# Tuen Mun - Chek Lap Kok Link
# Northern Connection Sub-sea Tunnel Section
# Contract No. HY/2012/08

# PLAN

## Document Ref. No.:

| T M C L K L 8 | - | D B J | - | G E N | - | P L N | - | 9 0 2 9 5 | B | IFA |
|---|---|---|---|---|---|---|---|---|---|---|
| Project Ref. Num. | | Issuer | | Location | | Doc. Type | | Doc. Sequential. Num. | Rev. | Status. |

## Document Title:

# EMERGENCY RESPONSE PLAN

| | PREPARED BY: | INTERNAL REVIEW: | INTERNAL APPROVAL: |
|---|---|---|---|
| COMPANY | DBJV | DBJV | DBJV |
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| POSITION | Environmental Officer (EO) | Quality & Environmental Manager (QEM) | Project Manager |
| SIGNATURE | | pp | |
| DATE | 7 Dec 2020 | 7 Dec 2020 | 09 DEC 2020 |

# (I) DOCUMENT STATUS

## Details of Revision:

| Revision | Rev. Date | Sections | Amendment Source and/or Details |
|---|---|---|---|
| A | 16 March 2020 | All | Issued for Approval |
| B | 7 Dec 2020 | Appendix B | Project Implement Schedules |
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# (II) PROJECT DETAILS

| | | |
|---|---|---|
| Contract no. | : | HY/2012/08 |
| Project Title | : | Tuen Mun – Chek Lap Kok Link, Northern Connection Sub-Sea Tunnel Section |
| Contract Period | : | From 5st August 2013 to May 2020 |
| The Client | : | Government of Hong Kong Special Administrative Region – Highways Department |
| The Supervising Officer | : | AECOM Asia Company Limited |
| The Main Contractor | : | Dragages - Bouygues Joint Venture |
| Nature of Work | : | The design and/or construction for the section of TM-CLKL between Tuen Mun Area 40 and the HKBCF, include the following scope of work: |

(i) Design and construction of sub-sea TBM tunnels (two tubes with cross passages) across the Urmston Road, connecting Tuen Mun Area 40 and HKBCF, of approximately 4 km in length with dual 2-lane carriageway;

(ii) Design and construction of cut-and-cover (C&C) tunnels (two boxes with cross passages) at both the southern landfall and northern landfall for construction of approach roads to the sub-sea TBM tunnels, of approximately 1.5km in length. Subsequently, the C&C tunnels of the Northern Landfall has been replaced with TBM tunnels, whereas the C&C tunnels of the southern Landfall will be constructed with Modified Hybrid Scheme (MHS);

(iii) Construction of northern landfall reclamation of approximately 16.5 hectares and about 2.0km long seawalls;

(iv) Design and construction of ventilation buildings at the southern and northern landfalls;

(v) Design and construction of at-grade roads at the southern and northern landfalls;

(vi) Construction of extension of the existing 4-cell box culvert adjacent to RTT;

(vii) Provision of a temporary pontoon for the affected existing Government berths at RTT;

