Tuen Mun South Extension

Waste Management Plan

September 2024

TABLE OF CONTENTS

Section

List of Tables

List of Figures

List of Appendices

1. Introduction

1.1 Project Background

The Tuen Mun South Extension (TME) project (hereafter referred as "the Project") is a railway extension of the Tuen Ma Line extending from Tuen Mun (TUM) Station southwards by about 2.4 km, terminating at a new station near Tuen Mun Ferry Pier (i.e. Tuen Mun South (TMS) Station) with an intermediate station at Tuen Mun Area 16 (i.e. A16 Station).

An Environmental Impact Assessment (EIA) study for the Project was conducted in accordance with EIA Study Brief No. ESB-332/2020. The EIA Report (Register No.: AEIAR-236/2022) were approved under the Environmental Impact Assessment Ordinance (EIAO), with an Environmental Permit (EP) granted on 18 August 2022 (EP No: EP-615/2022).

Pursuant to Condition 2.21 of EP-615/2022, a Waste Management Plan (WMP) shall be deposited no later than 1 month before commencement of construction of the Project.

The works contract (Contract 1500) of the Project was awarded in December 2023. The construction of the Project commenced in December 2023 and expected to complete in 2030. The information of the awarded Works Contract is shown below:

Contract Name: TME Stations, Viaducts and River Crossing
Contract Number: 1500
Contractor Name: CRBC – Build King Joint Venture

1.2 Scope of Works

The major works under this contract comprises the design and construction of:

1. New stations at Tuen Mun Area 16 (A16 Station) and Tuen Mun South (TMS) extending from Tuen Mun Station (TUM)
2. Tuen Mun River Bridge (TRB) over Tuen Mun River
3. Viaducts and connections from existing overrun viaduct at TUM to A16 Station and from A16 Station to Tuen Mun South Station (TMS) via TRB
4. Intermediate emergency access point (EAP) to viaduct
5. Noise barriers (semi and full enclosure) on viaducts
6. Modifications works to TUM
7. Demolition of existing Tuen Mun Swimming Pool (TMSP)
8. Temporary platforms, flood wall and construction access along and on Tuen Mun River to facilitate construction works
9. Building Services works
10. Architectural Builders Works and Finishes (ABWF) works

1.3 Purpose of the Plan

The Waste Management Plan (WMP) details the comprehensive separation of construction and demolition (C&D) materials, and the arrangements for different categories of waste to be generated from the construction activities from the Project.

The WMP provides necessary technical information guidance and instructions to designated personnel who are responsible for the management of all waste types generated from the construction. The WMP also describes the tracking system to avoid illegal dumping or landfilling of C&D materials to satisfy the requirement in EP-615/2022 Condition 2.23 (Section 5 of this WMP).

The WMP lists out the implementation party, location, timing, and environmental performance required for implementation of the mitigation measures (**Appendix B**), and the amount and disposal outlet for the different types of waste arising from the construction activities (**Table 1**). All mitigation measures recommended and requirements specified in the WMP and the implementation schedule will be fully implemented. The objectives of the WMP are:

1. To ensure that all construction site personnel will avoid and / or minimize the on-site generation of C&D materials;
2. To identify the types of wastes and their quantities and the corresponding outlets;
3. To identify opportunities to reuse and recycle the C&D and excavated materials; and
4. To propose proper methods of collection, transportation and disposal of C&D materials and different categories of waste arisen from construction of the Project.

1.4 Waste Management Requirements and Guidelines

1. The Contractor will comply with the following legislation, code of practices, guidelines, practical notes and technical circulars during the construction period.
2. Statutory Requirements:
    a. Waste Disposal Ordinance (Cap. 354) and its subsidiary regulations;
    b. Waste Disposal (Chemical Waste) (General) Regulation (Cap. 354C);
    c. Waste Disposal (Charges for Disposal of Construction Waste) Regulation (Cap. 354N)
    d. Public Health and Municipal Services Ordinance – Public Cleansing and Prevention of Nuisances Regulation (Cap. 132BK);
    e. Land (Miscellaneous Provisions) Ordinance (Cap. 28);
    f. Dumping at Sea Ordinance (Cap. 466); and
    g. Dangerous Goods Ordinance (Cap. 295).
3. Codes of Practice, Circulars and Guidelines:
    a. Development Bureau Technical Circular (Works) No. 8/2010 – Enhanced Specification for Site Cleanliness and Tidiness;
    b. Development Bureau Technical Circular (Works) No. 6/2010 – Trip Ticket System for Disposal of Construction and Demolition Material;
    c. Environment, Transport and Works Bureau Technical Circular (Works) No. 19/2005 – Environmental Management on Construction Sites;
    d. Environment, Transport and Works Bureau Technical Circular (Works) No. 24/2004 – Specifications Facilitating the Use of Concrete Paving Units Made of Recycled Aggregates;
    e. Works Bureau Technical Circular No. 12/2002 – Specifications Facilitating the Use of Recycled Aggregates;
    f. Works Bureau Technical Circular No. 19/2001 – Metallic Site Hoardings and Signboards;
    g. Works Bureau Technical Circular No. 12/2000 – Fill Management;
    h. Works Bureau Technical Circular No. 04/1998A – Use of Public Fill in Reclamation and Earth Filling Projects;
    i. Works Bureau Technical Circular No. 04/1998 – Use of Public Fill in Reclamation and Earth Filling Projects;
    j. Works Bureau Technical Circular No. 16/1996 – Wet Soil in Public Dumps;
    k. Works Bureau Technical Circular No. 02/1993B – Public Filling Facilities;
    l. Works Bureau Technical Circular No. 02/1993 – Public Dumps;
    m. Project Administration Handbook for Civil Engineering Works, 2022 Edition, CEDD, Chapter 4 Section 4.1.3 – Construction and Demolition Materials;
    n. Project Administration Handbook for Civil Engineering Works, 2022 Edition, CEDD, Chapter 4 Section 4.13 & Appendix 4.14 – The Use of Tropical Hardwood on Construction Sites;
    o. Practice Note for Authorized Persons and Registered Structural Engineers (PNAP No. 252) ADV-21 – Management Framework for Disposal of Dredge / Excavated Sediment;
    p. Practice Note for Authorized Persons and Registered Structural Engineers (PNAP No. 243) ADV-19 – Construction and Demolition Waste;
    q. A Guide to the Registration of Chemical Waste Producers;
    r. A Guide to the Chemical Waste Control Scheme;
    s. Code of Practice on the Packaging, Labelling and Storage of Chemical Wastes;
    t. Code of Practice on the Handling, Transportation and Disposal of Asbestos Waste – (Cap 354, Section 35);
    u. Chapter 9 of Hong Kong Planning and Standards Guidelines; and
    v. Guidelines on Yard Waste Reduction and Treatment.

4. The Contractor will observe all applicable statutory requirements, legislation and associated regulations, and code of practices with regard to the waste generated from the construction activities.

1.5 License Requirements

1. Where appropriate, the Contractor will apply for all permits and licenses required under the following legislation for the handling and disposal of waste arising from this Project:
   a. Billing Account under the Waste Disposal (Charges for Disposal of Construction Waste) Regulation (Cap. 354N);
   b. Chemical Waste Producer Registration under the Waste Disposal (Chemical Waste) (General) Regulation (Cap. 354C); and
   c. Permit to Dump Material at Sea under the Dumping at Sea Ordinance (Cap. 466).
2. A licensed chemical waste collector will be appointed for the disposal of chemical waste. Upon classification of any types of chemical waste as dangerous goods under the Dangerous Goods Ordinance, the handling of these wastes will comply with all the requirements of the ordinance and its regulations.

2. Organization for Site Management

This section provides an outline of the roles and responsibilities of the major Contractor's staff involved with the management of various waste types arising from the Project, and other independent parties involved in the implementation of EM&A programme and lines of communications with respect to environmental protection works. The Environmental Organization Chart is provided in **Appendix A**.

2.1 The Contractor's Organization and Responsibility

1. The Project Manager will have the overall responsibility to ensure that the requirements of the WMP are properly implemented. The Site Agent will be delegated by the Deputy Project Manager for overall control of waste management practices to ensure compliance with the contract requirements. The Environmental Officer (EO) and Environmental Supervisor (ES) will communicate and coordinate with the Environmental Manager (EM) and team members on waste management for environmental monitoring and audit, in addition to the following:
    - Provide assistance to the Environmental Team (ET) in carrying out relevant environmental monitoring and auditing, and investigation related to complaints and non-compliance;
    - Provide suitable response and action to environmental advices given by ET, IEC, ETC, MTRC & EPD.
    - Participate in the site inspections undertaken by the ET, and undertake correction action(s);
    - Provide information / advice to ET regarding works activities which may contribute, or be continuing to the generation of adverse environmental condition(s);
    - Submit proposals on mitigation measures in case of exceedances of Action and Limit levels, in accordance with the Event and Action Plans as detailed in this EM&A Manual;
    - Implement measures to reduce environmental impacts where Action and Limit levels are exceeded until the events are resolved; and
    - Adhere to the procedures for carrying out environmental complaint investigation in accordance to the EM&A Manual.

2. The responsibilities of key contractor 's site staff for the WMP are listed as follows:

Project Manager, PM

3. The PM will maintain the overall control of all aspects of the construction activities and will oversee the implementation of the WMP. He will also be responsible for ensuring that there are adequate resources available for the implementation of the WMP. He will also chair the ad hoc meeting(s) with the MTRC's Representatives to discuss the WMP.

Site Agent, SA

4. The Site Agent will be responsible for the management and control of the construction activities in relation to waste management and mitigation measures. He will be responsible for assigning other team members to assist him for supervision and enforcement of the on-site waste management practices. The Site Agent will be responsible for:
    a. Identification and classification of all possible wastes arising from the construction activities;
    b. Analysis of effectiveness, efficiency and reliability of the waste reduction programme;
    c. Obtaining all necessary licenses and permits for the handling and disposal of wastes;
    d. Planning for on-site segregation, sorting and storage of wastes;
    e. Ensuring on-site waste management practices are in compliance with all legislations and requirements of the Contract;
    f. Carrying out quarterly internal auditing for the implementation of WMP; and
    g. Providing resources to the implementation and control of the WMP.

Environmental Manager, EM

5. The responsibilities of the Environmental Manager (EM) are as follow:
    a. To establish and maintain an effective WMP.
    b. Implementation of this WMP.
    c. Provide expertise and support to the PM on all environmental issues.
    d. Advise management on measures for improving environmental performance.

e. Keep up with new environmental legislation, codes of practices and relevant requirement.
f. Circulate information applicable to relevant parties.
g. Promote environmental publicity and training.
h. Maintain communication with the relevant Government Departments and other organizations.

