

#### Ref.: HYDHZMBEEM00\_0\_4016L.16

29 March 2016

By Fax (3468 2076) and By Post

AECOM Asia Co. Ltd. The PRE's Office 5 Ying Hei Road, Tung Chung, Lantau Hong Kong

Attention: Mr. Darrel Kingan

Dear Sir,

Re: Agreement No. CE 48/2011 (EP) Environmental Project Office for the HZMB Hong Kong Link Road, HZMB Hong Kong Boundary Crossing Facilities, and Tuen Mun-Chek Lap Kok Link – Investigation

# Contract No. HY/2014/05 – HZMB HKBCF – Remaining Ancillary Buildings and Facilities Spill Response Plan (Rev. 3)

Reference is made to the Environmental Team's submission of Spill Response Plan (Rev. 3) certified by the ET Leader (ET's ref.: "5140819/18.30/OC005/SO/EK" dated 24 March 2016) and provided to us via e-mail on 24 March 2016.

We are pleased to inform you that we have no adverse comment on the captioned plan. We write to verify the captioned submission in accordance with Condition 2.7 of the Environmental Permit No. EP-353/2009/J.

Thank you very much for your attention and please feel free to contact the undersigned should you require further information.

Yours faithfully, For and on behalf of Ramboll Environ Hong Kong Limited

anguit

Raymond Dai Independent Environmental Checker

c.c.

HyD HyD ATKINS LCWJV Mr. Matthew Fung Mr. Ken Woo Ms. Sharifah Or Mr. Iain Hubert (By Fax: 3188 6614) (By Fax: 3188 6614) (By Fax: 2890 6343) (By Fax: 3621 0180)

Internal: DY, YH, CL, ENPO Site

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Your ref. 5140819/18.30/OC005/SO/EK

Date: 24 March 2016

#### By Post and e-mail (Donald.lp@lcwjv.com)

Leighton – Chun Wo Joint Venture 39/F Sun Hung Kai Centre 30 Harbour Road Hong Kong

Attn: Mr. Donald Ip

Dear Mr. Ip,

#### Contract No. HY/2014/05 Hong Kong – Zhuhai – Macao Bridge Hong Kong Boundary Crossing Facilities – Remaining Ancillary Buildings and Facilities Certification of Spill Response Plan (Rev. 3)

Atkins China Limited certifies, in the capacity of Environmental Team Leader, that the Spill Response Plan Rev. 3 dated 22 March 2016 conforms the requirements provided in Condition 2.7 of the Environmental Permit No. EP-353/2009/J.

Yours faithfully, for and on behalf of Atkins China Limited

Shaiful

Sharifah OR Environmental Team Leader

CC.

1. AECOM – Mr. Darrel Kingan Fax.: 3468 2076

2. ENPO/IEC – Mr. Raymond Dai & Mr. Y.H. Hui (By Fax.: 3465 2899)

阿特金斯 ATKINS 香港九龍尖沙咀海港城 九倉電訊中心十三樓 13/F Wharf T&T Centre Harbour City Tsim Sha Tsui Kowloon Hong Kong

 Telephone
 (852) 2972 1000

 Facsimile
 (852) 2890 6343

www.atkinsglobal.com



# Contract No. HY/2014/05

Hong Kong – Zhuhai – Macao Bridge

Hong Kong Boundary Crossing Facilities – Remaining Ancillary Buildings and Facilities

Spill Response Plan (Rev.3)

Prepared by:

on

Donald Ip Environmental Officer 22 March 2016

Approved by:

lain Hubert Project Director 22 March 2016

Certified by:

Sharifah Or Environmental Team Leader 22 March 2016

Contract No. HY/2014/05 Hong Kong – Zhuhai – Macao Bridge Hong Kong Boundary Crossing Facilities – Remaining Ancillary Buildings and Facilities Spill Response Plan

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### **1** Introduction

### 1.1 Purpose

The purpose of this Spill Response Plan is to detail the actions to be taken by Leighton Contractors (Asia) Limited and Chun Wo Construction & Co., Ltd Joint Venture (known as the JV) and its subcontractors and suppliers during construction of the Hong Kong– Zhuhai – Macao Bridge, Hong Kong Boundary Crossing Facilities – Remaining Ancillary Buildings and Facilities and associated works under Highways Department Contract number HY/2014/05 which is part of the Hong Kong – Zhuhai – Macao Bridge in the event of accidental spillage of oil or other hazardous chemicals from construction activities for the Project, with specific provisions for protecting marine ecology and the Chinese White Dolphins.

The preparation and implementation of this Spill Response Plan is a mandatory requirement under section 2.7 of the Environmental Permit no. EP-353/2009/J.

### 1.2 Scope

This Spill Response Plan applies to the activities of the JV during the construction of Contract No. HY/2014/05.