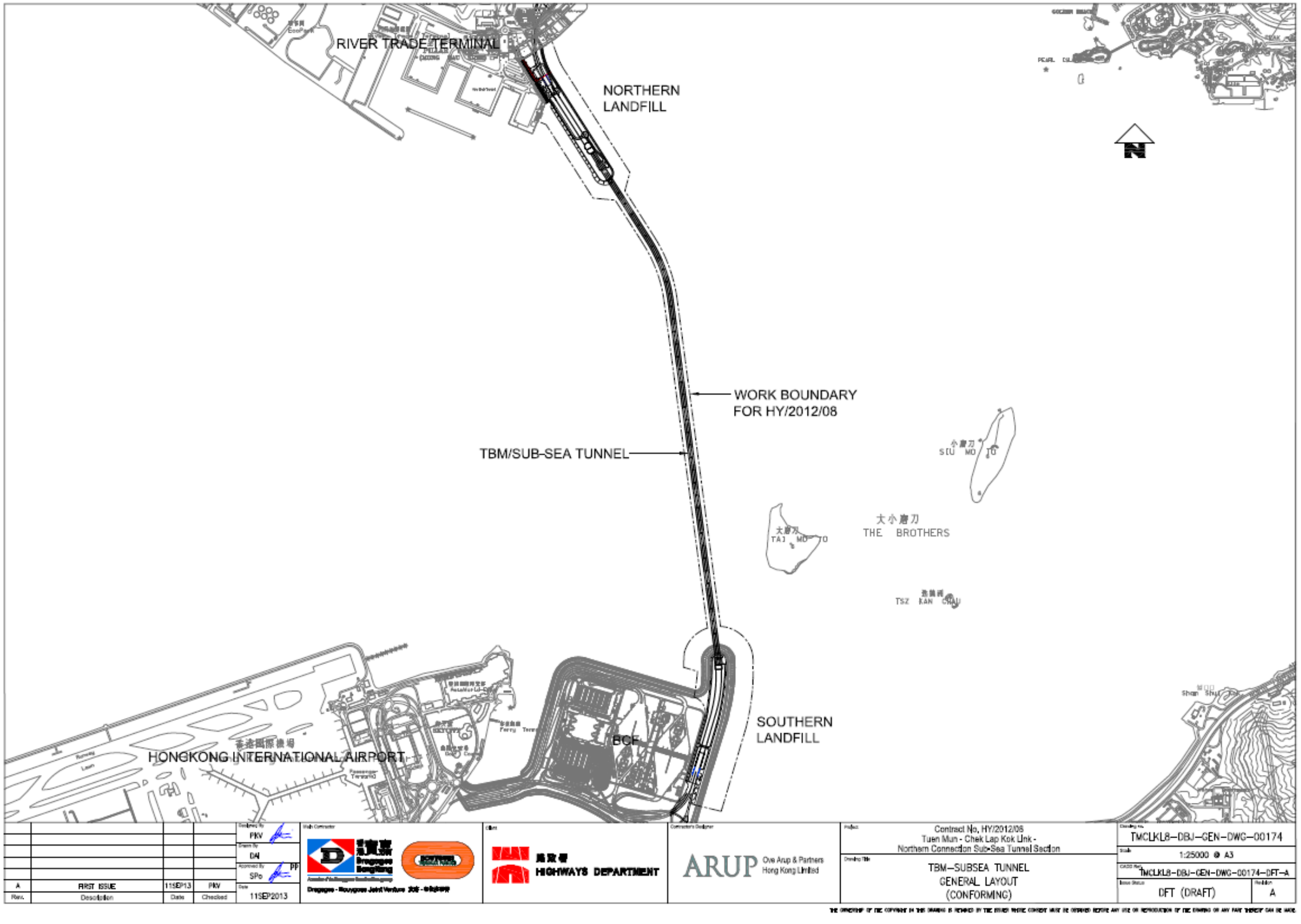
(viii) Design and construction for modification of a section of vertical seawall of approximately 220m in length at the southern landfall to sloping seawall;