Environmental Officer, EO

6. The Environmental Officer will be responsible for:
a. Overviewing in relation to the waste management and report to SA;
b. Directing ES and GF as appropriate in supervising and enforcing the on-site mitigation measures;
c. Ensuring all disposal records be promptly available for record and/or action as necessary;
d. Preparation, implementation and update the WMP;
e. Update the Waste Flow Table (WTF) and Use of Timber Record;
f. Verification of waste management activities and related results to comply with planned arrangements;
g. Arranging and providing environmental trainings including site specific induction training and toolbox talks;
h. Organizing environmental promotional activities;
i. Liaising on all matters relating to complaint, enquiry and non-compliance; and
j. Carrying out environmental system audits.

Environmental Supervisor, ES / Safety Officer, SO, and Safety Supervisor, SS (Team Member)

7. The Environmental Supervisor, Safety Officer, and Safety Supervisor, will be responsible for:
a. Identification of statutory requirements, contract requirements and corporation requirements;
b. Identification of material that can be reused, recycled and returned;
c. Arranging reuse, recycle and return of materials;
d. Monitoring sub-contractors and workers to implement according to WMP;
e. Conducting waste management briefing to all site staff and workers; and
f. Carrying out quarterly internal auditing for the implementation of WMP.

General Foreman, GF (Team Member)

8. The General Foreman will be responsible for:
a. Preparation of location plans for storage of building materials to avoid or minimize construction materials damage onsite;
b. Ensuring WMP is implemented and maintained;
c. Instructing relevant parties to solve management problems;
d. Instructing and monitoring sub-contractors and workers to implement according to WMP; and
e. Carrying out monthly review for the implementation of WMP.

Foreman, FN (Team Member)

9. The Foreman will be responsible for:
a. Assisting GF to prepare location plans for storage of building materials to avoid or minimize relevant materials damage onsite;
b. Arranging sorting facilities for waste materials reusing and recycling;
c. Arranging waste materials storage areas and disposal of waste materials according to the trip ticket system;
d. Ensuring that daily site cleanliness and tidiness are implemented;
e. Instructing and monitoring sub-contractors and workers to implement according to WMP; and
f. Carrying out weekly review for site cleanliness and tidiness.

Subcontractor Representatives, SR (Team Member)

10. The Subcontractor Representatives will be responsible for:
a. Ensuring that construction wastes are properly sorted out and disposed;
b. Ensuring that construction wastes are properly reused and recycled;
c. Coordinating with FN to rectify and take follow-up actions for identified waste management issues;
d. Providing adequate resources for the implementation of WMP; and
e. Directing and supervising workers to implement according to WMP.

Workers, WR

11. The Workers will be responsible for:
    a. Following the instructions given by GF, FN or SR to carry out waste management issue onsite;
    b. Reducing construction waste generation onsite if possible;
    c. Ensuring that construction wastes are properly sorted, reused, recycled or returned onsite; and
    d. Maintaining good housekeeping of the workplaces after daily work activities.

2.2 Other Independent Parties Organization and Responsibility

Engineer or Engineer's Representative (ER)

1. The Engineer is responsible for overseeing the construction works and for ensuring that the works are undertaken by the Contractor in accordance with the specification and contractual requirements. The duties and responsibilities of the Engineer with respect to EM&A may include:
    a. Supervise the Contractor's activities and ensure that the requirements in the EM&A Manual are fully complied with;
    b. Inform the Contractor when action is required to reduce environmental impacts in accordance with the Event and Action Plans;
    c. Participate in joint site inspections and audits undertaken by the Environmental Team (ET); and
    d. Adhere to the procedures for carrying out exceedance and complaint investigations.

Environmental Team (ET)

2. The ET should conduct the EM&A programme and ensure the contractor's compliance with the Project's environmental performance requirements during construction. The ET should be an independent party from the Contractor and Independent Environmental Checker (IEC). An ET should be established before the commencement of construction of the Project. The ET should be led and managed by the ET leader. The ET leader should possess at least 7 years of experience in EM&A and/or environmental management. The ET should monitor the mitigation measures implemented by the Contractor on a regular basis to ensure the compliance with the intended aims of the measures. The duties and responsibilities of the ET related to waste management are:
    a. Monitor the various environmental parameters as required in the EM&A Manual;
    b. Carry out regular and ad hoc site inspections to investigate and audit the Contractor's site practice, equipment and work methodologies with respect to pollution control and environmental mitigation measures, and anticipate environmental issues for proactive and practicable action before problems arise;
    c. Analyze the EM&A data, review the success of EM&A programme to confirm the adequacy of mitigation measures implemented and the validity of the EIA predictions, and to identify any adverse environmental impacts arising and report EM&A results to the Contractor, IEC, and the ER;
    d. Liaise with IEC on all environmental performance matters, and timely submission of all relevant EM&A proforma for IEC's approval;
    e. Audit the relevant document(s)/record(s) and prepare reports on the environmental monitoring data and the site environmental conditions;
    f. Review the proposals of remedial measure from The Contractor in the case of exceedances of Action and Limit levels, in accordance with the Event and Action Plans;
    g. Advise the Contractor on environmental improvement, awareness, enhancement matters, etc., onsite;
    h. Submit the EM&A report(s) to the Project Proponent and the EPD timely; and
    i. Adhere to the procedures for carrying out environmental complaint investigation in accordance with the EM&A Manual.

Independent Environmental Checker (IEC)

3. An IEC should be employed by the ER / Project Proponent before commencement of construction of the Project. The IEC should advise the ER on environmental issues related to the Project. The IEC should possess at least 7 years of experience in EM&A and/or environmental management. The IEC should be an independent party from the ET and the Contractor. The duties and responsibilities of the IEC related to waste management are:
    a. Review and audit at not less than monthly intervals in an independent, objective and professional manner in all aspects of the EM&A programme;
    b. Audit the EIA recommendations and requirements against the status of implementation of environmental protection measures onsite;
    c. Review the effectiveness of environmental mitigation measures and project environmental performance;

d. On as-needed basis, verify and certify the environmental acceptability of the Environmental Permit (EP) holder's construction methodology (both temporary and permanent works), relevant design plans and submissions under the EP;
e. Conduct random site inspection;
f. Verify the investigation results of environmental complaint cases and the effectiveness of corrective measures;
g. Verify EM&A report that has been certified by the ET leader; and
h. Provide feedback on the audit results to the ET, the ER or the Project Proponent according to Event and Action Plans in the EM&A Manual.

3. Identification and Classification of Waste Generated from the Construction Activities

3.1 Waste Arising from the Construction Activities

1. Major activities that will generate waste from this Project include site clearance, excavation, formwork construction for concreting, etc. which can be divided into distinct categories based on their composition as follows:
    a. Land-based and river-based sediments from excavation works;
    b. Excavated materials from foundation work;
    c. C&D materials from demolition, structural, architectural and external works;
    d. General refuse from construction works;
    e. Chemical waste from maintenance of plant and equipment, and site operation during construction; and
    f. Yard waste from site clearance.

2. A summary of the estimated quantities of various waste types generated from construction activities and their handling methods with proposed disposal outlet are shown in **Table 1** below:

Table 1: Summary of Estimated Quantities of Various Waste Type, Disposal Outlet and Handling Methods

Waste Material Type	Generated From	Materials Generated	Total Quantity Generated (m^3 unless otherwise stated)	Disposal Outlet	Handling Method / Reuse Option
Excavated Materials	Pile excavation on reclaimed land	Sediment	2,840	Reuse onsite, surplus will be reused in other project locations to be proposed by the Contractor or instruction by the Project Manager, Dumping at sea as the last resort	- beneficial onsite reuse after applying proper treatment, or apply for a dumping permit under DASO as the last resort - temporary stockpile area shall be placed on surface completely paved or underlying linings, with earth bunds or sandbags to prevent leachate from entering the ground, drains or water bodies - temporary stockpile areas shall be covered by tarpaulin and be weather resistant
C&D Materials	Pile excavation and pile cap excavation	Inert C&D materials(1) (soft), Grade III Rock(2), Artificial Hard Materials(3) (AHM), Broken Concrete, Rebar and Structural Steel	97,202	Reuse onsite, surplus will be reused in other project locations to be proposed by the Contractor or instruction by the Project Manager, and/or disposed to Tuen Mun Area 38 Fill Bank	- segregate from non-inert C&D materials during stockpiling and transportation - stockpile area (if required) shall be well managed with covers and water spraying system
		Non-inert C&D materials(4): Yard waste, bamboo, timber, papers, plastics	27,930	WENT Landfill, Y·PARK and recycling facilities	- segregate from inert C&D materials during stockpiling and transportation - reusable materials shall be separated and recycled as far as practicable
General Refuse	Workforce of approximate 400 onsite staff	Food waste, plastic, aluminum cans, waste papers, etc.	260 kg/day(5)	Refuse station for compaction then to WENT Landfill	- provide onsite collection points and separate with recycling bins - recycled materials to be collected by licensed collectors

Chemical Waste	Maintenance and servicing of construction plant, equipment and vehicle	Oils and grease, hydraulic fluids, paints, solvents, cleaners, etc.	Small to a few hundred litres per month	Offsite disposal at Chemical Waste Treatment Centre (CWTC)	- clearly label and store in compatible containers in designated onsite storage area - to be collected by licensed collectors for disposing at CWTC

Notes:
C&D materials generated from decontamination works is not included.
(1) "Soft Inert Materials" include fill, alluvium, colluvium, Grade IV to Grade VI (Granite) and Grade IV to Grade VI (Volcanic).
(2) "Grade III Rock" includes Grade III granite rock and Grade III volcanic rock.
(3) "Artificial hard material" includes, but not limited to, asphalt, broken concrete, bitumen and granular materials, etc.
(4) "Non-inert C&D material" includes, but not limited to, yard waste, bamboo, timber, paper and plastic, etc.
(5) Based on a waste generation of 0.65 kg/day.

Land-Based / River-Based Sediments (Sediment)

3. Sediment generated from the piling and excavation activities on reclaimed land.
4. According to the EIA report, the total volume of land-based and river-based sediment to be excavated from the Project is estimated to be approximately 2,840 m^3, including approximately 2,088 m^3 for Type 1 – Open Sea Disposal, 433 m^3 for Type 1 – Open Sea (Dedicated Sites) Disposal and 319 m^3 for Type 2 – Confined Marine Disposal in accordance with PNAP No. 252 (ADV-21). Quantity of generated sediment should be reported in the monthly EM&A report.

Excavated Materials

5. The excavated materials generated from excavation will consist of soil and rock materials. Excavated materials will also be generated from foundation works, underground services works and temporary works of excavation.

