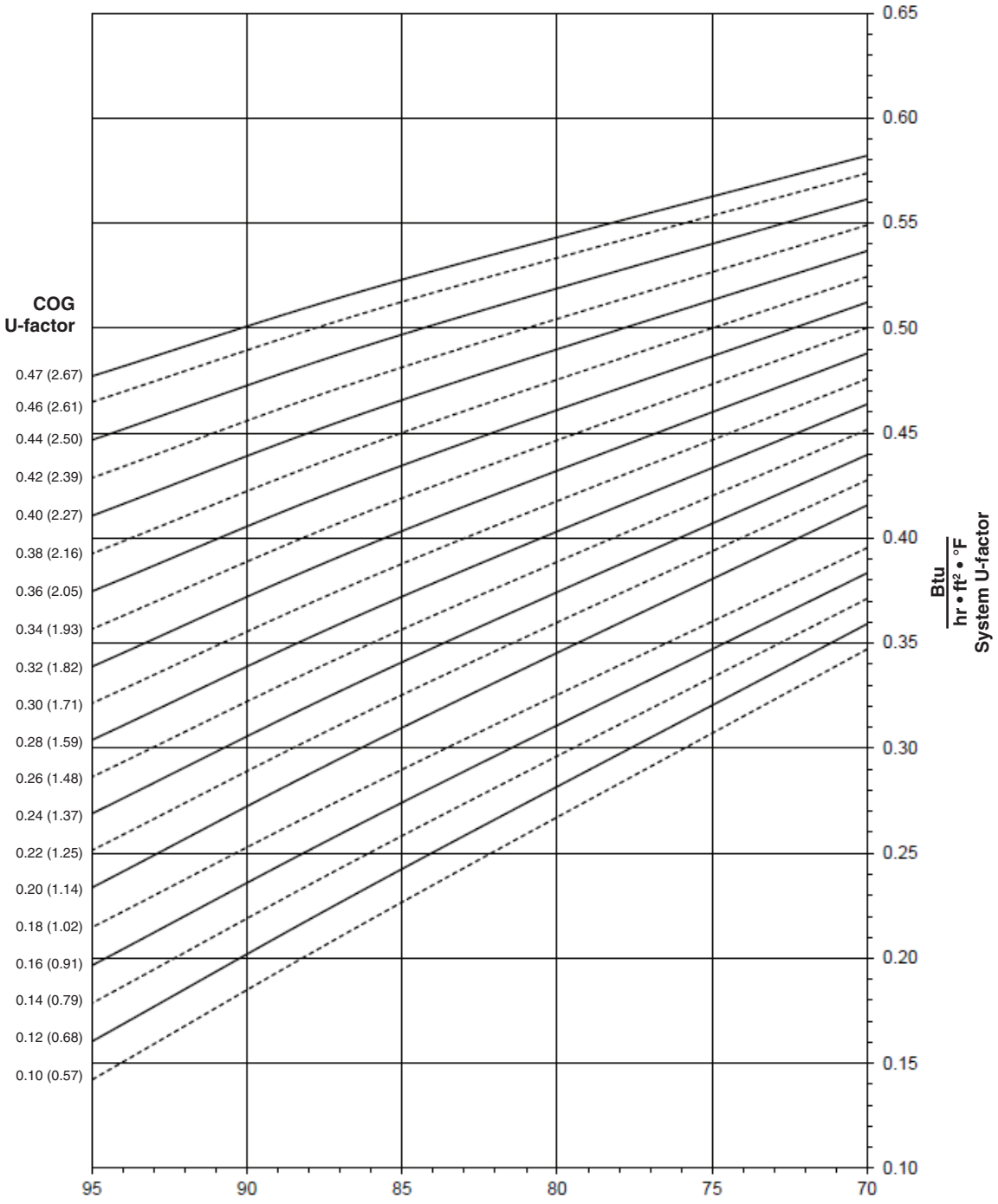


Based on 85% glass and center of glass (COG) U-factor of 0.42
System U-factor is equal to 0.44 Btu/hr • ft² • °F

AA™5450 FIXED WINDOW
(1" Double Glazed)

Note:
Values in parentheses are metric.
COG = Center of Glass.
Charts are generated per AMMA 507

System U-factor vs Percent of Glass Area

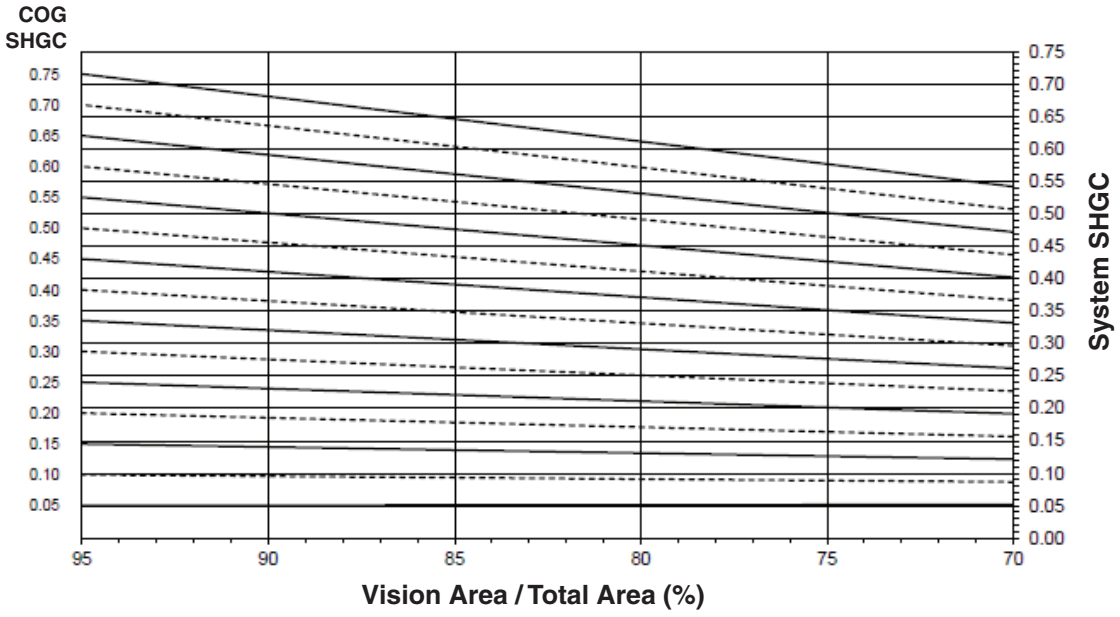


Percent of Glass Area = Vision Area/Total Area
Daylight Opening / Projected Area

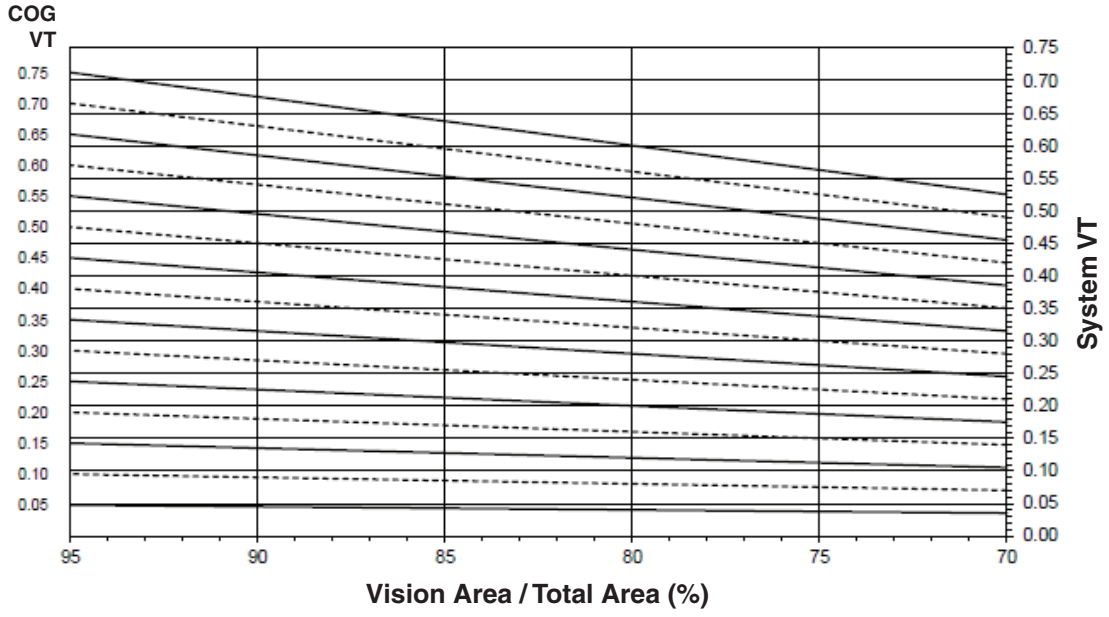
Notes for System U-factor, SHGC and VT charts:
For glass values that are not listed, linear interpolation is permitted.
Glass properties are based on center of glass values and are obtained from your glass supplier.

AA™5450 FIXED WINDOW
(1" Double Glazed)

System Solar Heat Gain Coefficient (SHGC) vs Percent of Vision Area



System Visible Transmittance (VT) vs Percent of Vision Area



Thermal Transmittance [1] (BTU/hr • ft [2] • °F)

Glass U-Factor [3]	Overall U-Factor [4]
0.48	0.52
0.46	0.51
0.44	0.50
0.42	0.48
0.40	0.46
0.38	0.45
0.36	0.43
0.34	0.42
0.32	0.40
0.30	0.39
0.28	0.37
0.26	0.35
0.24	0.34
0.22	0.32
0.20	0.31
0.18	0.29
0.16	0.27
0.14	0.26
0.12	0.24
0.10	0.22

AA™5450 FIXED WINDOW (1" Double Glazed)

NOTE: For glass values that are not listed, linear interpolation is permitted.

1. U-Factors are determined in accordance with NFRC 100.
2. SHGC and VT values are determined in accordance with NFRC 200.
3. Glass properties are based on center of glass values and are obtained from your glass supplier.
4. Overall U-Factor, SHGC, and VT Matricies are based on the standard NFRC specimen size of 1,200 mm wide by 1,500 mm high (47-1/4" by 59-1/16").

SHGC Matrix [2]

Glass SHGC [3]	Overall SHGC [4]
0.75	0.65
0.70	0.61
0.65	0.56
0.60	0.52
0.55	0.48
0.50	0.43
0.45	0.39
0.40	0.35
0.35	0.31
0.30	0.26
0.25	0.22
0.20	0.18
0.15	0.14
0.10	0.09
0.05	0.05

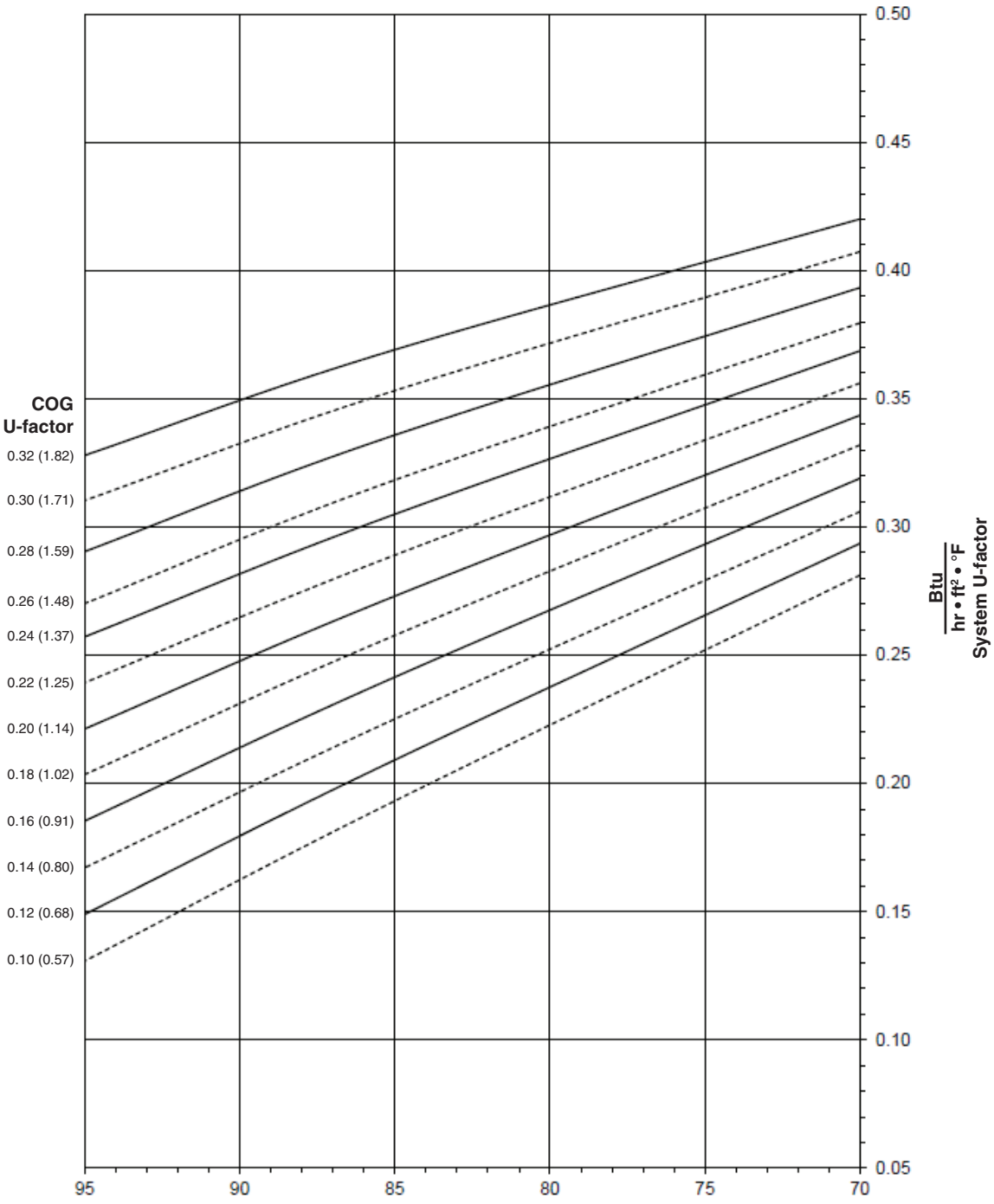
Visible Transmittance [2]

Glass VT [3]	Overall VT [4]
0.75	0.64
0.70	0.60
0.65	0.55
0.60	0.51
0.55	0.47
0.50	0.43
0.45	0.38
0.40	0.34
0.35	0.30
0.30	0.26
0.25	0.21
0.20	0.17
0.15	0.13
0.10	0.09
0.05	0.04

AA™5450 FIXED WINDOW
(1-1/2" Triple Glazed)

Note:
Values in parentheses are metric.
COG = Center of Glass.
Charts are generated per AMMA 507

System U-factor vs Percent of Glass Area

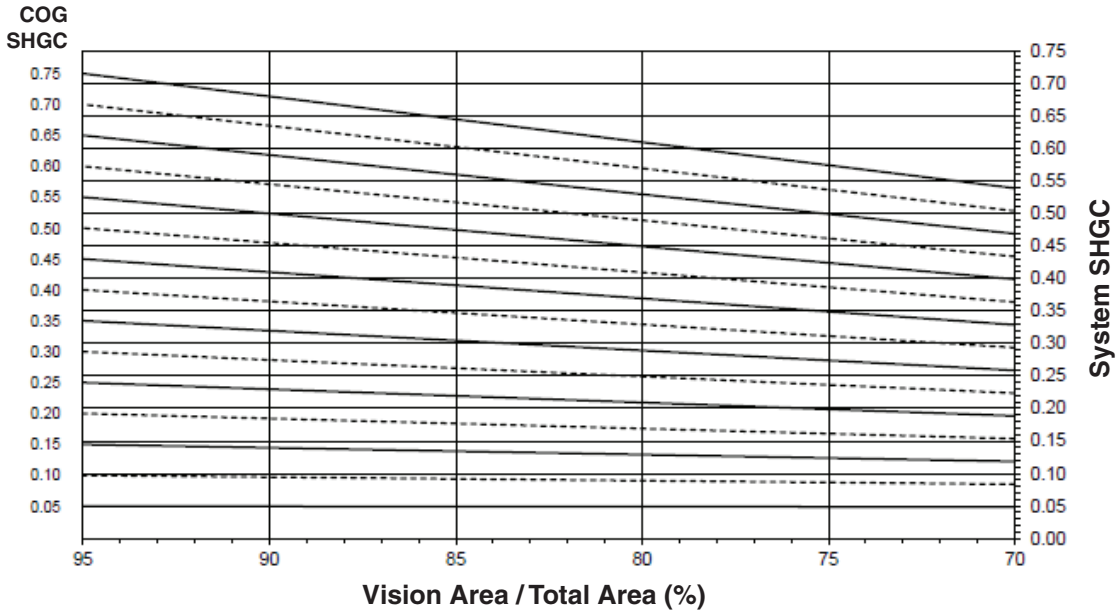


Percent of Glass Area = Vision Area/Total Area
Daylight Opening / Projected Area

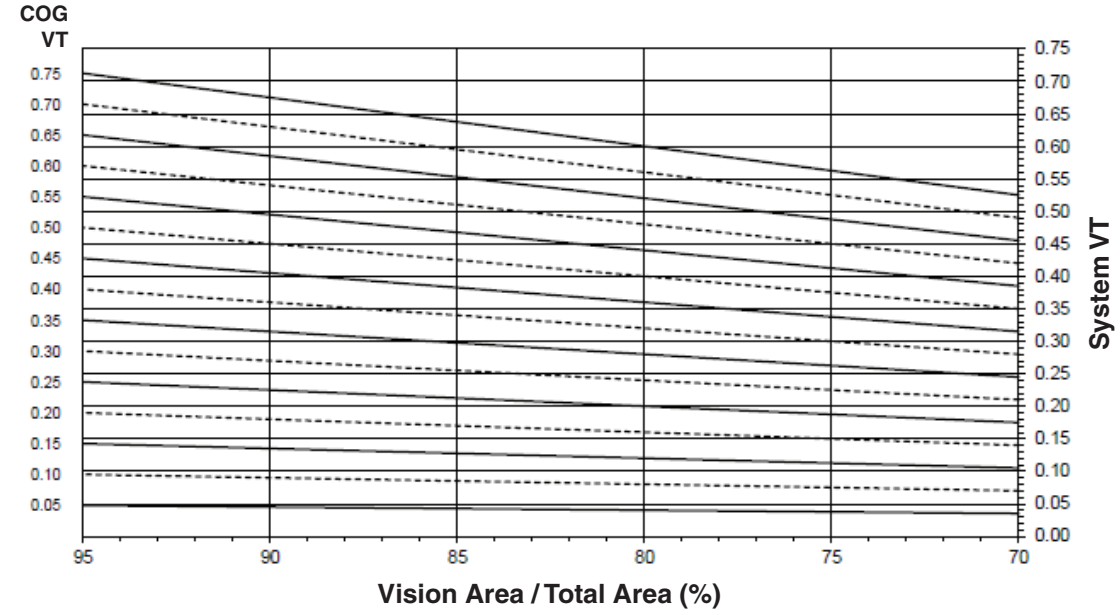
Notes for System U-factor, SHGC and VT charts:
For glass values that are not listed, linear interpolation is permitted.
Glass properties are based on center of glass values and are obtained from your glass supplier.

AA™5450 FIXED WINDOW
(1-1/2" Triple Glazed)

System Solar Heat Gain Coefficient (SHGC) vs Percent of Vision Area



System Visible Transmittance (VT) vs Percent of Vision Area



AA™5450 FIXED WINDOW (1-1/2" Triple Glazed)

Thermal Transmittance[1] (BTU/hr • ft[2] • °F)

Glass U-Factor [3]	Overall U-Factor [4]
0.32	0.37
0.30	0.35
0.28	0.33
0.26	0.32
0.24	0.30
0.22	0.29
0.20	0.27
0.18	0.26
0.16	0.24
0.14	0.22
0.12	0.21
0.10	0.19

NOTE: For glass values that are not listed, linear interpolation is permitted.

