



**SECTION 08 62 00**  
**UNIT SKYLIGHTS**  
**(ANDERSEN® 400 SERIES SKYLIGHTS)**

**PART 1 - GENERAL**

**SPECIFIER NOTE:** DATA CONTAINED IN THIS GUIDE SPEC IS ACCURATE AS OF AUGUST 2007. DUE TO ONGOING PRODUCT CHANGES, THIS DATA MAY CHANGE OVER TIME. CONSULT MANUFACTURER FOR COMPLETE PRODUCT DETAILS.

**1.1 SUMMARY**

- A. Section Includes:

**SPECIFIER NOTE:** RETAIN THE FOLLOWING ITEMS BELOW AS REQUIRED FOR PROJECT REQUIREMENTS.

1. Skylights.
2. Glazing.
3. Accessories.

**SPECIFIER NOTE:** ARTICLE BELOW SHOULD BE RESTRICTED TO STATEMENTS DESCRIBING DESIGN OF PERFORMANCE REQUIREMENTS AND FUNCTIONAL (NOT DIMENSIONAL) TOLERANCES OF A COMPLETE SYSTEM. LIMIT DESCRIPTIONS FOR COMPOSITE AND OPERATIONAL PROPERTIES REQUIRED TO LINK COMPONENTS OF A SYSTEM TOGETHER AND TO INTERFACE WITH OTHER SYSTEMS.

**1.2 SYSTEM DESCRIPTION**

**SPECIFIER NOTE:** MANUFACTURER RECOMMENDS REFERRING TO WEBSITE FOR MOST CURRENT PRODUCT PERFORMANCE DATA. RETAIN, EDIT, OR DELETE LANGUAGE BELOW TO SUIT PROJECT REQUIREMENTS. REFER TO WWW.ANDERSENWINDOWS.COM FOR PERFORMANCE INFORMATION.

- A. Performance Requirements: Provide products/systems that have been manufactured, fabricated, and installed to the following performance criteria:
1. Comply with ANSI 101/I.S.2/NAFS.
  2. Performance Class: C.
  3. Performance Grade (ASTM E283, ASTM E330 and ASTM E331) : <Specify performance grade.>
  4. U-Factor (NFRC 100): <Specify U-Factor.>
  5. Solar Heat Gain Coefficient (SHGC) (NFRC 200) : <Specify SHGC.>
  6. Outdoor-Indoor Transmission Class (OITC) (ASTM E90) : <Specify OITC.>
  7. Sound Transmission Class (STC) (ASTM E90) : <Specify STC.>

**SPECIFIER NOTE:** MANUFACTURER RECOMMENDS REFERRING TO WEBSITE DESIGN PRESSURE ESTIMATOR FOR ADDITIONAL WIND LOAD INFORMATION. RETAIN, EDIT, OR DELETE LANGUAGE BELOW TO SUIT PROJECT REQUIREMENTS

- B. Structural Requirements: Provide products/systems capable of withstanding wind loads based on testing units representative of those indicated for Project that pass AAMA/NWWDA 101/I.S.2/NAFS, Uniform Structural Load Test:
1. Design Wind Loads: Determine design wind loads applicable to Product from basic wind speed indicated in miles per hour (meters per second) at 33 feet (10 meters) above grade, according to ASCE, Section 6, based upon mean roof heights indicted on Drawings.

- a. Basic Wind Speed: <Specify wind speed.>
- b. Importance Factor: <Specify importance factor.>
- c. Exposure Category: <Specify exposure category.>
- d. Wind Load Requirement: <Specify design pressure requirement.>

**SPECIFIER NOTE:** ARTICLE BELOW INCLUDES SUBMITTAL OF RELEVANT DATA TO BE FURNISHED BY CONTRACTOR BEFORE, DURING OR AFTER CONSTRUCTION. COORDINATE THIS ARTICLE WITH THE ARCHITECT'S AND CONTRACTOR'S DUTIES AND RESPONSIBILITIES IN CONDITIONS OF THE CONTRACT AND DIVISION 01 SUBMITTAL PROCEDURES SECTION.