Construction and Demolition (C&D) Materials

6. C&D materials will include (but not limited to) soil, concrete, asphalt, bitumen and granular materials etc. that are suitable for beneficial reuse onsite or offsite at the Contractor proposed project areas or locations as per instruction by the Project Manager prior to transport to the Government's public fill reception facilities (PFRFs); while non-inert C&D materials generated will include (but not limited to) vegetation, bamboo, timber, paper, plastic, steel, vegetation, office and work force waste etc. which will be transported to recycling company for recycling and landfill sites for final disposal as last resort.

7. Majority of C&D materials will arise during site clearance, demolition and excavation works.

General Refuse

8. The workforce will generate general refuse comprising food scraps, wastepaper, empty containers, etc. during construction. Recycle bins shall be setup on-site to segregate recyclables and non-recyclables for proper disposal. Waste collector will be employed to remove the refuse from the site.
9. Paper Waste – office paper will be the major waste generated from the site office. Wastepaper reduction program will be implemented, and utilizing both sides of office paper will be encouraged and wastepaper will be collected for paper recycling.
10. Plastic Waste – plastic wastes identified from the construction site include plastic bottles and containers, plastic sheets and foam from equipment or material packaging, and will be collected by the licensed local plastic waste collector for proper treatment and recycling if possible.
11. Metal Waste – any metal waste (i.e., aluminum cans) generated from the construction site will be recycled as much as possible and collected by licensed collectors.

Chemical Waste

12. The maintenance and servicing of construction plants and equipment generates chemical waste, for instance, cleaning fluids, solvents, and lubrication oil and used batteries. The maintenance of vehicles also uses common chemicals, such as oil, lubricants, and paints for this purpose. A licensed chemical waste collector would be employed for the collection of chemical waste.

Asbestos Waste

13. Asbestos fibres from removal of Asbestos-Containing-Materials (ACMs) may be encountered during the demolition of Tuen Mun Swimming Pool. The proposed asbestos abatement work (if confirmed) shall be conducted in compliance with respective requirements under the Air Pollution Control Ordinance (APCO) and Waste Disposal (Chemical Waste) (General) Regulation and other prevailing code of practices.

Yard Waste

14. Yard waste will arise during site clearance and is considered as non-inert C&D materials. Yard waste will include (a) grass clippings, leaves, bushes, shrubs and twigs; (b) tree trunks and branches; and (c) tree stumps. Yard waste shall be sorted onsite and shall be recycled as far as practice. Yard waste without contaminants, chemical residues, diseases or pests shall be disposed offsite for reuse or recycling at EPD's Yard Waste Recycling Centre (Y·PARK), and WENT Landfill as last resort.

15. The handling and management of each waste type identified are detailed in **Section 4.**

3.2 Waste Disposal Facilities and Disposal Criteria

1. The designation of disposal facilities for various waste types generated is listed in **Table 2** below.

Table 2: Designated Waste Disposal Facility for Various Waste Types Generated from the Project

Waste Type	Disposal Facility
Land-Based / River-Based Sediment	Beneficial onsite reuse beneficial offsite reuse as last resort; Dumping at sea as the last resort
Inert C&D Materials	Beneficial onsite reuse and offsite reuse at other projects of the Contractor (e.g. Kwu Tung North or Yuen Long), and Tuen Mun Area 38 Fill Bank as last resort
Non-Inert C&D Materials	Recycling facilities and WENT Landfill as last resort
General Refuse	Recycling facilities and WENT Landfill as last resort
Chemical Waste	Chemical Waste Treatment Centre (CWTC)
Yard Waste	Recycling at Yard Waste Recycling Centre (Y·PARK) and WENT Landfill as last resort

2. The Contractor will also comply with the following requirements when delivering construction waste to the Public Fill Reception Facilities (PFRFs) or landfills:
    a. Any over-sized inert C&D materials will be broken down to less than 250 mm in size so as to facilitate its reuse by reclamation or earth-filling;
    b. The Contractor will implement proper measures to ensure that dump trucks delivering C&D materials are not overloaded. The measures include checking of load cell before leaving construction sites;
    c. Mixed C&D materials should be sorted at source to reduce the inert content to less than 30% by weight as far as practicable before they are delivered to landfills; and
    d. The C&D materials delivered for landfill disposal shall contain no free water and the liquid content shall not exceed 70% by weight.

4. Proposal for Waste Management

4.1 Waste Management Hierarchy

1. The Contractor will implement appropriate waste management practices according to the nature and category of wastes arising. Waste management options will be selected according to the widely accepted hierarchy shown in **Table 3** and **Figure 1** below.

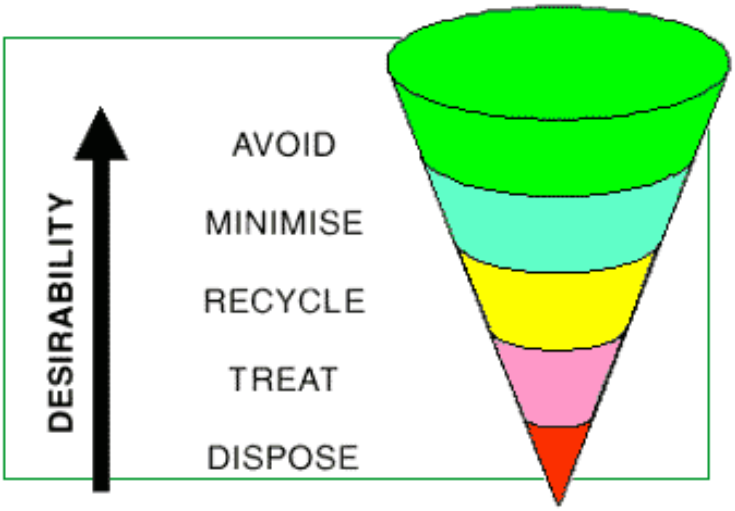


Figure 1: Waste Management Hierarchy

Table 3: Waste Management Hierarchy

Avoidance and Minimization	Avoid and minimize waste through careful planning and design works
Reuse	Reuse construction waste such as excavated materials, used wooden pallets and ferric materials
Recovery and Recycle	Segregate recyclables and undertaken onstie and offsite waste recycling
Treatment and Disposal	Properly treat and dispose unavoidable waste residual in accordance with legislative requirements and guidelines, and implement good site practices

2. The hierarchy will be used to evaluate waste management options for the minimization of waste generation. By the implementation of this hierarchy, the overall construction cost will be reduced by avoiding the over-ordering of construction materials and the handling and disposing of unnecessary waste.

4.2 Design and Planning of Construction Works

1. Prior to commencement of works, the Contractor will carefully consider the construction methodology, demolition procedures and programme to assess waste generation during works and study the available opportunity to reduce waste arising. Good work planning will, not only result in a better estimation of materials required for the works, but also contribute to the performance of the works in the first instance so as to avoid abortive activity.
2. Prior to the commencement of works, locations and necessary facilities for construction materials storage, sorting and temporary waste collection will be planned and implemented. The opportunity for reusing and recycling of waste materials onsite and offsite will be carefully studied.

4.3 Waste Minimization Measures and Good Site Practice

1. Good management and site practices can prevent over generation of waste. Waste reduction is best achieved at the planning and design stage as well as by ensuring the implementation of good site practices. Good site management to be adopted will include:
    a. Nomination of an approved personnel, such as a site agent, to be responsible for the implementation of good site practices, arrangements for collection and effective disposal to an appropriate facility, of all wastes generated at the site;
    b. Training of site personnel in site cleanliness, appropriate waste management procedures and concepts of waste reduction, reuse and recycling;
    c. Using the right quantity of raw materials at the right time and recording materials flow to minimize over ordering. The construction materials will be stocked carefully to prevent damage or contamination. During works, only exact quantity of materials will be collected and if necessary, any surplus will be returned to stock after consideration of its use;

d. Utilization of material usage and avoiding unnecessary cutting such that offcuts will be used when short lengths or a small quantity of materials are required;
e. Prioritization of the use of non-timber formwork such as steel formwork or plastic facing;
f. Sorting all excavated or demolition materials to recover the inert portion (i.e., soil and broken rock) for reuse onsite whenever possible or disposal to designated outlets (i.e., PFRFs). Recover all metals, cardboards and papers onsite and store properly in dry and clean conditions for later collection by recycling contractors;
g. Segregate and store constituents of C&D materials in appropriate containers, skips or stockpiles to enhance the opportunity for reusing and recycling of materials or their proper disposal. Sufficient protective measures will be provided in the storage area for sorting to avoid damage or contamination;
h. Collection of aluminum cans, wastepaper and plastics by site staff, and provision of separately labelled bins to segregate these wastes from other general refuse arising from the work force;
i. Provision of a designated waste working team to collect refuse onsite regularly;
j. Removal of all other non-reusable C&D materials off site as soon as practicable in order to optimize the use of on-site storage area;
k. Implementation of the trip ticket system to ensure that the dumping or filling location is used to prevent fly tipping. The security guard will ensure only dump trucks with properly completed trip tickets can leave the site. Wherever practicable, weighing equipment will be provided at the site entrance to accurately record the quantity of C&D materials transported off site. The trip tickets, with valid stamp from an agreed dumping or filling location, will be collected upon return and appropriately filed in site records;
l. Tarpaulin covering or enclosed containers will be used to minimize fugitive dust emission during the storage and transportation of waste;
m. Unused chemicals or those with remaining functional capacity will be retained for reuse. Chemical wastes will be separated for special handling and appropriate treatment at the Chemical Waste Treatment Centre (CWTC);
n. The setting up of special control measures to regulate storage, label, transportation and disposal of classified chemical wastes such as paint residues, lubricants or other oil wastes, including the registration as a chemical waste producer and the disposal of such wastes by a licensed collector to CWTC;
o. Imposition of penalty system on Contractors' improper behaviors when illegal dumping and landfilling outside their respective construction sites, i.e., on nearby farmlands and riverbanks, are reported;
p. Regular cleaning and maintenance programme for drainage systems, sumps and oil interceptors;
q. Record the quantity of waste reused, recycled or disposed regularly; and
r. Maximize the use of excavated materials to other sites or alternative disposal ground for reuse.

2. Mitigation measures according to the EIA will be implemented onsite. The mitigation measures of waste management with implementation schedule is summarized in **Appendix B**.

4.4 Handling of Construction and Demolition Materials

1. Storage, collection and transportation of the C&D materials will be carefully planned and implemented to minimize any adverse impact upon the environment. The generated C&D materials will be sorted onsite and recycled as appropriate in accordance with ETWB TCW No. 19/2005, or subsequent disposal at approved strategic landfills. Wherever practicable, SA will arrange the segregation of these wastes onsite in order to maximize the recovery of reusable and recyclable materials. Separate areas will be designated for segregation and storage where site-specific conditions allow.
2. The segregated types of C&D materials will be stored in separate covered areas to avoid possible loss due to fugitive dust and windblown. If the C&D materials are to be temporarily stored in piles onsite, they will either be covered with a tarpaulin or watered regularly to prevent the emission of fugitive dust. SA will ensure that the C&D materials are removed from their origin and processed at designated points in a timely manner.
3. Recyclable materials will be separated from other C&D materials. These materials will be either reused onsite or collected by an external licensed waste recycling agent. If an external recycling agent is required, details of the nominated company will be submitted to the Project Manager.

