



**GATEWAY DEVELOPMENT
COMMISSION**

Tonnelle Avenue Overhead Bridge & Utility Relocations

Sustainability Report August 2024



PROJECT DESCRIPTION

The Tonnelle Avenue Overhead Bridge and Utility Relocation Project (Contract Package 4) involves the staged construction of a highway bridge to carry U.S. Routes 1 and 9 (Tonnelle Avenue) over the Hudson Tunnel Project (HTP) alignment in North Bergen, New Jersey, along with essential civil and utility works. This package is the first of several within the HTP, which is a key component of the Gateway Program. The Gateway Program is the most urgent infrastructure initiative in the United States, designed to enhance the reliability, resilience, and capacity of the Northeast Corridor (NEC), the nation's busiest passenger rail line.

PROJECT PACKAGE: Tonnelle Avenue Overhead Bridge and Utility Relocations

NOTICE TO PROCEED (NTP): October 12, 2023

SUBSTANTIAL COMPLETION: October 12, 2025

DELIVERY METHOD: Design-Bid-Build

PRIME CONTRACTOR: Conti Civil LLC

DESIGNER OF RECORD: Gateway Trans-Hudson Partnership (GTHP)

CONSTRUCTION MANAGEMENT SERVICES: Naik Consulting

DELIVERY PARTNER: MPA (Mace, Parsons & Arcadis)





GDC'S SUSTAINABILITY FRAMEWORK

GDC's sustainability team is acutely aware of the multifaceted impacts construction can have on the environment, society, and economy. Developed by GDC in partnership with GTHP and with consensus from Supporting and Executing Partners (SEPs), GDC's sustainability plan serves as a strategic blueprint to ensure the program not only meets but strives to exceed the sustainability commitments outlined in the Final Environmental Impact Statement (FEIS) and Record of Decision (ROD). Using the FEIS as the foundation and Envision as a sustainability framework, sustainability aspects are reflected as credits identified in package-specific Sustainability Checklists which are implemented.

Developed by the ISI, Envision assesses infrastructure projects based on five major categories: Quality of Life (QL), Leadership (LD), Resource Allocation (RA), Natural World (NW), and Climate and Resilience (CR). These categories collectively aim to enhance community well-being, promote sustainable use and protection of natural resources, encourage innovative leadership and collaboration, and ensure preparedness and resilience against climate change impacts.



PROJECT SPECIFIC SUSTAINABILITY BEST MANAGEMENT PRACTICES

The Hudson Tunnel Project (HTP) is divided into various design and construction packages, each presenting unique sustainability challenges and opportunities. In addition to the pivotal roles played by the design and construction teams, GDC's sustainability plan recognizes the critical importance of collaboration across all project disciplines. These include, but are not limited to, the Sustainability, Design, Construction, Environmental, Project Safety, Community Outreach, Communications, Procurement, Risk, Financial, and Diversity teams. By actively seeking alignment and integration within these key areas, the goal is to leverage every opportunity for synergy, thereby maximizing the positive impacts of sustainability practices across the HTP. This approach ensures that resources are used efficiently and effectively, achieving greater results with fewer resources.

Listed below are the sustainability best management practices (BMPs) currently being implemented by these teams on this package. These BMPs are continuously refined, adapted, and integrated alongside Envision framework credits for implementation across the project life cycle.



Silt Fence: Silt fence installed on the construction site, effectively controlling sediment runoff and preventing soil erosion.



LIFE CYCLE EVALUATION: The Final Environmental Impact Statement (FEIS) captures the project scope and establishes a benchmark for all packages within the HTP. The Tonnelle Avenue design and construction teams utilize the FEIS to assess financial, environmental, and social benefits, comparing alternatives for major project components.



SUSTAINABILITY EDUCATION & COMMUNICATION: The Core Sustainability Team hosts Sustainability Charrettes and periodic workshops, and shares key documents such as the Sustainability Plan and KPI reports to communicate project sustainability goals, metrics, and progress to all stakeholders, from design through construction. These educational sessions and initiatives aim to clearly communicate the project's sustainability objectives and individual responsibilities, recognize achievements, set benchmarks, maintain transparency in sustainability practices, and enhance overall communication and understanding across all project disciplines, thus fostering a culture of sustainability within the project.



SUSTAINABLY SOURCED MATERIALS: By embracing principles of material reuse, recycled content, local sourcing, and low carbon content, and adhering to Envision guidelines, the design and construction teams ensure that material selection and utilization foster a regenerative lifecycle. The current goal is to procure at least 25% of the construction materials through sustainable means as defined by the sustainability team. Another key initiative is the reuse of concrete components from the Access to the Region's Core (ARC) project. Efforts are made to reuse as much of this concrete as possible, provided it is not contaminated or hazardous, in compliance with local and federal environmental guidelines.



