



Orchard Elementary School, San Jose, California *Photovoltaic System*

Project Information

Discipline

- Architecture & Energy

DSA Approval Required

Completion Date

- September 2009

Project Size

- 240 kw PV System
- 22,000 Square Feet



Project Description

Working with the Board of Directors and the Superintendent through a lease-leaseback contract with Blach Construction, Salas O'Brien provided all of the analysis, engineering, Photovoltaic (PV) vendor solicitation, and cost/benefit justification for a PV system at the school. Salas O'Brien began the project by touring the facility and reviewing the overall plans of the campus. The PV system would have to take many considerations, including the location of buildings, foliage that could affect direct sunlight now and in the future, and the potential of blocking some of the more visually appealing buildings. As importantly, decisions were required relative to the cost/benefit of a rooftop PV system vs. shading structures (and rain cover). This was followed by preliminary architecture plans, which were also presented.

Following Board approval, Salas O'Brien completed the PV system design, solicited PV vendors, Division of State Architecture (DSA) approval, and finally utility interconnections. Once constructed by Blach Construction, the implementation of the PV system at Orchard Elementary decreased overall site energy consumption by 40%, which exceeded the school's energy saving goals. Other benefits included an installation of a kiosk to provide a visual learning tool for students, and the PV Solar Canopy(s), which provided protection from the elements in two areas of the parking lot and exterior student waiting areas.