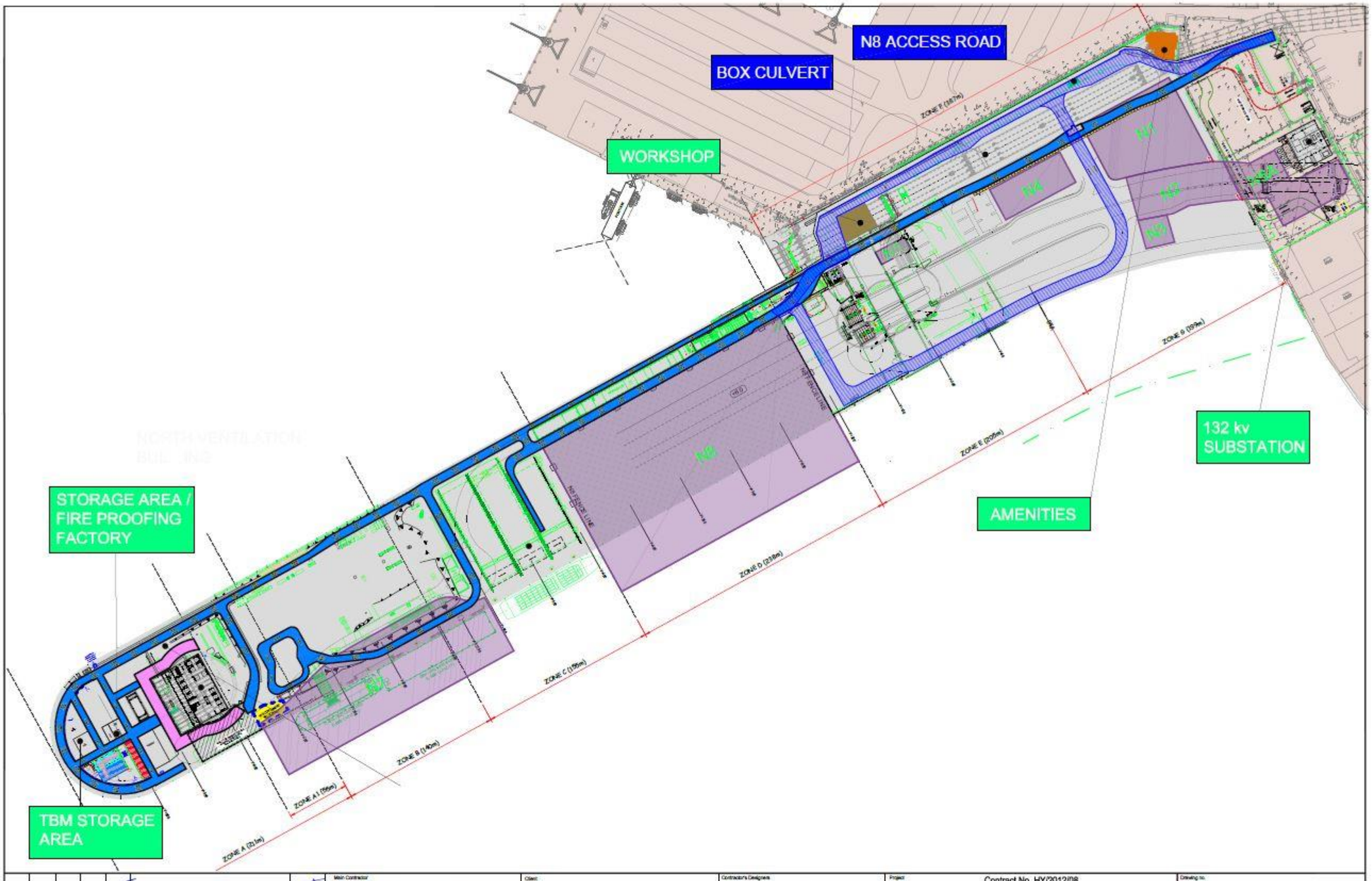
(ix) Design and construction of associated civil, structural, building, geotechnical, marine, environmental protection, drainage and sewerage, waterworks and utility works;

