Vibration Monitoring Data-Monthly Summary						
Month and Year:	Dec-20					
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	27/12/20 Max 48.7mm/s (localised bump), Max due to construction was 30mm/s.	Project Screening criteria <25mm/s Target <25mm/s (based on activity)	Intermittent breaking occurring in the lower northern concourse throughout the month of December. Typical vibration below cited 12.5 mm/s level corresponding to a near-zero probability of damage. XMAS shutdown breaking out reinforced concrete and precast planks adjacent to CEB base slab using multiple brokks.On the 27th of December 8 readings above the Project Screening Criteria of 25mm/s were observed. No vibration levels above the BS 7385 criteria for reinforced or framed structures for industrial and heavy commercial buildings of 50mm/s observed.
Dental Hospital (Northern Stairwell)	1 (10- 23 December 2020)	Continuous	Y	During the period of measure the Max PPV was 5.6mm/s Typical vibration in the presence of construction was elevated above ~0.2mm/s	Target <2mm/s during breaking	Northern Stairwell abuts the habitable office space in the dental hospital next door to the Eastern Entrance work site. At the time of measure, the vibration levels at the dental hospital were noticeable (between 0.35mm/s to 1mm/s) during breaking activity. respite periods provided, appropriate additional mitigation measures in place.
Café 30 Chalmers St	1 (1-10 December 2020)	Continuous	Y	6.2mm/s (localised bump @ 4:58am 7/12) 2.5mm/s @9:26 on 8/13	Target <2mm/s during breaking	At the time of measure, the vibration levels at the 30 Chalmers St Café were noticeable (between 0.35mm/s to 1.1mm/s) during breaking activity. The vibration levels between 1 to 2.5mm/s occured for 36mins throughout the monitoring period. Respite periods provided, appropriate additional mitigation measures in place.
28 Chalmers St	1	Continuous	Y	Max 86mm/s (localised bump) Max due to construction 24mm/s, typically below 12.5mm/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. Typical vibration below cited 12.5 mm/s level corresponding to a near-zero probability of damage. A number of data points above 12.5mm/s were observed, however determined to be associated with logger maintenance and relocation.

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.