

The EIA Ordinance Register Office  
Environmental Protection Department  
27/F, Southorn Centre  
130 Hennessy Road  
Wan Chai, Hong Kong

Our ref: SHO/SHD-COR-CEM-ENV-070150

Attn: Mr. Patrick Wong

6 December 2023

**BY HAND**

Dear Patrick,

**Siu Ho Wan Depot Property Development  
EP-588/2021 - Siu Ho Wan Station and Siu Ho Wan Depot Replanning Works  
Condition 2.10 – Construction Noise Mitigation Plan (for Phase 1 Works)**

Further to your email and comments dated 16 November 2023, we are pleased to submit and deposit herewith four hard copies and one electronic copy of the revised Construction Noise Mitigation Plan (CNMP) the Phase 1 Works of the Project and the response to comment table to the Director of Environmental Protection. This submission has been certified by the ET Leader and verified by the IEC.

Should you have any queries, please feel free to contact our Cyrus Lau at 2688 1585.

Yours sincerely,



Edan Li  
Senior Environmental Manager (CW)

Encl.

c.c. IEC - Mr. Adi Lee

EL/CL/AL/RC/ct

MTR Corporation Limited

**Siu Ho Wan Station and  
Siu Ho Wan Depot Replanning Works**

Construction Noise Mitigation Plan

Certified by: Edan Li 

Position: Environmental Team Leader

Date: 6 December 2023

MTR Corporation Limited

**Siu Ho Wan Station and  
Siu Ho Wan Depot Replanning Works**

Construction Noise Mitigation Plan



Verified by: Adi Lee

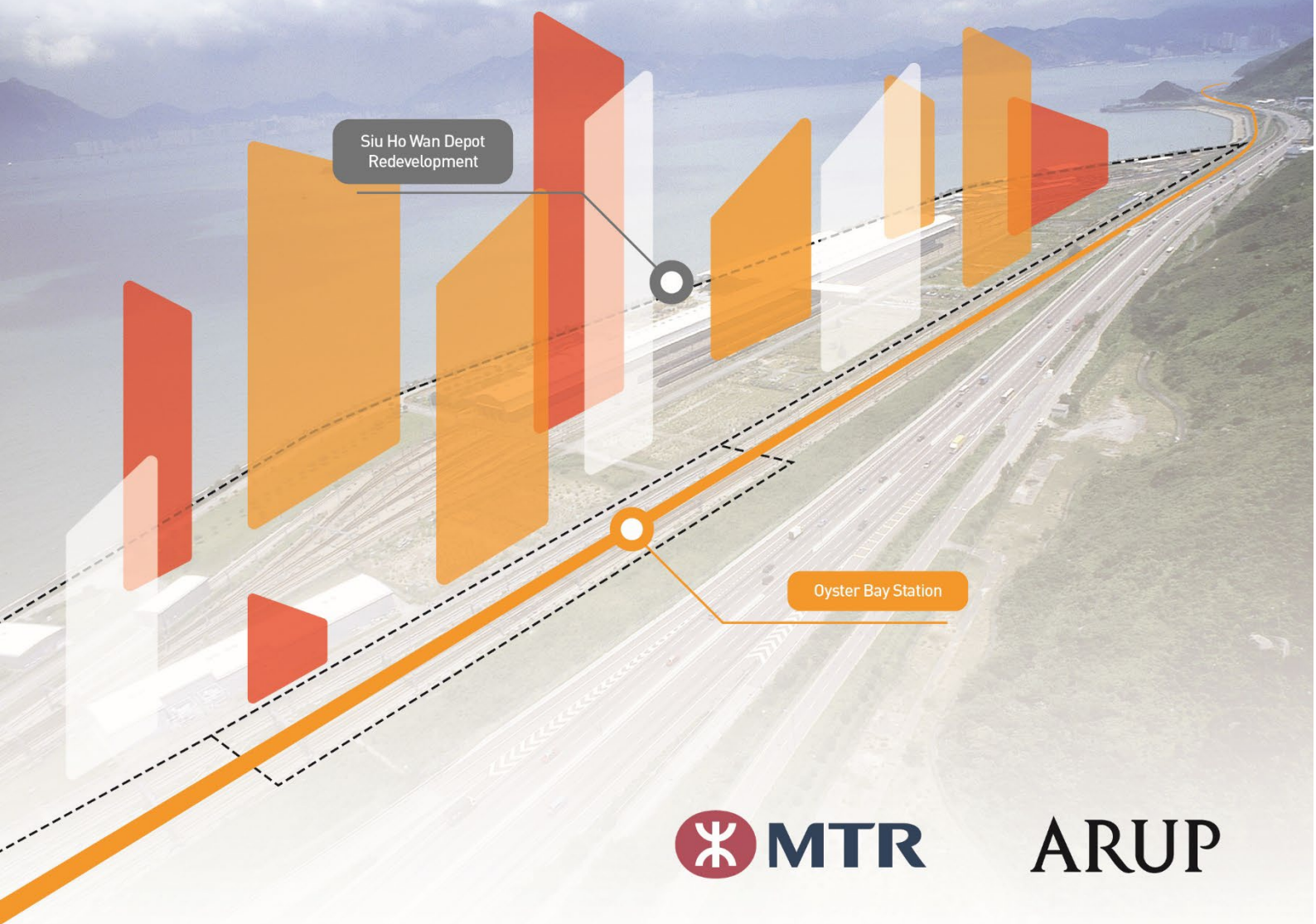
Position: Independent Environmental Checker

Date: 6 December 2023

MTR Corporation Limited  
Siu Ho Wan Depot Property Development  
Consultancy Agreement No. C1701  
Detailed Design Services for  
Siu Ho Wan Depot Phase 1 &  
Siu Ho Wan Station

Deliverable No. 3.9  
Construction Noise Mitigation Plan (CNMP)  
Revision H

December 2023



MTR Corporation Limited

**Siu Ho Wan Depot Property Development  
Consultancy Agreement No. C1701  
Detailed Design Services for Siu Ho Wan  
Depot Phase 1 & Siu Ho Wan Station**

**Construction Noise Mitigation Plan (CNMP)**

C1701-P-SHD-OAP-510-000004

Revision H | December 2023

This report takes into account the particular instructions and requirements of our client.

It is not intended for and should not be relied upon by any third party and no responsibility is undertaken to any third party.

Job number 282278

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**ARUP**

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# 1 Introduction

## 1.1 Background

- 1.1.1 The statutory Environmental Impact Assessments (EIA) for Siu Ho Wan Station and Depot Replanning <sup>1</sup> (hereafter called the Railway EIA) were submitted and approved in Year 2017.
- 1.1.2 The development includes the detailed design for Siu Ho Wan Depot (SHD) Phase 1 (previously known as Stage 1 in Railway EIA) to allow for topside development and provides a new railway station, i.e. the Oyster Bay Station (OYB) which was previously known as Siu Ho Wan Station in the approved EIAs.

## 1.2 EIA Approval Conditions & EP Conditions

- 1.2.1 The approved Railway EIA had included the following works:
- SHD replanning works, within the existing SHD boundary including construction of concrete slab and property enabling works over the SHD to provide support for future SHD Topside Development;
  - Construction of the new OYB and modification of the associated trackworks of the existing Airport Express Line (AEL) /Tung Chung Line (TCL); and
  - Construction of other supporting facilities including the western access, the local accesses and sewerage network outside existing SHD boundary.
- 1.2.2 Since the approval of the EIA, an Environmental Permit (EP) (EP-588/2021) has been issued for the Project. Condition 2.10 of the EP requires a Construction Noise Mitigation Plan (CNMP) shall be deposited with a view to formulate the noise mitigation measures including the use of quiet powered mechanical equipment (PME), noise barriers and noise enclosures for mitigating noise impact arising from the construction activities of the Project taking into account the phased population intake of the SHD Topside Development. The CNMP shall include an implementation schedule in table form to clearly list out the mitigation measures to be implemented, and the implementation party, location, timing, and environmental performance required for implementation of the mitigation measures. All mitigation measures recommended and requirements specified in the CNMP shall be fully implemented.

## 1.3 Description of Project

- 1.3.1 This CNMP covers the Phase 1 of SHD replanning works and construction of OYB only. The corresponding tentative construction programme is detailed in **Table 1**.

**Table 1 Works Programme**

Construction Works	Programme	
	From	End
Phase 1 <sup>[1]</sup>	Year 2023	Year 2030 <sup>[2]</sup>

<sup>1</sup> Approved EIA for Siu Ho Wan Station and Siu Ho Wan Depot Replanning Works (AEIAR-214/2017)

Construction Works	Programme	
	From	End
OYB	Year 2023	Year 2030 <sup>[2]</sup>

Note:

[1] – Including part of Phase 3D and Sewage Pumping Station (SPS).

[2] – The assessment and Noise Sensitive Receiver (NSR) will be reviewed subject to the actual programme. Further assessment will be submitted for the Phase 1 development if depot / OYB construction is overlapped with the Phase 1 population intake.

1.3.2 Their major construction activities to be carried out are summarised below, while the programmes of each task for each contract are provided in **Appendix A**.

1.3.3 For the Phase 1 of SHD replanning works, the major construction activities are:

- Site Formation, Excavation & Clearance (under 1701 & 1702);
- Construction of the OYB (under 1701);
- Construction of Part of SHD Phase 3D as Emergency Vehicular Access (EVA) of Phase 1 depot migration works (under 1701);
- Substruction and Superstructure Construction of the SHD Phase 1 of depot migration (under 1701); and
- Construction of SPS (under 1701 as a concurrent project).

1.3.4 For the construction of SPS, it will be carried out under the Project under the current design while it has been considered as a concurrent project stated in Railway EIA during the EIA submission.

## 1.4 Objectives of the Report

1.4.1 This CNMP aims to present the latest implementation of the construction work, recommend the set of noise mitigation measures required, and discharge Condition 2.10 in Environmental Permit (EP) (EP-588/2021).

## 1.5 Structure of the Report

1.5.1 This CNMP comprises the following sections:

- |                  |   |
|------------------|---|
| <b>Section 1</b> | Presents the background, description of project and the requirement of the CNMP |
| <b>Section 2</b> | Identifies the relevant legislation, standards & criteria                       |
| <b>Section 3</b> | Identifies and reviews Noise Sensitive Receivers (NSRs)                         |
| <b>Section 4</b> | Identifies and reviews the noise impacts arising from construction              |
| <b>Section 5</b> | Conclusion  |



## 2 Relevant Legislation, Standards and Criteria

2.1.1 The relevant legislation and associated guidance applicable to present the construction noise assessment include:

- Noise Control Ordinance (NCO) (Cap.400);
- Technical Memorandum on Environmental Impact Assessment Process (EIAO-TM);
- Technical Memorandum (TM) on Noise from Construction Work other than Percussive Piling (GW-TM);
- Technical Memorandum on Noise from Construction Work in Designated Areas (DA-TM);
- Technical Memorandum on Noise from Percussive Piling (PP-TM).

