

## SECTION 107310 - AWNINGS

### PART 1 - GENERAL

#### 1.1 SUMMARY

- A. This Section includes the following:

1. Fixed awnings.

#### 1.2 PERFORMANCE REQUIREMENTS

- A. Design, fabricate, and install awnings to withstand loads from gravity, wind, snow, ponding, drift, seismic, and structural movement, including thermally induced movement; and to resist, without failure, other conditions of in-service use, including exposure to weather.
- B. Seismic Performance: Capable of withstanding the effects of earthquake motions determined according to ASCE 7, "Minimum Design Loads for Buildings and Other Structures."
- C. Thermal Movements: Allow for thermal movements resulting from the following maximum change (range) in ambient and surface temperatures by preventing buckling, opening of joints, overstressing of components, failure of connections, tearing of fabric, and other detrimental effects. Base engineering calculation on surface temperatures of materials due to both solar heat gain and nighttime-sky heat loss.
1. Temperature Change (Range): 120 deg F, ambient; 180 deg F, material surfaces.

#### 1.3 SUBMITTALS

- A. Shop Drawings: Include plans, elevations, sections, details, attachments to other work, and operational clearances. Show colors and graphic layout and content.
- B Samples: For each colored or finished awning component.
- G Welding certificates.
- D Research/Evaluation reports for anchors and fasteners.
- E Maintenance data.

## 1.4 QUALITY ASSURANCE

- A. Installer Qualifications: Fabricator of products.
  - 1. Installer's responsibilities include fabricating and installing awnings
- B. Welding: Qualify procedures and personnel according to AWS D1.2, "Structural Welding Code-- Aluminum."
- C. Fire-Test-Response Characteristics: Provide awning fabrics with the fire-test-response characteristics indicated, as determined by testing identical products per test method indicated below by UL or another testing and inspecting agency acceptable to authorities having jurisdiction:
  - 1. Flame-Resistance Ratings: Passes NFPA 701.

## 1.5 WARRANTY

- A. Special Warranty: Manufacturer's standard form in which manufacturer and fabricator agree to repair or replace components of awnings that fail in materials or workmanship within specified warranty period.
  - 1. Failures include, but are not limited to, the following:
    - a. Structural failures including framework.
    - b. Deterioration of fabric including seam failure.
    - c. Deterioration of metals, metal finishes, and other materials beyond normal weathering.
  - 2. Awning Warranty Period: Five years from date of Substantial Completion.

## PART 2 - PRODUCTS

### 2.1 MANUFACTURERS

- A. Available Manufacturers: Subject to compliance with requirements, manufacturers offering awnings that may be incorporated into the Work include the following:
  - 1. Heartland Awning & Design, Inc. Contact: Steve Moyer  
[www.heartlandawning.com](http://www.heartlandawning.com)  
email: [steve@heartlandawning.com](mailto:steve@heartlandawning.com)  
phone: 402-330-9270

### 2.2 AWNING FABRICS

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A. AWN-1: Sunbrella 4620 (Beige).

- B. Awn-2: Sunbrella 4666 (Logo Red).

## 23 AWNING FRAMES

- A. Aluminum Frames: Alloy and temper recommended by aluminum producer and finisher for type of use and finish indicated and with not less than the strength and durability properties of alloy and temper required by structural loads.
  - 1. Aluminum Plate and Sheet:
  - 2. Aluminum Extrusions: ASTM B 221.
  - 3. Extruded Structural Pipe and Round Tubing: ASTM B 429, standard weight (Schedule 40) unless another weight is indicated or required by structural loads.
  - 4. Drawn Seamless Tubing
  - 5. Aluminum Finish: Mill finish complying with finish manufacturer's written instructions for surface preparation including pretreatment, application, baking, and minimum dry film thickness.
- B. Anchors, Fasteners, Fittings, Hardware, and Installation Accessories: Complying with performance requirements indicated and suitable for exposure conditions, supporting structure, anchoring substrates, and installation methods indicated. Corrosion-resistant or non-corrodible units, weather-resistant, compatible, non-staining materials. Provide as required for awning assembly, mounting, and secure attachment. Number as needed to comply with performance requirements and to maximize appearance; evenly spaced.

## 24 AWNING FABRICATION

- A. Fabrics: Reinforce wear points and hardware attachment points with manufacturer's standard methods.
- B. Fabric Edges and Seams: Manufacturer's standard methods.
- C. Frames: Pre-assemble awning frames in the shop to greatest extent possible.
  - 1. Form bent-metal corners to smallest radius possible without causing grain separation or otherwise impairing work.
  - 2. Form exposed work true to line and level with accurate angles and surfaces and straight edges.
  - 3. Form exposed connections with hairline joints, flush and smooth, using concealed fasteners where possible. Fabricate slip-fit connections that will be exposed to weather in a manner to exclude water. Provide weep

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- holes where water may accumulate.
4. Weld corners and connections continuously. Obtain fusion without undercut or overlap.  
Remove welding flux immediately. At exposed corners and connections, finish exposed welds and surfaces smooth and blended so no roughness shows after finishing and contour of welded surface matches that of adjacent surface.

5. Provide for anchorage of type indicated; coordinate with supporting structure.  
Space anchoring devices to secure metal fabrications in place and to properly transfer loads.

## PART 3 - EXECUTION

### 3.1 INSTALLATION

- A. General: Install awnings at locations and in position indicated, securely connected to supports, free of rack, and in proper relation to adjacent construction. Use mounting methods of types described and in compliance with Shop Drawings and fabricator's written instructions.
- B. Install awnings after other finishing operations, including joint sealing and painting, have been completed.
- C. Attach fabric to frames as recommended by fabricator to ensure tight, wrinkle-free fit of fabric to frame.
- D. Slip fit frame connections accurately together to form hairline joints and tighten to secure.
- E. Weld frame connections that are not to be left as exposed joints but cannot be shop welded because of shipping size limitations.
  1. Field Welding: Comply with the following requirements:
    - a. Use materials and methods that minimize distortion and develop strength and corrosion resistance of base metals.
    - b. Obtain fusion without undercut or overlap.
    - c. Remove welding flux immediately.
    - d. At exposed connections, finish exposed welds and surfaces smooth and blended so no roughness shows after finishing and contour of welded surface matches that of adjacent surface.
- F. Anchoring to In-Place Construction: Use anchors, fasteners, fittings, hardware, and installation accessories where necessary for securing awnings to structural support and for properly transferring load to in-place construction.
- G. Corrosion Protection: Coat concealed surfaces of aluminum that will come into contact with grout, concrete, masonry, wood, or dissimilar metals with a heavy coat of bituminous paint.
- H. Coordinate awning installation with flashing and joint-sealant installation so these materials are installed in sequence and manner that prevent exterior

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moisture from passing through completed exterior wall and roof assemblies.

- I. Adjust operable awnings to operate smoothly, easily, safely, and free from binding or malfunction throughout entire operational range.

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- J. Touchup Painting: Immediately after erection, clean field welds, connections, and abraded areas.

Paint uncoated and abraded areas with same or compatible material as used for shop-applied finish painting. Apply by brush or spray to provide a minimum dry film thickness.

### 3.2 DEMONSTRATION

- A. Engage a factory-authorized service representative to train Owner's maintenance personnel to adjust and maintain awnings. Refer to Division 01 Section "Demonstration and Training."

END OF SECTION 107310