

Upcoming Projects

CALIFORNIA

Los Angeles

Westside Subway Extension

The Westside Subway Extension for the Los Angeles County Metropolitan Transportation Authority is a \$5.3 billion, 9-mile extension planned to connect from the existing station at Wilshire/Western westward through Beverly Hills and into Westwood. The tunnel will be about 20 ft ID constructed by closed face, pressurized TBM. The extension includes seven stations that will be built along the alignment. Final design and contractor selection are anticipated to occur in 2012 with RFP expected early in 2012. The extension is expected to be operational by 2022.

Los Angeles

Regional Connector

The Regional Connector project is a \$1.3 billion, 1.9-mile underground line for the Los Angeles County Metropolitan Transportation Authority to connect the Metro Gold Line to the Metro Blue Line and the future Expo Line. The Regional Connector is expected to be out to bid in 2012. The project includes the construction of three stations. Construction is anticipated to begin in 2013 with revenue service starting in 2019.

CONNECTICUT

Hartford

South Conveyance Tunnel

Completion of the South Conveyance Tunnel (SCT) for the Metropolitan District is important to meet the requirements of the CSO consent order and SSO consent decree. It will be designed during Phase 1 and constructed over an estimated three years. The project includes

a deep rock storage tunnel that will store captured CSOs during rain events, and the captured flow will be pumped back to the Hartford WPCF once the rain event subsides. Aecom has been selected as the tunnel designer with Black & Veatch as a sub. Preliminary design was completed by program manager CDM/Hatch Mott MacDonald. Preliminary design calls for approximately 3 miles of 26-ft diameter tunnel in bedrock. Construction is expected to begin in 2014.

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).

The Blue Plains Tunnel contract is the first major tunneling contract in the Washington, D.C., Clean Rivers Project and was awarded to a joint venture of Skanska, Jay-Dee, Traylor and designer Halerow for \$330.56 million. A request for proposals for the Anacostia River is expected to be issued in early 2012.

All work is scheduled for completion by 2025.

INDIANA

Indianapolis

Deep Rock Tunnel Connector

A key component of the City of India-

napolis' 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 bid on Aug. 11 with Shea/Kiewit JV emerging as the lowest of nine bidders at \$180 million, approximately \$100 million below the estimated cost. Bids ranged from \$180 million to \$275 million. Notice to proceed is expected to be issued before Dec. 31, 2011.

The project was originally designed as the Belmont-Southport Interplant Connector — 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 the largest public works project ever in Indianapolis.

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 September 2014.

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 200 ft 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.

Lorain

Black River Conveyance and Storage Tunnel

The City of Lorain has initiated an infrastructure improvement program to eliminate sanitary overflows to the Black River and to relocate the existing Black River Wastewater Treatment plant. The Black



The Locally Preferred Alternative for the Westside Subway Extension.

River Conveyance and Storage Tunnel and associated Pump Station, collectively referred to as the BRT project, is the first phase of the City's program.

The BRT project includes the installation of a 19-ft ID storage tunnel extending approximately 5,500 ft along the west bank of the Black River. The tunnel will be constructed by TBM through Chagrin shale at an average depth of 120 ft below existing ground surface. The TBM will be launched from the Pump Station shaft, which will then be finished as a 36-ft ID, 175-ft deep concrete-lined pumping well.

The BRT Pump Station will be built with an initial pumping capacity of 8 mgd, with expansion capability for future phases. The tunnel drive will terminate at the Tunnel Drop Shaft, which will then be concrete-lined and finished as a 30-ft ID, 115-ft deep shaft. Vortex drop structures will be installed in the shaft.

The BRT project also includes construction of an approximately 3,600 sq ft screening and odor control facility, as well as other elements to integrate the BRT with the existing sewer system. The project was originally bid Oct. 21 as a multi-prime contract in accordance with State of Ohio Revised Code Section 153.50, and is being re-bid due to the fact that bids were not received for all portions of the multi-prime contract. The City is in the process of re-bidding the general contract, which includes the tunnel. Bids were due Dec. 16. Construction cost is expected to be approximately \$51 million. For information, contact Corey Timko, City of Lorain, at (440) 204-2279.

