MTR Corporation Limited

Siu Ho Wan Station and Siu Ho Wan Depot Replanning Works – Project Profile

October 2016

TABLE OF CONTENTS

LIST OF FIGURE

1 BASIC INFORMATION

1.1 Project Title

1.1.1 Siu Ho Wan Station (SHO) and Siu Ho Wan Depot (SHD) Replanning Works (hereinafter referred to "the Project").

1.2 Purpose and Nature of the Project

1.2.1 In the 2016 Policy Address, the Chief Executive announced the initiative to actively explore with MTR Corporation Limited (the MTRCL) the development potential of stations and related sites along the existing and future rail lines, including the SHD.

1.2.2 The MTRCL is currently conducting a study to formulate a technically feasible development scheme for the Proposed Comprehensive Residential and Commercial Development atop Siu Ho Wan Depot (hereinafter referred to the "SHD Topside Development") atop the approximately 30-hectare SHD to optimize housing supply. The SHD Topside Development is in line with the planning theme of "Strategic Economic and Housing Development" for North Lantau Corridor proposed by The Lantau Development Advisory Committee (LanDAC), which has been earmarked as one of the medium-term projects in the First-term Working Report published by LanDAC in January 2016.

1.2.3 A Project Profile for the SHD Topside Development was submitted on 20 July 2016 for application of Environmental Impact Assessment (EIA) Study Brief and the EIA Study Brief (EIA Study Brief No. ESB-294/2016) was issued on 1 September 2016. With reference to the EIA Study Brief No. ESB-294/2016, the SHD Topside Development falls within Item 1 in Schedule 3 of the EIA Ordinance (EIAO). An EIA study for SHD Topside Development is being conducted in accordance with the Study Brief (ESB-294/2016), and is part of the feasibility study for the SHD Topside Development mentioned in **Section 1.2.2** above.

1.2.4 To facilitate the construction of the SHD Topside Development, railway related works would be required. The existing SHD will undergo replanning works to make room for the phased construction of the concrete slab and topside development, while maintenance and supporting services to the existing Tung Chung Line (TCL), Airport Express Line (AEL) and Disneyland Resort Line (DRL) should be maintained without causing disruption to the normal operation. A new SHO has also been proposed along the TCL tracks to meet transport needs of the SHD Topside Development and enable building of a sustainable community. The construction of the Project will be carried out in phases to allow continuous and safe operation of existing TCL, AEL, DRL and also SHD.

1.2.5 The railway related works to facilitate the construction of the SHD Topside Development would fall under Schedule 2 of the EIAO. They are classified as designated projects requiring an approved EIA report to support for the application of an environmental permit for their construction and operation. This Project Profile is prepared to cover the railway related works aiming to enable Environmental Protection Department (EPD) to determine the scope of the environmental issues associated with the Project which shall be addressed in the EIA study together with the technical and procedural requirements that the EIA study shall meet.

1.2.6 There will be two EIA studies to cover respectively the topside development related works (SHD Topside Development EIA) and railway related works (Railway EIA). The SHD Topside Development EIA is being conducted under ESB-294/2016. The Railway EIA will be carried out according to the requirements by a separate EIA study brief to be issued based on the information provided in this Project Profile.

The arrangement of two EIA studies respectively for topside development and railway related works is for ease of reference of the public.

Proposed Modification of SHD and Programmme

1.2.7 The topside development will be constructed within the depot area and atop the SHD. Therefore, the existing SHD will undergo replanning works including the provision of a podium deck to facilitate the construction of the SHD Topside Development. With consideration of safe depot operation condition, depot migration and deck construction will be conducted in phases. A large portion of the existing SHD will be decked over to accommodate depot facilities as well as property development within the entire site. The phasing plan for the depot migration and the podium deck design will be developed during preliminary design study which will be conducted in parallel with the EIA study.

1.2.8 The tentative works programme of the Project would commence in 2019 for completion of migration by 2033.

1.3 Name of the Project Proponent

1.3.1 The project proponent is the MTR Corporation Limited.

1.4 Location and Scale of Project and History of Site

1.4.1 The Project site is situated on reclaimed land formed in the 1990s. It is bounded by a seawall with a service road to its north/northwest, and the Lautau Airport Railway (LAR), North Lantau Highway (NLH) and Tuen Mun – Chek Lap Kok Link slip road (under construction) to its south/southeast. Location of SHD and the indicative location (for illustration purpose) of the proposed SHO are shown in **Figure No. NEX1062/S/SHD/ACM/Z10/001**.

