

MTR Corporation Limited

**Shatin to Central Link –  
Tai Wai to Hung Hom Section**

**Construction Noise Mitigation Measures Plan  
(CNMMP)**

**Works Contract 1106 – Diamond Hill Station  
(April 2015)**

Verified by: Fredrick Leong 

Position: Independent Environmental Checker

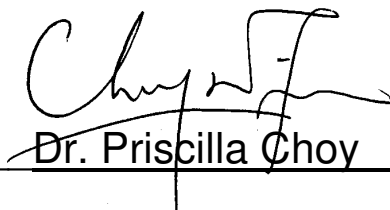
Date: 13 April 2015

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Certified by:   
\_\_\_\_\_ Dr. Priscilla Choy

Position: Environmental Team Leader

Date: 10<sup>th</sup> April 2015

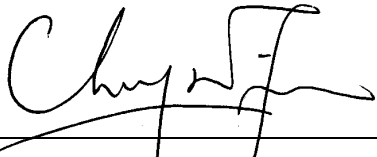
# Sembawang-Leader Joint Venture

## Shatin to Central Link – Contract 1106 Diamond Hill Station

### Construction Noise Mitigation Measures Plan

(Version 7.4)

April 2015

Approved By	 _____ (Contractor's Environmental Team Leader)
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REMARKS:

The information supplied and contained within this report is, to the best of our knowledge, correct at the time of printing.

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## 1 INTRODUCTION

### Background

- 1.1 The Shatin to Central Link – Tai Wai to Hung Hom Section (hereafter referred to as SCL (TAW-HUH)) is an approximately 11 km long extension of the Ma On Shan Line and links up with the West Rail Line at Hung Hom forming a strategic east-west rail corridor. It is a Designated Project under the Environmental Impact Assessment Ordinance (Cap. 499) (EIAO).
- 1.2 The Environmental Impact Assessment (EIA) Report of the SCL (TAW-HUH) (Register No. AEIAR-167/2012) and SCL – Stabling Sidings at Hung Hom Freight Yard (hereafter referred to as SCL (HHS)) (Register No. AEIAR-164/2012) were approved by the Environmental Protection Department (EPD) under the EIAO on 17 February 2012. An Environmental Permit (EP-438/2012) has been issued on 22 March 2012. The EP has been varied recently and a varied EP (EP-438/2012/H) was issued on 10 September 2014.
- 1.3 The construction of the SCL (TAW-HUH) and SCL (HHS) have been divided into a series of civil construction works contracts. This Works Contract 1106 covers the construction of SCL Diamond Hill Station (DIH) which is under the approved SCL (HHS) EIA Report. This construction contract was awarded to Sembawang-Leader Joint Venture (SLJV) in December 2012.

### Purpose of this Construction Noise Mitigation Measures Plan

- 1.4 According to the Condition 2.9 of the EP-438/2012/H, to further reduce the air-borne construction noise impacts on the 19 noise sensitive receivers (NSRs) shown in Table 1 of the EP with exceedance after mitigation as predicted in the SCL (TAW-HUH) EIA Report (Register No. AEIAR-167/2012) and SCL (HHS) EIA Report (Register No. AEIAR-164/2012), the Permit Holder shall, no later than one month before the commencement of construction of the Project, submit to the Director of Environmental Protection (DEP) for approval four hard copies and one electronic copy of an updated Construction Noise Mitigation Measures Plan (CNMMP) and other initiatives proposed by the Permit Holder. The CNMMP shall include:
  - a schedule of construction works to be carried out at the works areas of the Project within 300m from the NSRs;
  - an updated construction methodology of the proposed construction works;
  - an updated powered mechanical equipment (PME) list for the proposed construction works;
  - an updated proposal of air-borne noise mitigation measures for the 19 NSRs as shown in Table 1 of this Permit, including the provision of noise barriers, enclosures and Indirect Technical Remedies;
  - an updated prediction of noise levels in accordance with the above updated information and mitigation proposals in place.
- 1.5 Before submission to the DEP, the CNMMP will be certified by the Environmental Team (ET) Leader and verified by the Independent Environmental Checker (IEC) as conforming to the relevant information and recommendations contained in the approved SCL (TAW-HUH) EIA Report (Register No. AEIAR-167/2012) and

SCL(HHS) EIA Report (Register No. AEIAR-164/2012). All measures recommended in the approved CNMMP will be fully and properly implemented during construction.

- 1.6 The CNMMP was first approved in February 2013 and the last version of the CNMMP was approved in February 2014.
- 1.7 Of the 19 NSRs with residual construction noise impacts identified in the Table 1 of EP-438/2012/H and required to be included in the CNMMP under the EP condition, 5 of them are relevant to Works Contract 1106. The locations of the NSRs covered in this CNMMP are shown in **Appendix C**.
- 1.8 This CNMMP is prepared to comply with the above-mentioned requirements. Due to programme updates that some activities will shift around from 4 months to 6 months while duration of some activities will be shortened.
- 1.9 The CNMMP is updated in order to include the provision of a Mobile Batching Machinery Equipment (MBME) and associated PMEs as assessed in the Environmental Review Report<sup>(1)</sup> as well as other recent update on construction schedule and PME list under Contract 1106.
- 1.10 In addition, it is also proposed to supply the spare concrete from the MBME to other SCL works sites/areas for supporting the construction of SCL Project. A review has been conducted to evaluate the potential environmental implications associated with this arrangement, and the findings are presented in **Appendix D**. No significant environmental impact will be resulted from the proposed off-site delivery of spare concrete to other SCL work areas, the proposed concrete supply arrangement would be acceptable.

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<sup>(1)</sup> Environmental Review Report – Proposed Mobile Batching Machinery Equipment (ERR – MBME) at Diamond Hill (July 2014), AECOM Asia Consultant Limited. This ERR was submitted together with the application of Variation of the Environmental Permit of SCL (TAW-HUH) (EP No: EP-438/2012/F). The VEP application (Application No.: VEP-450/2014) was approved by Environmental Protection Department (EPD) with EP-438/2012/G issued by Director of Environmental Protection (DEP) on 14 August 2014.

## 2 DESCRIPTION OF CONSTRUCTION WORKS IN THE STUDY AREA

### Noise Sensitive Receivers

- 2.1 The 300m study areas of the identified 5 NSRs with predicted residual construction noise impacts are shown in **Table 2.1**. The location of the 5 NSRs, the layout plan of worksites and their notional distance to works areas are depicted in **Appendix C**.

**Table 2.1 NSRs with Predicted Residual Air-borne Construction Noise Impacts (Extracted from Table 1 of the EP)**

NSR ID	NSR Description	Uses <sup>[1]</sup>	Criterion <sup>[2]</sup> dB(A)	Predicted Maximum Noise Level dB(A)	Predicted Residual Noise Impact dB(A)
DIH-9-1	Shek On Building	E + W	70 (65) <sup>[2]</sup>	70 (70)	0 (5) <sup>(3)</sup>
DIH-13-1	Canossa Primary School	E	70 (65) <sup>[2]</sup>	67(66)	0 (1) <sup>(3)</sup>
DIH-14-1	Rhythm Garden Block 2	R	75	77	2
DIH-14-4	Canossa Primary School (San Po Kong)	E	70 (65) <sup>[2]</sup>	69 (68)	0(3) <sup>(3)</sup>
DIH-14-5	Rhythm Garden Block 1	R	75	78	3

Notes:

- [1] R- Residential; E – Educational institution; W-Worship  
 [2] Values in parentheses indicate the noise criterion during examination period (typical examination period in May, June, November and December) of educational institution.  
 [3] Residual impact is only expected during the examination period (typical examination period in May, June, November and December) of the educational institution.

### Construction Methodology

- 2.2 As mentioned in Section 1.3, the construction of SCL DIH is covered by SCL (HHS) EIA. The proposed construction methodology is generally following that presented in Section 3 of the approved SCL (HHS) EIA Report. The underground SCL DIH Station will employ bored piles and D-walls while the underground structure will be constructed by in-situ concreting.
- 2.3 A breakdown of the major construction activities in sequence to be carried out within the contract are provided in **Appendix A**.

### Updated Construction Programme

- 2.4 The updated construction programme prepared by SLJV has been used in this CNMMP and has been presented on a monthly basis for the duration of the construction works in corresponding worksites. The construction schedule has been updated based on the latest information submitted under SCL(TAW-HUH) EP and adjusted such that to minimise concurrent construction works to be carried out in the vicinity as far as practicable. The updated construction programme for SCL DIH is provided in **Appendix A**. A highlighted version of construction programme is also included in **Appendix A** to highlight the updates.



## Updated Powered Mechanical Equipment List

- 2.5 The updated Powered Mechanical Equipment (PME) list for the construction works is provided in **Table 3.1**. Only the provision of the MBME in worksite S10 is added. For other work sites, there would be no change in the number / items of PMEs but the percentage on-time for some works sites are reduced based on the latest construction programme. The percentage on time of the PMEs were amended as the engineering programme was updated and was confirmed by the Contractor. The Sound Power Levels (SWL) for the PMEs have been adopted from EPD's Technical Memorandum on Noise from Construction Work Other than Percussive Piling (GW-TM), list of SWLs of other commonly used PME<sup>(2)</sup> or British Standard BS 5228-1:2009<sup>(3)</sup>. It should be noted that the PMEs proposed are commonly available in the Hong Kong market. The PMEs to be adopted for individual construction activities for SCL DIH are provided in **Appendix B**.

## 3 NOISE ASSESSMENT AND PROPOSED MITIGATION MEASURES

### Assessment Methodology and Assumptions

- 3.1 The construction noise assessment has been carried out in accordance with the methodology used in the approved SCL (HHS) EIA Report (Register No. AEIAR-164/2012). Demarcation of the sub-works areas and notional source distances adopted in the calculations mainly follows those presented in the SCL(HHS) EIA Report with updates from the latest information submitted under SCL(TAW-HUH) EP, which are presented in **Appendix C**.
- 3.2 The percentage on-time for each PME has been estimated individually for each construction activity to ensure practicality.
- 3.3 The SLJV has confirmed that the programme and plant inventory are reasonable and practicable for completing the Works Contract 1106 within the scheduled timeframe.
- 3.4 Mitigation measures and their effectiveness proposed in the SCL (HHS) EIA Report including the use of temporary movable noise barrier, acoustic mat and quiet plant have been considered in this CNMMP, as shown in **Table 3.1**. Details of proposed mitigation measures for DIH are presented in **Appendix B**.
- 3.5 There are no concurrent projects (other than SCL) located in the vicinity of the works sites in DIH, and thus no cumulative impacts from the concurrent project(s) are anticipated.

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<sup>(2)</sup> "Sound power levels of other commonly used PME" prepared by the Noise Control Authority ([http://www.epd.gov.hk/epd/english/application\\_for\\_licences/guidance/files/OtherSWLe.pdf](http://www.epd.gov.hk/epd/english/application_for_licences/guidance/files/OtherSWLe.pdf))

<sup>(3)</sup> British Standard BS 5228:2009, Part 1 - Noise and Vibration Control on Construction and Open Sites

**Table 3.1 PME List with Proposed Mitigation Measures Adopted under Works Contract 1106**

PME	TM Ref. /Other Ref. <sup>(4)</sup> /BS5228 Ref. <sup>(5)</sup>	SWL, dB(A)	Type of Noise Mitigation Measures	Noise Level Reduction, dB(A)
Air Compressor	CNP003	104	Barrier	-5
Asphalt Paver	CNP004	109	-	-
Bar Bender and Cutter	CNP021	90	-	-
Breaker (Pneumatic)	BS D2 10	110	Barrier	-5
Breaker, hand-held, mass > 10kg and < 20kg	CNP024	108	Barrier	-5
Bulldozer	BS C2 13	106	Barrier	-5
Concrete Lorry Mixer	BS D6 23	100	Barrier	-5
Concrete Pumping Lorry	CNP047	109	-	-
Crane Mobile	BS D7 114	101	Barrier	-5
Dump Truck	BS D3 60	110	Barrier	-5
Dump truck, with grab, 5.5 tonnes < gross vehicle wt. < 38 tonnes	CNP069 <sup>(4)</sup>	105	Barrier	-5
Excavator/Loader, Wheeled/Tracked	BS D3 35	106	Barrier	-5
Grout Mixer	CNP105	90	Barrier	-5
Grout Pump	CNP106	105	Barrier	-5
Hand Held Breaker	CNP025	111	Barrier	-5
Lorry	BS D9 19	102	Barrier	-5
Lorry, crane /grab	CNP145	105	Barrier	-5
Lorry, 5.5 tonnes < gross vehicle wt. < 38 tonnes	CNP142 <sup>(4)</sup>	105	-	-
Lorry, with crane, 5.5 tonnes < gross vehicle wt. < 38 tonnes	CNP145 <sup>(4)</sup>	105	Barrier	-5
Lorry, with crane, gross wt. >38 tonnes	CNP144	112	Barrier	-5
Mini Backhoe	CNP082	94	Barrier	-5
Mobile Batching Machinery Equipment	CNP022	108	Barrier	-5
Paint Line Marker	CNP161	90	-	-
Piling Rig and Drilling Rig	BS D4 44	109	Acoustic Mat	-10
Piling, Diaphragm Wall, Bentonite Filtering Plant	CNP162	105	Barrier	-5
Piling, Diaphragm Wall, Hydraulic Extractor	CNP163	90	Barrier	-5
Piling, Large Dia. Bored, Oscillator	CNP165	115	Acoustic Mat	-10
Piling, Large Diameter Bored, Grab and Chisel	CNP164	115	Acoustic Mat	-10
Piling, large diameter bored, reverse circulation drill	CNP 166	100	Acoustic Mat	-10
Poker, Vibratory, Hand Held	BS D6 40	98	Barrier	-5
Roller	CNP185	108	Barrier	-5
Roller, Vibratory	CNP186	108	Barrier	-5
Saw, Chain, Hand-held	CNP202	114	-	-
Saw, Circular Wood	CNP201	108	-	-

<sup>(4)</sup> “Sound power levels of other commonly used PME” prepared by the Noise Control Authority ([http://www.epd.gov.hk/epd/english/application\\_for\\_licences/guidance/files/OtherSWLe.pdf](http://www.epd.gov.hk/epd/english/application_for_licences/guidance/files/OtherSWLe.pdf) )

<sup>(5)</sup> British Standard BS 5228:2009, Part 1 - Noise and Vibration Control on Construction and Open Sites

Tower Crane	CNP049	95	-	-
Water Pump, Submersible (Electric)	CNP283	85	-	-
Welder/Generator, Portable	CNP107	100	Barrier	-5

### Proposed Mitigation Strategy and Noise Assessment Results

- 3.6 The air-borne construction noise impacts for the construction activities under Works Contract 1106 have been assessed and summarised in **Table 3.2**. The cumulative construction noise levels in this CNMMP at identified NSRs (DIH-13-1, DIH-14-1, DIH-14-4, DIH-14-5) remained unchanged as compared with the previously approved CNMMP; and noise level at DIH 9-1 is lower than that in previous CNMMP. The detailed assessment result for SCL DIH is presented in **Appendix B**. The proposed mitigation measures described above are included in the assessment and, as such, only the mitigated scenario has been presented.
- 3.7 With the implementation of quiet plant, temporary movable noise barrier and acoustic mat for the PMEs, and scheduling of PMEs at worksite as far as possible, no exceedances of noise criteria at all the identified NSRs are predicted. Residual impact is therefore not expected to be anticipated.

