

# **Solar Support Structures Guide Specifications**

## **PART-1 GENERAL**

### **1.1 SCOPE**

These specifications are for the design, supply and erection of Solar Support Structures (Carports and Shade Structures). The design, supply and erection of these structures are to be from a single source and shall be designed, supplied and erected in accordance with these specification and associated drawings.

### **1.2 RELATED WORK**

*(AS REQUIRED BY THE PROJECT DESIGNER)*

### **1.3 REFERENCES**

1.3.1 The design of the structures shall be in accordance with all local building codes as adopted by the municipality having jurisdiction over the project.

1.3.2 All light gauge cold formed structural member and panels shall be designed in accordance with the latest version, with addendums, of the AISI “Specification for the design of Cold-Formed Steel Structural Members”.

1.3.2.1 Welding of the light gauge cold-formed structural members shall be in accordance with the latest version of the “Structural Welding Code – Sheet Steel” (ANSI/AWS D1.3)

1.3.3 All structural steel sections shall be designed in accordance with the latest version, with addendums, of the AISC “Specifications for the Design, Fabrication and Erection of the Structural Steel for Buildings”.

### **1.4 SYSTEM DESCRIPTION**

The structures shall be designed, supplied and installed by a single entity that has been in the business of supplying carports for at least five years.

### **1.5 QUALITY ASSURANCE**

1.5.1 All steel framing fabrication shall be done by a approved fabricator, certified, by an independent agency, for the type of fabrication required. Certification shall be as required by the local municipality.

1.5.2 Welders holding a valid certification for the type of welding required shall perform all steel welding. Certification shall be as required by the local municipality.

## 1.6 SUBMITTALS

Submittal shall include the following:

- Structural Drawings
- Structural Calculations
- Standard Colors (when applicable)

## 1.7 WARRANTY

The Structures shall be warranted for a period of not less than one year from the date of substantial completion. The warranty shall be to repair or replace any defect in workmanship and or materials.

## **PART-2 PRODUCTS**

### 2.1 ACCEPTABLE PRODUCT

2.1.1 The Solar Structures style/design shall be as follows: (*PROJECT DESIGNER TO SELECT*)

“BSP Solar Support Structure” Standard, by Baja Construction (see system drawing for additional information)

“FC Solar Support Structure” Standard, by Baja Construction (see system drawing for additional information)

“FC-TEE Solar Support Structure” Standard, by Baja Construction (see system drawing for additional information)

2.1.2 The Structure shall be the size as indicated on the site plan as supplied by the owner.

### 2.2 ACCEPTABLE MANUFACTURERS

The following are acceptable “designers, suppliers and erectors” for the carports indicated in these specifications:

Baja Construction Co., Inc.  
223 Foster Street  
Martinez, CA 94553  
(800) 366-9600

### 2.3 MATERIALS

2.3.1 Materials shall conform to the minimum requirements of the standard noted below:

2.3.1.1 Steel Roof Panel (where required) – Shall be HR-36 or Alta-Rib, as manufactured by AEP Span from Zincolume coated steel conforming to ASTM A792, ASTM A653 or ASTM A611, with a minimum yield strength of 80 ksi, or equal. Roof Panels to be <Factory Pre-Painted, Bare Zincolume> (*PROJECT DESIGNER TO SELECT*)

2.3.1.2 Light Gauge Steel Beams and Columns – Shall conform to ASTM A653, ASTM A607, or A611 with a minimum yield strength of 55 ksi, or equal.

2.3.1.3 Structural Steel Members – Shall conform to ASTM A36 with a minimum yield strength of 36 ksi, or equal.

2.3.1.4 Concrete shall be done in accordance with the latest edition of ACI 318 “Specifications for Structural Concrete for Buildings”. F’c shall be 2500 psi at 28 days. Reinforcing shall be new billet steel conforming to ASTM A615, grade 40.

## **PART-3 EXECUTION**

### **3.1 INSPECTION**

Structure installer shall coordinate site general and special inspections with the contractor. Owner shall be responsible for all costs associated with these inspections.

### **3.2 INSTALLATION**

The same company that produced the design and supplied material for the carport shall do installation of the structures. Location of the structures shall be defined by the site plan, as supplied by the Owner

### **3.3 TOLERANCES**

Standard industry acceptable tolerances shall be adhered to in the installation of the carports.