1.4.2 The existing SHD provides essential maintenance and support facilities for the entire fleet of TCL, AEL and DRL, including stabling tracks, workshops, and running/heavy maintenance facilities as well as infrastructure maintenance facilities.

1.4.3 The Project will be implemented by phases which involve the following key construction activities:

- SHD replanning in 4 major phases within the existing site boundary;
- Podium deck and property enabling works for supporting the SHD Topside Development; and
- A new SHO and the associated trackwork, as well as local access roads and emergency vehicular access (EVA).

1.4.4 Sewage generated from the existing SHD is currently conveyed to the nearby Siu Ho Wan Sewage Treatment Works (SHWSTW) for treatment and disposal. The existing sewerage system including sewage pumping station (SPS) will be reprovided, as a separate system from the sewerage system serving SHD Topside Development, to cater for sewage generated from the operation of reprovisioned SHD and SHO. The reprovision works to the existing sewerage network for conveyance of the sewage from SHD to Government sewage treatment works will be carried out under the Project. It is expected that the capacity of the proposed SPS located within the reprovisioned SHD would be less than 2,000 m^3 per day and thus the proposed SPS is not classified as a designated project.

1.5 Number and Types of Designated Projects

1.5.1 The proposed SHO and the associated trackwork is classified as a designated project (DP) under Schedule 2, Part I, Category A.2 of the EIAO.

1.5.2 Environmental impact assessment was conducted for Lantau and Airport Railway (LAR) including SHD and their Environmental Impact Study (EIA-029/BC) was approved before the enactment of Environmental Impact Assessment Ordinance (EIAO). The operation of SHD is therefore classified as an exempted designated project under Schedule 2, Part I, Category A.4 of the EIAO.

1.5.3 A review will be conducted in accordance with the requirements stipulated in Section 6 of the Technical Memorandum on EIA Process (EIAO-TM) on whether the SHD replanning works would result in material change to this exempted designated project.

1.6 Name and Telephone Number of Contact Persons

1.6.1 All queries regarding the Project can be addressed to:

Mr. Edward Ngai (Engineering Manager-Civil)

MTR Corporation Limited

Tel.: 2688 1724

2 OUTLINE OF PLANNING AND IMPLEMENTATON PROGRAMME

2.1 Project Planning and Implementation

2.1.1 The Project will be implemented by engaging relevant professionals throughout the planning, design, construction and implementation stages.

2.1.2 The construction works will be carried out by qualified contractors to be appointed under various works contracts.

2.2 Project Programme

2.2.1 The Project will be implemented in phases, tentatively from 2019 to 2033.

2.3 Project Interface

2.3.1 Major committed projects on Lantau that may have potential interface with the Project have been identified and listed below. Any cumulative impact from these concurrent projects including but not limited to the followings during both construction and operational phases of the Project, will be addressed in the EIA as appropriate:

- Comprehensive Residential and Commercial Development atop SHD;
- Tung Chung New Town Extension and its associated infrastructure;
- Tuen Mun – Chek Lap Kok Link;
- Construction of additional sewerage rising mains and rehabilitation of the existing sewage rising main between Tung Chung and Siu Ho Wan;
- Organic Waste Treatment Facilities (OWTF) Phase I;
- Hong Kong - Zhuhai - Macao Bridge Hong Kong Boundary Crossing Facilities;
- Topside Development at Hong Kong Boundary Crossing Facilities (HKBCF) Island of the Hong Kong-Zhuhai-Macao Bridge (HZMB);
- Hong Kong-Zhuhai-Macao Bridge (HZMB) Hong Kong Link Road;
- Hong Kong International Airport (HKIA) Three-Runway System (3RS);
- North Commercial District at the HKIA.

