

**PORT OF PORTLAND'S RENTAL CAR QUICK TURNAROUND FACILITY
EARNS ENVIION[®] GOLD RATING**



The new Quick Turnaround (QTA) facility at the Portland International Airport (PDX) opened in March 2018 and recently earned the ENVIION[®] Gold rating for sustainable infrastructure. This \$67 million facility improves rental car processing operations, making it quick and easy for airport travelers to rent clean, fueled cars ready for use. The QTA facility is the first large infrastructure project completed

as part of a suite of capital projects at PDX geared towards modernizing the airport's infrastructure to meet the growing needs of airport travelers, employees, and tenants.

The QTA facility is three times the size of the previous rental car facility, providing employees with more efficient workspace. During peak demand, 220 rental car employees can work efficiently to clean and fuel 430 cars per hour, making the whole system of processing rental cars much faster.

Multiple firms were involved in this project, including Mackenzie (architecture and interior design; structural, civil and traffic engineering; land use, transportation planning, and landscape architecture services); PAE Engineers (mechanical, electrical, plumbing designers); TranSystems (design services for the rental car processing concept); Stantec (design services for the fueling stations, car wash and other process-related systems); and Hoffman Construction (general contractor).

KEY SUSTAINABILITY ACHIEVEMENTS

Implementing a water efficient design. Compared with traditional rental car facilities, the QTA Facility reduces potable water usage by an impressive 99.5%. A few alternatives to reduce potable water consumption were analyzed, and the project team ultimately selected the alternative that would maximize water savings. The QTA facility was designed to take advantage of Portland's rainy season by harvesting rainwater to meet the needs of the facility. During the dry season, the facility relies on an on-site well that taps a non-potable water aquifer. Sink and toilet fixtures throughout the facility are low water consuming fixtures, and account for a small percentage of overall water used.

Improving stormwater management. Through the harvest and reuse of rainwater from the QTA roof deck, the project is designed to achieve a 180% improvement in stormwater storage capacity.

Saving energy. The QTA facility incorporated several elements to reduce overall operational energy consumption by 31.2%. For example, the design team incorporated automatic lighting controls for as much lighting as possible and interior lighting is controlled by occupancy sensors to maximize energy savings. Only high efficiency LED lights were used for the project. The lighting design for the project not only reduces overall energy requirements, but also minimizes light pollution.

Preserving undeveloped land. The entire project (100%) is located on a previously developed site. At one point during the alternative analysis process, locating the QTA facility on an undeveloped parcel of land was considered. However, for a variety of practical reasons, the decision was made to locate the project on a paved area within the airport's footprint that had been serving as a mid- to long-term rental car parking and construction staging area since the late 1970s.



TESTIMONIALS

"One of the Port of Portland's guiding principles is environmental leadership and we try to apply that lens to all of our projects across the board. With much of the focus often on buildings (which make up a small percentage of our capital program most years), we needed to find a holistic system that could be applied to other civil infrastructure projects. With that in mind, we decided to implement Envision on our recent QTA project and found it to be a great tool that helped focus the entire team on meaningful ways to meet our environmental goals on this project and it also served as a good reminder to ensure community involvement early in the planning process." – Grant Evenhus, Civil Engineering Manager, Port of Portland

"The Envision sustainability rating system was a great fit for certification of the Portland International Airport Quick Turn Around Rental Car Facility. It allowed the design team to really focus on the areas of highest opportunity – water use, energy use, community input, and integration with existing/planned infrastructure – and achieve impactful results in those areas. Envisions broad credit framework also helped us facilitate discussions in other areas that otherwise might not have occurred on an infrastructure project. I'm proud of the project's Envision Gold certification and the knowledge we gained in the process." – Jamey Berg, Senior Environmental Planner, Port of Portland

"The Envision Gold recognition is a wonderful way to acknowledge everyone who came together to plan, design and construct the QTA facility at PDX with the highest sustainability features and the most efficient workspace possible in mind. I'm particularly grateful for the rating system's focus on the quality of life for rental car employees. This led us to incorporate as much lighting as possible through automatic controls

and include breakrooms and restrooms onsite – creating a more efficient, safe and welcoming space for employees.” – Mabelle Campbell, Concessions Development Manager, Port of Portland

Melissa Peneycad, ISI's managing director, said, "ISI is amazed and impressed with the ingenuity employed on this project. By thinking differently and working closely with the community and other stakeholders, the project team provided the region with a sustainable, resilient, and future-forward rental car facility."

Envision-verified Project: Rental Car Quick Turnaround (QTA) Facility

Location: Portland International Airport, Portland, Oregon

Envision Rating: Gold

Owner: Port of Portland

Lead Envision Firm: Port of Portland

Award Date: April 20, 2021

Project Phase: Operational since 2018

For more information about this project and its sustainability commitments and achievements, [click here](#).