



## Environmental Monitoring Data

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Project: Sydney Metro City & Southwest– TSE Works

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Reporting Period: November 2018

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### Document Approval

Rev.	Date	Prepared by	Reviewed by	Approved by	Remarks
01	13/10/18	D. Windnagel	R. Batch	R. Muir	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* (POEO 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=153426&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 installed at Barangaroo, Crows Nest, Martin Place, Pitt Street, and Victoria Cross during the November 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 <sup>1</sup>	Date Sampled	Event Based Monitoring (Y/N)	Parameter/ Criteria/ Measured Value			Comments
				pH (6.5 - 8.5)	Turbidity (<35 NTU)	Oil & Grease (None Visible)	
2	VC_03	01/11/2018	Y	7.3	4.0	Nil	Water Treatment Plant
2	CD_02	01/11/2018	Y	7.7	1.1	Nil	Water Treatment Plant
2	MD_01	01/11/2018	Y	8.4	22.2	Nil	Water Treatment Plant
2	CN_02	02/11/2018	Y	7.3	2.3	Nil	Water Treatment Plant
2	CD_02	02/11/2018	Y	7.4	2.1	Nil	Water Treatment Plant
2	MD_01	02/11/2018	Y	8.1	26.8	Nil	Water Treatment Plant
2	CD_02	03/11/2018	Y	7.5	8.0	Nil	Water Treatment Plant
2	MD_01	03/11/2018	Y	7.9	25.5	Nil	Water Treatment Plant
2	CD_02	05/11/2018	Y	7.5	1.5	Nil	Water Treatment Plant
2	MD_01	05/11/2018	Y	8.3	20.7	Nil	Water Treatment Plant
2	CD_02	06/11/2018	Y	8.0	0.4	Nil	Water Treatment Plant
2	MD_01	06/11/2018	Y	8.0	25.6	Nil	Water Treatment Plant
2	CD_02	07/11/2018	Y	7.5	2.0	Nil	Water Treatment Plant
2	MD_01	07/11/2018	Y	8.4	25.5	Nil	Water Treatment Plant
2	VC_03	08/11/2018	Y	7.2	2.0	Nil	Water Treatment Plant
2	CD_02	08/11/2018	Y	8.0	0.4	Nil	Water Treatment Plant
2	MD_01	08/11/2018	Y	8.0	15.0	Nil	Water Treatment Plant
2	CD_02	09/11/2018	Y	7.8	5.0	Nil	Water Treatment Plant
2	MD_01	09/11/2018	Y	7.9	18.3	Nil	Water Treatment Plant
2	CD_02	10/11/2018	Y	7.7	2.0	Nil	Water Treatment Plant
2	MD_01	10/11/2018	Y	7.5	20.0	Nil	Water Treatment Plant
2	CD_02	12/11/2018	Y	7.9	5.0	Nil	Water Treatment Plant
2	MD_01	12/11/2018	Y	8.4	19.5	Nil	Water Treatment Plant

Monitoring Point	Identifier <sup>1</sup>	Date Sampled	Event Based Monitoring (Y/N)	Parameter/ Criteria/ Measured Value			Comments
				pH (6.5 - 8.5)	Turbidity (<35 NTU)	Oil & Grease (None Visible)	
2	CD_02	13/11/2018	Y	8.2	2.1	Nil	Water Treatment Plant
2	MD_01	13/11/2018	Y	7.8	22.0	Nil	Water Treatment Plant
2	CD_02	14/11/2018	Y	7.8	3.0	Nil	Water Treatment Plant
2	MD_01	14/11/2018	Y	7.6	21.0	Nil	Water Treatment Plant
2	CD_02	15/11/2018	Y	7.8	4.0	Nil	Water Treatment Plant
2	MD_01	15/11/2018	Y	7.9	17.6	Nil	Water Treatment Plant
2	BN_02	16/11/2018	Y	8.0	1.6	Nil	Water Treatment Plant
2	CD_02	16/11/2018	Y	7.1	2.0	Nil	Water Treatment Plant
2	MD_01	16/11/2018	Y	7.4	20.3	Nil	Water Treatment Plant
2	CD_02	17/11/2018	Y	7.4	4.0	Nil	Water Treatment Plant
2	MD_01	17/11/2018	Y	7.5	18.0	Nil	Water Treatment Plant
2	CD_02	18/11/2018	Y	7.5	4.0	Nil	Water Treatment Plant
2	CD_02	19/11/2018	Y	8.2	1.2	Nil	Water Treatment Plant
2	MD_01	19/11/2018	Y	7.7	20.6	Nil	Water Treatment Plant
2	CD_02	20/11/2018	Y	8.4	2.2	Nil	Water Treatment Plant
2	MD_01	20/11/2018	Y	7.5	22.2	Nil	Water Treatment Plant
2	CD_02	21/11/2018	Y	7.7	2.9	Nil	Water Treatment Plant
2	MD_01	21/11/2018	Y	7.7	22.4	Nil	Water Treatment Plant
2	CD_02	22/11/2018	Y	8.1	8.8	Nil	Water Treatment Plant
2	MD_01	22/11/2018	Y	8.1	18.7	Nil	Water Treatment Plant
2	CD_02	23/11/2018	Y	7.7	3.5	Nil	Water Treatment Plant
2	MD_01	23/11/2018	Y	8.2	19.1	Nil	Water Treatment Plant
2	VC_03	23/11/2018	Y	7.5	2.0	Nil	Water Treatment Plant
2	CD_02	24/11/2018	Y	7.5	8.2	Nil	Water Treatment Plant

Monitoring Point	Identifier <sup>1</sup>	Date Sampled	Event Based Monitoring (Y/N)	Parameter/ Criteria/ Measured Value			Comments
				pH (6.5 - 8.5)	Turbidity (<35 NTU)	Oil & Grease (None Visible)	
2	MD_01	24/11/2018	Y	7.9	23.5	Nil	Water Treatment Plant
2	CD_02	26/11/2018	Y	7.7	1.5	Nil	Water Treatment Plant
2	MD_01	26/11/2018	Y	7.5	21.1	Nil	Water Treatment Plant
2	CD_02	27/11/2018	Y	7.4	3.9	Nil	Water Treatment Plant
2	MD_01	27/11/2018	Y	7.8	19.4	Nil	Water Treatment Plant
2	MD_01	28/11/2018	Y	7.3	16.2	Nil	Water Treatment Plant
2	CN_02	28/11/2018	Y	N/A	N/A	Nil	High Rainfall Overflow
2	WL_01	28/11/2018	Y	N/A	N/A	Nil	High Rainfall Overflow
2	VC_03	28/11/2018	Y	7.5	3.0	Nil	Water Treatment Plant
2	CD_02	28/11/2018	Y	7.1	3.9	Nil	Water Treatment Plant
2	CD_02	29/11/2018	Y	7.9	6.8	Nil	Water Treatment Plant
2	CD_02	30/11/2018	Y	7.5	7.0	Nil	Water Treatment Plant