**Table 3.2 Updated Mitigated Construction Noise Impact at Identified NSRs**

NSR	Noise Criteria dB(A) <sup>(1)</sup>	SCL (TAW-HUH) EIA Prediction <sup>(2)</sup>		SCL (HHS) EIA Prediction <sup>(3)</sup>		CNMMP Prediction <sup>(4) (5)</sup>	
		Max Noise Level, dB(A) <sup>(6)</sup>	Exceedance Duration (Month)	Max Noise Level, dB(A)	Exceedance Duration (Month)	Max Noise Level, dB(A) <sup>(6)(7)</sup>	Exceedance Duration (Month)
DIH-9-1	70 (65)	70 (70)	0 (2)	63	-	65 (65)	-
DIH-13-1	70 (65)	67 (66)	0 (2)	61	-	62 (62)	-
DIH-14-1	75	77	5	66	-	69	-
DIH-14-4	70 (65)	69 (68)	0 (3)	64	-	66 (65)	-
DIH-14-5	75	78	1	65	-	68	-

Notes:

- (1) Values in parentheses indicate the noise criterion during examination period of educational institution
- (2) Extracted from Table 8.15 of SCL (TAW-HUH) EIA – Residual Impacts at Noise Sensitive Receivers
- (3) Extracted from Table 8.13 of SCL (HHS) EIA – Predicted Maximum Mitigated Construction Noise Levels at Noise Sensitive Receivers
- (4) Cumulative impact arisen from other SCL(TAW-HUH) contracts near SCL DIH is considered.
- (5) Cumulative impact arisen from Tsz Wan Shan Pedestrian Link is not anticipated given the separation distance of >300m between the works sites and NSRs.
- (6) Values in parentheses indicate the predicted noise level during the examination period (typical examination periods in May, June, November and December) at the educational institutions: Shek On House [DIH-9-1], Canossa Primary School [DIH-13-1] and Canossa Primary School (San Po Kong) [DIH-14-4].
- (7) According to the schools' activity schedules for year 2014 to 2015 of Canossa Primary School [DIH-13-1] and Canossa Primary School (San Po Kong) [DIH-14-4], the examination periods were scheduled in November 2014, March and June 2015. Based on the schools' previous schedules and for the purpose of assessment, the typical examination periods were set in March, May, June, November and December.

## **4 CONCLUSION**

- 4.1 With the implementation of the proposed noise mitigation measures, updated construction programme and PME list, construction noise impacts at all identified NSRs would comply with the noise criterion of 75 dB(A) for residential premises and 70/65 dB(A) for educational institutions during normal or examination period respectively.
- 4.2 Where necessary, further review and update will be performed during the construction phase and liaison with affected parties is recommended to minimise the construction noise impacts as far as practicable.

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**APPENDIX A –  
Updated Construction Programme of Works  
Contract 1106**

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**APPENDIX B –  
Proposed Mitigation Measures and Detailed  
Noise Assessment**

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**Appendix B1 : SCL Contract 1106 - Diamond Hill Station  
Construction Plant Inventory (With Mitigation)**

**Area: Worksite S1**

No.	Activities	Name of PME (TM Ref./Other Ref.[1])	No. of PME	On Time %	Unit SWL, dB(A)	SWL, dB(A)	Type of Noise Control[3]	Noise Reduction	Total SWL, dB(A) [2]
1	Landscape & Finish	Bar Bender and Cutter (CNP021)	1	20	90	83			<b>98</b>
		Poker, Vibratory, Hand Held (BS D6 40)	1	20	98	91	Barrier	-5	
		Crane Mobile (BS D7 114)	1	30	101	96	Barrier	-5	
		Concrete Lorry Mixer (BS D6 23)	1	30	100	95	Barrier	-5	
		Lorry (BS D9 19)	1	80	102	101	Barrier	-5	
2	Entrance (A2) Construction build head wall, Temp access, opening & Staircase	Bar Bender and Cutter (CNP021)	1	50	90	87			<b>104</b>
		Saw, Circular Wood (CNP201)	1	30	108	103			
		Poker, Vibratory, Hand Held (BS D6 40)	2	20	98	94	Barrier	-5	
		Crane Mobile (BS D7 114)	1	30	101	96	Barrier	-5	
		Concrete Lorry Mixer (BS D6 23)	1	30	100	95	Barrier	-5	
		Water Pump, Submersible (Electric) (CNP283)	2	100	85	88			
		Welder/generator, portable (CNP107)	1	100	100	100	Barrier	-5	
Tower Crane (CNP049)	1	60	95	93					
4	Partial demolish Entrance (A2)	Breaker (Pneumatic) (BS D2 10)	1	100	110	110	Barrier	-5	<b>112</b>
		Hand Held Breaker (CNP025)	1	100	111	111	Barrier	-5	
		Dump truck (BS D3 60)	2	40	110	109	Barrier	-5	
		Saw, Chain, Hand-held (CNP202)	1	30	114	109			
5	Entrance (A2) - Install ELS	Crane Mobile (BS D7 114)	1	80	101	100	Barrier	-5	<b>101</b>
		Lorry (BS D9 19)	1	50	102	99	Barrier	-5	
		Piling Rig and Drilling Rig (BS D4 44)	1	100	109	109	Acoustic Mat	-10	
6	Entrance (A2) - Install Pipe Pile Wall	Piling Rig and Drilling Rig (BS D4 44)	1	100	109	109	Acoustic Mat	-10	<b>101</b>
		Lorry (BS D9 19)	1	20	102	95	Barrier	-5	
		Crane Mobile (BS D7 114)	1	80	101	100	Barrier	-5	
		Concrete Lorry Mixer (BS D6 23)	1	20	100	93	Barrier	-5	
		Water Pump, Submersible (Electric) (CNP283)	1	90	85	85			
7	Entrance (A2) - Install ELS near Adit D1	Crane Mobile (BS D7 114)	1	80	101	100	Barrier	-5	<b>101</b>
		Lorry (BS D9 19)	1	50	102	99	Barrier	-5	
		Piling Rig and Drilling Rig (BS D4 44)	1	100	109	109	Acoustic Mat	-10	
8	Entrance (A2) - Demolish Subway	Breaker (Pneumatic) (BS D2 10)	1	100	110	110	Barrier	-5	<b>111</b>
		Hand Held Breaker (CNP025)	1	30	111	106	Barrier	-5	
		Dump truck (BS D3 60)	2	50	110	110	Barrier	-5	
		Saw, Chain, Hand-held (CNP202)	1	20	114	107			
9	Entrance (A2) - Install ELS & Struts	Crane Mobile (BS D7 114)	1	80	101	100	Barrier	-5	<b>101</b>
		Lorry (BS D9 19)	1	50	102	99	Barrier	-5	
		Piling Rig and Drilling Rig (BS D4 44)	1	100	109	109	Acoustic Mat	-10	

**Note:**

[1] BS - British Standard BS 5228:2009, Part 1 Noise and Vibration Control on Construction and Open Sites

Other Ref. - SWLs refer to other PME documented by the Noise Control Authority (EPD/PME/no.)

([http://www.epd.gov.hk/epd/english/application\\_for\\_licences/guidance/files/OtherSWLe.pdf](http://www.epd.gov.hk/epd/english/application_for_licences/guidance/files/OtherSWLe.pdf))

[2] The figures are rounded-up to a whole number.

[3] With reference to the approved SCL(HHS) EIA Report (Register No. AEIAR-164/2012)

Enclosure for movable plant : -5dB(A)

Enclosure for relatively static plant : -10dB(A)

Barrier for movable plant : -5 dB(A)

Barrier for relatively static plant : -10dB(A)

Acoustic mat : -10dB(A)

**Appendix B1 : SCL Contract 1106 - Diamond Hill Station  
Construction Plant Inventory (With Mitigation)**

**Area: Worksite S1**

No.	Activities	Name of PME (TM Ref./Other Ref.[1])	No. of PME	On Time %	Unit SWL, dB(A)	SWL, dB(A)	Type of Noise Control[3]	Noise Reduction	Total SWL, dB(A) [2]
10	Install ELS & Struts (West End)	Crane Mobile (BS D7 114)	1	80	101	100	Barrier	-5	<b>101</b>
		Lorry (BS D9 19)	1	50	102	99	Barrier	-5	
		Piling Rig and Drilling Rig (BS D4 44)	1	100	109	109	Acoustic Mat	-10	
11	Install Pipe Pile Wall (West End)	Piling Rig and Drilling Rig (BS D4 44)	1	100	109	109	Acoustic Mat	-10	<b>101</b>
		Lorry (BS D9 19)	1	20	102	95	Barrier	-5	
		Crane Mobile (BS D7 114)	1	80	101	100	Barrier	-5	
		Concrete Lorry Mixer (BS D6 23)	1	20	100	93	Barrier	-5	
		Water Pump, Submersible (Electric) (CNP283)	1	90	85	85			
12	Install ELS near Adit D1	Crane Mobile (BS D7 114)	1	80	101	100	Barrier	-5	<b>101</b>
		Lorry (BS D9 19)	1	50	102	99	Barrier	-5	
		Piling Rig and Drilling Rig (BS D4 44)	1	100	109	109	Acoustic Mat	-10	
14	Entrance (A2) - Construct Bulk Head Wall, partial floor, slab and staircase	Bar Bender and Cutter (CNP021)	1	50	90	87			<b>104</b>
		Saw, Circular Wood (CNP201)	1	30	108	103			
		Poker, Vibratory, Hand Held (BS D6 40)	2	20	98	94	Barrier	-5	
		Crane Mobile (BS D7 114)	1	30	101	96	Barrier	-5	
		Concrete Lorry Mixer (BS D6 23)	1	30	100	95	Barrier	-5	
		Water Pump, Submersible (Electric) (CNP283)	2	100	85	88			
		Welder/generator, portable (CNP107)	1	100	100	100	Barrier	-5	
		Tower Crane (CNP049)	1	60	95	93			
15	Entrance (A2) - Install ELS & Struts	Crane Mobile (BS D7 114)	1	80	101	100	Barrier	-5	<b>101</b>
		Lorry (BS D9 19)	1	50	102	99	Barrier	-5	
		Piling Rig and Drilling Rig (BS D4 44)	1	100	109	109	Acoustic Mat	-10	
16	Entrance (A2) - Demolish Subway & Install Struts	Breaker (Pneumatic) (BS D2 10)	1	100	110	110	Barrier	-5	<b>112</b>
		Hand Held Breaker (CNP025)	1	30	111	106	Barrier	-5	
		Dump truck (BS D3 60)	2	50	110	110	Barrier	-5	
		Saw, Chain, Hand-held (CNP202)	1	30	114	109			
17	Entrance (A2) - Excavation	Excavator/Loader, Wheeled/Tracked (BS D3 35)	1	80	106	105	Barrier	-5	<b>105</b>
		Dump truck (BS D3 60)	1	50	110	107	Barrier	-5	
		Water Pump, Submersible (Electric) (CNP283)	1	100	85	85			
		Welder/generator, portable (CNP107)	1	100	100	100	Barrier	-5	
18	Entrance (A2) - Structures	Bar Bender and Cutter (CNP021)	1	50	90	87			<b>104</b>
		Saw, Circular Wood (CNP201)	1	30	108	103			
		Poker, Vibratory, Hand Held (BS D6 40)	2	20	98	94	Barrier	-5	
		Crane Mobile (BS D7 114)	1	30	101	96	Barrier	-5	
		Concrete Lorry Mixer (BS D6 23)	1	30	100	95	Barrier	-5	
		Water Pump, Submersible (Electric) (CNP283)	2	100	85	88			
		Welder/generator, portable (CNP107)	1	100	100	100	Barrier	-5	
		Tower Crane (CNP049)	1	60	95	93			

**Note:**

[1] BS - British Standard BS 5228:2009, Part 1 Noise and Vibration Control on Construction and Open Sites

Other Ref. - SWLs refer to other PME documented by the Noise Control Authority (EPD/PME/no.)

([http://www.epd.gov.hk/epd/english/application\\_for\\_licences/guidance/files/OtherSWLe.pdf](http://www.epd.gov.hk/epd/english/application_for_licences/guidance/files/OtherSWLe.pdf))

[2] The figures are rounded-up to a whole number.

