


MONTHLY NOISE AND VIBRATION REPORT CITY & SOUTHWEST ACOUSTICS ADVISOR

Project:	Chatswood to Sydenham SSI-7400		
For period:	May 2023	Authorisation:	
Prepared by:	Daniel Weston		
Date of issue:	7 June 2023		

Introduction

EMM Consulting Pty Limited (EMM) presents the May 2023 AA Noise and Vibration Report for the Sydney Metro City and Southwest project as required by SSI 15_7400 A27 (g) vi.

A reference table for the acronyms used in this report is provided on the last page.

Acoustics Advisor Activity

- Review and/or endorsement of:
 - Barangaroo NVMR April 2022 - September 2022 Rev 2
 - CNISD April 23 attended noise monitoring report Rev 0 and Rev 1
 - CNISD CMR Rev B
 - CNISD CTR Q2, Q3, and Q4
 - CNISD March 23 attended noise monitoring report Rev 0
 - CSM CEMP Rev 12
 - CSM CNVMP Rev 14
 - CSM CNVMPP Aug 22 to Jan 23
 - MPISD NVMR Jul-Dec 2022 Rev 1
 - WISD CEMP Rev 4.
- Review and/or endorsement of out of hours work applications (OOHWA) and extensions for:
 - Barangaroo OOHWA 18 Acoustic Shed Demo (early draft)
 - Barangaroo OOHWA 21 Hickson Road Night Works for Crane Pod Delivery
 - Barangaroo OOHWA 17 HV Outage Works
 - LWW OOHWA 304 Chatswood Dive Water Connection Works
 - MPISD OOHWA 52 Rev 5
 - PSISD OOHWA 53 PSN Façade Installation Rev 6
 - PSISD OOHWA 56 Gas Works Bathurst Street Rev 0
 - PSISD OOHWA 57 Project Works Jul-Sept Rev 0
 - VCISD OOHWA 26 North site hoarding removal
 - VCISD OOHWA 27 South site shed removal
 - WISD OOHWA 47 Lighting Install Rev 3
 - WISD OOHWA 51 May, June, July 2023 (Utilities) Rev 3
 - WISD OOHWA 52 May, June, July Civil Investigation Works Rev B
 - WISD OOHWA 54 Civil Works Rev A

- WISD OOHWA 55 Private Lighting Install Rev A.
- Attendance at ongoing meetings with CNISD, VCISD, Barangaroo Station, LWW, PSISD, MPISD, CSM and WISD contractors.

Inspections, audits and site visits

The following was completed:

- CNISD inspection with ER on 3 May 2023
- Barangaroo inspection with ER on 4 May 2023
- WISD inspection with ER on 5 May 2023
- MPISD inspection with ER on 10 May 2023
- CSM inspection with ER on 10 May 2023
- VCISD inspection with ER on 16 May 2023
- PSISD OOH crane installation works site observations 20 May 2023
- CNISD OOH evening works site observations 24 May 2023
- WISD OOH night works observations and audit measurements 28 May 2023
- PSISD inspection with ER on 30 May 2023
- CSM inspection with ER on 31 May 2023.

Monitoring status

Real-time noise and vibration monitoring (with real-time access) is ongoing at CNISD, VCISD (noise only), Barangaroo, PSISD (noise only), MPISD and CSM. Some amendments to PSISD (PSN) noise monitor due to some power supply interruptions which is subject to ongoing review by the AA.

The WISD contractor is operating real-time noise monitors to assist with site noise management. This is not a requirement of their CNVMP and is optional only. We have access to this data on an as-needs basis only (eg when complaints are received).

Noise and vibration complaints

Complaints from Barangaroo (x1), CNISD (x5) and CSM (x1) were received. Of these:

- six (CNISD x 4, CSM x 1; Barangaroo x 1) are under investigation by the Contractor and/or Sydney Metro. The four CNISD complaints were in relation to the Site A tower crane 2 removal works. It is our understanding that the complaints received for Barangaroo and CSM were unrelated to Sydney Metro activities (TBC by the PC/Sydney Metro).
- one complaint from CNSID was classified as unavoidable.

Initiatives, continual improvement and feedback

- Generally, we are re-emphasizing the need for a strong justification for out of hours applications and that contractors exhaust all options to conduct work during standard hours before they seek an OOHW approval.
- We are encouraging pro-active and wholistic scheduling of work that needs to be undertaken OOH (eg utilities) with the view of prioritising respite nights for the community. This includes scheduling separate OOHW packages on the same night where possible.

- We continue to advocate the use of alternative work practices to rock hammering for the removal of temporary structures, where required.
- The WISD PC continues to be highly proactive with the community in terms of information sharing and engagement with several events and initiatives being undertaken in 2023. A site open day is planned for July to display archaeological finds for the site. Continued careful planning of work locations and timing is being implemented, with a two-week calendar look ahead advocated by the AA and ER and being implemented by the contractor to provide greater visibility of times and locations of OOHW to the AA and ER.
- Observations during OOHW at WISD on 28 May 2023 showed a number of good site practices including minimising of idling plant when not in use, restricted use only when necessary for vacuum truck (and within commercial area not residential) and positive communication between ground level and elevated workers via mobile phone rather than raised voices or shouting.

