Drainage Services Department
Contract No. DC/2009/05

Harbour Area Treatment Scheme Stage 2A Construction of Interconnection Tunnel and Diaphragm Wall for Main Pumping Station at Stonecutters Island Sewage Treatment Works

Waste Management Plan (Rev.2) For the Month of December 2010

Approved by:

Mr. Ben Siu
(Site Agent)

Date: 22/12/10

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Date: 22/12/10

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1.0 WASTE MANAGEMENT PLAN

INTRODUCTION

PROJECT BACKGROUND

This report will outline the Contractor Environmental Management Plan (EMP) proposed by the Contractor for DSD Contract – Harbor Area Treatment Scheme Stage 2A, Construction of Interconnection Tunnel and Diaphragm Wall for Main Pumping Station at Stonecutters Island Sewage Treatment Works. China State – Shanghai Tunnel Joint Venture CSSTJV will ensure that all his employees will implement the accepted version of this EMP as an integral part of their daily activities on site.

The scope of this Contract includes the following items:

- **Construction of interconnection tunnel, launching shaft and associated stabilization of the overall;**
  - delivery, assembly, launching and removal of the tunnel boring machine;
  - excavation of the interconnection tunnel including its work cycle;
  - fabrication and installation of the permanent segmental tunnel linings and their corrosion protection layer;
  - TBM tunnel mucking and spoil removal process;
  - connection of the interconnection tunnel to the existing stage 1 riser shaft and the inlet chamber of the new main pumping station;
- **Construction of diaphragm wall of main pumping station and inlet chamber;**
  - excavation, spoil disposal, steel fixing and concrete works for diaphragm wall;
  - verticality control of the diaphragm wall within prescribed tolerance limit;
  - deal with any potential problem of temporary stability of the slurry-filled trench;
  - deal with any presence of randomly dumped loose boulder fill during excavation works as could be found in reclaimed land;
  - provide an effective cut-off against groundwater and seepage between panels;

- **Excavation inside the main pumping station and its inlet chamber;**
  - sequencing and staging of the excavation works and work cycle;
  - disposal of excavated material including marine sediment;
  - construction of lateral support systems;
  - control ground water inflow and settlement;
  - construction of the base slab;
- **Construction of piling works inside the main pumping station;**
  - delivery, assemble and removal of construction plant for piling works;
  - piling installation and grouting work and overcoming obstructions;
  - alignment control and pile testing;

The contractor shall comply with the both statutory and client's contract requirements.

1.1 WASTE MANAGEMENT REQUIREMENTS AND GUIDELINES

During the contract period, CSSTJV will comply with the following legislation, code of practices, guidelines, practical notes and technical circulars.

1.1.1 Statutory requirements

a. Waste Disposal Ordinance (Cap. 354) and its subsidiary regulations;
b. Waste Disposal (Chemical Waste) (General) Regulation (Cap. 354);
c. Public Health and Municipal Services Ordinance - Public Cleansing and Prevention of Nuisances Regulation (Cap. 132);
d. Land (Miscellaneous Provisions) Ordinance;
e. Dumping at Sea Ordinance; and
f. Dangerous Goods Ordinance.

A. ENVIRONMENTAL POLICY

The China State – Shanghai Tunnel Joint Venture (CSSTJV) has established an Environmental Policy, which will be applied throughout the construction of the Contract. It is the Joint Venture's policy to protect the environment likely to be affected by its operations. The Company is committed to:

- *Complying with statutory, contractual and other requirements in all respects;*
- *Preventing environmental pollution;*
- *Reducing construction wastes;*
- *Minimizing the consumption of natural resources; and*
- *Improving its overall performance;*

B. RESPONSIBILITY OF CET

Project Manager (PM) – Mr. Anson Chan

The Project Manager is responsible for the overall leadership in environmental management. He will advise and support the implementation of corporate and site environmental management.

Senior Site Manager (SSM) – Mr. PJ Fan

The Senior Site Manager is responsible for the overall leadership in site environmental management. He will support the implementation of environmental management, corporate environmental measures and operational procedures during daily site operations carried out by CSSTJV's sub-contractors. He will ensure that adequate resources will be provided for the successful implementation of the Project's environmental management program.

Site Agent (SA) – Mr. Ben T P Siu

The Site Agent is responsible for the day to day management of the Project. He will oversee the implementation of the site environmental management program as well as the corporate environmental policy. He will ensure that the construction team will execute the works in compliance with all the requirements of Contract Specification and other statutory provisions

Environmental Officer (EO) – Mr. Holmes K Y Wong

The Environmental Officer will be present full time on site for overseeing environmental matters of the person; in particular for the followings:

- be responsible for the preparation, implementation and updating the Environmental Management Plan;
- be responsible for advising measures to be taken in the interest of environmental protection and implement such measures;
- supervise and monitor the environmental performance of the site;
- liaise on all matters relating to environmental monitoring and auditing;
- carry out inspections of the site for identifying potential hazards to the environment, and to report findings with recommendations for corrective action;
- check and ensure that any polluting or potentially polluting situation is promptly rectified;
- compile the monthly environmental report for submission to the Engineer at least five working days before the SSEMC meetings;
- attend weekly environmental site walk, SSEMC meetings and SSEC meetings;
- arrange and provide the environmental training including the site specific induction training and toolbox talks for the staff and workers on the site, and to organize environmental promotional activities; and
- advise the contractor on the implementation of an environmental management system.

Environmental Supervisor (ES) – Mr. Tai Kin Ho

- be responsible for assisting the Environmental Officer carrying out his duties;
- carry out daily environmental inspections based on a checklist approved by the Engineer's Representative, and to ensure that follow-up action is taken promptly to rectify defects and deficiencies identified;
- advise the Environmental Officer on the upkeeping of environmental performance and standards of the site;
- supervise and promote the execution of environmental protection works by workers on site;
- be responsible for maintaining waste records and properly manage environmental emergency and preventive/corrective actions in the case of non-compliance throughout the construction period;
- attend weekly environmental site walk, SSEMC meetings and SSEC meetings, if required; and
- conduct toolbox talks as assigned by the contractor's agent after acquiring the necessary qualifications.

General Foremen – Mr. S F Lau

- assist the EO/SO/ES/SS to implement the EMP;

- control the works, including those of Sub-contractors, to fulfill the requirements relevant to environmental protection management under the Contract;
- Report any non-compliance to the SO/SS and recommend remedial action.
- Carry out remedial actions or mitigation measures to rectify any non-compliance and ensure that on-site environmental protection facilities will be properly established and maintained.

Assistant Safety Officer- Mr Alex Lee

- assist the EO/ES to implement the EMP;
- control the works, including those of Sub-contractors, to fulfill the requirements relevant to environmental protection management under the Contract;
- Report any on-compliance to the SO/SS and recommend remedial action.
- Carry out remedial actions or mitigation measures to rectify any non-compliance and ensure that on-site environmental protection facilities will be properly established and maintained.

Sub-Contractors

- Carry out agreed Project environmental protection practices as instructed by the Contractor or the Client;
- Promptly report any non-compliance to Contractor's foremen;
- Actively participate in and co-operate with EO/SO/ES/SS and/or the Client to achieve the environmental objectives established for the Project.

The organization chart of the Contractor's key personnel is presented in ***Appendix C***

C. ENVIRONMENTAL TRAINING

The requirements and arrangements for the training on environmental and waste management for all staff covering the site managerial staff, site supervisory staff and workers

- The training materials on environmental and waste management to be included in the site-specific induction training.
- The training content will cover the organization structure, duties and responsibilities, measures, targets, in-house rule and regulation.
- The course will be extended by at least 15 minutes to cover the necessary subjects on environmental management.

The topic of the toolbox training to be provided to workers on environmental nuisance abatement and waste management.

D. In-house Rules and Regulations

The requirements and arrangements for the training on environmental and waste management for all staff covering the site managerial staff, site supervisory staff and workers

- The in-house rules and regulations on environmental nuisance abatement and waste management including those specific rules and regulations laid down by the existing occupiers of the premises (in case of alternation works) for the Works to be carried out in the areas that are occupied, partially and/or controlled by the occupiers.
- The arrangements made by the contractor to ensure compliance with the in-house rules and regulations on environmental nuisance abatement and waste management are to be documented, reviewed, amended and communicated to all levels of staff working on the site.
- The means and disciplinary action to ensure implementation and enforcement of in-house rules and regulations on environmental nuisance abatement and waste management.

E. Environmental Committee

- The arrangement for the follow-up actions on environmental issues in the SSEMC meetings and SSEC meetings.

F. Performance Monitoring

- The arrangements to establish procedures for monitoring the environmental performance on the site including identification, recording and reporting of non-compliance with the EMP and their rectification; they should include:
- Planning and review of the frequency, coverage and extent of inspections conducted by different levels of site management and supervisory staff, and senior management from the headquarters;
- Development of comprehensive checklists for use in the inspections, and a system for reporting of non-compliance identified and monitoring of the corrective actions taken by the appropriate staff; and
- Compliance with all requirements in the contract including licenses or permits.

G. Review of Requirements

- Arrangement for identification of potential environmental nuisance and review of the effectiveness of environmental nuisance abatement and waste management measures;
- Location plan and inventory of nearby sensitive receivers or features (including residents, watercourse and natural environment) likely to be affected by the construction measures;
- Location plan and inventory of nearby major environmental protection fixtures/pollutant discharge points and environmental monitoring stations; and
- Emergency response plan of environmental incidents.

H. PROMOTION

- The JV's environmental policy, non compliance statistics, posters and signs are posted on the notice boards on site and offices or other prominent locations.
- Talks and campaign and distribution of news drawing attention to particular environment issues;
- Good practice from the subcontractor or labour would be commending during the safe working cycle in the morning;
- Location plan and inventory of nearby major environmental protection fixtures/pollutant discharge points and environmental monitoring stations; and
- Emergency response plan of environmental incidents.