### 1.3 Description of Works

The works for Contract No. HY/2014/05 comprise:

- Construction of ancillary buildings and facilities including architectural and builders works, structural steel canopy, reinforced concrete frames, foundations, curtain wall facade, building services and electrical and mechanical works;
  - Public Toilet at Vehicle Clearance Plaza (VCP)
  - o C&ED Dangerous Goods Store
  - o Customs Detective Dog Base Building
  - o C&ED Outbound Cargo Examination Building and Examination Platform
  - o Inbound Private Car Annexure
  - o Outbound Private Car Annexure
  - o E&M Maintenance Building
  - Highways Depot & Administration Building
  - Outbound X-ray Building
  - o Outbound X-ray Scan Tunnel
  - o Inbound X-ray Scan Tunnel
- Construction of civil provisions, cable containment and power supply for the following systems including Extra Low Voltage (ELV) installed by Contract No. HY/2013/03, Automatic Vehicle Clearance Support System (AVCSS) installed by Contract No. HY/2013/06 and Gantry Type X-ray Vehicle Inspection System installed by Contract No. HY/2014/04.
- Supply and installation of Mobile X-ray Vehicle Inspection System and other standalone equipment;
- Construction of minor civil engineering works at the periphery of the buildings;

#### Leighton – Chun Wo Joint Venture Contract No. HY/2014/05 Hong Kong – Zhuhai – Macao Bridge Hong Kong Boundary Crossing Facilities – Remaining Ancillary Buildings and Facilities Spill Response Plan

- · Construction of minor Landscape hardworks and softworks; and
- Other works which are shown on the Drawings or specified in the Specification or which may be ordered in accordance with the Contract.

The major scope of works for this Contract is the construction of ancillary buildings and facilities as listed in the first bullet point of this section. This Contract does not involve any marine construction works, vessel operation or works adjacent to the seawall.

The site location plan is shown in **Appendix A**.

## 2 Implementation of Spill Response Plan

### 2.1 Emergency Response Team

An emergency team shall be established for the Project to deal with spillage cases promptly. The list of the Emergency Response Team members is shown in **Table 1**.

Name	Position	Telephone	E-mail
lain Hubert	Emergency Team Leader	3973 0588	iain.hubert@lcwjv.com
Alfred She	Deputy Emergency Team Leader	9835 5395	alfred.she@lcwjv.com
Alan Wong	Emergency Safety Representative (Site Safety Manager)	6463 3541	KH.Wong@lcwjv.com
Donald Ip	Emergency Environmental Representative (Environmental Officer)	6461 8635	donald.ip@lcwjv.com
Choi Kwok Hang	Emergency Work Team Leader (Superintendent)	9864 4607	Nil
Vincent Yeung	Emergency Work Team Member (Foreman)	5481 7151	Nil

#### **Table 1: The Emergency Response Team Contact List**

### 2.2 Roles Responsibilities

Emergency Team Leader

- Coordinate of all emergency situations;
- Determine the seriousness of the cases to take appropriate responding actions;
- Deploy sufficient manpower and resource to handle the emergency situation;
- Lead the emergency team to carry out appropriate emergency measures to minimize impacts arising from spillage incidents;
- Inform the Emergency Safety/ Environmental Representatives, Emergency Work Team member and the ER as soon as possible in case of an spillage incidents; and
- Ensure the staffs are well trained for emergency procedures.

#### Deputy Emergency Team Leader

• Assist the Emergency Team Leader to carry out his responsibilities in their area-in-charge.

#### Emergency Safety Representative

- Assist and advice the Emergency Team Leader in handling of spillage in terms of safety aspect; and
- Ensure the whole emergency situations are handled in compliance with all safety procedures and regulation.

#### Emergency Environmental Representative (Environmental Officer)

- Assist and advice the Emergency Team Leader in handling of spillage in terms of environmental aspect; and
- Ensure the whole emergency situations are handled in compliance with all environmental procedures and regulation.

#### Emergency Work Team Leader (Superintendent)

- Assist the Emergency Team Leader in site level including the mobilization of the plant/equipment/ materials to handle the spillage;
- Familiar with the emergency spill respond procedures;
- Ensure the spill kits and relevant personal protective equipment are in place and in good condition; and
- Maintain the inventory of oil and hazardous chemical on site.

#### Emergency Work Team Member (Foremen)

- Follow the instruction made by the Emergency Work Team Leader; and
- Familiar with the emergency spill respond procedures.

### 2.3 General On-Site Practice

In order to minimize the possibilities of accidental spillage of oil or other hazardous chemicals in the construction site, the following general on site practices for handling the oil or other hazardous chemicals will be implemented on site as far as possible:

### 2.3.1 Storage

- The storage areas of oil/ hazardous chemicals should be located remote from the coast and any other water bodies as far as practicable;
- The oil/ hazardous chemicals containers should be placed within drip tray(s);
- Provide tightly closed lids so as to avoid leakage of oil/ hazardous chemicals;
- Stacking of the containers properly so as to prevent the falling of such containers;
- Label the storage containers and the chemical tanks according to the EPD's "Code of Practice on the Packaging, Labelling and Storage of Chemical Wastes";
- Provide adequate ventilation in the storage area as necessary;
- Prohibit open flames and smoking near the chemical storage and fuel storage areas;
- Inspected the storage area regularly to ensure compliance with Waste Disposal Ordinance (Cap 354) and Dangerous Goods Ordinance (Cap 295);
- Store large and heavy containers on the floor as far as possible and avoid storing these containers higher than 0.75m above the floor level;

- Keep all chemical, chemical waste and fuel oil storage containers below eye level for easy inspection;
- Provide adequate space for safe and easy handling and inspection of the containers;
- Maintain an up-to-date log of all chemicals, chemical waste and fuel oil stored at site;
- Separate incompatible chemicals from one another;
- Keep the ingress to the chemical storage area locked and restrict access; and
- Provide a bucket of dry sand and a suitable fire extinguisher in the storage area.

