

Tobin Montessori and Vassal Lane Upper Schools

Vibration Monitoring Fact Sheet

Construction to Begin in 2021

This fact sheet presents a summary of the vibration monitoring that will be performed to be protective of the surrounding community.

What is the Tobin Montessori & Vassal Lane Upper Schools (TMVL) project?

This project will provide new facilities for the Tobin Montessori School, Vassal Lane Upper School, Special Start and Department of Human Services Programs preschool and after school programs. In addition, the project will help mitigate street flooding in the neighborhood with the construction of a 1.5 million gallon underground storm water tank on-site. The project also includes renovation of the open space area around the schools.



Why are we conducting vibration monitoring?

The activities involved with the demolition of the existing school building and the installation of foundation elements for the new school building (i.e. via pile-driving) generate vibrations that are imposed into the surrounding ground. Due to the close proximity of residential and commercial properties, CDM Smith, on behalf of the City, will monitor and record the levels of these generated vibrations to prevent exceeding established vibration level thresholds.

What:

Vibration monitoring during construction for the surrounding community. CDM Smith, on behalf of the City, is preparing a Vibration Monitoring Plan that will be implemented for the TMVL Construction Project.

Where:

TMVL Construction Project Site, 197 Vassal Lane, Cambridge, Massachusetts.

When:

During building demolition and new building construction activities.

Why:

To monitor vibration levels during construction activities as part of the TMVL project to prevent impacts to abutting properties. Anticipated construction activities requiring vibration monitoring include demolition and pile driving.



What is included in the TMVL Vibration Monitoring Plan?

How and where will these be monitored?

- Vibration monitoring stations (including seismographs and geophones) will be placed along the perimeter of the construction work areas to monitor vibration levels to be protective of the abutting properties. The monitoring will be performed to prevent exceeding established vibration level thresholds during construction.
- The equipment will continuously record and log readings of vibration levels. The City will maintain the results from this equipment.
- Several stations will be distributed along the perimeter as required based on the site activity.
- The specific number and location of the stations will be dependent on the location and type of work being conducted. The vibration monitoring plan will progress and evolve as the project work does.

What will be done with the results?

- Threshold and limiting vibration levels have been established for this project. If monitoring results are recorded above these levels, CDM Smith, the City of Cambridge, and W.T. Rich (the project contractor) will take actions to mitigate the issue.
- Response actions will include stopping all vibration activities and revising the Contractor's construction methods to prevent the limiting values from being exceeded.

What will be monitored?

- Vibration levels from demolition and pile driving.



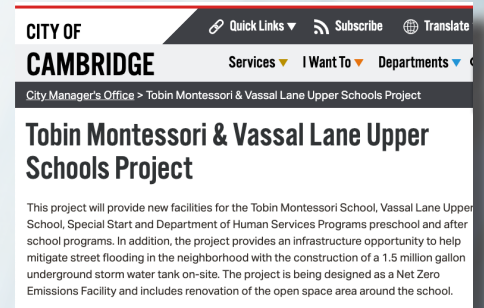
Typical vibration monitoring equipment.

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Visit the City website for more information on this project:

www.cambridgema.gov/Departments/citymanagersoffice/tobinschoolproject



Cambridgema.gov information page on the TMVL construction project can be found on the internet