



Environmental Monitoring Data

Project:	Sydney Metro City & Southwest– TSE Works
Document Number:	SMCSWTSE-JCG-TPW-EM-RPT-097445
Reporting Period:	February 2020
Date Published:	12 March 2020

Document Approval

Rev.	Date	Prepared by	Reviewed by	Approved by	Remarks
01	12/03/2020	R. Muir	R. Muir	K. Vajda	For publication

Project Summary

The Sydney Metro City and Southwest is the second portion of the new standalone rail network known as the Sydney Metro which is Australia’s largest public transport infrastructure project and a priority rail project for the NSW Government. John Holland CPB Ghella (JHCPBG) have been contracted by Transport for New South Wales to design and construct the Tunnel and Stations Excavation Works Project (TSE Works) of the Sydney Metro City & Southwest between Chatswood and Sydenham. Figure 1 provides an overview of the Project.



Figure 1: Project Overview

Environmental Protection Licence and Reporting Requirements

John Holland Pty Ltd obtained the Environment Protection Licence (EPL No. 20971) from the NSW Environment Protection Authority for the Tunnel and Station Excavation (TSE) Works on behalf of the John Holland CPB Ghella (JHCPBG) Joint Venture. The licence is for construction works relating to Rail Systems Activities and Concrete Works as defined under Schedule 1 of the *Protection of the Environment Operations Act, 1997* (PEO Act).

The licence describes monitoring and reporting requirements for the TSE Works, and specifically provides discharge criteria for water treatment plant and sediment basin water quality. The following report details environmental monitoring undertaken during this reporting month conducted in accordance with the EPL.

The EPL can be found by following the link below to the EPA’s website:

<https://apps.epa.nsw.gov.au/prpoeoapp/ViewPOEOLicence.aspx?DOCID=180856&SYSUID=1&LICID=20971>

Discharge Water Monitoring

Testing and discharge was undertaken during this reporting period. Table 1 contains the discharge monitoring results.

Noise and Vibration Monitoring

Noise and vibration monitoring was undertaken during this reporting period. Table 2 contains the vibration monitoring results, and Table 3 contains the noise monitoring results.

Real-Time Noise and Vibration Monitoring

Real-time noise and vibration monitors were operating at Martin Place, Pitt Street and Victoria Cross during the February reporting period. Table 4.1 and 4.2 contains summarised real-time noise monitoring results and real-time vibration data is displayed in Table 5.

Table 1: Discharge Water Monitoring Data.

Monitoring Point	Identifier ¹	Dates Sampled	Parameter/ Criteria/ Measured Value						Oil & Grease (None Visible)	Comments
			pH (6.5 – 8.5)			Turbidity (<35 NTU)				
			Min	Max	Average	Min	Max	Average		
2	CD_2	01/02/2020 to 29/02/2020	7.0	8.4	7.7	0.0	22.2	0.1	Nil	Compliant
1	VC_2	07/02/2020	8.4	8.4	8.4	90	90	90	Nil	Compliant with Condition L2.10
2	VC_3	01/02/2020 to 29/02/2020	6.8	8.5	7.8	0.1	35	3.4	Nil	Compliant
2	BN_2	01/02/2020 to 29/02/2020	6.5	8.5	7.5	0.2	34.9	7.2	Nil	Compliant
2	BL_2	01/02/2020 to 29/02/2020	7.7	8.6	8.0	1.7	30.4	8.2	Nil	Compliant
2	MDS_1	01/02/2020 to 29/02/2020	6.5	8.5	7.6	0.2	35	6.1	Nil	Compliant
1	MP-1	08/02/2020	8.6	8.6	8.6	550	550	550	Nil	Compliant with Condition L2.10
2	PS-3	01/02/2020 to 08/02/2020	8.0	8.1	8.1	5.5	7	6.3	Nil	Compliant
2	PS-3	09/02/2020 to 10/02/2020	7.5	7.5	7.5	50	50	50	Nil	Approval to discharge obtained from EPA during excessive rainfall event

Monitoring Point	Identifier ¹	Dates Sampled	Parameter/ Criteria/ Measured Value						Oil & Grease (None Visible)	Comments
			pH (6.5 – 8.5)			Turbidity (<35 NTU)				
			Min	Max	Average	Min	Max	Average		
2	PS-3	11/02/2020 to 29/02/2020	7.4	7.8	7.6	14.1	14.4	14.3	Nil	Compliant

¹ As per discharge point identified in Sydney Metro City and Southwest Temporary Basin and Water Treatment Discharge Point Schedule

Table 2: Vibration Monitoring Data.

