inBALANCE Green Consulting

CASE STUDY

# California Department of Transportation (Caltrans) Office Building

## Project Information:

- San Luis Obispo, CA
- 35,000 SF Office Renovation and Addition
- LEED-NC Gold Certified

## Services:

- LEED Certification
- Savings by Design
- Energy Analysis
- Green Building Analysis

## Project Team:

- Design: Hamrick Associates, Inc.
- Architecture: Arris Studio Architects
- Construction: Specialty Construction, Inc.
- Civil: Above Grade Engineering
- Structural: Ashley & Vance Engineering
- Mechanical: 3C Engineering, Inc.
- Electrical: Above Grade Engineering
- Landscape: Terry Lee Landscape Architecture

## Overview:

There's a new LEED Gold building on the Central Coast– the recently renovated and expanded Caltrans office building in San Luis Obispo, CA. Designed for occupant comfort and financial savings from energy efficiency, the building opened its doors in November 2016, and shortly thereafter was awarded LEED Gold certification by the U.S. Green Building Council (USGBC) - exceeding the owner's requirement to achieve LEED Silver.

The project involved a major renovation of and addition to an existing 17,000 SF structure. Built in the 1960s, the space was originally used as a storage building and more recently a small viticulture processing plant, before it was remodeled for the new Caltrans offices.

The project achieved LEED certification through a variety of sustainable construction strategies, including: building and materials reuse, energy-efficient design, low impact development for stormwater management, and reduced indoor and outdoor water use.

"The certification process can sometimes take several months and multiple submissions," says Michelle Zimney, LEED Green Associate. "For Caltrans, In Balance Green worked closely with the team throughout the process, ensuring that the Certification was ready to submit upon occupancy. The LEED Gold Certification was received shortly afterward."

## Building and Materials Reuse:

- 83% of the existing building was reused for the project. Leaky doors and windows were replaced and a second floor of workspace was added to the warehouse interior.
- Exemplary performance was achieved for material reuse and regional materials, at 49% and 60% respectively.

## Water Reduction and Reuse:

- A 40% reduction in indoor water use was achieved through the use of highly efficient flow and flush fixtures.
- The landscape utilizes permeable pavers, bioswales, and basins to efficiently filter and infiltrate stormwater, which reduces runoff and recharges groundwater.
- Water-efficient plants and trees were used throughout the landscape, reducing outdoor water use by 57%.

## Energy Efficiency:

- Based on modeling and analysis, the building is expected to use 31% less energy compared to similar buildings.
- 35% of the electricity used in the first two years will be purchased from renewable energy sources such as wind and solar.

## Sustainable Site:

- The site design provided vegetated open space for 31% of the project site.
- The project supports alternative transportation with a location that provides access to local services, extensive bicycle parking, employee showers, infrastructure for electric vehicles, and a comprehensive transportation management plan.

## Lessons Learned:

Clear expectations and communication were key to timely and cost-effective LEED Certification. Caltrans' requirement for LEED Silver was included in the initial RFP so design-build teams could include green building in their proposals. As multiple teams were presenting various sites to Caltrans, the Specialty Construction/Hamrick team brought in In Balance Green Consulting to provide conceptual energy modeling and LEED analysis for this particular site. In Balance determined the energy upgrades that would be required and that the renovation and location were inherently green, giving the project a head start on certification.

*"Congratulations on hitting it in the first submittal! Thank you for all your hard work on this project. We couldn't have done it without you." —Nathan Phillips, Project Engineer, Specialty Construction, Inc.*