### 1.3 SUBMITTALS

- A. General: Submit listed submittals in accordance with Conditions of the Contract and Division 01 Submittal Procedures Section.
- B. Product Data: Submit manufacturer's product data and installation guides.
- C. Shop Drawings: Provide drawings indicating direction of operable parts, typical jamb, head and sill conditions, and special mullion reinforcement details.
- D. Samples: Submit selection and verification samples, including the following:
  1. Cladding: Submit color Samples of cladding.
- E. Contract Closeout Submittals: Submit the following:
  1. Warranty documents specified herein.
- F. Owner's Manual: Bound manual clearly identified with project name, location, and completion date. Identify type and size of units installed. Provide recommendations for periodic inspections, care, and maintenance. Identify common causes of damage with instructions for temporary repair.

**SPECIFIER NOTE:** ARTICLE BELOW SHOULD INCLUDE STATEMENTS OF PREREQUISITES, STANDARDS, LIMITATIONS AND CRITERIA THAT ESTABLISH AN OVERALL LEVEL OF QUALITY FOR PRODUCTS AND WORKMANSHIP FOR THIS SECTION. COORDINATE ARTICLE BELOW WITH DIVISION 01 QUALITY ASSURANCE SECTION.

### 1.4 QUALITY ASSURANCE

**SPECIFIER NOTE:** ARTICLE BELOW SHOULD INCLUDE STATEMENTS OF PREREQUISITES, STANDARDS, LIMITATIONS AND CRITERIA THAT ESTABLISH AN OVERALL LEVEL OF QUALITY FOR PRODUCTS AND WORKMANSHIP FOR THIS SECTION. COORDINATE ARTICLE BELOW WITH DIVISION 01 QUALITY ASSURANCE SECTION.

### 1.5 QUALITY ASSURANCE

- A. Installer Qualifications: Utilize an installer having demonstrated experience on projects of similar size and complexity.

**SPECIFIER NOTE:** PARAGRAPH BELOW SHOULD LIST OBLIGATIONS FOR COMPLIANCE WITH SPECIFIC CODE REQUIREMENTS PARTICULAR TO THIS SECTION. GENERAL STATEMENTS TO COMPLY WITH A PARTICULAR CODE ARE TYPICALLY ADDRESSED IN CONDITIONS OF THE CONTRACT AND DIVISION 01 REGULATORY REQUIREMENTS SECTIONS. REPETITIVE STATEMENTS SHOULD BE AVOIDED.

- B. Regulatory Requirements and Approvals: <Specify applicable requirements of regulatory agencies.>
- C. Certifications:
  1. Insulating Glass Units: Provide insulating glass units permanently marked with certification label of Insulating Glass Certification Council (IGCC) indicating compliance.

SPECIFIER NOTE: RETAIN CERTIFICATION LABEL REQUIREMENTS PARAGRAPH ABOVE OR BELOW.

2. Insulating Glass Units: Provide insulating glass units permanently marked with certification label of Insulating Glass Manufacturers Association of Canada (IGMAC) indicating compliance with CAN/CGSB 12.8.

SPECIFIER NOTE: RETAIN PARAGRAPH BELOW IF PREINSTALLATION MEETING IS REQUIRED.

- D. Preinstallation Meetings: <Specify requirements for preinstallation meeting.>

SPECIFIER NOTE: IN ARTICLE BELOW, STATE PHYSICAL OR ENVIRONMENTAL LIMITATIONS OR CRITERIA FOR INSTALLATION SUCH AS WEATHER, TEMPERATURE, HUMIDITY, VENTILATION OR ILLUMINATION REQUIRED FOR PROPER INSTALLATION OR APPLICATION.

#### 1.6 DELIVERY, STORAGE, AND HANDLING

- A. General: Comply with Division 01 Product Requirements Section.
- B. Comply with manufacturer's ordering instructions and lead time requirements to avoid construction delays.
- C. Delivery: Deliver materials in manufacturer's original unopened, undamaged containers with identification labels intact.
- D. Storage and Protection: Store materials protected from exposure to harmful environmental conditions and at temperature and humidity conditions recommended by the manufacturer.
- E. Store materials and accessories off ground, under cover, and protected from weather and construction activities.