### 2.3.2 Transportation

- Use a suitably sized container so as to avoid overfilling;
- Use pumps to transfer oil/ hazardous chemical instead of manually pouring them;
- Provide a containment structure able to hold any chemicals or chemical waste that is accidentally spilled;
- Label the oil/ hazardous chemical containers suitably;
- Use suitable carrying equipment to transfer the oil/ hazardous chemical containers from one location to another; and
- Only employ and use suitably licensed, trained and responsible chemical waste collection persons to carry out the transportation requirements.

### 2.4 Spillage Control Materials

2 sets of standard Spill Kits will be available on site. The standard Spill Kits includes items such as pads, pillow and Secondary Oil Containment (SOC). SOC is used to enclose the spillage area to contain the spillage spreading outside of the SOC. The pads and pillow are used for absorbing and removing the spillage within the SOC. The standard spill kit detail is shown in **Appendix B**.

An additional spill kit will be available with the Environmental Officer.

### 2.5 Inventory of Hazardous Chemical

An inventory of the oil and hazardous chemicals that are stored on site will be recorded, maintained and updated regularly. The details, amounts and location of the materials will be recorded. The superintendent will be responsible for maintaining such record on site.

### 2.6 Spillage Response

The spillage response shall be carried out to minimize the amount of oil or hazardous chemicals to the marine environment in case of spillage.

### 2.6.1 Spillage Contained on Land

The following procedures shall be taken when there is a spillage contained on land:

- 1) Immediately inform the Emergency Team of the spill incident;
- 2) Take all possible measures to reduce or stop the spillage source;
- 3) Confine the spillage by using sand/ cement/ absorptive materials with suitable personal protective equipment;
- 4) Clean up the confined spillage by using dry sand or sawdust;
- 5) The contaminated sand / sawdust / other materials shall be collected and put into black plastic bags and shall be clearly labelled as "chemical waste"; and

6) All collected chemical waste shall be placed in an area designated for chemical waste storage area.

### 2.6.2 Spillage into the Marine Environment

The main scope of work of the Contract does not include marine construction or vessel operation related to construction works. There is no works area adjacent to the seawall. The section is applied to uncontrollable large spillage on main site area to the marine environment.

The handling procedures and notification system is separated into two scenarios, namely within the area of spillage of 100m<sup>2</sup> and over. At least 2 sets of standard Spill Kits will be available on site up to control marine spillage of up to 100m<sup>2</sup> in size. The standard Spill Kits includes items such as pads, pillow and Secondary Oil Containment (SOC). SOC is used to enclose the spillage area to contain the spillage spreading outside of the SOC. The pads and pillow are used for absorbing and removing the spillage within the SOC.

All the persons shall responsible for observing the spill and to report this immediately to their immediate supervisor who shall inform the Emergency Team Leader. A site agent in Emergency Team shall be assigned to lead a working team and to deploy the Spill Kits to the spillage site. Depending on the scale of the spillage area of 100m<sup>2</sup>, there are two scenarios of spill response procedures to be applied.

#### Scenario 1 – Spillage area within 100m<sup>2</sup>

- The Emergency Team Leader shall inform the parties such as Engineer's Representative (ER), Environmental Team (ET), Independent Environmental Checker (IEC) and the emergency team members;
- The Emergency Team shall be responsible for organizing the manpower and resource to identify the spill source and stop or cease it;
- The Emergency Team who equip with suitable personal protective equipment to remove of any leaked chemical or chemical waste;
- The spillage area shall be contained by using SOC;
- Pads and pillow of the spill kit shall be applied to absorb and remove the spillage within the SOC;
- The absorbent pads and pillows will be collected by disposal bags as part of the spill kits item;
- The used spill kits will be treated, stored and disposed of as chemical waste according to the necessary procedures; and
- An incident report will be submitted to the ER, ET, IEC and Environmental Project Office (ENPO) within 2 working days.

#### Scenario 2 – Spillage area exceed 100m<sup>2</sup>

- The Emergency Team Leader shall inform all parties such as ER, ET, IEC, Highways Department (HyD), Marine Department (MD), Fire Services Department (FSD), Agriculture, Fisheries and Conservation Department (AFCD), Environmental Protection Department (EPD) and the Project Emergency Team members immediately. The contacts of the other concerned parties are shown in **Table 2**.
- The weather forecast for the area will also be used to determine the likely direction of movement (if any) of the surface spill.
- The Emergency Team shall be responsible for organizing the manpower and resource to identify the spill source and stop or cease it.