1.1.2 Codes of Practice, Circulars and Guidelines

CSSTJV will meet all relevant requirements by consulting the following codes of practice, technical circulars and guidelines:

a. Environment, Transport and Works Bureau Technical Circular (Works) No. 15/2003 - Waste Management on Construction Sites;
b. Environment, Transport and Works Bureau Technical Circular (Works) No. 19/2005 Environmental Management on Construction Sites
c. Environment, Transport and Works Bureau Technical Circular No. 33/2002 - Management of Construction and Demolition Material Including Rock;
d. Works Bureau Technical Circular No. 21/2002 - Trip-ticket System for Disposal of Construction and Demolition Material;
e. Works Bureau Technical Circular No. 12/2002 - Specifications Facilitating the Use of Recycled Aggregates;
f. Works Bureau Technical Circular No. 06/2002A - Enhanced Specification for Site Cleanliness and Tidiness;
g. Works Bureau Technical Circular No. 06/2002 - Enhanced Specification for Site Cleanliness and Tidiness;
h. Works Bureau Technical Circular No. 19/2001 - Metallic Site Hoardings and Signboards;
i. Works Bureau Technical Circular No. 12/2000 - Fill Management;
j. Works Bureau Technical Circular No. 04/1998A - Use of Public Fill in Reclamation and Earth Filling Projects;
k. Works Bureau Technical Circular No. 04/1998 - Use of Public Fill in Reclamation and Earth Filling Projects;
l. Works Bureau Technical Circular No. 16/1996 - Wet Soil in Public Dumps;
m. Works Bureau Technical Circular No. 02/1993B - Public Filling Facilities;

n. Works Bureau Technical Circular No. 02/1993 - Public Dumps;
o. Works Bureau Technical Circular No. 32/1992 - The Use of Tropical Hardwood on Construction Sites;
p. A Guide to the Registration of Chemical Waste Producers;
q. A Guide to the Chemical Waste Control Scheme;
r. Code of Practice on the Packaging, Labeling and Storage of Chemical Wastes; and,
s. Environmental Guidelines for Planning in Hong Kong (1990), Hong Kong Planning and Standards Guidelines, Hong Kong Government.
t. Relevant HKSAR legislation relates to the handling, treatment and disposal of wastes probably associated with the project include the following:
u. The Waste Disposal Ordinance (Cap354);
v. The Waste Disposal (Chemical Waste)(General) Regulation (Cap354);
w. The Land (Miscellaneous Provisions) Ordinance (Cap28)
x. The Public Health and Municipal Services Ordinance (Cap132) – Public Cleansing and Prevention of Nuisances
y. The Storage, handling and disposal of chemical waste should be audited with reference to the requirements of the Code of Practice on the Package, Labeling and Storage of Chemical Wastes published by the EPD; and
z. Code of Practice on the Handling, Transportation and Disposal of Asbestos Waste – Cap 354, Section 35)

aa. The Dumping at Sea Ordinance (Cap466)

CSSTJV will observe all applicable statutory requirements, legislation and associated regulations, and/or code of practices with regard to the waste to be generated in the construction activities. CSSTJV will also apply all necessary permits and licenses under these ordinances / regulations

1.1.3 License Requirements

Where appropriate, CSSTJV will apply for all permits and licenses required under the following legislation for the handling and disposal of waste arising from the Project:

a. Chemical Waste Producer Registration under the Waste Disposal (Chemical Waste) (General) Regulation; and,
b. License to Collect and Transport Chemical Waste under Waste Disposal Ordinance
c. Public Dumping License under the Land (Miscellaneous Provisions) Ordinance.

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.

1.2 IDENTIFICATION AND CLASSIFICATION OF WASTE GENERATED FROM THE PROJECT

Major activities that will generate waste from this Project include site clearance, excavation, demolition works, formwork construction for concreting, etc. The following types of waste are likely to be generated during these activities:

a. C&D Material, including excavation materials, timber, steel and spent/broken concrete etc;
b. General Refuse;
c. Chemical Waste; and,
d. Marine deposit

1.2.1 Construction & Demolition (C&D) Materials

C&D materials include inert public fill materials such as bricks, rubble, concrete and non-inert C&D waste such as wood, steel, vegetation and office and work force waste etc. The majority of C&D material will arise during site clearance, demolition and excavation works. All C&D material would be disposed to designated area as per contract requirement. However the bulk excavated material will be disposed through sea routing and as such it should not affect the general public traffic. The tentative disposal forecast and the possible routings are attached in Appendix G & F respectively.

1.2.2 General Refuse

The workforce will likely generate general refuse comprising food scraps, waste paper, empty containers, etc.

1.2.3 Chemical Waste

The maintenance and servicing of construction plant and equipment generates chemical waste, for instance, cleaning fluids, solvents, lubrication oil and used batteries. The maintenance of vehicles also uses common chemicals, oil, lubricants and paints for this purpose.

1.2.4 Marine Deposit

This project will generate marine deposit during the construction and according to the relevant test, the marine deposit will be disposed to the designated area(open sea) in accordance with the contract

1.3 PROPOSAL FOR WASTE MANAGEMENT

1.3.1 Waste Management Hierarchy

CSSTJV 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 by Table 7-1 below.

Table 7-1 Waste Management Hierarchy

Avoidance and minimization	Avoid and minimize waste through changing or improving practices and designs.	↑ Highest priority
Reuse of materials (with limited reprocessing)	Reuse construction waste with only limited reprocessing such as uncontaminated soil, wooden planks, metals and other materials in other construction works or process.	
Recovery and Recycling (may require reprocessing)	Undertaking on site or off site recycling.	
Treatment	Offsite destruction and detoxification etc, of wastes into less harmful substances.	Lowest priority
Disposal	Release of wastes to designated areas properly so as to render them harmless.	

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.

1.3.2 Design and Planning of Construction Works

Prior to commencement of works, CSSTJV will carefully consider the construction methodology and programme to assess the 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.

Prior to the commencement of works, the location and necessary facilities for construction material storage, on site sorting and temporary waste collection will be planned and implemented. The opportunity for the reuse and recycling of the waste material on site and off site will be carefully studied.

1.3.3 Waste Minimization Measures and Good Site Practice

Good management and site practice can prevent the 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 practice. The good site management to be adopted will include:

a. Using the correct amount of raw materials at the correct time and the recording of materials flow to minimize over ordering. The construction materials will be stocked carefully to prevent damage or contamination. During the works, only exact quantity of materials will be collected and if necessary, any surplus will be returned to stock after consideration of its use;
b. Maximizing the utilization of materials and the avoidance of unnecessary cutting such that off-cuts will be used when short lengths or a small quantity of materials are required;
c. A preference for reusable non-timber formwork such as steel formwork or plastic facing;
d. Sorting of all excavated / demolition materials to recover the inert portion (e.g. soil and broken rock) for reuse on site whenever possible or disposal to designed outlets (e.g. public filling areas). Recover all metal, cardboard and paper on site and properly stored in dry and clean conditions temporarily for later collection by recycling contractors;
e. Segregation and storage of constituents of C&D materials in appropriate containers, skips or stockpiles to enhance the opportunity for reuse and recycling of materials or their proper disposal. Sufficient protective measures provided in the storage area for sorting to avoid damage or contamination;
f. Collection of aluminum cans, paper waste and plastic bottles by site staff, and provision of separately labeled bins to segregate these wastes from other general refuse arising from the work force;
g. Provision of a designated waste working team to collect the refuse on site regularly;
h. Removal of all other un-reusable C&D materials off site as soon as practicable in order to optimize the use of the on-site storage space;
i. Implementation of the trip-ticket system to ensure that the dumping / filling location is used so as 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 amount of C&D materials transported off site. The trip-tickets, with valid stamp from an agreed dumping / filling location, will be collected upon return and appropriately filed in the site records;

j. During the storage and transportation of waste, a tarpaulin covering or enclosed containers will be used to minimize fugitive dust emission;

k. Unused chemicals or those with remaining functional capacity will be retained for reuse. The chemicals will be separated for special handling and appropriate treatment at the Chemical Waste Treatment Facilities (CWTF);

l. The setting up of special control measures to regulate storage, labeling, transport and the disposal of classified chemical waste such as paint residues, lubricants or other oil waste including the registration as a chemical waste producer and the disposal of such wastes by a licensed collector to CWTF;

m. The amount of waste reused, recycled or disposed will be recorded regularly.

n. Draft and event action plan to manage non-compliance (Refer to Appendix E).

1.3.4 Handling of C&D Materials

Storage, collection and transportation of the C&D material will be carefully planned and implemented to minimize any adverse impact upon the environment. The generated C&D material will be sorted on site at the designated area (location refer to Appendix B) and C&D waste for recycling as appropriate in accordance with ETWB TCW No. 15/2003, or subsequent disposal at approved strategic landfills and Public Filling Areas (PFAs). Wherever practicable, SA/DSA will arrange the segregation of these wastes on site 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.

The segregated types of C&D materials will be stored in separate covered storage areas to avoid possible cross contamination and loss due to windblown and fugitive dust. If the C&D materials are to be temporarily stored in piles on site, they will either be covered with a tarpaulin or watered regularly to prevent the emission of fugitive dust. SA/DSA will ensure that C&D materials are removed from their origin and processed at designated points in a timely manner.

Recyclable materials such as steel mesh, reinforcement bars, window frames, railing, banisters, and wooden planks will be separated from other C&D materials.

These materials will be either reused on site 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 Engineer's Representative.

1.3.5 Waste Sorting

Sufficient space will be provided to accommodate the separation of inert and non-inert materials and a unique access checkpoint with security control. The SM will manage the waste sorting facilities and promptly remove all the sorted and processed materials arising from or in connection with the works from the site to minimize the extent of temporary stockpiling on the site. The categories of C&D materials to be sorted within the waste sorting facilities include:

- Inert materials consisting of earth, building debris, rock fragments, concrete bricks, tiles, masonry and mortar etc;
- Metals;
- Paper/Cardboards; and,
- Timber;

Following the sorting of these wastes, they will be sent separately for reuse and recycling, processing or disposed of as described in the following sections.

Other than large waste sorting facilities, CSSTJV 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 waste paper separately, plastic bottles and aluminum cans. These bins will be provided in common areas where the wastes are commonly generated such as site offices, workshops, canteen and other site accommodation areas for the workers.

1.3.6 Inert C&D Materials

Following waste sorting, the remaining inert C&D materials will be managed as follows:

Excess Excavated Material

In order to minimize the amount of excess excavated material to be delivered to public fill facilities, the priority for the management options of excess excavated material will be as followings: -

a. Suitable excavated material will be stored for backfilling purposes;
b. Excessive excavated material will be transported to other sites for reuse as approved by the Engineer's Representative; and
c. Only the amount of excavated material remaining after reuse as described under Items a. and b. will be transported to the public fill facilities.

Inert C&D materials which are to be disposed to public filling outlets will be broken down to a size less than 250mm as according to Dumping License conditions prior to disposal. Wet soil with free water or a liquid content of over 70% and other materials such as marine mud, pond mud, household refuse, plastic, metal, industrial and chemical waste matter etc. will not be loaded into the dump truck. This will be controlled by the GF/SE during the earthwork operations and further verified at the exit checkpoint before the trip ticket is issued for each truck.

Concrete Waste

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 for reuse in site temporary road construction.
All the remaining inert C&D materials will be transported to the public filling facilities approved by Engineer. The trip ticket system will ensure there is no illegal dumping of the above-mentioned materials.

1.3.7 Non-Inert C&D materials

Timber Waste

As far as possible, CSSTJV will avoid, reduce and minimize the use of timber in temporary works construction. Where the timber is used for this purpose or for one process / activity with an estimated quantity exceeding $5m^3$, CSSTJV will submit a method statement to the Engineer's Representative for agreement prior to the commencement of the works.

A description, justification and the estimated quantity for every work process / activity requiring the use of timber for temporary works construction.

Metal Wastes

CSSTJV will avoid and reduce metal waste during the design, planning and construction process. Cut metal or steel bar will be considered for re-use in temporary or minor works on site. When metal waste has arisen on site, it will be sorted and collected daily by an assigned work team and stored in a designated storage area for subsequent use or collection by recycling contractors.

General Refuse and C&D Waste

Un-recyclable, non inert C&D materials, i.e. C&D wastes, and general refuse, which mainly consists of food waste, aluminum cans and waste paper, will be generated from construction activities, workers and the site office.

The C&D waste will be temporarily stored and containers or skips with openable doors will be provided for temporary waste storage to prevent odour, pest and windblown litter.

Office waste will be reduced through the recycling of paper. Sacks for waste paper and baskets for reusable papers will be provided in the 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

labeled bins for subsequent recycling. Reputable recycle contractors will be employed to collect recyclable materials. The amount of waste to be recycled will be recorded, controlled and monitored through the maintenance of WFT.

The general refuse and the un-recyclable C&D waste 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 trace the transportation and destination of the waste will be implemented and the burning of refuse on the site will be strictly prohibited.