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 ft 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 comprises five contracts: Regulators, West, Main, North and Site Demolition. The Main contract involves nearly 10,000 ft of 48-, 54-, 60- and 72-in. microtunnels and related shafts and structures. Bids for the project were received Nov. 22 with Barletta/Shank Bal-

four Beatty the apparent low bidder. The contract still needs approval from the Narragansett Bay Commission Board of Commissioners meeting, which was scheduled for Dec. 20. The engineer's estimate was \$90 million. The Seekonk CSO Interceptor will comprise: approximately 6,500 ft of 48- to 60-in. near surface sewers in soil. The Seekonk CSO Interceptor is expected to bid in February 2012. Engineer's estimate is \$58 million. 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. Estimated bid date is first quarter of 2012.

Charleston

West Ashley Sewer Tunnel and Influent Pump Station

This \$48 million wastewater project includes 8,300 ft of tunnel with an additional 1,000 ft of interconnection tunnels. The tunnel, being designed by Black & Veatch, will be 7- to 8-ft excavated diameter with 54-in. Fiberglass Reinforced Polymer Mortar Pipe as a final liner (annulus space to be grouted). Other work includes a 20-ft diameter drop shaft, two 30-in diameter drilled drops and a 60-ft diameter working shaft that will then be converted into an influent pump station at the wastewater treatment plant after tunnel construction. Tunnel depth is approximately 120 ft. Estimated overall construction schedule for the project is 30 months. Bid date is undetermined at this time. Project is currently being delayed until resolution on a pending permit issue is reached.

WASHINGTON

Seattle

Sound Transit Future Projects

Sound Transit (The Regional Transit Authority of Puget Sound), located in Seattle, has entered the final design phase of the North Link Project, an extension of its existing 15-mile light rail system. Two transit tunnel packages are expected to be advertised for construction in the fourth quarter of 2012 (Contract N 120, two miles) and third quarter 2014 (Contract N130, one mile). Jacobs

Associates is the final designer engineer. Construction is expected to start in summer 2013 and May 2015, respectively.

The North Link – UW Station to Northgate Project is 4.3-miles (3 miles in bored tunnels) in length and will extend light rail from the future UW Station north under campus via twin-bored tunnels to an underground Brooklyn Station in the University District along Brooklyn Ave between NE 43rd Street and NE 45th Street, an underground Roosevelt Station along 12th Ave NE between NE 65th Street and NE 67th Street, via twin bored tunnels to 94th St., and via retained cut and elevated sections to an elevated Northgate Station located east of First Avenue Northeast, spanning Northeast 103rd Street. Tunnel contracts will include SEM cross passages, and station/portal excavations.

Preliminary estimates for the two tunnel packages are in the range of \$325-375 million, and \$150-\$200 million, with anticipated construction durations of 4 years, and 3.5 years.

CANADA

ONTARIO

Region of Peel

Hanlan Water Project

The proposed Hanlan Feedermain will be a 2,400-mm (94.5-in.) ID pipeline running from the Lakeview Water Treatment Plant on the shoreline of Lake Ontario in Mississauga, approximately 14 km (8.7 miles) northward to the Hanlan Reservoir and Pumping Station. This project is part of the Region of Peel's 2007 Water and Wastewater Master Plan. Once constructed it will enhance the regional water supply, service commitments to growth and provide redundancy for the Region's system. The major tunnel component is 6 km (3.7 miles) of 3.6-m (11.8-ft) diameter bore in shale under major highways and rail bridges. This component will be tendered as a separate contract in mid-2012. In addition to the major tunnel component several additional tunnels of 2.4-m (7.9-ft) and 3.6-m (11.8-ft) diameter bore are required for lengths up to 1.4 km (0.9 miles). These tunnels are expected to be in more challenging soil conditions and cross under several highway bridges. There will be an informational project meeting, to be advertised in multiple industry publications, for interested contractors in January 2012. The project is currently in the early stage of design.

To include your project, contact Jim Rush, editor, at jrush@benjaminmedia.com.