



30/09/2020

Vibration Monitoring Report

SMEEP – Early Works

Document Number: W-EN-FM-o8 V2.0

Revision 1.0

APPROVAL

Client	Client Representative	Approval Signature and Date (Wet Signature)
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DOCUMENT VERSION CONTROL

Version	Version Details	Author	Position	Reviewer(s)	Version Date
A	For Review	Vanessa Zbinden	Environmental Coordinator	Rowan Grace	11/08/2020
1.0	Issued for project	Vanessa Zbinden	Environmental Coordinator	Rowan Grace	12/08/2020

DOCUMENT AND RECORD CONTROL

Document control, including approval and the handling of superseded versions, shall be in accordance with the **Document Control** procedure.

REFERENCE TO SUPPORTING WARD DOCUMENTATION

Documents required to complete the tasks in this procedure are referenced in **bold** throughout the procedure. Refer to the Related Documents section for the corresponding document numbers.

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1. PURPOSE

The purpose of this document is to report the vibration monitoring results obtained at SMEEP Early Works Project

2. ENVIRONMENTAL PROTECTION LICENCE AND REPORTING REQUIREMENTS

The Development consent conditions state the following with respect to vibration:

-C16: Vibration caused by construction at any residence or structure outside the site must be limited to:

- a) for structural damage, the latest version of DIN 4150-3 (1992-02) Structural vibration Effects of vibration on structures (German Institute for Standardisation, 1999); and
- b) for human exposure, the acceptable vibration values set out in the Environmental Noise Management Assessing Vibration; technical guideline (DEC,2006), (as may be updated or replaced from time to time).

-C17: Vibratory compactors must not be used closer than 30 meters from residential buildings unless vibration monitoring confirms compliance with the vibration criteria specified in condition C16.

-C18: The limits in conditions C16 and C17 apply unless otherwise outlined in a Construction Noise and Vibration Management Plan, approved as part of the CEMP required by condition B14 of this consent.

Note that in the Noise & Vibration Management Plan it is indicated to use the EPA Recommended Vibration Levels shown in Table 6, (Table included in Section 4 of this report), to assess and manage vibration within the excavation/construction site.

3. VIBRATION MONITORING REQUIREMENTS

Levels during the demolition and excavation phases should occur at the nearby Meadowbank TAFE College Library. The measurement location should be near the middle of the common boundary between the two properties, or as otherwise determined from time to time to best measure representative vibration levels.

The monitor used should log the peak particle velocities and transmit SMS warnings to the contractor and acoustic expert if a pre-determined threshold is exceeded. Regular reports should be provided (twice monthly) showing the vibration levels recorded and comparing these to the criteria.

Attended or unattended monitoring should also be undertaken at other locations in response to complaints, as appropriate.

3.1. Vibration Monitoring Results

In accordance to the Noise & Vibration Management Plan, the recommendations of the EPA guideline have been adopted to assess and manage vibration within the excavation/construction site. The Levels are presented in the Table below:

EPA Criteria adopted as per Noise & Vibration Management Plan

Place	Time	RMS acceleration (m/s ²)		RMS velocity (mm/s)		Peak velocity (mm/s)	
		<u>Preferred</u>	<u>Maximum</u>	<u>Preferred</u>	<u>Maximum</u>	<u>Preferred</u>	<u>Maximum</u>
Continuous Vibration							
Critical Working Areas	Daytime	0.005	0.01	0.1	0.2	0.14	0.28
Residences		0.01	0.02	0.2	0.4	0.28	0.56
Offices		0.02	0.04	0.4	0.8	0.56	1.1
Workshops		0.04	0.08	0.8	1.6	1.1	2.2
Impulsive Vibration							
Critical Working Areas	Daytime	0.005	0.01	0.1	0.2	0.14	0.28
Residences		0.3	0.6	6.0	12.0	8.6	17.0
Offices		0.64	1.28	13.0	26.0	18.0	36.0
Workshops		0.64	1.28	13.0	26.0	18.0	36.0

The following Table is a summary of the results obtained since July 2020. In Appendix A are attached the Vibration Monitoring Records, including photos of the location, activities being undertaken during the monitoring and the graphics of the recorded data.

Table 1 Attended Vibration Monitoring Results.

Monitoring location	Monitoring Date	Measurement Period (Time of Peak)	Tran	Vert	Long	EPA Guideline Offices, schools, educational institutions and places of worship (Peak Vector Sum)	EPA Guideline Residences (Peak Vector Sum)	Recorded Value (Peak Vector Sum)	Activity being undertaken, Comments and/ or Recommendations
			mm/s	mm/s	mm/s	mm/s	mm/s	mm/s	
Next to the hoarding between TAFE Building and Work site	23/07/20	09:00 to 09:22 (Peak at 09:18)	0.03	0.03	0.11	1.1	0.56	0.13	Activity being undertaken during monitoring: Two excavators loading material on trucks. Results comply with EPA criteria presented in Table 6 of the Noise & Vibration Management Plan Continuous vibration source.
Next to the hoarding along Rhodes Street in front of 7 Rhodes Street	23/07/20	09:27 to 09:35 (Peak at 09:32)	0.05	0.05	0.11	1.1	0.56	0.19	Activity being undertaken during monitoring: Two excavators loading material on trucks for disposal. Intermittent source identified: Trucks passing 5m away From monitor. Results comply with EPA criteria presented in Table 6 of the Noise & Vibration Management Plan. Continuous vibration source.

Monitoring location	Monitoring Date	Measurement Period (Time of Peak)	Tran	Vert	Long	EPA Guideline Offices, schools, educational institutions and places of worship (Peak Vector Sum)	EPA Guideline Residences (Peak Vector Sum)	Recorded Value (Peak Vector Sum)	Activity being undertaken, Comments and/ or Recommendations
			mm/s	mm/s	mm/s	mm/s	mm/s	mm/s	
Next to the hoarding between TAFE Building and Work site	06/08/20	14:03 to 14:28 (Peak at 14:17)	0.05	0.05	0.11	36.0	17.0	1.09	Activity being undertaken during monitoring: Rolling material within site boundary (14t roller). Results comply with EPA criteria presented in Table 6 of the Noise & Vibration Management Plan. Impulsive vibration source, short duration.
Intersection Rhodes Street/Mellor St.SE side of the work boundary.	06/08/20	15:28 to 15:57 (Peak at 15:36)	0.16	0.18	0.27	36.0	17.0	0.3	Activity being undertaken during monitoring: Rolling material within site boundary (14t roller). Results comply with EPA criteria presented in Table 6 of the Noise & Vibration Management Plan. Impulsive vibration source, short duration.

Monitoring location	Monitoring Date	Measurement Period (Time of Peak)	Tran	Vert	Long	EPA Guideline Offices, schools, educational institutions and places of worship (Peak Vector Sum)	EPA Guideline Residences (Peak Vector Sum)	Recorded Value (Peak Vector Sum)	Activity being undertaken, Comments and/ or Recommendations
			mm/s	mm/s	mm/s	mm/s	mm/s	mm/s	
Outside Project boundary, in front of 15 Rhodes st (near the gate due to increase of truck movements)	07/08/20	10:33 to 11:03 (Peak at 10:58)	0.05	0.13	0.11	1.1	0.56	0.13	Activity being undertaken during monitoring: Excavator 22t loading material on trucks. Results comply with EPA criteria presented in Table 6 of the Noise & Vibration Management Plan. Continuous vibration source.
Intersection Rhodes Street/Mellor St. SE side of the work boundary.	07/08/20	11:11 to 11:22 (Peak at 11:11, representative Peak at 11:17)	0.32	0.08	0.4	1.1	0.56	0.17	Activity being undertaken during monitoring: Excavator 22t loading material on trucks. Intermittent source: trucks along Rhodes st Results comply with EPA criteria presented in Table 6 of the Noise & Vibration Management Plan. Continuous vibration source.

Monitoring location	Monitoring Date	Measurement Period (Time of Peak)	Tran	Vert	Long	EPA Guideline Offices, schools, educational institutions and places of worship (Peak Vector Sum)	EPA Guideline Residences (Peak Vector Sum)	Recorded Value (Peak Vector Sum)	Activity being undertaken, Comments and/ or Recommendations
			mm/s	mm/s	mm/s	mm/s	mm/s	mm/s	
Next to the hoarding in the SE side of the site compound.	12/08/20	07:26 to 08:24 (Peak at 07:48 during loading of material, Peak at 08:13)	0.13	0.08	0.05	1.1	0.56	0.13	<p>Activity being undertaken during monitoring: From 7:26 to 7:54 2 excavators loading material on trucks. From 7:54 to 8:16 Rolling material within site boundary (14t roller). Intermittent source: Trucks along Rhodes St.</p> <p>Results comply with EPA criteria presented in Table 6 of the Noise & Vibration Management Plan.</p> <p>Continuous vibration source (07:26-7:54)</p> <p>Impulsive vibration source (07:55-8:16)</p>
			1.85	0.52	1.23	36.0	17.0	2.05	

Monitoring location	Monitoring Date	Measurement Period (Time of Peak)	Tran	Vert	Long	EPA Guideline Offices, schools, educational institutions and places of worship (Peak Vector Sum)	EPA Guideline Residences (Peak Vector Sum)	Recorded Value (Peak Vector Sum)	Activity being undertaken, Comments and/ or Recommendations
			mm/s	mm/s	mm/s	mm/s	mm/s	mm/s	
Next to the hoarding between TAFE building and work boundary	12/08/20	09:07 to 09:32 (Peak at 09:24)	1.06	1.0	1.5	36.0	17.0	1.85	Activity being undertaken during monitoring: Rolling material within site boundary (14t roller). Intermittent source: Trucks along Rhodes Street. Results comply with EPA criteria presented in Table 6 of the Noise & Vibration Management Plan Impulsive Vibration Source.
Next to the hoarding between the site and TAFE	17/08/20	09:50 to 10:10 (Peak at 09:56)	0.26	0.13	0.11	36.0	17.0	0.26	Activity being undertaken during monitoring: Trucks passing by Rhodes Street Results comply with EPA criteria presented in Table 6 of the Noise & Vibration Management Plan Impulsive Vibration Source.

Monitoring location	Monitoring Date	Measurement Period (Time of Peak)	Tran	Vert	Long	EPA Guideline Offices, schools, educational institutions and places of worship (Peak Vector Sum)	EPA Guideline Residences (Peak Vector Sum)	Recorded Value (Peak Vector Sum)	Activity being undertaken, Comments and/ or Recommendations
			mm/s	mm/s	mm/s	mm/s	mm/s	mm/s	
Next to the hoarding in the SE side of the site	21/08/20	07:26 to 08:38 (Peak at 08:10)	0.13	0.71	0.37	36.0	17.0	0.72	Activity being undertaken during monitoring: Trucks were passing by Rhodes St. Results comply with EPA criteria presented in Table 6 of the Noise & Vibration Management Plan Impulsive Vibration Source.
Next to the hoarding in front 7-9 Rhodes St	28/08/20	07:00 to 07:42 (Peak at 07:28)	0.11	0.05	0.08	1.1	0.56	0.11	Activity being undertaken during monitoring: vacuum truck was working onsite. Results comply with EPA criteria presented in Table 6 of the Noise & Vibration Management Plan Continuous Vibration Source.

Monitoring location	Monitoring Date	Measurement Period (Time of Peak)	Tran	Vert	Long	EPA Guideline Offices, schools, educational institutions and places of worship (Peak Vector Sum)	EPA Guideline Residences (Peak Vector Sum)	Recorded Value (Peak Vector Sum)	Activity being undertaken, Comments and/ or Recommendations
			mm/s	mm/s	mm/s	mm/s	mm/s	mm/s	
Next to the hoarding in front 7-9 Rhodes St	07/09/20	11:08 to 11:32 (Peak at 11:17)	0.11	0.13	0.08	36.0	17.0	0.13	Activity being undertaken during monitoring: vacuum truck was working onsite. Results comply with EPA criteria presented in Table 6 of the Noise & Vibration Management Plan Impulsive Vibration Source.
Next to the hoarding between TAFE building and work boundary	07/09/20	11:34 to 11:52 (Peak at 11:49)	0.05	0.16	0.08	36.0	17.0	0.13	Activity being undertaken during monitoring: vacuum truck was working onsite. Results comply with EPA criteria presented in Table 6 of the Noise & Vibration Management Plan Impulsive Vibration Source.

Monitoring location	Monitoring Date	Measurement Period (Time of Peak)	Tran	Vert	Long	EPA Guideline Offices, schools, educational institutions and places of worship (Peak Vector Sum)	EPA Guideline Residences (Peak Vector Sum)	Recorded Value (Peak Vector Sum)	Activity being undertaken, Comments and/ or Recommendations
			mm/s	mm/s	mm/s	mm/s	mm/s	mm/s	
Next to the hoarding between TAFE building and work boundary	24/09/20	07:19 to 08:02 (Peak at 07:42)	0.74	0.34	0.45	36.0	17.0	0.76	Activity being undertaken during monitoring: Drilling. Results comply with EPA criteria presented in Table 6 of the Noise & Vibration Management Plan Impulsive Vibration Source.
NE corner of the main work area.	24/09/20	08:03 to 08:21 (Peak at 08:18)	0.11	0.08	0.08	36.0	17.0	0.13	Activity being undertaken during monitoring: Drilling. Results comply with EPA criteria presented in Table 6 of the Noise & Vibration Management Plan Impulsive Vibration Source.