1. U-Factors are determined in accordance with NFRC 100.
2. SHGC and VT values are determined in accordance with NFRC 200.
3. Glass properties are based on center of glass values and are obtained from your glass supplier.
4. Overall U-Factor, SHGC, and VT Matricies are based on the standard NFRC specimen size of 1,200 mm wide by 1,500 mm high (47-1/4" by 59-1/16").

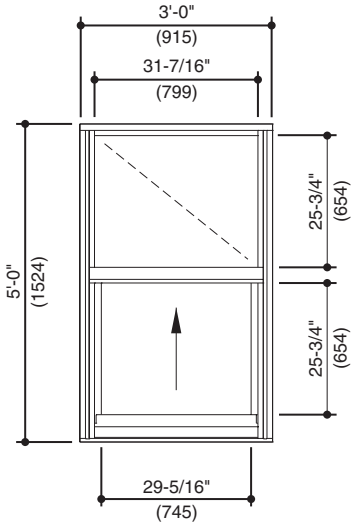
SHGC Matrix [2]

Glass SHGC [3]	Overall Glass U-Factor [4]
0.75	0.65
0.70	0.60
0.65	0.56
0.60	0.52
0.55	0.48
0.50	0.43
0.45	0.39
0.40	0.35
0.35	0.31
0.30	0.26
0.25	0.22
0.20	0.18
0.15	0.13
0.10	0.09
0.05	0.05

Visible Transmittance [2]

Glass VT [3]	Overall VT [4]
0.75	0.64
0.70	0.60
0.65	0.55
0.60	0.51
0.55	0.47
0.50	0.43
0.45	0.38
0.40	0.34
0.35	0.30
0.30	0.26
0.25	0.21
0.20	0.17
0.15	0.13
0.10	0.09
0.05	0.04

Generic Project Specific U-factor Example Calculation
(Percent of glass will vary on specific products depending on sitelines)



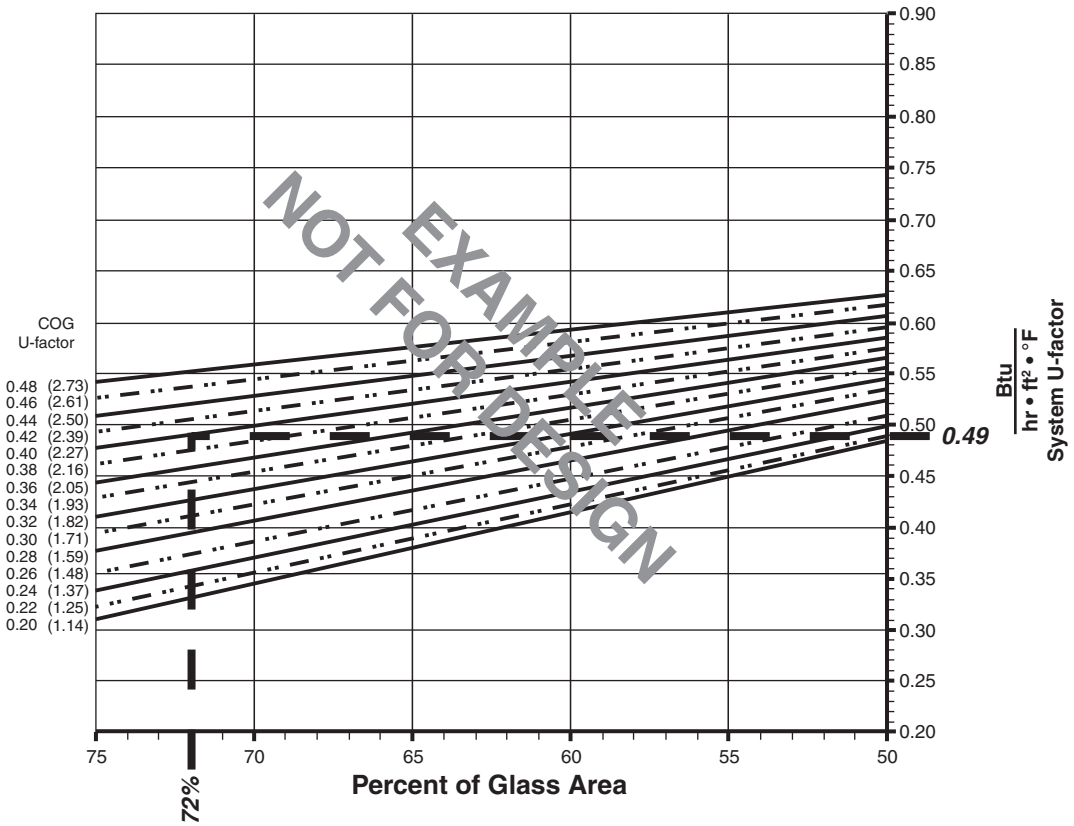
Example Glass U-Factor = 0.42 Btu/hr • ft² • °F

Total Daylight Opening = (31-7/16" • 25-3/4") + (29-5/16" • 25-3/4") = 10.86 ft²

Total Projected Area = 3'-0" • 5'-0" = 15 ft²

Percent of Glass = (Total Daylight Opening ÷ Total Projected Area)100
= (10.86 ÷ 15)100 = 72%

System U-factor vs Percent of Glass Area

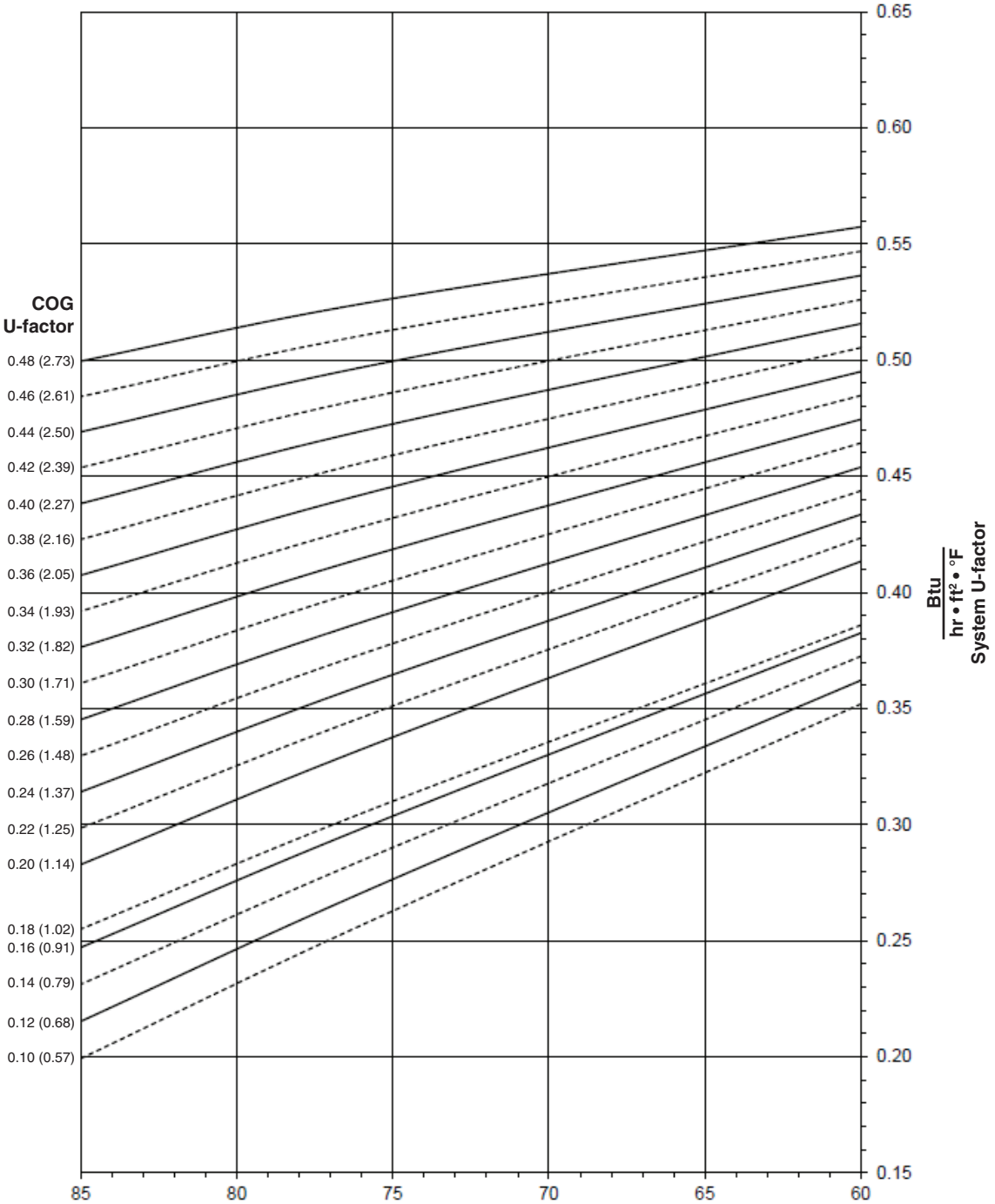


Based on 72% glass and center of glass (COG) U-factor of 0.42
System U-factor is equal to 0.49 Btu/hr • ft² • °F

AA™5450 SINGLE HUNG WINDOW
(1" Double Glazed - 10lb. Sill)

Note:
Values in parentheses are metric.
COG = Center of Glass.
Charts are generated per AMMA 507

System U-factor vs Percent of Glass Area

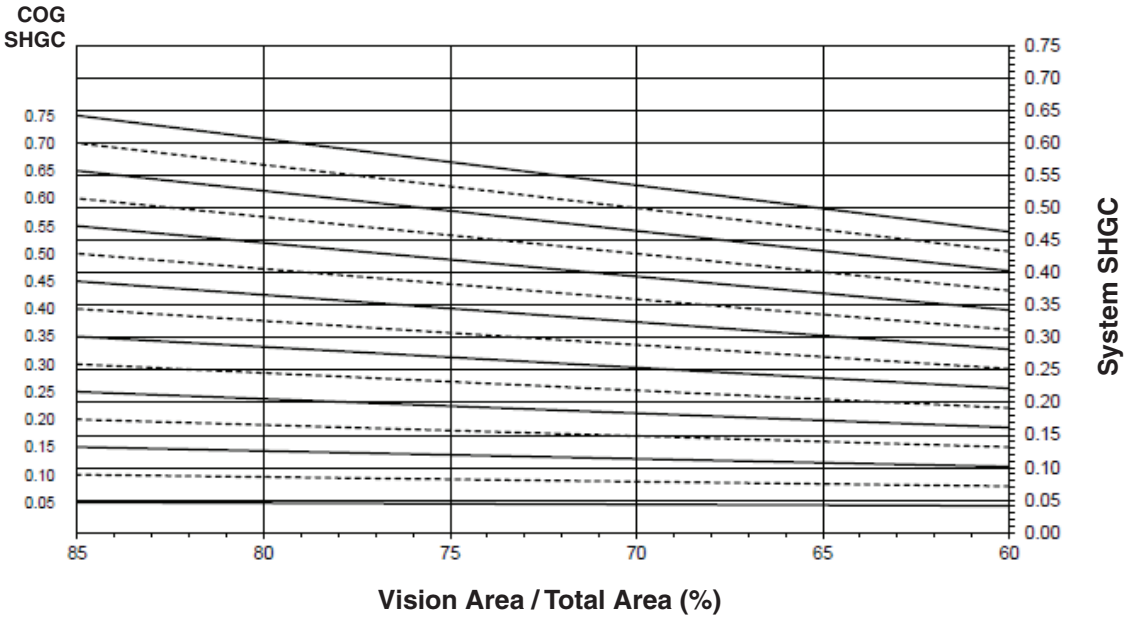


Percent of Glass Area = Vision Area/Total Area
Daylight Opening / Projected Area

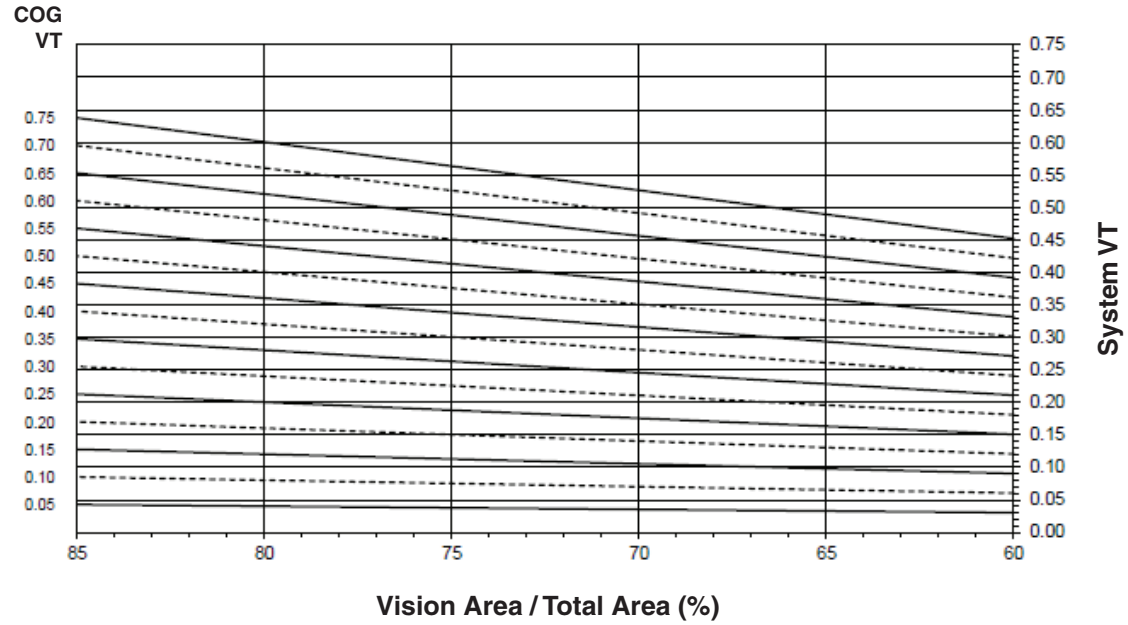
Notes for System U-factor, SHGC and VT charts:
For glass values that are not listed, linear interpolation is permitted.
Glass properties are based on center of glass values and are obtained from your glass supplier.

AA™5450 SINGLE HUNG WINDOW
(1" Double Glazed - 10lb Sill)

System Solar Heat Gain Coefficient (SHGC) vs Percent of Vision Area



System Visible Transmittance (VT) vs Percent of Vision Area



Thermal Transmittance [1] (BTU/hr • ft [2] • °F)

Glass U-Factor [3]	Overall U-Factor [4]
0.48	0.53
0.46	0.51
0.44	0.50
0.42	0.48
0.40	0.47
0.38	0.46
0.36	0.44
0.34	0.43
0.32	0.42
0.30	0.40
0.28	0.39
0.26	0.38
0.24	0.36
0.22	0.35
0.20	0.33
0.18	0.31
0.16	0.30
0.14	0.29
0.12	0.27
0.10	0.26

AA™5450 SINGLE HUNG WINDOW (1" Double Glazed - 10ib. Sill)

NOTE: For glass values that are not listed, linear interpolation is permitted.

1. U-Factors are determined in accordance with NFRC 100.
2. SHGC and VT values are determined in accordance with NFRC 200.
3. Glass properties are based on center of glass values and are obtained from your glass supplier.
4. Overall U-Factor, SHGC, and VT Matricies are based on the standard NFRC specimen size of 1,200 mm wide by 1,500 mm high (47-1/4" by 59-1/16").

SHGC Matrix [2]

Glass SHGC [3]	Overall SHGC [4]
0.75	0.57
0.70	0.54
0.65	0.50
0.60	0.46
0.55	0.42
0.50	0.39
0.45	0.35
0.40	0.31
0.35	0.27
0.30	0.23
0.25	0.20
0.20	0.16
0.15	0.12
0.10	0.08
0.05	0.04

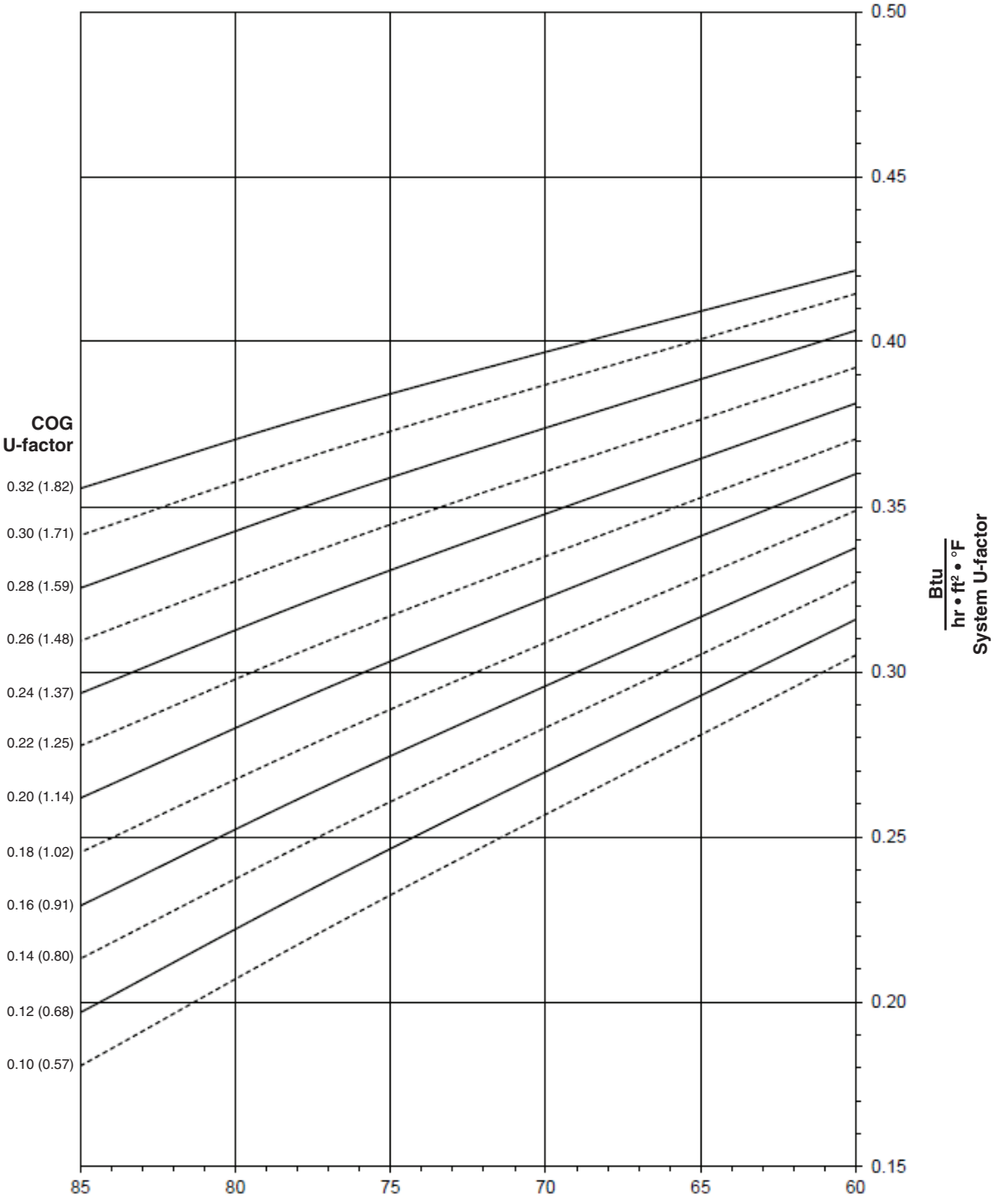
Visible Transmittance [2]

Glass VT [3]	Overall VT [4]
0.75	0.57
0.70	0.53
0.65	0.49
0.60	0.45
0.55	0.42
0.50	0.38
0.45	0.34
0.40	0.30
0.35	0.27
0.30	0.23
0.25	0.19
0.20	0.15
0.15	0.11
0.10	0.08
0.05	0.04

AA™5450 SINGLE HUNG WINDOW
(1-1/2" Triple Glazed - 10lb. Sill)