2.1.2 The NCO provides the statutory framework for noise control in Hong Kong. Assessment procedures and standards are set out in the respective TM promulgated under NCO.

2.1.3 For construction, there is no statutory limit on construction noise during normal hours under the NCO and related TMs. There is statutory control on construction noise between the hours 1900 and 0700 from Monday to Saturday and at any time on general holidays (including Sundays) under the NCO. To ensure a better environment, the EIAO-TM promulgated under the EIAO has imposed more stringent criteria. Daytime general construction works (excluding percussive piling) between the hours 0700 and 1900 on any day not being a Sunday or general holiday, i.e. non-restricted hours, is controlled under the EIAO. The EIAO-TM stipulates criteria of 65 – 75dB(A) for daytime construction activities, as shown in **Table 2**.

**Table 2 Noise standards for daytime construction activities**

Time Period	Noise Standards[1], [2], Leq (30min) dB(A)
	0700 – 1900 hours on any day not being a Sunday or general holiday
All domestic premises including temporary housing accommodation	75
Hotel and hostels	75
Educational institutions including kindergartens, nurseries and all others where unaided voice communication is required	70 65 (During examination)

Notes:

[1] The above standards apply to uses that rely on opened windows for ventilation.

[2] The above standards should be viewed as the maximum permissible noise levels assessed at 1m from the external facade.

2.1.4 The NCO provides statutory control on general construction works during restricted hours (i.e. 1900 to 0700 hours (of the next day) from Monday to Saturday and at any time on Sundays or public holidays). The use of Powered Mechanical Equipment (PME) for construction works during restricted hours would require a Construction

Noise Permit (CNP). The GW-TM details the procedures adopted by Environmental Protection Department (EPD) for assessing such application. The granting of a CNP is subject to conditions stated in the CNP and it may be revoked at any time for failure to comply with the permit conditions.

- 2.1.5 The Contractor will be required to submit CNP applications to the Noise Control Authority and abide by any conditions stated in the CNP. The quantity of PME during restricted hours (1900 to 0700 hrs) would be adjusted accordingly by the Contractor so as to comply with the conditions in CNP.
- 2.1.6 Maximum noise levels from construction activities during restricted hours at affected Noise Sensitive Receivers (NSRs) are controlled under the TMs and shall not exceed the specified Acceptable Noise Levels (ANLs). These ANLs are stipulated in accordance with the Area Sensitivity Ratings established for the NSRs.
- 2.1.7 As defined in the Noise Control (Construction Work Designated Areas) Notice Plan No. EPD/AN/NT-05 and EPD/AN/NT-06, Discovery Bay and Tung Chung areas are within the Designated Area (DA), while Siu Ho Wan is not located within DA. The proposed construction works are located on the existing Siu Ho Wan Depot and they are not located in the DA. Hence, the construction works of SHD are not controlled by the DA-TM.
- 2.1.8 Under the PP-TM, CNPs are also required for percussive piling. This TM specifies the permitted hours and other conditions for percussive piling. The following **Table 3** lists the acceptable noise levels of percussive piling for various types of NSR.

**Table 3 ANLs for percussive piling**

Time Period	ANL, dB(A)
(i) NSR (or part of NSR) with no windows or other openings	100
(ii) NSR with central air conditioning system	90
(iii) NSR with windows or other openings but without central air conditioning system	85

- 2.1.9 Depending on the numbers and types of piling machines and the separation from NSRs, percussive piling may be restricted to 12, 5 or 3 hours per day. For NSRs that are particularly sensitive to noise, such as hospitals, medical clinics, educational institutions and courts of law, a further reduction of 10dB(A) shall be applied to the above ANLs.

### 3 Noise Sensitive Receivers

- 3.1.1 With reference to EIAO-TM and GW-TM, NSRs include domestic premises, hotel, hostel, temporary housing accommodation, hospital, medical clinic, educational institutional, places of worship, library, court of law, performing arts centres, country park and others.
- 3.1.2 In accordance with the Railway EIA Report, the study area is defined as the area within 300 m from the boundary of the works of the Project. As this CNMP report focuses on the Phase 1 replanning work of depot migration only, the remaining Phases for depot migration will be reviewed under separated submission and these separated reports will be submitted at least one month before the commencement of construction of the corresponding phases of the Project.
- 3.1.3 As the construction activities of Phase 1 consisting of Package 1 and 2 of SHD and OYB will be completed in September Year 2030 and the residential tower population intake for Package 1 topside development will be after September Year 2030<sup>2</sup> after the construction of Phase 1, therefore all the construction work for SHD Phase 1 and OYB would be completed prior to the population intake of Package 1 residential towers above and thus no planned NSR would be included in the assessment.
- 3.1.4 Review on the existing NSR has been conducted and there is no existing residential area / school identified within 300m assessment. The nearest residential area or village are located at Pak Mong and Ngau Kwn Long, which are at least 1km away from the Project site. Within the study area, only Lantau North (Extension) Country Park is identified as the existing Representative NSR for the Project.
- 3.1.5 The location of the representative NSR is shown in **Figure 1**, while description of the representative NSR is presented in **Table 4**.

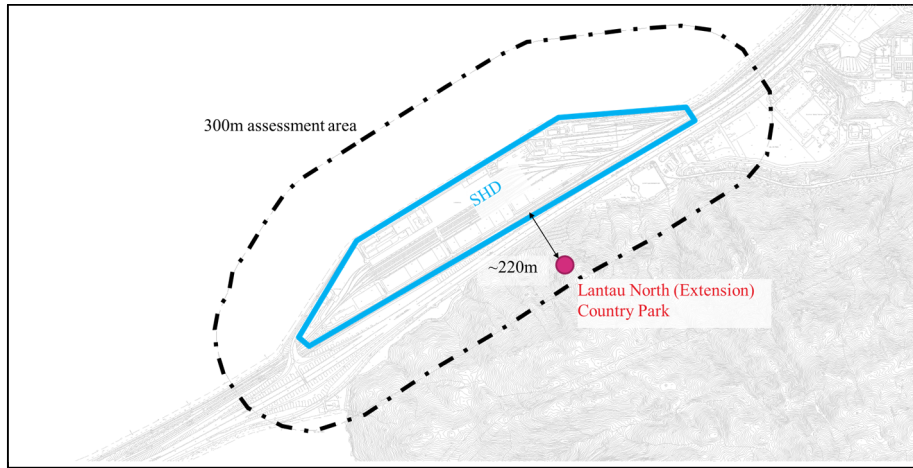
**Table 4 Representative NSR**

NSR	Uses	Distance from the project site boundary	Noise Criteria, Leq (30 min), dB(A)
Lantau North (Extension) Country Park	Country Park	220m	N/A <sup>[1]</sup>

Note:

- [1] N/A – Not Applicable. In accordance with Annex 13 of the EIAO-TM, country park is considered to be a NSR. However, the EIAO-TM does not provide a specific noise limits for Country Parks. Provided that the transient nature of visitor using hiking trails in the Country Park, no adverse construction noise impact is anticipated.

<sup>2</sup> "Latest progress of Siu Ho Wan Depot Site development project", Press Release.  
(<https://www.info.gov.hk/gia/general/202209/23/P2022092300467.htm?fontSize=1>)



**Figure 1**      **Location of Representative NSRs**

## 4 Construction Noise Impact Assessment

### 4.1 Construction Noise Assessment Methodology

4.1.1 The construction noise impact assessment during daytime, on any day not being a Sunday or general holiday has been assessed in accordance with the methodology in paragraphs 5.3 and 5.4 of Annex 13 of the EIAO-TM based on the following procedures:

- Determine 300m from the site boundary and associated works;
- Identify and locate representative NSRs that may be affected by the works;
- Obtain the construction method and work sequence for the construction period;
- Obtain the construction plant inventory for each corresponding construction work sequence;
- Determine the SWLs of the plant items according to the information stated in the GW-TM or other recognised sources of reference, where appropriate;
- Calculate the correction factors based on the distance between the NSRs and the notional noise source positions of the work sites;
- Apply corrections for façade, distance, barrier attenuation, acoustic reflection where applicable;
- Predict construction noise levels at the NSRs;
- Quantify the level of impact at the NSRs, in accordance with GW-TM;
- Predict the cumulative noise impacts for any concurrent construction works in the vicinity of the proposed work;
- For any exceedance of noise criteria, all practical mitigation measures such as alternative quieter construction methodology, quiet plant, silencer, enclosure, etc, shall be examined to alleviate the predicted noise impacts as much as practicable; and
- Consideration of noise mitigation measures will follow Annex 13 of EIAO-TM and EIAO Guidance Note “Preparation of Construction Noise Impact Assessment under the Environmental Impact Assessment Ordinance” [GN 9/2010].

### 4.2 Inventory of Noise Sources

4.2.1 The latest construction information has been collated from the Proponents and presented in the report. The SWL of each PME has made reference to the approved EIAs and GW-TM. Construction programme, workfronts and plant inventory of PME have been revised and reviewed by the engineers as workable and technically feasible. The details of plant inventory of PME have been presented in **Appendix B**.

4.2.2 In addition, cumulative impacts from concurrent projects include following construction activities:

- Construction of Road P1 (Tung Chung – Tai Ho Section);
- Construction of SPS;

- Construction of Tung Chung East sewerage network; and
- Construction works from the SHD Topside Development.

4.2.3 As the EIA of Road P1 (Tung Chung – Tai Ho Section) is still under preparation by respective project proponent, the information in the approved Railway EIA is still the latest available information in the public domain, and hence, has been adopted for this assessment.

4.2.4 For the SPS, it has been considered in the topside development construction noise impact during the EIA stage. As the design update, the SPS construction information has been updated which has reflected in this assessment.

4.2.5 For construction of Tung Chung East sewerage network, it is located at the north of the SHD. The construction of Tung Chung East sewerage network is located more than 470m from the NSR. Given such separation distance, significant cumulative environmental impacts are not anticipated.

4.2.6 The construction of the foundation and concrete slab for podium decking of Phases 1 to 4 have been included in this assessment. Only superstructure for Phase 1 to 4 will be constructed under construction works from SHD Topside development. The construction of superstructure for Phase 1 to 4 will be conducted after the construction of the podium deck. The maximum concurrent construction noise level from the SHD Topside Development has been considered. The information in the approved Railway EIA is still the latest available information in the public domain, and hence, has been adopted for this assessment.

### 4.3 Construction Noise Assessment Results

4.3.1 The impact from concurrent projects of the construction noise assessment under the approved Railway EIA which is still the latest available information in the public domain, and hence, has been adopted for this assessment summarised in **Table 5** and **Appendix C**.

