MTR Corporation Limited

Shatin to Central Link –
Mong Kok East to Hung Hom Section

Final EM&A Review Report

[EP No. EP-437/2012/B]

(November 2024)

Verified by	:	Claudine Lee
Position	:	Independent Environmental Checker
Date	:	8 November 2024

MTR Corporation Limited

Shatin to Central Link –
Mong Kok East to Hung Hom Section

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(November 2024)

Certified by	:	Rodney Ip
Position	:	Environmental Team Leader
Date	:	8 November 2024

MTR Corporation Limited

Consultancy Agreements
No. C11033B

Shatin to Central Link – Mong Kok East to Hung Hom Section

Final EM&A Review Report

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Version: A	Date: 21 October 2024

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EXECUTIVE SUMMARY

The Shatin to Central Link – Mong Kok East to Hung Hom Section [SCL (MKK-HUH) (hereafter referred to as "the Project") was awarded to respective contractors since December 2012. The Environmental Monitoring and Audit (EM&A) programme for the Project commenced in January 2013, the commencement date of construction of the Project.

The passenger service of the Project has been commenced on 15 May 2022. All major construction works with environmental impact concerned have been completed by 17 September 2020.

This Final Environmental Monitoring and Audit (EM&A) Report presenting the results of EM&A works undertaken during the period from January 2013 to October 2020 in accordance with the EM&A Manual and the requirement under the Environmental Permit (EP) No. EP-437/2012 and the latest EP-437/2012/B which was issued by Director of Environmental Protection (DEP) on 8 February 2024.

In view of the completion of construction works that have the potential to cause significant environmental impact for the Project, all relevant dust and noise monitoring works have been terminated on or before 29 October 2020.

Apart from the above, regular site inspections under the EM&A programme have been suspended by October 2020. One-off landscape and visual inspection was conducted in December 2021 and early 2024 regarding the completion of tree planting works at Kai Tak Station Square and Stabling Sidings at Hung Hom Freight Yard (HHS).

Air Quality

Impact air quality monitoring was conducted for 24-hour Total Suspended Particulates (TSP) at two (2) air quality monitoring stations at least once in every six days in accordance with the EM&A Manuals. No exceedance for 24-hour TSP has been recorded during the reporting period.

Noise

Regular Noise Monitoring

Regular noise was measured in terms of $L_{eq(30min)}$ dB(A), L_{10} and L_{90} at two (2) monitoring stations at least once a week during the construction phase. No exceedance of Action or Limit Levels for construction noise was recorded during the construction period.

One (1) exceedance of Limit Level of noise was recorded during the reporting period. Investigation for the exceedance was conducted and the exceedance was considered not in relation to the construction works of the Project.

Continuous Noise Monitoring

Continuous noise was measured in terms of $L_{eq(30min)}$ dB(A), L_{10} and L_{90} at two (2) monitoring stations during period at which the predicted airborne construction noise levels exceed the relevant noise criteria at the respective noise sensitive receivers.

Four (4) exceedances of Action and Limit Levels were recorded. Investigations for the exceedances was conducted and the exceedances were considered invalid.

Landscape and Visual

Bi-weekly inspection of the implementation of landscape and visual mitigation measures was conducted throughout the construction period. All the necessary mitigation measures have been implemented and recommended follow-up actions have been discharged by the Contractor.

Waste Management

Waste generated from the Project included inert and non-inert construction and demolition (C&D) materials and marine sediment. Inert C&D materials and wastes sorting, reuse and recycle were carried on-site wherever practicable before disposal, while non-inert C&D materials which could not be reused or recycled were disposed of at designated landfill sites. Marine sediment was collected and delivered to designated barging points for disposal.

Environmental Site Inspection

Joint weekly site inspection were conducted at various works sites by representatives of the Contractor, the Engineer and Contractor's Environmental Team throughout the construction period. The representative of the Independent Environmental Checker (IEC) joint the site inspections once per month.

Environmental Complaints / Exceedance / Non-compliance / Summons and Prosecution

A total of thirteen (13) environmental complaints were referred from EPD since the commencement of the construction in January 2013. Investigations were carried out and all the complaints were handled in accordance to the EM&A Manuals and reported in the respective Monthly EM&A Reports.

No exceedance of Action and Limit Levels of 24-hour TSP was recorded throughout the whole construction period in all air quality monitoring stations.

No project-related exceedance of noise Action and Limit Levels were recorded throughout the whole construction period in all noise monitoring stations.

One (1) no. of summon and one (1) no. of successful environmental prosecution were received since the Project commencement.

1 INTRODUCTION

1.1 Background

1.1.1 The Shatin to Central Link (SCL) is a 17 km extension of the existing Ma On Shan Line (MOL) and East Rail Line (EAL) comprising (i) The East-West Corridor which extends the MOL from Tai Wai to Hung Hom via East Kowloon to connect with the West Rail Line (WRL) at Hung Hom Station (HUH) and Stabling Sidings at Hung Hom Freight Yard (HHS); and (ii) The North-South Corridor which is an extension of the East Rail Line (EAL) at Hung Hom across the harbour to Admiralty Station (ADM).

1.1.2 Shatin to Central Link – Mong Kok East to Hung Hom Section [SCL (MKK-HUH)] (hereafter referred to as "the Project") is part of the SCL. Shatin to Central Link – Stabling Sidings at Hung Hom Freight Yard [SCL (HHS)] is a proposed stabling sidings option for Shatin to Central Link – Tai Wai to Hung Hom Section [SCL (TAW-HUH)] at the former freight yard in Hung Hom.

1.1.3 The Environmental Impact Assessment (EIA) Reports and EM&A Manuals for SCL – Mongkok East to Hung Hom Section (MKK-HUH) (Register No.: AEIAR-165/2012) and SCL – Stabling Sidings at Hung Hom Freight Yard (HHS) (Register No.: AEIAR-164/2012) were approved on 17 February 2012 under the Environmental Impact Assessment Ordinance (EIAO). Following the approval of the EIA Reports, Environmental Permit (EP) was granted on 22 March 2012 which covers SCL (MKK-HUH) and SCL (HHS) (EP No.: EP-437/2012), for the construction and operation of the Project. Variation of environmental permit (VEP) was subsequently applied for EP No.: EP-437/2012. The latest EP (EP No: EP-437/2012/B) was issued by Director of Environmental Protection on 8 February 2024.

1.2 Project Programme

1.2.1 Two civil construction works contracts of the Project were awarded since December 2012. All the major construction works have been completed by 17 September 2020 with passenger service commenced on 15 May 2022. **Table 1.1** summarises the information of the awarded Works Contracts.

Table 1.1 Summary of Awarded Works Contracts

Works Contract	Description	Construction Start Date	Contractor	Environmental Team
1111(1)	Hung Hom North Approach Tunnels	January 2013	Gammon-Kaden SCL1111 JV	AECOM Asia Co. Ltd.
1112(2)	Hung Hom Station and Stabling Sidings	June 2013	Leighton Contractors (Asia) Limited	SMEC Asia Ltd., HK

Notes:
(1) All major construction works (Hung Hom North Approach Tunnels) under Works Contract 1111 have been substantially completed since 18 November 2018 and all the minor remaining works were completed by the time of SCL opening.
(2) All major construction works (Hung Hom Station and Stabling Sidings) under Works Contract 1112 have been substantially completed by 17 September 2020 and the minor remaining works were completed by the time of SCL opening.

1.2.2 All remaining tree planting works under EP-437/2012 were completed in late 2023, including Kai Tak Station Square.

1.3 Coverage of the Final EM&A Report

1.3.1 The EM&A programme for the Project commenced in January 2013. In considering the completion of major construction works of the Project, this Final EM&A Review Report is prepared to present the results of EM&A works and the impact monitoring for the construction works undertaken by Environmental Teams during the period of January 2013 to October 2020.

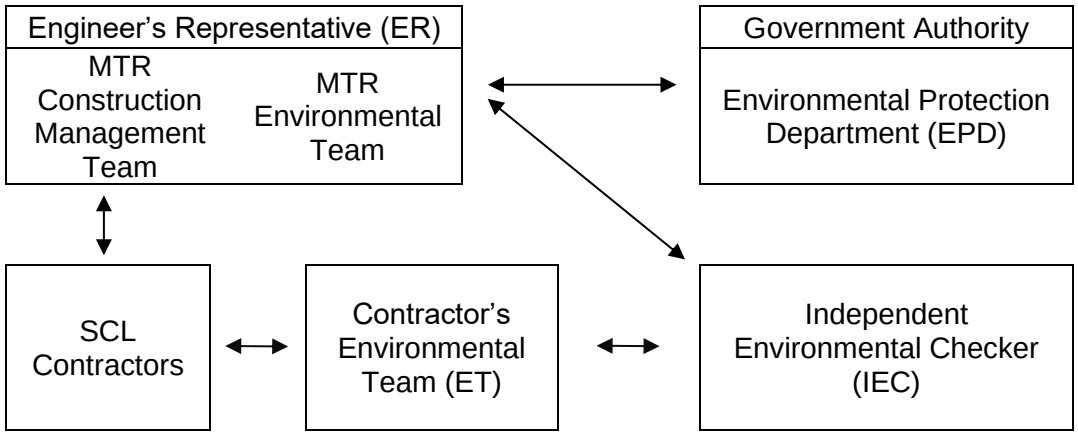
1.3.2 Apart from the above, the results of landscape and visual inspections which were undertaken with IEC were reported in the corresponding Monthly EM&A Reports accordingly.

2 PROJECT INFORMATION

2.1 Project Management Organisation and Management Structure

2.1.1 The project management organisation chart is shown in **Figure 2.1**. Contacts of key environmental personnel of the Project are shown in **Appendix B**.

Figure 2.1 Project Organisation



2.2 Project Works Sites and Areas

2.2.1 The Project works sites and areas under various Works Contracts and the major construction activities undertaken in the last twelve reporting months for construction phase are summarized in **Table 2.1** and shown in **Appendix A**. The locations of environmental monitoring stations are indicated in **Appendix D**. **Table 2.2** shows the details of the active monitoring stations as reported in **Section 3.1**, **Section 3.2** and **Section 3.3**.

Table 2.1 Summary of Major Construction Activities

Works Contract	Works Sites and Areas	Major Construction Activities
1111	Ho Man Tin	• Steel Mesh; • Planter Works; • Hoarding Removal; • Defect Rectification; and • Removal of Grown Vegetation.
	NSL (South)	• Road & Drainage Construction; • Bar Fence; • Planting; • Soil Disposal; • Defect Rectification; • Pipe Connection; • Backfilling; • Planter Construction; • Removal of Pipe Pile; • Chequer Plate Installation; • Erection Work for Kerb Backing; and • Tree Planting.
	OB2 / TB1	• Maintenance Access; • Abandoned Watermain Removal; • Bar Fence; • Installation of Working Platform; and • Defect Rectification.
	OB2A / TB2	• Maintenance Access;

Works Contract	Works Sites and Areas	Major Construction Activities
1111 (cont'd)		• Bar Fence; and • Defect Rectification.
	NSL 9 & Oi Sen Path	• Defect Rectification; • Minor Steel Work; • Railing Installation; • Scaffolding Erection; • Water Pump Replacement; • Soil Disposal; and • Reinstatement Works.
1112	Hum Hom Station and Stabling Sidings	• Gate 2 & 3 Drainage Pipe Installation; • Minor Services Connection at G. L J of HUH; • Platform ABWF and EM&A Works at HUH; • Modification Works at Concourse Level, Mid-level Walkway; • Landscape Works; • Remedial Works at HUH/HHS/NAT; • Minor Extenal Works; • Paving Block Outside Concourse; and • Noise Enclosure Remedial Works.

Table 2.2 Summary of Locations of Impact Monitoring Stations

Monitoring Station ID	Monitoring Station
Air Quality	
AM1(1)(2)	No. 234 – 238 Chatham Road North
AM2(3)(4)	Site Boundary of Finger Pier Adjacent to Harbourfront Horizon
Regular Construction Noise	
NM1(2)	Carmel Secondary School (South Block)
NM2(1)(2)	No. 234 – 238 Chatham Road North
Continuous Noise	
NM1(5)	Carmel Secondary School (South Block)
NM2(5)	No. 234 – 238 Chatham Road North

Notes:
(1) Alternative monitoring location to Wing Fung Building.
(2) The cessation of monitoring works was proposed on 25 July 2019 and EPD expressed no objection on 31 July 2019. The last monitoring dates for air quality and regular construction noise monitoring were 26 and 23 July 2019 respectively.
(3) Alternative monitoring location to Harborfront Horizon.
(4) The cessation of monitoring works was proposed on 21 October 2020 and EPD expressed no objection on 29 October 2020. The last monitoring date was 29 October 2020.
(5) Monitoring was conducted during period at NSRs where residual airborne construction noise impacts were identified in the Construction Noise Mitigaiton Measures Plan (CNMP).

2.3 Summary of EM&A Requirements

2.3.1 The EM&A programme requires emvironmental monitoring for air quality, noise, landscape and visual, and waste management as specified in the EM&A Manual. A summary of impact EM&A requirements as applicable to this EM&A Report is presented in **Table 2.3**.

Table 2.3 Summary of Impact EM&A Requirements

Parameters	Parameters	Locations	Monitoring Frequency	Duration
Air Quality	24-hr TSP	Shown in **Table 2.2**	Once in every 6 days	Construction Stage
Regular Construction Noise	$L_{eq(30min)}$ between 0700 and 1900 on normal weekdays, L_{10} and L_{90} would also be recorded		At least once per week	Construction Stage

Parameters	Parameters	Locations	Monitoring Frequency	Duration
Continuous Noise	$L_{eq(30min)}$ between 0700 and 1900 on normal working hours, L_{10} and L_{90} would also be recorded		During period at which the predicted airborne construction noise levels exceed the relevant noise criteria at the respective NSRs	Construction Stage
Landscape and Visual	On-site audit	Active works areas	Bi-weekly	Construction Stage
Waste	On-site audit	Active works areas	Weekly	Construction Stage
General Site Conditions	Environmental site inspection and audit	Active works areas	Weekly (ET) & Monthly (IEC)	Construction Stage

Notes:
(1) For selection of tides for in-situ measurement and water sampling, tidal range of individual flood and ebb tides should be not less than 0.5m.
(2) Turbidity, DO, pH, temperature and salinity should be measured in situ whereas SS should be determined by laboratory.

2.3.2 Environmental Quality Performance Limits for air quality and noise and the Event Action Plan for air quality, noise, and landscape and visual are shown in **Appendix E** and **Appendix F**, respectively.

2.4 Implementation of Environmental Mitigation Measures

2.4.1 The Works Contracts of the Project are required to implement the mitigation measures as specified in the EP, EIA Report and EM&A Manual. During the regular environmental site inspections, the Contractors' implementation of mitigation measures was inspected and reviewed. A schedule of the implementation of environmental mitigation measures recommended in the EIA Reports is given in **Appendix C**.

3 IMPACT MONITORING AND RESULTS

3.1 Air Quality

3.1.1 In accordance with the approved EM&A Manuals, 24-hour TSP levels at the designated air quality monitoring stations are required. Impact 24-hour TSP monitoring should be carried out for at least once every 6 days. The locations of the desginated air quality monitoring stations are presented in **Table 2.2** and **Appendix D**. The Action and Limit Levels of the air quality monitoring are provided in **Appendix E**. The monitoring was performed using High Volume Sampler (HVS) located at the desginated monitoring stations. Detailed monitoring methodology could be referred to respective Monthly EM&A Reports.

Monitoring Results

3.1.2 Monitoring results of 24-hour TSP are presented in **Appendix G**. The statistical analyses of air quality monitoring data for the dust monitoring stations within the reporting periods are summarized in **Table 3.1** below.

Table 3.1 Summary of 24-hour TSP Monitoring Results

Monitoring Station ID	Description	Maximum Level (μg/m^3)	Minimum Level (μg/m^3)	Action Level (μg/m^3)	Limit Level (μg/m^3)
AM1	No. 234 – 238 Chatham Road North	161.2	10.2	183.9	260
AM2	Site Boundary of Finger Pier Adjacent to Harbourfront Horizon	177.2	9.4	182	260

3.1.3 All 24-hour TSP monitoring results were below the Action and Limit Levels at all monitoring locations in the reporting period.

3.2 Regular Construction Noise

3.2.1 In accordance with the EM&A Manual, regular construction noise monitoring should be conducted for at least once a week during the construction phase of the Project. The locations of the desginated monitoring stations are presented in **Table 2.2** and **Appendix D**. The Action and Limit Levels of the monitoring are provided in **Appendix E**.

3.2.2 Regular construction noise monitoring was performed using sound level meter at each designated monitoring station. The sound level meters deployed comply with the International Electrotechnical Commission Publications 651: 1979 (Type 1) and 804: 1985 (Type 1) specifications. Acoustic calibrators were deployed to check the sound level meters at a known sound pressure level. Detailed monitoring procedures could be referred to respective Monthly EM&A Reports.

Monitoring Results

3.2.3 Monitoring results for regular construction noise are summarized in **Table 3.2** below and the monitoring data are presented in **Appendix H**.

Table 3.2 Summary of Regular Construction Noise Monitoring Results

Monitoring Station ID	Description	Range, dB(A) $L_{eq(30min)}$	Limit Level, dB(A), $L_{eq(30min)}$
NM1[(2)]	Carmel Secondary School (South Block)	51.7 – 71.2	70 (65)[(1)]
NM2[(2)]	No. 234 – 238 Chatham Road North	61.8 – 79.0	75

Notes:
(1) Daytime noise Limit Level of 70dB(A) applies to education institutions while 65dB(A) applies during school examination period.

(2) Baseline corrections were made to the measured L_{eq} when the measured noise levels exceeded the corresponding baseline noise level and presented in the table. No correction was made to NM2 as all measured noise levels were below the baseline noise level.

3.2.4 No noise complaint was received in the reporting period during 0700 to 1900 hours on normal weekdays. Hence, no Action Level exceedance was recorded at the two (2) monitoring stations.

3.2.5 One (1) exceedance of Limit Level of noise was recorded at NM1 on 3 April 2013. Investigation for the exceedance was conducted and the result revealed that the noise exceedance was not in relation to the construction works of the Project. Details could be referred to the respective Monthly EM&A Report.

3.3 Continuous Noise Monitoring

3.3.1 According to EP conditions under EP-437/2012/B (Condition 2.8), continuous noise monitoring should be conducted at the NSRs as identified by the Construction Noise Mitigation Measures Plan (CNMMP) to have residual air-borne noise impacts. A CNMMP and Continuous Noise Monitoring Plan (CNMP) were submitted to EPD on 20 January 2014.

3.3.2 With reference to the CNMP, continuous noise monitoring should be conducted during period at which the predicted airborne construction noise levels exceed the relevant noise criteria at the respective NSRs. The locations of the desginated continuous noise monitoring stations are presented in **Table 2.2** and **Appendix D**. The Action and Limit Levels of the continuous noise monitoring are provided in **Appendix E**.

3.3.3 Continuous noise monitoring was performed using sound level meter at each designated monitoring station. The sound level meters deployed comply with the International Electrotechnical Commission Publications 651: 1979 (Type 1) and 804: 1985 (Type 1) specifications. Acoustic calibrators were deployed to check the sound level meters at a known sound pressure level. Detailed monitoring procedures could be referred to respective Monthly EM&A Reports.

Monitoring Results

3.3.4 Monitoring data for continuous noise are provided in **Appendix H**.

3.3.5 Four (4) exceedances of Action and Limit Levels of continuous noise monitoring were recorded at NM1 on 10 and 11 February 2015. Investigations for the exceedances were conducted and the exceedances were considered invalid. Details could be referred to the respective Monthly EM&A Reports.

3.4 Waste Management

3.4.1 Waste generated from the Project included inert and non-inert construction and demolition (C&D) materials, chemical waste and marine sediment. Inert C&D materials and wastes sorting, reuse and recycle were carried on-site wherever practicable before disposal, while non-inert C&D materials that made up of C&D waste which could not be resused or recycled were disposed of at designated landfill sites. Marine sediment was collected and delivered to designated barging point for disposal. The remaining C&D materials and non-inert wastes were disposed at the public filling reception facilities and the landfills respectively. The summary of waste flow table during the reporting period is detailed in **Appendix J**.

3.4.2 Mitigation measures on waste management had been implemented in accordance with the requirements of the EM&A Manual and the Waste Management Plans for the respective Works Contracts submitted under EP. Observations and recommendations recorded during the site adutis were summarised in the respective Monthly EM&A Reports.

3.5 Landscape and Visual

3.5.1 Landscape and visual monitoring and auditing have been conducted in accordance with the EM&A Manual throughout the construction stage to ensure that the implementation and maintenance of landscape and visual mitigation measures were achieved. No non-compliance

was recorded during the construction period. Details of the site audit findings were recorded in the respective Monthly EM&A Reports. The implementation of mitigation measures for landscape and visual during the construction phase is summarised in **Appendix C**.

4 RECORD OF ENVIRONMENTAL COMPLAINTS

4.1.1 In the reporting period, environmental complaints were referred from EPD occasionally. There were a total of thirteen (13) environmental complaints since the commencement of the construction for the Project in January 2013.

4.1.2 The complaints have been handled in accordance to the requirements in the EM&A Manuals. The ET had provided feasible solutions to the ER and Contractors in mitigating the environmental disturbances/concerns lodged by the complainants. All complaint cases had been resolved and closed. Details of the environmental complaints including investigations and follow-up actions can be referenced in the respective Monthly EM&A Reports.

4.1.3 A log of environmental complaints since the commencement of the Project is shown in **Appendix J**.

5 NON-COMPLIANCE AND DEFICIENCY

5.1 Record of Site Inspections

5.1.1 Regular site inspections led by the ER and anticipated by ET and respective Contractors were undertaken in accordance with the EM&A Manual in the reporting period. The Contractors' performance on environmental matters were assessed and found in an acceptable manner. The inspection findings and the associated recommendations on improvement to the environmental protection and pollution control works were raised to the Contractors for reference and/or action and recorded in the respective Monthly EM&A Reports. It could be concluded that the environmental protection and pollution control works had been implemented satisfactorily.

5.2 Summary of Environmental Exceedances

5.2.1 Details of the exceedances have been summarized in **Section 3**.

5.3 Summary of Non-compliance and Corrective Actions

5.3.1 No environmental non-compliance was recorded throughout the whole construction period. No associated remedial actions were recommended.

5.4 Summary of Environmental Complaints

5.4.1 Details of the complaints have been summarized in **Section 4**.

5.5 Summary of Summons and Prosecutions

5.5.1 There were one (1) no. of summon and one (1) no. of successful environmental prosecution received since the Project commencement and the summaries are shown in **Table 5.1** and **Table 5.2** below respectively. Details are provided in **Appendix J**.

Table 5.1 Records of Summons

Works Contract	No. of Notification of Summons Received	Status
1111	Nil	Not Applicable
1112	One (1)	Successful Prosecution

Table 5.2 Records of Successful Prosecution

Works Contract	Regulation	Received Date	Nature of Incident	Status (1)
1112	Sections 6 (1) (a) and 6 (5) of the Noise Control Ordinance (Cap. 400)	Oct 2016	Violation of Construction Noise Permit requirement	The internal procedures/working methods were reviewed by the Contractor to identify potential improvements.

Note:
(1) The summon was only sent to the individual. Neither Palgo Company Limited (sub-contractor for Works Contract 1112's main contractor) nor Leighton Contractors (Asia) Limited (main contractor for Works Contract 1112) received the summon.

6 STATUS OF STATUTORY SUBMISSION

6.1 Submission required under Environmental Permits

6.1.1 A summary of the status of submissions required under the EP No. EP-437/2012 and its subsequent version as of February 2024 is shown **Table 6.1**.

