

The New Tappan Zee Bridge

Originally built in 1955, the Tappan Zee Bridge was maintaining a daily traffic rate of 40,000+ vehicles per day upon its completion, which greatly increased with years to come. In 2010, the bridge had a daily traffic rate of 135,000 vehicles per day, reducing the life-span of the original design. Spanning over 3 miles at the Hudson River's second widest point, the previous cantilever style bridge containing several lanes, is now being replaced by a dual-spanned cable-stayed, twin bridge containing 8 lanes. This redesign also required new foundations to be installed for which GRL Engineers, services provided assistance. At a cost of \$3.9 Billion, it was one of the largest projects in North America.

GRL's services for Tappan Zee Constructors included completing a multitude of [Wave Equation Analyses](#) for hammer selection, [Dynamic Pile Testing \(PDA\)](#) on temporary and permanent 36 to 48-inch diameter open end pipe piles, performing [Crosshole Sonic Logging \(CSL\)](#) and [Thermal Integrity Profiling \(TIP\)](#) on 48 to 96-inch diameter drilled shafts. GRL also provided consulting services on data interpretation and reviewing project specifications. Additionally, GRL Engineers provided driving criteria based on the Wave Equation Analyses, dynamic testing results and field observations. The newly constructed West-bound lanes of the new Tappan Zee Bridge were opened in the fall of 2017, with the East-bound lanes opened in 2018.

To learn more about GRL Engineers, visit www.grlengineers.com or email us at info@grlengineers.com.

Project Details

Client: Complete General Construction Company

Location: Tarrytown to South Nyack, NY

GRL Office: Pennsylvania

GRL Services

- Preliminary GRLWEAP Analysis
- Dynamic Pile Monitoring
- CAPWAP® Analysis
- Crosshole Sonic Logging (CSL)
- Thermal Integrity Profiling (TIP)

