West Kowloon Cultural District Authority

Revised Austin Road Flyover

Project Profile

April 2019

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1 BASIC INFORMATION

1.1 Project Title

1.1.1 Revised Austin Road Flyover (hereinafter referred to as “the Project”).

1.2 Purpose and Nature of the Project

1.2.1 West Kowloon Cultural District (WKCD) is an arts and cultural facilities (ACF) building programme which aims to deliver new performance and visual arts venues, museums, open spaces, education resources, commercial and retail opportunities for the residents of Hong Kong and visitors from overseas. The works include a 2-lane flyover (including approaching roads) across the toll plaza of Western Harbour Tunnel (Austin Road Flyover).

1.2.2 As raised by Members of District Council in the Yau Tsim Mong District Council Meeting in November 2014, traffic leaving WKCD to Austin Road West Roundabout and Nga Cheung Road Flyover would add significant burden on the capacity of these road networks, which are already congested with traffic at the moment. As such, the Revised Austin Road Flyover from WKCD should be proposed to allow access to the section of Lin Cheung Road running in parallel to the West Kowloon Highway (Route 3) aiming to divert traffic from Nga Cheung Road Flyover and Austin Road West Roundabout.

1.2.3 The Revised Austin Road Flyover integrates the proposed exit road with the proposed Flyover. The proposed exit road would connect the service road of West Kowloon Highway (Route 3 – Western Harbour Crossing Tunnel Area) with a potential additional exit route for Yau Ma Tei Public Cargo Working Area (PCWA). Other than providing connection from WKCD to adjacent local roads, the Revised Flyover provides an additional single road way to alleviate the traffic from the WKCD to the West Kowloon Highway.

1.2.4 This Project Profile is prepared to cover the related works of the Project to assist Environmental Protection Department (EPD) in determining the scope of the environmental issues associated with the Project which shall be addressed in the Environmental Impact Assessment (EIA) study together with the technical and procedural requirements that the EIA study shall meet.

1.3 Name of the Project Proponent

1.3.1 The project proponent is the West Kowloon Cultural District Authority.

1.4 Location and Scale of Project and History of Site

1.4.1 The location plan of the Revised Austin Road Flyover is shown in **Figure 1**. The study area for the possible alignment of Revised Austin Road Flyover covers a strip of WKCD area and across the toll plaza of the Western Harbour Crossing (WHC). The western boundaries of the study area are at the side of the WKCD Waterfront Promenade to the west of the WHC toll plaza, while the eastern boundaries of the study area are at the side of the Austin Road West / Nga Cheung Road roundabout.

1.4.2 The following is a summary of the proposed scheme:

- The additional exit road would be in the form of elevated road structures which connects the Austin Road Flyover and the Hoi Po Road / Lin Cheung Road.

- Minor alignment shift of Austin Road Flyover in integrating the additional exit road.
- Modification to the existing footbridge across the Western Harbour Crossing with a landing provided onto the footpath adjacent to the waterfront promenade in the WKCD.
- The proposed road scheme will allow 2-way access between the western portion of WKCD and elevated Nga Cheung Road / elevated Austin Road West; and 1-way access from WKCD and elevated Nga Cheung Road / elevated Austin Road West to the service road of West Kowloon Highway (Route 3 – Western Harbour Crossing Tunnel Area).
- The proposed road scheme will be classified as district distributor upon completion.