SPECIFIER NOTE: IN ARTICLE BELOW, STATE PHYSICAL OR ENVIRONMENTAL LIMITATIONS OR CRITERIA FOR INSTALLATION SUCH AS WEATHER, TEMPERATURE, HUMIDITY, VENTILATION OR ILLUMINATION REQUIRED FOR PROPER INSTALLATION OR APPLICATION.

#### 1.7 PROJECT/SITE CONDITIONS

- A. Field Measurements: Verify actual dimensions of openings by field measurements before fabrication. Record measurements on shop drawings. Coordinate field measurements and fabrication schedule with construction progress to avoid construction delays.
- B. Install units in accordance with manufacturer's safety and weather requirements.

SPECIFIER NOTE: COORDINATE ARTICLE BELOW WITH CONDITIONS OF THE CONTRACT AND WITH DIVISION 01 CLOSEOUT SUBMITTALS (WARRANTY) SECTION. USE THIS ARTICLE TO REQUIRE SPECIAL OR EXTENDED WARRANTY OF BOND COVERING THE WORK OF THIS SECTION.

#### 1.8 WARRANTY

- A. Project Warranty: Refer to Conditions of the Contract for project Warranty provisions.

SPECIFIER NOTE: COORDINATE ARTICLE BELOW WITH MANUFACTURER'S WARRANTY REQUIREMENTS. VISIT THE ANDERSEN WEBSITE FOR A COMPLETE DESCRIPTION OF THE STANDARD LIMITED WARRANTY INCLUDING EXCLUSIONS AND LIMITATIONS.

- B. Manufacturer's Warranty: Submit, for Owner's acceptance, manufacturer's standard limited warranty document. Manufacturer's limited warranty is in addition to, and not a limitation of, other rights Owner may have under contract documents.



## PART 2 - PRODUCTS

SPECIFIER NOTE: RETAIN ARTICLE BELOW FOR PROPRIETARY METHOD SPECIFICATION. ADD PRODUCT ATTRIBUTES, PERFORMANCE CHARACTERISTICS, MATERIAL STANDARDS, AND DESCRIPTIONS AS APPLICABLE. USE OF SUCH PHRASES AS "OR EQUAL" OR "OR APPROVED EQUAL" OR SIMILAR PHRASES MAY CAUSE AMBIGUITY IN SPECIFICATIONS. SUCH PHRASES REQUIRE VERIFICATION (PROCEDURAL, LEGAL AND REGULATORY) AND ASSIGNMENT OF RESPONSIBILITY FOR DETERMINING "OR EQUAL" PRODUCTS.

### 2.1 MANUFACTURER

- A. Provide products from the following manufacturer:
1. Andersen Windows, Inc.
  2. 100 4th Ave. N.
  3. Bayport, MN 55003-1096.
  4. Phone: (800) 299-9029.
  5. Fax: (800) 752-9230.
  6. E-mail: technicalsupport@andersenwindows.com.
  7. www.andersenwindows.com.
  8. Local Contact: <Specify contact information provided by local Andersen representative.>

### 2.2 MANUFACTURED UNITS

- A. Proprietary Products/Systems: Skylights, including the following:
1. Andersen® 400 Series Skylights.

SPECIFIER NOTE: EDIT ARTICLE BELOW TO SUIT PROJECT REQUIREMENTS. IF SUBSTITUTIONS ARE PERMITTED, EDIT TEXT BELOW. ADD TEST TO REFER TO DIVISION 01 PROJECT REQUIREMENTS (PRODUCT SUBSTITUTIONS PROCEDURES) SECTION.

2. Substitutions: No substitutions permitted.

SPECIFIER NOTE: SPECIFY MATERIALS TO BE FURNISHED. THIS ARTICLE MAY BE OMITTED AND THE MATERIALS CAN BE INCLUDED WITH THE DESCRIPTION OF A MANUFACTURED UNIT, EQUIPMENT, COMPONENT, OR ACCESSORY.

### 2.3 MATERIALS

- A. Skylight Frame Members: Fabricated from a wood species approved ANSI 101/I.S.2/NAFS.
- B. Skylight Sash: Glass Fiber Polymer Composite conforming to ASTM D3647.
- C. Acrylic Urethane Coating: Conform to color uniformity, chemical resistance, detergent resistance, and weather resistance requirements of AAMA 623.

