

SECTION 105300 - PREFABRICATED WALKWAY COVER SYSTEMS

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 1 Specification Sections, apply to this Section.

1.2 SUMMARY

- A. This Section includes design, fabrication and installation of complete, extruded aluminum protective walkway cover system and hanger rod canopies. All work shall be in accordance with the drawings and this specification.
 - 1. Manufacturer's standard building components and accessories may be used, provided components, accessories, and complete structure conform to design indicated and specified requirements.
- B. Related Sections: The following sections contain requirements that relate to this section:
 - 1. Section 012300 for Alternates.
 - 2. Concrete floor and foundations and installation of anchor bolts are specified in Division 3.
 - 3. Flashing and sheet metal are specified in Division 7 Section "Flashing and Sheet Metal"
 - 4. Sealants and caulking are specified in Division 7 Section "Joint Sealants."
 - 5. Electrical lighting as specified in Division 26.

1.3 SYSTEM PERFORMANCE REQUIREMENTS

- A. General: Engineer, design, fabricate and erect the pre-engineered building system to withstand loads from winds, gravity, structural movement including movement thermally induced, and to resist in-service use conditions that the building will experience, including exposure to the weather, without failure. Coordinate electrical requirements for mounting of lights and electrical supply.
- B. Submittals:
 - 1. Product Data: Submit manufacturer's product information, specifications and installation instructions for building components and accessories.
 - 2. Shop Drawings: Submit complete shop drawings including all necessary plan dimensions, elevations and details. General Contractor shall verify all dimensions and provide elevations at each column, finish floor, and related soffit before releasing to manufacturer for fabrication.
 - 3. Certification: Submit design calculations signed and sealed by a Registered Professional Engineer. Design calculations shall state that the protective cover system design complies with the wind requirements of ANSI/ASCE 7-88, the stability criteria of applicable building code, and all other governing criteria. Engineer to be registered in state where project is located.
- C. Quality Assurance:
 - 1. Protective cover shall be wholly produced by a recognized manufacturer with at least **10** years experience in the design and fabrication of extruded aluminum protective cover system. Components shall be installed by manufacturer. Protective cover system, including material and

workmanship, shall be warranted from defects for a period of one year from substantial completion.

PART 2 - PRODUCTS

2.1 AVAILABLE MANUFACTURERS

- A. Basis-of-Design product: Subject to compliance with requirements, provide products by

Peachtree Protective Covers, Inc.,
1477 Rosedale Drive, Hiram, GA 30141
770/439-2120, fax 770/439-2122
800/341-3325,
ppc@peachtreecovers.com , www.peachtreecovers.com

or a comparable product by one of the following:

1. Mapes Architectural Products (402) 466-1985
2. E.L. Burns Company (318) 636-2722
3. Dittmer Architectural Aluminum (407) 699-1755

- B. Other manufacturers will be considered for substitution only when the following conditions are met:

1. Other manufacturers must qualify to bid not less than 10 days prior to bid closing date.
2. Complete details, including sizes of all members and structural calculations showing loads applied in accordance with the specification must be submitted to the architect for review.

2.2 DESIGN

- A. Protective cover shall be all welded extruded aluminum system complete with internal drainage. Roll formed deck is not acceptable. Expansion joints shall be included to accommodate temperature changes of 120BF.

2.3 MATERIALS

- A. Aluminum Members: All sections shall be extended aluminum 6063 alloy, Heat treated to a T-6 Temper.
- B. Fasteners: Fasteners shall be aluminum, 18-8 stainless steel, 300 series stainless steel, or 410 stainless steel.
- C. Protective coating: Aluminum columns embedded in concrete shall be protected by clear acrylic.
- D. Grout: Grout shall be 2,000 psi compressive strength. One part Portland cement and three parts masonry sand. Add water to produce pouring consistency.
- E. Gaskets: Gaskets shall be dry seal santoprene pressure type.

2.4 COMPONENTS

- A. Columns: Columns shall be radius-cornered tubular extrusion of size shown on drawings with cutout and internal diverter for drainage where indicated. Circular downspout opening in column not acceptable.
- B. Beams: Beams shall be open-top tubular extrusion of size and shape shown on drawings, top edges thickened for strength and designed to receive deck members in self-flashing manner. Extruded structural ties shall be installed in tops of all beams.
- C. Deck: Deck shall be extruded self-flashing sections interlocking into composite unit with sufficient chamber to offset dead load deflection and cause positive drainage. Plates shall be used as closures at deck ends.
- D. Fascia: Fascia shall be manufacturer's standard shape. Size as indicated on drawings.
- E. Flashing: Flashing shall be .040 aluminum (min.). All thru-wall flashing by others.

2.5 FABRICATION

- A. Bent Construction: Beams and columns shall be factory-manufactured with neatly mitered corners onto one-piece rigid bents. All welds shall be smooth and uniform using an inert gas shielded arc. Suitable edge preparation shall be performed to assure 100% penetration. Grind welds only where interfering with adjoining structure to allow for flush connection. Field welding is not permitted. Rigid mechanical joints shall be used shipping limitations prohibit the shipment of fully welded bents.
- B. Deck Construction: Deck shall be manufactured of extruded modules that interlock in self-flashing manner. Interlocking joints shall be positively fastened at 800.C. creating a monolithic structural unit capable for developing the full strength of the sections. The fastenings must have minimum shear strength of 350 pounds each. Deck shall be assembled with sufficient camber to offset dead load deflection.

2.6 FINISHES

- A. General: Comply with NAAMM "metal Finishes Manual" for recommendations relative to application and designations of finishes.
- B. Finish designations prefixed by "AA" conform to the system established by the Aluminum, Association for designating aluminum finishes.
- C. High performance Organic Coating Finish: AA-C12C42R1x (Chemical Finish: cleaned with inhibited chemicals; Chemical Finish: acid-chromate-fluoride-phosphate conversion coating; Organic Coating: as specified below). Prepare, pretreat, and apply coating to exposed metal surfaces to comply with coating and resin manufacturer's written instructions.
 - 1. Fluoropolymer Two-Coat Coating System: Manufacturer's standard two-coat, thermocured system consisting of specially formulated inhibitive primer and fluoropolymer color topcoat containing not less than 70 percent polyvinylidene fluoride resin by weight; complying with AAMA 2604.
 - 2. Color: As selected by the Architect from the full range of manufacturers standard colors

PART 3 - EXECUTION

3.1 PREPARATION

- A. Erection shall be performed after all masonry and roofing work in the vicinity is complete and cleaned.
- B. General Contractor shall verify and approve dimensions and elevations shown on shop drawings with actual field dimensions to verify conditions are satisfactory for installation.

3.2 INSTALLATION

- A. Column Sleeves: Column sleeves (styrofoam blockouts) or anchor bolts (if required) shall be furnished by the protective manufacturer and installed by General Contractor.
- B. Erection: Protective cover shall be erected true to line, level and plumb. Aluminum columns embedded in concrete shall be filled with grout to the discharge level to prevent standing water. Non-draining columns shall have weep holes installed at top of concrete to remove condensation.
- C. Coordination: Coordinate installation with other trades as necessary for a complete and operable installation.

3.3 CLEANING

- A. All protective cover components shall be cleaned promptly after completion of installation.

3.4 PROTECTION

- A. Extreme care shall be taken to protect materials during and after installation.

END OF SECTION 105300