Monitoring location	Monitoring Date	Measurement Period (Time of Peak)	Tran	Vert	Long	EPA Guideline Offices, schools, educational institutions and places of worship (Peak Vector Sum)	EPA Guideline Residences (Peak Vector Sum)	Recorded Value (Peak Vector Sum)	Activity being undertaken, Comments and/ or Recommendations
			mm/s	mm/s	mm/s	mm/s	mm/s	mm/s	
NE corner of the main work area.	29/09/20	10:13 to 10:33 (Peak at 10:24)	0.05	0.08	0.05	36.0	17.0	0.06	Activity being undertaken during monitoring: Drilling Results comply with EPA criteria presented in Table 6 of the Noise & Vibration Management Plan Impulsive Vibration Source.
Next to the hoarding in front of 79 Rhodes Street	29/09/20	10:33 to 10:50 (Peak at 10:49)	0.5	0.55	0.43	36.0	17.0	0.65	Activity being undertaken during monitoring: Rock breaker Results comply with EPA criteria presented in Table 6 of the Noise & Vibration Management Plan Impulsive Vibration Source.

Monitoring location	Monitoring Date	Measurement Period (Time of Peak)	Tran	Vert	Long	EPA Guideline Offices, schools, educational institutions and places of worship (Peak Vector Sum)	EPA Guideline Residences (Peak Vector Sum)	Recorded Value (Peak Vector Sum)	Activity being undertaken, Comments and/ or Recommendations
			mm/s	mm/s	mm/s	mm/s	mm/s	mm/s	
Next to the hoarding between work site and TAFE building	29/09/20	10:51 to 11:16 (Peak at 10:53)	0.85	2.2	0.99	36.0	17.0	2.29	<p>Activity being undertaken during monitoring: Drilling</p> <p>Results comply with EPA criteria presented in Table 6 of the Noise & Vibration Management Plan</p> <p>Impulsive Vibration Source.</p>

APPENDIX A. VIBRATION MONITORING RECORDS

Vibration Monitoring Record

Date	Start: Thu, 23 Jul 2020, 9:00 am	End: Thu, 23 Jul 2020, 9:30 am
Test Conducted By	Vanessa Zbinden	
Model Instrument	Texcel / Serial Number: 7497 / Calibrated on 06/07/2020 by ACU-VIB Certificate Number 27237	
Comments/Activities	Two excavators loading material on trucks for disposal. Monitoring Location: Next to hoarding between TAFE Building and Work site.	
Peak-Particle Vlocity (PPV) - For the assessment of Cosmetic Damage Concern	0.13 mm/s. Result comply with Condition C16 - EPA Recommended Vibration Criteria (Table 6, Section 6.2.2 Noise & Vibration Management Plan), and German Standard DIN 4150-3 (1999-02) - Ground Borne Vibrations and Damage Limits (Table 5, Section 6.2.1 Noise & Vibration Management Plan). Closest receiver located 15m away from monitoring location and work boundary.	

Monitoring Results

Tran	Vert	Long	Unit
0.03	0.03	0.11	mm/s
-	-	-	

Photo and video



See full page photos attached at end of PDF

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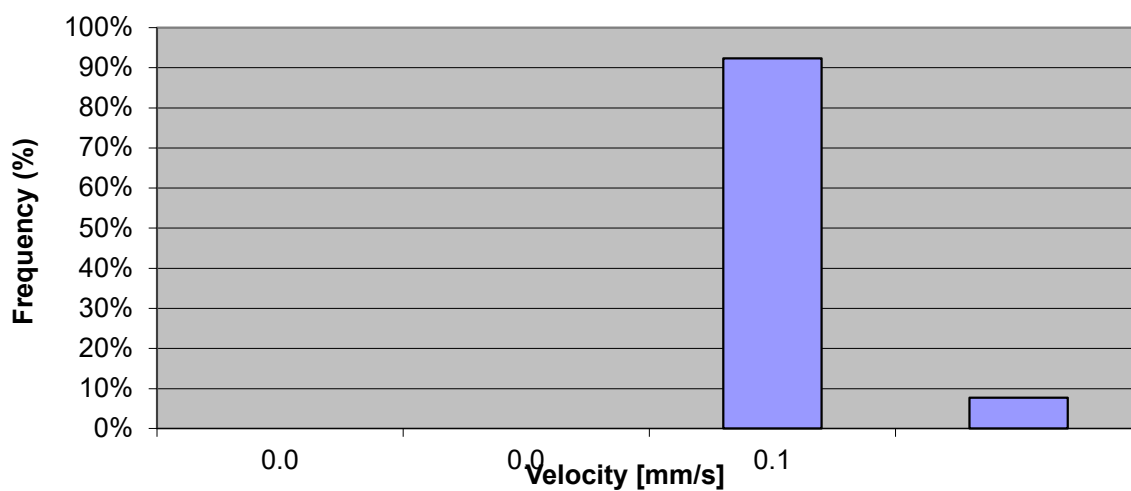
Site **Meadowbank SMEEP - Early Works**

Location **02 Rhodes Street**

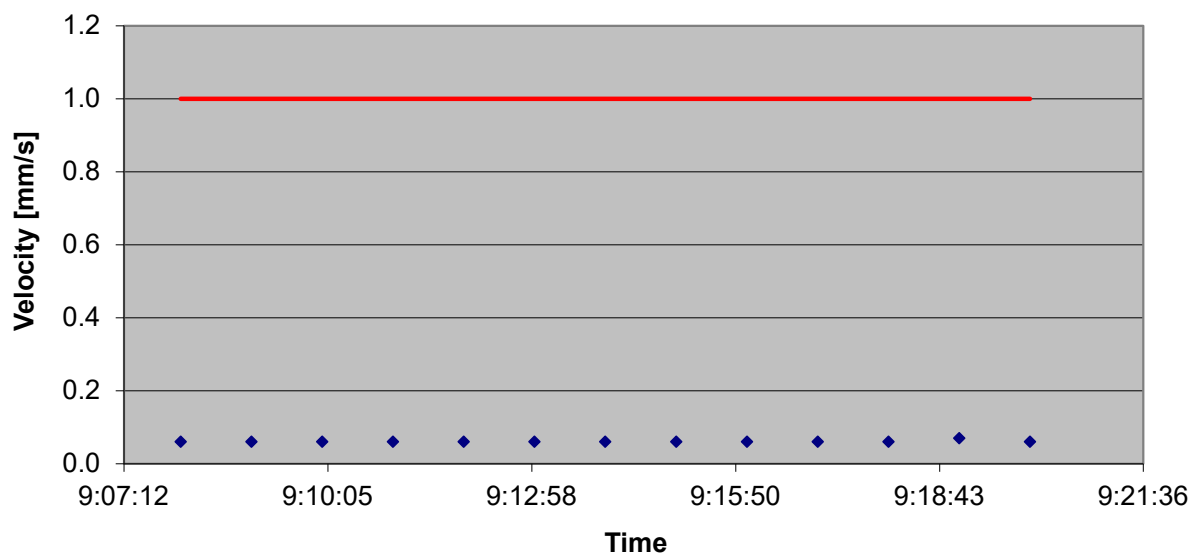
Monitor **M7497**

Calibrated **2020-07-06**

Vector Sum Frequency Histogram



Peak Permissible Value : **1 mm/s**
Number of Events > 1 mm/s : **0**



Vibration Monitoring Record

Date	Start: Thu, 23 Jul 2020, 9:27 am	End: Thu, 23 Jul 2020, 9:35 am
Test Conducted By	Vanessa Zbinden	
Model Instrument	Texcel / Serial Number: 7497 / Calibrated on 06/07/2020 by ACU-VIB Certificate Number 27237	
Comments/Activities	Two excavators loading material on trucks for disposal. Intermittent source identified: Trucks passing 5m away from monitor. Monitoring Location: Next to hoarding along Rhodes Street in front 7 Rhodes Street	
Peak-Particle Vlocity (PPV) - For the assessment of Cosmetic Damage Concern	0.19 mm/s. Result comply with Condition C16 - EPA Recommended Vibration Criteria (Table 6, Section 6.2.2 Noise & Vibration Management Plan), and German Standard DIN 4150-3 (1999-02) - Ground Borne Vibrations and Damage Limits (Table 5, Section 6.2.1 Noise & Vibration Management Plan). Closest receiver located 15m away from monitoring location and work boundary.	

Monitoring Results

Tran	Vert	Long	Unit
0.05	0.05	0.11	mm/s
-	-	-	

Photo and video

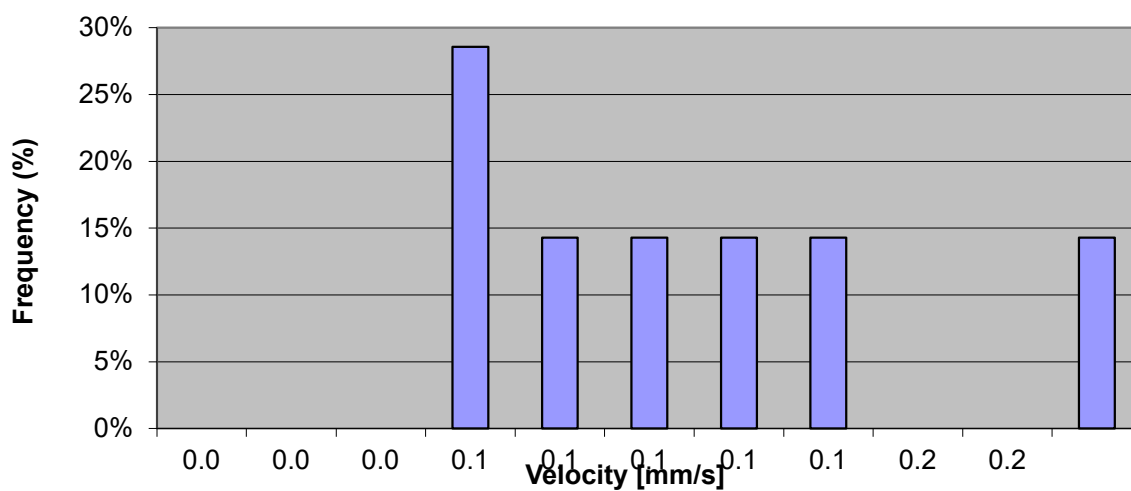
Site Meadowbank - SEEMP Early Works

Location 02 Rhodes Street

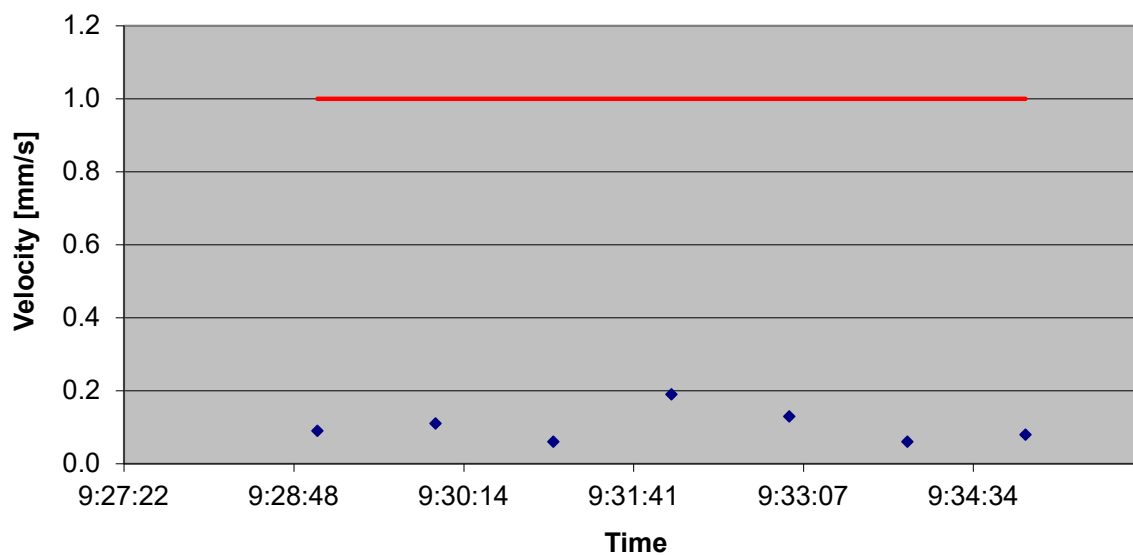
Monitor **M7497**

Calibrated **2020-07-06**

Vector Sum Frequency Histogram



Peak Permissible Value : **1 mm/s**
Number of Events > 1 mm/s : **0**



Vibration Monitoring Record

Date	Start: Thu, 06 Aug 2020, 2:03 pm	End: Thu, 06 Aug 2020, 2:28 pm
Test Conducted By	Vanessa Zbinden	
Model Instrument	Texcel / Serial Number: 7497 / Calibrated on 06/07/2020 by ACU-VIB Certificate Number 27237	
Comments/Activities	Rolling material within site boundary. (14t roller). Monitoring location: next to hoarding between work site and TAFE building.	
Peak-Particle Vlocity (PPV) - For the assessment of Cosmetic Damage Concern	1.09mm/s Result comply with Condition C16 - EPA Recommended Vibration Criteria (Table 6, Section 6.2.2 Noise & Vibration Management Plan), and German Standard DIN 4150-3 (1999-02) - Ground Borne Vibrations and Damage Limits (Table 5, Section 6.2.1 Noise & Vibration Management Plan).	