SPECIFIER NOTE: SELECT PROJECT SPECIFIC OLOOR OPTION.

1. Color: White.
  2. Color: Sandtone.
  3. Color: Terratone®.
  4. Color: Forest Green.
- D. Weatherstripping: Continuous, flexible, compressible closed cell foam gasket applied to entire perimeter of skylight frame.

## 2.4 GLAZING

- A. General: Insulating glass units certified through the Insulating Glass Certification Council as conforming to the requirements of IGCC. Provide dual sealed units consisting of polyisobutylene primary seal and silicone secondary seal. Provide metal spacers with bent or soldered corners. Permanently label glass as conforming to the safety glazing requirements of CPSC 16 CFR 1201.

**SPECIFIER NOTE: RETAIN CERTIFICATION REQUIREMENTS PARAGRAPH ABOVE OR BELOW.**

- B. General: Insulating glass units certified through the Insulating Glass Manufacturers Association of Canada (IGMAC) conforming to the requirements of Canadian General Standards Board CAN/CGSB 12.8. Provide dual sealed units consisting of polyisobutylene primary seal and silicone secondary seal. Provide metal spacers with bent or soldered corners. Permanently label glass as conforming to the safety glazing requirements of CPSC 16 CFR 1201.
- C. Impact Resistant Glazed Units: Test in accordance with ASTM E1996 large missile impact requirements.

**SPECIFIER NOTE: SELECT BETWEEN THE FOLLOWING STANDARD GLAZING OPTIONS. CONSULT ANDERSEN CORPORATION FOR ADDITIONAL GLAZING OPTIONS AND IN SELECTING THE PROPER GLAZING TYPE. TEMPERED GLASS MAY BE REQUIRED BECAUSE OF WINDOW SIZE AND WIND LOAD IN ADDITION TO COMPLYING WITH SAFETY GLAZING REQUIREMENTS.**

- D. High-Performance™ Low-E4™ Argon Blend Filled Insulating Glass Units:
1. Tempered/Tempered: Insulating glass units consisting of inboard and outboard lites of clear, tempered glass conforming to ASTM C1048, Type 1, Class 1, q3, Kind FT.
  2. Tempered/Laminated: Insulating glass units consisting of an inboard lite of two (2) layers of clear, heat-strengthened glass conforming to ASTM C1048; Type 1, Class 1, q3, Kind HS, laminated with 0.030 inch (0.76 mm) clear, polyvinyl butyl interlayer and an outboard lite of clear tempered glass conforming to ASTM C1048, Type 1, Class 1, q3, Kind FT.
  3. High-Performance™ Low-E4™ Glass Coating: Magnetron sputtering vapor deposition (MSVD) Low-E coating applied to No. 2 surface.
  4. Magnetron sputtering vapor deposition (MSVD) TiO<sub>2</sub> coating applied to the No. 1 surface.
  5. Filling: Space between glass lites filled with an argon gas blend.
  6. Protective removable polyolefin film applied to glass surfaces No. 1 and No. 4.
- E. High-Performance™ Low-E4™ Sun Glass Argon Blend Filled Insulating Glass Units:
1. Tempered/Tempered: Insulating glass units consisting of inboard and outboard lites of clear, tempered glass conforming to ASTM C1048, Type 1, Class 1, q3, Kind FT.
  2. Tempered/Laminated: Insulating glass units consisting of an inboard lite of two (2) layers of clear, heat-strengthened glass conforming to ASTM C1048; Type 1, Class 1, q3, Kind HS, laminated with 0.030 inch (0.76 mm) clear, polyvinyl butyl interlayer and an outboard lite of clear tempered glass conforming to ASTM C1048, Type 1, Class 1, q3, Kind FT.
  3. High-Performance™ Low-E4™ Sun Glass Coating: Magnetron sputtering vapor deposition (MSVD) Low-E coating applied to No. 2 surface.
  4. Magnetron sputtering vapor deposition (MSVD) TiO<sub>2</sub> coating applied to the No. 1 surface.
  5. Filling: Space between glass lites filled with an argon gas blend.
  6. Protective removable polyolefin film applied to glass surfaces No. 1 and No. 4..
- F. Impact Resistant Glass: High-Performance™ Low- E4™, Argon Blend filled insulating glass units:
1. Glass: Tempered/Laminated insulating glass units consisting of an inboard lite of two (2) layers of clear, heat-strengthened glass conforming to ASTM C1048, Type 1, Class 1, q3, Kind HS, laminated with 0.090 inch (2.29 mm) clear polyvinyl butyral interlayer and an outboard lite of clear tempered glass conforming to ASTM C1048, Type 1, Class 1, q3, Kind FT.
  2. Magnetron sputtering vapor deposition (MSVD) TiO<sub>2</sub> coating applied to the No. 1 surface