3 POSSIBLE IMPACT ON THE ENVIRONMENT

3.1 Environmental Impacts from the Project

3.1.1 It is anticipated that the construction of the Project would involve only land based construction works including demolition of existing structures, facilities relocation, piling works, construction of podium structure for future SHD Topside Development, trackwork, construction of station, excavation and lateral support works, etc.

3.1.2 Establishment of barging facility for supporting construction activities is not anticipated in the current preliminary design stage.

3.1.3 The potential impacts arising from the construction and the operation of the Project are discussed in **Section 3.3** to **3.10**. All the prevailing statutory requirements will be considered in the EIA to assess the possible environment impacts.

3.2 Air Quality

Construction Phase

3.2.1 Dust generated from construction activities such as site clearance, excavation, backfilling, wind erosion of exposed area, temporary storage and handling of spoil, demolition and superstructure works, etc. will be controlled by implementing suitable practices and mitigation measures (see Section 5). Potential impact on planned air sensitive receivers (ASRs) within the Project during interim stages, along with those in the vicinity, will be controlled to within relevant standards.

Operational Phase

3.2.2 According to assessment findings of Lantau and Airport Railway (LAR) Environmental Impact Study (EIA-029/BC), gaseous and particulate emissions generated from exhaust emissions of equipment used for maintenance operations are expected to be insignificant as the equipment is operated on a routine but infrequent basis. With the operation activities at reprovisioned SHD same as those at existing SHD, it is anticipated that there would be no additional and insignificant air quality impact arising from the operation of reprovisioned SHD.

3.2.3 No air quality impact is expected from the operation of SHO with emission free electric-powered rail system and thus the exhaust air from railway operations would be insignificant.

3.3 Noise

Construction Phase

3.3.1 Construction noise generated from the use of Powered Mechanical Equipment during site clearance, piling, excavation, backfilling, construction of podium deck etc. will be mitigated by suitable practices and precautionary measures (see Section 5). Potential impact on planned noise sensitive receivers (NSRs) within the Project during interim stages, as well as visitors at the Lantau North (Extension) Country Park, will be controlled to within relevant standards.

Operational Phase

3.3.2 Potential noise impact to planned sensitive receivers above SHD may arise from cumulative railway noise from operation of existing SHD and mainlines including TCL, AEL and DRL. There would be cumulative fixed plant noise impact associated with the operation activities within the existing SHD and proposed E&M provision

for reprovisioned SHD and SHO. Other existing noise sources located in the vicinity of SHD such as Siu Ho Wan Government Maintenance Depot, Tai Ho Offtaking Pigging Station will be included in cumulative noise assessment where appropriate. As the replanning works will be conducted in phases, appropriate measures would be identified to minimize the noise impact to both existing and planned NSRs as necessary.

3.4 Water Quality

Construction Phase

3.4.1 Wastewater and site runoff generated from construction activities will be properly pre-treated prior to discharge into the public drainage system as far as feasible to minimise adverse water quality impact. Potential environmental impacts associated with the construction of the Project will be mitigated with implementation of good site practice.

Operational Phase

3.4.2 Sewage generated from the Project is estimated to be less than 2,000m^3/day from the depot operation and the proposed SHO Station, and it will be conveyed to Government sewage treatment works for treatment and disposal. The existing sewerage system will be reprovided, including the installation of reprovisioned sewage pumping station, to cater for sewage generated from the operation of reprovisioned SHD and SHO. Preventive measures such as the use of standby/spare pumps and backup power supply will be considered and implemented in the design to avoid emergency discharge from the reprovisioned sewage pumping station.

3.5 Waste Management

Construction Phase

3.5.1 Solid waste generated from construction activities includes construction and demolition (C&D) materials, chemical waste, general refuse etc. Since the depot is located on reclaimed land, sediment may also be generated due to foundation and excavation works associated with the SHD Topside Development. Good site practices will be implemented to avoid or minimise potential environmental impacts associated with handling, collection and disposal of wastes.

Operational Phase

3.5.2 Potential waste types generated during operation phase would include chemical wastes from maintenance activities, and municipal waste from passengers and staff of SHO and SHD. Potential environmental impact arising from waste management is expected to be insignificant with the implementation of good site practice.

