



The Government of the Hong Kong Special Administrative Region

Civil Engineering and Development Department

**Construction of a Landing and Access Facility at
Fung Wong Wat Beacon, Tolo Channel, Tai Po**

Project Profile

Contents

1. Basic Information

- 1.1 Project Title
- 1.2 Purpose and Nature of the Project
- 1.3 Name of Project Proponent
- 1.4 Location of Project and Scale of Project
- 1.5 Number and Types of Designated Projects to be Covered by the Project Profile
- 1.6 Name and Telephone Number of Contact Person

2. Outline of Planning and Implementation Programme

3. Construction Method

4. Major Elements of the Surrounding Environment

- 4.1 Plover Cove Country Park, Tolo-Channel Geo-Area and Tolo Channel (Northern Coast) Site of Special Scientific Interest
- 4.2 Sensitive Receivers

5. Identification of Possible Impacts on the Environment

- 5.1 Noise
- 5.2 Air Quality
- 5.3 Visual Appearance
- 5.4 Cultural Heritage
- 5.5 Fisheries
- 5.6 Ecology
- 5.7 Water Quality
- 5.8 Waste Management
- 5.9 Impacts on Country Park and Site of Special Scientific Interest (SSSI)
- 5.10 Other Residual Impacts

6. Environmental Protection Measures to be Incorporated in the Design and Any Further Environmental Implications

- 6.1 Measures to Minimize Environmental Impacts
- 6.2 Possible Severity, Distribution and Duration of Environmental Effects

7. Use of Previously Approved EIA Reports

8. Conclusion

**Construction of a Landing and Access Facility at Fung Wong Wat Beacon, Tolo Channel, Tai Po
Project Profile**

Appendices

Appendix A – Photos

- Photo 1A – Existing Fung Wong Wat Beacon
- Photo 1B – Proposed Landing and Access Facility
- Photos 2 – Diving Survey Photos at Fung Wong Wat Beacon

Appendix B – Drawings

- Drawing No. PW-FD11-135 – Location Plan of Fung Wong Wat Beacon
- Drawing No. PW-FD 13-013 – Work Site Limit
- Drawing No. PW-FD 11-137 – Identified Sensitive Areas at Fung Wong Wat
- Drawing No. PW-FD 11-138 – Tolo Channel Geo-Area in Hong Kong Geopark
- Drawing No. PW-FD 11-140 – Proposed Landing and Access Facility at Fung Wong Wat Beacon
- Drawing No. PW-FD 11-141 – Installation Details of Silt Curtain
- Drawing No. PW-FD 14-051 – Water Quality Monitoring Plan

**Construction of a Landing and Access Facility at Fung Wong Wat Beacon, Tolo Channel, Tai Po
Project Profile**

1. Basic Information

1.1 Project Title

1.1.1 The project is entitled as “Construction of a Landing and Access Facility at Fung Wong Wat Beacon, Tolo Channel, Tai Po” (The Project).

1.2 Purpose and Nature of the Project

1.2.1 At present there are no landing facilities at the existing Fung Wong Wat Beacon as shown on Photo 1A of Appendix A. The purpose of the Project is to provide safe landing and access facility for the regular inspection and maintenance of the Beacon.

1.2.2 The photomontage showing the proposed landing and access facility is shown on Photo 1 B of Appendix A for reference.

1.3 Name of Project Proponent

1.3.1 Marine Department (MD) is the project proponent and the client department. Civil Engineering and Development Department (CEDD) is the works agent for the planning, design and implementation of the Project.

1.4 Location of Project and Scale of Project

1.4.1 Fung Wong Wat Beacon is located at the northern coast of Tolo Channel as shown on Drawing No. PW-FD11-135 of Appendix B. The plan area of the landing and access facility is about 35m² as shown on Drawing No. PW-FD13-013 of Appendix B.

1.4.2. The scale of the Project is small. A photomontage of the proposed concrete landing and access facility to be constructed under the Project is shown on Photo 1B of Appendix A. No dredging and reclamation works will be involved.

1.5 Number and Types of Designated Projects to be Covered by the Project Profile

1.5.1 As shown on Drawing Nos. PW-FD11-137 and 138 of Appendix B, the Project is located within the boundary of Plover Cove Country Park/ Tolo Channel Geo-Area and partly falls within Tolo Channel (Northern Coast) Site of Special Scientific Interest (SSSI). In accordance with Section Q.1 of Part I of Schedule 2 of Environmental Impact Assessment (EIA) Ordinance, it is classified as a designated project.

4. Major Elements of the Surrounding Environment

4.1 Plover Cove Country Park, Tolo-Channel Geo-Area and Tolo Channel (Northern Coast) Site of Special Scientific Interest.

4.1.1 As shown on the Drawing Nos. PW-FD11-137 and 138 of Appendix B, there are Plover Cove Country Park and Tolo Channel Geo-Area in the close vicinity of the proposed works. Part of the proposed works falls within Tolo Channel (Northern Coast) SSSI. As shown on Photo 1B of Appendix A, the proposed landing and access facility is mainly located at the fringe of the Site and on a reef close to the sea. The detailed impact assessment is given in Section 5.9.

4.2 Sensitive Receivers

4.2.1 As shown on the Drawing No. PW-FD11-137 of Appendix B, there are no residential area or no sensitive receivers identified in respect to air, noise, water quality, ecology etc within 500m from the proposed landing and access facility of the Beacon.

5. Identification of Possible Impacts on the Environment

5.1 Noise

5.1.1 During construction, the lifting operation of the derrick lighter and the drilling process of drilling machine are the primary noise sources. Since their noise levels will not be high and is short term, furthermore, no noise sensitive receiver is identified in the vicinity, it is anticipated the noise impact is insignificant.

5.2 Air Quality

5.2.1 Since no dredging is involved, no odour problem is expected.

5.2.2 As excavation and filling works on the site are minimal, dust emission from the site is minimal. If necessary, water will be sprayed on site to control the dust emission. Furthermore, no sensitive receiver is identified in the vicinity and the construction plant shall comply with relevant environmental regulations, the emitted gas from the plant is anticipated to be minimal. Proper maintenance of construction plant will also be undertaken to prevent dark smoke emission. Therefore, the air quality impact caused by the Project is negligible.

**Construction of a Landing and Access Facility at Fung Wong Wat Beacon, Tolo Channel, Tai Po
Project Profile**

5.3 Visual Appearance

5.3.1 The landing and access facility is small and will become an integral part of the existing lighted beacon. Therefore, the impact on the visual appearance impact caused by the Project is negligible.

5.4 Cultural Heritage

5.4.1 With reference to information from Antiquities and Monuments Office of Leisure and Cultural Services Department, HIA is not required for this Project. If any antiquities are discovered in the course of the construction works, Antiquities and Monuments Office will be informed promptly.