Waste Sorting

4. Sufficient space will be provided to accommodate the separation of inert and non-inert materials and a unique access checkpoint with security control. The SA will manage the waste sorting facilities and promptly remove all the sorted and processed materials arising from the site to minimize the extent of temporary stockpiling onsite. The categories of C&D materials to be sorted within the waste sorting facilities include:
    a. Inert materials consisting of earth, building debris, rock fragments, concrete bricks, tiles, masonry, mortar and etc.;
    b. Metals;
    c. Paper / cardboard;
    d. Timber; and
    e. Waste from landscaping works.
5. Following the sorting of these wastes, they will be sent separately for reusing and recycling, processing or disposed of as described in the following sections.
6. Other than large waste sorting facilities, the Contractor will provide refuse and recycling bins respectively to collect different types of refuse generated by the site office and the workforce. These will include bins to collect general refuse such as food waste and recycling bins to collect wastepaper, plastic and aluminum separately. These bins will be provided in areas where the wastes are commonly generated such as site offices, workshops and other site accommodation areas for the workers. A reputable waste collector should be employed by the Contractor to remove general refuse from the site, separately from C&D material. An enclosed and covered area is preferred to reduce the occurrence of wind-blown light material.
7. The recording system of C&D materials and waste is provided in **Section 5.2**. Sample of the Monthly Waste Flow Table (WFT) and Record of Timber Usage are provided as **Appendix C**.

(I) Inert C&D materials

8. Following waste sorting, the remaining inert C&D materials will be managed as below.

Excavated Material

9. In order to minimize the amount of excess excavated materials, the priority for the management options of excess excavated materials will be as follows:
    a. Excessive excavated materials will be reused onsite as backfilling materials;
    b. Any surplus will be transported to other sites (e.g. Kwu Tung North and Yuen Long) for reuse as approved by the Project Manager; whilst the ET, Independent Environmental Checker (IEC) would be informed.

Excavated Materials (Sediment excavated from piling works)

10. In order to minimize the potential environmental impacts arising from the handling of the sediment, the following environmental mitigation measures are recommended during the course of the treatment.

    a. Excavation, Transportation and Temporary Storage of Sediment

- Excavation profiles must be properly designed and executed with attention to the relevant requirements for environment, health and safety;
- Sediment storage area will be lined with impermeable sheeting and bund;
- Sediment should be properly covered by impermeable sheeting to reduce dust emission during windy and dry season;
- Dump truck should be suitably covered to limit potential dust emissions after loading the sediment. Moreover, truck bodies and tailgates should be sealed to prevent any wastewater leakage during transport;
- Bunding shall be provided in the sediment loading and unloading areas to prevent any leakage;
- Water spraying shall be provided to suppress dust emission at loading & unloading area;
- Vehicle wheel washing facilities shall be established and used at the site's exit points;
- Clear, designated paths for internal transportation shall be established within the project areas;
- Conspicuous signage shall be used to guide personnel and dump trucks for internal transportation;
- Training shall be conducted for all personnel involved in waste handling and transportation; and
- Foreman will be responsible for monitoring internal transportation to ensure the sediment to be unloaded at the designated areas. The foreman will also check the dump truck scale and record the

weight of sediment after loading the sediment.

- The untreated sediment has the potential to cause odour nuisance, to address the potential odour nuisance, the following mitigation measures should be implemented:
  - Minimize the storage duration of untreated sediment on-site to the extent possible;
  - Store the untreated sediment on-site in the designated area away from sensitive receivers;
  - Prioritize the treatment of untreated sediment to reduce the duration of storage and exposure;
  - Cover the stockpiles of untreated sediment with impermeable sheeting or tarpaulins to contain odour;
  - Regularly inspect the stockpiles and repair any damage to the covering materials to avoid odour nuisance; and
  - Provide comprehensive training to all personnel involved in the handling and management of untreated sediment to ensure they are aware of the potential odour issues and the importance of implementing the mitigation measures.

b. Solidification / Stabilization

- Mixing material of cement grout should be used instead of cement to minimize dust emission;
- Mixing of sediment and cement grout or other additive(s) should be undertaken at dedicated mixing area to minimize the potential for leaching;
- A concrete bund will be constructed along the perimeter of Cement S/S operation area to prevent wastewater or runoff escape the mixing area; and
- The run-off obtained in the concrete bund area along the perimeter of the paved the mixing area, if any, will be collected, stored and used for the sediment/cement grout mixing proceed.

c. Temporary Storage of Treated Materials

- If stockpile of the treated products is required, the stockpiling site(s) should be lined with impermeable sheeting. Stockpiles should be properly covered by impermeable sheeting to reduce dust emission during windy/dry season and or site runoff during rainy season;
- Untreated and treated materials should be stockpiled at separated areas to avoid cross contamination;
- Ensure that all personnel involved in sediment handling are trained; and
- The sediment will be treated, cured and stored at designated area.

d. Treated Sediment reuse

- Upon completion of sediment treatment works, verification samples will be collected for testing in accordance with Table 4.6 of the Practice Guide for Investigation and Remediation of Contaminated Land issued by EPD under the supervision of land contamination specialist. All samples should be analyzed by a HOKLAS accredited laboratory and the testing result will be certified by land contamination specialist;
- If the testing results of the confirmatory materials meets the Universal Treatment Standards (UTS) for On-Site Refuse of Cement Stabilisation/Solidification Treated Soil,, the corresponding batch of treated product will be considered successfully treated and suitable for reuse. The treated materials will be backfilled within the Site or at the areas designated by the Project Manager; and
- In case any verification sample did not achieve the treatment target, the corresponding batch of treated product will be crushed, remixed and tested again.

e. Handling and Disposal of Sediment if dumping at sea necessary

- JV controls excavated sediment under the Dumping at Sea Ordinance. Control measures of excavation and internal transportation are listed in Section 10a;
- Loading of the sediment to the barge should be controlled to avoid splashing and overflowing of the sediment slurry to the surrounding water;
- All bottom-dumping vessels / hopper barges / dredgers shall be fitted with tight fitting seals to their bottom openings to prevent leakage of material; and
- The detail procedure for handling and disposal of sediment, as well as the location of the dumping ground, will be established if the sea dumping process is confirmed.

Concrete Waste

11. The surplus concrete after each concrete pour will be used for some minor pre-cast elements where practicable. Dry concrete waste, including broken concrete from demolition works, will be sorted out from the other wastes and delivered to recycling facilities.

Sorted broken concrete materials to be delivered to recycling facilities

(II) Non-Inert C&D materials

Timber Waste

12. The Contractor will avoid, reduce and minimize the use of timber in temporary works construction as far as possible. Where timber is used for this purpose or for one process or activity with an estimated quantity exceeding 5m^3, the Contractor will submit a method statement to the Project Manager for agreement prior to the commencement of the works.
13. A description, justification and the estimated quantity shall be provided for every work process or activity requiring the use of timber for temporary works construction.

Metal Waste

14. The Contractor will avoid and reduce metal waste during the design, planning and construction process. Cut metal or steel bar will be considered for reuse in temporary or minor works onsite. When metal waste arises onsite, it will be sorted and collected daily by an assigned work team and stored in a designated area for subsequent use or collection by recycling contractors.

General Refuse

15. General refuse, which mainly consists of food waste, aluminum cans, and wastepaper, will be generated from construction activities, workers and the site office.
16. The general refuse will be temporarily stored in containers or skips to prevent odour, pest and wind-blown litter.
17. Office waste will be reduced through the recycling of paper. Sacks for wastepaper and baskets for reusable papers will be provided in Site office. General refuse including food and domestic waste will be stored in enclosed bins or compaction units separate from the construction and chemical wastes. Lunch boxes, plastic bottles, containers, plastic sheets and foam will be sorted and stored in separately labelled bins for subsequent recycling. Reputable recycle contractors will be employed to collect recyclable materials. The quantity of waste to be recycled will be recorded, controlled and monitored through the maintenance of WFT.
18. General refuse will be collected and disposed of on a regular basis to minimize the likelihood of odour, pests and litter. They will be transported and disposed of by a licensed waste hauler. A trip ticket system to track the transportation and destination of the waste will be implemented, and the burning of refuse onsite is strictly prohibited.

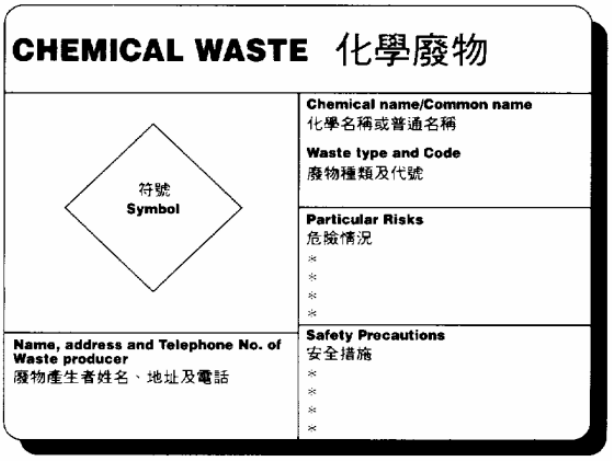
Yard Waste

19. Yard Waste including (a) grass clippings, leaves, bushes, shrubs and twigs; (b) tree trunks and branches; (c) tree stumps shall be sorted onsite for the purpose of recycling and should not be considered as waste for disposal except for the parts of plant carrying contaminants, chemical residues, diseases or pests.

(III) Chemical Waste

Generation of Chemical Wastes

20. For chemical wastes produced by a process, as defined by Schedule 1 of the Waste Disposal (Chemical Waste) (General) Regulation, a 'Chemical Waste Producer' registration will be made with the EPD.
21. Chemical wastes are likely to be generated during maintenance of plant and equipment and these may include spent filter cartridges containing heavy metals, spent batteries, used mechanical oils, cleaning fluids, spent solvents, lubricating oils, paints and paint containers.
22. All chemical wastes generated onsite will be stored and labelled in accordance with the Code of Practice on the Packaging, Labelling and Storage of Chemical Waste published by the EPD. All workers involved in the handling of chemical wastes will be trained properly and will be provided with appropriate protective clothing. A sample of chemical waste label is shown as below:



23. The sorting and segregation of chemical wastes will be carried out onsite to ensure the waste is appropriately handled, labelled and treated prior to disposal offsite. The recoverable chemical wastes such as oils, paints and solvents, will be separated from other chemical wastes and an EPD licensed chemical waste collector will be employed to collect the chemical wastes.