3.6 Land Contamination

3.6.1 Site appraisal will be conducted to identify potential location(s) of land contamination. Site investigation plan, if required, will be formulated in accordance with EPD's guidance notes to facilitate further studies in the detailed design and implementation stages. There has been no historic leakage or spillage of oil or chemical during storage, handling and logistics at SHD. It is expected that the existing operation of SHD would not cause significant land contamination.

3.6.2 Wastewater generated from land decontamination, if any, will be properly handled

in accordance with the *Water Pollution Control Ordinance (Cap. 358) – Technical Memorandum*. Chemical waste generated from the process, such as wastewater containing chemical waste residues will be disposed of in accordance with the *Waste Disposal (Chemical Waste) (General) Regulation (Cap. 354C)*.

3.7 Terrestrial Ecology

Construction Phase

3.7.1 No natural habitat of flora and fauna has been identified within SHD hence direct ecological impact during construction phase is expected to be insignificant due to both SHD replanning works and construction of SHO are located within developed area. Potential ecological impact associated with the reprovisioned sewerage network to the nearby SHWSTW is expected to be minimal considering that the reprovisioning works is located within developed area, and the nature and scale of works is small and localized without direct impact on any ecological resources. Indirect ecological impact on the closest sensitive receiver of Tai Ho Priority Site is expected to be insignificant, given the separation distance of about 100m.

3.7.2 Neither reclamation nor marine works will be required for the Project. Hence no impact on marine environment is expected.

Operational Phase

3.7.3 Comparing with the existing SHD, the reprovisioned SHD will be decked over by a landscaped podium, and thus operational noise from SHD could be largely reduced. As no ecological sensitive receiver is located in proximity to the existing SHD (i.e. same location of reprovisioned SHD), disturbance to wildlife due to increase in human activities is expected to be insignificant.

3.8 Landscape and Visual

Construction Phase

3.8.1 Major landscape resources in the vicinity include the water body at Tai Ho Wan and woodland on slopes between the NLH and the Country Park. Existing trees within SHD are common species, including *Acacia confusa*, *Bauhinia blakeana*, *Cinnamomum camphora*, *Ficus virens*, *Hibiscus tiliaceus* and *Livistona chinensis* etc., which may be affected by the Project. Visual character of SHD will be gradually transformed from low-rise industrial to a suburban development node.

Operational Phase

3.8.2 Major visual resources in the vicinity include the Lantau North (Extension) Country Park and the Tai Ho Stream Site of Special Scientific Interest (SSSI). Potential impact upon visual sensitive receivers (VSRs) during operation phase may arise from the new SHO. The existing VSRs in the vicinity are primarily transient in nature, and the landscape, and visual impact to planned VSRs would be mitigated by proper architectural and landscape design.

3.9 Hazard to Life

3.9.1 Siu Ho Wan Water Treatment Works (SHWWTW) is a Potentially Hazardous Installation due to its storage of chlorine, with a consultation zone (CZ) of about 1km-radius (excluding areas 50m above it). Only a small portion of existing SHD is within the SHWWTW CZ. Due consideration, if necessary, will be given on the Project within the CZ to minimise potential exposure of occupants. Potential societal risk contribution from the Project is expected to be insignificant.

3.9.2 Potential hazard due to biogas generation and storage at the OWTF, situated at some 670m from SHD, is expected to be insignificant, as the maximum hazard distance is only some 116m according to the environmental permit information of the OWTF (Dec 2015).

4 MAJOR ELEMENTS OF THE SURROUNDING ENVIRONMENT

4.1 General

4.1.1 SHD is surrounded by a combination of transport infrastructure, Government facilities and natural landscape. Major land uses in the vicinity include the following:

- Siu Ho Wan Government Maintenance Depot, Discovery Bay Tunnel Administration Building and New Lantao Bus Company Siu Ho Wan Depot at about 70-90m to the east/southeast;
- Tai Ho Priority Site under New Nature Conservation Policy at about 100m to the south/southwest;
- Tai Ho Offtake and Pigging Station at about 210m to the south;
- Lantau North (Extension) Country Park at about 250m to the south, with the Lo Fu Tau Country Trail and the Hong Kong Olympic Trail at over 1.5km from SHD;
- Siu Ho Wan Sewage Treatment Works at about 420m to the east;
- Organic Waste Treatment Facilities under construction, at about 670m to the northeast;
- Siu Ho Wan Vehicle Pound Vehicle Examination Centre and Weigh Station at about 680m to the northeast;
- Siu Ho Wan Water Treatment Works at about 740m to the east;
- Luk Hop Yuen Kung, a Taoist temple, at about 780m to the south;
- Tai Ho Stream Site of Special Scientific Interest (SSSI) at about 820m to the southwest;
- North Lantau Refuse Transfer Station at about 1km to the northeast;
- Pak Mong Village at about 1.2km to the southwest;
- The Tung Chung East New Town Extension (under planning) at about 1.2km to the southwest;
- The Topside Development at the HKBCF Island (under planning) at about 2.1km to the northwest; and
- Proposed Comprehensive Residential and Commercial Development atop Siu Ho Wan Depot (under planning).

4.1.2 Further, two potential public columbarium sites are located at Sham Shui Kok Drive at about 1km to the northeast of SHD according to Planning Department.

4.1.3 Environmental sensitive receivers have been identified based on existing and committed developments in the vicinity, with details provided in the following sections.

4.2 Air Quality

4.2.1 Air Sensitive Receiver (ASR) is defined in Annex 12 of the TM-EIAO as “domestic premises, hotel, hostel, hospital, clinic, nursery, temporary housing accommodation, school, educational institution, office, factory, shop, shopping centre, place of public worship, library, court of law, sports stadium or performing arts centre”, as well as “any other premises or place with which, in terms of duration or number of people affected, has a similar sensitivity to the air pollutants as the aforelisted premises and places”.

4.2.2 ASRs that may be affected by construction of the Project, including initial phases of the SHD Topside Development, will be included in the air quality impact assessment. Potential existing ASRs include offices/factories of Siu Ho Wan Government Maintenance Depot, Discovery Bay Tunnel Administration Building and New Lantao Bus Company Siu Ho Wan Depot.

4.2.3 Cumulative air quality impact from vehicular emissions from the nearby road network on ASRs during construction phase will be included in the air quality impact assessment. As gaseous and particulate emissions generated from exhaust emissions of equipment used for maintenance operations are expected to be insignificant as the equipment is operated on a routine but infrequent basis, and thus no additional and insignificant air quality impact arising from the reprovisioned SHD is anticipated. In addition, air quality impact is not expected from the operation of SHO with emission free electric-powered rail system and thus the exhaust air from railway operations would be insignificant.

4.3 Noise

4.3.1 Noise Sensitive Receiver (NSR) is defined in Annex 13 of the TM-EIAO as “domestic premises, educational institution, hospital, medical clinic, homes for the aged, convalescent homes, place of public worship, library, court of law, performing arts centre, auditoria, amphitheatre, hostel and Country Park”.

4.3.2 Sources of noise impact would include the construction of the SHO and SHD replanning works during interim stages and railway noise and fixed plant noise induced from operation of SHD and SHO. Existing and planned NSRs including SHD Topside Development and the Lantau North (Extension) Country Park, will be included in the noise impact assessment.

4.4 Water Quality

4.4.1 Siu Ho Wan is located within the North Western Water Control Zone. Major Water Sensitive Receivers (WSRs) in the vicinity including Tai Ho Stream SSSI, marine park and coral communities in the Brothers Islands, Ma Wan fish culture zone, seawater intake point at Sunny Bay, as well as gazetted beaches at Tuen Mun. Potential water quality impact on these WSRs will be assessed.

4.5 Ecology

4.5.1 Ecological sensitive receivers located in the vicinity including Tai Ho Priority Site, Tai Ho Stream SSSI and Lantau North (Extension) Country Park will be included in the ecological impact assessment.

4.6 Landscape and Visual

4.6.1 Major landscape and visual resources in the vicinity include the Lantau North (Extension) Country Park, the Tai Ho Stream SSSI and the open sea to the north. Existing trees within SHD are common species (see Section 3). Landscaping features will be provided on the future podium deck of the SHD Topside Development to create a pleasant environment.