Note:
Values in parentheses are metric.
COG = Center of Glass.
Charts are generated per AMMA 507

System U-factor vs Percent of Glass Area

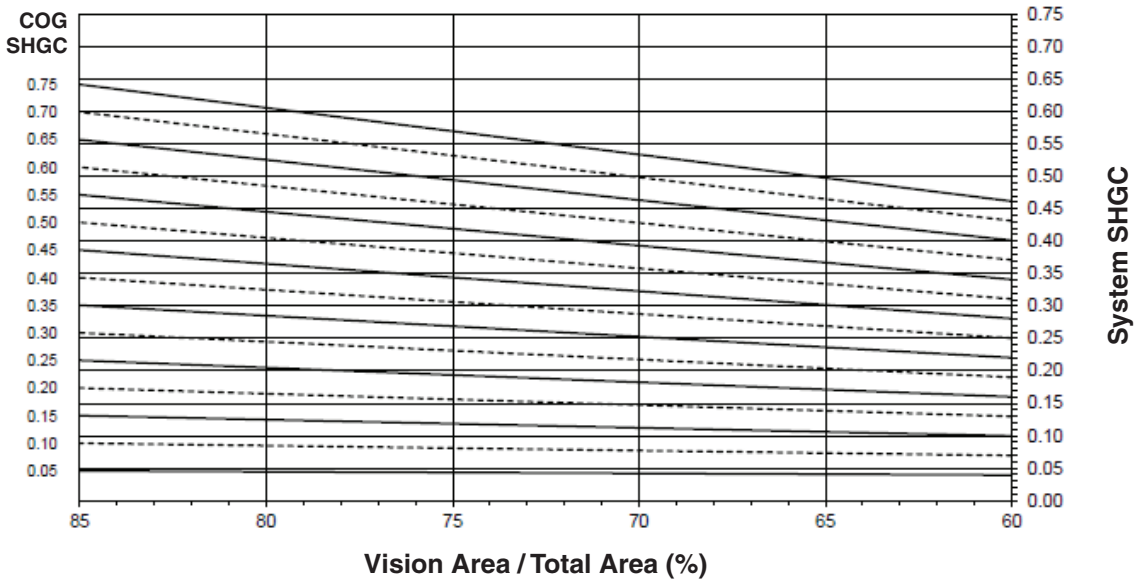


Percent of Glass Area = Vision Area/Total Area
Daylight Opening / Projected Area

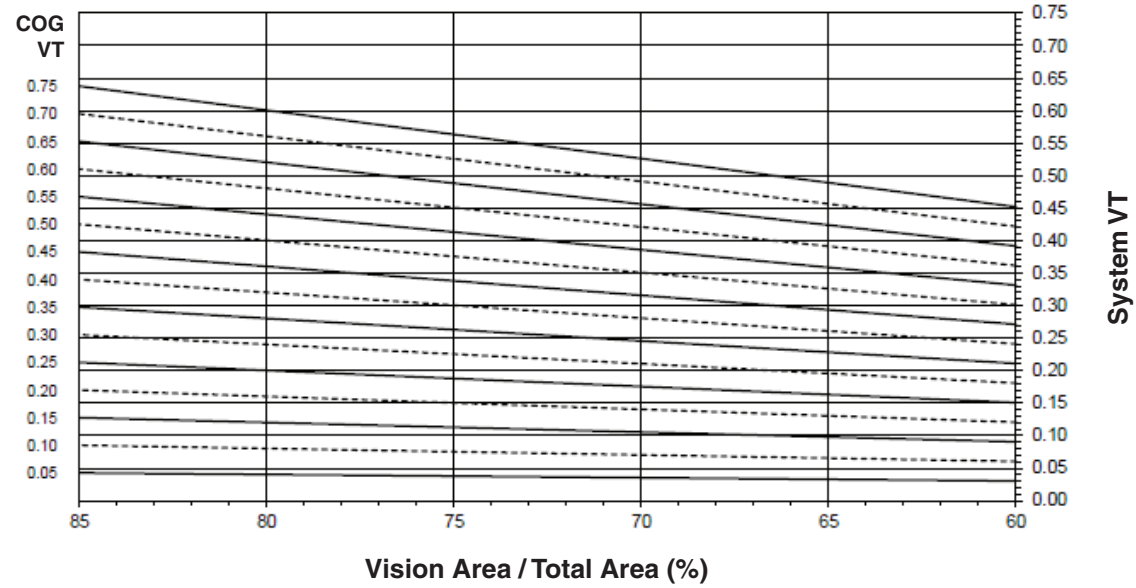
Notes for System U-factor, SHGC and VT charts:
For glass values that are not listed, linear interpolation is permitted.
Glass properties are based on center of glass values and are obtained from your glass supplier.

AA™5450 SINGLE HUNG WINDOW
(1-1/2" Triple Glazed - 10lb Sill)

System Solar Heat Gain Coefficient (SHGC) vs Percent of Vision Area



System Visible Transmittance (VT) vs Percent of Vision Area



AA™5450 SINGLE HUNG WINDOW (1-1/2" Triple Glazed - 10lb. Sill)

Thermal Transmittance[1] (BTU/hr • ft ^{2} • °F)

Glass U-Factor [3]	Overall U-Factor [4]
0.32	0.37
0.30	0.35
0.28	0.33
0.26	0.32
0.24	0.30
0.22	0.29
0.20	0.27
0.18	0.26
0.16	0.24
0.14	0.22
0.12	0.21
0.10	0.19

NOTE: For glass values that are not listed, linear interpolation is permitted.

1. U-Factors are determined in accordance with NFRC 100.
2. SHGC and VT values are determined in accordance with NFRC 200.
3. Glass properties are based on center of glass values and are obtained from your glass supplier.
4. Overall U-Factor, SHGC, and VT Matricies are based on the standard NFRC specimen size of 1,200 mm wide by 1,500 mm high (47-1/4" by 59-1/16").

SHGC Matrix [2]

Glass SHGC [3]	Overall Glass U-Factor [4]
0.75	0.65
0.70	0.60
0.65	0.56
0.60	0.52
0.55	0.48
0.50	0.43
0.45	0.39
0.40	0.35
0.35	0.31
0.30	0.26
0.25	0.22
0.20	0.18
0.15	0.13
0.10	0.09
0.05	0.05

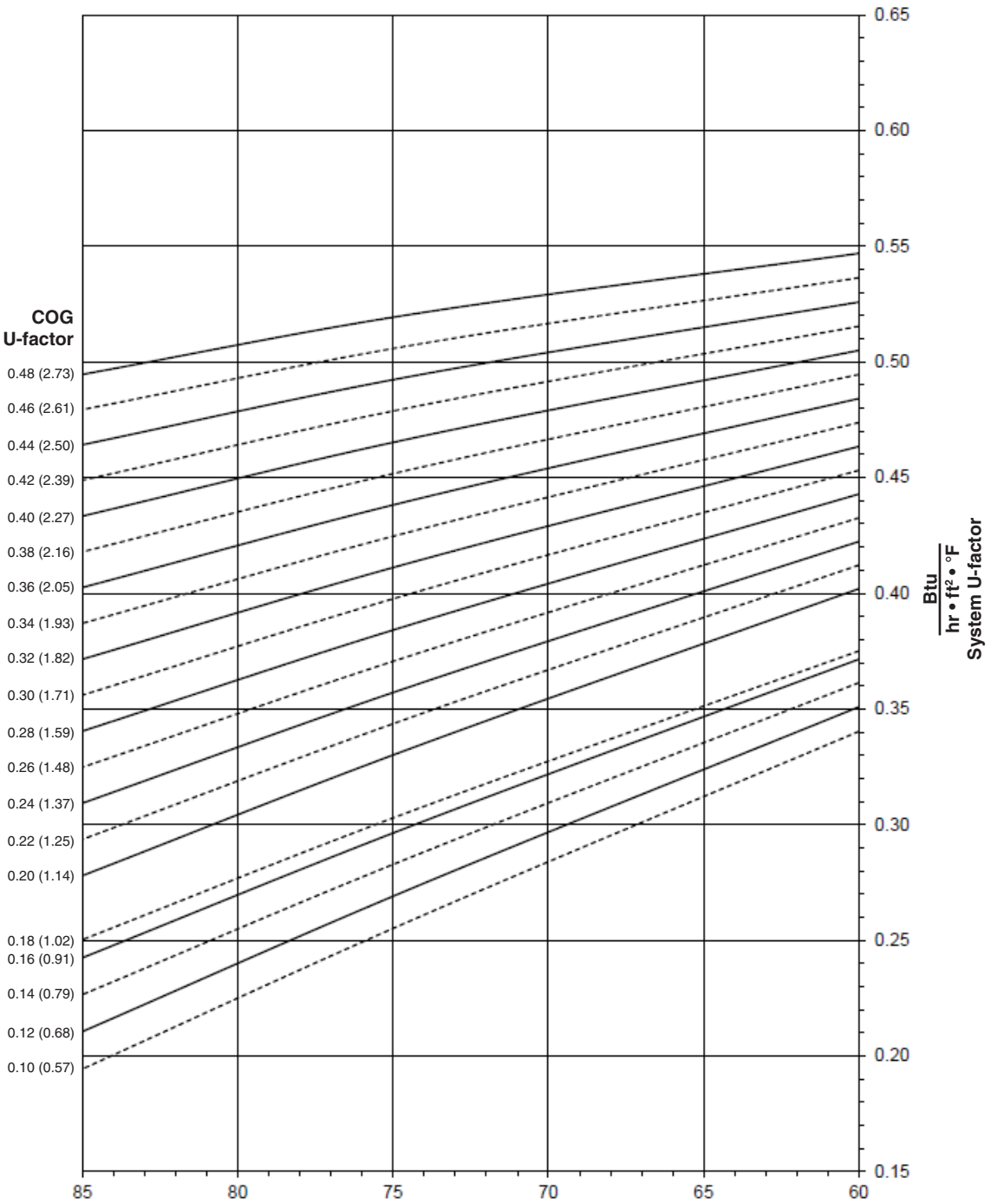
Visible Transmittance [2]

Glass VT [3]	Overall VT [4]
0.75	0.64
0.70	0.60
0.65	0.55
0.60	0.51
0.55	0.47
0.50	0.43
0.45	0.38
0.40	0.34
0.35	0.30
0.30	0.26
0.25	0.21
0.20	0.17
0.15	0.13
0.10	0.09
0.05	0.04

AA™5450 SINGLE HUNG WINDOW
(1" Double Glazed - 15lb. Sill)

Note:
Values in parentheses are metric.
COG = Center of Glass.
Charts are generated per AMMA 507

System U-factor vs Percent of Glass Area

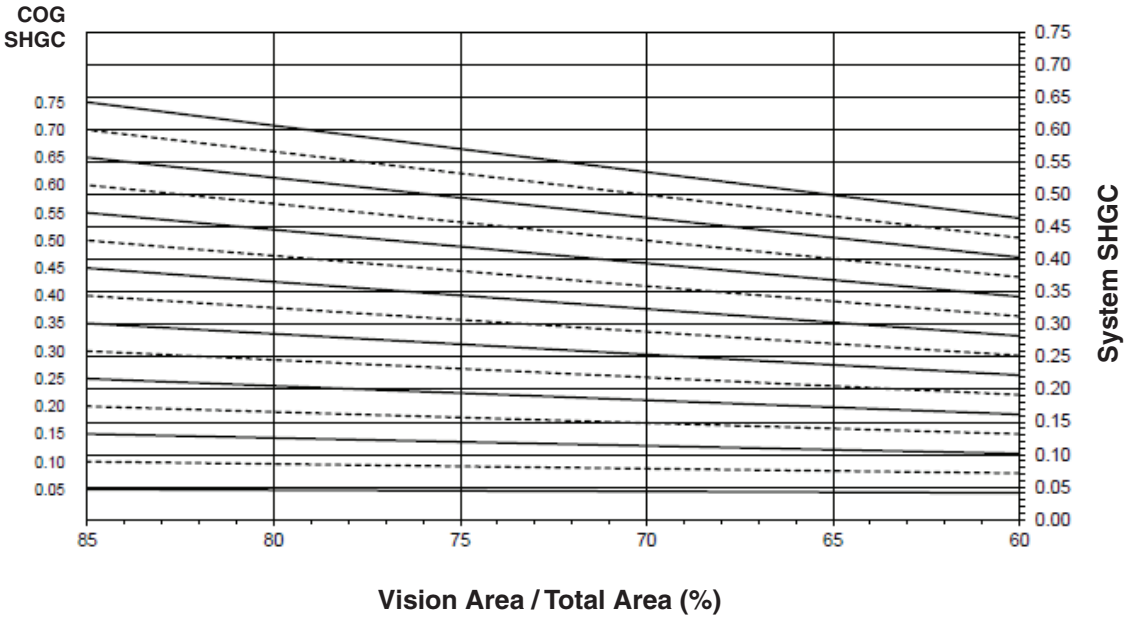


Percent of Glass Area = Vision Area/Total Area
Daylight Opening / Projected Area

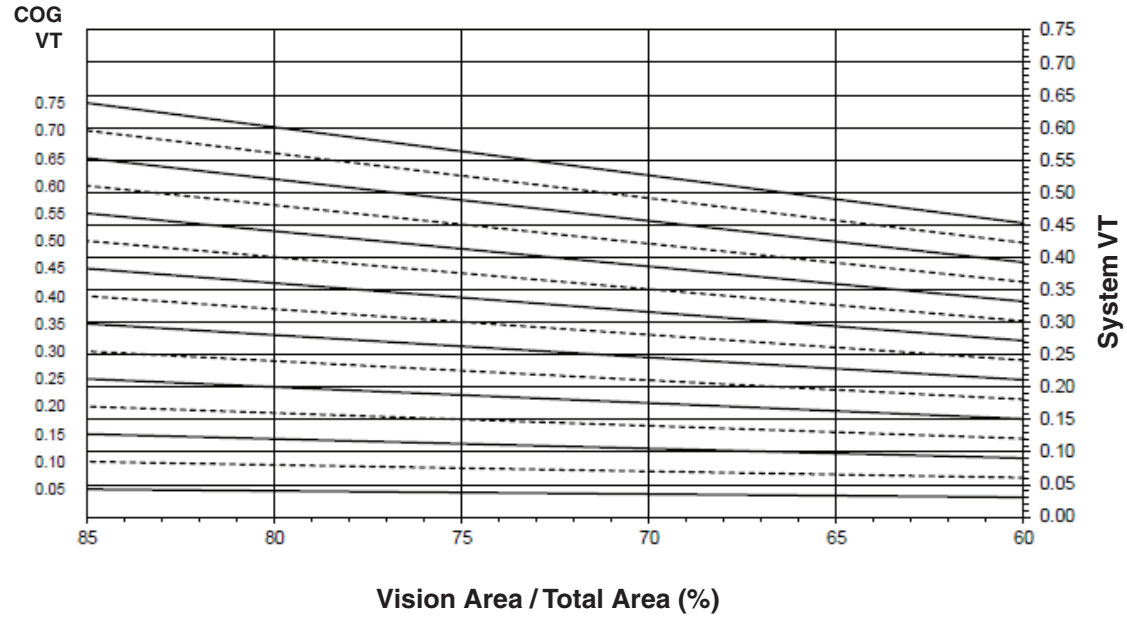
Notes for System U-factor, SHGC and VT charts:
For glass values that are not listed, linear interpolation is permitted.
Glass properties are based on center of glass values and are obtained from your glass supplier.

AA™5450 SINGLE HUNG WINDOW
(1" Double Glazed - 15lb Sill)

System Solar Heat Gain Coefficient (SHGC) vs Percent of Vision Area



System Visible Transmittance (VT) vs Percent of Vision Area



Thermal Transmittance [1] (BTU/hr • ft [2] • °F)

Glass U-Factor [3]	Overall U-Factor [4]
0.48	0.52
0.46	0.51
0.44	0.49
0.42	0.48
0.40	0.47
0.38	0.45
0.36	0.44
0.34	0.43
0.32	0.41
0.30	0.40
0.28	0.39
0.26	0.37
0.24	0.36
0.22	0.35
0.20	0.33
0.18	0.31
0.16	0.30
0.14	0.29
0.12	0.27
0.10	0.26

AA™5450 SINGLE HUNG WINDOW (1" Double Glazed - 15lb Sill)

NOTE: For glass values that are not listed, linear interpolation is permitted.

1. U-Factors are determined in accordance with NFRC 100.
2. SHGC and VT values are determined in accordance with NFRC 200.
3. Glass properties are based on center of glass values and are obtained from your glass supplier.
4. Overall U-Factor, SHGC, and VT Matricies are based on the standard NFRC specimen size of 1,200 mm wide by 1,500 mm high (47-1/4" by 59-1/16").

SHGC Matrix [2]

Glass SHGC [3]	Overall SHGC [4]
0.75	0.56
0.70	0.53
0.65	0.49
0.60	0.45
0.55	0.42
0.50	0.38
0.45	0.34
0.40	0.30
0.35	0.27
0.30	0.23
0.25	0.19
0.20	0.16
0.15	0.12
0.10	0.08
0.05	0.04

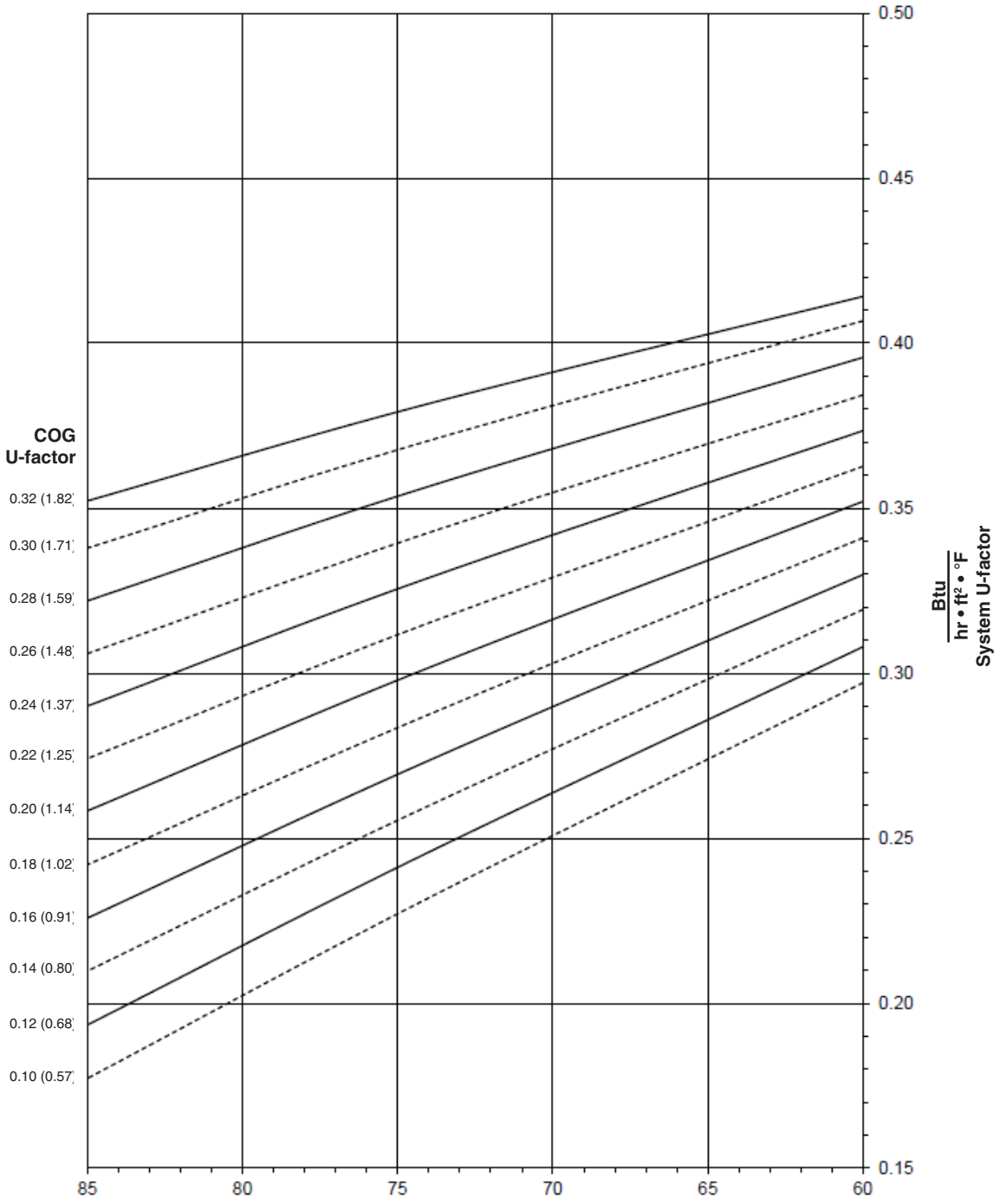
Visible Transmittance [2]