Table 6.1 Summary of Submissions in accordance with EP conditions

EP Condition (EP-437/2012/B)	Submission	Submission Date
Condition 1.11	Notification of Commencement Date of Construction of the Project	30 Nov 2012
Condition 2.3	Notification of Information of Community Liaison Groups	30 Nov 2012
Condition 2.5	Management Organisation of Main Construction Companies	19 Dec 2012 (1st Submission) 30 Apr 2013 (2nd Submission)
Condition 2.6	Construction Programme and EP Submission Schedule	19 Dec 2012
Condition 2.7	Construction Noise Mitigation Measures Plan (CNMMP)	30 Nov 2012 (1st Submission) 8 Feb 2013 (Approved) 26 Apr 2013 (2nd Submission) 11 Jun 2013 (3rd Submission) 27 Aug 2013 (Approved) 20 Jan 2014 (4th Submission) 28 Apr 2016 (Approved)
Condition 2.8	Continuous Noise Monitoring Plan (CNMP)	30 Nov 2012 (1st Submission) 11 Jan 2013 (2nd Submission) 8 Feb 2013 (Approved) 20 Jan 2014 (3rd Submission) 28 Apr 2016 (Approved)
Condition 2.9	Construction and Demolition Materials Management Plan (C&DMMP)	6 Jul 2012 (1st Submission) 12 Sep 2012 (2nd Submission) 15 Oct 2012 (Approved)
Condition 2.10	Sediment Management Plan	6 Jul 2012 (1st Submission) 12 Sep 2012 (2nd Submission) 5 Oct 2012 (3rd Submission) 15 Oct 2012 (Approved)

EP Condition (EP-437/2012/B)	Submission	Submission Date
Condition 2.11	Visual, Landscape, Tree Planting & Tree Protection Plan (VLTTP)	14 Nov 2012 (1st Submission) 8 Feb 2013 (2nd Submission) 4 Feb 2015 (3rd Submission) 26 Jun 2015 (4th Submission) 12 May 2017 (5th Submission) 17 May 2018 (6th Submission) 17 Apr 2019 (7th Submission) 9 Apr 2020 (8th Submission) 17 Jul 2020 (9th Submission) 13 Nov 2020 (10th Submission) 5 Mar 2021 (11th Submission) 29 Jun 2023 (12th Submission)
Condition 2.14	As-built drawing(s) of Measures for Mitigating Landscape and Visual Impact and Tree Planting	23 August 2021 (1st submission) 23 March 2022 (2nd submission) 18 Jan 2024 (3rd submission) 26 Jun 2024 (4th submission)
Condition 2.16	Operational Ground-borne Noise Mitigation Measures Plan	23 Mar 2017 (1st Submission) 17 May 2017 (2nd Submission) 28 Jun 2017 (3rd Submission) 20 Jul 2017 (Approved)
Condition 2.19	As-built Drawing(s) for Operation Air-borne Noise Mitigation Measure	10 Jan 2018 (1st Submission) 9 Feb 2018 (Approved)
Condition 2.21	Proposal for Updating Maximum Allowable Sound Power Levels for Fixed Plant Sources	26 Jul 2019 (Batch 1 Version A Submission) 14 Aug 2019 (Batch 1 Version A Approved) 22 Jan 2021 (Updated Batch 7) 29 Jan 2021 (Updated Batch 7 Approved)

EP Condition (EP-437/2012/B)	Submission	Submission Date
Condition 2.21	Fixed Plant Noise Audit Report	29 Aug 2019 (Batch 1 Version A Submission) 11 Oct 2019 (Approved) 4 Feb 2021 (Updated Batch 7) 22 Feb 2021 (Updated Batch 7 Approved)
Condition 3.1	Proposal for Cessation of EM&A Programme at Hung Hom North Approach Tunnels	25 Jul 2019 (1st Submission) 31 Jul 2019 (Approved)
Condition 3.1	Proposal for Cessation of EM&A Programme at Hung Hom Station and Stabling Sidings	21 Oct 2020 (1st Submission) 29 Oct 2020 (Approved)
Condition 3.3	Baseline Monitoring Report (Works Contracts 1103, 1106 and 1111 – Hin Keng to Diamond Hill Tunnels, Diamond Hill Station, and Hung Hom North Approach Tunnels)	19 Oct 2012
Condition 3.4	Monthly EM&A Reports No.5-99 Final EM&A Review Report for Works Contract 1111 Final EM&A Review Report for Works Contract 1112	Reported in previous Monthly EM&A Reports 12 Sep 2019 11 Dec 2020

7 REVIEW AND CONCLUSIONS

7.1 Review of the Project EIA Predictions, Effectiveness and Efficiency of Mitigation Measures

7.1.1 The environmental impact hypotheses with respect to construction air quality and construction noise detailed in the Project's EIA Reports had been tested throughout the construction stage of the Project by the regular construction impact monitoring. The environmental impact hypotheses are found to be in order generally throughout the construction stage of the Project.

7.1.2 Based on the findings of the regular construction impact monitoring results of the reporting period, the validity of the Project EIA predictions can be concluded and the effectiveness and efficiency of the mitigation measures implemented were found to be satisfactory.

7.1.3 In conclusion, the current practices regarding the performance of the environmental management system are found to be satisfactory and should be maintained. Also the environmental mitigation measures as recommended in the approved Project's EIA Reports had been concluded to be implemented satisfactorily.

7.2 Conclusions

7.2.1 This Final Environmental Monitoring and Audit (EM&A) Review Report presents the results of EM&A works, the impact monitoring for the construction period from January 2013 to October 2020, and the remaining landscaping works after the SCL opening.

7.2.2 Impact monitoring for air quality and noise were conducted in accordance with the approved EM&A Manuals in the reporting period. No exceedance of Action or Limit Levels for 24-hour TSP was recorded in the reporting period. One (1) exceedance of Limit Level of noise and four (4) exceedances of Action and Limit Level of continuous noise monitoring were recorded during the reporting period. Investigations for the exceedances were conducted and the exceedances were considered not in relation or invalid to the construction works of the Project.

7.2.3 Bi-weekly inspection of the implementation of waste management, and landscape and visual mitigation measures was conducted throughout the construction period. Observations and recommended follow-up actions have been recorded in the respective Monthly EM&A Reports and discharged by the Contractors.

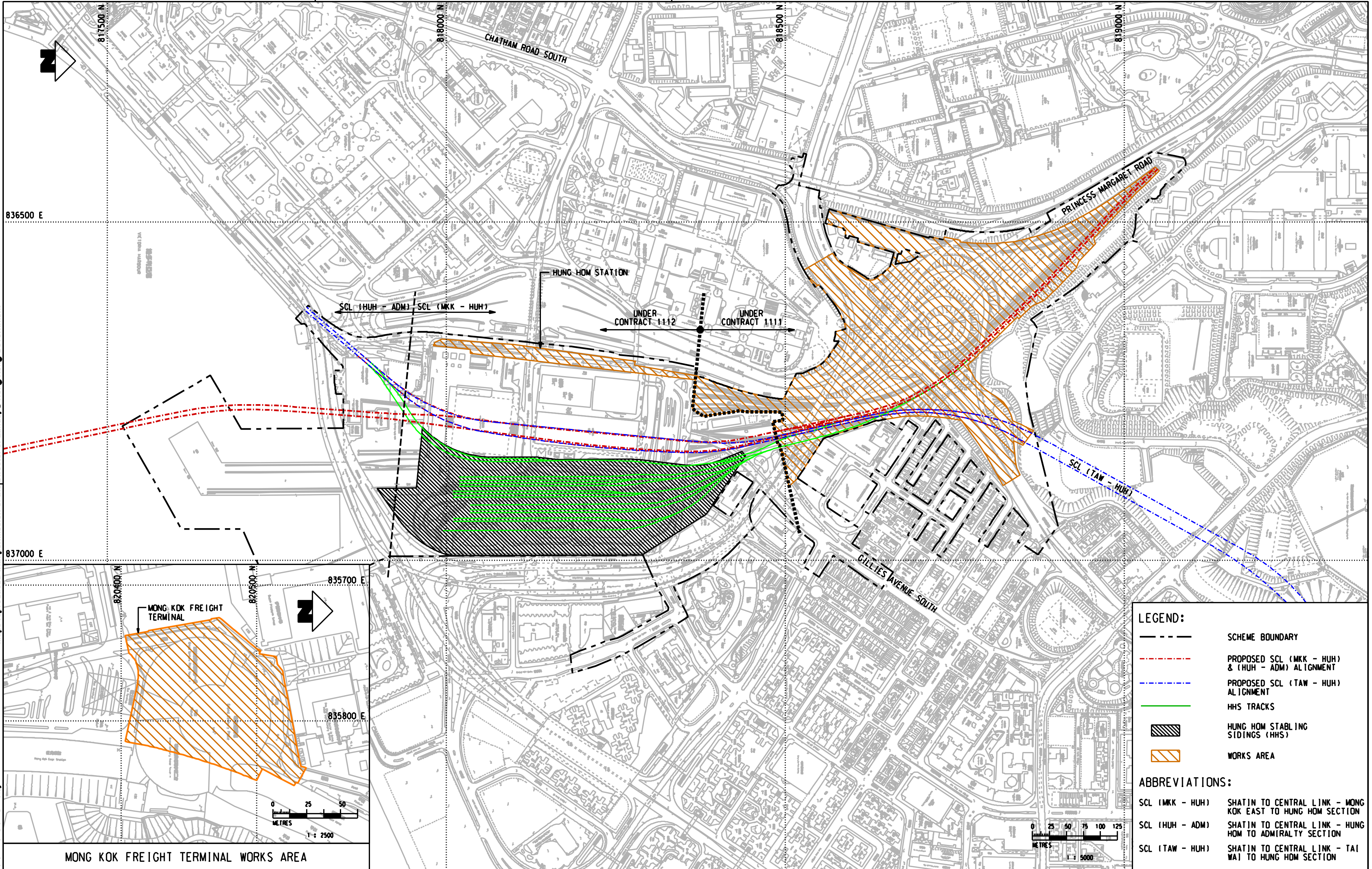
7.2.4 There were thirteen (13) environmental complaints received since the Project commencement. The complaints were handled in accordance with the prodedures stipulated in the EM&A Manual with investigations reported in the respective Monthly EM&A Reports.

7.2.5 There was one (1) no. of summon and one (1) no. of successful environmental prosecution received since the Project commencement.

7.2.6 It is concluded that the EM&A programme for the Project was effective and efficient in monitoring the impacts arising from the Project. The environmental mitigation measures implemented by the Contractors were generally acceptable apart from some minor deficiencies, which were rectified timely by the Contractors. With the success of the overall EM&A programme, the deterioration of the environment caused by the Project was cost-effectively identified and necessary prompt effective mitigation measures were implemented to avoid any unacceptable impacts.

Appendix A

Project Works Area



MONG KOK FREIGHT TERMINAL WORKS AREA

DRAWN	HD
DESIGNED	LCLL
CHECKED	LCLL
APPROVED	IMW
DATE	08/FEB/2013

MTR

SHATIN TO CENTRAL LINK

CONTRACTOR: Gammon Kaden — Gammon – Kaden SCL 1111 Joint Venture

ORIGINATOR: AECOM

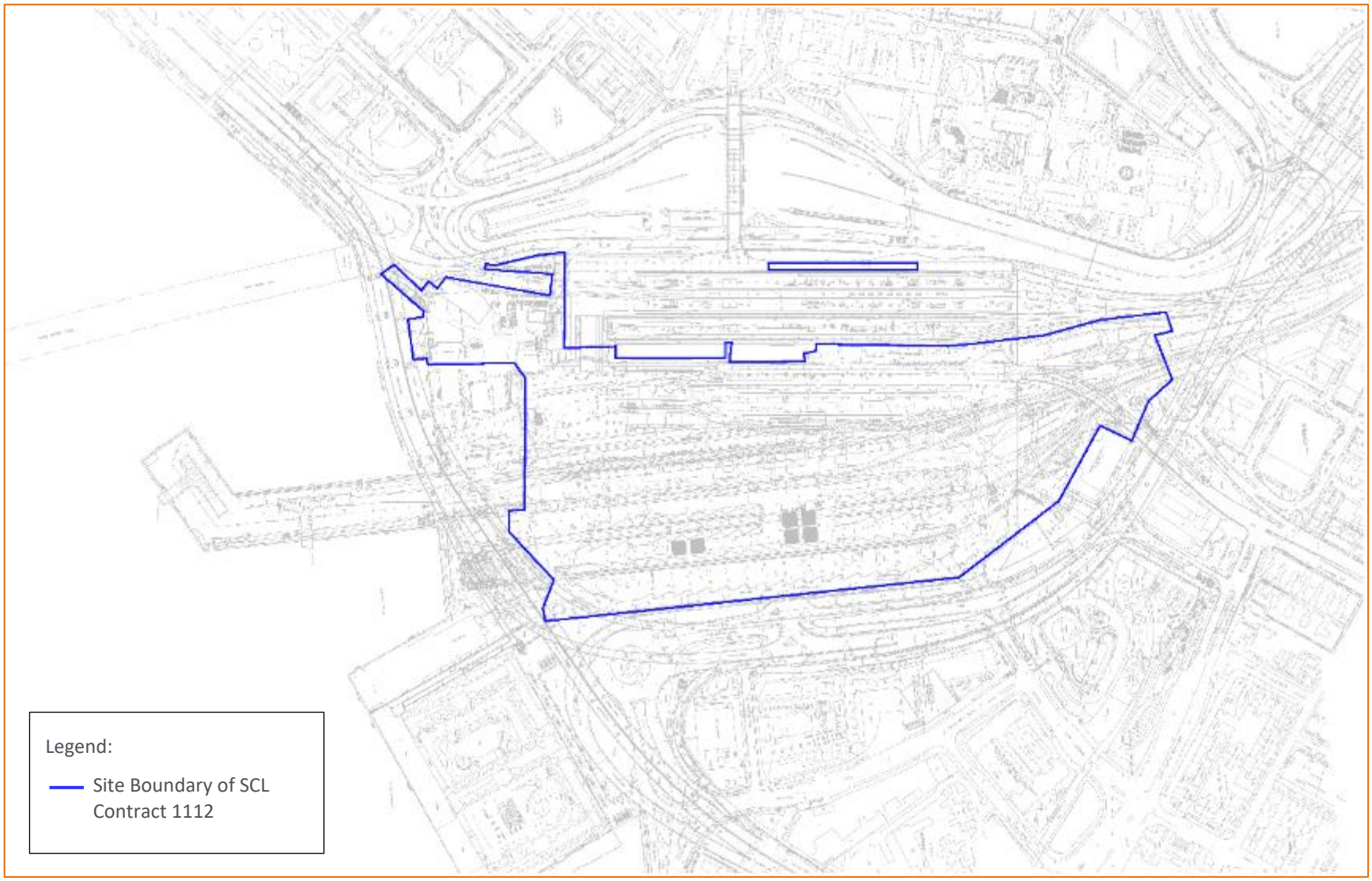
TITLE: CONTRACT 1111
HUNG HOM NORTH APPROACH TUNNELS
WORKS AREAS OF THE PROJECT

CADD REF. 701.dgn

SCALE: A3 AS SHOWN

FIGURE NO. FIGURE 1.1

REV. -


Legend:
Site Boundary of SCL Contract 1112

Appendix B

Contacts of Key Personnel

Appendix B Contacts of Key Personnel

Title	Name	Telephone
Engineer's Representative		
Construction Manager (Works Contract 1111)	Mr. Michael Fu	3127 6201
Construction Manager (Works Contract 1112)	Mr. Oscar Wong	3127 6201
Independent Environmental Checker		
Independent Environmental Checker (Works Contract 1111)	Mr. Fredrick Leong	2859 1739
Independent Environmental Checker (Works Contract 1112)	Ms. Claudine Lee	2859 5409
Environmental Team		
Environmental Team Leader (Works Contracts 1111 & 1112)	Ms. Lisa Poon	3127 6295
Contractor		
Works Contract 1111		
Project Manager	Mr. Alan Yan	9855 0361
Environmental Manager	Ms. Michelle Tang	3904 9663
Environmental Officer	Ms. Phoebe Ng	3904 9665
Works Contract 1112		
Environmental Manager	Mr. Kevin Harman	3973 0270

Appendix C

Implementation of Environmental Mitigation Measures

Appendix C - Implementation Schedule of Environmental Mitigation Measures

EIA Ref.	Environmental Mitigation Measures		Location	Implementation Status
Landscape and Visual Impact				
S6.9.3 (TAW-HUH), S6.12 (HHS), S6.12 (TAW-HUH), Table 6.9 (HHS) & Table 4.9 (MKK-HUH)	Minimize visual & landscape impact	• Existing topsoil shall be re-used where possible for new planting areas within the Project.	All construction sites	V
		• Ground vegetation and the associated under storey habitats, construction contracts may designate “No-intrusion Zone” to various areas within the site boundary with rigid and durable fencing for each individual no-intrusion zone.	All construction sites	V
		• All retained trees should be recorded photographically at the commencement of the Contract, and carefully protected during the construction period.	All construction sites	V
		• Erection of decorative screen during construction stage to screen off undesirable views of the construction site for visual and landscape sensitive areas.	All construction sites	V
		• Giving control on the height and disposition/ arrangement of all facilities on the works site to minimize visual impact to adjacent VSRs.	All construction sites	V
		• Trees of medium to high survival rate that would be affected by the works shall be transplanted where possible and practicable.	All construction sites	V
		• Compensatory tree & shrub planting shall be provided to compensate for the loss of shrub planting in amenity areas.	All construction sites	N/A
		• Control of night-time lighting glare.	All construction sites	N/A
		• All hard and soft landscape areas disturbed temporarily during construction shall be reinstated to equal or better quality, to the satisfaction of the relevant Government Departments.	All construction sites	N/A

Construction Noise Impact				
8.3.6 (TAW-HUH) , S8.5.6 (HHS) & S6 (MKK-HUH)	To control construction airborne noise	• Only well-maintained plant should be operated on-site and plant should be serviced regularly during the construction programme.	All construction sites	V
		• Machines and plant (such as trucks, cranes) that may be in intermittent use should be shut down between work periods or should be throttled down to a minimum.	All construction sites	V
		• Plant known to emit noise strongly in one direction, where possible, be orientated so that the noise is directed away from nearby NSRs.	All construction sites	V
		• Silencers or mufflers on construction equipment should be properly fitted and maintained during the construction works.	All construction sites	V
		• Mobile plant should be sited as far away from NSRs as possible and practicable.	All construction sites	V
		• Material stockpiles, mobile container site office and other structures should be effectively utilised, where practicable, to screen noise from on-site construction activities.	All construction sites	V
		The following quiet PME should be used: • Asphalt Paver (SWL=101dB(A)) • Backhoe (SWL=106dB(A)) • Backhoe with Hydraulic Breaker (SWL=110dB(A)) • Concrete lorry mixer (SWL=96dB(A)) • Concrete mixer truck (SWL=96dB(A)) • Concrete Pump (SWL=106dB(A)) • Concrete Pump Truck (SWL=106dB(A)) • Crane, mobile (SWL=94dB(A)) • Crawler Crane (SWL=102dB(A)) • Drill, hand-held (SWL=98dB(A)) • Dump truck (SWL=104dB(A)) • Excavator (SWL=106dB(A)) • Flat Bed Lorry (SWL=102dB(A)) • Generator (SWL=95dB(A)) • Giken Piler and Power-pack (SWL=94dB(A)) • Hydraulic breaker (SWL=110dB(A))	Works areas where required	V

Construction Noise Impact				
		• Hydraulic excavator (SWL=106dB(A)) • Lorry (SWL=102dB(A)) • Lorry with crane/ grab (SWL=94dB(A)) • Mini Piling Rig (SWL=112dB(A)) • Piling Rig (SWL=112dB(A)) • Poker, vibrator, hand-held (SWL=98dB(A)) • Road Roller (SWL=101dB(A)) • Rock Drill (SWL = 108dB(A) • Roller (SWL = 101dB(A) • Truck (SWL=103dB(A)) • Vibratory Hammer (SWL=118dB(A))		
		• Install temporary hoarding located on the site boundaries between noisy construction activities and NSRs.	All construction sites	V
		• Install movable noise barriers, acoustic mat or full enclosure, screen the noisy plants	All construction sites	V
		• Sequencing operation of construction plants where practicable.	All construction sites	V
		• Particularly noisy construction activities will be scheduled to avoid school examination period as far as practicable.	Works areas near the Carmel Secondary School	V
/	To control construction airborne noise	• Hand held breakers having a mass of above 10 kg and air compressor capable of supplying compressed air at 500 kPa or above for carrying out construction work shall be fitted with valid noise emission labels during operation	All construction sites	V

Construction Air Quality Impact				
S7.6.5 (TAW-HUH), S7.6.6 (HHS), S5.50, 5.51 &5.57 (MKK-HUH)	Minimize dust impact at nearby sensitive receivers	• Watering once per hour on exposed worksites and haul road should be conducted to achieve dust removal efficiencies of 91.7%.	All construction sites	V
		• Any excavated or stockpile of dusty material should be covered entirely by impervious sheeting or sprayed with water to maintain the entire surface wet.	All construction sites	V
		• Any dusty materials remaining after a stockpile is removed should be wetted with water and cleared from the surface of roads	All construction sites	V
		• A stockpile of dusty material should not be extended beyond the pedestrian barriers, fencing or traffic cones.	All construction sites	V
		• The load of dusty materials on a vehicle leaving a construction site should be covered entirely by impervious sheeting to ensure that the dusty materials do not leak from the vehicle	All construction sites	V
		• Vehicle washing facilities with high pressure water jet should be provided at every discernible or designated vehicle exit point.	All construction sites	V
		• The area where vehicle washing takes place and the road section between the washing facilities and the exit point should be paved with concrete, bituminous materials or hardcores.	All construction sites	V
		• When there are open excavation and reinstatement works, hoarding of not less than 2.4m high should be provided.	All construction sites	V
		• The portion of any road leading only to construction site that is within 30m of a vehicle entrance or exit should be kept clear of dusty materials.	All construction sites	V
		• Surfaces where any pneumatic or power-driven drilling, cutting, polishing or other mechanical breaking operation takes place should be sprayed with water or a dust suppression chemical continuously.	All construction sites	V
		• Any area that involves demolition activities should be sprayed with water or a dust suppression chemical immediately prior to, during and immediately after the activities so as to maintain the entire surface wet.	All construction sites	N/A
		• Where a scaffolding is erected around the perimeter of a building under construction, effective dust screens, sheeting or netting should be provided to enclose the scaffolding from the ground floor level of the building.	All construction sites	V

Construction Air Quality Impact				
		• Any skip hoist for material transport should be totally enclosed by impervious sheeting.	All construction sites	V
		• Where possible, routing of vehicles and positioning of construction plant should be at the maximum possible distance from ASRs.	All construction sites	N/A
/	Minimize dust impact at nearby sensitive receivers	• Every stock of more than 20 bags of cement or dry pulverized fuel ash (PFA) should be covered entirely by impervious sheeting or placed in an area sheltered on the top and the 3 sides.	All construction sites	V
		• Cement or dry PFA delivered in bulk should be stored in a closed silo fitted with an audible high level alarm which is interlocked with the material filling line and no overfilling is allowed.	All construction sites	V
		• Loading, unloading, transfer, handling or storage of bulk cement or dry PFA should be carried out in a totally enclosed system or facility, and any vent or exhaust should be fitted with an effective fabric filter or equivalent air pollution control system.	All construction sites	V
		• Exposed earth should be properly treated by compaction, turfing, hydroseeding, vegetation planting or sealing with latex, vinyl, bitumen, shotcrete or other suitable surface stabiliser within six months after the last construction activity on the construction site.	All construction sites	V
		• Imposition of speed controls for vehicles on site haul roads.	All construction sites	V
		• Open burning shall be prohibited.	All construction sites	V
/	Emission from Vehicles and Plants	• All vehicles shall be shut down in intermittent use.	All construction sites	V
		• Only well-maintained plant should be operated on-site and plant should be serviced regularly to avoid emission of black smoke.	All construction sites	V
		• All diesel fuelled construction plant within the works areas shall be powered by ultra low sulphur diesel fuel (ULSD).	All construction sites	V

Construction Water Quality Impact				
S10.7.1 (TAW-HUH), S10.7.1 (HHS) & S8 (MKK-HUH)	To minimize construction water quality impactt	• Construction Site Drainage should be implemented to control site run-off and drainage as well as any site effluents generated from the works areas, and to prevent run-off and construction wastes from entering nearby water environment.	Site drainage system	V
		• Surface run-off from construction sites should be discharged into storm drains via adequately designed sand/silt removal facilities such as sand traps, silt traps and sedimentation basins.	Site drainage system	V
		• Channels or earth bunds or sand bag barriers should be provided on site to properly direct stormwater to such silt removal facilities.	All works area	V
		• Perimeter channels at site boundaries should be provided on site boundaries where necessary to intercept storm run-off from outside the site so that it will not wash across the site.	All works area	V
		• Silt removal facilities, channels and manholes should be maintained and the deposited silt and grit should be removed regularly.	All construction sites	V
		• Construction works should be programmed to minimize soil excavation works in rainy seasons.	All construction sites	V
		• Temporary exposed slope surfaces should be covered e.g. by tarpaulin, and temporary access roads should be protected by crushed stone or gravel, as excavation proceeds.	All construction sites	V
		• Earthworks final surfaces should be well compacted and the subsequent permanent work or surface protection should be carried out immediately after the final surfaces are formed to prevent erosion caused by rainstorms.	All construction sites	V
		• Open stockpiles of construction materials (e.g. aggregates, sand and fill material) on sites should be covered with tarpaulin or similar fabric during rainstorms.	All construction sites	V
		• Measures should be taken to minimize the ingress of rainwater into trenches. If excavation of trenches in wet seasons is necessary, they should be dug and backfilled in short sections. Rainwater pumped out from trenches or foundation excavations should be discharged into storm drains via silt removal facilities.	All construction sites	V

