



Installation of the Proposed 132kV Cable Circuits Connecting with Ho To West Substation and Existing 132kV Fanling to Mai Po Cable Circuits

Monthly Audit Report for December 2022

January 2023

Mott MacDonald
3/F Manulife Place
348 Kwun Tong Road
Kwun Tong
Kowloon
Hong Kong

T +852 2828 5757
mottmac.hk

Installation of the Proposed 132kV Cable Circuits Connecting with Ho To West Substation and Existing 132kV Fanling to Mai Po Cable Circuits

Monthly Audit Report for December 2022

January 2023

Installation of the Proposed 132kV Cable Circuits Connecting with Ho To West Substation and Existing 132kV Fanling to Mai Po Cable Circuits

Environmental Verification Sheet

Environmental Permit No. EP-594/2021

Reference Document /Plan

Document/ Plan to be Certified / Verified:	Monthly Audit Report for December 2022
Date of Report:	13 January 2023
Date prepared by IEC:	13 January 2023

Reference EP Condition

Environmental Permit Condition:

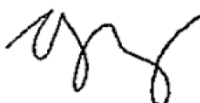
Condition 2.1 of EP-594/2021:

An Independent Environmental Checker (IEC) shall be employed by the Permit Holder before commencement of construction of the Project. The IEC shall not be in any way an associated body of the Contractor for the Project. The IEC shall be a person who has at least 7 years of experience in Environmental Monitoring and Audit or environmental management. The IEC shall audit the implementation of all mitigation measures recommended in the Project Profile (Register No.: PP-625/2021) and required under this Permit, and to confirm full compliance of the mitigation measures through a monthly audit report. The Permit Holder shall, no later than 10 working days after the end of each reporting month, deposit with the Director 2 hardcopies and 1 electronic copy of the monthly audit report prepared by the IEC.

IEC Verification

I hereby verify that the above referenced document/~~plan~~ complies with the above referenced condition of EP-594/2021.

Ms Liz Lo,
Independent Environmental Checker (IEC):



Date: 13 January 2023

Contents

Executive Summary	4
1 Introduction	5
1.1 Background	5
1.2 Project Organisation	5
1.3 Construction Activities	6
2 Environmental Site Inspection and Audit	7
2.1 Site Inspection	7
2.2 Advice on Waste Management Status	7
2.3 Status of Environmental Licences and Permits	7
2.4 Implementation Status of Mitigation Measures	7
3 Report on Complaints, Notifications of Summons and Successful Prosecutions	8
3.1 Record of Environmental Complaints Received	8
3.2 Record of Notifications of Summons and Successful Prosecutions	8
3.3 Cumulative Statistics on Complaints, Notifications of Summons and Successful Prosecutions	8
4 Future Key Issues	9
4.1 Construction Works for the Next Reporting Month	9
5 Conclusions	10
Figure	11
Figure 1.1 Site Location of the Project	12
Appendices	13
A. Organisation Chart	14
B. Construction Programme	15
C. Waste Flow Table	16
D. Implementation Status of Mitigation Measures	17

Executive Summary

Mott MacDonald Hong Kong Limited (MMHK) was commissioned by CLP Power Hong Kong Limited (CLP) as the Independent Environmental Checker (IEC) under the Environmental Permit (EP) (EP-594/2021) to audit the implementation of all mitigation measures recommended in the Project Profile (PP) (PP-625/2021) and EP, and to confirm full compliance of the mitigation measures through a monthly audit report for “Installation of the Proposed 132kV Cable Circuits Connecting with Ho To West Substation and Existing 132kV Fanling to Mai Po Cable Circuits” (hereafter referred to as “the Project”).

The commencement date of construction of the Project was on 5 July 2022.

This is the 6th Monthly Audit Report prepared and submitted under Condition 2.1 of the EP during the period from 1 to 31 December 2022.

Implementation of Mitigation Measures

One site inspection was carried out by IEC on 28 December 2022 during the reporting month. The inspection findings are summarised in **Section 2**.