Monitoring location	Monitoring Date	Attended or Continuous Monitoring	Measured VDV (m/s ^{1.75})	VDV Target (m/s ^{1.75})	VDV Compliant	Measured PPV (mm/s)	PPV Target (mm/s)	PPV Compliant
30 Pitt Street, Sydney	05/02/2020	Attended	N/A	N/A	N/A	0.96	25	Y

Table 3: Noise Monitoring Data

Monitoring Location (Noise-Catchment Area, Street, Suburb)	Monitoring Date	Attended or Continuous Monitoring	Parameter	Measured Value dB(A)	Goals / Targets dB(A)	Comments
MDS_02, 358 Edgeware Road, Newtown	01/02/2020	Attended	LA _{eq} (15-min)	59.9	43	TSE Works compliant, traffic dominant noise source
MP_03, 30 Pitt Street, Sydney	05/02/2020	Attended	LA _{eq} (15-min)	52.1	60	TSE Works inaudible
MP_01, 27-39 Castlereagh Street, Sydney	05/02/2020	Attended	LA _{eq} (15-min)	72.3	70	TSE Works compliant, works not associated with project dominant noise
MP_02, 17 Castlereagh Street, Sydney	10/02/2020	Attended	LA _{eq} (15-min)	71.9	57	TSE Works compliant, traffic dominant noise source
PS_03, 250 Pitt St - Suite 513, Sydney	10/02/2020	Attended	LA _{eq} (15-min)	58.0	60	TSE Works compliant
BN_03, 66 High St, Barangaroo	11/02/2020	Attended	LA _{eq} (15-min)	59.5	60	TSE Works compliant
PS_03, 169-173 Castlereagh Street, Sydney	12/02/2020	Attended	LA _{eq} (15-min)	41.3	45	TSE Works compliant
MDS_02, 358 Edgeware Road, Newtown	15/02/2020	Attended	LA _{eq} (15-min)	59.4	63	TSE Works compliant, traffic dominant noise source
CDS_06, 344 Mowbray Rd, Chatswood	17/02/2020	Attended	LA _{eq} (15-min)	50.9	54	TSE Works compliant, traffic dominant noise source

CDS_06, 344 Mowbray Rd, Chatswood	17/02/2020	Attended	LA _{eq} (15-min)	55.3	54	TSE Works compliant, traffic dominant noise source
CDS_06, 344 Mowbray Rd, Chatswood	17/02/2020	Attended	LA _{eq} (15-min)	63.5	54	TSE Works compliant, traffic dominant noise source
CDS_06, 344 Mowbray Rd, Chatswood	17/02/2020	Attended	LA _{eq} (15-min)	49.1	54	TSE Works compliant, traffic dominant noise source
MP_03, 145 Harrington Street, Sydney	24/02/2020	Attended	LA _{eq} (15-min)	35.5	35	TSE works inaudible
WS_04, 62-72 Botany Road, Waterloo	24/02/2020	Attended	LA _{eq} (15-min)	64.8	65	TSE Works compliant, traffic dominant noise source
MP_03, 145 Harrington Street, Sydney	26/02/2020	Attended	LA _{eq} (15-min)	33.7	35	TSE Works compliant
WS_04, 62-72 Botany Road, Waterloo	26/02/2020	Attended	LA _{eq} (15-min)	68.5	65	TSE Works compliant, traffic dominant noise source
MDS_02, 358 Edgeware Road, Newtown	29/02/2020	Attended	LA _{eq} (15-min)	60.1	43	TSE Works compliant, traffic dominant noise source

Table 4-1 Summary Table of Real Time Noise Data Compliance Compared Against EPL Condition E1.1.