<sup>1</sup> 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	Event Based Monitoring (Y/N)	Measured Value (mm/s)	Goals / Targets (mm/s)	Comments
VC_07, 65 Berry Street, North Sydney	02/11/2018	Attended	Y	0.34	25.00	TSE Works Compliant
BP_01, Henry Lawson Drive, McMahons Point	16/11/2018	Attended	Y	0.73	7.50	TSE Works Compliant
BP_02, 1 Warung Street, McMahons Point	16/11/2018	Attended	Y	0.12	7.50	TSE Works Compliant
VC_07, 50 Berry Street, North Sydney	29/11/2018	Attended	Y	0.08	25.00	TSE Works Compliant

Table 3: Noise Monitoring Data

Monitoring Location (Noise-Catchment Area, Street, Suburb)	Monitoring Date	Attended or Continuous Monitoring	Event Based Monitoring (Y/N)	Parameter	Measured Value dB(A)	Goals / Targets dB(A)	Comments
MP_01, 165 Phillip Street, Sydney	01/11/2018	Attended	Y	LAeq 15 min	60.6	68	TSE Works Compliant. Traffic dominant noise source
MP_01, 60 Castlereagh Street, Sydney	01/11/2018	Attended	Y	LAeq 15 min	48.4	60	Internal reading. TSE Works Compliant
CDS_02, 525 Pacific Highway, Chatswood	01/11/2018	Attended	Y	LAeq 15 min	71.7	59	TSE Works Compliant. Traffic Dominant Noise Source
CDS_03, 9-11 Nelson Street, Chatswood	01/11/2018	Attended	Y	LAeq 15 min	55.8	52	TSE Works Compliant. Traffic Dominant Noise Source
CDS_02, 525 Pacific Highway, Chatswood	01/11/2018	Attended	Y	LAeq 15 min	72.6	47	TSE Works Compliant. Traffic Dominant Noise Source
MP_01, 151 Phillip Street, Sydney	01/11/2018	Attended	Y	LAeq 15 min	67.8	68	TSE Works compliant, Traffic dominant source
MP_01, 165 Phillip Street, Sydney	01/11/2018	Attended	Y	LAeq 15 min	67.4	68	TSE Works compliant, Traffic dominant source
MDS_02, 358 Edgeware Road, Newtown	02/11/2018	Attended	Y	LAeq 15 min	64.7	65	TSE Works compliant. Strong interference from wind
CDS_02, 525 Pacific Highway, Chatswood	02/11/2018	Attended	Y	LAeq 15 min	67.9	47	TSE Works Compliant. Traffic Dominant Noise Source
CDS_03, 9-11 Nelson Street, Chatswood	02/11/2018	Attended	Y	LAeq 15 min	51.7	44	TSE Works Compliant. Non -TSE Works Dominant Noise
WS_02, 213 Cope Street, Waterloo	05/11/2018	Attended	Y	LAeq 15 min	59.4	52	TSE Works Compliant. Traffic Dominant Noise Source
MDS_02, 358 Edgeware Road, Newtown	06/11/2018	Attended	Y	LAeq 15 min	62.5	65	TSE Works Compliant.
CDS_06, 344 Mowbray Road, Chatswood	07/11/2018	Attended	Y	LAeq 15 min	70.9	52	TSE Works Compliant. Traffic dominant noise source

Monitoring Location (Noise-Catchment Area, Street, Suburb)	Monitoring Date	Attended or Continuous Monitoring	Event Based Monitoring (Y/N)	Parameter	Measured Value dB(A)	Goals / Targets dB(A)	Comments
CDS_06, 344 Mowbray Road, Chatswood	08/11/2018	Attended	Y	LAeq 15 min	70.1	52	TSE Works Compliant. Traffic dominant noise source
CDS_06, 344 Mowbray Road, Chatswood	11/11/2018	Attended	Y	LAeq 15 min	70.1	55	TSE Works Compliant. Traffic dominant noise source
MDS_01, 65 Edinburgh Rd, Marrickville	12/11/2018	Attended	Y	LAeq 15 min	65.2	46	TSE Works Compliant. Traffic dominant noise source.
CDS_02, 544 Pacific Highway, Chatswood	13/11/2018	Attended	Y	LAeq 15 min	76.7	59	TSE Works compliant. Traffic dominant noise source
VC_04, 243 Miller Street, North Sydney	13/11/2018	Attended	Y	LAeq 15 min	38.5	55	Internal reading. TSE Works Compliant.
MDS_01, 65 Edinburgh Rd, Marrickville	13/11/2018	Attended	Y	LAeq 15 min	61.8	46	TSE Works Compliant. Traffic dominant noise source.
CN_01, 545 Pacific Highway, Crows Nest	14/11/2018	Attended	Y	LAeq 15 min	75.3	92	TSE Works Compliant
CN_04, 376 Pacific Highway, Crows Nest	14/11/2018	Attended	Y	LAeq 15 min	82.7	97	TSE Works Compliant
CN_04, 376 Pacific Highway, Crows Nest	14/11/2018	Attended	Y	LAeq 15 min	78.3	97	TSE Works Compliant
CN_04, 376 Pacific Highway, Crows Nest	14/11/2018	Attended	Y	LAeq 15 min	70.4	97	TSE Works Compliant
CN_04, 376 Pacific Highway, Crows Nest	14/11/2018	Attended	Y	LAeq 15 min	70.8	97	TSE Works Compliant
BN_03, 44 High Street, Barangaroo (external)	14/11/2018	Attended	Y	LAeq 15 min	54.3	84	TSE Works Compliant
BN_03, 52 High Street, Barangaroo	14/11/2018	Attended	Y	LAeq 15 min	32.7	45	Internal reading. TSE Works Compliant
BP_02, 1 Warung Street, McMahons Point	15/11/2018	Attended	Y	LAeq 15 min	69.2	86	TSE Works Compliant