Record of Environmental Complaint, Notification of Summons and Successful Prosecution

No environmental complaint was received in the reporting month.

No notification of summons or successful prosecution was received in the reporting month.

1 Introduction

1.1 Background

1.1.1 Purpose and Nature of the Project

In June 2017, the Town Planning Board announced the publication of a new draft Outline Zoning Plan (OZP) for the Lok Ma Chau Loop area. Based on this plan, the Lok Ma Chau Loop area would accommodate a planned working/ student population in the range of 50,000 to 53,000 upon full development. An Environmental Impact Assessment Report for Development of Lok Ma Chau Loop (Register No. AEIAR-176/2013) was approved under the Environmental Impact Assessment Ordinance (EIAO) in October 2013 with EP (EP-477/2013) issued by the EPD on 22 November 2013. Owing to the growth in population and the developments associated with the new OZP, there would be an increase in electricity demand and the ultimate demand has been forecasted to be about 150MVA. In view of that, CLP proposes to establish the Ho To West Substation (as part of the Lok Ma Chau Loop area development) with 2 x 132/11kV 50MVA transformers with operation expected to commence in 2026 to support the planned development of Lok Ma Chau Loop.

Works associated with the Project include the installation of two cable circuits (turn in and turn out) linking up the proposed Ho To West Substation with two existing circuits connected to Fanling and Mai Po Substations. The establishment of the Ho To West Substation is not under the scope of this Designated Project.

The alignments of the selected cable route are approximately 6.6km. Part of the proposed cable circuits is located within the Lok Ma Chau Loop Conservation Area and San Tin Conservation Area.

The overall construction period of the Project will tentatively last for about 4.5 years (i.e. 54 months).

1.1.2 Objectives of this Report

This is the 6th Monthly Audit Report summarising the findings of the implementation status of the mitigation measures recommended in the PP and EP from 1 to 31 December 2022 (hereafter referred to as “the reporting month”).

The site location of the Project is presented in **Figure 1.1**.

1.2 Project Organisation

The contact information of key Project personnel is summarised in **Table 1.1**. An organisation chart is presented in **Appendix A**.

Table 1.1: Key Project Personnel

Party	Position	Contact Person	Telephone	Fax
Project Proponent CLP Power Hong Kong Limited (CLP)	Senior Engineer	Ng, Raymond Wai Man	2678 1539	2678 1504
Independent Environmental Checker (IEC) Mott MacDonald Hong Kong Limited (MMHK)	IEC	Liz Lo	2828 5751	2827 1823
Contractor Kum Shing Engineering Co., Ltd.	Senior Project Manager	Lo Kwok Cheung, Gordon	9881 0633	8169 6333

1.3 Construction Activities

No construction activities were undertaken in this reporting month. The Construction Programme of the Project is provided in **Appendix B**.

2 Environmental Site Inspection and Audit

2.1 Site Inspection

Site inspections are required to be conducted by IEC on a monthly basis to monitor the implementation of proper environmental pollution control and mitigation measures recommended in the PP of the Project, as required under the EP.

Site inspection was carried out on 28 December 2022 in the reporting month. Key observations and reminders during the site inspection are described in **Table 2.1**.

Table 2.1: Summary of Site Inspection and Recommendations

Inspection Date	Key Observations / Reminders	Recommendations / Actions	Close-Out Date
28 Dec 2022	N/A	N/A	N/A

2.2 Advice on Waste Management Status

No waste was generated in the reporting month. The waste flow table of the Project is provided in **Appendix C**.

2.3 Status of Environmental Licences and Permits

The environmental licences and permits for the Project that were valid during the reporting month are summarized in **Table 2.2**.

