SECTION 133421

FUEL ISLAND CANOPIES

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**NOTE TO SPECIFIER**

*Use this Specification Section for Mail Processing Facilities.*

***This is a Type 1 Specification with completely editable text; therefore, any portion of the text can be modified by the A/E preparing the Solicitation Package to suit the project.***

*For Design/Build projects, do not delete the Notes to Specifier in this Section so that they may be available to Design/Build entity when preparing the Construction Documents.*

*For the Design/Build entity, this specification is intended as a guide for the Architect/Engineer preparing the Construction Documents.*

*The MPF specifications may also be used for Design/Bid/Build projects. In either case, it is the responsibility of the design professional to edit the Specifications Sections as appropriate for the project.*

*Text shown in brackets must be modified as needed for project specific requirements.* *See the “Using the USPS Guide Specifications” document in Folder C for more information.*

*The last date that USPS revised this standard specification section occurs in two places, at the end of this section and in the Table of Contents. If the date in this section matches the date in the Table of Contents, then you are using the latest version. Do not delete or revise the “last revised” date at the end of the section during the development of the Project Manual.*

*The footer in this section should be edited to replace the text, “USPS MPF SPECIFICATION” with the project name, and the blank date in the center should be replaced with the submission date, for interim design reviews, or the issue date of the completed Project Manual.*

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PART 1 – GENERAL

1.1 SUMMARY

A. Pre-engineered fuel island canopy including steel framing, metal fascia, flat roof, metal ceiling panels, internal roof drainage, lighting, foundations.

1.2 SUBMITTALS

1. Product Data: Required
2. Shop Drawings: Required
3. Foundation Design: Required
4. Structural Calculations: Required
5. Samples: Required

1.3 QUALITY ASSURANCE

A. Regulatory Requirements

1. Loads:

a) Applicable Building Code

b) American Society of Civil Engineers (ASCE)

2. Roof Uplift: UL and FM classification 1-90

B. Quality Standards

1. Steel Frame: American Iron and Steel Institute (AISI)

2. Flashing, trim, gutters and downspouts: SMACNA – Architectural Steel Metal Manual.

3. All Material: AISC Manual of Steel Construction

4. Welded connections: AWS

C. Shop drawings and calculations including foundation plans shall be prepared by a professional engineer licensed in the State the project is being built and shall bear his seal.

1.4 DESIGN CRITERIA

1. Canopy shall be sized so that it overhangs a minimum of 6 inches beyond the limits of the dispensing apron.
2. Columns shall be located to avoid interference with the dispensing equipment or operations.
3. Canopy shall be designed with structure below the roof deck and no roof penetrations.
4. Roof drainage shall be internal roof drains with drainage leaders located in the columns and routed to a storm drain system.
5. Clearance shall be 14 feet 6 inches.

1.5 MANUFACTURERS EXPERIENCE

1. Canopy must be designed and provided by a pre-engineered canopy manufacturer regularly engaged in such work with a minimum of five years’ experience.

PART 2 - PRODUCTS

2.1 BASIS OF DESIGN MANUFACTURER

A. Shelters Direct; Laurel, MD; 800-393-9400 or equivalent.

B. Substitutions permitted in accordance with Section 016000.

2.2 COMPONENTS

A. Steel Framing: Structural steel tubing columns, wide-flange steel beam roof structure.

B. Roof Panels:

1. Type: Manufacturer’s standard standing seam, roll formed panels.

2. Flat panel between seams.

3. Material: 22-gauge galvanized steel with 690 coating.

4. Finish: Fluoropolymer, Kynar 500, standard color.

 DOE Energy Star

 Solar reflectance per Cool Roof Rating Council (CRRC):

 Initial reflectance: 0.65, minimum.

 Three years after installation: 0.50, minimum.

C. Fascia Panels

1. ACM Panels:

a. Aluminum composite material, of varying thicknesses, is a sandwich panel consisting of 2 aluminum sheets bonded to a polyethylene core.

2. Fascia Attachment Systems:

 a. Fascia support braces to be 20-gauge galvanized steel. Braces are formed into a C-channel 1-1/2 inches wide x 1-1/4 inches deep x 10 feet long.

D. Ceiling Panels

1. ASTM A792 Galvalume having an AZ50 aluminum-zinc coated surface, minimum yield strength of 50 ksi.

2. Min. 22 gauge, 16 inches wide x 3 inches deep steel panels.

3. Panels are fastened to the wide-flange beams with an engineered screw type clamp and lock nut system.

4. Panels shall have a finish side coated with a full coat of polyester paint baked on over an epoxy primer.

E. Gutters and Downspouts

1. Gutter

 a. Minimum 20-gauge steel

 b. Material to be ASTM A792 Galvalume having an A250 Aluminum-zinc coated surface.

 c. Gutters shall be sized in accordance with the IBC for the location of the canopy.

 d. Finish shall be full coat polyester paint baked on over epoxy primer.

2. Downspouts

 a. Schedule 40 PVC

 b. Downspouts shall be sized in accordance with the IBC for the location of the canopy.

F. Lighting

 1. Fully gasketed LED fixtures, surface mounted.

 2. Photocell control with manual switch override.

PART 3 – EXECUTION

3.1 Work from approved shop drawings. Install all components in accordance with manufacturer’s guidelines, printed instructions, and approved shop drawings.

END OF SECTION

USPS MPF Specification Last Revised: 10/1/2022