

Green Terms to Know

Green Building

A building that is designed, built, furnished and operated to reduce its negative impact on the occupants and the environment. Green buildings are highly energy efficient, reduce waste of natural resources such as water, are built with recycled and locally manufactured products, and function in harmony with the surrounding land and ecosystems.

USGBC

The U.S. Green Building Council (USGBC) is a non profit organization that created and manages a consensus-based rating system for the design, construction and operation of environmentally friendly buildings.

LEED

The USGBC's Leadership in Energy and Environmental Design (LEED) rating system measures environmentally friendly new construction building strategies in six key areas:

- Sustainable Sites (SS)
- Water Efficiency (WE)
- Energy and Atmosphere (EA)
- Materials and Resources (MR)
- Indoor Environmental Quality (EQ)
- Innovation & Design Process (ID)

Sustainability

A way of thinking and acting when making business or personal decisions that takes into account the impact of the decision on society, the environment, and the economy.



Go Green with Your Pet

- Adopt from Humane Society Silicon Valley, a shelter or rescue group.
- Spay or neuter your animal to reduce overpopulation.
- Buy pet products made with organic or recycled materials.
- Use cat litter brands made from plant-based materials like wheat, recycled newspaper or wood chips.
- Purchase products made closer to home to help lower the CO₂ output of shipping goods.
- Buy sustainable and durable products that can be reused and lower your replacement costs.
- Feed your pet food and treats that are organic or have all-natural ingredients.
- Use non-toxic and biodegradable cleaning supplies.
- Use biodegradable waste bags for your dog.
- Compost used rabbit litter.
- Recycle boxes by allowing rabbits to chew and play in their quarters.
- When it is bath time, use organic or natural products that don't have a chemical base.
- Buy hemp collars and leashes. Nylon is made of petroleum, which is a diminishing natural resource.
- At playtime, make sure your pet's toys are made with organic cotton or natural dyes. Many toys actually have pesticides in them and can cause pet allergies.
- Donate old blankets and towels to the Humane Society Silicon Valley or nearby animal shelter.



Who We Are

Humane Society Silicon Valley (HSSV) offers quality adoptions, medical care, educational programs, and pet care services to enhance the human-animal bond.

Our Mission

To Save and Enhance Lives

Why We Built a *State-of-the-Art Green* Animal Community Center

The construction and use of buildings has a significant impact on our ecology, economy and health. In the United States, buildings are the largest source of CO₂ production and account for¹:

- 72% of electricity consumption
- 39% of energy use
- 39% of carbon dioxide emissions
- 14% of drinkable water consumption
- 40% of raw materials use

By leveraging renewable energy sources, using recycled and sustainable products, and conserving energy and water, the Humane Society Silicon Valley can lower its operating expenses, reduce its impact on the planet, and invest more in animal care and education.

Green Buildings and Products

- Lower building operating costs
- Use less energy and water
- Are healthier for occupants and the planet
- Reduce harmful greenhouse gas emissions

¹ Environmental Information Administration 2008, EIA Annual Energy Outlook

Humane Society Silicon Valley

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Animal COMMUNITY CENTER

AN ENVIRONMENTALLY FRIENDLY CAMPUS



www.hssv.org

PROJECT OVERVIEW

Project Mindset:

Invest up front in green building design and technology to lower ongoing operating expenses and enable more funding for expanded animal adoptions, services and education programs.

Project Mission:

"To build an environmentally friendly animal community center that will not only promote animals, but showcase the ease and beauty of water savings, energy efficiency and building in harmony with nature. We believe this facility will be an inspiring model of humane care, community involvement, and green building design for shelters nationwide."

- Christine Benninger, HSSV President

Remediation of a Brownfield Site:

Our new Animal Community Center was built on a former industrial site. Lead paint, Freon and mercury in lighting were removed and safely disposed before the old building was demolished with 90% crushed and reused for the new building pad and road beds.

Space:

48,000 sq. ft. Animal Community Center includes: Adoption Galleria, Spay/Neuter Medical Center, Doggie Daycare, Boarding, Grooming, Community Education Programs, Veterinary Hospital with Public Viewing Alcove, Community Room, Pet-Friendly Café, Community Dog Parks and Training Center, and Pet Supply Store.

Certification:

LEED registered project. Planned first LEED Gold Certified Animal Community Center in the United States.

Open:

March 2009
Total Project Cost:
\$25 Million



Challenge:

Implement State-of-the-Art Animal Care while Reducing Electricity Demands

Solution: By investing in renewable energy and energy efficient features, we lower our monthly power bills and have more funds to invest in animal care.

Design Features:

- Photovoltaic solar system on roof & carports expected to generate up to 40% of facility's electricity needs onsite.
- Strategic building placement & extensive use of windows & solar light pipes provide natural lighting to >75% of interior. Occupancy sensors manage lighting use.
- Stained concrete flooring absorbs and retains heating & cooling to reduce the use of the furnace and A/C.
- "Cool" roofing material reflects sunlight. Combined with ceiling insulation, a reflective "cool" roof reduces solar heating and lowers A/C bills.
- Double pane windows & R30 insulation in the walls reduce escaping heating & cooling.
- Animal health demands high air exchange rates. Heat recovery wheels in the HVAC system capture and reuse heating & cooling while filtering air.
- Load sensors installed on many printers, computers & desk lights provide energy use feedback.
- Virtualization software and highly efficient computers enable the HSSV to run their website and business applications on less equipment and power.
- Highly efficient, Energy Star rated appliances enable large amounts of laundry to be completed using less energy.

Challenge:

Meet Sanitation Requirements while Lowering the Water Bill

Solution: By investing in water efficiency technology, we can reduce our water use by more than 45% over comparable size facilities, leaving more funds for expanded services.

Design Features:

- High efficiency kennel cleansing system ensures proper disinfecting of kennels while using only 2.2 gallons/minute.
- Stained concrete flooring requires less water and chemicals to clean.
- Low flow toilets, faucets and high efficiency washing machines use less water.
- Artificial turf in dog parks eliminates the need to regularly water natural grass.
- Landscaping with native plants, which grow well in California's low rain climate, require less irrigation water.
- Onsite bioswales capture & naturally cleanse rainwater run-off before it enters the water treatment system, thus reducing the energy needed to clean water supplies.



Challenge:

Ensure Health by Providing Outstanding Indoor Environmental Quality

Solution: By investing in a premium HVAC system, high quality construction practices, and low VOC products, we ensure the health & well-being and lower the medical bills of the animals.

Design Features:

- Air intake and exhaust vents designed in every room provide 100% air exchange. High quality filters are installed to further keep out contaminants.
- Separate copier rooms contain and vent toner chemicals.
- Air vents were covered during construction to eliminate dust getting in air handling systems.
- Air handling systems were flushed prior to building occupancy to remove any contaminants.
- Paints, sealers, furniture coatings and fabrics are used that do not emit unhealthy volatile organic compounds (VOCs).