Storage of Chemical Wastes

24. Chemical wastes will be stored at designated storage areas in accordance with the Code of Practice on the Packaging, Labelling and Storage of Chemical Waste. The containers to be used for the storage of chemical waste will:
    a. Be suitable for the substance they are holding, resistant to corrosion and be maintained in a good condition and kept securely closed;
       Have a capacity of less than 450L unless the specifications have been approved by the EPD; and
    b. Display a label in English and Chinese in accordance with the instructions prescribed in Schedule 2 of the Regulations.
25. The storage area for chemical wastes will:
    a. Be clearly labelled and used solely for the storage of chemical waste;
    b. Be enclosed on at least three sides;
    c. Have an impermeable floor and be bunded to accommodate 110% of the volume of the largest container or 20% by volume of the chemical waste stored in that area, whichever is greater;
    d. Have adequate ventilation;
    e. Be covered to prevent rainfall entering (water collected within the bund must be tested and disposed as chemical waste if necessary); and
    f. Be arranged so that incompatible materials are adequately separated.

Disposal of Chemical Wastes

26. A licensed waste collector will be employed to deliver the chemical wastes to the Chemical Waste Treatment Centre (CWTC) or other approved facilities. Waste dry battery and waste oil will be transported to approved facility for handling purpose. The trip ticket system will be strictly implemented to ensure the chemical waste is transported by and to proper agents. Trip tickets issued for every chemical waste collection will be retained and filed for future reference and record keeping.
27. An example of the trip ticket for chemical waste collection and disposal is illustrated in **Appendix D**.

Asbestos Waste

28. The proposed asbestos abatement work (if confirmed) shall be conducted in compliance with respective requirements under the Air Pollution Control Ordinance (APCO). The key requirements are:
    - Appoint a registered asbestos consultant to investigate the subject site of ACMs;
    - Submit an Asbestos Investigation Report (AIR) and Asbestos Abatement Plan (AAP) to EPD for approval;
    - Appoint a registered asbestos contractor and supervisor for the asbestos removal work in strict
    - accordance with EPD's approved AAP,
    - Appoint a registered asbestos laboratory to monitor the air quality during the asbestos removal work; and
      Appoint a registered asbestos consultant to provide overall supervision for conducting the removal work
    - and to certify the completion of work.
29. Under the APCO, the ACM shall be removed in accordance with an approved Asbestos Abatement Plan (AAP). The AAP should be prepared by a registered asbestos consultant with reference to the Code of Practice on the Asbestos Control and with EPD's endorsement, in such details for the registered asbestos contractor to follow.
30. Should the registered asbestos contractor strictly follow the precautionary and proper removal procedures given in the approved AAP, release of asbestos fibre from the abatement area is not envisaged. Exhaust of air filtering appliances that are equipped with high efficiency particulate air (HEPA) filters would also be free of dust and asbestos.
31. In line with the AAP, the following mitigation measures should be implemented to control the asbestos fibre release to environment during the asbestos removal work:
    - Masking up the abatement work area with double polythene sheets to facilitate the later site cleanup;
    - Segregating the abatement work area with all openings such as windows, doors, grilles, power points, exhaust units, service ducts, etc. in vicinity individually sealed off with 2 layers of polythene sheeting and securely duct-taped in place;
    - Decontaminating and removing the movable objects out of the abatement work area;
    - Decontaminating and masked up with double polythene sheets all non-movable objects, including the floor and wall surfaces;
    - Adequately but not excessively water spraying on the ACM being removed and in the abatement work area to suppress the fibre release;
    - Packaging the ACM as soon as it is taken down;
      Collecting and removing any asbestos debris as soon as it is generated using hand tools;
    - Using no dust raising tools, such as sweeper for site cleanup;
    - Closely supervising the work by a registered asbestos supervisor and consultant; and
    - Monitoring the air quality in terms of asbestos fibres before, during and after the asbestos abatement work to ensure a safe working environment.
32. The ACM after removed and asbestos contaminated articles, including spent HEPA filters, disposable personal protective equipment (PPE), spent PPE filter cartridges, filter pack for decontamination water and plastic sheeting inside the asbestos removal area will be regarded as asbestos waste.
33. In compliance with the Waste Disposal Ordinance (WDO), all asbestos wastes shall be handled and disposed of following the guidance given in the Code of Practice on the Handling, Transportation and Disposal of Asbestos Waste made under the WDO.
34. Asbestos wastes are classified into Type 1, 2 or 3 with final disposal outlet at designed landfill. The waste producer or collection contractor shall ensure that the disposal operation is carried out in accordance with the instructions of the landfill site staff.
35. The trip ticket system will be strictly implemented to ensure the asbestos waste is transported by and to the designated landfill. Trip tickets issued for the asbestos waste will be retained and filed for future reference and record keeping.
36. Where immediate disposal is not possible, such waste arising will be temporarily stored at a designated place with locks in accordance with the Code of Practice on the Handling, Transportation and Disposal of Asbestos Waste.

4.5 Promotion and Training on Waste Management

Environmental Training

1. The EO and ES are responsible for carrying out the environmental training on waste management. They will arrange waste management training for the employees, consult with their departmental managers, and seek advice from the senior management.
2. The environmental training plan shall be reviewed quarterly by the EO in consultation with the SA to identify and review training needs of the construction activities and to introduce new training program.

Site Specific Induction Training

3. The site-specific environmental induction training provided by the EO, covering but not limited to, environmental and waste management including the implementation of the WMP, handling of special waste and trip ticket system will be conducted for all site staff and workers employed for the works or in connection with the Contract. Refresher training for the aforesaid area will be provided by the EO every six months.
4. The training content should also cover subjects such as organization structure, duties and responsibilities, measures, targets, in-house rules and regulations.

Toolbox Talk

5. Workers will receive environmental toolbox talks conducted by the respective front-line FN, EO/ES. The toolbox talks will focus on different trade and activities and enhance environmental awareness amongst operatives.

Environmental Promotion and Environmental Information

6. The following information shall be provided:
    a. Display and update appropriate environmental signs and posters at the site entrances and relative works area.
    b. Environmental news, highlights of Site Safety Environmental Committee Meeting (SSECM), emergencies, environmental promotion activities will be displayed onsite safety bulletin board.
    c. GF, FN or gangers will conduct daily morning briefing, an individual workforce gathering in the morning assembly prior to work start. The daily morning briefing will deliver environmental messages, environmental hazards identified and environmental pollution precaution measures to the workforce.

Environmental Award

7. The “Safety and Environmental Star – Worker Award” would be held to promote safety and environmental awareness of individual worker. The performance of the worker on waste management would also be reviewed. The assessment criteria will be based on observation by the EO or ES, area FN report and recommendation from their direct employer and written assessment of safety and environmental knowledge.

4.6 Innovative Measures

Outdoor Water Station

1. In order to reduce plastic waste, an outdoor water station will be provided within the construction works area to provide cool and purified water to the workers. The provision of outdoor water station demonstrated effective reduction of 90% of plastic bottles to be generated from construction phase by previous project.

Example of an outdoor water station to reduce plastic bottles consumption

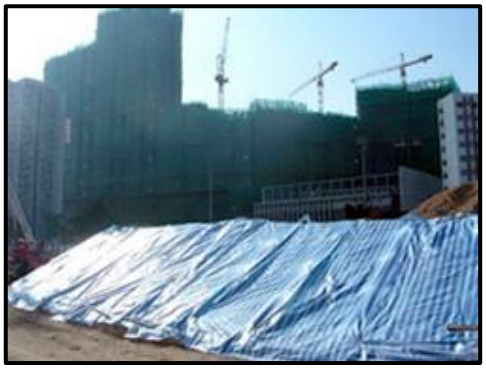
5. Trip Ticket System and Monitoring

5.1 Trip Ticket System (TTS)- CHIT

1. Under the Construction Waste Disposal Charging Scheme, the Main Contractor who undertakes construction work with a value of $1 million or above will be required to make an application to the EPD within 21 days after being awarded the contract to establish a billing account. Upon the establishment of the billing account, the Main Contractor will be required to use the account to pay any disposal charges payable in respect of the construction waste generated from construction work undertaken under the contract.
2. When delivering a load of waste to a designated waste disposal facility, the waste hauler appointed by the account-holder will be required to produce a valid "CHIT". The charging scheme also specifies the type of construction waste that may be accepted at the various designated waste disposal facilities. If the construction waste delivered by a waste hauler to a designated waste disposal facility is not of the type that may be accepted at that facility, the waste disposal will be rejected and the dump truck will have to return to the site.
3. Under these circumstances, the staff at the facility will give the waste hauler an entry refusal note, which will specify the reason for refusal and the appropriate designated waste disposal facility for the waste to be delivered. Moreover, the dump truck drivers should be aware of the wastes are not overloaded beyond the gross vehicle weight and dusty loading on dump truck should be properly covered to avoid dust emission during transportation.

Implementation of Trip Ticket System
The Trip Ticket System will be executed according to the following procedures:

1. The site supervisor will arrange the C&D waste to be sorted onsite. He will also check the total actual amount of cumulated C&D waste after the completion of the particular works in the working area.
2. If the sorted C&D waste is less than 1/3 of truckload, then the C&D waste will be transferred to the temporary holding area in Works Area for temporary stockpiling. The C&D waste will be sorted and stored separately into different storage areas.



Cover of Dusty Materials

Water Spraying

3. Non-inert C&D waste will be stored in storage tanks properly covered with tarpaulin sheeting in the temporary holding area. Inert C&D materials will be stored on the ground properly covered with tarpaulin sheeting in the temporary holding area.
4. If the sorted C&D waste is more than 1/3 of truckload, then the Foreman will arrange disposal of the C&D waste to designated landfill or PFRF.
5. For each truckload of C&D materials leaving the working area and/or temporary holding area to the designated landfill or PFRF, the truck driver must bear a duly completed and a duly signed CHIT.
6. Before the truck carrying C&D materials leaving the Site, the site supervisor / Senior Foremen / Foremen should give truck driver a briefing for the C&D waste disposal requirements and the penalty regular. He should draw their special attention that no disposal of C&D materials at a disposal ground other than that designated in the CHIT.
7. For the non-inert C&D waste disposal, Supervisor will check and ensure the dump truck is not overloaded and the materials / waste are covered in good condition with mechanical cover before leaving the site.
8. The truck will proceed to the disposal ground as stipulated in the CHIT. The truck driver will present the CHIT to the reception facility operator. If the C&D waste accords with the acceptance criteria, disposal of the C&D waste will be allowed and the facility operator will give the truck driver a transaction receipt and stamp the CHIT.