4.6.2 Representative visually sensitive receivers within the visual envelope including Pak Mong Village, hikers at the country trails, travellers at nearby road and railway network, ferry passengers in the open sea, residents in Tung Chung New Town and Tuen Mun, visitors and workers in HKBCF, and workers in existing facilities in Siu Ho Wan across NLH etc. will be included in the visual impact assessment.

4.7 Hazard-to-Life

4.7.1 Potential contribution to the societal risk due to construction and operation of the Project within the CZ of SHWWTW, where necessary, will be included in the risk assessment.

5 ENVIRONMENTAL PROTECTION MEASURES TO BE INCORPORATED IN THE DESIGN AND ANY FURTHER ENVIRONMENTAL IMPLICATIONS

5.1 Mitigation Measures For The Project

5.1.1 Practicable and effective mitigation measures will be adopted for construction and operation of the Project, as necessary, to ensure compliance of relevant environmental standards. Possible key measures to be adopted, subject to studies, are listed below.

5.2 Air Quality

Construction Phase

5.2.1 Dust mitigation measures as stipulated in the Air Pollution Control (Construction Dust) Regulation (Cap. 311R) will be implemented to control fugitive dust emission. Possible key measures include:

- Regular watering on all exposed and unpaved surface, particularly during dry weather;
- Frequent watering for particularly dusty construction areas and areas close to ASRs;
- Minimise temporary storage of stockpiles on site;
- Cover excavated or stockpile of dusty material by impervious sheeting or spraying with water to maintain the entire surface wet;
- Wheel washing facilities at the exit points of the site;
- Cover dusty materials on vehicles leaving the site; and
- Dust suppression measures.

5.2.2 Requirements stipulated in the Air Pollution Control (Non-road Mobile Machinery) (Emission) Regulation will also be followed to control potential emissions from non-road mobile machinery during construction phase where appropriate.

Operation Phase

5.2.3 Requirements stipulated in the Air Pollution Control (Non-road Mobile Machinery) (Emission) Regulation will also be followed to control potential emissions from non-road mobile machinery during operation phase where appropriate.

5.3 Noise

Construction Phase

5.3.1 Possible key measures to reduce construction noise impact include:

- Quiet plants, silencers or mufflers on construction equipment;
- Movable and temporary barriers to screen particular items of plant or noisy operations;
- Noise screening structures or purpose-built noise barriers along the site boundary;
- Good site practices such as locate noisy equipment and activities at farthest practicable distance, schedule noisy activities to minimise noise exposure, proper maintenance of construction plant, devise quiet methods of working, and regular noise monitoring; and

- Proper planning of construction vehicle travelling route.

Operational Phase

5.3.2 Possible key measures to reduce operational noise impact include:

- Prediction of maximum allowable sound power levels of the future fixed plant source for compliance of stipulated noise criteria;
- Provision of purpose-built noise barriers/canopies; and
- Careful siting of noisy machinery with enclosure and/or acoustic louver/silencer, acoustic door, absorptive wall lining etc.

5.4 Water Quality

Construction Phase

5.4.1 Possible key measures to control water quality impact include:

- Good site practice in accordance with the *ProPECC PN 1/94 Construction Site Drainage* and *Recommended Pollution Control Clauses for Construction Contracts, and Environment, Transport and Works Bureau Technical Circular (Works) (TCW) No. 5/2005 Protection of Natural Stream / Rivers from Adverse Impact arising from Construction Works*;
- Collection of construction runoffs for treatment by properly maintained silt trap and oil interceptor to remove oil, lubricants, grease, silt, grit and debris etc. to ensure compliance of *Water Pollution Control Ordinance (Cap. 358)*;
- Cover open stockpiles of materials with tarpaulin or similar fabric during rainstorms;
- Mobile toilets or other appropriate means to store sewage before disposal through licensed collection agent or discharging to communal sewerage system; and
- Employ a licensed chemical waste collector for the collection and disposal/treatment of the wastewater from decontamination in accordance with the Waste Disposal (Chemical Waste) (General) Regulation (Cap. 354C).

Operational Phase

5.4.2 Possible key measures to control water quality impact include:

- Proper maintenance of sand/silt and oil/grease traps to prevent ingress of pollutants to the stormwater drainage system; and
- Preventive measures including standby/spare pumps and backup power supply to avoid any emergency discharge of raw sewage from the reprovisioned Sewage Pumping Station.