Glass VT [3]	Overall VT [4]
0.75	0.56
0.70	0.52
0.65	0.48
0.60	0.45
0.55	0.41
0.50	0.37
0.45	0.33
0.40	0.30
0.35	0.26
0.30	0.22
0.25	0.19
0.20	0.15
0.15	0.11
0.10	0.07
0.05	0.04

AA™5450 SINGLE HUNG WINDOW
(1-1/2" Triple Glazed - 15lb. Sill)

Note:
Values in parentheses are metric.
COG = Center of Glass.
Charts are generated per AMMA 507

System U-factor vs Percent of Glass Area

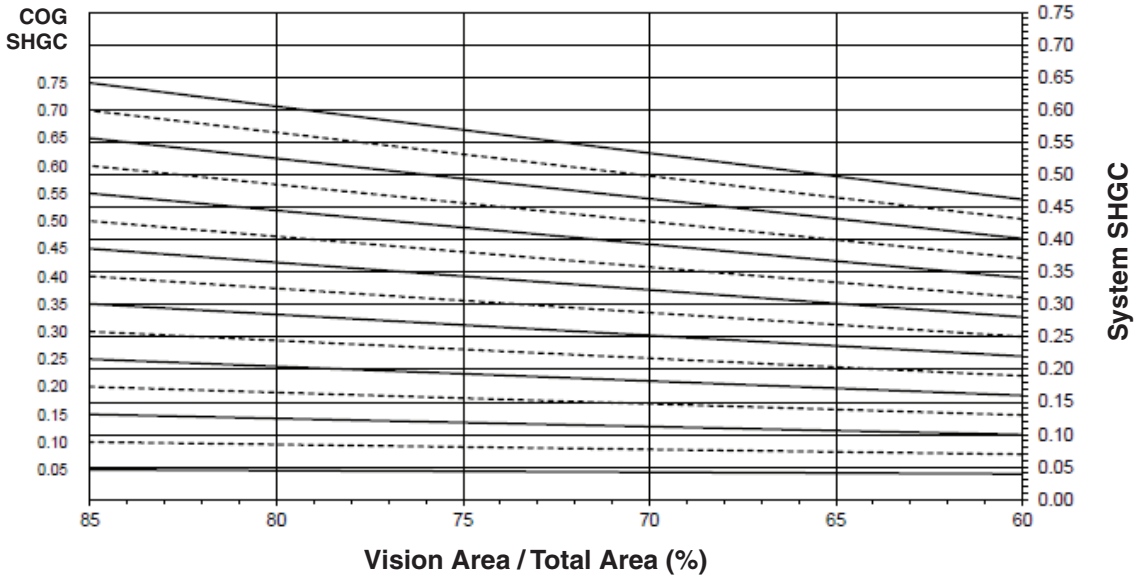


Percent of Glass Area = Vision Area/Total Area
Daylight Opening / Projected Area

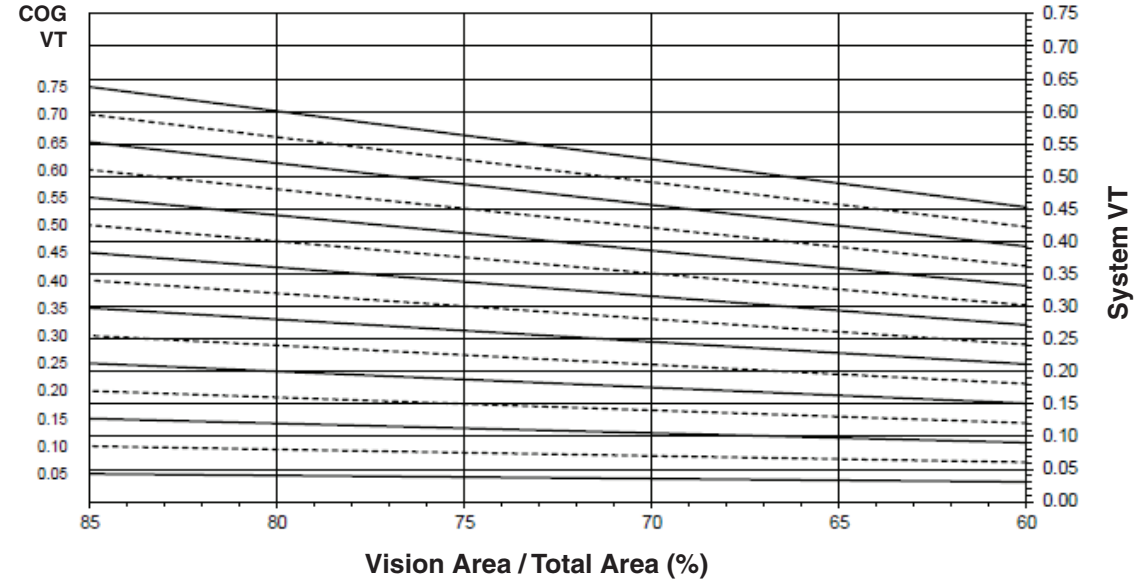
Notes for System U-factor, SHGC and VT charts:
For glass values that are not listed, linear interpolation is permitted.
Glass properties are based on center of glass values and are obtained from your glass supplier.

AA™5450 SINGLE HUNG WINDOW
(1-1/2" Triple Glazed - 15lb Sill)

System Solar Heat Gain Coefficient (SHGC) vs Percent of Vision Area



System Visible Transmittance (VT) vs Percent of Vision Area



AA™5450 SINGLE HUNG WINDOW (1-1/2" Triple Glazed - 15lb. Sill)

Thermal Transmittance[1] (BTU/hr • ft ^{2} • °F)

Glass U-Factor [3]	Overall U-Factor [4]
0.32	0.38
0.30	0.37
0.28	0.36
0.26	0.34
0.24	0.33
0.22	0.31
0.20	0.30
0.18	0.29
0.16	0.27
0.14	0.26
0.12	0.24
0.10	0.23

NOTE: For glass values that are not listed, linear interpolation is permitted.

1. U-Factors are determined in accordance with NFRC 100.
2. SHGC and VT values are determined in accordance with NFRC 200.
3. Glass properties are based on center of glass values and are obtained from your glass supplier.
4. Overall U-Factor, SHGC, and VT Matricies are based on the standard NFRC specimen size of 1,200 mm wide by 1,500 mm high (47-1/4" by 59-1/16").

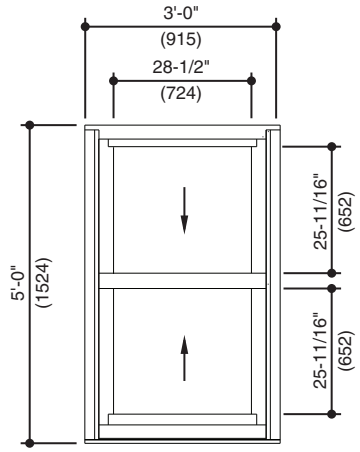
SHGC Matrix [2]

Glass SHGC [3]	Overall Glass U-Factor [4]
0.75	0.56
0.70	0.53
0.65	0.49
0.60	0.45
0.55	0.41
0.50	0.38
0.45	0.34
0.40	0.30
0.35	0.27
0.30	0.23
0.25	0.19
0.20	0.15
0.15	0.12
0.10	0.08
0.05	0.04

Visible Transmittance [2]

Glass VT [3]	Overall VT [4]
0.75	0.59
0.70	0.52
0.65	0.48
0.60	0.45
0.55	0.41
0.50	0.37
0.45	0.33
0.40	0.30
0.35	0.26
0.30	0.22
0.25	0.19
0.20	0.15
0.15	0.11
0.10	0.07
0.05	0.04

Generic Project Specific U-factor Example Calculation
(Percent of glass will vary on specific products depending on sitelines)



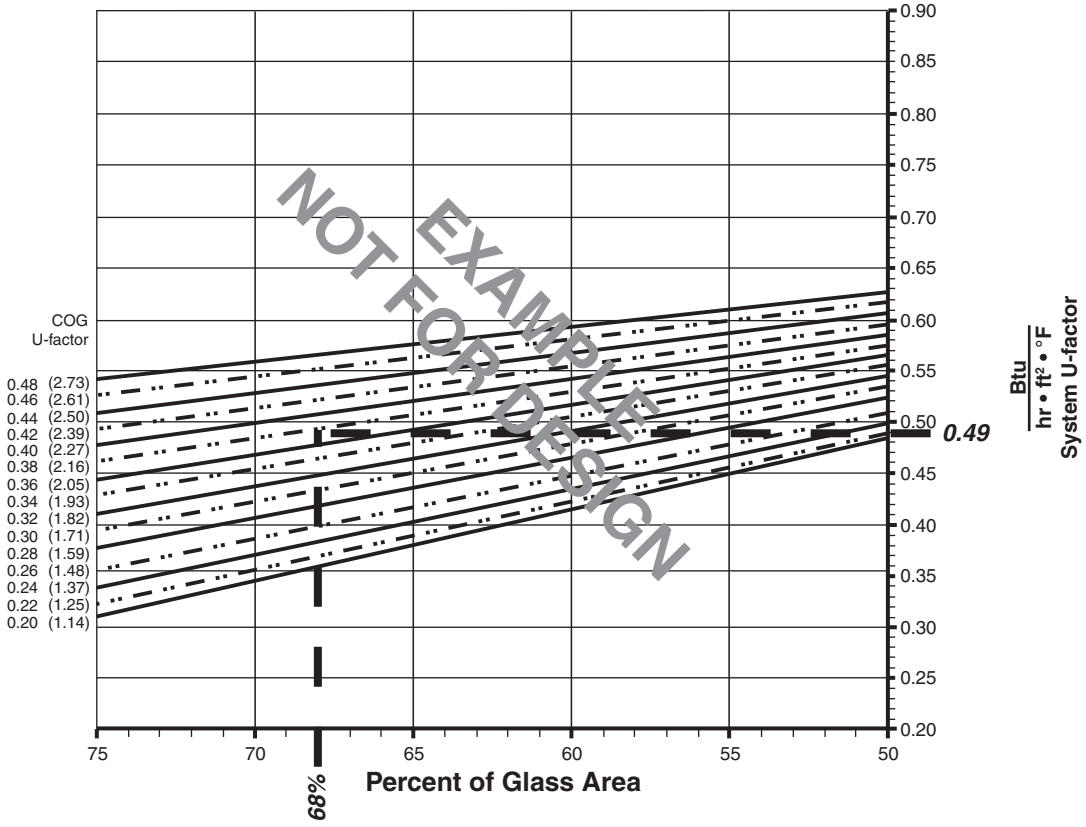
Example Glass U-Factor = 0.42 Btu/hr • ft² • °F

Total Daylight Opening = (28-1/2" • 25-11/16") + (28-1/2" • 25-11/16") = 10.17 ft²

Total Projected Area = 3'-0" • 5'-0" = 15 ft²

Percent of Glass = (Total Daylight Opening ÷ Total Projected Area)100
= (10.17 ÷ 15)100 = 68%

System U-factor vs Percent of Glass Area

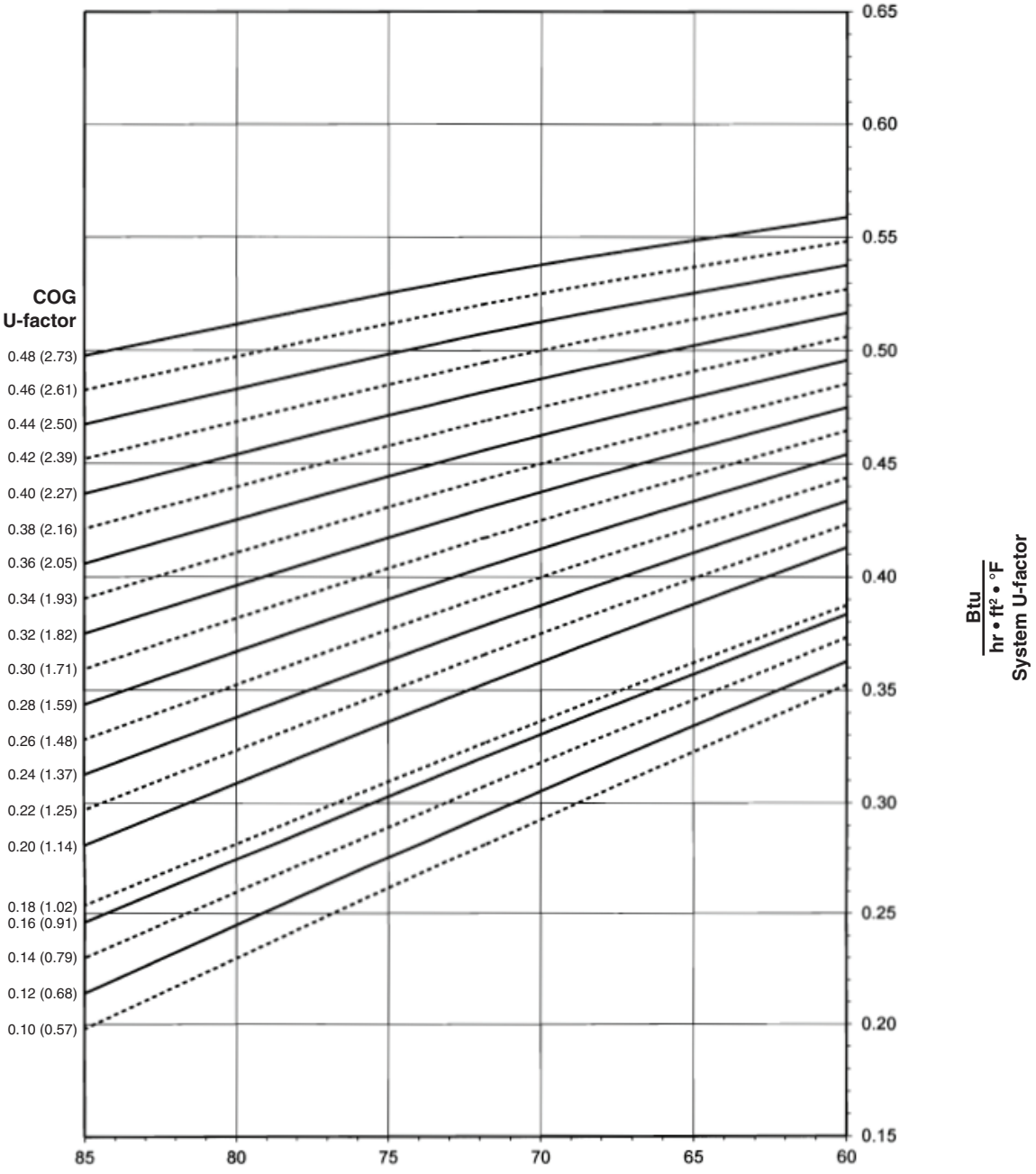


Based on 68% glass and center of glass (COG) U-factor of 0.42
System U-factor is equal to 0.49 Btu/hr • ft² • °F

AA™5450 DOUBLE HUNG WINDOW
(1" Double Glazed - 10lb. Sill)

Note:
Values in parentheses are metric.
COG = Center of Glass.
Charts are generated per AMMA 507

System U-factor vs Percent of Glass Area

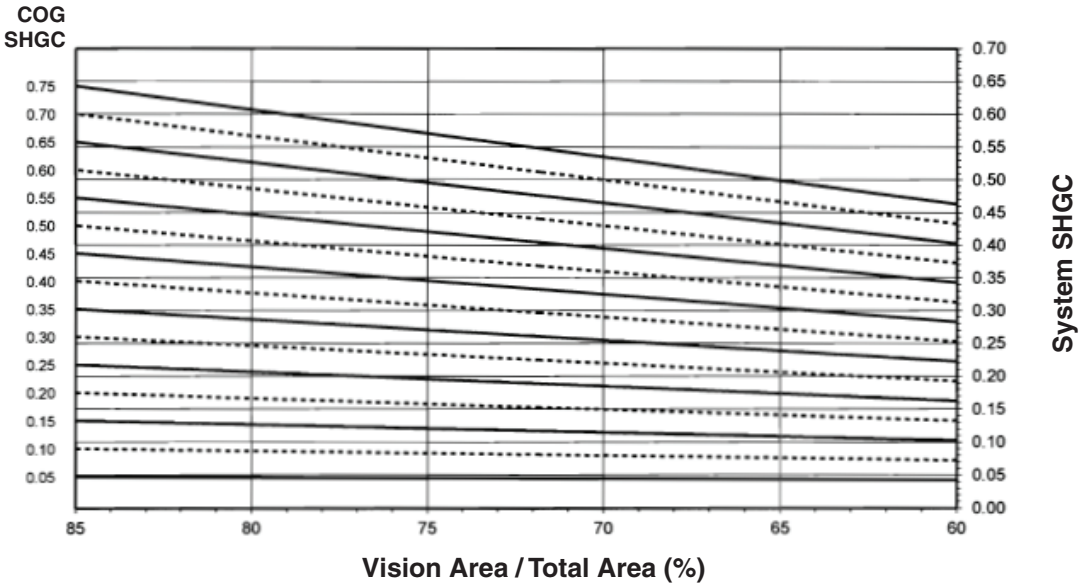


Percent of Glass Area = Vision Area/Total Area
Daylight Opening / Projected Area

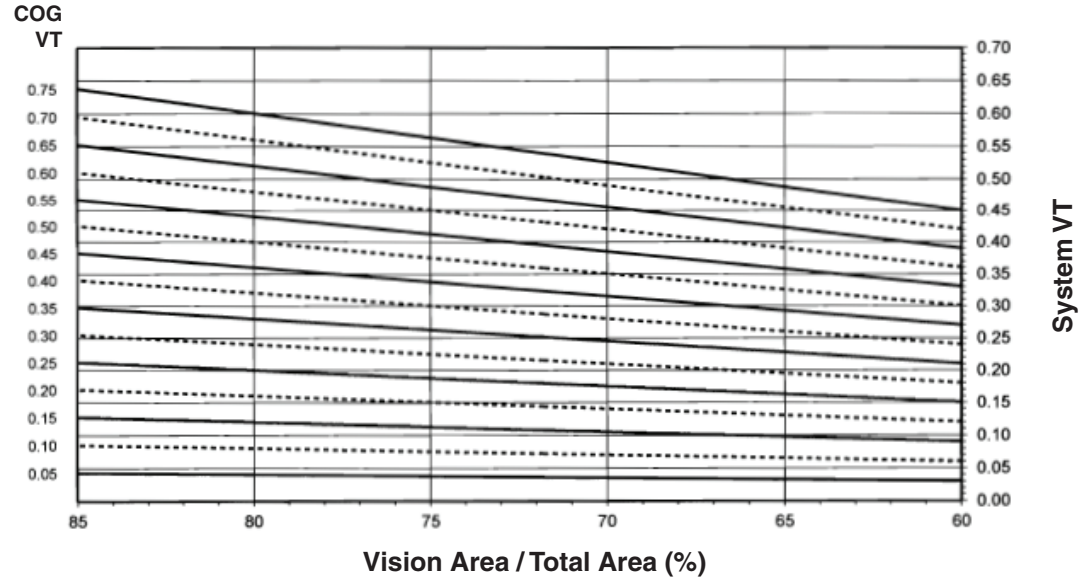
Notes for System U-factor, SHGC and VT charts:
For glass values that are not listed, linear interpolation is permitted.
Glass properties are based on center of glass values and are obtained from your glass supplier.