Construction Water Quality Impact				
		• Manholes (including newly constructed ones) should always be adequately covered and temporarily sealed so as to prevent silt, construction materials or debris from getting into the drainage system, and to prevent storm run-off from getting into foul sewers.	All construction sites	V
		• Good site practices should be adopted to remove rubbish and litter from construction sites so as to prevent the rubbish and litter from spreading from the site area.	All construction sites	V
		• All vehicles and plant should be cleaned before they leave a construction site to minimize the deposition of earth, mud, debris on roads.	All construction sites	V
		• Bentonite slurries used in diaphragm wall construction should be reconditioned and used again wherever practicable. If the disposal of a certain residual quantity cannot be avoided, the used slurry should either be dewatered or mixed with inert fill material for disposal to a public filling area.	All construction sites	V
		• A cofferdam wall should be built as necessary to limit groundwater inflow to the excavation works areas.	Excavation works areas	N/A
		• Wastewater generated should not be discharged into the stormwater drainage system.	All construction sites	V
		• Acidic wastewater generated from acid cleaning, etching, pickling and similar activities should be neutralized to within the pH range of 6 to 10 before discharging into foul sewers.	All construction sites	N/A
		• Appropriate numbers of portable toilets shall be provided by a licensed contractor to serve the construction workers over the construction site.	All construction sites	V
		• The Contractor should apply for a discharge license under the WPCO through the Regional Office of EPD for groundwater recharge operation or discharge of treated groundwater.	All construction sites where practicable	N/A
		• Appropriate measures will be deployed to minimize the intrusion of groundwater into excavation works areas.	All construction sites	V
		• Measures should be put in place in order to mitigate any drawdown effects to the groundwater table during the operation of the temporary dewatering works.	All construction sites	N/A

Construction Water Quality Impact				
		• Cut-and-cover/ open-cut tunnelling work will be conducted sequentially to limit the amount of construction runoff generated from exposed areas during the wet season (April to September) as far as practicable.	All tunnelling portion	V
		• Uncontaminated discharge will pass through sedimentation tanks prior to off-site discharge.	All tunnelling portion	V
		• The wastewater with a high concentration of SS will be treated (eg, by sedimentation tanks with sufficient retention time) before discharge. Oil interceptors would also be required to remove the oil, lubricants and grease from the wastewater.	All tunnelling portion	V
		• Direct discharge of the bentonite slurry (as a result of D-wall and bored tunnelling construction) is not allowed. It will be reconditioned and reused wherever practicable. Temporary storage locations (typically a properly closed warehouse) will be provided on site for any unused bentonite that needs to be transported away after all the related construction activities are completed. The requirements in ProPECC PN 1/94 will be adhered to in the handling and disposal of bentonite slurries.	All tunnelling portion	V
		• As some proposed works areas at Hung Hom are near Victoria Harbour, high ground water level regime due to both tidal effects and rainwater infiltration is anticipated. Appropriate measures will be deployed to minimise the intrusion of groundwater into excavation works areas. In case seepage of groundwater occurs, groundwater will be pumped out from the works areas and discharged into the storm system via silt removal facilities. Groundwater from dewatering process will also be discharged into the storm system via silt traps.	Excavation areas where contamination is found	V

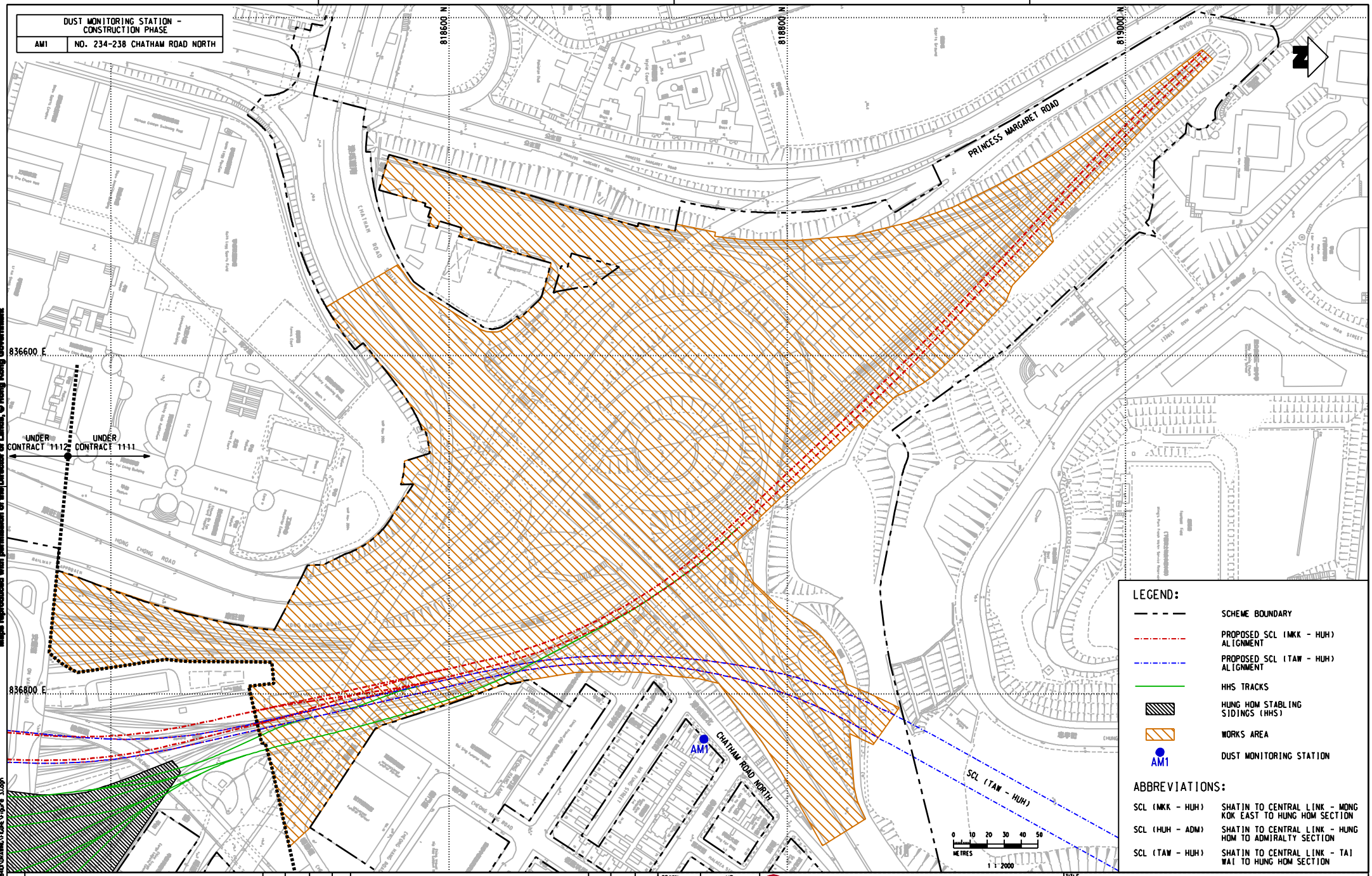
Waste Management				
S11.5.1 (TAW-HUH), S11.5.1(HHS) & S9 (MKK-HUH)	Good site practice to minimize the generation and impact of the waste.	• Maintain temporary stockpiles and reuse excavated fill material for backfilling and reinstatement.	All construction sites	N/A
		• Sorting of demolition debris and excavated materials from demolition works to recover reusable/ recyclable portions.	All construction sites	V
		• Segregation and storage of different types of waste in different containers, skips or stockpiles to enhance reuse or recycling of materials and their proper disposal.	All construction sites	V
		• Proper storage and site practices to minimize the potential for damage or contamination of construction materials.	All construction sites	V
		• Plan and stock construction materials carefully to minimize amount of waste generated and avoid unnecessary generation of waste.	All construction sites	V
		• Waste, such as soil, should be handled and stored well to ensure secure containment, thus minimizing the potential of pollution.	All construction sites	V
		• Maintain and clean storage areas routinely.	All construction sites	V
		• Stockpiling area should be provided with covers and water spraying system to prevent materials from wind-blown or being washed away.	All construction sites	V
		• Waste should be removed in timely manner.	All construction sites	V
		• Waste collectors should only collect wastes prescribed by their permits.	All construction sites	V
		• Waste should be disposed of at licensed waste disposal facilities.	All construction sites	V
		• Implement a trip-ticket system for each works contract to ensure that the disposal of C&D materials are properly documented and verified.	All construction sites	V
		• Containers used for the storage of chemical wastes should be suitable for the substance they are holding, resistant to corrosion, maintained in a good condition, and securely closed.	All construction sites	V
		• The storage area for chemical wastes should be clearly labelled and used solely for the storage of chemical waste; enclosed on at least 3 sides.	All construction sites	V
		• The Contractor should register as a chemical waste producer if chemical wastes would be generated.	All construction sites	V
		• Disposal of chemical waste should be via a licensed waste collector.	All construction sites	V

Waste Management				
		• Stockpiling of contaminated sediments should be avoided as far as possible.	All construction sites	N/A
		• All storage of asbestos waste should be carried out properly in a secure place isolated from other substances so as to prevent any possible release of asbestos fibres into the atmosphere and contamination of other substances. • The storage area should bear warning panels to alert people of the presence of asbestos waste. Collection, transportation and disposal of asbestos waste should follow the trip-ticket system. • Licensed asbestos waste collectors should be appointed to collect the asbestos waste and deliver to the designated landfill for disposal.	All construction sites	V
Contaminated Land				
S10.24– 10.35 (MKK-HUH)	To act as a general precautionary measure to screen soils for the presence contamination during construction.	• Precautionary measures such as visual inspection are recommended to be undertaken during construction activities that disturb soil.	Within Project Boundary where signs of contamination is identified	V
		• If soil discolouration or the presence of oil/unnatural odour is noted during visual inspection, sampling and testing should also be undertaken to verify the presence of contamination.		V
	To remediate contaminated soil	• If land contamination is identified, CAR and RAP detailing the proposed remediation works should be prepared. RR should then be prepared and submitted to EPD to demonstrate that the decontamination work is adequate and has been carried out in accordance with the endorsed CAR and RAP.		N/A

Legend: V = implemented;
x = not implemented;
@ = partially implemented;
N/A = not applicable

Appendix D

Monitoring Locations



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REV	DESCRIPTION	BY	DATE	APPROVED

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DESIGNED	LCLL
CHECKED	LCLL
APPROVED	IMW
DATE	08/JAN/2013

MTR

SHATIN TO CENTRAL LINK

CONTRACTOR: Gammon Kaden — Gammon – Kaden SCL 1111 Joint Venture

ORIGINATOR: AECOM

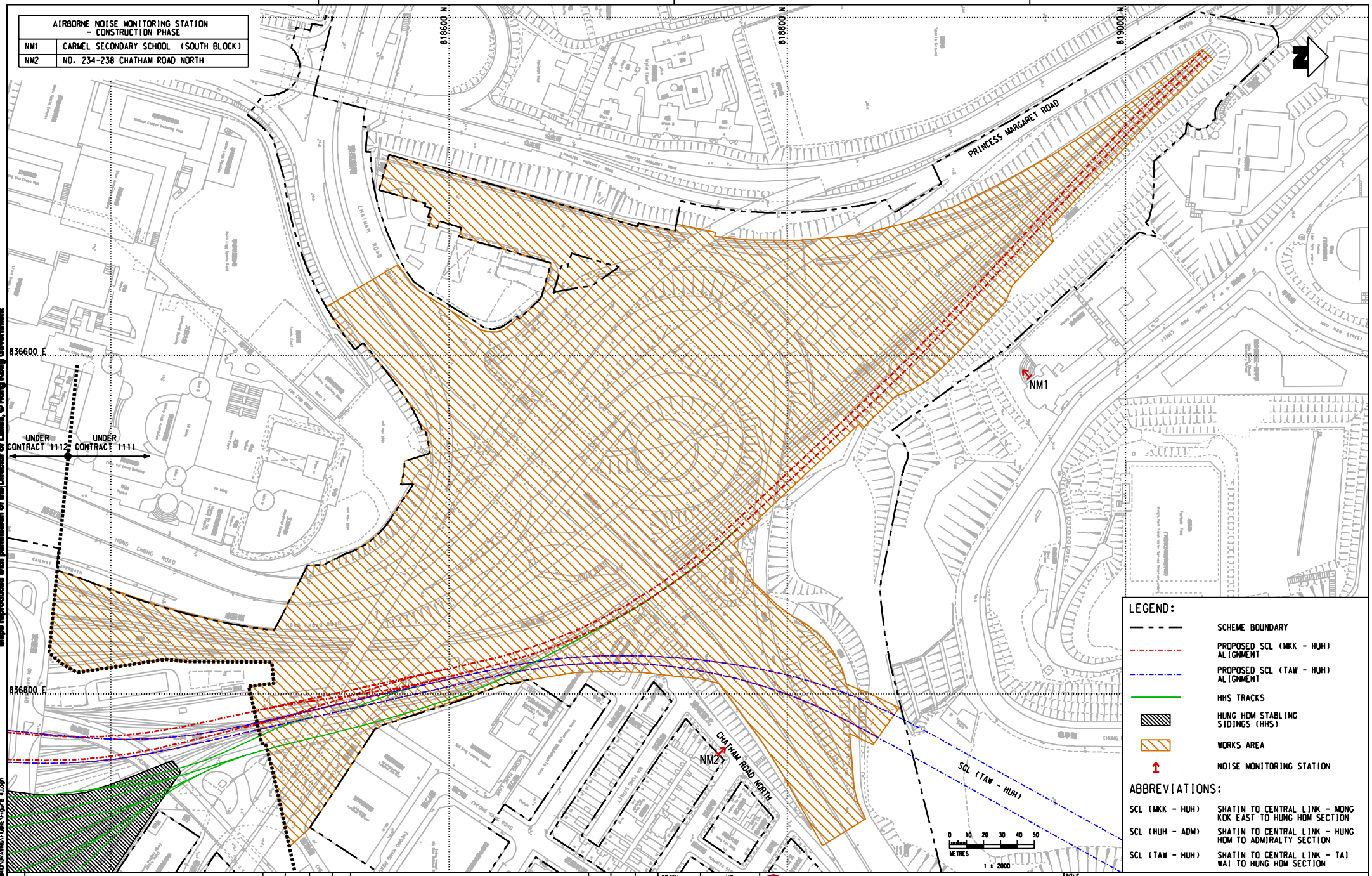
CADD REF. Figure 2.1.dgn

TITLE
CONTRACT 1111
HUNG HOM NORTH APPROACH TUNNELS
LOCATION OF AIR QUALITY MONITORING STATION

SCALE 1 : 2000 (A3)

FIGURE NO. FIGURE 2.1

REV. -



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DRAWN	HD
DESIGNED	LCLL
CHECKED	LCLL
APPROVED	[MW
DATE	08/JAN/2013

MTR

SHATIN TO CENTRAL LINK

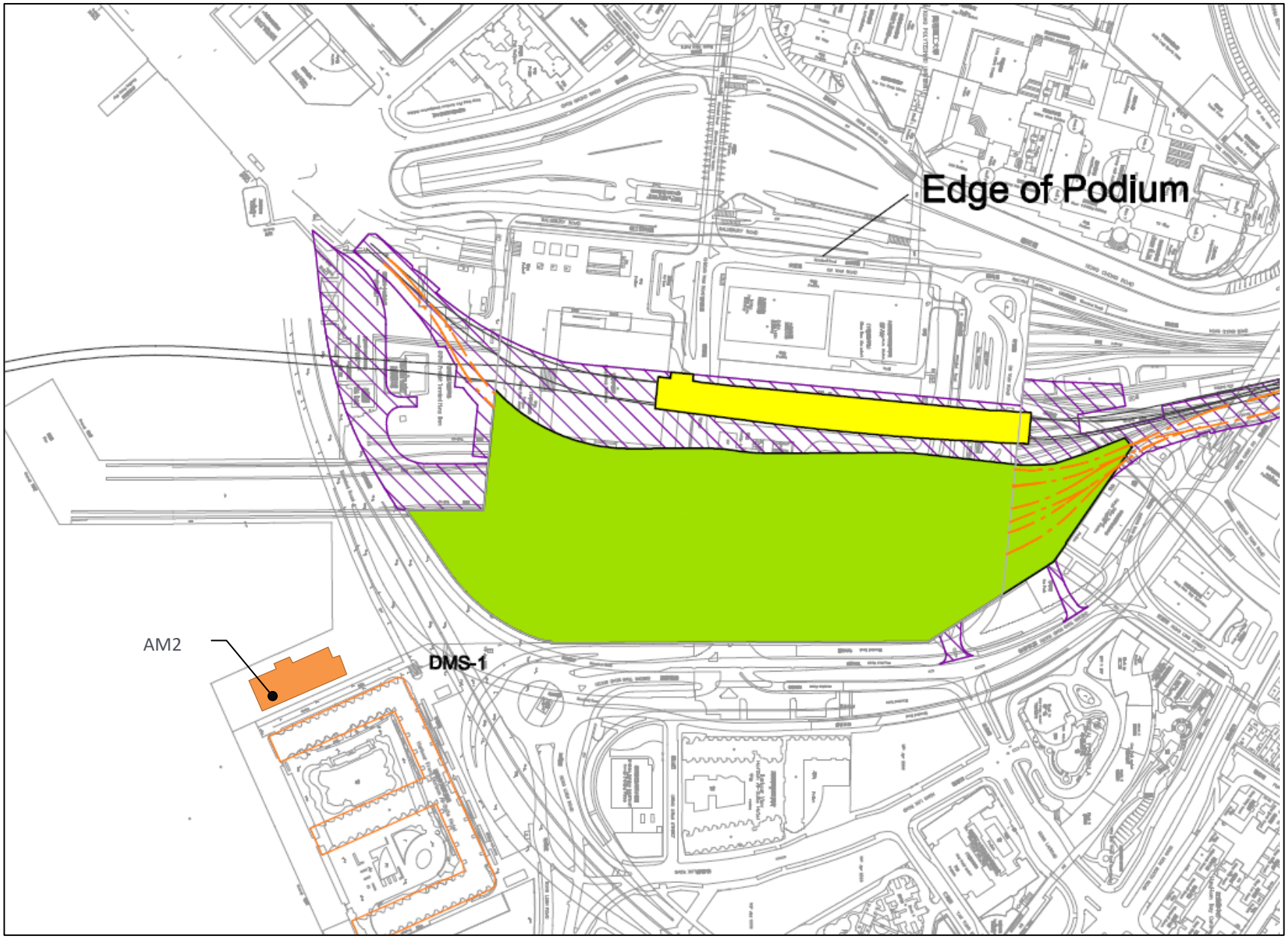
CONTRACTOR: Gammon Kaden — Gammon – Kaden SCL 1111 Joint Venture

ORIGINATOR: AECOM

CADD REF. Figure 3.1.dgn

TITLE
CONTRACT 1111
HUNG HOM NORTH APPROACH TUNNELS
LOCATION OF NOISE MONITORING STATION (CONSTRUCTION PHASE)

SCALE 1 : 2000 (A3) | FIGURE NO. FIGURE 3.1 | REV. -



Location of Air Monitoring Station for Works Contract 1112

Appendix E

Environmental Quality Performance Limits

Appendix E Environmental Quality Performance Limits

Action and Limits Levels for 24-hour TSP

Monitoring Station	Location	Action Level ($\mu g/m^3$)	Limit Level ($\mu g/m^3$)
AM1	No. 234 – 238 Chatham Road North	183.9	260
AM2	Site Boundary of Finger Pier Adjacent to Harbourfront Horizon	182	260

Action and Limits Levels for Regular Construction Noise (0700 - 1900 hrs on normal weekdays)

Monitoring Station	Location	Time Period	Action Level	Limit Level, Leq(30min), dB(A)
NM1	Carmel Secondary School (South Block)	0700-1900 hours on normal weekdays	When one documented complaint is received	70(65)[(1)]
NM2	No. 234 – 238 Chatham Road North			75

Action and Limits Level for Continuous Noise

Monitoring Station	Location	Action/Limit Level, Leq(30min), dB(A)
NM1	Carmel Secondary School (South Block)	68[(2)]
NM2	No. 234 – 238 Chatham Road North	77

Notes:

(1) Daytime noise Limit Level of 70dB(A) applies to education institutions while 65dB(A) applies during school examination period.

(2) Action/Limit Level will only be applicable during the examination period.

Appendix F

Event Action Plan

Appendix F Event Action Plan

Event / Action Plan for Construction Dust Monitoring

EVENT	ACTION			
	ET	**IEC**	**ER**	**Contractor**
ACTION LEVEL				
1. Exceedance for one sample	1. Inform the Contractor, IEC and ER; 2. Discuss with the Contractor and IEC on the remedial measures required; 3. Repeat measurement to confirm findings; 4. Increase monitoring frequency	1. Check monitoring data submitted by the ET; 2. Check Contractor's working method; 3. Review and advise the ET and ER on the effectiveness of the proposed remedial measures.	1. Confirm receipt of notification of exceedance in writing.	1. Identify source(s), investigate the causes of exceedance and propose remedial measures; 2. Implement remedial measures; 3. Amend working methods agreed with the ER as appropriate.

EVENT	ACTION			
	ET	**IEC**	**ER**	**Contractor**
2. Exceedance for two or more consecutive samples	1. Inform the Contractor, IEC and ER; 2. Discuss with the ER, IEC and Contractor on the remedial measures required; 3. Repeat measurements to confirm findings; 4. Increase monitoring frequency to daily; 5. If exceedance continues, arrange meeting with the IEC, ER and Contractor; 6. If exceedance stops, cease additional monitoring.	1. Check monitoring data submitted by the ET; 2. Check Contractor's working method; 3. Review and advise the ET and ER on the effectiveness of the proposed remedial measures.	1. Confirm receipt of notification of exceedance in writing; 2. Review and agree on the remedial measures proposed by the Contractor; 3. Supervise Implementation of remedial measures.	1. Identify source and investigate the causes of exceedance; 2. Submit proposals for remedial measures to the ER with a copy to ET and IEC within three working days of notification; 3. Implement the agreed proposals; 4. Amend proposal as appropriate.

EVENT	ACTION			
	ET	**IEC**	**ER**	**Contractor**
LIMIT LEVEL				
1. Exceedance for one sample	1. Inform the Contractor, IEC, EPD and ER; 2. Repeat measurement to confirm findings; 3. Increase monitoring frequency to daily; 4. Discuss with the ER, IEC and contractor on the remedial measures and assess the effectiveness.	1. Check monitoring data submitted by the ET; 2. Check the Contractor's working method; 3. Discuss with the ET, ER and Contractor on possible remedial measures; 4. Review and advise the ER and ET on the effectiveness of Contractor's remedial measures.	1. Confirm receipt of notification of exceedance in writing; 2. Review and agree on the remedial measures proposed by the Contractor; 3. Supervise implementation of remedial measures.	1. Identify source(s) and investigate the causes of exceedance; 2. Take immediate action to avoid further exceedance; 3. Submit proposals for remedial measures to ER with a copy to ET and IEC within three working days of notification; 4. Implement the agreed proposals; 5. Amend proposal if appropriate.

EVENT	ACTION			
	ET	**IEC**	**ER**	**Contractor**
2. Exceedance for two or more consecutive samples	1. Notify Contractor, IEC, EPD and ER ; 2. Repeat measurement to confirm findings; 3. Increase monitoring frequency to daily; 4. Carry out analysis of the Contractor's working procedures with the ER to determine possible mitigation to be implemented; 5. Arrange meeting with the IEC and ER to discuss the remedial measures to be taken; 6. Review the effectiveness of the Contractor's remedial measures and keep IEC, EPD and ER informed of the results; 7. If exceedance stops, cease additional monitoring.	1. Check monitoring data submitted by the ET; 2. Check the Contractor's working method; 3. Discuss with ET, ER, and Contractor on the potential remedial measures; 4. Review and advise the ER and ET on the effectiveness of Contractor's remedial measures.	1. Confirm receipt of notification of exceedance in writing; 2. In consultation with the ET and IEC, agree with the Contractor on the remedial measures to be implemented; 3. Supervise the implementation of remedial measures; 4. If exceedance continues, consider what portion of the work is responsible and instruct the Contractor to stop that portion of work until the exceedance is abated.	1. Identify source(s) and investigate the causes of exceedance; 2. Take immediate action to avoid further exceedance; 3. Submit proposals for remedial measures to the ER with a copy to the IEC and ET within three working days of notification; 4. Implement the agreed proposals; 5. Revise and resubmit proposals if problem still not under control; 6. Stop the relevant portion of works as determined by the ER until the exceedance is abated.

Event / Action Plan for Regular Construction Noise

EVENT	ACTION			
	ET	**IEC**	**ER**	**Contractor**
Exceedance of Action Level	1. Notify the Contractor, IEC and ER; 2. Discuss with the ER, IEC and Contractor on the remedial measures required; and 3. Increase monitoring frequency to check mitigation effectiveness.	1. Review the investigation results submitted by the contractor; and 2. Review and advise the ET and ER on the effectiveness of the remedial measures proposed by the Contractor.	1. Confirm receipt of notification of complaint in writing; 2. Review and agree on the remedial measures proposed by the Contractor; and 3. Supervise implementation of remedial measures.	1. Investigate the complaint and propose remedial measures; 2. Report the results of investigation to the IEC, ET and ER; 3. Submit noise mitigation proposals to the ER with copy to the IEC and ET within 3 working days of notification; and 4. Implement noise mitigation proposals.

