

TRESTLE GLEN

Colma Bart Station, San Mateo County



Photo Credit: California Construction

http://california.construction.com/california_construction_news/2010/0521_ColmasTrestleGlen.asp

TRESTLEN GLEN celebrated its grand opening during the Housing Leadership Council of San Mateo County's Affordable Housing Week 2010, May 2010. Green developer BRIDGE Housing coordinated design, funding, and assistance from multiple sources: County of San Mateo Department of Housing; California Department of Housing and Community Development; Citi Community Capital; the Housing Endowment and Regional Trust (HEART) of San Mateo County; Wachovia Affordable Housing Community Development Corporation, a Wells Fargo Company; Union Bank; Federal Home Loan Bank of San Francisco; and the U.S. Department of Housing and Urban Development, designer deKTYG Group Inc. Trestle Glen, and general contractor Segue Construction.

Trestle Glen's 119 one-, two- and three-bedroom apartments that are affordable to families with annual incomes ranging from 20 to 50% of Area Median Income and integrate services including a community center with a kitchen, a 56-space childcare facility with outdoor play space, landscaped courtyard areas, basketball court, tot lot and laundry facilities with plans to include childcare, English as a Second Language classes, homebuyer workshops, credit counseling and financial management classes, computer skills, and after-school programs and homework clubs.

The design, incorporates solar panels to preheat domestic hot water and bio-swales that naturally filter rainwater, certified CRI Green Label Plus carpets, satellite-informed weather data for landscape irrigation control including a high-efficiency drip irrigation system, play structures and surfaces made of more than 20% recycled materials, a community recycling program and a program to recycle and divert from the landfill more than 80% of waste generated during construction.

Trestle Glen recently received a GreenPoint Rating of 128 points and an award for program and site design from the Grand Boulevard Initiative, as one of the local and regional agencies from San Mateo to Santa Clara County participating in the transformation of El Camino Real. A collaboration of 19 cities, San Mateo and Santa Clara counties, and local and regional agencies that is united to improve the performance, safety and aesthetics of El Camino Real land use and transportation Corridor Plan. <http://www.grandboulevard.net/>

For more information about Trestle Glen and BRIDGE Housing, visit www.bridgehousing.com.

Gish 35 Unit Family Apartments, San Jose

Location: City of San Jose

Name of the project: Gish 35 Unit Family Apartments

Type of project: Affordable apartments for developmentally delayed

What green standard it meets: LEED Gold, 2008

Agency and contact person: San Jose Redevelopment Agency, Theresa Hayes at 408-535-8234. Email: theresa.hayes@sanjoseca.gov



Gish Apartments, in downtown San José, is a 35-unit transit-oriented family apartment complex.

Features include: FSC Certified Lumber, CRI Green Label Plus carpets, playground equipment from recycled plastic bottles, regionally extracted or harvested materials, Energy Star Appliances throughout, high efficiency florescent lighting, low VOC emission materials for countertops and cabinets, kitchen and bathroom exhaust to outdoors, high efficiency heating and cooling including heat exchanger, high efficiency boiler to heat domestic water, dual flush toilets (1.8 gallons per flush), low flow bathroom fixtures, 2.5 kw solar photovoltaics, and bicycle racks.

Cost and funding: Total cost of the project was \$16,284,272. The City made the project a \$2,354,892 loan to fund more than 15% of the project's costs, and secured a \$159,879 Workforce Housing Grant from the State of California for solar panels and installation. Private equity financed the mixed-use retail. The California Housing Finance Agency (CalHFA) provided Gish Apartments a \$2,685,000 million 30-year loan of tax-exempt bond proceeds through their Special Needs Financing Program. The project also received a \$3,876,497 loan from the Multi-family Housing Program (MHP) through the California Department of Housing and Community Development (HCD). The Sobrato Foundation awarded the project an \$87,500 interest-free predevelopment loan. The Contamination Orphan Site Cleanup Subaccount (OSCA) Program provided \$538,749 for a Brownfield Clean up Grant.