[3] With reference to the approved SCL(HHS) EIA Report (Register No. AEIAR-164/2012)

Enclosure for movable plant : -5dB(A)

Enclosure for relatively static plant : -10dB(A)

Barrier for movable plant : -5 dB(A)

Barrier for relatively static plant : -10dB(A)

Acoustic mat : -10dB(A)

**Appendix B1 : SCL Contract 1106 - Diamond Hill Station  
Construction Plant Inventory (With Mitigation)**

**Area: Worksite S1**

No.	Activities	Name of PME (TM Ref./Other Ref.[1])	No. of PME	On Time %	Unit SWL, dB(A)	SWL, dB(A)	Type of Noise Control[3]	Noise Reduction	Total SWL, dB(A) [2]
19	DIH Structures - Base & Conc Slab, Mezz Slab, Columns, Access Slab, Roof Slab	Bar Bender and Cutter (CNP021)	1	50	90	87			<b>104</b>
		Saw, Circular Wood (CNP201)	1	30	108	103			
		Poker, Vibratory, Hand Held (BS D6 40)	2	20	98	94	Barrier	-5	
		Crane Mobile (BS D7 114)	1	30	101	96	Barrier	-5	
		Concrete Lorry Mixer (BS D6 23)	1	30	100	95	Barrier	-5	
		Water Pump, Submersible (Electric) (CNP283)	2	100	85	88			
		Welder/generator, portable (CNP107)	1	100	100	100	Barrier	-5	
		Tower Crane (CNP049)	1	60	95	93			
20	Internal Structures - ALL levels	Bar Bender and Cutter (CNP021)	1	50	90	87			<b>104</b>
		Saw, Circular Wood (CNP201)	1	30	108	103			
		Poker, Vibratory, Hand Held (BS D6 40)	2	20	98	94	Barrier	-5	
		Crane Mobile (BS D7 114)	1	30	101	96	Barrier	-5	
		Concrete Lorry Mixer (BS D6 23)	1	30	100	95	Barrier	-5	
		Water Pump, Submersible (Electric) (CNP283)	2	100	85	88			
		Welder/generator, portable (CNP107)	1	100	100	100	Barrier	-5	
		Tower Crane (CNP049)	1	60	95	93			
21	DIH - Ground Level Structures	Bar Bender and Cutter (CNP021)	1	50	90	87			<b>105</b>
		Saw, Circular Wood (CNP201)	1	30	108	103			
		Poker, Vibratory, Hand Held (BS D6 40)	2	20	98	94	Barrier	-5	
		Crane Mobile (BS D7 114)	1	30	101	96	Barrier	-5	
		Concrete Lorry Mixer (BS D6 23)	1	30	100	95	Barrier	-5	
		Excavator/Loader, Wheeled/Tracked (BS D3 35)	1	80	106	105	Barrier	-5	
22	DIH Tx Rooms Structures	Bar Bender and Cutter (CNP021)	1	50	90	87			<b>105</b>
		Saw, Circular Wood (CNP201)	1	30	108	103			
		Poker, Vibratory, Hand Held (BS D6 40)	2	20	98	94	Barrier	-5	
		Crane Mobile (BS D7 114)	1	30	101	96	Barrier	-5	
		Concrete Lorry Mixer (BS D6 23)	1	30	100	95	Barrier	-5	
		Excavator/Loader, Wheeled/Tracked (BS D3 35)	1	80	106	105	Barrier	-5	
102	Temporary Gas Main Diversion	Excavator/Loader, Wheeled/Tracked (BS D3 35)	1	100	106	106	Barrier	-5	<b>104</b>
		Lorry (BS D9 19)	1	20	102	95	Barrier	-5	
		Concrete Lorry Mixer (BS D6 23)	1	20	100	93	Barrier	-5	
		Hand Held Breaker (CNP025)	1	30	111	106	Barrier	-5	

**Note:**

[1] BS - British Standard BS 5228:2009, Part 1 Noise and Vibration Control on Construction and Open Sites

Other Ref. - SWLs refer to other PME documented by the Noise Control Authority (EPD/PME/no.)

([http://www.epd.gov.hk/epd/english/application\\_for\\_licences/guidance/files/OtherSWLe.pdf](http://www.epd.gov.hk/epd/english/application_for_licences/guidance/files/OtherSWLe.pdf))

[2] The figures are rounded-up to a whole number.

[3] With reference to the approved SCL(HHS) EIA Report (Register No. AEIAR-164/2012)

Enclosure for movable plant : -5dB(A)

Enclosure for relatively static plant : -10dB(A)

Barrier for movable plant : -5 dB(A)

Barrier for relatively static plant : -10dB(A)

Acoustic mat : -10dB(A)

**Appendix B1 : SCL Contract 1106 - Diamond Hill Station  
Construction Plant Inventory (With Mitigation)**

**Area: Worksite S2**

No.	Activities	Name of PME (TM Ref./Other Ref.[1])	No. of PME	On Time %	Unit SWL, dB(A)	SWL, dB(A)	Type of Noise Control[3]	Noise Reduction	Total SWL, dB(A) [2]
23	Landscape & Finish	Bar Bender and Cutter (CNP021)	1	20	90	83			<b>98</b>
		Poker, Vibratory, Hand Held (BS D6 40)	1	20	98	91	Barrier	-5	
		Crane Mobile (BS D7 114)	1	30	101	96	Barrier	-5	
		Concrete Lorry Mixer (BS D6 23)	1	30	100	95	Barrier	-5	
		Lorry (BS D9 19)	1	80	102	101	Barrier	-5	
25	DIH Structures - Base & Conc Slab, Mezz Slab, Columns, Access Slab, Roof Slab	Bar Bender and Cutter (CNP021)	1	50	90	87			<b>104</b>
		Saw, Circular Wood (CNP201)	1	30	108	103			
		Poker, Vibratory, Hand Held (BS D6 40)	2	20	98	94	Barrier	-5	
		Crane Mobile (BS D7 114)	1	30	101	96	Barrier	-5	
		Concrete Lorry Mixer (BS D6 23)	1	30	100	95	Barrier	-5	
		Water Pump, Submersible (Electric) (CNP283)	2	100	85	88			
		Welder/generator, portable (CNP107)	1	100	100	100	Barrier	-5	
Tower Crane (CNP049)	1	60	95	93					
26	Internal Structures - ALL levels	Bar Bender and Cutter (CNP021)	1	50	90	87			<b>104</b>
		Saw, Circular Wood (CNP201)	1	30	108	103			
		Poker, Vibratory, Hand Held (BS D6 40)	2	20	98	94	Barrier	-5	
		Crane Mobile (BS D7 114)	1	30	101	96	Barrier	-5	
		Concrete Lorry Mixer (BS D6 23)	1	30	100	95	Barrier	-5	
		Water Pump, Submersible (Electric) (CNP283)	2	100	85	88			
		Welder/generator, portable (CNP107)	1	100	100	100	Barrier	-5	
Tower Crane (CNP049)	1	60	95	93					

**Note:**

[1] BS - British Standard BS 5228:2009, Part 1 Noise and Vibration Control on Construction and Open Sites  
Other Ref. - SWLs refer to other PME documented by the Noise Control Authority (EPD/PME/no.)  
([http://www.epd.gov.hk/epd/english/application\\_for\\_licences/guidance/files/OtherSWLe.pdf](http://www.epd.gov.hk/epd/english/application_for_licences/guidance/files/OtherSWLe.pdf))

[2] The figures are rounded-up to a whole number.

[3] With reference to the approved SCL(HHS) EIA Report (Register No. AEIAR-164/2012)  
Enclosure for movable plant : -5dB(A)  
Enclosure for relatively static plant : -10dB(A)  
Barrier for movable plant : -5 dB(A)  
Barrier for relatively static plant : -10dB(A)  
Acoustic mat : -10dB(A)

**Appendix B1 : SCL Contract 1106 - Diamond Hill Station  
Construction Plant Inventory (With Mitigation)**

**Area: Worksite S3 -S5**

No.	Activities	Name of PME (TM Ref./Other Ref.[1])	No. of PME	On Time %	Unit SWL, dB(A)	SWL, dB(A)	Type of Noise Control[3]	Noise Reduction	Total SWL, dB(A) [2]
27	Site Clearance	Breaker (Pneumatic) (BS D2 10)	1	20	110	103	Barrier	-5	<b>106</b>
		Dump truck (BS D3 60)	2	30	110	108	Barrier	-5	
		Poker, Vibratory, Hand Held (BS D6 40)	2	30	98	96	Barrier	-5	
		Excavator/Loader, Wheeled/Tracked (BS D3 35)	1	80	106	105	Barrier	-5	
		Concrete Lorry Mixer (BS D6 23)	1	20	100	93	Barrier	-5	
		Lorry (BS D9 19)	1	50	102	99	Barrier	-5	
28	Hoardings	Lorry (BS D9 19)	1	70	102	100	Barrier	-5	<b>101</b>
		Bar Bender and Cutter (CNP021)	1	50	90	87			
		Breaker, hand-held, mass > 10kg and < 20kg (CNP024)	1	20	108	101	Barrier	-5	
		Concrete Lorry Mixer (BS D6 23)	1	80	100	99	Barrier	-5	
		Poker, Vibratory, Hand Held (BS D6 40)	2	30	98	96	Barrier	-5	
29	Utility Diversions	Excavator/Loader, Wheeled/Tracked (BS D3 35)	1	100	106	106	Barrier	-5	<b>108</b>
		Lorry (BS D9 19)	1	20	102	95	Barrier	-5	
		Concrete Lorry Mixer (BS D6 23)	1	20	100	93	Barrier	-5	
		Bar Bender and Cutter (CNP021)	1	50	90	87			
		Poker, Vibratory, Hand Held (BS D6 40)	1	20	98	91	Barrier	-5	
		Saw, Chain, Hand-held (CNP202)	1	50	114	111	Barrier	-5	
		Hand Held Breaker (CNP023)	1	30	108	103	Barrier	-5	
31	Landscape & Finish	Bar Bender and Cutter (CNP021)	1	20	90	83			<b>98</b>
		Poker, Vibratory, Hand Held (BS D6 40)	1	20	98	91	Barrier	-5	
		Crane Mobile (BS D7 114)	1	30	101	96	Barrier	-5	
		Concrete Lorry Mixer (BS D6 23)	1	30	100	95	Barrier	-5	
		Lorry (BS D9 19)	1	80	102	101	Barrier	-5	

**Note:**

[1] BS - British Standard BS 5228:2009, Part 1 Noise and Vibration Control on Construction and Open Sites

Other Ref. - SWLs refer to other PME documented by the Noise Control Authority (EPD/PME/no.)

([http://www.epd.gov.hk/epd/english/application\\_for\\_licences/guidance/files/OtherSWLe.pdf](http://www.epd.gov.hk/epd/english/application_for_licences/guidance/files/OtherSWLe.pdf))

[2] The figures are rounded-up to a whole number.

[3] With reference to the approved SCL(HHS) EIA Report (Register No. AEIAR-164/2012)

Enclosure for movable plant : -5dB(A)

Enclosure for relatively static plant : -10dB(A)

Barrier for movable plant : -5 dB(A)

Barrier for relatively static plant : -10dB(A)

Acoustic mat : -10dB(A)

**Appendix B1 : SCL Contract 1106 - Diamond Hill Station  
Construction Plant Inventory (With Mitigation)**

**Area: Worksite S3**

No.	Activities	Name of PME (TM Ref./Other Ref.[1])	No. of PME	On Time %	Unit SWL, dB(A)	SWL, dB(A)	Type of Noise Control[3]	Noise Reduction	Total SWL, dB(A) [2]
32	ALL D Wall	Piling, Diaphragm Wall, Hydraulic Extractor (CNP163)	2	80	90	92	Barrier	-5	<b>104</b>
		Piling, Diaphragm Wall, Bentonite Filtering Plant (CNP162)	2	80	105	107	Barrier	-5	
		Concrete Lorry Mixer (BS D6 23)	2	20	100	96	Barrier	-5	
		Crane Mobile (BS D7 114)	2	60	101	102	Barrier	-5	
		Bar Bender and Cutter (CNP021)	2	50	90	90			
		Water Pump, Submersible (Electric) (CNP283)	2	90	85	88			
33	Excavation (From GL to -20.8m)	Excavator/Loader, Wheeled/Tracked (BS D3 35)	2	80	106	108	Barrier	-5	<b>108</b>
		Dump truck (BS D3 60)	2	50	110	110	Barrier	-5	
		Water Pump, Submersible (Electric) (CNP283)	2	100	85	88			
		Welder/generator, portable (CNP107)	2	100	100	103	Barrier	-5	
34	DIH Structures - Base & Conc Slab, Mezz Slab, Columns, Roof Slab	Bar Bender and Cutter (CNP021)	1	50	90	87			<b>106</b>
		Saw, Circular Wood (CNP201)	1	50	108	105			
		Poker, Vibratory, Hand Held (BS D6 40)	2	20	98	94	Barrier	-5	
		Crane Mobile (BS D7 114)	1	30	101	96	Barrier	-5	
		Concrete Lorry Mixer (BS D6 23)	1	30	100	95	Barrier	-5	
		Water Pump, Submersible (Electric) (CNP283)	2	100	85	88			
		Welder/generator, portable (CNP107)	1	100	100	100	Barrier	-5	
		Tower Crane (CNP049)	1	60	95	93			
35	Internal Structures - ALL levels	Bar Bender and Cutter (CNP021)	1	50	90	87			<b>106</b>
		Saw, Circular Wood (CNP201)	1	50	108	105			
		Poker, Vibratory, Hand Held (BS D6 40)	2	20	98	94	Barrier	-5	
		Crane Mobile (BS D7 114)	1	30	101	96	Barrier	-5	
		Concrete Lorry Mixer (BS D6 23)	1	30	100	95	Barrier	-5	
		Water Pump, Submersible (Electric) (CNP283)	2	100	85	88			
		Welder/generator, portable (CNP107)	1	100	100	100	Barrier	-5	
101	Tree Transplanting - DT1911	Tower Crane (CNP049)	1	60	95	93			<b>102</b>
		Lorry (BS D9 19)	1	20	102	95	Barrier	-5	
		Crane Mobile (BS D7 114)	2	80	101	103	Barrier	-5	
		Excavator/Loader, Wheeled/Tracked (BS D3 35)	1	80	106	105	Barrier	-5	

**Note:**

[1] BS - British Standard BS 5228:2009, Part 1 Noise and Vibration Control on Construction and Open Sites  
Other Ref. - SWLs refer to other PME documented by the Noise Control Authority (EPD/PME/no.)  
([http://www.epd.gov.hk/epd/english/application\\_for\\_licences/guidance/files/OtherSWLe.pdf](http://www.epd.gov.hk/epd/english/application_for_licences/guidance/files/OtherSWLe.pdf))

[2] The figures are rounded-up to a whole number.