**Table 5 Predicted construction noise level**

NSR	Uses	L <sub>eq</sub> 30min, dB(A)			Criteria
		SHD	Concurrent Project <sup>[1]</sup>	Cumulative	
Lantau North (Extension) Country Park	Country Park	53 – 75	59	60 – 75	N/A

Note:

[1] Concurrent projects included construction works from the SHD Topside Development, Road P1 (Tung Chung – Tai Ho Section) and sewerage network for Tung Chung New Town Extension. Maximum concurrent project construction noise level had been extracted from Appendix 4.7 of Railway EIA.

4.3.2 Based on the assessment results, the maximum cumulative construction noise level at the representative NSR was predicted to be 75 dB(A). Given that the transient nature of visitor using hiking trails in the Country Park, no adverse construction noise impact is anticipated. Hence, further noise mitigation measures are considered unnecessary. Nevertheless, good site practices as stipulated in the approved Railway EIA Report, should be adopted to minimise construction noise impact at the representative NSR. Detailed descriptions of these mitigation measures are given in the following sections. The implementation schedule is presented in **Appendix D**.

4.3.3 To ensure the implementation of good site practices, the Tender Document has made reference to this CNMP report and requested the Contractor to fulfil the requirement stated.

## 4.4 Good Site Practice

4.4.1 Good site practice and noise management techniques could considerably reduce the noise impact from construction site activities on nearby NSRs. The following measures should be practised by the Contractor during each phase of construction:

- only well-maintained plant should be operated on-site and plant should be serviced regularly during the construction programme;
- 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;
- plant known to emit noise strongly in one direction, where possible, be orientated so that the noise is directed away from nearby NSRs;
- silencers or mufflers on construction equipment should be properly fitted and maintained during the construction works;
- the use of quieter construction method (i.e. Silent Piling System) should be considered where possible;
- Quality Powered Mechanical Equipment (QPME) may also be considered by the Contractor as enhancement to further minimize the construction noise impact where possible;
- mobile plant should be sited as far away from NSRs as possible and practicable; and
- material stockpiles, site office and other structures should be effectively utilised, where practicable, to screen noise from on-site construction activities.

## 5 Conclusion

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- 5.1.1 The construction noise impact arising from the Phase 1 of SHD replanning works has been predicted. No adverse construction noise impact is predicted at the representative NSR (i.e. Lantau North (Extension) Country Park) and thus no specific mitigation measures are required. Good site practice is however to be adopted during the construction period. Separated submissions for other Phases of SHD replanning works will be provided in later stage of works. These separated reports will be submitted at least one month before the commencement of construction of the corresponding phases of the Project.



## **Appendix A**

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### Construction Programme



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Construction of Manhole with Platform & Cat ladder, and Backfill																								

	2030											
	1	2	3	4	5	6	7	8	9	10	11	12
1A-1 (1701)												
Site Clearance & Formation												
Foundation and Excavation												
Socket H Pile / Mini-pile												
Bored Pile												
Pile Cap Construction												
Superstructure												
ABWF, Utilities Installation & Cable containment Installation												
1A-2 (1701, 1702)												
Site Clearance & Formation												
Foundation and Excavation												
Socket H Pile / Mini-pile												
Bored Pile												
Pile Cap Construction												
Superstructure												
ABWF, Utilities Installation & Cable containment Installation												
1A-3 (1701, 1702)												
Site Clearance & Formation												
Foundation and Excavation												
Bored Piling												
Pile Cap Construction												
Superstructure												
ABWF, Utilities Installation & Cable containment Installation												
1A-4 (1701, 1702)												
Site Clearance & Formation												
Foundation and Excavation												
Bored Pile												
Pile Cap Construction												
Superstructure												
ABWF, Utilities Installation & Cable containment Installation												
1A-5 (1701, 1702)												
Site Clearance & Formation												
Foundation and Excavation												
Bored Pile												
Pile Cap Construction												
Superstructure												
ABWF, Utilities Installation & Cable containment Installation												
1A-6 (1701, 1702)												
Site Clearance & Formation												
Foundation and Excavation												
Socket H Pile / Mini-pile												
Bored Pile												
Pile Cap Construction												
Superstructure												
ABWF, Utilities Installation & Cable containment Installation												
1B-1 (1701, 1702)												
Site Clearance & Formation												
Foundation and Excavation												
Bored Pile												
Pile Cap Construction												
Superstructure												
ABWF, Utilities Installation & Cable containment Installation												
1B-2 (1701, 1702)												
Site Clearance & Formation												
Foundation and Excavation												
Socket H Pile / Mini-pile												
Bored Pile												
Pile Cap Construction												
Superstructure												
ABWF, Utilities Installation & Cable containment Installation												
1B-3 (1701, 1702)												
Site Clearance & Formation												
Foundation and Excavation												
Socket H Pile / Mini-pile												
Bored Pile												
Pile Cap Construction												
Superstructure												
ABWF, Utilities Installation & Cable containment Installation												
1D-1 (1701, 1702)												
Site Clearance & Formation												
Foundation and Excavation												
Socket H Pile / Mini-pile												
Bored Pile												
Pile Cap Construction												
Superstructure												
ABWF, Utilities Installation & Cable containment Installation												
1D-2 (1701, 1702)												
Site Clearance & Formation												
Foundation and Excavation												
Socket H Pile / Mini-pile												
Bored Pile												
Pile Cap Construction												
Superstructure												
ABWF, Utilities Installation & Cable containment Installation												



	2030											
	1	2	3	4	5	6	7	8	9	10	11	12
1T-1 (1701,1702)												
Site Clearance & Formation												
Foundation and Excavation												
Socket H Pile / Mini-pile												
Pile Cap Construction												
Superstructure												
ABWF, Utilities Installation & Cable containment Installation												
1T-2 (1701,1702)												
Site Clearance & Formation												
Foundation and Excavation												
Socket H Pile / Mini-pile												
Pile Cap Construction												
Superstructure												
ABWF, Utilities Installation & Cable containment Installation												
1T-3 (1701,1702)												
Site Clearance & Formation												
Foundation and Excavation												
Socket H Pile / Mini-pile												
Pile Cap Construction												
Superstructure												
ABWF, Utilities Installation & Cable containment Installation												
1T-4 (1701,1702)												
Site Clearance & Formation												
Foundation and Excavation												
Socket H Pile / Mini-pile												
Pile Cap Construction												
Superstructure												
ABWF, Utilities Installation & Cable containment Installation												
3D-1 (1701)												
Site Clearance & Formation												
Foundation and Excavation												
Socket H Pile / Mini-pile												
Pile Cap Construction												
Superstructure												
ABWF, Utilities Installation & Cable containment Installation												
SPS (1701 - as concurrent Project)												
Site Clearance & Formation												
Foundation and Excavation												
Socket H Pile / Mini-pile												
Pile Cap Construction												
Superstructure												
ABWF, Utilities Installation & Cable containment Installation												
Southern Platform (1701)												
Site Clearance & Formation												
Foundation and Excavation												
Socket H Pile / Mini-pile												
Pile Cap Construction												
Superstructure												
ABWF, Utilities Installation & Cable containment Installation												
1D (1701)												
Site Establishment												
Installation of Pre-bored Sheet Piles Wall												
Construction of Manhole with Platform & Cat ladder, and Backfill												
Cheung Tung Road (CTR) (1701)												
Installation of Pre-bored Sheet Piles Wall												
Pipe Jacking Shaft												
Construction of Manhole with Platform & Cat ladder, and Backfill												
Sham Shui Kok Drive (SSK) (1701)												
Installation of Pre-bored Sheet Piles Wall												
Construction of Manhole with Platform & Cat ladder, and Backfill												

## **Appendix B**

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### **Plant Inventory and SWL**

**Project: Consultancy Agreement No. C1701 Detailed Design Services for Siu Ho Wan Depot Phase 1 & Siu Ho Wan Station**

**Title : SWLs of PMEs**

PME	Unmitigated SWLs		
	ID [1]	Description	PME SWL, dB(A)
Air Compressor	CNP003	Air compressor, air flow > 30m <sup>3</sup> /min	104
Bar Bender and Cutter	CNP021	Bar bender and cutter (electric)	90
Breaker, excavator mounted/ Hydraulic breaker	CNP028	Breaker, excavator mounted (hydraulic)	122
Concrete Lorry Mixer	CNP044	Concrete lorry mixer	109
Concrete Mixer	CNP045	Concrete mixer (electric)	96
Concrete Pump	CNP047	Concrete pump, stationary / lorry mounted	109
Mobile Crane	CNP048	Crane, mobile / barge mounted (diesel)	112
Drill Rig, DTH Drilling Machine	CPME#	Drill Rig, rotary type (Diesel)	110
Excavator	CNP081	Excavator / loader, wheeled / tracked	112
Generator	CNP101	Generator, standard	108
Lorry	CNP141	Lorry	112
Lorry, with crane/grab	CPME#	Lorry, 5.5 tonnes < gross vehicle weight ≤38 tonnes	105
Piling, Large Dia Bored, Oscillator	CNP165	Piling, large dia bored, oscillator	115
Power pack	CPME#	Power pack (diesel)	100
Vibratory Poker	CPME#	Poker, vibratory, hand-held (electric)	102
Roller, Vibratory	CNP186	Roller, vibratory	108
Saw, Circular, Wood	CNP201	Saw, circular, wood	108
Water pump	CNP281	Water pump	88
Cutter	CPME#	Cutter, circular, steel (electric)	112
Dump Truck	CPME#	Dump Truck, 5.5 tonnes < gross vehicle weight ≤38 tonnes	105
Silent Piler	PME#	Silent Piler <sup>[2]</sup>	94

Note:

[1] The plant with code "CPME#" are referenced from EPD's guidance "Sound Power Level of Other Commonly Used PME" from [https://www.epd.gov.hk/epd/sites/default/files/epd/english/application\\_for\\_licences/guidance/files/OtherSWLe.pdf](https://www.epd.gov.hk/epd/sites/default/files/epd/english/application_for_licences/guidance/files/OtherSWLe.pdf)

[2] Extracted from Kwun Tong Line Extension (AEIAR-154/2010), Revised Trunk Road T4 in Sha Tin (AEIAR-231/2022) and Silent Piling by Press-in Method

([https://www.epd.gov.hk/epd/misc/construction\\_noise/contents/index.php/en/home2/quieter-construction-equipment/item/27-press-in-method.html](https://www.epd.gov.hk/epd/misc/construction_noise/contents/index.php/en/home2/quieter-construction-equipment/item/27-press-in-method.html))

**Project: Consultancy Agreement No. C1701 Detailed Design Services for Siu Ho Wan Depot Phase 1 & Siu Ho Wan Station**

**Title: Plant Inventory**

Site Clearance & Formation					Unmitigated		
Works Area/ Activity	PME	% Operating Time <sup>[1]</sup>	Time Correction dB(A) <sup>[2]</sup>	Units	PME Reference <sup>[3]</sup>	Single Unit PME dB(A)	Total SWL dB(A)
Site Clearance & Formation	Excavator	80	-1	3	CNP081	112	116
	Roller, Vibratory	80	-1	2	CNP186	108	110
	Dump Truck	80	-1	3	CPME#	105	109
	Water pump	80	-1	3	CNP281	88	92
	Breaker, excavator mounted/ Hydraulic breaker	50	-3	1	CNP028	122	119
	Mobile Crane	80	-1	1	CNP048	112	111
<b>Total SWL</b>							<b>122</b>

Note:

[1] Percentage on time within 30 minutes.