Table 2.2: Summary of Environmental Licences and Permits

Licence/Permit	Reference No.	Date of Issue	Expiry Date (if any)	Status
Environmental Permit	EP-594/2021	18 Aug 2021	-	Valid
Billing Account for Disposal of Construction Waste	7032780	8 Jan 2021	-	Valid

Under the Air Pollution Control (Construction Dust) Regulation, seven types of construction work are defined as notifiable work. As the construction work of the Project does not belong to those notifiable works, no notification pursuant to Section 3(1) of the Air Pollution Control (Construction Dust) Regulation was deposited.

2.4 Implementation Status of Mitigation Measures

The implementation status of mitigation measures recommended in the PP and EP are summarised in **Appendix D**.

3 Report on Complaints, Notifications of Summons and Successful Prosecutions

3.1 Record of Environmental Complaints Received

No environmental complaint was received in the reporting month.

3.2 Record of Notifications of Summons and Successful Prosecutions

No notification of summons or successful prosecution was received during the reporting month.

3.3 Cumulative Statistics on Complaints, Notifications of Summons and Successful Prosecutions

Cumulative statistics of complaints, notifications of summons and successful prosecutions for the period from the date of commencement of construction to end of the reporting month are summarized in **Table 3.1**.

Table 3.1: Statistics for Complaints, Notifications of Summons and Successful Prosecutions

Period	Complaints	Notifications of Summons	Successful Prosecutions
Within this reporting month (Dec 2022)	0	0	0
From the date of commencement of construction (i.e. 5 Jul 2022) to the end of the reporting month (Dec 2022)	0	0	0

4 Future Key Issues

4.1 Construction Works for the Next Reporting Month

No construction works are scheduled to be conducted in the coming reporting month (January 2023).

5 Conclusions

General

The commencement date of construction of the Project was on 5 July 2022. IEC of the project has audited the implementation of all mitigation measures recommended in the PP and EP during the reporting month.

Environmental Site Inspection

One site inspection was conducted in during the reporting month by IEC.

Complaint Log

No environmental complaint was received in the reporting month.

Notifications of Summons and Successful Prosecutions

No notification of summons or successful prosecution was received in the reporting month.

Figure

Figure 1.1 Site Location of the Project

Legend 圖例

- Proposed Route (DP)
擬建路線 (DP)
- - - Proposed Route (DP) (No-dig)
擬建路線 (DP) (無坑挖掘)
- Roads Works to be Constructed by CEDD
由土木工程拓展署負責的道路工程
- Ho To West Substation
河套西變電站
- San Tin East Main Drainage Channel
新田東排水道