GREENHOUSE GAS EMISSION REDUCTION: The construction team adopts several strategies to reduce Greenhouse Gas (GHG) emissions, including utilizing cleaner fuel options, optimizing transportation logistics, and implementing environmentally responsible practices. Tier IV lease trucks are employed to minimize emissions and reduce fuel consumption by decreasing idle times. Additionally, on-site reuse of soils and other materials helps to decrease truck traffic to and from the site. Prefabrication of design elements, such as pre-cast concrete and low-carbon concrete options, is utilized to enhance efficiency and achieve a 15% reduction in embodied carbon.



CONSTRUCTION TRAILERS AND ENERGY CONSERVATION: The contractor and construction management teams ensure that construction trailers exemplify efficiency and sustainability in daily operations regarding energy and water use. Strategies include installing LED lighting, efficient HVAC systems, water-saving devices, and motion sensors to reduce unnecessary energy consumption. Additionally, recycling and waste reduction practices are implemented to minimize the environmental footprint of the construction trailers.



WATER CONSERVATION: Throughout the construction process, the construction team adopts effective means and methods to conserve water, aligning daily operations with long-term sustainability goals. Specific strategies include high-efficient fixtures in construction trailers or offices to achieve a 40% reduction in usage. Additionally, the construction team employs innovative practices such as utilizing a gravel bed for construction trucks leaving the site instead of water, thereby conserving significant amounts of water that would otherwise be used for washing truck tires.



BYPRODUCT SYNERGIES: The construction team actively collaborates with external groups to find beneficial uses for waste, excess resources, or capacity, transforming what would otherwise be unwanted resources into valuable inputs. This direct exchange not only reduces waste but also supports local industries and sustainability efforts. For example, milling waste is transported to local asphalt plants in New Jersey for use as Reclaimed Asphalt Pavement (RAP) in their mix designs, thereby promoting resource efficiency and reducing the need for new materials. Additionally, Green Earth Solutions utilizes the Coplay Quarry Reclamation Project for the transportation and disposal of non-hazardous, non-petroleum contaminated materials. This location accepts construction fill material for its beneficial use in quarry reclamation, ensuring that these materials contribute positively to environmental restoration efforts.



BALANCE EARTHWORK ON SITE: The construction team has developed an action plan to manage excavated materials efficiently by minimizing the movement of soils and other excavated materials off-site to reduce transportation and environmental impacts. Approximately 2,000 cubic yards of excavated materials will be used on-site, ensuring minimal disruption and transportation emissions. The remainder of the clean excavated materials will be sent to an infill location for a redevelopment site in Pennsylvania. This approach ensures that 100% of the clean excavated materials are either reused or repurposed, supporting sustainable site management and reducing the environmental footprint of the project.



CONSTRUCTION STAGING & INTERFACE MANAGEMENT: To manage the HTP's interdependent project packages, our interface teams work closely with Design and Construction Teams, to ensure that staging areas are optimized, resources are efficiently utilized, and inter-package dependencies are meticulously managed. This collaborative approach not only streamlines construction activities but also mitigates risks associated with overlapping or interdependent tasks.



CONSTRUCTION SAFETY & WELLBEING: Prioritizing the health and safety of the workforce, GDC's Safety Officer oversees the development and implementation of comprehensive construction health and safety plans across all HTP packages. This approach includes regular monitoring, training and orientation, tracking, and reporting of safety metrics and incidents, and benchmarking performance against industry standards and Bureau of Labor Statistics (BLS) averages. In addition to complying with GDC's safety plan, the construction team employs a Behavior Based Safety (BBS) / Good Catch Program. To further promote safety, a Project Safety Incentive Program, such as monthly Safety Lunches, recognizes exceptional safety and health performance, rewarding teams for each month without any equipment damage or OSHA recordable injuries. Additionally, all site visitors are required to watch the contractor's safety orientation video, serving as a leading indicator of commitment to safety protocols.



Dust Control: Trucks actively spraying water on the construction site to control dust and maintain air quality.



CONSTRUCTION ACTIVITY POLLUTION PREVENTION: The construction team, in association with GDC's Environmental team, prepares and implements several plans to minimize the environmental footprint of construction activities. These plans are designed to protect the environment, local biodiversity, historical resources, and nearby communities.

Key strategies include:

- **Sedimentation and Erosion Control:** Manage soil erosion and sedimentation by incorporating measures such as silt fences to prevent silt dispersion.
- **Dust Control Measures:** Implement methods to minimize airborne dust and particulate matter, including the use of water trucks and sprinkler systems, thereby protecting air quality and reducing the impact on local communities and ecosystems.
- **Environmental Management Plan:** Develop a comprehensive strategy detailing protective measures for the environment and local wildlife to ensure responsible construction practices in compliance with the National Environmental Policy Act (NEPA).
- **Noise and Vibration Control:** Apply methods to reduce noise and vibration effects on the local environment and communities.
- **Stormwater Management:** Implement strategies to manage stormwater runoff effectively, including the use of inlet filters to protect stormwater drains and lessen the impact on local waterways.
- **Historical Resource Protection:** Utilize controlled construction techniques to reduce the impact on the construction site and its surroundings, with a particular focus on preserving historical resources such as Substation No. 3 and Bergen Portal, as identified within the FEIS, and considering potential additions to the National Historic Registry.