[2] Correction: 10 log (% Operating Time / 100%)

[3] The plant with code "CPME#" are referenced from EPD's guidance "Sound Power Level of Other Commonly Used PME" from [https://www.epd.gov.hk/epd/sites/default/files/epd/english/application\\_for\\_licences/guidance/files/OtherSWLe.pdf](https://www.epd.gov.hk/epd/sites/default/files/epd/english/application_for_licences/guidance/files/OtherSWLe.pdf)

**Project: Consultancy Agreement No. C1701 Detailed Design Services for Siu Ho Wan Depot Phase 1 & Siu Ho Wan Station**

**Title: Plant Inventory**

Foundation and Excavation					Unmitigated		
Works Area/ Activity	PME	% Operating Time <sup>[1]</sup>	Time Correction dB(A) <sup>[2]</sup>	Units	PME Reference <sup>[3]</sup>	Single Unit PME dB(A)	Total SWL dB(A)
Foundation and Excavation	Excavator	80	-1	3	CNP081	112	116
	Dump Truck	50	-3	3	CPME#	105	107
	Water pump	80	-1	3	CNP281	88	92
	Breaker, excavator mounted/ Hydraulic breaker	50	-3	1	CNP028	122	119
	Mobile Crane	80	-1	1	CNP048	112	111
<b>Total SWL</b>							<b>121</b>

Note:

[1] Percentage on time within 30 minutes.

[2] Correction:  $10 \log (\% \text{ Operating Time} / 100\%)$

[3] The plant with code "CPME#" are referenced from EPD's guidance "Sound Power Level of Other Commonly Used PME" from [https://www.epd.gov.hk/epd/sites/default/files/epd/english/application\\_for\\_licences/guidance/files/OtherSWLe.pdf](https://www.epd.gov.hk/epd/sites/default/files/epd/english/application_for_licences/guidance/files/OtherSWLe.pdf)

Project: Consultancy Agreement No. C1701 Detailed Design Services for Siu Ho Wan Depot Phase 1 & Siu Ho Wan Station  
 Title: Plant Inventory

Socket H Pile / Mini-pile						Unmitigated			
Works Area/ Activity	PME	% Operating Time <sup>[1]</sup>	Time Correction dB(A) <sup>[2]</sup>	Units	PME Reference <sup>[3]</sup>	Single Unit PME dB(A)	Total SWL dB(A)		
Socket H Pile / Mini-pile (1A-1 & Southern Platform)	Group A	Mobile Crane (not concurrent with DTH)	80	-1	5	CNP048	112	118	
		Generator	70	-2	5	CNP101	108	113	
		Air Compressor	80	-1	10	CNP003	104	113	
		Concrete Mixer	70	-2	5	CNP045	96	101	
		<b>Total SWL</b>						<b>120</b>	
	Group B	Drill Rig, DTH Drilling Machine	100	0	5	CPME#2	110	117	
		Generator	70	-2	5	CNP101	108	113	
		Air Compressor	80	-1	10	CNP003	104	113	
		Concrete Mixer	70	-2	5	CNP045	96	101	
		<b>Total SWL</b>						<b>120</b>	
	<b>Max SWL</b>							<b>120</b>	
	Socket H Pile / Mini-pile (1A-2 & B 1B-2)	Group A	Mobile Crane (not concurrent with DTH)	80	-1	1	CNP048	112	111
			Generator	70	-2	1	CNP101	108	106
			Air Compressor	80	-1	2	CNP003	104	106
Concrete Mixer			70	-2	1	CNP045	96	94	
<b>Total SWL</b>								<b>113</b>	
Group B		Drill Rig, DTH Drilling Machine	100	0	1	CPME#	110	110	
		Generator	70	-2	1	CNP101	108	106	
		Air Compressor	80	-1	2	CNP003	104	106	
		Concrete Mixer	70	-2	1	CNP045	96	94	
		<b>Total SWL</b>						<b>113</b>	
<b>Max SWL</b>							<b>113</b>		
Socket H Pile / Mini-pile (1A-6, 1B-3, 1D-1 & 1D-2)		Group A	Mobile Crane (not concurrent with DTH)	80	-1	2	CNP048	112	114
			Generator	70	-2	2	CNP101	108	109
			Air Compressor	80	-1	4	CNP003	104	109
	Concrete Mixer		70	-2	2	CNP045	96	97	
	<b>Total SWL</b>							<b>116</b>	
	Group B	Drill Rig, DTH Drilling Machine	100	0	2	CPME#	110	113	
		Generator	70	-2	2	CNP101	108	109	
		Air Compressor	80	-1	4	CNP003	104	109	
		Concrete Mixer	70	-2	2	CNP045	96	97	
		<b>Total SWL</b>						<b>116</b>	
	<b>Max SWL</b>							<b>116</b>	
	Socket H Pile / Mini-pile (1T-1, 1T-4 & 3D-1)	Group A	Mobile Crane (not concurrent with DTH)	80	-1	3	CNP048	112	116
			Generator	70	-2	3	CNP101	108	111
			Air Compressor	80	-1	6	CNP003	104	111
Concrete Mixer			70	-2	3	CNP045	96	99	
<b>Total SWL</b>								<b>118</b>	
Group B		Drill Rig, DTH Drilling Machine	100	0	3	CPME#	110	115	
		Generator	70	-2	3	CNP101	108	111	
		Air Compressor	80	-1	6	CNP003	104	111	
		Concrete Mixer	70	-2	3	CNP045	96	99	
		<b>Total SWL</b>						<b>117</b>	
<b>Max SWL</b>							<b>118</b>		
Socket H Pile / Mini-pile (1T-2)		Group A	Mobile Crane (not concurrent with DTH)	80	-1	10	CNP048	112	121
			Generator	70	-2	10	CNP101	108	116
			Air Compressor	80	-1	20	CNP003	104	116
	Concrete Mixer		70	-2	10	CNP045	96	104	
	<b>Total SWL</b>							<b>123</b>	
	Group B	Drill Rig, DTH Drilling Machine	100	0	10	CPME#	110	120	
		Generator	70	-2	10	CNP101	108	116	
		Air Compressor	80	-1	20	CNP003	104	116	
		Concrete Mixer	70	-2	10	CNP045	96	104	
		<b>Total SWL</b>						<b>123</b>	
	<b>Max SWL</b>							<b>123</b>	
	Socket H Pile / Mini-pile (1T-3)	Group A	Mobile Crane (not concurrent with DTH)	80	-1	4	CNP048	112	117
			Generator	70	-2	4	CNP101	108	112
			Air Compressor	80	-1	8	CNP003	104	112
Concrete Mixer			70	-2	4	CNP045	96	100	
<b>Total SWL</b>								<b>119</b>	
Group B		Drill Rig, DTH Drilling Machine	100	0	4	CPME#	110	116	
		Generator	70	-2	4	CNP101	108	112	
		Air Compressor	80	-1	8	CNP003	104	112	
		Concrete Mixer	70	-2	4	CNP045	96	100	
		<b>Total SWL</b>						<b>119</b>	
<b>Max SWL</b>							<b>119</b>		
Socket H Pile / Mini-pile (SPS)		Group A	Mobile Crane (not concurrent with DTH)	80	-1	6	CNP048	112	119
			Generator	70	-2	6	CNP101	108	114
			Air Compressor	80	-1	12	CNP003	104	114
	Concrete Mixer		70	-2	6	CNP045	96	102	
	<b>Total SWL</b>							<b>121</b>	
	Group B	Drill Rig, DTH Drilling Machine	100	0	6	CPME#	110	118	
		Generator	70	-2	6	CNP101	108	114	
		Air Compressor	80	-1	12	CNP003	104	114	
		Concrete Mixer	70	-2	6	CNP045	96	102	
		<b>Total SWL</b>						<b>121</b>	
	<b>Max SWL</b>							<b>121</b>	

Note:  
 [1] Percentage on time within 30 minutes.  
 [2] Correction: 10 log (% Operating Time / 100%)  
 [3] The plant with code "CPME#" are referenced from EPD's guidance "Sound Power Level of Other Commonly Used PME" from [https://www.epd.gov.hk/epd/sites/default/files/epd/english/application\\_for\\_licences/guidance/files/OtherSWLe.pdf](https://www.epd.gov.hk/epd/sites/default/files/epd/english/application_for_licences/guidance/files/OtherSWLe.pdf)

Project: Consultancy Agreement No. C1701 Detailed Design Services for Siu Ho Wan Depot Phase 1 & Siu Ho Wan Station