3. High-Performance™ Low-E4™ Coating: Magnetron sputtering vapor deposition (MSVD) Low-E coating applied to the No. 2 surface.
4. Inert Gas Filling: Fill space between glass lites with an argon gas blend.

G. Impact Resistant Glass: High-Performance™ Low- E4™ Sun Glass, Low SHGC, Argon Blend filled insulating glass units:

1. Glass: Tempered/Laminated insulating glass units consisting of an inboard lite of two (2) layers of clear, heat-strengthened glass conforming to ASTM C1048, Type 1, Class 1, q3, Kind HS, laminated with 0.090 inch (2.29 mm) clear polyvinyl butyral interlayer and an outboard lite of clear tempered glass conforming to ASTM C1048, Type 1, Class 1, q3, Kind FT.
2. Magnetron sputtering vapor deposition (MSVD) TiO2 coating applied to the No. 1 surface.
3. High-Performance™ Low-E4™ Coating: Magnetron sputtering vapor deposition (MSVD) Low-E coating applied to the No. 2 surface.
4. Inert Gas Filling: Fill space between glass lites with an argon gas blend..

2.5 HARDWARE

- A. Factory-Applied Frame Mounting Brackets: 1-1/2 inch (38 mm) by 4 inch (102 mm) by 1/8 inch (3.2 mm) strip steel with zinc dichromate finish.

2.6 FLASHING

**SPECIFIER NOTE: SPECIFY FLASHING REQUIREMENTS BELOW TO SUIT PROJECT REQUIREMENTS AND SPECIFIER PRACTICE.**

- A. Flashing: Provide aluminum flashing with high temperature baked on acrylic finish:
1. Shingle Flashing: Use shingle flashing on roof slopes from 4:12 to 68:12. Auxiliary water deflector is also recommended on slopes above 20:12.
    - a. Top and Bottom: Preformed aluminum, 0.024 inch (0.6 mm) thick.
    - b. Side Flashing: Aluminum, 0.019 inch (0.5 mm) thick step flashing. Install individual pieces at each shingle course.
  2. Low-Profile Tile Flashing: Use tile flashing on roof slopes from 4:12 to 68:12. Auxiliary water deflector is also recommended on slopes above 20:12.
    - a. Top: Preformed aluminum, 0.024 inch (0.6 mm) thick.
    - b. Bottom: Preformed aluminum, 0.024 inch (0.6 mm) thick, with attached 2 pound (0.91 kg) lead apron that can be formed to tile roof configuration.
    - c. Side Flashing: Continuous preformed aluminum, 0.024 inch (0.6 mm) thick.
  3. Incline Curb Flashing: Use inclined curb flashing on roof slopes of 2:12 to 4:12.
    - a. Top and Bottom: Preformed aluminum, 0.024 inch (0.6 mm) thick.
    - b. Side Flashing: Continuous preformed aluminum, 0.024 inch (0.6 mm) thick.
  4. Mullion Flashing: Place mullion flashing between adjacent roof window units. Install mullion flashing under frame gasket at roof window frame member, making mullion flashing an integral part of flashing system.
    - a. Preformed Aluminum: 0.019 inch (0.5 mm) thick.
  5. Transom Flashing: Place flashing between adjacent roof window units. Install transom flashing under frame gasket at roof window frame member, making transom flashing an integral part of flashing system.
    - a. Preformed and Welded Aluminum: 0.031 inch (0.8 mm) thick.
  6. Auxiliary Water Deflector: Use auxiliary water deflector where roof pitch is 20:12 to 68:12.
    - a. Preformed Aluminum: 0.031 inch (0.8 mm) thick.

