

Vibration Monitoring Data-Monthly Summary						
<b>Month and Year:</b>	Nov-20					
<b>Project:</b>	Central Station Main Works					
<b>EPL Licence Number:</b>	21148					
<b>EPL Web link:</b>	<a href="https://centralstationmetro.com/documents/">https://centralstationmetro.com/documents/</a>					
<b>Specific EPL Monitoring Condition:</b>	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	Vibration levels as a result of construction were elevated above 0.5mm/s throughout the month. Typical range during vibration intensive works was between 2mm/s and 8mm/s. Max was 11mm/s.	Project Screening criteria <25mm/s Target <15mm/s (based on activity)	Breaking in Lower northern concourse occurred between 5 and 7 November during the night time period. Max vibration recorded was 11mm/s associated with breaking out wall directly below TCAC building. Highest recorded was 48mm/s, however this was associated with worker movement in close proximity to transducer. An elevated period can be observed between 24 to 28 November as a result of extensive internal clean up rather than vibration intensive works.
Dental Hospital (Southern Stairwell)	1 (9-24 November)	Continuous	Y	Typically < 1mm/s, max 4.3mm/s on the 10/11/20	7.5mm/s	Southern stairwell is part of an extension of the Dental Hospital Structure. Breaking on the 10/11/2020 occurred directly on the other side. Habitable/office and meeting rooms closer to the northern stair well. Breaking measured not to have exceeded 6.5 hours per day.
Dental Hospital (Northern Stairwell)	1 (24-26 November)	Continuous	Y	typically < 1mm/s, max in a 1 minute period was 6.8mm/s on the 24/11/20.	7.5mm/s	Northern Stairwell abuts the habitable office space in the dental hospital. Most elevated periods observed to be around 2-3mm/s not exceeding more than 6.5 hours a day.
Café 30 Chalmers St	1 (9 November)	Continuous	Y	0.56mm/s	0.56mm/s	Vibration data collected during scabbling works (see description below). Vibration levels low within Café as a result of scabbling.
30 Chalmers St	1	Continuous	Y	Max PPV = 20mm/s (as a result of scabbling works-readily dissipated) Max PPV 5.68mm/s as a result of breaking works.	Project Screening criteria <25mm/s Target <7.5mm/s (based on activity)	The works at the Eastern Entrance throughout November 2020 consisted predominantly of hammering/breaking sandstone. Hammering typically occurred in 2 to 3hrs blocks, 2 times daily not exceeding 6.5 hours a day. Scabbling works occurred along the southern extent of site to create a rough surface for better adhesion of concrete wall to existing slab. This occurred between 6-11 of November. The vibration levels were high during this period, however was determined to be localised and readily dissipated over short distances as additional vibration monitoring occurred within the cafe of 30 Chalmers St showing reduced levels. There was a power issue and data was lost through some of this period (6-9/11/20). Highest recorded level was 94mm/s, this was associated with the logger being relocated on the 17th.
<b>Definitions</b>						
<b>Attended:</b> 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.						
<b>Continuous:</b> Real time vibration data recording the peak within a 1 min intervals, 24/7.						
<b>Event:</b> 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.						