Non-compliances, incidents and events

- There were no non-compliance or incidents to report.

Ongoing and upcoming environmental risks

- A significant phase of utility works will continue at PSISD and WISD. OOHW is required due to ROL requirements and footpath permits from Council.
- Public domain works at CNISD will continue for several months. This will require a substantial scope of utility works, of which some will be required OOH to facilitate utility service provider requirements. The PC is scheduling a large portion of this work during standard hours to minimum OOH impacts to residents, however an unfortunate consequence of this is increased impacts at commercial receivers.
- Capping beam removal will continue at WISD and CNISD during standard construction hours. At WISD, the alternative lower noise method of wire saw and core drilling (consistent with successful removal of capping beam at PSISD) was used where feasible and proved to provide additional benefits in terms of dust suppression and smaller exclusion zones on site. The WISD contractor has also demonstrated that capping beam removal with wire saw can occur at discrete locations of the site during the evening hours (NML compliant) with the activities subject to verification measurements. Due to site constraints in some areas at WISD, removal is being completed with excavator and hydraulic hammer during standard hours only. Work practices are being amended to allow a 1 hour respite and RO in the form of vouchers are also being offered to highly impacted receivers. WISD capping beam removal works are almost complete with only a minor section next to the church remaining. The church is a heritage item and both ER and AA are monitoring this closely and have requested evidence of building protection and data from vibration monitoring.
- Alternative methods to capping beam demolition other than using excavators with hydraulic hammers is not possible at CNISD due to space limitations, however the PC is alternating capping beam demolition between Site A and Site B week to week to provide respite to nearest receivers to each site, in addition to the scheduled respite hours that are currently agreed with the community.
- Capping beam removal will start at VCISD North in the coming weeks. The alternate method including wire saw and core drilling has been investigated but is not feasible due to space limitations. Capping beam demolition will occur near the north boundary that is shared with the 243 Miller Street residence, hence noise and vibration will be monitored closely by the PC.

- At Barangaroo, backfill of the Hickson Road shaft within the acoustic shed is complete, which means the demo of the acoustic shed can commence. Several OOH shifts will be required due to space limitations and the need for ROL to demobilise the shed safely. The PC is currently working through the methodology. This package of work will likely start early July 2023.
- PSISD South has an upcoming scope of works for the realignment of a gas main in Bathurst Street that they are currently working through. Due to location of works in Bathurst Steet and multiple lane closures, ROLs will be required and works completed at night. We have provided initial feedback to a briefing by the PC on the proposed works indicating potential risks. After further feedback from AA, the PC is currently working through the constraints with their Acoustic Consultant and engineering design team to implement all feasible and reasonable mitigation measures before implementing the AMMs from the OOHWP.

Recommendations (incl auditing):

Nothing to report.

Acronyms

AMMs	<i>Additional Mitigation Measures</i>
CMR	<i>Construction Monitoring Report</i>
CTR	<i>Compliance Tracking Report</i>
CNISD	<i>Crows Nest Integrated Station Development</i>
CNVIS	<i>Construction Noise and Vibration Impact Statement</i>
CNVMP	<i>Construction Noise and Vibration Management Plan</i>
CNVMPR	<i>Construction Noise and Vibration Management Program Report</i>
CSM	<i>Central Station Metro</i>
DPE	<i>NSW Department of Planning and Environment</i>
ER	<i>Environmental Representative</i>
ISD	<i>Integrated Station Development</i>
LWW	<i>Line Wide Works</i>
MPISD	<i>Martin Place Integrated Station Development</i>
NCR	<i>Non-Compliance Report</i>
NVA	<i>Noise and Vibration Assessment</i>
NVMP	<i>Noise and Vibration Monitoring Plan</i>
NVMR	<i>Noise and Vibration Monitoring Report</i>
OOH	<i>Out of hours</i>
OOHW	<i>Out of hours work</i>
OOHWA	<i>Out of Hours Work Application</i>
OOHWP	<i>Out of Hours Work Protocol</i>
OSOM	<i>Oversize, overmass</i>
PCB	<i>Precast Beams</i>
PC	<i>Principal Contractor</i>
PSISD	<i>Pitt Street Integrated Station Development</i>
PSN	<i>Pitt Street North</i>
PSS	<i>Pitt Street South</i>
ROL	<i>Road Occupancy License</i>
RTNM	<i>Real Time Noise Monitor</i>
SSJ	<i>Sydenham Station Junction</i>
TSOM	<i>Trains, Systems, Operations and Maintenance</i>
TSS	<i>Traction Substation</i>
VCISD	<i>Victoria Cross Integrated Station Development</i>
WISD	<i>Waterloo Integrated Station Development</i>

