## **Building Envelope Compliance Documentation** Part I, Page 1 Project Name: Project Address: Date: Designer of Record: Email: Telephone: Email: Contact Person: Telephone: City: Climate Zone: Criteria Table: **Mandatory Provisions Checklist** Insulation (5.4.1) Insulation Materials are installed in accordance with manufacturer's recommendations and in such a manner as to achieve rated R-value of • Exception: for metal building roofs or metal building walls. Loose-fill insulation is not used in attic roof spaces when the slope of the ceiling is more than three in twelve. Attic eave vents have baffling to deflect the incoming air above the surface of the insulation. Insulation is installed in a permanent manner in substantial contact with the inside surface. Batt insulation installed in floor cavities is supported in a permanent manner by supports no greater than 24 in. o.c. Lighting fixtures, HVAC, and other equipment are not be recessed in ceilings in such a manner to affect the insulation thickness unless. Exceptions: The recessed area is less than 1%. The entire roof, wall, or floor is covered with insulation to the full depth required. The effects of reduced insulation are included in calculations using an area weighted averages. Roof insulation is not installed over suspended ceiling with removable ceiling panels. Exterior insulation is covered with a protective material to prevent damage. Insulation is protected in attics and mechanical rooms where access is Foundation vents do not interfere with the insulation. Insulation materials in ground contact have a water absorption rate no greater than 0.3%. Fenestration and Doors (5.4.2) U-factors are determined in accordance with NFRC 100. U-factors for skylights shall be determined for a slope of 20 above the horizontal. Exceptions: U-factors are taken from A.8.1 for skylights. U-factors are taken from A.8.2 other fenestration products. U-factors are taken from A.7 for opaque doors. U-factors are derived from DASMA 105 for garage doors. Solar heat gain coefficient (SHGC) is determined in accordance with NFRC 200. Exceptions: SHGC is determined by multiplying the shading coefficient (SC) by 0.86. Shading coefficient is determined using a spectral data file determined in accordance with NFRC 300. SHGC for the center of glass is used. SHGC is determined using a spectral data file determined in accordance with NFRC 300. SHGC is taken from Section A8.1 for skylights. SHGC is taken from Section A8.2 for vertical fenestration. ☐ Visible light transmittance is determined in accordance with NFRC 200.

# **Building Envelope Compliance Documentation**

Part I, Page 2

# Air Leakage (5.4.3) The building envelope has a continuous air barrier meeting the requirements of 5.4.3.1. Air leakage through fenestration and doors meets the requirements of 5.4.3.2. Exceptions: Tield fabricated fenestration and doors. Metal coiling doors in semiheated spaces in climate zones 1 through 6. Cargo doors and loading dock doors are equipped with weatherseals in climates zones 4 through 8 (5.4.3.3). Entrance doors have vestibules (5.4.3.4). Exceptions: Building has revolving doors Doors not intended as building entrance Doors open from dwelling unit(s) Climate zone 1 or 2 Building in climate zone 3 less than four stories and smaller than 10,000 ft² (930 m²) Buildings entrances in buildings less than 1,000 ft² (90 m²) in climate zones 4, 5, 6, 7, and 8

O Doors opening from spaces smaller than 3,000 ft² (280 m²) that is separate from a building entrance

## **Building Envelope Compliance Documentation** Part II, Page ' Project Name: Contact Person: Email: Telephone: 5.5.4.4.1 Exceptions Window-Wall Ratio Skylight-Roof Ratio Space Category Gross Wall Area (ft<sup>2</sup> or m<sup>2</sup>): Gross Roof Area (ft2): Nonresidential Permanent Projections Window Area (ft2 or m2): Skylight Area: Residential Street Level Windows Window-Wall Ratio: Skylight-Roof Ratio Semiheated South Fenestration Area (ft2) Space require minimum skylight area? East Fenestration Area (ft2) West Fenestration Area (ft2) **Opaque Surfaces** Class (Pick one) Pick Pick Wall Floor Slab Door Roof one one Description/ Proposed Criteria Surface Appendix A Defaults Insulation Name Insulation Area R-Value, R-Value, (ft<sup>2</sup> or m<sup>2</sup>) U-Factor. U-Factor. (optional) R-value Option Metal Building Steel-Framed Non-Swinging C-Factor or C-Factor or Steel Joist Swinging F-Factor F-Factor Metal OO OO OO $\mathbf{OO}$ $\mathbf{O}$ $\mathbf{O}\mathbf{O}$ $\mathbf{O}\mathbf{O}$ OO 000000000000 OOOO 000000000000 OO $\mathbf{O}\mathbf{O}$ $\mathbf{C}\mathbf{C}$ OO $\mathbf{O}\mathbf{O}$ $\mathbf{O}$ $\mathbf{O}\mathbf{O}$ 000000000000 $\mathbf{O}$ $\mathbf{O}\mathbf{O}$ OO OO OO OO 00 $\mathbf{O}\mathbf{O}$ $\mathbf{C}\mathbf{C}$ $\mathbf{O}\mathbf{O}$ $\mathbf{O}$ $\mathbf{O}\mathbf{O}$ $\mathbf{O}$ $\mathbf{O}\mathbf{O}$ OO $\mathbf{O}\mathbf{O}$ OO $\mathbf{O}\mathbf{O}$

## **Building Envelope Compliance Documentation** Part II, Page 2 Project Name: Contact Person: Email: Telephone: **Fenestration** Frame Class (Pick one) Proposed Fenestration Criteria Description/ Gain Metal (curtain/storefront) Name Skylight, Curb, Plastic Metal (entrance door) Skylight, Curb, Glass Appendix A Defaults Adjusted Solar Heat Coefficient (SHGC) Overhang Multiplier Solar Heat Gain Coefficient (SHGC) Solar Heat Gain Coefficient (SHGC) Skylight, No Curb Projection Factor Metal (all other Nonmetal (all) **NFRC Rating** Overhang **U-Factor** U-Factor O П O

 $O \mid O \mid O$ 

O

 $\mathbf{O}$ 

OO