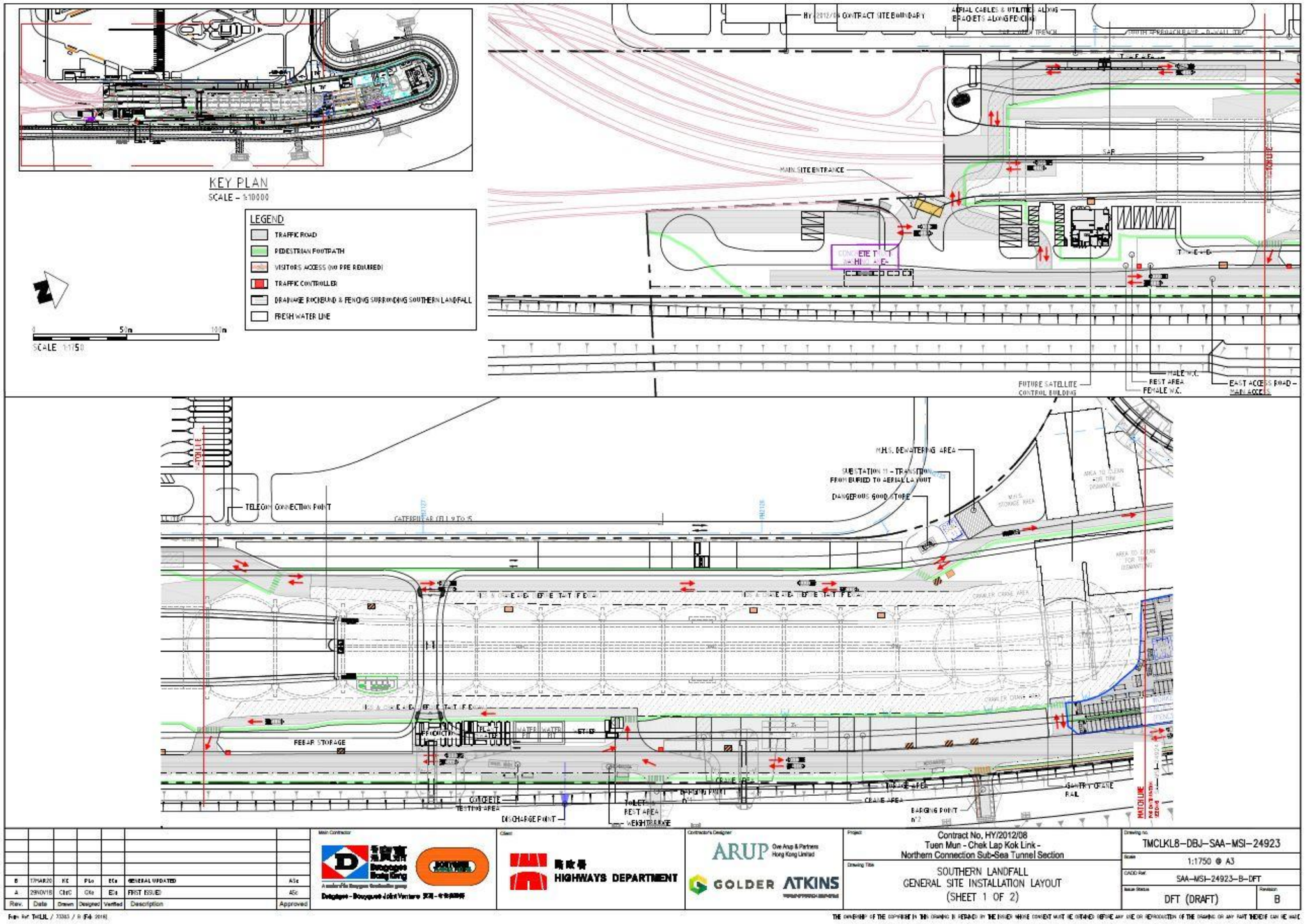
(x) Design and construction of advance SEM provisions to facilitate installation of E&M, TCSS and other utilities including tunnel ventilation, tunnel lighting, tunnel fire services, mechanical ventilation & air- conditioning, high voltage power supply, low voltage power supply, fire services, plumbing & drainage, central monitoring & control system and implementation of an EM&A programme for the works under this Contract; and