Real-Time Noise Monitoring Results													
Date	65 Berry Street		Castlereagh Boutique Hotel		Edinburgh Castle Hotel		50 Martin Place		50 McLaren St		60 Castlereagh Street (Basement)		
	Noise Limit	Upper	Lower	Upper	Lower	Upper	Lower	Upper	Lower	Upper	Lower	Upper	Lower
01/02/2020	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
02/02/2020	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
03/02/2020	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
04/02/2020	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
05/02/2020	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
06/02/2020	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
07/02/2020	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
08/02/2020	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
09/02/2020	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
10/02/2020	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
11/02/2020	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
12/02/2020	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
13/02/2020	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
14/02/2020	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
15/02/2020	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
16/02/2020	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
17/02/2020	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
18/02/2020	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
19/02/2020	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
20/02/2020	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
21/02/2020	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
22/02/2020	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
23/02/2020	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
24/02/2020	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
25/02/2020	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
26/02/2020	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
27/02/2020	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
28/02/2020	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
29/02/2020	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes

Table 4-2: Real-Time Noise Monitoring Data

Report for Condition E1.1 on 01/02/2020				
Location	Noise Goal	15-min periods in exceedance		Has condition been met?
		Permitted	Exceeded	
65 Berry St	Upper	26	0	Yes
	Lower	39	2	Yes
Castlereagh Boutique Hotel	Upper	26	0	Yes
	Lower	39	0	Yes
Edinburgh Castle Hotel	Upper	26	0	Yes
	Lower	39	0	Yes
60 Castlereagh St (Basement)	Upper	26	20	Yes
	Lower	39	24	Yes
50 McLaren St	Upper	26	0	Yes
	Lower	39	3	Yes
Report for Condition E1.1 on 02/02/2020				
Location	Noise Goal	15-min periods in exceedance		Has condition been met?
		Permitted	Exceeded	
65 Berry St	Upper	26	0	Yes
	Lower	39	0	Yes
Castlereagh Boutique Hotel	Upper	26	0	Yes
	Lower	39	0	Yes
Edinburgh Castle Hotel	Upper	26	0	Yes
	Lower	39	0	Yes
60 Castlereagh St (Basement)	Upper	26	0	Yes
	Lower	39	2	Yes
50 McLaren St	Upper	26	1	Yes
	Lower	39	3	Yes

Report for Condition E1.1 on 03/02/2020				
Location	Noise Goal	15-min periods in exceedance		Has condition been met?
		Permitted	Exceeded	
65 Berry St	Upper	26	1	Yes
	Lower	39	6	Yes
Castlereagh Boutique Hotel	Upper	26	0	Yes
	Lower	39	1	Yes
Edinburgh Castle Hotel	Upper	26	0	Yes
	Lower	39	0	Yes
60 Castlereagh St (Basement)	Upper	26	15	Yes
	Lower	39	26	Yes
50 McLaren St	Upper	26	0	Yes
	Lower	39	2	Yes
Report for Condition E1.1 on 04/02/2020				
Location	Noise Goal	15-min periods in exceedance		Has condition been met?
		Permitted	Exceeded	
65 Berry St	Upper	26	4	Yes
	Lower	39	25	Yes
Castlereagh Boutique Hotel	Upper	26	0	Yes
	Lower	39	1	Yes
Edinburgh Castle Hotel	Upper	26	0	Yes
	Lower	39	0	Yes
60 Castlereagh St (Basement)	Upper	26	6	Yes
	Lower	39	24	Yes
50 McLaren St	Upper	26	0	Yes
	Lower	39	27	Yes

Report for Condition E1.1 on 05/02/2020				
Location	Noise Goal	15-min periods in exceedance		Has condition been met?
		Permitted	Exceeded	
65 Berry St	Upper	26	2	Yes
	Lower	39	14	Yes
Castlereagh Boutique Hotel	Upper	26	0	Yes
	Lower	39	0	Yes
Edinburgh Castle Hotel	Upper	26	0	Yes
	Lower	39	0	Yes
60 Castlereagh St (Basement)	Upper	26	7	Yes
	Lower	39	13	Yes
50 McLaren St	Upper	26	0	Yes
	Lower	39	25	Yes
Report for Condition E1.1 on 06/02/2020				
Location	Noise Goal	15-min periods in exceedance		Has condition been met?
		Permitted	Exceeded	
65 Berry St	Upper	26	3	Yes
	Lower	39	18	Yes
Castlereagh Boutique Hotel	Upper	26	0	Yes
	Lower	39	3	Yes
Edinburgh Castle Hotel	Upper	26	0	Yes
	Lower	39	0	Yes
60 Castlereagh St (Basement)	Upper	26	1	Yes
	Lower	39	28	Yes
50 McLaren St	Upper	26	0	Yes
	Lower	39	21	Yes

