

Upcoming Projects

DISTRICT OF COLUMBIA

D.C. Water

CSO Tunnels

As part of a long-term plan to control combined sewer overflows, D.C. Water is planning to construct a series of tunnels to capture excess flow and convey it to the Blue Plains wastewater treatment plant. The major tunnel projects are: the Blue Plains Tunnel (23,600 ft of 23-ft diameter tunnel), the Anacostia River Tunnel (12,500 ft of 23-ft diameter tunnel), the NE Boundary Tunnel (17,500 ft of 23-ft diameter tunnel) and the NE Boundary Branch Tunnels (11,300 ft of 15-ft diameter tunnel).

Six statements of qualification were received for the Blue Plains Tunnels, of which three were shortlisted. Price and technical proposals from those design-build teams are due Dec. 2 with award expected in April 2011 and construction in July 2011. A request for proposals for the Anacostia River is expected to be issued in early 2012. Additionally, an RFQ/P for construction management services for the Blue Plains Tunnel project was issued on July 4, 2010, with proposals due on Aug. 19. The selection process anticipates an award in March 2011.

All work is scheduled for completion by 2025.

FLORIDA

Miami

Government Cut Utility Tunnel

The project consists of 8,000 lf of 12-ft diameter utility tunnel underneath the Government Cut shipping channel. The channel is being dredged to accommodate larger vessels that are anticipated in conjunction with the Panama Canal expansion. The tunnel will cross 80 ft below sea level, lowering the alignment of existing utilities. The project includes a 25-ft diameter launch shaft on Fisher Island and a 24-ft diameter shaft on Miami Beach. For additional information visit: www.governmentcututilitytunnel.com.

INDIANA

Indianapolis

Deep Rock Tunnel Connector

A key component of the City of Indianapolis' long-term, \$1.8 billion plan to reduce raw sewage overflows,

the Deep Rock Tunnel Connector comprises 6.5 miles of 18-ft diameter sewer tunnel that will provide extra capacity. The project was originally designed as the Belmont-Southport Interplant Connect – a shallow, soft ground tunnel that would have allowed the city to transfer flows from between two sewersheds and two treatment plants – but was redesigned to increase capacity with the idea the Southport treatment plant could be expanded in the future. The project is expected to cost \$160 million. The project is expected to bid early 2011.

NEW JERSEY

North Bergen

Hudson River Crossing

The Federal Transit Administration (FTA) has committed \$3 billion to the tunnel connecting Secaucus, N.J., to midtown Manhattan rail hubs. The Port Authority of New

York and New Jersey followed suit and New Jersey Transit is committing about \$1.5 billion. The tunnel will be nearly 30,000 lf and 20-ft diameter.

Extensive geotechnical investigations have been completed and officials have begun prequalifying contractors. Officials anticipate some 25 contracts awarded for the project. The project is scheduled for completion in 2017.

The project comprises three tunnel sections to be let as design-build contracts: the Manhattan Tunnels, the Palisades Tunnel and the Hudson River Tunnel. The Manhattan Tunnels and Palisades Tunnels have been awarded.

OHIO

Cincinnati

Lower Mill Creek Partial Remedy CSO Tunnel

This tunnel for the Metropolitan Sewer District (MSD) of Greater Cincinnati will be 9,600 ft long, 30 ft in diameter and 250 ft deep. The project, being designed by Black and Veatch, includes three drop shafts and one deep pump station shaft. Bid date is 2015.

Cleveland

Euclid Creek Tunnel (ECT)

The Northeast Ohio Regional Sewer District is engaged in an ambi-

tious program to reduce the number of combined sewer overflows (CSOs) during wet weather events. The Euclid Creek Storage Tunnel – Contract ECT – is the first project to be constructed as part of this CSO program. The ECT project consists of the following elements:

- 18,070 lf of 24-ft (finished) diameter tunnel in Chagrin Shale supported with steel fiber reinforced segmental lining. Tunnel depth ranges from 190 ft to 220 ft below ground surface;
- A 40-ft diameter mining shaft and a 50-ft diameter TBM extraction shaft located at each end of the tunnel;
- Four baffle drop shafts with adit connections to the tunnel that will convey near-surface flows into the tunnel. These shafts range in size from 16 to 50 ft in diameter;
- In addition to these larger and deeper structures, the ECT project also consists of several shallower and smaller diameter structures designed to capture and transport near-surface flows to the larger shafts and the tunnel;
- Over 5,000 lf of consolidation sewers ranging in diameter from 36 to 90 in. to be installed by both trenchless and open-cut methods.

The project was expected to bid in July 2010 and construction cost is expected to be approximately \$214 million. Information: www.neorsd.org/ect.

Cleveland

Dugway Storage Tunnel

The project includes the installation of a 24-ft diameter storage tunnel extending approximately 16,000 ft. The tunnel will be constructed by TBM through Chagrin shale at depths averaging 200ft below surface. Design is expected to begin in the fourth quarter of 2012 with construction expected to begin in the third quarter of 2014. The engineer's estimate is \$128.4 million.

Cleveland

Doan Valley Storage Tunnel

This 17-ft diameter tunnel will extend 9,700 ft. Design is expected to begin in the first quarter of 2013 with construction expected to begin in the first quarter of 2015. The engineer's estimate is \$88.2 million.

