

OVERALL ENVELOPE METHOD

(Part 1 of 6)

ENV-2

PROJECT NAME

DATE

WINDOW AREA TEST

- A. DISPLAY PERIMETER FT × 6 = SF DISPLAY AREA
- B. GROSS EXTERIOR WALL AREA SF × 0.40 = SF 40% AREA
- C. GROSS EXTERIOR WALL AREA SF × 0.10 = SF MINIMUM STANDARD AREA
- D. ENTER LARGER OF A OR B SF MAXIMUM STANDARD AREA
- E. ENTER PROPOSED WINDOW AREA SF PROPOSED AREA
- F. WINDOW WALL RATIO = Proposed Window Area Divided by Gross Exterior Wall Area =

IF E IS GREATER THAN D OR LESS THAN C, PROCEED TO THE NEXT CALCULATION FOR WINDOW AREA ADJUSTMENT. IF NOT, GO TO PART 2 OF 6.

1. IF E IS GREATER THAN D:

$$\begin{array}{ccc} \text{MAXIMUM} & & \text{PROPOSED} & & \text{WINDOW} \\ \text{STANDARD AREA} & & \text{WINDOW AREA} & & \text{ADJUSTMENT FACTOR} \\ \hline \text{[]} & \div & \text{[]} & = & \text{[]} \end{array}$$

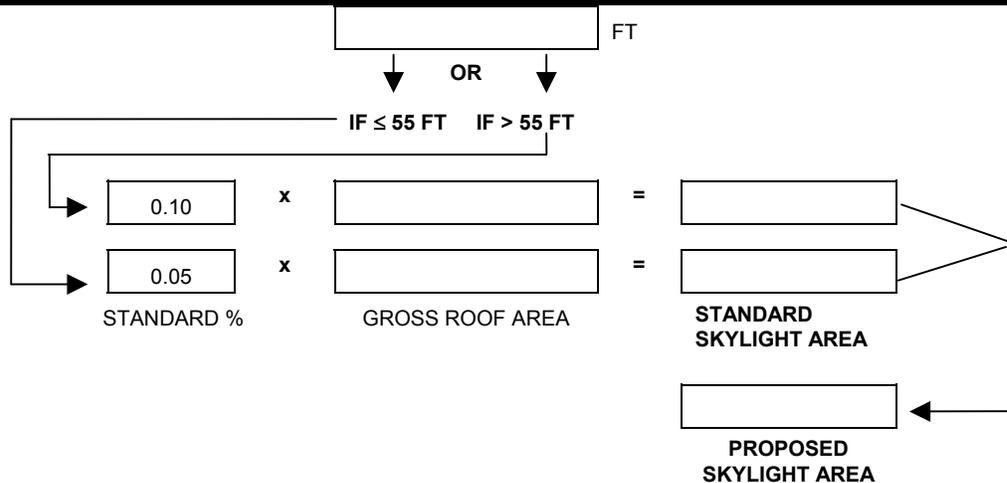
GO TO PART 6 TO CALCULATE ADJUSTED AREA

2. IF LESS THAN C:

$$\begin{array}{ccc} \text{MINIMUM} & & \text{PROPOSED WINDOW} & & \text{WINDOW} \\ \text{STANDARD AREA} & & \text{AREA (IF E = 0 ENTER 1)} & & \text{ADJUSTMENT FACTOR} \\ \hline \text{[]} & \div & \text{[]} & = & \text{[]} \end{array}$$

GO TO PART 6 TO CALCULATE ADJUSTED AREA

SKYLIGHT AREA TEST



IF THE PROPOSED SKYLIGHT AREA IS GREATER THAN THE STANDARD SKYLIGHT AREA, PROCEED TO THE NEXT CALCULATION FOR THE SKYLIGHT AREA ADJUSTMENT. IF NOT, GO TO PART 2 OF 6.

1. IF PROPOSED SKYLIGHT AREA ≥ STANDARD SKYLIGHT AREA:

$$\begin{array}{ccc} \text{STANDARD} & & \text{PROPOSED SKYLIGHT} & & \text{SKYLIGHT} \\ \text{SKYLIGHT AREA} & & \text{AREA (IF E = 0 ENTER 1)} & & \text{ADJUSTMENT FACTOR} \\ \hline \text{[]} & \div & \text{[]} & = & \text{[]} \end{array}$$

GO TO PART 6 TO CALCULATE ADJUSTED AREAS

OVERALL ENVELOPE METHOD

(Part 2 of 6)

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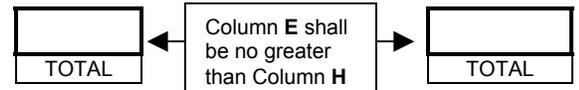
PROJECT NAME

