

Killingsworth Station Ecoroof

1455 N Killingsworth Street, Portland, Oregon



Project Summary

Killingsworth Station is a LEED Platinum public/private partnership adjacent to the MAX Light Rail line in northeast Portland, Oregon. It consists of 57 condominiums for first-time homebuyers and low-income people, and over 9 000 square feet of retail space.

The project was constructed in fall 2011 and all structures are covered with ecoroofs, for a total of 20,800 square feet.

Materials, Construction and Details

In addition to the 16,000 square foot ecoroof on the main wood-frame building, there are three carports that include another 4 800 square foot of ecoroof over prefabricated structures with corrugated metal roofs, which are visible to neighboring residents. Along the west side of the main roof, solar water heaters stand over the ecoroof providing dappled shade to the vegetation.

The layers in the ecoroof system consist of a leak detection system, protection board, TPO roofing membrane, rigid foam insulation, a polystyrene drainage layer with attached filter fabric, 4" of an extensive soil mix containing roughly 70% pumice and 30% organic materials, jute fabric for erosion control, and sedum cuttings. Temporary irrigation

consists of a domestic hose and sprinklers to get plants established during the first summer. Vegetation was installed in late summer.

In addition to the cost of the membrane and insulation, the total ecoroof cost came in at under \$6.50 per square foot. The ecoroof received the City's incentive grant for \$5 per square foot, so the owner paid \$1.50 per square foot.



In addition to the ecoroof, the building's parking lot contains stormwater swales designed to filter and retain stormwater. Together with the roof, these elements treat 100 % of the property's stormwater. Additional benefits of the stormwater facilities are the mitigation of the urban heat island effect and providing native habitat.

Website

<http://www.killingsworthstation.com>

Designers/Manufacturers of Record

Shawn Sullivan Architecture, LLC
R&H Construction



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