Reedy River Basin Sewer Tunnel Project

CONSTRUCTION PROGRESS

JAN. 2020

LAST SWS UPDATE: October 10, 2019
Stephen O’Connell, P.G.

Construction Manager, Dig Greenville

Stephen is responsible for managing the onsite resident engineering and inspection personnel, community relations, and contractor coordination. Stephen has worked on the design and construction of dozens of tunneling projects with Black & Veatch. His recent experience has been construction management and resident representation on large, complex tunnel projects in South Carolina and South America.

Stephen is a resident of South Carolina and holds a B.S. degree in geology from West Virginia University and a M.E. in geotechnics from Missouri S&T. Stephen enjoys traveling with his wife, Rives and one-year old baby, Graeme.

Contact Us:

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Twitter:
www.twitter.com/diggreenville

Renewable Water Resources:
https://rewaonline.org

Super Excavators / CMCRA JV:
www.superexcavators.com
cmcgruppo.com/cmc/en/

Black & Veatch:
www.bv.com

REEDY RIVER BASIN SEWER TUNNEL

SIPPIN’ WITH STEVE NO. 10
January 16, 2020
Greenville, South Carolina
About Dig Greenville

Dig Greenville is ReWa’s largest wastewater conveyance project. It will feature nearly 6,000 feet of tunnel excavation, 11 feet in diameter, spanning from two constructed shafts; one to be located at Westfield Street/Riley Street and the other at Cleveland Park in Downtown Greenville.

Key Benefits

- Mitigate risk of backups and overflows in the existing system.
- Provide additional storage capacity during wet weather events.
- Meet potential future demands on the existing system.

Dig Greenville Contractor:
Super Excavators/CMCRA, A Joint Venture

Engineer/Construction Manager:
Black & Veatch Corporation

Upcoming Project Events

- Continue TBM mining at full production
- Interior coatings of Junction Box
- Finish Diversion Structure interior channels at the Riley St. Site (91% Complete)
- Finish Drop Shaft concrete at the Riley St./Westfield St. site (90% Complete)
- Demolish 325 South Hudson street building for new sewer line
- Begin construction on 42” sewer at upstream site

SINCE THE LAST SIPPIN’ WITH STEVE...

11/20/19: “Socket” poured within the Starter Tunnel to assist Tunnel Boring Machine (TBM) launch

12/4/19: TBM placed in the Access Shaft, advanced to heading

11/21/19 – Diversion Structure Roof pour completed; odor control construction underway
JUNCTION BOX SITE

CLEVELAND PARK DR

EXISTING 60" SEWER

NEW 60" SEWER, RECEIVES TUNNEL FLOWS

CLEVELAND PARK DR

SITE ENTRANCE
Construction Progress and Accomplishments
October 2019 | January 2020

TBM EXCAVATION: UNDERWAY
Surveying equipment setup, railway installation, full production start-up

LAST SWS UPDATE: October 10, 2019
Construction Progress and Accomplishments
October 2019 | January 2020

STARTER TUNNEL: COMPLETE
Approximately 218 FT total length

JUNCTION BOX: 95%
Backfill, sodding completed: Final channel formation, linings and testing remain

DIV. STRUCTURE: 90%
Exterior concrete completed: Final channel formation, linings, and testing remain

DROP SHAFT: 72%
Walls completed: Interior patchwork, lid formation, final coating, vortex structure remain

LAST SWS UPDATE: October 10, 2019
11/20/2019
STARTER TUNNEL COMPLETION
12/11/19
TBM ADVANCE TO HEADING
12/20/19

TBM CONVEYOR SYSTEM
TBM OPERATION, STARTER TUNNEL
TBM ADVANCE THROUGH SOCKET
<table>
<thead>
<tr>
<th>ACTIVITY</th>
<th>CONTRACT SOUND LEVEL LIMITS</th>
<th>MEASURED SOUND LEVELS</th>
</tr>
</thead>
<tbody>
<tr>
<td>General Site Work</td>
<td>90 dB</td>
<td>64.7 dB</td>
</tr>
<tr>
<td>Rock Dumping / Hauling</td>
<td>90 dB</td>
<td>87 dB</td>
</tr>
</tbody>
</table>
DIVERSION STRUCTURE ROOF, HATCHES COMPLETE
DROP SHAFT & ODOR CONTROL
CONSTRUCTION
October 2019 | January 2020
DROP SHAFT INTERIOR FORM REMOVAL

12/16/2019