1.3.8 Chemical Waste

For chemical waste 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 EPD.

Chemical wastes are likely to be generated during maintenance of plant and equipment and these may include spent filter cartridges containing heavy metals, asbestos waste, spent batteries, used mechanical oil, cleaning fluid, spent solvents, lubricating oil and paints and paint containers.

All chemical wastes generated on site will be stored and labeled in accordance with the Code of Practice on the Packaging, Labeling and Storage of Chemical Waste published by EPD. All workers involved in the handling of chemical waste will be trained properly and will be provided with appropriate protective clothing.

The sorting and segregation of chemical waste will be carried out on site to ensure the waste is appropriately handled, labeled and treated prior to disposal off-site. The recoverable chemical wastes such as oil, paint and solvent, will be separated from other chemical wastes and an EPD licensed chemical waste collector will be employed to collect the chemical waste.

Storage of Chemical Waste

Chemical waste will be stored at designated storage areas in accordance with the Code of Practice on the Packaging, Labeling 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;
b. have a capacity of less than 450 L unless the specifications have been approved by the EPD; and,
c. display a label in English and Chinese in accordance with instructions prescribed in Schedule 2 of the Regulations.

The storage area for chemical waste will:

a. be clearly labeled 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 Waste

A licensed waste collector will be employed to deliver the chemical waste to legal treatment facilities. Waste dry battery will be disposed to SENT landfill while Waste Oil will be transported to Dunwell Industrial (Holdings) Limited 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 inspection.

1.3.9 Waste Recording System

CSSTJV will record the quantities of C&D materials generated each month, using the monthly summary "Waste Flow Table" (WFT) CSSTJV shall complete the monthly summary WFT. The WFT and the monthly summary are attached in Appendix D.

1.3.10 Trip Ticket System

For the transportation of public fill, C&D wastes, chemical wastes and the recycling materials, CSSTJV will implement and comply with the requirements of the Trip-Ticket System stipulated in Works Bureau Technical Circular No. 21/2002.

Each vehicle load of public fill or C&D waste transported off-site will be accompanied by a duly completed Construction and Demolition Material Disposal Delivery Form (the Form). When a loaded truck intends to leave the site, it will firstly go through the weight bridge and make sure that the loading of the truck is kept within the acceptable range. Secondly, the loaded truck will pass the wheel washing facility for wheel cleaning before departure. CSSTJV will complete the Form in duplicate leaving the Time of Departure blank.

Prior to the vehicle leaving the site, CSSTJV will present the completed Form to the supervisory staff of ER. Once the supervisory staff has recorded the time of departure and stamped the Form, CSSTJV will pass a copy for the Engineer's record while the original will be carried on board the vehicle during the trip.

For each vehicular trip, CSSTJV will present to the operator of the Designed Public Filling Facility / Landfill (operator) the stamped Form prior to disposal of the C&D materials. Upon completion of the disposal, CSSTJV will ask the operator for a stamp on the Form together with a computer print-out receipt to acknowledge the disposal. SE will collect and verify the returned Form and computer receipt. A copy of the Form and computer receipt will be maintained by SE for record.
ER may request and obtain information from the operator of the Designed Public Filling Facility / Landfill to verify the receipt of the C&D materials and the accuracy of the information on the receipt.
For the avoidance of overloading, the Contractor has established a weigh bridge on site to monitor the truck load prior to the vehicle leaving the site since end July 2010. Each vehicular trip will be weighed by the bridge and jointly witnessed by the RSS and the Contractor's representatives prior to the issue of the "Chit".

1.3.11 Marine Mud Handling

The Contractor will be responsible for the handling and disposal of marine mud arising from the excavation works for the Main Pumping Station, the Inlet Chamber and Launching Shaft. All excavated marine mud in this contract that are classified as Category L material requiring Type 1 – Open Sea Disposal in accordance with ETWE TCW No. 34/2002 shall be disposed of at the designated disposal space "MP13" within the South Cheung Chau Sediment Disposal Area before the expiry of allocation on 1st July 2011.

The Contractor shall refer to the Allocation Conditions for Marine Borrow Areas and Mud Disposal Sites issued by the Marine Fill Committee (MFC) of Civil Engineering and Development (CEDD) on the allocation of mud disposal capacity and the delineation of sediment category, and shall apply the dumping license under the Dumping AT Sea Ordinance for the Environmental Protection Department (EPD) accordingly.

Appendix A Waste Flow Table (WFT) and Monthly Summary

MONTHLY SUMMARY WASTE FLOW TABLE

Name of Department :

Contract No.: DC/2009/05

Monthly summary waste Flow Table for 2010 (year)

Date	Actual Quantities of Inert C & D Materials Generated Monthly						Actual Quantities of non-inert C & D Wastes Generated Monthly					
	Total Quantity Generated	Hard Rock and Large Broke Concrete	Soil/Slurry	Reused in other Projects	Disposed to Barging Point	Imported Fill	Metals	Paper cardboard packaging	Plastics (see Note 3)	Chemical wastes	Others e.g. General refuses	Marine Deposi
	(in Ton)	(in Ton)	(in Ton)	(in m^3)	(in m^3)	(in '000m^3)	(in Ton)	(in '000kg)	(in '000kg)	(in 'L)	(in 'TON)	(in 'TON)
Jan	2886	78.71	2807.29								19.57	
Feb	6172.02		6172.02								18.84	
Mar	7285.24		7285.24				10.64				6.85	
Apr	8237.82	134.22	8103.6				10.3			1800	7.15	
May	8826.23	286.16	8540.07				8.64			672	8.66	
Jun	7778.7		7778.7				7			2400	14.14	
July	6169.93	81.31	6088.62				8.89			1400	9.48	
August	5317.84	52.41	5265.43				17.41			1000	16.34	
September	6783.03	68.1	6714.93				6.27			3800	11.01	
October	5114.49	435.95	4678.54				23.24			0	19.83	
November												
December												
Total	64571.3	1136.86	63434.44	0	0	0	92.39	0	0	11072	131.87	0

Forecast of Total quantities of C&D Materials to be Genated from the Contract (Monthly)						Forecast of Total quantities of non-inert C&d Materials to be Genated from the Contract (Monthly)					
Total Quantity Generated	Hard Rock and Large Broke Concrete	Soil/Slurry	Reused in other Projects	Disposed to Barging Point	Imported Fill	Metals	Paper cardboard packaging	Plasties (see Note 3)	Chemical wastes	Others e.g. General refues	Marine Deposit
(in Ton)	(in Ton)	(in Ton)	(in '000m^3)	(in '000m^3)	(in '000m^3)	(inTon)	(in '000kg)	(in '000kg)	(in 'L)	(in 'TON)	(in 'TON)
5500	500	5000				30			0	30	0

Notes:

(1) The performance targets are given in PS Clause 6(14)

(2) The waste flow table shall also include C& D materials that are specified in the Contract to be imported for use at the Site

(3) Plastcs refer to plastic bottles/containers, Plastic sheets/form from packaging material.

(4) The Contractor shall also submit the latest forecast of the total amount of C& D materials aspected to be generated from the Works together with a breakdown of the nature where the total amount of C & D materials expected to be generated from the Works is equal to or exceeding 30,000m (PS Clause 8(4) (to refers)[Delete Note (4) and the table above on the foreman where inappilicable.

Harbour Area Treatment Scheme Stage 2A -
Construction of Interconnection Tunnel and Diaphragm Wall for
Main Pumping Station at Stonecutters Island Sewage Treatment Works

Summary Table for Work Processes or Activities Requiring Timber for Temporary Works

Item No.	Description fo Works Process or Activities	Justification for Using Timber in Temporary Construction Works	Est. Quantities of Timber Used (m3)	Actual Quantities (m^3)	Remarks
Nil	Nil	Nil	Nil	Nil	

Total Estimated Quantities of Timber Used _____

Appendix B Layout plan for the temporary storage of C&D materials on the site and chemical storage location

Serial No. 0002942500

Serial No. 0002942500

Construction and Demolition Materials Disposal Delivery Form
拆建物料運載記錄票

(Information contained in this form may be displayed on Internet 此表格所載資料可被上載於互聯網)

Date: 26/10/2010
日期：~~26-10-2010~~

Designated PFF/Landfill:
指定公眾填土設施／堆填區：
TM38

Vehicle Licence Plate Number:
車牌號碼：
NX4490

Issued By:
簽發：

Date: 26/10/2010
日期：~~26-10-2010~~ Time of departure from site: 13:95 離開地盤時間

Designated Public Filling Facility/Landfill:
指定公眾填土設施／堆填區：TM38

Vehicle Licence Plate Number:
車牌號碼：NX4490

Location of Site:
地盤位置：

☐ Central & Western 中西區	☐ Wanchai 灣仔	☐ Eastern 東區	☐ Southern 南區	☐ Sai Kung 西貢
☐ Yau Tsim Mong 油尖旺	☑ Shamshuipo 深水埗	☐ Kowloon City 九龍城	☐ Wong Tai Sin 黃大仙	☐ Outlying Islands 離島
☐ Kwun Tong 觀塘	☐ Kwai Tsing 葵青	☐ Tsuen Wan 荃灣	☐ Tuen Mun 屯門	☐ Shatin 沙田
☐ Yuen Long 元朗	☐ North 北區	☐ Tai Po 大埔		

Approximate Load: ☐ 1/4 ☐ 1/2 ☑ 3/4 ☐ Full 滿
大約承載量：

Contract No. DC/2009/05
DC200905---

Please stick contract no. barcode above
請在上方貼上合約編號條碼

Chop of Designated Public Filling Facility/ Landfill 公眾填土設施/堆填區蓋印

Chop of Designated Public Filling Facility/Landfill 公眾填土設施／堆填區蓋印

Chop of Engineer's/Architect's Representative 工程師／建築師代表蓋印

入帳票編號 Chit No.: 05780287

請在下列一個訂明設施加上「✓」號:
Tick (✓) One Prescribed Facility:

☐ 堆填區 Landfills ☐ 篩選分類設施 Sorting Facilities
☐ 公眾填料接收設施 Public Fill Reception Facilities
☐ 離島廢物轉運設施 Outlying Islands Transfer Facilities

車牌號碼 Vehicle Registration Mark: NX4490

使用日期 Date of Use: 26/10/2010

簽發人 Issued by:

帳戶名稱 Name of the Account-holder:
CHINA STATE CONST ENG (HK) LTD & SHANGHAI TUNNEL ENG CO LTD TRADING AS CHINA STATE SHANGHAI TUNNEL

THE GOVERNMENT OF THE HKSAR
Fill Bank at Tuen Mun Area 38
TRANSACTION RECORD
香港特別行政區政府屯門第38區填料庫交收記錄

Date: 日期	2010-10-26	Trans. Ref. No.: 備考號碼	100246864
Vehicle No.: 車輛登記號碼	NX4490	Classifying Label: 車輛標識類別	
Time in: 進入時間	14:20:49	Time out: 離開時間	14:36:58
Source of Material: 物料來源地	Shamshuipo	Type of Material: 物料類別	Soil
Contract No.: 工程合約編號	DC/2009/05	DDF Serial No.: 運棄記錄表編號	0002942500
Weight in (tonne): 入載重量〔公噸〕	29.62	Weight out (tonne): 出載重量〔公噸〕	13.93
Net vehicle load (tonne): 物料淨重量〔公噸〕	15.69	Charged load (tonne): 收費重量〔公噸〕	15.70
Amount (HK$): 總數〔港幣〕	423.90		
Chit No.: 記帳單編號	05780287	Account No.: 帳戶編號	7009440