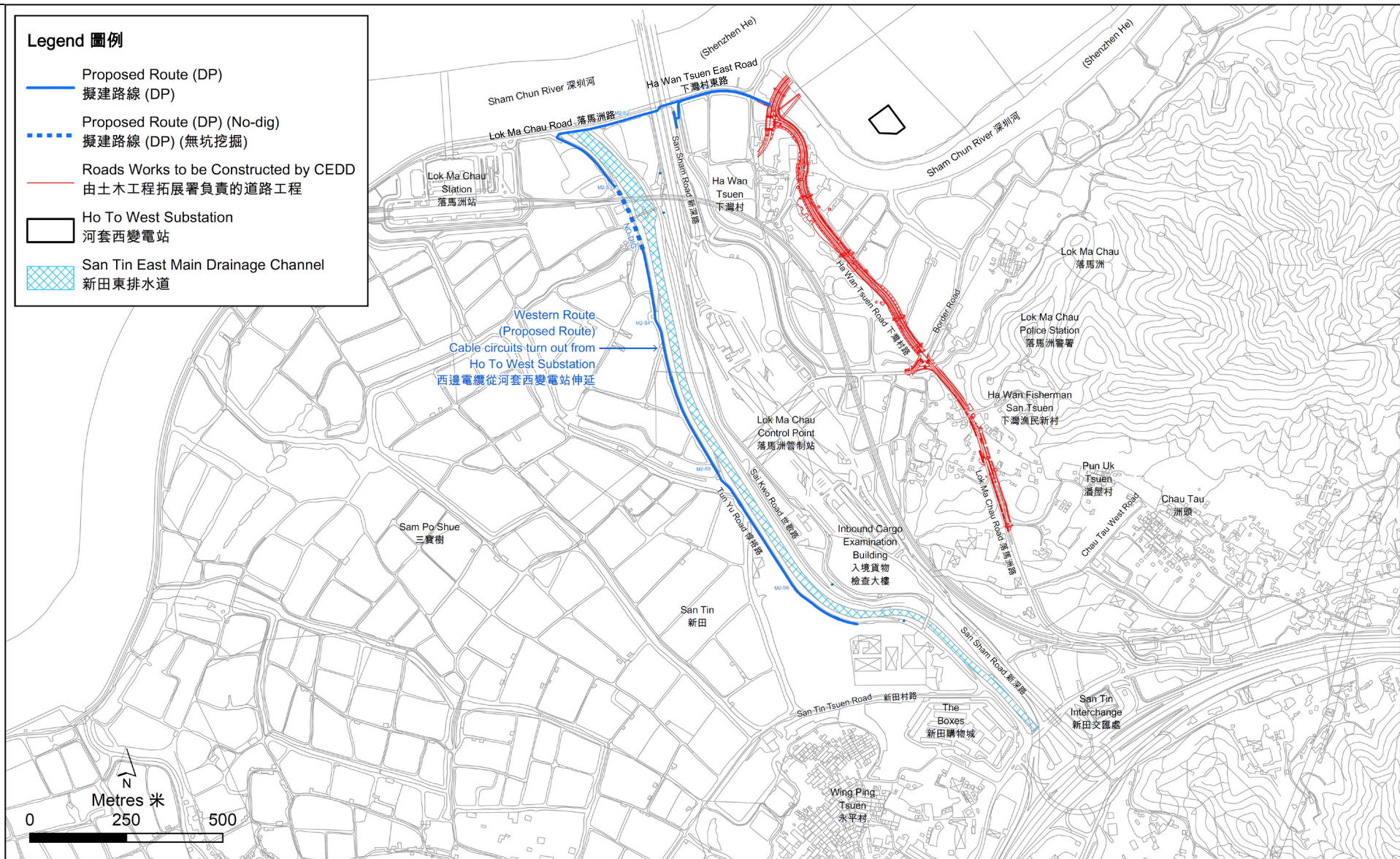


Figure 1.1

Site Location of the Project of Installation of the Proposed 132kV Cable Circuits Connecting with Ho To West Substation and Existing 132kV Fanling to Mai Po Cable Circuits (extracted from Figure 1 of EP-594/2021)