Monitoring Results

Tran	Vert	Long	Unit
0.05	0.05	0.11	mm/s
-	-	-	

Photo and video



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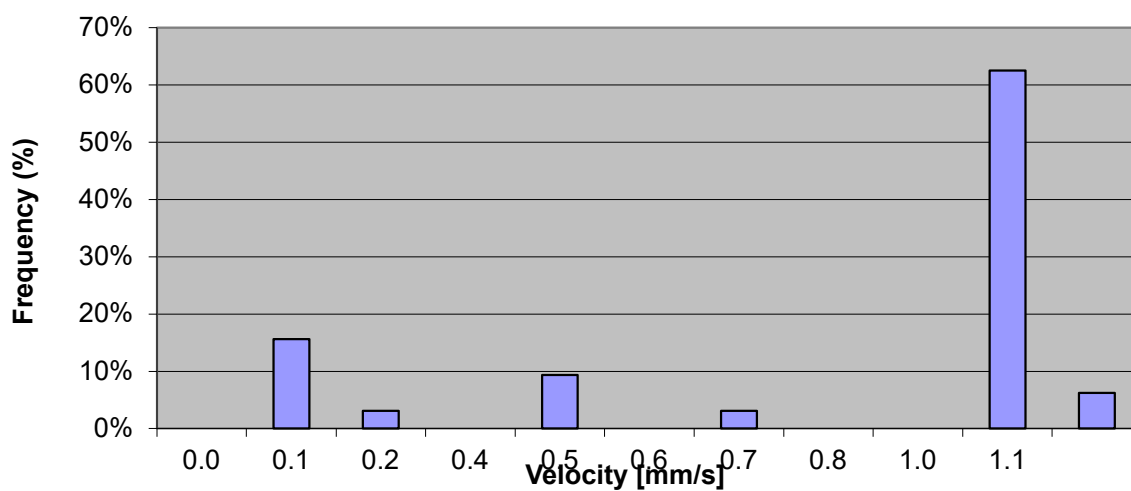
Site Meadowbank - SMEEP Early Works

Location **02 Rhodes Street**

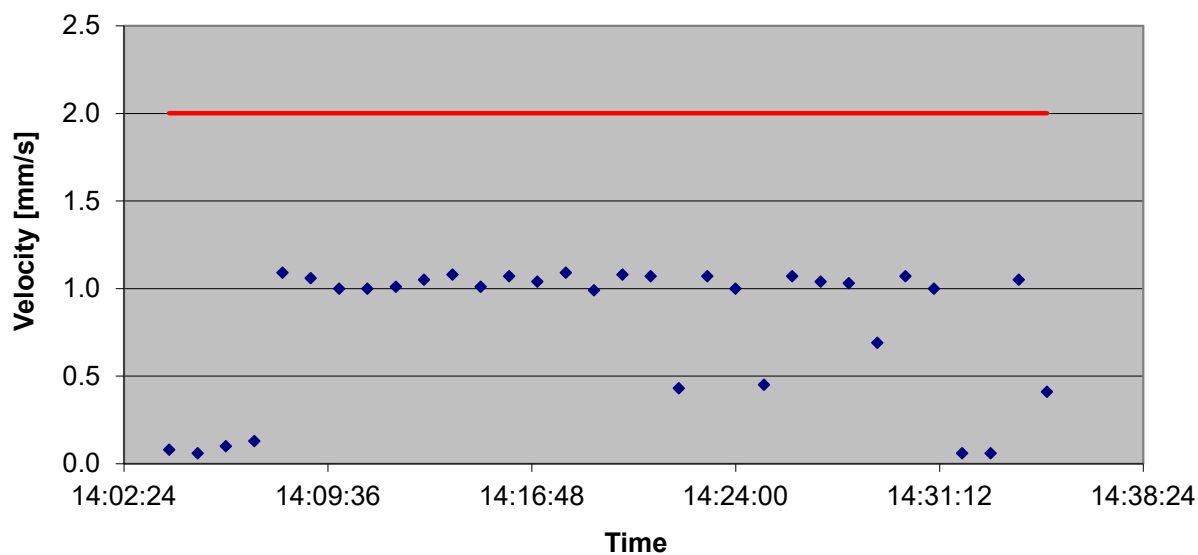
Monitor **M7497**

Calibrated **2020-07-06**

Vector Sum Frequency Histogram



Peak Permissible Value : **2 mm/s**
Number of Events > 2 mm/s : **0**



Vibration Monitoring Record

Date	Start: Thu, 06 Aug 2020, 3:28 pm	End: Thu, 06 Aug 2020, 3:57 pm
Test Conducted By	Vanessa Zbinden	
Model Instrument	Texcel / Serial Number: 7497 / Calibrated on 06/07/2020 by ACU-VIB Certificate Number 27237	
Comments/Activities	Rolling material within site boundary (14t roller). Intermittent source: Trucks along Rhodes st. Monitoring location: intersection Rhodes Street / Mellor St . SE side of the work site.	
Peak-Particle Vlocity (PPV) - For the assessment of Cosmetic Damage Concern	0.3 mm/s Result comply with Condition C16 - EPA Recommended Vibration Criteria (Table 6, Section 6.2.2 Noise & Vibration Management Plan), and German Standard DIN 4150-3 (1999-02) - Ground Borne Vibrations and Damage Limits (Table 5, Section 6.2.1 Noise & Vibration Management Plan).	

Monitoring Results

Tran	Vert	Long	Unit
0.16	0.18	0.27	mm/s
-	-	-	

Photo and video



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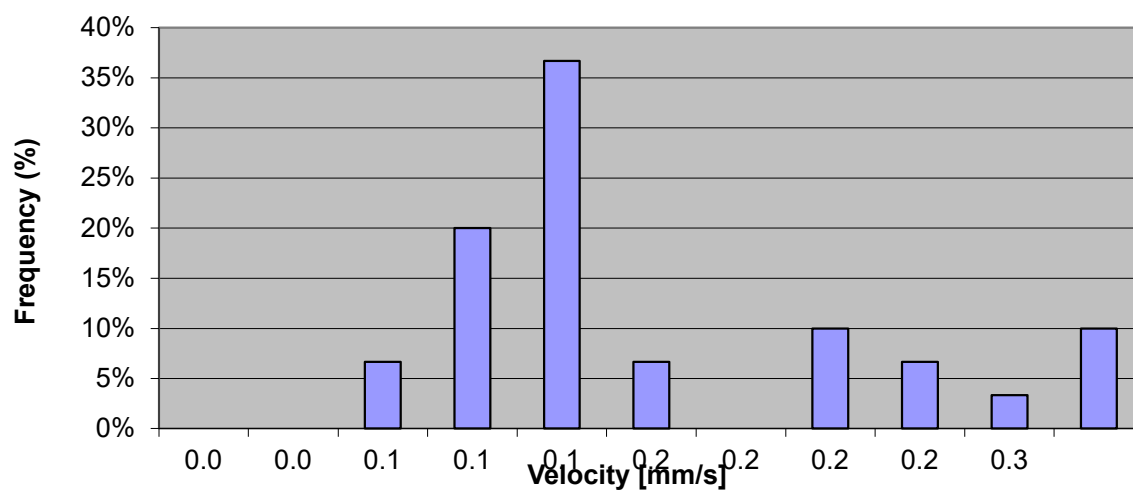
Site **Meadowbank - SMEEP Early Works**

Location **02 Rhodes Street**

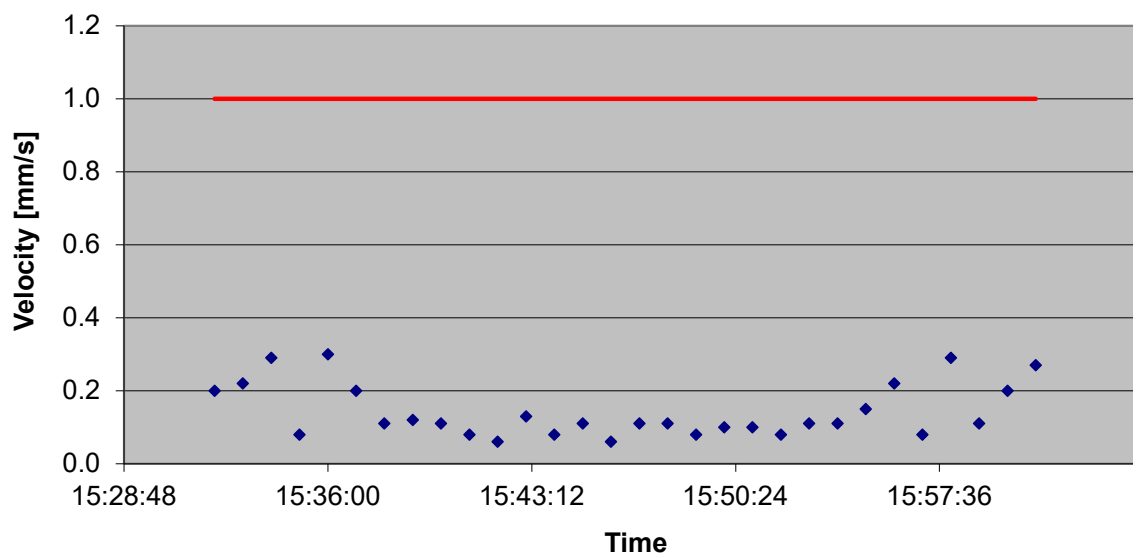
Monitor **M7497**

Calibrated **2020-07-06**

Vector Sum Frequency Histogram



Peak Permissible Value : **1 mm/s**
Number of Events > 1 mm/s : **0**



Vibration Monitoring Record

Date	Start: Fri, 07 Aug 2020, 10:33 am	End: Fri, 07 Aug 2020, 11:03 am
Test Conducted By	Vanessa Zbinden	
Model Instrument	Texcel / Serial Number: 7497 / Calibrated on 06/07/2020 by ACU-VIB Certificate Number 27237	
Comments/Activities	Excavator 22t loading material on trucks. Monitoring location: Outside Project boundary, in front 15 Rhodes st (near the gate due to increase of truck movements)	
Peak-Particle Vlocity (PPV) - For the assessment of Cosmetic Damage Concern	0.13 mm/s Result comply with Condition C16 - EPA Recommended Vibration Criteria (Table 6, Section 6.2.2 Noise & Vibration Management Plan), and German Standard DIN 4150-3 (1999-02) - Ground Borne Vibrations and Damage Limits (Table 5, Section 6.2.1 Noise & Vibration Management Plan).	

Monitoring Results

Tran	Vert	Long	Unit
0.05	0.13	0.11	mm/s
-	-	-	

Photo and video



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Calibrated 2020-07-06

Velocity [mm/s]	Frequency (%)
0.0	0
0.0	0
0.0	0
0.0	0
0.0	0
0.1	7
0.1	55
0.1	7
0.1	31

Velocity [mm/s]

Time

Vibration Monitoring Record

Date Start: Fri, 07 Aug 2020, 11:11 am End: Fri, 07 Aug 2020, 11:22 am

Test Conducted By Vanessa Zbinden

Model Instrument Texcel / Serial Number: 7497 / Calibrated on 06/07/2020 by ACU-VIB Certificate Number 27237

Comments/Activities Excavator 22t loading material on trucks. Intermittent source: trucks along Rhodes st. Monitoring location: Outside Project boundary, in front 15 Rhodes st (near the gate due to increase of truck movements)

Peak-Particle Vlocity (PPV) - For the assessment of Cosmetic Damage Concern 0.47 mm/s Result comply with Condition C16 - EPA Recommended Vibration Criteria (Table 6, Section 6.2.2 Noise & Vibration Management Plan), and German Standard DIN 4150-3 (1999-02) - Ground Borne Vibrations and Damage Limits (Table 5, Section 6.2.1 Noise & Vibration Management Plan).