Serial No. 0002942600

Construction and Demolition Materials Disposal Delivery Form
拆建物料運載記錄票

Serial No. 0002942600

(Information contained in this form may be displayed on Internet 此表格所載資料可被上載於互聯網)

Date:
日期：3/11/2010

Time of departure from site:
離開地盤時間：9:23

Vehicle Licence Plate Number:
車牌號碼：NM865[illegible]

Designated PFF/Landfill:
指定公眾填土設施／堆填區：TM38

Designated Public Filling Facility/Landfill:
指定公眾填土設施／堆填區：TM38

Location of Site:
地盤位置：

☐ Central & Western 中西區	☐ Wanchai 灣仔	☐ Eastern 東區	☐ Southern 南區	☐ Sai Kung 西貢
☐ Yau Tsim Mong 油尖旺	☑ Shamshuipo 深水埗	☐ Kowloon City 九龍城	☐ Wong Tai Sin 黃大仙	☐ Outlying Islands 離島
☐ Kwun Tong 觀塘	☐ Kwai Tsing 葵青	☐ Tsuen Wan 荃灣	☐ Tuen Mun 屯門	☐ Shatin 沙田
☐ Yuen Long 元朗	☐ North 北區	☐ Tai Po 大埔		

Vehicle Licence Plate Number
車牌號碼：NM865[illegible]

Issued By:
簽發：

Approximate Load: ☐ 1/4 ☐ 1/2 ☑ 3/4 ☐ Full 滿
大約承載量：

Contract No. DC/2009/05
DC200905—

Please stick contract no. barcode above
請在上方貼上合約編號條碼

Chop of Designated Public Filling Facility/ Landfill 公眾填土設施/堆填區蓋印

Chop of Designated Public Filling Facility/Landfill
公眾填土設施／堆填區蓋印

Chop of Engineer's/Architect's Representative
工程師／建築師代表蓋印

入帳票編號 Chit No.: 05780438

選擇一個訂明設施 Tick (✓) One Prescribed Facility:

- ☐ 堆填區 Landfills
- ☐ 篩選分類設施 Sorting Facilities
- ☑ 公眾填料接收設施 Public Fill Reception Facilities
- ☐ 離島廢物轉運設施 Outlying Islands Transfer Facilities

車牌號碼 Vehicle Registration Mark: NM8655

使用日期 Date of Use: 03/11/2010

簽發人 Issued by:

帳戶名稱 Name of the Account-holder:
CHINA STATE CONST ENG (HK) LTD & SHANGHAI TUNNEL ENG CO LTD TRADING AS CHINA STATE-SHANGHAI TUNNEL J.V.

帳戶編號 Account No.: 7009440

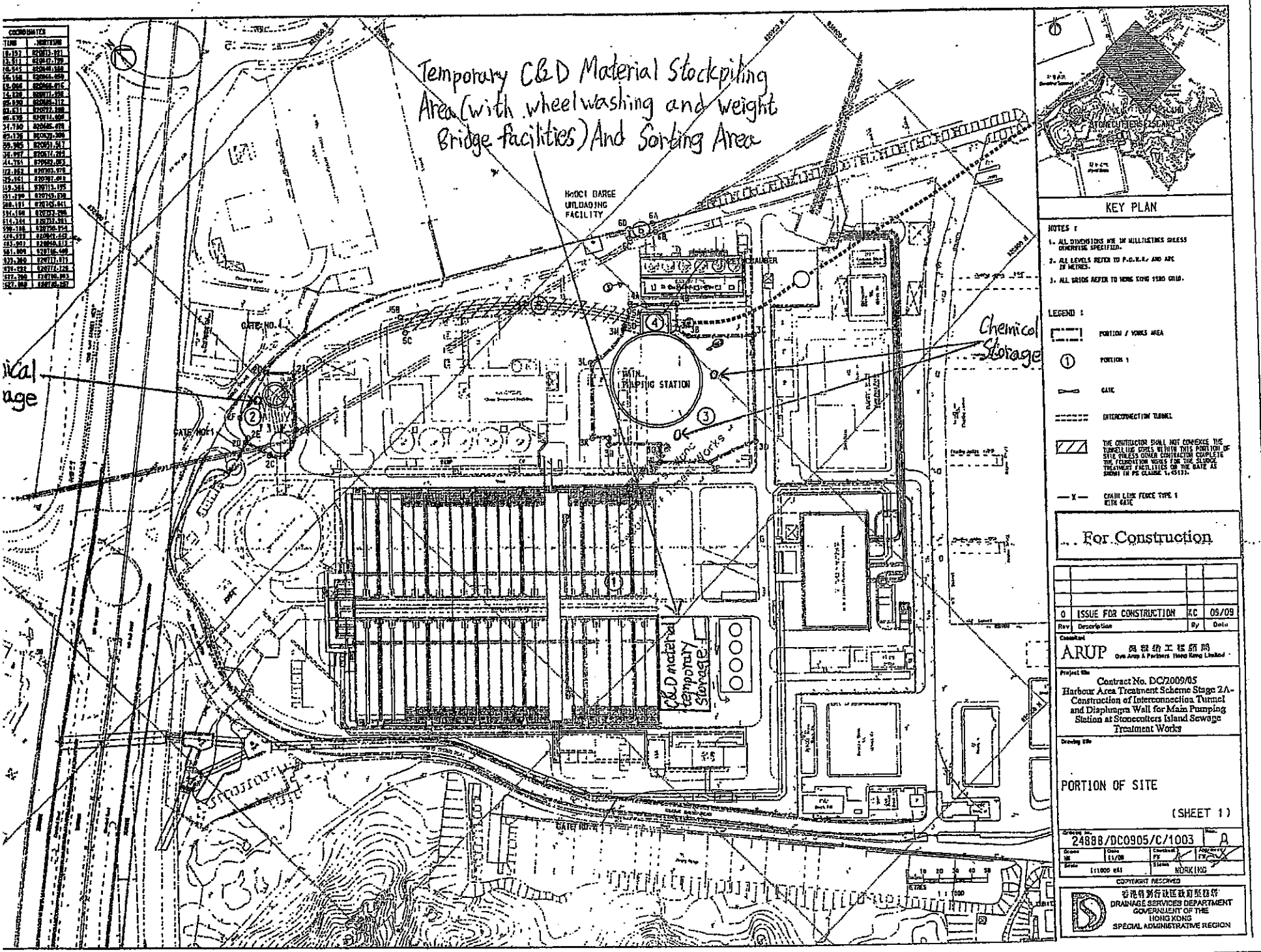
乙部份：由廢物運輸商保留
Part B: retained by Waste Hauler

THE GOVERNMENT OF THE HKSAR
Fill Bank at Tuen Mun Area 38
TRANSACTION RECORD
香港特別行政區政府屯門第38區填料庫交收紀錄

Date: 日期	2010-11-03	Trans. Ref. No.: 備考號碼	100255967
Vehicle No.: 車輛登記號碼	NM8655	Classifying Label: 車輛標識類別	
Time in: 進入時間	10:02:17	Time out: 離開時間	10:20:19
Source of Material: 物料來源地	Shamshuipo	Type of Material: 物料類別	Slurry
Contract No.: 工程合約編號	DC/2009/05	DDF Serial No.: 運載記錄票編號	0002942600
Weight in (tonne): 入載重量〔公噸〕	29.53	Weight out (tonne): 出載重量〔公噸〕	14.17
Net vehicle load (tonne): 物料淨重量〔公噸〕	15.36	Charged load (tonne): 收費重量〔公噸〕	15.40
Amount (HK$): 總數〔港幣〕	415.80		
Chit No.: 記帳單編號	05780438	Account No.: 帳戶編號	7009440

Remarks:
備註

REASONS FOR REJECTING 拒進原因一覽表


Temporary C&D Material Stockpiling Area (with wheelwashing and weight Bridge facilities) And Sorting Area
HoDCI BARGE UNLOADING FACILITY
GATE NO.1
GATE NO.2
GATE NO.3
MAIN PUMPING STATION
Chemical Storage
C&D material temporary storage
KEY PLAN
NOTES :
1. ALL DIMENSIONS ARE IN MILLIMETRES UNLESS OTHERWISE SPECIFIED.
2. ALL LEVELS REFER TO P.D.H.K. AND ARE IN METRES.
3. ALL GRIDS REFER TO HONG KONG 1980 GRID.
LEGEND :
PORTION / WORKS AREA
PORTION 1
GATE
INTERCONNECTION TUNNEL
THE CONTRACTOR SHALL NOT COMMENCE THE TUNNELLING WORKS WITHIN THIS PORTION OF SITE UNLESS OTHER CONTRACTOR COMPLETE THE FOUNDATION WORKS FOR THE SLUDGE TREATMENT FACILITIES ON THE RATE AS SHOWN IN PS CLAUSE 1.45(3).
CHAIN LINK FENCE TYPE 1 WITH GATE
For Construction
0 ISSUE FOR CONSTRUCTION KC 09/09
Rev Description By Date
Consultant
ARUP 奧雅納工程顧問
Ove Arup & Partners Hong Kong Limited
Project title
Contract No. DC/2009/05
Harbour Area Treatment Scheme Stage 2A - Construction of Interconnection Tunnel and Diaphragm Wall for Main Pumping Station at Stonecutters Island Sewage Treatment Works
Drawing title
PORTION OF SITE
(SHEET 1)
Drawing no. 24888/DC0905/C/1003
Rev. A
Scale 1:1000 at A1
Status WORKING
COPYRIGHT RESERVED
DRAINAGE SERVICES DEPARTMENT
GOVERNMENT OF THE HONG KONG SPECIAL ADMINISTRATIVE REGION

Appendix C Organization Chart of Key Personnel

n Chart for Contract No. DC/2009/05

Board Committee

Project Director
Andrew Tse

Corporate Level

Senior Site Manager
PJ Fan

Project Manager
Anson Chan

Deputy Project Manager
Chris Leung

Site Agent
Ben Siu

ation
r
am

ork
Ho

Land Surveyor
Wong Man Sang

Contractor's Surveyor
Hui Wai Ting

Surveyor
Mak Shing Chi

Chainman
Wai Man Tik

Construction Manager (Civil & Diaphragm Wall)
Holmes Wong

Civil Works Engineer
Gary Hong

Diaphragm Wall Engineer
Dai Bing

Graduate Engineer
Jeffrey Sin and Esmond Ng

G. Foreman / Safety Representative
Lau Shing Fai

Foreman (SS) / A. Foreman (SS)
Tai Kin Ho (Night Shift), So Hoi Fan, K. F. Lee, K.M. Lam & Y.C. Ko

Technical Apprentice
Lam Toi Wai, Lau Man Chung and Chan Fu Keung

Electrician
Lai Kwong Ping

Construction Manager (Tunnel)
TBA

Tunnel Construction Engineer
Yuen Zhen Liu Xi Dong

Graduate Engineer
TBA

G. Foreman / Safety Representative
TBA

Foreman
TBA

Technical Apprentice
TBA

Electrician
TBA

Design Manager (Tunnel)
S. J. Chen

Geotechnical Staff
Rupert Leung (Cat. I/II)
Ryan Ku (Cat. III) (Launching Shaft)
Chin Ming
Chan Ho Man

Safety Officer
Thomas Cheung

Contractor's Labour Officer
Alex Lee

Environmental Officer
Holmes Wong

Environmental Supervisor
Tai Kin Ho

Contract Engineer
Yuen Lai Man

PQS
Terence To

QS
Wilson Leung

Store Keeper
C. H. Yeung

Reporting line of Communication

Version: 21
Updated as at 20 Dec 2010

Appendix D CHIT Ticket and Disposal Record Summary Samples.