1.4.3 The scope of the Revised Austin Road Flyover is to provide a single 2-lane flyover of about 400m connecting the western end of the elevated Austin Road West with the WKCD at the western side of the WHC toll plaza area and mainly comprises:

(i) Construction of a single 2-lane flyover of about 400m long across WHC toll plaza area;

(ii) Construction of a single 2-lane ramp of about 250m long from the western end of the Revised Austin Road Flyover to the WKCD;

(iii) Construction of a single-lane ramp of about 200m long from the western end of the Revised Austin Road Flyover towards the northbound service road of WHC;

(iv) Modification of at-grade roads within the interface of WKCD road network to connect with the ramp stated in (ii); and

1.4.4 Extension of the existing WHC footbridge with lifts and staircases to connect the Waterfront Promenade of WKCD.

1.5 Number and Types of Designated Projects

1.5.1 The Project is classified as the following Designated Project (DP) under Part I, Schedule 2 of the EIA Ordinance (EIAO):

- Item A.1 - A road which is an expressway, trunk road, primary distributor road or district distributor road including new roads, and major extensions or improvements to existing road; and
- Item A.8 – A road bridge more than 100 m in length between abutments.

1.6 Name and Telephone Number of Contact Persons

1.6.1 All queries regarding the Project can be addressed to:

Mr. Jeremy Stowe
Chief Projects Officer
West Kowloon Cultural District Authority
Units 608-613, Level 6, Core C, Cyberport 3
100 Cyberport Road, Hong Kong
Tel.: 2200 0000
Fax: 2895 0016
Email: press@wkcda.hk

2 OUTLINE OF PLANNING AND IMPLEMENTATON PROGRAMME

2.1 Project Planning and Implementation

2.1.1 The Project will be implemented by engaging the consultant and relevant professionals throughout the planning, design, construction and implementation stages.

2.1.2 The construction works will be carried out by qualified contractors to be appointed under various works contracts.

2.2 Project Programme

2.2.1 The construction works of the Project will tentatively commence in mid-2021 for completion in mid-2023.

2.3 Project Interface

2.3.1 Major committed projects in vicinity that may have potential interface with the Project have been identified and listed below. Any cumulative impact from these concurrent projects including but not limited to the following, will be addressed in the EIA as appropriate:

Concurrent Projects	**Construction Period (Tentative)**
Proposed Road Improvement Works in West Kowloon Reclamation Development Phase 1	2015 – 2019
West Kowloon Cultural District	2013 – 2036
Central Kowloon Route	2017 – 2025

3 POSSIBLE IMPACT ON THE ENVIRONMENT

3.1 Environmental Impacts from the Project

3.1.1 It is anticipated that the construction of the Project would involve land based construction works including site clearance, minor excavation with limited backfilling road works, bridge works, superstructure works, etc.

3.1.2 The potential impacts arising from the construction and the operation of the Project are discussed below. Relevant prevailing statutory requirements will be considered in the EIA to assess potential environment issues.

3.2 Air Quality

Construction Phase

3.2.1 Potential dust impacts generated from land based construction activities, such as site clearance, minor excavation with limited backfilling and wind erosion of exposed area, would not be significant. With implementation of suitable practice and mitigation measures (see **Section 5**), potential impacts on nearby Air Sensitive Receivers (ASRs) in the vicinity of the Project would be controlled to within relevant standards.

Operational Phase

3.2.2 Operation phase air quality impact arising from the Project would be vehicle emissions of Nitrogen Dioxide (NO_2), Respirable Suspended Particulates (RSP) and Fine Suspended Particulates (FSP) from traffic on the Revised Austin Road Flyover. Appropriate mitigation measures will be considered, if necessary.

3.3 Noise

Construction Phase

3.3.1 Construction noise generated from the use of Powered Mechanical Equipment (PMEs) during site clearance, excavation works, etc. will be mitigated by suitable practices and precautionary measures (see **Section 5**). Potential impact on Noise Sensitive Receivers (NSRs) in the vicinity of the Project will be controlled to within relevant standards under EIAO-TM.

Operational Phase

3.3.2 Operation phase noise impact arising from the Project would be traffic noise from the Revised Austin Road Flyover. Cumulative traffic noise impact from surrounding existing and planned road networks will be included in the traffic noise impact assessment. Appropriate mitigation measures will be considered, if necessary.