9. The truck driver will present the CHIT at the in-weight bridge officially. If the vehicle load is accepted, the CHIT is deemed to be used and the in-weight would be recorded on the "Transaction Record Slip".
10. If the truck driver was instructed by the reception facility operator to go to the sorting facility. The driver will need return back to the Site and report to the Supervisor. No driver is allowed to go to sorting facility without Supervisor's permission or instruction.
11. The truck driver will then return the transaction receipt and the stamped CHIT to the Contractor as soon as possible. All CHITs are to be return to the Environmental Officer or the Environmental Supervisor.
12. The Contractor will maintain a daily record disposal of C&D materials from the Site including details of the C&D waste, the truck number, departure time, etc, and should check against the Supervising Officer's Representative records as soon as possible and notify the Supervising Officer's Representative in case any discrepancy is noted.
13. A daily record of disposal of C&D materials from the Site will be maintained. The record shall include the details of the C&D materials, the truck number, departure time, etc., using a Daily Record Summary (DRS).
14. For disposal at government disposal facilities, the Contractor will check the information recorded in the DRS against the disposal records at waste disposal facilities or in EPD's website.
15. To avoid overloading cases of the dump trucks delivering C&D materials to designated dumping ground, upper limits have been set for the readings of the weight gauges on the load cells. For each dump truck, the supervisor shall ensure that the reading of the weight gauge does not exceed the stipulated upper limit before leaving the site.

5.2 Waste Recording System

1. The Contractor will record the quantities of C&D materials generated each month, using the monthly summary WFT.
2. The following records will be kept by the Contractor for inspection and reporting as necessary by the ET or the Project Manager / Supervisor:
    a. Waste disposal permits or licenses;
    b. Records of trip tickets for C&D materials disposed offsite;
    c. Records of trip tickets for chemical waste disposed offsite;
    d. Records of non-compliance of the WMP;
    e. Records of corrective actions taken to rectify any non-compliance;
    f. Records of the admission tickets usage.
3. The Contractor will provide, operate and maintain a video recording system at each vehicular exit/entrance with gate(s) installed with the following essential features to record all trucks leaving the site:
    a. The video cameras used in the system will be of high resolution, lowlight and colour type. Power back up shall be provided to cater for accidental breakdown of the power supply to the system;
    b. Videos captured by the system will be recorded continuously without break except with the agreement of the SA, or in months during which where is no disposal of C&D materials off site for the entire month;
    c. Videos will be captured in a format acceptable to the Project Manager;
    d. The registration mark of each vehicle leaving the site will be recorded;
    e. The loading condition of dump trucks including empty trucks will be captured;
    f. Securely protect the videos cameras from being damaged;
    g. Provide the software and hardware for capturing the vehicle registration mark, and the time and date for the SA's immediate taking and viewing of photograph of every truck leaving the site and viewing the recorded videos;
    h. Keep the videos record for at least 60 days and the photographs until such time as instructed by the Project Manager;
    i. Post sufficient notices at conspicuous positions to notify the workers, drivers and staff about the purpose of the video recording system in accordance with data protection principles set out in the Personal Data (Privacy) Ordinance (Cap. 486).

5.3 Global Positioning System (GPS)

1. According to the Environmental Permit EP-615/2022 Conditions 2.23, all dump trucks engaged onsite shall be equipped with Global Positioning System (GPS) or equivalent automatic identification system (AIS) for real time tracking and monitoring (RTTM) of their travel routings and parking locations to prohibit illegal dumping and landfilling of C&D materials.

2. The GPS installed on dump trucks will transmit self-monitoring data direct from the truck to the control centre through GPS mobile communication network.
3. The RTTM system allows the Contractor and the users to carry out round-the-clock monitoring of the movement of dump trucks by accessing to the designated website. This will ensure that any irregularities can be immediately identified and rectified without delay.
4. The RTTM system employs hot standby configuration. Two identical servers are used to handle and store data reported from the GPS. Application software, such as web user interface, is provided by a standalone web server. The web user interface enables users to view the data record and analyse the data records.
5. The system is connected to the internet via two separate broadband networks. Each network is protected by network firewall. The firewall prevents unauthorized access to the system and route connection requests to the appropriate servers.
6. Real-time vehicle location with cluster, signal refresh in every 30 seconds, time, license plate number, electronic scale for every trip of trucks carrying C&D materials for disposal from site will be recorded. It enables relevant parties (PM, ET, IEC and the Contractor) to view the exact location of the fleet from the website or application at any time, and monitor driver activity and routing. Track reply with graph and detail track report history for the routing of every delivery will be downloaded and recorded, and retrievable for inspection.
7. Geofences will be set for the designated disposal locations, and other locations approved by the Project Manager. Geofences are designated areas that can be defined on a map. They can either be a certain radius around a single point or any shape that create from several points. When trucks enter or trigger the geofenced zone, GPS data such as travelling routes, travelling time for every delivery, etc. via the automatic notification system will be recorded. An alert email will be sent to ET, IEC, the Project Manager, the Contractor and surveillance team at the end of each working day if the dump truck does not reach designated disposal locations after leaving the Project site. EO or ES will analyse the GPS data such as travel routings, parking locations, etc. on a daily basis. The corresponding historical GPS vehicle location data will be maintained for at least 6 months after any C&D material disposal trips for retrieval if needed. EO or ES will also consolidate the GPS data with the TTS by merging the corresponding CHIT or DDF number, vehicle number, truck built-in weight record, recorded weight of the transaction from government facility or other accepted or designated disposal ground, etc. for the purpose of cross-checking and analysing the time used for the delivery, traffic routing, weight difference for any irregularities and suspected illegal dumping situation. It ensures that the trucks are disposing of the C&D material to the designated disposal locations after leaving the site. Also, ET, IEC, the Project Manager, the Contractor and surveillance team can track the real-time position of the trucks on the web-based application.
8. To ensure that all C&D materials are disposed of at the designated disposal locations, at the end of each working day, in case that any dump truck does not reach the designated disposal locations after leaving the Project site, the GPS monitoring system will automatically generate alert through email to the relevant parties (i.e., ET, IEC, Project Manager, Contractor, surveillance team, etc.) for follow up on any suspected irregularity and illegal dumping situation. The information of automatic notification includes relevant details, such as vehicle licence plate, event time, vehicle location, etc. Prohibited or other areas designated as prohibited zones can be set by the RTTM system, and email will be sent to the ET, IEC, Project Manager, Contractor, surveillance team or other default users immediately once any irregularities or non-compliance are triggered. The notification emails records of the C&D materials disposal by trucks are to be checked by EO or ES to confirm whether all the dump trucks travel to the designated disposal locations after leaving the construction site.
9. The audit findings shall be reported in the Monthly EM&A Report.

6. Event Contingency Plan for Non-Compliance and Complaint

Handling Procedure for Non-Compliance and Complaint

1. A Contingency Group will be set up to respond to non-compliance (NC) and complaints on waste management and other environmental issues.

2. In the event of NC:
    a. If any NC is observed by the Contractor's Team, Project Manager or other relevant government authorities, the EO or ES will raise a Notification of Non-Compliance (NNC) to notify the case to relevant parties;
    b. ET, IEC and Project Manager should be notified immediately when an event of NC is recorded;
    c. After receipt of the NNC, the SA will propose corrective actions for the NC in line with this WMP and implement accordingly; and
    d. The EO will prepare a report summarizing the NC event, the implemented corrective actions as well as the evaluation of the effectiveness, and submit to the Project Manager for record.

3. In the event of Complaint:
    a. The EO will refer the complaint to the SA. The EO/SA will log complaint and date of receipt, and notify the ET, IEC, EM and Project Manager immediately;
    b. Within 2 working days after receipt of the notification of the complaint, the EO will investigate the validity of the complaint with the ET. The investigation includes identifying the sources of the problem and crossing checking with relevant works site information (i.e. types and locations of construction works) with the Project Manager;
    c. If the complaint is valid, the EO and EM will identify remedial measures in consultation with the IEC, ET and ER and liaise with SA to propose corrective actions or mitigation measures to the Project Manager. The SA will implement the remedial measures once they have been agreed;
    d. The EO and EM will report the investigation results and subsequent actions taken to the Project Manager after the implementation of remedial measures;
    e. The EO and EM will facilitate with ER, ET and IEC to review on the effectiveness of the remedial measures;
    f. If the complaint is referred by the EPD, the EO to prepare interim report on the status of the complaint investigation and follow-up action for submission to EPD within the time frame assigned by the EPD;
    g. If no further comments or complaints are received from the complainant within 20 days after responding to the complainant, the complaint record will be closed; and
    h. The EO will assist the ET to record the complaint in the monthly EM&A reports.

4. Follow-up actions to be taken by the Contractor and dump truck drivers for committing suspected offences relating to illegal dumping and landfilling of C&D materials:
    a. Dump truck drivers will be asked to explain for the suspected offences relating to illegal dumping and landfilling of C&D materials. An investigation report will then be prepared by the EO and submit to the Project Manager or Supervisor within 2 working days.
    b. The Contractor will discuss with the Project Manager for the follow-up actions (i.e., warning letters, cease operations, etc.) if required.