Report for Condition E1.1 on 07/02/2020				
Location	Noise Goal	15-min periods in exceedance		Has condition been met?
		Permitted	Exceeded	
65 Berry St	Upper	26	0	Yes
	Lower	39	7	Yes
Castlereagh Boutique Hotel	Upper	26	0	Yes
	Lower	39	6	Yes
Edinburgh Castle Hotel	Upper	26	0	Yes
	Lower	39	0	Yes
60 Castlereagh St (Basement)	Upper	26	4	Yes
	Lower	39	16	Yes
50 McLaren St	Upper	26	12	Yes
	Lower	39	35	Yes
Report for Condition E1.1 on 08/02/2020				
Location	Noise Goal	15-min periods in exceedance		Has condition been met?
		Permitted	Exceeded	
65 Berry St	Upper	26	0	Yes
	Lower	39	1	Yes
Castlereagh Boutique Hotel	Upper	26	0	Yes
	Lower	39	12	Yes
Edinburgh Castle Hotel	Upper	26	0	Yes
	Lower	39	0	Yes
60 Castlereagh St (Basement)	Upper	26	1	Yes
	Lower	39	2	Yes
50 McLaren St	Upper	26	0	Yes
	Lower	39	14	Yes

Report for Condition E1.1 on 09/02/2020				
Location	Noise Goal	15-min periods in exceedance		Has condition been met?
		Permitted	Exceeded	
65 Berry St	Upper	26	0	Yes
	Lower	39	0	Yes
Castlereagh Boutique Hotel	Upper	26	0	Yes
	Lower	39	12	Yes
Edinburgh Castle Hotel	Upper	26	0	Yes
	Lower	39	0	Yes
60 Castlereagh St (Basement)	Upper	26	1	Yes
	Lower	39	2	Yes
50 McLaren St	Upper	26	17	Yes
	Lower	39	18	Yes
Report for Condition E1.1 on 10/02/2020				
Location	Noise Goal	15-min periods in exceedance		Has condition been met?
		Permitted	Exceeded	
65 Berry St	Upper	26	1	Yes
	Lower	39	13	Yes
Castlereagh Boutique Hotel	Upper	26	0	Yes
	Lower	39	0	Yes
Edinburgh Castle Hotel	Upper	26	0	Yes
	Lower	39	0	Yes
60 Castlereagh St (Basement)	Upper	26	19	Yes
	Lower	39	35	Yes
50 McLaren St	Upper	26	0	Yes
	Lower	39	4	Yes

Report for Condition E1.1 on 11/02/2020				
Location	Noise Goal	15-min periods in exceedance		Has condition been met?
		Permitted	Exceeded	
65 Berry St	Upper	26	0	Yes
	Lower	39	13	Yes
Castlereagh Boutique Hotel	Upper	26	0	Yes
	Lower	39	0	Yes
Edinburgh Castle Hotel	Upper	26	0	Yes
	Lower	39	0	Yes
60 Castlereagh St (Basement)	Upper	26	6	Yes
	Lower	39	20	Yes
50 McLaren St	Upper	26	0	Yes
	Lower	39	24	Yes
Report for Condition E1.1 on 12/02/2020				
Location	Noise Goal	15-min periods in exceedance		Has condition been met?
		Permitted	Exceeded	
65 Berry St	Upper	26	7	Yes
	Lower	39	17	Yes
Castlereagh Boutique Hotel	Upper	26	0	Yes
	Lower	39	1	Yes
Edinburgh Castle Hotel	Upper	26	0	Yes
	Lower	39	0	Yes
60 Castlereagh St (Basement)	Upper	26	6	Yes
	Lower	39	38	Yes
50 McLaren St	Upper	26	0	Yes
	Lower	39	29	Yes

Report for Condition E1.1 on 13/02/2020				
Location	Noise Goal	15-min periods in exceedance		Has condition been met?
		Permitted	Exceeded	
65 Berry St	Upper	26	0	Yes
	Lower	39	12	Yes
Castlereagh Boutique Hotel	Upper	26	0	Yes
	Lower	39	6	Yes
Edinburgh Castle Hotel	Upper	26	0	Yes
	Lower	39	0	Yes
60 Castlereagh St (Basement)	Upper	26	2	Yes
	Lower	39	17	Yes
50 McLaren St	Upper	26	7	Yes
	Lower	39	28	Yes
Report for Condition E1.1 on 14/02/2020				
Location	Noise Goal	15-min periods in exceedance		Has condition been met?
		Permitted	Exceeded	
65 Berry St	Upper	26	5	Yes
	Lower	39	23	Yes
Castlereagh Boutique Hotel	Upper	26	0	Yes
	Lower	39	0	Yes
Edinburgh Castle Hotel	Upper	26	0	Yes
	Lower	39	0	Yes
60 Castlereagh St (Basement)	Upper	26	5	Yes
	Lower	39	8	Yes
50 McLaren St	Upper	26	0	Yes
	Lower	39	18	Yes