October 2010

Monthly Construction and Demolition Materials Disposal Delivery Form

Date	Destination	Weight in	Weight out	Net Load	Veh. No.	Chit No.	Serial No		Type	Location	Type of Material
6	NENT	18	14.47	3.53	GP6139	5866439	2942316		24	PS	Waste
11	NENT	17.3	14.4	2.90	GP6139	5866503	2942375		24	PS	Waste
14	NENT	17.81	14.52	3.29	AS7720	5866535	2942408		24	PS	Waste
18	NENT	17.32	14.56	2.76	AS7720	5866589	2942436		24	PS	Waste
19	NENT	16.23	14.39	1.84	GP6139	5780228	2942457		24	PS	Waste
21	NENT	18.34	14.55	3.79	GP6139	5780229	2942458		24	PS	Waste
28	NENT	16.16	14.44	1.72	LT5958	5780326	2942524		24	PS	Waste
2	TKO 137	29.33	16.50	12.83	NX7157	5866394			30	PS	Bentonite
	TKO 137	29.54	16.44	13.10	NX7157	5866395			30	PS	Bentonite
	TKO 137	29.52	16.47	13.05	NX7157	5866396			30	PS	Bentonite
	TKO 137	29.64	16.96	12.68	PJ824	5866398			30	PS	Bentonite
	TKO 137	29.86	16.93	12.93	PJ824	5866399			30	PS	Bentonite
	TKO 137	29.45	16.96	12.49	PJ824	5866400			30	PS	Bentonite
4	TKO 137	29.58	16.41	13.17	NX7157	5866397			30	PS	Bentonite
	TKO 137	29.5	16.88	12.62	PJ824	5866401			30	PS	Bentonite
	TKO 137	29.64	16.42	13.22	NX7157	5866407			30	PS	Bentonite
	TKO 137	28.75	16.44	12.31	NX7157	5866408			30	PS	Bentonite
	TKO 137	29.66	16.88	12.78	PJ824	5866411			30	PS	Bentonite
	TKO 137	29.81	17.04	12.77	PJ824	5866412			30	PS	Bentonite
18	TKO 137	29.82	17.25	12.57	PJ824	5866575			30	PS	Bentonite
	TKO 137	29.67	17.27	12.40	PJ824	5866576			30	PS	Bentonite
	TKO 137	29.67	17.29	12.38	PJ824	5866577			30	PS	Bentonite
	TKO 137	29.69	17.01	12.68	PJ824	5866578			30	PS	Bentonite
	TKO 137	29.45	16.78	12.67	NX7157	5866579			30	PS	Bentonite
	TKO 137	29.58	16.72	12.86	NX7157	5866580			30	PS	Bentonite
	TKO 137	29.57	16.76	12.81	NX7157	5866581			30	PS	Bentonite
	TKO 137	28.14	16.56	11.58	NX7157	5866582			30	PS	Bentonite
19	TKO 137	29.87	16.99	12.88	PJ824	5866558			30	PS	Bentonite
	TKO 137	29.42	16.99	12.43	PJ824	5866559			30	PS	Bentonite
	TKO 137	29.8	16.93	12.87	PJ824	5866560			30	PS	Bentonite
	TKO 137	29.8	16.56	13.24	NX7157	5866562			30	PS	Bentonite
	TKO 137	29.81	16.6	13.21	NX7157	5866563			30	PS	Bentonite
	TKO 137	29.39	16.64	12.75	NX7157	5866564			30	PS	Bentonite
20	TKO 137	28.87	16.59	12.28	NX7157	5866565			30	PS	Bentonite
	TKO 137	29.84	17.09	12.75	PJ824	5866599			30	PS	Bentonite
	TKO 137	29.83	17.09	12.74	PJ824	5866600			30	PS	Bentonite
	TKO 137	29.78	17.05	12.73	PJ824	5866601			30	PS	Bentonite
	TKO 137	29.88	17.09	12.79	PJ824	5866602			30	PS	Bentonite
	TKO 137	29.69	16.75	12.94	NX7157	5866603			30	PS	Bentonite
	TKO 137	29.88	16.62	13.26	NX7157	5866604			30	PS	Bentonite
	TKO 137	28.83	16.56	12.27	NX7157	5866605			30	PS	Bentonite
21	TKO 137	29.67	16.56	13.11	NX7157	5780223			30	PS	Bentonite
	TKO 137	29.67	16.47	13.20	NX7157	5780224			30	PS	Bentonite
	TKO 137	29.84	16.87	12.97	PJ824	5780226			30	PS	Bentonite
	TKO 137	29.86	16.85	13.01	PJ824	5866561			30	PS	Bentonite
	TKO 137	29.72	16.54	13.18	NX7157	5866598			30	PS	Bentonite
	TKO 137	29.79	16.99	12.80	PJ824	5866606			30	PS	Bentonite
22	TKO 137	29.74	16.64	13.10	NX7157	5780225			30	PS	Bentonite
	TKO 137	29.61	16.66	12.95	NX7157	5866607			30	PS	Bentonite
	TKO 137	29.73	16.52	13.21	NX7157	5866608			30	PS	Bentonite
	TKO 137	28.54	16.45	12.09	NX7157	5866609			30	PS	Bentonite
	TKO 137	29.82	16.99	12.83	PJ824	5866611			30	PS	Bentonite
	TKO 137	29.86	17.13	12.73	PJ824	5866612			30	PS	Bentonite
	TKO 137	29.91	16.94	12.97	PJ824	5866613			30	PS	Bentonite
	TKO 137	29.92	17.04	12.88	PJ824	5866614			30	PS	Bentonite
23	TKO 137	29.74	16.58	13.16	NX7157	5866610			30	PS	Bentonite
	TKO 137	29.4	16.44	12.96	NX7157	6251977			30	PS	Bentonite
	TKO 137	29.63	16.45	13.18	NX7157	6251978			30	PS	Bentonite
	TKO 137	29.68	16.55	13.13	NX7157	6251979			30	PS	Bentonite
	TKO 137	29.92	17.03	12.89	PJ824	6251973			30	PS	Bentonite
	TKO 137	29.86	17.03	12.83	PJ824	6251974			30	PS	Bentonite
	TKO 137	29.6	16.87	12.73	PJ824	6251975			30	PS	Bentonite
	TKO 137	29.9	16.92	12.98	PJ824	6251976			30	PS	Bentonite
25	TKO 137	29.93	16.97	12.96	PJ824	5780254			30	PS	Bentonite

	TKO 137	29.87	16.88	12.99	PJ824	5780255			30	PS	Bentonite
	TKO 137	29.6	16.94	12.66	PJ824	5780256			30	PS	Bentonite
	TKO 137	29.44	16.4	13.04	NX7157	5780258			30	PS	Bentonite
	TKO 137	29.83	16.41	13.42	NX7157	5780259			30	PS	Bentonite
	TKO 137	29.38	16.41	12.97	NX7157	6251980			30	PS	Bentonite
26	TKO 137	29.96	16.99	12.97	PJ824	5780227			30	PS	Bentonite
	TKO 137	29.97	16.95	13.02	PJ824	5780257			30	PS	Bentonite
	TKO 137	29.88	16.9	12.98	PJ824	5780283			30	PS	Bentonite
	TKO 137	29.41	16.94	12.47	PJ824	5780284			30	PS	Bentonite
	TKO 137	29.73	16.45	13.28	NX7157	5780285			30	PS	Bentonite
	TKO 137	29.77	16.44	13.33	NX7157	5780286			30	PS	Bentonite
	TKO 137	29.81	16.33	13.48	NX7157	5780260			30	PS	Bentonite
	TKO 137	29.84	16.33	13.51	NX7157	5780261			30	PS	Bentonite
27	TKO 137	29.71	16.59	13.12	NX7157	5780294			30	PS	Bentonite
	TKO 137	29.74	16.5	13.24	NX7157	5780295			30	PS	Bentonite
	TKO 137	29.82	16.62	13.20	NX7157	5780296			30	PS	Bentonite
	TKO 137	29.73	16.51	13.22	NX7157	5780297			30	PS	Bentonite
	TKO 137	29.85	16.95	12.90	PJ824	5780298			30	PS	Bentonite
	TKO 137	29.92	16.92	13.00	PJ824	5780299			30	PS	Bentonite
	TKO 137	29.98	16.92	13.06	PJ824	5780300			30	PS	Bentonite
	TKO 137	29.9	16.97	12.93	PJ824	5780301			30	PS	Bentonite
28	TKO 137	29.46	16.33	13.13	NX7157	5780316			30	PS	Bentonite
	TKO 137	29.78	16.3	13.48	NX7157	5780317			30	PS	Bentonite
	TKO 137	29.82	16.44	13.38	NX7157	5780318			30	PS	Bentonite
	TKO 137	29.11	16.26	12.85	NX7157	5780319			30	PS	Bentonite
28	TKO 137	29.92	16.94	12.98	PJ824	5780320			30	PS	Bentonite
	TKO 137	29.86	16.93	12.93	PJ824	5780321			30	PS	Bentonite
	TKO 137	29.63	16.92	12.71	PJ824	5780322			30	PS	Bentonite
	TKO 137	29.76	17	12.76	PJ824	5780323			30	PS	Bentonite
29	TKO 137	29.89	17.13	12.76	PJ824	5780343			30	PS	Bentonite
	TKO 137	29.86	17.14	12.72	PJ824	5780344			30	PS	Bentonite
	TKO 137	29.83	17.07	12.76	PJ824	5780345			30	PS	Bentonite
	TKO 137	29.85	17.04	12.81	PJ824	5780346			30	PS	Bentonite
	TKO 137	29.72	16.46	13.26	NX7157	5780347			30	PS	Bentonite
	TKO 137	29.72	16.43	13.29	NX7157	5780348			30	PS	Bentonite
	TKO 137	29.74	16.44	13.30	NX7157	5780349			30	PS	Bentonite
	TKO 137	29.44	16.43	13.01	NX7157	5780350			30	PS	Bentonite
30	TKO 137	29.86	17.02	12.84	PJ824	5780363			30	PS	Bentonite
	TKO 137	29.92	17.03	12.89	PJ824	5780364			30	PS	Bentonite
	TKO 137	29.95	16.82	13.13	PJ824	5780365			30	PS	Bentonite
	TKO 137	29.52	16.91	12.61	PJ824	5780366			30	PS	Bentonite
	TKO 137	29.05	16.36	12.69	NX7157	5780367			30	PS	Bentonite
	TKO 137	29.75	16.33	13.42	NX7157	5780368			30	PS	Bentonite
	TKO 137	29.54	16.32	13.22	NX7157	5780369			30	PS	Bentonite
	TKO 137	28.93	16.35	12.58	NX7157	5780370			30	PS	Bentonite
2	TM38	29.51	14.68	14.83	NX2930	5866402	2942286	瑞榮	30	PS	Slurry
	TM38	29.6	13.91	15.69	NU8022	5866403	2942287	瑞榮	30	PS	Slurry
	TM38	29.57	14.19	15.38	NW7098	5866404	2942288	瑞榮	30	PS	Slurry
	TM38	29.65	13.97	15.68	PE3303	5866405	2942289	瑞榮	30	PS	Slurry
	TM38	22.76	12.96	9.8	EL3433	5866406	2942290	憶利	24	PS	Broken Concrete
4	TM38	23.31	12.78	10.53	JY6836	5866410	2942291	憶利	24	PS	Broken Concrete
	TM38	23.56	12.94	10.62	EL3433	5866415	2942292	憶利	24	PS	Broken Concrete
	TM38	23.3	12.71	10.59	JY6836	5866416	2942293	憶利	24	PS	Broken Concrete
	TM38	29.51	14.07	15.44	NW7098	5866417	2942294	瑞榮	30	PS	Slurry
	TM38	29.61	13.76	15.85	NU8022	5866418	2942295	瑞榮	30	PS	Soil
	TM38	23.13	12.92	10.21	EL3433	5866419	2942296	憶利	24	PS	Building Debris
	TM38	23.03	12.69	10.34	JY6836	5866420	2942297	憶利	24	PS	Mixed rock and soil
	TM38	29.44	13.96	15.48	NW7098	5866421	2942298	瑞榮	30	PS	Slurry
	TM38	29.54	13.77	15.77	NU8022	5866422	2942299	瑞榮	30	PS	Slurry
	TM38	23.42	12.88	10.54	EL3433	5866423	2942300	憶利	24	PS	Building Debris
	TM38	23.81	12.68	11.13	JY6836	5866424	2942301	憶利	24	PS	Building Debris
	TM38	23.6	12.88	10.72	EL3433	5866425	2942302	憶利	24	PS	Broken Concrete
	TM38	23.5	12.67	10.83	JY6836	5866426	2942303	憶利	24	PS	Building Debris
5	TM38	29.58	14.01	15.57	NX7157	5866428	2942304	瑞榮	30	PS	Soil
	TM38	29.51	14.27	15.24	PJ824	5866427	2942305	瑞榮	30	PS	Soil
	TM38	23.02	12.63	10.39	LS2926	5866429	2942306	[illegible]	24	PS	Building Debris
	TM38	22.09	12.62	9.47	LS2926	5866430	2942307	宏卓	24	PS	Broken Concrete
	TM38	29.63	14.59	15.04	NR9535	5866431	2942308	瑞榮	30	PS	Soil
	TM38	29.47	13.88	15.59	PE3303	5866432	2942309	瑞榮	30	PS	Soil