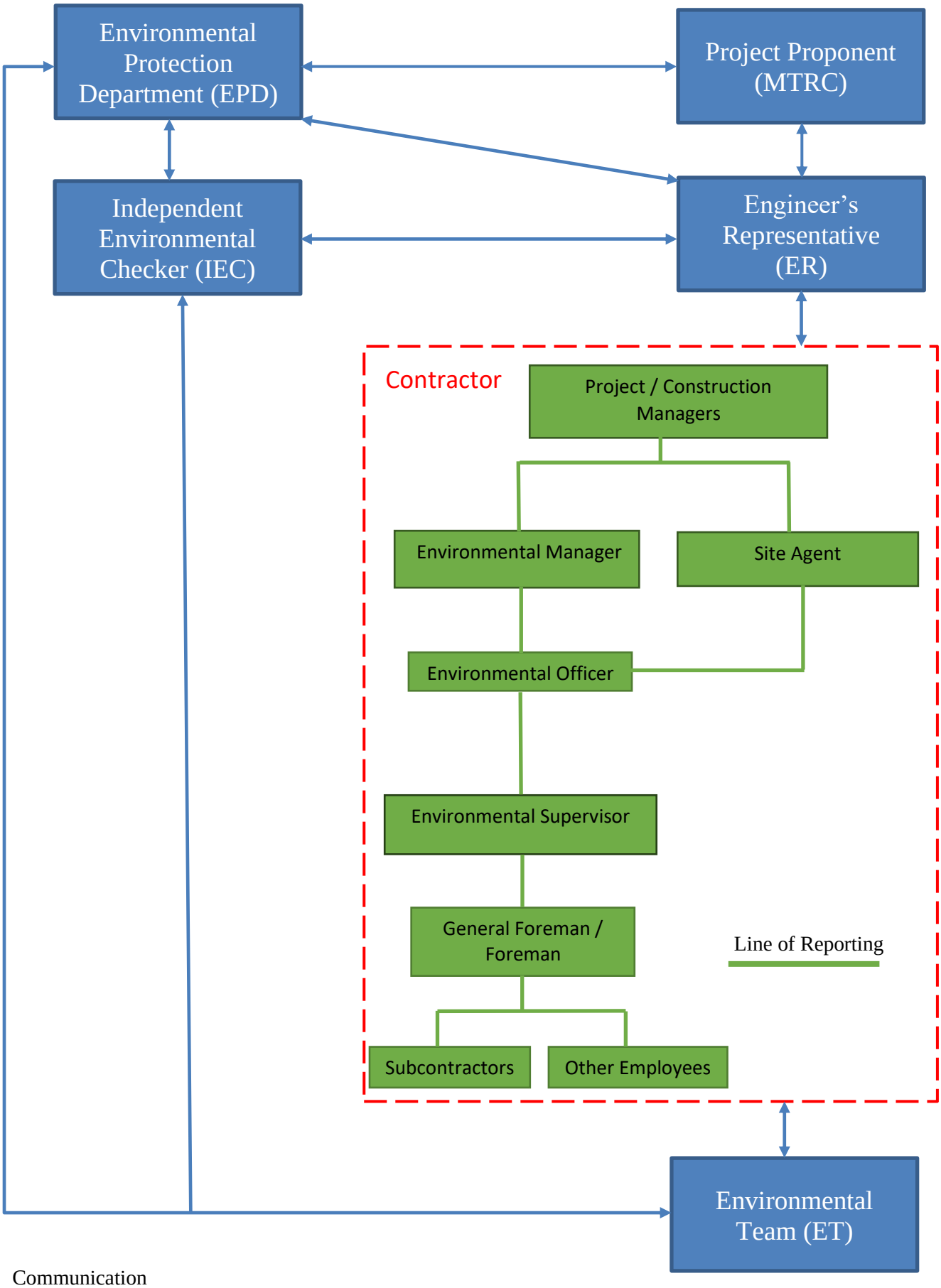
7. Auditing Proposal

1. GF and EO or ES will conduct weekly site inspections to ensure this WMP is properly followed. ET would also conduct site audit on waste management practice during the weekly environmental inspection as part of the EM&A Programme. In addition, internal audit will be performed to review the effectiveness on the implementation of this WMP:
    a. Internal audits will be performed in line with this WMP by an experienced senior staff.
    b. Audits will be planned by the EO to determine when and where to audits, which are scheduled on the basis of the status and importance of site activities.
    c. Audit comprises of document review, site inspection and discussion with responsible person, so as to address all key elements of the WMP and implementation of procedures and maintenance of records.
    d. The EO will monitor the status of completion of the follow-up action programme after internal auditing.
    e. Result of audits will be taken into account for management review for reviewing the implementation status and the effectiveness of the audit system.

2. The handling procedures of waste generated from construction activities from this Project have been documented in this WMP. The effectiveness of waste management and implementation of the trip ticket system will be discussed and reviewed during the SSEMC and Site Safety and Environmental Committee (SSEC) meeting on a monthly basis.

.

Appendix A
Organizational Chart


Environmental Protection Department (EPD)
Project Proponent (MTRC)
Independent Environmental Checker (IEC)
Engineer's Representative (ER)
Contractor
Project / Construction Managers
Environmental Manager
Site Agent
Environmental Officer
Environmental Supervisor
General Foreman / Foreman
Subcontractors
Other Employees
Line of Reporting
Environmental Team (ET)
Communication

Appendix B: Waste Management Mitigation Measures and Implementation Schedule

Waste Management Mitigation Measures and Implementation Schedule

EIA Ref.	EM&A Log Ref.	Proposed Mitigation Measures	Objectives of the Proposed Measures	Implementation & Maintenance Party	Implementation Location	Implementation Timing
S6.4.3	**WM1**	**<u>Good Site Practices</u>** Application of good site practices are recommended throughout the construction stage, including: • Nomination of an approved person, such as a site manager, to be responsible for good site practices, arrangements for collection and effective disposal to an appropriate facility, of all wastes generated from the Project; • Training of site personnel in proper waste management and chemical handling procedures; • Provision of sufficient waste disposal points and regular collection for disposal; • Appropriate measures to minimise windblown litter and dust / odour during transportation of waste by covering trucks or in enclosed containers; • Stockpiles of C&D materials should be sprayed with water immediately prior to any loading transfer operation to keep the dusty material wet during material handling at the stockpile areas; • Provision of wheel washing facilities for trucks before leaving the works area to minimise dust introduction to public road; • Well planned delivery programme for offsite disposal so adverse environmental impact from transporting inert or non-inert C&D materials is not anticipated. • Regular cleaning and maintenance programme for drainage systems, sumps and oil interceptors; and • General refuse should be removed as soon as possible and avoid overnight accumulation and storage of general refuse.	To avoid and minimise waste generation during construction	Contractor	All works sites/areas	During whole construction period

EIA Ref.	EM&A Log Ref.	Proposed Mitigation Measures	Objectives of the Proposed Measures	Implementation & Maintenance Party	Implementation Location	Implementation Timing
S6.4.4	WM2	**Waste Reduction Measures** Proper planning for waste reduction measures should be carried out before site operation. Waste reduction is best achieved at the planning and design stage, and by ensuring the implementation of good site practices. The following are proposed to achieve waste reduction: • Prepare and submit a C&DMMP to PFC for approval in order to manage and monitor the C&D materials generation; • Segregate inert C&D materials from non-inert C&D materials for reuse; • Segregate any other recyclable materials (i.e., metal) from non-inert C&D materials for recycling; • Segregation and storage of different types of waste in different containers, skips or stockpiles to enhance reuse or recycling of materials and their proper disposal; • Encourage collection of aluminum cans, PET bottles and paper by providing separate labelled bins to enable these wastes to be segregated from other general refuse generated by the workforce; • Any unused chemicals or those with remaining functional capacity shall be recycled, and separation of chemical wastes for special handling and appropriate treatment; • Plan the use of construction materials carefully to minimise amount of waste generated and avoid unnecessary generation of waste. • Provide training to workers about the concepts of site cleanliness and appropriate waste management procedures, including waste reduce, reuse and recycling (3Rs); • Prior to disposal of non-inert C&D material, it is recommended that wood, steel and other metals to be separated for reuse and/or recycling to minimise the quantity of waste going to landfills;	Reduce generation of waste	Contractor	All works sites/areas	During whole construction period

EIA Ref.	EM&A Log Ref.	Proposed Mitigation Measures	Objectives of the Proposed Measures	Implementation & Maintenance Party	Implementation Location	Implementation Timing
S6.4.6	**WM3**	The C&D materials generated from demolition works, site clearance, excavation works, and construction of viaduct and stations should be sorted on-site into inert C&D materials (i.e. public fill) and C&D waste. To minimise the impact resulting from collection and transportation of C&D materials as far as practicable, C&D waste, such as wood, plastic, steel and other metals should be reused or recycled and, as a last resort, disposed to landfill. A suitable area should be designated within the site for temporary stockpiling of C&D materials and to facilitate the sorting process. Within the stockpile areas, the following measures should be taken to control potential environmental impacts or nuisance: • Proper handling and storage of wastes such as soil by means of covers and/or water spraying system to minimise the potential environmental impact and to prevent mat4erials from wind-blown or being washed away; • Covering materials during heavy rainfall; • Locating stockpiles to minimise potential visual impacts; • Minimising land intake of stockpile areas as far as possible; • Adopting GPS or equivalent system for tracking and monitoring of all dump trucks engaged for the Project in recording their travel routings and parking locations to prohibit illegal dumping and landfilling of C&D materials; and • Keeping record and analysis of data collected by GPS or equivalent system related to travel routings and parking locations of dump trucks engaged on site.	To minimise the impact resulting from collection and transportation of C&D materials	Contractor	All construction sites	During whole construction period
S6.4.7 to S6.4.9	**WM4**	General refuse should be stored in enclosed bins or compaction units separate from C&D materials and chemical waste. A reputable waste collector should be employed by the contractor to remove general refuse from the site, separately from C&D materials and chemical wastes. An enclosed and covered area is preferred to reduce the occurrence of 'wind blown' light materials. The recyclable component of general refuse, such as aluminium cans, paper and cleansed plastic containers should be separated from other waste. Provision and collection of recycling bins for different types of recyclable waste shall be set up by the Contractor. The Contractor shall also be responsible for arranging recycling companies to collect these materials. The Contractor should carry out an education programme for workers in avoiding, reducing, reusing and recycling of materials generation. Posters and leaflets advising on the use of the bins should also be provided in the sites as reminders	To avoid and minimize impacts arising from waste management	Contractor	All works sites/areas	During whole construction period

EIA Ref.	EM&A Log Ref.	Proposed Mitigation Measures	Objectives of the Proposed Measures	Implementation & Maintenance Party	Implementation Location	Implementation Timing
S6.4.10 to S6.4.12	**WM5**	If chemical wastes were to be produced at the construction site, the Contractor would be required to register with the EPD as a Chemical Waste Producer, and to follow the guidelines stated in the Code of Practice on the Packaging, Labelling and Storage of Chemical Wastes. Appropriate containers with proper labels should be used for storage of chemical wastes. Chemical wastes should be collected and delivered to designated outlet by a licensed collector. Chemical wastes (e.g. spent lubricant oil) should be recycled at an appropriate facility as far as possible, while the chemical waste that cannot be recycled should be disposed of at either the CWTC, or another licensed facility, in accordance with the Waste Disposal (Chemical Waste) (General) Regulation. Any unused chemicals or those with remaining functional capacity should be collected for reuse as far as practicable	To avoid and minimize impacts arising from chemical waste	Contractor	All works sites/areas	During whole construction period
S6.4.13 to S6.4.14	**WM6**	The sediment should be excavated, handled, transported and disposed of in a manner that would minimise adverse environmental impacts. For minimization of sediment disposal, beneficial reuse should be considered on site as far as practicable during the construction stage before the disposal of excavated sediment. Requirements of the Air Pollution Ordinance (Construction Dust) Regulation, where relevant, should be adhered to during excavation, transportation and disposal of sediments.	To avoid and minimize impacts from excavated sediments	Contractor	All works sites/areas confirmed with sediment	During piling works/sediment treatment period
S6.4.15	**WM7**	In order to minimise the exposure to contaminated materials, workers should, when necessary, wear appropriate personal protective equipments (PPE) when handling contaminated sediments. Adequate washing and cleaning facilities should also be provided on site.	To avoid and minimize impacts arising from handling sediments	Contractor	All works sites/areas confirmed with sediment	During piling works/land decontamination / sediment treatment period
S6.4.16	**WM8**	For off-site disposal, the basic requirements and procedures specified under PNAP No. 252 (ADV-21) should be followed. Marine Fill Committee (MFC) of CEDD is managing the disposal facilities in Hong Kong for the excavated sediment, while EPD is the authority of issuing marine dumping permit under the Dumping at Sea Ordinance (DASO).	Minimise waste impacts from excavated and C&D materials	Contractor	All sites/areas confirmed with sediment	During piling works/sediment treatment period