Report for Condition E1.1 on 15/02/2020				
Location	Noise Goal	15-min periods in exceedance		Has condition been met?
		Permitted	Exceeded	
65 Berry St	Upper	26	0	Yes
	Lower	39	11	Yes
Castlereagh Boutique Hotel	Upper	26	0	Yes
	Lower	39	0	Yes
Edinburgh Castle Hotel	Upper	26	0	Yes
	Lower	39	0	Yes
60 Castlereagh St (Basement)	Upper	26	2	Yes
	Lower	39	9	Yes
50 McLaren St	Upper	26	0	Yes
	Lower	39	11	Yes
Report for Condition E1.1 on 16/02/2020				
Location	Noise Goal	15-min periods in exceedance		Has condition been met?
		Permitted	Exceeded	
65 Berry St	Upper	26	0	Yes
	Lower	39	0	Yes
Castlereagh Boutique Hotel	Upper	26	0	Yes
	Lower	39	0	Yes
Edinburgh Castle Hotel	Upper	26	0	Yes
	Lower	39	0	Yes
60 Castlereagh St (Basement)	Upper	26	0	Yes
	Lower	39	2	Yes
50 McLaren St	Upper	26	0	Yes
	Lower	39	0	Yes

Report for Condition E1.1 on 17/02/2020				
Location	Noise Goal	15-min periods in exceedance		Has condition been met?
		Permitted	Exceeded	
65 Berry St	Upper	26	1	Yes
	Lower	39	10	Yes
Castlereagh Boutique Hotel	Upper	26	0	Yes
	Lower	39	0	Yes
Edinburgh Castle Hotel	Upper	26	0	Yes
	Lower	39	1	Yes
60 Castlereagh St (Basement)	Upper	26	3	Yes
	Lower	39	11	Yes
50 McLaren St	Upper	26	0	Yes
	Lower	39	26	Yes
Report for Condition E1.1 on 18/02/2020				
Location	Noise Goal	15-min periods in exceedance		Has condition been met?
		Permitted	Exceeded	
65 Berry St	Upper	26	0	Yes
	Lower	39	6	Yes
Castlereagh Boutique Hotel	Upper	26	0	Yes
	Lower	39	0	Yes
Edinburgh Castle Hotel	Upper	26	0	Yes
	Lower	39	0	Yes
60 Castlereagh St (Basement)	Upper	26	19	Yes
	Lower	39	31	Yes
50 McLaren St	Upper	26	1	Yes
	Lower	39	22	Yes

Report for Condition E1.1 on 19/02/2020				
Location	Noise Goal	15-min periods in exceedance		Has condition been met?
		Permitted	Exceeded	
65 Berry St	Upper	26	5	Yes
	Lower	39	22	Yes
Castlereagh Boutique Hotel	Upper	26	0	Yes
	Lower	39	0	Yes
Edinburgh Castle Hotel	Upper	26	0	Yes
	Lower	39	0	Yes
60 Castlereagh St (Basement)	Upper	26	20	Yes
	Lower	39	30	Yes
50 McLaren St	Upper	26	5	Yes
	Lower	39	33	Yes
Report for Condition E1.1 on 20/02/2020				
Location	Noise Goal	15-min periods in exceedance		Has condition been met?
		Permitted	Exceeded	
65 Berry St	Upper	26	4	Yes
	Lower	39	25	Yes
Castlereagh Boutique Hotel	Upper	26	0	Yes
	Lower	39	2	Yes
Edinburgh Castle Hotel	Upper	26	0	Yes
	Lower	39	0	Yes
60 Castlereagh St (Basement)	Upper	26	2	Yes
	Lower	39	4	Yes
50 McLaren St	Upper	26	2	Yes
	Lower	39	36	Yes