6	TM38	29.51	14.75	14.76	NX2930	5866433	2942310	[redacted]	30	PS	Slurry
	TM38	29.61	13.6	16.01	NU8022	5866434	2942311	[redacted]	30	PS	Soil
	TM38	29.42	13.95	15.47	NW7098	5866435	2942312	[redacted]	30	PS	Slurry
	TM38	29.44	14.69	14.75	NX2930	5866436	2942313	[redacted]	30	PS	Slurry
	TM38	29.6	13.88	15.72	NU8022	5866437	2942314	[redacted]	30	PS	Slurry
	TM38	29.59	14.07	15.52	NW7098	5866438	2942315	[redacted]	30	PS	Slurry
	TM38	29.65	13.84	15.81	NU8022	5866440	2942317	[redacted]	30	PS	Slurry
	TM38	29.39	14.03	15.36	NW7098	5866441	2942318	[redacted]	30	PS	Slurry
	TM38	29.62	13.85	15.77	NU8022	5866442	2942319	[redacted]	30	PS	Slurry
	TM38	29.62	13.99	15.63	NW7098	5866443	2942320	[redacted]	30	PS	Slurry
	TM38	29.64	13.73	15.91	NU8022	5866444	2942321	[redacted]	30	PS	Slurry
7	TM38	29.59	14.57	15.02	NR9535	5866475	2942322	[redacted]	30	PS	Slurry
	TM38	29.47	13.71	15.76	NU8022	5866476	2942323	[redacted]	30	PS	Slurry
	TM38	29.64	13.88	15.76	NU8022	5866477	2942324	[redacted]	30	PS	Slurry
	TM38	29.61	14.53	15.08	NR9535	5866478	2942325	[redacted]	30	PS	Slurry
	TM38	29.57	14.01	15.56	PE3303	5866479	2942326	[redacted]	30	PS	Slurry
	TM38	29.57	14.04	15.53	NX7157	5866480	2942327	[redacted]	30	PS	Slurry
	TM38	29.55	14.36	15.19	PJ824	5866481	2942328	[redacted]	30	PS	Slurry
	TM38	29.61	14.61	15	NR9535	5866482	2942329	[redacted]	30	PS	Slurry
	TM38	29.67	14.03	15.64	NU8022	5866483	2942330	[redacted]	30	PS	Slurry
	TM38	29.69	14.14	15.55	NX7157	5866484	2942331	[redacted]	30	PS	Slurry
	TM38	29.56	14.42	15.14	PJ824	5866485	2942332	[redacted]	30	PS	Slurry
	TM38	29.63	14.12	15.51	PE3303	5866486	2942333	[redacted]	30	PS	Slurry
	TM38	29.53	14.53	15	NR9535	5866487	2942334	[redacted]	30	PS	Slurry
	TM38	29.68	13.82	15.86	NU8022	5866488	2942335	[redacted]	30	PS	Slurry
	TM38	29.64	13.93	15.71	NX7157	5866489	2942336	[redacted]	30	PS	Slurry
	TM38	29.5	14.23	15.27	PJ824	5866490	2942337	[redacted]	30	PS	Soil
	TM38	29.66	13.98	15.68	PE3303	5866491	2942338	[redacted]	30	PS	Slurry
	TM38	29.46	13.77	15.69	NU8022	5866492	2942339	[redacted]	30	PS	Slurry
8	TM38	22.95	12.8	10.15	EZ3798	5866493	2942340	[redacted]	24	PS	Mixed rock and soil
9	TM38	29.56	14.31	15.25	PJ824	5866494	2942341	[redacted]	30	PS	Slurry
	TM38	29.65	14.05	15.6	NX7157	5866445	2942342	[redacted]	30	PS	Slurry
	TM38	29.48	14.57	14.91	NR9535	5866446	2942343	[redacted]	30	PS	Slurry
	TM38	23.09	12.81	10.28	EZ3798	5866447	2942344	[redacted]	24	PS	Broken Concrete
	TM38	29.44	13.92	15.52	NW7098	5866448	2942345	[redacted]	30	PS	Slurry
	TM38	29.58	14.64	14.94	NX2930	5866449	2942346	[redacted]	30	PS	Slurry
	TM38	29.66	14.38	15.28	PJ824	5866450	2942347	[redacted]	30	PS	Slurry
	TM38	29.44	14.09	15.35	NX7157	5866451	2942348	[redacted]	30	PS	Slurry
	TM38	29.34	14.6	14.74	NR9535	5866452	2942349	[redacted]	30	PS	Slurry
	TM38	29.59	13.96	15.63	NW7098	5866453	2942350	[redacted]	30	PS	Soil
	TM38	29.58	14.63	14.95	NX2930	5866454	2942351	[redacted]	30	PS	Slurry
	TM38	22.88	12.78	10.1	EZ3798	5866456	2942352	[redacted]	24	PS	Building Debris
	TM38	29.75	14.42	15.33	PJ824	5866457	2942353	[redacted]	30	PS	Slurry
	TM38	29.58	14.01	15.57	NX7157	5866458	2942354	[redacted]	30	PS	Soil
	TM38	29.57	14.8	14.77	NX2930	5866461	2942355	[redacted]	30	PS	Mixed rock and soil
	TM38	29.27	14.63	14.64	NR9535	5866459	2942356	[redacted]	30	PS	Soil
	TM38	29.54	14.06	15.48	NW7098	5866460	2942357	[redacted]	30	PS	Slurry
	TM38	29.58	13.98	15.6	NX7157	5866462	2942358	[redacted]	30	PS	Soil
	TM38	29.69	14.51	15.18	PJ824	5866463	2942359	[redacted]	30	PS	Slurry
	TM38	29.58	14.64	14.94	NR9535	5866464	2942360	[redacted]	30	PS	Slurry
	TM38	23.38	12.76	10.62	EZ3798	5866466	2942361	[redacted]	24	PS	Building Debris
	TM38	29.45	15.58	13.87	LV2688	5866465	2942362	[redacted]	30	PS	Soil
	TM38	29.59	14.89	14.7	NX2930	5866467	2942363	[redacted]	30	PS	Soil
	TM38	29.64	13.88	15.76	NX7157	5866468	2942364	[redacted]	30	PS	Soil
	TM38	29.69	14.17	15.52	PJ824	5866469	2942365	[redacted]	30	PS	Slurry
	TM38	23.33	12.76	10.57	EZ3798	5866470	2942366	[redacted]	24	PS	Mixed rock and soil
11	TM38	23.03	12.89	10.14	EZ3798	5866495	2942367	[redacted]	24	PS	Mixed rock and soil
	TM38	29.49	13.58	15.91	NU8022	5866496	2942368	[redacted]	30	PS	Slurry
	TM38	29.56	14.13	15.43	PJ824	5866497	2942369	[redacted]	30	PS	Slurry
	TM38	23	12.86	10.14	EZ3798	5866498	2942370	[redacted]	24	PS	Broken Concrete
	TM38	29.5	13.64	15.86	NU8022	5866499	2942371	[redacted]	30	PS	Slurry
	TM38	29.73	14.28	15.45	PJ824	5866500	2942372	[redacted]	30	PS	Slurry
	TM38	29.54	13.73	15.81	NU8022	5866501	2942373	[redacted]	30	PS	Slurry
	TM38	23.63	12.83	10.8	EZ3798	5866502	2942374	[redacted]	24	PS	Mixed rock and soil
	TM38	29.61	13.99	15.62	NX7157	5866504	2942376	[redacted]	30	PS	Slurry
	TM38	23.17	12.81	10.36	EZ3798	5866505	2942377	[redacted]	24	PS	Broken Concrete
	TM38	29.69	14.22	15.47	PJ824	5866506	2942378	[redacted]	30	PS	Slurry
	TM38	29.38	13.69	15.69	NU8022	5866507	2942379	[redacted]	30	PS	Slurry
12	TM38	29.58	13.83	15.75	PE3303	5866508	2942380	[redacted]	30	PS	Slurry