AA™5450 SINGLE HUNG WINDOW
(1" Double Glazed - 10lb Sill)

System Solar Heat Gain Coefficient (SHGC) vs Percent of Vision Area



System Visible Transmittance (VT) vs Percent of Vision Area



Thermal Transmittance [1] (BTU/hr • ft [2] • °F)

Glass U-Factor [3]	Overall U-Factor [4]
0.48	0.53
0.46	0.52
0.44	0.52
0.42	0.49
0.40	0.48
0.38	0.47
0.36	0.46
0.34	0.44
0.32	0.43
0.30	0.42
0.28	0.40
0.26	0.39
0.24	0.38
0.22	0.37
0.20	0.35
0.18	0.33
0.16	0.32
0.14	0.31
0.12	0.29
0.10	0.28

AA™5450 DOUBLE HUNG WINDOW (1" Double Glazed - 10ib. Sill)

NOTE: For glass values that are not listed, linear interpolation is permitted.

1. U-Factors are determined in accordance with NFRC 100.
2. SHGC and VT values are determined in accordance with NFRC 200.
3. Glass properties are based on center of glass values and are obtained from your glass supplier.
4. Overall U-Factor, SHGC, and VT Matricies are based on the standard NFRC specimen size of 960 mm wide by 2,090 mm high (37-3/4" by 82-3/8").

SHGC Matrix [2]

Glass SHGC [3]	Overall SHGC [4]
0.75	0.55
0.70	0.51
0.65	0.48
0.60	0.44
0.55	0.40
0.50	0.37
0.45	0.33
0.40	0.30
0.35	0.26
0.30	0.22
0.25	0.19
0.20	0.15
0.15	0.12
0.10	0.08
0.05	0.04

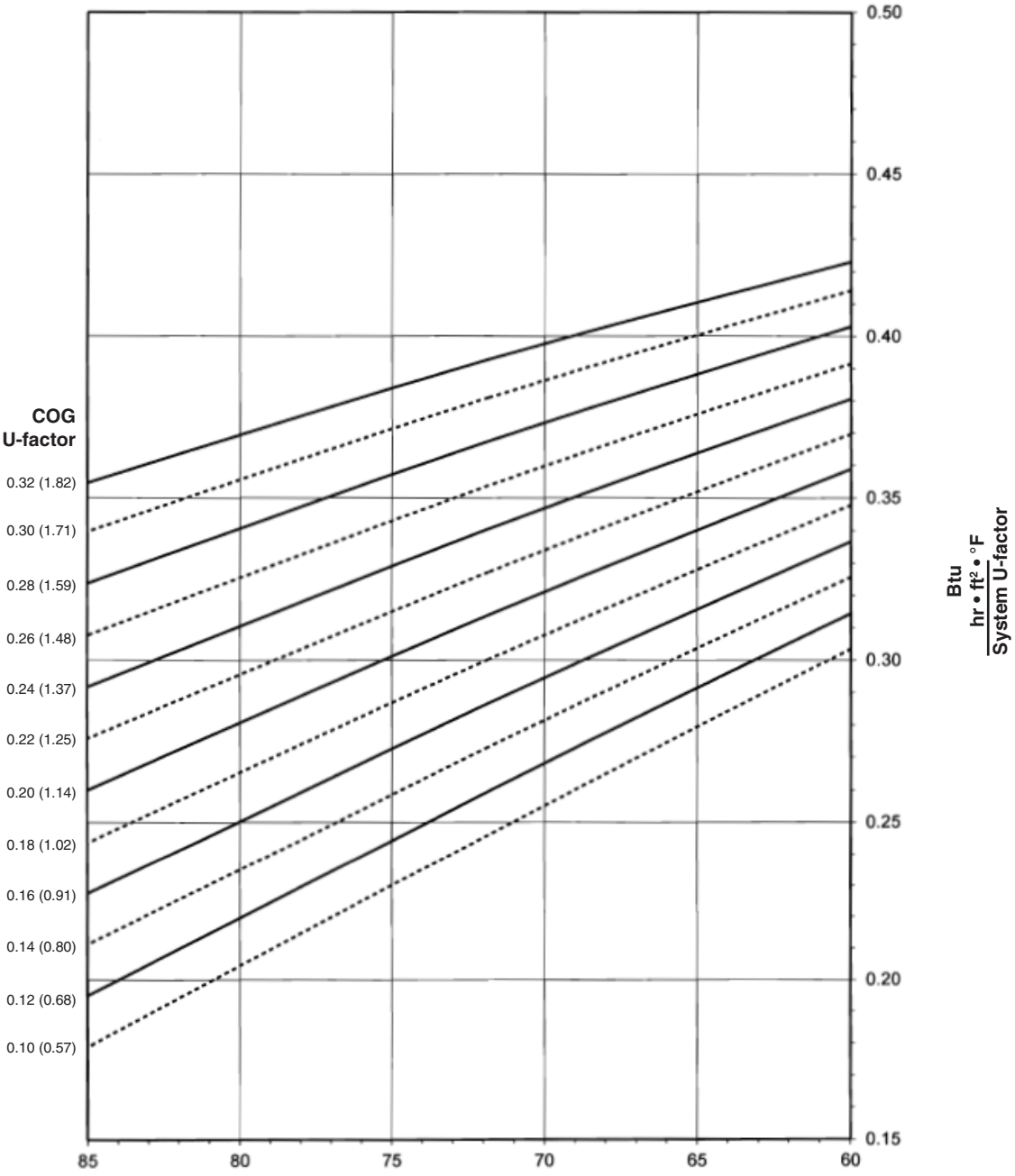
Visible Transmittance [2]

Glass VT [3]	Overall VT [4]
0.75	0.54
0.70	0.50
0.65	0.47
0.60	0.43
0.55	0.40
0.50	0.36
0.45	0.32
0.40	0.29
0.35	0.25
0.30	0.22
0.25	0.18
0.20	0.14
0.15	0.11
0.10	0.07
0.05	0.04

AA™5450 DOUBLE HUNG WINDOW
(1-1/2" Triple Glazed - 10lb. Sill)

Note:
Values in parentheses are metric.
COG = Center of Glass.
Charts are generated per AMMA 507

System U-factor vs Percent of Glass Area

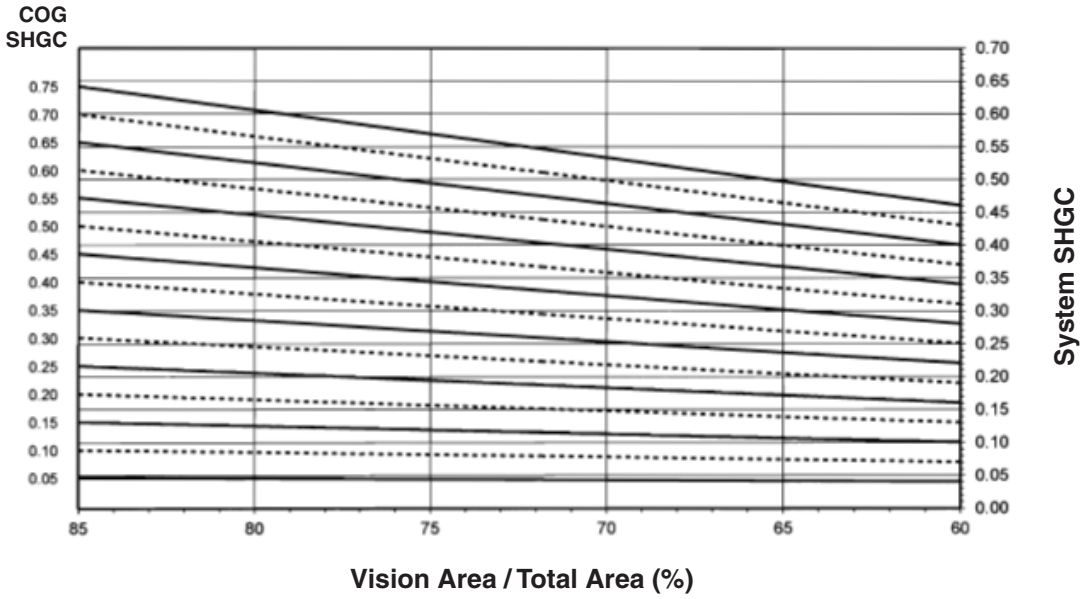


Percent of Glass Area = Vision Area/Total Area
Daylight Opening / Projected Area

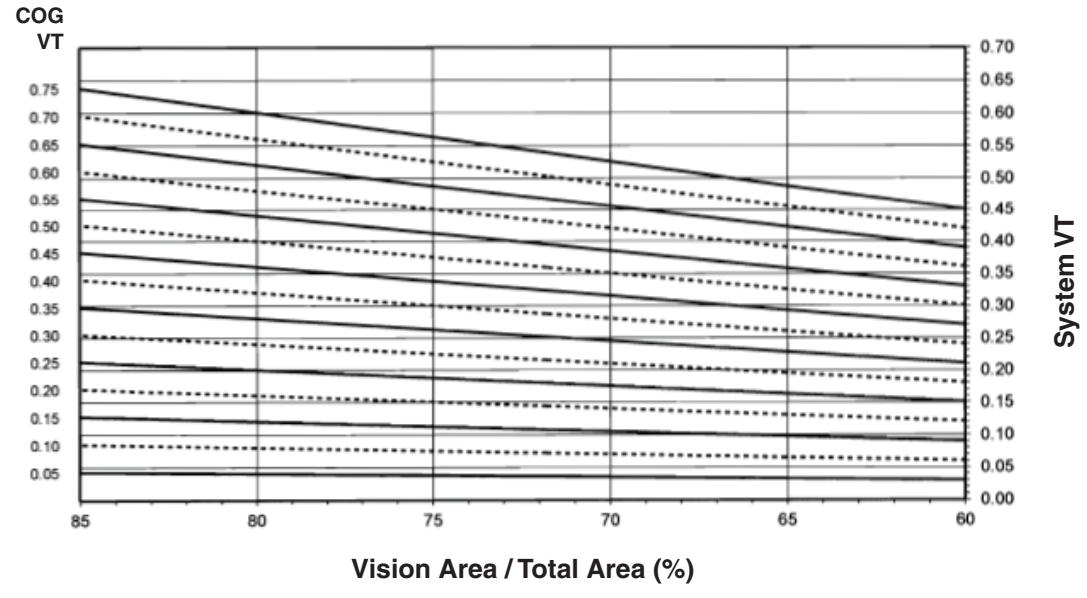
Notes for System U-factor, SHGC and VT charts:
For glass values that are not listed, linear interpolation is permitted.
Glass properties are based on center of glass values and are obtained from your glass supplier.

AA™5450 DOUBLE HUNG WINDOW
(1-1/2" Triple Glazed - 10lb Sill)

System Solar Heat Gain Coefficient (SHGC) vs Percent of Vision Area



System Visible Transmittance (VT) vs Percent of Vision Area



AA™5450 DOUBLE HUNG WINDOW (1-1/2" Triple Glazed - 10lb. Sill)

Thermal Transmittance[1] (BTU/hr • ft [2] • °F)

Glass U-Factor [3]	Overall U-Factor [4]
0.32	0.39
0.30	0.38
0.28	0.37
0.26	0.35
0.24	0.34
0.22	0.33
0.20	0.31
0.18	0.30
0.16	0.29
0.14	0.27
0.12	0.26
0.10	0.25

NOTE: For glass values that are not listed, linear interpolation is permitted.

1. U-Factors are determined in accordance with NFRC 100.
2. SHGC and VT values are determined in accordance with NFRC 200.
3. Glass properties are based on center of glass values and are obtained from your glass supplier.
4. Overall U-Factor, SHGC, and VT Matricies are based on the standard NFRC specimen size of 960 mm wide by 2,090 mm high (37-3/4" by 82-3/8").

SHGC Matrix [2]

Glass SHGC [3]	Overall Glass U-Factor [4]
0.75	0.55
0.70	0.51
0.65	0.47
0.60	0.44
0.55	0.40
0.50	0.37
0.45	0.33
0.40	0.29
0.35	0.26
0.30	0.22
0.25	0.19
0.20	0.15
0.15	0.12
0.10	0.08
0.05	0.04

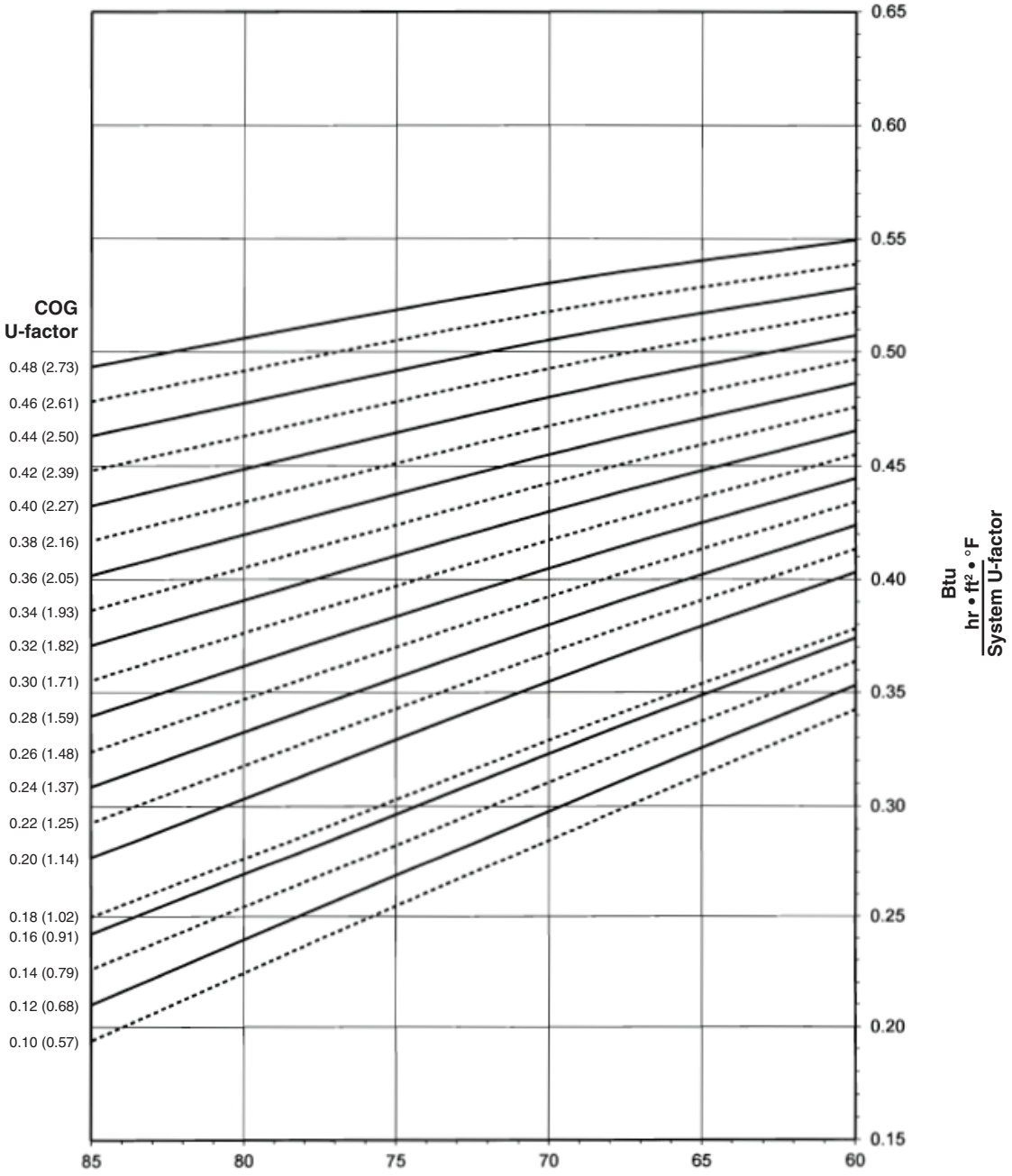
Visible Transmittance [2]

Glass VT [3]	Overall VT [4]
0.75	0.54
0.70	0.50
0.65	0.47
0.60	0.43
0.55	0.40
0.50	0.36
0.45	0.32
0.40	0.29
0.35	0.25
0.30	0.22
0.25	0.18
0.20	0.14
0.15	0.11
0.10	0.07
0.05	0.04

AA™5450 DOUBLE HUNG WINDOW
(1" Double Glazed - 15lb. Sill)

Note:
Values in parentheses are metric.
COG = Center of Glass.
Charts are generated per AMMA 507

System U-factor vs Percent of Glass Area

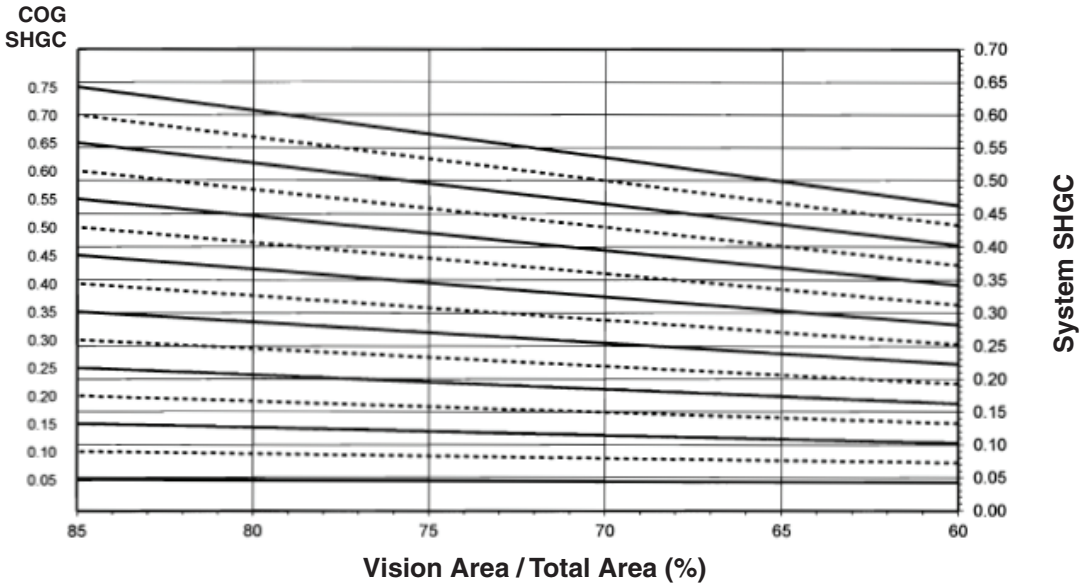


Percent of Glass Area = Vision Area/Total Area
Daylight Opening / Projected Area

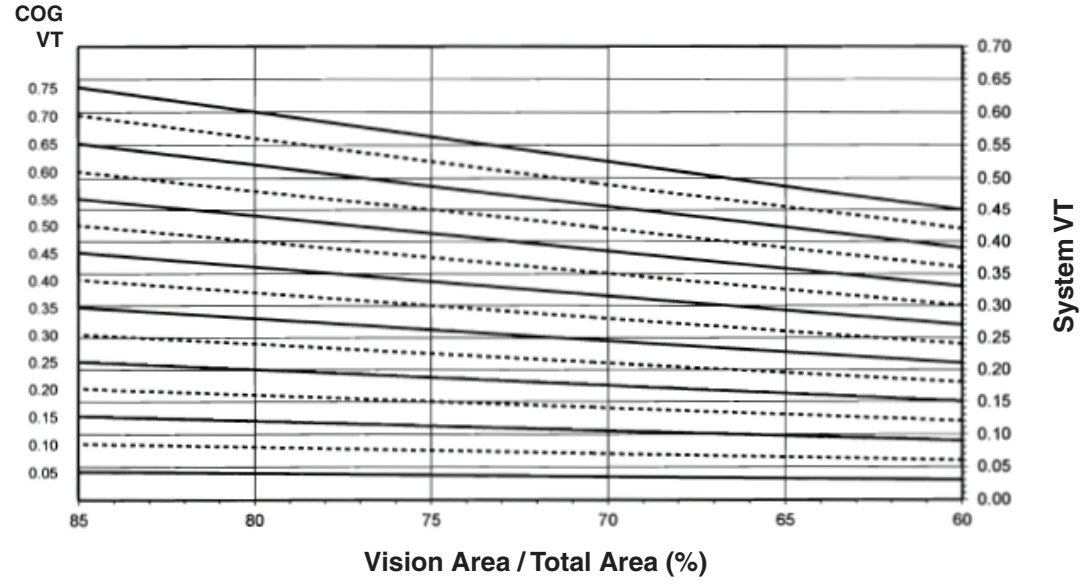
Notes for System U-factor, SHGC and VT charts:
For glass values that are not listed, linear interpolation is permitted.
Glass properties are based on center of glass values and are obtained from your glass supplier.

