CLEVELAND PARK DETOUR | JANUARY 2019
REEDY RIVER BASIN SEWER TUNNEL
Access Shaft Starter Tunnel, Cleveland Park Detours, Saturday Potential
Construction Phase
Explorations
B&V Additional Top of Rock Investigation

- Existing borehole
- New rock probe

21 additional rock probes conducted along wooded slope up to STA 3+00

Ridgeland Drive property STA 5+00

Tunnel

Access Shaft
Geologic Profile After Investigation Results
Starter Tunnel Construction
Starter Tunnel Construction (future work)

• Rib and lagging ground support required for mixed face conditions

• Excavation will involve drill and blast methods and mechanical excavation
Ribs and Lagging Temporary Support (future work)

- Support of excavation via ribs and lagging for mixed ground conditions
Schedule Considerations
Cleveland Park – Upcoming Activity

<table>
<thead>
<tr>
<th>LEGEND</th>
<th>TIME FRAME</th>
</tr>
</thead>
<tbody>
<tr>
<td>TUNNEL SITE BOUNDARY</td>
<td>2019 - 2021</td>
</tr>
<tr>
<td>JUNCTION BOX CONSTRUCTION</td>
<td>WINTER - SPRING 2019</td>
</tr>
<tr>
<td>RICHLAND CREEK CROSSING (OPEN-CUT)</td>
<td>JANUARY 2019</td>
</tr>
<tr>
<td>CLEVELAND PARK DRIVE CROSSING (OPEN CUT)</td>
<td>JANUARY - MARCH 2019</td>
</tr>
</tbody>
</table>
Cleveland Park – Parking Lot Closures

<table>
<thead>
<tr>
<th>Cleveland Park Impact Schedules</th>
<th>Duration (days)</th>
<th>Start</th>
<th>Finish</th>
</tr>
</thead>
<tbody>
<tr>
<td>Contract</td>
<td>760</td>
<td>3/5/18</td>
<td>4/2/20</td>
</tr>
<tr>
<td>Baseline</td>
<td>677</td>
<td>5/17/18</td>
<td>3/23/20</td>
</tr>
<tr>
<td>Current</td>
<td>826</td>
<td>12/1/18</td>
<td>3/5/21</td>
</tr>
</tbody>
</table>

- +62-day delta from Contractual Schedule
Cleveland Park Drive | Swamp Rabbit Trail
Continued 60” Crossing of Cleveland Park Drive

- Closure of Cleveland Park Drive occurred January 14, 2019
- Swamp Rabbit Trail detour is active
- Approximately 60 day total duration
- Ongoing pedestrian and traffic safety patrol/monitoring
Potential Saturday Work
Saturday Work Benefits

• Shorter total project duration

• Cleveland Park and Swamp Rabbit Trail assurances
  • Reduced durations of open excavations (Richland Creek, Junction Chamber)
  • Reduced durations of bypass pumping
  • Lower risk of unauthorized public entry during weekends

• Increased productivity during tunneling operations
  • Starter tunnel construction
  • Tunnel boring machine mining
Saturday Work Limits

- Monitoring thresholds remain
  - Noise (limited to 90 dB_{LEQ} at the fence limits)
  - Particulates (limited to EPA standards for ambient air quality)
  - Vibration limits
  - Continual monitoring, restricting activities

- No trucking or hauling permitted on Saturdays

- No blasting permitted on Saturdays