Monitoring Location (Noise-Catchment Area, Street, Suburb)	Monitoring Date	Attended or Continuous Monitoring	Event Based Monitoring (Y/N)	Parameter	Measured Value dB(A)	Goals / Targets dB(A)	Comments
BP_02, 1 Warung Street, McMahons Point	15/11/2018	Attended	Y	LAeq 15 min	68.2	86	TSE Works Compliant
CDS_06, 344 Mowbray Road, Chatswood	15/11/2018	Attended	Y	LAeq 15 min	71.2	52	TSE Works Compliant. Traffic dominant noise source.
MP_01, 27-39 Castlereagh Street, Sydney	16/11/2018	Attended	Y	LAeq 15 min	66.8	72	TSE works compliant. Council Works dominant noise source
MP_01, 165 Phillip Street, Sydney	16/11/2018	Attended	Y	LAeq 15 min	69.6	68	TSE works compliant. Traffic dominant noise source
CDS_06, 344 Mowbray Road, Chatswood	16/11/2018	Attended	Y	LAeq 15 min	56.8	44	TSE Works Compliant. Traffic dominant noise source.
MP_01, 27-39 Castlereagh Street, Sydney	17/11/2018	Attended	Y	LAeq 15 min	63.8	60	TSE works compliant. Non-TSE works dominant noise source
MP_01, 165 Phillip Street, Sydney	17/11/2018	Attended	Y	LAeq 15 min	69.4	60	TSE works compliant. Traffic dominant noise source
MP_01, 27-39 Castlereagh Street, Sydney	17/11/2018	Attended	Y	LAeq 15 min	63.8	60	TSE works compliant. Non-TSE works dominant noise source
CDS_03, 2 Nelson Street, Chatswood	17/11/2018	Attended	Y	LAeq 15 min	75.0	55	TSE Works Compliant. Non-TSE works dominant noise source
CDS_06, 344 Mowbray Road, Chatswood	17/11/2018	Attended	Y	LAeq 15 min	68.7	55	TSE Works compliant. Traffic dominant noise source
CDS_03, 2 Nelson Street, Chatswood	17/11/2018	Attended	Y	LAeq 15 min	66.3	55	TSE Works Compliant. Non-TSE works dominant noise source
CDS_06, 344 Mowbray Road, Chatswood	17/11/2018	Attended	Y	LAeq 15 min	71.6	52	TSE Works compliant. Traffic dominant noise source
CDS_06, 345 Mowbray Road, Chatswood	17/11/2018	Attended	Y	LAeq 15 min	70.2	44	TSE Works compliant. Traffic dominant noise source
CDS_03, 2 Nelson Street, Chatswood	18/11/2018	Attended	Y	LAeq 15 min	58.9	55	TSE Works Compliant. Non-TSE works dominant noise source

Monitoring Location (Noise-Catchment Area, Street, Suburb)	Monitoring Date	Attended or Continuous Monitoring	Event Based Monitoring (Y/N)	Parameter	Measured Value dB(A)	Goals / Targets dB(A)	Comments
PS_02, 359 Pitt Street, Sydney	20/11/2018	Attended	Y	LAeq 15 min	73.7	75	TSE Works compliant. Traffic dominant noise source
MP_01, 27-39 Castlereagh Street, Sydney	20/11/2018	Attended	Y	LAeq 15 min	66.5	60	TSE Works compliant. Traffic dominant noise source
MDS_02, 358 Edgeware Road, Newtown	20/11/2018	Attended	Y	LAeq 15 min	64.2	65	TSE Works Compliant
MP_01, 27-39 Castlereagh Street, Sydney	21/11/2018	Attended	Y	LAeq 15 min	65.2	72	TSE Works compliant. Traffic dominant noise source
MP_01, 165 Phillip Street, Sydney	21/11/2018	Attended	Y	LAeq 15 min	69.8	68	TSE Works compliant. Traffic dominant noise source
PS_05, 209 Pitt Street, Sydney	21/11/2018	Attended	Y	LAeq 15 min	76.0	75	TSE Works compliant. Traffic dominant noise source
CDS_03, 2 Nelson Street, Chatswood	22/11/2018	Attended	Y	LAeq 15 min	52.4	52	TSE Works compliant. Traffic dominant noise source
MP_01, 165 Phillip Street, Sydney	22/11/2018	Attended	Y	LAeq 15 min	66.8	60	TSE Works compliant. Traffic dominant noise source
CDS_03, 2 Nelson Street, Chatswood	23/11/2018	Attended	Y	LAeq 15 min	54.1	52	TSE Works compliant. Traffic dominant noise source
CDS_03, 2 Nelson Street, Chatswood	23/11/2018	Attended	Y	LAeq 15 min	51.3	45	TSE Works compliant. Traffic dominant noise source
CDS_03, 2 Nelson Street, Chatswood	23/11/2018	Attended	Y	LAeq 15 min	54.3	55	TSE Works Compliant
CDS_03, 2 Nelson Street, Chatswood	26/11/2018	Attended	Y	LAeq 15 min	48.7	52	TSE Works Compliant
CDS_03, 2 Nelson Street, Chatswood	26/11/2018	Attended	Y	LAeq 15 min	47.3	52	TSE Works Compliant
CDS_03, 2 Nelson Street, Chatswood	26/11/2018	Attended	Y	LAeq 15 min	47.2	44	TSE Works compliant. Traffic dominant noise source

Monitoring Location (Noise-Catchment Area, Street, Suburb)	Monitoring Date	Attended or Continuous Monitoring	Event Based Monitoring (Y/N)	Parameter	Measured Value dB(A)	Goals / Targets dB(A)	Comments
MP_02, 165 Phillip ST, Martin Place	26/11/2018	Attended	Y	LAeq 15 min	63.0	60	TSE Works compliant. Traffic dominant noise source
CN_04, 376 Pacific Highway, Crows Nest	26/11/2018	Attended	Y	LAeq 15 min	72.1	97	TSE Works Compliant
AS_02, 113 Reserve Road, Artarmon	27/11/2018	Attended	Y	LAeq 15 min	80.4	94	TSE Works Compliant
AS_01, 19 Barton Road, Artarmon	27/11/2018	Attended	Y	LAeq 15 min	59.7	81	TSE Works Compliant
VC_04, 100 Miller St, North Sydney	29/11/2018	Attended	Y	LAeq 15 min	68.3	76	TSE Works Compliant
CDS_03, 2 Nelson Street, Chatswood	29/11/2018	Attended	Y	LAeq 15 min	45.6	44	TSE Works compliant. Traffic dominant noise source
CDS_03, 2 Nelson Street, Chatswood	29/11/2018	Attended	Y	LAeq 15 min	68.8	44	TSE Works compliant. Traffic dominant noise source