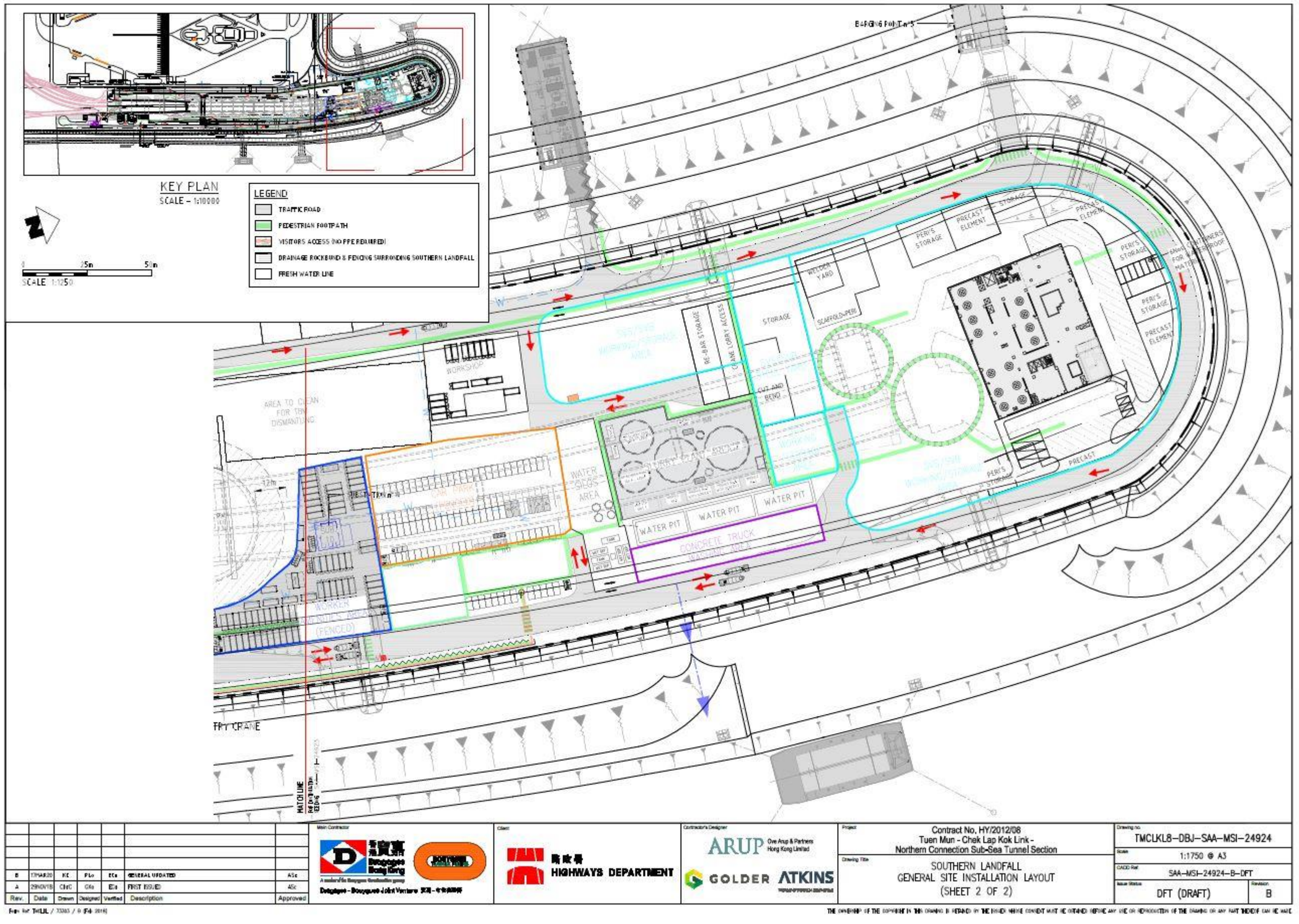
(xi) Incidental works thereto the above and other associcated works which are shown on the Drawings or specified in the ER.

# (III) SITE LAYOUT PLAN




N8 ACCESS ROAD
BOX CULVERT
WORKSHOP
132 kv SUBSTATION
AMENITIES
STORAGE AREA / FIRE PROOFING FACTORY
TBM STORAGE AREA
ZONE A (321m)
ZONE A1 (56m)
ZONE B (140m)
ZONE C (135m)
ZONE D (238m)
ZONE E (205m)
ZONE F (187m)
ZONE G (99m)
N1
N2
N3
N4
N5
N6
N7
N8
HOTEL
NORTH VENTILATION BUILDING
HOTEL FENCE LINE
M 19MAR19 LVe LVe LVe GENERAL UPDATE ASc
L 09MAR18 JSP ECo ECo GENERAL UPDATE ASc
K 21AUG17 JSP ECo ECo GENERAL UPDATE NVS AREA AND WESLA PH2 AREA ASc
F 02FEB15 plv plv SPo GENERAL UPDATE SPo
Rev. Date Drawn Designed Verified Description Approved
Main Contractor
Dragages - Bouygues Joint Venture
Client
HIGHWAYS DEPARTMENT
Contractor's Designers
ARUP Ove Arup & Partners Hong Kong Limited
Golder Associates
ATKINS
Project
Contract No. HY/2012/08
Tuen Mun - Chek Lap Kok Link -
Northern Connection Sub-Sea Tunnel Section
Drawing Title
NORTHERN LANDFALL
GENERAL SURFACE INSTALLATIONS
LAYOUT
Drawing no.
TMCLK–DBJV–NAA–MSI–01355
Scale
1:3000@ A3
CADD Ref.
NAA–MSI–01355–M–DFT
Issue Status
DFT (DRAFT)
Revision
M


