

PORT OF PORTLAND HEADQUARTERS SUSTAINABILITY FACT SHEET

The Port's new headquarters building will serve as a showcase for innovation in water and energy conservation, indoor air quality, life-cycle thinking and natural resource preservation right at our region's front door.

Sustainable elements include:

Water conservation

All combined, the building's water efficient features will decrease water usage by 75 percent. A similar size office building uses about one million gallons of water a year. The Port's new building will use about 250,000 gallons with water efficient fixtures throughout.

Perhaps the most innovative environmental feature of the building is the Living Machine® system, an ecological wastewater treatment alternative that treats wastewater for reuse in the building's toilets and cooling tower using natural, tidal wetland like processes. It is the largest commercial office building application of the Living Machine® system in the Western United States. The system occupies about 700 square feet in the building lobby. While wastewater treatment is usually 'out of sight,' the Living Machine® system looks much like a large indoor garden and was placed in the lobby to serve as an onsite teaching tool. The system incorporates a series of wetland cells, or basins, that are filled with special gravel and plants. As wastewater moves through the system, the cells are alternately flooded and drained to create multiple tidal cycles each day, much like what is found in nature, resulting in high quality wastewater treatment.

The building incorporates an extensive tray system eco-roof (10,000 sq. feet) as well as an intensive eco-roof system that can be used by staff. Both will help treat rainwater, reduce flow to the storm sewer, and insulate the building so it is easier to cool. Other portions of the building's roof are covered with a reflective membrane to reduce the urban heat island effect. The landscaping on the roof was carefully selected to not attract birds in accordance with the PDX Wildlife Hazard Management Plan.

Energy conservation

The Port estimates that the building will use 36 percent less energy than a typical building of its size and the garage will use 78 percent less energy than a typical similar size garage.

More than 200 pipes 300 feet under the building provide ground source heating and cooling in a closed loop system.

Passive radiant ceiling panels regulate building temperatures.

Daylighting controls reduce the number of light fixtures needed during the day by optimizing the use of sunlight for interior lighting and window glazing and exterior shades help keep interiors cool.

Tunnels between the new parking garage and the airport terminal feature motion sensor activated moving sidewalks—a first in the U.S.

The parking garage and headquarters building also has received the US EPA Certificate of Achievement through the Energy Star Challenge program.

Indoor Air quality

Materials like paint, linoleum, carpet and other products are non-toxic with low or zero volatile-organic compounds.

Office equipment like high volume printers and scanners will be kept in separately ventilated rooms.

Life cycle thinking, re-use and natural resource preservation

During construction the Port minimized construction waste, used easily renewable or recycled materials and products and bought locally where possible.

Office chairs can be taken apart at the end of their lifespan. Components can be recycled.

Cubicle frames are made with recycled metal.

Wood paneling and flooring is certified by the Forest Stewardship Council.

Reclaimed old-growth fir from the Port's marine Terminal 4 was reused in the building entry lobby. The wood came from piers 1 and 2, which were dismantled in the late 1990s after 80 years of use. Cobblestones in the entry plaza once served as ballast in ships.

Where appropriate existing Port furniture has been repainted, refinished or reupholstered for re-use in the building using local small businesses.