The Government of the Hong Kong Special Administrative Region
Civil Engineering and Development Department

Expansion of Aberdeen Typhoon Shelter

Project Profile

August 2022

AECOM Asia Co. Ltd.

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Figure 1 Project Boundary and Tentative Layout Plan of Proposed Expansion of Aberdeen Typhoon Shelter

1 BASIC INFORMATION

1.1 Project Title

1.1.1 Expansion of Aberdeen Typhoon Shelter (ATS) (hereinafter referred to as the "Project").

1.2 Purpose and Nature of the Project

1.2.1 It is proposed to expand the existing ATS to address the strong regional demand for sheltered space in Hong Kong Island South and support tourism, leisure and recreation developments in the Southern District.

1.3 Name of Project Proponent

1.3.1 The Project Proponent is the Port Works Division (PWD), Civil Engineering and Development Department (CEDD) of the Government of the Hong Kong Special Administrative Region.

1.4 Location and Scale of the Project and History of the Site

1.4.1 The Project site is located at Aberdeen Channel. It is sandwiched by Ap Lei Pai in the west and Ocean Park Hong Kong in the east. Its northern side is bounded by the breakwaters of the existing Aberdeen South Typhoon Shelter which were constructed in the 1960s. Its southern side is facing East Lamma Channel. The Project includes expansion of ATS by about 30 hectares from its southern part to provide extra sheltered space for local vessels with length less than 30.4 m except obtaining the permission from the Director of Marine separately for vessel with length exceeding 30.4m, as indicated on the Project boundary and tentative layout plan in **Figure 1**.

1.4.2 The major works items for the Project includes the following:

(i) construction of associated facilities in the expanded ATS which mainly include the following works:

(a) new breakwaters of about 350 m and 280 m in length to the south of the existing ATS and the associated seabed stabilization works for the new breakwaters;
(b) wave wall of about 40 m in length between Yuk Kwai Shan and Ap Lei Pai;
(c) access including potential marine access and land access to existing breakwaters, proposed new breakwaters and wave wall along the rocky shoreline within the Project boundary and other associated works, as appropriate; and

(ii) modification of the existing breakwaters at ATS to revitalise the breakwaters for better utilisation of the breakwaters and the proposed expanded area, and to allow for an easier passage of vessels through the existing breakwaters, which may include demolition of part of the existing breakwaters.

1.4.3 The expanded ATS will be mainly accessible from Aberdeen Channel to the South. In course of construction, transportation of construction materials would be mainly by marine traffic.

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

1.5.1 The following elements of the Project addressed in this Project Profile are classified or potentially classified as Designated Projects under the Environmental Impact Assessment Ordinance (EIAO) (Cap. 499):

- *a breakwater more than 1 km in length or a breakwater extending into a tidal flushing channel by more than 30% of the channel width (under Schedule 2, Part I, Item C.4 of the EIAO):*
  The opening between Ap Lei Pai and Sham Shui Kok is approximately 480 m (minimum width of tidal flushing channel). The proposed breakwaters will extend into Aberdeen Channel by more than 30% of the channel width as shown on the tentative layout plan at **Figure 1**;

- *a typhoon shelter designed to provide moorings for not less than 30 vessels (under Schedule 2, Part I, Item C.5 of the EIAO)*:
  The expanded ATS will accommodate more than 30 vessels. The exact number of vessels will be estimated in the design stage; and

- *a dredging operation exceeding 500,000 m^3 or a dredging operation which is less than 500 m from the nearest boundary of an existing or planned coastal protection area (under Schedule 2, Part I, Item C12 and Item C12(a)(vii) of the EIAO)*:
  The potential locations of the new breakwaters are adjacent to the existing coastal protection areas along Ap Lei Pai and Sham Shui Kok. Both dredged and non-dredged options for the construction of the new breakwaters will be explored under the investigation study and design of the Project. Subject to the findings of the investigation study and design of the Project, dredging operation may be required as a part of the seabed stabilization works for the new breakwaters.