[3] With reference to the approved SCL(HHS) EIA Report (Register No. AEIAR-164/2012)

Enclosure for movable plant : -5dB(A)

Enclosure for relatively static plant : -10dB(A)

Barrier for movable plant : -5 dB(A)

Barrier for relatively static plant : -10dB(A)

Acoustic mat : -10dB(A)



**Appendix B1 : SCL Contract 1106 - Diamond Hill Station  
Construction Plant Inventory (With Mitigation)**

**Area: Worksite S4**

No.	Activities	Name of PME (TM Ref./Other Ref.[1])	No. of PME	On Time %	Unit SWL, dB(A)	SWL, dB(A)	Type of Noise Control[3]	Noise Reduction	Total SWL, dB(A) [2]
36	Dwall	Piling, Diaphragm Wall, Hydraulic Extractor (CNP163)	2	80	90	92	Barrier	-5	<b>104</b>
		Piling, Diaphragm Wall, Bentonite Filtering Plant (CNP162)	2	80	105	107	Barrier	-5	
		Concrete Lorry Mixer (BS D6 23)	2	20	100	96	Barrier	-5	
		Crane Mobile (BS D7 114)	2	60	101	102	Barrier	-5	
		Bar Bender and Cutter (CNP021)	2	50	90	90			
		Water Pump, Submersible (Electric) (CNP283)	2	90	85	88			
37	Tree Transplanting (CAT D) - DT1885	Lorry (BS D9 19)	1	20	102	95	Barrier	-5	<b>102</b>
		Crane Mobile (BS D7 114)	2	80	101	103	Barrier	-5	
		Excavator/Loader, Wheeled/Tracked (BS D3 35)	1	80	106	105	Barrier	-5	
38	Excavation to -1.2	Excavator/Loader, Wheeled/Tracked (BS D3 35)	2	80	106	108	Barrier	-5	<b>108</b>
		Dump truck (BS D3 60)	2	50	110	110	Barrier	-5	
		Water Pump, Submersible (Electric) (CNP283)	2	100	85	88			
		Welder/generator, portable (CNP107)	2	100	100	103	Barrier	-5	
39	Excavation to -20.8	Excavator/Loader, Wheeled/Tracked (BS D3 35)	1	80	106	105	Barrier	-5	<b>105</b>
		Dump truck (BS D3 60)	1	50	110	107	Barrier	-5	
		Water Pump, Submersible (Electric) (CNP283)	1	100	85	85			
		Welder/generator, portable (CNP107)	1	100	100	100	Barrier	-5	
40	DIH - Structure	Bar Bender and Cutter (CNP021)	1	50	90	87			<b>107</b>
		Saw, Circular Wood (CNP201)	1	50	108	105			
		Poker, Vibratory, Hand Held (BS D6 40)	2	20	98	94	Barrier	-5	
		Crane Mobile (BS D7 114)	1	100	101	101	Barrier	-5	
		Concrete Lorry Mixer (BS D6 23)	1	30	100	95	Barrier	-5	
		Water Pump, Submersible (Electric) (CNP283)	2	100	85	88			
		Welder/generator, portable (CNP107)	1	100	100	100	Barrier	-5	
		Tower Crane (CNP049)	2	60	95	96			

**Note:**

[1] BS - British Standard BS 5228:2009, Part 1 Noise and Vibration Control on Construction and Open Sites  
Other Ref. - SWLs refer to other PME documented by the Noise Control Authority (EPD/PME/no.)  
([http://www.epd.gov.hk/epd/english/application\\_for\\_licences/guidance/files/OtherSWLe.pdf](http://www.epd.gov.hk/epd/english/application_for_licences/guidance/files/OtherSWLe.pdf))

[2] The figures are rounded-up to a whole number.

[3] With reference to the approved SCL(HHS) EIA Report (Register No. AEIAR-164/2012)

Enclosure for movable plant : -5dB(A)

Enclosure for relatively static plant : -10dB(A)

Barrier for movable plant : -5 dB(A)

Barrier for relatively static plant : -10dB(A)

Acoustic mat : -10dB(A)

**Appendix B1 : SCL Contract 1106 - Diamond Hill Station  
Construction Plant Inventory (With Mitigation)**

**Area: Worksite S5**

No.	Activities	Name of PME (TM Ref./Other Ref.[1])	No. of PME	On Time %	Unit SWL, dB(A)	SWL, dB(A)	Type of Noise Control[3]	Noise Reduction	Total SWL, dB(A) [2]
41	Dwall	Piling, Diaphragm Wall, Hydraulic Extractor (CNP163)	2	80	90	92	Barrier	-5	<b>104</b>
		Piling, Diaphragm Wall, Bentonite Filtering Plant (CNP162)	2	80	105	107	Barrier	-5	
		Concrete Lorry Mixer (BS D6 23)	2	20	100	96	Barrier	-5	
		Crane Mobile (BS D7 114)	2	60	101	102	Barrier	-5	
		Bar Bender and Cutter (CNP021)	2	50	90	90			
		Water Pump, Submersible (Electric) (CNP283)	2	90	85	88			
42	Dwall	Piling, Diaphragm Wall, Hydraulic Extractor (CNP163)	3	80	90	94	Barrier	-5	<b>106</b>
		Piling, Diaphragm Wall, Bentonite Filtering Plant (CNP162)	3	80	105	109	Barrier	-5	
		Concrete Lorry Mixer (BS D6 23)	3	20	100	98	Barrier	-5	
		Crane Mobile (BS D7 114)	3	60	101	104	Barrier	-5	
		Bar Bender and Cutter (CNP021)	3	50	90	92			
		Water Pump, Submersible (Electric) (CNP283)	3	90	85	89			

**Note:**

[1] BS - British Standard BS 5228:2009, Part 1 Noise and Vibration Control on Construction and Open Sites

Other Ref. - SWLs refer to other PME documented by the Noise Control Authority (EPD/PME/no.)

([http://www.epd.gov.hk/epd/english/application\\_for\\_licences/guidance/files/OtherSWLe.pdf](http://www.epd.gov.hk/epd/english/application_for_licences/guidance/files/OtherSWLe.pdf))

[2] The figures are rounded-up to a whole number.

[3] With reference to the approved SCL(HHS) EIA Report (Register No. AEIAR-164/2012)

Enclosure for movable plant : -5dB(A)

Enclosure for relatively static plant : -10dB(A)

Barrier for movable plant : -5 dB(A)

Barrier for relatively static plant : -10dB(A)

Acoustic mat : -10dB(A)

**Appendix B1 : SCL Contract 1106 - Diamond Hill Station  
Construction Plant Inventory (With Mitigation)**

**Area: Worksite S5**

No.	Activities	Name of PME (TM Ref./Other Ref.[1])	No. of PME	On Time %	Unit SWL, dB(A)	SWL, dB(A)	Type of Noise Control[3]	Noise Reduction	Total SWL, dB(A) [2]
44	Dwall	Piling, Diaphragm Wall, Hydraulic Extractor (CNP163)	2	80	90	92	Barrier	-5	<b>104</b>
		Piling, Diaphragm Wall, Bentonite Filtering Plant (CNP162)	2	80	105	107	Barrier	-5	
		Concrete Lorry Mixer (BS D6 23)	2	20	100	96	Barrier	-5	
		Crane Mobile (BS D7 114)	2	60	101	102	Barrier	-5	
		Bar Bender and Cutter (CNP021)	2	50	90	90			
		Water Pump, Submersible (Electric) (CNP283)	2	90	85	88			
45	Excavation to -20.8	Excavator/Loader, Wheeled/Tracked (BS D3 35)	2	80	106	108	Barrier	-5	<b>108</b>
		Dump truck (BS D3 60)	2	50	110	110	Barrier	-5	
		Water Pump, Submersible (Electric) (CNP283)	2	100	85	88			
		Welder/generator, portable (CNP107)	2	100	100	103	Barrier	-5	
46	DIH - Structure	Bar Bender and Cutter (CNP021)	1	50	90	87			<b>106</b>
		Saw, Circular Wood (CNP201)	1	50	108	105			
		Poker, Vibratory, Hand Held (BS D6 40)	2	20	98	94	Barrier	-5	
		Crane Mobile (BS D7 114)	1	100	101	101	Barrier	-5	
		Concrete Lorry Mixer (BS D6 23)	1	30	100	95	Barrier	-5	
		Water Pump, Submersible (Electric) (CNP283)	2	100	85	88			
		Welder/generator, portable (CNP107)	1	100	100	100	Barrier	-5	
		Tower Crane (CNP049)	1	60	95	93			

**Note:**

[1] BS - British Standard BS 5228:2009, Part 1 Noise and Vibration Control on Construction and Open Sites  
Other Ref. - SWLs refer to other PME documented by the Noise Control Authority (EPD/PME/no.)  
([http://www.epd.gov.hk/epd/english/application\\_for\\_licences/guidance/files/OtherSWLe.pdf](http://www.epd.gov.hk/epd/english/application_for_licences/guidance/files/OtherSWLe.pdf))

[2] The figures are rounded-up to a whole number.

[3] With reference to the approved SCL(HHS) EIA Report (Register No. AEIAR-164/2012)

Enclosure for movable plant : -5dB(A)

Enclosure for relatively static plant : -10dB(A)

Barrier for movable plant : -5 dB(A)

Barrier for relatively static plant : -10dB(A)

Acoustic mat : -10dB(A)

**Appendix B1 : SCL Contract 1106 - Diamond Hill Station  
Construction Plant Inventory (With Mitigation)**

**Area: Worksite S6 (Lung Cheung Road - EB)**

No.	Activities	Name of PME (TM Ref./Other Ref.[1])	No. of PME	On Time %	Unit SWL, dB(A)	SWL, dB(A)	Type of Noise Control[3]	Noise Reduction	Total SWL, dB(A) [2]
47	Watermain Diversion (LCR)	Excavator/Loader, Wheeled/Tracked (BS D3 35)	1	100	106	106	Barrier	-5	<b>112</b>
		Lorry (BS D9 19)	1	20	102	95	Barrier	-5	
		Concrete Lorry Mixer (BS D6 23)	1	20	100	93	Barrier	-5	
		Bar Bender and Cutter (CNP021)	1	50	90	87			
		Poker, Vibratory, Hand Held (BS D6 40)	1	20	98	91	Barrier	-5	
		Saw, Chain, Hand-held (CNP202)	1	50	114	111			
		Hand Held Breaker (CNP025)	1	30	111	106	Barrier	-5	
49	LCR Diversion Embankment Fill	Lorry (BS D9 19)	1	50	102	99	Barrier	-5	<b>111</b>
		Breaker (Pneumatic) (BS D2 10)	1	50	110	107	Barrier	-5	
		Roller (CNP185)	1	20	108	101	Barrier	-5	
		Dump truck (BS D3 60)	1	20	110	103	Barrier	-5	
		Crane Mobile (BS D7 114)	1	100	101	101	Barrier	-5	
		Bulldozer (BS C2 13)	1	100	106	106	Barrier	-5	
		Asphalt Paver (CNP004)	1	80	109	108			
		Roller, Vibratory (CNP186)	1	100	108	108	Barrier	-5	

**Note:**

[1] BS - British Standard BS 5228:2009, Part 1 Noise and Vibration Control on Construction and Open Sites

Other Ref. - SWLs refer to other PME documented by the Noise Control Authority (EPD/PME/no.)

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[2] The figures are rounded-up to a whole number.

[3] With reference to the approved SCL(HHS) EIA Report (Register No. AEIAR-164/2012)

Enclosure for movable plant : -5dB(A)

Enclosure for relatively static plant : -10dB(A)

Barrier for movable plant : -5 dB(A)

Barrier for relatively static plant : -10dB(A)

Acoustic mat : -10dB(A)

**Appendix B1 : SCL Contract 1106 - Diamond Hill Station  
Construction Plant Inventory (With Mitigation)**

**Area: Worksite S6 (Lung Cheung Road - EB)**

No.	Activities	Name of PME (TM Ref./Other Ref.[1])	No. of PME	On Time %	Unit SWL, dB(A)	SWL, dB(A)	Type of Noise Control[3]	Noise Reduction	Total SWL, dB(A) [2]
50	LCR E/B Widening	Lorry (BS D9 19)	1	50	102	99	Barrier	-5	<b>110</b>
		Breaker (Pneumatic) (BS D2 10)	1	50	110	107	Barrier	-5	
		Roller (CNP185)	1	20	108	101	Barrier	-5	
		Dump truck (BS D3 60)	1	20	110	103	Barrier	-5	
		Crane Mobile (BS D7 114)	1	60	101	99	Barrier	-5	
		Bulldozer (BS C2 13)	1	60	106	104	Barrier	-5	
		Asphalt Paver (CNP004)	1	60	109	107			
		Roller, Vibratory (CNP186)	1	60	108	106	Barrier	-5	
51	LCR E/B Diversion Traffic	Lorry (BS D9 19)	1	50	102	99	Barrier	-5	<b>110</b>
		Breaker (Pneumatic) (BS D2 10)	1	50	110	107	Barrier	-5	
		Roller (CNP185)	1	20	108	101	Barrier	-5	
		Dump truck (BS D3 60)	1	20	110	103	Barrier	-5	
		Crane Mobile (BS D7 114)	1	60	101	99	Barrier	-5	
		Bulldozer (BS C2 13)	1	60	106	104	Barrier	-5	
		Asphalt Paver (CNP004)	1	60	109	107			
		Roller, Vibratory (CNP186)	1	60	108	106	Barrier	-5	
52	LCR E/B Reinstatement	Lorry (BS D9 19)	1	50	102	99	Barrier	-5	<b>106</b>
		Breaker (Pneumatic) (BS D2 10)	1	40	110	106	Barrier	-5	
		Roller (CNP185)	1	20	108	101	Barrier	-5	
		Dump truck (BS D3 60)	1	20	110	103	Barrier	-5	
		Crane Mobile (BS D7 114)	1	60	101	99	Barrier	-5	
		Bulldozer (BS C2 13)	1	30	106	101	Barrier	-5	
		Asphalt Paver (CNP004)	1	20	109	102	Barrier	-5	
		Roller, Vibratory (CNP186)	1	30	108	103	Barrier	-5	
53	LCR E/B to Original Traffic	Lorry (BS D9 19)	1	50	102	99	Barrier	-5	<b>110</b>
		Breaker (Pneumatic) (BS D2 10)	1	50	110	107	Barrier	-5	
		Roller (CNP185)	1	20	108	101	Barrier	-5	
		Dump truck (BS D3 60)	1	20	110	103	Barrier	-5	
		Crane Mobile (BS D7 114)	1	60	101	99	Barrier	-5	
		Bulldozer (BS C2 13)	1	60	106	104	Barrier	-5	
		Asphalt Paver (CNP004)	1	60	109	107			
		Roller, Vibratory (CNP186)	1	60	108	106	Barrier	-5	

**Note:**

[1] BS - British Standard BS 5228:2009, Part 1 Noise and Vibration Control on Construction and Open Sites

Other Ref. - SWLs refer to other PME documented by the Noise Control Authority (EPD/PME/no.)