Henderson Community Building, Palm Desert

Location: City of Palm Desert

Name of the project: Henderson Community Building

Type of project: Community Center

What green standard it meets: Applied for LEED Silver

Agency and contact person: Palm Desert Redevelopment Agency, Missy Grisa at 760-346-0611, Ext. 384.
Email: mgrisa@cityofpalmdesert.org



Features include: Water efficient landscape, concrete structure, thermal resistant building materials, window treatments to reduce heat, dual flush toilets and low flow showerheads (30% reduction in water use). The building was designed to use 30% less energy than permitted under current building codes. The project used no CFC based refrigerants in its air conditioning system. Native desert species in combination with efficient irrigation save 50% to 60% over standard landscaping and irrigation. A free-standing Calsense irrigation controller was installed off-site within common area landscaping. The irrigation controller has an evapo-transpiration gauge, flow-sensing capabilities, and water-use monitoring systems that give staff the ability to track water use and automatically use the correct amount of water to sustain plant life based on the weather.

A building commissioning agent ensured that all building equipment was operating at the speed, temperatures, and pressures that would deliver the most optimal and efficient operation, using the least energy possible. Intelligent building controls and technology, such as occupancy and daylight sensors, conserve power. Natural daylight and views to the outside enhance the quality of the interior spaces. 32 high-efficiency photovoltaic roof panels generate solar energy

During construction, separate bins were installed for on-site separation of waste materials. More than 75% of construction waste was diverted from landfills and recycled. The selection of finish materials was based on their low maintenance attributes and durability or life cycle. Regional materials, produced within 500 miles of the project site, were used to reduce transport costs, while rapidly renewable materials such as bamboo were used for the cabinetry. Recycled content carpet and floor tiles were installed. Approximately 90% of all wall, ceiling, and floor surfaces retain natural, honed concrete surfaces that required no additional finish materials.

Cost and funding: The project was financed almost entirely with redevelopment funds totaling \$6,037,930. Of this amount, \$5,105,466 represents direct construction costs, with \$685,984 in indirect costs, and \$246,480 paid for the portion of land that the Henderson Community Building occupies. An additional \$124,527 came from the City's general fund for a total project cost of \$6,162,457.

Morgan Place, Los Angeles

Location: City of Los Angeles

Name of the project: Morgan Place

Type of project: 55 unit senior affordable housing

What green standard it meets: Exceeds California's Energy Efficiency Standards (Title 24). Los Angeles Mayor Antonio Villaraigosa called Morgan Place, "A green landmark here in the city of LA. An example of what we can and should do."

Agency and contact person: Community Redevelopment Agency City of Los Angeles. Alvin Jenkins at 323-290-2800. Email: ajenkins@cra.lacity.org



Features include: Energy Star appliances, community garden, low-flow dual flush toilets, water efficient landscaping with drought-tolerant plants, an automated irrigation system and a ¾" rainwater treatment filter. The units are located close to transit. A 49-kilowatt solar array providing 75% of the energy needs for common areas. High-efficiency, low-e windows, have been installed. 100% compact fluorescent lighting throughout the property. The project utilizes recycled content carpets, low-VOC linoleum flooring and paints throughout. Restrooms and ranges are vented to the outside. Waste management services are provided for residents' recyclables. All construction materials were filtered for recycling.

Cost and funding: Morgan Place cost \$17,616,563 to complete. Sources of funding included: CRA/LA loan of \$678,165; Los Angeles Housing Department loan of \$4,775,320; accrued interest of \$162,898; CA Multi-Housing Program Loan of \$3,422,738; GP Equity of \$884,473; deferred developer fee of \$387,500; and US Bank (LP equity) of \$7,305,469.