Title: Plant Inventory

Bored Pile					Unmitigated			
Works Area/ Activity	PME	% Operating Time <sup>[1]</sup>	Time Correction dB(A) <sup>[2]</sup>	Units	PME Reference <sup>[3]</sup>	Single Unit PME dB(A)	Total SWL dB(A)	
Bored Pile (1A-1, 1B-1 & 1B-2)	Group A	Piling, Large Dia Bored, Oscillator	100	0	4	CNP165	115	121
		Concrete Lorry Mixer	70	-2	4	CNP044	109	113
		Dump Truck	50	-3	4	CPME#	105	108
		Air Compressor	70	-2	4	CNP003	104	108
		Power pack	100	0	4	CPME#	100	106
		<b>Total SWL</b>						<b>122</b>
	Group B	Mobile Crane (not concurrent with oscillator)	70	-2	4	CNP048	112	116
		Concrete Lorry Mixer	70	-2	4	CNP044	109	113
		Dump Truck	50	-3	4	CPME#	105	108
		Air Compressor	70	-2	4	CNP003	104	108
		Power pack	100	0	4	CPME#	100	106
		<b>Total SWL</b>						<b>119</b>
	<b>Max SWL</b>							<b>122</b>
	Bored Pile (1A-2 & 1A-6)	Group A	Piling, Large Dia Bored, Oscillator	100	0	2	CNP165	115
Concrete Lorry Mixer			70	-2	2	CNP044	109	110
Dump Truck			50	-3	2	CPME#	105	105
Air Compressor			70	-2	2	CNP003	104	105
Power pack			100	0	2	CPME#	100	103
<b>Total SWL</b>								<b>119</b>
Group B		Mobile Crane (not concurrent with oscillator)	70	-2	2	CNP048	112	113
		Concrete Lorry Mixer	70	-2	2	CNP044	109	110
		Dump Truck	50	-3	2	CPME#	105	105
		Air Compressor	70	-2	2	CNP003	104	105
		Power pack	100	0	2	CPME#	100	103
		<b>Total SWL</b>						<b>116</b>
<b>Max SWL</b>							<b>119</b>	
Bored Pile (1A-3, 1A-4, 1A-5 & 1B-3)		Group A	Piling, Large Dia Bored, Oscillator	100	0	3	CNP165	115
	Concrete Lorry Mixer		70	-2	3	CNP044	109	112
	Dump Truck		50	-3	3	CPME#	105	107
	Air Compressor		70	-2	3	CNP003	104	107
	Power pack		100	0	3	CPME#	100	105
	<b>Total SWL</b>							<b>121</b>
	Group B	Mobile Crane (not concurrent with oscillator)	70	-2	3	CNP048	112	115
		Concrete Lorry Mixer	70	-2	3	CNP044	109	112
		Dump Truck	50	-3	3	CPME#	105	107
		Air Compressor	70	-2	3	CNP003	104	107
		Power pack	100	0	3	CPME#	100	105
		<b>Total SWL</b>						<b>118</b>
	<b>Max SWL</b>							<b>121</b>
	Bored Pile (1D-1)	Group A	Piling, Large Dia Bored, Oscillator	100	0	5	CNP165	115
Concrete Lorry Mixer			70	-2	5	CNP044	109	114
Dump Truck			50	-3	5	CPME#	105	109
Air Compressor			70	-2	5	CNP003	104	109
Power pack			100	0	5	CPME#	100	107
<b>Total SWL</b>								<b>123</b>
Group B		Mobile Crane (not concurrent with oscillator)	70	-2	5	CNP048	112	117
		Concrete Lorry Mixer	70	-2	5	CNP044	109	114
		Dump Truck	50	-3	5	CPME#	105	109
		Air Compressor	70	-2	5	CNP003	104	109
		Power pack	100	0	5	CPME#	100	107
		<b>Total SWL</b>						<b>120</b>
<b>Max SWL</b>							<b>123</b>	
Bored Pile (1D-2)		Group A	Piling, Large Dia Bored, Oscillator	100	0	8	CNP165	115
	Concrete Lorry Mixer		70	-2	8	CNP044	109	116
	Dump Truck		50	-3	8	CPME#	105	111
	Air Compressor		70	-2	8	CNP003	104	111
	Power pack		100	0	8	CPME#	100	109
	<b>Total SWL</b>							<b>125</b>
	Group B	Mobile Crane (not concurrent with oscillator)	70	-2	8	CNP048	112	119
		Concrete Lorry Mixer	70	-2	8	CNP044	109	116
		Dump Truck	50	-3	8	CPME#	105	111
		Air Compressor	70	-2	8	CNP003	104	111
		Power pack	100	0	8	CPME#	100	109
		<b>Total SWL</b>						<b>122</b>
	<b>Max SWL</b>							<b>125</b>

Note:

[1] Percentage on time within 30 minutes.

[2] Correction: 10 log (% Operating Time / 100%)

[3] The plant with code "CPME#" are referenced from EPD's guidance "Sound Power Level of Other Commonly Used PME" from [https://www.epd.gov.hk/epd/sites/default/files/epd/english/application\\_for\\_licences/guidance/files/OtherSWLe.pdf](https://www.epd.gov.hk/epd/sites/default/files/epd/english/application_for_licences/guidance/files/OtherSWLe.pdf)

Pile Cap Construction / Substructure							Unmitigated		
Works Area/ Activity	PME	% Operating Time <sup>[1]</sup>	Time Correction dB(A) <sup>[2]</sup>	Units	PME Reference <sup>[3]</sup>	Single Unit PME dB(A)	Total SWL dB(A)		
Pile Cap Construction / Substructure (1A-1 to 1A-6)	Group A	Silent Piler	100	0	12	PME#	94	105	
		Saw, Circular, Wood	70	-2	6	CNP201	108	114	
		Lorry, with crane/grab	70	-2	6	CPME#	105	111	
		Bar Bender and Cutter	70	-2	6	CNP021	90	96	
	<b>Total SWL</b>							<b>116</b>	
	Group B	Silent Piler	100	0	12	PME#5	94	105	
		Lorry, with crane/grab	70	-2	6	CPME#	105	111	
		Vibratory Poker (not work concurrently with circular saw and bar bender)	71	-1	6	CPME#	102	108	
		Concrete Pump (not work concurrently with circular saw and bar bender)	72	-1	6	CNP047	109	115	
		Concrete Lorry Mixer (not work concurrently with circular saw and bar bender)	80	-1	6	CNP044	109	116	
	<b>Total SWL</b>							<b>120</b>	
	Group C	Silent Piler	100	0	12	PME#5	94	105	
		Lorry, with crane/grab	70	-2	6	CPME#	105	111	
		Roller, Vibratory (not work concurrently with circular saw, bar bender, concrete lorry mixer, vibratory poker, concrete pump)	80	-1	6	CNP186	108	115	
	<b>Total SWL</b>							<b>116</b>	
	Group D	Silent Piler	100	0	12	PME#	94	105	
		Lorry, with crane/grab	70	-2	6	CPME#	105	111	
		Excavator (not work concurrently with circular saw, bar bender, concrete lorry mixer, vibratory poker, concrete pumproller, roller)	80	-1	6	CNP081	112	119	
	<b>Total SWL</b>							<b>120</b>	
	<b>Max SWL</b>							<b>120</b>	
Pile Cap Construction / Substructure (Other WFs)	Group A	Silent Piler	100	0	16	PME#	94	106	
		Saw, Circular, Wood	70	-2	8	CNP201	108	115	
		Lorry, with crane/grab	70	-2	8	CPME#	105	112	
		Bar Bender and Cutter	70	-2	8	CNP021	90	97	
	<b>Total SWL</b>							<b>117</b>	
	Group B	Silent Piler	100	0	16	PME#	94	106	
		Lorry, with crane/grab	70	-2	8	CPME#	105	112	
		Vibratory Poker (not work concurrently with circular saw and bar bender)	71	-1	8	CPME#	102	110	
		Concrete Pump (not work concurrently with circular saw and bar bender)	72	-1	8	CNP047	109	117	
		Concrete Lorry Mixer (not work concurrently with circular saw and bar bender)	80	-1	8	CNP044	109	117	
	<b>Total SWL</b>							<b>121</b>	
	Group C	Silent Piler	100	0	16	PME#	94	106	
		Lorry, with crane/grab	70	-2	8	CPME#	105	112	
		Roller, Vibratory (not work concurrently with circular saw, bar bender, concrete lorry mixer, vibratory poker, concrete pump)	80	-1	8	CNP186	108	116	
	<b>Total SWL</b>							<b>118</b>	
	Group D	Silent Piler	100	0	16	PME#5	94	106	
		Lorry, with crane/grab	70	-2	8	CPME#	105	112	
		Excavator (not work concurrently with circular saw, bar bender, concrete lorry mixer, vibratory poker, concrete pumproller, roller)	80	-1	8	CNP081	112	120	
	<b>Total SWL</b>							<b>121</b>	
	<b>Max SWL</b>							<b>121</b>	

Note:

[1] Percentage on time within 30 minutes.

[2] Correction: 10 log (% Operating Time / 100%)

[3] The plant with code "CPME#" are referenced from EPD's guidance "Sound Power Level of Other Commonly Used PME" from [https://www.epd.gov.hk/epd/sites/default/files/epd/english/application\\_for\\_licences/guidance/files/OtherSWLe.pdf](https://www.epd.gov.hk/epd/sites/default/files/epd/english/application_for_licences/guidance/files/OtherSWLe.pdf)



**Project: Consultancy Agreement No. C1701 Detailed Design Services for Siu Ho Wan Depot Phase 1 & Siu Ho Wan Station**

**Title: Plant Inventory**

Superstructure					Unmitigated		
Works Area/ Activity	PME	% Operating Time <sup>[1]</sup>	Time Correction dB(A) <sup>[2]</sup>	Units	PME Reference <sup>[3]</sup>	Single Unit PME dB(A)	Total SWL dB(A)
Superstructure	Bar Bender and Cutter	70	-2	1	CNP021	90	88
	Vibratory Poker	80	-1	2	CPME#	102	104
	Air Compressor	70	-2	2	CNP003	104	105
	Concrete Lorry Mixer	80	-1	1	CNP044	109	108
	Concrete Pump	80	-1	1	CNP047	109	108
	Mobile Crane	80	-1	1	CNP048	112	111
<b>Total SWL</b>							<b>115</b>

Note:

[1] Percentage on time within 30 minutes.

[2] Correction: 10 log (% Operating Time / 100%)

[3] The plant with code "CPME#" are referenced from EPD's guidance "Sound Power Level of Other Commonly Used PME" from [https://www.epd.gov.hk/epd/sites/default/files/epd/english/application\\_for\\_licences/guidance/files/OtherSWLe.pdf](https://www.epd.gov.hk/epd/sites/default/files/epd/english/application_for_licences/guidance/files/OtherSWLe.pdf)

**Project: Consultancy Agreement No. C1701 Detailed Design Services for Siu Ho Wan Depot Phase 1 & Siu Ho Wan Station**

**Title: Plant Inventory**

ABWF, Utilities Installation & Cable containment Installation					Unmitigated		
Works Area/ Activity	PME	% Operating Time <sup>[1]</sup>	Time Correction dB(A) <sup>[2]</sup>	Units	PME Reference <sup>[3]</sup>	Single Unit PME dB(A)	Total SWL dB(A)
ABWF, Utilities Installation & Cable containment Installation	Excavator	80	-1	3	CNP081	112	116
	Mobile Crane	80	-1	1	CNP048	112	111
	Lorry, with crane/grab	80	-1	3	CPME#	105	109
	Dump Truck	50	-3	3	CPME#	105	107
	Concrete Lorry Mixer	80	-1	1	CNP044	109	108
<b>Total SWL</b>							<b>118</b>

Note:

[1] Percentage on time within 30 minutes.

