

Memo

Project: National Paediatric Hospital

Report Type: Summary of Noise Vibration & Movement Monitoring Results

Period of Monitoring: Sensor data 28th May 2018 – 2nd July 2018

Introduction

Contained within the project documents for the National Children’s Hospital development are requirements for Environmental Monitoring to be completed during construction works. This monitoring regime includes recording dust deposition, noise at the perimeter of the site, and ground vibration at the perimeter of the site. Permissible limits for each monitoring regime have been set out in the Project EIS which was submitted with the Planning Permission for the Hospital.

The number of Monitoring points will vary throughout the project depending on the construction works being undertaken. Additional monitoring points may be added if particular features of adjacent properties require it.

Works on site during this monitoring period include, but are not limited to:

- Construction works for the Utility Tunnel O’Reilly Avenue and the Energy Centre.
- Excavation and pile capping near the hospital entrance and South Circular Road.
- Piling and pile cropping near Cameron Square.
- Pile cropping and piling near Linear Park.

Vibration Monitoring.

Vibration monitors have been located at the ‘closest part of sensitive property’ as per the Project Environmental Impact Statement where feasible or alternatively at the site hoarding. The monitors will be located as per the above adjacent to locations where significant works are ongoing on site.

The Project Environmental Impact Statement (EIS) that was part of the project Planning Permission established vibration limit at structures depending on their condition and type. Please see tables below for the limits set.

Table 11.7: Allowable vibration during construction phase for soundly constructed buildings

Allowable vibration (in terms of peak particle velocity) at the closest part of sensitive property to the source of vibration, at a frequency of		
Less than 10Hz	10 to 50Hz	50 to 100Hz (and above)
15 mm/s	20 mm/s	50 mm/s

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Table 11.8: Allowable vibration during construction phase for sensitive buildings

Allowable vibration (in terms of peak particle velocity) at the closest part of sensitive property to the source of vibration, at a frequency of		
Less than 10Hz	10 to 50Hz	50 to 100Hz (and above)
3 mm/s	3 – 8 mm/s	8 – 10 mm/s

Site operations are monitored using a traffic light trigger system of Green, Amber and Red trigger levels with the Red trigger level set at a vibration limit of 3mm/s PPV which corresponds to the lowest permissible vibration limit for sensitive structures. Any vibration level recorded below Red levels is acceptable within the limits established in Planning.

Number of Monitors on Site:

During the monitoring period summarised for this report (28th May 2018 – 2nd July 2018) there were up to 16 active vibration monitors installed at the perimeter of the site.

Location of Vibration and Noise Monitors:

The layout of the monitors is as seen below:



Location of Vibration Monitors

There are concentrations of monitors at the boundaries with Cameron Square and O’Reilly Avenue where works have been ongoing on site in proximity to neighbouring properties.

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Location of Noise Monitors near O'Reilly Avenue

Observations:

Executive Summary:

Vibration monitors have been placed at the 'closest part of the sensitive properties' as per the EIS where this is feasible. The majority of vibration readings during the monitoring period recorded readings below the limit specified within the Project EIS. Vibration monitors V1, V13, V18, A1 & A2 have been excluded from this report as they are not relevant to the conditions for the residents adjacent to the site. From the remaining 11 monitors:

- 5 number monitors recorded readings above the limit specified within the Project EIS.
- 1 number monitors were offline for portions of the monitoring period and are noted below.

Detailed Summary:

Sensor (V2 – 9144) (Rialto Luas)

- Vibrations above the limit specified within the project EIS were recorded on the following dates: 11th of June 2018.
- The vibration report states the cause of these readings as "*caused by being accidentally knocked.*"

Sensor (V3 – 8838) (South Circular Road)

- All vibration readings recorded vibrations below the limit specified within the Project EIS.

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Sensor (V5 – 9155 (previously numbered 3182)) (Cameron Square)

- All vibration readings recorded vibrations below the limit specified within the Project EIS.

Sensor (V6 - 9736) (Cameron Square)

- All vibration readings recorded vibrations below the limit specified within the Project EIS.

Sensor (V7 - 8681) (Old Kilmainham Road) (previously located in Mount Brown)

- Vibrations above the limit specified within the project EIS were recorded on the following dates: 20th of June 2018.
- Excavation works were taking place in this location during this timeframe which may be the cause of this high reading.

Sensor (V8 - 3485) (Brookfield Clinic)

- All vibration readings recorded vibrations below the limit specified within the Project EIS.

Sensor (V9 – 8995) (Previously numbered 9244) (O'Reilly Avenue)

- No readings were given for the sensor from the 28th May 2018 to 17th June 2018 inclusive.
- All vibration readings recorded vibrations below the limit specified within the Project EIS.

Sensor (V10 – 8943) (O'Reilly Avenue)

- Vibrations above the limit specified within the project EIS were recorded on the following dates: 14th of June 2018.
- Piling works were taking place in this location during this timeframe which may be the cause of this high reading.

Sensor (V11 – 9461) (Previously numbered 8983) (O'Reilly Avenue)

- Vibrations above the limit specified within the project EIS were recorded on the following dates: 13th of June 2018.
- The vibration report states the cause of these readings as *“caused by high winds that occurred as this breach happened outside working hours”*.

Sensor (V12 3252) (O'Reilly Avenue)

- Vibrations above the limit specified within the project EIS were recorded on the following dates: 28th of May 2018.
- The vibration report states the cause of these readings as *“caused by an accidental hit.”*

Sensor (V14 - 9737) (Mount Shannon)

- All vibration readings recorded vibrations below the limit specified within the Project EIS.