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[2] The figures are rounded-up to a whole number.

[3] With reference to the approved SCL(HHS) EIA Report (Register No. AEIAR-164/2012)

Enclosure for movable plant : -5dB(A)

Enclosure for relatively static plant : -10dB(A)

Barrier for movable plant : -5 dB(A)

Barrier for relatively static plant : -10dB(A)

Acoustic mat : -10dB(A)

**Appendix B1 : SCL Contract 1106 - Diamond Hill Station  
Construction Plant Inventory (With Mitigation)**

**Area: Worksite S7 (Lung Cheung Road - WB)**

No.	Activities	Name of PME (TM Ref./Other Ref.[1])	No. of PME	On Time %	Unit SWL, dB(A)	SWL, dB(A)	Type of Noise Control[3]	Noise Reduction	Total SWL, dB(A) [2]
54	Watermain Diversion (LCR)	Excavator/Loader, Wheeled/Tracked (BS D3 35)	1	100	106	106	Barrier	-5	<b>112</b>
		Lorry (BS D9 19)	1	20	102	95	Barrier	-5	
		Concrete Lorry Mixer (BS D6 23)	1	20	100	93	Barrier	-5	
		Bar Bender and Cutter (CNP021)	1	50	90	87			
		Poker, Vibratory, Hand Held (BS D6 40)	1	20	98	91	Barrier	-5	
		Saw, Chain, Hand-held (CNP202)	1	50	114	111			
		Hand Held Breaker (CNP025)	1	30	111	106	Barrier	-5	
56	LCR Diversion Embankment Fill	Lorry (BS D9 19)	1	50	102	99	Barrier	-5	<b>111</b>
		Breaker (Pneumatic) (BS D2 10)	1	50	110	107	Barrier	-5	
		Roller (CNP185)	1	20	108	101	Barrier	-5	
		Dump truck (BS D3 60)	1	20	110	103	Barrier	-5	
		Crane Mobile (BS D7 114)	1	100	101	101	Barrier	-5	
		Bulldozer (BS C2 13)	1	100	106	106	Barrier	-5	
		Asphalt Paver (CNP004)	1	80	109	108			
		Roller, Vibratory (CNP186)	1	100	108	108	Barrier	-5	

**Note:**

[1] BS - British Standard BS 5228:2009, Part 1 Noise and Vibration Control on Construction and Open Sites

Other Ref. - SWLs refer to other PME documented by the Noise Control Authority (EPD/PME/no.)

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[2] The figures are rounded-up to a whole number.

[3] With reference to the approved SCL(HHS) EIA Report (Register No. AEIAR-164/2012)

Enclosure for movable plant : -5dB(A)

Enclosure for relatively static plant : -10dB(A)

Barrier for movable plant : -5 dB(A)

Barrier for relatively static plant : -10dB(A)

Acoustic mat : -10dB(A)

**Appendix B1 : SCL Contract 1106 - Diamond Hill Station  
Construction Plant Inventory (With Mitigation)**

**Area: Worksite S7 (Lung Cheung Road - WB)**

No.	Activities	Name of PME (TM Ref./Other Ref.[1])	No. of PME	On Time %	Unit SWL, dB(A)	SWL, dB(A)	Type of Noise Control[3]	Noise Reduction	Total SWL, dB(A) [2]
57	LCR W/B Diversion Construction	Lorry (BS D9 19)	1	50	102	99	Barrier	-5	<b>108</b>
		Breaker (Pneumatic) (BS D2 10)	1	50	110	107	Barrier	-5	
		Roller (CNP185)	1	20	108	101	Barrier	-5	
		Dump truck (BS D3 60)	1	20	110	103	Barrier	-5	
		Crane Mobile (BS D7 114)	1	60	101	99	Barrier	-5	
		Bulldozer (BS C2 13)	1	60	106	104	Barrier	-5	
		Asphalt Paver (CNP004)	1	60	109	107	Barrier	-5	
		Roller, Vibratory (CNP186)	1	60	108	106	Barrier	-5	
58	LCR W/B Deck Construction	Lorry (BS D9 19)	1	50	102	99	Barrier	-5	<b>110</b>
		Breaker (Pneumatic) (BS D2 10)	1	50	110	107	Barrier	-5	
		Roller (CNP185)	1	20	108	101	Barrier	-5	
		Dump truck (BS D3 60)	1	20	110	103	Barrier	-5	
		Crane Mobile (BS D7 114)	1	60	101	99	Barrier	-5	
		Bulldozer (BS C2 13)	1	60	106	104	Barrier	-5	
		Asphalt Paver (CNP004)	1	60	109	107	Barrier	-5	
		Roller, Vibratory (CNP186)	1	60	108	106	Barrier	-5	
59	LCR W/B Diversion Traffic	Lorry (BS D9 19)	1	50	102	99	Barrier	-5	<b>110</b>
		Breaker (Pneumatic) (BS D2 10)	1	50	110	107	Barrier	-5	
		Roller (CNP185)	1	20	108	101	Barrier	-5	
		Dump truck (BS D3 60)	1	20	110	103	Barrier	-5	
		Crane Mobile (BS D7 114)	1	60	101	99	Barrier	-5	
		Bulldozer (BS C2 13)	1	60	106	104	Barrier	-5	
		Asphalt Paver (CNP004)	1	60	109	107	Barrier	-5	
		Roller, Vibratory (CNP186)	1	60	108	106	Barrier	-5	

**Note:**

[1] BS - British Standard BS 5228:2009, Part 1 Noise and Vibration Control on Construction and Open Sites

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[2] The figures are rounded-up to a whole number.

[3] With reference to the approved SCL(HHS) EIA Report (Register No. AEIAR-164/2012)

Enclosure for movable plant : -5dB(A)

Enclosure for relatively static plant : -10dB(A)

Barrier for movable plant : -5 dB(A)

Barrier for relatively static plant : -10dB(A)

Acoustic mat : -10dB(A)

**Appendix B1 : SCL Contract 1106 - Diamond Hill Station  
Construction Plant Inventory (With Mitigation)**

**Area: Worksite S7 (Lung Cheung Road - WB)**

No.	Activities	Name of PME (TM Ref./Other Ref.[1])	No. of PME	On Time %	Unit SWL, dB(A)	SWL, dB(A)	Type of Noise Control[3]	Noise Reduction	Total SWL, dB(A) [2]
60	LCR W/B Reinstatement	Lorry (BS D9 19)	1	50	102	99	Barrier	-5	<b>106</b>
		Breaker (Pneumatic) (BS D2 10)	1	40	110	106	Barrier	-5	
		Roller (CNP185)	1	20	108	101	Barrier	-5	
		Dump truck (BS D3 60)	1	20	110	103	Barrier	-5	
		Crane Mobile (BS D7 114)	1	60	101	99	Barrier	-5	
		Bulldozer (BS C2 13)	1	30	106	101	Barrier	-5	
		Asphalt Paver (CNP004)	1	20	109	102	Barrier	-5	
		Roller, Vibratory (CNP186)	1	30	108	103	Barrier	-5	
61	LCR W/B to Original Traffic	Lorry (BS D9 19)	1	50	102	99	Barrier	-5	<b>110</b>
		Breaker (Pneumatic) (BS D2 10)	1	50	110	107	Barrier	-5	
		Roller (CNP185)	1	20	108	101	Barrier	-5	
		Dump truck (BS D3 60)	1	20	110	103	Barrier	-5	
		Crane Mobile (BS D7 114)	1	60	101	99	Barrier	-5	
		Bulldozer (BS C2 13)	1	60	106	104	Barrier	-5	
		Asphalt Paver (CNP004)	1	60	109	107			
		Roller, Vibratory (CNP186)	1	60	108	106	Barrier	-5	

**Note:**

[1] BS - British Standard BS 5228:2009, Part 1 Noise and Vibration Control on Construction and Open Sites

Other Ref. - SWLs refer to other PME documented by the Noise Control Authority (EPD/PME/no.)

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[2] The figures are rounded-up to a whole number.

[3] With reference to the approved SCL(HHS) EIA Report (Register No. AEIAR-164/2012)

Enclosure for movable plant : -5dB(A)

Enclosure for relatively static plant : -10dB(A)

Barrier for movable plant : -5 dB(A)

Barrier for relatively static plant : -10dB(A)

Acoustic mat : -10dB(A)



**Appendix B1 : SCL Contract 1106 - Diamond Hill Station  
Construction Plant Inventory (With Mitigation)**

**Area: Worksite S8 (Lung Cheung Road - WB)**

No.	Activities	Name of PME (TM Ref./Other Ref.[1])	No. of PME	On Time %	Unit SWL, dB(A)	SWL, dB(A)	Type of Noise Control[3]	Noise Reduction	Total SWL, dB(A) [2]
62	Interchange Adit - Construct Barettes	Piling, Large Diameter Bored, Grab and Chisel (CNP164)	1	80	115	114	Acoustic Mat	-10	<b>110</b>
		Piling, Large Dia. Bored, Oscillator (CNP165)	1	50	115	112	Acoustic Mat	-10	
		Crane Mobile (BS D7 114)	2	80	101	103			
		Excavator/Loader, Wheeled/Tracked (BS D3 35)	1	80	106	105	Barrier	-5	
		Lorry (BS D9 19)	1	50	102	99	Barrier	-5	
		Concrete Lorry Mixer (BS D6 23)	2	20	100	96	Barrier	-5	
		Bar Bender and Cutter (CNP021)	1	50	90	87			
		Air Compressor (CNP003)	1	50	104	101	Barrier	-5	
		Dump truck (BS D3 60)	1	50	110	107	Barrier	-5	
63	Interchange Adit - ELS (Part 1)	Crane Mobile (BS D7 114)	1	80	101	100			<b>103</b>
		Lorry (BS D9 19)	1	50	102	99	Barrier	-5	
		Piling Rig and Drilling Rig (BS D4 44)	1	100	109	109	Acoustic Mat	-10	
64	Interchange Adit - Excavation (Part 1)	Excavator/Loader, Wheeled/Tracked (BS D3 35)	1	80	106	105	Barrier	-5	<b>105</b>
		Dump truck (BS D3 60)	1	50	110	107	Barrier	-5	
		Water Pump, Submersible (Electric) (CNP283)	1	100	85	85			
		Welder/Generator, Portable (CNP107)	1	70	100	98	Barrier	-5	
65	Interchange Adit - Structure (Part 1)	Bar Bender and Cutter (CNP021)	1	50	90	87			<b>106</b>
		Saw, Circular Wood (CNP201)	1	50	108	105			
		Poker, Vibratory, Hand Held (BS D6 40)	2	20	98	94	Barrier	-5	
		Crane Mobile (BS D7 114)	1	100	101	101	Barrier	-5	
		Concrete Lorry Mixer (BS D6 23)	1	30	100	95	Barrier	-5	
		Water Pump, Submersible (Electric) (CNP283)	2	100	85	88			
		Welder/Generator, Portable (CNP107)	1	100	100	100	Barrier	-5	
66	Interchange Adit - ELS (Part 2)	Tower Crane (CNP049)	1	60	95	93			<b>101</b>
		Crane Mobile (BS D7 114)	1	80	101	100	Barrier	-5	
		Lorry (BS D9 19)	1	50	102	99	Barrier	-5	
		Piling Rig and Drilling Rig (BS D4 44)	1	100	109	109	Acoustic Mat	-10	

**Note:**

[1] BS - British Standard BS 5228:2009, Part 1 Noise and Vibration Control on Construction and Open Sites

Other Ref. - SWLs refer to other PME documented by the Noise Control Authority (EPD/PME/no.)

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[2] The figures are rounded-up to a whole number.

[3] With reference to the approved SCL(HHS) EIA Report (Register No. AEIAR-164/2012)

Enclosure for movable plant : -5dB(A)

Enclosure for relatively static plant : -10dB(A)

Barrier for movable plant : -5 dB(A)

Barrier for relatively static plant : -10dB(A)

Acoustic mat : -10dB(A)

**Appendix B1 : SCL Contract 1106 - Diamond Hill Station  
Construction Plant Inventory (With Mitigation)**

**Area: Worksite S8 (Lung Cheung Road - WB)**

No.	Activities	Name of PME (TM Ref./Other Ref.[1])	No. of PME	On Time %	Unit SWL, dB(A)	SWL, dB(A)	Type of Noise Control[3]	Noise Reduction	Total SWL, dB(A) [2]
67	Interchange Adit - Excavation (Part 2)	Excavator/Loader, Wheeled/Tracked (BS D3 35)	1	80	106	105	Barrier	-5	<b>105</b>
		Dump truck (BS D3 60)	1	50	110	107	Barrier	-5	
		Water Pump, Submersible (Electric) (CNP283)	1	100	85	85			
		Welder/Generator, Portable (CNP107)	1	100	100	100	Barrier	-5	
68	Interchange Adit - Structure (Part 2)	Bar Bender and Cutter (CNP021)	1	50	90	87			<b>105</b>
		Saw, Circular Wood (CNP201)	1	30	108	103			
		Poker, Vibratory, Hand Held (BS D6 40)	2	20	98	94	Barrier	-5	
		Crane Mobile (BS D7 114)	1	100	101	101	Barrier	-5	
		Concrete Lorry Mixer (BS D6 23)	1	30	100	95	Barrier	-5	
		Water Pump, Submersible (Electric) (CNP283)	2	100	85	88			
		Welder/Generator, Portable (CNP107)	1	100	100	100	Barrier	-5	
69	Interchange Adit - ELS (Part 3)	Crane Mobile (BS D7 114)	1	80	101	100	Barrier	-5	<b>101</b>
		Lorry (BS D9 19)	1	50	102	99	Barrier	-5	
		Pilling Rig and Drilling Rig (BS D4 44)	1	100	109	109	Acoustic Mat	-10	
70	Interchange Adit - Excavation (Part 3)	Excavator/Loader, Wheeled/Tracked (BS D3 35)	1	80	106	105	Barrier	-5	<b>105</b>
		Dump truck (BS D3 60)	1	50	110	107	Barrier	-5	
		Water Pump, Submersible (Electric) (CNP283)	1	100	85	85			
		Welder/Generator, Portable (CNP107)	1	100	100	100	Barrier	-5	
71	Interchange Adit - Structure (Part 3)	Bar Bender and Cutter (CNP021)	1	50	90	87			<b>106</b>
		Saw, Circular Wood (CNP201)	1	50	108	105			
		Poker, Vibratory, Hand Held (BS D6 40)	2	20	98	94	Barrier	-5	
		Crane Mobile (BS D7 114)	1	100	101	101	Barrier	-5	
		Concrete Lorry Mixer (BS D6 23)	1	30	100	95	Barrier	-5	
		Water Pump, Submersible (Electric) (CNP283)	2	100	85	88			
		Welder/Generator, Portable (CNP107)	1	100	100	100	Barrier	-5	
72	Interchange Adit - Backfill	Tower Crane (CNP049)	1	60	95	93			<b>105</b>
		Bulldozer (BS C2 13)	1	100	106	106	Barrier	-5	
		Roller, Vibratory (CNP186)	1	60	108	106	Barrier	-5	
		Lorry (BS D9 19)	1	80	102	101	Barrier	-5	
73	Adit D1 - ELS	Crane Mobile (BS D7 114)	1	100	101	101	Barrier	-5	<b>101</b>
		Lorry (BS D9 19)	1	50	102	99	Barrier	-5	
		Pilling Rig and Drilling Rig (BS D4 44)	1	100	109	109	Acoustic Mat	-10	

**Note:**

[1] BS - British Standard BS 5228:2009, Part 1 Noise and Vibration Control on Construction and Open Sites

Other Ref. - SWLs refer to other PME documented by the Noise Control Authority (EPD/PME/no.)