KEY PLAN
SCALE – 1:10000
LEGEND
TRAFFIC ROAD
PEDESTRIAN FOOTPATH
VISITORS ACCESS (NO PRE REQUIRED)
TRAFFIC CONTROLLER
DRAINAGE ROCKBUND & FENCING SURROUNDING SOUTHERN LANDFALL
FRESH WATER LINE
SCALE 1:1750
HY/2012/08 CONTRACT SITE BOUNDARY
AERIAL CABLES & UTILITIES ALONG BRACKETS ALONG FENCING
MAIN SITE ENTRANCE
FUTURE SATELLITE CONTROL BUILDING
MALE W.C.
REST AREA
FEMALE W.C.
EAST ACCESS ROAD – MAIN ACCESS
M.H.S. DEWATERING AREA
SUBSTATION 11 – TRANSITION FROM BURIED TO AERIAL LAYOUT
DANGEROUS GOOD STORE
TELECOM CONNECTION POINT
REBAR STORAGE
CONCRETE TESTING AREA
DISCHARGE POINT
TOILET
REST AREA
WEIGHTBRIDGE
BARGING POINT No.2
CRANE AREA
MATOU LINE
Contract No. HY/2012/08
Tuen Mun - Chek Lap Kok Link -
Northern Connection Sub-Sea Tunnel Section
SOUTHERN LANDFALL
GENERAL SITE INSTALLATION LAYOUT
(SHEET 1 OF 2)
TMCLKL8–DBJ–SAA–MSI–24923
1:1750 @ A3
SAA–MSI–24923–B–DFT
DFT (DRAFT)
B
GENERAL UPDATED
FIRST ISSUED
HIGHWAYS DEPARTMENT
ARUP
GOLDER ATKINS


KEY PLAN
SCALE – 1:10000
LEGEND
TRAFFIC ROAD
PEDESTRIAN FOOTPATH
VISITORS ACCESS (NO PPE REQUIRED)
DRAINAGE ROCKBUND & FENCING SURROUNDING SOUTHERN LANDFALL
FRESH WATER LINE
SCALE 1:1250
BARGING POINT No.5
WELDER YARD
SCAFFOLD+PERI
STORAGE
PERI'S STORAGE
PRECAST ELEMENT
RE-BAR STORAGE
CRANE LORRY ACCESS
CUT AND BEND
WORKSHOP
AREA TO CLEAN FOR TBM DISMANTLING
WATER PIT
CONCRETE TRUCK
WORKER'S BREAK (FENCED)
FPT CRANE
HAT'O LINE
Contract No. HY/2012/08
Tuen Mun - Chek Lap Kok Link -
Northern Connection Sub-Sea Tunnel Section
SOUTHERN LANDFALL
GENERAL SITE INSTALLATION LAYOUT
(SHEET 2 OF 2)
TMCLKL8–DBJ–SAA–MSI–24924
1:1750 @ A3
SAA–MSI–24924–B–DFT
DFT (DRAFT)
B
GENERAL UPDATED
A
FIRST ISSUED
HIGHWAYS DEPARTMENT
ARUP
GOLDER
ATKINS

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## APPENDIX

# 1. INTRODUCTION

Dragages – Bouygues Joint Venture (DBJV) has been commissioned to design and construct The Works in Contract No. HY/2012/08, Tuen Mun – Chek Lap Kok Link – Northern Connection Sub-Sea Tunnel Section, is comprised of the following parts:

- A dual 2-lane sub-sea tunnel approximately 5 km long between Tuen Mun and the Hong Kong – Zhuhai – Macao Bridge Hong Kong Boundary Crossing Facilities (HKBCF);
- Reclamation to form land of approximately 16.5 hectares for the tunnel landfall at Tuen Mun (Northern Landfall);
- Associated civil, structural, building, geotechnical, marine, water supplies, drainage, sewage, landscaping works and re-provisioning works of affected existing facilities, etc.