Monitoring Results

Tran	Vert	Long	Unit
0.32	0.08	0.4	mm/s
-	-	-	

Photo and video

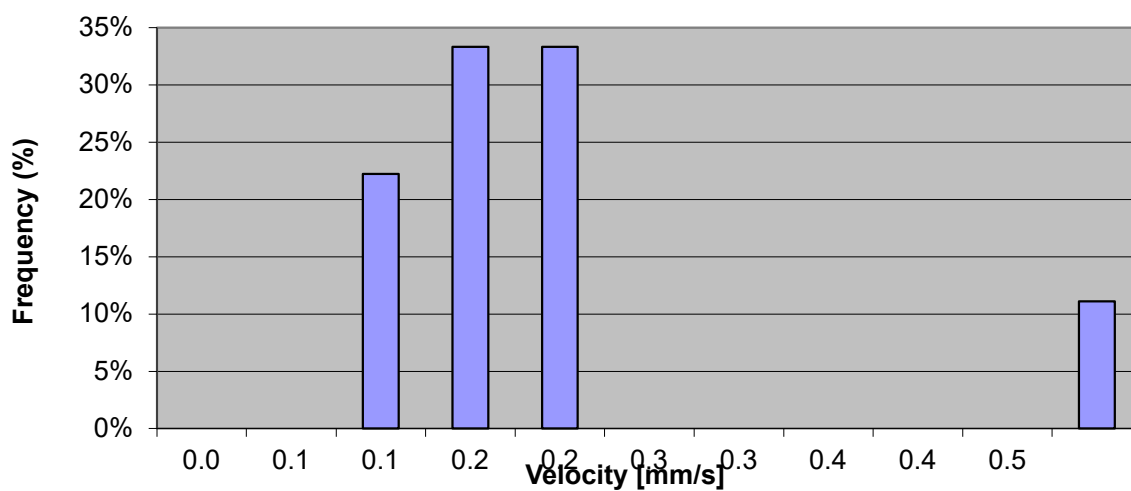
Site Meadowbank - SMEEP Early Works

Location 02 Rhodes Street

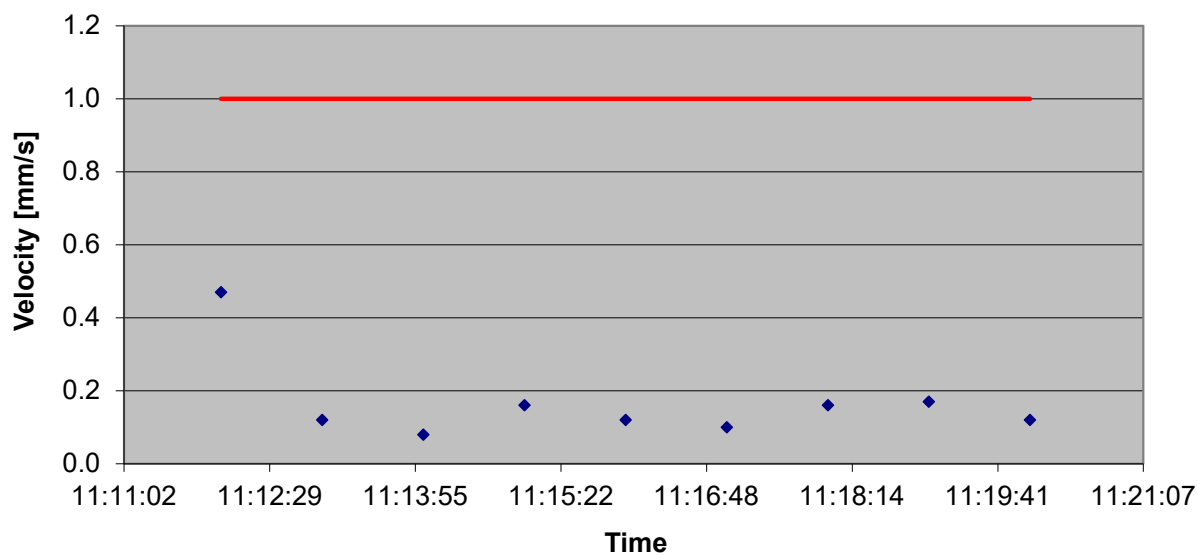
Monitor **M7497**

Calibrated **2020-07-06**

Vector Sum Frequency Histogram



Peak Permissible Value : **1 mm/s**
Number of Events > 1 mm/s : **0**



Vibration Monitoring Record

Date	Start: Wed, 12 Aug 2020, 9:07 am	End: Wed, 12 Aug 2020, 9:31 am
Test Conducted By	Vanessa Zbinden	
Model Instrument	Texcel / Serial Number: 7497 / Calibrated on 06/07/2020 by ACU-VIB Certificate Number 27237	
Comments/Activities	Rolling material within site boundary (14t roller). Intermittent source: Trucks along Rhodes st. Monitoring location: Next to the hoarding between TAFE building and work boundary	
Peak-Particle Vlocity (PPV) - For the assessment of Cosmetic Damage Concern	1.85 mm/s. Result comply with Condition C16 - EPA Recommended Vibration Criteria (Table 6, Section 6.2.2 Noise & Vibration Management Plan).	

Monitoring Results

Tran	Vert	Long	Unit
1.06	1.0	1.5	mm/s

Photo and video



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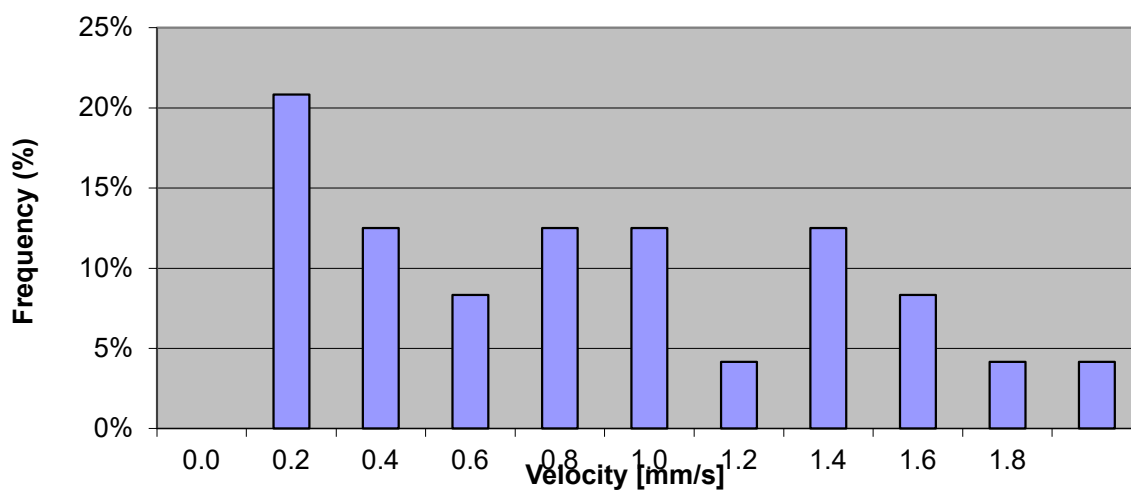
Site Meadowbank - SMEEP Early Works

Location 02 Rhodes Street

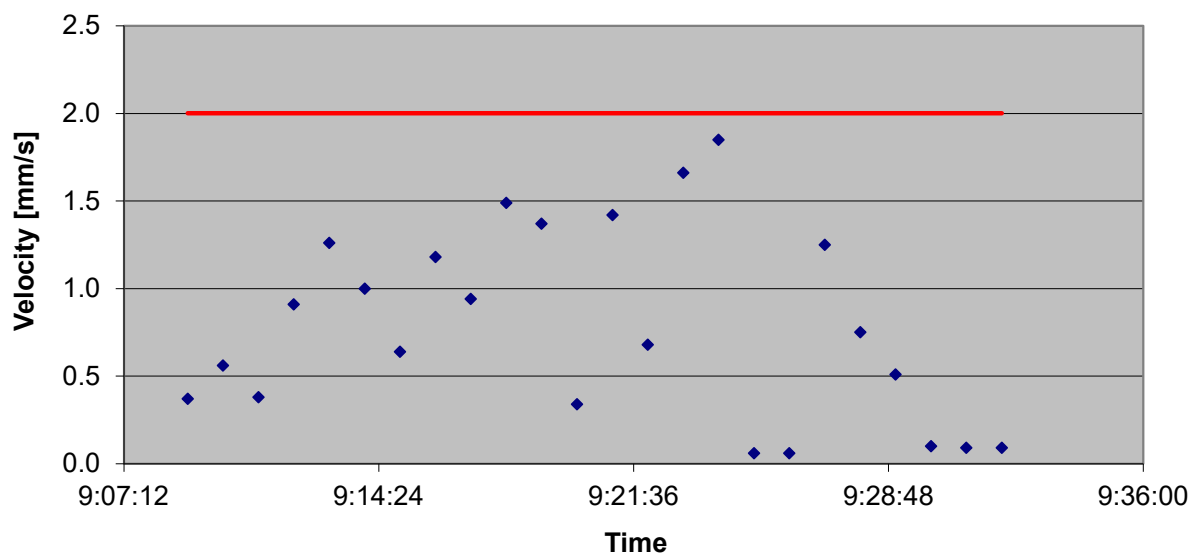
Monitor **M7497**

Calibrated **2020-07-06**

Vector Sum Frequency Histogram



Peak Permissible Value : **2 mm/s**
Number of Events > 2 mm/s : **0**



Vibration Monitoring Record

Date	Start: Wed, 12 Aug 2020, 7:26 am	End: Wed, 12 Aug 2020, 8:24 am
Test Conducted By	Vanessa Zbinden	
Model Instrument	Texcel / Serial Number: 7497 / Calibrated on 06/07/2020 by ACU-VIB Certificate Number 27237	
Comments/Activities	From 7:26 to 7:54 2 excavators loading material on trucks. From 7:54 to 8:16 Rolling material within site boundary (14t roller). Intermittent source: Trucks along Rhodes st. Monitoring location: Next to the hoarding in the SE side of the site,	
Peak-Particle Vlocity (PPV) - For the assessment of Cosmetic Damage Concern	PPV was 0.13mm/s when excavators were working (continuous source) and PPV was 2.05 mm/s when roller commenced (impulsive source). Result comply with Condition C16 - EPA Recommended Vibration Criteria (Table 6, Section 6.2.2 Noise & Vibration Management Plan).	

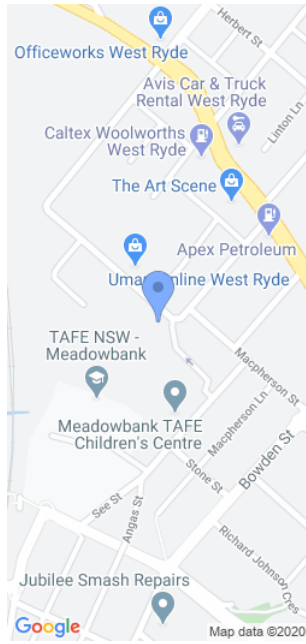
Monitoring Results

Tran	Vert	Long	Unit
1.85	0.52	1.23	mm/s
0.13	0.08	0.05	mm/s

Photo and video



See full page photos attached at end of PDF



Captured by:

Captured on: Wed, 12 Aug 2020

Tags:

Description:

Comments:



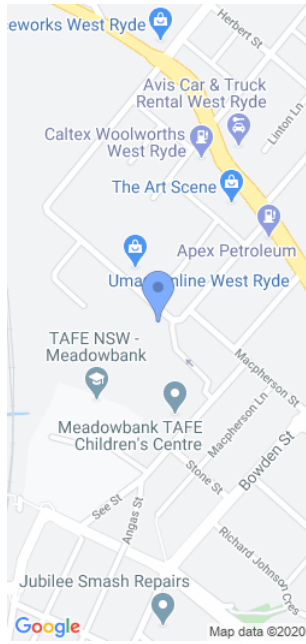
Captured by:

Captured on: Wed, 12 Aug 2020

Tags:

Description:

Comments:



Captured by:

Captured on: Wed, 12 Aug 2020

Tags:

Description:

Comments:

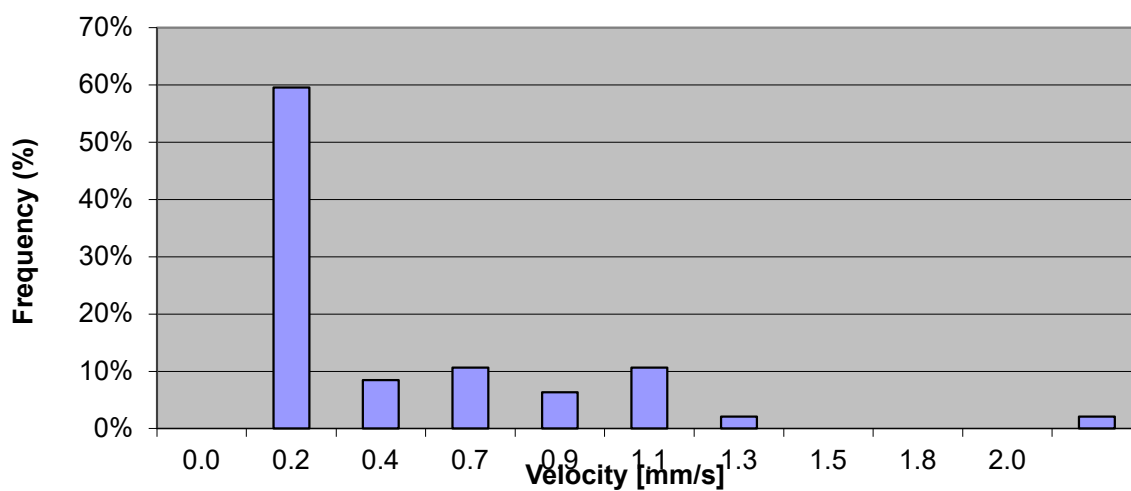
Site **Meadowbank - SMEEP Early Works**

Location **02 Rhodes Street**

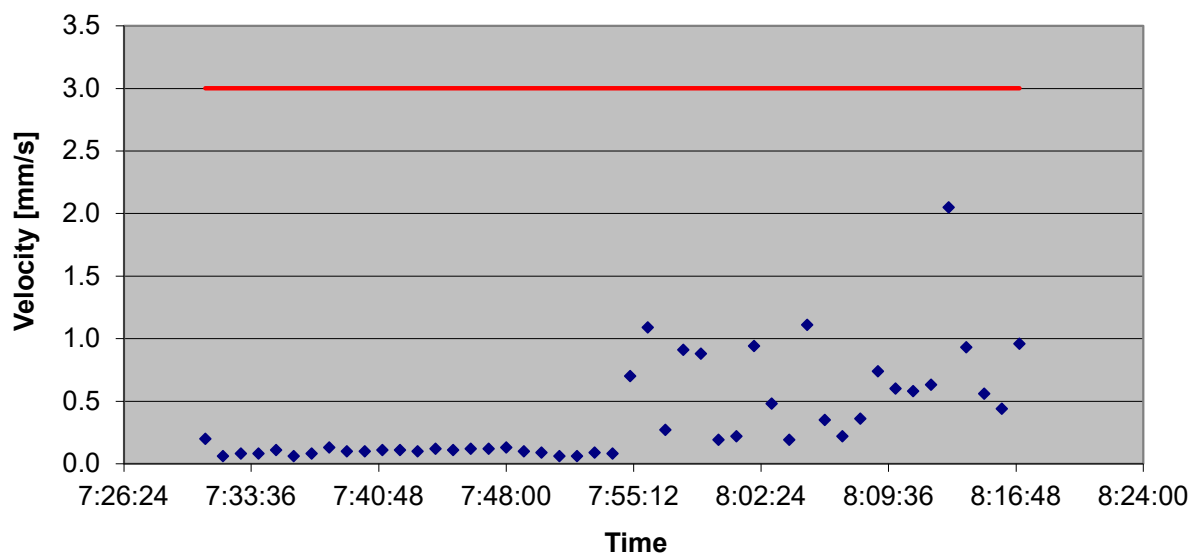
Monitor **M7497**

Calibrated **2020-07-06**

Vector Sum Frequency Histogram



Peak Permissible Value : **3 mm/s**
Number of Events > 3 mm/s : **0**



Vibration Monitoring Record

Date	Start: Mon, 17 Aug 2020, 9:50 am	End: Mon, 17 Aug 2020, 10:10 am
Test Conducted By	Vanessa Zbinden	
Model Instrument	Texcel / Serial Number: 7497 / Calibrated on 06/07/2020 by ACU-VIB Certificate Number 27237	
Comments/Activities	Asbestos removal. Intermittent source: Trucks along Rhodes st. Monitoring location: Next to the hoarding between the site and TAFE	
Peak-Particle Vlocity (PPV) - For the assessment of Cosmetic Damage Concern	PPV was 0.26mm/s at 09:56. When excavators were working (continuous source). Result comply with Condition C16 - EPA Recommended Vibration Criteria (Table 6, Section 6.2.2 Noise & Vibration Management Plan)./	

Monitoring Results

Tran	Vert	Long	Unit
0.26	0.13	0.11	mm/s

Photo and video

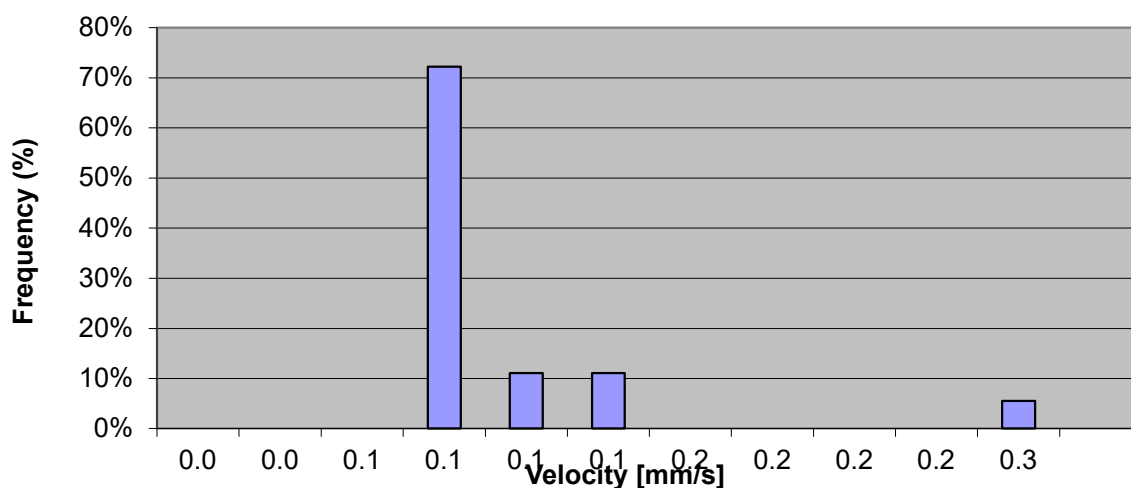
Site **SMEEP - Early Works Project**

Location **Meadowbank**

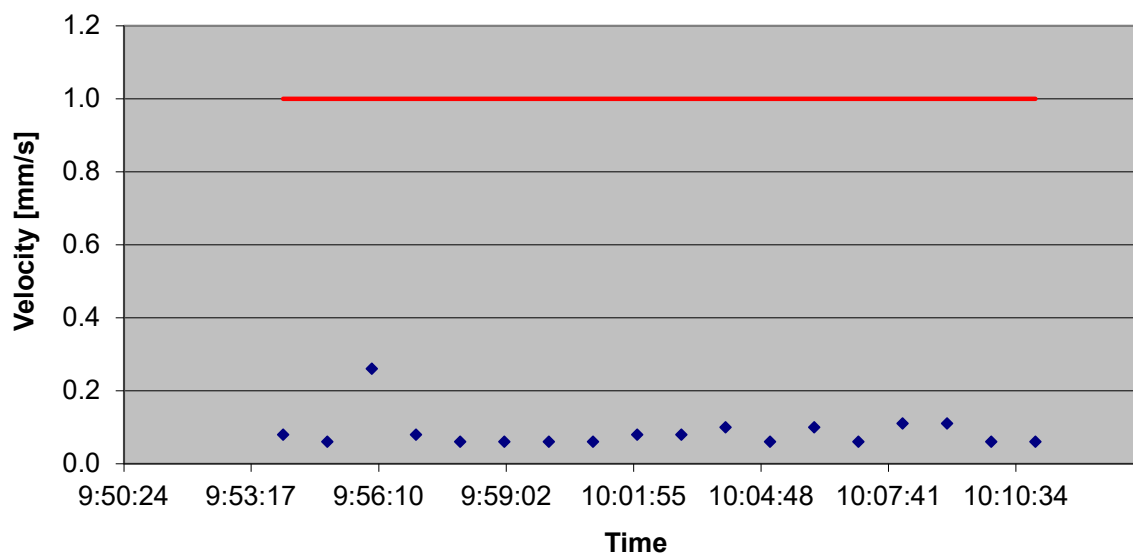
Monitor **M7497**

Calibrated **2020-07-06**

Vector Sum Frequency Histogram



Peak Permissible Value : **1 mm/s**
Number of Events > 1 mm/s : **0**



Vibration Monitoring Record

Date Start: Fri, 21 Aug 2020, 7:26 am End: Fri, 21 Aug 2020, 8:38 am

Test Conducted By Vanessa Zbinden

Model Instrument Texcel / Serial Number: 7497 / Calibrated on 06/07/2020 by ACU-VIB Certificate Number 27237

Comments/Activities 2 excavators loading material on trucks. Monitoring location: Next to the hoarding in the SE side of the site.

Peak-Particle Vlocity (PPV) - For the assessment of Cosmetic Damage Concern PPV was 0.72mm/s when trucks were passing by Rhodes St (continuous source). Result comply with Condition C16 - EPA Recommended Vibration Criteria (Table 6, Section 6.2.2 Noise & Vibration Management Plan).

Monitoring Results

Tran	Vert	Long	Unit
0.13	0.71	0.37	mm/s

Photo and video



See full page photos attached at end of PDF

Captured by:

Captured on: Fri, 21 Aug 2020

Tags:

Description:

Comments:



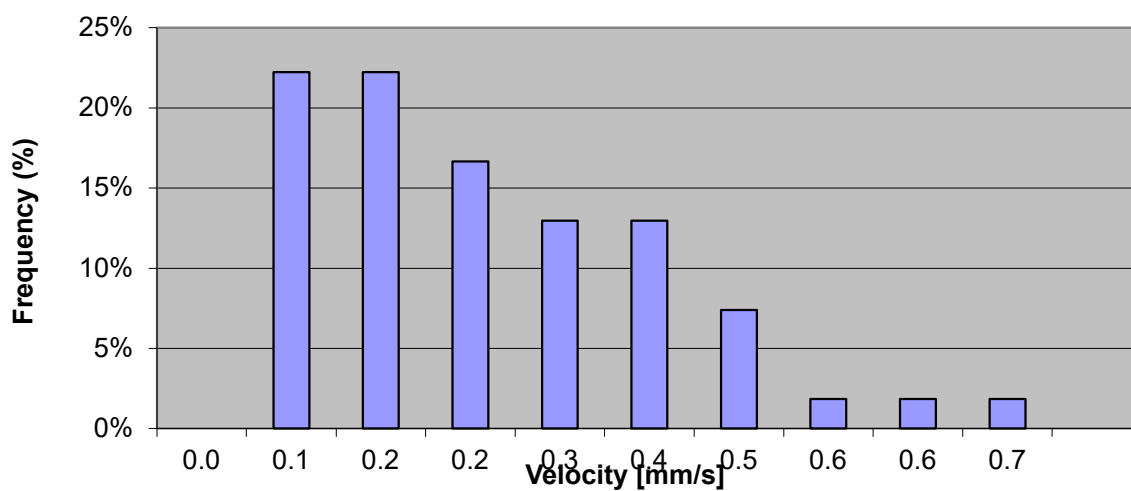
Site **SMEEP Early Works Project**

Location Meadowbank

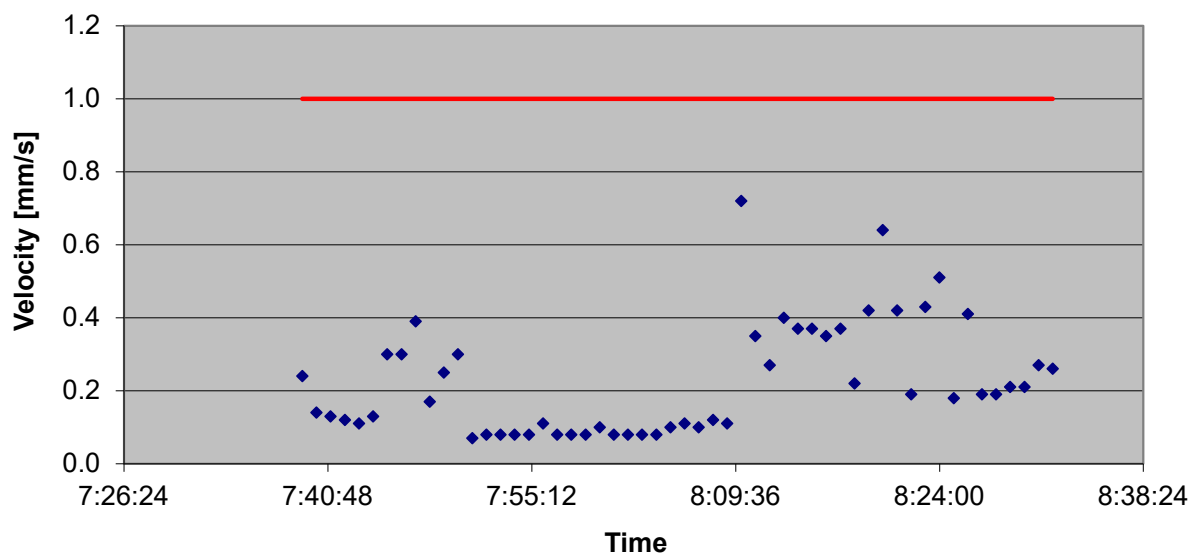
Monitor **M7497**

Calibrated **2020-07-06**

Vector Sum Frequency Histogram



Peak Permissible Value : **1 mm/s**
Number of Events > 1 mm/s : **0**



Vibration Monitoring Record

Date Start: Fri, 28 Aug 2020, 7:00 am End: Fri, 28 Aug 2020, 7:42 am

Test Conducted By Vanessa Zbinden

Model Instrument Texcel / Serial Number: 7497 / Calibrated on 06/07/2020 by ACU-VIB Certificate Number 27237

Comments/Activities Back filling, vacuum truck excavating, ac removal behind brick wall. Monitoring location near Vacuum truck Rhodes St

Peak-Particle Vlocity (PPV) - For the assessment of Cosmetic Damage Concern PPV was 0.11 mm/s when vacuum truck was working onsite (continuous source). Result comply with Condition C16 - EPA Recommended Vibration Criteria (Table 6, Section 6.2.2 Noise & Vibration Management Plan).