5.5 Fisheries

5.5.1 In accordance with the information obtained from Agriculture, Fisheries and Conservation Department, there is no Fish Culture Zone near the proposed work site but within a proposed Fisheries Protection Area and fish nursery ground as shown on Drawing No. PW-FD11-137 of Appendix B.

5.5.2 In order to identify any coastal species and habitats in the vicinity of the proposed works site, an underwater dive inspection was conducted within the site limit by CEDD diving team on 2 September 2011. In accordance with the diving survey photos as shown on Photos 2 of Appendix A, there are no special habitats relevant to fishery at the proposed work site. Furthermore, the scale of the proposed works is very small and limited at a reef close to the sea, and no dredging works is required. As such, the impact on the fishery is considered to be minimal.

5.6 Ecology

5.6.1 According to the diving survey photos as shown on Photos 2 of Appendix A, there were only barnacles attached on the rock surfaces at tidal zone and scattered groups of sea urchin at the sea bed. There were no corals, no other aquatic organisms nor ecologically important habitats. As no dredging or reclamation works will be involved, the impact on the ecology is considered to be minimal.

5.7 Water Quality

- 5.7.1 As shown on the Photo 1A of Appendix A and Drawing No. PW-FD11-137 of Appendix B, there is no water quality sensitive receiver identified. The construction site is at a reef close to the sea. Therefore there will be no runoff, groundwater or flooding problems anticipated. It is also not necessary to provide depot and workshop on site. The sanitary facilities will be provided on a licensed barge for workers. The construction plant shall be well maintained and no leakage of fuel and oil is allowed. Therefore, there will be no wastewater or sewage discharged into the sea.
- 5.7.2 The potential water quality impact might be due to preparation of rock surface for the precast concrete blocks and drilling works. To minimise the impact, such works will be carried out during low tide period and silt curtain will be erected around the site and down to the seabed as detailed on the Drawing No. PW-FD11-141 of Appendix B. To ensure the silt curtain functioning properly, it shall be inspected before and after adverse weather, and no works will be carried out during adverse weather condition.
- 5.7.3 To ensure the proposed construction method and mitigation measures functioning effectively and properly, water quality monitoring will be conducted. Water samples will be taken before commencement of the works, during construction and after completion of the works. It is anticipated that environmental impacts on water quality during construction is insignificant because most of the concrete works will be carried out above the water surface. Nevertheless, if adverse impacts on the water quality are identified, the construction works will be suspended immediately until the impacts are subsided.

5.8 Waste Management

- 5.8.1 No dangerous chemical waste will be used for this Project. Therefore, it is anticipated that there will be no impact due to chemical waste caused by the Project.
- 5.8.2 Construction and demolition (C&D) material and waste such as excavated spoil (soil and rock), unusable concrete and grout, wood, metal scraps, equipment parts and packaging materials would be generated. Nevertheless, due to the small scale of the Project, the quantities of the waste are minimal. Furthermore, the waste will be sorted for re-use, recycling, or disposed of at public filling or landfills facilities in accordance with the Regulations. Therefore, adverse environmental impacts due to waste are not expected.

**Construction of a Landing and Access Facility at Fung Wong Wat Beacon, Tolo Channel, Tai Po
Project Profile**

5.9 Impacts on Country Park and Site of Special Scientific Interest (SSSI)

5.9.1 As shown on Drawing No PW-FD11-137 of Appendix B, and Photo 1A of Appendix A, the existing Beacon is located at the fringe of the Plover Cove Country Park and Tolo Channel (Northern Coast) SSSI.

5.9.2 Within the proposed work site, there are no vegetation, no sites of historic or cultural significance and also no habitat of wild life is identified. The site is also not on the routes of trails or walks of the Country Park. Therefore the proposed works will not affect the purposes of recreation and tourism of the Park. Furthermore, the size of the proposed landing and access facility is small. It will also match the existing environment and not create any significant impact on scenic beauty. Therefore, it is anticipated that the impact on Country Park and the SSSI is insignificant.

5.10 Other Residual Impacts

5.10.1 No other operational impacts are identified during operation of the landing and access facility.

6. Environmental Protection Measures to be Incorporated in the Design and Any Further Environmental Implications

6.1 Measures to Minimize Environmental Impacts

6.1.1 Ecology

6.1.1.1 Underwater dive inspection had been conducted and only sea urchins were found. In order to minimize the possible impact, the sea urchins will be relocated out of the site limit before construction.

6.1.2 Water Quality

6.1.2.1 To safeguard the water quality during the construction works, the following measures will be implemented:-

(a) Installation of silt curtain around the site

As demonstrated on Drawing No. PW-FD11-141 of Appendix B, the full height silt curtain from water surface down to the seabed will be erected around the site as containment to confine the area being affected by the construction works. The silt curtain will be maintained in good and effective condition throughout the construction process.

(b) Cleaning of construction material

The precast concrete blocks, rockfill and levelling stones will be washed off site to minimize the impact of dirt on water quality.

(c) Water quality monitoring throughout the construction period

The water quality monitoring programme in this Project will follow the “Environmental Monitoring and Audit, Guidelines for Development Projects in Hong Kong”. Baseline monitoring, impact monitoring and post-project monitoring on turbidity and suspended solids will be carried out 4 weeks prior to the construction, during the construction and 4 weeks after the construction respectively at mid-flood and mid-ebb tides, at a frequency of 3 days per week. The locations of the monitoring points are shown on Drawing No. PW-FD14-051. The works will be suspended if the acceptable limit of the water quality is exceeded.

6.1.3 Noise

6.1.3.1 In order to alleviate the potential noise impact, noise mitigation measures such as good site practice, use of quiet plant and well planned construction method will be recommended.

6.2 Possible Severity, Distribution and Duration of Environmental Effects

6.2.1 In view of the small scale of works that will be completed within six months, any environmental impacts, which may be caused by the Project, should be short-termed, localized and minimal.

7. Use of Previously Approved EIA Reports

7.1 No previously approved environmental impact assessment report has been conducted in Fung Wong Wat Beacon.

8. Conclusion

- 8.1 It is a small scale construction project. It involves the laying precast concrete blocks on the sea bed, installing of six 219 mm diameter bored piles, and fixing of a precast concrete access, installation of railing and associated facilities. No dredging and reclamation works will be involved.
- 8.2 The identified environmental impacts arising from the Project are minimal and manageable. Nevertheless, the following measures will be implemented to further reduce the impacts:
- (i) removal urchins out of the site limit to minimise the impact to the ecology;
 - (ii) installation of silt curtain around the site, cleaning of construction materials and carrying out water quality monitoring to minimise the impact to the water quality; and
 - (iii) using of quiet plants and well planned construction method to minimise the noise impact.
- 8.3 Since the scale of the project is very small, the identified impacts on SSSI, Tolo Channel Geo-Area and Plover Cove Country Park are localised and insignificant.
- 8.4 As the environmental impacts arising from the Project is insignificant, the Department will apply directly an environmental permit under EIA Ordinance.

