

# Thornton Reservoir Valve Shaft Chamber Cone Valve, Crane and Drip Ceiling Rehabilitation, CSA

**Project Number:** 15-266-3F

**Service Area:** Calumet

**Location:** South Holland, Thornton, and Calumet WRP

**Engineering Consultant:** Black & Veatch

**General Contractor:** To Be Determined

**Estimated Construction Cost:** \$3,000,000

**Contract Award Date:** June 16, 2016\*

**Substantial Completion Date:** June 16, 2017\*



**Project Description:** The purpose of this project is to rehabilitate several items related to the existing valve shaft for the Thornton Transitional Reservoir dewatering tunnel, in addition to the completion of the remaining work related to the Final Preparation of the Thornton Composite Reservoir and miscellaneous work for the Calumet Service Area.

The project includes several items related to the existing valve chamber, including the rehabilitation of two existing 42-inch cone valves. Additionally, the existing valve chamber crane shall be removed, and a new 25-ton crane shall be furnished, delivered and installed along with an access platform, ladder and other related appurtenances. A new Fiberglass Roof Panel (FRP) drip ceiling shall also be furnished, delivered and installed within the valve chamber. Within the Thorn Creek Upper Connection Tunnel, a concrete plug shall be installed to prevent CSO contamination within the existing unlined portion of the tunnel. Within the Thorn Creek Diversion Tunnel, loose rocks shall be scaled and rock anchors shall be provided as specified. At the Calumet WRP, an existing construction trailer shall be removed. Three (3) radar units shall be furnished, delivered and installed, with one each at the CDS-39, CDS-55 and 140th Street Dropshafts.

**Project Justification:** The existing crane and 42-inch cone valves were installed as part of the Thornton Transitional Reservoir project (Contract Number 77-235-BF). The crane and cone valves were placed in service in 2003. After 13 years of use, maintenance is now required on both the crane and valves. Currently under harsh conditions, the crane does not operate. The new fiberglass reinforced plastic drip ceiling will assist in maintaining the life of the newly-installed crane. Rehabilitation of the cone valves will allow continued dewatering of the Thornton Transitional Reservoir, as the TTR will remain in service for at least another five years. Currently, the cone valves are not fully functional.

The Thornton Composite Reservoir project is an essential part of the District's Tunnel and Reservoir Plan to prevent flooding and pollution from combined sewer overflows. Completion of the reservoir is part of the District's Combined Sewer Overflow Long-Term Control Plan for complying with requirements of the Clean Water Act. The project is estimated to provide an average of \$40 million in benefits annually to over 550,000 people in its service area.

**Project Status:** The design completion date is expected to be February 2016. The project is expected to be advertised in March 2016 and awarded in June 2016.

\*Information shown is estimated.