Monitoring Results

Tran	Vert	Long	Unit
0.11	0.05	0.08	mm/s

Photo and video



See full page photos attached at end of PDF

Captured by:

Captured on: Fri, 28 Aug 2020

Tags:

Description:

Comments:



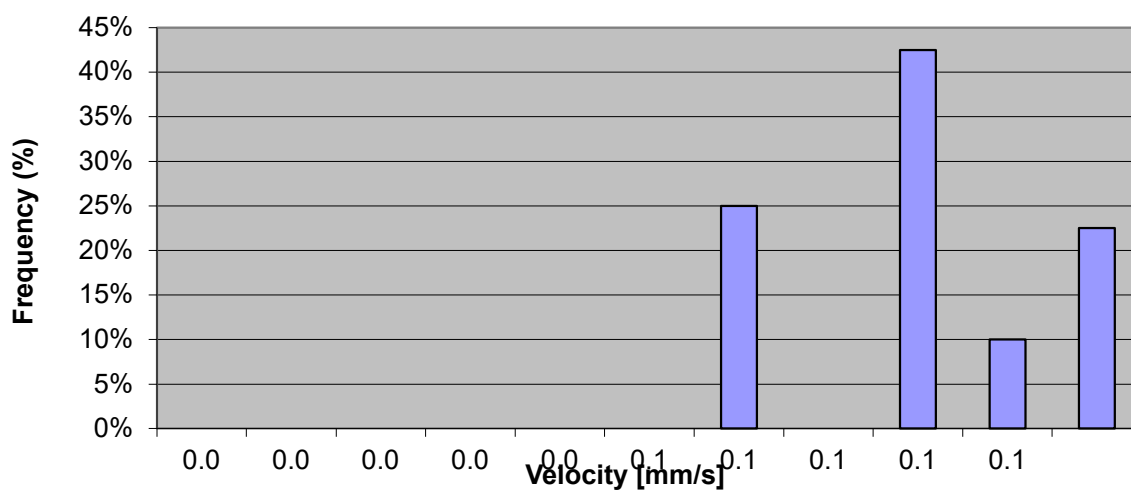
Site **SMEEP Early Works Project**

Location **Meadowbank**

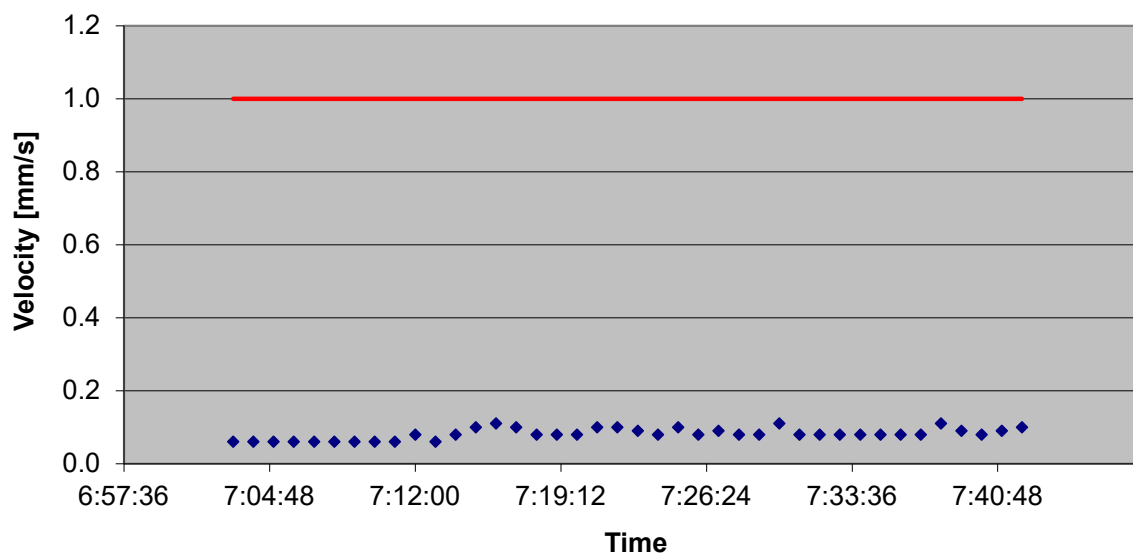
Monitor **M7497**

Calibrated **2020-07-06**

Vector Sum Frequency Histogram



Peak Permissible Value : **1 mm/s**
Number of Events > 1 mm/s : **0**



Vibration Monitoring Record

Date	Start: Mon, 07 Sep 2020, 11:08 am	End: Mon, 07 Sep 2020, 11:32 am
Test Conducted By	Vanessa Zbinden	
Model Instrument	Texcel / Serial Number: 7497 / Calibrated on 06/07/2020 by ACU-VIB Certificate Number 27237	
Comments/Activities	Vacuum truck working around trees. Monitoring location: Next to the hoarding in front 7-9 Rhodes St	
Peak-Particle Vlocity (PPV) - For the assessment of Cosmetic Damage Concern	PPV was 0.13 mm/s when vacuum truck was working onsite (continuous source). Result comply with Condition C16 - EPA Recommended Vibration Criteria (Table 6, Section 6.2.2 Noise & Vibration Management Plan).	

Monitoring Results

Tran	Vert	Long	Unit
0.11	0.05	0.08	mm/s

Photo and video

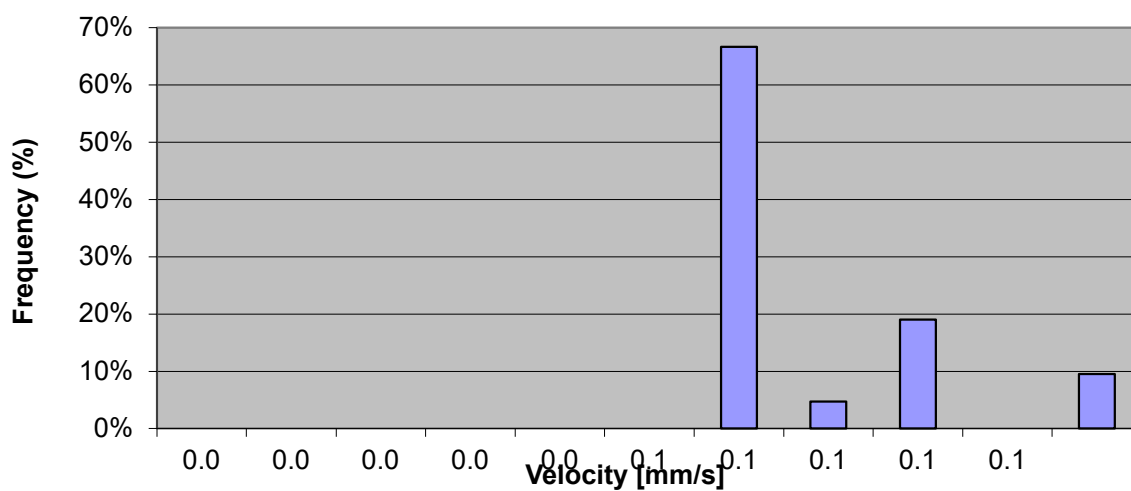
Site **SMEEP - Early Works**

Location 02 Rhodes Street, Meadowbank

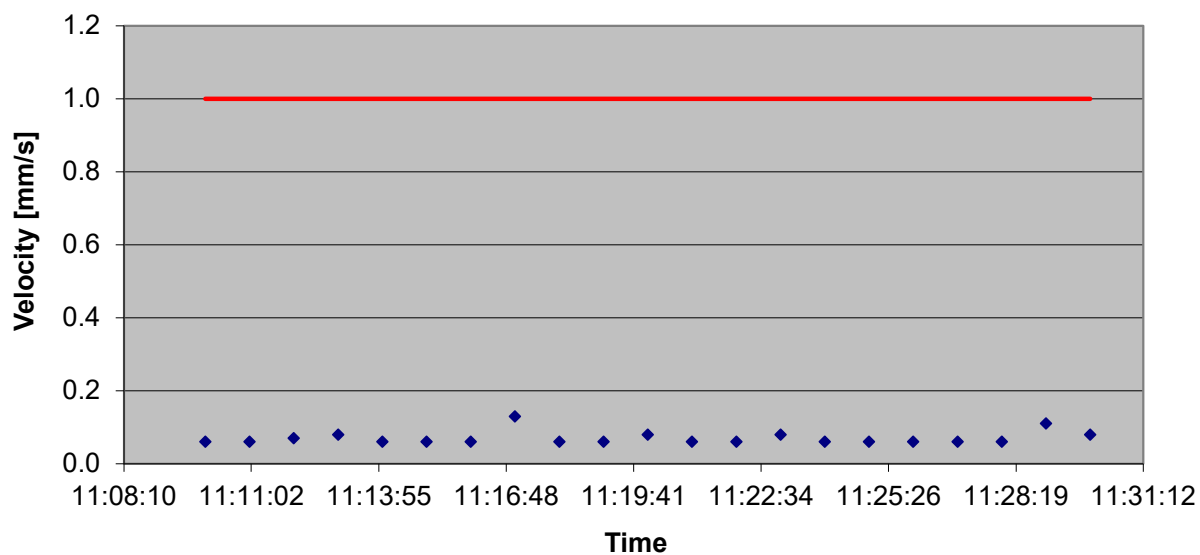
Monitor **M7497**

Calibrated **2020-07-06**

Vector Sum Frequency Histogram



Peak Permissible Value : **1 mm/s**
Number of Events > 1 mm/s : **0**



Vibration Monitoring Record

Date	Start: Mon, 07 Sep 2020, 11:34 am	End: Mon, 07 Sep 2020, 11:52 am
Test Conducted By	Vanessa Zbinden	
Model Instrument	Texcel / Serial Number: 7497 / Calibrated on 06/07/2020 by ACU-VIB Certificate Number 27237	
Comments/Activities	Vacuum truck working around trees. Monitoring location: Next to the hoarding in front 7-9 Rhodes St	
Peak-Particle Vlocity (PPV) - For the assessment of Cosmetic Damage Concern	PPV was 0.13 mm/s when vacuum truck was working onsite (continuous source). Result comply with Condition C16 - EPA Recommended Vibration Criteria (Table 6, Section 6.2.2 Noise & Vibration Management Plan).	