5.5 Waste Management

5.5.1 Possible key measures to reduce the quantities of C&D materials, chemical waste, general refuse etc. for offsite disposal and to handle the sediment include:

C&D Materials, Chemical Waste and General Refuse

- Sorting and reuse on site as far as practicable;
- Handle by registered and licensed waste hauliers under *Waste Disposal Ordinance (Cap. 354)* and *Waste Disposal (Chemical Waste) (General) Regulation (Cap. 354C)*;
- Nomination of an approved person for waste management;
- Separate chemical wastes for handling and treatment at licensed facilities;
- Proper record system for wastes generated, recycled and disposed of;
- Ticket-trip system in accordance with *Development Bureau Technical Circular No. 6/2010 Trip Ticket System for Disposal of Construction & Demolition Materials*;
- Waste Management Plan in accordance with *ETWB TCW No. 19/2005 Environmental Management on Construction Sites*;
- Segregate different types of waste for storage;
- Recycle unused chemicals with remaining functional capacity;
- Use of non-timber form work; and
- Proper storage and site practices.

Sediment

- Handle in accordance with *ETWB TCW No. 34/2002 Management of Dredged/Excavated Sediment*;
- Cover contaminated sediments with tarpaulin for stockpiling and transportation; and
- Properly designed and maintained construction plant and equipment to minimise release of silt, sediments, contaminants or other pollutants.

5.6 Land Contamination

5.6.1 Site appraisal will be carried out during the EIA stage to identify any areas of potential soil or groundwater contamination within the Project site. Site investigation and land contamination assessment will be conducted prior to the construction works at the concerned area. Based on the findings of site investigation, remediation strategy and appropriate remediation options will be detailed in a Remediation Action Plan (RAP).

5.7 Ecology

5.7.1 Due consideration will be given to avoid potential indirect impact on ecological resources as far as practicable. Good site practices and mitigation measures proposed will help to minimise indirect potential impacts on the general environment.

5.7.2 In the event that important ecological resource is identified during the baseline survey, mitigation measures will be formulated such as translocation of important species, confining works in specific area/season, alternative design/construction methods etc.

5.8 Landscape and Visual

5.8.1 Possible key measures to reduce potential landscape and visual impacts include:

Construction Phase

- Minimise construction phase impact by optimising construction activities and extent of temporary works area and installation of site hoardings.

Operational Phase

- Provision of greening, aesthetic architectural design of aboveground structures and control of night-time glare; and
- Tree preservation in accordance with *Lands Administration Office Practice Note No. 7/2007 – Tree Preservation and Tree Removal Application for Building Development in Private Projects and Development Bureau Technical Circular (Works) No. 7/2015 – Tree Preservation*.

5.9 Hazard to Life

5.9.1 Possible key measure, if required, to minimise potential risk to construction workers include the limitation of working hours and number of workers within the SHWWTW CZ; and minimization of population within the SHWWTW CZ.

5.10 Severity, Distribution and Duration of Environmental Effects and Further Implications

5.10.1 Subject to the findings of assessments, effective control and mitigation measures will be identified to ensure the impacts to acceptable level. The possible severity, distribution and duration of environmental effects such as beneficial and adverse effects; short and long term effects; secondary and induced effects; cumulative effects and trans-boundary effects from committed projects, and further implications will be considered and addressed in the EIA, where applicable.

6 USE OF PREVIOUSLY APPROVED EIA REPORTS

6.1.1 Construction and operation of existing Siu Ho Wan Depot was assessed in Lantau and Airport Railway (LAR) Environmental Impact Study (EIA-029/BC), which was approved in 1994 before enactment of EIAO.

6.1.2 The following EIA reports are also relevant and will be made reference to in the course of the EIA study for the Project:

- Tung Chung New Town Extension (Register No.: AEIAR-196/2016);
- Expansion of Hong Kong International Airport into a Three-Runway System (Register No.: AEIAR-185/2014);
- Integration of Siu Ho Wan and Silver Mine Bay Water Treatment Works (Register No.: AEIAR-158/2011);
- Organic Waste Treatment Facilities, Phase I (Register No.: AEIAR-149/2010);
- Tuen Mun – Chek Lap Kok Link (Register No.: AEIAR-146/2009); and
- Siu Ho Wan Water Treatment Works Extension (Register No.: AEIAR-082/2004).