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Noise Monitoring.

During the report period noise monitors have been placed at the 'closest part of sensitive property' as per the Project EIS where this has been feasible, or alternatively to the outside face of the site hoarding. When works are ongoing the noise monitor sensors run continuously and readings are recorded in decibels (dB) LA_{eq1hr} . Decibels is the standard unit of measurement of sound energy and 'LA_{eq1hr}' means that sensors record all levels of sound over a 1 hour period and then calculate an average equivalent decibel level as if the sound was continuous. Isolated instantaneous loud noises are thus averaged out.

The Project Environmental Impact Statement (EIS) that was part of the project Planning Permission established a noise limit at residential dwellings of 70dB LA_{eq1hr} . Site operations are monitored using a traffic light trigger system of Green, Amber and Red trigger levels with the Red trigger level set at the noise limit set out in the project EIS (70 dB LA_{eq1hr}). Any noise level recorded below Red levels is acceptable within the limits established in Planning.

Number of Noise Monitors on Site:

During the monitoring period (28th May 2018 – 2nd July 2018) summarised for this report there were up to 16 active monitors at the site boundaries.

Observations:

Executive Summary:

Noise monitors 07, 08, 15 & 16 have been excluded from this report as they are not relevant to the conditions for the residents adjacent to the site. From the remaining 12 monitors:

- 8 number monitors recorded readings above the limit specified within the Project EIS.
- 2 number monitor was offline for portions of the monitoring period and are noted below.

Detailed Summary:

The monitoring results for noise for this period were within the limits set out in the Project EIS with the following exceptions:

Monitor 01 (Cameron Square)

- Sensor was offline on the following dates: 1st June 2018. In some cases the sensor was not offline for the entire day.
- Noise levels above the limit specified within the Project EIS were recorded on the following dates: 30th & 31st of May 2018, the 6th, 13th, 14th, 19th, 21st, 22nd & 25th June. The highest noise recording was 80 dB LA_{eq1hr} .
- The noise reports state that piling activities were the cause of the readings above 70 dB LA_{eq1hr} .

Monitor 02 (O'Reilly Avenue)

- Noise levels above the limit specified within the Project EIS were recorded on the following dates: 2nd June 2018. The highest noise recording was 73 dB LA_{eq1hr} .

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Monitor 04 (Mount Brown Road)

- The background noise readings for this sensor outside of construction hours are consistently above the normal limit of 70 dB LA_{eq1hr}. An alternate limit of 80 dB LA_{eq1hr} was chosen for this location.
- A noise reading was recorded at noise levels above the alternate limit chosen for this location on the following dates: 12th June 2018. The highest noise recording was above 80 dB LA_{eq1hr}.
- The noise reports state that excavation works were the cause of this readings.

Monitor 05 (O'Reilly Avenue)

- Noise levels above the limit specified within the Project EIS were recorded on the following dates: 11th June 2018. The highest noise recording was 71 dB LA_{eq1hr}.

Monitor 06 (O'Reilly Avenue)

- All noise readings recorded noise levels below the limit specified within the Project EIS.

Monitor 09 (Rialto LUAS)

- Noise levels above those specified in the project EIS were recorded on the 28th, 29th & 30th May & the 1st, 5th, 6th, 7th, 12th, 13th, 14th, 19th, 21st, 22nd, 25th, 27th & 28th June 2018. The highest noise recording was 77 dB LA_{eq1hr}.
- The noise reports state that these readings were caused by a combination of excavation works and ambient noise from the Luas.

Monitor 10 (Brookfield Clinic)

- Noise levels above the limit specified within the Project EIS were recorded on the following dates: 13th, 14th, 15th, 18th & 19th May 2018. The highest noise recording was 75 dB LA_{eq1hr}.
- The noise reports state the cause of the readings were "*caused by breaking out piles*".

Monitor 11 (Cameron Square)

- All noise readings recorded noise levels below the limit specified within the Project EIS.

Monitor 12 (Cameron Square)

- Noise levels above the limit specified within the Project EIS were recorded on the following dates: 30th May 2018 & the 11th, 12th, 13th, 15th, 18th, 21st, 22nd, 25th, 26th, 27th, 28th & 29th May 2018. The highest noise recording was 80 dB LA_{eq1hr}.
- The noise reports state that excavation works were the cause of this readings.

Monitor 13 (O'Reilly Avenue)

- All noise readings recorded noise levels below the limit specified within the Project EIS.

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Monitor 14 (Mount Shannon Road)

- Sensor was offline on the following dates: 2nd, 3rd, 4th, 5th, 9th, 10th, 11th, 27th, 28th & 29th June 2018. In some cases the sensor was not offline for the entire day.
- Noise levels above the limit specified within the Project EIS were recorded on the following dates: 28th, 29th, 30th, 31st May 2018 & the 1st, 2nd, 5th, 6th, 7th, 8th, 11th, 12th, 13th, 14th, 15th, 16th, 18th, 19th, 20th, 21st, 22nd, 23rd, 25th, 26th & 29th June 2018. The highest noise recording was 82 dB LA_{eq1hr}.
- The noise reports state that these readings were caused by a combination of excavation works and ambient noise from traffic.

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AMS/ATS Monitoring.