[2] Correction:  $10 \log (\% \text{ Operating Time} / 100\%)$

[3] The plant with code "CPME#" are referenced from EPD's guidance "Sound Power Level of Other Commonly Used PME" from [https://www.epd.gov.hk/epd/sites/default/files/epd/english/application\\_for\\_licences/guidance/files/OtherSWLe.pdf](https://www.epd.gov.hk/epd/sites/default/files/epd/english/application_for_licences/guidance/files/OtherSWLe.pdf)

**Project: Consultancy Agreement No. C1701 Detailed Design Services for Siu Ho Wan Depot Phase 1 & Siu Ho Wan Station**

**Title: Plant Inventory**

Installation of Pre-bored Sheet Piles Wall					Unmitigated		
Works Area/ Activity	PME	% Operating Time <sup>[1]</sup>	Time Correction dB(A) <sup>[2]</sup>	Units	PME Reference <sup>[3]</sup>	Single Unit PME dB(A)	Total SWL dB(A)
Installation of Pre-bored Sheet Piles Wall	Piling, Large Dia Bored, Oscillator	100	0	6	CNP165	115	123
	Concrete Lorry Mixer	80	-1	3	CNP044	109	113
	Dump Truck	50	-3	3	CPME#	105	107
	Air Compressor	100	0	3	CNP003	104	109
	Power pack	100	0	3	CPME#	100	105
<b>Total SWL</b>							<b>124</b>

Note:  
 [1] Percentage on time within 30 minutes.  
 [2] Correction: 10 log (% Operating Time / 100%)  
 [3] The plant with code "CPME#" are referenced from EPD's guidance "Sound Power Level of Other Commonly Used PME" from [https://www.epd.gov.hk/epd/sites/default/files/epd/english/application\\_for\\_licences/guidance/files/OtherSWLe.pdf](https://www.epd.gov.hk/epd/sites/default/files/epd/english/application_for_licences/guidance/files/OtherSWLe.pdf)

**Project: Consultancy Agreement No. C1701 Detailed Design Services for Siu Ho Wan Depot Phase 1 & Siu Ho Wan Station**

**Title: Plant Inventory**

Pipe Jacking Shaft					Unmitigated		
Works Area/ Activity	PME	% Operating Time <sup>[1]</sup>	Time Correction dB(A) <sup>[2]</sup>	Units	PME Reference <sup>[3]</sup>	Single Unit PME dB(A)	Total SWL dB(A)
Pipe Jacking Shaft	Drill Rig, DTH Drilling Machine	100	0	6	CPME#	110	118
	Mobile Crane	80	-1	3	CNP048	112	116
	Water pump	100	0	3	CNP281	88	93
	Lorry	80	-1	3	CNP141	112	116
	Excavator	80	-1	3	CNP081	112	116
<b>Total SWL</b>							<b>122</b>

Note:

[1] Percentage on time within 30 minutes.

[2] Correction:  $10 \log (\% \text{ Operating Time} / 100\%)$

[3] The plant with code "CPME#" are referenced from EPD's guidance "Sound Power Level of Other Commonly Used PME" from [https://www.epd.gov.hk/epd/sites/default/files/epd/english/application\\_for\\_licences/guidance/files/OtherSWLe.pdf](https://www.epd.gov.hk/epd/sites/default/files/epd/english/application_for_licences/guidance/files/OtherSWLe.pdf)

**Project: Consultancy Agreement No. C1701 Detailed Design Services for Siu Ho Wan Depot Phase 1 & Siu Ho Wan Station**

**Title: Plant Inventory**

Construction of Manhole with Platform & Cat ladder, and Backfill					Unmitigated			
Works Area/ Activity	PME	% Operating Time <sup>[1]</sup>	Time Correction dB(A) <sup>[2]</sup>	Units	PME Reference <sup>[3]</sup>	Single Unit PME dB(A)	Total SWL dB(A)	
Construction of Manhole with Platform & Cat ladder, and Backfill	Saw, Circular, Wood	80	-1	3	CNP201	108	112	
	Bar Bender and Cutter	80	-1	3	CNP021	90	94	
	Lorry, with crane/grab	80	-1	3	CPME#	105	109	
	<b>Total SWL</b>							<b>114</b>
	Concrete Lorry Mixer	80	-1	3	CNP044	109	113	
	Lorry, with crane/grab	80	-1	3	CPME#	105	109	
	<b>Total SWL</b>							<b>114</b>
	Excavator	80	-1	3	CNP081	112	116	
	Lorry, with crane/grab	80	-1	3	CPME#	105	109	
	<b>Total SWL</b>							<b>117</b>
	Roller, Vibratory	80	-1	3	CNP186	108	112	
	Lorry, with crane/grab	80	-1	3	CPME#	105	109	
	<b>Total SWL</b>							<b>114</b>
	<b>Max SWL</b>							<b>117</b>

Note:

[1] Percentage on time within 30 minutes.

[2] PME with code "EPD-XXXXX" are quiet equipment with SWLs extracted from EPD's QPME inventory.

[2] Correction: 10 log (% Operating Time / 100%)

[3] The plant with code "CPME#" are referenced from EPD's guidance "Sound Power Level of Other Commonly Used PME" from [https://www.epd.gov.hk/epd/sites/default/files/epd/english/application\\_for\\_licences/guidance/files/OtherSWLe.pdf](https://www.epd.gov.hk/epd/sites/default/files/epd/english/application_for_licences/guidance/files/OtherSWLe.pdf)

## **Appendix C**

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### **Construction Noise Calculation**

		2024											2025											
		1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11
1A-1 (1701)		SWL																						
Site Clearance & Formation	122					122	122	122																
Foundation and Excavation	121						121	121	121															
Socket H Pile / Mini-pile	120																							
Bored Pile	122									120	120	120	120									122	122	122
Pile Cap Construction	120									122	122	122	122	122	122	122	122	122	122	122	122	122	122	122
Superstructure	115															115	115	115	115	115	115	115	115	115
ABWF, Utilities Installation & Cable containment Installation	118																							
1A-2 (1701, 1702)		SWL																						
Site Clearance & Formation	122					122	122	122																
Foundation and Excavation	121						121	121	121															
Socket H Pile / Mini-pile	113												113	113	113	113	113							
Bored Pile	119									119	119	119	119	119	119									
Pile Cap Construction	120																				120	120	120	120
Superstructure	115																				115	115	115	115
ABWF, Utilities Installation & Cable containment Installation	118																							
1A-3 (1701, 1702)		SWL																						
Site Clearance & Formation	122					122	122	122																
Foundation and Excavation	121						121	121	121															
Bored Piling	121									121	121	121	121	121	121	121	121	121	121	121	121	121	121	121
Pile Cap Construction	120															120	120	120	120	120	120	120	120	120
Superstructure	115																				115	115	115	115
ABWF, Utilities Installation & Cable containment Installation	118																							
1A-4 (1701, 1702)		SWL																						
Site Clearance & Formation	122					122	122	122																
Foundation and Excavation	121						121	121	121															
Bored Pile	121									121	121	121	121	121	121	121	121	121	121	121	121	121	121	121
Pile Cap Construction	120																							
Superstructure	115																							
ABWF, Utilities Installation & Cable containment Installation	118																							
1A-5 (1701, 1702)		SWL																						
Site Clearance & Formation	122					122	122	122																
Foundation and Excavation	121						121	121	121															
Bored Pile	121									121	121	121	121	121	121	121	121	121	121	121	121	121	121	121
Pile Cap Construction	120																							
Superstructure	115																				115	115	115	115
ABWF, Utilities Installation & Cable containment Installation	118																							
1A-6 (1701, 1702)		SWL																						
Site Clearance & Formation	122					122	122	122																
Foundation and Excavation	121						121	121	121															
Socket H Pile / Mini-pile	116												116	116	116	116								
Bored Pile	119													119	119									
Pile Cap Construction	120															120	120	120	120	120				
Superstructure	115																115	115	115	115	115	115	115	115
ABWF, Utilities Installation & Cable containment Installation	118																							
1B-1 (1701, 1702)		SWL																						
Site Clearance & Formation	122											122	122	122										
Foundation and Excavation	121												121	121	121									
Bored Pile	122																							
Pile Cap Construction	121																							
Superstructure	115																							
ABWF, Utilities Installation & Cable containment Installation	118																							
1B-2 (1701, 1702)		SWL																						
Site Clearance & Formation	122											122	122	122										
Foundation and Excavation	121												121	121	121									
Socket H Pile / Mini-pile	113																							
Bored Pile	122																							
Pile Cap Construction	121																							
Superstructure	115																							
ABWF, Utilities Installation & Cable containment Installation	118																							
1B-3 (1701, 1702)		SWL																						
Site Clearance & Formation	122											122	122	122										
Foundation and Excavation	121												121	121	121									
Socket H Pile / Mini-pile	116																							
Bored Pile	121																							
Pile Cap Construction	121																							
Superstructure	115																							
ABWF, Utilities Installation & Cable containment Installation	118																							
1D-1 (1701, 1702)		SWL																						
Site Clearance & Formation	122					122	122	122	122	122														
Foundation and Excavation	121											121	121	121										
Socket H Pile / Mini-pile	116																							
Bored Pile	123																							
Pile Cap Construction	121																							
Superstructure	115																							
ABWF, Utilities Installation & Cable containment Installation	118																							
1D-2 (1701, 1702)		SWL																						
Site Clearance & Formation	122					122	122	122	122	122														
Foundation and Excavation	121											121	121	121										
Socket H Pile / Mini-pile	116																							
Bored Pile	125																							
Pile Cap Construction	121																							
Superstructure	115																							
ABWF, Utilities Installation & Cable containment Installation	118																							

	2024												2025										
	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11
<b>1T-1 (1701,1702)</b>																							
Site Clearance & Formation	122							122	122	122													
Foundation and Excavation	121								121	121	121												
Socket H Pile / Mini-pile	118															118	118	118	118				
Pile Cap Construction	121																			121	121	121	
Superstructure	115																						115
ABWF, Utilities Installation & Cable containment Installation	118																						
<b>1T-2 (1701,1702)</b>																							
Site Clearance & Formation	122							122	122	122													
Foundation and Excavation	121								121	121	121												
Socket H Pile / Mini-pile	123															123	123	123	123				
Pile Cap Construction	121																			121	121	121	
Superstructure	115																						115
ABWF, Utilities Installation & Cable containment Installation	118																						
<b>1T-3 (1701,1702)</b>																							
Site Clearance & Formation	122			122	122	122																	
Foundation and Excavation	121						121	121	121	121	121												
Socket H Pile / Mini-pile	119											119	119	119	119	119							
Pile Cap Construction	121																				121	121	
Superstructure	115																						115
ABWF, Utilities Installation & Cable containment Installation	118																						
<b>1T-4 (1701,1702)</b>																							
Site Clearance & Formation	122			122	122	122																	
Foundation and Excavation	121						121	121	121	121													
Socket H Pile / Mini-pile	118											118	118	118	118	118							
Pile Cap Construction	121																						
Superstructure	115																						115
ABWF, Utilities Installation & Cable containment Installation	118																						
<b>3D-1 (1701)</b>																							
Site Clearance & Formation	122			122	122	122																	
Foundation and Excavation	121						121	121	121	121													
Socket H Pile / Mini-pile	118											118	118	118	118	118	118	118	118	118	118	118	118
Pile Cap Construction	121																						121
Superstructure	115																						115
ABWF, Utilities Installation & Cable containment Installation	118																						
<b>SPS (1701 - as concurrent Project)</b>																							
Site Clearance & Formation	122			122	122	122																	
Foundation and Excavation	121						121	121	121	121													
Socket H Pile / Mini-pile	121																						
Pile Cap Construction	121																						121
Superstructure	115																						115
ABWF, Utilities Installation & Cable containment Installation	118																						
<b>Southern Platform (1701)</b>																							
Site Clearance & Formation	122	122	122	122	122							122											
Foundation and Excavation	121											121	121	121									
Socket H Pile / Mini-pile	120											120	120	120	120	120	120	120	120	120	120	120	120
Pile Cap Construction	121											121	121	121	121	121	121	121	121	121	121	121	121
Superstructure	115																						115
ABWF, Utilities Installation & Cable containment Installation	118																						
<b>1D (1701)</b>																							
Site Clearance & Formation	122																						122
Installation of Pre-bored Sheet Piles Wall	124																						
Construction of Manhole with Platform & Cat ladder, and Backfill	117																						
<b>Cheung Tung Road (CTR) (1701)</b>																							
Installation of Pre-bored Sheet Piles Wall	124																						
Pipe Jacking Shaft	122																						
Construction of Manhole with Platform & Cat ladder, and Backfill	117																						
<b>Sham Shui Kok Drive (SSK) (1701)</b>																							
Installation of Pre-bored Sheet Piles Wall	124																						
Construction of Manhole with Platform & Cat ladder, and Backfill	117																						

