

# Nodine Hill Elevated Water Storage Tank Rehabilitation

## A Revitalized Beacon for Yonkers

The Nodine Hill Water Storage Tank, a highly visible, one-million-gallon capacity elevated water storage tank in Yonkers, NY, required extensive rehabilitation to improve the aesthetics of the structure, the quality of water for consumers and the safety for operators.

The project included preparing exterior and interior surfaces, repairs and interior and exterior coating. It was a comprehensive upgrade to a vital component of the city's water supply system, addressing site access, security, lighting, control valves, communications systems, electrical systems and the tank itself.

The tank rehabilitation ensures that residents receive safe, clean drinking water. The structure now meets OSHA standards and is safe for utility operators to scale and inspect. By proactively addressing issues with the tank, residents see that the City of Yonkers is dedicated to improving critical infrastructure with thought toward the future.

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The rivets, weld seams and potentially fragile areas were stripe coated then fully coated by brush and roller with Sherwin Williams Acrolon® 218 HS Polyurethane.

The tank was drained to reveal almost four feet of ice. The ice was removed using a one-million BTU heater and mechanical fracturing. This ice buildup justified the addition of a hydrodynamic mixing system to keep water flowing.

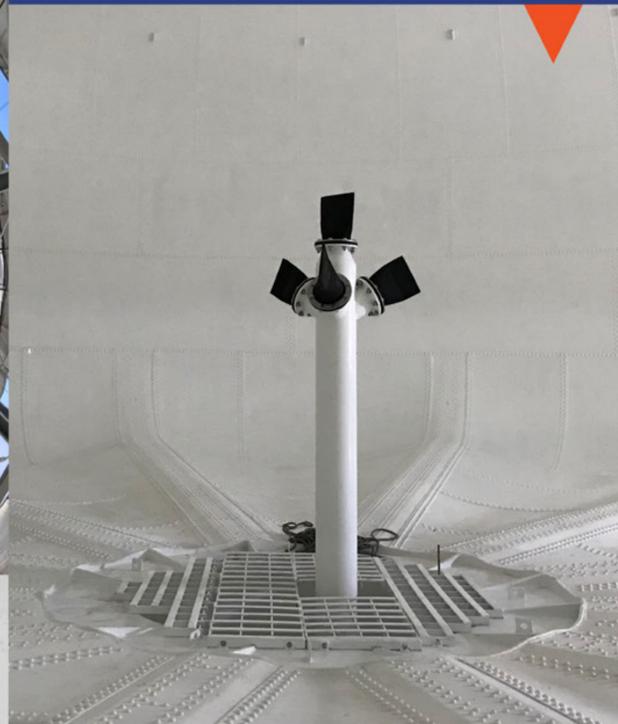
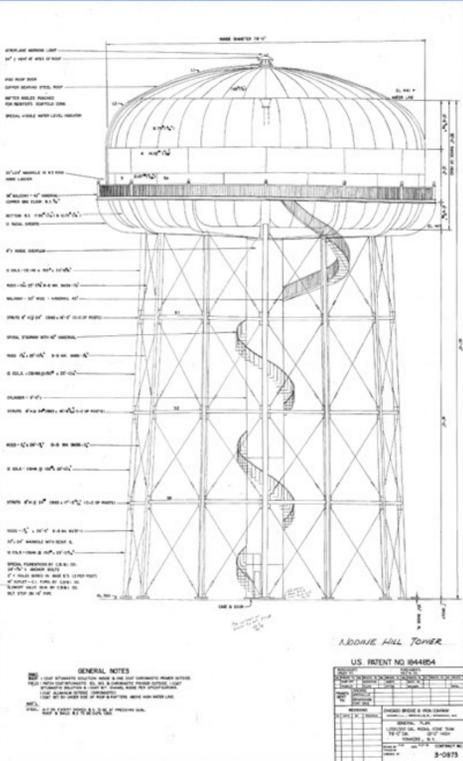
The tank exterior was contained with a shroud-type, Class 2A system during preparation and painting to ensure that no dust or debris migrated off site and did not cause harm to the surrounding community.

Prior to refilling the tank, it was disinfected in accordance with AWWA C652 Method 2 and tested to local, state and federal standards.

