

David Brower Center



Location:

Berkeley, Calif.

Type:

50,000 sq ft - new construction

General contractor:

Cahill Contractors, San Francisco, Calif.

Glazing contractor:

Hayward Glass, Hayward, Calif.

Architectural firm:

WRT / Solomon E.T.C., San Francisco, Calif.

Window system manufacturer:

Wausau Window and Wall Systems, Wausau, Wis.

Aluminum finishing (anodize and Azon pour and debridge thermal barrier):

Linetec, Wausau, Wis.

Situation:

The first building of its kind in Berkeley and one of fewer than 10 such buildings in Northern California, the David Brower Center has attained the LEED Platinum rating with a score of 55 out of 60 possible credits. LEED Platinum is the highest certification level in the U.S. Green Building Council LEED® (Leadership in Energy and Environmental Design) Green Building Rating System™.

The center is named after David Brower, first executive director of the Sierra Club—considered by many the father of the modern environmental movement. On what used to be a parking lot, the new center stands on a prime parcel of land eight blocks from the house where David Brower was born and directly across the street from the University of California Berkeley campus. The Brower Center includes 24,000 useable square feet of office space on its top three floors and is home to a wide range of nonprofit groups working for environmental and social action.



Figure 1 Windows on top floor feature sunshading devices



Figure 2 Center features 100 percent daylighting in all office areas

David Brower Center



Action plan:

Wausau supplied 163 windows as part of the \$28 million project, which took two years to complete. The rectangular building is only 65 feet wide, narrow for most office buildings, but ideal for bringing natural ventilation and daylight into the entire space.

A distinctive feature of the Brower Center is the rounded corner at the east end of the building. Two streets come together here, Allston Way and Fulton Street, with Fulton Street curving as it heads north.

The contractors followed the curve in segments, using special mullions and other hardware to accommodate the angles of the splayed radius. Field measurements of the openings were taken before the windows were ordered for a precise fit. Where the window sections adjoined, brake shapes were used inside and out and anchored to adjoining window jambs to meet the radius of the building.

Another unique feature of the building related to windows may not be initially apparent from the outside. The windows are actually different heights, changing in size from floor to floor to maximize natural daylight while reducing heat gain. The lowest office level, the second floor, gets the most shading from other buildings so it gets the biggest windows. The middle floor has a slightly lower floor to ceiling height. The windows on the top floor are the smallest and are shaded by photovoltaic panels on the cornice, which wraps around the top of the building. Skylights provide daylight deep in the office space. The windows go right up to the ceiling, which is a concrete slab painted reflective white on the underside of the interior surface.

About the fenestration products:

Windows selected for the Brower Center are Advantage by Wausau's 3250 Series, which are high-performance windows featuring a 3.5-inch frame depth with Azon polyurethane thermal barrier. The finish for exposed areas is clear anodize, applied by Linetec. Wausau's 3250 Series windows are AAMA AW-70 rated, meeting the industry's most stringent testing for air infiltration, water and condensation resistance, structural integrity and thermal performance.

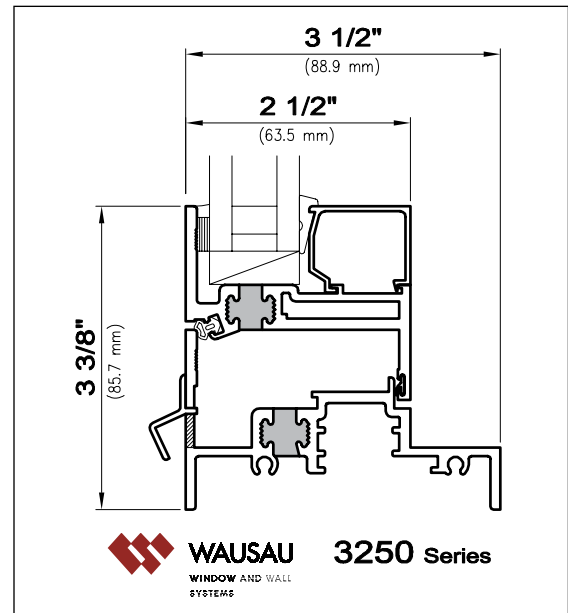


Figure 3 AAMA AW70 performance class window with Azon polyurethane thermal barrier

Outcome:

Operable windows contribute to a healthy indoor environment and take advantage of the moderate climate in Berkeley (median annual temperature of 68° F). The center achieves 100% daylighting in all office areas. During the day, office workers typically do not need to use overhead lights.

The center is designed to be more than 40% more efficient than required by code. More than 50% of the total material used in the Brower Center is recycled material, and during construction, more than 75% of the project's construction waste was diverted from landfill.

Sources:

<http://www.free-press-release.com/news/200906/1245363728.html>

<http://www.browercenter.org>

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