DESIGNING AND BUILDING THE FUTURE OF SUSTAINABLE TRANSPORTATION

HOW PORTLAND'S TRIMET IS LEADING THE WAY IN TRANSIT SUSTAINABILITY AND EFFICIENCY

TriMet is committed to having an all-electric, zero-emission fleet before 2040, and it is well on its way in that effort with its all-new, forward-thinking facility designed specifically to meet its ambitious goals for capacity, safety and sustainability.

Recognizing it was time to address the challenges of a fleet garage built nearly a half-century ago, TriMet first needed to demolish and then rebuild and modernize its entire 17-acre site, all while staying operational during the demolition and all three phases of construction.

The result is a stunning, sustainable and incredibly efficient state-of-the-art facility that could serve as a model for transit agencies from coast to coast.

Making it happen with Energy Trust of Oregon

Before breaking ground on the project and throughout the planning process, TriMet received help from Energy Trust to hold a design meeting, offset the cost of critical energy modeling and bring its sustainability vision forward. This enabled Kate McKinnon of the TriMet project delivery team to get the green light to make this flagship garage as energy efficient as possible.

> **"The energy modeling was huge because it gave us the data [about long-term cost savings]. Working with Energy Trust throughout the design process was easy."**
>
> —Kate McKinnon, TriMet project delivery team

ENERGY TRUST INCENTIVES, SAVINGS AND SUPPORT FOR TRIMET

$81,000	in cash incentives
374,000	annual kWh savings
$57,000	estimated annual energy bill savings
2,900	Therm savings

- \+ Early design assistance
- \+ Energy modeling technical assistance
- \+ Energy-saving feature installation incentive from energy model

EnergyTrust of Oregon

ENERGY EFFICIENCY AND SUSTAINABILITY FEATURES

- High-efficiency interior and exterior LED lighting
- Wired for solar panels
- High-efficiency heat pumps
- Condensing boilers with efficiency ratings of over 90%
- Dedicated outdoor air system
- Dark-sky compliant by reducing light pollution
- Wastewater reclamation and treatment
- 7,400-gallon rainwater storage tank
- Electric fleet charging stations

+

Find incentives and support for your new building or major renovation project at **www.energytrust.org/newbuildings** or call **1.877.467.0930**.

Energy optimization through strategic design

To help increase the new transit garage's energy efficiency, TriMet made strategic design decisions that allow them to achieve their efficiency goals.

Examples include the garage which utilizes different types of rooftops. One roof slightly butterflied to maximize the capturing of rainwater that channels into a 7,400-gallon storage tank, while another is pre-wired so that solar panels can be easily installed in the future.

To further increase the structure's energy efficiency, tilt-wall construction was utilized. Not only is this method safer and easier to install, but also it is far less energy intensive to produce.

Comfort, Satisfaction and Safety

All aspects of the design are geared toward creating a space that staff members in the office or maintenance garage can truly enjoy and where they can do their best work.

The new transit garage has a bright and healthy "tree fort" vibe that supports productivity and activity by prioritizing natural light, views, comfort and indoor air quality.

It also features an exercise room, a covered rooftop patio with a sculpture garden, an inviting break area, heated floors and exterior pathways necessary to safely separate vehicle and pedestrian traffic at this busy facility that operates 24/7.

> **So much of what we consider during the design [of a building] is the health, well-being and safety of the employees.**
> —Sean Feeney, architect