

**SECTION 10 73 00  
PROTECTIVE COVERS**

## PART 1 GENERAL

## 1.1 DESCRIPTION

- A. Pre-engineered, pre-finished extruded aluminum canopy for new entrance at Elevated Walk.

## 1.1 RELATED WORK

- A. Concrete slabs and footings: Section 03 30 00 - CAST-IN-PLACE CONCRETE.
- B. Automatic Door Openers: Section 08 71 13 - AUTOMATIC DOOR OPENERS,
- C. Electrical conduit and wiring: Section 26 05 21 - LOW VOLTAGE CONDUCTORS AND CABLES.
- D. Exterior lighting fixtures: Section 26 56 00 - EXTERIOR LIGHTING.

## 1.2 REFERENCES

- A. American Architectural Manufacturers Association (AAMA):
  - 1. AAMA 603 - Voluntary Performance Requirements and Test Procedures for Pigmented Organic Coatings on Extruded Aluminum.
  - 2. AAMA 605 - Voluntary Specification for High Performance Organic Coatings on Architectural Extrusions and Panels.
  - 3. AAMA 607.1 - Voluntary Guide Specification and Inspection Methods for Clear Anodic Finishes for Architectural Aluminum.
  - 4. AAMA 608.1 - Voluntary Guide Specification and Inspection Methods for Electrolytically Deposited Color Anodic Finishes for Architectural Aluminum.

## 1.3 DESIGN REQUIREMENTS

- A. Columns, Beams, Deck, and Trim: Aluminum extrusions.
- B. Structural Framing: Interlocking deck sections secured by screws.
  - 1. Heli-arc welded, one-piece rigid bents.
  - 2. Mechanically fastened bents using internally concealed bolted connections.
- C. Canopy: Self-draining from deck through bents to discharge point at ground level or as otherwise shown.
- D. Building Code: International Building Code (IBC).
- E. Design Loads:
  - 1. Comply with Building Code for site location.
  - 2. Collateral Loads: Additional loads imposed by other materials or systems identified in contract documents.
- F. Structural Design: Prepare complete structural design calculations for canopy members except footings. Provide reactions as required for footing design by a registered professional engineer.

## 1.4 SUBMITTALS

- A. Submit in accordance with Section 01 33 23, SHOP DRAWINGS, PRODUCT DATA, AND SAMPLES.
- B. Product Data: Manufacturer's catalog data, detail sheets, and specifications.
- C. Shop Drawings: Layout and erection drawings showing roof framing, deck panels, cross sections, and trim details, clearly indicating proper assembly.
- D. Samples: Color selection samples consisting of actual coating material or anodizing process on aluminum extrusions.
- E. Quality Assurance/Control Submittals:
  - 1. Qualifications: Letter certifying manufacturer's required qualifications.

2. Structural Design Calculations.
  3. Manufacturer's Installation Instructions.
- 1.5 QUALITY ASSURANCE
- A. Overall Standard: Structural engineering design documents stamped by a structural engineer registered to practice in Commonwealth of Pennsylvania.
  - B. Manufacturer Qualifications: Minimum five years experience in producing covers/canopies with welded bents and of the type specified.
  - C. Installer Qualifications: Minimum two years experience in erecting covers/canopies of the type specified.
- 1.6 DELIVERY, STORAGE, AND HANDLING
- A. Protect components from damage during handling and construction operations before, during and after installation.
  - B. Follow manufacturer's instructions.
- PART 2 PRODUCTS
- 2.1 MANUFACTURERS
- A. Provide protective cover from a single manufacturer.
- 2.2 MATERIALS
- A. Aluminum Extrusions: 6063 alloy, T-6 temper.
  - B. Grout: 1 part portland cement, 3 parts masonry sand; 2,000 pounds per square inch (13.8 MPa) compressive strength.
  - C. Template: As required for locating bents and baseplates at footings.
- 2.3 COMPONENTS
- A. Columns:
    1. Radius-cornered aluminum tubular extrusion as required by structural engineering design.
    2. Column Base Plate: Size as required by structural engineering design, including required bents.
    3. Provide openings, penetrations for conduit and surface mounted electrical boxes.
  - B. Beams: Open top aluminum tubular extrusions.
    1. Size: As required by structural engineering design.
    2. Provide mounting plates as required for lighting fixtures and electrical boxes.
  - C. Deck: Rigid-Roll-Lock extruded aluminum, self-flashing, interlocking sections.
    1. Size and Profile: As required by structural engineering design.
    2. Provide welded endplate water dams where sections terminate at other than drainage channels.
  - 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.
  - E. Flashing: Aluminum sheet, thickness as recommended by manufacturer for specific condition.
- 2.4 ACCESSORIES
- A. Fasteners:
    1. Deck Screws: No. 14 by 1 inch (25 mm), self-tapping, Type 18-8 stainless steel with neoprene washers.
    2. Trim Screws: No. 10 by 1/2 inch (13 mm), self-tapping, Type 18-8 stainless steel.
    3. Trim Rivets: Aluminum, size recommended by manufacturer for specific condition.
    4. Other Fasteners: Type 18-8 stainless steel, type recommended by manufacturer for specific condition.

## 2.5 FABRICATION

- A. Shop Assembly: Fabricate cross beams and columns for field assembled bolted connections.

## 2.6 FINISHES

- A. Bents:
  - 1. Thermo-Set Enamel: AA-C-12C-42R-1, comply with AAMA 603.
    - a. Color: As selected by architect from manufacturer's standard color range.
- B. Deck:
  - 1. Thermo-Set Enamel: AA-C-12C-42R-1, comply with AAMA 603.
    - a. Color: As selected by architect from manufacturer's standard color range.
- C. Fascia/Gutter:
  - 1. Thermo-Set Enamel: AA-C-12C-42R-1, comply with AAMA 603.
    - a. Color: As selected by architect from manufacturer's standard color range.

## PART 3 EXECUTION

## 3.1 EXAMINATION

- A. Examine footings in which bents will be set. Verify footing locations and elevations comply with shop drawings.
- B. Examine building surfaces to which canopy will connect.
- C. Coordinate installation of lighting fixtures and automatic door opener devices.
- D. Coordinate with responsible trade to perform corrective work on unsatisfactory footings or surfaces.
- E. Commencement of work by installer is acceptance of existing conditions.

## 3.2 ERECTION

- A. Erect protective covers in accordance with manufacturer's installation instructions.
- B. Set bents plumb, straight, and true to line, adequately braced to maintain position until grout has cured.
- C. Keep aluminum surfaces from direct contact with ferrous metal or other incompatible materials by applying one coat of clear acrylic coating.

## 3.3 CLEANING

- A. Clean surfaces soiled by work as recommended by manufacturer.
- B. Remove surplus materials and debris from the site.

## 3.4 PROTECTION

- A. Protect finished aluminum surfaces from damage due to subsequent construction operations.

- - - E N D - - -