



# Green Infrastructure & Stormwater Management CASE STUDY

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## PEETS Coffee & Tea Roasting Facility

**Location:** Alameda, CA

**Client:** SRM Associates and PEETS

**Design Firm(s):** April Philips Design Works - Landscape architects, Kier & Wright - Civil Engineer

**Landscape architect/Project contact:** April Philips, FASLA

**Email:** [aphilips@apdw.com](mailto:aphilips@apdw.com)

**ASLA Chapter:** Northern California

### Project Specifications

**Project Description:** Peet's is the first private/commercial LEED facility in Alameda to achieve LEED certification. It is also the first LEED Gold awarded to a Coffee Roasting Facility in the U.S. The landscape design for the facility uses a number of sustainable site strategies that go beyond LEED to reduce the landscape's environmental impact and provide balance with the architecture's footprint. The Bay Friendly Landscape Guidelines, produced by StopWaste.Org for Alameda County, was used as a framework to help create a landscape that is in concert with its environment. Stormwater and water conservation strategies include a series of bioswales and raingardens; native and drought tolerant plants were also part of the solution. The project attained an 84% reduction in water use for exterior landscape. One raingarden is in the employee courtyard and is used for education. One site innovation is the recycling of the coffee "chafe" waste from the roasting process into the plant mulches and linear bands throughout the site. The project ties into the company's sustainable message and goals.

### Project Type:

Commercial

Part of a new development

**Design features:** Rain garden, bioswale, porous pavers, and curb cuts.

### This project was designed to meet the following specific requirements or mandates:

State statute, local ordinance, developer/client preference. The local city planning process recommends new projects to follow the county's bay-friendly program.

**Impervious area managed:** Greater than 5 acres

**Amount of existing green space/open space conserved or preserved for managing stormwater on site:** 5,000 sq/ft to 1 acre

**The regulatory environment and regulator was** supportive of the project.

**Did the client request that other factors be considered, such as energy savings, usable green space, or property value enhancements?** Yes, this was LEED Gold, we ended up with 41 points many of which target energy and water reduction. I have the scorecard but highlights are:

- Energy performance beat Title 24 by 32% (significant for a manufacturing facility)
- 40% reduction in interior water usage via waterless urinals, dual-flush toilets and low-flow fixtures
- 84% reduction in water use for exterior landscaping
- Achieved 15 indoor environmental quality points by using healthy, low-emitting interior materials: (paints, carpets, adhesives)
- Over 75% of construction waste recycled

## Cost & Jobs Analysis

**Estimated Cost of Stormwater Project:** \$10,000-\$50,000 (Public funding: None )

**Related Information:** The \$10,000-50,000 was the cost for bioswales and rain gardens around the site to manage the 6-acre roof water flow and stormwater management of the 10-acre lot. The overall landscape/site budget was \$500,000 and the overall project was \$30 million.

**Was a green vs. grey cost analysis performed?** No

**Cost impact of conserving green/open space to the overall costs of the site**

**design/development project:** It did not increase them as they were cost effective solutions, in general.

**Cost impact of conserving green/open space for stormwater management over traditional site design/site development approaches (grey infrastructure)?** Slightly reduced costs (1-9% savings). Less money was spent on storm pipes and drains.

**Number of jobs created:** 90 for PEETS facility

**Job hours devoted to project:** The entire project included architecture so don't have all the data.

Planning and Design: Significant

Construction: 4 weeks for landscape

Annual Maintenance: Not available

## Performance Measures

### Stormwater reduction performance analysis:

It met the State C3 requirements in California. Volume-based treatment measures shall be designed to treat stormwater runoff equal to the volume of annual runoff. It is required to achieve 80 percent or more capture, determined in accordance with the methodology set forth in Appendix D of the California Stormwater Best Management Practices Handbook (1993), using local rainfall data.

**Community & economic benefits that have resulted from the project:** The economic benefits include that the entire business park is now going green and is much more aware of sustainable landscape practices setting it apart from all other business parks in the area. We are currently removing a mile and a half of lawn along the adjacent parkway landscape that fronts the project and reducing irrigation from 4 million gal annually of water to 1/2 million by replacing with drought tolerant plants, using compost, and water efficient irrigation upgrade of system. Another headquarters project is going in as LEED Gold on the adjacent lot in a time when office space is not leasing but being perceived as "green" is a market driver for this client. It will have even more low impact development BMP's than PEETS and is in construction document phase currently.

## Additional Information

Links to images: [http://www.apdw.com/portfolio/workplace/peets\\_coffee/](http://www.apdw.com/portfolio/workplace/peets_coffee/)

- Alameda, CA Roasting/tasting facility and office space
- 135,000 sq/ft
- LEED Rating: Gold