AA™5450 SINGLE HUNG WINDOW
(1" Double Glazed - 15lb Sill)

System Solar Heat Gain Coefficient (SHGC) vs Percent of Vision Area



System Visible Transmittance (VT) vs Percent of Vision Area



Thermal Transmittance [1] (BTU/hr • ft [2] • °F)

Glass U-Factor [3]	Overall U-Factor [4]
0.48	0.53
0.46	0.52
0.44	0.50
0.42	0.49
0.40	0.48
0.38	0.47
0.36	0.45
0.34	0.44
0.32	0.43
0.30	0.42
0.28	0.40
0.26	0.39
0.24	0.38
0.22	0.37
0.20	0.35
0.18	0.33
0.16	0.32
0.14	0.31
0.12	0.30
0.10	0.28

AA™5450 DOUBLE HUNG WINDOW (1" Double Glazed - 15ib. Sill)

NOTE: For glass values that are not listed, linear interpolation is permitted.

1. U-Factors are determined in accordance with NFRC 100.
2. SHGC and VT values are determined in accordance with NFRC 200.
3. Glass properties are based on center of glass values and are obtained from your glass supplier.
4. Overall U-Factor, SHGC, and VT Matricies are based on the standard NFRC specimen size of 960 mm wide by 2,090 mm high (37-3/4" by 82-3/8").

SHGC Matrix [2]

Glass SHGC [3]	Overall SHGC [4]
0.75	0.54
0.70	0.50
0.65	0.47
0.60	0.43
0.55	0.40
0.50	0.36
0.45	0.33
0.40	0.29
0.35	0.26
0.30	0.22
0.25	0.19
0.20	0.15
0.15	0.11
0.10	0.08
0.05	0.04

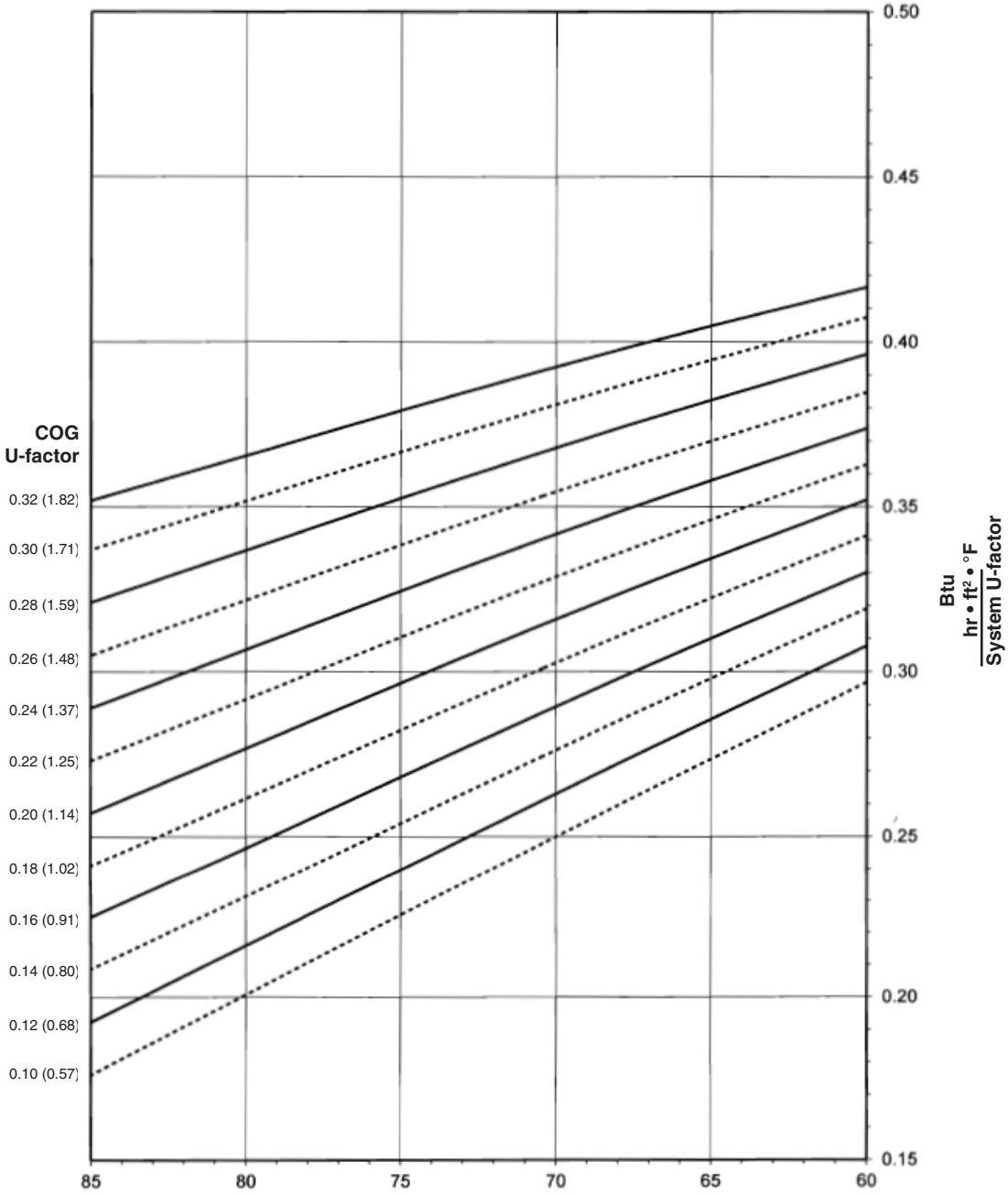
Visible Transmittance [2]

Glass VT [3]	Overall VT [4]
0.75	0.53
0.70	0.49
0.65	0.46
0.60	0.42
0.55	0.39
0.50	0.35
0.45	0.32
0.40	0.28
0.35	0.25
0.30	0.21
0.25	0.18
0.20	0.14
0.15	0.11
0.10	0.07
0.05	0.04

AA™5450 DOUBLE HUNG WINDOW
(1-1/2" Triple Glazed - 15lb. Sill)

Note:
Values in parentheses are metric.
COG = Center of Glass.
Charts are generated per AMMA 507

System U-factor vs Percent of Glass Area

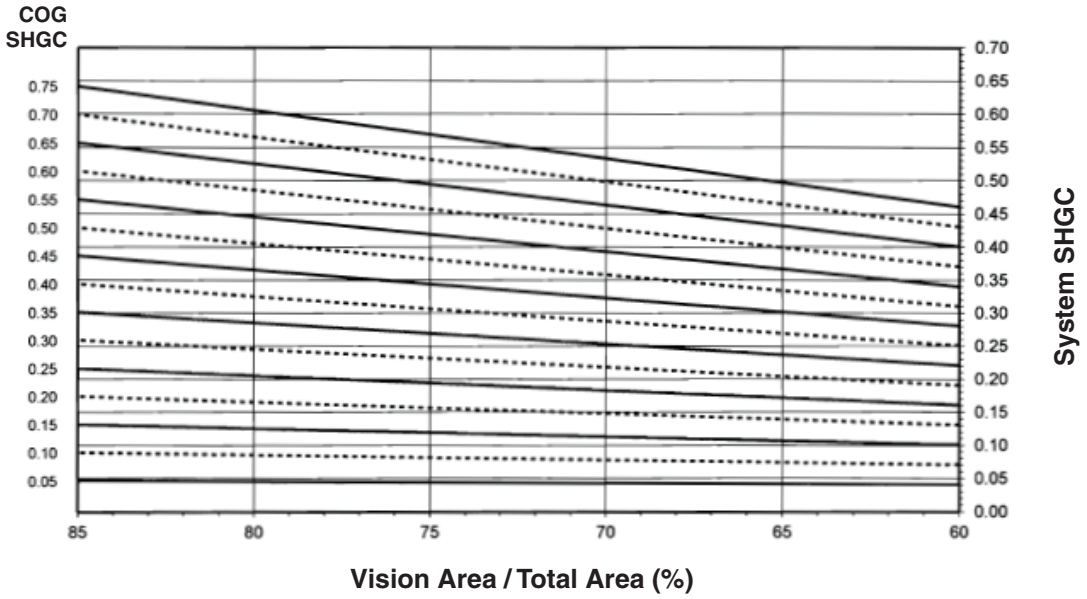


Percent of Glass Area = Vision Area/Total Area
Daylight Opening / Projected Area

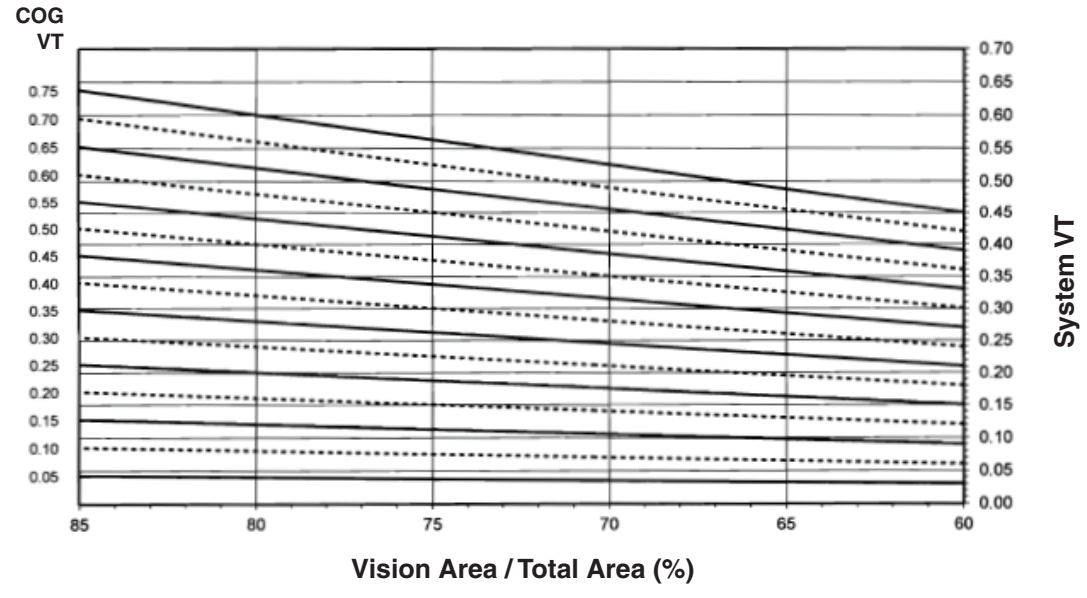
Notes for System U-factor, SHGC and VT charts:
For glass values that are not listed, linear interpolation is permitted.
Glass properties are based on center of glass values and are obtained from your glass supplier.

AA™5450 DOUBLE HUNG WINDOW
(1-1/2" Triple Glazed - 15lb Sill)

System Solar Heat Gain Coefficient (SHGC) vs Percent of Vision Area



System Visible Transmittance (VT) vs Percent of Vision Area



AA™5450 DOUBLE HUNG WINDOW (1-1/2" Triple Glazed - 15lb. Sill)

Thermal Transmittance[1] (BTU/hr • ft [2] • °F)

Glass U-Factor [3]	Overall U-Factor [4]
0.32	0.39
0.30	0.38
0.28	0.37
0.26	0.35
0.24	0.34
0.22	0.33
0.20	0.31
0.18	0.30
0.16	0.29
0.14	0.27
0.12	0.26
0.10	0.25

NOTE: For glass values that are not listed, linear interpolation is permitted.

1. U-Factors are determined in accordance with NFRC 100.
2. SHGC and VT values are determined in accordance with NFRC 200.
3. Glass properties are based on center of glass values and are obtained from your glass supplier.
4. Overall U-Factor, SHGC, and VT Matricies are based on the standard NFRC specimen size of 960 mm wide by 2,090 mm high (37-3/4" by 82-3/8").

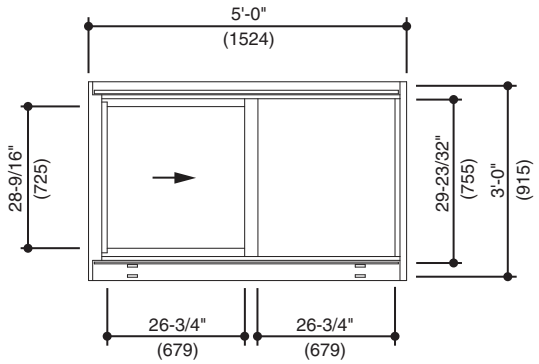
SHGC Matrix [2]

Glass SHGC [3]	Overall Glass U-Factor [4]
0.75	0.54
0.70	0.50
0.65	0.47
0.60	0.43
0.55	0.39
0.50	0.36
0.45	0.32
0.40	0.29
0.35	0.25
0.30	0.22
0.25	0.18
0.20	0.15
0.15	0.11
0.10	0.08
0.05	0.04

Visible Transmittance [2]

Glass VT [3]	Overall VT [4]
0.75	0.53
0.70	0.49
0.65	0.46
0.60	0.42
0.55	0.39
0.50	0.35
0.45	0.32
0.40	0.28
0.35	0.25
0.30	0.21
0.25	0.18
0.20	0.14
0.15	0.11
0.10	0.07
0.05	0.04

Generic Project Specific U-factor Example Calculation
(Percent of glass will vary on specific products depending on sitelines)



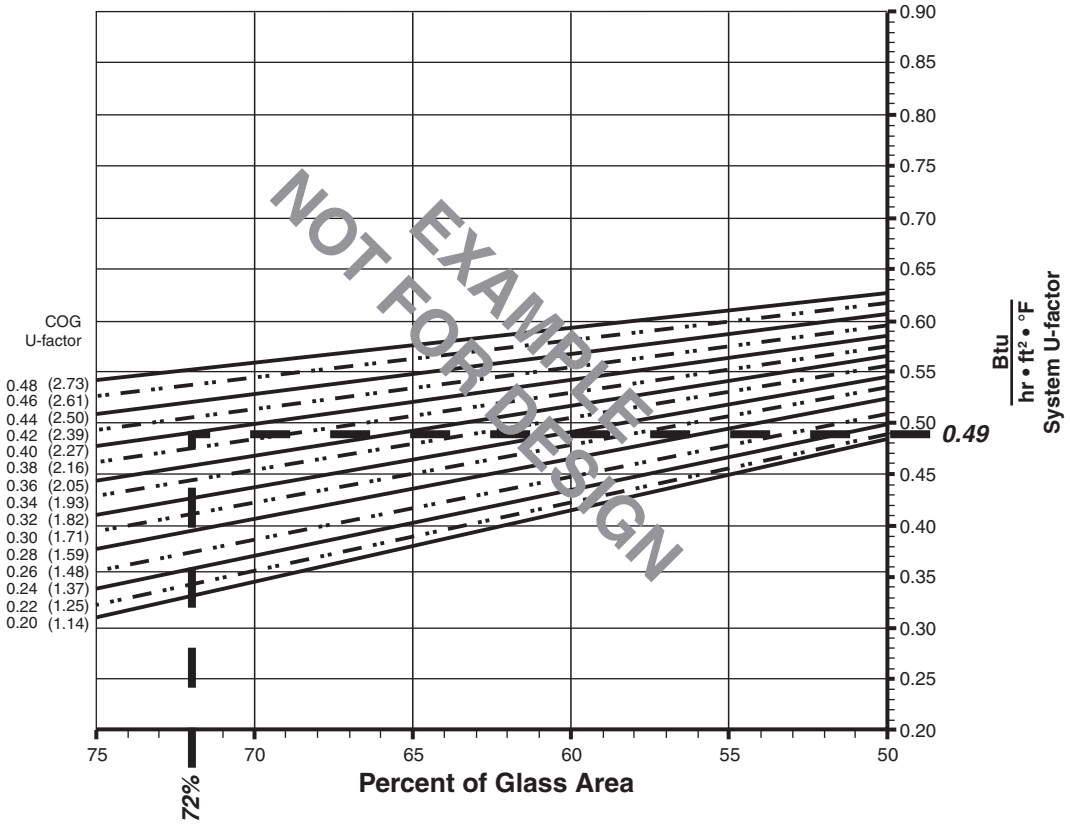
Example Glass U-Factor = 0.42 Btu/hr • ft² • °F

Total Daylight Opening = (28-9/16" • 26-3/4") + (29-23/32" • 26-3/4") = 10.83 ft²

Total Projected Area = 3'-0" • 5'-0" = 15 ft²

Percent of Glass = (Total Daylight Opening ÷ Total Projected Area)100
= (10.83 ÷ 15)100 = 72%

System U-factor vs Percent of Glass Area

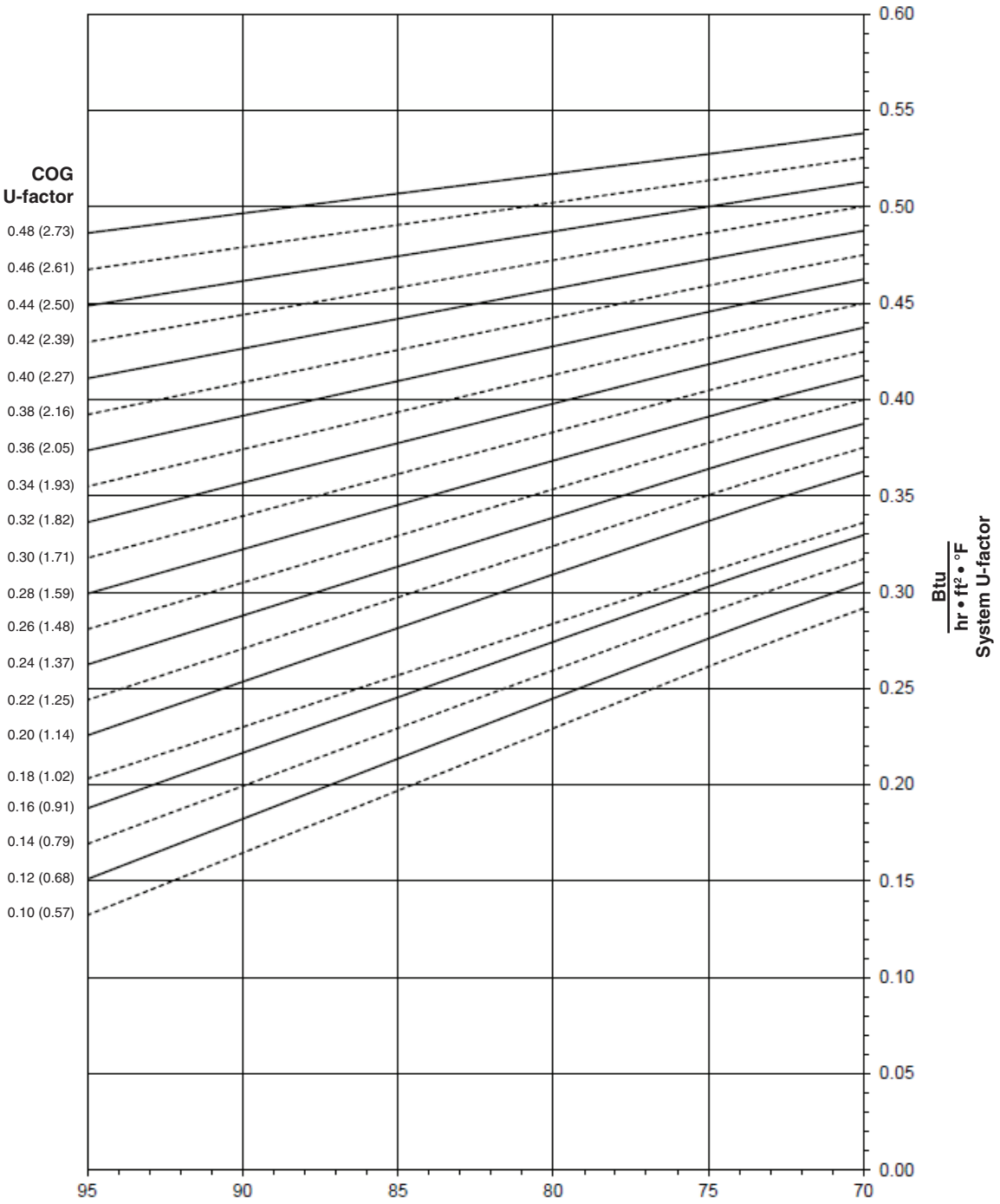


Based on 72% glass and center of glass (COG) U-factor of 0.42
System U-factor is equal to 0.49 Btu/hr • ft² • °F