# 2. PURPOSE OF THE PLAN

This Emergency Response Plan (ERP) is developed for the Environmental Permit (EP) (EP-354/2009/D) Condition 3.17 on how to prevent oil and chemical spillage caused by traffic incidents on the carriageway from entering into the waterbody. The Project implementation schedule was shown in **Appendix B**.

This ERP is prepared for the scope of works in Contract No. HY/2012/08.

# 3. PROJECT SCOPE OF THE WORKS

DBJV is responsible for the construction phase of the project, including the reclamation and associated civil works of Northern Landfall, Tunnel construction, and Southern landfall associated civil works. After the completion of Works, all of the constructed components will be handover to Highways Department during the operational phase.

As both Northern Landfall and Southern Landfall is reclaimed land, no marine works will be included in the operational phase. All storm water and surface runoff collected on land will be diverted from the drainage to the desilting facilities managed by Drainage Services Department (DSD). Surface runoff collected from the low points of tunnel structure will also be diverted to both Northern and Southern Landfall drainage system. No oil and hazardous substances are expected to be generated on land.

# 4. GENERAL RESPONSE TO SPILL INCIDENTS ON LAND

The general response to the spill caused by traffic incidents on land shall be advanced to minimize the opportunity of oil and hazardous substances entering to the environment. When incident occurs, operational staff should be made aware of the emergency telephone numbers. The response actions to an incident should include, but not limit to, the following steps:

(i) Immediately inform the Emergency Team of the spill incident occurring.

(ii) The Emergency Team shall be responsible for organizing the manpower to identify the source of spillage and stop or cease it. The Emergency Coordinator (EC) shall equip all people involved in the clean-up works suitable personal protective equipment (PPE) to remove the leaked chemical and chemical waste.

(iii) The Emergency Team shall be ambulance service in case injury person or uncontrollable or non-stoppable spillage to be handled by Fire Services Department or Marine Department.

(iv) Ensure in a safe condition; take all possible measures to prevent the spread of spillage area, such as placing sorbent pads around the spillage source for absorbing the chemical on the ground surface.

(v) The gullies which near to the incident area shall be covered by drain seal or tarpaulin material with mass weighted to ensure chemical would not enter to the waterbody through the drainage system.

(vi) If possible and practical, the spilt chemical shall be put it backs into the original container. Otherwise, suitable materials like dry sand or sawdust shall be used to absorb the residue.

(vii) Any contaminated sand, sawdust and the other materials shall be collected and put it into black plastic bags and “chemical waste” label shall be displayed clearly at the bag. Finally, handling of the chemical waste shall be followed to the “Code of Practice on Packing, Labelling and Storage of Chemical Wastes”.

# 5. EMERGENCY TEAM

## 5.1 Team Structure

An Emergency Team shall be established by the maintenance contractor for the Contract in order to dealing with emergency cases promptly. The Emergency Team shall be comprised members of an emergency team leader, emergency safety and environmental representatives and emergency coordinators.

Once the emergency team established, the member list will be maintained and revised from time to time to ensure it is up-to-date and notify Highways Department representative. The management and maintenance authority should contract the Hong Kong Police Force and Transport Department during emergency spillage. The telephone contact numbers shall be displayed on notice board. The contacts of emergency parties were listed at **Appendix A**.

## 5.2 Roles and Responsibilities

<u>Emergency Team Leader</u>

- Coordinate with all emergency situations,
- Determinate the seriousness of the incidents for taking appropriate responding action and to deploy manpower and transportation resources,

- Lead the emergency team to carry out appropriate emergency measures to minimize impacts arising from the spillage case,
- Inform the emergency safety / environmental representative, work team members and SOR as soon as possible in case of a spillage incidents,
- Ensure that the staffs have received the training for emergency procedure before working.

Emergency Safety Representative

- Assist the Emergency Leader in handling of responding actions toward the emergency events,
- Design evacuation procedures and routes for emergency events,
- Advice the Emergency Leader on hidden danger or unforecastable situation to be occurred in the contract site arising from emergency events,
- Observe the whole process of the emergency procedure,
- Provide safety training to all team members and frontline staffs for the emergency procedures.