During the report period geodetic monitors have been placed across several properties. These monitors take the form of Prisms fixed to individual properties. These prisms are accurately surveyed / monitored for position on a continuous basis to identify any potential building movement.

The limits identified in the detailed reports can be seen below:

Instrumentation	Green Trigger Level	Amber Trigger Level	Red Trigger Level
Measurement of Ground Movements.			
Vertical:	0-3mm	4-9mm	10mm
Horizontal:	0-2mm	3-5mm	6mm
Measurement of Building Movements:	0-1mm	1-2mm	2-3mm

The monitoring results for Prism Readings for this period were within the permissible limits with the following exceptions:

Monitor A03: Mount Shannon

There were 6 Prisms in this area surveyed by Monitor A03 which recorded triggers during this monitoring period.

M04M01-S-A03	01-Jun-18	Green - Amber
M04M01-S-A03	02-Jun-18	Amber - Green

M05-M01-S-A03	02-Jun-18	Green - Amber - Green
M05M01-S-A03	22-Jun-18	Green - Amber - Green
M62M01-S-A03	22-Jun-18	Green - Amber - Green
M62M01-S-A03	23-Jun-18	Green - Amber
M62M01-S-A03	24-Jun-18	Amber - Green

M497M02-S-A04	01-Jun-18	Green - Amber
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M503M10-S-A04	01-Jun-18	Green - Amber
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M497M01-S-A03	22-Jun-18	Green - Amber - Green
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Monitor A04: South Circular Road

There were 12 Prisms in this area surveyed by Monitor A04 which recorded triggers during this monitoring period.

Prism Name	Date:	Trigger
M497M02-S-A04	31-May-18	Green - Amber - Green
M497M02-S-A04	01-Jun-18	Green - Amber
M497M02-S-A04	02-Jun-18	Amber - Green
M497M02-S-A04	03-Jun-18	Green - Amber - Green
M497M02-S-A04	04-Jun-18	Green - Amber - Green
M497M02-S-A04	05-Jun-18	Green - Amber
M497M02-S-A04	06-Jun-18	Amber - Green

M503M10-S-A04	31-May-18	Green - Amber - Green
M503M10-S-A04	01-Jun-18	Green - Amber
M503M10-S-A04	02-Jun-18	Amber - Green
M503M10-S-A04	05-Jun-18	Green - Amber
M503M10-S-A04	06-Jun-18	Amber - Green
M503M10-S-A04	11-Jun-18	Green - Amber - Green

M505M09-S-A04	31-May-18	Green - Amber - Green
M505M09-S-A04	01-Jun-18	Green - Amber
M505M09-S-A04	02-Jun-18	Green - Amber
M505M09-S-A04	05-Jun-18	Green - Amber
M505M09-S-A04	06-Jun-18	Amber - Green
M505M09-S-A04	11-Jun-18	Green - Amber - Green
M505M09-S-A04	23-Jun-18	Green - Amber - Green

M507M11-S-A04	31-May-18	Green - Amber - Green
M507M11-S-A04	01-Jun-18	Green - Amber - Green
M507M11-S-A04	04-Jun-18	Green - Amber - Green - Amber
M507M11-S-A04	04-Jun-18	Green - Amber - Green - Amber
M507M11-S-A04	05-Jun-18	Amber - Green - Amber
M507M11-S-A04	06-Jun-18	Amber - Green - Amber - Green
M507M11-S-A04	10-Jun-18	Green - Amber
M507M11-S-A04	11-Jun-18	Amber - Green
M507M11-S-A04	16-Jun-18	Green - Amber - Amber
M507M11-S-A04	17-Jun-18	Green - Amber - Green
M507M11-S-A04	18-Jun-18	Green - Amber - Green
M507M11-S-A04	19-Jun-18	Green - Amber - Green
M507M11-S-A04	23-Jun-18	Green - Amber - Green
M507M11-S-A04	24-Jun-18	Green - Amber - Green
M507M11-S-A04	30-Jun-18	Green - Amber - Green
M507M11-S-A04	01-Jul-18	Green - Amber - Green

M509M08-S-A04	01-Jun-18	Green - Amber
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M509M08-S-A04	02-Jun-18	Amber - Green
M509M08-S-A04	05-Jun-18	Green - Amber
M509M08-S-A04	06-Jun-18	Amber - Green
M509M08-S-A04	11-Jun-18	Green - Amber - Green

M510M07-S-A04	01-Jun-18	Green - Amber
M510M07-S-A04	02-Jun-18	Amber - Green
M510M07-S-A04	05-Jun-18	Green - Amber
M510M07-S-A04	06-Jun-18	Amber - Green

M578M01-S-A04	01-Jun-18	Green - Amber
M578M01-S-A04	02-Jun-18	Green - Amber - Green
M578M01-S-A04	11-Jun-18	Amber - Green
M578M01-S-A04	22-Jun-18	Amber - Green - Amber

M578M02-S-A04	01-Jun-18	Green - Amber - Green
M578M02-S-A04	02-Jun-18	Green - Amber - Green
M578M02-S-A04	05-Jun-18	Green - Amber
M578M02-S-A04	06-Jun-18	Amber - Green
M578M02-S-A04	11-Jun-18	Amber - Green - Amber
M578M02-S-A04	22-Jun-18	Green - Amber - Green
M578M02-S-A04	23-Jun-18	Green - Amber
M578M02-S-A04	24-Jun-18	Amber - Green
M578M02-S-A04	25-Jun-18	Green - Amber - Green
M578M02-S-A04	26-Jun-18	Green - Amber - Green
M578M02-S-A04	28-Jun-18	Green - Amber
M578M02-S-A04	29-Jun-18	Amber - Green - Amber - Green