- The Emergency Team who equip with suitable personal protective equipment to remove any leaked chemical or chemical waste.
- The spillage area shall be contained by using SOC.
- Pads and pillow of the spill kit shall be applied to absorb and remove the spillage within the SOC.
- The absorbent pads and pillows will be collected by disposal bags as part of the spill kits item.
- The used spill kits will be treated, stored and disposed of as chemical waste according to the necessary procedures.
- An incident report will be submitted to the ER, ET, IEC and ENPO within 2 working days.

#### Table 2: The Notification List of Other Concerned Parties

Contact	Telephone No.
Environmental Protection Department (Regional South Office)	2516 1718
Agriculture, Fisheries and Conservation Department	2150 6882
Highways Department	2926 4111
Tung Chung Hospital (24 hrs hotline)	3467 7000
Fire Service Department (Tung Chung Fire Station)	2988 1898
Airport Authority (Integrated Airport Centre)	2910 1108
General Emergency Services	999
Labour Department	2717 1771
Engineer's Representative – Ernest Wong	6329 8428
Environmental Team Leader - Sharifah Or	2972 1802
Independent Environmental Checker – Raymond Dai	5181 8401

### 2.6.3 Protection of Sensitive Receptors

The information that is outlined within this section will become applicable if the area of a spill is estimated to be greater than  $100m^2$ . In order to protect sensitive receivers within the vicinity of the HKBCF site during a spill of greater than  $100m^2$  the following steps will be taken:

- i) The location of the spill relative to a sensitive water receivers such as water intakes and ecological sensitive receivers will be determined;
- ii) Absorbent booms, or similar, will be deployed near to the receptors to protect sensitive marine receptors;
- iii) The Contractor will immediately inform the relevant parties as outlined in Section 2.6 of this Plan;
- iv) The on shift Foremen or Emergency Team Leader's delegates will employ all possible mitigation measures in order to isolate the spill and minimize any potential adverse effects to sensitive marine receptors.
- v) Follow the procedures that are outlined in **Appendix C**; and
- vi) The Contractor, ER, ET and IEC will discuss and implement a suitable program of water sampling to monitor for any potential adverse effects to sensitive receptors.

## 2.7 Dolphin Contingency Plan

It is not known what specific impacts spill of diesel fuel, or other chemicals would have upon the Chinese White Dolphin (CWD) and its food supply. Given that these effects are unclear, a proactive approach will be used to isolate the CWDs from any spill response event on main site area to marine environment.

### 2.7.1 Initial Response

Observations from platform(s) as high as practicable will be used to determine the approximate size of a spill.

Whilst determining the size of the spill, it will be determined whether any CWDs are present in the vicinity of the spill.

The weather forecast for the area will also be used to determine the likely direction of movement (if any) of the surface spill. In addition the vessel traffic centre will be contacted to determine if any vessels may pass through the location of the spill.

A suitable course of action can then be decided upon once information such as the size of the spill, the proximity of any CWDs to the spills and the likelihood of the CWDs encountering the spill.