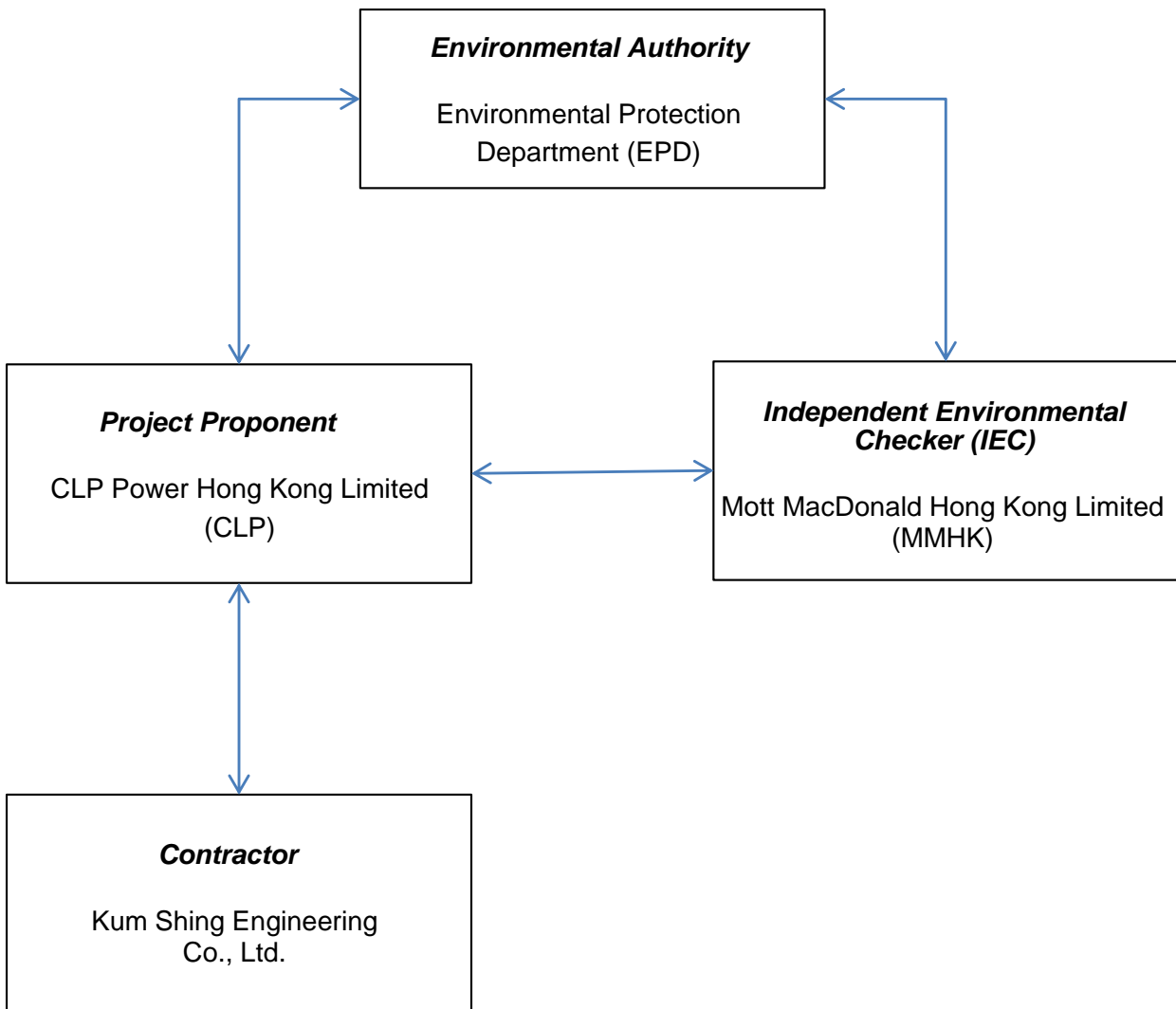
3/F Manulife Place
348 Kwun Tong Road
Kwun Tong, Kowloon
Hong Kong
T +852 2828 5757
F +852 2827 1823
W mottmac.com

Appendices

- A. Organisation Chart
- B. Construction Programme
- C. Waste Flow Table
- D. Implementation Status of Mitigation Measures

A. Organisation Chart

Organisation Chart of the Project



↔ Line of Communication

B. Construction Programme

ID	Task Name	Duration	Start	Finish	Apr '22	Jul '22	Oct '22	Jan '23	Apr '23	Jul '23	Oct '23
1											
2	Proposed 132kV FNL - HTW No. 1 & 2	1 day	Fri 24/6/22	Fri 24/6/22							
3	Sectoin 4	313 days	Wed 13/7/22	Tue 19/9/23							
4	Stage 1 - 6 (120m)	88 days	Mon 22/5/23	Tue 19/9/23							
5	Stage 7 - Completed	8 days	Wed 13/7/22	Fri 22/7/22							
6	Stage 13 - 16 (80m)	21 days	Sat 1/4/23	Fri 28/4/23							
7	Stage 17 - 19 (60m)	15 days	Mon 1/5/23	Fri 19/5/23							