EVENT	ACTION			
	ET	**IEC**	**ER**	**Contractor**
Exceedance of Limit Level	1. Notify the Contractor, IEC, EPD and ER ; 2. Repeat measurement to confirm findings; 3. Increase monitoring frequency; 4. Carry out analysis of Contractor's working procedures to determine possible mitigation to be implemented; 5. Arrange meeting with the IEC and ER to discuss the remedial measures to be taken; 6. Inform IEC, ER and EPD the causes and actions taken for the exceedances 7. Review the effectiveness of Contractor's remedial measures and keep IEC, EPD and ER informed of the results; and 8. If exceedance stops, cease additional monitoring.	1. Check monitoring data submitted by the ET; 2. Check the Contractor's working method; 3. Discuss with the ER, ET and Contractor on the potential remedial measures; and 4. Review and advise the ET and ER on the effectiveness of the remedial measures proposed by the Contractor.	1. Confirm receipt of notification of failure in writing; 2. In consultation with the ET and IEC, agree with the Contractor on the remedial measures to be implemented; 3. Supervise the implementation of remedial measures; and 4. If exceedance continues, consider what portion of the work is responsible and instruct the Contractor to stop that portion of work until the exceedance is abated.	1. Identify source and investigate the causes of exceedance; 2. Take immediate action to avoid further exceedance; 3. Submit proposals for remedial measures to the ER with copy to the IEC and ET within 3 working days of notification; 4. Implement the agreed proposals; 5. Revise and resubmit proposals if problem still not under control; and 6. Stop the relevant portion of works as determined by the ER until the exceedance is abated.

Event / Action Plan for Continuous Construction Noise

EVENT	ACTION			
	ET	**IEC**	**ER**	**CONTRACTOR**
Action/Limit Level	1. Identify source ; 2. Repeat measurement. If two consecutive measurements exceed Action/Limit Level, the exceedance is then confirmed; 3. If exceedance is confirmed, notify IEC, ER and Contractor; 4. Investigate the cause of exceedance and check Contractor's working procedures to determine possible mitigation to be implemented; 5. Discuss jointly with the IEC, ER and Contractor and formulate remedial measures; and 6. Assess effectiveness of Contractor's remedial actions and keep IEC and ER informed of the results.	1. Check monitoring data submitted by the Works Contract 1111 ET; 2. Check the Contractor's working method; 3. Discuss with the ER, Works Contract 1111 ET and Contractor on the potential remedial measures; and 4. Review and advise the Works Contract 1111 ET and ER on the effectiveness of the remedial measures proposed by the Contractor.	1. Confirm receipt of notification of exceedance in writing; 2. In consultation with the Works Contract 1111 ET and IEC, agree with the Contractor on the remedial measures to be implemented; 3. Ensure the proper implementation of remedial measures; and 4. If exceedance continues, consider what portion of the work is responsible and instruct the Contractor to stop that portion of work until the exceedance is abated.	1. Identify source with the Works Contract 1111 ET; 2. If exceedance is confirmed, investigation the cause of exceedance and take immediate action to avoid further exceedance; 3. Submit proposals for remedial measures to the ER with copy to the IEC and ET of notification; 4. Implement the agreed proposals; 5. Liaise with ER to optimize the effectiveness of the agreed mitigation; 6. Revise and resubmit proposals if problem still not under control; and 7. Stop the relevant portion of works as determined by the ER until the exceedance is abated.

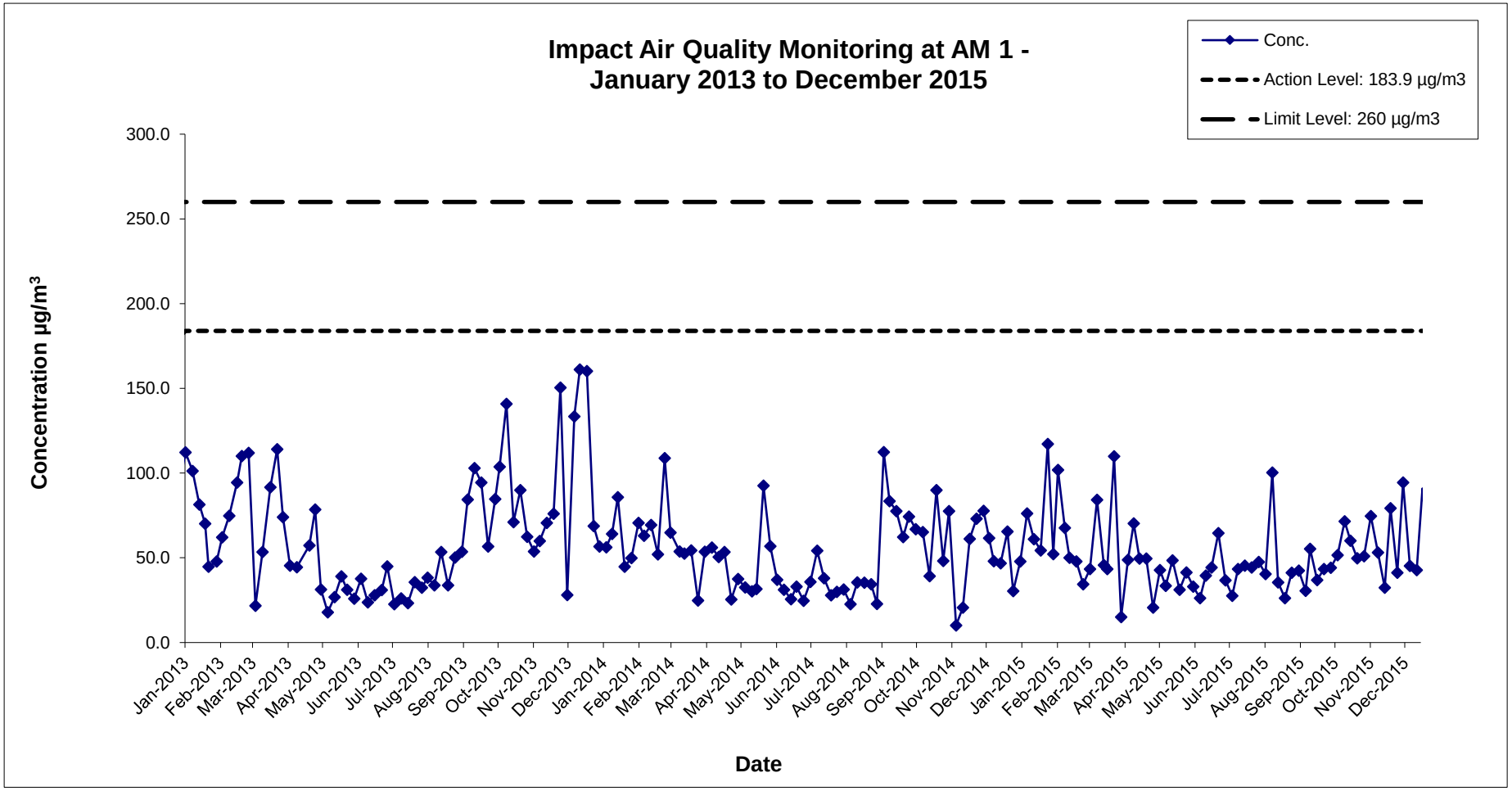
Event / Action Plan for Landscape and Visual during Construction Stage

EVENT	ET	IEC	ER	Contractor
ACTION LEVEL				
Non-conformity on one occasion	1. Inform the Contractor, the IEC and the ER 2. Discuss remedial actions with the IEC, the ER and the Contractor 3. Monitor remedial actions until rectification has been completed	1. Check inspection report 2.Check the Contractor's working method 3. Discuss with the ET, ER and the Contractor on possible remedial measures 4.Advise the ER on effectiveness of proposed remedial measures.	1. Confirm receipt of notification of non-conformity in writing 2.Review and agree on the remedial measures proposed by the Contractor 3. Supervise implementation of remedial measures	1. Identify Source and investigate the non-conformity 2. Implement remedial measures 3.Amend working methods agreed with the ER as appropriate 4. Rectify damage and undertake any necessary replacement
Repeated Non-conformity	1. Identify source 2. Inform the Contractor, the IEC and the ER 3. Increase inspection frequency 4. Discuss remedial actions with the IEC, the ER and the Contractor 5. Monitor remedial actions until rectification has been completed 6. If non-conformity stops, cease additional monitoring	1. Check inspection report 2.Check the Contractor's working method 3. Discuss with the ET and the Contractor on possible remedial measures 4.Advise the ER on effectiveness of proposed remedial measures	1. Notify the Contractor 2. In consultation with the ET and IEC, agree with the Contractor on the remedial measures to be implemented 3. Supervise implementation of remedial measures.	1. Identify Source and investigate the non-conformity 2. Implement remedial measures 3. Amend working methods agreed with the ER as appropriate 4. Rectify damage and undertake any necessary replacement. Stop relevant portion of works as determined by the ER until the non-conformity is abated.

Appendix G

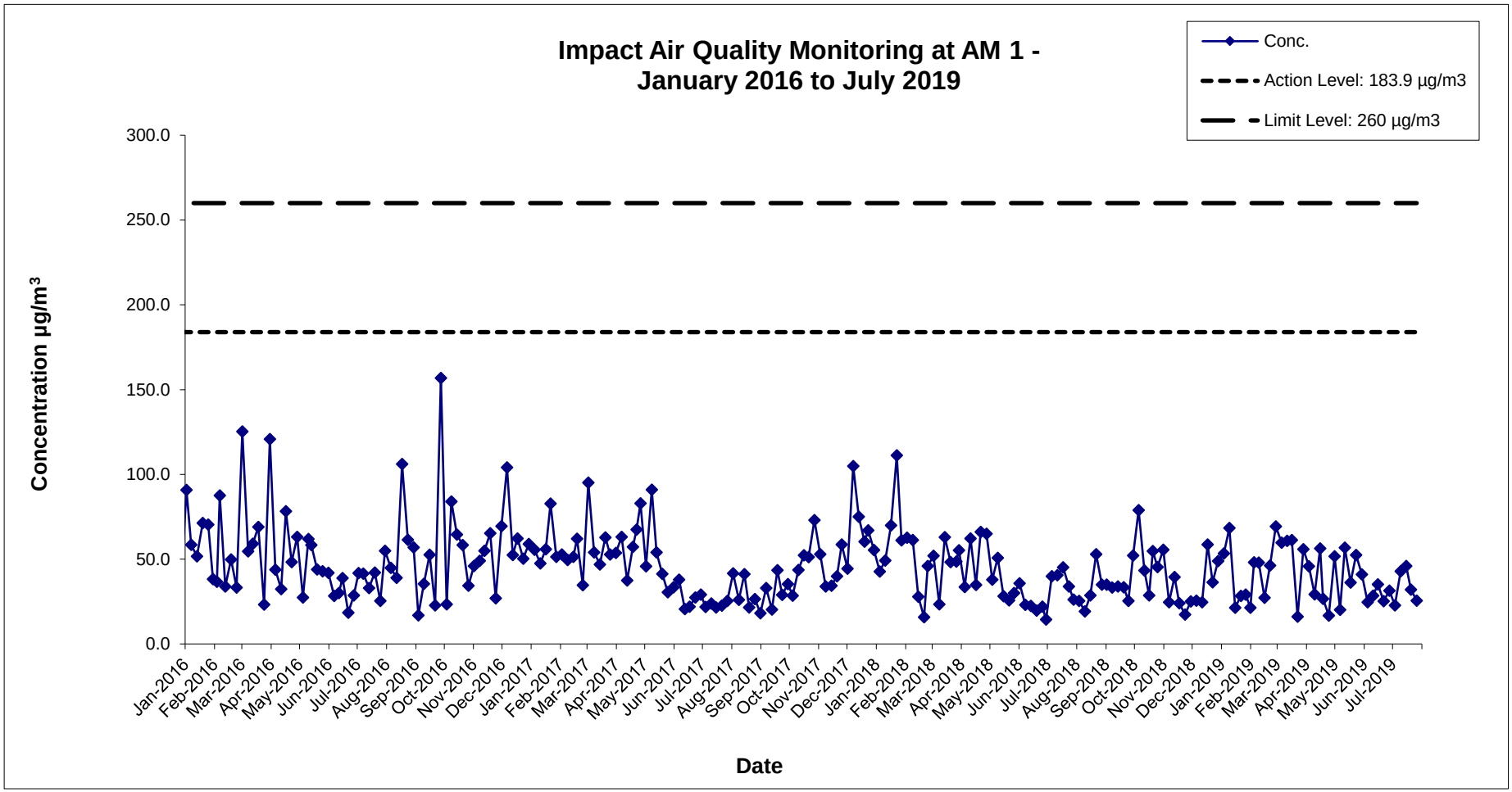
Graphical Plots of Impact Monitoring Results (Air Quality)

Appendix G Graphical Plots of Impact Monitoring Results (Air Quality)



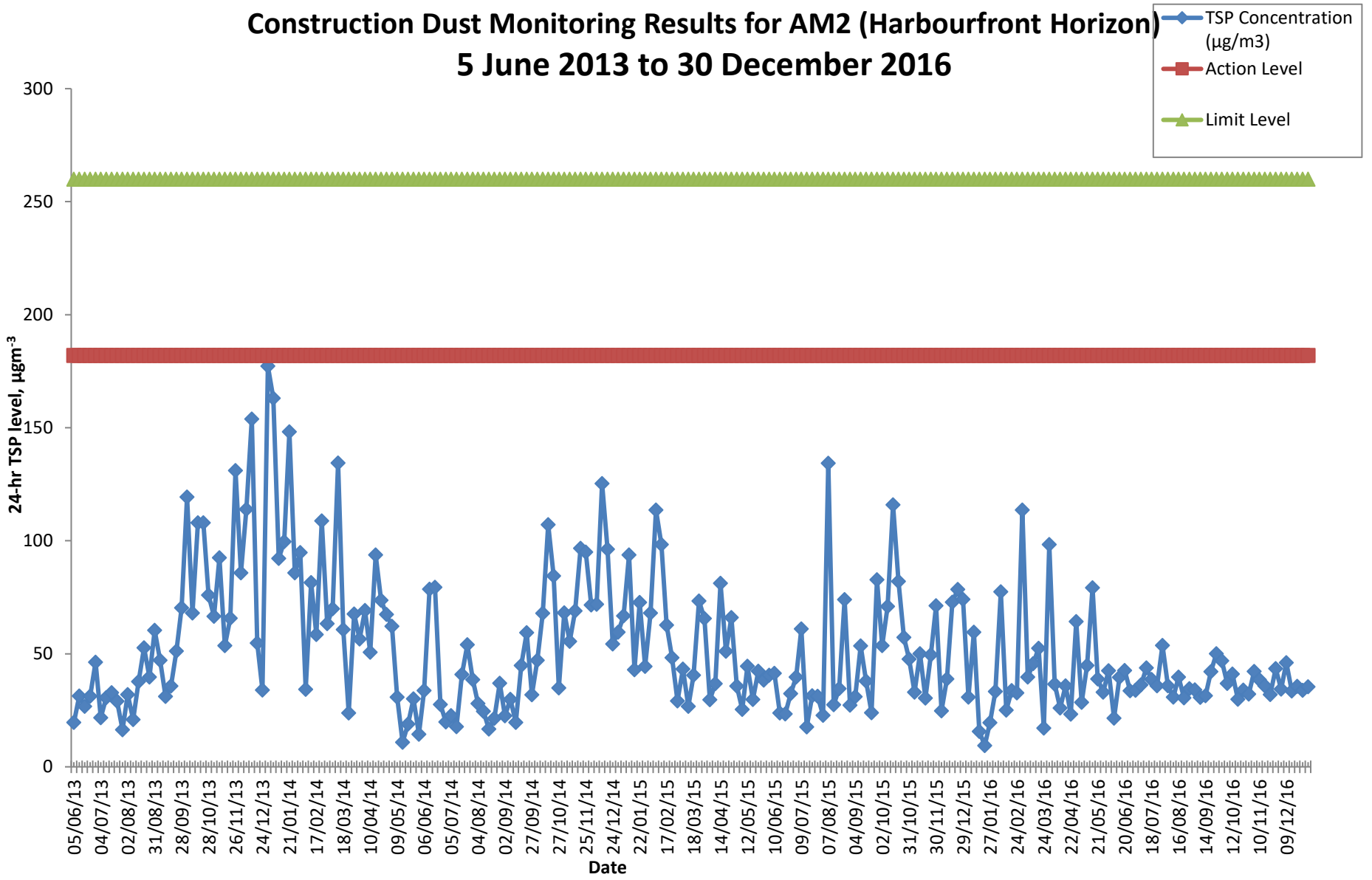
AECOM	**Shatin to Central Link Works Contract 1111- Hung Hom North Approach Tunnels**	SCALE	N.T.S.	DATE	Aug-19
		CHECK	TYUT	DRAWN	SLSY
	Graphical Presentations of Impact 24-hour TSP Monitoring Results	JOB NO.	60284101	APPENDIX	E
				Rev	-

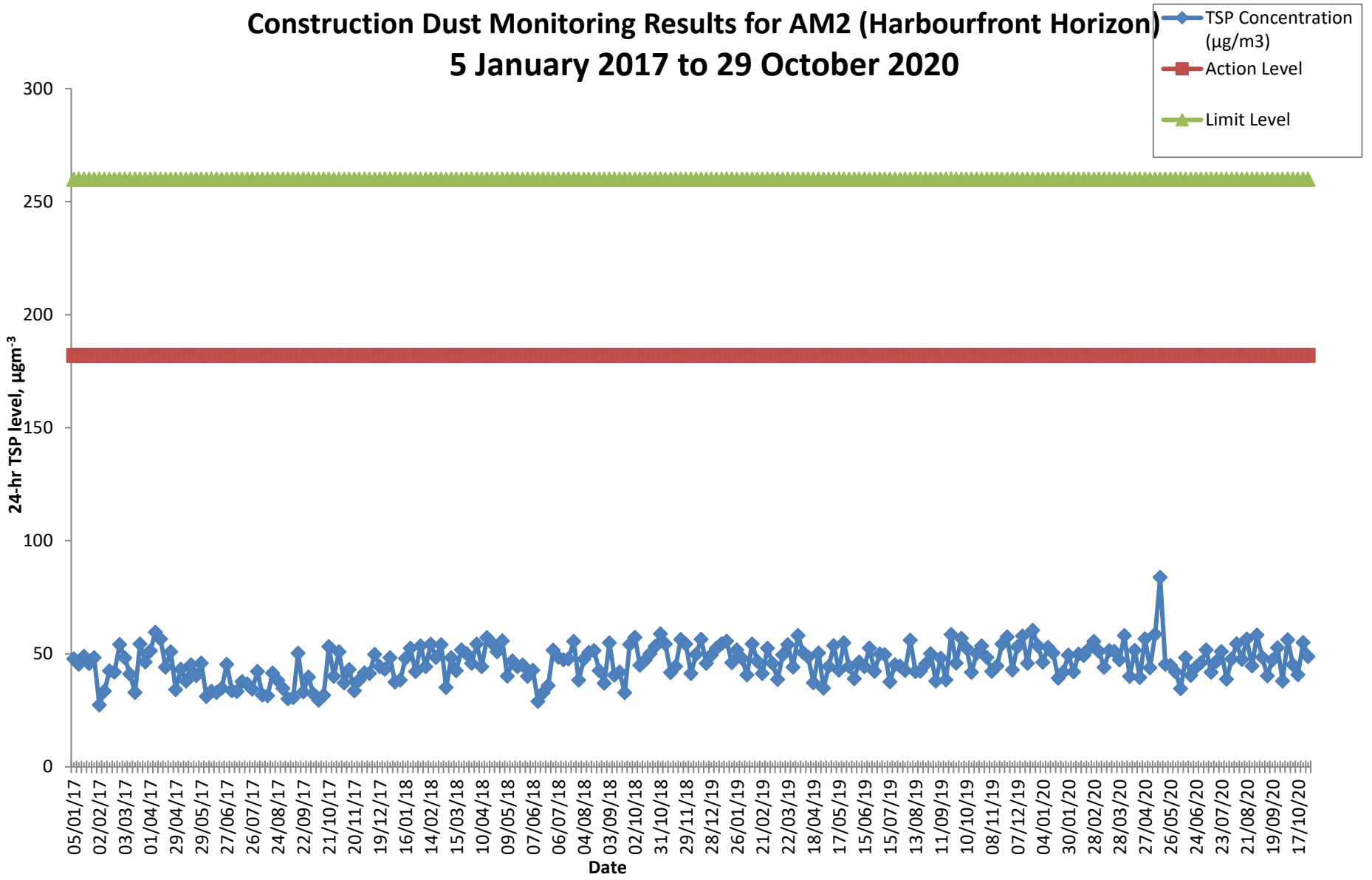
Appendix G Graphical Plots of Impact Monitoring Results (Air Quality)



AECOM	**Shatin to Central Link Works Contract 1111- Hung Hom North Approach Tunnels**	SCALE	N.T.S.	DATE	Aug-19
		CHECK	TYUT	DRAWN	SLSY
	Graphical Presentations of Impact 24-hour TSP Monitoring Results	JOB NO.	60284101	APPENDIX	E
				Rev	-

Appendix G Graphical Plots of Impact Monitoring Results (Air Quality)

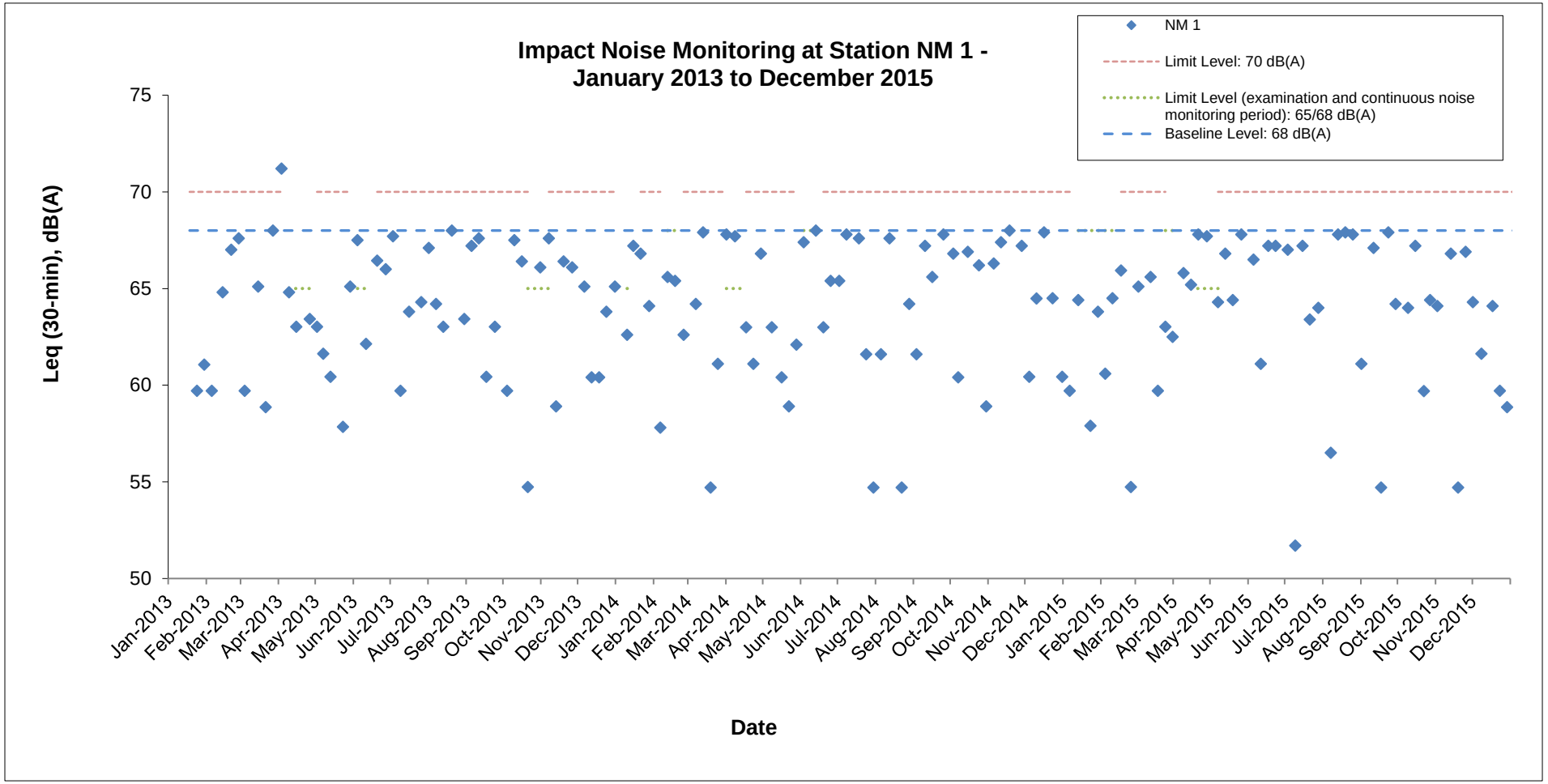



Construction Dust Monitoring Results for AM2 (Harbourfront Horizon)
5 January 2017 to 29 October 2020
TSP Concentration (µg/m3)
Action Level
Limit Level
24-hr TSP level, µgm-3
300
250
200
150
100
50
0
05/01/17
02/02/17
03/03/17
01/04/17
29/04/17
29/05/17
27/06/17
26/07/17
24/08/17
22/09/17
21/10/17
20/11/17
19/12/17
16/01/18
14/02/18
15/03/18
10/04/18
09/05/18
07/06/18
06/07/18
04/08/18
03/09/18
02/10/18
31/10/18
29/11/18
28/12/18
26/01/19
21/02/19
22/03/19
18/04/19
17/05/19
15/06/19
15/07/19
13/08/19
11/09/19
10/10/19
08/11/19
07/12/19
04/01/20
30/01/20
28/02/20
28/03/20
27/04/20
26/05/20
24/06/20
23/07/20
21/08/20
19/09/20
17/10/20
Date