Rialto Regional Biosolids (EnerTech) Processing Facility, Rialto

Location: Rialto

Name of the project: Rialto Regional Biosolids (EnerTech) Processing Facility

Type of project: Regional recycling of biosolids, a byproduct from treatment of wastewater sewage

What green standard it meets: The Rialto SlurryCarb™ Plant converts 683 wet tons per day of biosolids into 170 tons per day of E-Fuel. The E-Fuel produced has the capacity to power approximately 9,500 households, or roughly 35% of the City of Rialto

Agency and contact person: Redevelopment Agency of the City of Rialto, Robb Steel, 909-879-1140.
Email: rsteel@rialtoca.gov



Features include: EnerTech Environmental's SlurryCarb™ limits consumption of natural resources, and provides renewable water. After centrifugation, the dried slurry becomes E-Fuel with a rating of 6,500 – 8,000 BTU per pound.

Cost and funding: The project cost \$114,550,000. The Redevelopment Agency provided \$4,050,000 in assistance. Developer equity totaled \$10.5 million. Tax Exempt Bonds totaled \$100 million. With \$3 million in matching funding supplied by EnerTech. EnerTech and the City of Rialto partnered with four agencies in Southern California including the Orange County Sanitation District, the Sanitation District of Los Angeles County, the City of Riverside, and the City of San Bernardino.

Los Vecinos, Chula Vista

Location: City of Chula Vista

Name of the project: Los Vecinos

Type of project: 42 units of multi-family affordable housing

What green standard it meets: LEED Platinum, 2009. Exceeds California's Energy Efficiency Standards (Title 24) by over 43%

Agency and contact person: Chula Vista Redevelopment Agency, Mandy Mills 619-476-5310. Email: amills@ci.chula-vista.ca.us



Features include: Enhanced insulation and gas-efficient appliances. Achieves “Net Zero” in electrical use by generating almost 100% of the apartment’s electrical needs onsite by a photovoltaic system and uses a sub-metering system for residents. During demolition and construction achieved over 75% diversion from landfill. Recycled materials and longer-life products were used in construction. The project uses over 50% less water in both indoor applications and for outdoor irrigation, a savings of over 1 million gallons a year.

Cost and funding: The project cost \$17,385,360. The City of Chula Vista provided \$5.7 million. Tax credit equity accounted for \$9.6 million. The Solar Rebate came to \$264,415. A Permanent Loan was received for \$1.9 million. The self-generation utility allowance provided approximately 25% of the financing for the extensive photovoltaic system.

California State Teachers' Retirement System (CalSTRS) Headquarters, West Sacramento

Location: West Sacramento

Name of the project: California State Teachers' Retirement System (CalSTRS) Headquarters (409,000 sq. ft.)

Type of project: Office building

What green standard it meets: Applied for a LEED designation of Gold

Agency and contact person: City of West Sacramento Redevelopment Agency, Les Bowman at 916-617-4535. Email: lesb@cityofwestsacramento.org



Features include: The CalSTRS building uses 12% less energy than comparable conventional office buildings in the United States. Low-flow water fixtures, high-efficiency irrigation, and low-water use for native landscaping reduces on-site water use by approximately 40%. The building uses “fritted” glass to diffuse sunlight, minimizing heat in the lobby. Building heat generation is minimized by reflective roof and

sidewalk pavers, covered parking, and shade-producing landscape features. Energy efficient design features will save CalSTRS an estimated \$130,000 annually in electricity costs.

During construction, tree and other resource harvest, extraction, and processing were reduced, through use of at least 10% recycled construction material. Greenhouse gas emissions were reduced during construction by sourcing at least 20% of construction materials within 500 miles of the site. At least 75% of construction debris was recycled, reducing land fill load.

Cost and funding: The thirteen story CalSTRS building had a total construction cost of \$270 million. \$13.2 million was saved using a team-build approach in construction and design. The Redevelopment Agency invested \$10 million in infrastructure and riverfront improvements.