### 2.7.2 Efforts to Isolate Spill Areas from Chinese White Dolphins

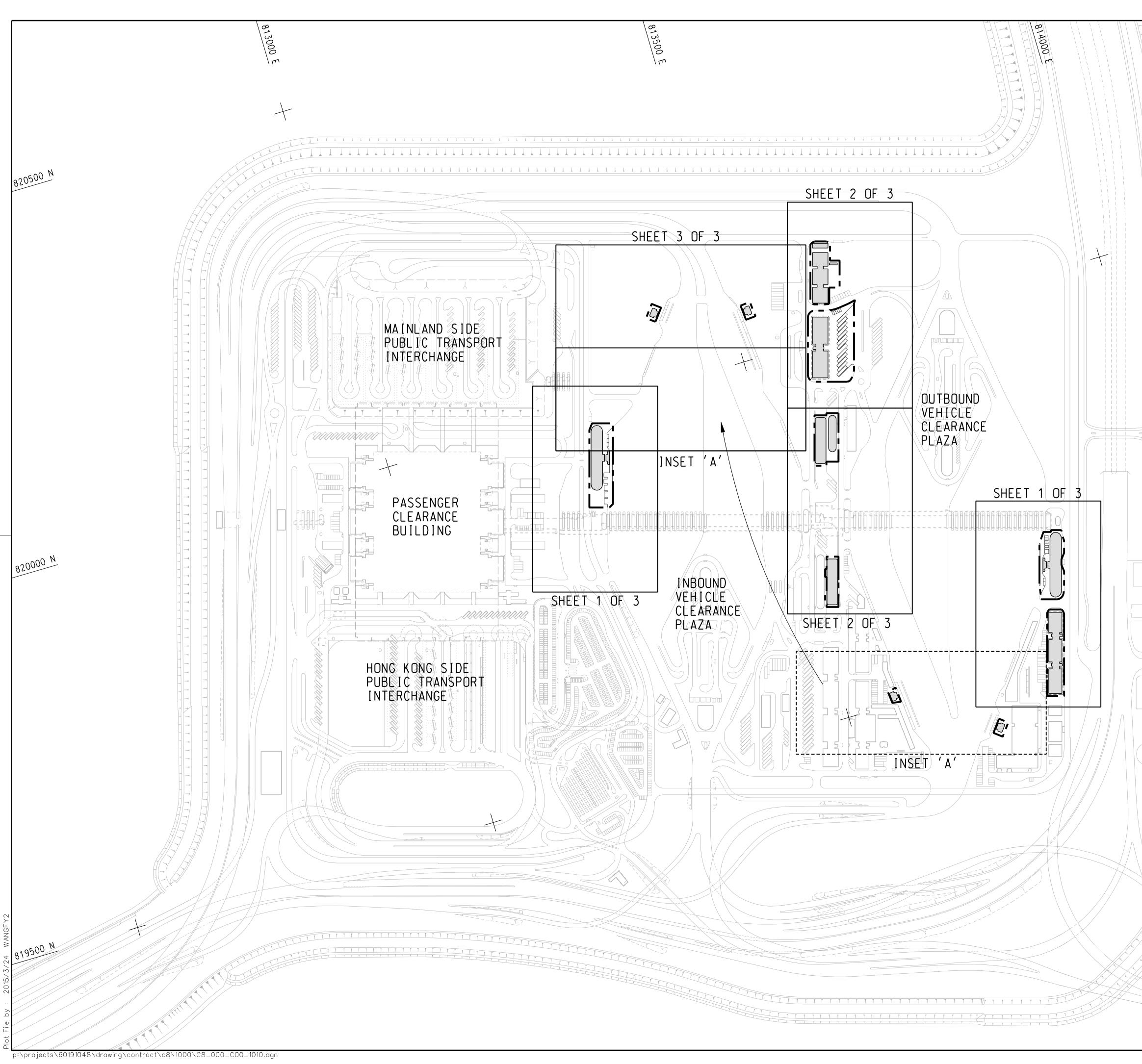
The use of absorbent booms is an effective containment method for small spills within the marine environmental and will prevent the spread of a spill and thus help to minimize the potential for CWDs to come into contact with the spill. Deployment of such absorbent booms, together with teams of observers is considered to be an appropriate response to a small spill that can be cleaned up in the short term. The spill kits are available on site.

### 2.8 Training

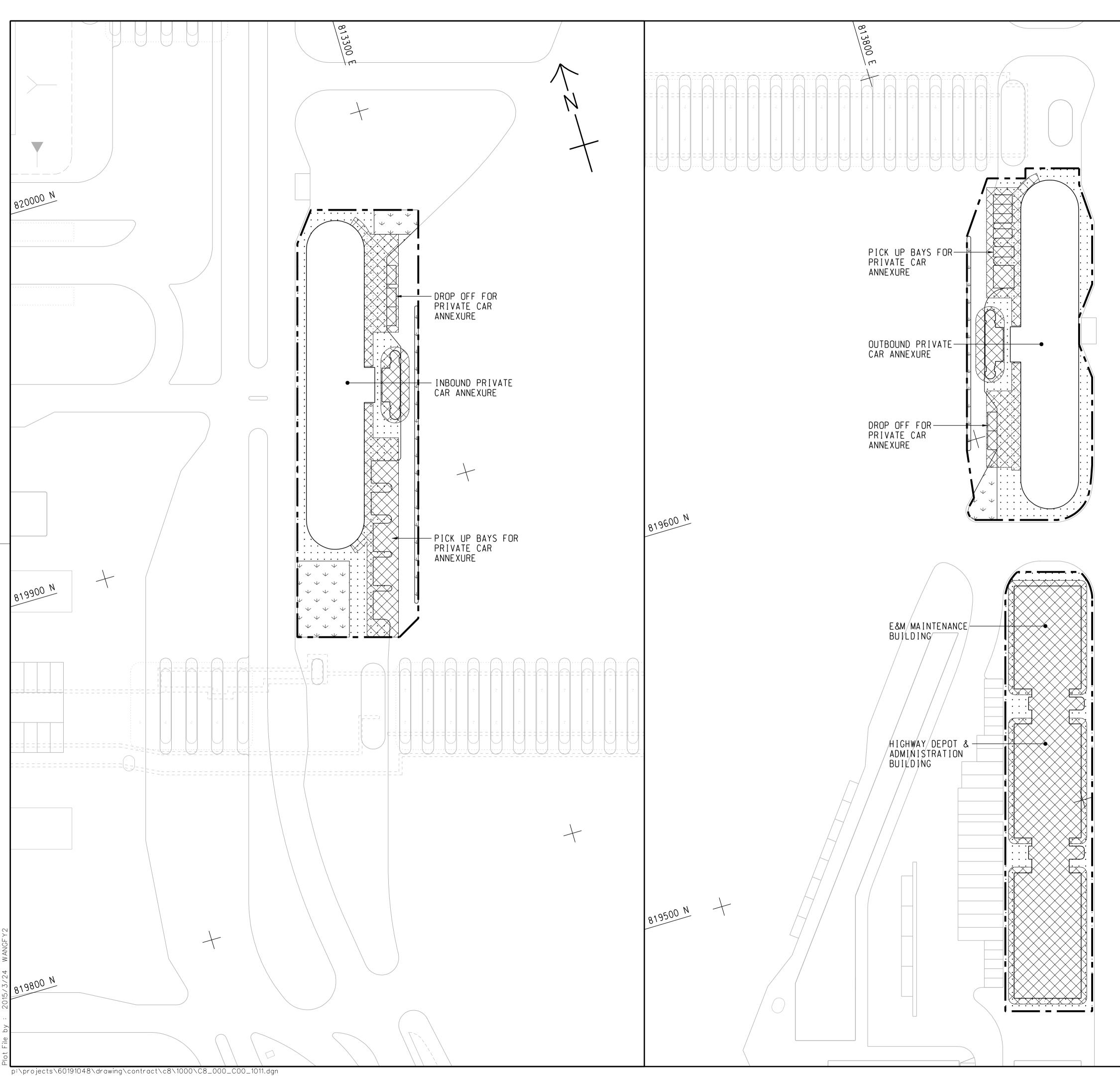
The onsite workforce will receive training from Environmental Officer or his delegate regarding the measures outlined in this Plan during the Site Specific Environmental Induction Training. The Environmental Officer or his delegate shall conduct Tool Box Talks with the site workers regarding this Plan quarterly. All site workers will be required to receive this training. A refreshment training for the Site Specific Environmental Induction Training is conducted biyearly.