1.6 Name and Telephone Number of Contact Persons

1.6.1 All enquiries regarding the Project can be addressed to:

Name:	Mr. TANG Kai Yan, Alan
Post:	Chief Engineer / Port Works
Address:	Civil Engineering and Development Department Civil Engineering Office 4/F, Civil Engineering and Development Building, 101 Princess Margaret Road, Homantin, Kowloon
Tel No.:	2762 5630
Fax No.:	2714 2054

2 OUTLINE OF PLANNING AND IMPLEMENTATION PROGRAMME

2.1 Project Implementation

2.1.1 The Project Proponent will engage the *Consultant* to undertake the environmental impact assessment (EIA) study, other investigation studies and design, together with a proposal of all of the environmental mitigation measures, the environmental monitoring and audit requirements as specified in the EIA report for the Project.

2.1.2 The construction works will be carried out by a contractor to be appointed under a works contract.

2.2 Project Programme

2.2.1 Further to the investigation study and design to be completed tentatively by 2024, the construction works of the Project are expected to commence not later than 2024-25 for completion in about 4 years.

2.3 Interaction with Other Projects

2.3.1 The Project may have an interface with the proposed pier at Tai Shue Wan. It is a separate project and does not form part of the expanded ATS. There may be an overlap in the construction programme of the two projects. Any cumulative impacts from the proposed pier and other projects in the study area as identified during the EIA study will be taken into account during both the construction and operation phases as appropriate.

3 POSSIBLE IMPACTS ON THE ENVIRONMENT

3.1 Air Quality

Construction Phase

3.1.1 The potential construction dust impact would be caused by the construction activities such as filling for the proposed breakwaters, construction of the proposed wave wall, material handling, and minor demolition works of the existing breakwaters which will be carried out in a relatively confined area within the project boundary. Construction dust mitigation measures as suggested in the Air Pollution Control (Construction Dust) Regulation will be implemented to abate the potential construction dust impacts. In view of this and the nature of works, the potential construction dust impact would be considered minor.

Operation Phase

3.1.2 The key source of air pollutants would be emissions from the marine traffic induced by the expanded ATS and other marine traffic within 500 m of the project site boundary. The air quality impact would be assessed during the EIA study and mitigation measures would be proposed, if necessary.

3.2 Noise

Construction Phase

3.2.1 Construction noise generated from the use of Powered Mechanical Equipment (PMEs) for the construction activities such as filling the proposed breakwaters, material handling, and minor demolition works of the existing breakwaters which will be carried out in a relatively confined area within the project boundary and will be mitigated by suitable practices and precautionary measures. The separation distance between the nearest Noise Sensitive Receiver (namely, Larvotto) and the work site is more than 280m. In view of the large separation distance between the NSR and work site and the nature of the Project construction activities, the construction noise impact would be considered minor.

Operation Phase

3.2.2 The main activities in the expanded ATS are expected to be vessel navigation and mooring. The key noise source of the Project would be the engine noise from marine traffic generated in the expanded ATS. With consideration of the large separation distance between the nearest NSR to the Project site (refer to **Table 4.1**), and that the vessels will usually turn off their engines while berthed and moored, the noise impact is expected to be limited.

3.3 Water Quality

Construction Phase

3.3.1 The key marine works for the Project include seabed stabilization works, filling works, construction of a wave wall, and modification works of the existing breakwater.

3.3.2 Seabed stabilization works would be required prior to the construction of the proposed breakwaters. Subject to the findings of the investigation study and the design of the Project, dredged and non-dredged options and the associated mitigation measures would be investigated in the EIA study. The potential impacts on water quality are temporary increases in suspended sediment concentrations, generation of sediment plumes, decrease in dissolved oxygen, potential release of organic and inorganic contaminants, and potential release of nutrients from sediment. Water quality impact due to dredged and/or non-dredged options would be considered as appropriate.

3.3.3 Filling works would also be required for the construction of the proposed breakwaters. Rock fill would be mainly used. The potential release of sediment fines during the filling process would be considered.

3.3.4 The water quality may also be affected by the land-based works, which include potential excavation works for the construction of a wave wall between Yuk Kwai Shan and Ap Lei Pai likely along the existing land access. Also, the marine-based demolition works potentially required for the modification of part of the existing breakwaters is expected to cause seabed disturbance. The extent of demolition works would be properly designed taking into account the potential disturbance to the seabed.

