

Project: (D214038) NYSTA Term Agreement, Design Support Services, Rehabilitation of the Fairport Spillway Wall, Buffalo Division

Location: Village of Fairport, Monroe County, NY

Client: New York State Thruway Authority / New York State Canal Corporation

Cost: \$2M

Year: 2012-2013

Work Performed:

- Design Survey & Mapping; Right-of-Way
- Community Engagement
- Stormwater Pollution Prevention Plan
- Trailway Design
- Canal Wall Rehabilitation
- Structural Repair Design

As subconsultant, Prudent Engineering provided survey and design services for the Village of Fairport Canalway Wall Rehabilitation project. Located in the Village of Fairport, New York, on the Erie Canal, this project involved the design and installation of an earthen cofferdam. Prudent's design team engineered a rehabilitation solution that targeted a crumbling 450-foot section of marine retaining wall in the original Erie Canal running through the Village's business district. The scope of the design work also encompassed 2,585-feet of adjacent canal trailway used by pedestrians and bicyclists.

Prior to beginning the project, Prudent initiated community and shareholder engagement in recognition of the Village's efforts to enhance the central business core and waterfront, both of which serve as destinations for residents and tourists.

The project site was adjacent to a wetland, and a 100-foot wetland buffer was maintained during the project. Due to water quality concerns, a significant portion of the project involved preparing a Stormwater Pollution Prevention Plan (SWPPP). Additional tasks included design survey and mapping; geotechnical survey and mapping; Right-of-Way survey; and development of design alternatives, detailed lagging wall, and trailway designs.

Prudent developed preliminary plans and drawings, specifications, construction estimate for a wall design alternative, and an H-pile with precast panel lagging. Details for the proposed wall rehabilitation were designed and

developed, including the completion of typical wall sections and structural repair details; material quantity tables and reinforcing bar lists; and construction cost estimates.



Deteriorating Canal Wall



*Top: Rehabilitated Canal Wall
Bottom: Pedestrian Trailway*