



PROJECT BRIEF

Canopy Hotel Boston (Parcel 9) Instrumentation & Monitoring

PROJECT PROFILE

CLIENT:
CV Properties, LLC.

LOCATION:
Boston, MA

VALUE:

- Instrumentation and monitoring of a sensitive tunnel ceiling during construction
- Real-time 24/7 automated monitoring and notifications to stakeholders
- Customized liquid-level monitoring system designed for specific project needs

SERVICES PROVIDED:

- Real-time automated data monitoring with Geocomp's *iSiteCentral®* data management system

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INSTALLATION OF GEOTECHNICAL INSTRUMENTS & DATA MANAGEMENT COLLECTION

Geocomp is providing real time monitoring while construction for the hotel is taking place above the tunnel. The final design for the hotel calls for a portion of the structure's weight to be carried by the existing tunnel roof girders. During excavation of the soil above the tunnel and subsequent backfill and vertical construction, the tunnel roof girders are expected to deflect upwards as the soil load is removed, and then settle as the foundation elements and structural load related to the building are added. Geocomp is actively monitoring the ceiling and walls of the tunnel to ensure that the actual measured deflections do not exceed the specified design criteria. An automated motorized total station (AMTS) was installed prior to construction to monitor the tunnel walls. In addition, Geocomp designed a customized liquid-level monitoring system specific to the project. The liquid level system was installed to measure the deflections inside certain confined spaces in the ceiling of the tunnel where the AMTS was unable to monitor.



BACKGROUND

A Canopy by Hilton Hotel is currently under construction at 111 North Street in Boston, MA. This \$125 million project is a joint venture between CV Properties, Harbinger Development and Olshan Properties. The project is expected to be completed in mid-2021. In addition to the hotel, the project also includes 12,711 square feet of retail and restaurant space. Portions of the building are being built above a very sensitive structure: the Central Artery Tunnel that carries Interstate 93 beneath downtown Boston. Geocomp has been subcontracted to instrument the tunnel and monitor it during construction.