M580M01-S-A04	02-Jun-18	Green - Amber - Green
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M590M01-S-A04	02-Jun-18	Green - Amber - Green
M590M01-S-A04	05-Jun-18	Green - Amber
M590M01-S-A04	06-Jun-18	Amber - Green
M590M01-S-A04	15-Jun-18	Green - Amber - Green
M590M01-S-A04	16-Jun-18	Green - Amber - Green
M590M01-S-A04	17-Jun-18	Green - Amber - Green
M590M01-S-A04	18-Jun-18	Green - Amber - Green
M590M01-S-A04	19-Jun-18	Green - Amber - Green

M592M02-S-A04	31-May-18	Green - Amber
M592M02-S-A04	01-Jun-18	Amber - Green
M592M02-S-A04	03-Jun-18	Green - Amber
M592M02-S-A04	06-Jun-18	Amber - Green
M592M02-S-A04	11-Jun-18	Green - Amber - Green
M592M02-S-A04	12-Jun-18	Green - Amber - Green

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M592M02-S-A04	15-Jun-18	Green - Amber - Green
M592M02-S-A04	17-Jun-18	Green - Amber - Green
M592M02-S-A04	18-Jun-18	Green - Amber - Green
M592M02-S-A04	19-Jun-18	Green - Amber - Green
M592M02-S-A04	20-Jun-18	Green - Amber
M592M02-S-A04	21-Jun-18	Amber - Green
M592M02-S-A04	23-Jun-18	Green - Amber
M592M02-S-A04	24-Jun-18	Amber - Green - Amber - Green

M594M03-S-A04	04-Jun-18	Green - Amber - Green
M594M03-S-A04	15-Jun-18	Green - Amber - Green

Monitor A05: Brookfield Clinic

There were 3 Prisms in this area surveyed by Monitor A05 which recorded triggers during this monitoring period.

Prism Name	Date:	Trigger
M12M10-S-A05	07-Jun-18	Green - Amber - Green

M22M13-S-A05	05-Jun-18	Green - Amber - Green
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M39M06-S-A05	11-Jun-18	Amber - Green
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Monitor A06 & A07: Cameron Square

There were 20 Prisms in this area surveyed by Monitors A06 and A07 which recorded triggers during this monitoring period.

Prism Name	Date:	Trigger
M23M01-S-A07	31-May-18	Green - Amber - Green
M23M01-S-A07	01-Jun-18	Green - Amber - Green
M23M01-S-A07	02-Jun-18	Green - Amber
M23M01-S-A07	03-Jun-18	Amber - Green

M22M03-S-A07	30-May-18	Green - Amber
M22M03-S-A07	06-Jun-18	Green - Amber - Green

M22M01-S-A07	30-May-18	Green - Amber
M22M01-S-A07	06-Jun-18	Green - Amber - Green

M23M01-S-A07	04-Jun-18	Green - Amber - Green
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M23M01-S-A07	05-Jun-18	Green - Amber - Green
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M23M01-S-A07	06-Jun-18	Green - Amber - Green
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M23M01-S-A07	07-Jun-18	Green - Amber - Green
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M27M01-S-A07	31-May-18	Green - Amber - Green
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M27M01-S-A07	01-Jun-18	Green - Amber - Green
M27M01-S-A07	02-Jun-18	Green - Amber
M27M01-S-A07	04-Jun-18	Green - Amber - Green
M27M01-S-A07	05-Jun-18	Green - Amber - Green - Amber
M27M01-S-A07	06-Jun-18	Amber - Green
M27M01-S-A07	07-Jun-18	Green - Amber - Green

M025M01-S-A07	06-Jun-18	Green - Amber - Green
M025M03-S-A07	15-Jun-18	Green - Amber - Green

M28M01-S-A07	06-Jun-18	Green - Amber - Green
M28M01-S-A07	15-Jun-18	Green - Amber - Green
M28M01-S-A07	16-Jun-18	Green - Amber - Green
M28M01-S-A07	17-Jun-18	Green - Amber - Green
M28M01-S-A06	26-Jun-18	Green - Amber - Green
M28M01-S-A06	27-Jun-18	Green - Amber - Green

M30M02-S-A06	09-Jun-18	Green - Amber
M30M02-S-A06	12-Jun-18	Green - Amber - Green

M31M01-S-A06	04-Jun-18	Green - Amber - Green
M31M01-S-A06	06-Jun-18	Green - Amber - Green
M31M01-S-A06	09-Jun-18	Green - Amber
M31M01-S-A06	11-Jun-18	Green - Amber
M31M01-S-A06	12-Jun-18	Amber - Green
M31M01-S-A06	14-Jun-18	Green - Amber - Green
M31M01-S-A06	19-Jun-18	Green - Amber
M31M01-S-A06	20-Jun-18	Amber - Green
M31M01-S-A06	23-Jun-18	Green - Amber
M31M01-S-A06	24-Jun-18	Amber - Green
M31M01-S-A06	30-Jun-18	Green - Amber - Green
M31M01-S-A06	29-Jun-18	Amber - Green - Amber
M31M01-S-A06	01-Jul-18	Green - Amber - Green