3.3.5 The potential water quality impact arising from the construction of the Project would be assessed in detail during the EIA study and mitigation measures would be proposed where necessary.

Operation Phase

3.3.6 The possible impacts on water quality during the operation phase may be divided into three broad areas:

(i) potential water quality impacts due to changes in hydrodynamic patterns and water circulation as a result of the proposed and modified breakwaters;

(ii) potential impacts to tidal currents and wave propagation that could cause changes to sediment transport and deposition patterns; and

(iii) potential water quality impacts from wastewater discharge from vessels within the expanded ATS.

3.3.7 The potential water quality impacts arising from the operation of the Project would be assessed in detail during the EIA study and mitigation measures would be proposed where necessary.

3.4 Waste Management

Construction Phase

3.4.1 Wastes generated by the construction works likely include site waste, construction waste, and sediment due to potential dredging. The possible presence of contaminated sediment that may require dredging and disposal will need to be determined.

3.4.2 If demolition of part of the existing breakwaters is required, the construction and demolition (C&D) material would be reused as far as possible.

Operation Phase

3.4.3 It is expected that general refuse would be generated from users of the ATS e.g., vessel users during the operation phase of the Project. According to the current practice, domestic waste collection services will be provided to vessels in typhoon shelters twice per day by Marine Department's refuse collection service contractors. Thus, impacts on waste management in the operation phase are not anticipated.

3.5 Ecology

Construction Phase

3.5.1 Previous surveys in the area, approved EIA report on "Tai Shue Wan Development at Ocean Park" (2014) and the Marine Biodiversity Map prepared by the World Wildlife Fund – Hong Kong (2012), had recorded coral communities of moderate ecological value in low diversity on the eastern side of the Project site and black corals on the western side of the Project site near Ap Lei Pai.

3.5.2 The potential ecological impacts will be mainly related to marine works. As land-based works is limited and in area with low ecological value, substantial impacts to natural terrestrial habitats are not expected. Potential impacts as a result of the construction of the proposed breakwaters, modification of the existing breakwaters and construction of a proposed wave wall between Yuk Kwai Shan and Ap Lei Pai, include:

(i) direct loss of intertidal, subtidal and benthic habitats;

(ii) indirect impacts on intertidal, subtidal and benthic communities, e.g. coral communities;

(iii) habitat fragmentation; and

(iv) disturbance to nearby habitats and associated wildlife due to potential impacts arising from construction activities, such as noise disturbance, increased sediment load and surface runoff.

Operation Phase

3.5.3 Potential ecological impacts during the operation phase would be assessed and evaluated in the EIA study, including:

(i) permanent loss of seabed;

(ii) potential impacts arising from a change of water flow due to the proposed and modified breakwaters;

(iii) potential change of hydrodynamic regime, erosion and sedimentation patterns; and

(iv) potential disturbance to wildlife as a result of increased human activities, such as dust, noise and glare.

3.6 Fisheries

Construction Phase

3.6.1 The Project is located within the Aberdeen Channel within the Western Buffer and Southern Water Control Zones. No culture fisheries and important fisheries resources are identified within the Project site. The nearest spawning and nursery grounds of commercial fisheries resources are located at least 1 km away from the proposed works area at Lamma Island and South Lamma respectively. No direct impact is anticipated on the spawning and nursery grounds of commercial fisheries resources. Potential direct impacts (e.g. loss of fishing ground) and indirect impacts (disturbance to fisheries resources / fisheries operations, spawning and nursery grounds of commercial fisheries resources, changes in water quality and hydrodynamic condition) may occur during the construction phase.

Operation Phase

3.6.2 The potential operation impacts (e.g. disturbance to fisheries resource / fisheries operation, changes in water quality, and increased marine traffic) would be assessed and evaluated in the EIA study.

3.7 Landscape and Visual

Construction Phase

3.7.1 Landscape and visual impacts are expected from marine works construction, construction plant, etc. Nevertheless, the impacts would be temporary and could be reduced by appropriate mitigation measures. Potential landscape and visual impacts would be assessed and addressed in the EIA study.