Railex, Delano

Location: City of Delano

Name of the project: Railex

Type of project: Railex is a refrigerated rail-served distribution center for agricultural produce

What green standard it meets: Environmental Protection Agency (EPA) certified as a Smartway Transport Partner

Agency and contact person: Community Redevelopment Agency of the City of Delano
Maribel Reyna at 661-725-1739. Email: mreyna@cityofdelano.org



Features include: The Delano Railex is a rail distribution system designed to reduce truck emissions and congestion, improve air quality and reduce the effects of global warming by reducing green house gases. Railex offers a unit train that moves from a specific point of origination to a specific destination without interruption. No rail cars are added or taken off the unit train during its run. A unit train reduces the daily dependence on trucks benefiting California's highways, saves the nation's fuel consumption, and reduces CO2 emissions.

Cost and funding: The total cost of the Railex facility was \$31,410,000. The Redevelopment Agency provided \$907 thousand. Deferred development fees totaled \$561 thousand. Developer equity fees came to \$29,941,792.

Vista Dunes Courtyard Homes, La Quinta Redevelopment Agency

Location: City of La Quinta

Name of the project: Vista Dunes Courtyard Homes

Type of project: Provided 80 units of very low income affordable in-fill housing

What green standard it meets: Vista Dunes is recognized as the largest affordable housing project to achieve LEED Platinum certification. California's Title 24 requirements were exceeded by nearly 30%.

Agency and contact person: La Quinta Redevelopment Agency, Doug Evans at 760-777-7000. Email: Devans@la-quinta.org



Features include: Vista Dunes embraces Green Building and Sustainability principles. The homes are oriented to minimize solar gain during the summer, while deep overhangs shade south-facing windows and landscaped trellises shade western-facing walls. Ventilation is enhanced by open light wells with operable windows that catch the prevailing winds and serve as a thermal chimney to draw rising heat from the interiors. Photovoltaic solar panels (installed on every dwelling) produce an average 430kwh of energy per month which reduces the resident's electric bills by approximately \$730 a year. Tankless water heaters are used to produce on-demand hot water, eliminating the need to heat and store gallons of water as in traditional water heaters. Radiant barrier roof sheathing keeps the homes cooler, since they reflect up to 50% of the sun's radiant energy. Light colored, heat-reflective roofing material was used to minimize solar gain. All of the roadways and sidewalks are light colored concrete, which reduce the heat gain by reflecting solar energy. The concrete streets are also more durable than asphalt and reduce maintenance expense.

Drought tolerant, indigenous plants were used throughout the development. Dual flush toilets (which can generate a 6,000 gallons per year water savings for a four person family), low flow and oxygenated shower heads and faucets (25 to 40% annual water savings), and water efficient front loading washing machines (savings up to 20 gallons per load) were installed. It is estimated that these high efficiency fixtures alone will save over 1,900,000 gallons of water per year.

Construction waste recycling achieved an 87% diversion rate. Locally sourced, recycled and renewable materials were used. Low and No VOC paints and sealers, and enhanced filtration in HVAC systems were utilized. Concrete block carports, steel posts and beams for exposed elements, and solid quartz counters exemplify the durability of construction materials.

Cost and funding: The total development cost, including land acquisition and relocation, was \$36 million. National Core provided \$4.5 million. The Redevelopment Agency generated \$31.0 million in funding, and local utility rebates generated \$520,000. A Permanent loan was entered into for \$1.3 million.

Mecca Community Library and Riverside County Sheriff Office, City of Mecca

Location: City of Mecca

Name of the project: Mecca Community Library and Riverside County Sheriff Office

Type of project: Public facilities and capital improvement project

What green standard it meets: Affordable sustainable development for a desert setting

Agency and contact person: Redevelopment Agency of Riverside County, Colby Cataldi at 760-863-2530.

Email: cctaldi@rivcoeda.org



Features include: The desert community experiences extremely high temperatures, requiring special energy efficiency buildings and landscaping. Desert landscaping, the use of native drought-tolerant species, were installed at the site which can flourish with minimal water use via an efficient irrigation system. Storm water is directed to remain on-site via rainspouts to planters. Additional measures taken to promote energy efficiency include: efficient lighting, orientation, window shutters, and use of light-colored, reflective materials for roofing and paving.

Cost and funding: The Mecca Community Library and Riverside County Sheriff Office required \$5.5 million to construct. The project was funded through a Riverside County Redevelopment Agency bond issue.