M31M02-S-A06	07-Jun-18	Green - Amber - Green
M31M02-S-A06	11-Jun-18	Green - Amber
M31M02-S-A06	12-Jun-18	Amber - Green
M31M02-S-A06	01-Jul-18	Green - Amber - Green

M34M01-S-A06	11-Jun-18	Green - Amber
M34M01-S-A06	12-Jun-18	Amber - Green

M35M01-S-A06	06-Jun-18	Green - Amber
M35M01-S-A06	07-Jun-18	Amber - Green
M35M01-S-A06	11-Jun-18	Green - Amber
M35M01-S-A06	12-Jun-18	Amber - Green
M35M01-S-A06	13-Jun-18	Amber - Green - Amber - Green
M35M01-S-A06	14-Jun-18	Green - Amber
M35M01-S-A06	15-Jun-18	Amber - Green - Amber - Green
M35M01-S-A06	16-Jun-18	Green - Amber
M35M01-S-A06	01-Jul-18	Green - Amber - Green

M35M02-S-A06	06-Jun-18	Green - Amber - Green - Amber
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M35M02-S-A06	07-Jun-18	Amber - Green
M35M02-S-A06	18-Jun-18	Amber - Green
M35M02-S-A06	19-Jun-18	Green - Amber - Green
M35M02-S-A06	20-Jun-18	Green - Amber
M35M02-S-A06	22-Jun-18	Amber - Green - Amber
M35M02-S-A06	23-Jun-18	Amber - Green - Amber
M35M02-S-A06	24-Jun-18	Amber - Green - Amber
M35M02-S-A06	26-Jun-18	Amber - Green - Amber
M35M02-S-A06	27-Jun-18	Amber - Green
M35M02-S-A06	28-Jun-18	Green - Amber
M35M02-S-A06	29-Jun-18	Amber - Green - Amber

M37M01-S-A06	07-Jun-18	Green - Amber - Green
M37M01-S-A06	09-Jun-18	Green - Amber
M37M01-S-A06	01-Jul-18	Green - Amber - Green

M38M01-S-A06	06-Jun-18	Green - Amber
M38M01-S-A06	07-Jun-18	Amber - Green
M38M01-S-A06	09-Jun-18	Green - Amber
M38M01-S-A06	11-Jun-18	Green - Amber
M38M01-S-A06	12-Jun-18	Amber - Green
M38M01-S-A06	01-Jul-18	Green - Amber - Green

M39M01-S-A06	09-Jun-18	Green - Amber
M39M01-S-A06	11-Jun-18	Green - Amber
M39M01-S-A06	12-Jun-18	Amber - Green

M39M02-S-A06	07-Jun-18	Green - Amber - Green
M39M02-S-A06	09-Jun-18	Green - Amber
M39M02-S-A06	29-Jun-18	Green - Amber
M39M02-S-A06	30-Jun-18	Amber - Green
M39M02-S-A06	01-Jul-18	Green - Amber - Green

Monitor A08&A09: Mount Brown

There were 12 Prisms in this area surveyed by Monitors A08 and A09 which recorded triggers during this monitoring period.

Prism Name	Date:	Trigger
M01M22-S-A09	04 June 2018	Green - Amber
M01M22-S-A09	05 June 2018	Amber - Green
M01M22-S-A09	09 June 2018	Green - Amber
M01M22-S-A09	23 June 2018	Green - Amber - Green - Amber
M01M22-S-A09	24 June 2018	Amber - Green
M01M22-S-A09	25 June 2018	Amber - Green
M01M22-S-A09	26 June 2018	Green - Amber
M01M22-S-A09	28 June 2018	Amber - Green
M01M22-S-A09	30 June 2018	Green - Amber

M03M21-S-A09	05 June 2018	Green - Amber - Green
M03M21-S-A09	09 June 2018	Green - Amber

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M03M21-S-A09	10 June 2018	Amber - Green
M03M21-S-A09	19 June 2018	Amber - Green
M03M21-S-A09	22 June 2018	Amber - Green
M03M21-S-A09	25 June 2018	Amber - Green

M5M05-S-A08	31 May 2018	Green - Amber - Green
M5M05-S-A08	01 June 2018	Green - Amber - Green
M5M05-S-A08	02 June 2018	Green - Amber - Green

M06M19-S-A09	01 June 2018	Green - Amber - Green
M06M19-S-A09	04 June 2018	Green - Amber - Green
M06M19-S-A09	06 June 2018	Green - Amber - Green
M06M19-S-A09	07 June 2018	Green - Amber - Green
M06M19-S-A09	11 June 2018	Amber - Green - Amber
M06M19-S-A09	12 June 2018	Amber - Green - Amber
M06M19-S-A09	13 June 2018	Amber - Green - Amber
M06M19-S-A09	15 June 2018	Amber - Green - Amber
M06M19-S-A09	17 June 2018	Green - Amber
M06M19-S-A09	18 June 2018	Amber - Green - Amber - Green
M06M19-S-A09	19 June 2018	Green - Amber - Green
M06M19-S-A09	21 June 2018	Green - Amber - Green
M06M19-S-A09	22 June 2018	Amber - Green
M06M19-S-A09	23 June 2018	Green - Amber - Green
M06M19-S-A09	24 June 2018	Green - Amber - Green
M06M19-S-A09	26 June 2018	Green - Amber - Green
M06M19-S-A09	27 June 2018	Green - Amber - Green
M06M19-S-A09	28 June 2018	Green - Amber - Green
M06M19-S-A09	29 June 2018	Green - Amber - Green
M06M19-S-A09	01 July 2018	Green - Amber - Green