Operation Phase

3.7.2 The proposed and modified breakwaters, access and other associated works may cause an impact on the visual and landscape character of Aberdeen Channel. Potential landscape and visual impacts including coastal landscape impact and outdoor lighting impact would be assessed and addressed in the EIA study.

3.8 Cultural Heritage

Construction Phase

3.8.1 There are no recorded heritage sites partly or wholly within the Project site. The nearest recorded heritage site is Holy Spirit Seminary, Old Block (Grade 1 Historic Building), which is over 800m away from the Project site. Potential impact on the recorded heritage sites by the Project is therefore not anticipated. However, the existing seabed around the Aberdeen Channel has not been subjected to any Marine Archaeological Investigation (MAI), thus no information on the marine archaeological potential of the seabed is available. Besides, marine works would be required for the Project. In order to ascertain the marine archaeological impact, a MAI, according to the Guidelines for MAI of AMO, will be carried out to identify any marine archaeological resource and propose mitigation measures, if necessary, in prior consultation with AMO.

Operation Phase

3.8.2 Direct and indirect cultural heritage impacts during the operation stage are not expected and would be assessed in detail during the EIA study.

3.9 Land Contamination

3.9.1 The Project site mainly covers sea areas at Aberdeen Channel and land-based works areas for the potential access to the existing breakwaters, proposed new breakwaters and wave wall within the Project boundary. The existing land uses within the land-based works include road, seawall, and rocky shoreline, as well as the undeveloped area at the potential location of the new wave wall. As the identified land uses are not considered as contaminating land uses, potential land contamination impact is not anticipated.

3.10 Potential Hazard

3.10.1 The Project would not involve the use of any dangerous goods and there is no storage of dangerous goods in significant quantities in the vicinity of the Project site. There is no potentially hazardous installation (PHI) near the project area. Hazard to life arising from the construction or operation of the Project is not expected.

4 MAJOR ELEMENTS OF THE SURROUNDING ENVIRONMENT

4.1 Major Existing and Planned Sensitive Receivers

4.1.1 The proposed expansion of Aberdeen Typhoon Shelter (ATS), including two new breakwaters and a wave wall, falls outside the scheme area of the approved Aberdeen & Ap Lei Chau Outline Zoning Plan (OZP) No. S/H15/33, but the landing points for the breakwaters and wave wall fall within the area zoned "Coastal Protection Area" ("CPA") on the OZP. The existing breakwaters are currently fall within the area shown as 'Typhoon Shelter' on the OZP, and landing points are fall within area zoned "Green Belt" ("GB"), "Government, Institution or Community" ("G/IC") and "Other Specified Uses" annotated "Ocean Park" ("OU(Ocean Park)").

4.1.2 The major existing and planned sensitive receivers and parts of the natural environment that might be affected by the proposed Project are summarized in **Table 4.1**.

Table 4.1 Major Existing and Planned Sensitive Receivers and Parts of the Natural Environment that Might be Affected by the Proposed Project

Environ-mental Aspect	Type of Sensitive Uses	Sensitive Receivers / Sensitive Parts of Natural Environment	Approx. Distance between Project Site and Sensitive Receivers
Air	Theme Park	- Visitors and operators at Ocean Park Hong Kong	200m
		- Water World Ocean Park Hong Kong	20m
	Residential	- Larvotto	280m
		- Broadview Court	450m
	Hotel	- Fullerton Ocean Park Hotel Hong Kong (to be opened in 2022)	20m
	Educational	- Canadian International School	460m
		- Hong Kong Juvenile Care Centre Chan Nam Cheong Memorial School	430m
		- Victoria Shanghai Academy	345m
	Industrial	- Shipyard and Workshops along Ap Lei Chau Praya Road	200m
		- Shipyard along Shum Wan Road and Po Chong Wan Temporary Industrial Area	50m
Noise	Residential	- Larvotto	280m
Water Quality	Water Bodies	- Aberdeen Typhoon Shelter (both existing and the proposed expanded Aberdeen Typhoon Shelter)	Not applicable
		- Secondary Contact Recreation Subzone to the south of Sham Shui Kok	700m
		- Seawater Intakes for Brick Hill Salt Water Pumping Station	600m
		- Seawater Intake for Ap Lei Chau Salt Water Pumping Station	750m