AA™5450 OX / XO HORIZONTAL SLIDING WINDOW
(1" Double Glazed - 10lb. Sill)

Note:
Values in parentheses are metric.
COG = Center of Glass.
Charts are generated per AMMA 507

System U-factor vs Percent of Glass Area

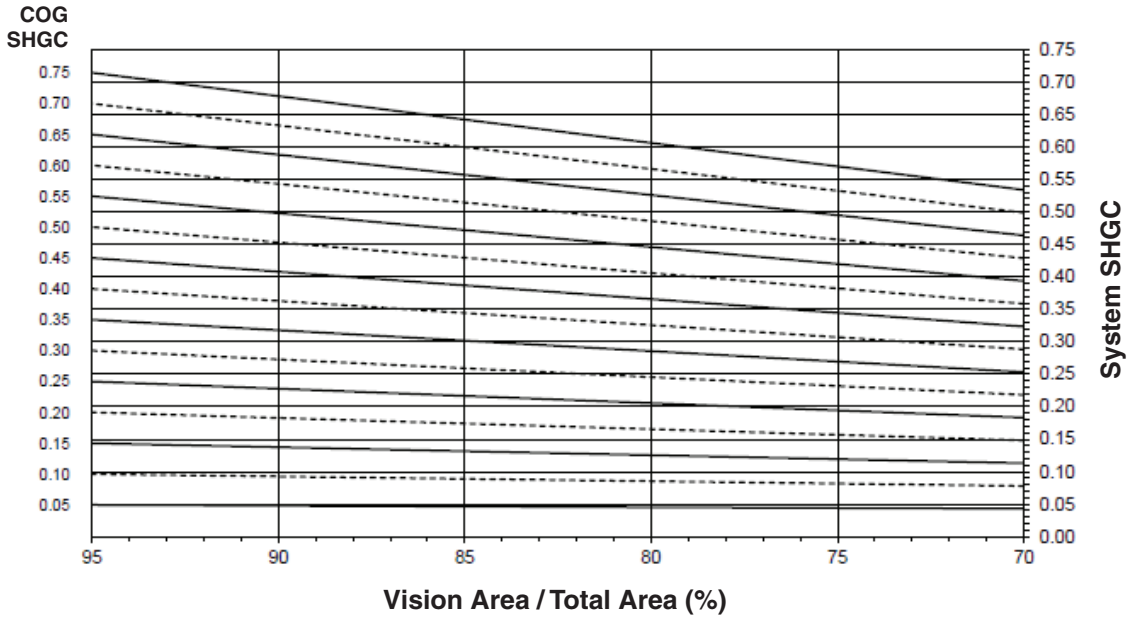


Percent of Glass Area = Vision Area/Total Area
Daylight Opening / Projected Area

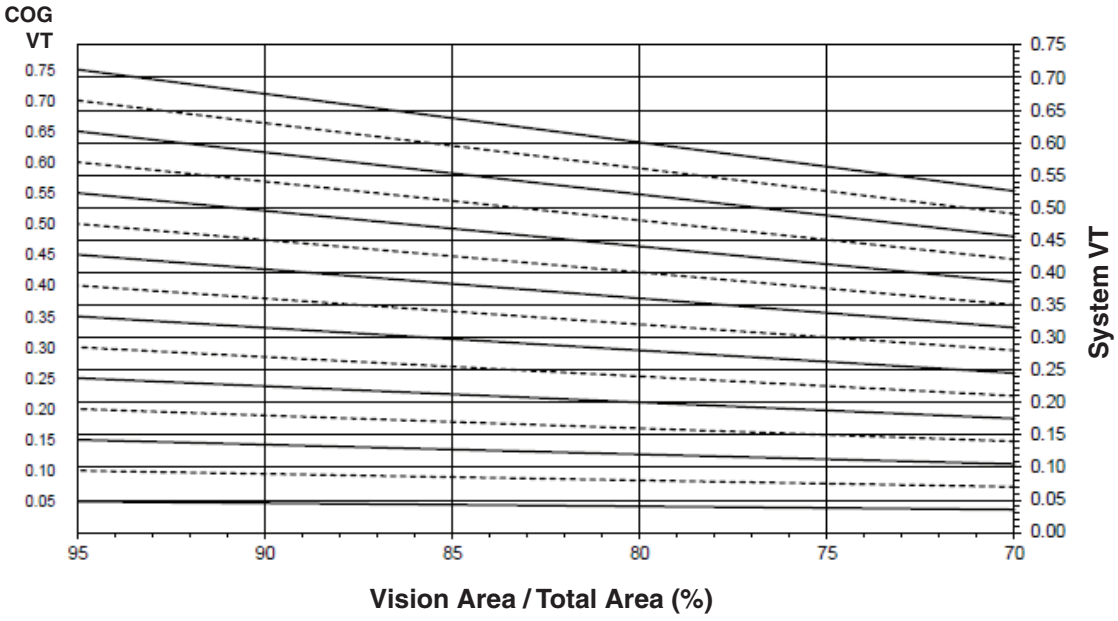
Notes for System U-factor, SHGC and VT charts:
For glass values that are not listed, linear interpolation is permitted.
Glass properties are based on center of glass values and are obtained from your glass supplier.

AA™5450 OX / XO HORIZONTAL SLIDING WINDOW
(1" Double Glazed - 10lb Sill)

System Solar Heat Gain Coefficient (SHGC) vs Percent of Vision Area



System Visible Transmittance (VT) vs Percent of Vision Area



Thermal Transmittance [1] (BTU/hr • ft [2] • °F)

Glass U-Factor [3]	Overall U-Factor [4]
0.48	0.53
0.46	0.51
0.44	0.50
0.42	0.49
0.40	0.47
0.38	0.46
0.36	0.45
0.34	0.43
0.32	0.42
0.30	0.40
0.28	0.39
0.26	0.38
0.24	0.36
0.22	0.35
0.20	0.34
0.18	0.31
0.16	0.30
0.14	0.29
0.12	0.28
0.10	0.26

AA™5450 OX / XO HORIZONTAL SLIDING WINDOW (1" Double Glazed - 10lb Sill)

NOTE: For glass values that are not listed, linear interpolation is permitted.

1. U-Factors are determined in accordance with NFRC 100.
2. SHGC and VT values are determined in accordance with NFRC 200.
3. Glass properties are based on center of glass values and are obtained from your glass supplier.
4. Overall U-Factor, SHGC, and VT Matricies are based on the standard NFRC specimen size of 1,500 mm wide by 1,200 mm high (59-1/16" by 47-1/4").

SHGC Matrix [2]

Glass SHGC [3]	Overall SHGC [4]
0.75	0.57
0.70	0.53
0.65	0.49
0.60	0.46
0.55	0.42
0.50	0.38
0.45	0.34
0.40	0.31
0.35	0.27
0.30	0.23
0.25	0.19
0.20	0.16
0.15	0.12
0.10	0.08
0.05	0.04

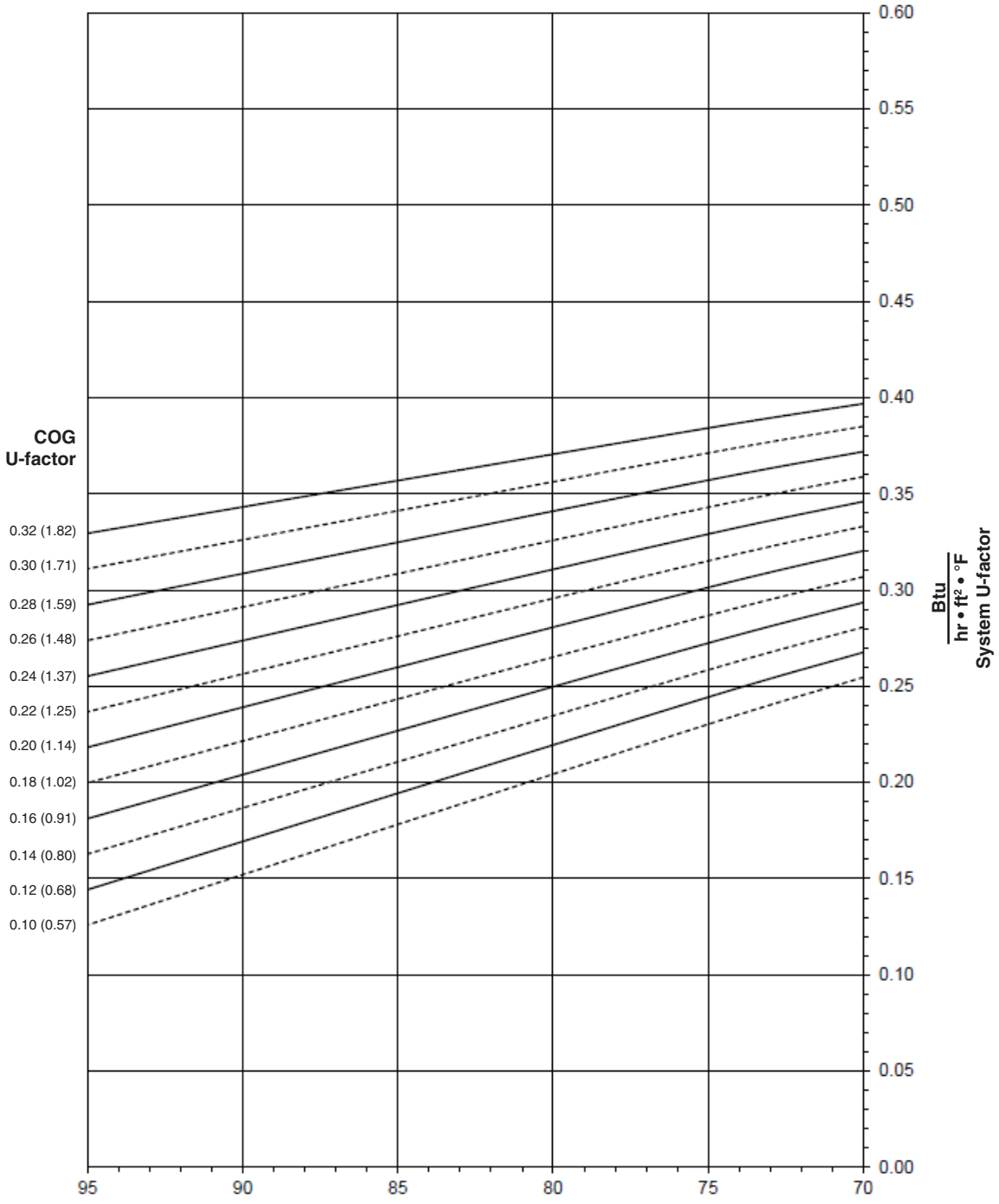
Visible Transmittance [2]

Glass VT [3]	Overall VT [4]
0.75	0.56
0.70	0.53
0.65	0.49
0.60	0.45
0.55	0.41
0.50	0.38
0.45	0.34
0.40	0.30
0.35	0.26
0.30	0.23
0.25	0.19
0.20	0.15
0.15	0.11
0.10	0.08
0.05	0.04

AA™5450 OX / XO HORIZONTAL SLIDING WINDOW
(1-1/2" Triple Glazed - 10lb. Sill)

Note:
Values in parentheses are metric.
COG = Center of Glass.
Charts are generated per AMMA 507

System U-factor vs Percent of Glass Area

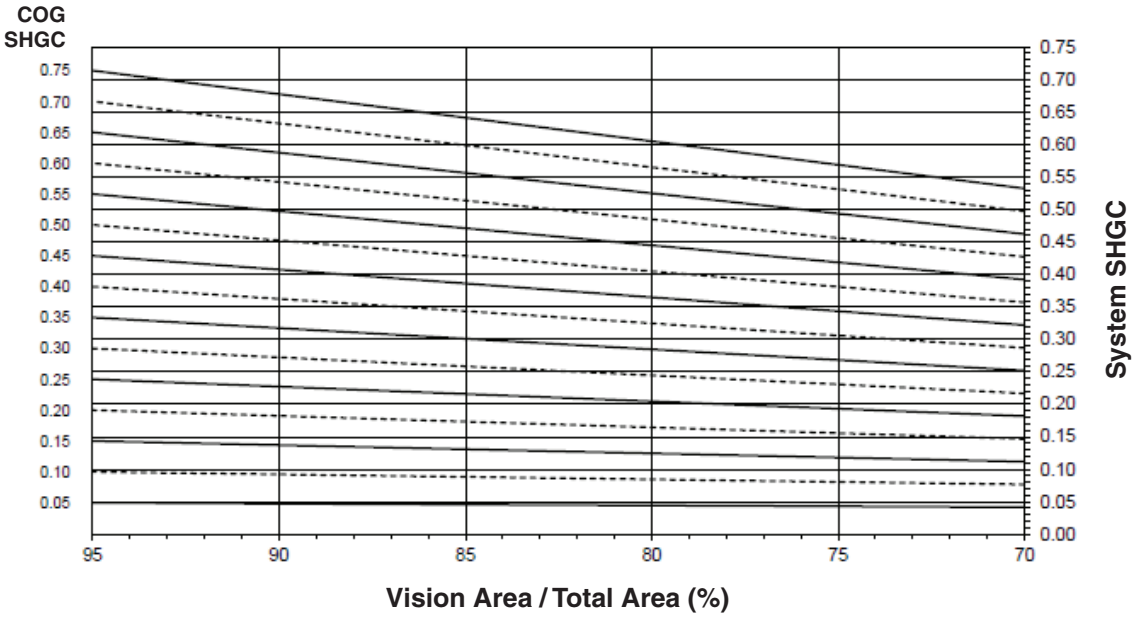


Percent of Glass Area = Vision Area/Total Area
Daylight Opening / Projected Area

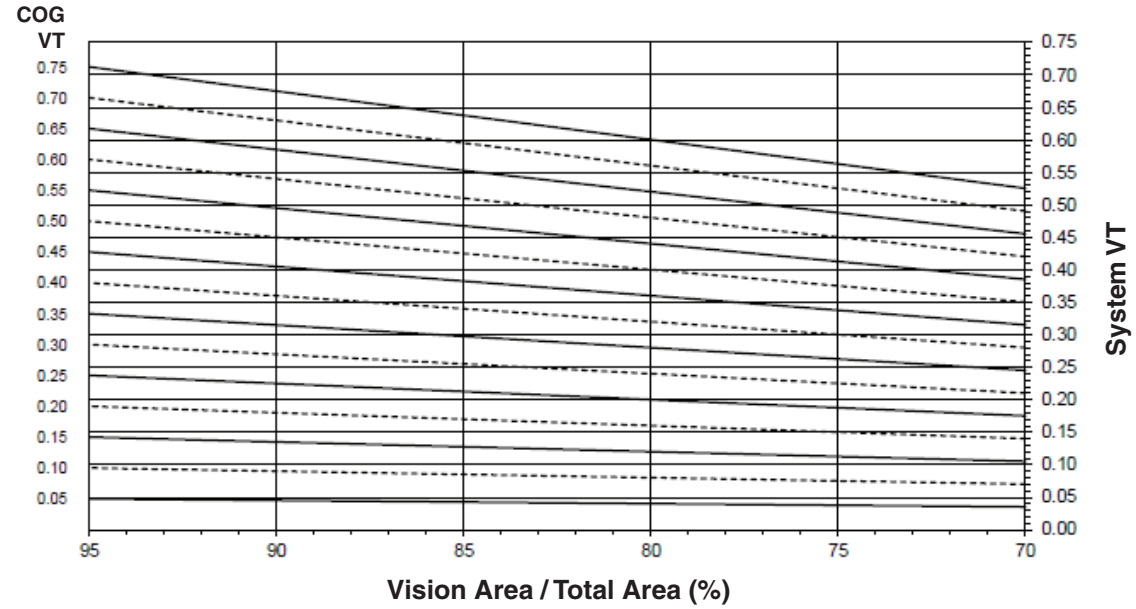
Notes for System U-factor, SHGC and VT charts:
For glass values that are not listed, linear interpolation is permitted.
Glass properties are based on center of glass values and are obtained from your glass supplier.

AA™5450 OX / XO HORIZONTAL SLIDING WINDOW
(1-1/2" Triple Glazed - 10lb Sill)

System Solar Heat Gain Coefficient (SHGC) vs Percent of Vision Area



System Visible Transmittance (VT) vs Percent of Vision Area



AA™5450 OX / XO HORIZONTAL SLIDING WINDOW (1-1/2" Triple Glazed - 10lb. Sill)

Thermal Transmittance[1] (BTU/hr • ft ^{2} • °F)

Glass U-Factor [3]	Overall U-Factor [4]
0.32	0.38
0.30	0.37
0.28	0.36
0.26	0.34
0.24	0.33
0.22	0.31
0.20	0.30
0.18	0.29
0.16	0.27
0.14	0.26
0.12	0.24
0.10	0.23

NOTE: For glass values that are not listed, linear interpolation is permitted.

1. U-Factors are determined in accordance with NFRC 100.
2. SHGC and VT values are determined in accordance with NFRC 200.
3. Glass properties are based on center of glass values and are obtained from your glass supplier.
4. Overall U-Factor, SHGC, and VT Matricies are based on the standard NFRC specimen size of 1,500 mm wide by 1,200 mm high (59-1/16" by 47-1/4").