EIA Ref.	EM&A Log Ref.	Proposed Mitigation Measures	Objectives of the Proposed Measures	Implementation & Maintenance Party	Implementation Location	Implementation Timing
S6.4.17	**WM9**	For the purpose of site allocation and application of marine dumping permit and if considered necessary by EPD (Marine Dumping Section), separate SSTP should be submitted to EPD for agreement under DASO. Additional SI works, based on the SSTP, should then be carried out in order to confirm the disposal arrangements of the excavated sediment. A Sediment Quality Report (SQR), reporting the chemical and biological screening results and the estimated quantities of sediment under different disposal options, should then be submitted to EPD for agreement under DASO.	To avoid and minimize impacts arising from sediment	Contractor	All sites/areas confirmed with sediment	During sediment disposal period, if needed
S6.4.18	**WM10**	To ensure disposal space is allocated for the Project, the Project Proponent should be responsible for obtaining agreement from MFC on the allocation of the disposal site. The contractor(s), on the other hand, should be responsible for the application of the marine dumping permit under DASO from EPD for the sediment disposal.	To avoid and minimize impacts arising from sediment	Project Proponent and Contractor	All sites/areas confirmed with sediment	During sediment disposal period, if needed
S6.4.19	**WM11**	The excavated sediments are expected to be loaded onto the barge at public barging point of which the exact location will be determined by the contractor(s) and agreed by EPD/CEDD and transported to the designated disposal sites allocated by MFC. The excavated sediment would be disposed of according to its determined disposal options and PNAP No. 252 (ADV-21).	To avoid and minimize impacts arising from sediment	Project Proponent and Contractor	All sites/areas confirmed with sediment	During sediment disposal period, if needed
S6.4.20	**WM12**	Stockpiling of contaminated sediments should be avoided as far as possible. If temporary stockpiling of contaminated sediments is unavoidable, the excavated sediment should be covered by tarpaulin and the area should be placed within earth bunds or sand bags to prevent leachate from entering the ground, nearby drains and/or surrounding water bodies. The stockpiles should be placed on surface completely paved or covered by linings in order to avoid contamination to underlying soil or groundwater. Separate and clearly defined areas should be provided for stockpiling of contaminated and uncontaminated materials. Leachate, if any, should be collected and discharged according to the Water Pollution Control Ordinance (WPCO).	To avoid and minimize impacts arising from sediment	Contractor	All sites/areas confirmed with sediment	During piling works/land decontamination / sediment treatment period
S6.4.21	**WM13**	In order to minimise the potential odour / dust emissions during excavation and transportation of the sediment, the excavated sediments should be wetted during excavation / material handling and should be properly covered when placed on trucks or barges. Loading of the excavated sediment to the barge should be controlled to avoid splashing and overflowing of the sediment slurry to the surrounding water.	To avoid and minimize impacts arising from sediment	Project Proponent and Contractor	All sites/areas confirmed with sediment	During piling works/land decontamination / sediment treatment period

EIA Ref.	EM&A Log Ref.	Proposed Mitigation Measures	Objectives of the Proposed Measures	Implementation & Maintenance Party	Implementation Location	Implementation Timing
S6.4.22	**WM13**	The barge transporting the sediments to the designated disposal sites should be equipped with tight fitting seals to prevent leakage and should not be filled to a level that would cause overflow of materials or laden water during loading or transportation. In addition, monitoring of the barge loading should be conducted to ensure that loss of material does not take place during transportation. Transport barges or vessels should be equipped with automatic self-monitoring devices as specified by the DEP.	To avoid and minimize impacts arising from sediment	Project Proponent and Contractor	All sites/areas confirmed with sediment	During sediment disposal period, if needed

Appendix C: Sample of the Monthly WFT and Record of Timber Usage

Contract No: _____

Date of Report: _____

Monthly Summary Waste Flow Table for (year)

Monthly	Actual Quantities of C&D Materials Generated Monthly						Actual Quantities of Non-inert C&D Wastes Generated Monthly						Actual Quantities of sediment Generated Monthly
	Total Quantity Generated	Hard Rocks and Large Broken Concrete	Reused in the Contract	Reused in other Projects	Disposed as Public Fill	Imported Fill	Metals	Paper/ cardboard packaging	Plastics (see Note 2)	Chemical Waste	Others, e.g. general refuse (see Note 3)	Yard Waste	
	(in '000kg)	(in '000kg)	(in '000kg)	(in '000kg)	(in '000kg)	(in '000kg)	(in '000kg)	(in '000kg)	(in '000kg)	(in '000kg)	(in '000L)	(in '000kg)	(in '000kg)
Jan													
Feb													
Mar													
Apr													
May													
Jun													
Jul													
Aug													
Sep													
Oct													
Nov													
Dec													
Total													

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) Plastic refers to plastic bottle/ containers, plastic sheets/ foam from packaging material.
3) The general refuse with non-recyclable materials were disposed to Landfill.

Appendix D: Trip Thicket for Chemical Waste Collection and Disposal

Please carefully read the instructions overleaf before completing this form. 請細讀背頁所載指示以正確地填寫此表格。

WASTE DECLARATION: (廢物聲明) Import 入口 ☐ Part A 甲類 ☐ Export 出口 ☐ Part B 乙類 ☐

Part A Waste Notification Reference No. (甲類化學廢物通知書編號): _____

Environmental Protection Department
環 境 保 護 署
Waste Disposal Ordinance (Chapter 354)
香港法例第354章廢物處置條例
Waste Disposal (Chemical Waste) (General) Regulation
廢物處置(化學廢物)(一般)規例

TRIP TICKET
運 載 紀 錄

Waste Disposal Site's (Original) Copy
廢物處置設施(原本)存根

Ticket Number (運載紀錄編號): 1064435

A. WASTE PRODUCER (廢物產生者)

Full Name 全名	Contact Person 聯絡人姓名
Address 地址	Capacity 職位
	Tel. No. 電話
Waste Producer Number 廢物產生者編號	

I certify in my best knowledge and belief that the information given in the Waste Declaration, A, D(I), and E(I) sections is correct and the waste described in D(I) has been properly labelled and consigned to the waste collector at B.

據本人所知及所信，在廢物聲明、A、D(I)及E(I)欄內填報的資料，全屬真實無訛，而D(I)欄載列的廢物是已作適當的標識及委託B欄的廢物收集者付運，此證。

Signed 簽名: _____ Co. Chop 公司印鑑: _____

Name 姓名: _____ Date 日期: _____ Time 時間: _____

B. WASTE COLLECTOR (廢物收集者) (*State the appropriate one 選擇適用者)

Company Name 公司名稱	Operator 運載員姓名
Address 地址	Tel. No. 電話
	Vehicle Registration or Vessel Licence No. * 車輛登記編號或船隻牌照編號
Waste Collection Licence Number 廢物收集牌照編號	
Intended Disposal Site 擬運往的處置設施	

I certify in my best knowledge and belief that I have checked and then collected the waste set out in D(I), and the information given in B, D(II), and E(II) is correct.

據本人所知及所信，本人經核對後已收集D(I)欄載列的廢物，而B、D(II)及E(II)欄內填報的資料，全屬真實無訛，此證。

Signed 簽名: _____ Co. Chop 公司印鑑: _____

Name 姓名: _____ Date 日期: _____ Time 時間: _____

C. RECEPTION POINT (廢物收集處)

Company Name 公司名稱	Contact Person 聯絡人姓名
Address 地址	Capacity 職位
	Tel. No. 電話
Waste Disposal Licence Number 廢物處置牌照編號	

I(Reception Point Manager) certify that the waste set out in D(I) has been received by this reception point and the information given in C, D(III) and E(III) is correct.

本人(收集處經理)證實本收集處已接收在D(I)欄載列的廢物，而C、D(III)及E(III)欄內填報的資料，全屬真實無訛，此證。

Signed 簽名: _____ Co. Chop 公司印鑑: _____

Name 姓名: _____ Date 日期: _____ Time 時間: _____

D. WASTE DESCRIPTION (廢物資料) (* State the appropriate one 選擇適用者)

Item 廢物項目	(I) Waste Type/Chemical Name 廢物種類／化學名稱	Waste Identification 廢物鑑定: Waste Code 廢物代號	Dangerous Goods (Category) 危險物品(類別) (if applicable) (如適用者)	Physical Form* 廢物形態: Solid 固體 / Liquid 液體 / Sludge 污泥 / Others 其他	Containers 容器: No. 數目	Type 種類	Capacity 容量 (L or kg)* (升或公斤)	Quantity Notified 報明的數量 (Part A Waste only) (只適用於甲類化學廢物) (L or kg)* (升或公斤)	(II) Quantity Collected 收集的數量 (L or kg)* (升或公斤)	(III) Quantity Received 接收的數量 (L or kg)* (升或公斤)
1.								L 升 / kg 公斤	L 升 / kg 公斤	L 升 / kg 公斤
2.								L 升 / kg 公斤	L 升 / kg 公斤	L 升 / kg 公斤
3.								L 升 / kg 公斤	L 升 / kg 公斤	L 升 / kg 公斤
4.								L 升 / kg 公斤	L 升 / kg 公斤	L 升 / kg 公斤

E. REMARKS (註釋) (Include any additional information necessary for safe handling of the waste.) (包括確保廢物安全處理的其他附加資料。)

(I) Waste Producer 廢物產生者:

(II) Waste Collector 廢物收集者:

(III) Reception Point 廢物收集處:

In handling Part A chemical waste, Waste Producer, Waste Collector and Reception Point must strictly follow the Directions for Disposal issued by the Director of Environmental Protection under Section 17 of the Waste Disposal Ordinance.
廢物產生者、廢物收集者及廢物收集處在處置甲類化學廢物時，必須遵守環境保護署署長根據廢物處置條例第17條所簽發的指令。

WARNING: Any person(s) who knowingly or recklessly provide incorrect or misleading information or omit material particulars or information or knowingly or recklessly certify as correct anything which is incorrect, in relation to any requirement in the Regulation, commits an offence punishable with a maximum fine of $200,000 and imprisonment for 6 months.

警告：根據廢物處置（化學廢物）（一般）規例的規定，任何人士填報本表格時故意或罔顧後果地提供不確或誤導資料或遺漏重要事項，又或故意或罔顧後果地證明任何不確事項為正確，即屬違法，最高可被判罰款港幣200,000元及入獄6個月。