Report for Condition E1.1 on 21/02/2020				
Location	Noise Goal	15-min periods in exceedance		Has condition been met?
		Permitted	Exceeded	
65 Berry St	Upper	26	4	Yes
	Lower	39	17	Yes
Castlereagh Boutique Hotel	Upper	26	0	Yes
	Lower	39	0	Yes
Edinburgh Castle Hotel	Upper	26	0	Yes
	Lower	39	0	Yes
60 Castlereagh St (Basement)	Upper	26	12	Yes
	Lower	39	19	Yes
50 McLaren St	Upper	26	5	Yes
	Lower	39	34	Yes
Report for Condition E1.1 on 22/02/2020				
Location	Noise Goal	15-min periods in exceedance		Has condition been met?
		Permitted	Exceeded	
65 Berry St	Upper	26	0	Yes
	Lower	39	11	Yes
Castlereagh Boutique Hotel	Upper	26	0	Yes
	Lower	39	0	Yes
Edinburgh Castle Hotel	Upper	26	0	Yes
	Lower	39	1	Yes
60 Castlereagh St (Basement)	Upper	26	24	Yes
	Lower	39	25	Yes
50 McLaren St	Upper	26	3	Yes
	Lower	39	14	Yes

Report for Condition E1.1 on 23/02/2020				
Location	Noise Goal	15-min periods in exceedance		Has condition been met?
		Permitted	Exceeded	
65 Berry St	Upper	26	0	Yes
	Lower	39	0	Yes
Castlereagh Boutique Hotel	Upper	26	0	Yes
	Lower	39	0	Yes
Edinburgh Castle Hotel	Upper	26	0	Yes
	Lower	39	0	Yes
60 Castlereagh St (Basement)	Upper	26	0	Yes
	Lower	39	1	Yes
50 McLaren St	Upper	26	0	Yes
	Lower	39	0	Yes
Report for Condition E1.1 on 24/02/2020				
Location	Noise Goal	15-min periods in exceedance		Has condition been met?
		Permitted	Exceeded	
65 Berry St	Upper	26	12	Yes
	Lower	39	33	Yes
Castlereagh Boutique Hotel	Upper	26	0	Yes
	Lower	39	6	Yes
Edinburgh Castle Hotel	Upper	26	0	Yes
	Lower	39	0	Yes
60 Castlereagh St (Basement)	Upper	26	19	Yes
	Lower	39	25	Yes
50 McLaren St	Upper	26	0	Yes
	Lower	39	22	Yes

Report for Condition E1.1 on 25/02/2020				
Location	Noise Goal	15-min periods in exceedance		Has condition been met?
		Permitted	Exceeded	
65 Berry St	Upper	26	7	Yes
	Lower	39	31	Yes
Castlereagh Boutique Hotel	Upper	26	0	Yes
	Lower	39	9	Yes
Edinburgh Castle Hotel	Upper	26	0	Yes
	Lower	39	8	Yes
60 Castlereagh St (Basement)	Upper	26	6	Yes
	Lower	39	12	Yes
50 McLaren St	Upper	26	1	Yes
	Lower	39	28	Yes
Report for Condition E1.1 on 26/02/2020				
Location	Noise Goal	15-min periods in exceedance		Has condition been met?
		Permitted	Exceeded	
65 Berry St	Upper	26	0	Yes
	Lower	39	14	Yes
Castlereagh Boutique Hotel	Upper	26	0	Yes
	Lower	39	0	Yes
Edinburgh Castle Hotel	Upper	26	0	Yes
	Lower	39	0	Yes
60 Castlereagh St (Basement)	Upper	26	19	Yes
	Lower	39	23	Yes
50 McLaren St	Upper	26	0	Yes
	Lower	39	34	Yes

Report for Condition E1.1 on 27/02/2020				
Location	Noise Goal	15-min periods in exceedance		Has condition been met?
		Permitted	Exceeded	
65 Berry St	Upper	26	0	Yes
	Lower	39	1	Yes
Castlereagh Boutique Hotel	Upper	26	0	Yes
	Lower	39	0	Yes
Edinburgh Castle Hotel	Upper	26	0	Yes
	Lower	39	0	Yes
60 Castlereagh St (Basement)	Upper	26	21	Yes
	Lower	39	38	Yes
50 McLaren St	Upper	26	3	Yes
	Lower	39	31	Yes
Report for Condition E1.1 on 28/02/2020				
Location	Noise Goal	15-min periods in exceedance		Has condition been met?
		Permitted	Exceeded	
65 Berry St	Upper	26	0	Yes
	Lower	39	0	Yes
Castlereagh Boutique Hotel	Upper	26	0	Yes
	Lower	39	1	Yes
Edinburgh Castle Hotel	Upper	26	0	Yes
	Lower	39	0	Yes
60 Castlereagh St (Basement)	Upper	26	14	Yes
	Lower	39	28	Yes
50 McLaren St	Upper	26	0	Yes
	Lower	39	19	Yes