Appendix H

Graphical Plots of Impact Monitoring Results (Noise)

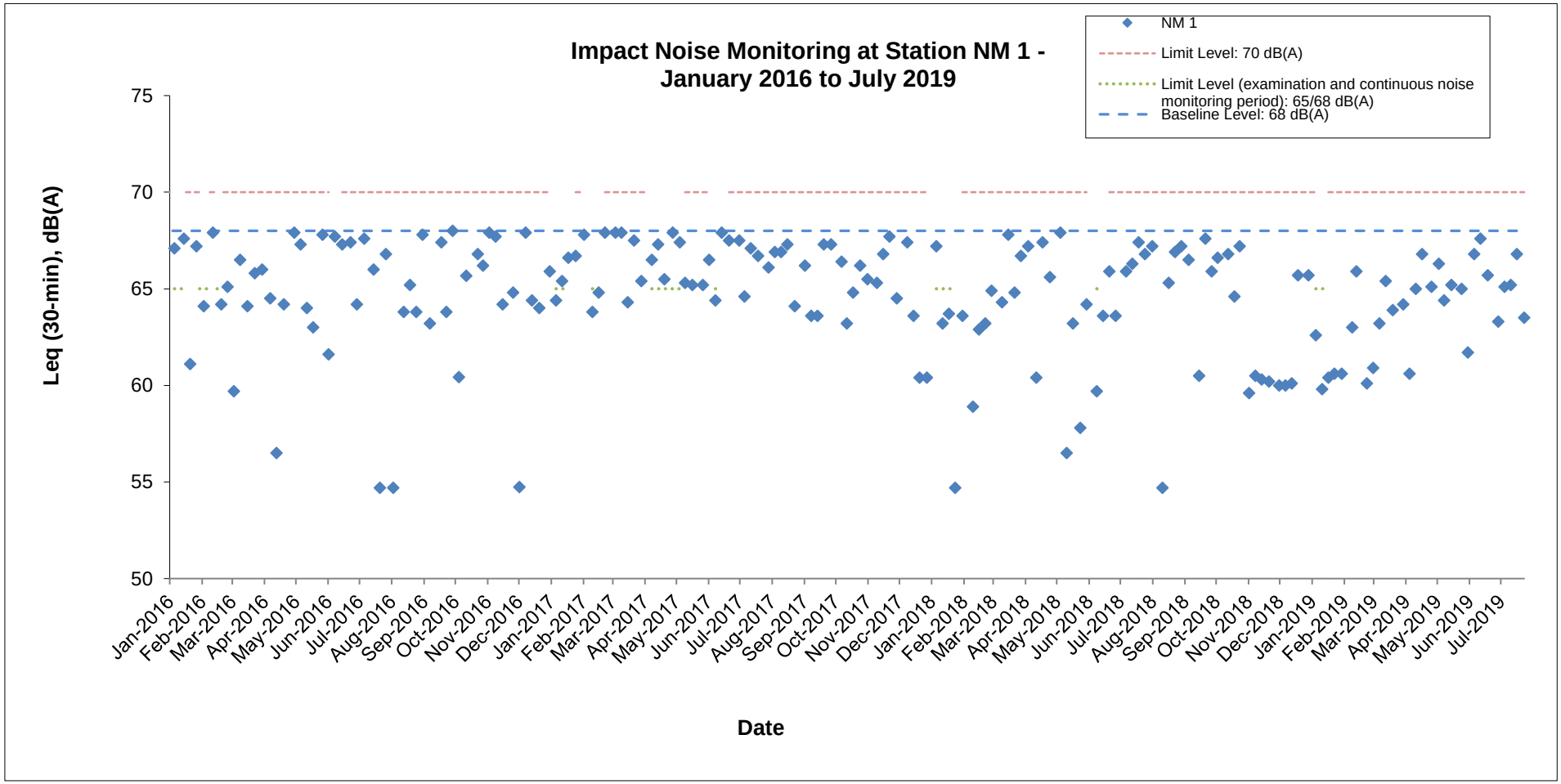
Appendix H Graphical Plots of Impact Monitoring Results (Noise)



Remarks: Daytime noise Limit Level of 65dB(A) applies to NM1 (education institution) during school examination period and 68dB(A) applies to NM1 (education institution) during school examination and continuous noise monitoring period.

AECOM	**Shatin to Central Link Works Contract 1111- Hung Hom North Approach Tunnels**	SCALE	N.T.S.	DATE	Aug-19
		CHECK	TYUT	DRAWN	SLSY
	Graphical Presentations of Impact Noise Monitoring Results	JOB NO.	60284101	APPENDIX F	Rev -

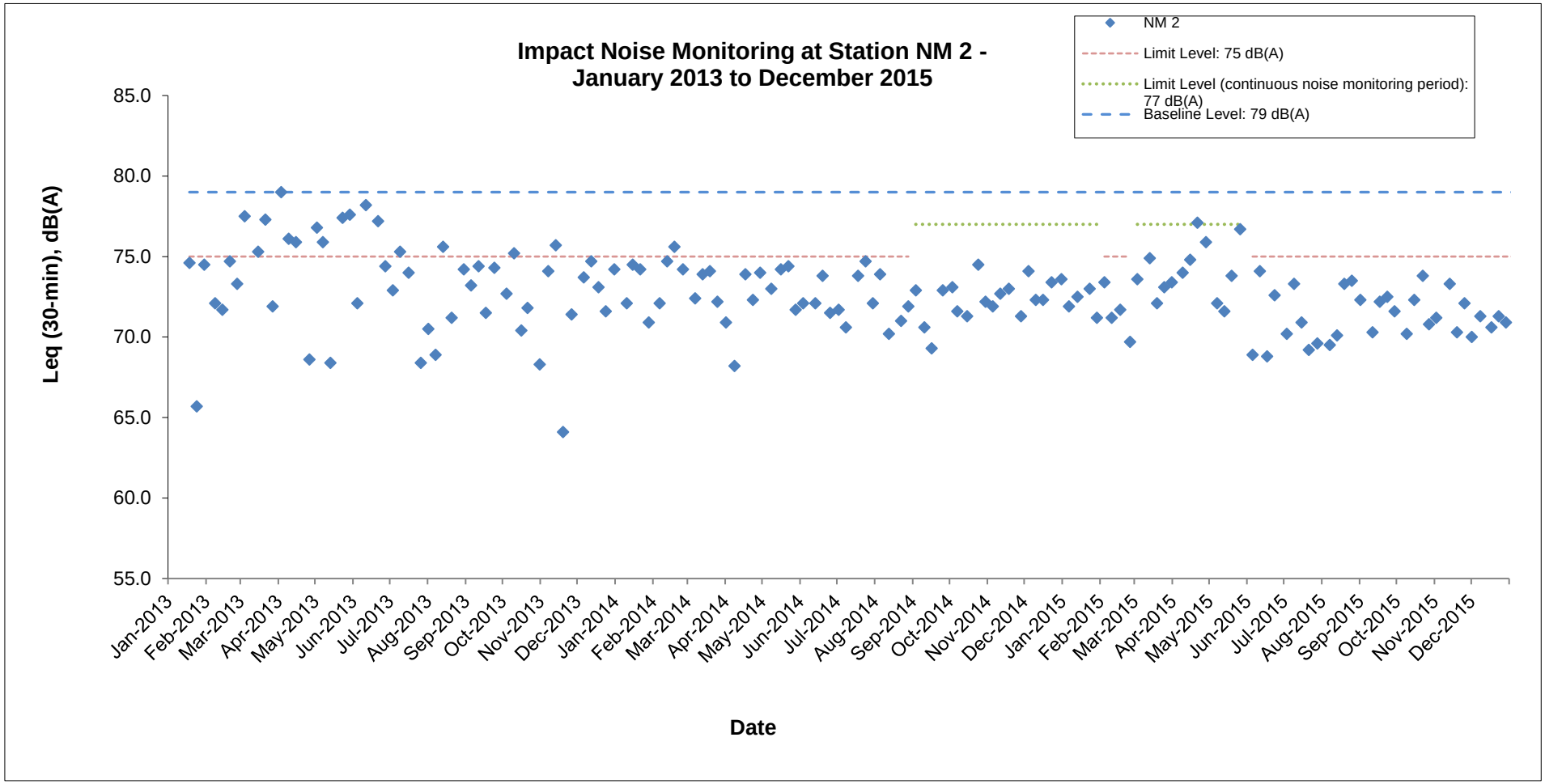
Appendix H Graphical Plots of Impact Monitoring Results (Noise)



Remarks: Daytime noise Limit Level of 65dB(A) applies to NM1 (education institution) during school examination period and 68dB(A) applies to NM1 (education institution) during school examination and continuous noise monitoring period.

AECOM	**Shatin to Central Link Works Contract 1111- Hung Hom North Approach Tunnels**	SCALE	N.T.S.	DATE	Aug-19
		CHECK	TYUT	DRAWN	SLSY
	Graphical Presentations of Impact Noise Monitoring Results	JOB NO.	60284101	APPENDIX F	Rev -

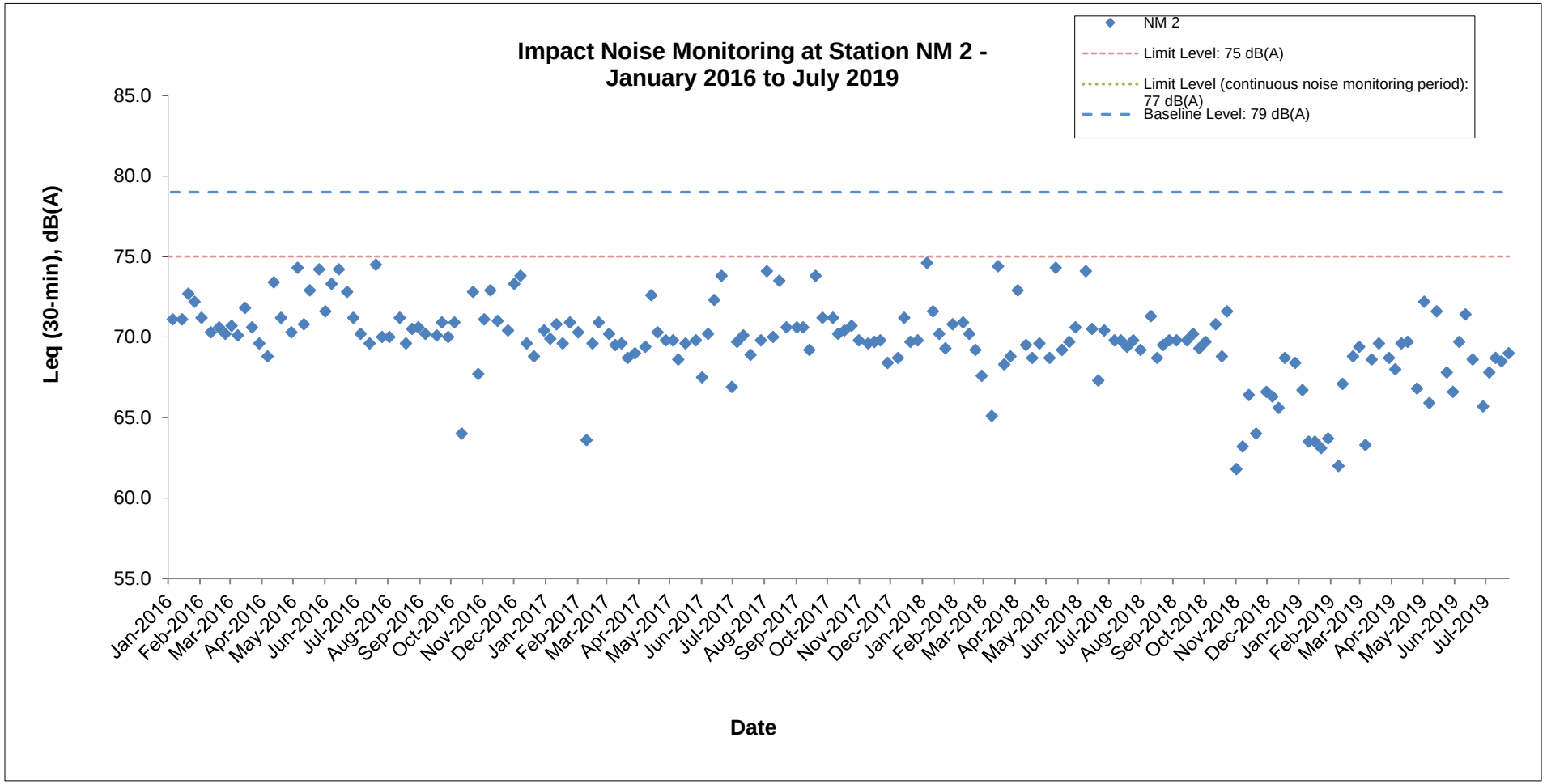
Appendix H Graphical Plots of Impact Monitoring Results (Noise)



Remarks: Daytime noise Limit Level of 77dB(A) applies to NM2 during the continuous noise monitoring period.

AECOM	**Shatin to Central Link Works Contract 1111- Hung Hom North Approach Tunnels**	SCALE	N.T.S.	DATE	Aug-19
		CHECK	TYUT	DRAWN	SLSY
	Graphical Presentations of Impact Noise Monitoring Results	JOB NO.	60284101	APPENDIX F	Rev -

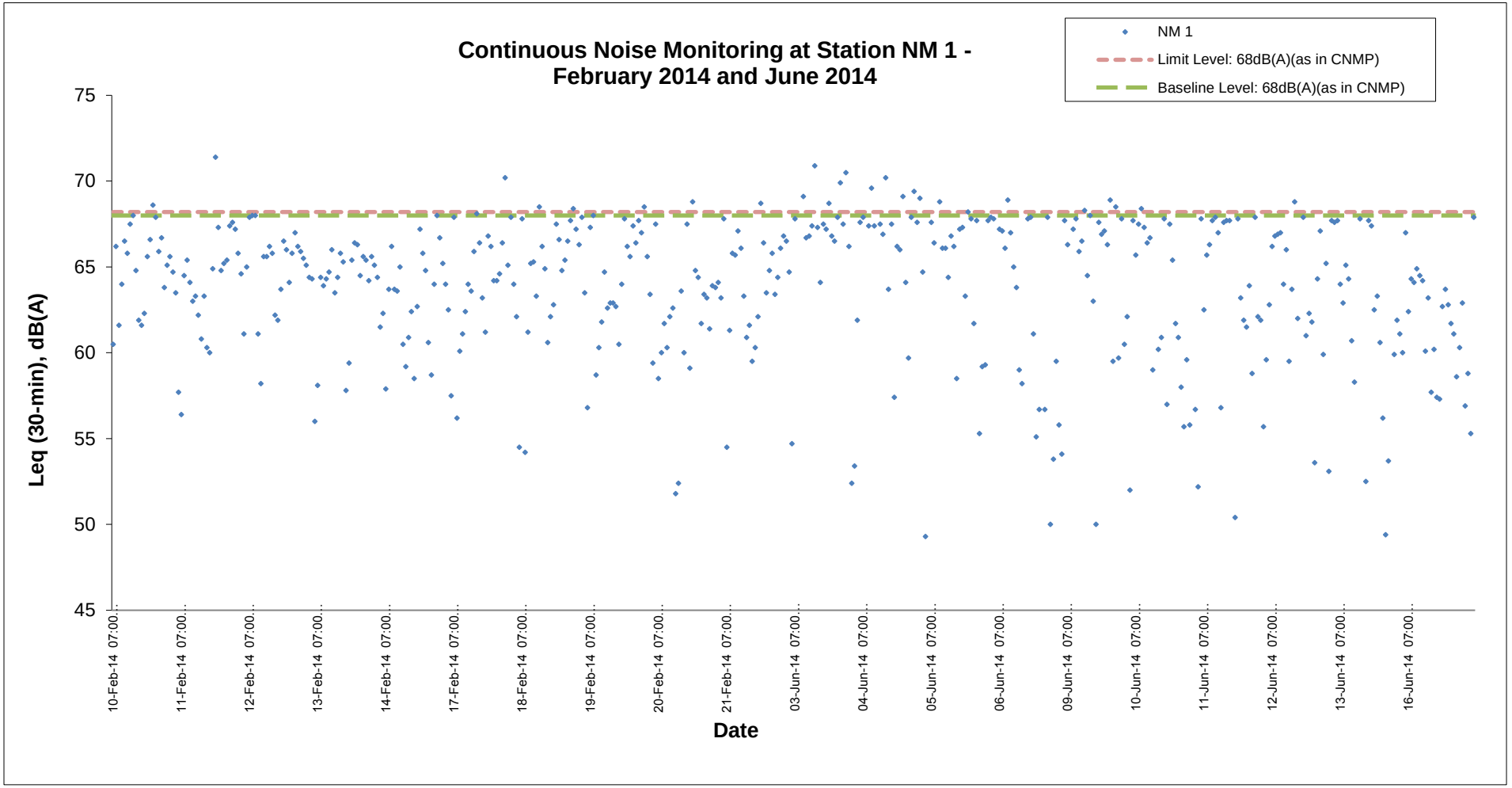
Appendix H Graphical Plots of Impact Monitoring Results (Noise)



Remarks: Daytime noise Limit Level of 77dB(A) applies to NM2 during the continuous noise monitoring period.

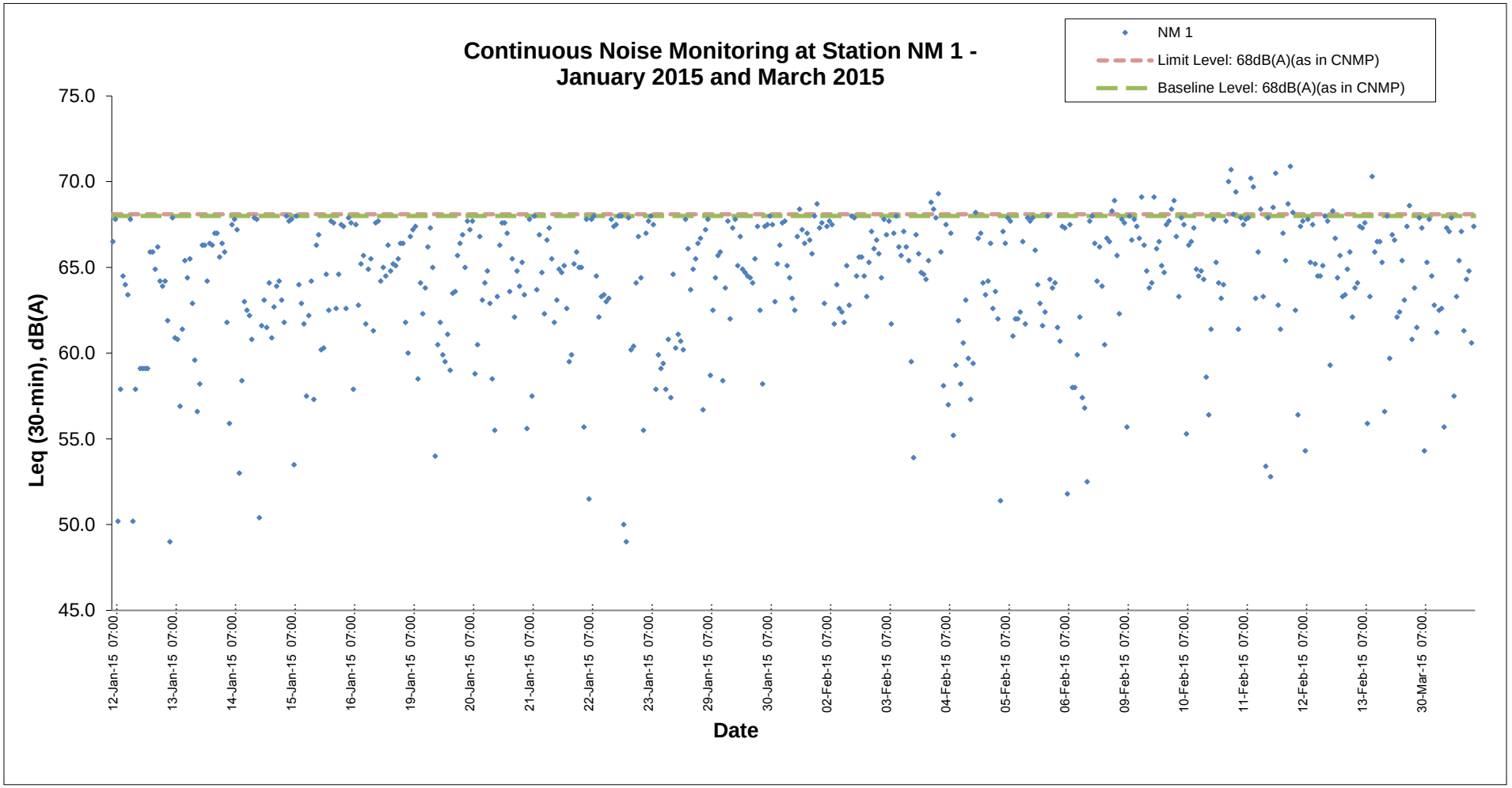
AECOM	**Shatin to Central Link Works Contract 1111- Hung Hom North Approach Tunnels**	SCALE	N.T.S.	DATE	Aug-19
		CHECK	TYUT	DRAWN	SLSY
	Graphical Presentations of Impact Noise Monitoring Results	JOB NO.	60284101	APPENDIX F	Rev -

Appendix H Graphical Plots of Impact Monitoring Results (Noise)



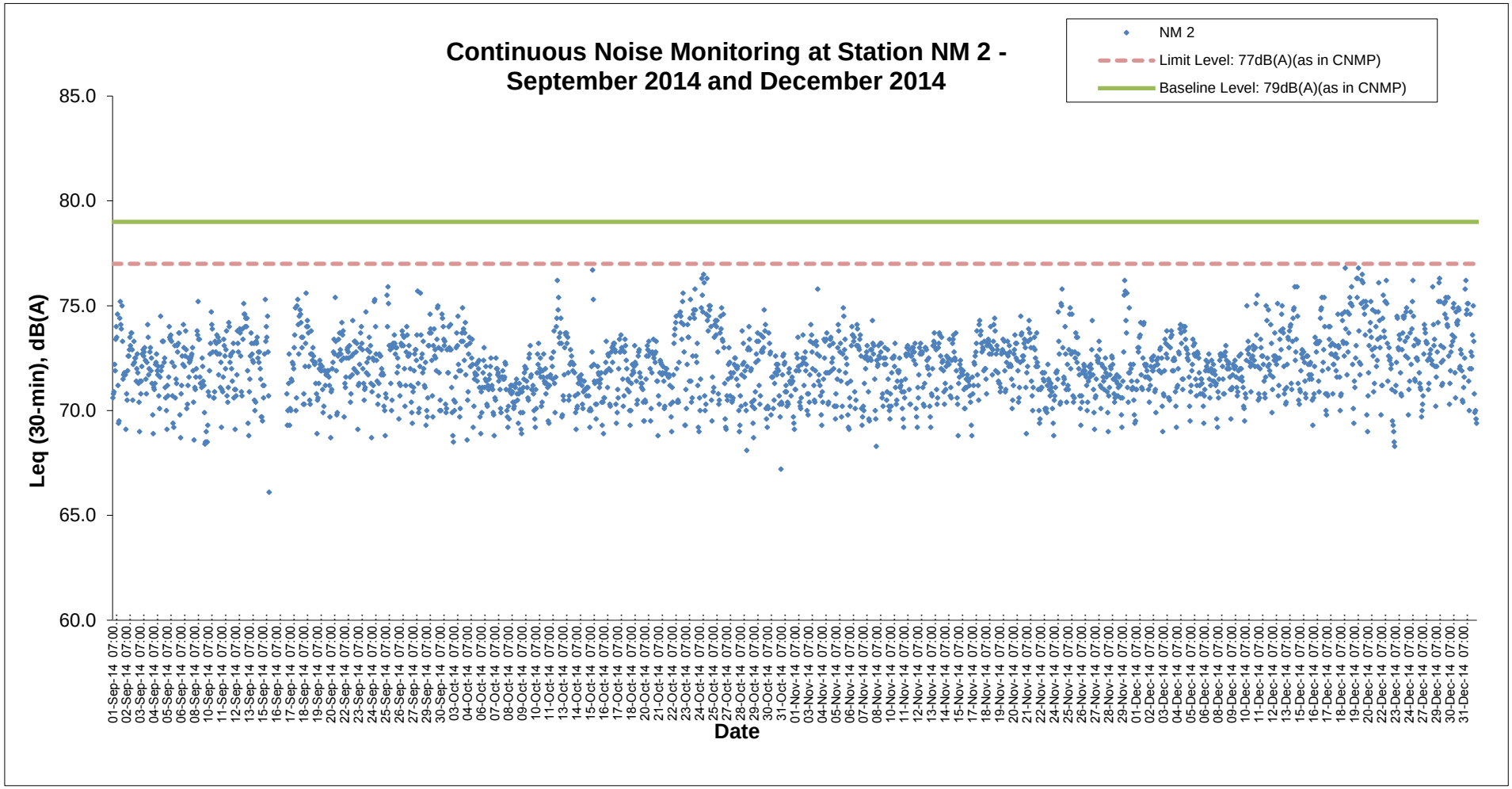
AECOM	Shatin to Central Link Works Contract 1111- Hung Hom North Approach Tunnels	SCALE	N.T.S.	DATE	Aug-19
		CHECK	TYUT	DRAWN	SLSY
	Graphical Presentations of Continuous Noise Monitoring Results	JOB NO.	60284101	APPENDIX	F
				Rev	-

