



## WMATA Tunnel Waterproofing Design Washington Metropolitan Area Transit Authority (WMATA)

**Location:** Washington, D.C.

**Date:** 2018 – Present

**Structure:** Twin-running tunnels

**Length:** 111,026 feet

**Cross-Section:** Varies

**Geology:** Varies

**Cost:** n/a

**Client:** Gannett Fleming – Parsons  
Transportation Group JV (GFP)

**Owner:** Washington Metropolitan Area Transit  
Authority (WMATA)



**Figure 1.** Medical center crossover during leakage inspections.

### GEC On-Site Inspection Support Services:

Portions of the underground segments of the WMATA metro system have experienced increased water infiltration, particularly in older segments of the system where systematic waterproofing was not included in the original construction. To address the issues in an engineered manner, WMATA has directed its GEC (GFP) to conduct thorough inspection and documentation of the conditions of shafts and tunnel liners at critical locations across the Metro system.

Gall Zeidler Consultants (GZ), as part of the GEC team, provided engineering support, including developing design drawings, specifications and other supporting documentation necessary for WMATA to bid the work to contractors. Additionally, GZ was part of the field inspections and documentation of the condition of tunnels and shafts, necessary for development of the design documents. These inspections also included digital and thermographic scanning of the tunnels.



**Figure 2.** Tunnel photographic and thermographic scan performed from high rail vehicle.