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

Date	Location & Noise Goal																			
	545 Pacific Hwy		10 to 12 Clarke Street		65 Berry Street		Castlereagh Boutique Hotel		Edinburgh Castle Hotel		50 Martin Place		25A Hickson Road		243 Miller Street		60 Castlereagh Street (Roof top)		60 Castlereagh Street (Level 8 Internal)	
	Upper	Lower	Upper	Lower	Upper	Lower	Upper	Lower	Upper	Lower	Upper	Lower	Upper	Lower	Upper	Lower	Upper	Lower	Upper	Lower
01/10/2018	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	-	-
02/10/2018	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	-	-
03/10/2018	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	-	-
04/10/2018	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	-	-
05/10/2018	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	-	-
06/10/2018	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	-	-
07/10/2018	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	-	-
08/10/2018	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	-	-
09/10/2018	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	-	-
10/10/2018	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	-	-
11/10/2018	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	-	-
12/10/2018	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	-	-
13/10/2018	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	-	-
14/10/2018	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	-	-
15/10/2018	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	-	-	Yes	Yes

Date	Location & Noise Goal																			
	545 Pacific Hwy		10 to 12 Clarke Street		65 Berry Street		Castlereagh Boutique Hotel		Edinburgh Castle Hotel		50 Martin Place		25A Hickson Road		243 Miller Street		60 Castlereagh Street (Roof top)		60 Castlereagh Street (Level 8 Internal)	
	Upper	Lower	Upper	Lower	Upper	Lower	Upper	Lower	Upper	Lower	Upper	Lower	Upper	Lower	Upper	Lower	Upper	Lower	Upper	Lower
16/10/2018	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	-	-	Yes	Yes
17/10/2018	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	-	-	Yes	Yes
18/10/2018	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	-	-	Yes	Yes
19/10/2018	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	-	-	Yes	Yes
20/10/2018	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	-	-	Yes	Yes
21/10/2018	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	-	-	Yes	Yes
22/10/2018	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	-	-	Yes	Yes
23/10/2018	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	-	-	Yes	Yes
24/10/2018	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	-	-	Yes	Yes
25/10/2018	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	-	-	Yes	Yes
26/10/2018	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	-	-	Yes	Yes
27/10/2018	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	-	-	Yes	Yes
28/10/2018	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	-	-	Yes	Yes
29/10/2018	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	-	-	Yes	Yes
30/10/2018	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	-	-	Yes	Yes

Table 4-2: Real-Time Noise Monitoring Data

<b>Report for Condition E1.1 on 01/11/2018</b>				
Location	Noise Goal	15 minute periods in exceedance		Has condition been met?
		Permitted	Exceeded	
545 Pacific Highway	Upper	26	0	Yes
	Lower	39	0	Yes
10 to 12 Clarke Street	Upper	26	0	Yes
	Lower	39	7	Yes
65 Berry St	Upper	26	1	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	7	Yes
50 Martin Place	Upper	26	0	Yes
	Lower	39	0	Yes
25A Hickson Road	Upper	26	0	Yes
	Lower	39	0	Yes
243 Miller St	Upper	26	0	Yes
	Lower	39	0	Yes
60 Castlereagh St (Roof Top)	Upper	26	0	Yes
	Lower	39	0	Yes
<b>Report for Condition E1.1 on 02/11/2018</b>				
Location	Noise Goal	15 minute periods in exceedance		Has condition been met?
		Permitted	Exceeded	
545 Pacific Highway	Upper	26	0	Yes
	Lower	39	0	Yes
10 to 12 Clarke Street	Upper	26	1	Yes
	Lower	39	5	Yes
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	19	Yes
50 Martin Place	Upper	26	0	Yes
	Lower	39	0	Yes
25A Hickson Road	Upper	26	0	Yes
	Lower	39	0	Yes
243 Miller St	Upper	26	1	Yes
	Lower	39	5	Yes
60 Castlereagh St (Roof Top)	Upper	26	0	Yes
	Lower	39	0	Yes

**Report for Condition E1.1 on 03/11/2018**

Location	Noise Goal	15 minute periods in exceedance		Has condition been met?
		Permitted	Exceeded	
545 Pacific Highway	Upper	26	0	Yes
	Lower	39	0	Yes
10 to 12 Clarke Street	Upper	26	0	Yes
	Lower	39	2	Yes
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	3	Yes
50 Martin Place	Upper	26	0	Yes
	Lower	39	0	Yes
25A Hickson Road	Upper	26	0	Yes
	Lower	39	0	Yes
243 Miller St	Upper	26	0	Yes
	Lower	39	2	Yes
60 Castlereagh St (Roof Top)	Upper	26	0	Yes
	Lower	39	0	Yes

**Report for Condition E1.1 on 04/11/2018**

Location	Noise Goal	15 minute periods in exceedance		Has condition been met?
		Permitted	Exceeded	
545 Pacific Highway	Upper	26	0	Yes
	Lower	39	0	Yes
10 to 12 Clarke Street	Upper	26	1	Yes
	Lower	39	1	Yes
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	2	Yes
50 Martin Place	Upper	26	0	Yes
	Lower	39	0	Yes
25A Hickson Road	Upper	26	0	Yes
	Lower	39	0	Yes
243 Miller St	Upper	26	0	Yes
	Lower	39	0	Yes
60 Castlereagh St (Roof Top)	Upper	26	0	Yes
	Lower	39	0	Yes