DATE

OVERALL HEAT LOSS

		A	B	C	D	E	F	G	H		
		ASSEMBLY NAME (e.g. Wall-1, Floor-1)	PROPOSED				STANDARD				
			AREA	HEAT CAPACITY	U-FACTOR	TABLE VALUES?		UA (B × D)	AREA* (Adjusted)	U-FACTOR	UA (F × G)
						Y	N				
WALLS						<input type="checkbox"/>	<input type="checkbox"/>				
						<input type="checkbox"/>	<input type="checkbox"/>				
						<input type="checkbox"/>	<input type="checkbox"/>				
						<input type="checkbox"/>	<input type="checkbox"/>				
						<input type="checkbox"/>	<input type="checkbox"/>				
						<input type="checkbox"/>	<input type="checkbox"/>				
ROOFS/CEILINGS						<input type="checkbox"/>	<input type="checkbox"/>				
						<input type="checkbox"/>	<input type="checkbox"/>				
						<input type="checkbox"/>	<input type="checkbox"/>				
						<input type="checkbox"/>	<input type="checkbox"/>				
						<input type="checkbox"/>	<input type="checkbox"/>				
						<input type="checkbox"/>	<input type="checkbox"/>				
FLOORS/OFFITS						<input type="checkbox"/>	<input type="checkbox"/>				
						<input type="checkbox"/>	<input type="checkbox"/>				
						<input type="checkbox"/>	<input type="checkbox"/>				
						<input type="checkbox"/>	<input type="checkbox"/>				
						<input type="checkbox"/>	<input type="checkbox"/>				
						<input type="checkbox"/>	<input type="checkbox"/>				
WINDOWS		# OF PANES		N/A		<input type="checkbox"/>	<input type="checkbox"/>				
			N/A		<input type="checkbox"/>	<input type="checkbox"/>					
			N/A		<input type="checkbox"/>	<input type="checkbox"/>					
			N/A		<input type="checkbox"/>	<input type="checkbox"/>					
			N/A		<input type="checkbox"/>	<input type="checkbox"/>					
			N/A		<input type="checkbox"/>	<input type="checkbox"/>					
SKYLIGHTS		# OF PANES		N/A		<input type="checkbox"/>	<input type="checkbox"/>				
			N/A		<input type="checkbox"/>	<input type="checkbox"/>					
			N/A		<input type="checkbox"/>	<input type="checkbox"/>					
			N/A		<input type="checkbox"/>	<input type="checkbox"/>					
			N/A		<input type="checkbox"/>	<input type="checkbox"/>					
			N/A		<input type="checkbox"/>	<input type="checkbox"/>					

* If Window and/or Skylight Area Adjustment is required, use adjusted areas from part 6 of 6.



OVERALL ENVELOPE METHOD

(Part 3 of 6)

ENV-2

PROJECT NAME

DATE

OVERALL HEAT GAIN FROM CONDUCTION

		A	B	C	D	E	F	G	H	I	J	
		PROPOSED					STANDARD					
	ASSEMBLY NAME (e.g. Wall-1, Floor-1)	AREA	TEMP. FACTOR	HEAT CAPACITY	U-FACTOR	TABLE VALUES?		HEAT GAIN (B x C x E)	AREA* (Adjusted)	U-FACTOR	TEMP. FACTOR	HEAT GAIN (G x H x I)
						Y	N					
WALLS						<input type="checkbox"/>	<input type="checkbox"/>					
						<input type="checkbox"/>	<input type="checkbox"/>					
						<input type="checkbox"/>	<input type="checkbox"/>					
						<input type="checkbox"/>	<input type="checkbox"/>					
						<input type="checkbox"/>	<input type="checkbox"/>					
ROOFS/CEILINGS						<input type="checkbox"/>	<input type="checkbox"/>					
						<input type="checkbox"/>	<input type="checkbox"/>					
						<input type="checkbox"/>	<input type="checkbox"/>					
						<input type="checkbox"/>	<input type="checkbox"/>					
						<input type="checkbox"/>	<input type="checkbox"/>					
FLOORS/OFFITS						<input type="checkbox"/>	<input type="checkbox"/>					
						<input type="checkbox"/>	<input type="checkbox"/>					
						<input type="checkbox"/>	<input type="checkbox"/>					
						<input type="checkbox"/>	<input type="checkbox"/>					
						<input type="checkbox"/>	<input type="checkbox"/>					
WINDOWS				N/A		<input type="checkbox"/>	<input type="checkbox"/>					
				N/A		<input type="checkbox"/>	<input type="checkbox"/>					
				N/A		<input type="checkbox"/>	<input type="checkbox"/>					
				N/A		<input type="checkbox"/>	<input type="checkbox"/>					
				N/A		<input type="checkbox"/>	<input type="checkbox"/>					
SKYLIGHTS				N/A		<input type="checkbox"/>	<input type="checkbox"/>					
				N/A		<input type="checkbox"/>	<input type="checkbox"/>					
				N/A		<input type="checkbox"/>	<input type="checkbox"/>					
				N/A		<input type="checkbox"/>	<input type="checkbox"/>					
				N/A		<input type="checkbox"/>	<input type="checkbox"/>					

Subtotal

Subtotal

OVERALL ENVELOPE METHOD

(Part 5 of 6)

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PROJECT NAME

DATE

OVERALL HEAT GAIN FROM RADIATION

FENESTRATION SURFACES

		A	B	C	D	E	F				G	H	I	J	K	L	M
		WINDOW/SKYLIGHT NAME (e.g Window-1, Sky-1)	WEIGHTING FACTOR	PROPOSED								STANDARD					
				AREA	SOLAR FACTOR	SHGC	OVERHANG				HEAT GAIN (BxCx DxExH)	AREA (Adjusted)*	RSHG or SHGC**	SOLAR FACTOR	HEAT GAIN (BxJxKxL)		
							H	V	H/V	OHF							
NORTH																	
EAST																	
SOUTH																	
WEST																	
SKYLIGHTS										N/A	N/A	N/A	N/A				
										N/A	N/A	N/A	N/A				
										N/A	N/A	N/A	N/A				
										N/A	N/A	N/A	N/A				
										N/A	N/A	N/A	N/A				
						Part 3 Subtotal				Part 3 Subtotal							
						Part 4 Subtotal				Part 4 Subtotal							
						Part 5 Subtotal				Part 5 Subtotal							
						TOTAL				TOTAL							

* If Window and/or Skylight Area Adjustment is required, use adjusted areas from part 6 of 6.

** Only SHGC is used for Skylights

Column I must be less than column M