Appendix H Graphical Plots of Impact Monitoring Results (Noise)



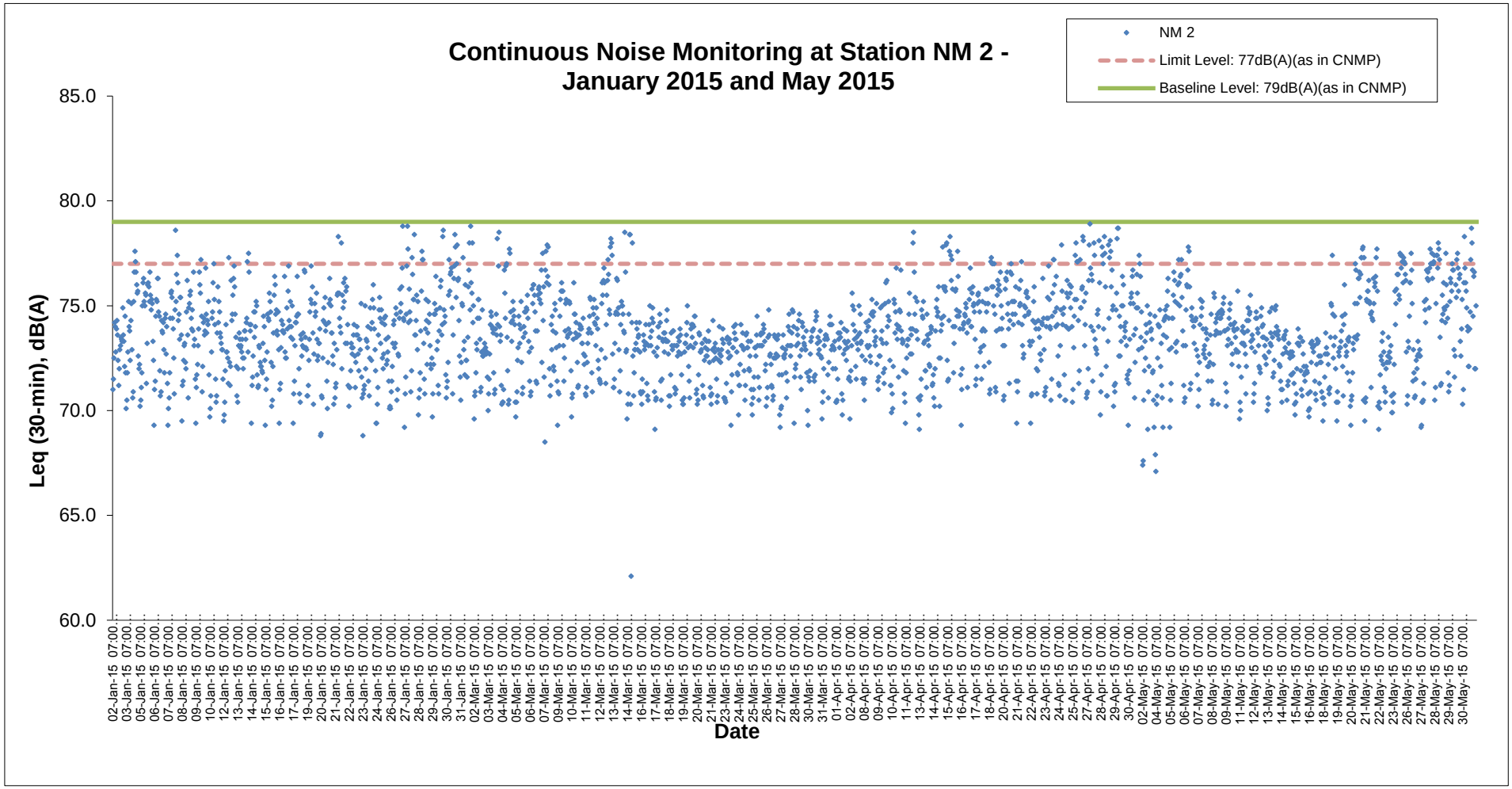
AECOM	**Shatin to Central Link Works Contract 1111- Hung Hom North Approach Tunnels**	SCALE	N.T.S.	DATE	Aug-19
		CHECK	TYUT	DRAWN	SLSY
	Graphical Presentations of Continuous Noise Monitoring Results	JOB NO.	60284101	APPENDIX	F
				Rev	-

Appendix H Graphical Plots of Impact Monitoring Results (Noise)



AECOM	Shatin to Central Link Works Contract 1111- Hung Hom North Approach Tunnels	SCALE	N.T.S.	DATE	Aug-19
		CHECK	TYUT	DRAWN	SLSY
	Graphical Presentations of Continuous Noise Monitoring Results	JOB NO.	60284101	APPENDIX	F
				Rev	-

Appendix H Graphical Plots of Impact Monitoring Results (Noise)



AECOM	Shatin to Central Link Works Contract 1111- Hung Hom North Approach Tunnels	SCALE	N.T.S.	DATE	Aug-19
		CHECK	TYUT	DRAWN	SLSY
	Graphical Presentations of Continuous Noise Monitoring Results	JOB NO.	60284101	APPENDIX	F
				Rev	-

Appendix I

Summary of Waste Flow Table

Appendix I Summary of Waste Flow Table (Works Contract 1111)

January 2013 - December 2013

Month	Actual Quantities of Inert C&D Materials Generated Monthly (Note 1)														Actual Quantities of Non-inert C&D Materials (i.e. C&D Wastes) Generated Monthly					Actual Quantities of Marine Dumping Monthly	
	Generated					Disposed (Note 4)				Reused					Recycled			Disposed		Disposed	
	Fill Material	Artificial Material			Total Quantity Generated	Disposed as Public Fills at TKO137	Disposed as Public Fills at TM38	Disposed as Public Fills at CWPFBP	Total Quantity Disposal	Reused in the Contract	Reused in other Projects		Delivered to HH Barging Point (Note 5)	Total Quantity Reused	Metals	Paper/ cardboard packaging (Note 3)	Plastics	Chemical Waste	General Refuse (Note 2)	Disposed as MD at HH Barging Point	
	Soil and Rock	Broken Concrete	Asphalt	Building Debris							Tolo	WIL 705								Type 1	Type 2
Unit	('000m^3)	('000m^3)	('000m$^{3)}$)	('000m$^{3)}$)	('000m^3)	('000m^3)	('000m^3)	('000m^3)	('000m^3)	('000m^3)	('000m^3)	('000m^3)	('000m^3)	('000m^3)	('000Kg)	('000Kg)	('000Kg)	('000Kg)	('000Kg)	('000m^3)	('000m^3)
Jan	0.043	0.000	0.021	0.000	0.065	0.065	0.000	0.000	0.065	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	17.110	0.000	0.000
Feb	0.172	0.004	0.019	0.000	0.195	0.165	0.004	0.000	0.169	0.026	0.000	0.000	0.000	0.026	0.000	0.000	0.000	0.000	29.440	0.000	0.000
Mar	0.280	0.010	0.094	0.000	0.384	0.347	0.036	0.000	0.383	0.000	0.000	0.000	0.001	0.001	7.490	0.000	0.000	0.000	112.240	0.000	0.000
Apr	0.726	0.041	0.073	0.000	0.840	0.777	0.062	0.000	0.840	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	213.390	0.000	0.000
May	2.032	0.087	0.064	0.000	2.183	1.695	0.488	0.000	2.183	0.000	0.000	0.000	0.000	0.000	0.000	0.282	0.000	0.000	112.700	0.000	0.000
Jun	3.920	0.035	0.065	0.000	4.020	1.088	2.932	0.000	4.020	0.000	0.000	0.000	0.000	0.000	0.000	0.431	0.000	0.000	213.570	0.000	0.000
SUB-TOTAL	7.173	0.177	0.337	0.000	7.687	4.137	3.522	0.000	7.659	0.026	0.000	0.000	0.001	0.027	7.490	0.713	0.000	0.000	698.450	0.000	0.000
Jul	4.204	0.032	0.055	0.000	4.291	0.045	4.246	0.000	4.291	0.000	0.000	0.000	0.000	0.000	0.000	1.538	0.000	0.000	127.540	0.000	0.000
Aug	2.124	0.023	0.034	0.000	2.180	0.006	2.174	0.000	2.180	0.000	0.000	0.000	0.000	0.000	0.000	1.244	0.000	0.000	121.170	0.000	0.000
Sep	1.344	0.012	0.004	0.000	1.359	0.000	1.359	0.000	1.359	0.000	0.000	0.000	0.000	0.000	0.012	0.952	0.002	0.000	113.560	0.000	0.000
Oct	0.936	0.069	0.039	0.000	1.044	0.000	1.044	0.000	1.044	0.000	0.000	0.000	0.000	0.000	0.067	1.012	0.001	0.000	216.370	0.000	0.000
Nov	2.156	0.071	0.000	0.000	2.227	0.000	2.221	0.006	2.227	0.000	0.000	0.000	0.000	0.000	0.012	0.541	0.001	0.000	160.630	0.000	0.000
Dec	2.984	0.012	0.000	0.000	2.997	0.000	2.991	0.000	2.991	0.000	0.000	0.000	0.005	0.005	0.000	0.000	0.000	0.017	126.180	0.000	0.000
2013 TOTAL	20.919	0.395	0.469	0.000	21.784	4.188	17.557	0.006	21.751	0.026	0.000	0.000	0.007	0.033	7.581	6.000	0.004	0.017	1563.900	0.000	0.000

Note:

1. Assume the density of fill is 2 ton/m^3.
2. Refuses disposed of at North East New Territories (NENT) Landfill.
3. Assume the weight of recycled papers is 7 kg/bag.
4. Public fills disposed of at Tseung Kwan O Area 137 Fill Bank (TKO137), Tuen Mun Area 38 Fill Bank (TM38) and Chai Wan Public Fill Barging Point (CWPFBP).
5. Public fills was delivered to Hung Hom Barging Point and handled by the Contractor of SCL1112.

Appendix I Summary of Waste Flow Table (Works Contract 1111)

January 2014 - December 2014

Month	Actual Quantities of Inert C&D Materials Generated Monthly (Note 1)														Actual Quantities of Non-inert C&D Materials (i.e. C&D Wastes) Generated Monthly					Actual Quantities of Marine Dumping Monthly	
	Generated					Disposed (Note 4)				Reused					Recycled			Disposed		Disposed	
	Fill Material	Artificial Material			Total Quantity Generated	Disposed as Public Fills at TKO137	Disposed as Public Fills at TM38	Disposed as Public Fills at CWPFBP	Total Quantity Disposal	Reused in the Contract	Reused in other Projects		Delivered to HH Barging Point (Note 5)	Total Quantity Reused	Metals	Paper/ cardboard packaging (Note 3)	Plastics	Chemical Waste	General Refuse (Note 2)	Disposed as MD at HH Barging Point	
	Soil and Rock	Broken Concrete	Asphalt	Building Debris							Tolo	WIL 705								Type 1	Type 2
Unit	('000m^3)	('000m^3)	('000m$^{3)}$)	('000m$^{3)}$)	('000m^3)	('000m^3)	('000m^3)	('000m^3)	('000m^3)	('000m^3)	('000m^3)	('000m^3)	('000m^3)	('000m^3)	('000Kg)	('000Kg)	('000Kg)	('000Kg)	('000Kg)	('000m^3)	('000m^3)
Jan	1.210	0.016	0.004	0.000	1.230	0.000	1.037	0.004	1.041	0.021	0.000	0.168	0.000	0.189	10.210	1.305	0.000	0.000	139.090	0.000	0.000
Feb	1.645	0.011	0.000	0.000	1.656	0.000	1.496	0.000	1.496	0.035	0.017	0.108	0.000	0.159	15.640	0.245	0.002	0.000	96.430	0.000	0.000
Mar	1.485	0.050	0.000	0.000	1.535	0.001	1.384	0.000	1.386	0.075	0.046	0.029	0.000	0.149	7.240	0.287	0.002	0.000	191.550	0.000	0.000
Apr	1.156	0.023	0.000	0.000	1.179	0.197	0.982	0.000	1.179	0.000	0.000	0.000	0.000	0.000	0.000	0.187	0.000	0.000	107.290	0.000	0.000
May	2.370	0.020	0.000	0.000	2.390	0.257	1.587	0.000	1.844	0.030	0.000	0.000	0.516	0.546	0.000	0.123	0.002	0.000	110.180	0.000	0.000
Jun	1.721	0.386	0.040	0.571	2.718	0.174	2.075	0.000	2.249	0.000	0.000	0.000	0.469	0.469	0.000	0.184	0.000	0.000	93.970	0.000	0.000
SUB-TOTAL	9.586	0.506	0.044	0.571	10.707	0.629	8.562	0.004	9.195	0.161	0.062	0.304	0.985	1.512	33.090	2.331	0.006	0.000	738.510	0.000	0.000
Jul	1.778	0.010	0.038	0.004	1.830	0.575	0.415	0.000	0.990	0.005	0.497	0.000	0.339	0.840	0.000	0.368	0.014	0.040	92.460	0.000	0.000
Aug	2.257	0.000	0.014	0.000	2.271	1.678	0.003	0.000	1.681	0.000	0.366	0.000	0.195	0.561	0.000	0.120	0.000	0.000	58.660	0.000	0.000
Sep	2.038	0.007	0.000	0.000	2.045	1.548	0.011	0.000	1.559	0.000	0.254	0.000	0.232	0.486	0.000	0.154	0.000	0.000	58.700	0.000	0.000
Oct	2.371	0.003	0.031	0.004	2.409	1.641	0.026	0.000	1.667	0.040	0.141	0.000	0.538	0.719	0.000	0.130	0.000	0.000	78.700	0.000	0.000
Nov	3.154	0.009	0.000	0.008	3.171	2.001	0.022	0.000	2.023	0.000	0.223	0.000	0.926	1.148	0.000	0.091	0.000	0.000	51.100	0.000	0.000
Dec	6.058	0.000	0.000	0.000	6.058	2.173	0.002	0.000	2.175	0.000	0.168	0.000	3.715	3.883	0.000	0.098	0.000	0.166	76.720	0.000	0.000
2014 TOTAL	27.242	0.535	0.127	0.586	28.491	10.245	9.041	0.004	19.290	0.206	1.709	0.304	6.928	9.148	33.090	3.292	0.020	0.206	1154.850	0.000	0.000

Note:

1. Assume the density of fill is 2 ton/m^3.
2. Refuses disposed of at North East New Territories (NENT) Landfill.
3. Assume the weight of recycled papers is 7 kg/bag.
4. Public fills disposed of at Tseung Kwan O Area 137 Fill Bank (TKO137), Tuen Mun Area 38 Fill Bank (TM38) and Chai Wan Public Fill Barging Point (CWPFBP).
5. Public fills was delivered to Hung Hom Barging Point and handled by the Contractor of SCL1112.

Appendix I Summary of Waste Flow Table (Works Contract 1111)

January 2015 - December 2015

Month	Actual Quantities of Inert C&D Materials Generated Monthly (Note 1)														Actual Quantities of Non-inert C&D Materials (i.e. C&D Wastes) Generated Monthly					Actual Quantities of Marine Dumping Monthly	
	Generated					Disposed (Note 4)				Reused					Recycled			Disposed		Disposed	
	Fill Material	Artificial Material			Total Quantity Generated	Disposed as Public Fills at TKO137	Disposed as Public Fills at TM38	Disposed as Public Fills at CWPFBP	Total Quantity Disposal	Reused in the Contract	Reused in other Projects		Delivered to HH Barging Point (Note 5)	Total Quantity Reused	Metals	Paper/ cardboard packaging (Note 3)	Plastics	Chemical Waste	General Refuse (Note 2)	Disposed as MD at HH Barging Point	
	Soil and Rock	Broken Concrete	Asphalt	Building Debris							Tolo	WIL 705								Type 1	Type 2
Unit	('000m^3)	('000m^3)	('000m^3)	('000m^3)	('000m^3)	('000m^3)	('000m^3)	('000m^3)	('000m^3)	('000m^3)	('000m^3)	('000m^3)	('000m^3)	('000m^3)	('000Kg)	('000Kg)	('000Kg)	('000Kg)	('000Kg)	('000m^3)	('000m^3)
Jan	6.832	0.008	0.004	0.000	6.843	3.102	0.002	0.000	3.104	0.010	0.010	0.000	3.719	3.739	0.000	0.084	0.000	0.000	50.820	0.000	2.216
Feb	4.779	0.096	0.000	0.005	4.880	1.848	0.000	0.000	1.848	0.000	0.000	0.000	3.032	3.032	0.000	0.112	0.000	0.000	37.630	1.292	0.000
Mar	8.652	0.035	0.000	0.004	8.691	3.009	0.004	0.000	3.013	0.000	0.000	0.000	5.678	5.678	0.000	0.112	0.000	0.400	49.940	3.168	0.000
Apr	6.370	0.031	0.009	0.015	6.426	1.715	0.000	0.000	1.715	0.000	0.000	0.000	4.711	4.711	2.750	0.063	0.000	0.000	33.930	3.970	0.000
May	6.218	0.080	0.020	0.000	6.319	1.658	0.039	0.000	1.697	0.000	0.000	0.000	4.622	4.622	0.000	0.063	0.000	0.000	46.740	8.255	0.000
Jun	6.534	0.076	0.022	0.008	6.640	1.502	0.095	0.000	1.598	0.000	0.000	0.000	5.043	5.043	0.000	0.056	0.000	1.387	63.680	9.711	0.000
SUB-TOTAL	39.386	0.326	0.055	0.032	39.800	12.834	0.140	0.000	12.975	0.010	0.010	0.000	26.805	26.825	2.750	0.490	0.000	1.787	282.740	26.397	2.216
Jul	9.616	0.097	0.055	0.004	9.771	3.193	0.260	0.000	3.453	0.113	0.000	0.000	6.206	6.318	0.000	0.353	0.000	0.595	41.170	5.292	0.000
Aug	7.640	0.025	0.010	0.000	7.675	1.906	0.075	0.000	1.981	0.000	0.000	0.000	5.695	5.695	0.000	0.923	0.000	0.000	43.330	6.941	0.000
Sep	7.861	0.093	0.000	0.000	7.954	1.979	0.226	0.000	2.206	0.000	0.000	0.000	5.748	5.748	0.000	2.318	0.000	0.000	44.170	5.542	0.000
Oct	11.070	0.255	0.021	0.000	11.345	3.712	0.167	0.000	3.879	0.360	0.000	0.000	7.106	7.466	0.000	0.886	0.000	0.991	99.290	5.675	0.000
Nov	10.944	0.021	0.000	0.000	10.965	4.591	0.165	0.000	4.755	0.000	0.000	0.000	6.210	6.210	0.000	1.020	0.000	0.595	65.150	3.984	0.000
Dec	9.920	0.026	0.012	0.000	9.959	3.914	0.125	0.000	4.039	0.000	0.000	0.000	5.920	5.920	0.000	0.000	0.000	0.000	158.770	1.105	0.000
2015 TOTAL	96.437	0.842	0.154	0.036	97.470	32.130	1.158	0.000	33.288	0.483	0.010	0.000	63.689	64.182	2.750	5.990	0.000	3.968	734.620	54.934	2.216

Note:

1. Assume the density of fill is 2 ton/m^3.
2. Refuses disposed of at North East New Territories (NENT) Landfill.
3. Assume the weight of recycled papers is 7 kg/bag.
4. Public fills disposed of at Tseung Kwan O Area 137 Fill Bank (TKO137), Tuen Mun Area 38 Fill Bank (TM38) and Chai Wan Public Fill Barging Point (CWPFBP).
5. Public fills was delivered to Hung Hom Barging Point and handled by the Contractor of SCL1112 in the period of 1 January 2015 to 1 August 2015 and handled by the Contractor of SCL1121 started from 3 August 2015.

Appendix I Summary of Waste Flow Table (Works Contract 1111)

January 2016 - December 2016

Month	Actual Quantities of Inert C&D Materials Generated Monthly (Note 1)														Actual Quantities of Non-inert C&D Materials (i.e. C&D Wastes) Generated Monthly					Actual Quantities of Marine Dumping Monthly	
	Generated					Disposed (Note 4)				Reused					Recycled			Disposed		Disposed	
	Fill Material	Artificial Material			Total Quantity Generated	Disposed as Public Fills at TKO137	Disposed as Public Fills at TM38	Disposed as Public Fills at CWPFBP	Total Quantity Disposal	Reused in the Contract	Reused in other Projects		Delivered to HH Barging Point (Note 5)	Total Quantity Reused	Metals	Paper/ cardboard packaging (Note 3)	Plastics	Chemical Waste	General Refuse (Note 2)	Disposed as MD at HH Barging Point	
	Soil and Rock	Broken Concrete	Asphalt	Building Debris							Tolo	WIL 705								Type 1	Type 2
Unit	('000m^3)	('000m^3)	('000m^3)	('000m^3)	('000m^3)	('000m^3)	('000m^3)	('000m^3)	('000m^3)	('000m^3)	('000m^3)	('000m^3)	('000m^3)	('000m^3)	('000Kg)	('000Kg)	('000Kg)	('000Kg)	('000Kg)	('000m^3)	('000m^3)
Jan	8.577	0.000	0.000	0.000	8.577	1.259	0.062	0.000	1.320	0.000	0.015	0.000	7.242	7.257	0.000	0.850	0.000	0.000	141.060	0.013	0.000
Feb	4.570	0.007	0.000	0.000	4.577	0.706	0.059	0.000	0.765	0.000	0.000	0.000	3.812	3.812	0.000	0.937	0.000	0.000	127.070	0.003	0.000
Mar	5.813	0.000	0.000	0.000	5.813	1.509	0.173	0.000	1.681	0.000	0.000	0.000	4.132	4.132	0.000	2.040	0.000	0.000	140.410	0.000	0.000
Apr	2.561	0.000	0.000	0.008	2.569	0.664	0.060	0.000	0.724	0.000	0.000	0.000	1.845	1.845	0.000	0.000	0.000	0.000	163.530	0.000	0.000
May	3.008	0.000	0.000	0.008	3.016	1.153	0.108	0.000	1.262	0.026	0.000	0.000	1.728	1.754	0.000	0.000	0.000	0.000	224.210	0.000	0.000
Jun	3.711	0.039	0.007	0.011	3.768	1.003	0.096	0.000	1.099	0.042	0.000	0.000	2.627	2.669	0.000	0.000	0.000	0.000	155.170	0.000	0.000
SUB-TOTAL	28.240	0.046	0.007	0.026	28.320	6.292	0.558	0.000	6.851	0.068	0.015	0.000	21.387	21.470	0.000	3.827	0.000	0.000	951.450	0.016	0.000
Jul	3.764	0.000	0.000	0.000	3.764	0.387	0.036	0.000	0.424	2.132	0.000	0.000	1.209	3.341	0.000	1.068	0.000	0.000	132.220	0.000	0.000
Aug	0.773	0.000	0.000	0.000	0.773	0.023	0.012	0.000	0.035	0.005	0.000	0.000	0.733	0.738	11.000	1.343	0.000	0.000	92.640	0.000	0.000
Sep	0.324	0.000	0.000	0.000	0.324	0.031	0.012	0.000	0.042	0.006	0.000	0.000	0.275	0.281	0.000	0.957	0.000	0.000	48.520	0.000	0.000
Oct	0.199	0.000	0.000	0.000	0.199	0.071	0.016	0.000	0.087	0.000	0.000	0.000	0.112	0.112	0.003	0.797	0.003	0.000	103.050	0.000	0.000
Nov	0.761	0.000	0.000	0.000	0.761	0.281	0.065	0.000	0.346	0.000	0.000	0.000	0.415	0.415	0.000	0.869	0.000	0.000	124.030	0.000	0.000
Dec	1.396	0.000	0.054	0.000	1.450	0.126	0.039	0.000	0.164	0.000	0.000	0.000	1.286	1.286	0.002	0.000	0.002	0.000	140.530	0.000	0.000
2016 TOTAL	35.457	0.046	0.061	0.026	35.590	7.211	0.738	0.000	7.949	2.211	0.015	0.000	25.416	27.642	11.004	8.861	0.006	0.000	1592.440	0.016	0.000

Note:

1. Assume the density of fill is 2 ton/m^3.
2. Refuses disposed of at North East New Territories (NENT) Landfill.
3. Assume the weight of recycled papers is 7 kg/bag.
4. Public fills disposed of at Tseung Kwan O Area 137 Fill Bank (TKO137), Tuen Mun Area 38 Fill Bank (TM38) and Chai Wan Public Fill Barging Point (CWPFBP).
5. Public fills was delivered to Hung Hom Barging Point and handled by the Contractor of SCL1112 in the period of 1 January 2015 to 1 August 2015 and handled by the Contractor of SCL1121 started from 3 August 2015.