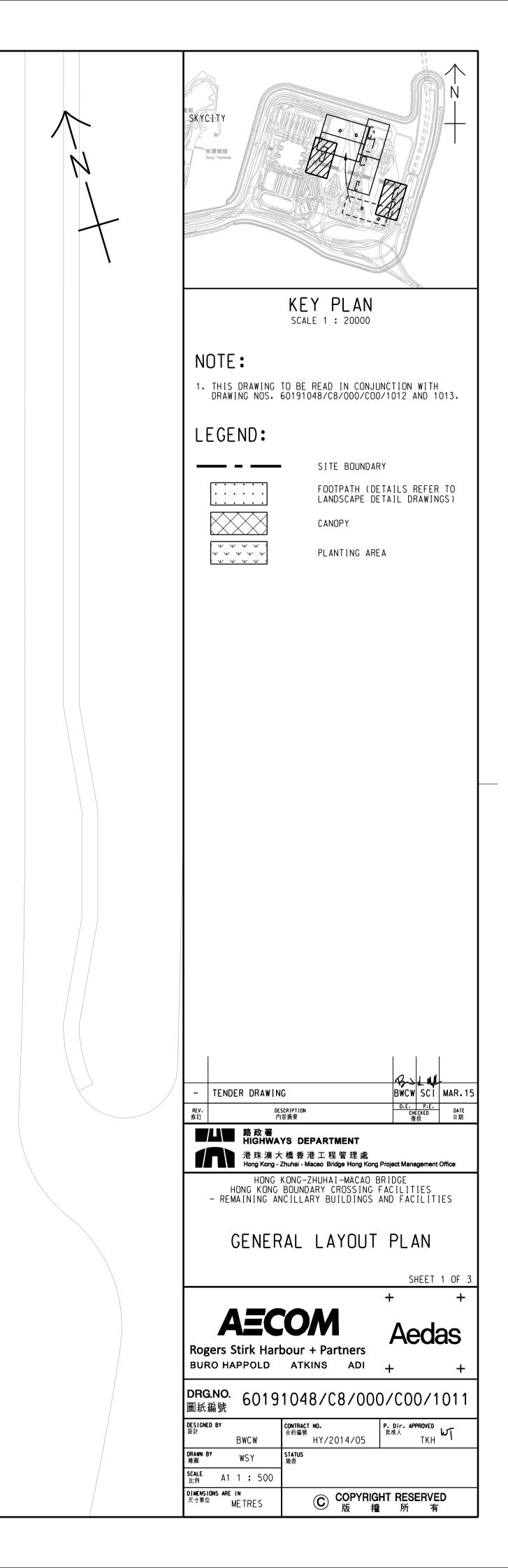
Emergency drill will be conducted with the Emergency Response Team bi-yearly.