<b>Predicted Construction Noise, dB(A)</b>																								
NSR	Max																							
Lantau North (Extension) Country Park [1,2]	75	57	57	57	69	73	74	73	72	73	72	75	75	75	74	75	74	75	75	74	74	73	74	73

<b>Cumulative Construction Noise, dB(A)</b>																								
NSR	Max																							
Concurrent Project [3]	59	59	59	59	59	59	59	59	59	59	59	59	59	59	59	59	59	59	59	59	59	59	59	
Lantau North (Extension) Country Park [1,2]	75	61	61	61	70	73	74	73	73	74	72	75	75	75	74	75	74	75	75	74	74	73	74	74

Note:  
 [1] Given that Lantau North (Extension) Country Park is a noise sensitive receiver without any facades (i.e. free-field), no façade correction is included in the calculation. This assumption is consistent to the approved EIA.  
 [2] Considered the distance correction (i.e. -20 log(D) - 8).  
 [3] Max. predicted noise level is adopted. Extracted from Appendix 4.7 of the approved EIA Report (Register No.: AEIAR-214/2017)





	2026												2027												
	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
1T-1 (1701,1702)																									
Site Clearance & Formation																									
Foundation and Excavation																									
Socket H Pile / Mini-pile																									
Pile Cap Construction																									
Superstructure	115	115	115						115	115	115	115	115	115	115										
ABWF, Utilities Installation & Cable containment Installation											118	118	118	118	118	118	118	118	118	118	118	118	118	118	118
1T-2 (1701,1702)																									
Site Clearance & Formation																									
Foundation and Excavation																									
Socket H Pile / Mini-pile																									
Pile Cap Construction																									
Superstructure	115	115	115	115	115	115	115	115	115	115	115	115	115												
ABWF, Utilities Installation & Cable containment Installation																									
1T-3 (1701,1702)																									
Site Clearance & Formation																									
Foundation and Excavation																									
Socket H Pile / Mini-pile																									
Pile Cap Construction																									
Superstructure						115	115	115	115	115	115														
ABWF, Utilities Installation & Cable containment Installation																									
1T-4 (1701,1702)																									
Site Clearance & Formation																									
Foundation and Excavation																									
Socket H Pile / Mini-pile																									
Pile Cap Construction																									
Superstructure																									
ABWF, Utilities Installation & Cable containment Installation																									
3D-1 (1701)																									
Site Clearance & Formation																									
Foundation and Excavation																									
Socket H Pile / Mini-pile																									
Pile Cap Construction																									
Superstructure																									
ABWF, Utilities Installation & Cable containment Installation																									
SPS (1701 - as concurrent Project)																									
Site Clearance & Formation																									
Foundation and Excavation																									
Socket H Pile / Mini-pile																									
Pile Cap Construction																									
Superstructure																									
ABWF, Utilities Installation & Cable containment Installation																									
Southern Platform (1701)																									
Site Clearance & Formation																									
Foundation and Excavation																									
Socket H Pile / Mini-pile																									
Pile Cap Construction																									
Superstructure																									
ABWF, Utilities Installation & Cable containment Installation																									
1D (1701)																									
Site Clearance & Formation																									
Installation of Pre-bored Sheet Piles Wall																									
Construction of Manhole with Platform & Cat ladder, and Backfill																									
Cheung Tung Road (CTR) (1701)																									
Installation of Pre-bored Sheet Piles Wall																									
Pipe Jacking Shaft																									
Construction of Manhole with Platform & Cat ladder, and Backfill																									
Sham Shui Kok Drive (SSK) (1701)																									
Installation of Pre-bored Sheet Piles Wall																									
Construction of Manhole with Platform & Cat ladder, and Backfill																									

Predicted Construction Noise, dB(A)																								
NSR	73	74	74	71	71	75	74	74	75	75	75	72	73	74	74	74	74	74	74	74	72	73	73	71
Lantau North (Extension) Country Park [1,2]																								

Cumulative Construction Noise, dB(A)																								
NSR	59	59	59	59	59	59	59	59	59	59	59	59	59	59	59	59	59	59	59	59	59	59	59	59
Concurrent Project [3]																								
Lantau North (Extension) Country Park [1,2]																								

Note:  
 [1] Given that Lantau North (Extension) Country Park is a noise sensitive receiver without any facades (i.e. free-field), no façade correction is included in the calculation. This assumption is consistent to the approved EIA.  
 [2] Considered the distance correction (i.e. -20 log(D) - 8).  
 [3] Max. predicted noise level is adopted. Extracted from Appendix 4.7 of the approved EIA Report (Register No.: AEIAR-214/2017)



	2028												2029											
	1	2	3	4	5	6	7	8	9	10	11	12	1	2	3	4	5	6	7	8	9	10	11	12
<b>IT-1 (1701,1702)</b>																								
Site Clearance & Formation																								
Foundation and Excavation																								
Socket H Pile / Mini-pile																								
Pile Cap Construction																								
Superstructure																								
ABWF, Utilities Installation & Cable containment Installation	118	118	118	118	118	118	118	118	118	118	118	118	118	118	118	118	118	118	118	118	118	118	118	
<b>IT-2 (1701,1702)</b>																								
Site Clearance & Formation																								
Foundation and Excavation																								
Socket H Pile / Mini-pile																								
Pile Cap Construction																								
Superstructure																								
ABWF, Utilities Installation & Cable containment Installation	118	118	118	118	118	118	118	118	118	118	118	118	118	118	118	118	118	118	118	118	118	118	118	
<b>IT-3 (1701,1702)</b>																								
Site Clearance & Formation																								
Foundation and Excavation																								
Socket H Pile / Mini-pile																								
Pile Cap Construction																								
Superstructure																								
ABWF, Utilities Installation & Cable containment Installation	118	118	118	118	118	118	118	118	118	118	118	118	118	118	118	118	118	118	118	118	118	118	118	
<b>IT-4 (1701,1702)</b>																								
Site Clearance & Formation																								
Foundation and Excavation																								
Socket H Pile / Mini-pile																								
Pile Cap Construction																								
Superstructure																								
ABWF, Utilities Installation & Cable containment Installation	118	118	118	118	118	118	118	118	118	118	118	118	118	118	118	118	118	118	118	118	118	118	118	
<b>3D-1 (1701)</b>																								
Site Clearance & Formation																								
Foundation and Excavation																								
Socket H Pile / Mini-pile																								
Pile Cap Construction																								
Superstructure	115	115	115	115	115	115																		
ABWF, Utilities Installation & Cable containment Installation	118	118	118	118	118	118	118	118	118	118	118	118	118	118	118	118	118	118	118	118	118	118	118	
<b>SPS (1701 - as concurrent Project)</b>																								
Site Clearance & Formation																								
Foundation and Excavation																								
Socket H Pile / Mini-pile																								
Pile Cap Construction																								
Superstructure	115	115	115	115																				
ABWF, Utilities Installation & Cable containment Installation	118	118	118	118	118	118	118	118	118	118	118	118	118	118	118	118	118	118	118	118	118	118	118	
<b>Southern Platform (1701)</b>																								
Site Clearance & Formation																								
Foundation and Excavation																								
Socket H Pile / Mini-pile																								
Pile Cap Construction																								
Superstructure	115	115	115	115																				
ABWF, Utilities Installation & Cable containment Installation	118	118	118	118	118	118	118	118	118	118	118	118	118	118	118	118	118	118	118	118	118	118	118	
<b>1D (1701)</b>																								
Site Clearance & Formation																								
Installation of Pre-bored Sheet Piles Wall																								
Construction of Manhole with Platform & Cat ladder, and Backfill	117	117																						
<b>Cheung Tung Road (CTR) (1701)</b>																								
Installation of Pre-bored Sheet Piles Wall																								
Pipe Jacking Shaft																								
Construction of Manhole with Platform & Cat ladder, and Backfill	117	117																						
<b>Sham Shui Kok Drive (SSK) (1701)</b>																								
Installation of Pre-bored Sheet Piles Wall																								
Construction of Manhole with Platform & Cat ladder, and Backfill		117	117	117	117																			

<b>Predicted Construction Noise, dB(A)</b>																								
<b>NSR</b>																								
Lantau North (Extension) Country Park [1,2]	71	71	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70

<b>Cumulative Construction Noise, dB(A)</b>																								
<b>NSR</b>																								
Concurrent Project [3]	59	59	59	59	59	59	59	59	59	59	59	59	59	59	59	59	59	59	59	59	59	59	59	59
Lantau North (Extension) Country Park [1,2]	71	71	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70	70

Note:  
 [1] Given that Lantau North (Extension) Country Park is a noise sensitive receiver without any facades (i.e. free-field), no façade correction is included in the calculation. This assumption is consistent to the approved EIA.  
 [2] Considered the distance correction (i.e. -20 log(D) - 8).  
 [3] Max. predicted noise level is adopted. Extracted from Appendix 4.7 of the approved EIA Report (Register No.: AEIAR-214/2017)