Appendix A 附錄 A



Photo 1A – Existing Fung Wong Wat Beacon
照片 1A - 現時的鳳凰笏航標



Photo 1B – Proposed Landing and Access Facility
照片 1B - 擬建的登岸台和通道設施



Photo 2.1

圖片 2.1



Photo 2.2

圖片 2.2

Photos 2 – Diving Survey Photos at Fung Wong Wat Beacon
照片 2 – 在鳳凰笏航標的潛水勘測圖片



Photo 2.3

圖片 2.3



Photo 2.4

圖片 2.4

Photos 2 – Diving Survey Photos at Fung Wong Wat Beacon
照片 2 – 在鳳凰笏航標的潛水勘測圖片



Photo 2.5

圖片 2.5



Photo 2.6

圖片 2.6

Photos 2 – Diving Survey Photos at Fung Wong Wat Beacon

照片 2 – 在鳳凰笏航標的潛水勘測圖片



Photo 2.7

圖片 2.7



Photo 2.8

圖片 2.8

Photos 2 – Diving Survey Photos at Fung Wong Wat Beacon
照片 2 – 在鳳凰笏航標的潛水勘測圖片



Photo 2.9

圖片 2.9



Photo 2.10

圖片 2.10

Photos 2 – Diving Survey Photos at Fung Wong Wat Beacon

照片 2 – 在鳳凰笏航標的潛水勘測圖片



Photo 2.11

圖片 2.11

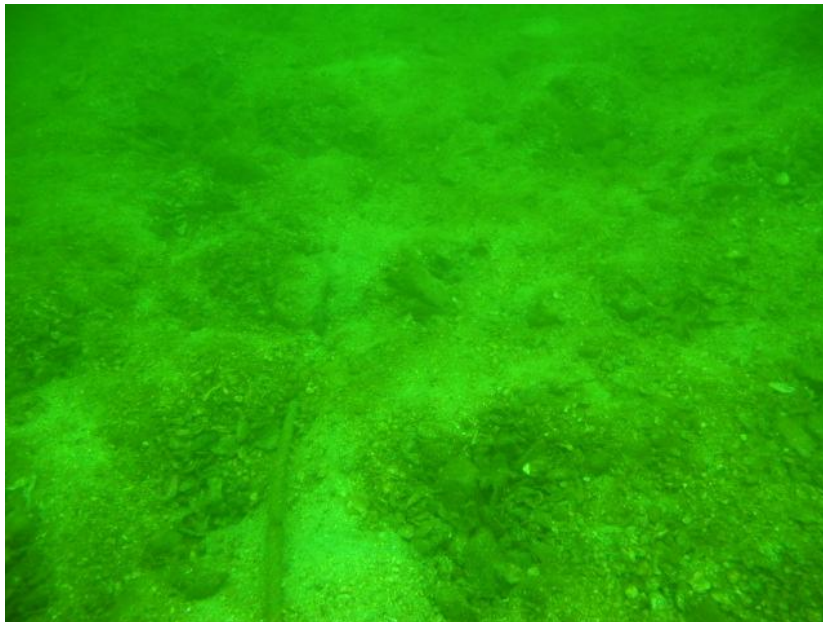
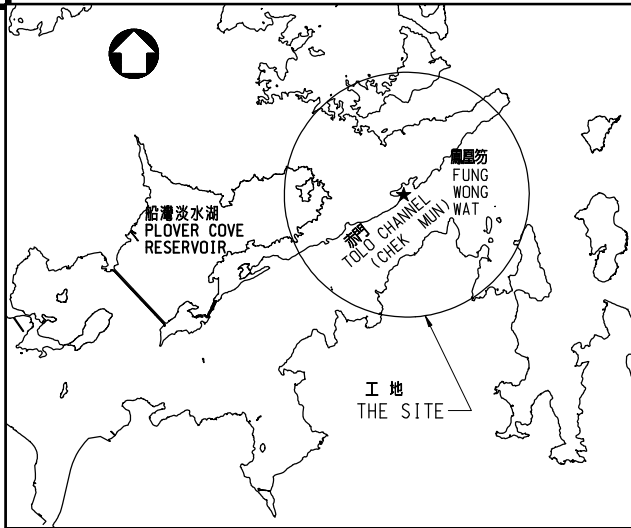


Photo 2.12

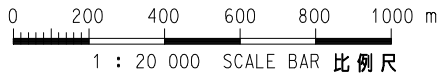
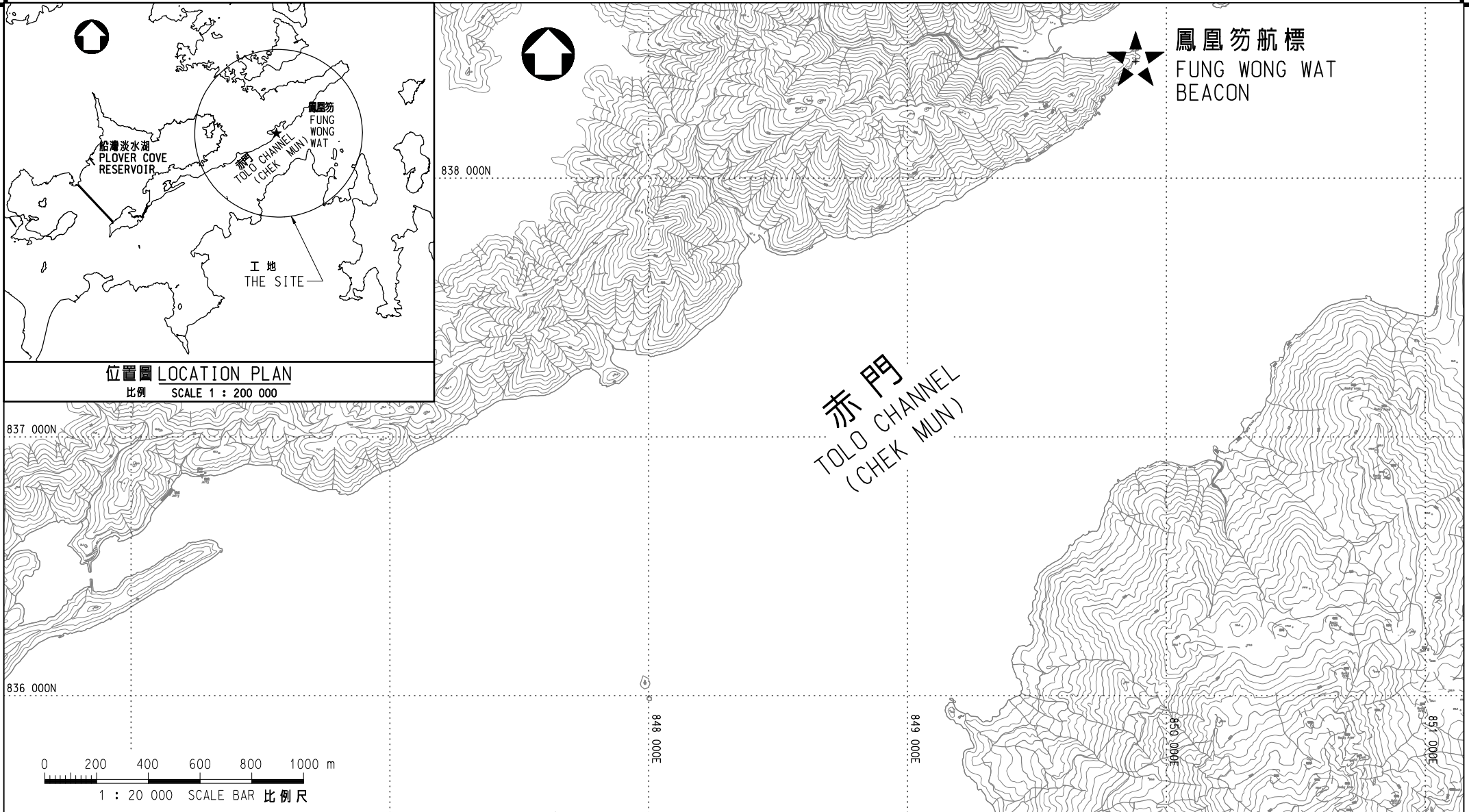
圖片 2.12


