

3.0 MG Ground Reservoir Brooklyn Park, MN

The City of Brooklyn Park has an existing 6 million gallon (MG) ground storage at the Brooklyn Park Water Plant. The City retained Progressive Consulting Engineers, Inc. (PCE) to add an additional 3.0 MG ground storage at the water treatment plant. During the plant expansion completed in the early 1990's, piping was installed to connect to this future reservoir.



A 42" watermain runs north of the existing reservoir. This required that there be an adequate separation between the existing reservoir and the new reservoir for future maintenance.

It was critical that the plant operate normally during the construction of the new 3 MG reservoir. A review of the existing piping showed that provisions had been made for construction of the new reservoir expansion. Two new 42" valves were installed to isolate the system. Careful attention was paid during construction so that the existing 42" watermain north of the existing 6 MG reservoir was not disturbed during construction

of the reservoir.

The project was bid in July 2004. Municipal Builders, Inc. was awarded the contract for \$2.4 million and construction started in August 2004.

Reservoir features include:

- Buried, rectangular-shaped, cast-in-place, steel reinforced concrete structure with columns and flat roof to match nearby existing reservoir.
- Wall joints—designed with keyways and PVC water stops to seal the tank.
- Liner—to prevent leaking, the reservoir interior is coated with a NSF approved seamless waterproofing membrane liner classified for potable water service.



The reservoir is filled by gravity from the nearby treatment plant effluent. High service pumps in the plant pump water from the reservoir into the water distribution system. The reservoir construction was completed and put into operation in June 2005. The project also included security improvements for the existing 6 MG reservoir involving removal of existing tennis courts and security fence.

Client: City of Brooklyn Park

Client Contact: Jon Watson P.E.

Year Completed: 2005

Bid: \$2,431,600 Final Completion Cost: \$2,323,868



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