Appendix I Summary of Waste Flow Table (Works Contract 1111)

January 2017 - December 2017

Month	Actual Quantities of Inert C&D Materials Generated Monthly (Note 1)														Actual Quantities of Non-inert C&D Materials (i.e. C&D Wastes) Generated Monthly					Actual Quantities of Marine Dumping Monthly	
	Generated					Disposed (Note 4)				Reused					Recycled			Disposed		Disposed	
	Fill Material	Artificial Material			Total Quantity Generated	Disposed as Public Fills at TKO137	Disposed as Public Fills at TM38	Disposed as Public Fills at CWPFBP	Total Quantity Disposal	Reused in the Contract	Reused in other Projects		Delivered to HH Barging Point (Note 5)	Total Quantity Reused	Metals	Paper/ cardboard packaging (Note 3)	Plastics	Chemical Waste	General Refuse (Note 2)	Disposed as MD at HH Barging Point	
	Soil and Rock	Broken Concrete	Asphalt	Building Debris							Tolo	WIL 705								Type 1	Type 2
Unit	('000m^3)	('000m^3)	('000m^3)	('000m^3)	('000m^3)	('000m^3)	('000m^3)	('000m^3)	('000m^3)	('000m^3)	('000m^3)	('000m^3)	('000m^3)	('000m^3)	('000Kg)	('000Kg)	('000Kg)	('000Kg)	('000Kg)	('000m^3)	('000m^3)
Jan	1.094	0.000	0.000	0.000	1.094	0.092	0.039	0.000	0.131	0.000	0.000	0.000	0.963	0.963	0.000	0.776	0.000	0.000	120.720	0.000	0.000
Feb	1.137	0.000	0.000	0.000	1.137	0.343	0.028	0.000	0.372	0.000	0.000	0.000	0.766	0.766	0.000	1.024	0.000	0.000	100.550	0.000	0.000
Mar	0.875	0.000	0.000	0.000	0.875	0.203	0.008	0.000	0.211	0.000	0.000	0.000	0.664	0.664	0.000	0.654	0.000	0.000	118.440	0.000	0.000
Apr	0.755	0.000	0.000	0.000	0.755	0.039	0.000	0.000	0.039	0.000	0.000	0.000	0.716	0.716	0.000	0.770	0.000	0.000	48.990	0.000	0.000
May	0.507	0.000	0.000	0.000	0.507	0.094	0.011	0.000	0.106	0.000	0.000	0.000	0.402	0.402	0.000	0.981	0.001	0.000	113.400	0.000	0.000
Jun	0.463	0.000	0.000	0.000	0.463	0.162	0.023	0.000	0.185	0.000	0.000	0.000	0.278	0.278	0.001	0.759	0.002	0.000	82.720	0.000	0.000
SUB-TOTAL	4.833	0.000	0.000	0.000	4.833	0.934	0.109	0.000	1.043	0.000	0.000	0.000	3.789	3.789	0.001	4.964	0.003	0.000	584.820	0.000	0.000
Jul	0.469	0.000	0.000	0.000	0.469	0.166	0.008	0.000	0.173	0.000	0.000	0.000	0.296	0.296	0.000	0.000	0.006	0.000	160.660	0.000	0.000
Aug	0.396	0.000	0.000	0.000	0.396	0.181	0.011	0.000	0.192	0.000	0.000	0.000	0.204	0.204	0.000	1.563	0.000	0.000	105.500	0.000	0.000
Sep	1.293	0.000	0.000	0.000	1.293	0.273	0.046	0.000	0.318	0.000	0.000	0.000	0.975	0.975	0.000	0.000	0.003	0.000	60.260	0.000	0.000
Oct	1.756	0.000	0.000	0.000	1.756	0.187	0.032	0.000	0.219	0.000	0.000	0.000	1.537	1.537	0.001	0.000	0.001	0.000	95.430	0.000	0.000
Nov	1.453	0.000	0.000	0.000	1.453	0.133	0.086	0.000	0.219	0.000	0.000	0.000	1.234	1.234	0.001	0.000	0.001	0.000	90.620	0.000	0.000
Dec	1.179	0.000	0.000	0.000	1.179	0.348	0.074	0.000	0.422	0.000	0.000	0.000	0.757	0.757	0.000	0.000	0.001	0.000	51.200	0.000	0.000
2017 TOTAL	11.380	0.000	0.000	0.000	11.380	2.221	0.366	0.000	2.587	0.000	0.000	0.000	8.793	8.793	0.003	6.527	0.014	0.000	1148.490	0.000	0.000

Note:

1. Assume the density of fill is 2 ton/m^3.
2. Refuses disposed of at North East New Territories (NENT) Landfill.
3. Assume the weight of recycled papers is 7 kg/bag.
4. Public fills disposed of at Tseung Kwan O Area 137 Fill Bank (TKO137), Tuen Mun Area 38 Fill Bank (TM38) and Chai Wan Public Fill Barging Point (CWPFBP).
5. Public fills was delivered to Hung Hom Barging Point and handled by the Contractor of SCL1112 in the period of 1 January 2015 to 1 August 2015 and handled by the Contractor of SCL1121 started from 3 August 2015.

Appendix I Summary of Waste Flow Table (Works Contract 1111)

January 2018 - December 2018

Month	Actual Quantities of Inert C&D Materials Generated Monthly (Note 1)														Actual Quantities of Non-inert C&D Materials (i.e. C&D Wastes) Generated Monthly					Actual Quantities of Marine Dumping Monthly	
	Generated					Disposed (Note 4)				Reused					Recycled			Disposed		Disposed	
	Fill Material	Artificial Material			Total Quantity Generated	Disposed as Public Fills at TKO137	Disposed as Public Fills at TM38	Disposed as Public Fills at CWPFBP	Total Quantity Disposal	Reused in the Contract	Reused in other Projects		Delivered to HH Barging Point (Note 5)	Total Quantity Reused	Metals	Paper/ cardboard packaging (Note 3)	Plastics	Chemical Waste	General Refuse (Note 2)	Disposed as MD at HH Barging Point	
	Soil and Rock	Broken Concrete	Asphalt	Building Debris							Tolo	WIL 705								Type 1	Type 2
Unit	('000m^3)	('000m^3)	('000m^3)	('000m^3)	('000m^3)	('000m^3)	('000m^3)	('000m^3)	('000m^3)	('000m^3)	('000m^3)	('000m^3)	('000m^3)	('000m^3)	('000Kg)	('000Kg)	('000Kg)	('000Kg)	('000Kg)	('000m^3)	('000m^3)
Jan	1.208	0.000	0.000	0.000	1.208	0.206	0.022	0.000	0.228	0.000	0.000	0.000	0.979	0.979	0.000	0.000	5.500	0.000	40.090	0.000	0.000
Feb	0.584	0.000	0.000	0.000	0.584	0.189	0.221	0.000	0.410	0.000	0.000	0.000	0.173	0.173	0.000	0.000	0.000	0.000	57.400	0.000	0.000
Mar	0.863	0.000	0.000	0.000	0.863	0.010	0.854	0.000	0.863	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	84.000	0.000	0.000
Apr	0.155	0.000	0.000	0.000	0.155	0.022	0.133	0.000	0.155	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.002	0.000	93.690	0.000	0.000
May	0.239	0.000	0.000	0.000	0.239	0.009	0.229	0.000	0.239	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	83.680	0.000	0.000
Jun	0.420	0.000	0.000	0.000	0.420	0.014	0.406	0.000	0.420	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	29.970	0.000	0.000
SUB-TOTAL	3.468	0.000	0.000	0.000	3.468	0.450	1.866	0.000	2.315	0.000	0.000	0.000	1.153	1.153	0.000	0.000	5.502	0.000	388.830	0.000	0.000
Jul	0.004	0.000	0.000	0.000	0.004	0.004	0.000	0.000	0.004	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	33.130	0.000	0.000
Aug	0.007	0.000	0.000	0.000	0.007	0.000	0.007	0.000	0.007	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	19.560	0.000	0.000
Sep	0.003	0.000	0.000	0.000	0.003	0.000	0.003	0.000	0.003	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	21.160	0.000	0.000
Oct	0.003	0.000	0.000	0.000	0.003	0.000	0.003	0.000	0.003	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	26.890	0.000	0.000
Nov	0.743	0.000	0.000	0.000	0.743	0.000	0.743	0.000	0.743	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	20.990	0.000	0.000
Dec	0.046	0.000	0.000	0.000	0.046	0.000	0.046	0.000	0.046	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	4.300	0.000	0.000
2018 TOTAL	4.272	0.000	0.000	0.000	4.272	0.453	2.666	0.000	3.119	0.000	0.000	0.000	1.153	1.153	0.000	0.000	5.502	0.000	514.860	0.000	0.000

Note:

1. Assume the density of fill is 2 ton/m^3.
2. Refuses disposed of at North East New Territories (NENT) Landfill.
3. Assume the weight of recycled papers is 7 kg/bag.
4. Public fills disposed of at Tseung Kwan O Area 137 Fill Bank (TKO137), Tuen Mun Area 38 Fill Bank (TM38) and Chai Wan Public Fill Barging Point (CWPFBP).
5. Public fills was delivered to Hung Hom Barging Point and handled by the Contractor of SCL1112 in the period of 1 January 2015 to 1 August 2015 and handled by the Contractor of SCL1121 started from 3 August 2015.

Appendix I Summary of Waste Flow Table (Works Contract 1111)

January 2019 - July 2019

Month	Actual Quantities of Inert C&D Materials Generated Monthly (Note 1)														Actual Quantities of Non-inert C&D Materials (i.e. C&D Wastes) Generated Monthly					Actual Quantities of Marine Dumping Monthly	
	Generated					Disposed (Note 4)				Reused					Recycled			Disposed		Disposed	
	Fill Material	Artificial Material			Total Quantity Generated	Disposed as Public Fills at TKO137	Disposed as Public Fills at TM38	Disposed as Public Fills at CWPFBP	Total Quantity Disposal	Reused in the Contract	Reused in other Projects		Delivered to HH Barging Point (Note 5)	Total Quantity Reused	Metals	Paper/ cardboard packaging (Note 3)	Plastics	Chemical Waste	General Refuse (Note 2)	Disposed as MD at HH Barging Point	
	Soil and Rock	Broken Concrete	Asphalt	Building Debris							Tolo	WIL 705								Type 1	Type 2
Unit	('000m^3)	('000m^3)	('000m^3)	('000m^3)	('000m^3)	('000m^3)	('000m^3)	('000m^3)	('000m^3)	('000m^3)	('000m^3)	('000m^3)	('000m^3)	('000m^3)	('000Kg)	('000Kg)	('000Kg)	('000Kg)	('000Kg)	('000m^3)	('000m^3)
Jan	0.527	0.000	0.000	0.000	0.527	0.000	0.527	0.000	0.527	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	15.970	0.000	0.000
Feb	0.030	0.000	0.000	0.000	0.030	0.000	0.030	0.000	0.030	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	14.330	0.000	0.000
Mar	0.066	0.000	0.000	0.000	0.066	0.000	0.066	0.000	0.066	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	18.050	0.000	0.000
Apr	0.099	0.000	0.000	0.000	0.099	0.072	0.026	0.000	0.099	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	33.950	0.000	0.000
May	0.011	0.000	0.000	0.000	0.011	0.011	0.000	0.000	0.011	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	26.080	0.000	0.000
Jun	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	19.640	0.000	0.000
SUB-TOTAL	0.733	0.000	0.000	0.000	0.733	0.083	0.650	0.000	0.733	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	128.020	0.000	0.000
Jul	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	6.270	0.000	0.000
Aug																					
Sep																					
Oct																					
Nov																					
Dec																					
2019 TOTAL	0.733	0.000	0.000	0.000	0.733	0.083	0.650	0.000	0.733	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000	134.290	0.000	0.000

Note:

1. Assume the density of fill is 2 ton/m^3.
2. Refuses disposed of at North East New Territories (NENT) Landfill.
3. Assume the weight of recycled papers is 7 kg/bag.
4. Public fills disposed of at Tseung Kwan O Area 137 Fill Bank (TKO137), Tuen Mun Area 38 Fill Bank (TM38) and Chai Wan Public Fill Barging Point (CWPFBP).
5. Public fills was delivered to Hung Hom Barging Point and handled by the Contractor of SCL1112 in the period of 1 January 2015 to 1 August 2015 and handled by the Contractor of SCL1121 started from 3 August 2015.

Appendix I Summary of Waste Flow Table (Works Contract 1112)

	WASTE FLOW TABLE															
Month	Actual Quantities of Inert C&D Materials Generated Monthly									Actual Quantities of non-inert C&D Wastes Generated Monthly						
	Generated				Disposed					Recycled				Disposed		
	Imported from SCL1111	Imported from SCL1121	Total Quantity Generated	Hard Rock and Broken Concrete	Reused in the Contract	Reused in Other Projects	Disposed as Public Fills at HH Barging Point	Disposed as Public Fills at TKO137	Disposed as Public Fills at TM38	Metals	Paper/ Cardboard Packaging	Asphalt	Plastics	Chemical Waste		General Refuse
Unit	(in '000m^3)									(in '000Kg)				(in '000Kg)	(in '000L)	(in '000Kg)
Jun-13	0	-	0	0	0	0	0	0	0	137.3	0	0	0	0	-	6.55
Jul-13	0	-	0.36	0	0	0	0	0	0.36	365.34	0	0	0	0	-	16.87
Aug-13	0	-	1.68	0	0	0	0.05	0	1.63	69.98	0.25	0	0	0	-	12.67
Sep-13	0	-	3.39	0	0	0	0.20	0	3.19	131.18	0.22	0	0.46	0	-	16.25
Oct-13	0	-	4.04	0	0	0	0.78	0	3.26	179.97	0.63	8.28	2.04	0	-	39.87
Nov-13	0	-	6.09	0	0	0	2.09	0.18	3.82	125.70	0.45	160.35	0	0	-	28.69
Dec-13	0	-	5.69	0	0	0	1.74	0.01	3.94	72.15	0.39	4.13	0	0	-	18.04
Jan-14	0	-	4.58	0	0	0	0	0.27	4.31	117.57	0.26	147.67	0.26	0	-	30.09
Feb-14	0	-	3.80	0	0	0.14 [Note1]	0	0.19	3.46	28.32	0.29	414.67	0	0	-	15.73
Mar-14	0	-	10.10	0	0	6.18[Note2]	0	0.29	3.63	96.26	0.25	0	0	0	-	47.76
Apr-14	0	-	6.67	0	0	4.82[Note3]	0	0.0053	1.85	75.43	0.23	1,322.39	0	0.2	-	78.63
May-14	0.52	-	5.77	0	0.43	2.00[Note4]	0	0.12	3.65	48.86	0.28	501.45	0	0	-	66.03
Jun-14	0.47	-	4.56	0	0	1.73[Note5]	0	0.29	2.54	42.95	0.25	0	0	0.4	-	45.97
Jul-14	0.34	-	8.61	0	0	2.89[Note6]	0	0.87	4.84	70.99	0	0	0	0	-	40.50
Aug-14	0.20	-	8.57	0	0	3.56[Note7]	0	0.44	4.57	227.86	0	0	0	0	-	76.93
Sep-14	0.23	-	11.11	0	0	5.82[Note8]	0	0.23	5.06	220.85	0.29	0	0	0	-	43.01
Oct-14	0.54	-	12.79	0	0	6.04[Note9]	0	0.06	6.69	174.82	0.71	329.16	0	0	-	97.92
Nov-14	0.93	-	10.63	0	0	3.78[Note10]	0	0.15	6.70	163.72	0.56	376.40	0	0	-	81.91
Dec-14	3.72	-	8.59	0	0	2.97[Note11]	0	0	5.62	385.80	0.53	166.98	0	5.4	-	130.83
Jan-15	3.72	-	19.29	0	0	10.03 [Note12]	0	0	9.26	543.40	0.80	179.01	0	0	1.60	318.66
Feb-15	3.03	-	13.96	0	0	8.41 [Note13]	0	0	5.54	263.10	0.46	168.82	0	0	0	180.27
Mar-15	5.68	-	22.28	0	0	12.45[Note14]	0	0	9.82	346.70	0.61	11.45	0	0	0	429.13
Apr-15	4.71	-	18.51	0	0	11.25[Note15]	0	0.23	7.26	275.99	0.32	0	0	0	0	376.98

Appendix I Summary of Waste Flow Table (Works Contract 1112)

	WASTE FLOW TABLE															
May-15	4.62	-	20.64	0	0	11.53[Note16]	0	0	9.10	353.88	0.67	0	0	0	0	266.43
Jun-15	5.04	-	13.49	0	0	6.29 [Note17]	0	0	7.20	317.14	0.43	0	0	0.20	1.00	258.01
Jul-15	6.21	0.09	21.64	0	0	16.15[Note18]	0	0	5.50	706.38	0.69	0	0	0	0	270.73
Aug-15	0.40	0	26.43	0	0	19.29[Note19]	0	0	7.14	45.53	0.57	0	0	0	0	261.04
Sep-15	-	-	20.91	0	0	13.16[Note20]	0	0	7.75	317.36	0.58	0	0	0.45	0	240.74
Oct-15	-	-	26.22	0	0	14.19[Note21]	0	0	12.03	251.95	0.48	0	0	0	0	422.80
Nov-15	-	-	18.66	0	0	7.03[Note22]	0	0	11.64	446.80	0.53	0	0	0	0	283.46
Dec-15	-	-	17.02	0	0	9.81[Note23]	0	0	7.21	198.11	0.50	0	0	0	0	355.24
Jan-16	-	-	24.58	0	0	13.22[Note24]	0	0	11.37	273.64	0.62	0	0	0	0	347.67
Feb-16	-	-	9.34	0	0	4.31[Note25]	0	0	5.04	269.58	0.46	0	0	0	0	251.30
Mar-16	-	-	9.75	0	0	3.48[Note26]	0	0	6.27	750.85	0	0	0	0	0	288.35
Apr-16	-	-	12.83	0	0	5.68[Note27]	0	0	7.15	549.43	0.65	0	0	0.09	1.30	282.05
May-16	-	-	7.22	0	0	2.08[Note28]	0	0	5.14	356.66	0.55	0	0	0	0	318.75
Jun-16	-	-	2.83	0	0	2.38[Note29]	0	0	0.45	228.10	0.40	0	0	0	4.21	410.03
Jul-16	-	-	8.67	0	0	8.50[Note30]	0	0.01	0.16	172.90	0.16	0	0	0	0	418.44
Aug-16	-	-	2.08	0	0	1.95[Note31]	0	0	0.12	334.40	0.30	0	0	0	0	542.00
Sep-16	-	-	1.44	0	0	1.44[Note32]	0	0	0	47.10	0.37	0	0	0	0	542.44
Oct-16	-	-	3.00	0	0	3.00[Note33]	0	0	0	99.79	0.44	0	0	0	0	633.27
Nov-16	-	-	1.29	0	0	1.29[Note34]	0	0	0	29.71	0.45	0	0	0	0	866.16
Dec-16	-	-	1.10	0	0	1.10[Note35]	0	0	0	45.80	0.48	0	0	0	0	978.39
Jan-17	-	-	2.19	0	0	2.19[Note36]	0	0	0	26.10	0.25	0	0	0	0	730.48
Feb-17	-	-	1.04	0	0	1.04[Note37]	0	0	0	0	0.45	0	0	0	0	564.62
Mar-17	-	-	0.89	0	0	0.89[Note38]	0	0	0	0	0.49	0	0.31	0	0	688.72
Apr-17	-	-	0.83	0	0	0.83[Note39]	0	0	0	0	0.36	0	0	0	0	567.73
May-17	-	-	1.23	0	0	1.23[Note40]	0	0	0	0	0.16	0	0	0	0	597.93
Jun-17	-	-	0.70	0	0	0.70[Note41]	0	0	0	0	0.17	0	0	0	0	440.50
Jul-17	-	-	0.98	0	0	0.98[Note42]	0	0	0	0	0.31	0	0	0	0	371.00
Aug-17	-	-	0.63	0	0	0.63[Note43]	0	0	0	0	0.17	0	0	0	0	393.48
Sep -17	-	-	0.21	0	0	0.21[Note44]	0	0	0	0	0.23	0	0.11	0	0	362.47

Appendix I Summary of Waste Flow Table (Works Contract 1112)

	WASTE FLOW TABLE															
Oct-17	-	-	0.25	0	0	0.25[Note45]	0	0	0	0	0.10	0	0	0	0	377.69
Nov-17	-	-	0.66	0	0	0.66[Note46]	0	0	0	11.77	0.35	0	0	0	0	788.65
Dec-17	-	-	0.91	0	0	0.91[Note47]	0	0	0	0	0	0	0	0	0	446.48
Jan-18	-	-	0.83	0	0	0.83[Note48]	0	0	0	0	0	0	0	0	0	571.95
Feb-18	-	-	0.35	0	0	0.35[Note49]	0	0	0	0	0	0	0	0	0	395.37
Mar-18	-	-	0.66	0	0	0	0	0	0.66	0	0	0	0	0	0	760.13
Apr-18	-	-	0.55	0	0	0	0	0	0.55	0	0.04	0	0	0	0	461.49
May-18	-	-	0.40	0	0	0	0	0	0.40	14.37	0	0	0	0	0	245.30
Jun-18	-	-	0.48	0	0	0.00	0	0.00	0.48	0	0	0	0	0	0	164.33
Jul-18	-	-	0.33	0	0	0.00	0	0.07	0.27	45.84	0	0	0	0	0	148.53
Aug-18	-	-	0.14	0	0	0.00	0	0.00	0.14	53.62	0	0	0	0	0	133.46
Sep-18	-	-	0.16	0	0	0.00	0	0.00	0.16	0	0	0	0	0	0	112.56
Oct-18	-	-	0.35	0	0	0.00	0	0.00	0.35	5.21	0	0	0	0	0	129.09
Nov-18	-	-	0.23	0	0	0.00	0	0.00	0.23	0	0	0	0	0	0	96.35
Dec-18	-	-	0.17	0	0	0	0	0	0.17	0	0	0	0	0	0	71.21
Jan-19	-	-	0.24	0	0	0.00	0	0.00	0.24	0	0	0	0	0	0	67.72
Feb-19	-	-	0.08	0	0	0.00	0	0.00	0.08	0	0	0	0	0	0	42.90
Mar-19	-	-	0.042	0	0	0.00	0	0.00	0.042	0	0	0	0	0	0	51.08
Apr-19	-	-	0.075	0	0	0.00	0	0.00	0.075	0	0	0	0	0	0	44.30
May-19	-	-	0.00	0	0	0.00	0	0.00	0.00	0	0	0	0	0	0	60.98
Jun-19	-	-	0.070	0	0	0.00	0	0.00	0.070	0	0	0	0	0	0	85.82
Jul-19	-	-	0.032	0	0	0.00	0	0.00	0.032	0	0	0	0	0	0	82.09
Aug-19	-	-	0.080	0	0	0.00	0	0.00	0.080	0	0	0	0	0	0	72.45
Sep-19	-	-	0.023	0	0	0.00	0	0.00	0.023	0	0	0	0	0	0	39.94
Oct-19	-	-	0.142	0	0	0.00	0	0.00	0.142	0	0	0	0	0	0	78.30
Nov-19	-	-	0.277	0	0	0.00	0	0.005	0.277	0	0	0	0	0	0	63.16
Dec-19	-	-	0.012	0	0	0.00	0	0.00	0.012	0	0	0	0	0	0	96.39

Appendix I Summary of Waste Flow Table (Works Contract 1112)

	WASTE FLOW TABLE															
Jan-20	-	-	0.027	0	0	0.00	0	0.00	0.027	0	0	0	0	0	0	86.59
Feb-20	-	-	0.173	0	0	0.00	0	0.00	0.173	0	0	0	0	0	0	126.66
Mar-20	-	-	0.184	0	0	0.00	0	0.00	0.184	0	0	0	0	0	0	213.40
Apr-20	-	-	0.080	0	0	0.00	0	0.00	0.080	0	0	0	0	0	0	98.66
May-20	-	-	0.008	0	0	0.00	0	0.00	0.008	0	0	0	0	0	0	91.51
Jun-20	-	-	0.000	0	0	0.00	0	0.00	0.000	3.69	0	0	0	0	0	150.23
Jul-20	-	-	0.000	0	0	0.00	0	0.00	0.000	0	0	0	0	0	0	112.70
Aug-20	-	-	0.000	0	0	0.00	0	0.00	0.000	0	0	0	0	0	0	106.99
Sep-20	-	-	0.004	0	0	0.00	0	0.00	0.004	0	0	0	0	0	0	127.40
Oct-20	-	-	0.000	0	0	0.00	0	0.00	0.000	0	0	0	0	0	0	132.98
TOTAL	**40.35**	**0.09**	**457.93**	**0.00**	**0.42**	**239.63**	**4.86**	**3.43**	**210.25**	**9793.74**	**21.34**	**3790.76**	**3.18**	**6.74**	**8.11**	**22099.00**

Note:

1. 137 m^3 of the Inert C&D materials were reused in South Island Line (SIL) Project Contract 904.
2. 267 m^3 of the Inert C&D materials were reused in SIL Project Contract 904; 3,998 m^3 of the Inert C&D materials were reused in Wan Chai Development Phase II – Central – Wan Chai Bypass at Wan Chai West Project Contract HK/2012/08; and 1,912 m^3 of the Inert C&D materials were reused in Tuen Mun – Chek Lap Kok Link (TM-CLKL) and Tuen Mun Western Bypass (TMWB) Project Contract HY/2012/08.
3. 1,728 m^3 of the Inert C&D materials were reused in Wan Chai Development Phase II – Central – Wan Chai Bypass at Wan Chai West Project Contract HK/2012/08; and 3,088 m^3 of the Inert C&D materials were reused in TM-CLKL and TMWB Project Contract HY/2012/08.
4. 184 m^3 of the Inert C&D materials were reused in South Island Line (SIL) Project Contract 904; and 1814 m^3 of the Inert C&D materials were reused in TM-CLKL and TMWB Project Contract HY/2012/08.
5. 1,021 m^3 of the Inert C&D materials were reused in Wan Chai Development Phase II – Central – Wan Chai Bypass at Wan Chai West Project Contract HK/2012/08; and 707 m3 of the Inert C&D materials were reused in TM-CLKL and TMWB Project Contract HY/2012/08.
6. 2,894 m^3 of the Inert C&D materials were reused in TM-CLKL and TMWB Project Contract HY/2012/08.
7. 575.5m^3 of the Inert C&D materials were reused in Wan Chai Development Phase II – Central – Wan Chai Bypass at Wan Chai West Project Contract HK/2012/08; and 2907.6 m^3 of the Inert C&D materials were reused in TM-CLKL and TMWB Project Contract HY/2012/08; and 76.0 m^3 of the Inert C&D materials were reused in Wan Chai Development Phase II – Central – Wan Chai Bypass at Wan Chai West Project Contract HK/2009/08.
8. 4,905.4 m^3 of the Inert C&D materials were reused in TM-CLKL and 912.3 m^3 of the Inert C&D materials were reused in SIL Project Contract 904.
9. 5,522.9 m^3 of the Inert C&D materials were reused in TM-CLKL and 515.9 m^3 of the Inert C&D materials were reused in SIL Project Contract 904.
10. 3,774.6 m^3 of the Inert C&D materials were reused in TM-CLKL.
11. 2,968.9 m^3 of the Inert C&D materials were reused in TM-CLKL (HY/2012/08).
12. 9,988.1 m^3 of the Inert C&D materials were reused in WENT (SITA) and 46.34 m^3 of the Inert C&D materials were reused in SIL Project Contract 904.
13. 8,212.8 m^3 of the Inert C&D materials were reused in WENT (SITA) and 200.9 m^3 of the Inert C&D materials were reused in SIL Project Contract 904.

