

Oakland: Building Green Business

The Boathouse restoration team of Zachary Goodman (sitting) of Murakami/Nelson Architects, Lyle Oehler (center), City of Oakland and John Gibbs of Wallace Roberts & Todd (left).

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New Life for Municipal Boathouse

Crowds flock to century-old building and adjoining park after green renovation

BY JENNIFER ROBERTS

One of the Bay Area's hottest restaurants opened last summer on the shore of Lake Merritt. By now, there could hardly be a self-respecting foodie in the nine-county region who hasn't heard the buzz about Gar and Lara Trupelli's Lake Chalet Seafood Bar & Grill, a sprawling 350-seat restaurant with sensational lake and city views.

"With the opening of the architecturally stunning Lake Chalet and scores of other exciting restaurants in the last year, downtown Oakland's reputation as a culinary hotbed continues to grow, drawing foodies and visitors from all over the region," said Samee Roberts, Manager of Oakland's Cultural Arts and Marketing Department.

But this isn't another story about slurping Drakes Bay oysters and sipping ginger cosmos at the 80-foot-long white marble bar. Nor is it a story about downing tacos and Lake Merritt IPAs at a dockside table on Taco Tuesday.

Instead, it's a tale about the transformation of a down-at-the-heels municipal facility into one of the most talked about green buildings in Northern California.

Boathouse Back Story

The story begins in 1909, when the City of Oakland builds a saltwater pumping station on Lake Merritt for the Fire Department. It's a smart disaster protection measure taken in the wake of the 1906 earthquake and fire that devastated much of the city across the Bay.

In 1914, Oakland expands the pump house building to create a public boating center, adding two wings that jut over the lake. In 1955, the pumping station is decommissioned when more efficient fire protection systems become available. Starting in 1960, the building serves for more than 40 years as offices for Oakland's Parks and Recreation Department.

Over time, the handsome Mission Revival building grows dilapidated, its capacious industrial interior carved into a warren of small workspaces with low ceilings and limited connection to the lake or park outside.

The Boathouse Today

Fast forward to 2002, when more than 80 percent of Oakland voters approve Measure DD, the Oakland Trust for Clean Water and Safe Parks. This \$198 million bond measure creates a funding mechanism to carry out improvements focused on the Lake Merritt and Oakland Estuary waterfronts.

Thanks to Measure DD, in 2009 the City celebrates the Municipal Boathouse's centennial with the completion of a \$19 million green renovation of the building and its adjacent four acres of parkland.

The improvements increase public access and set the stage for private and community-based tenants to thrive, including the Lake Chalet, the Lake Merritt Rowing Club and Gondola Servizio, a provider of lake cruises in Venetian gondolas.



Oehler, Goodman and Gibbs faced the challenge of creating a green building while preserving historical integrity on the Lake Chalet project.

PAOLO VESCIA

Green Rehab Gets High Marks

This February, the Northern California chapter of the American Public Works Association honored the Municipal Boathouse with a "Public Works Project of the Year" award. The project is also the first building owned by the City of Oakland to receive the Silver level of certification under the LEED for New Construction (LEED-NC) green building rating system.

The rehabilitation of the building and grounds was managed by the City's of Oakland's Project Delivery Division, and was designed by Wallace Roberts & Todd (WRT) and Murakami/Nelson Architectural Corp.

At 16,500 square feet, the boathouse building isn't particularly large, but to characterize the project as complex may be an understatement. Setting out to achieve LEED Silver was just one of many hurdles.

"It's also a landmark historic structure," said Murakami/Nelson's Zachary Goodman, ticking off the project's challenges. "It's also in a public park. It's also a waterfront project. And it's an adaptive reuse project." Originally an industrial facility and later used for offices, the building's core and shell had to be redesigned to accommodate a high profile restaurant and boating activities.

From the start, the team focused not only on the fundamentals of green building—saving energy and water, creating a healthier building, and using environmentally preferable materials—but also on preserving architectural and historical integrity and increasing the building's longevity.

"We made very conscious and careful decisions to build in a manner that will last," said WRT's John Gibbs.

Long before a single energy-efficient window or low-flow faucet could be installed, the deteriorating structural elements that supported the building over the lake had to be rebuilt. The work involved damming a portion of the lake, pumping it dry and inserting 99 micropiles 50 feet down into



The recently restored Boathouse on Lake Merritt.

See BOATHOUSE, page 5

Measure DD provided \$19 million in renovation funds to preserve the Lake Merritt Boathouse

BOATHOUSE, continued from page 4

the lake bed to underpin the foundation. "A lot of effort went into improvements you don't see," said Goodman.