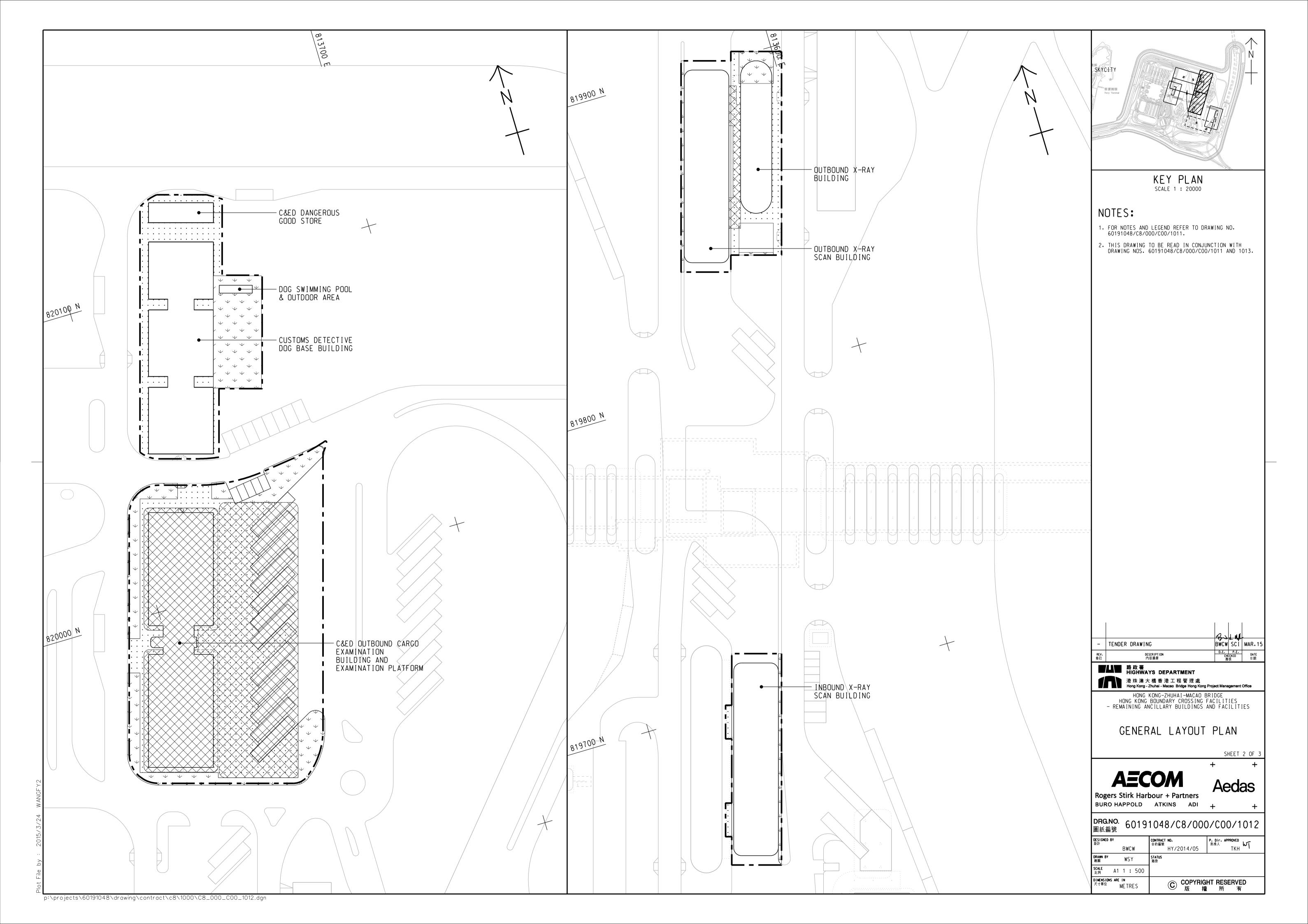
Appendix A Site Location Plan

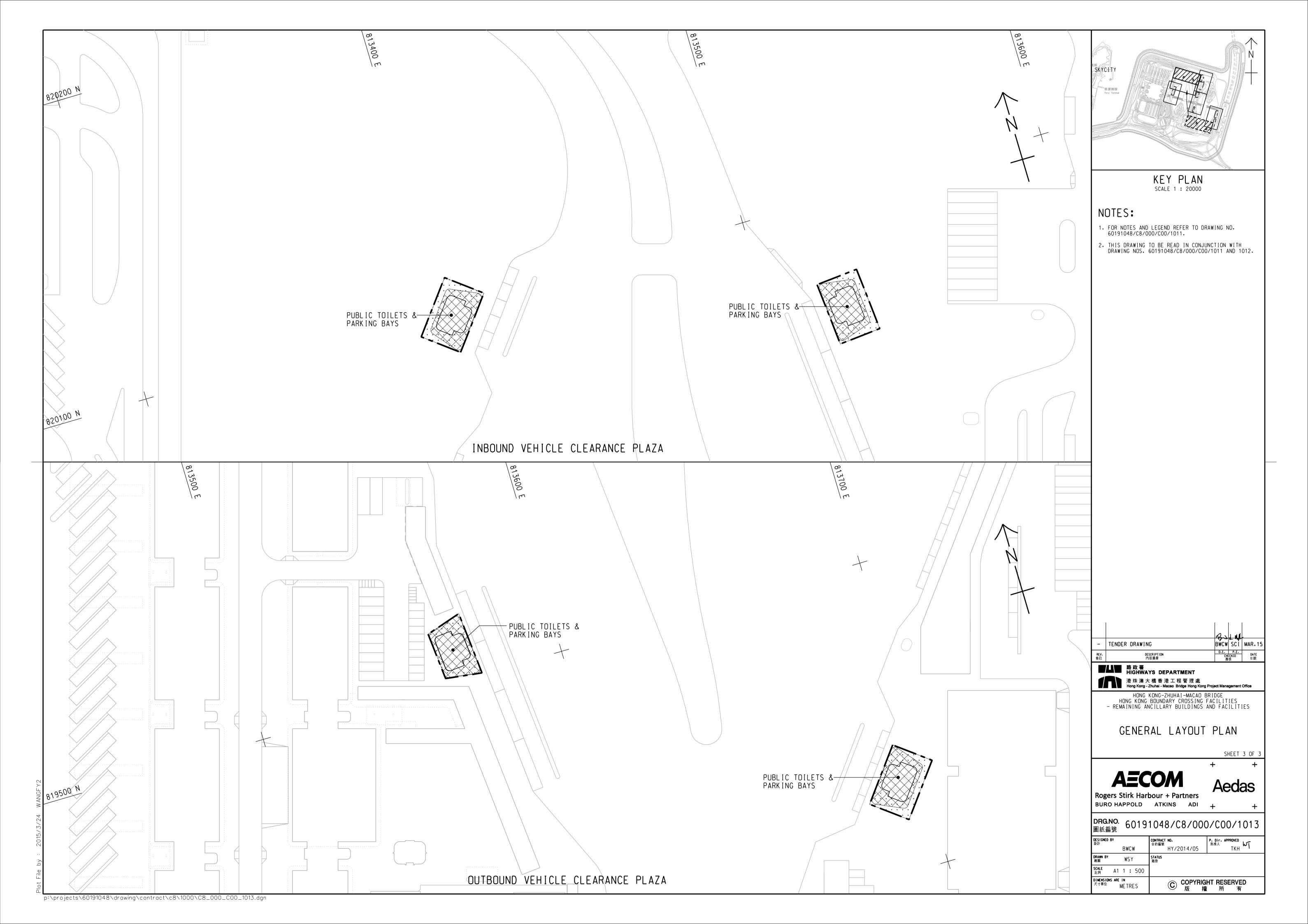


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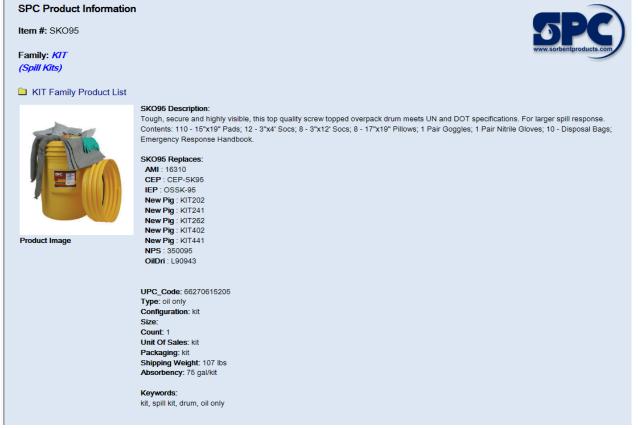


Contract No. HY/2014/05 Hong Kong – Zhuhai – Macao Bridge Hong Kong Boundary Crossing Facilities – Remaining Ancillary Buildings and Facilities Spill Response Plan

Appendix B Spill Kit Details

Contract No. HY/2014/05 Hong Kong – Zhuhai – Macao Bridge Hong Kong Boundary Crossing Facilities – Remaining Ancillary Buildings and Facilities Spill Response Plan

SKO95 Spill kit is suitable for handling large-scale (>100m<sup>2</sup>) spill situation.



#### SKH55 spill kit is suitable for handling small-scale (<100m<sup>2</sup>) spill situation.

#### SPC Product Information

Item #: SKH55 Family: KIT (Spill Kits) LIT Family Product List SKH55 Description: Open and close this lever locked 55 gallon drum for fast response. Drum meets UN specifications. For medium spill response. Contents: 50 -15"x19" Pads; 4 - 3"x12'Socs; 8 - 17"x19" Pillows; 1 Pair Goggles; 1 Pair Nitrile Gloves; 5 - Disposal Bags; Emergency Response Handbook. SKH55 Replaces AMI: 16210 CEP: CEP-HAZSK30 CEP : CEP-HAZSK55 New Pig : KIT243 New Pig : KIT263 Product Image New Pig : KIT307-01 New Pig : KIT343 New Pig : KIT363 NPS : 250055 UPC\_Code: 66270625206 Type: chemical Configuration: kit Size: Count: 1 Unit Of Sales: kit Packaging: kit Shipping Weight: 52 lbs Absorbency: 38 gal/kit Keywords: kit, spill kit, drum, chemical, hazardous, aggressive

Contract No. HY/2014/05 Hong Kong – Zhuhai – Macao Bridge Hong Kong Boundary Crossing Facilities – Remaining Ancillary Buildings and Facilities Spill Response Plan

Appendix C Flow Diagram for Handling Spillage

Contract No. HY/2014/05 Hong Kong – Zhuhai – Macao Bridge Hong Kong Boundary Crossing Facilities – Remaining Ancillary Buildings and Facilities