Report for Condition E1.1 on 29/02/2020				
Location	Noise Goal	15-min periods in exceedance		Has condition been met?
		Permitted	Exceeded	
65 Berry St	Upper	26	0	Yes
	Lower	39	8	Yes
Castlereagh Boutique Hotel	Upper	26	0	Yes
	Lower	39	0	Yes
Edinburgh Castle Hotel	Upper	26	0	Yes
	Lower	39	1	Yes
60 Castlereagh St (Basement)	Upper	26	18	Yes
	Lower	39	21	Yes
50 McLaren St	Upper	26	2	Yes
	Lower	39	10	Yes

Real Time Noise Results Comments:

Compliance with condition E1.1 was met at all monitoring locations during the reporting period.

Note: Due to the ambient internal noise levels within 50 Martin Place (without construction) generally ranging between 60 dBA Leq(15min) and 70 dBA Leq(15min) during operation hours an alternative to noise level monitoring has been undertaken to measure compliance. To ensure compliance with condition E1.1 is achieved at all times rock braking activities adjacent to 50 Martin Place have been restricted to 6.5 hours per day.

Table 5: Real-Time Vibration Monitoring Data (Maximum recorded value per day)

Day	65 Berry Street, North Sydney	50 Martin Place, Sydney	60 Castlereagh Street (Basement), Sydney	Castlereagh Boutique Hotel	211-217 Castlereagh Street, Sydney	50 McLaren Street, North Sydney
Criteria (mm/s)	25	7.5	25	7.5	25	25
01/02/2020	0.24	0.42	4.84	1.14	0.48	0.14
02/02/2020	0.27	0.28	1.95	0.17	0.08	0.13
03/02/2020	0.91	0.53	6.28	29.23	0.41	0.78
04/02/2020	0.43	0.98	8.93	0.37	0.2	0.75
05/02/2020	0.35	0.72	5.87	0.39	0.38	0.7
06/02/2020	0.86	0.41	11.01	2.27	0.63	0.61
07/02/2020	0.32	0.7	2.99	3.89	0.19	0.58
08/02/2020	0.21	0.25	1.26	2.61	0.26	0.14
09/02/2020	0.16	0.5	0.78	2.8	0.08	0.72
10/02/2020	0.27	0.42	10.38	7.48	0.1	0.61
11/02/2020	0.43	0.41	2.51	0.3	0.35	0.56
12/02/2020	0.45	0.82	1.75	2.55	0.4	0.64
13/02/2020	0.33	0.51	1.09	1.7	0.32	0.33
14/02/2020	0.7	0.54	1.82	2.46	0.15	0
15/02/2020	0.29	0.25	2.05	7.48	0.32	0
16/02/2020	0.11	0.25	3.77	0.4	0.1	0.67
17/02/2020	0.32	0.29	3.83	1.6	0.3	0.64
18/02/2020	0.37	0.42	11.14	2.17	0.46	0.64
19/02/2020	0.42	0.75	4.29	0.71	0.3	0.64
20/02/2020	0.53	0.31	2.44	0.4	0.53	0.64
21/02/2020	1.44	0.39	11.3	0.98	0.72	0.17
22/02/2020	0.27	0.25	8.3	0.46	0.32	0.11
23/02/2020	0.19	0.25	1.44	0.25	0.08	0.17
24/02/2020	0.39	0.28	6.02	0.49	0.32	0.11
25/02/2020	1.79	0.31	2.05	0.34	0.64	0.11
26/02/2020	0.86	0.29	4.05	0.44	0.25	0.11
27/02/2020	0.44	0.26	3.39	0.3	0.79	0.11
28/02/2020	0.32	0.51	10.96	0.37	1.14	0.11
29/02/2020	0.24	0.48	3.19	0.21	0.76	0.11

Real-Time Vibration Results Comments:

Castlereaugh Boutique Hotel

A Vibration alert was received on the 3 February 2020, with a maximum reading of 29.23mm/s. The vibration monitor was being serviced by JHCPBG contractors at the time, this exceedance is deemed not to be associated with project construction activities.