

Vibration Monitoring Data-Monthly Summary

Month and Year:	Apr-21					
Project:	Central Station Main Works					
EPL Licence Number:	21148					
EPL Web link:	https://centralstationmetro.com/documents/					
Specific EPL Monitoring Condition:	M7.2- Vibration Monitoring					
Monitoring Location:	Number of Monitoring Events during the Month	Attended/Continuous Monitoring	Event Based Monitoring? (Y/N)	Measured Parameter: Peak Particle Velocity (PPV) (mm/s)	Predicted Parameter: Peak Particle Velocity (PPV) (mm/s)	Comment
TCAC AKA. CEB (Central Electric Building)	1	Continuous	Y	8/4/2021 Max 25.26mm/s due to construction.	Project Screening criteria <25mm/s Target <25mm/s (based on activity)	Demolition occurred in the lower northern concourse during the month of April. Activity consists of breaking out TCAC structural southern wall. Typical vibration below cited 12.5 mm/s level corresponding to a near-zero probability of damage. No vibration levels above the BS 7385 criteria for reinforced or framed structures for industrial and heavy commercial buildings of 50mm/s observed.
Sydney Dental Hospital	1	Attended	Y	22/04/2021 Max 1.4mm/s due to construction.	Project Screening criteria <25mm/s Target <25mm/s (based on activity)	Location of monitoring: Sydney Dental Hospital northern basement stairs in sub basement level. Logger was set up to monitor drilling works happening at 20-28 Chalmers St between 21/4/21 and 22/4/21. No data points above 2mm/s PPV observed throughout the monitoring period. Vibration levels at the Dental Hospital were not noticeable during drilling activity.
20-28 Chalmers St	1	Continuous	Y	15/4/2021 Max due to construction 4.2mm/s	Project Screening criteria <25mm/s Target <7.5mm/s (based on activity)	Predominant vibration generating activity at Eastern Entrance was due to excavation works including breaking. Generally a low vibration month. Max PPV (4.2mm/s) was identified to be due to a transient event. Typical vibration below cited 12.5 mm/s level corresponding to a near-zero probability of damage.

Definitions

Attended: Operator attended measure at either the façade of sensitive receiver, internal dwelling of a sensitive receiver or at a location of interest, typically in anticipation of an event.

Continuous: Real time vibration data recording the peak within a 1 min intervals, 24/7.

Event: The peak particle velocity (PPV) measured in mm/s of any measuring interval either during attended monitoring or a period of interest reviewed from the continuous data. The period is typically selected to monitor works as the works occur, or to validate predictions of planned works, or in response to a complaint, or due to an unexplained elevated PPV in the continuous data noise trace.