	2030											
	1	2	3	4	5	6	7	8	9	10	11	12
1A-1 (1701)												
Site Clearance & Formation												
Foundation and Excavation												
Socket H Pile / Mini-pile												
Bored Pile												
Pile Cap Construction												
Superstructure												
ABWF, Utilities Installation & Cable containment Installation	118	118	118	118	118	118	118	118	118			
1A-2 (1701, 1702)												
Site Clearance & Formation												
Foundation and Excavation												
Socket H Pile / Mini-pile												
Bored Pile												
Pile Cap Construction												
Superstructure												
ABWF, Utilities Installation & Cable containment Installation	118	118	118	118	118	118	118	118	118			
1A-3 (1701, 1702)												
Site Clearance & Formation												
Foundation and Excavation												
Bored Piling												
Pile Cap Construction												
Superstructure												
ABWF, Utilities Installation & Cable containment Installation	118	118	118	118	118	118	118	118	118			
1A-4 (1701, 1702)												
Site Clearance & Formation												
Foundation and Excavation												
Bored Pile												
Pile Cap Construction												
Superstructure												
ABWF, Utilities Installation & Cable containment Installation	118	118	118	118	118	118	118	118	118			
1A-5 (1701, 1702)												
Site Clearance & Formation												
Foundation and Excavation												
Bored Pile												
Pile Cap Construction												
Superstructure												
ABWF, Utilities Installation & Cable containment Installation	118	118	118	118	118	118	118	118	118			
1A-6 (1701, 1702)												
Site Clearance & Formation												
Foundation and Excavation												
Socket H Pile / Mini-pile												
Bored Pile												
Pile Cap Construction												
Superstructure												
ABWF, Utilities Installation & Cable containment Installation	118	118	118	118	118	118	118	118	118			
1B-1 (1701, 1702)												
Site Clearance & Formation												
Foundation and Excavation												
Bored Pile												
Pile Cap Construction												
Superstructure												
ABWF, Utilities Installation & Cable containment Installation	118	118	118	118	118	118	118	118	118			
1B-2 (1701, 1702)												
Site Clearance & Formation												
Foundation and Excavation												
Socket H Pile / Mini-pile												
Bored Pile												
Pile Cap Construction												
Superstructure												
ABWF, Utilities Installation & Cable containment Installation	118	118	118	118	118	118	118	118	118			
1B-3 (1701, 1702)												
Site Clearance & Formation												
Foundation and Excavation												
Socket H Pile / Mini-pile												
Bored Pile												
Pile Cap Construction												
Superstructure												
ABWF, Utilities Installation & Cable containment Installation	118	118	118	118	118	118	118	118	118			
1D-1 (1701, 1702)												
Site Clearance & Formation												
Foundation and Excavation												
Socket H Pile / Mini-pile												
Bored Pile												
Pile Cap Construction												
Superstructure												
ABWF, Utilities Installation & Cable containment Installation	118	118	118	118	118	118	118	118	118			
1D-2 (1701, 1702)												
Site Clearance & Formation												
Foundation and Excavation												
Socket H Pile / Mini-pile												
Bored Pile												
Pile Cap Construction												
Superstructure												
ABWF, Utilities Installation & Cable containment Installation	118	118	118	118	118	118	118	118	118			

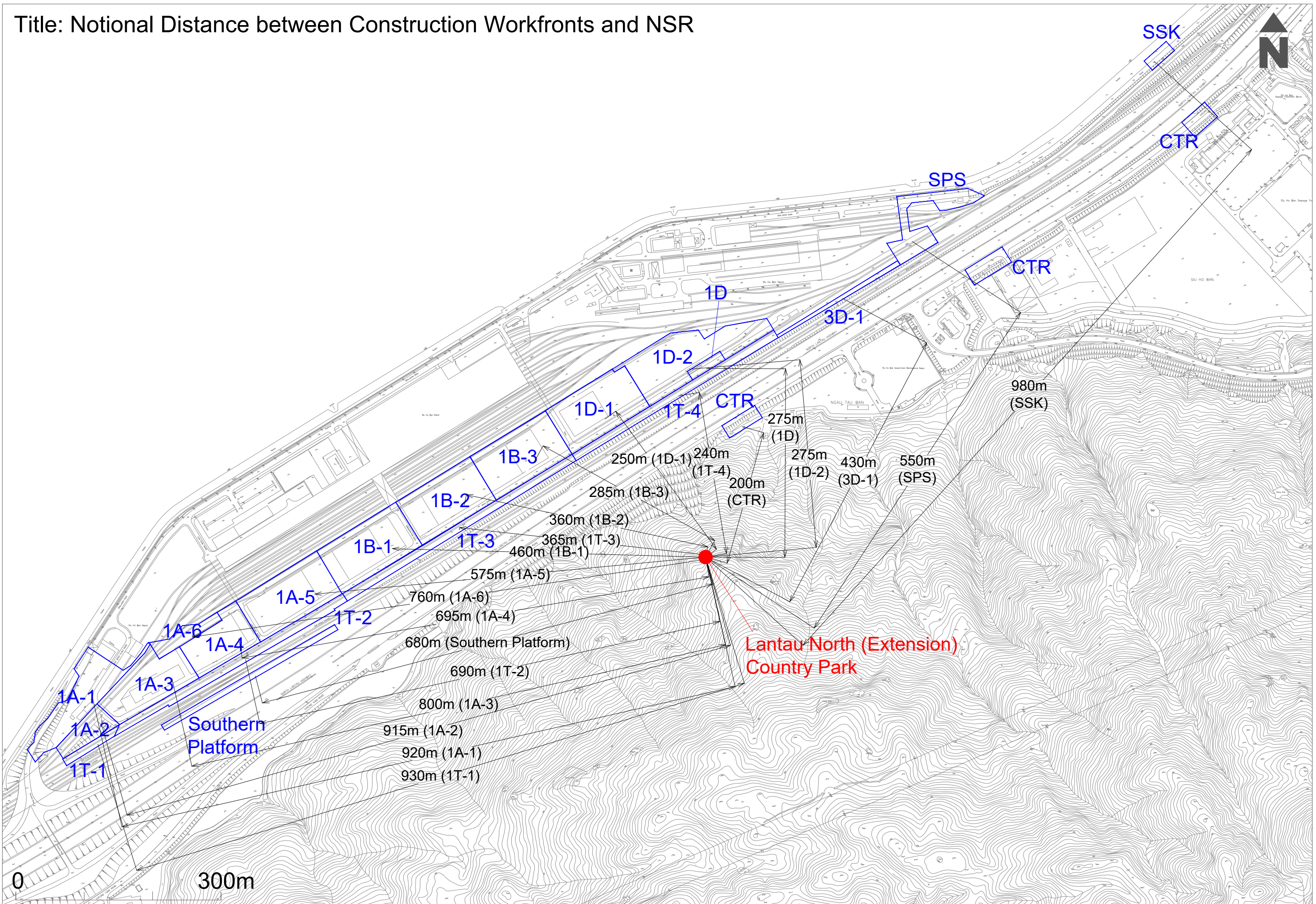
	2030											
	1	2	3	4	5	6	7	8	9	10	11	12
1T-1 (1701,1702)												
Site Clearance & Formation												
Foundation and Excavation												
Socket H Pile / Mini-pile												
Pile Cap Construction												
Superstructure												
ABWF, Utilities Installation & Cable containment Installation	118	118	118	118	118	118	118	118	118			
1T-2 (1701,1702)												
Site Clearance & Formation												
Foundation and Excavation												
Socket H Pile / Mini-pile												
Pile Cap Construction												
Superstructure												
ABWF, Utilities Installation & Cable containment Installation	118	118	118	118	118	118	118	118	118			
1T-3 (1701,1702)												
Site Clearance & Formation												
Foundation and Excavation												
Socket H Pile / Mini-pile												
Pile Cap Construction												
Superstructure												
ABWF, Utilities Installation & Cable containment Installation	118	118	118	118	118	118	118	118	118			
1T-4 (1701,1702)												
Site Clearance & Formation												
Foundation and Excavation												
Socket H Pile / Mini-pile												
Pile Cap Construction												
Superstructure												
ABWF, Utilities Installation & Cable containment Installation	118	118	118	118	118	118	118	118	118			
3D-1 (1701)												
Site Clearance & Formation												
Foundation and Excavation												
Socket H Pile / Mini-pile												
Pile Cap Construction												
Superstructure												
ABWF, Utilities Installation & Cable containment Installation	118	118	118	118	118	118	118	118	118			
SPS (1701 - as concurrent Project)												
Site Clearance & Formation												
Foundation and Excavation												
Socket H Pile / Mini-pile												
Pile Cap Construction												
Superstructure												
ABWF, Utilities Installation & Cable containment Installation	118	118	118	118	118	118	118	118	118			
Southern Platform (1701)												
Site Clearance & Formation												
Foundation and Excavation												
Socket H Pile / Mini-pile												
Pile Cap Construction												
Superstructure												
ABWF, Utilities Installation & Cable containment Installation	118	118	118	118	118	118	118	118	118			
1D (1701)												
Site Clearance & Formation												
Installation of Pre-bored Sheet Piles Wall												
Construction of Manhole with Platform & Cat ladder, and Backfill												
Cheung Tung Road (CTR) (1701)												
Installation of Pre-bored Sheet Piles Wall												
Pipe Jacking Shaft												
Construction of Manhole with Platform & Cat ladder, and Backfill												
Sham Shui Kok Drive (SSK) (1701)												
Installation of Pre-bored Sheet Piles Wall												
Construction of Manhole with Platform & Cat ladder, and Backfill												

Predicted Construction Noise, dB(A)												
NSR	1	2	3	4	5	6	7	8	9	10	11	12
Lantau North (Extension) Country Park [1,2]	70	70	70	70	70	70	70	70	70			

Cumulative Construction Noise, dB(A)												
NSR	1	2	3	4	5	6	7	8	9	10	11	12
Concurrent Project [3]	59	59	59	59	59	59	59	59	59			
Lantau North (Extension) Country Park [1,2]	70	70	70	70	70	70	70	70	70			

Note:  
 [1] Given that Lantau North (Extension) Country Park is a noise sensitive receiver without any façades (i.e. free-field), no façade correction is included in the calculation. This assumption is consistent to the approved EIA.  
 [2] Considered the distance correction (i.e. -20 log(D) - 8).  
 [3] Max. predicted noise level is adopted. Extracted from Appendix 4.7 of the approved EIA Report (Register No.: AEIAR-214/2017)

# Title: Notional Distance between Construction Workfronts and NSR



## **Appendix D**

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### Implementation Schedule



EIA Ref.	Recommended Mitigation Measures	Objectives of the Recommended Measures & Main Concern to Address	Implementation Party	Location	Timing	Requirement
S4.5.16	Implement the following good site practices as far as practicable: <ul style="list-style-type: none"> <li>• only well-maintained plant should be operated on-site and plant should be serviced regularly during the construction programme;</li> <li>• 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;</li> <li>• plant known to emit noise strongly in one direction, where possible, be orientated so that the noise is directed away from nearby NSRs;</li> <li>• silencers or mufflers on construction equipment should be properly fitted and maintained during the construction works;</li> <li>• the use of quieter construction method (i.e. Silent Piling System) should be considered where possible;</li> <li>• Quality Powered Mechanical Equipment (QPME) may also be considered by the Contractor as enhancement to further minimize the construction noise impact where possible;</li> <li>• mobile plant should be sited as far away from NSRs as possible and practicable; and</li> <li>• material stockpiles, site office and other structures should be effectively utilised, where practicable, to screen noise from on-site construction activities.</li> </ul>	To minimise impacts to surrounding habitats	Contractor	All works area	Construction phase	TM-EIAO