Environ-mental Aspect	Type of Sensitive Uses	Sensitive Receivers / Sensitive Parts of Natural Environment	Approx. Distance between Project Site and Sensitive Receivers
Water Quality	Ecologically Significant Areas	- Coastal protection areas along Aberdeen Channel - Coral communities at Aberdeen Channel - Fish culture zones and coral communities at or in the vicinity of the East Lamma Channel	Not applicable
Ecology	Ecologically Significant Areas	- Coastal protection areas along Aberdeen Channel - Coral communities at Aberdeen Channel	Not applicable
Landscape and Visual	Residential	- Larvotto - Broadview Court	280m 450m
	Hotel	- Fullerton Ocean Park Hotel Hong Kong (to be opened in 2022)	20m
	Theme Park	- Ocean Park Hong Kong - Water World Ocean Park Hong Kong	200m 20m
	Places of High Visual Values	- Aberdeen Channel - Coastal Protection Areas along Aberdeen Channel - Yuk Kwai Shan and Ap Lei Pai	Not applicable
	Others	- Visitors and users at ATS - Visitors to Yuk Kwai Shan and Ap Lei Pai	Not applicable

4.1.3 The list of sensitive receivers will be further reviewed during the EIA study. Other potential sensitive receivers, including those existing and planned sensitive receivers identified during the EIA study, will also be taken into consideration in the assessment.

5 ENVIRONMENTAL PROTECTION MEASURES TO BE INCORPORATED IN THE DESIGN AND ANY FURTHER ENVIRONMENTAL IMPLICATIONS

5.1 General

5.1.1 The EIA Study will investigate those environmental impacts (both cumulative impacts and those arising from the Project) and propose the appropriate mitigation measures with the intention that all works proposals recommended by the Project would be environmentally acceptable and cost-effective. The residual impacts, if any, would be confined within the allowable limits. Environmental monitoring and auditing of potential impacts that may arise from the implementation of the works proposed by the Project will be provided for the construction and operation phases. Subject to the findings of the EIA study, the following mitigation measures would be incorporated in the design and construction of the Project.

5.2 Air Quality

Construction Phase

5.2.1 In order to prevent adverse impacts on air quality, the control measures stipulated in the Air Pollution Control (Construction Dust) Regulations (Cap. 311R) and good site practices would be implemented wherever applicable, to limit the dust emissions from the site.

Operation Phase

5.2.2 The configuration of the berthing areas and accesses would be properly designed taking into account the air-sensitive receivers. Impacts on the air quality in the operation phase will be assessed during the EIA study. Mitigation measures would be implemented, if necessary.

5.3 Noise

Construction Phase

5.3.1 Use of quieter construction methods would be prioritized to mitigate the construction noise impact. Mitigation measures, where necessary, as detailed below would be applicable to reduce construction noise impact:

- Quiet plants, silencers or mufflers on construction equipment;
- Movable and temporary barriers to screen particular items of plant or noisy operations;
- Noise screening structures or purpose-built noise barriers along the site boundary;
- Good site practices such as locating noisy equipment and activities at the farthest practicable distance, scheduling noisy activities to minimise noise exposure, proper maintenance of construction plant, devise quiet methods of working, and regular noise monitoring; and
- Proper planning of construction vehicle travelling route.

Operation Phase

5.3.2 The configuration of the berthing areas and accesses would be properly designed taking into account the noise-sensitive receivers. Noise impacts in the operation phase are not anticipated. Mitigation measures would be proposed in the EIA stage and implemented, if necessary.

5.4 Water Quality

Construction Phase

5.4.1 In general, mitigation measures for the marine works required for the Project may include:

(i) adopt best practices for minimising sediment release and generation of sediment plumes during marine-based construction activities; and

(ii) provide silt curtains around the construction plant and filling activities, if necessary.

