



## Noise & Vibration Monthly Report

Barangaroo Cutaway Cultural Facility  
3847.03\_R02

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Customer Name: FDC Construction  
Report Number: 3847.03\_R02  
Reporting Period: 25/07/2024 to 26/08/2024  
Issue Date: 26/08/2024

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Reviewed By: Jake Donovan Parker

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## 1 Executive Summary

Noise and vibration associated with construction activities were monitored between 25th July and 26th August 2024. There were seven instances where noise levels exceeded the alarm level for high noise emissions, further investigation finding that six instance was associated with construction activities, and one instance was not associated with construction activities (amplified music in close proximity to the monitor). When noise from construction activities were considered high emission, they occurred within allowable time periods, and were not of sufficient length to require a respite period.

There were zero instances where vibration levels exceeded established alerting or alarming levels. Therefore, the vibration levels are not expected to pose a potential threat to nearby residential or heritage buildings.

Noise levels at sensitive receivers along Merriman Street will continue to be monitored closely to ensure a reasonable acoustic amenity is maintained.

NoiseNet should be informed in advance of any planned activities likely to cause high levels of vibration, such as piling or rock breaking. Key personnel should continue to observe alerting and alarming via email and SMS, as established in installation report reference *3847\_Installation\_Report\_Barangaroo\_Cutaway\_FDC\_Construction\_R02*.

## 2 Noise

Over the reporting period, there were seven instances where noise exceeded the established levels for high emission; six from construction activity (highlighted red in Table 1 below), and once from activities unrelated to construction (21/8/2024 at 8:00pm, amplified music in close proximity to monitor 5039).

During the period of high noise emission on the 15/8/2024, activities began at approximately 9:30am and ceased by 12:00pm, after which noise levels dropped well below high noise emission thresholds. As the noise occurred within allowable hours and respite period taken for the remainder of the day, all conditions were adhered to.

During the period of high noise emission on the 16/8/2024, activities began at approximately 9:20am and ceased by 11:00am, before another shorter period of high noise emission between 14:30 and 15:40. As the noise occurred within allowable hours and respite period taken between activities, all conditions were adhered to.

The primary sources of noise over the reporting period were identified as noise from fixed mechanical plants such as generators, reverse beepers, mobile machinery, jackhammering, power tools, metal banging together and other general impulsive noise. Site activity generally begins at 7am, except for August where FDC has advised that cleaning of the basement was scheduled between the hours of 06:00-06:30 during the nightworks period - where all required notices have been provided. Higher impact activities such as generator startup and heavy vehicle movement begin at 7:00am in accordance with operating restrictions, which are generally adhered to. Particular care should be taken to keep noise to a minimum prior to 7:00am (and 8:00am on Saturdays).

Noise impacts to sensitive receivers on Merriman Street are the most common cause for concern over the duration of the project, and will be monitored closely to ensure a reasonable amenity is maintained.

A selection of notable noises that were observed over the reporting period are showed in Table 1 below, with reference recordings provided.

Filename	Date	Time	Description	Merriman Street Receiver Levels		Munn Street Offices Receiver Levels	
				LA <sub>eq</sub> (dB)	LA <sub>max</sub> (dB)	LA <sub>eq</sub> (dB)	LA <sub>max</sub> (dB)
2024-07-26T09_34_16.mp3	26/7/2024	09:20-09:40	Heavy machinery, banging and reverse beeping	74	84	-	-
2024-08-14T15_12_37.mp3	14/8/2024	15:10:15:45	Possible bolting works,	82	91	55	79
2024-08-15T09_42_51.mp3	15/8/2024	09:30-10:10	Rock bolting works	78	88	57	70
2024-08-15T10_33_49.mp3	15/8/2024	10:30-10:45	Rock bolting works	72	83	56	71
2024-08-15T11_34_56.mp3	15/8/2024	11:00-12:00	Rock bolting works	75	84	61	56
2024-08-16T09_30_59.mp3	16/8/2024	09:20-11:00	Heavy machinery, engines	79	88	58	83
2024-08-16T14_30_06.mp3	16/8/2024	14:30-15:40	Heavy machinery, engines	88	95	58	73
2024-08-17T11_17_31.mp3	17/8/2024	11:10-11:25	Heavy machinery and horns	75	84	56	68
2024-08-21T20_02_13.mp3	21/8/2024	20:00-20:20	Music on street	-	-	78	93

Table 1: Most notable noises during the reporting period.

### 3 Vibration

Over the reporting period, there were zero instances where vibration from construction activities at the Barangaroo Cutaway exceeded warning or alarm levels. NoiseNet should be informed in advance of any planned activities likely to cause high levels of vibration, such as piling or rock breaking.

The most notable vibrations observed are reported in Table 2 below.

Date	Time	Description	Street Level Peak Vibration	Site Ground Level
			Velocity Peak mm/s	Velocity Peak mm/s
26/07/2024	09:40-10:20	Forklift activity in the vicinity of monitor 1002v	0.437	-
1/8/2024	08:15	Unknown	0.397	-
20/8/2024	07:15	Unknown	0.302	0.241
24/8/2024	8:10	Unknown	-	0.485
26/8/2024	9:35	Unknown	0.388	-

Table 2: Most notable vibrations during the reporting period.

#### 4 Report Issue Log

Document Title	Reference	Reporting Period	Issue Date
3847_Installation_Report_Barangaroo_Cutaway_FDC_Construction_R01 (Superseded)	3847	13/06/2024	24/06/2024
3847_01_NVMR_Barangaroo_Cutaway_FDC_Construction_R01	3847_01	13/06/2024 to 24/06/2024	24/06/2024
3847_Installation_Report_Barangaroo_Cutaway_FDC_Construction_R02	3847	11/07/2024	25/07/2024
3847_02_NVMR_Barangaroo_Cutaway_FDC_Construction_R01	3847_02	25/06/2024 to 24/07/2024	25/07/2024

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