Project: Project programme - Sectio Date: Mon 10/10/22	Task		External Tasks		Manual Task		Finish-only	
	Split		External Milestone		Duration-only		Deadline	
	Milestone		Inactive Task		Manual Summary Rollup		Progress	
	Summary		Inactive Milestone		Manual Summary			
	Project Summary		Inactive Summary		Start-only			

C. Waste Flow Table

Monthly Waste Flow Table for Installation of the Proposed 132kV Cable Circuits Connecting with Ho To West Substation and Existing 132kV Fanling to Mai Po Cable Circuits (EP-594/2021)

Month	Actual Quantities of Inert C&D Materials Generated Monthly							Actual Quantities of C&D Wastes Generated Monthly					
	Total Quantity Generated	Hard Rocks and Large Broken Concrete	Reused in the Contract	Reused in other Projects	Disposed as Public Fill	Disposed to Sorting Facility	Imported Fill	Metals	Paper/ Cardboard Packaging	Plastics	Wood/ Timber	Chemical Waste	Others, e.g. General Refuse
	(in tonnes)	(in tonnes)	(in tonnes)	(in tonnes)	(in tonnes)	(in tonnes)	(in tonnes)	(in tonnes)	(in tonnes)	(in tonnes)	(in tonnes)	(in tonnes)	(in tonnes)
2022													
Jan													
Feb													
Mar													
Apr													
May													
Jun													
Jul	40.38	0.00	0.00	0.00	40.38	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Aug	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Sep	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Oct	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Nov	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Dec	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Sub-total (2022)	40.38	0.00	0.00	0.00	40.38	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total	40.38	0.00	0.00	0.00	40.38	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00

- Notes:
- 1 - The waste flow table shall also include C&D materials that are specified in the Contract to be imported for use at the Site.
 - 2 - Plastics refer to plastic bottles/containers, plastic sheets/foam from packaging material.
 - 3 - Broken concrete for recycling into aggregates.

D. Implementation Status of Mitigation Measures

Implementation Status of Mitigation Measures (Dec 2022)

Implementation Stage

*PP / ^EP Ref.	Recommendation Measures	
Air Quality Impact (Construction)		
*S5.1.1	<i>Comply with the control measures in Air Pollution Control (Construction dust) Ordinance. Control measures related to the construction activities have been summarized as below:</i>	
*S5.1.1 / APCO	<ul style="list-style-type: none"> Water or a dust suppression chemical shall be continuously sprayed on the surface where any pneumatic or power-driven drilling, cutting, polishing or other mechanical breaking operation that causes dust emission is carried out, unless the process is accompanied by the operation of an effective dust extraction and filtering device. 	N/A
*S5.1.1 / APCO	<ul style="list-style-type: none"> Stockpiles of dusty materials shall be either covered entirely by impervious sheets; placed in an area sheltered on the top and the 3 sides or sprayed with water or dust suppression chemical so as to maintain the entire surface wet. 	N/A
*S5.1.1 / APCO	<ul style="list-style-type: none"> The working area of any excavation or earth moving operation shall be sprayed with water or a dust suppression chemical immediately before, during and immediately after the operation so as to maintain the entire surface wet. 	N/A
*S5.1.1 / APCO	<ul style="list-style-type: none"> Regular maintenance of construction equipment deployed on-site will be conducted to prevent black smoke emission. 	N/A
*S5.1.1 / APCO	<ul style="list-style-type: none"> All dusty materials shall be sprayed with water or a dust suppression chemical immediately prior to any loading, unloading or transfer operation so as to maintain the dusty materials wet. 	N/A
*S5.1.1 / APCO	<ul style="list-style-type: none"> Every stock of more than 20 bags of cement or dry pulverised fuel ash will be covered entirely by impervious sheeting sheltered on top and 3-sides. 	N/A
*S5.1.1 / APCO	<ul style="list-style-type: none"> Immediately before leaving a construction site, every vehicle shall be washed to remove any dusty materials from its body and wheels. 	N/A
*S5.1.1 / APCO	<ul style="list-style-type: none"> Where a vehicle leaving a construction site is carrying a load of dusty materials, the load shall be covered entirely by clean impervious sheeting to ensure that the dusty materials do not leak from the vehicle. 	N/A
N/A	<ul style="list-style-type: none"> The engine of the construction equipment during idling will be switched off. 	N/A
N/A	<ul style="list-style-type: none"> Non-road mobile machinery (NRMMs), e.g. mobile generator and air compressor, shall comply with the prescribed emission standards and approved with a proper label by EPD. 	N/A
Noise Impact (Construction)		
<i>Good site practices will be adopted as far as practicably to minimise noise emissions:</i>		
*S5.1.2	<ul style="list-style-type: none"> Idling PME will be switched off. 	N/A
*S5.1.2	<ul style="list-style-type: none"> Noisy PME will be sited as far away from the NSRs as practicable. 	N/A
*S5.1.2	<ul style="list-style-type: none"> Quiet PME will be used as far as practicable. 	N/A
*S5.1.2	<ul style="list-style-type: none"> Where possible, stored materials and temporary structures will be sited in practical locations to screen NSRs from noisy on-site construction activities. 	N/A

