

## Client

- Walsh Construction

## Location

- New York

## Services Provided

- Data Collection
- System Identification
- Real time response analysis
- Provision of vibration alarms

## Value Added

- Identified structural weakness
- Allowed nearby blasting to continue with changed characteristics
- Alerted personnel to potential damage to structure
- Helped to maintain the integrity of the structure

## Project Summary

The iconic chapel needed to be protected from the potential damage caused by nearby earthwork that included blasting for the purpose of clearing space for new construction. The chapel was instrumented with accelerometers including one that was placed close to a geophone velocity measuring device.

The chapel itself amplified the vibration by an amount that was unexpectedly large. The amplification occurred because of the geometry of the structure. STRAAM identified areas of the structure that were particularly vulnerable and assisted in setting new limits to the vibration intensity that protected the Chapel. Daily reports were shared with all parties and STRAAM shared all relevant information. The integrity of the structure was maintained at the end of the ground preparation exercise.