Report for Condition E1.1 on 05/11/2018				
Location	Noise Goal	15 minute periods in exceedance		Has condition been met?
		Permitted	Exceeded	
545 Pacific Highway	Upper	26	0	Yes
	Lower	39	0	Yes
10 to 12 Clarke Street	Upper	26	0	Yes
	Lower	39	6	Yes
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	3	Yes
50 Martin Place	Upper	26	0	Yes
	Lower	39	0	Yes
25A Hickson Road	Upper	26	0	Yes
	Lower	39	0	Yes
243 Miller St	Upper	26	0	Yes
	Lower	39	0	Yes
60 Castlereagh St (Roof Top)	Upper	26	0	Yes
	Lower	39	0	Yes
Report for Condition E1.1 on 06/11/2018				
Location	Noise Goal	15 minute periods in exceedance		Has condition been met?
		Permitted	Exceeded	
545 Pacific Highway	Upper	26	0	Yes
	Lower	39	0	Yes
10 to 12 Clarke Street	Upper	26	0	Yes
	Lower	39	0	Yes
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	26	Yes
50 Martin Place	Upper	26	0	Yes
	Lower	39	0	Yes
25A Hickson Road	Upper	26	0	Yes
	Lower	39	0	Yes
243 Miller St	Upper	26	0	Yes
	Lower	39	0	Yes
60 Castlereagh St (Roof Top)	Upper	26	0	Yes
	Lower	39	0	Yes

**Report for Condition E1.1 on 07/11/2018**

Location	Noise Goal	15 minute periods in exceedance		Has condition been met?
		Permitted	Exceeded	
545 Pacific Highway	Upper	26	0	Yes
	Lower	39	0	Yes
10 to 12 Clarke Street	Upper	26	0	Yes
	Lower	39	15	Yes
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	2	Yes
	Lower	39	10	Yes
50 Martin Place	Upper	26	0	Yes
	Lower	39	0	Yes
25A Hickson Road	Upper	26	0	Yes
	Lower	39	0	Yes
243 Miller St	Upper	26	0	Yes
	Lower	39	0	Yes
60 Castlereagh St (Roof Top)	Upper	26	0	Yes
	Lower	39	0	Yes

**Report for Condition E1.1 on 08/11/2018**

Location	Noise Goal	15 minute periods in exceedance		Has condition been met?
		Permitted	Exceeded	
545 Pacific Highway	Upper	26	0	Yes
	Lower	39	0	Yes
10 to 12 Clarke Street	Upper	26	0	Yes
	Lower	39	16	Yes
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	1	Yes
	Lower	39	12	Yes
50 Martin Place	Upper	26	0	Yes
	Lower	39	0	Yes
25A Hickson Road	Upper	26	0	Yes
	Lower	39	0	Yes
243 Miller St	Upper	26	0	Yes
	Lower	39	0	Yes
60 Castlereagh St (Roof Top)	Upper	26	0	Yes
	Lower	39	0	Yes

**Report for Condition E1.1 on 09/11/2018**

Location	Noise Goal	15 minute periods in exceedance		Has condition been met?
		Permitted	Exceeded	
545 Pacific Highway	Upper	26	0	Yes
	Lower	39	0	Yes
10 to 12 Clarke Street	Upper	26	0	Yes
	Lower	39	3	Yes
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	22	Yes
50 Martin Place	Upper	26	0	Yes
	Lower	39	0	Yes
25A Hickson Road	Upper	26	0	Yes
	Lower	39	0	Yes
243 Miller St	Upper	26	0	Yes
	Lower	39	0	Yes
60 Castlereagh St (Roof Top)	Upper	26	0	Yes
	Lower	39	0	Yes

**Report for Condition E1.1 on 10/11/2018**

Location	Noise Goal	15 minute periods in exceedance		Has condition been met?
		Permitted	Exceeded	
545 Pacific Highway	Upper	26	0	Yes
	Lower	39	0	Yes
10 to 12 Clarke Street	Upper	26	0	Yes
	Lower	39	1	Yes
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	1	Yes
	Lower	39	1	Yes
50 Martin Place	Upper	26	0	Yes
	Lower	39	0	Yes
25A Hickson Road	Upper	26	0	Yes
	Lower	39	0	Yes
243 Miller St	Upper	26	0	Yes
	Lower	39	0	Yes
60 Castlereagh St (Roof Top)	Upper	26	0	Yes
	Lower	39	0	Yes

**Report for Condition E1.1 on 11/11/2018**

Location	Noise Goal	15 minute periods in exceedance		Has condition been met?
		Permitted	Exceeded	
545 Pacific Highway	Upper	26	0	Yes
	Lower	39	0	Yes
10 to 12 Clarke Street	Upper	26	0	Yes
	Lower	39	0	Yes
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	2	Yes
50 Martin Place	Upper	26	0	Yes
	Lower	39	0	Yes
25A Hickson Road	Upper	26	0	Yes
	Lower	39	0	Yes
243 Miller St	Upper	26	0	Yes
	Lower	39	0	Yes
60 Castlereagh St (Roof Top)	Upper	26	0	Yes
	Lower	39	0	Yes

**Report for Condition E1.1 on 12/11/2018**

Location	Noise Goal	15 minute periods in exceedance		Has condition been met?
		Permitted	Exceeded	
545 Pacific Highway	Upper	26	0	Yes
	Lower	39	0	Yes
10 to 12 Clarke Street	Upper	26	2	Yes
	Lower	39	5	Yes
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	7	Yes
50 Martin Place	Upper	26	0	Yes
	Lower	39	0	Yes
25A Hickson Road	Upper	26	0	Yes
	Lower	39	0	Yes
243 Miller St	Upper	26	0	Yes
	Lower	39	0	Yes
60 Castlereagh St (Roof Top)	Upper	26	0	Yes
	Lower	39	0	Yes

<b>Report for Condition E1.1 on 13/11/2018</b>				
Location	Noise Goal	15 minute periods in exceedance		Has condition been met?
		Permitted	Exceeded	
545 Pacific Highway	Upper	26	0	Yes
	Lower	39	0	Yes
10 to 12 Clarke Street	Upper	26	1	Yes
	Lower	39	8	Yes
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	5	Yes
50 Martin Place	Upper	26	0	Yes
	Lower	39	1	Yes
25A Hickson Road	Upper	26	0	Yes
	Lower	39	0	Yes
243 Miller St	Upper	26	0	Yes
	Lower	39	0	Yes
60 Castlereagh St (Roof Top)	Upper	26	0	Yes
	Lower	39	0	Yes
<b>Report for Condition E1.1 on 14/11/2018</b>				
Location	Noise Goal	15 minute periods in exceedance		Has condition been met?
		Permitted	Exceeded	
545 Pacific Highway	Upper	26	0	Yes
	Lower	39	0	Yes
10 to 12 Clarke Street	Upper	26	0	Yes
	Lower	39	6	Yes
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	8	Yes
50 Martin Place	Upper	26	0	Yes
	Lower	39	0	Yes
25A Hickson Road	Upper	26	0	Yes
	Lower	39	0	Yes
243 Miller St	Upper	26	0	Yes
	Lower	39	0	Yes
60 Castlereagh St (Roof Top)	Upper	26	0	Yes
	Lower	39	0	Yes