*PP / ^EP Ref.	Recommendation Measures	
*S5.1.2	<ul style="list-style-type: none"> Work sequences to avoid the simultaneous use of noisy PME in close proximity to NSRs will be planned ahead of the commencement of the works. 	N/A
Water Quality Impact (Construction)		
<i>Follow the guidelines in ProPECC PN 1/94. Control measures related to the Construction activities have been summarized as below:</i>		
*S5.1.3	<ul style="list-style-type: none"> Provision of silt removal facilities of sufficient scale to proper treatment of site runoff and de-watering water from the trenches/ launching pits. 	N/A
*S5.1.3	<ul style="list-style-type: none"> Regular maintenance of silt removal facilities, as well as before and after the rainstorms. 	N/A
*S5.1.3	<ul style="list-style-type: none"> Sand bag barriers (or equivalent) to stop storm water from getting into trenches/ launching pits. 	N/A
*S5.1.3	<ul style="list-style-type: none"> Minimize stockpile onsite (by planning the excavation and backfilling, as well as removal of excess fill material) and provide cover / protection with secured tarpaulin or similar fabric. 	N/A
*S5.1.3	<ul style="list-style-type: none"> Reuse drilling fluid as far as practicable. Un-reusable drilling fluid should be disposed at public fill reception facilities. 	N/A
*S5.1.3	<ul style="list-style-type: none"> Appropriate number of chemical toilets will be provided to the construction workers if applicable. These chemical toilets will be cleaned and emptied regularly by licensed contractor. 	N/A
*S5.1.3	<ul style="list-style-type: none"> Where appropriate, marine dumping license will be applied and conditions/ requirements will be complied with in accordance with the Dumping at Sae Ordinance (DSP) (Chapter 466). 	N/A
*S5.1.3	<ul style="list-style-type: none"> Where appropriate, wastewater discharge licence will be applied and conditions / requirements will be complied with in accordance with the Water Pollution Control Ordinance (WPCO) (Chapter 358). 	N/A
*S5.1.3	<ul style="list-style-type: none"> Storage of chemicals onsite (including drilling fluid) should be kept to the minimum. Chemical should be kept in secured containers and sheltered, safe locations. 	N/A
*S5.1.3	<ul style="list-style-type: none"> Any spillage should be cleaned up immediately and the waste generated should be disposed of by licensed contractor. 	N/A
Waste Management Implications (Construction)		
*S5.1.4	<ul style="list-style-type: none"> Surplus excavated soil, which could not be reused, will be disposed of at the public fill reception facilities, i.e. Tuen Mun Fill Bank 38. 	N/A
*S5.1.4	<ul style="list-style-type: none"> Waste on-site will be properly segregated to increase the potential for reuse and recycling. 	N/A
*S5.1.4	<ul style="list-style-type: none"> Construction waste generated from the Project, if any, will be transported offsite by truck for proper disposal. 	N/A
*S5.1.4	<ul style="list-style-type: none"> Chemical waste generated during the construction of the Project, if any, will be properly stored in accordance with Code of Practice on the Packaging, Labelling and Storage of Chemical Waste by EPD before collection for disposal by a licensed Chemical Waste Collector. 	N/A
Ecological Impact (Construction)		
*S5.1.5 / ^Cl. 2.2	<ul style="list-style-type: none"> All noisy works, in particular the excavation works for the open trench section of the cable circuit and pit construction works of the no-dig section shall be scheduled outside the wintering season of migratory birds (i.e. from November to March next year). 	N/A