Monitoring Results

Tran	Vert	Long	Unit
0.05	0.16	0.08	mm/s

Photo and video

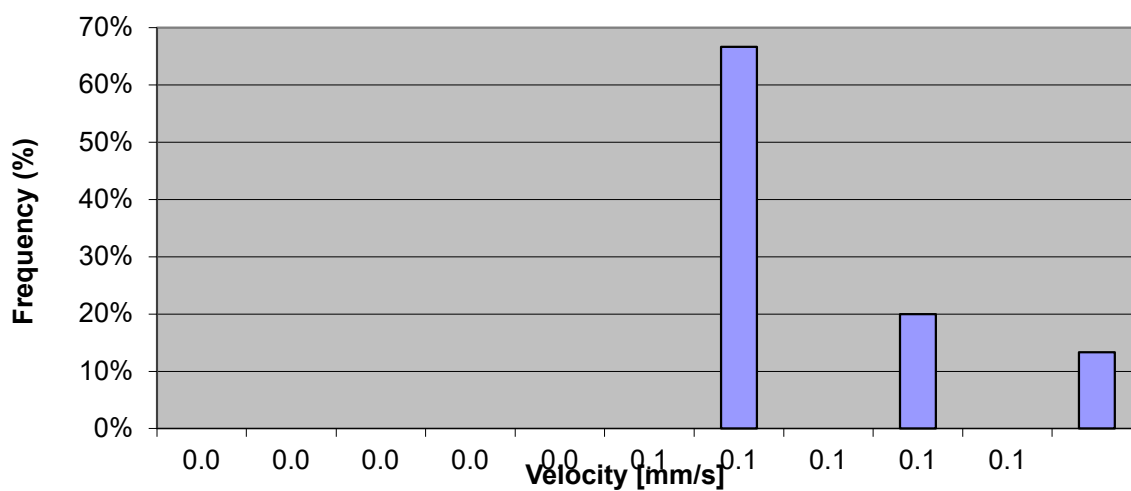
Site **SMEEP Early Works Project**

Location 02 Rhodes Street, Meadowbank

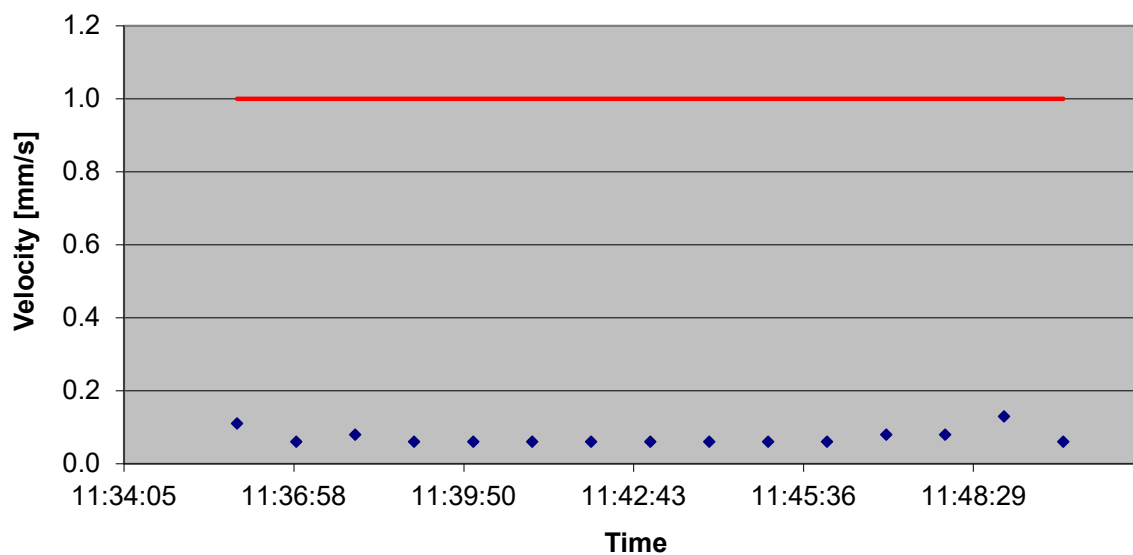
Monitor **M7497**

Calibrated 2020-07-06

Vector Sum Frequency Histogram



Peak Permissible Value :	1 mm/s
Number of Events > 1 mm/s :	0



Vibration Monitoring Record

Date	Start: Thu, 24 Sep 2020, 7:19 am	End: Thu, 24 Sep 2020, 8:02 am
Test Conducted By	Vanessa Zbinden	
Model Instrument	Texcel / Serial Number: 7497 / Calibrated on 06/07/2020 by ACU-VIB Certificate Number 27237	
Comments/Activities	Drilling. Monitoring location: Next to the hoarding in front 7-9 Rhodes St	
Peak-Particle Vlocity (PPV) - For the assessment of Cosmetic Damage Concern	PPV was 0.76 mm/s when drilling works were undertaken. (impulsive source). Result comply with Condition C16 - EPA Recommended Vibration Criteria (Table 6, Section 6.2.2 Noise & Vibration Management Plan).	

Monitoring Results

Tran	Vert	Long	Unit
0.74	0.34	0.45	mm/s

Photo and video



See full page photos attached at end of PDF

Captured by:

Captured on: Thu, 24 Sep 2020

Tags:

Description: Environmental

Comments:



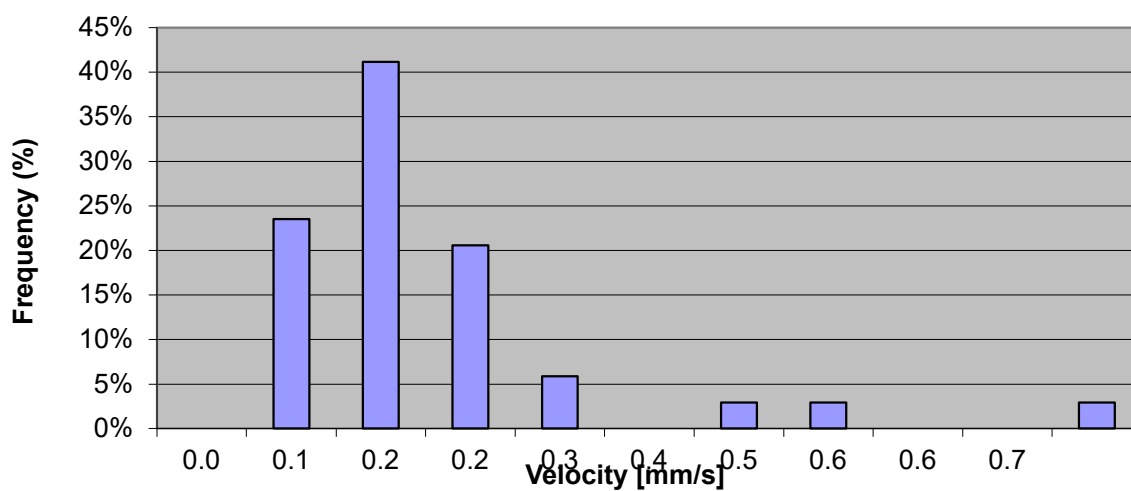
Site **SMEEP Early Works Project**

Location **02 Rhodes Street, Meadowbank**

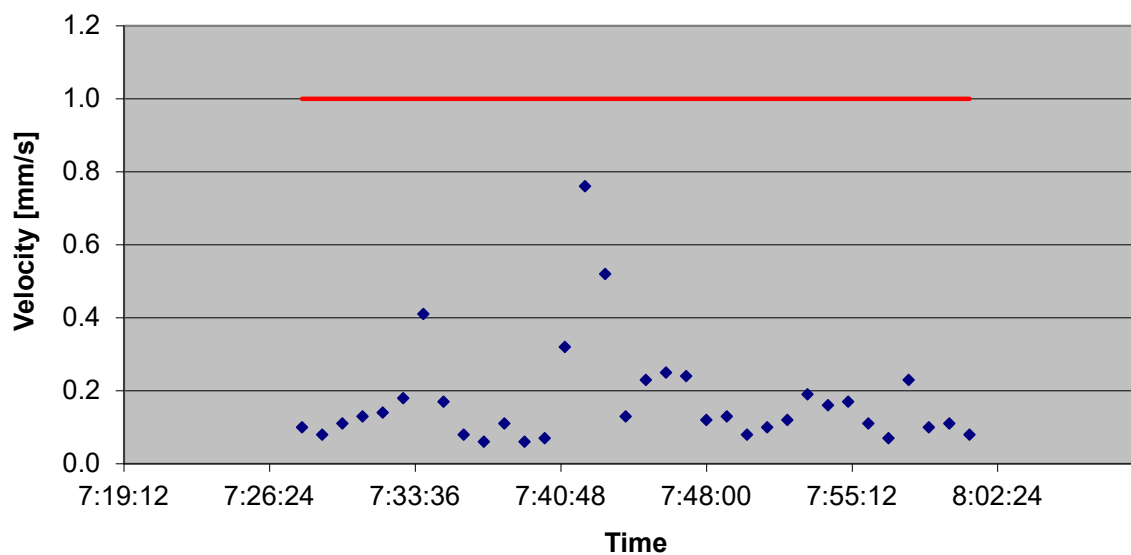
Monitor **M7497**

Calibrated **2020-07-06**

Vector Sum Frequency Histogram



Peak Permissible Value : **1 mm/s**
Number of Events > 1 mm/s : **0**



Vibration Monitoring Record

Date	Start: Thu, 24 Sep 2020, 7:19 am	End: Thu, 24 Sep 2020, 8:02 am
Test Conducted By	Vanessa Zbinden	
Model Instrument	Texcel / Serial Number: 7497 / Calibrated on 06/07/2020 by ACU-VIB Certificate Number 27237	
Comments/Activities	Drilling. Monitoring location: Next to the hoarding in front 7-9 Rhodes St	
Peak-Particle Vlocity (PPV) - For the assessment of Cosmetic Damage Concern	PPV was 0.76 mm/s when drilling works were undertaken. (impulsive source). Result comply with Condition C16 - EPA Recommended Vibration Criteria (Table 6, Section 6.2.2 Noise & Vibration Management Plan).	

Monitoring Results

Tran	Vert	Long	Unit
0.74	0.34	0.45	mm/s

Photo and video



See full page photos attached at end of PDF

Captured by:

Captured on: Thu, 24 Sep 2020

Tags:

Description: Environmental

Comments:



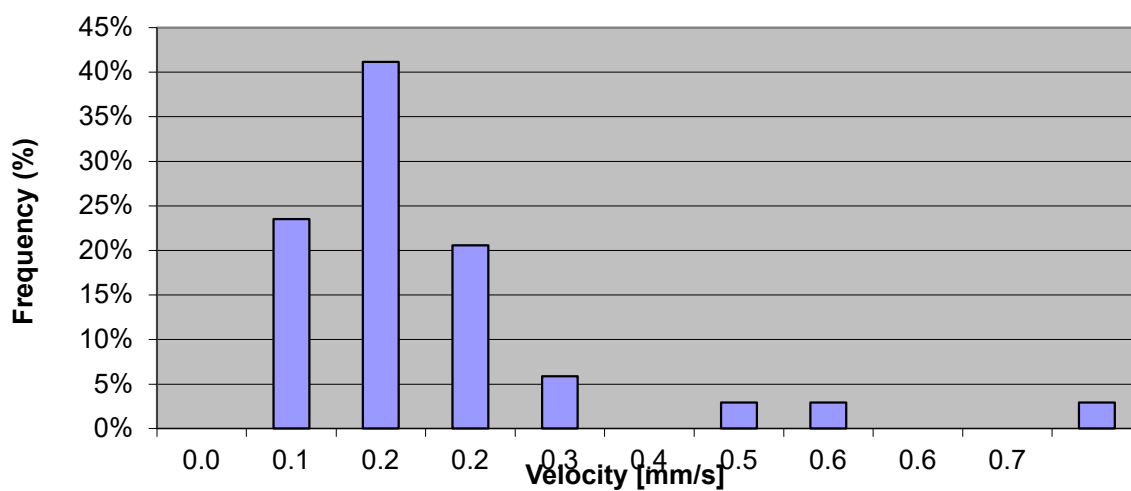
Site **SMEEP Early Works Project**

Location **02 Rhodes Street, Meadowbank**

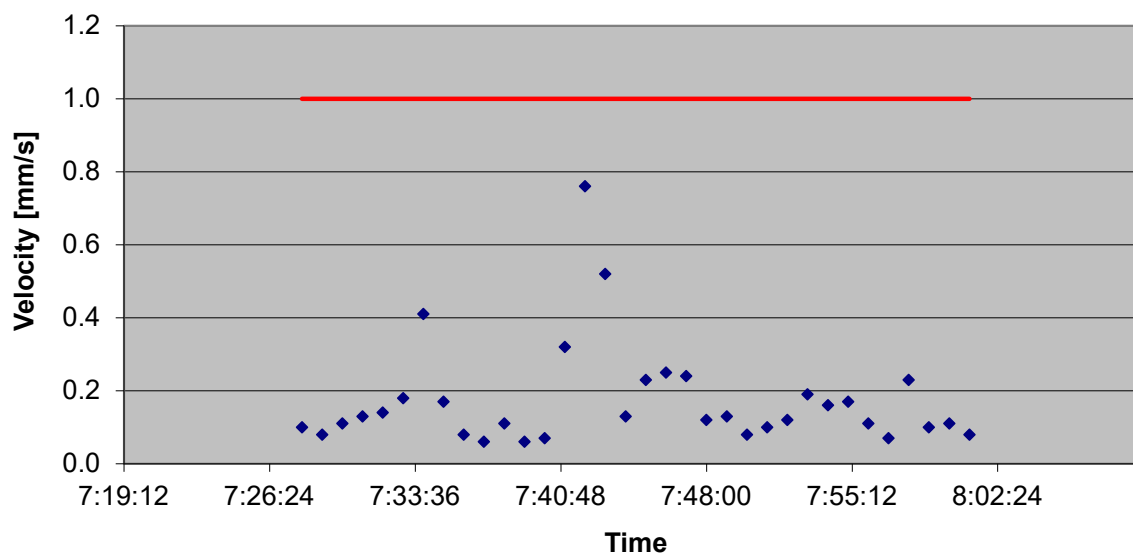
Monitor **M7497**

Calibrated **2020-07-06**

Vector Sum Frequency Histogram



Peak Permissible Value : **1 mm/s**
Number of Events > 1 mm/s : **0**



Vibration Monitoring Record

Date	Start: Tue, 29 Sep 2020, 10:13 am	End: Tue, 29 Sep 2020, 10:33 am
Test Conducted By	Vanessa Zbinden	
Model Instrument	Texcel / Serial Number: 7497 / Calibrated on 06/07/2020 by ACU-VIB Certificate Number 27237	
Comments/Activities	Drilling. Monitoring location: Next to the hoarding in front 7-9 Rhodes St	
Peak-Particle Vlocity (PPV) - For the assessment of Cosmetic Damage Concern	PPV was 0.06 mm/s when drilling works were undertaken. (impulsive source). Result comply with Condition C16 - EPA Recommended Vibration Criteria (Table 6, Section 6.2.2 Noise & Vibration Management Plan).	