**Report for Condition E1.1 on 15/11/2018**

Location	Noise Goal	15 minute periods in exceedance		Has condition been met?
		Permitted	Exceeded	
545 Pacific Highway	Upper	26	0	Yes
	Lower	39	0	Yes
10 to 12 Clarke Street	Upper	26	1	Yes
	Lower	39	10	Yes
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	10	Yes
50 Martin Place	Upper	26	0	Yes
	Lower	39	0	Yes
25A Hickson Road	Upper	26	0	Yes
	Lower	39	0	Yes
243 Miller St	Upper	26	0	Yes
	Lower	39	0	Yes
60 Castlereagh St (Level 8)	Upper	26	3	Yes
	Lower	39	3	Yes

**Report for Condition E1.1 on 16/11/2018**

Location	Noise Goal	15 minute periods in exceedance		Has condition been met?
		Permitted	Exceeded	
545 Pacific Highway	Upper	26	0	Yes
	Lower	39	0	Yes
10 to 12 Clarke Street	Upper	26	1	Yes
	Lower	39	14	Yes
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	3	Yes
	Lower	39	25	Yes
50 Martin Place	Upper	26	0	Yes
	Lower	39	0	Yes
25A Hickson Road	Upper	26	0	Yes
	Lower	39	0	Yes
243 Miller St	Upper	26	0	Yes
	Lower	39	0	Yes
60 Castlereagh St (Level 8)	Upper	26	9	Yes
	Lower	39	9	Yes

**Report for Condition E1.1 on 17/11/2018**

Location	Noise Goal	15 minute periods in exceedance		Has condition been met?
		Permitted	Exceeded	
545 Pacific Highway	Upper	26	0	Yes
	Lower	39	0	Yes
10 to 12 Clarke Street	Upper	26	1	Yes
	Lower	39	3	Yes
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	1	Yes
	Lower	39	7	Yes
50 Martin Place	Upper	26	0	Yes
	Lower	39	0	Yes
25A Hickson Road	Upper	26	0	Yes
	Lower	39	0	Yes
243 Miller St	Upper	26	0	Yes
	Lower	39	1	Yes
60 Castlereagh St (Level 8)	Upper	26	0	Yes
	Lower	39	0	Yes

**Report for Condition E1.1 on 18/11/2018**

Location	Noise Goal	15 minute periods in exceedance		Has condition been met?
		Permitted	Exceeded	
545 Pacific Highway	Upper	26	0	Yes
	Lower	39	0	Yes
10 to 12 Clarke Street	Upper	26	0	Yes
	Lower	39	0	Yes
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
50 Martin Place	Upper	26	0	Yes
	Lower	39	0	Yes
25A Hickson Road	Upper	26	0	Yes
	Lower	39	0	Yes
243 Miller St	Upper	26	0	Yes
	Lower	39	0	Yes
60 Castlereagh St (Level 8)	Upper	26	0	Yes
	Lower	39	0	Yes

<b>Report for Condition E1.1 on 19/11/2018</b>				
Location	Noise Goal	15 minute periods in exceedance		Has condition been met?
		Permitted	Exceeded	
545 Pacific Highway	Upper	26	0	Yes
	Lower	39	0	Yes
10 to 12 Clarke Street	Upper	26	1	Yes
	Lower	39	14	Yes
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	9	Yes
50 Martin Place	Upper	26	0	Yes
	Lower	39	0	Yes
25A Hickson Road	Upper	26	0	Yes
	Lower	39	0	Yes
243 Miller St	Upper	26	0	Yes
	Lower	39	0	Yes
60 Castlereagh St (Level 8)	Upper	26	7	Yes
	Lower	39	7	Yes
<b>Report for Condition E1.1 on 20/11/2018</b>				
Location	Noise Goal	15 minute periods in exceedance		Has condition been met?
		Permitted	Exceeded	
545 Pacific Highway	Upper	26	0	Yes
	Lower	39	0	Yes
10 to 12 Clarke Street	Upper	26	0	Yes
	Lower	39	12	Yes
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	13	Yes
50 Martin Place	Upper	26	0	Yes
	Lower	39	0	Yes
25A Hickson Road	Upper	26	0	Yes
	Lower	39	0	Yes
243 Miller St	Upper	26	0	Yes
	Lower	39	0	Yes
60 Castlereagh St (Level 8)	Upper	26	7	Yes
	Lower	39	7	Yes

**Report for Condition E1.1 on 21/11/2018**

Location	Noise Goal	15 minute periods in exceedance		Has condition been met?
		Permitted	Exceeded	
545 Pacific Highway	Upper	26	0	Yes
	Lower	39	0	Yes
10 to 12 Clarke Street	Upper	26	1	Yes
	Lower	39	5	Yes
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	1	Yes
	Lower	39	13	Yes
50 Martin Place	Upper	26	0	Yes
	Lower	39	0	Yes
25A Hickson Road	Upper	26	0	Yes
	Lower	39	0	Yes
243 Miller St	Upper	26	0	Yes
	Lower	39	0	Yes
60 Castlereagh St (Level 8)	Upper	26	0	Yes
	Lower	39	0	Yes

**Report for Condition E1.1 on 22/11/2018**

Location	Noise Goal	15 minute periods in exceedance		Has condition been met?
		Permitted	Exceeded	
545 Pacific Highway	Upper	26	0	Yes
	Lower	39	0	Yes
10 to 12 Clarke Street	Upper	26	0	Yes
	Lower	39	14	Yes
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	3	Yes
	Lower	39	24	Yes
50 Martin Place	Upper	26	0	Yes
	Lower	39	0	Yes
25A Hickson Road	Upper	26	0	Yes
	Lower	39	0	Yes
243 Miller St	Upper	26	0	Yes
	Lower	39	0	Yes
60 Castlereagh St (Level 8)	Upper	26	3	Yes
	Lower	39	3	Yes