*PP / ^EP Ref.	Recommendation Measures	
*S5.1.5 / ^Cl. 2.2	<ul style="list-style-type: none"> For the open trench section, not more than two fronts, each of not more than 30m long, shall be allowed at the same time. 	N/A
*S5.1.5 / ^Cl. 2.2	<ul style="list-style-type: none"> All construction works shall not be carried out from 7:00 p.m. to 7:00 a.m. next day to minimize disturbance to foraging and/or roosting/resting of birds and Eurasian Otter. 	N/A
*S5.1.5 / ^Cl. 2.2	<ul style="list-style-type: none"> Prohibiting use of direct lighting on STEMMD and controlling night-time lighting to reduce potential ecological impact. To fulfil the requirement of excavation permit, lanterns will be provided to comply with Code of Practice for the Lighting, Signing and Guarding of Road Works. 	N/A
*S5.1.5	<ul style="list-style-type: none"> The work sections (with a maximum of two 30-meter-long work fronts active at each time) should be surrounded by ~2m high dull green boundary fence/ screening during the construction phase to minimise visual and physical disturbances from workers. 	N/A
*S5.1.5	<ul style="list-style-type: none"> Use of temporary movable noise barriers wherever possible. In addition, certain types of PME cab be shielded by enclosure for noise reduction as far as practicable. 	N/A
*S5.1.5	<ul style="list-style-type: none"> The construction works at all watercourse crossing sections will not disturb the stream bed or banks under any circumstances. 	N/A
*S5.1.5	<ul style="list-style-type: none"> Tree felling will be avoided during the construction works. Tree protection zone should be established where necessary to minimise damage to trees. 	N/A
*S5.1.5	<ul style="list-style-type: none"> Reinstate temporary work sites/ disturbed areas, immediately after completion of the construction works. 	N/A
*S5.1.5	<ul style="list-style-type: none"> For the works associated with no-dig section horizontal directional drilling, temporary drainage system with sedimentation tanks, sand traps and oil and grease removal facilities, in accordance with the Practice Notes for Professional Persons on "Construction Site Drainage" (ProPECC PN 1/94) will be provided to control surface runoff and the potential pollution to the adjacent drainage discharge at discharge points. 	N/A
*S5.1.5	<ul style="list-style-type: none"> Avoid any damage and disturbance, particularly those caused by filling and illegal dumping to the surrounding habitats, especially mitigation wetland and any watercourses. 	N/A
*S5.1.5	<ul style="list-style-type: none"> Excavated materials will be covered and/or properly disposed of as soon as possible to avoid being washed into nearby water bodies. 	N/A
*S5.1.5	<ul style="list-style-type: none"> Regularly check the Site boundaries to ensure that they are not breached and that no damage occurs to surrounding habitats. 	N/A
*S5.1.5	<ul style="list-style-type: none"> Prohibit and prevent open fires within the site boundary during construction and provide temporary firefighting equipment in the work areas. 	N/A
*S5.1.5	<ul style="list-style-type: none"> Only well-maintained plant to be operated on-site and plant to be serviced regularly during the construction program. 	N/A

- N/A - Not Applicable
- ✓ - Implemented
- Obs - Observation
- Rem - Reminder