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[2] The figures are rounded-up to a whole number.

[3] With reference to the approved SCL(HHS) EIA Report (Register No. AEIAR-164/2012)

Enclosure for movable plant : -5dB(A)

Enclosure for relatively static plant : -10dB(A)

Barrier for movable plant : -5 dB(A)

Barrier for relatively static plant : -10dB(A)

Acoustic mat : -10dB(A)

**Appendix B1 : SCL Contract 1106 - Diamond Hill Station  
Construction Plant Inventory (With Mitigation)**

**Area: Worksite S8 (Lung Cheung Road - WB)**

No.	Activities	Name of PME (TM Ref./Other Ref.[1])	No. of PME	On Time %	Unit SWL, dB(A)	SWL, dB(A)	Type of Noise Control[3]	Noise Reduction	Total SWL, dB(A) [2]
74	Adit D1 - Excavation	Excavator/Loader, Wheeled/Tracked (BS D3 35)	1	80	106	105	Barrier	-5	<b>104</b>
		Dump truck (BS D3 60)	1	50	110	107	Barrier	-5	
		Water Pump, Submersible (Electric) (CNP283)	1	100	85	85			
		Welder/Generator, Portable (CNP107)	1	100	100	100	Barrier	-5	
75	Adit D1 - Structure	Bar Bender and Cutter (CNP021)	1	50	90	87			<b>105</b>
		Saw, Circular Wood (CNP201)	1	30	108	103			
		Poker, Vibratory, Hand Held (BS D6 40)	2	20	98	94	Barrier	-5	
		Crane Mobile (BS D7 114)	1	100	101	101	Barrier	-5	
		Concrete Lorry Mixer (BS D6 23)	1	30	100	95	Barrier	-5	
		Water Pump, Submersible (Electric) (CNP283)	2	100	85	88			
		Welder/Generator, Portable (CNP107)	1	100	100	100	Barrier	-5	
76	Adit D1 - ELS (Part 2)	Crane Mobile (BS D7 114)	1	80	101	100	Barrier	-5	<b>101</b>
		Lorry (BS D9 19)	1	50	102	99	Barrier	-5	
		Pilling Rig and Drilling Rig (BS D4 44)	1	100	109	109	Acoustic Mat	-10	
77	Adit D1 - Excavation (Part 2)	Excavator/Loader, Wheeled/Tracked (BS D3 35)	1	80	106	105	Barrier	-5	<b>105</b>
		Dump truck (BS D3 60)	1	50	110	107	Barrier	-5	
		Water Pump, Submersible (Electric) (CNP283)	1	100	85	85			
		Welder/Generator, Portable (CNP107)	1	100	100	100	Barrier	-5	
78	Adit D1 - Structure (Part 2)	Bar Bender and Cutter (CNP021)	1	50	90	87			<b>106</b>
		Saw, Circular Wood (CNP201)	1	50	108	105			
		Poker, Vibratory, Hand Held (BS D6 40)	2	20	98	94	Barrier	-5	
		Crane Mobile (BS D7 114)	1	100	101	101	Barrier	-5	
		Concrete Lorry Mixer (BS D6 23)	1	30	100	95	Barrier	-5	
		Water Pump, Submersible (Electric) (CNP283)	2	100	85	88			
		Welder/Generator, Portable (CNP107)	1	100	100	100	Barrier	-5	
79	Adit D1 - Backfill	Tower Crane (CNP049)	1	60	95	93			<b>105</b>
		Bulldozer (BS C2 13)	1	100	106	106	Barrier	-5	
		Roller, Vibratory (CNP186)	1	60	108	106	Barrier	-5	
		Lorry (BS D9 19)	1	80	102	101	Barrier	-5	
		Crane Mobile (BS D7 114)	1	100	101	101	Barrier	-5	

**Note:**

[1] BS - British Standard BS 5228:2009, Part 1 Noise and Vibration Control on Construction and Open Sites

Other Ref. - SWLs refer to other PME documented by the Noise Control Authority (EPD/PME/no.)

([http://www.epd.gov.hk/epd/english/application\\_for\\_licences/guidance/files/OtherSWLe.pdf](http://www.epd.gov.hk/epd/english/application_for_licences/guidance/files/OtherSWLe.pdf))

[2] The figures are rounded-up to a whole number.

[3] With reference to the approved SCL(HHS) EIA Report (Register No. AEIAR-164/2012)

Enclosure for movable plant : -5dB(A)

Enclosure for relatively static plant : -10dB(A)

Barrier for movable plant : -5 dB(A)

Barrier for relatively static plant : -10dB(A)

Acoustic mat : -10dB(A)

**Appendix B1 : SCL Contract 1106 - Diamond Hill Station  
Construction Plant Inventory (With Mitigation)**

**Area: Worksite S8 (Lung Cheung Road - WB)**

No.	Activities	Name of PME (TM Ref./Other Ref.[1])	No. of PME	On Time %	Unit SWL, dB(A)	SWL, dB(A)	Type of Noise Control[3]	Noise Reduction	Total SWL, dB(A) [2]
80	MOE (near B1) - ELS	Crane Mobile (BS D7 114)	1	80	101	100	Barrier	-5	<b>101</b>
		Lorry (BS D9 19)	1	50	102	99	Barrier	-5	
		Piling Rig and Drilling Rig (BS D4 44)	1	100	109	109	Acoustic Mat	-10	
81	MOE (near B1) - Excavation	Excavator/Loader, Wheeled/Tracked (BS D3 35)	1	80	106	105	Barrier	-5	<b>105</b>
		Dump truck (BS D3 60)	1	50	110	107	Barrier	-5	
		Water Pump, Submersible (Electric) (CNP283)	1	100	85	85			
		Welder/Generator, Portable (CNP107)	1	100	100	100	Barrier	-5	
82	MOE (near B1) - Structure	Bar Bender and Cutter (CNP021)	1	50	90	87			<b>106</b>
		Saw, Circular Wood (CNP201)	1	50	108	105			
		Poker, Vibratory, Hand Held (BS D6 40)	2	20	98	94	Barrier	-5	
		Crane Mobile (BS D7 114)	1	100	101	101	Barrier	-5	
		Concrete Lorry Mixer (BS D6 23)	1	30	100	95	Barrier	-5	
		Water Pump, Submersible (Electric) (CNP283)	2	100	85	88			
		Welder/Generator, Portable (CNP107)	1	100	100	100	Barrier	-5	
83	Construction of Retrieval shaft at DIH Interchange/Adit	Tower Crane (CNP049)	1	60	95	93			<b>86</b>
		Crane Mobile (BS D7 114)	1	10	101	91	Barrier	-5	

**Note:**

[1] BS - British Standard BS 5228:2009, Part 1 Noise and Vibration Control on Construction and Open Sites

Other Ref. - SWLs refer to other PME documented by the Noise Control Authority (EPD/PME/no.)

([http://www.epd.gov.hk/epd/english/application\\_for\\_licences/guidance/files/OtherSWLe.pdf](http://www.epd.gov.hk/epd/english/application_for_licences/guidance/files/OtherSWLe.pdf))

[2] The figures are rounded-up to a whole number.

[3] With reference to the approved SCL(HHS) EIA Report (Register No. AEIAR-164/2012)

Enclosure for movable plant : -5dB(A)

Enclosure for relatively static plant : -10dB(A)

Barrier for movable plant : -5 dB(A)

Barrier for relatively static plant : -10dB(A)

Acoustic mat : -10dB(A)

**Appendix B1 : SCL Contract 1106 - Diamond Hill Station  
Construction Plant Inventory (With Mitigation)**

**Area: Worksite S9 - Entrance A1 Disable Lift Corridor**

No.	Activities	Name of PME (TM Ref./Other Ref.[1])	No. of PME	On Time %	Unit SWL, dB(A)	SWL, dB(A)	Type of Noise Control[3]	Noise Reduction	Total SWL, dB(A) [2]
84	Mobilisation	Lorry, with crane grab, gross wt. >38 tonnes (CNP144)	1	50	112	109	Barrier	-5	<b>104</b>
		Mini Backhoe (CNP082)	1	100	94	94	Barrier	-5	
85	A1 Lift - Site Clearance and Hoarding Erection	Lorry (BS D9 19)	1	70	102	100	Barrier	-5	<b>100</b>
		Breaker, hand held, mass >10kg and <20kg (CNP024)	1	20	108	101	Barrier	-5	
		Concrete Lorry Mixer (BS D6 23)	1	80	100	99	Barrier	-5	
		Poker, Vibratory, Hand Held (BS D6 40)	1	30	98	93	Barrier	-5	
86	A1 Lift - Pre-drilling and Pre-bored H Piles ( 6nos)	Piling Rig & Drilling Rig (BS D4 44)	1	60	109	107	Acoustic Mat	-10	<b>99</b>
		Crane Mobile (BS D7 114)	1	70	101	99	Barrier	-5	
87	A1 Lift - Grouting Works	Piling Rig & Drilling Rig (BS D4 44)	1	50	109	106	Acoustic Mat	-10	<b>100</b>
		Lorry, crane /grab (CNP145)	1	50	105	102	Barrier	-5	
		Grout Mixer (CNP105)	1	20	90	83	Barrier	-5	
		Grout Pump (CNP106)	1	20	105	98	Barrier	-5	
88	A1 Lift - Sheet Piling works	Piling Rig & Drilling Rig (BS D4 44)	1	100	109	109	Acoustic Mat	-10	<b>107</b>
		Lorry, with crane grab, gross wt. >38 tonnes (CNP144)	1	80	112	111	Barrier	-5	
89	A1 Lift - Excavation & ELS	Lorry, with crane grab, gross wt. >38 tonnes (CNP144)	1	50	112	109	Barrier	-5	<b>106</b>
		Excavator/ Loader, Wheeled/ Tracked (BS D3 35)	1	80	106	105	Barrier	-5	
		Dump truck with grab (CNP069)	1	80	105	104	Barrier	-5	
		Water Pump, Submersible (Electric) (CNP283)	1	60	85	83			
90	A1 Lift - Wall strengthening Work	Lorry, with crane grab, gross wt. >38 tonnes (CNP144)	1	20	112	105	Barrier	-5	<b>103</b>
		Poker, Vibratory, Hand Held (BS D6 40)	1	20	98	91	Barrier	-5	
		Concrete Lorry Mixer (BS D6 23)	1	20	100	93	Barrier	-5	
		Concrete Pumping Lorry (CNP047)	1	20	109	102	Barrier	-5	
		Roller (CNP185)	1	20	108	101	Barrier	-5	
91	A1 Lift - Construct Lift Shaft, wall & slab	Lorry, with crane grab, gross wt. >38 tonnes (CNP144)	1	50	112	109	Barrier	-5	<b>107</b>
		Poker, Vibratory, Hand Held (BS D6 40)	1	20	98	91	Barrier	-5	
		Concrete Lorry Mixer (BS D6 23)	1	20	100	93	Barrier	-5	
		Concrete Pumping Lorry (CNP047)	1	20	109	102			
		Roller (CNP185)	1	20	108	101	Barrier	-5	

**Note:**

[1] BS - British Standard BS 5228:2009, Part 1 Noise and Vibration Control on Construction and Open Sites

Other Ref. - SWLs refer to other PME documented by the Noise Control Authority (EPD/PME/no.)

([http://www.epd.gov.hk/epd/english/application\\_for\\_licences/guidance/files/OtherSWLe.pdf](http://www.epd.gov.hk/epd/english/application_for_licences/guidance/files/OtherSWLe.pdf))

[2] The figures are rounded-up to a whole number.

[3] With reference to the approved SCL(HHS) EIA Report (Register No. AEIAR-164/2012)

Enclosure for movable plant : -5dB(A)

Enclosure for relatively static plant : -10dB(A)

Barrier for movable plant : -5 dB(A)

Barrier for relatively static plant : -10dB(A)

Acoustic mat : -10dB(A)

**Appendix B1 : SCL Contract 1106 - Diamond Hill Station  
Construction Plant Inventory (With Mitigation)**

**Area: Worksite S10**

No.	Activities	Name of PME (TM Ref./Other Ref.[1])	No. of PME	On Time %	Unit SWL, dB(A)	SWL, dB(A)	Type of Noise Control[3]	Noise Reduction	Total SWL, dB(A) [2]
103	Temporary Gas Main Diversion	Excavator/Loader, Wheeled/Tracked (BS D3 35)	1	100	106	106	Barrier	-5	<b>104</b>
		Lorry (BS D9 19)	1	20	102	95	Barrier	-5	
		Concrete Lorry Mixer (BS D6 23)	1	20	100	93	Barrier	-5	
		Hand Held Breaker (CNP025)	1	30	111	106	Barrier	-5	
107	Setup of Mobile Batching Machinery Equipment (MBME)	Lorry, with crane, 5.5 tonnes < gross vehicle wt. < 38 tonnes (CNP145[1])	1	80	105	104			<b>109</b>
		Lorry, 5.5 tonnes < gross vehicle wt. < 38 tonnes (CNP142[1])	2	80	105	107			
108	Operation of MBME	Dump truck, with grab, 5.5 tonnes < gross vehicle wt. < 38 tonnes (CNP069[1])	3	80	105	109			<b>110</b>
		Concrete Lorry Mixer (BS D6 23)	2	80	100	102			
		Mobile Batching Machinery Equipment (CNP022)	1	100	108	108	Barrier	-5	
109	Demolition of MBME	Lorry, with crane, 5.5tonnes < gross vehicle wt. < 38 tonnes (CNP145[1])	1	80	105	104			<b>109</b>
		Lorry, 5.5 tonnes < gross vehicle wt. < 38 tonnes (CNP142[1])	2	80	105	107			

**Note:**

[1] BS - British Standard BS 5228:2009, Part 1 Noise and Vibration Control on Construction and Open Sites

Other Ref. - SWLs refer to other PME documented by the Noise Control Authority (EPD/PME/no.)