SHGC Matrix [2]

Glass SHGC [3]	Overall Glass U-Factor [4]
0.75	0.57
0.70	0.53
0.65	0.49
0.60	0.46
0.55	0.42
0.50	0.38
0.45	0.34
0.40	0.31
0.35	0.27
0.30	0.23
0.25	0.19
0.20	0.16
0.15	0.12
0.10	0.08
0.05	0.04

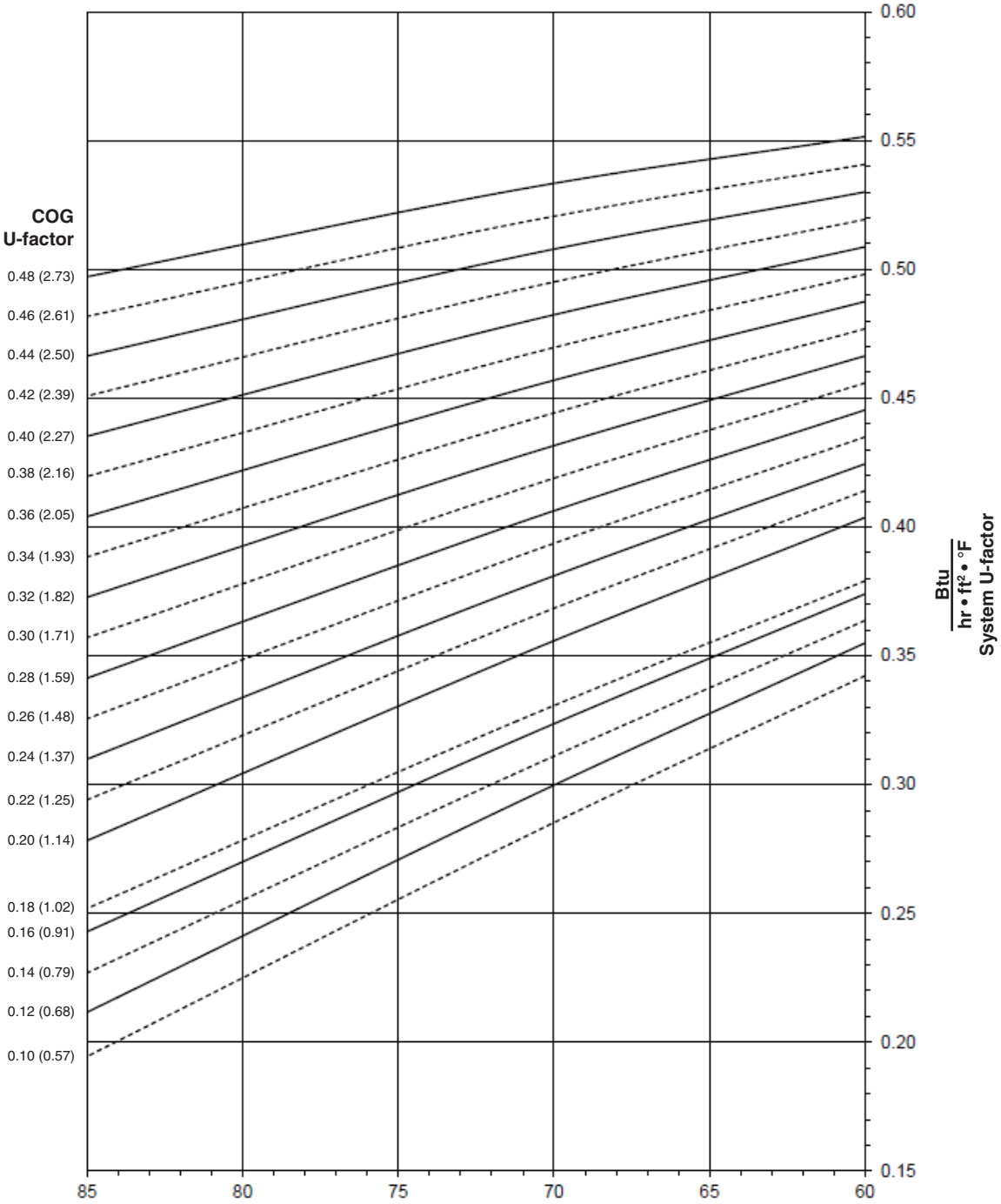
Visible Transmittance [2]

Glass VT [3]	Overall VT [4]
0.75	0.56
0.70	0.53
0.65	0.49
0.60	0.45
0.55	0.41
0.50	0.38
0.45	0.34
0.40	0.30
0.35	0.26
0.30	0.23
0.25	0.19
0.20	0.15
0.15	0.11
0.10	0.08
0.05	0.04

AA™5450 XX HORIZONTAL SLIDING WINDOW
(1" Double Glazed - 10lb. Sill)

Note:
Values in parentheses are metric.
COG = Center of Glass.
Charts are generated per AMMA 507

System U-factor vs Percent of Glass Area

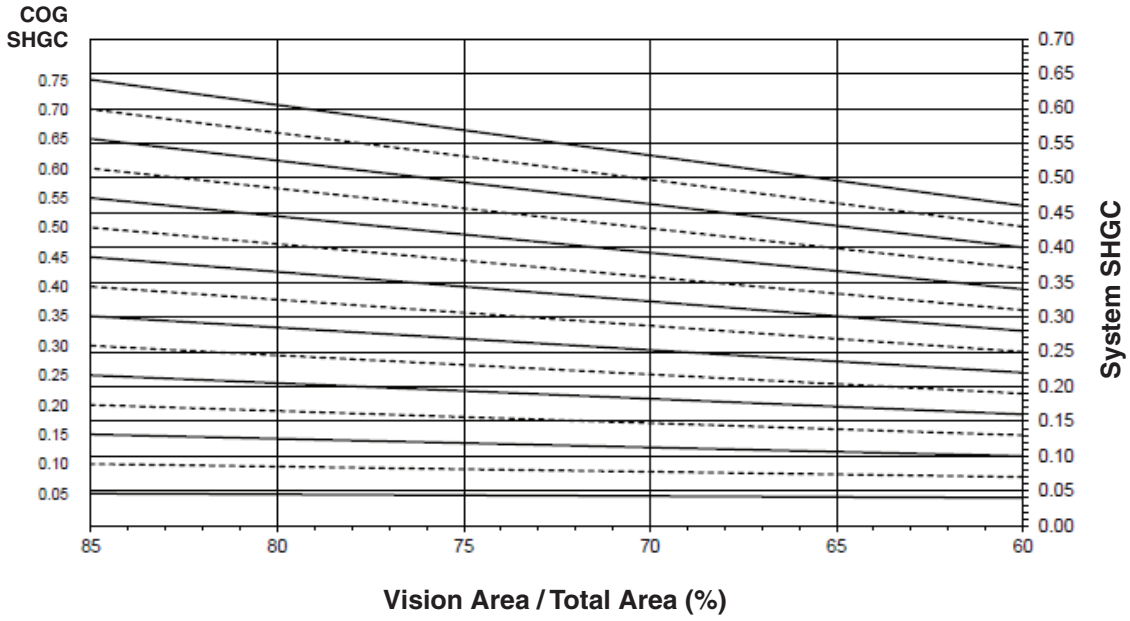


Percent of Glass Area = Vision Area/Total Area
Daylight Opening / Projected Area

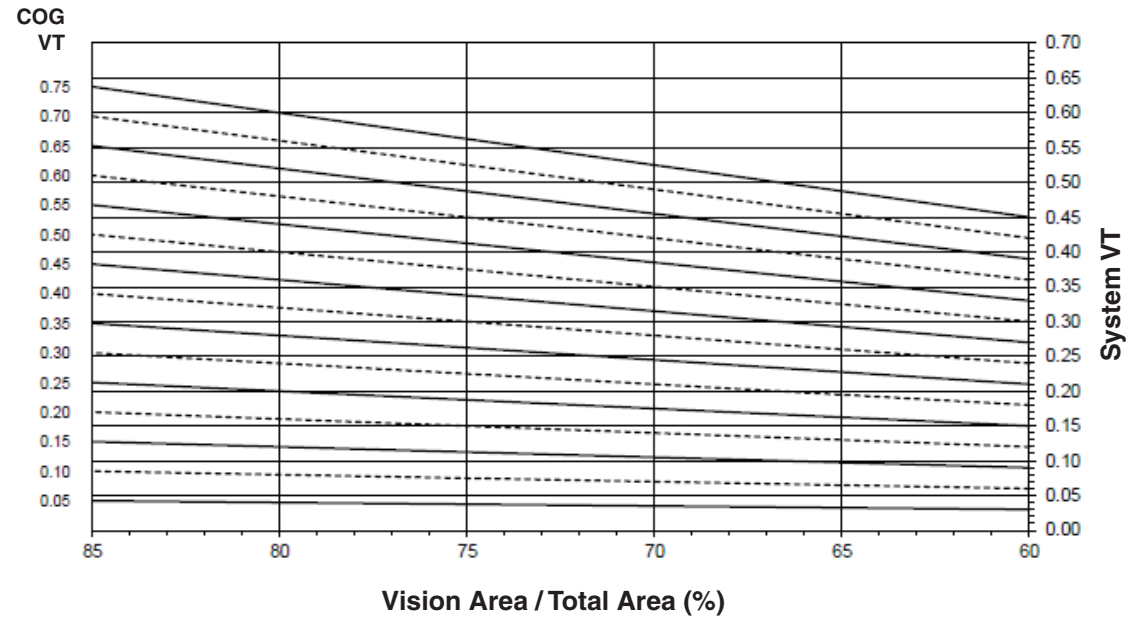
Notes for System U-factor, SHGC and VT charts:
For glass values that are not listed, linear interpolation is permitted.
Glass properties are based on center of glass values and are obtained from your glass supplier.

AA™5450 XX HORIZONTAL SLIDING WINDOW
(1" Double Glazed - 10lb Sill)

System Solar Heat Gain Coefficient (SHGC) vs Percent of Vision Area



System Visible Transmittance (VT) vs Percent of Vision Area



Thermal Transmittance [1] (BTU/hr • ft [2] • °F)

Glass U-Factor [3]	Overall U-Factor [4]
0.48	0.53
0.46	0.52
0.44	0.50
0.42	0.49
0.40	0.48
0.38	0.47
0.36	0.45
0.34	0.44
0.32	0.43
0.30	0.41
0.28	0.40
0.26	0.39
0.24	0.38
0.22	0.36
0.20	0.35
0.18	0.32
0.16	0.32
0.14	0.30
0.12	0.29
0.10	0.28

AA™5450 XX HORIZONTAL SLIDING WINDOW (1" Double Glazed - 10lb Sill)

NOTE: For glass values that are not listed, linear interpolation is permitted.

1. U-Factors are determined in accordance with NFRC 100.
2. SHGC and VT values are determined in accordance with NFRC 200.
3. Glass properties are based on center of glass values and are obtained from your glass supplier.
4. Overall U-Factor, SHGC, and VT Matricies are based on the standard NFRC specimen size of 1,500 mm wide by 1,200 mm high (59-1/16" by 47-1/4").

SHGC Matrix [2]

Glass SHGC [3]	Overall SHGC [4]
0.75	0.54
0.70	0.51
0.65	0.47
0.60	0.43
0.55	0.40
0.50	0.36
0.45	0.33
0.40	0.29
0.35	0.26
0.30	0.22
0.25	0.19
0.20	0.15
0.15	0.11
0.10	0.08
0.05	0.04

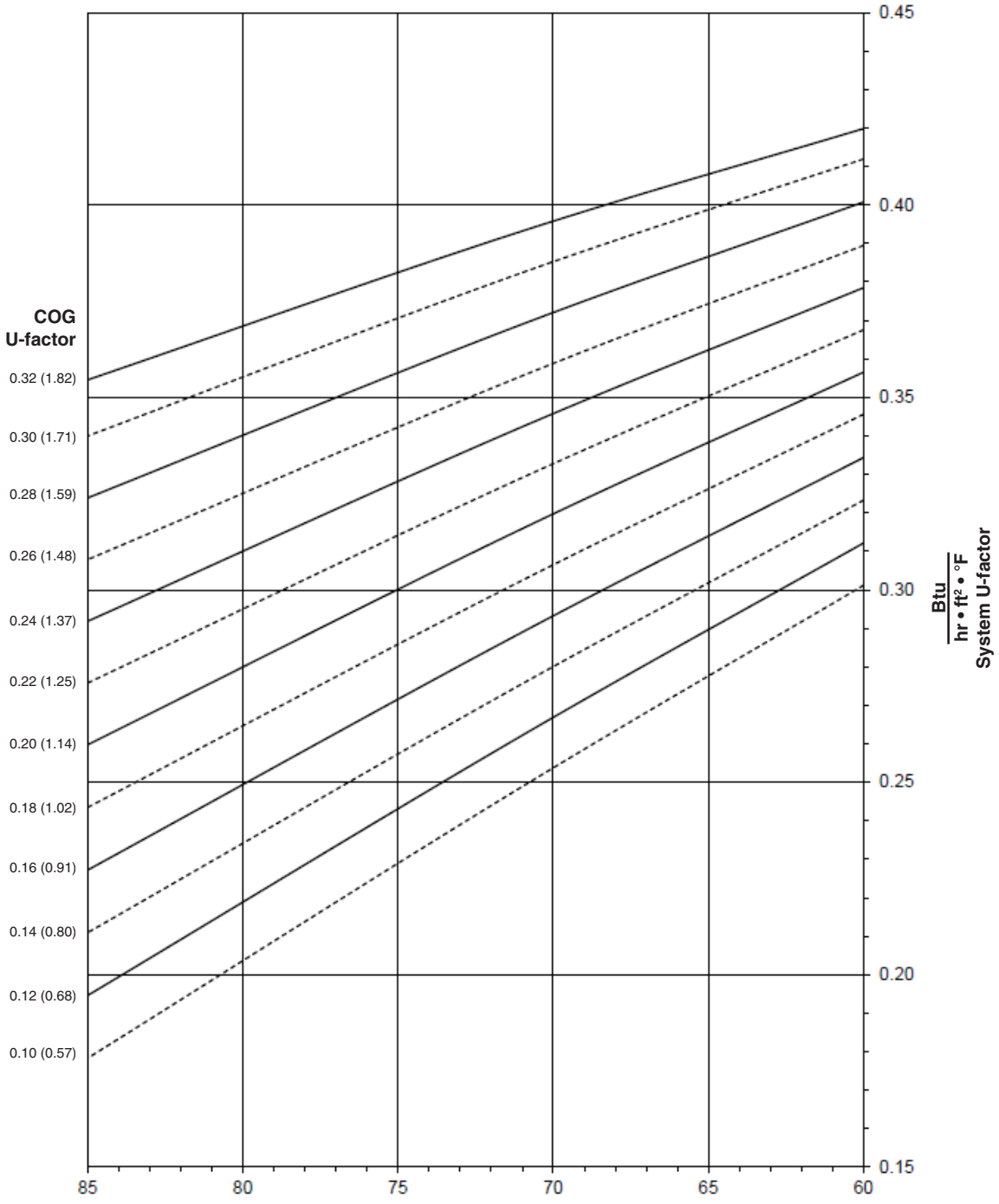
Visible Transmittance [2]

Glass VT [3]	Overall VT [4]
0.75	0.53
0.70	0.50
0.65	0.46
0.60	0.43
0.55	0.39
0.50	0.36
0.45	0.32
0.40	0.28
0.35	0.25
0.30	0.21
0.25	0.18
0.20	0.14
0.15	0.11
0.10	0.07
0.05	0.04

AA™5450 XX HORIZONTAL SLIDING WINDOW
(1-1/2" Triple Glazed - 10lb. Sill)

Note:
Values in parentheses are metric.
COG = Center of Glass.
Charts are generated per AMMA 507

System U-factor vs Percent of Glass Area



Percent of Glass Area = Vision Area/Total Area
Daylight Opening / Projected Area

Notes for System U-factor, SHGC and VT charts:
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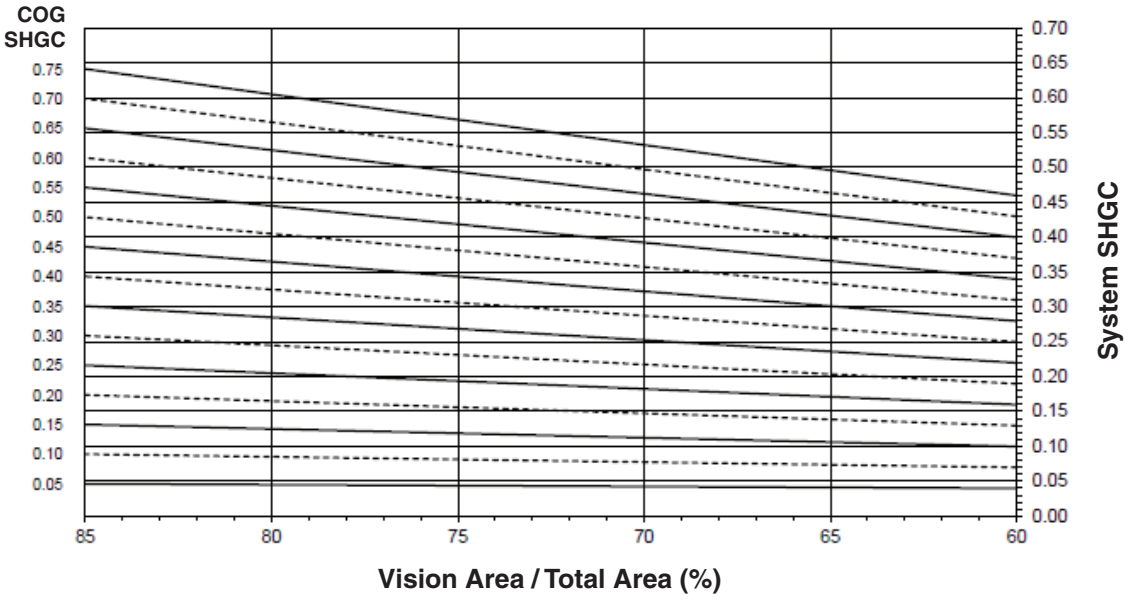
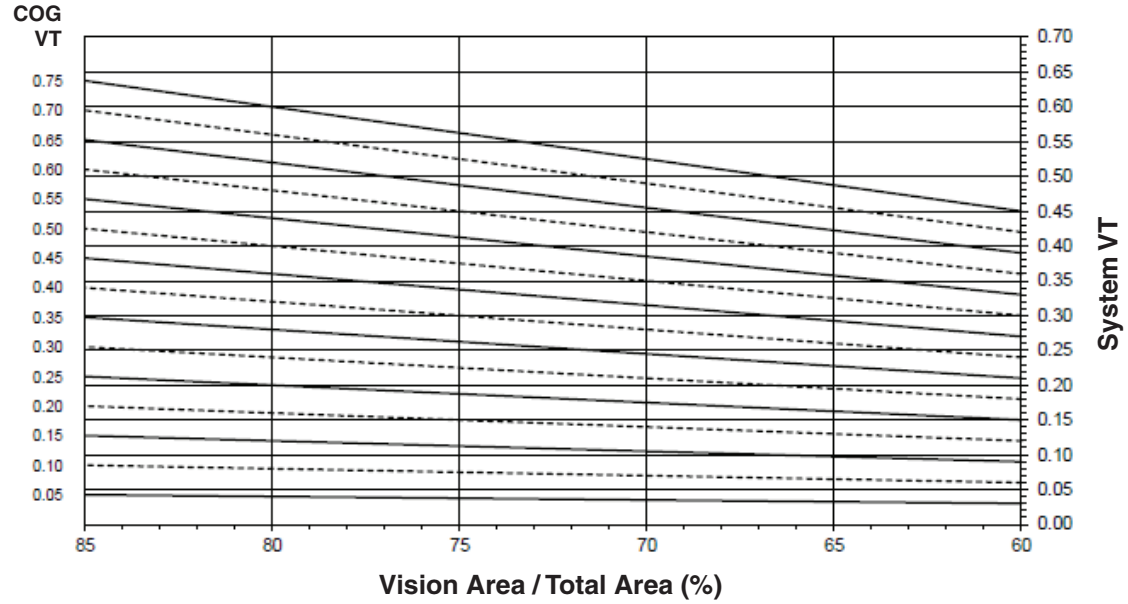
Glass properties are based on center of glass values and are obtained from your glass supplier.

AA™5450 XX HORIZONTAL SLIDING WINDOW
(1-1/2" Triple Glazed - 10lb Sill)

System Solar Heat Gain Coefficient (SHGC) vs Percent of Vision Area



System Visible Transmittance (VT) vs Percent of Vision Area



AA™5450 XX HORIZONTAL SLIDING WINDOW (1-1/2" Triple Glazed - 10lb. Sill)

Thermal Transmittance[1] (BTU/hr • ft ^{2} • °F)

Glass U-Factor [3]	Overall U-Factor [4]
0.32	0.39
0.30	0.38
0.28	0.37
0.26	0.35
0.24	0.34
0.22	0.33
0.20	0.32
0.18	0.30
0.16	0.29
0.14	0.27
0.12	0.26
0.10	0.25

NOTE: For glass values that are not listed, linear interpolation is permitted.

1. U-Factors are determined in accordance with NFRC 100.
2. SHGC and VT values are determined in accordance with NFRC 200.
3. Glass properties are based on center of glass values and are obtained from your glass supplier.
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SHGC Matrix [2]

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0.55	0.40
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0.45	0.33
0.40	0.29
0.35	0.26
0.30	0.22
0.25	0.18
0.20	0.15
0.15	0.11
0.10	0.08
0.05	0.04

Visible Transmittance [2]

Glass VT [3]	Overall VT [4]
0.75	0.53
0.70	0.50
0.65	0.46
0.60	0.43
0.55	0.39
0.50	0.36
0.45	0.32
0.40	0.28
0.35	0.25
0.30	0.21
0.25	0.18
0.20	0.14
0.15	0.11
0.10	0.07
0.05	0.04