**PROJECT**  
Nodine Hill Elevated Water Storage Tank Rehabilitation

**CLIENT**  
City of Yonkers, New York

**ENTRANT**  
Woodward and Currant, Rye Brook, NY  
and D&B Engineers and Architects,  
P.C., Woodbury, NY

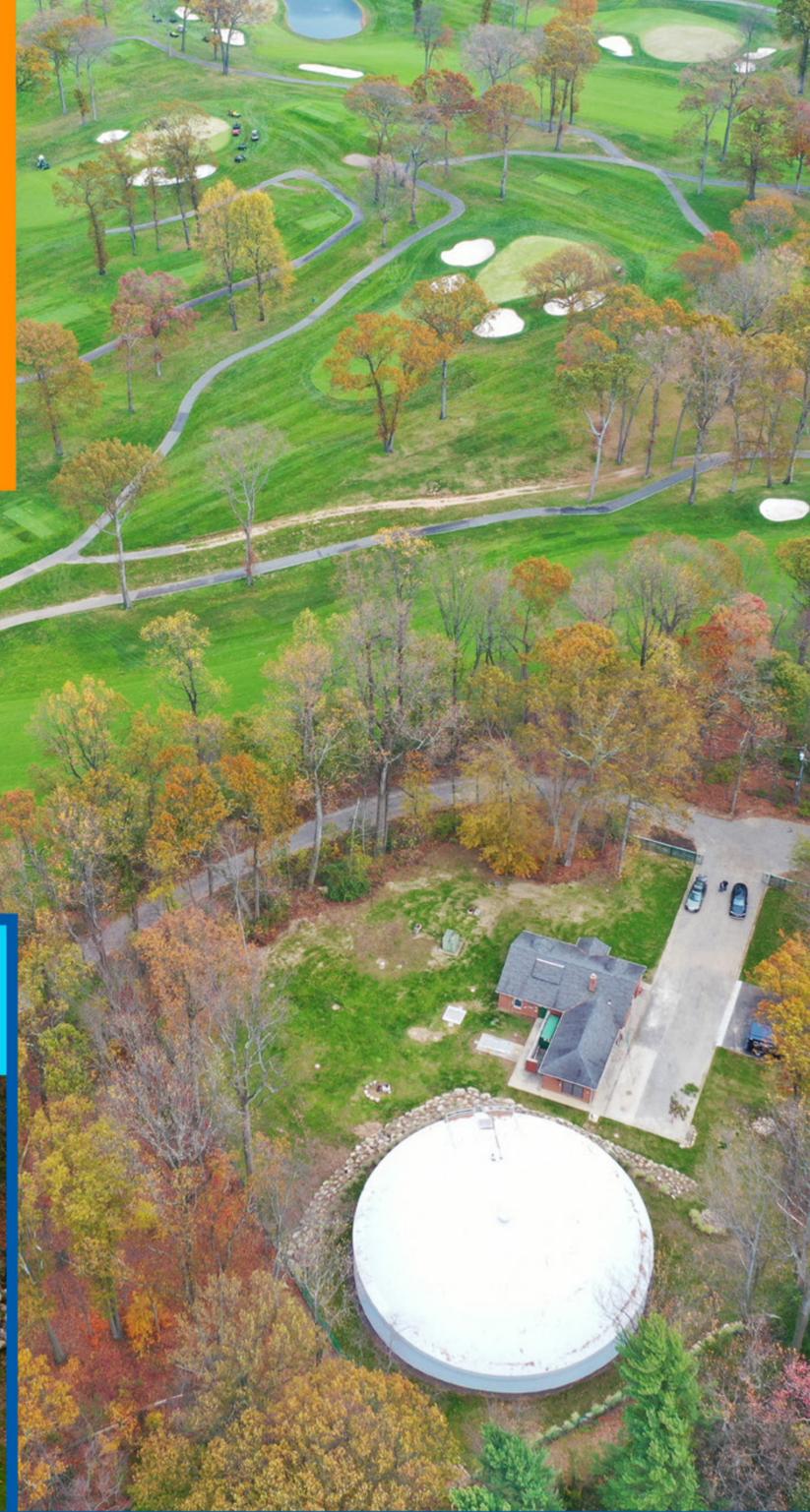


The Village of Old Westbury was in need of a new water storage tank to provide additional water capacity and alleviate low water pressure issues during peak water demand. The firm provided services for the design and construction of a ground storage tank that would not be a visual intrusion on the areas around the Village's Well 6 site, which is located within Old Westbury Golf & Country Club.

In addition to the 1,000,000-gallon tank, the project features 800 linear feet of new water main, a design that minimizes the visual impact of the tank from an adjacent 100-year-old garden, drywells to handle partial volume of the tank allowing it to be drained for maintenance, and the ability to serve the low-pressure zone by gravity to eliminate noise impact from booster pumps or a generator.