Photos 2 – Diving Survey Photos at Fung Wong Wat Beacon
照片 2 – 在鳳凰笏航標的潛水勘測圖片

Appendix B 附錄 B

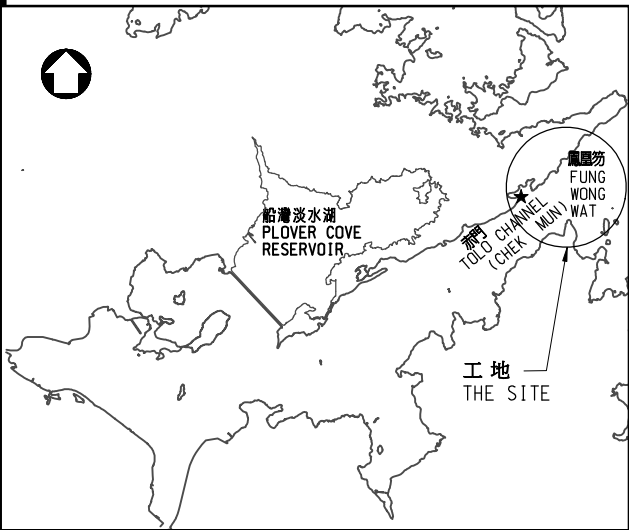


位置圖 LOCATION PLAN
比例 SCALE 1 : 200 000



名稱 title 鳳凰笏航標位置圖 LOCATION PLAN OF FUNG WONG WAT BEACON	圖則編號 drawing no. PW-FD11-135	比例 scale 1:20 000 OR AS SHOWN
日期 date	 土木工程拓展署 CIVIL ENGINEERING AND DEVELOPMENT DEPARTMENT	
辦事處 office 海港工程處 PORT WORKS DIVISION 土木工程處 CIVIL ENGINEERING OFFICE		

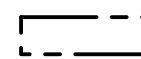
保留版權
COPYRIGHT RESERVED



索引圖 LOCATION PLAN
比例 SCALE 1 : 200 000

點 POINT	座標 CO-ORDINATES	
	東距(米) EASTING (m)	北距(米) NORTHING (m)
A	849 892	838 462
B	849 898	838 427
C	849 874	838 423
D	849 870	838 446

圖例
LEGEND:



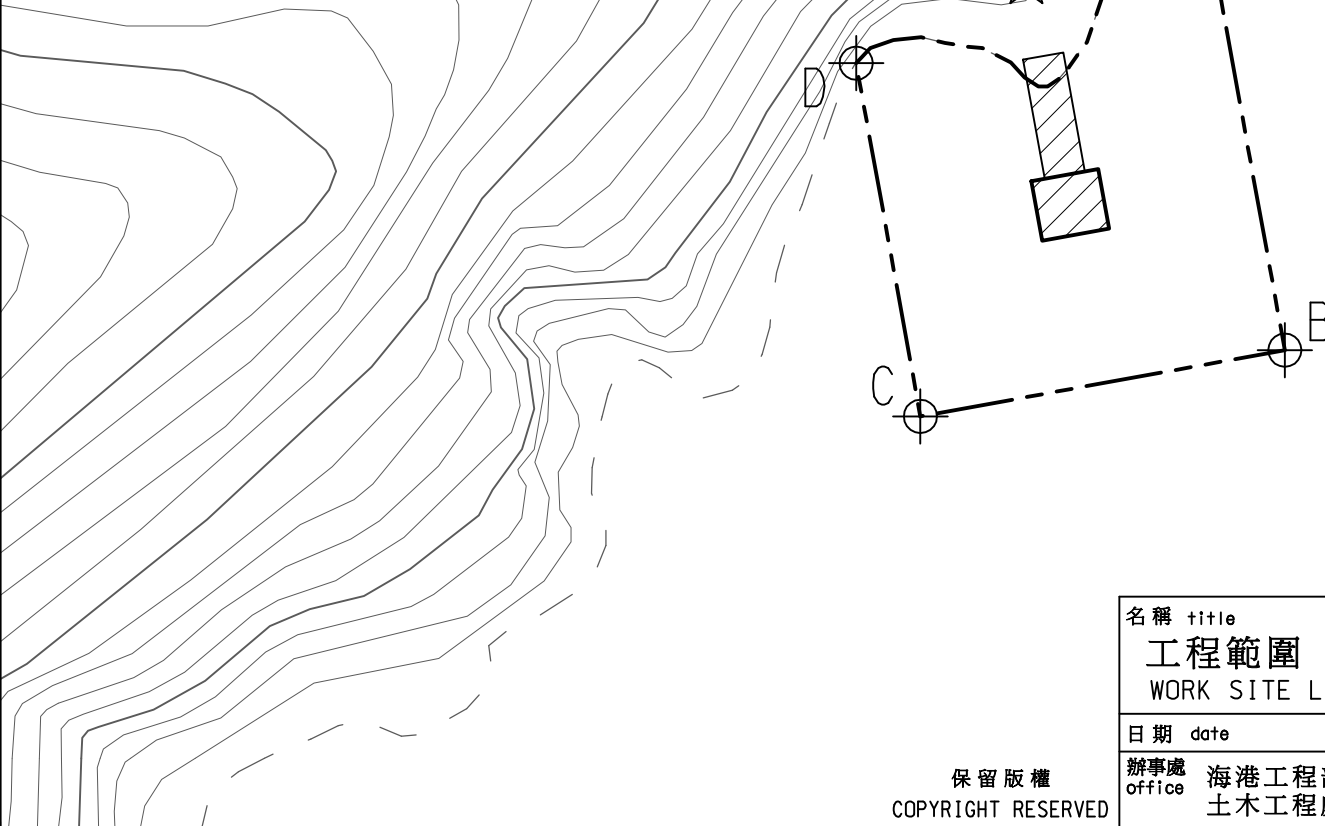
工程範圍 = 660平方米
WORK SITE LIMIT = 660m




擬建登岸台及通道設施面積約為35平方米
PROPOSED LANDING AND ACCESS FACILITY
OF AREA ABOUT 35m²



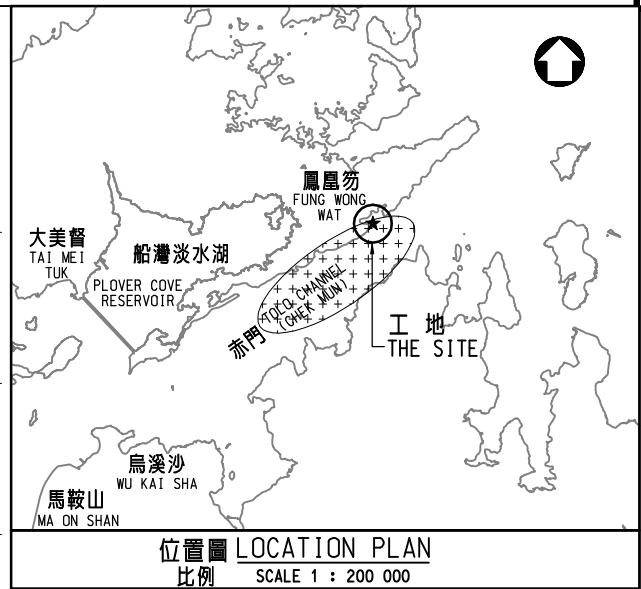
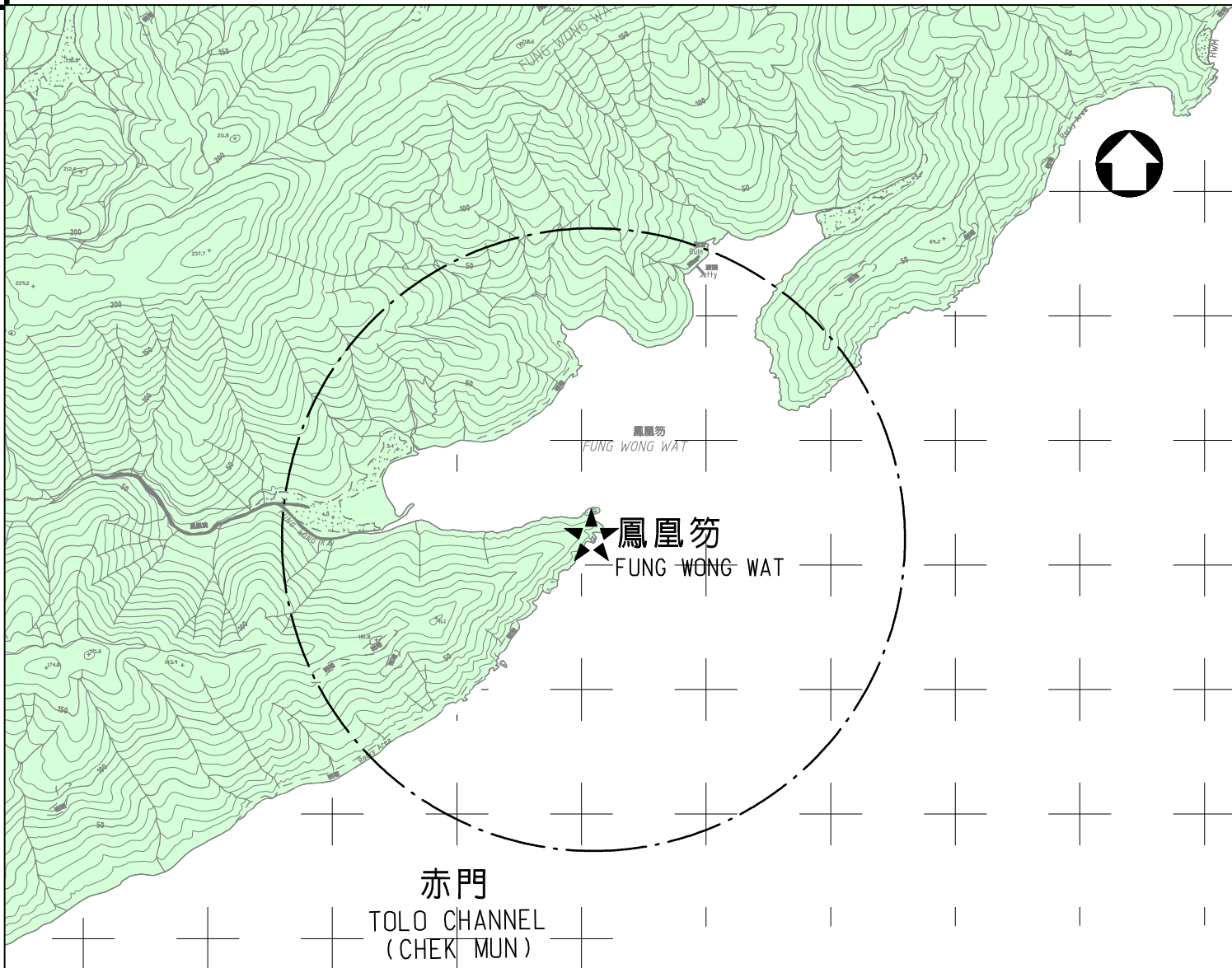
鳳凰笏航標
FUNG WONG WAT BEACON






名稱 title 工程範圍 WORK SITE LIMIT	圖則編號 drawing no. PW-FD13-013	比例 scale 1:500 OR AS SHOWN
日期 date	 土木工程拓展署 CIVIL ENGINEERING AND DEVELOPMENT DEPARTMENT	
辦事處 office 海港工程處 土木工程處	PORT WORKS DIVISION CIVIL ENGINEERING OFFICE	