M7M07-S-A08	01 June 2018	Green - Amber - Green
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M8M08-S-A08	06 June 2018	Green - Amber - Green
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M9M09-S-A08	06 June 2018	Green - Amber - Green
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M12M11-S-A08	31 May 2018	Green - Amber - Green
M12M11-S-A08	02 June 2018	Green - Amber - Green

M13M12-S-A08	01 June 2018	Green - Amber
M13M12-S-A08	02 June 2018	Amber - Green - Amber - Green
M13M12-S-A08	03 June 2018	Green - Amber

M22M18-S-A09	04 June 2018	Green - Amber - Green
M22M18-S-A09	07 June 2018	Green - Amber - Green

Memo

M22M18-S-A09	12 June 2018	Green - Amber - Green
M22M18-S-A09	15 June 2018	Green - Amber
M22M18-S-A09	16 June 2018	Amber - Green
M22M18-S-A09	18 June 2018	Amber - Green

M22M18-S-A09	26 June 2018	Green - Amber - Green
M22M18-S-A09	30 June 2018	Green - Amber - Green

M83M01-S-A08	06 June 2018	Green - Amber - Green
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M84M02-S-A08	31 May 2018	Green - Amber - Green
M84M02-S-A08	01 June 2018	Green - Amber - Green
M84M02-S-A08	02 June 2018	Amber - Green - Green
M84M02-S-A08	04 June 2018	Green - Amber - Green
M84M02-S-A08	05 June 2018	Amber - Green
M84M02-S-A08	06 June 2018	Green - Amber - Green

Monitor A10: St. John's Terrace

There were 4 Prisms in this area surveyed by Monitors A10 which recorded triggers during this monitoring period.

Prism Name	Date:	Trigger
M03M04-S-A010	01-Jul-18	Amber - Green - Amber

M1701-S-A010	07-Jun-18	Green - Amber
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M17M01-S-A010	30-Jun-18	Green - Amber - Green - Amber
M17M01-S-A010	01-Jul-18	Amber - Green - Amber

Monitor A011 & A012: St. John's Terrace

There were 28 Prisms in this area surveyed by Monitors A11 and A12 which recorded triggers during this monitoring period.

Prism Name	Date:	Trigger
M63M09-S-A12	07-Jun-18	Green - Amber - Green

M069M015-S-A12	10-Jun-18	Green - Amber
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M061E01-S-A11	09-Jun-18	Green - Amber
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M063E04-S-A11	02-Jun-18	Green - Amber - Green
M063E04-S-A11	03-Jun-18	Green - Amber - Green

M064E02-S-A11	01-Jun-18	Green - Amber - Green
M064E02-S-A11	02-Jun-18	Green - Amber - Green

Memo

M064E02-S-A11	04-Jun-18	Green - Amber - Green
M064E02-S-A11	11-Jun-18	Amber - Green - Amber
M064E02-S-A11	12-Jun-18	Amber - Green
M064E02-S-A11	14-Jun-18	Green - Amber - Green
M064E02-S-A11	15-Jun-18	Green - Amber
M064E02-S-A11	16-Jun-18	Amber - Green - Amber
M064E02-S-A11	17-Jun-18	Amber - Green - Amber
M064E02-S-A11	19-Jun-18	Amber - Green - Amber
M064E02-S-A11	21-Jun-18	Amber - Green - Amber - Green
M064E02-S-A11	22-Jun-18	Amber - Green - Amber
M064E02-S-A11	23-Jun-18	Amber - Green - Amber
M064E02-S-A11	24-Jun-18	Amber - Green - Amber
M064E02-S-A11	25-Jun-18	Amber - Green

M064E03-S-A11	04-Jun-18	Green - Amber - Green
M064E03-S-A11	05-Jun-18	Green - Amber - Green
M064E03-S-A11	06-Jun-18	Green - Amber - Green
M064E03-S-A11	11-Jun-18	Amber - Green - Amber
M064E03-S-A11	12-Jun-18	Amber - Green
M064E03-S-A11	13-Jun-18	Green - Amber
M064E03-S-A11	14-Jun-18	Amber - Green
M064E03-S-A11	15-Jun-18	Green - Amber
M064E03-S-A11	16-Jun-18	Amber - Green - Amber
M064E03-S-A11	17-Jun-18	Amber - Green - Amber
M064E03-S-A11	19-Jun-18	Amber - Green - Amber
M064E03-S-A11	21-Jun-18	Amber - Green - Amber - Green
M064E03-S-A11	23-Jun-18	Amber - Green - Amber
M064E03-S-A11	24-Jun-18	Amber - Green - Amber
M064E03-S-A11	25-Jun-18	Amber - Green
M064E03-S-A11	30-Jun-18	Green - Amber
M064E03-S-A11	27-Jun-18	Green - Amber - Green
M064E03-S-A11	01-Jul-18	Amber - Green - Amber - Green

M065E01-S-A11	10-Jun-18	Green - Amber
M065E01-S-A11	11-Jun-18	Amber - Green - Amber
M065E01-S-A11	12-Jun-18	Amber - Green
M065E01-S-A11	13-Jun-18	Green - Amber - Green
M065E01-S-A11	20-Jun-18	Green - Amber
M065E01-S-A11	21-Jun-18	Amber - Green
M065E01-S-A11	23-Jun-18	Green - Amber - Green
M065E01-S-A11	24-Jun-18	Green - Amber - Green
M065E01-S-A11	25-Jun-18	Amber - Green
M065E01-S-A11	27-Jun-18	Green - Amber - Green