( [http://www.epd.gov.hk/epd/english/application\\_for\\_licences/guidance/files/OtherSWLe.pdf](http://www.epd.gov.hk/epd/english/application_for_licences/guidance/files/OtherSWLe.pdf))

[2] The figures are rounded-up to a whole number.

[3] With reference to the approved SCL(HHS) EIA Report (Register No. AEIAR-164/2012)

Enclosure for movable plant : -5dB(A)

Enclosure for relatively static plant : -10dB(A)

Barrier for movable plant : -5 dB(A)

Barrier for relatively static plant : -10dB(A)

Acoustic mat : -10dB(A)

**Appendix B1 : SCL Contract 1106 - Diamond Hill Station  
Construction Plant Inventory (With Mitigation)**

**Area: Worksite S11 - Haul Road East**

No.	Activities	Name of PME (TM Ref./Other Ref.[1])	No. of PME	On Time %	Unit SWL, dB(A)	SWL, dB(A)	Type of Noise Control[3]	Noise Reduction	Total SWL, dB(A) [2]
92	Mobilisation	Concrete Lorry Mixer (BS D6 23)	1	20	100	93	Barrier	-5	<b>103</b>
		Excavator/ Loader, Wheeled/ Tracked (BS D3 35)	1	100	106	106	Barrier	-5	
		Lorry (BS D9 19)	1	50	102	99	Barrier	-5	
		Crane Mobile (BS D7 114)	1	100	101	101	Barrier	-5	
		Poker, Vibratory, Hand Held (BS D6 40)	1	20	98	91	Barrier	-5	
93	Site Clearance	Dump truck, with grab, 5.5 tonne < gross vehicle weight < 38 tonne (CNP069)	1	80	105	104	Barrier	-5	<b>104</b>
		Excavator/ Loader, Wheeled/ Tracked (BS D3 35)	1	80	106	105	Barrier	-5	
		Lorry, with crane, 5.5 tonne < gross vehicle weight < 38 tonne (CNP14511)	1	80	105	104	Barrier	-5	
96	Operation of Steel Bending Facilities	Bar bender and cutter (electric) (CNP021)	6	80	90	97			<b>97</b>
97	Bored Piling Works [4]	Crane Mobile (BS D7 114)	2	60	101	102	Barrier	-5	<b>106</b>
		Air Compressor (CNP003)	1	50	104	101	Barrier	-5	
		Piling, large diameter bored, oscillator (CNP165)	2	40	115	114	Acoustic Mat	-10	
		Piling, large diameter bored, reverse circulation drill (CNP 166)	1	70	100	98	Acoustic Mat	-10	
		Concrete Lorry Mixer (BS D6 23)	2	20	100	96	Barrier	-5	
		Water Pump, Submersible (Electric) (CNP283)	2	100	85	88			
104	Temporary Gas Main Diversion	Welder/generator, portable (CNP107)	1	50	100	97	Barrier	-5	<b>104</b>
		Excavator/Loader, Wheeled/Tracked (BS D3 35)	1	100	106	106	Barrier	-5	
		Lorry (BS D9 19)	1	20	102	95	Barrier	-5	
		Concrete Lorry Mixer (BS D6 23)	1	20	100	93	Barrier	-5	
		Hand Held Breaker (CNP025)	1	30	111	106	Barrier	-5	

**Note:**

[1] BS - British Standard BS 5228:2009, Part 1 Noise and Vibration Control on Construction and Open Sites  
Other Ref. - SWLs refer to other PME documented by the Noise Control Authority (EPD/PME/no.)  
([http://www.epd.gov.hk/epd/english/application\\_for\\_licences/guidance/files/OtherSWLe.pdf](http://www.epd.gov.hk/epd/english/application_for_licences/guidance/files/OtherSWLe.pdf))

[2] The figures are rounded-up to a whole number.

[3] With reference to the approved SCL(HHS) EIA Report (Register No. AEIAR-164/2012)

Enclosure for movable plant : -5dB(A)

Enclosure for relatively static plant : -10dB(A)

Barrier for movable plant : -5 dB(A)

Barrier for relatively static plant : -10dB(A)

Acoustic mat : -10dB(A)

[4] Bored piling works entrusted by Planning Department

**Appendix B1 : SCL Contract 1106 - Diamond Hill Station  
Construction Plant Inventory (With Mitigation)**

**Area: Worksite S12 - DIH Drainage Construction**

No.	Activities	Name of PME (TM Ref./Other Ref.[1])	No. of PME	On Time %	Unit SWL, dB(A)	SWL, dB(A)	Type of Noise Control[3]	Noise Reduction	Total SWL, dB(A) [2]
94	Utilities Diversion	Concrete Lorry Mixer (BS D6 23)	1	100	100	100	Barrier	-5	<b>108</b>
		Excavator/ Loader, Wheeled/ Tracked (BS D3 35)	1	20	106	99	Barrier	-5	
		Lorry (BS D9 19)	1	20	102	95	Barrier	-5	
		Bar Bender & Cutter (CNP021)	1	50	90	87			
		Poker, Vibratory, Hand Held (BS D6 40)	1	20	98	91	Barrier	-5	
		Saw, Chain, Hand Held (CNP202)	1	50	114	111	Barrier	-5	
		Hand Held Breaker (CNP025)	1	30	111	106	Barrier	-5	

**Note:**

[1] BS - British Standard BS 5228:2009, Part 1 Noise and Vibration Control on Construction and Open Sites

Other Ref. - SWLs refer to other PME documented by the Noise Control Authority (EPD/PME/no.)

([http://www.epd.gov.hk/epd/english/application\\_for\\_licences/guidance/files/OtherSWLe.pdf](http://www.epd.gov.hk/epd/english/application_for_licences/guidance/files/OtherSWLe.pdf))

[2] The figures are rounded-up to a whole number.

[3] With reference to the approved SCL(HHS) EIA Report (Register No. AEIAR-164/2012)

Enclosure for movable plant : -5dB(A)

Enclosure for relatively static plant : -10dB(A)

Barrier for movable plant : -5 dB(A)

Barrier for relatively static plant : -10dB(A)

Acoustic mat : -10dB(A)



**Appendix B1 : SCL Contract 1106 - Diamond Hill Station  
Construction Plant Inventory (With Mitigation)**

**Area: Worksite S13 - Entrance A1 Disable Lift Corridor**

No.	Activities	Name of PME (TM Ref./Other Ref.[1])	No. of PME	On Time %	Unit SWL, dB(A)	SWL, dB(A)	Type of Noise Control[3]	Noise Reduction	Total SWL, dB(A) [2]
95	A1 Lift - TTMs Temporary Traffic Diversion	Roller (CNP185)	1	20	108	101	Barrier	-5	<b>103</b>
		Excavator/ Loader, Wheeled/ Tracked (BS D3 35)	1	60	106	104	Barrier	-5	
		Lorry, with crane grab, gross wt. >38 tonnes (CNP144)	1	20	112	105	Barrier	-5	
		Paint Line Marker (CNP161)	1	60	90	88			

**Note:**

[1] BS - British Standard BS 5228:2009, Part 1 Noise and Vibration Control on Construction and Open Sites

Other Ref. - SWLs refer to other PME documented by the Noise Control Authority (EPD/PME/no.)

([http://www.epd.gov.hk/epd/english/application\\_for\\_licences/guidance/files/OtherSWLe.pdf](http://www.epd.gov.hk/epd/english/application_for_licences/guidance/files/OtherSWLe.pdf))

[2] The figures are rounded-up to a whole number.

[3] With reference to the approved SCL(HHS) EIA Report (Register No. AEIAR-164/2012)

Enclosure for movable plant : -5dB(A)

Enclosure for relatively static plant : -10dB(A)

Barrier for movable plant : -5 dB(A)

Barrier for relatively static plant : -10dB(A)

Acoustic mat : -10dB(A)

**Appendix B1 : SCL Contract 1106 - Diamond Hill Station  
Construction Plant Inventory (With Mitigation)**

**Area: Worksite S15 - Extended Works Site for Site Operation**

No.	Activities	Name of PME (TM Ref./Other Ref.[1])	No. of PME	On Time %	Unit SWL, dB(A)	SWL, dB(A)	Type of Noise Control[3]	Noise Reduction	Total SWL, dB(A) [2]
98	Site Operation	Dump truck, with grab, 5.5 tonne < gross vehicle weight < 38 tonne (CNP069)	2	30	105	103			<b>103</b>
105	Temporary Gas Main Diversion	Excavator/Loader, Wheeled/Tracked (BS D3 35)	1	100	106	106	Barrier	-5	<b>104</b>
		Lorry (BS D9 19)	1	20	102	95	Barrier	-5	
		Concrete Lorry Mixer (BS D6 23)	1	20	100	93	Barrier	-5	
		Hand Held Breaker (CNP025)	1	30	111	106	Barrier	-5	
110	Operation of Steel Bending Facilities	Bar bender and cutter (electric) (CNP021)	5	70	90	95			<b>95</b>

**Note:**

[1] BS - British Standard BS 5228:2009, Part 1 Noise and Vibration Control on Construction and Open Sites

Other Ref. - SWLs refer to other PME documented by the Noise Control Authority (EPD/PME/no.)

([http://www.epd.gov.hk/epd/english/application\\_for\\_licences/guidance/files/OtherSWLe.pdf](http://www.epd.gov.hk/epd/english/application_for_licences/guidance/files/OtherSWLe.pdf))

[2] The figures are rounded-up to a whole number.

[3] With reference to the approved SCL(HHS) EIA Report (Register No. AEIAR-164/2012)

Enclosure for movable plant : -5dB(A)

Enclosure for relatively static plant : -10dB(A)

Barrier for movable plant : -5 dB(A)

Barrier for relatively static plant : -10dB(A)

Acoustic mat : -10dB(A)

**Appendix B1 : SCL Contract 1106 - Diamond Hill Station  
Construction Plant Inventory (With Mitigation)**

**Area: Worksite S16 - Extended Works Site for Site Office**

No.	Activities	Name of PME (TM Ref./Other Ref.[1])	No. of PME	On Time %	Unit SWL, dB(A)	SWL, dB(A)	Type of Noise Control[3]	Noise Reduction	Total SWL, dB(A) [2]
99	Initial Site Set Up	Dump truck, with grab, 5.5 tonne < gross vehicle weight < 38 tonne (CNP069)	1	80	105	104	Barrier	-5	<b>104</b>
		Excavator/ Loader, Wheeled/ Tracked (BS D3 35)	1	80	106	105	Barrier	-5	
		Lorry, with crane, 5.5 tonne < gross vehicle weight < 38 tonne (CNP145[1])	1	80	105	104	Barrier	-5	
100	Site Reinstatement	Lorry, with crane, 5.5 tonne < gross vehicle weight < 38 tonne (CNP145[1])	2	65	105	106			<b>106</b>
106	Temporary Gas Main Diversion	Excavator/Loader, Wheeled/Tracked (BS D3 35)	1	100	106	106	Barrier	-5	<b>104</b>
		Lorry (BS D9 19)	1	20	102	95	Barrier	-5	
		Concrete Lorry Mixer (BS D6 23)	1	20	100	93	Barrier	-5	
		Hand Held Breaker (CNP025)	1	30	111	106	Barrier	-5	

**Note:**

[1] BS - British Standard BS 5228:2009, Part 1 Noise and Vibration Control on Construction and Open Sites

Other Ref. - SWLs refer to other PME documented by the Noise Control Authority (EPD/PME/no.)

([http://www.epd.gov.hk/epd/english/application\\_for\\_licences/guidance/files/OtherSWLe.pdf](http://www.epd.gov.hk/epd/english/application_for_licences/guidance/files/OtherSWLe.pdf))

[2] The figures are rounded-up to a whole number.

[3] With reference to the approved SCL(HHS) EIA Report (Register No. AEIAR-164/2012)

Enclosure for movable plant : -5dB(A)

Enclosure for relatively static plant : -10dB(A)

Barrier for movable plant : -5 dB(A)

Barrier for relatively static plant : -10dB(A)

Acoustic mat : -10dB(A)







Appendix B3 :Noise Contribution from Concurrent Works

Table B3.1 - Noise Contribution from other works area under SCL Works Contract 1103 (The figures are extracted from the latest CNMMP of Works Contract 1103)

Works Area/Total SWL (dB(A))	2012		2013												2014												2015												2016												2017															
	11	12	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	12				
Worksite S1	110	110	110	111	111	111	111	111	111	111	111	111	111	111	111	109	109	108	108	100	100	100	100	100	100	100	0	0	109	109	0	0	0	0	0	0	0	0	112	112	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Worksite S2	110	110	110	111	111	111	111	111	111	111	111	111	111	111	109	109	108	108	100	100	100	100	100	100	100	0	0	109	109	0	0	0	0	0	0	0	0	112	112	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Worksite S10	110	110	110	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0															

Table B3.2 - Noise Contribution from other works area under SCL Works Contract 1107 (The figures are extracted from the latest CNMMP of Works Contract 1107)

Works Area/Total SWL (dB(A))	2012		2013												2014												2015												2016												2017											
	11	12	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	12
Worksite S3a	0	0	0	0	0	0	0	0	0	0	0	0	115	115	115	115	115	115	115	0	109	109	109	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0								
Worksite S14	0	0	0	0	0	0	0	0	0	0	0	0	108	108	108	101	101	101	101	0	0	0	0	0	0	103	103	103	103	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0				

Remark:

Cumulative impact arisen from Tsz Wan Shan Pedestrian Link (i.e. Worksite S21 & S22 in Appendix C) is not anticipated given the separation distance of >300m between the works sites and NSRs.