Uptown Monterey Shopping Center, Monterey

Location: Monterey

Name of the project: Uptown Monterey Shopping Center

Type of project: Retail shopping center

What green standard it meets: LEED Certified Silver

Agency and contact person: City of Monterey Redevelopment Agency, Rick Marvin at 831-646-3995.
Email: marvin@ci.monterey.ca.us



Features include: Active prevention of pollution during construction, reduce roof heat island effect, water efficient landscaping, water use reduction generally, minimum energy use, storage and collection of recyclables, portions of older building reuse, construction waste management, use of additional recycled materials for construction, and use of low emitting adhesives, sealants, coatings, and paints made this a sustainable project.

Cost and funding: Total funding for Uptown Monterey shopping Center was \$6.7 million; \$5 million from a permanent loan, and \$1.7 million in developer equity.

Laguna Palms Apartments, City of Palm Desert

Location: City of Palm Desert

Name of the project: Laguna Palms Apartments

Type of project: Renovation of affordable apartments

What green standard it meets: Surpasses the requirements of Title 24 by fifteen (15%) percent

Agency and contact person: Palm Desert Redevelopment Agency, Janet Moore at 760-346-0611. Email: jmoore@palm-desert.ca.us



Features include: The drought tolerant native plant species and the weather based irrigation controllers were implemented to increase the conservation of water at the property. The project addressed both water conservation and retention by installing onsite drywells, low flow faucets and showerheads, and water saving toilets. The drought tolerant native plant species utilize weather based irrigation controllers which adjust irrigation schedules based on climate conditions. The buildings were also structurally upgraded to support future photovoltaic panels.

Cost and funding: The Agency utilized funding from its Low and Moderate Income Housing Fund and funds from the 2007 Housing Bond to build the \$10.4 million dollar acquisition and renovation project.

St. Vincent's Affordable Housing Development, City of Santa Barbara

Location: City of Santa Barbara

Name of the project: St. Vincent's Affordable Housing Development

Type of project: 170 affordable homes

What green standard it meets: Exceeds Title 24 standards by over 15%

Agency and contact person: Redevelopment Agency of the City of Santa Barbara, Simon Kiefer at 805-564-5461. Email: skiefer@ci.santa-barbara.ca.us



Features include: Nearly all native trees on the campus were preserved in place or transplanted, and new plantings were made from local seed stock. Cieneguitas Creek, which bisects the site, was restored under the supervision of the Army Corps of Engineers and the California Department of Fish and Game. Hard surfaces were minimized, with decorative permeable pavers used throughout. Storm drainage was provided through day lighted roof drains and bioswales. A photovoltaic solar panel system powers the community building.

Housing includes energy star appliances, double glazed windows, high value insulation, etc.

The development was planned around various offsite transportation improvements designed to reduce dependence on automobiles, including an upgraded bicycle path and new bus shelter.

Cost and funding: The St. Vincent's Affordable Housing Development cost \$56.9 million to complete. The Redevelopment Agency of the City of Santa Barbara provided \$17.4 million in assistance. Tax credit equity totaled \$15.8 million. A permanent loan for \$5.9 million was obtained. The Affordable Housing Program provided \$750 thousand. Developer equity totaled \$504 thousand. HUD provided \$10.9 million. The County of Santa Barbara provided \$4.4 million. A CHW grant of \$150 thousand was obtained. The St. Vincent's Institution generated \$1.8 million.

Triangle Square, City of Los Angeles

Location: City of Los Angeles

Name of the project: Triangle Square

Type of project: First Gay, Lesbian, Bi-sexual, and Transgender Senior housing complex of 104 units in the City of Los Angeles

What green standard it meets: Demonstrates sustainable affordable housing design principals

Agency and contact person: CRA/LA



Features include: Each unit has Energy Star rated appliances, including, refrigerators, dishwashers, furnace, and air conditioners. In addition to Energy Star rated appliances, linoleum and ceramic tile materials were installed that did not include Volatile Organic Compounds (VOC's) as adhesives.