Figures

814400 E
816000 E
817600 E
819200 N
817600 N

NORTH LANTAU REFUSE TRANSFER STATION

POTENTIAL COLUMBARIUM SITES (UNDER STUDY)

SIU HO WAN VEHICLE POUND VEHICLE EXAMINATION CENTRE AND WEIGH STATION

ORGANIC WASTE TREATMENT FACILITIES (UNDER CONSTRUCTION)

SIU HO WAN WATER TREATMENT WORKS

BOUNDARY OF EXISTING SHD AND SHD REPLANNING WORKS (PLANNED)

MARINE PARK IN THE BROTHERS ISLANDS

SIU HO WAN SEWAGE TREATMENT WORKS

NEW LANTAO BUS COMPANY SIU HO WAN DEPOT

TM-CLK LINK (UNDER CONSTRUCTION)

COMPREHENSIVE RESIDENTIAL AND COMMERCIAL DEVELOPMENT ATOP SHD (PLANNED)

SIU HO WAN GOVERNMENT MAINTENANCE DEPOT

DISCOVERY BAY TUNNEL ADMINISTRATION BUILDING

ROAD P1 (TUNG CHUNG - TAI HO SECTION) (UNDER PLANNING)

LANTAU AIRPORT RAILWAY

TUNG CHUNG NEW TOWN EXTENSION (UNDER PLANNING)

TAI HO INTERCHANGE (UNDER PLANNING)

TAI HO OFFTAKE AND PIGGING STATION

NORTH LANTAU EXPRESSWAY

NORTH LANTAU HIGHWAY

CHEUNG TUNG ROAD

TUNG CHUNG LINE

AIRPORT EXPRESS

TUNG CHUNG ROAD

HONG KONG DOLYMPIC TRAIL

小蠔灣 SIU HO WAN

大蠔灣 TAI HO WAN

PAK MONG

LAU FA TUNG

LO FU TAU

NOTE:

1. THERE ARE OFF-SITE UTILITIES OUTSIDE THE PROJECT BOUNDARY.

LEGEND:

- BOUNDARY OF EXISTING SHD AND SHD REPLANNING WORKS (PLANNED)
- LANTAU NORTH (EXTENSION) COUNTRY PARK
- CONSULTATION ZONE OF SIU HO WAN WATER TREATMENT WORKS
- PROPOSED MTR SIU HO WAN STATION (INDICATIVE FOR ILLUSTRATION PURPOSE)
- COMPREHENSIVE RESIDENTIAL AND COMMERCIAL DEVELOPMENT ATOP SHD (PLANNED)
- SHD AND ASSOCIATED TRACK WORKS BOUNDARY

0 60 120 180 240 300
METRES
1 : 6000

PLOT DRV: P:\PROJECTS\60493790\09_CAD_ADMIN\02_USTATION_PLOT_DRIVER\A3_BW_COL_SYSTEM_STG.PLT
MODEL NAME: Default PRINTED BY: ZENGFX 2016/10/19 16:40:32
FILENAME: P:\Projects\60493790\06_REPORT\ENV_EIA_STUDY\NEX1062_S_SHD_ACM_Z10_001A.dgn

REV	DESCRIPTION	BY	DATE	APPROVED
A	FIRST ISSUE	SN	19SEP16	HL

DRAWN	ZENG FU XIU
DESIGNED	ANTHEA FUNG
CHECKED	SAM NG
APPROVED	HL
DATE	19/SEP/2016

MTR

SIU HO WAN DEPOT

ORIGINATOR

AECOM in association with Aedas

CADD REF. NEX1062_S_SHD_ACM_Z10_001A.dgn

TITLE

SIU HO WAN STATION AND SIU HO WAN DEPOT REPLANNING WORKS

LOCATION OF THE PROJECT

SCALE 1 : 6000 @ A1

DRAWING NO. NEX1062/S/SHD/ACM/Z10/001

REV. A