RHODE ISLAND

Providence

Narragansett Bay CSO

Two near-surface interceptors for the Narragansett Bay Commission – the second phase of Providence’s CSO Abatement Program – will run some 25,000 lf along the Woonasquatucket and Seekonk rivers. The Phase II facilities will connect to the 3-mile storage tunnel that has been operating since 2008.

Due to the dense urban environment, trenchless construction will predominate as the installation method. The Woonasquatucket CSO Interceptor will comprise: approximately 16,500 of 48- to 72-in. near surface sewers in soil and rock; several connection and control structures; a 220-ft deep, 27-ft diameter work shaft; and a 220-ft deep, 1,800-ft long, 8-ft diameter connecting adit in rock. The Seekonk CSO Interceptor will comprise: approximately 7,300 ft of 48- to 72-in. near surface sewers in soil, and several connection and control structures. Bidding for the Woonasquatucket Interceptor is scheduled for September 2010. Construction for Phase III, a second large storage tunnel, is expected to begin in 2017.

SOUTH CAROLINA

Charleston

Market Street Drainage Tunnel

This 10-ft diameter stormwater tunnel will stretch 4,000 ft, and includes a 25-ft access shaft and three 54-in. drilled drops. Depths range from 80 ft to 140 ft below surface. The cost estimate is approximately \$18 million. The construction schedule is 18 months. The designer is Davis & Floyd. Estimated bid date is fall 2010.

Charleston

West Ashley Sewer Tunnel and Inflow Pump Station

This \$43 million wastewater project includes 8,200 ft of tunnel with an additional 1,000 ft in interconnection tunnels. The tunnel, being designed by Black & Veatch, will be 7- to 8-ft excavated diameter with 54-in. Hobas Pipe as a final liner (annulus space to be grouted). Other work includes a 20-ft drop shaft, two 30-in. drilled drops and a 60-ft working shaft (to be fitted with pump station after tunnel construction). Depth is approximately

120 ft. Cost estimate is \$43 million. Construction schedule is 30 months. Estimated bid date is early 2011.

TEXAS

Austin

Water Treatment Plant 4

The Austin Water Utility is moving forward with Water Treatment Plant 4, a new 300-mgd water treatment facility that draws water from Lake Travis to augment the City’s potable water system. The project includes three tunnel components with a deep raw water intake tunnel to convey lake water to the new plant, and two other tunnels – the Jollyville and Forest Ridge Tunnels – to convey treated water from the new plant to the existing system. MWH Constructors Inc. is the Construction Manager at Risk for the construction of the Water Treatment Plant Number 4 Project including the tunnels.

Award of the tunnel work is planned to include a two-step selection process for each of the three tunnel segments. Statements of Qualifications (SOQs) will be evaluated during Step 1; the most qualified firms/teams will be invited to submit proposals for construction in Step 2. Step 1 for Bid Package S-101: Raw Water Intake System (comprised of the Lake Travis raw water intake structure, raw water intake tunnel, raw water transmission tunnel, pump wells and associated shafts) is currently under way. Proposers’ SOQs are due at the MWH Constructors Austin office on June 8, 2010.

Plans and the SOQ documents can be obtained by leaving your contact information at MWHAustinWTP4@MWHGlobal.com or by calling (512) 343-8700, ext. 115.

The Jollyville and Forest Ridge Tunnel projects, still in design, are planned to consist of approximately 35,000 ft of 84-in. ID and 10,000 ft of 48-in. ID treated water pipeline tunnels, respectively. The Jollyville/Forest Ridge subcontractor selection process is expected to begin the first quarter of 2011.

CANADA

ONTARIO

Toronto

Toronto-York Spadina Subway

The Toronto-York Spadina Subway Extension is a \$2.6 billion (CAN) project that will extend the existing sub-

way service 8.6 km (including 6.7 km of bored tunnel) from Downsview Station northwest through York University within the City of Toronto and north to the Vaughan Metropolitan Centre in the Regional Municipality of York. Six stations will be constructed as part of this extension.

In April 2008 Spadina Link JV, a joint venture between Hatch Mott MacDonald, Delcan and MMM Group, were appointed as project managers as part of an integrated team with the client, the Toronto Transit Commission. Design contracts were awarded in October 2008. The TTC has also awarded a contract to Lovat for four EPB TBMs. The project will be broken into two tunnel contracts each with a station and four standalone stations via traditional design-bid-build procurement. Preliminary work has begun on smaller advance contracts with the main construction packages scheduled to be let later in 2010. Construction on stations and tunnels is expected to begin in early 2011. Contractors have been prequalified for station and TBM tunnel construction together with SEM tunneling and compensation grouting Information: www.spadina.ttc.ca.

York

Southeast Collector Sewer

The Regional Municipality of York in the greater Toronto area is designing a 15-km (9.3-mile), 3-m (9.8-ft) diameter sanitary sewer tunnel. Hatch Mott MacDonald and AECOM have been retained for design of the project. The 100 percent design has been submitted to the owner.

Construction will not begin until approval of the environmental assessment, which was anticipated to happen in the first quarter of 2010. The tunnel will be constructed using EPB TBMs and installed with precast concrete segmental lining in a one-pass system. Most of the tunnel will be through dense Newmarket till with some softer soils expected. The Regional Municipality of York is procuring four EPB TBMs and the concrete segments.

The first of the TBMs, which were ordered from Lovat, was expected to be delivered in May. Construction is planned to start by mid 2010 with completion by mid 2013. The cost estimate is \$500 million CAN.