M065E02-S-A11	01-Jun-18	Green - Amber - Green
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Memo

M065E02-S-A11	11-Jun-18	Amber - Green - Amber
M065E02-S-A11	12-Jun-18	Amber - Green
M065E02-S-A11	14-Jun-18	Green - Amber - Green
M065E02-S-A11	20-Jun-18	Amber - Green
M065E02-S-A11	21-Jun-18	Amber - Green
M065E02-S-A11	22-Jun-18	Amber - Green
M065E02-S-A11	23-Jun-18	Green - Amber - Green - Amber
M065E02-S-A11	24-Jun-18	Amber - Green - Amber
M065E02-S-A11	25-Jun-18	Amber - Green
M065E02-S-A11	27-Jun-18	Green - Amber - Green
M065E02-S-A11	29-Jun-18	Green - Amber - Green
M065E02-S-A11	30-Jun-18	Green - Amber - Green
M065E02-S-A11	01-Jul-18	Green - Amber - Green

M065E03-S-A11	11-Jun-18	Amber - Green - Amber
M065E03-S-A11	12-Jun-18	Amber - Green
M065E03-S-A11	14-Jun-18	Green - Amber
M065E03-S-A11	15-Jun-18	Green - Amber
M065E03-S-A11	16-Jun-18	Amber - Green - Amber
M065E03-S-A11	17-Jun-18	Amber - Green - Amber
M065E03-S-A11	19-Jun-18	Amber - Green - Amber
M065E03-S-A11	20-Jun-18	Amber - Green
M065E03-S-A11	22-Jun-18	Green - Amber
M065E03-S-A11	23-Jun-18	Amber - Green - Amber
M065E03-S-A11	24-Jun-18	Amber - Green
M065E03-S-A11	25-Jun-18	Green - Amber - Green

M067E01-S-A11	09-Jun-18	Green - Amber
M067E01-S-A11	11-Jun-18	Amber - Green
M067E01-S-A11	14-Jun-18	Green - Amber - Green
M067E01-S-A11	15-Jun-18	Green - Amber - Green
M067E01-S-A11	20-Jun-18	Green - Amber - Green
M067E01-S-A11	27-Jun-18	Green - Amber - Green

M068E01-S-A11	10-Jun-18	Green - Amber
M068E01-S-A11	11-Jun-18	Amber - Green - Amber
M068E01-S-A11	12-Jun-18	Amber - Green
M068E01-S-A11	13-Jun-18	Green - Amber - Green
M068E01-S-A11	15-Jun-18	Green - Amber - Green
M068E01-S-A11	20-Jun-18	Green - Amber
M068E01-S-A11	21-Jun-18	Amber - Green
M068E01-S-A11	22-Jun-18	Amber - Green - Amber
M068E01-S-A11	23-Jun-18	Amber - Green - Amber
M068E01-S-A11	24-Jun-18	Amber - Green

Memo

M068E01-S-A11	25-Jun-18	Amber - Green
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M068E02-S-A11	10-Jun-18	Green - Amber
M068E02-S-A11	11-Jun-18	Amber - Green - Amber
M068E02-S-A11	12-Jun-18	Amber - Green
M068E02-S-A11	14-Jun-18	Green - Amber - Green
M068E02-S-A11	15-Jun-18	Green - Amber
M068E02-S-A11	16-Jun-18	Amber - Green
M068E02-S-A11	20-Jun-18	Green - Amber
M068E02-S-A11	21-Jun-18	Green - Amber - Green
M068E02-S-A11	22-Jun-18	Amber - Green - Amber
M068E02-S-A11	23-Jun-18	Amber - Green - Amber
M068E02-S-A11	24-Jun-18	Amber - Green

M068E14A-S-A11	04-Jun-18	Green - Amber - Green
M068E14A-S-A11	05-Jun-18	Green - Amber - Green
M068E14A-S-A11	07-Jun-18	Green - Amber - Green
M068E14A-S-A11	11-Jun-18	Amber - Green
M068E14A-S-A11	12-Jun-18	Green - Amber - Green
M068E14A-S-A11	14-Jun-18	Green - Amber - Green
M068E14A-S-A11	15-Jun-18	Green - Amber
M068E14A-S-A11	16-Jun-18	Amber - Green
M068E14A-S-A11	18-Jun-18	Green - Amber
M068E14A-S-A11	19-Jun-18	Amber - Green
M068E14A-S-A11	20-Jun-18	Green - Amber - Green
M068E14A-S-A11	21-Jun-18	Amber - Green
M068E14A-S-A11	22-Jun-18	Green - Amber
M068E14A-S-A11	23-Jun-18	Amber - Green - Amber
M068E14A-S-A11	24-Jun-18	Amber - Green
M068E14A-S-A11	25-Jun-18	Amber - Green

M069E02-S-A11	09-Jun-18	Green - Amber
M069E02-S-A11	11-Jun-18	Amber - Green
M069E02-S-A11	20-Jun-18	Green - Amber - Green
M069E02-S-A11	21-Jun-18	Green - Amber - Green

M069E03-S-A11	14-Jun-18	Green - Amber - Green
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M069E03R-S-A11	15-Jun-18	Green - Amber - Green
M069E03R-S-A11	21-Jun-18	Green - Amber - Green
M069E03R-S-A11	27-Jun-18	Green - Amber - Green

