

Permanent Modular Construction: Administration/Control Buildings Location: Hinkley, CA Total Square Feet: 17,932 Time to Complete: 245 days Company: Universal Modular Building Solutions, Inc. Affiliate: Walden Structures

Two Administration and Control Buildings for a 250 Mega Watt Concentrating Solar Power Plant. Originally designed as a Pre-Engineered Steel Building but converted to use Modular Technology due to the remote site, schedule, and cost. Each building is a 2 story with a total of 8996 sq ft with 7144 sq ft of operations/administrative space and 1822 sq ft of second floor control room space. Interior and exterior steel stairs and landings combined with enclosed modular elevator to meet ADA requirements. Administrative offices, mechanical/electrical room, kitchen, break room, male, female shower and locker rooms with restrooms. Upstairs Solar Plant Control Room with wall mounted video screens. Building exterior is 26 Gauge PBR Galvalume siding with baked enamel finish to match the desert environment. 28 modules (14)12x63, (4)12x67, (2)12x30, on the 1st floor and (2)12x43, (2)12x51, and (4)12x30 on the 2nd floor. The multiple module sizes were required to meet the customer's specific layout.

Due to the remote and hostile desert environment, factory built construction is well suited for this project. The union workforce and work rules were very stringent and extensive. Modular technology allowed a substantial reduction of onsite labor, vehicular traffic, construction equipment, and construction material waste. Chemical compounds used in the solar process damage standard building flooring and our solution was ceramic tile throughout. Each building has multiple power and data distribution capabilities to every room. There are 2 fire suppression systems, 1 standard water system, and 1 clean agent fire suppressant for the control and electrical rooms. Certification for the clean agent system required a vacuum and pressure test to insure the pneumatic integrity of the building. All interior walls are insulated for sound reduction.