Monitoring Results

Tran	Vert	Long	Unit
0.05	0.08	0.05	mm/s

Photo and video



See full page photos attached at end of PDF

Captured by:

Captured on: Tue, 29 Sep 2020

Tags:

Description: Noise & vibration 29/09

Comments:



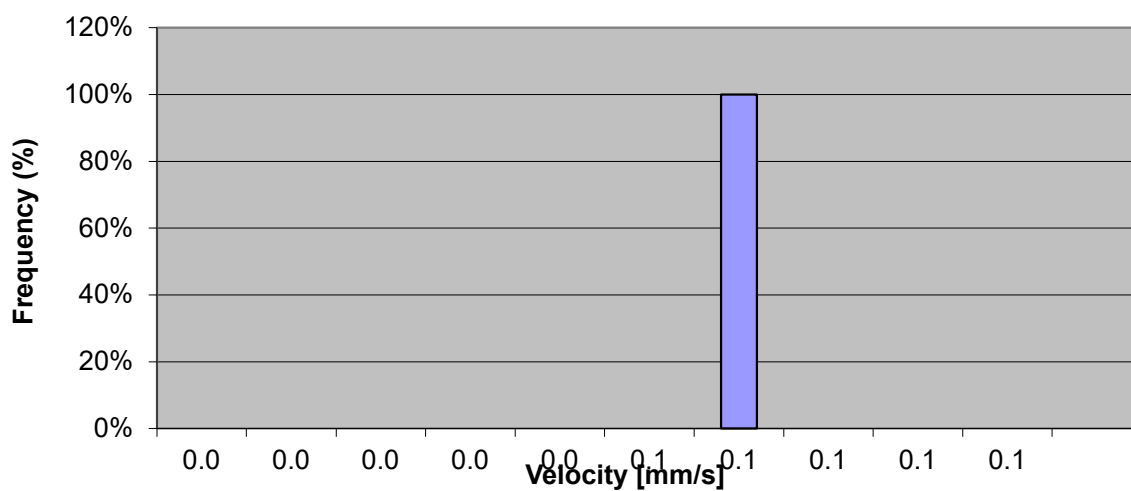
Site **SMEEP Early Works Project**

Location 02 Rhodes Street, Meadowbank

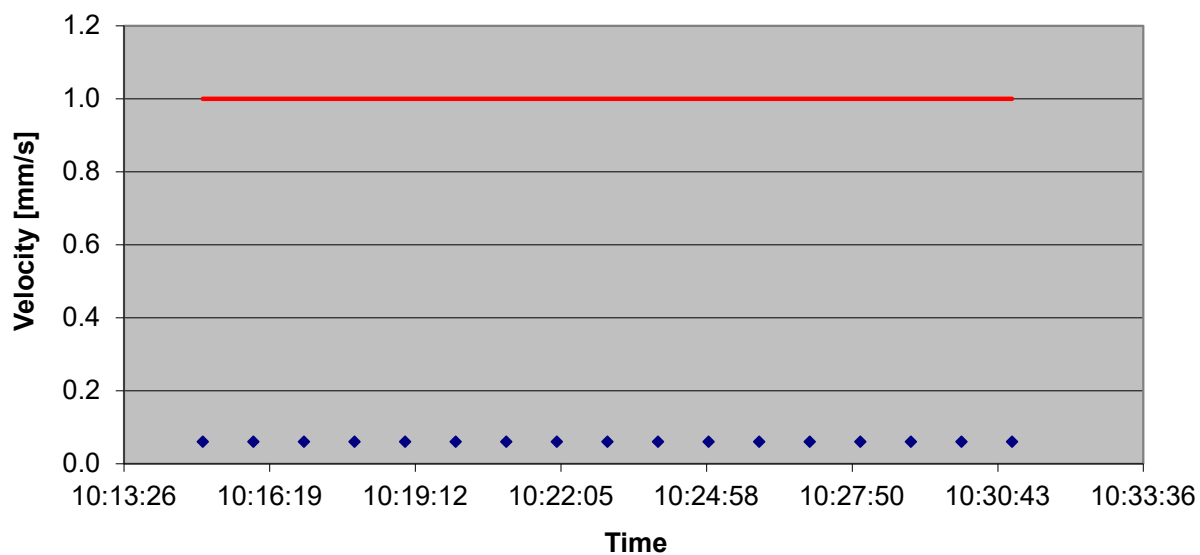
Monitor **M7497**

Calibrated **2020-07-06**

Vector Sum Frequency Histogram



Peak Permissible Value : **1 mm/s**
Number of Events > 1 mm/s : **0**



Vibration Monitoring Record

Date Start: Tue, 29 Sep 2020, 10:33 am End: Tue, 29 Sep 2020, 10:48 am

Test Conducted By Vanessa Zbinden

Model Instrument Texcel / Serial Number: 7497 / Calibrated on 06/07/2020 by ACU-VIB Certificate Number 27237

Comments/Activities Drilling. Monitoring location: Next to the hoarding in front 7-9 Rhodes St

Peak-Particle Vlocity (PPV) - For the assessment of Cosmetic Damage Concern PPV was 0.65 mm/s when rock breaking works were undertaken. (impulsive source). Result comply with Condition C16 - EPA Recommended Vibration Criteria (Table 6, Section 6.2.2 Noise & Vibration Management Plan).

Monitoring Results

Tran	Vert	Long	Unit
0.5	0.55	0.43	mm/s

Photo and video



See full page photos attached at end of PDF

Captured by:

Captured on: Tue, 29 Sep 2020

Tags:

Description: Noise & vibration 29/09

Comments:



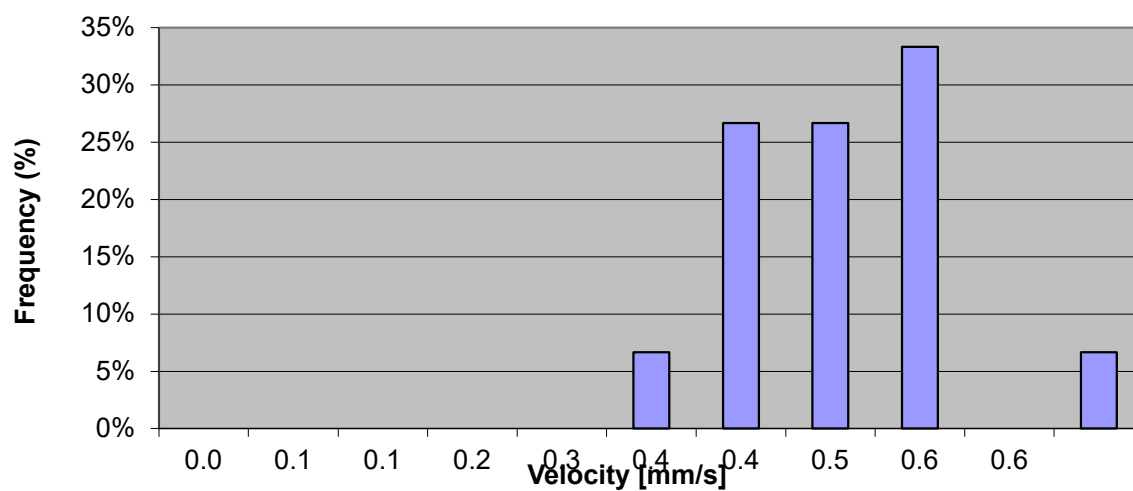
Site **SMEEP Early Works Project**

Location 02 Rhodes Street, Meadowbank

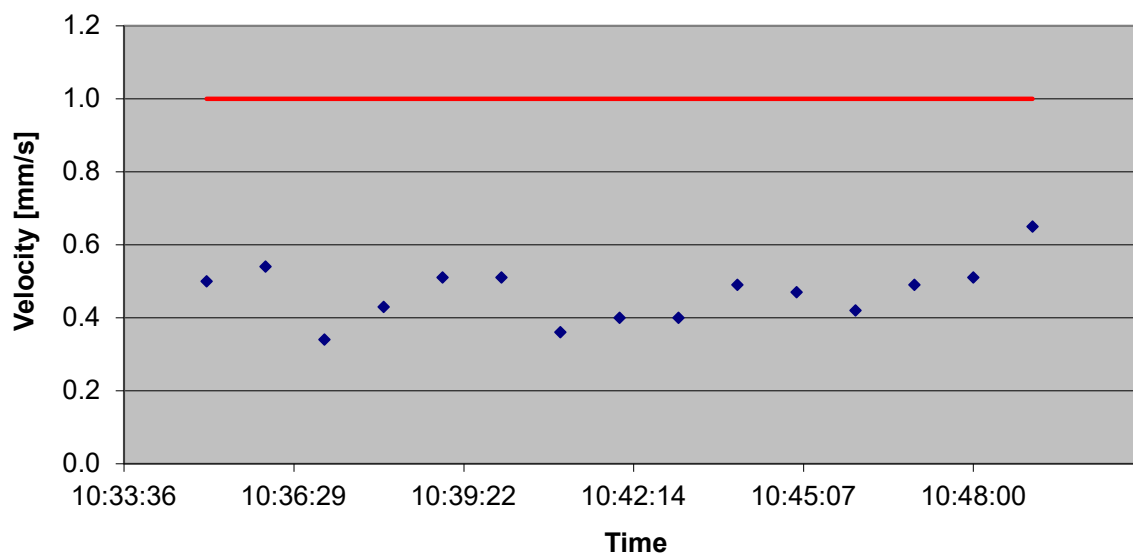
Monitor **M7497**

Calibrated **2020-07-06**

Vector Sum Frequency Histogram



Peak Permissible Value : **1 mm/s**
Number of Events > 1 mm/s : **0**



Vibration Monitoring Record

Date	Start: Tue, 29 Sep 2020, 10:50 am	End: Tue, 29 Sep 2020, 11:16 am
Test Conducted By	Vanessa Zbinden	
Model Instrument	Texcel / Serial Number: 7497 / Calibrated on 06/07/2020 by ACU-VIB Certificate Number 27237	
Comments/Activities	Drilling and excavator working 2m away from monitoring location. Monitoring location: Next to the hoarding between work site and TAFE building	
Peak-Particle Vlocity (PPV) - For the assessment of Cosmetic Damage Concern	PPV was 2.29 mm/s when rock breaking works were undertaken. (impulsive source). Result comply with Condition C16 - EPA Recommended Vibration Criteria (Table 6, Section 6.2.2 Noise & Vibration Management Plan).	

Monitoring Results

Tran	Vert	Long	Unit
0.5	0.55	0.43	mm/s

Photo and video



See full page photos attached at end of PDF

Captured by:

Captured on: Tue, 29 Sep 2020

Tags:

Description: Noise & vibration 29/09

Comments:



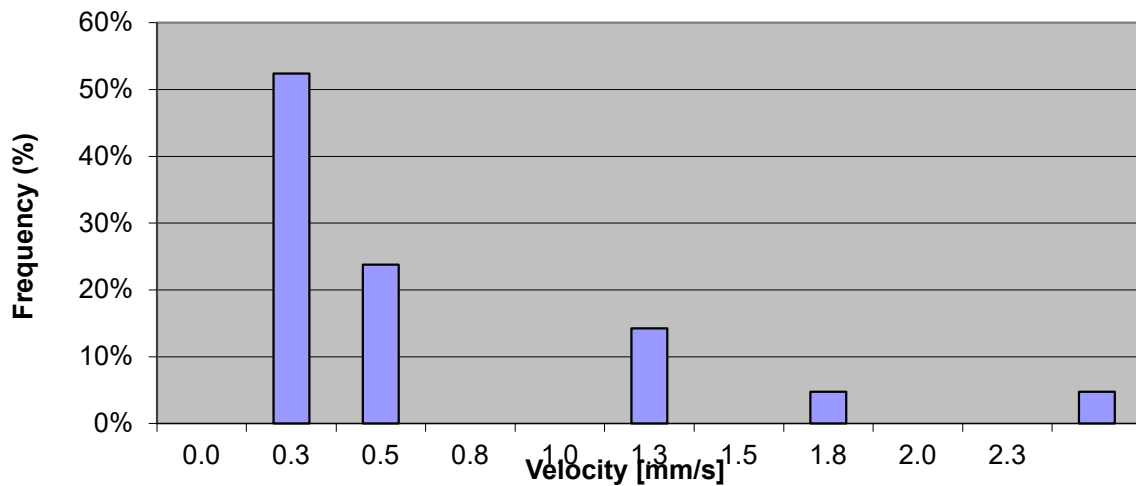
Site **SMEEP Early Works Project**

Location 02 Rhodes Street, Meadowbank

Monitor **M7497**

Calibrated **2020-07-06**

Vector Sum Frequency Histogram



Peak Permissible Value : **3 mm/s**
Number of Events > 3 mm/s : **0**