Storm Inlet Filter: Close-up of a storm inlet filter installed to protect stormwater drains and prevent debris and pollutants from entering the drainage system.



COMMUNITY ENGAGEMENT AND IMPACT MITIGATION: The GDC's Community Outreach Team collaborates with construction teams and engages with neighboring communities to address their concerns and proactively minimize disruptions. Key strategies include:

- **Community Information Center:** A dedicated trailer serves as a community hub, offering a space for meetings, presentations, and open dialogues with residents and local stakeholders, fostering transparency and collaboration.
- **24/7 Community Hotline:** To ensure continuous communication and address any concerns or inquiries from the community promptly, a round-the-clock hotline is set up.
- **Traffic Disturbance Minimization:** Implement strategies to reduce traffic disruptions, including the development of a traffic management plan, the use of temporary traffic lights for efficient rerouting, strategic lane shifts, a temporary pedestrian bridge, and the placement of clear signage to guide community members and reduce inconvenience.



CONSTRUCTION WASTE MANAGEMENT AND RECYCLING:

- **Waste Management Plan:** Contractors are required to develop a comprehensive waste management plan that prioritizes reuse and recycling to significantly reduce waste sent to landfill. The project is committed to achieving a 75% waste diversion rate by channeling materials such as asphalt paving, concrete, reinforcement steel, and other construction materials towards recycling, repurposing, or beneficial reuse. This approach minimizes the environmental impact of construction activities.
- **Soil and Spoil Waste Management:** In collaboration with Licensed Site Remediation Professionals (LSRPs), construction teams conduct soil testing to identify any hazardous substances in soil or spoil waste. This ensures that contaminated materials are appropriately identified and handled according to environmental safety standards and regulations. Additionally, 2,000 cubic yards of clean excavated soil on site will be reused, further reducing waste and minimizing the need for new materials.



Gravel Bed: Gravel bed designed to capture and remove dirt from construction vehicle tires, reducing soil contamination and minimizing the need for water-based cleaning.



DBE (DISADVANTAGED BUSINESS ENTERPRISE) PARTICIPATION GOALS: The GDC is dedicated to fostering diversity and inclusion within its contracting processes. GDC's Director of Diversity and Inclusion collaborates with procurement to assist contractors in exceeding established DBE participation goals. This commitment ensures that businesses owned by socially and economically disadvantaged individuals have ample opportunities to contribute to the project, promoting equitable economic growth and community empowerment. The construction team is on track to meet the 18% goal, demonstrating significant progress in achieving these participation targets.



MONITORING AND REPORTING SUSTAINABILITY PERFORMANCE:

- **KPI Dashboards and Progress Meetings:** The project will utilize comprehensive KPI dashboards to continuously monitor and report on sustainability performance across all stages. Regular progress meetings will be conducted to review these KPIs, ensuring all team members are aligned and informed about the project's sustainability status including Envision verification and documentation status.
- **Corrective Actions:** The KPI dashboards will serve as a dynamic tool, not just for monitoring but also for identifying areas where performance may deviate from the set sustainability goals. Prompt corrective actions will be initiated based on real-time data, allowing for immediate adjustments to practices or strategies as needed.
- **Lessons Learned and Continuous Improvement:** This process of monitoring, reviewing, and adjusting is integral to our commitment to continuous improvement. It ensures that our sustainability objectives are not just met but are continually advanced, reflecting our dedication to setting new standards in sustainable construction.
- **Sustainability Monthly Report:** This report, which combines project sustainability best management practices and includes "Sustainability by the Numbers" on the next page, highlights the key performance indicators and metrics used to track our sustainability performance, demonstrating our commitment to transparency and accountability. This is a subset of our KPI dashboard, and new indicators and metrics will be added as the project progresses.



Aerial View: Aerial view of the construction site, providing a comprehensive overview of the ongoing activities and site layout.

Sustainability

by the numbers

Hudson Tunnel Project
Package 4: Tonnelle Avenue
Overhead Bridge & Utility Relocations

	Sustainably Sourced Materials	Goal 25	30	% Materials Sustainably Sourced
	Construction Waste Management	Goal 75	96	% Waste Diverted
	Recycled Content in Materials	Goal 25	37	% Recycled Content in Materials
	Truck Tire Washing Water Conservation	Goal 50	100	% Water Conserved
	Construction Pollution Prevention	Goal 100	99	% Inspections Compliant
	Construction Safety	Goal 0	0	No. of Incidents
	Safety Orientation	Goal 250	290	No. of Safety Trainings Completed
	Community Outreach	Goal 30	30	No. of Community Engagements
	Disadvantaged Business Enterprise (DBE)	Goal 18	18	% DBE Involvement
	Traffic Management	Goal 0	0	No. of Accidents

Blue: Goal | Green: On Track | Orange: Needs Attention | Red: Critical

COMMENTS, FEEDBACK, SUGGESTIONS?

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