# SECTION 10530

# ALUMINUM CANOPIES

## PART 1 - GENERAL

### 1.1 SUMMARY

**A.** Section Includes: Pre-engineered, extruded aluminum canopies with hanger-style supports and extruded aluminum fascia.

1. Canopy located at

**B.** Related Sections:

1. DIVISION 16: Light fixtures connected to walkway covers and canopies.

### 1.2 PERFORMANCE REQUIREMENTS

**A.** **Structural Performance:** Canopy shall be designed to comply with the requirements of all governing building codes, including all connections of canopy framing members and the connections of canopy framing members to supporting members and structural elements. Erect canopy framing to withstand the following design loads under conditions involved.

1. Design Loads: Positive and negative wind loads determined in accordance with the International Building Code, 2003 Edition, and the referenced standard ASCE 7-02 for the parameters specified and the following criteria:
   a. Basic wind gust - V = 130 mph.
   b. Importance factor - = Category 2.
   c. Exposure - B.
2. Install framing systems to provide for movement of framing members without damage or overstressing, sheathing failure, connection failure, undue strain on fasteners and anchors, or other detrimental effects when subject to a maximum ambient temperature change (range) of 120 deg. F.
3. Install framing system to accommodate deflection of primary building structure and construction tolerances, and to maintain clearances at openings.

### 1.3 REFERENCES

**A.** Industry Standards:

1. AAMA 611 - Voluntary Specification for Anodized Architectural Aluminum; American Architectural Manufacturers Association; 1998.

2. ASTM B 221 - Standard Specification for Aluminum and Aluminum-Alloy Extruded Bars, Rods, Wire, Profiles, and Tubes; 1996.

3. ASTM B 221M - Standard Specification for Aluminum and Aluminum-Alloy Extruded Bars, Rods, Wire, Profiles, and Tubes (Metric); 1996.

## 1.4 SUBMITTALS

**A.** Product Data: Submit manufacturer's descriptive literature for specified systems, including all components.

**B.** Shop Drawings: Indicate layout heights, component connection details, and details of interface with adjacent construction.

**C.** Verification Samples: Two samples, minimum size 6 inches square, representing actual color and finish of products to be installed.

**D.** Certificates: Submit Contractor's certification that manufacturer of products of this Section meet specified qualifications.

1. Manufacturer's certification that installer of this section is approved.

**E.** Installation Instructions: Submit manufacturer's printed installation instructions for specified systems, including each component.

**F.** Structural Design Calculations: Submit structural design calculations (except footing designs) for aluminum walkways and canopies. Calculations shall bear the seal and signature of a registered professional Structural Engineer licensed to practice in the State of Louisiana.

## 1.5 QUALITY ASSURANCE

**A.** Manufacturer Qualifications: Minimum five (5) years of documented experience producing systems of the types specified in this Section.

**B.** Installer Qualifications: Minimum five (5) years documented experience installing systems of the types specified in this Section, and approved by manufacturer.

**C.** Single Source Responsibility: Provide walkway covers, canopies, and related components from a single manufacturer.

## 1.6 WARRANTY

**A.** Manufacturer’s Warranty: Provide one-year manufacturer’s warranty including coverage of materials and workmanship.

# PART 2 - PRODUCTS

## 2.1 MANUFACTURERS

**A. Approved Manufacturers:** Design and specification based upon "Super Lumideck" by Mapes Architectural Products. Other manufacturers that may submit for approval are not limited to the following:

1. Perfection Architectural Systems, Inc.
2. Approved equal.

## 2.2 WALKWAY COVERS

**A Description:** Pre-engineered, pre-finished extruded aluminum interlocking deck sections secured with screws and supported by beams, hanger rods and fascia systems.

1. Decks shall consist of long span anodized aluminum extrusions with mechanically assembled beams and interlocking members to be an integrated structure.
2. Hanger Connections: 2" x 2" square anodized aluminum tubes with reduction connections to eyebolts at wall and specially fabricated connections at the cover.

**B.** Load Requirements: The system shall be designed to meet Live Load requirements and Wind Up-Lift in accordance with applicable local building codes including additional collateral loads indicated in the contract documents.

1. Roof decks shall be able to withstand concentrated loads at any point such as walking on top.

**C.** Deck Construction: Extruded aluminum, self-flashing, interlocking sections of size and profile shown on Drawings or as required by structural engineering design.

1. Provide welded end plate water dams where sections terminate at other than drainage channels.
2. Finish: Clear anodized.

**D.** Fascia: Manufacturer's standard extruded aluminum fascia sections as shown on Drawings and as required to complete the installation resulting in a neat finished appearance.

1. Include manufacturer’s standard extruded aluminum gutters or scuppers in matching finish.
2. Finish: Clear anodized.

## 2.3 MATERIALS

**A. Aluminum Extrusions:** All aluminum sections shall be 6063 alloy, T-6 temper.

**B. Fascia:** Aluminum extrusion, 1/8 inch thickness as recommended by manufacturer for specific condition.

## 2.4 FABRICATION

A. **Fabrication:** Material shall be fabricated from approved shop drawings. The General Contractor shall field verify all dimensions, elevations and conditions before releasing for fabrication.

## 2.5 FINISHES

A. **Aluminum Finish:** Clear anodized finish; AA-M-10C-22A-31, Architectural Class II, complying with AAMA 611.

# PART 3 - EXECUTION

## 3.1 EXAMINATION

A. **Examine building surfaces** to which canopy will connect.

B. **Coordinate** with responsible installers to perform corrective work on unsatisfactory footings or surfaces.

C. **Commencement of work** by installer is acceptance of existing conditions and substrates.

## 3.2 PREPARATION

A. Ensure that adjacent surfaces, structures, and finishes are protected from damage by construction activities of this Section.

## 3.3 ERECTION

A. Installation: Install systems specified in accordance with shop drawings and manufacturer's installation instructions.

B. Tolerances**:** Set components plumb, straight, and true to line, adequately braced to maintain position until all connections are made.

C. **Electrolysis Prevention:** Keep aluminum surfaces from direct contact with ferrous metals or other incompatible materials by applying one coat of zinc chromate primer; follow with two coats of aluminum paint or high-build bituminous paint applied at 1/16" thickness.

## 3.4 CLEANING

A. **Remove dust** or other foreign matter from component surfaces; clean finishes in accordance with manufacturer's instructions.

**B.** Remove surplus materials and debris from the site.

## 3.5 PROTECTION OF INSTALLED PRODUCTS

**A.** **Protect finished aluminum surfaces** of installed systems from damage by subsequent construction activities.

**B.** **Repair of Finishes:** If minor damage to finishes occurs, repair damage in accordance with manufacturer's recommendations; provide replacement components if repaired finishes are unacceptable to Architect.

END OF SECTION