With the structural upgrades underway, the rehabilitation of the building's core and shell moved forward. Elevators and ramps were added to improve accessibility. New mechanical, electrical and plumbing systems were installed.

Sustainably harvested mahogany certified by the Forest Stewardship Council was used for the building's deck as well as doors, windows and interior trim. Mahogany was chosen for its superior durability in a saltwater environment. "This building is 100 years old," said Goodman, explaining the rationale for choosing high quality materials. "We're going to return it to the people. Let's make sure it's going to last another 100 years."

Greener Grounds

The redesigned park offers upgraded boating facilities, new pathways for walkers, joggers and bicyclists and places for viewing the lake. A building housing recycling and trash containers is topped with Oakland's first City-owned living roof and serves as a demonstration project for green roof technologies.

To make pedestrian and bicyclist access safer and more pleasant, the City reduced the four-lane Lakeside Dr. adjacent to the site to two vehicle lanes, and added new bicycle lanes. All the work was done as part of the City's plans for the lake's entire park system,

including future improvements to circulation, parking, recreation, access and water quality.

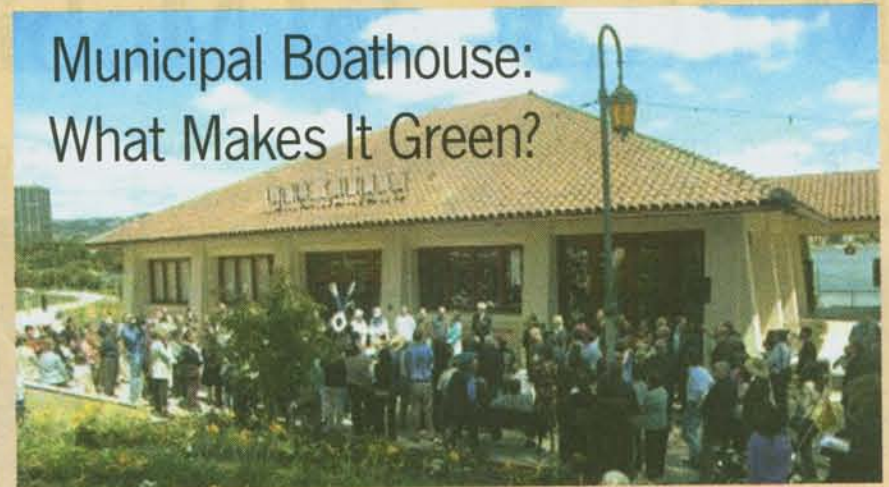
The park design incorporates a number of Bay-Friendly Landscaping principles, an approach to landscaping and gardening that conserves water and helps protect the health of the San Francisco Bay watershed. A new 300-foot-long bioswale helps keep polluted stormwater runoff out of Lake Merritt. When it rains, runoff from the boathouse grounds and parking lots, as well as from the adjacent Lakeside Dr. and nearby buildings, flows into the bioswale. This wide, shallow trench is lined with plants that filter out larger pollutants, while microbes in the soil break down hydrocarbons and other small contaminants before they enter the lake.

To irrigate the park, the City replaced an old and wasteful irrigation system with a high efficiency system supplied entirely with recycled municipal water from East Bay Municipal Utility District. The Boathouse is one of the first projects in Oakland and the first on Lake Merritt to use recycled water.

"Because it's a park, a certain amount of lawn was included for aesthetic and recreational purposes," said WRT's John Gibbs. "Using nonpotable water allowed us to have a large lawn and still be conscientious about water use."

The recycled water is another one of those improvements that can't be seen, but it helps make the park greener in more ways than one.

Jennifer Roberts is a San Francisco-based writer and the author of Good Green Kitchens, Redux, and Good Green Homes.



Municipal Boathouse: What Makes It Green?

