

INNOVATION WITH AN IMPACT

Delivering a safer, healthier, more connected world.

We offer a full array of services to plan, design and support complex sustainable infrastructure projects for our clients across many market sectors, such as aviation, industrial, rail and transit, and smart cities.

Sustainability: It's Who We Are

For us, sustainability is more than just a buzz word, it's a core value. Parsons sustainability staff experience combines alternative project delivery (APD) for large-scale infrastructure projects, service life/resilience planning, and expertise in applying multiple infrastructure sustainability frameworks. With over 250 sustainability accreditations held collectively across Parsons, we utilize the the best industry practices, leading-technology, and tools to deliver sustainable and resilient infrastructure projects and implement renewable energy programs.




Parsons delivers sustainability services for small and large scale projects, playing a lead role in helping our clients apply LEED, Envision, Estidama, and other rating systems utilized worldwide. Our goal is to meet our clients' needs and assist them in optimizing sustainable life cycle project performance. The total value of our projects with sustainability scope is over 25 billion dollars.

Solutions: It's What We Do

We take pride in our comprehensive approach to solving sustainability and resilience challenges. We study analyze, research, model, design, manage, and plan at a narrow or broad scale, as dictated by the project or organizational needs of our clients. As a result, we achieve excellent outcomes for clients in a range of industries, including infrastructure, defense, and security. The three dimensions of our sustainable infrastructure program development are represented in the diagram on the right.

Enhancing Sustainability Through Innovation

We are always looking for ways to push the boundaries of sustainable solutions to meet the growing need of our clients and regulatory requirements. For example, we have used, the following innovative concepts and technologies on recent projects:

-  First-of-its-kind hydrodynamic model to simulate tsunamis and storm events, combined with sea level rise for Coastal Areas
-  ParGRES, proprietary software to evaluate green remediation sustainability impacts
-  Intelligent Networks (INET), our cloud based system that uses real-time traffic monitoring and predictive analytics to drive down pollutant emissions.



Success: It's What We Achieve



Denver International Airport Hotel and Transit Center Denver, CO / \$580 million

As the integrated program manager, Parsons oversaw visioning, planning, architecture, and engineering. The scope included programmatic basis of design establishment for sustainability, accessibility, and security; master architect services oversight; and stakeholder communication outreach.

- ★ Iconic and inspiring hotel building obtained LEED BD+C: NC Platinum certification (2016); successfully implemented within an operating airport environment.



Ohio River Bridges, East End Crossing Louisville, KY to Jeffersonville, IN / \$776 million

As the Owner's Engineer, Parsons facilitated a planning workshop to establish sustainability-specific priorities for inclusion in the bid documents. Moreover, in collaboration with the developer, our team members played a pivotal role in assuring success of the Envision application.

- ★ First bridge and tunnel project to achieve any level of Envision recognition and one of the largest P3 projects to have received a Platinum award to date (2016).



Dubai Metro Red Line Extension to Expo 2020 Dubai, UAE / \$2.9 billion

As part of a joint venture (with Systra), Parsons provided program management services from feasibility studies and preliminary design through construction supervision and project closeout for this 9-mile transit extension. The project includes seven miles of elevated guideways, seven stations, and two miles of tunnel from the existing Dubai Metro Red and Green Lines to the Expo2020 site.

- ★ Project achieved LEED v4 BD+C: NC Gold certification for all metro stations, and the "Sustainable Transport Best Consultant Award" from the Dubai Roads & Transport Authority.



Federal Way Link Extension Seattle to Federal Way, WA / \$1.4 billion

As the lead designer for this 7.8-mile design-build light rail extension project (with Kiewit), Parsons led the sustainability efforts for the design-build team, including interdisciplinary collaboration, preparation and implementation of a Sustainability Management Plan, and preparation of the Envision and LEED applications.

- ★ Project-wide Envision Gold target; LEED BD+C: NC and LEED BD+C: TS Silver target for the End of Line Facility and Federal Way Transit Center Station, respectively.



Gordie Howe International Bridge Detroit, MI to Windsor, Ontario / \$4.3 billion

As the Owner's engineer, Parsons authored sustainability performance requirements for the life cycle of the project. We also provided technical oversight for the developer's Sustainability Management Policy, KPI establishment, and preparation of Envision documentation.

- ★ LEED BD+C: NC Silver target for U.S. and Canadian Ports of Entry; Envision Platinum award received for bridge and Michigan Interchange (2021).

Key Services

- Climate change vulnerability analysis and risk assessment
- Energy efficiency evaluations and modeling
- GHG inventory development and reduction strategies
- Green infrastructure design and low impact development (LID)
- Greenhouse gas and carbon impact calculations
- Infrastructure resilience evaluations and enhancement planning
- Key performance metrics development
- Life-cycle cost analysis (LCCA)
- Sustainability assessment and gap analysis
- Sustainability project or program planning and management
- Sustainable environmental remediation
- Sustainable infrastructure master planning
- Third-party certifications (e.g., LEED, Envision, Estidama, BREEAM Infrastructure)
- Waste management planning
- Water efficiency and reuse studies



Accreditations are an important way to stay current with industry best-practices. Our employees hold numerous credentials, including:

- LEED Green Associate, LEED AP
- Envision Sustainability Professional
- Estidama Pearl Qualified Professional
- Certified Energy Manager
- Certified Climate Change Professional
- BREEAM Infrastructure Assessor