Report for Condition E1.1 on 23/11/2018				
Location	Noise Goal	15 minute periods in exceedance		Has condition been met?
		Permitted	Exceeded	
545 Pacific Highway	Upper	26	0	Yes
	Lower	39	0	Yes
10 to 12 Clarke Street	Upper	26	1	Yes
	Lower	39	18	Yes
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	8	Yes
	Lower	39	33	Yes
50 Martin Place	Upper	26	0	Yes
	Lower	39	0	Yes
25A Hickson Road	Upper	26	0	Yes
	Lower	39	0	Yes
243 Miller St	Upper	26	0	Yes
	Lower	39	0	Yes
60 Castlereagh St (Level 8)	Upper	26	3	Yes
	Lower	39	3	Yes
Report for Condition E1.1 on 24/11/2018				
Location	Noise Goal	15 minute periods in exceedance		Has condition been met?
		Permitted	Exceeded	
545 Pacific Highway	Upper	26	0	Yes
	Lower	39	0	Yes
10 to 12 Clarke Street	Upper	26	1	Yes
	Lower	39	15	Yes
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	4	Yes
50 Martin Place	Upper	26	0	Yes
	Lower	39	0	Yes
25A Hickson Road	Upper	26	0	Yes
	Lower	39	0	Yes
243 Miller St	Upper	26	2	Yes
	Lower	39	8	Yes
60 Castlereagh St (Level 8)	Upper	26	2	Yes
	Lower	39	2	Yes

Report for Condition E1.1 on 25/11/2018				
Location	Noise Goal	15 minute periods in exceedance		Has condition been met?
		Permitted	Exceeded	
545 Pacific Highway	Upper	26	0	Yes
	Lower	39	0	Yes
10 to 12 Clarke Street	Upper	26	0	Yes
	Lower	39	0	Yes
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
50 Martin Place	Upper	26	0	Yes
	Lower	39	0	Yes
25A Hickson Road	Upper	26	0	Yes
	Lower	39	0	Yes
243 Miller St	Upper	26	0	Yes
	Lower	39	0	Yes
60 Castlereagh St (Level 8)	Upper	26	0	Yes
	Lower	39	0	Yes
Report for Condition E1.1 on 26/11/2018				
Location	Noise Goal	15 minute periods in exceedance		Has condition been met?
		Permitted	Exceeded	
545 Pacific Highway	Upper	26	0	Yes
	Lower	39	0	Yes
10 to 12 Clarke Street	Upper	26	1	Yes
	Lower	39	11	Yes
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	2	Yes
	Lower	39	20	Yes
50 Martin Place	Upper	26	0	Yes
	Lower	39	0	Yes
25A Hickson Road	Upper	26	0	Yes
	Lower	39	0	Yes
243 Miller St	Upper	26	0	Yes
	Lower	39	0	Yes
60 Castlereagh St (Level 8)	Upper	26	0	Yes
	Lower	39	0	Yes

Report for Condition E1.1 on 27/11/2018				
Location	Noise Goal	15 minute periods in exceedance		Has condition been met?
		Permitted	Exceeded	
545 Pacific Highway	Upper	26	0	Yes
	Lower	39	0	Yes
10 to 12 Clarke Street	Upper	26	0	Yes
	Lower	39	8	Yes
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	3	Yes
	Lower	39	26	Yes
50 Martin Place	Upper	26	0	Yes
	Lower	39	0	Yes
25A Hickson Road	Upper	26	0	Yes
	Lower	39	0	Yes
243 Miller St	Upper	26	1	Yes
	Lower	39	5	Yes
60 Castlereagh St (Level 8)	Upper	26	3	Yes
	Lower	39	3	Yes
Report for Condition E1.1 on 28/11/2018				
Location	Noise Goal	15 minute periods in exceedance		Has condition been met?
		Permitted	Exceeded	
545 Pacific Highway	Upper	26	0	Yes
	Lower	39	0	Yes
10 to 12 Clarke Street	Upper	26	0	Yes
	Lower	39	19	Yes
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	1	Yes
	Lower	39	20	Yes
50 Martin Place	Upper	26	0	Yes
	Lower	39	0	Yes
25A Hickson Road	Upper	26	0	Yes
	Lower	39	0	Yes
243 Miller St	Upper	26	0	Yes
	Lower	39	6	Yes
60 Castlereagh St (Level 8)	Upper	26	0	Yes
	Lower	39	0	Yes

**Report for Condition E1.1 on 29/11/2018**

Location	Noise Goal	15 minute periods in exceedance		Has condition been met?
		Permitted	Exceeded	
545 Pacific Highway	Upper	26	0	Yes
	Lower	39	0	Yes
10 to 12 Clarke Street	Upper	26	0	Yes
	Lower	39	22	Yes
65 Berry St	Upper	26	0	Yes
	Lower	39	0	Yes
Castlereagh Boutique Hotel	Upper	26	0	Yes
	Lower	39	2	Yes
Edinburgh Castle Hotel	Upper	26	4	Yes
	Lower	39	31	Yes
50 Martin Place	Upper	26	0	Yes
	Lower	39	0	Yes
25A Hickson Road	Upper	26	0	Yes
	Lower	39	0	Yes
243 Miller St	Upper	26	0	Yes
	Lower	39	0	Yes
60 Castlereagh St (Level 8)	Upper	26	1	Yes
	Lower	39	1	Yes

**Report for Condition E1.1 on 30/11/2018**

Location	Noise Goal	15 minute periods in exceedance		Has condition been met?
		Permitted	Exceeded	
545 Pacific Highway	Upper	26	0	Yes
	Lower	39	0	Yes
10 to 12 Clarke Street	Upper	26	0	Yes
	Lower	39	11	Yes
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	21	Yes
50 Martin Place	Upper	26	0	Yes
	Lower	39	0	Yes
25A Hickson Road	Upper	26	0	Yes
	Lower	39	0	Yes
243 Miller St	Upper	26	0	Yes
	Lower	39	0	Yes
60 Castlereagh St (Level 8)	Upper	26	2	Yes
	Lower	39	16	Yes

**Real Time Noise Analysis Results Comments:**

All real-time noise monitoring results were compliant with condition E1.1.