M069E04R-S-A11	01-Jun-18	Green - Amber - Green
M069E04R-S-A11	02-Jun-18	Green - Amber - Green

Memo

M070E03R-S-A11	04-Jun-18	Green - Amber - Green
M070E03R-S-A11	11-Jun-18	Amber - Green - Amber
M070E03R-S-A11	12-Jun-18	Amber - Green
M070E03R-S-A11	14-Jun-18	Green - Amber
M070E03R-S-A11	15-Jun-18	Amber - Green - Amber
M070E03R-S-A11	16-Jun-18	Amber - Green - Amber
M070E03R-S-A11	19-Jun-18	Amber - Green - Amber
M070E03R-S-A11	21-Jun-18	Amber - Green - Amber - Green
M070E03R-S-A11	22-Jun-18	Green - Amber
M070E03R-S-A11	23-Jun-18	Amber - Green - Amber
M070E03R-S-A11	24-Jun-18	Amber - Green
M070E03R-S-A11	25-Jun-18	Green - Amber - Green
M070E03R-S-A11	28-Jun-18	Amber - Green
M070E03R-S-A11	27-Jun-18	Green - Amber - Green - Amber
M070E03R-S-A11	29-Jun-18	Green - Amber - Green

M071E03R-S-A11	11-Jun-18	Green - Amber - Green - Amber
M071E03R-S-A11	12-Jun-18	Amber - Green
M071E03R-S-A11	13-Jun-18	Green - Amber
M071E03R-S-A11	15-Jun-18	Amber - Green - Amber
M071E03R-S-A11	19-Jun-18	Green - Amber - Green
M071E03R-S-A11	20-Jun-18	Green - Amber
M071E03R-S-A11	21-Jun-18	Amber - Green - Amber
M071E03R-S-A11	22-Jun-18	Green - Amber
M071E03R-S-A11	23-Jun-18	Amber - Green - Amber
M071E03R-S-A11	24-Jun-18	Amber - Green - Amber
M071E03R-S-A11	25-Jun-18	Amber - Green
M071E03R-S-A11	29-Jun-18	Green - Amber - Green
M071E03R-S-A11	01-Jul-18	Green - Amber - Green

M072E01-S-A11	25-Jun-18	Amber - Green
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M072E01R-S-A11	09-Jun-18	Green - Amber
M072E01R-S-A11	12-Jun-18	Amber - Green
M072E01R-S-A11	14-Jun-18	Green - Amber - Green
M072E04R-S-A11	15-Jun-18	Green - Amber - Green
M072E01R-S-A11	19-Jun-18	Green - Amber
M072E01R-S-A11	21-Jun-18	Amber - Green - Amber - Green
M072E01R-S-A11	22-Jun-18	Green - Amber
M072E01R-S-A11	23-Jun-18	Amber - Green
M072E01R-S-A11	24-Jun-18	Green - Amber - Green - Amber

M072E04R-S-A11	11-Jun-18	Green - Amber
M072E04R-S-A11	12-Jun-18	Amber - Green
M072E04R-S-A11	14-Jun-18	Green - Amber - Green

Memo

M072E04R-S-A11	17-Jun-18	Green - Amber
M072E04R-S-A11	19-Jun-18	Amber - Green
M072E04R-S-A11	20-Jun-18	Green - Amber - Green
M072E04R-S-A11	21-Jun-18	Amber - Green - Amber - Green
M072E04R-S-A11	24-Jun-18	Amber - Green - Amber
M072E04R-S-A11	25-Jun-18	Amber - Green

M072E05R-S-A11	27-Jun-18	Green - Amber - Green
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M58M01A-S-A11	11-Jun-18	Green - Amber
M58M01A-S-A11	12-Jun-18	Amber - Green
M58M01A-S-A11	14-Jun-18	Green - Amber - Green

M58M02A-S-A11	11-Jun-18	Amber - Green
M58M02A-S-A11	14-Jun-18	Green - Amber - Green
M58M02A-S-A11	20-Jun-18	Green - Amber - Green

M68E14A-S-A11	31-May-18	Green - Amber - Green
M68E14A-S-A11	01-Jun-18	Green - Amber - Green
M68E14A-S-A11	02-Jun-18	Green - Amber
M68E14A-S-A11	03-Jun-18	Amber - Green

M70M016-S-A11	07-Jun-18	Green - Amber
M70M016-S-A11	22-Jun-18	Amber - Green

M75M026-S-A11	01-Jun-18	Green - Amber - Green
M75M026-S-A11	02-Jun-18	Green - Amber - Green
M75M026-S-A11	03-Jun-18	Green - Amber - Green
M75M026-S-A11	07-Jun-18	Green - Amber - Green
M75M026-S-A11	14-Jun-18	Amber - Green
M75M026-S-A11	15-Jun-18	Green - Amber
M75M026-S-A11	16-Jun-18	Amber - Green - Amber - Green
M75M026-S-A11	20-Jun-18	Green - Amber
M75M026-S-A11	22-Jun-18	Green - Amber
M75M026-S-A11	23-Jun-18	Amber - Green
M75M026-S-A11	24-Jun-18	Green - Amber - Green - Amber
M75M026-S-A11	25-Jun-18	Amber - Green - Amber
M75M026-S-A11	26-Jun-18	Amber - Green
M75M026-S-A11	29-Jun-18	Green - Amber - Green

Memo