3. EXECUTIVE SUMMARY

While the unique and innovative features of the Portland International Airport's (PDX) Parking Addition & Consolidated Rental Car Facility (PACR) primarily revolve around sustainability, convenience, and user experience, the engineering aspects of the project also incorporate several noteworthy elements. PACR was an ever-evolving project that took many shapes before being settled upon by the Port and the design team. What started as a smaller, isolated parking garage, turned into a significantly larger and impactful project that is now home to four major components sprawling 26 acres: a six-level parking structure, a four-story airport operation building with retail rental car center on the ground floor, a new exit toll plaza, and a connection from the south tunnel to the new rental car center and office building. With a project of this magnitude located on a site with tight quarters, challenges at the site arose in variety of ways, including designing PACR to remain Operational following a seismic event, challenging site characteristics, site constraints, and utilizing innovative ground improvement techniques.

PACR stands as a shining example of how thoughtful infrastructure improvements can enhance the travel experience for the public. This state-of-the-art facility not only streamlines the process of parking and renting a car but also significantly improves overall accessibility. With its modern design, ample parking spaces, and efficient rental car services, PDX has made it more convenient for travelers to navigate the airport, minimizing the stress often associated with air travel. Such investments enable PDX to consistently rank among the best airports to travel through year after year, demonstrating a commitment to ensuring passengers have a positive and hassle-free experience while passing through its gates.

The parking garage is built to be a resilient system that utilizes advanced structural and geotechnical techniques, some of which were a first for at the Port Facilities. An important goal of the Port and design team was the importance of building responsibly given the regional geologic setting and the soils at the site. This mindset meant considering deep liquefaction during a subduction zone earthquake. This is a relatively unknown factor within the industry and therefore ignored in conventional design codes. The Port is a regional leader in seismically assessment and improving their infrastructure for the safety of the public. Knowing this the design team went above and beyond to push the envelope of conventional theory and analysis to have a truly resilient structure that the entire team, the Port, and the public could feel confident in any earthquake scenario.