14. 11,757 m^3 of the Inert C&D materials were reused in WENT (SITA), 23.41 m^3 of the Inert C&D materials were reused in SIL Project Contract 904 and 672.78 m^3 of the Inert C&D materials were reused in XRL822.
15. 10,633 m^3 of the Inert C&D materials were reused in WENT (SITA) and 0.61176 m^3 of the Inert C&D materials were reused in XRL822.
16. 11,533 m^3 of the Inert C&D materials were reused in WENT (SITA).
17. 6,290 m^3 of the Inert C&D materials were reused in WENT (SITA).
18. 16,145 m^3 of the Inert C&D materials were reused in WENT (SITA).
19. 878 m^3 of the Inert C&D materials were reused in WENT (SITA) and 18,415 m^3 of the Inert C&D materials were reused in SCL1121.
20. 13,163 m^3 of the Inert C&D materials were reused in SCL1121.
21. 14,189 m^3 of the Inert C&D materials were reused in SCL1121.
22. 7,030 m^3 of the Inert C&D materials were reused in SCL1121.
23. 9,811 m^3 of the Inert C&D materials were reused in SCL1121.
24. 13,218 m^3 of the Inert C&D materials were reused in SCL1121.
25. 4,306 m^3 of the Inert C&D materials were reused in SCL1121.
26. 3,478 m^3 of the Inert C&D materials were reused in SCL1121.
27. 5,680 m^3 of the Inert C&D materials were reused in SCL1121.
28. 2,080 m^3 of the Inert C&D materials were reused in SCL1121.
29. 2,380 m^3 of the Inert C&D materials were reused in SCL1121.
30. 8,500 m^3 of the Inert C&D materials were reused in SCL1121.
31. 1,950 m^3 of the Inert C&D materials were reused in SCL1121.
32. 1,440 m^3 of the Inert C&D materials were reused in SCL1121.
33. 3,004 m^3 of the Inert C&D materials were reused in SCL1121.
34. 1,290 m^3 of the Inert C&D materials were reused in SCL1121.
35. 1,100 m^3 of the Inert C&D materials were reused in SCL1121.
36. 2,190 m^3 of the Inert C&D materials were reused in SCL1121.
37. 1,040 m^3 of the Inert C&D materials were reused in SCL1121.
38. 890 m^3 of the Inert C&D materials were reused in SCL1121.
39. 830 m^3 of the Inert C&D materials were reused in SCL1121.
40. 1,230 m^3 of the Inert C&D materials were reused in SCL1121.
41. 700 m^3 of the Inert C&D materials were reused in SCL1121.
42. 980 m^3 of the Inert C&D materials were reused in SCL1121.
43. 630 m^3 of the Inert C&D materials were reused in SCL1121.
44. 210 m^3 of the Inert C&D materials were reused in SCL1121.
45. 250 m^3 of the Inert C&D materials were reused in SCL1121.
46. 660 m^3 of the Inert C&D materials were reused in SCL1121.
47. 910 m^3 of the Inert C&D materials were reused in SCL1121.
48. 830 m^3 of the Inert C&D materials were reused in SCL1121.
49. 350 m^3 of the Inert C&D materials were reused in SCL1121.

Appendix I Summary of Waste Flow Table (Works Contract 1112)

Month	MARINE SEDIMENT FLOW TABLE					
	Actual Quantities of Marine Dumping Monthly					
	Type 1			Type 2		
	Generated from SCL1111 [Note1]	Generated from SCL1112 [Note3]	Disposed	Generated from SCL1111 [Note2]	Generated from SCL1112 [Note4]	Disposed
Unit	(in '000m^3)			(in '000m^3)		
Jan-15	0	0	0	2.22	0.06	2.28
Feb-15	1.29	0	0.82	0	0	0
Mar-15	2.43	0	2.48	0	0	0
Apr-15	3.97	0.14	5.27	0	0	0
May-15	8.26	0.09	8.35	0	0	0
Jun-15	9.71	0.12	9.83	0	0	0
Jul-15	5.29	0	5.18	0	0	0
Aug-15	0	0	0	0	0	0
Sep-15	-	0	0	-	1.94	1.94
Oct-15	-	0.53	0.53	-	0	0
Nov-15	-	5.67	5.67	0	2.32	2.32
Dec-15	-	14.44	-	-	1.02	-
Jan-16	-	16.59	-	-	0.02	-
Feb-16	-	1.25	-	-	4.04	-
Mar-16	-	3.85	-	-	2.30	-
Apr-16	-	0	-	-	0.36	-
May-16	-	0	-	-	4.06	-
Jun-16	-	0	-	-	6.45	-
Jul-16	-	0	-	-	0	-
Aug-16	-	0	-	-	0	-
Sep-16	-	0	-	-	0	-
Oct-16	-	0	-	-	0	-
Nov-16	-	0	-	-	0	-
Dec-16	-	0	-	-	0	-
Jan-17	-	0	-	-	0	-

Appendix I Summary of Waste Flow Table (Works Contract 1112)

	MARINE SEDIMENT FLOW TABLE					
Feb-17	-	0	-	-	0	-
Mar-17	-	0	-	-	0	-
Apr-17	-	0	-	-	0	-
May-17	-	0	-	-	0	-
Jun-17	-	0	-	-	0	-
Jul-17	-	0	-	-	0	-
Aug-17	-	0	-	-	0	-
Sep-17	-	0	-	-	0	-
Oct-17	-	0	-	-	0	-
Nov-17	-	0	-	-	0	-
Dec-17	-	0	-	-	0	-
Jan-18	-	0	-	-	0	-
Feb-18	-	0	-	-	0	-
Mar-18	-	0	-	-	0	-
Apr-18	-	0	-	-	0	-
May-18	-	0	-	-	0	-
Jun-18	-	0	-	-	0	-
Jul-18	-	0	-	-	0	-
Aug-18	-	0	-	-	0	-
Sep-18	-	0	-	-	0	-
Oct-18	-	0	-	-	0	-
Nov-18	-	0	-	-	0	-
Dec-18	-	0	-	-	0	-
Jan-19	-	0	-	-	0	-
Feb-19	-	0	-	-	0	-
Mar-19	-	0	-	-	0	-
Apr-19	-	0	-	-	0	-
May-19	-	0	-	-	0	-
Jun-19	-	0	-	-	0	-

Appendix I Summary of Waste Flow Table (Works Contract 1112)

	MARINE SEDIMENT FLOW TABLE					
Jul-19	-	0	-	-	0	-
Aug-19	-	0	-	-	0	-
Sep-19	-	0	-	-	0	-
Oct-19	-	0	-	-	0	-
Nov-19	-	0	-	-	0	-
Dec-19	-	0	-	-	0	-
Jan-20	-	0	-	-	0	-
Feb-20	-	0	-	-	0	-
Mar-20	-	0	-	-	0	-
Apr-20	-	0	-	-	0	-
May-20	-	0	-	-	0	-
Jun-20	-	0	-	-	0	-
Jul-20	-	0	-	-	0	-
Aug-20	-	0	-	-	0	-
Sep-20	-	0	-	-	0	-
Oct-20	-	0	-	-	0	-
TOTAL	**31.69**	**42.67**	**38.11**	**2.22**	**22.57**	**6.54**

Note:

1. Type 1 Marine Sediment generated from SCL1111 was delivered to the Barging Point at SCL1121 for disposal.
2. Type 2 Marine Sediment generated from SCL1111 was delivered to the Barging Point at SCL1121 for disposal.
3. Type 1 Marine Sediment generated from SCL1112 was delivered to the Barging Point at SCL1121 for disposal.
4. Type 2 Marine Sediment generated from SCL1112 was delivered to the Barging Point at SCL1121 for disposal.

Appendix J

Cumulative Statistics on Complaints, Notification of Summons and Successful Prosecutions

Appendix J

Cumulative Statistics on Complaints, Notifications of Summons and Successful Prosecutions (Works Contract 1111)

	Date Received	Subject	Status
Environmental complaints	Referred by EPD on 6 November 2014	Details of Complaint: The complainant who lived at Wylie Court (Block C) complained that there were hammering noise generated from nearby constructions on 21 and 22 October 2014 at around 2300hrs. Details of Investigation and findings: With reference to the site diary, no hammering works and PME were operated in the vicinity of Wylie Court in the concerned period. The investigation report for the complaint was sent to EPD on 24 November 2014.	Closed
	Referred by EPD on 8 May 2017	Details of Complaint: An environmental complaint was received by EPD on 1 May 2017. The complainant alleged to be a driver who was particularly annoyed by dust from the subject sites while driving a car on Chatham Road North towards To Kwa Wan on 29 April 2017 at 2 – 4 pm. Details of Investigation and findings: As reported by the Contractor, a few bagged cement were dropped from a passing vehicle on Chatham Road North in the afternoon on 29 April 2017. The bags were damaged by the traffic and thus cement powder was scattered on the road. Both the vehicle and cement bags were not under this Contract nor relevant Contractors. The complaint is therefore considered not likely to be related to the construction works of this Contract. The investigation report for the complaint was sent to EPD on 18 May 2017.	Closed
Notification of summons	-	-	-
Successful Prosecutions	-	-	-

Appendix J

Cumulative Statistics on Complaints, Notifications of Summons and Successful Prosecutions (Works Contract 1112)

				LOCATION OF CONCERN	STATUS
Environmental Complaints	22 & 24 December 2019	Public comment received by EPD, EPD's Ref. No. K01/RE/36723-2019	General construction noise except renovation (within Restricted Hours)	Hung Hom MTR Station	• Environmental performance at the site and implementation status of proposed noise mitigation measures were immediately reviewed by the Contractor on 24 December 2019 • On 22 December 2019, scaffolding dismantling was carried out inside the Concourse. On 24 December 2019, installation of ceiling panels and floor tiles were carried out involving the use of scissor lifts. • All works on both days were carried out with the concourse entrance closed as a mitigation measure and was covered by a valid CNP. • Investigation report will be submitted to EPD before 9 January 2020.
	7 January 2019	Public comment received by EPD, EPD's Ref. No. K01/RE/00000599-19	General construction noise except renovation (within Restricted Hours)	Hung Hom MTR Station	• Environmental performance at the site and implementation status of proposed noise mitigation measures were immediately reviewed by the Contractor on 8 January 2019. • No external works outside Hung Hom Concourse were carried out during the time of the complaint. • On 8 January 2019, signage erection involving one scissor lift, hand-drill and hand-held breaker was carried out inside the Concourse. All works were carried out with the concourse entrance closed and was covered by a valid CNP. • The noise from such equipment and machinery does not appear to match the noise in the sound recording provided by the complainant. No source of the noise in the sound recording could be identified from construction works carried out at Hung Hom Station. • Investigation report submitted to EPD on 17 January 2019.
Environmental Complaints	19 January 2018	Public comment received by EPD, EPD's Ref. No. K01/RE/00002030	General construction noise except renovation (within Restricted Hours)	Hung Hom MTR Station	• Environmental performance at the site and implementation status of proposed noise mitigation measures were immediately reviewed by the Contractor on 19 January 2018.

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Cumulative Statistics on Complaints, Notifications of Summons and Successful Prosecutions (Works Contract 1112)

	DATE RECEIVED	REFERENCE NO.	SUBJECT	LOCATION OF CONCERN	STATUS
		-18 & K01/RE/00002056 -18			• Ceiling panel works involving elevated working platforms (scissor lifts or cherry pickers) inside the concourse was carried out on 19 and 20 January 2018. All works were carried out behind the door leaves with the concourse entrance closed. • On 19 January 2018, there was also works carried out outside the concourse which required the use of a scissor lift for hoarding removal at North Concourse and paint removal at East Concourse. • The scissor lift platform mobilization sound, i.e. “beeping” sound, has already been muted to minimise sound since the working area was already fenced off with a lookout man provided. However, the level sensor of the scissor lift would be activated as a safety warning signal whenever the platform is at a high position with balance at risk. • All works carried out by SCL Contract 1112 on 19 and 20 January 2018 were covered by valid CNPs. • Investigation report submitted to EPD on 26 January 2018.

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Cumulative Statistics on Complaints, Notifications of Summons and Successful Prosecutions (Works Contract 1112)

	DATE RECEIVED	REFERENCE NO.	SUBJECT	LOCATION OF CONCERN	STATUS
Environmental Complaints	7 December 2017	Public comment received by EPD, EPD's Ref. No. K01/RE/ 00039690-17	Dust Nuisance	Hong Kong Coliseum, 9 Cheong Wan Road, Hung Hom	• The Contractor immediately reviewed environmental performance at the site and implementation status of dust mitigation measures upon receipt of Notice of Complaint from EPD. • The Contractor confirmed that remediation work of concrete wall on top of the vent shaft was on-going at SAT (near the podium of the Hong Kong Coliseum). • Tarpaulin sheet as a construction dust barrier was implemented as dust mitigation measures during the course of the remediation work, and additional mitigation measure in the form of water spraying for dust suppression in the works area was immediately provided by the Contractor after site review. • Given the fact that remediation works surrounding the podium are completed and mitigation measures in place are considered sufficient and effective, the construction works for Contract 1112 is unlikely to cause any dust nuisance. • Investigation report submitted to EPD on 15 December 2017.
Environmental Complaints	10 April 2017	Public comment received by EPD, EPD's Ref. No. K01/RE/00010598 -17	General construction noise except renovation (within Restricted Hours)	The Metropolis, No. 7-10 Metropolis Drive, Tsim Sha Tsui	• ET conducted inspection to examine the environmental performance of the site on 13 April 2017. • The Contractor confirmed bulkhead wall demolition work using coring machine at SAT was carried out on 7 & 8 April 2017 during 1 am – 5 am behind the door leaves and no machinery that would generate beeping sound was involved. • On the two nights from 6 to 8 April 2017, installation of smoke barrier was conducted under podium which required the use of a cherry picker. During cherry picker platform mobilization, safety warning signal, i.e. "beeping" sound, would be emitted. Since the cherry picker was located under the podium with no direct line of sight from the Metropolis Residence, safety warning signal should not

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Cumulative Statistics on Complaints, Notifications of Summons and Successful Prosecutions (Works Contract 1112)

	DATE RECEIVED	REFERENCE NO.	SUBJECT	LOCATION OF CONCERN	STATUS
					be audible from above the podium or at the Metropolis Residence. • There was works involving the use of scissor lifts inside the concourse during April 2017 from 1 am – 5 am. However, such works were carried out with the main door closed. • On 6 & 7 April 2017, there were loading and unloading works using a crane lorry at the north side outside the Concourse from 1 am – 5 am. Backwards movement of the crane lorry would also emit a "beeping" sound as the safety warning signal to alert nearby worker of the movement of the vehicle. • All works carried out by SCL Contract 1112 in early April 2017 are covered by valid CNPs. • Investigation report submitted to EPD on 2 May 2017.
Environmental Complaints	13 March 2017	Public comment received by EPD, EPD's Ref. No. EP3/K01/RE/0000 7049-17	General construction noise except renovation (within Restricted Hours)	Hong Kong Coliseum at No. 9 Cheong Wan Road, Tsim Sha Tsui	• ET conducted inspection to examine the environmental performance of the site on 16 March 2017. • The Contractor confirmed no construction works was carried out at the uncovered site area to the south of the Hong Kong Coliseum podium on 12 March 2017. • It is confirmed that general housekeeping works were carried out under the Hong Kong Coliseum podium to prepare site hand over. No noisy operation with PME or hammering works was carried out that could lead to generation of noise nuisance. • A valid Construction Noise Permit (CNP No. GW-RE0124-17) valid from 28 February 2017 to 27 August 2017 was granted for construction works, including the housekeeping works, carried out under the podium during all restricted hours. • Given the fact that only housekeeping works were carried out under the podium of the Hong Kong Coliseum on 12 March 2017, noise nuisance reported by the complainant shall not be generated from the site managed under SCL Contract 1112.

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Cumulative Statistics on Complaints, Notifications of Summons and Successful Prosecutions (Works Contract 1112)

	DATE RECEIVED	REFERENCE NO.	SUBJECT	LOCATION OF CONCERN	STATUS
					• Investigation report submitted to EPD on 21 March 2017.
Environmental Complaints	8 April 2016	Public comment received by EPD, EPD's Ref. No. K01/RE/00008018 -16	Air nuisance, other than dark smoke, from construction machine	Hung Hom Station, Tsim Sha Tsui	• ET conducted inspection to examine the environmental performance of the site on 14 April 2016. • Both the site and machineries were in normal operation during the site inspection. No air nuisance or smell of diesel exhaust was noticed at the concourse by any of the attending personnel. • No diesel powered equipment was found at the concourse, as all of the powered mechanical equipment was powered by electricity. • It is confirmed that the fresh air intake location of the air conditioning system serving the concourse level is located above the podium at the southern façade of the concourse, away from the construction work under the podium. • It is also confirmed that the sealed system is totally separated from the construction site under the podium. No air from the construction area under the podium will be drawn into the air conditioning system for distribution within the station. • The source of strong diesel exhaust smell at the concourse, as mentioned by the complainant, could not be identified. • Investigation report submitted to EPD on 26 April 2016.
Environmental Complaints	11 April 2016	Public comment received by EPD, EPD's Ref. No. K01/RE/00008149 -16	Complaint of other air nuisance at Hung Hom Station, Tsim Sha Tsui	Hung Hom Station, Tsim Sha Tsui	• Complaint confirmed to be irrelevant to the construction works of the Project, no follow up required.
Environmental Complaints	24 March 2016	Public comment received by EPD, EPD's Ref. No. K01/RE/00006851 -16	"General construction noise except renovation (within Restricted Hours) from Hung Hom Station, Tsim Sha Tsui"	Hung Hom Station, Tsim Sha Tsui	• The Contractor confirmed that only mobilization, i.e. transportation of the equipment itself, of the scissor lift platforms were carried out during night time. During scissor lift platforms mobilization, safety warning signal (the "beeping" noise) would be emitted. The audible warning signal device cannot be switched off so as to alert nearby workers of the movement of the equipment.

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Cumulative Statistics on Complaints, Notifications of Summons and Successful Prosecutions (Works Contract 1112)

	DATE RECEIVED	REFERENCE NO.	SUBJECT	LOCATION OF CONCERN	STATUS
					Silencing the device could induce safety concern and not advisable. • At night time of 22 and 23 March 2015, a forklift was deployed for the transportation of concrete blocks to be used as the footings for hoarding construction outside the concourse area (Photo 2). Backward movement of the forklift would also generate safety warning signal. • There is another valid CNP (CNP No. GW-RE0176-16) for construction works to be carried out inside the concourse during night time. However, this is not applicable to the works of concern, located outside the concourse area. Whereas CNP No. GW-RE0207-16, effective from 10 March 2016 to 28 April 2016, allows mobilization of scissor lift platforms and use of forklift for transportation of construction material outside the MTR Hung Hom Station. • Investigation report submitted to EPD on 20 April 2016.
Environmental Complaints	28 September 2015	Public comment received by EPD, K01/RE/00024658 -15	Complaint of general construction noise except renovation (within Restricted Hours) from construction site at Hung Hom	Harbour Plaza Metropolis, Tsim Sha Tsui	• A valid construction noise permit (CNP) (CNP no. GW-RN0969-15) was granted for such works from 25 September 2015 to 24 March 2016. • Noise mitigation measures were implemented at the site. • Due to the limited construction works being carried out during the evening period and most of the active construction works being carried out under the podium which had no direct line of sight from the nearest sensitive receiver, Harbour Plaza Metropolis, construction noise nuisance from Shatin to Central Link (SCL) Contract 1112 should not be anticipated. • Investigation report submitted to EPD on 3 November 2015.

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Cumulative Statistics on Complaints, Notifications of Summons and Successful Prosecutions (Works Contract 1112)

	DATE RECEIVED	REFERENCE NO.	SUBJECT	LOCATION OF CONCERN	STATUS
Environmental Complaints	10 March 2015	Public comment received by EPD, K01/RE/00005632-15	Complaint of malodour from Hung Hom Station (near Exit B1)	Hung Hom Station, Tsim Sha Tsui	• ET conducted inspection to examine the environmental performance of the site on 12 Mar 2015 • No odour was noticed by all attending parties. It was observed that excavation, predrilling, welding, box culvert construction and installation of TAM grout pipeworks were carried out at the NAT works area, located to the west and east of the footbridge • The source of malodour could not be identified • A barrier was erected on the eastern side of footbridge, with the barrier already in place on the western side of the footbridge since November 2014, so now both sides of the footbridge contain barriers to shield off any dust or odour from the site • No noticeable malodour was observed and the air quality control was found to be satisfactory according to conversation between EPD and the Contractor • Investigation Report submitted to EPD on 26 Mar 2015
Notification of Summons	3 Oct 2016	Summon received by Mr. MAK Wong-Chuen, Case No.: KTS16747/2016	On 1 April 2016, Mr. MAK Wong-Chuen operated a hand-held electric breaker at around 0053hr outside the Concourse, in violation of Section 6 (1) (a) and 6 (5) of the Noise Control Ordinance (Cap. 400). Mr. Mak Wong-Chuen was employed by Palgo Company Limited, which is a sub-contractor for SCL Contract 1112's main contractor, Leighton Contractors (Asia) Limited.	Entrance C2 of Hung Hom Station	• The hearing took place on 3 Nov 2016 at Kwun Tong Magistrates' Courts. Remarks: The summon was only sent to the individual. Neither Palgo Company Limited nor Leighton Contractors (Asia) Limited received the summons.

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Cumulative Statistics on Complaints, Notifications of Summons and Successful Prosecutions (Works Contract 1112)

	DATE RECEIVED	REFERENCE NO.	SUBJECT	LOCATION OF CONCERN	STATUS
Successful Prosecution	3 Nov 2016	Summon received by Mr. MAK Wong-Chuen, Case No.: KTS16747/2016	On 1 April 2016, Mr. MAK Wong-Chuen operated a hand-held electric breaker at around 0053hr outside the Concourse, in violation of Section 6 (1) (a) and 6 (5) of the Noise Control Ordinance (Cap. 400). Mr. Mak Wong-Chuen was employed by Palgo Company Limited, which is a sub-contractor for SCL Contract 1112's main contractor, Leighton Contractors (Asia) Limited.	Entrance C2 of Hung Hom Station	• The hearing took place on 3 Nov 2016 at Kwun Tong Magistrates' Courts. • The worker pleaded guilty and paid a HKD 15,000 fine. • After the incident, Leighton has reviewed their internal procedures/ working methods to identify the cause of non-compliance and potential improvements. • Upon review, Leighton's current system is found to be adequate to ensure proper implementation of their construction work undertaken at night and they will continue to implement the environmental management systems with the objective of ensuring environmental compliance.