	TM38	29.62	13.9	15.72	NX7157	5866509	2942381	瑞荣	30	PS	Slurry
	TM38	29.78	13.82	15.96	PE3303	5866510	2942382	瑞荣	30	PS	Slurry
	TM38	29.6	13.55	16.05	NU8022	5866511	2942383	瑞荣	30	PS	Slurry
	TM38	29.6	13.82	15.78	PE3303	5866512	2942384	瑞荣	30	PS	Slurry
	TM38	29.6	13.72	15.88	NU8022	5866409	2942385	瑞荣	30	PS	Slurry
	TM38	29.7	14.3	15.4	PJ824	5866413	2942386	瑞荣	30	PS	Slurry
	TM38	29.45	13.8	15.65	PE3303	5866414	2942387	瑞荣	30	PS	Slurry
	TM38	29.41	14.22	15.19	NX7157	5866415	2942388	瑞荣	30	PS	Slurry
13	TM38	29.62	13.73	15.89	NU8022	5866516	2942389	瑞荣	30	PS	Slurry
	TM38	29.6	14.61	14.99	NR9535	5866517	2942390	瑞荣	30	PS	Slurry
	TM38	29.55	14.24	15.31	PJ824	5866518	2942391	瑞荣	30	PS	Slurry
	TM38	29.58	13.66	15.92	NU8022	5866519	2942392	瑞荣	30	PS	Slurry
	TM38	29.66	14.2	15.46	PJ824	5866520	2942393	瑞荣	30	PS	Slurry
	TM38	29.68	14.52	15.16	NR9535	5866521	2942394	瑞荣	30	PS	Slurry
	TM38	29.43	13.61	15.82	NU8022	5866522	2942395	瑞荣	30	PS	Slurry
	TM38	29.7	14.27	15.43	PJ824	5866523	2942396	瑞荣	30	PS	Slurry
	TM38	29.66	14.51	15.15	NR9535	5866524	2942397	瑞荣	30	PS	Slurry
	TM38	29.61	13.62	15.99	NU8022	5866525	2942398	瑞荣	30	PS	Slurry
	TM38	29.65	14.13	15.52	PJ824	5866526	2942399	瑞荣	30	PS	Slurry
	TM38	29.5	14.59	14.91	NR9535	5866527	2942400	瑞荣	30	PS	Slurry
	TM38	29.69	13.82	15.87	PE3303	5866528	2942401	瑞荣	30	PS	Slurry
	TM38	29.7	13.59	16.11	NU8022	5866529	2942402	瑞荣	30	PS	Slurry
	TM38	29.61	14.12	15.49	PJ824	5866530	2942403	瑞荣	30	PS	Slurry
	TM38	29.61	14.42	15.19	NR9535	5866531	2942404	瑞荣	30	PS	Slurry
	TM38	29.47	13.82	15.65	PE3303	5866532	2942405	瑞荣	30	PS	Slurry
	TM38	29.56	13.6	15.96	NU8022	5866533	2942406	瑞荣	30	PS	Slurry
	TM38	29.72	14.15	15.57	PJ824	5866534	2942407	瑞荣	30	PS	Slurry
14	TM38	29.76	14.2	15.56	PJ824	5866513	2942409	瑞荣	30	PS	Slurry
15	TM38	22.29	12.61	9.68	LS2926	5866514	2942410	[illegible]	24	PS	Broken Concrete
	TM38	22.35	12.92	9.43	HG3266	5866536	2942411	[illegible]	24	PS	Broken Concrete
	TM38	22.81	12.97	9.84	GB3193	5866537	2942412	[illegible]	24	PS	Broken Concrete
	TM38	22.24	12.21	10.03	PB6087	5866538	2942413	[illegible]	24	PS	Broken Concrete
	TM38	21.9	12.88	9.02	HG3266	5866539	2942414	[illegible]	24	PS	Broken Concrete
	TM38	22.57	12.61	9.96	LS2926	5866540	2942415	[illegible]	24	PS	Broken Concrete
	TM38	22.51	13.06	9.45	GB3193	5866541	2942416	[illegible]	24	PS	Broken Concrete
	TM38	23.07	12.2	10.87	PB6087	5866542	2942417	[illegible]	24	PS	Broken Concrete
	TM38	23.72	12.86	10.86	HG3266	5866543	2942418	[illegible]	24	PS	Broken Concrete
	TM38	23.1	12.57	10.53	LS2926	5866544	2942419	[illegible]	24	PS	Broken Concrete
	TM38	22.46	13.02	9.44	GB3193	5866545	2942420	[illegible]	24	PS	Broken Concrete
	TM38	22.58	12.29	10.29	CG9991	5866546	2942421	[illegible]	24	PS	Broken Concrete
	TM38	23.15	12.17	10.98	PB6087	5866547	2942422	[illegible]	24	PS	Mixed rock and soil
	TM38	23.24	12.84	10.4	HG3266	5866548	2942423	[illegible]	24	PS	Mixed rock and soil
	TM38	23.15	12.56	10.59	LS2926	5866549	2942424	[illegible]	24	PS	Mixed rock and soil
	TM38	23.76	13.14	10.62	GB3193	5866550	2942425	[illegible]	24	PS	Mixed rock and soil
	TM38	22.71	12.47	10.24	CG9991	5866551	2942426	[illegible]	24	PS	Mixed rock and soil
18	TM38	29.46	13.59	15.87	NU8022	5866552	2942427	瑞荣	30	PS	Slurry
	TM38	29.5	14.16	15.34	JV9893	5866553	2942428	瑞荣	30	PS	Slurry
	TM38	29.49	14.62	14.87	KX8433	5866554	2942429	瑞荣	30	PS	Slurry
	TM38	29.5	13.61	15.89	NU8022	5866583	2942430	瑞荣	30	PS	Slurry
	TM38	29.6	14.11	15.49	JV9893	5866584	2942431	瑞荣	30	PS	Slurry
	TM38	29.36	13.74	15.62	PE1711	5866585	2942432	瑞荣	30	PS	Slurry
	TM38	29.58	14.59	14.99	KX8433	5866586	2942433	瑞荣	30	PS	Slurry
	TM38	22.1	12.8	9.3	JY6836	5866587	2942434	懂利	24	PS	Mixed rock and soil
	TM38	29.59	13.72	15.87	PE1711	5866588	2942435	瑞荣	30	PS	Slurry
	TM38	29.62	14.57	15.05	KX8433	5866590	2942437	瑞荣	30	PS	Slurry
	TM38	29.64	14.08	15.56	JV9893	5866591	2942438	瑞荣	30	PS	Slurry
	TM38	22.88	12.8	10.08	JY6836	5866592	2942439	懂利	24	PS	Mixed rock and soil
	TM38	29.58	13.68	15.9	PE1711	5866593	2942440	瑞荣	30	PS	Slurry
	TM38	22.7	12.79	9.91	JY6836	5866594	2942441	懂利	24	PS	Mixed rock and soil
	TM38	29.47	14.51	14.96	KX8433	5866555	2942442	瑞荣	30	PS	Slurry
	TM38	29.68	14.04	15.64	JV9893	5866556	2942443	瑞荣	30	PS	Slurry
	TM38	29.5	13.78	15.72	PE1711	5866557	2942444	瑞荣	30	PS	Slurry
19	TM38	29.37	14.08	15.29	NX6441	5866566	2942445	瑞荣	30	PS	Slurry
	TM38	29.55	14.1	15.45	JV9893	5866567	2942446	瑞荣	30	PS	Slurry
	TM38	29.46	14.13	15.33	DG6405	5866568	2942447	瑞荣	30	PS	Slurry
	TM38	29.6	14.17	15.43	NM8655	5866569	2942448	瑞荣	30	PS	Slurry
	TM38	29.51	14.55	14.96	KX8433	5866570	2942449	瑞荣	30	PS	Slurry
	TM38	28.2	14.9	13.3	FU8380	5866571	2942450	瑞荣	30	PS	Slurry
	TM38	29.63	13.74	15.89	PE1711	5866572	2942451	瑞荣	30	PS	Slurry

	TM38	29.4	14.1	15.3	NX6441	5866573	2942452	瑞泰	30	PS	Slurry
	TM38	29.63	14.1	15.53	JV9893	5866574	2942453	瑞泰	30	PS	Slurry
	TM38	29.59	14.13	15.46	DG6405	5866575	2942454	瑞泰	30	PS	Slurry
	TM38	29.56	14.16	15.4	NM8655	5866596	2942455	瑞泰	30	PS	Slurry
	TM38	29.59	14.54	15.05	KX8433	5866597	2942456	瑞泰	30	PS	Soil
	TM38	29.6	13.59	16.01	NU8022	5780230	2942459	瑞泰	30	PS	Slurry
21	TM38	29.62	14.61	15.01	NX2930	5780231	2942460	瑞泰	30	PS	Broken Concrete
	TM38	22.3	12.82	9.48	JY6836	5780232	2942461	德利	24	PS	Soil
22	TM38	29.62	14.19	15.43	LH912	5780233	2942462	瑞泰	30	PS	Mixed rock and soil
	TM38	23.08	12.78	10.3	JY6836	5780234	2942463	德利	24	PS	Soil
	TM38	29.65	14.18	15.47	GT8280	5780235	2942464	瑞泰	30	PS	Building Debris
	TM38	22.42	12.79	9.63	JY6836	5780236	2942465	德利	24	PS	Soil
	TM38	29.67	13.56	16.11	NU8022	5780237	2942466	瑞泰	30	PS	Soil
	TM38	29.54	14.21	15.33	LH912	5780238	2942467	瑞泰	30	PS	Slurry
	TM38	29.59	14.21	15.38	GT8280	5780239	2942468	瑞泰	30	PS	Broken Concrete
	TM38	22.97	12.76	10.21	JY6836	5780240	2942469	德利	24	PS	Slurry
	TM38	29.68	13.56	16.12	NU8022	5780241	2942470	瑞泰	30	PS	Slurry
	TM38	29.64	14.19	15.45	LH912	5780242	2942471	瑞泰	30	PS	Slurry
	TM38	29.54	14.23	15.31	GT8280	6251968	2942472	瑞泰	30	PS	Soil
	TM38	29.56	14.13	15.43	PG4408	6251969	2942473	瑞泰	30	PS	Broken Concrete
	TM38	22.17	12.75	9.42	JY6836	6251970	2942474	德利	24	PS	Slurry
	TM38	29.6	14.63	14.97	NX2930	6251971	2942475	瑞泰	30	PS	Soil
	TM38	29.39	13.92	15.47	PE3303	6251972	2942476	瑞泰	30	PS	Slurry
	TM38	29.65	14.18	15.47	NM8655	6251981	2942477	瑞泰	30	PS	Soil
23	TM38	29.59	13.86	15.73	KP5603	6251982	2942478	瑞泰	30	PS	Slurry
	TM38	29.62	14.17	15.45	DG6405	6251983	2942479	瑞泰	30	PS	Slurry
	TM38	29.58	14.08	15.5	JV9893	6251984	2942480	瑞泰	30	PS	Slurry
	TM38	28.97	14.26	14.71	NX6441	6251985	2942481	瑞泰	30	PS	Slurry
	TM38	29.56	14.67	14.89	KX8433	6251986	2942482	瑞泰	30	PS	Soil
	TM38	29.59	13.88	15.71	PD1680	6251987	2942483	瑞泰	30	PS	Slurry
	TM38	29.52	13.77	15.75	PE1711	5780243	2942484	瑞泰	30	PS	Soil
	TM38	29.51	14.15	15.36	NM8655	5780244	2942485	瑞泰	30	PS	Slurry
	TM38	29.73	13.78	15.95	KP5603	5780245	2942486	瑞泰	30	PS	Soil
	TM38	29.48	14.06	15.42	DG6405	5780246	2942487	瑞泰	30	PS	Soil
	TM38	29.6	14.08	15.52	JV9893	5780247	2942488	瑞泰	30	PS	Slurry
	TM38	29.51	13.69	15.82	PE1711	5780248	2942489	瑞泰	30	PS	Soil
	TM38	29.65	13.75	15.9	PD1680	5780249	2942490	瑞泰	30	PS	Slurry
	TM38	29.4	13.75	15.65	KP5603	5780250	2942491	瑞泰	30	PS	Soil
	TM38	29.65	14.55	15.1	KX8433	5780251	2942492	瑞泰	30	PS	Slurry
	TM38	29.68	14.58	15.1	NX6441	5780252	2942493	瑞泰	30	PS	Slurry
	TM38	29.48	14.03	15.45	JV9893	5780253	2942494	瑞泰	30	PS	Slurry
25	TM38	29.41	14.04	15.37	NX6441	5780262	2942495	瑞泰	30	PS	Soil
	TM38	29.56	13.97	15.59	DG6405	5866471	2942496	瑞泰	30	PS	Soil
	TM38	29.61	14.02	15.59	NX6441	5866472	2942497	瑞泰	30	PS	Soil
	TM38	29.68	13.97	15.71	DG6405	5866473	2942498	瑞泰	30	PS	Slurry
	TM38	29.61	13.94	15.67	DG6405	5866474	2942499	瑞泰	30	PS	Soil
	TM38	29.62	13.93	15.69	NX4490	5780287	2942500	瑞泰	30	PS	Soil
26	TM38	29.65	14.08	15.57	JV9893	5780288	2942501	瑞泰	30	PS	Slurry
	TM38	29.66	13.71	15.95	PE1711	5780289	2942502	瑞泰	30	PS	Slurry
	TM38	29.52	13.88	15.64	NX4490	5780290	2942503	瑞泰	30	PS	Slurry
	TM38	29.5	14.04	15.46	JV9893	5780291	2942504	瑞泰	30	PS	Soil
	TM38	29.63	13.66	15.97	PE1711	5780292	2942505	瑞泰	30	PS	Slurry
	TM38	29.55	13.67	15.88	NU8022	5780293	2942506	瑞泰	30	PS	Slurry
27	TM38	29.15	13.96	15.19	PE3303	5780302	2942507	瑞泰	30	PS	Soil
	TM38	29.57	13.94	15.63	NW7098	5780303	2942508	瑞泰	30	PS	Soil
	TM38	29.59	13.54	16.05	NU8022	5780304	2942509	瑞泰	30	PS	Mixed rock and soil
	TM38	29.56	13.86	15.7	PE3303	5780305	2942510	瑞泰	30	PS	Soil
	TM38	29.6	13.9	15.7	NW7098	5780306	2942511	瑞泰	30	PS	Soil
	TM38	29.57	14.68	14.89	NX2930	5780307	2942512	瑞泰	30	PS	Mixed rock and soil
	TM38	29.61	15.66	13.95	LV2688	5780308	2942513	瑞泰	30	PS	Soil
	TM38	29.75	13.5	16.25	NU8022	5780309	2942514	瑞泰	30	PS	Mixed rock and soil
	TM38	29.5	13.81	15.69	NW7098	5780310	2942515	瑞泰	30	PS	Soil
	TM38	29.69	13.81	15.88	PE3303	5780311	2942516	瑞泰	30	PS	Slurry
	TM38	29.69	14.85	14.84	NX2930	5780312	2942517	瑞泰	30	PS	Soil
	TM38	29.7	15.77	13.93	LV2688	5780313	2942518	瑞泰	30	PS	Soil
	TM38	29.58	13.6	15.98	NU8022	5780314	2942519	瑞泰	30	PS	Slurry
	TM38	29.46	13.91	15.55	PE3303	5780315	2942520	瑞泰	30	PS	Soil
28	TM38	29.65	14.01	15.64	PM1178	5780324	2942521	瑞泰	30	PS	Slurry
	TM38	29.59	14.05	15.54	PM1178	5780325	2942522	瑞泰	30	PS	