Building

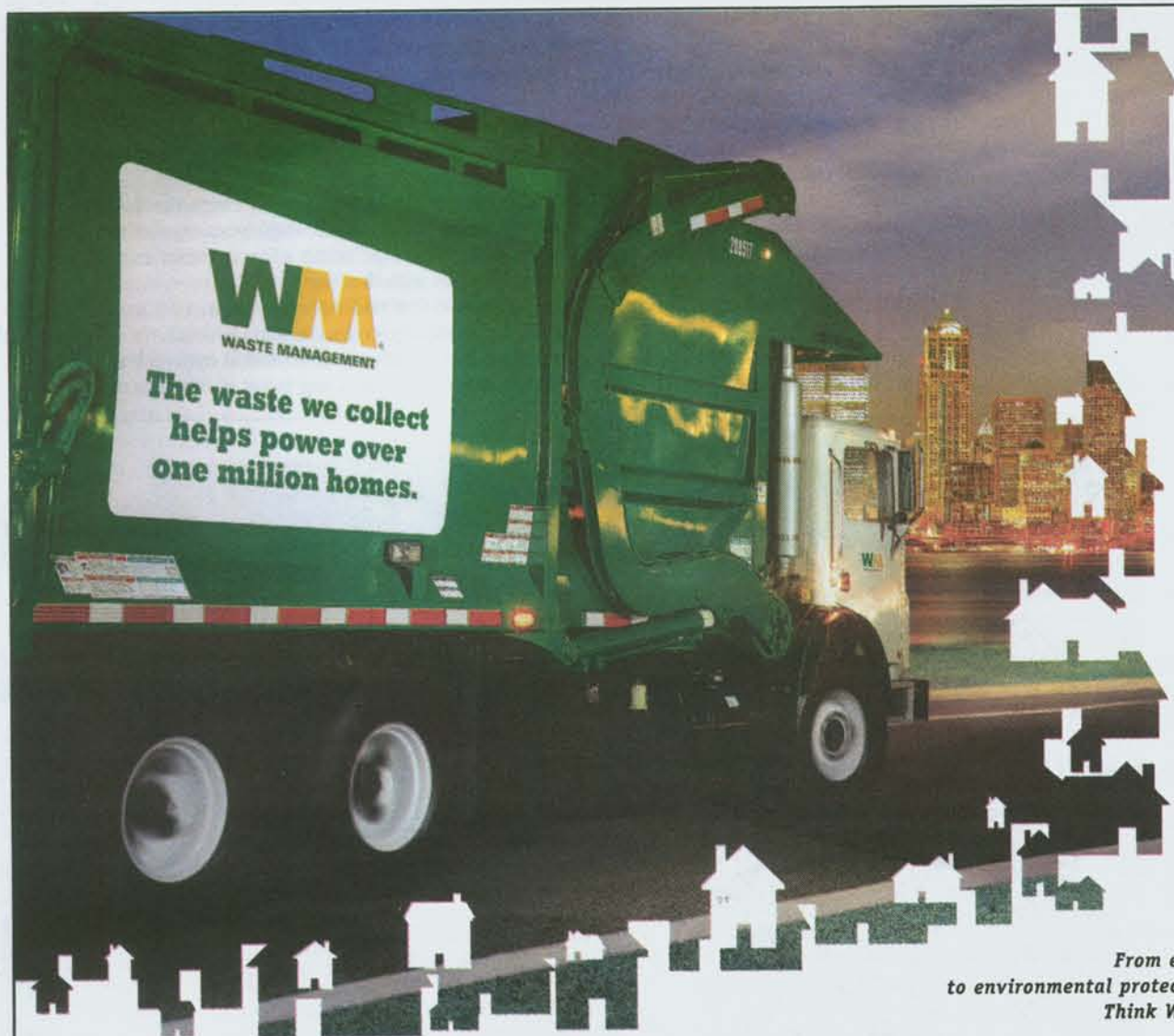
- Received LEED-NC Silver green building certification
- 93% of original structure was reused
- 95% of construction and demolition debris was reused or recycled
- Designed to be 31% more energy efficient than required by state code
- Energy-efficient heating, ventilation and air conditioning system includes economizer cycle, direct digital controls, and carbon dioxide sensors to improve ventilation
- Dual-pane, argon-filled windows have low-e coating to block heat gain
- 100% of core and shell spaces designed for access to daylight; 90% have access to views
- Adhesives, paints and composite woods emit fewer air pollutants than conventional products
- Low-flow faucets and toilets reduce indoor water use by 30%
- Shower and changing rooms provided for tenant employees who bike to work
- Sustainably harvested mahogany certified

by Forest Stewardship Council used for interior finishes and deck

- Recycled-content products include ceramic wall and floor tile, high volume flyash concrete, concrete reinforcing steel, structural steel, formaldehyde-free fiberglass insulation

Park

- Redesigned to improve safety, access, views and water quality
- 100% recycled water used for irrigation
- Bioswale removes pollutants from stormwater runoff
- High efficiency irrigation system includes flow meter, weather-based controllers and remote monitoring
- Light-colored pavement and walkways and living roof on recycling/trash building keep air temperatures cooler
- Landscape planted with many California native, Mediterranean and other low-water species



With energy costs and oil dependence on the rise, the need for renewable power is greater than ever.

That's why Waste Management is using the resources at our disposal to create enough green fuel to power our trucks and enough green energy to power a community. At Altamont Landfill, we are doing just that.

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