In addition to sustainable materials and energy efficient appliances, Triangle Square is located within a ¼ mile of the Metro Red Line Hollywood/Vine Station.

Cost and funding: CRA/LA provided \$5.3 million. Tax credit equity came to \$7 million. A permanent loan was acquired for \$2.6 million. The Affordable housing Program provided \$515 thousand and the Multi-Family Housing Program an additional \$4.5 million. The Deferred developer fee totaled \$45 thousand. GLEH generated \$1.5 million. Advances from DGP totaled \$163 thousand.

Hart Village, Canoga Park, Los Angeles

Location: Canoga Park

Name of the project: Hart Village

Type of project: An affordable housing development including an early education center for 47 working families

What green standard it meets: Hart Village exceeds California Energy Title 24 Efficiency Standards by an impressive 22%

Agency and contact person: CRA/LA, Sandra Gonzalez at 818-708-5844. Email: sgonzalez@cra.lacity.org



Features include: A solar energy system that generates fifty percent of the energy needs for all common areas averaging 44,091kWhr/year. Energy Star qualified heating and cooling equipment and Energy Star qualified appliances in all units. Landscaping includes California native plants such as California Sycamores. Fluorescent lights are used throughout the property. Utilized energy rebate proceeds to defer some construction costs from the Los Angeles Department of Water and Power's Solar Incentive Program and Southern California Gas Company's Self Generation Incentive Program.

Cost and funding: The Hart Village Project cost \$19.6 million. The Redevelopment Agency provided \$2.8 million in assistance. Tax credit equity came to \$12.5 million. The Los Angeles Housing Department assisted with \$2.5 million. The Ahmanson Foundation, the California Community Foundation, the Ralph M. Parsons Foundation each provided grants of \$100 thousand. The Weingart Foundation provided \$200 thousand.

South Brea Lofts, City of La Brea

Location: City of La Brea

Name of the project: South Brea Lofts

Type of project: 47 mixed-use live/work for-sale units (10 affordable) with 7,500 square feet of retail space

What green standard it meets: Southern California Association of Governments (SCAG) Achievement Award for Visionary Planning for Sustainability through the Compass Blueprint Program (May 2007), the Orange County Chapter of the American Planning Association (OCAPA) Outstanding Award for a Planning Project (May 2007), and the Award of Merit for a Planning Project from the California Chapter of the American Planning Association (October 2007).

Agency and contact person: Brea Redevelopment Agency



Features include: Neighborhood Electric Vehicle cars were purchased for each unit. Oriented strand board (“OSB”) plywood was used and contributes to the longevity of the buildings. Additional architectural features that increase sustainability include the use of concrete countertops vs. granite for each unit, concrete exterior decks vs. wood, and tile roofs. An innovative storm water retention system was installed. The custom designed system treats water on site, filters it, and cleans the debris before placing it into the storm drain system. Water usage was reduced by utilizing planters as detention swales and to reduce water dependency by selecting low water consuming plant species. 85% of the plant materials are drought tolerant. The project also minimized turf area to prevent excess water consumption and pavers to promote water percolation. All appliances are energy star rated and the HVAC units are two-stage in order to provide more efficiency and to reduce household utility expenses between 50 % and 70%.

Cost and funding: The total site acquisition costs, relocation expenses, demolition, and interest on bond payments amounted to \$8,401,948. After the Agency assembled the full site of 2.8 acres, the site was sold using the RFP process for its fair reuse value to CWI Development, Inc. for \$5,413,189. Therefore, the Agency’s net cost was \$2,988,759 to remove blight, provide economic viability to an obsolete commercial area, and to secure 10 affordable housing units within this new mixed-use development. The affordable units without the work space have a market value of \$515,000 and \$550,000 for the two and three bedroom

units respectively; the Agency's restrictions resulted in these units selling for \$287,000 and \$322,000 respectively for low to moderate income home buyers. The Agency also provided silent second loans from its housing funds for the affordable homeowners, thus making their dream of homeownership become a reality.