

Ecoroof

The Studio at the Vermont Street Project

5078 SW Vermont Street, Portland, Oregon 97219

Introduction

The Vermont Street Project is a new home built by New Energy Works, 2675 NE Orchard Avenue in McMinnville. The home is an approximately 3000 square foot LEED platinum candidate project that serves primarily as a residence for the owner's family and secondarily as a show home and the administration project. The studio is a freestanding garage and 800 square foot apartment/office. Unlike the roof over the main house which is metal and designed to catch rainwater (which is directed to the 4000 gallon cistern and filtration system to supply potable water), the roof on the studio is a planted roof to minimize storm surge.

The mid-century modern aesthetic of the studio, with its almost flat pitch and wide overhangs offered the perfect platform to explore and fully utilize the nascent technology of green roofs.

Structure and roofing material

The studio roof is made up of heavy timber rafters from a salvaged building Eugene. They were grade stamped #1 and better by the Western Wood Products Association (WWPA), to allow them to meet the structural criteria of the engineered drawings. 10" structural insulated panels (SIPS) were placed on the rafters for insulation, (R-40) and roof sheathing. Refer to drawings submitted to the City of Portland under permit #09-118504-RS

Two layers of a torch down roofing, followed by a 40mm root barrier and dimple sheeting to balance the drainage requirements with the ability to retain some moisture from rainfall and irrigation.



Installing membrane



Torch down