Appendix B6 :SCL Contract 1106 - Summary of Predicted Accumulated Noise Levels from Construction at NSRs

NSR Location [NSR ID]	EIAO-TM Noise Criteria, dB (A)*	2012		2013												2014												2015												2016												2017															
		11	12	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	12																
Shek On Building [DIH-9-1]	70 (65)	62	62	62	62	62	62	62	62	63	63	63	65	65	65	64	61	63	64	62	62	62	62	55	55	57	60	59	62	64	62	60	60	62	64	64	64	63	65	65	63	60	61	61	61	63	64	63	62	61	60	57	54	0	0	0	0	0	0	0	0	0	0	0	0		
Canossa Primary School [DIH-13-1]	70 (65)	57	57	57	58	58	58	58	58	58	58	61	61	62	59	57	60	62	57	58	58	58	47	47	52	54	48	58	60	56	0	0	56	60	60	59	57	59	59	57	51	52	52	52	55	58	56	54	54	54	52	52	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
Rhythm Garden Block 2 [DIH-14-1]	75	0	61	63	63	54	54	54	56	56	56	69	69	69	66	65	65	67	60	63	63	62	59	58	64	64	64	64	58	58	58	60	61	61	61	60	57	57	59	54	54	54	54	56	56	53	53	53	60	63	63	63	63	63	60	60	0	0	0	0	0	0	0	0			
Canossa Primary School (San Po Kong) [DIH-14-4]	70 (65)	57	65	65	65	58	58	58	59	59	61	63	64	65	64	62	62	66	64	65	65	64	63	62	63	63	63	63	63	63	63	64	64	65	66	65	65	65	63	62	64	61	61	61	62	63	63	63	62	61	60	60	64	64	64	64	62	62	0	0	0	0	0	0	0	0	0
Rhythm Garden Block 1 [DIH-14-5]	75	0	63	66	66	57	57	57	59	59	60	66	66	68	65	62	63	66	64	65	65	64	62	62	63	63	63	63	63	63	61	61	62	62	63	64	64	64	64	61	60	63	58	58	59	59	61	62	61	59	58	56	64	67	67	67	67	63	63	0	0	0	0	0	0	0	0

Remarks:

\* Values in parentheses indicate the noise criterion during the examination period (typical examination periods in May, June, November and December) at the educational institutions: Shek On House [DIH-9-1], Canossa Primary School [DIH-13-1] and Canossa Primary School (San Po Kong) [DIH-14-4].

According to the schools' activity schedules for year 2014 to 2015 of Canossa Primary School [DIH-13-1] and Canossa Primary School (San Po Kong) [DIH-14-4], the examination periods were scheduled in November 2014, March and June 2015. Based on the schools' previous schedules and for the purpose of assessment, the typical examination periods were set in March, May, June, November and December.

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**APPENDIX C –  
Location and Notional Distance from Works  
Areas of NSRs**

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## Appendix C –Location and Notional Distance from Works Areas of NSRs

Notional Distance from Construction Sites to NSRs (in meter)

[Extracted from Appendix 8.10H of approved SCL (HHS) EIA Report except for Worksites S3a, S11, S15 & S16]

NSRs	Worksite																
	SCL Works Contract 1103 & 1106															SCL Works Contract 1107	
	S1	S2	S3	S4	S5	S6	S7	S8	S9	S10	S11 <sup>(2)</sup>	S12	S13	S15 <sup>(3)</sup>	S16 <sup>(3)</sup>	S3a <sup>(1)</sup>	S14
DIH-9-1	210	260				285	245	275	275	275			285				
DIH-13-1	265						295										
DIH-14-1				275	225		290				167	145		198	110	270	60
DIH-14-4			250	205	180	280	250	280		245	154	105		136	148		200
DIH-14-5			295	235	180	290	250	290			124	100		151	70		95

Note:

- (1) Worksite S3a is under SCL Works Contract 1107 but not included in the approved SCL (HHS) EIA Report.
- (2) Worksite S11 is re-delineated due to extended works area based on the latest information submitted under the SCL(TAW-HUH) EP and hence notional distances are updated accordingly.
- (3) Worksites S15 & S16 are extended works areas based on the latest information submitted under the SCL(TAW-HUH) EP which are not included in the approved SCL (HHS) EIA Report.



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**APPENDIX D –  
Environmental Review Note**

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## 1. Background

In January 2014, Construction Noise Mitigation Measures Plan (CNMMP) for Shatin to Central Link - Tai Wai to Hung Hom Section [(SCL(TAW-HUH))] was revised according to latest construction programme and plant inventory for SCL(TAW-HUH). This CNMMP was approved by Director of Environmental Protection (DEP) in February 2014 under EP Condition 2.9.

MTR Corporation Limited (MTR) proposed in mid 2014 to provide a Mobile Batching Machinery Equipment (MBME) at Shatin to Central Link (SCL) - Diamond Hill works site (DIH) (attached figure refers) to support the construction works of SCL Project. An Environmental Review Report (ERR) was therefore prepared to identify and assess the likely environmental issues pertinent to the proposed MBME, and to identify any additional environmental mitigation measures that may be required for compliance with environmental standards. This ERR was submitted together with the application of Variation of the Environmental Permit of SCL (TAW-HUH) (EP No: EP-438/2012/F). The VEP application (Application No.: VEP-450/2014) was approved by Environmental Protection Department (EPD) with EP-438/2012/G issued by Director of Environmental Protection (DEP) on 14 August 2014.

This Note summarizes the findings of the ERR, the proposed supply arrangement and the potential environmental implications associated with this arrangement. This Note will also be used to support the update of the CNMMP to include the provision of a MBME as well as the proposed arrangement.

## 2. Summary of ERR Findings

As mentioned in the ERR, the provision of an on-site MBME at DIH could reduce the road-based traffic impact given that the number of delivery trips of concrete lorry mixers from the offsite, distant concrete batching plant (which is situated at Tin Wan) to DIH could be minimized.

Based on the findings of the environmental review, the operation of MBME would not induce unacceptable impacts related to air quality, air-borne noise, water quality, waste management, visual and landscape resources, ecological resources, land contamination and cultural heritage resources, with the adoption of standard good site practice and recommended mitigation measures as presented in the approved Environmental Impact Assessment Reports (Register No.: AEIAR-167/2012 and Register No.: AEIAR-164/2012), and ERR – MBME<sup>1</sup> (July 2014).

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<sup>1</sup> Environmental Review Report – Proposed Mobile Batching Machinery Equipment (ERR – MBME) at Diamond Hill (July 2014), AECOM Asia Consultant Limited.



### **3. Proposed Arrangement and Its Benefit**

During the preliminary review for the provision of MBME at DIH as conducted in the preparation of the ERR – MBME<sup>1</sup>, it was anticipated that concrete produced from this MBME would be fully utilized for the construction works at DIH only. A recent review of the concrete usage and production has been conducted and it is expected that spare concrete could be provided to SCL works sites in Kai Tak or other SCL works areas for supporting the construction of SCL Project. It is estimated that the spare concrete generated from the MBME would be about 2 mixer trucks per hour. The provision of spare concrete to other works areas is only a re-arrangement of source of concrete and there is no change to the SCL construction method in the various SCL works areas / works sites due to such re-arrangement.

With the provision of spare concrete from DIH MBME, the amount of concrete supply required from concrete batching plants at distant areas including Tin Wan, Sai Kung, Tsing Yi, Anderson Road or Yau Tong to Kai Tak or other SCL works areas under SCL works contracts could be reduced, in addition to relatively shorter delivery route from DIH to Kai Tak and other areas. The potential environmental impacts associated with the distant delivery routes and pressure on road networks in both Hong Kong and Kowloon side could therefore be reduced.

### **4. Potential Environmental Implications**

The provision of spare concrete from DIH MBME to other works sites will not alter the original design of the MBME. In addition, the plant inventory and percentage on time remain unchanged under the proposed arrangement. As such, air quality and air-borne noise emissions would not be increased due to the on-site operation of MBME with the implementation of the recommended mitigation measures as in the approved EIA Reports and ERR.

The only concern associated with the concrete supply to other works sites would be the offsite delivery trips from DIH to other SCL works sites. It is estimated that the offsite delivery trips would be about 4 trips per hour from and back to DIH (i.e. with each mixer truck running in and out of the site, and thus the total no. of trips would be 4 for 2 mixer trucks per hour) via Choi Hung Road. Conversely, the number of mixer trucks travelling from Tin Wan, Sai Kung, Tsing Yi, Anderson Road or Yau Tong to Kai Tak or other SCL works areas under SCL works contracts will be reduced. In view of heavily trafficked Choi Hung Road, the additional truck trips (only 4 truck trips per hour) would not induce adverse dust and air-borne noise impacts to local sensitive receivers.

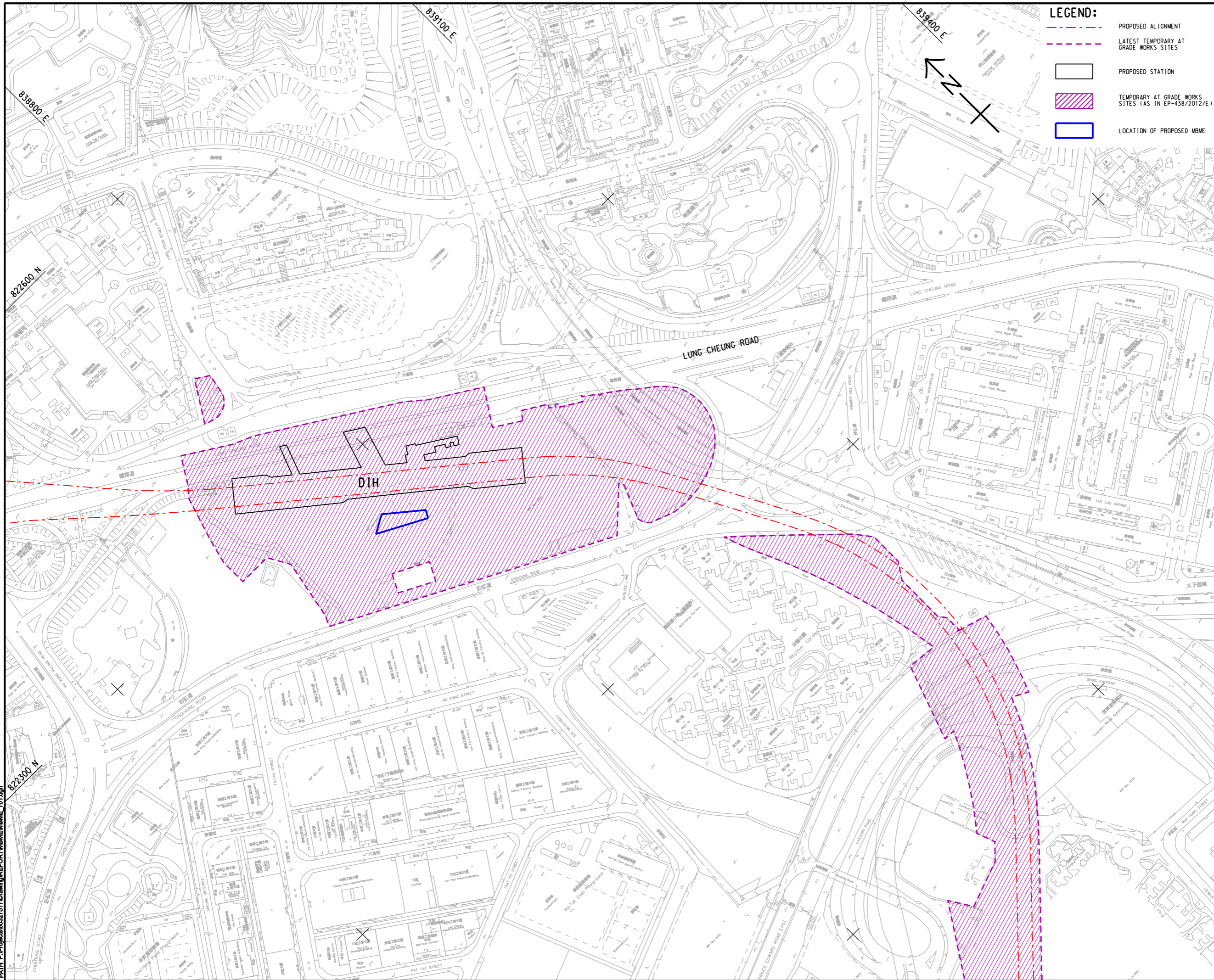
## 5. Conclusion

An environmental review has been conducted to identify any potential impact arising from the provision of spare concrete from DIH MBME to SCL works sites in Kai Tak or other SCL works areas.

Supplying spare concrete from DIH MBME not only ease pressure on road networks in both Hong Kong and Kowloon side by reducing number of mixer trucks travelling from the distant concrete batching plants as indicated above, but also minimize the associated environmental impact.

There would be no change in the design of the DIH MBME as a result of supplying spare concrete to other works sites. There would also be limited additional delivery trips generated from the proposed supply arrangement from DIH to the works sites in Kai Tak or other SCL works areas. As such, no adverse air quality and air-borne noise impacts resulting from the proposed off-site delivery on the local sensitive receivers are anticipated. The environmental performance requirements set out in the approved EIA would not be violated.

With no significant environmental impact resulting from the proposed off-site delivery of spare concrete to other SCL works areas, the proposed concrete supply arrangement would be acceptable. Such proposed concrete supply arrangement will also be reported in the monthly EM&A Report of SCL(TAW-HUH).



**LEGEND:**

- PROPOSED ALIGNMENT
- LATEST TEMPORARY AT GRADE WORKS SITES
- PROPOSED STATION
- TEMPORARY AT GRADE WORKS SITES (AS IN EP-438/2012/E)
- LOCATION OF PROPOSED MBME

**ISSUE/REVISION**

I/R	DATE	DESCRIPTION	CHK.

**STATUS**

**SCALE**  
A1 1: 1500

**DIMENSION UNIT**  
METRES

**KEY PLAN**

**PROJECT NO.**  
60327517

**CONTRACT NO.**

**SHEET TITLE**  
PROPOSED LOCATION OF  
MOBILE BATCHING MACHINERY  
EQUIPMENT

**SHEET NUMBER**  
60327517/MBME/FIGURE 2.1

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