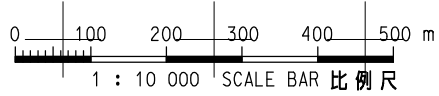
保留版權
COPYRIGHT RESERVED

REVITABLE: SPENTELLE




圖例
LEGEND

-  距離工地 500 米
500m FROM THE SITE
-  具特殊科學價值地點
及郊野公園
SSSI & COUNTRY PARK
-  建議漁業保護區
PROPOSED FISHERIES
PROTECTION AREA



赤門
TOLO CHANNEL
(CHEK MUN)

名稱 title 鳳凰笏敏感受體位置 IDENTIFIED SENSITIVE AREAS AT FUNG WONG WAT	圖則編號 drawing no. PW-FD11-137	比例 scale 1:10 000
日期 date	 土木工程拓展署 CIVIL ENGINEERING AND DEVELOPMENT DEPARTMENT	
辦事處 office 海港工程處 PORT WORKS DIVISION 土木工程處 CIVIL ENGINEERING OFFICE		

保留版權
COPYRIGHT RESERVED

圖例
LEGEND



建議工地位置
PROPOSED SITE LOCATION



赤門景區
TOLO CHANNEL GEO-AREA



距離工地500米範圍
500m FROM THE SITE



名稱 title

香港地質公園赤門景區
TOLO CHANNEL GEO-AREA IN HONG KONG GEOPARK

圖則編號 drawing no.