## 2.7 ACCESSORIES

- A. Interior Pleated Shades: Fit roof window openings with pleated shades where indicated on Drawings. Provide shades capable of being drawn up out of viewing area by using standard handle or optional extension pole.

**SPECIFIER NOTE: DELETE FABRIC COLOR BELOW NOT REQUIRED FOR PROJECT.**

- 1. Fabric Color: Antique White.
- 2. Fabric Color: Translucent.
- 3. Fabric Color: Opaque.

- B. Extension Poles: Provide 1 telescoping, corrosion resistant extension pole, 6 feet (1.8 m) to 10 feet (3 m) long, with vinyl coated handle for operating pleated shades. Where extension pole use is required, replace operator handle or shade handle with pole adapter.

## 2.8 FABRICATION

- A. Preservative Treatment: Treat wood sash and frame members after machining with a water repellent preservative in accordance with WDMA I.S.4.
- B. Glazing: Factory glaze using full beds of high quality silicone glazing sealant at perimeter of both interior and exterior edges of insulating glass.
- C. Factory-apply weatherstripping.

## PART 3 - EXECUTION

### 3.1 MANUFACTURER'S INSTRUCTIONS

- A. Comply with instructions and recommendations of window manufacturer.
  - 1. Verify rough opening is square and dimensions are correct.

**SPECIFIER NOTE: SPECIFY ACTIONS TO PHYSICALLY DETERMINE THAT CONDITIONS ARE ACCEPTABLE TO RECEIVE PRIMARY PRODUCTS OF SPECIFICATION SECTION.**

### 3.2 EXAMINATION

- A. Site Verification of Conditions: Verify that site conditions are acceptable for installation of units, including the following:
  - 1. Verify wood framing is dry, clean, sound and well nailed, and/or glued, free of voids and without offsets at joints.
  - 2. Make sure nail heads are driven flush with all surfaces in opening and within 3 inches (75 mm) of rough opening.

**SPECIFIER NOTE: COORDINATE ARTICLE BELOW WITH MANUFACTURER'S RECOMMENDED INSTALLATION REQUIREMENTS.**

### 3.3 INSTALLATION

- A. Remove skylight and components, parts, accessories, and installation guides from carton.
- B. Inspect skylight components and verify that components are not damaged and that all parts are included before disposing of carton.

- C. Attach mounting brackets and center skylight in opening. Set units plumb, level, square, true to line, without warp or rack in frames or sash.
- D. Install frame using mounting brackets provided with skylight.
- E. Install flashing in accordance with skylight manufacturer's installation guidelines.
- F. Apply sealant between frame and rough opening.
- G. Secure sash to frame.
- H. Finish interior skylight components according to requirements specified in related sections.
- I. Comply with additional requirements in manufacturer's installation guides.
- J. Install optional hardware and unit accessories after cleaning.

**SPECIFIER NOTE: SPECIFY FINAL ACTIONS REQUIRED TO CLEAN INSTALLED EQUIPMENT OR OTHER COMPLETED WORK TO PROPERLY FUNCTION OR PERFORM. COORDINATE ARTICLE BELOW WITH DIVISION 01 EXECUTION REQUIREMENTS (CLEANING) SECTION AND SPECIFIC PROJECT REQUIREMENTS.**

#### 3.4 CLEANING

- A. Clean units using cleaning material and methods specifically recommended by window manufacturer.
- B. Remove excess sealants, glazing materials, dirt, and other substances.
- C. Avoid damaging protective coatings and finishes.
- D. Protect unit surfaces from masonry cleaning solution that could damage insulation glass panels or hardware.
- E. Remove debris from work site and properly dispose of debris.
- F. Remove interior protective surfaces after finishing ceilings.

**SPECIFIER NOTE: SPECIFY PROVISIONS FOR PROTECTING WORK AFTER INSTALLATION BUT PRIOR TO ACCEPTANCE BY THE OWNER. COORDINATE ARTICLE BELOW WITH DIVISION 01 EXECUTION REQUIREMENTS SECTION.**

#### 3.5 PROTECTION

- A. Protect installed work from damage due to subsequent construction activity on the site.

END OF SECTION