	TM38	29.53	14	15.53	PM1178	5780327	2942523	瑞榮	30	PS	Soil
29	TM38	29.62	13.63	15.99	NU8022	5780328	2942525	瑞榮	30	PS	Slurry
	TM38	29.42	14.16	15.26	JV9893	5780329	2942526	瑞榮	30	PS	Slurry
	TM38	29.4	13.88	15.52	PE3303	5780330	2942527	瑞榮	30	PS	Slurry
	TM38	29.48	13.87	15.61	NW7098	5780331	2942528	瑞榮	30	PS	Slurry
	TM38	29.4	15.73	13.67	LV2688	5780332	2942529	瑞榮	30	PS	Slurry
	TM38	29.35	14.7	14.65	NX2930	5780333	2942530	瑞榮	30	PS	Slurry
	TM38	29.51	13.94	15.57	NX4490	5780334	2942531	瑞榮	30	PS	Slurry
	TM38	29.56	14.65	14.91	NR9535	5780335	2942532	瑞榮	30	PS	Slurry
	TM38	29.72	13.74	15.98	NU8022	5780336	2942533	瑞榮	30	PS	Slurry
	TM38	29.55	13.9	15.65	PE3303	5780337	2942534	瑞榮	30	PS	Slurry
	TM38	29.44	14.14	15.3	JV9893	5780338	2942535	瑞榮	30	PS	Slurry
	TM38	29.6	14.61	14.99	NR9535	5780339	2942536	瑞榮	30	PS	Slurry
	TM38	29.64	15.66	13.98	LV2688	5780340	2942537	瑞榮	30	PS	Slurry
	TM38	29.65	14.7	14.95	NX2930	5780341	2942538	瑞榮	30	PS	Soil
	TM38	29.63	13.59	16.04	NU8022	5780342	2942539	瑞榮	30	PS	Slurry
	TM38	29.61	13.76	15.85	PE3303	5780351	2942540	瑞榮	30	PS	Soil
	TM38	29.71	13.85	15.86	NX4490	5780352	2942541	瑞榮	30	PS	Soil
	TM38	29.6	14.01	15.59	JV9893	5780353	2942542	瑞榮	30	PS	Soil
	TM38	29.71	14.61	15.1	NX2930	5780354	2942543	瑞榮	30	PS	Slurry
	TM38	23.44	12.74	10.7	JY6836	5780355	2942544	憶利	24	PS	Mixed rock and soil
30	TM38	22.82	12.45	10.37	LU5315	5780371	2942545	憶利	24	PS	Broken Concrete
	TM38	23.07	12.97	10.1	EL3433	5780372	2942546	憶利	24	PS	Mixed rock and soil
	TM38	23.6	12.69	10.91	JY6836	5780373	2942547	憶利	24	PS	Mixed rock and soil
	TM38	22.51	12.43	10.08	LU5315	5780374	2942548	憶利	24	PS	Broken Concrete
	TM38	23.67	12.96	10.71	EL3433	5780375	2942549	憶利	24	PS	Broken Concrete
	TM38	23.74	12.63	11.11	JY6836	5780376	2942550	憶利	24	PS	Broken Concrete
	TM38	21.87	12.64	9.23	LU5315	5780377	2942551	憶利	24	PS	Broken Concrete
	TM38	23.21	12.92	10.29	EL3433	5780378	2942552	憶利	24	PS	Broken Concrete
	TM38	22.95	12.66	10.29	JY6836	5780379	2942553	憶利	24	PS	Mixed rock and soil
	TM38	23.16	12.63	10.53	LU5315	5780380	2942554	憶利	24	PS	Broken Concrete
	TM38	22.81	12.87	9.94	EL3433	5780381	2942555	憶利	24	PS	Broken Concrete
	TM38	22.42	12.63	9.79	JY6836	5780382	2942556	憶利	24	PS	Broken Concrete
	TM38	21.47	12.61	8.86	LU5315	5780383	2942557	憶利	24	PS	Broken Concrete
	TM38	23.43	12.86	10.57	EL3433	5780384	2942558	憶利	24	PS	Broken Concrete
	TM38	22.61	12.63	9.98	JY6836	5780385	2942559	憶利	24	PS	Mixed rock and soil

Please pay attention on below item with table

Frequency of Lonction

NENT	7
TM38	267
TKO 137	102
	376

Amount Width

NENT	19.83
TM38	3797.30
TKO 137	1317.19
	5134.32

5134.49

Amount Mnterial

soil	744.18
Slurry	2360.66
Waste	19.83
Bentonite	1317.19
Broken Concrete	352.5
Mixed rock and soil	256.51
Building Debris	83.45

Toink: 5134.32

Appendix E Event Contingency Plan

Event Contingency Plan

Step	Day	Action	Contractor/ET	IEC
1	1	Create a new non-compliance record within 1 working day after making an observation during a site audit accompanied by Environmental Coordinator or his delegate. ET sends a Notice of Non-Compliance to Contractor and IEC. The NNC would included the observations and the reasons for non-compliance.	☑	
2	2	Propose corrective actions within 1 working day after the receipt of the NNC.	☑	
3	2	Review and agree with the proposed corrective actions and make additional recommendations as required.	☑	☐
4	2	Implement the proposed corrective actions once they have been agreed.	☑	
5	-	Check the implementation of the corrective actions at the next site audit. Close the non-compliance record if the implementation of the corrective action is satisfactory.	☑	☐
6	-	Propose preventive actions within 3 working days after the closure of the non-compliance record.	☑	

Appendix F Possible Disposal Routings.

Contract No.: DC/2009/05

Possible Disposal Routes to PFRFs/NENT

Routing	PFRFs/NENT	Description
1	Tuen Mun Area 38	Possible Route 1: (Stonecutters Island), West Kowloon Expressway, Tsing Kwai Highway, Cheung Tsing Tunnel, Ting Kau Bridge, Tai Lam Tunnel, Route 3, Yuen Long Highway, Tuen Mun Road, Lung Mun Road. Possible Route 2: (Stonecutters Island), West Kowloon Expressway, Tsing Kwai Highway, Cheung Tsing Tunnel, Ting Kau Bridge, Tuen Mun Road, Lung Mun Road. Possible Route 3: (Stonecutters Island), West Kowloon Expressway, Tsing Kwai Highway, Cheung Tsing Tunnel, Ting Kau Bridge, Tuen Mun Road, Castle Peak Road, Lung Mun Road.
2	Disposal by Sea route to Tuen Mun Area 38	The actual sea routing should be subject to the license application and approval from relevant government authories
3	Dispose to Designated Area other than the above	Subject to the sources and approval from government authories and to be determined in due course
4	NENT	Possible Route 1: (Stonecutters Island), Ching Cheung Road, Tai Po Road, Tolo Highway, Fanling Highway, Sha Tau Kok Road, Wo Keng Shan Road

Appendix G Disposal Forecast in Year 2011.

PREDICT FORECAST SUMMARY WASTE FLOW TABLE (TENTATIVE)

Name of Department : Drainage Service Department

Contract No.: DC/2009/05

Predict Forecast Summary Waste Flow for 2011 (year) (TENTATIVE)

Date	Quantities of Inert C & D Materials Generated				Quantities of non-inert C & D Wastes Generated					
	Hard Rock and Large Broke Concrete	Soil/Disposed to Barging Point	Reused in other Projects	Imported Fill	Metals	Paper cardboard packaging	Plastics	Chemical wastes	Others e.g. General refuses	Marine Deposit
	(in Ton)	(in Ton)	(in m^3)	(in '000m^3)	(in Ton)	(in '000kg)	(in '000kg)	(in 'L)	(in 'TON)	(in 'TON)
Jan	50				10			1500		
Feb	50				10			1500		
Mar	80	10000			20			2000		
Apr	100	13000			20			2000		
May	100	18000			40			2500		
Jun	100	25000			40			2500		
July	80	25000			40			2500		
August	80	18000			40			2500		25000
September	60	10000			30			3000		
October	30	2000			20			3000		
November	20	1000			20			2500		
December					20			2000		
Total	750	122000	0	0	310	0	0	27500	0	25000