Emergency Environmental Representative

- Assist the Emergency Leader in handling of responding actions towards emergency events,
- Advice the Emergency Leader on hidden danger or unforeseeable situation on environmental aspects to be occurred in the contract site arising from emergency events,
- Ensure the emergency procedures are handle under environmental requirements,
- Assess the potential impacts on the local environmental such as Chinese White Dolphins and ecology issues,
- Provide environmental training to all team members and operational staffs for the emergency procedures.

Emergency Coordinator – Superintendent

- Responsible to the Emergency Leader and shall follow the instruction to perform their duties,
- Be familiar with the emergency procedures, locations of the first-aid points and work areas,
- Inspect and examine the equipment for the sump pits at regular intervals to ensure they are in place and in good condition,
- Arrange the manpower and necessary plants, boats, or vehicles for emergency events,
- Control or mitigate hazards at the scene to prevent further damages to the property or injury to person under a safe condition,
- In cases of the injuries, provide suitable first aid treatment at scene by certified first aiders.

- Report the latest situation of the injured person to the Emergency Team Leader,
- Coordinated with Government Emergency Units if necessary.

# 6. IMPLEMENTATION OF EMERGENCY RESPONSE PLAN

## 6.1 Staff Training

All the operational staffs shall be briefed for spill prevention and emergency handling procedures during the mandatory work induction training. Qualified trainers shall periodically conduct tool-box talk to the operational staffs. Where appropriate, a demonstration of the spill kit, or similar equipment may be delivered to related Emergency Team members.

# APPENDIX A - GOVERNMENT EMERGENCY CONTACT UNITS

| Contact<br>聯絡 | Phone No.<br>電話號碼 | Remarks<br>備註 |
|---|---|---|
| Ambulance<br>救護車控制中心 | 2735 3355 | |
| FSD-Emergency & Rescue<br>消防緊急及救援 | 2723 2233 | |
| FSD – Chek Lap Kok<br>赤鱲角消防局 | 2949 9081 | |
| FSD – Pillar Point<br>望后石消防局 | 2404 0766 | |
| Maritime Rescue Coordination Centre<br>海上救援協調中心 | 2233 7999 | 24hr<br>24 小時 |
| Marine Department – Harbour Patrol Section<br>海事處海港巡邏組 | 2928 6377 | |
| Tai Lam Marine Base<br>大欖水警基地 | 2452 9261 | |
| North Lantau Hospital<br>北大嶼山醫院 | 3467 7000 | |
| Shipping Control - River Trade Terminal<br>港口管制站 – 內河碼頭 | 2180 4578 | 24hr<br>24 小時 |
| Tuen Mun Hospital<br>屯門醫院 | 2468 5111 | |
| Pok Oi Hospital<br>博愛醫院 | 2486 8000 | |
| Regional Command & Control Centre (RCCC)<br>指揮及控制中心 | 999 | 24hr<br>24 小時 |
| Typhoon Enquiry<br>颱風資訊 | 2835 1473 | Operate during Tropical Cyclone Warning Signal No.3 or above<br>熱線於三號風球或以上運作 |
| Weather Enquiry<br>天氣資訊 | 187 822 | 24hr<br>24 小時 |

# Appendix B - Project Implement Schedules

| EIA Ref. | EM&A Ref. | Recommended Mitigation Measures | Objectives of the Recommended Measure & Main Concerns to address | Implementation Agent | Location / Duration of the measure | Implementation Stage[1] | | | Relevant Legislation & Guidelines |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | | D | C | O | |
| Accidental Spillage (Operation Phase) | | | | | | | | | |
| 3.17 | S6.8.4.8 & EP S3.17 | **Emergency Response Plan for spillage of oil & chemicals**<br>The permit Holder shall, no later than 2 months before the commencement of operation of the Project, deposit with the Director three sets of a detailed Emergency Response Plan (ERP) on how to prevent oil and chemical spillage caused by traffic incidents on the carriageway from entering into the waterbody. | Mitigation of accidental spillage by oil tankers into waterbodies | Emergency Team | TM-CLKL | | | ✓ | Water Pollution Control Ordinance (Cap. 358) |