The newly constructed tank is 96 feet in diameter, has a 1,000,000-gallon capacity, and the additional water capacity is expected to serve the community through 2030. The project was completed ahead of schedule and under budget, with minimal public inconvenience.

# 1 MG PRESTRESSED CONCRETE GROUND STORAGE TANK AT WELL 6 STATION - VILLAGE OF OLD WESTBURY



The tank was constructed at high elevation within the high-pressure zone to serve the low-pressure zone by gravity without booster pumps or a generator.



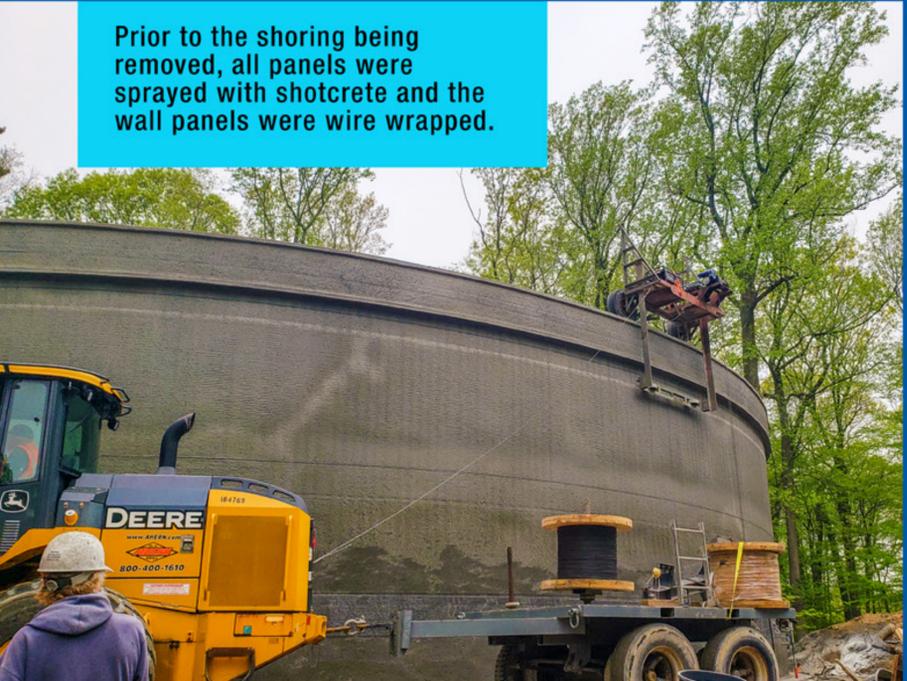
The tank dome and wall panels were pre-cast on site. A crane was utilized to carefully lift and place all of the panels.



Seven drywells were installed to allow the tank to be drained for maintenance.

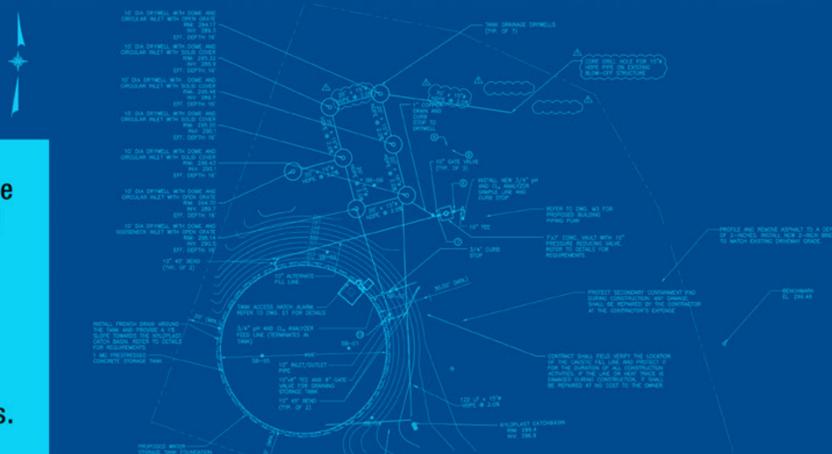


Over 20 concrete trucks were coordinated and arrived to the site over the course of 6 hours to ensure a continuous pour of the tank floor.



Prior to the shoring being removed, all panels were sprayed with shotcrete and the wall panels were wire wrapped.

Ground storage tank proposed site and grading plan including drywell locations and landscaping considerations.



**PROJECT**  
1 MG Prestressed Concrete Ground Storage Tank at Well 6 Station - Village of Old Westbury

**CLIENT**  
Village of Old Westbury, New York

**ENTRANT**  
D&B Engineers and Architects, P.C., Woodbury, NY