PW-FD11-138

比例
scale

1:50 000

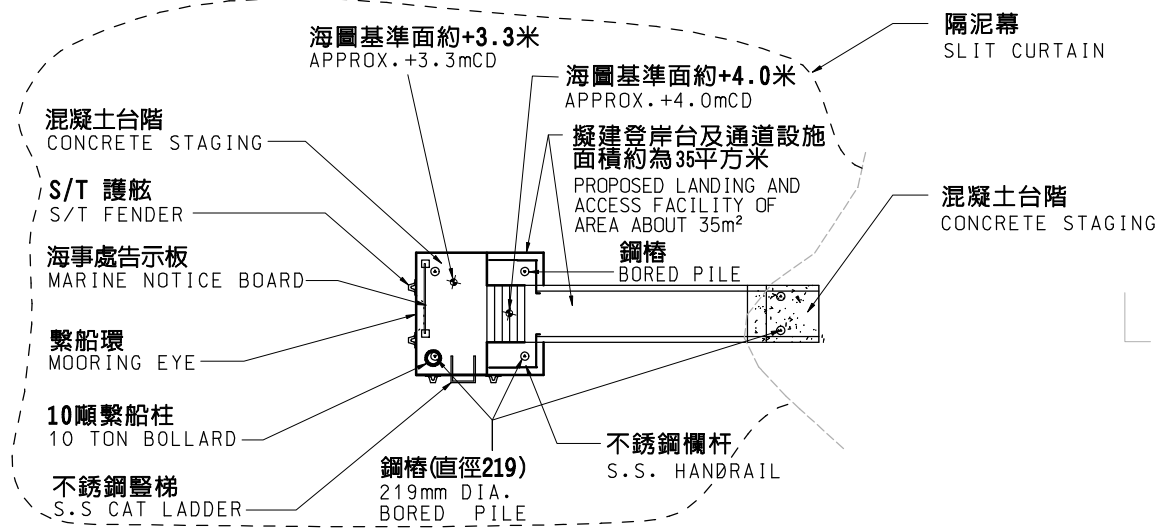
日期 date

辦事處 office
海港工程處 PORT WORKS DIVISION
土木工程處 CIVIL ENGINEERING OFFICE

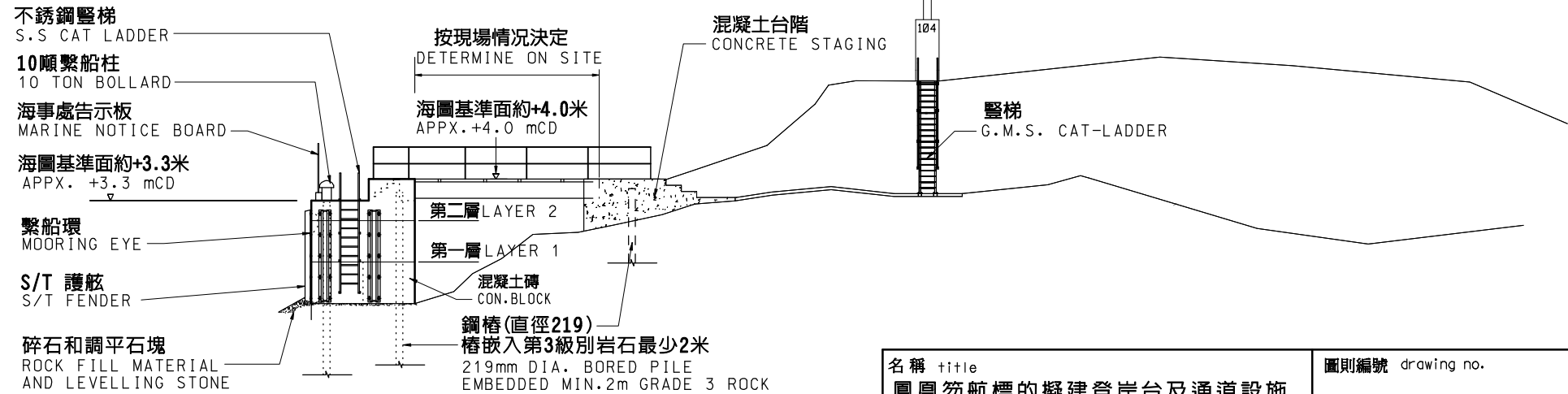


土木工程拓展署
CIVIL ENGINEERING
AND DEVELOPMENT
DEPARTMENT

保留版權
COPYRIGHT RESERVED



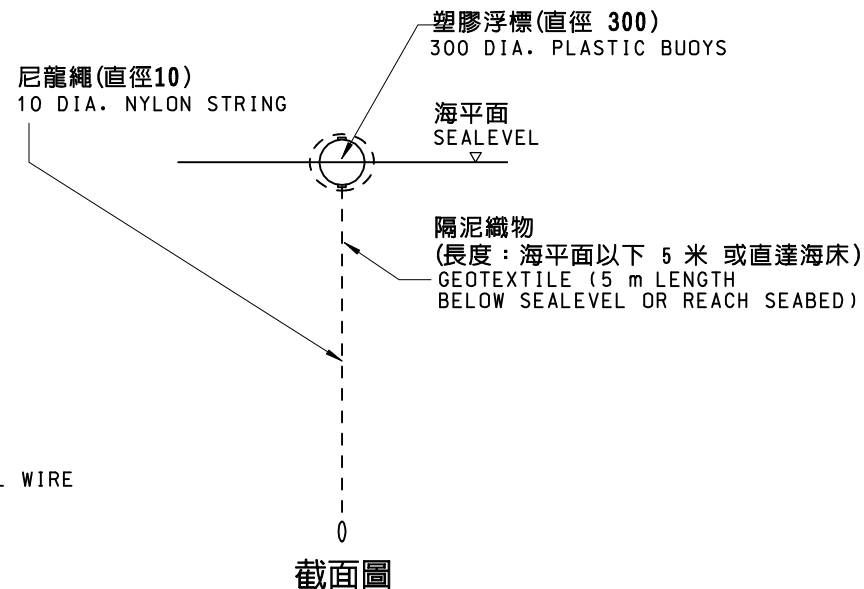
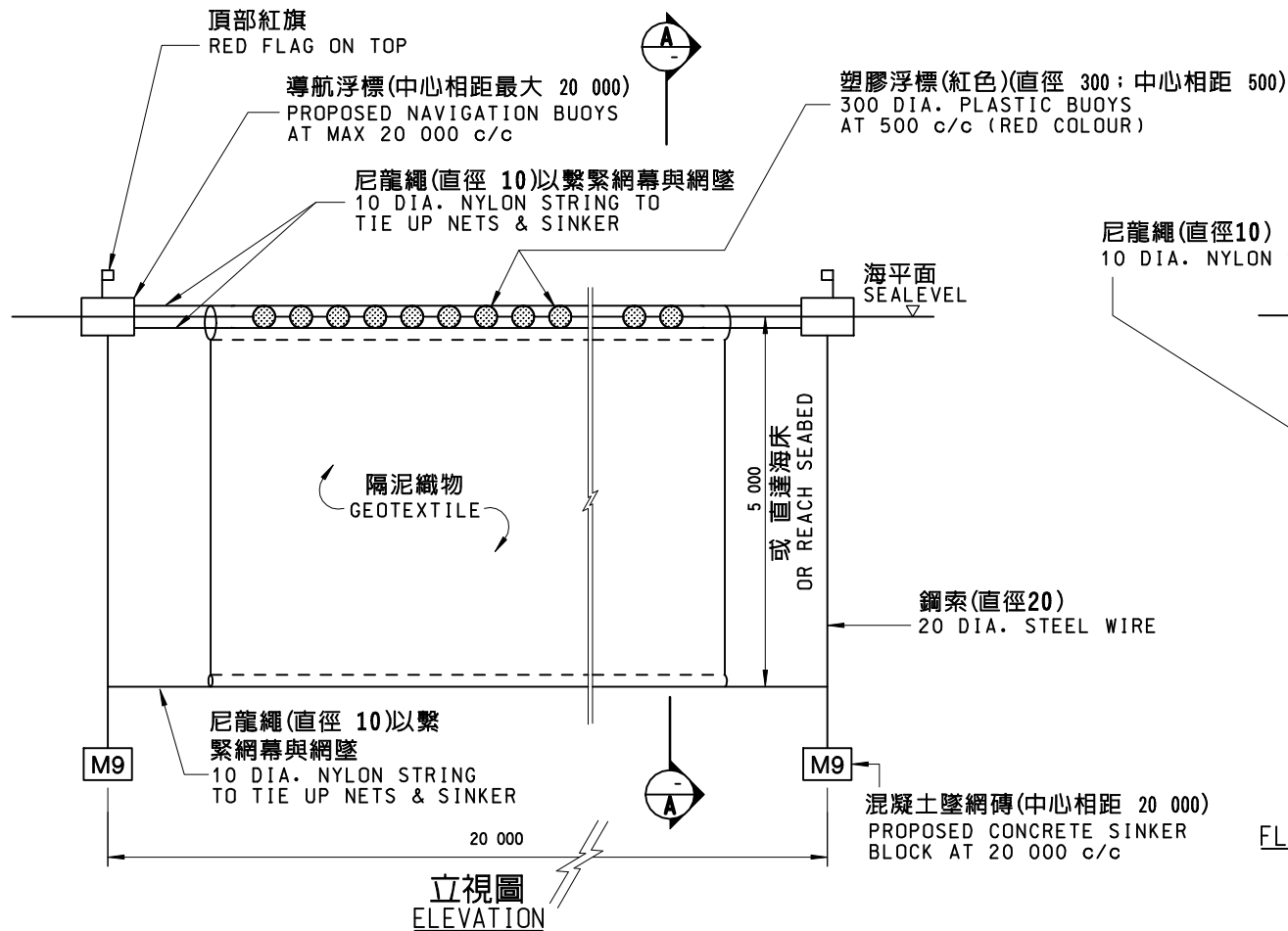
平面圖
PLAN



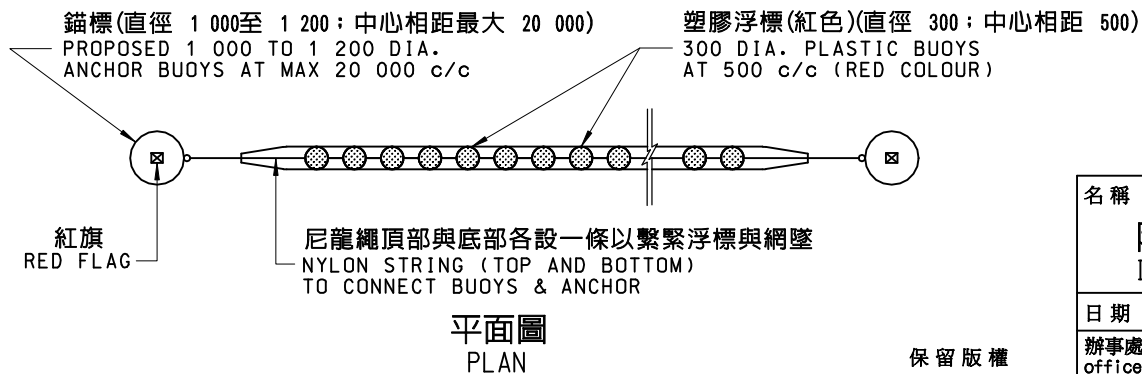
立視圖
ELEVATION

保留版權
COPYRIGHT RESERVED


名稱 title 鳳凰笏航標的擬建登岸台及通道設施 PROPOSED LANDING AND ACCESS FACILITY AT FUNG WONG WAT BEACON	圖則編號 drawing no. PW-FD11-140	比例 scale 1:200
日期 date	 土木工程拓展署 CIVIL ENGINEERING AND DEVELOPMENT DEPARTMENT	
辦事處 office 海港工程處 PORT WORKS DIVISION 土木工程處 CIVIL ENGINEERING OFFICE		