5.4.2 For the seabed stabilization works, subject to the investigation study and design of the Project, dredged and non-dredged options and the associated mitigation measures would be investigated in the EIA study. If the dredged option is adopted, mitigation measures would be proposed to control the potential impacts within acceptable levels. Examples of general mitigation measures include the installation of silt curtains; the use of closed, watertight grabs; control of dredging rate and the speed of lowering the grab to minimize disturbance to the seabed, etc. Subject to the detailed analysis in the EIA study, other specific measures would be implemented if necessary.

5.4.3 Potential water quality impacts from land-based activities would be readily mitigated through adopting good site practices as recommended in the Professional Persons Environmental Consultative Committee Practice Note 1/94 "Construction Site Drainage" (ProPECC PN1/94) and the "Recommended Pollution Control Clauses for Construction Contracts" issued by EPD.

Operation Phase

5.4.4 The configuration of the breakwaters, berthing areas and accesses would be properly designed taking into account the water-sensitive receivers. Mitigation measures would be implemented where necessary.

5.4.5 The vessel operators are expected to control and manage the effluent from vessels and no direct discharge of sewage from vessels would be allowed within the expanded ATS. No sewerage facilities will be provided by the Project. To prevent and minimise the release of water pollutants to the marine environment, all vessels should follow the "International Convention for the Prevention of Pollution from Ships" (MARPOL 73/78). Mitigation measures would be implemented where necessary.

5.5 Waste Management

Construction Phase

5.5.1 Proper waste management would be implemented to reduce the generation of C&D materials in the construction works. The waste management would, where applicable and practicable, include:

(i) construction wastes and debris would be properly sorted, reused and recycled wherever possible on site;

(ii) proper measures and site management practices would be taken to prevent illegal dumping of non-inert C&D materials and to plan and record the waste management and disposal activities in accordance with DEVB TCW No. 6/2010 "Trip Ticket System for Disposal of Construction and Demolition Materials"; and

(iii) excavated sediment would be handled in accordance with the ETWB TCW No. 34/2002 "Management of Dredged/Excavated Sediment"; and chemical wastes generated from construction activities, vehicles, vessels and/or plant maintenance and oil interceptors would be properly segregated, treated and disposed of in strict compliance with relevant ordinances and regulations.

Operation Phase

5.5.2 According to the current practice, domestic waste collection services will be provided to vessels in typhoon shelters twice per day where persons in charge of vessels could hand their domestic refuse to the Marine Department's refuse collection contractors. Impacts on waste management in the operation phase are not anticipated. Mitigation measures would be implemented if found necessary.

5.6 Ecology

Construction Phase

5.6.1 Based on the ecological impacts identified during the EIA study, mitigation measures would be proposed to avoid, minimize and compensate for the potential ecological impacts (e.g. coral translocation), where necessary.

Operation Phase

5.6.2 Features of eco-shoreline (e.g. ecological armouring units) would be explored and incorporated into the design of the wave wall in addition to the proposed and modified breakwaters with a view to compensate for potential ecological impacts and enhance the ecological performance. Appropriate mitigation measures would also be proposed based on the operation phase ecological impacts identified during the EIA study, where necessary.

5.7 Fisheries

Construction Phase

5.7.1 Based on the construction impacts on fisheries identified during the EIA study, appropriate mitigation measures (e.g. good site practice, water pollution control measures) would be proposed, where necessary.

Operation Phase

5.7.2 Based on the operation impacts on fisheries identified during the EIA study, appropriate mitigation measures would be proposed, where necessary.

5.8 Landscape and Visual

Construction Phase

5.8.1 The following mitigation measures would be considered, where applicable and practicable, to reduce the landscape and visual impacts arising from the Project:

(i) the extent of site and works areas would be minimized;

(ii) works area would be screened off; and

(iii) construction plant/equipment and construction materials would be stored in such a way that would not render them visually intrusive to sensitive uses.

Operation Phase

5.8.2 Landscape design would be implemented. Although the existing breakwaters are not expected to be vegetated, there could be vegetation near the site of the proposed wave wall. Potential landscape and visual impacts, including impacts on any existing trees and vegetation, would be assessed and addressed in the EIA study.

5.9 Cultural Heritage

Construction Phase

5.9.1 There is no recorded heritage site partly or wholly within the Project site. Therefore, no specific mitigation measures would be required.