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

Day	22 Clarke Street, Crows Nest	10 to 12 Clarke Street, Crows Nest	65 Berry Street, North Sydney	243 Miller Street, North Sydney	25A Hickson Road, Millers Point	50 Martin Place, Sydney	60 Castlereagh Street (Basement), Sydney	60 Castlereagh Street (Level 9), Sydney	60 Castlereagh Street (level 8), Sydney	Castlereagh Boutique Hotel	211-217 Castlereagh Street, Sydney
Criteria	25	25	25	7.5	25	7.5	25	25	25	7.5	7.5
01/11/2018	0.65	0.35	0.96	2.42	0.11	0.25	1.72	3.84	-	1.78	1.1
02/11/2018	0.41	0.49	0.63	1.29	0.08	0.25	1.47	5.2	-	4.95	2.94
03/11/2018	0.57	0.26	1.93	1.84	0.25	0.31	2.47	7.06	-	3.69	1.51
04/11/2018	1.41	0.22	0.83	0.66	0.11	0.22	0.67	1.17	-	2.17	0.08
05/11/2018	0.6	0.38	1.07	2.15	0.13	0.56	3.42	2.45	-	1.66	1.44
06/11/2018	0.78	0.22	0.96	1.95	0.38	1.43	0.85	3.17	-	6.23	1.12
07/11/2018	0.57	0.22	0.35	0.92	0.11	0.48	3.91	5.59	-	4.22	11.33
08/11/2018	0.65	0.54	0.24	0.67	0.13	0.32	1.52	9.98	-	1.82	0.46
09/11/2018	0.64	0.28	1.04	0.97	0.08	0.32	1.26	4.98	-	1.41	0.94
10/11/2018	0.41	0.28	0.6	1.37	0.13	0.8	1.23	7.31	-	2.17	0.35
11/11/2018	0.38	0.33	0.37	0.54	0.08	0.25	0.21	1.5	-	1.11	0.1
12/11/2018	0.46	0.44	0.3	0.69	0.13	0.69	2.86	3.92	-	1.54	0.51
13/11/2018	0.89	0.54	0.8	0.68	0.08	0.32	0.75	4.48	-	13.97	0.63
14/11/2018	1.79	0.79	1.15	0.89	0.16	0.4	1.62	-	38.38	1.53	1.2
15/11/2018	0.68	0.27	1.23	0.97	0.1	0.28	1.34	-	4.89	1.91	0.29
16/11/2018	0.51	0.41	0.43	0.86	0.11	0.4	0.9	-	6.01	2.92	0.14
17/11/2018	0.46	0.43	0.47	35.55	0.13	0.29	0.72	-	6.91	1.96	0.28
18/11/2018	0.24	0.16	0.24	1.89	0.13	0.22	0.26	-	0.22	0.87	0.09
19/11/2018	0.84	0.62	0.41	0.6	0.13	0.37	1	-	18.64	1.57	0.93
20/11/2018	0.7	0.57	0.59	1.31	0.16	0.37	0.85	-	54.33	2.19	0.73
21/11/2018	0.54	0.3	0.52	0.97	0.11	1.3	1.93	-	6.75	1.5	0.47
22/11/2018	0.51	0.27	0.27	0.67	0.11	0.29	0.51	-	26.78	1.92	0.66
23/11/2018	0.53	0.38	0.66	2	0.11	0.22	0.72	-	12.95	1.52	0.66
24/11/2018	0.65	0.57	2.99	2.11	0.11	0.22	0.36	-	1.2	2.35	0.89
25/11/2018	0.46	0.22	0.27	0.86	0.11	0.22	0.31	-	0.22	2.56	0.06
26/11/2018	0.46	0.38	0.74	2.37	0.11	0.24	0.23	-	3.47	1.81	0.47
27/11/2018	0.41	0.33	0.68	1.14	0.3	2.28	0.28	-	56.25	2.33	1.28
28/11/2018	0.41	0.56	0.36	0.89	0.08	0.22	0.26	-	3.77	3.55	0.09
29/11/2018	0.6	0.41	1.04	0.86	0.1	0.24	0.28	-	56.25	0.69	2
30/11/2018	0.83	0.66	0.59	4.22	0.11	0.29	0.98	-	1.94	1.99	2.43

**Real-Time Vibration Results Comments:**

**243 Miller Street, North Sydney**

Vibration exceedance recorded during trial blasting 2018-11-17. Blasting regime temporarily suspended and exceedance reported to EPA.

**Level 8, 60 Castlereagh Street, Sydney**

Vibration Alerts - Level 8, 60 Castlereagh Street were received for the following dates.

- 14/11/2018, 38.4mm/s @ 21:04pm
- 20/11/2018, 54mm/s @ 15:16pm

- 22/11/2018, 26.8mm/s @ 12:36pm
- 27/11/2018, 56.3mm/s @ 10:40am
- 27/11/2018, 56.2mm/s @ 16:49pm
- 27/11/2018, 56.2mm/s @ 16:53pm
- 29/11/2018, 56.3mm/s @ 12:20pm

Vibration data was reviewed and compared against site activities, in all instance's vibration exceedances were determined to be unrelated to TSE works. The likely cause of the alerts is believed to be occupants of the office building coming into contact with the geophone. The occupant confirmed that the location of the geophone was being occupied during November and stated it was possible that personnel interfered with the monitor.

#### **Castlereagh Boutique Hotel, Sydney**

A vibration alert was received on 13/11/2018 at 06:42am. The vibration monitor is located in the Castlereagh Boutique Hotel adjacent to the Pitt Street North Site. There were no high impact works being undertaken at the time of the exceedance. The Pitt Street Community Place Manager contacted the Boutique Hotel who indicated that they were not aware of any staff or works occurring near the monitor at the time of the alert.

As there were no high impact activities being undertaken at the time of the exceedance it has been determined to be unrelated to TSE works.

#### **211-217 Castlereagh Street, Sydney**

An alert was received on 07/11/2018 indicating that a vibration reading of 11.8mm/s. The alert was investigated by the Site Environmental Representative, the following tasks were being undertaken onsite at the time of the alert, paint removal and loading of trucks. Vibration levels were monitored for the remainder of the day and remained far below the allowable limit. It was concluded that the alert was due to an external source and unrelated to the TSE works taking place onsite.