浮置式隔泥幕
FLOATING SILT CURTAIN



保留版權
COPYRIGHT RESERVED

名稱 title	圖則編號 drawing no.	比例 scale
隔泥幕安裝詳情 INSTALLATION DETAILS OF SILT CURTAIN	PW-FD11-141	N.T.S.
日期 date	 土木工程拓展署 CIVIL ENGINEERING AND DEVELOPMENT DEPARTMENT	
辦事處 office	海港工程處 PORT WORKS DIVISION 土木工程處 CIVIL ENGINEERING OFFICE	



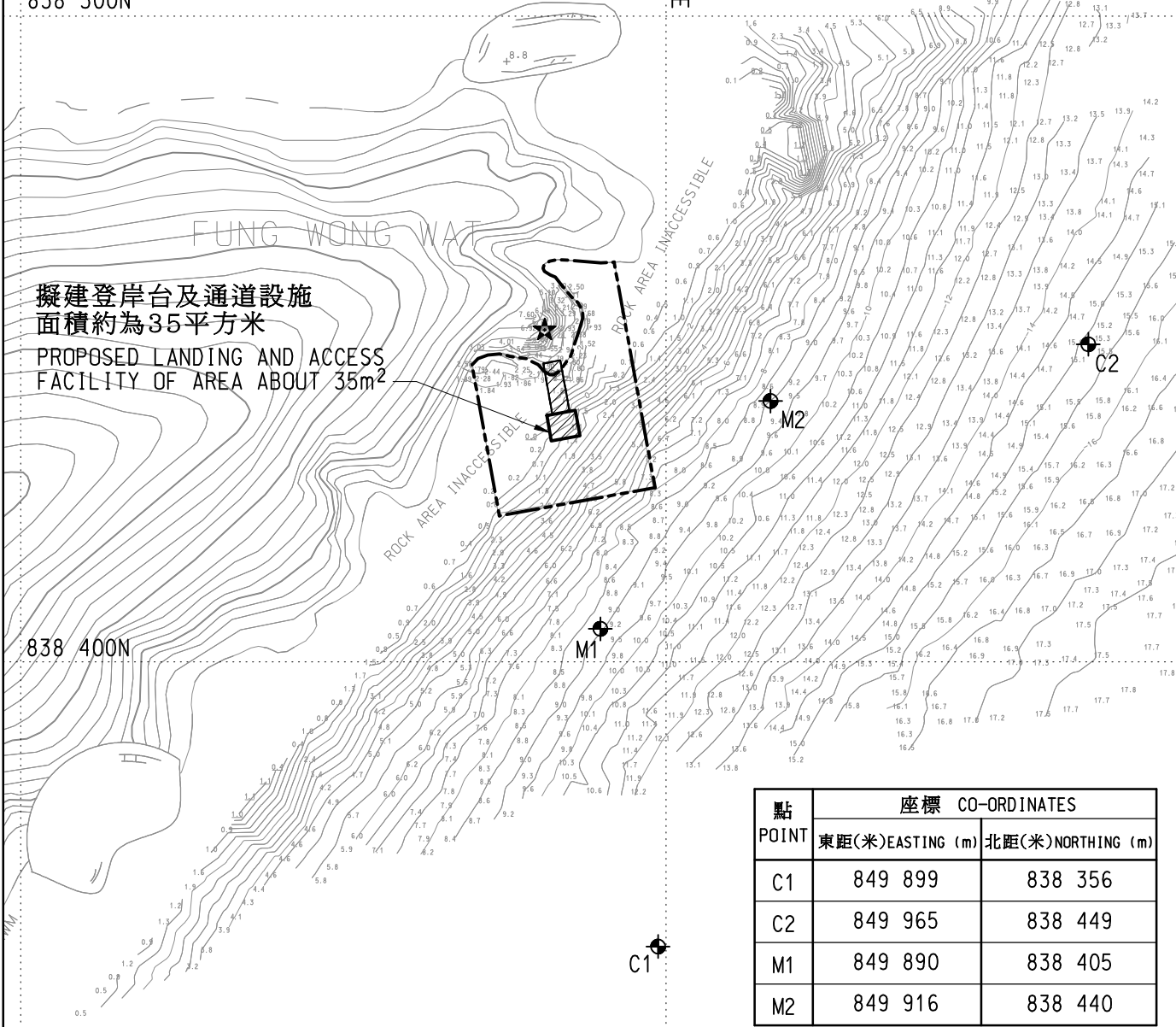
838 500N

849 900E

擬建登岸台及通道設施
面積約為35平方米
PROPOSED LANDING AND ACCESS
FACILITY OF AREA ABOUT 35m²

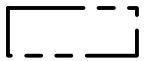
838 400N

ROCK AREA INACCESSIBLE



點 POINT	座標 CO-ORDINATES	
	東距(米)EASTING (m)	北距(米)NORTHING (m)
C1	849 899	838 356
C2	849 965	838 449
M1	849 890	838 405
M2	849 916	838 440

圖例
LEGEND:



工程範圍 = 660平方米
WORK SITE LIMIT = 660m²

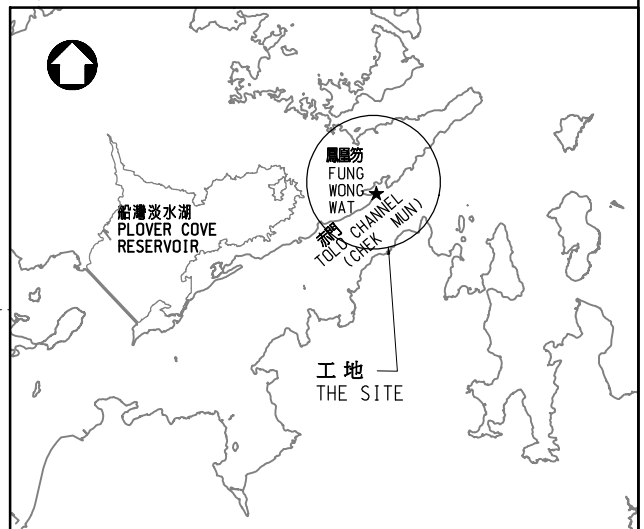


鳳凰笏航標
FUNG WONG WAT BEACON



M1
水質監察點
WATER QUALITY MONITORING POINT

849 800E



索引圖 LOCATION PLAN
比例 SCALE 1 : 200 000

名稱 title

水質監察位置圖
WATER QUALITY MONITORING PLAN

比例
scale

1:1000
OR
AS SHOWN

圖則編號 drawing no.

PW-FD14-051

日期 date

保留版權 COPYRIGHT RESERVED

辦事處
office

海港工程處 PORT WORKS DIVISION
土木工程處 CIVIL ENGINEERING OFFICE



土木工程拓展署
CIVIL ENGINEERING
AND DEVELOPMENT
DEPARTMENT