5.9.2 Should marine archaeological potential be identified, site-specific mitigation measures would be developed to minimize any potential impacts on marine archaeological resources in prior consultation with AMO. The impacts on marine archaeological resources will be investigated and addressed in the EIA study.

Operation Phase

5.9.3 Impacts on cultural heritage are not anticipated. Mitigation measures would be implemented if found necessary.

5.10 Land Contamination

5.10.1 As potential land contamination impact is not anticipated, no mitigation measures are considered necessary.

5.11 Potential Hazard

5.11.1 As hazard to life arising from the construction or operation of the Project is not expected, no mitigation measures are considered necessary.

5.12 Severity, Distribution and Duration of Environmental Effects and Further Implications

5.12.1 Subject to the findings of assessments, effective control and mitigation measures will be identified to ensure that the impacts are within acceptable levels. The possible severity, distribution and duration of environmental effects such as beneficial and adverse effects; short and long-term effects; secondary and induced effects; and cumulative effects will be considered and addressed in the EIA, where applicable.

6 USE OF PREVIOUSLY APPROVED EIA REPORTS

6.1.1 There is no EIA report already approved under the EIA Ordinance for this Project. However, the following report is relevant and will be referred to in the EIA study. Where necessary, other relevant information identified during the Study would also be considered and documented in the EIA.

Table 6.1 Relevant EIA Study

Register No.	Title
AEIAR-184/2014	Tai Shue Wan Development at Ocean Park

ISO A1 594mm x 841mm

Project Management Initials: Designer: Checked: Approved:

811400 N
810800 N
810200 N
834200 E
834800 E
835400 E

EXISTING ABERDEEN SOUTH TYPHOON SHELTER

PROPOSED MODIFICATION OF EXISTING BREAKWATERS

193m
146m
276m

PROPOSED EXPANSION OF ABERDEEN TYPHOON SHELTER

280m
150m
350m
35m

POTENTIAL LOCATION OF WAVE WALL

POTENTIAL LOCATION OF NEW BREAKWATERS

AP LEI CHAU
YUK KWAI SHAN
TAI SHUE WAN
OCEAN PARK
SHAM SHUI KOK
AP LEI PAI
ABERDEEN CHANNEL

Lei Tung Estate
ABERDEEN SOUTH TYPHOON SHELTER
PO CHONG WAN
TAI SHUE WAN
Assistance Rock
Sham Shui Kok

N

NOTE:

1. THE LAYOUT PLAN IS INDICATIVE ONLY AND THE DETAILS OF WORKS ARE SUBJECT TO STUDY FINDINGS.

LEGEND:

- TENTATIVE PROJECT BOUNDARY
- EXISTING BREAKWATER TO BE MODIFIED
- PROPOSED BREAKWATER
- PROPOSED EXPANSION OF ABERDEEN TYPHOON SHELTER

Plot File by: HED2 2022/8/8
PATH: P:\PROJECTS\60684361\DRAWING\REPORT\PP\PP_101.dgn

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PROJECT
項目

EXPANSION OF ABERDEEN TYPHOON SHELTER - INVESTIGATION, DESIGN AND CONSTRUCTION

CLIENT
業主

土木工程拓展署
CEDD Civil Engineering and Development Department

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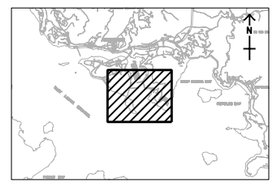
ISSUE/REVISION
修訂

I/R 修訂	DATE 日期	DESCRIPTION 內容摘要	CHK. 核對
A	JUL. 22	DRAWING AMENDED	AN

STATUS
階段

SCALE 比例: A1 1 : 3000
DIMENSION UNIT 尺寸單位: METRES

KEY PLAN 索引圖 A1 1 : 100000



PROJECT NO. 項目編號: 60684361
CONTRACT NO. 合約編號: CE 80/2021 (CE)

SHEET TITLE 圖紙名稱

PROJECT BOUNDARY AND TENTATIVE LAYOUT PLAN OF PROPOSED EXPANSION OF ABERDEEN TYPHOON SHELTER

SHEET NUMBER 圖紙編號

60684361/PP/FIGURE 1