3.4 Water Quality

Construction Phase

3.4.1 Potential water quality impacts from construction site runoff, wastewater from general construction activities or accidental spillage of chemical would be minor. Appropriate good practice measures should be implemented (see **Section 5**) to minimize potential impacts on any nearby water sensitive receivers to comply with relevant standards.

Operational Phase

3.4.2 Potential water quality impact during the operation phase of the Project is considered negligible, as the impact would be confined to the road surface runoff.

3.5 Waste Management Implications

Construction Phase

3.5.1 Potential waste generated from construction activities includes construction and demolition (C&D) materials, chemical waste, general refuse, etc. Standard good site practices will be implemented to avoid or minimize potential environmental impacts associated with handling, collection and disposal of wastes.

Operational Phase

3.5.2 Wastes generated during the operation phase would be limited as there would be transient population only. Adverse environmental impacts associated with waste management are not expected to arise from the operation of the Project.

3.6 Land Contamination

Construction Phase

3.6.1 According to the approved WKCD EIA Report, no potential land contamination impacts were identified within the Project Boundary. However, based on the initial road scheme design, the alignment of the additional exit road connection may encroach into a small area of the Public Cargo Working Area (PCWA). Given the small encroached area of the PCWA and that the PCWA is used mainly for cargo handling and storage, significant land contamination impacts are not anticipated.

Operational Phase

3.6.2 No adverse land contamination impact is anticipated during the operation of the Project.

3.7 Cultural Heritage

3.7.1 The Project site and the adjacent land are formed on reclaimed land which does not have any built heritage and archaeological potential. The nearest built heritage is Former Whitfield Barracks, Kowloon West II Battery located far from the Project site. The potential for marine archaeology is also limited, as the surrounding seabed would have already been highly disturbed during the formation of the West Kowloon Reclamation area. As there are no cultural heritage features within the Project site, no direct impact on cultural heritage features is anticipated.

3.8 Landscape and Visual

Construction Phase

3.8.1 Potential landscape impacts during construction phase would be mainly across the WHC and the PCWA. Some existing vegetation is expected to be affected by the construction works which would involve vegetation clearance/ tree removal within the project boundary. With the presence of motorists and pedestrians at WHC, WHC Footbridge and WKCD waterfront promenade, the construction works would unavoidably have visual impact at such a close viewing distance. While for residential Visual Sensitive Receivers (VSRs) from Kowloon Station at distance, limited visual impact is anticipated.

Operational Phase

3.8.2 The design of the Revised Austin Road Flyover and associated civil and structural provisions will be visually compatible to the surrounding developments. It shall follow relevant aesthetic design guidelines and requirements in Hong Kong. Limited landscape impact is anticipated during the operation phase. Due to the VSRs, including motorists and visitors at WHC and the WKCD, are located close to the development, some unavoidable visual impacts shall be expected.

4 MAJOR ELEMENTS OF THE SURROUNDING ENVIRONMENT

4.1 General

4.1.1 The Project site is located in developed areas and the land use of the site is identified as other specified uses, West Kowloon Cultural District and government, institution or community under the Outline Zoning Plan. It is adjacent to the West Kowloon Highway on the east, and is to the north of the tunnel portal of Western Harbour Crossing and West Kowloon Cultural District under construction. Commercial and residential developments, such as International Commerce Centre, The Cullinan, Sorrento, etc., are located further to the east of the Project across the West Kowloon Highway. The Project site is formed on reclaimed land fronting New Yau Ma Tai Typhoon Shelter on the northwestern. Based on the initial road scheme design, the alignment of the additional exit road connection may encroach into a small area of the Public Cargo Working Area.

4.1.2 Environmental sensitive receivers have been identified based on existing and committed developments in the vicinity, as presented below.

4.2 Air Quality

4.2.1 Potential ASRs that may be affected by the Project will be included in the air quality impact assessment, such as the existing ASRs Sorrento, The Harbourside, The Arch, The Waterfront, and the fresh air intakes of The Cullinan, International Commerce Centre, and the planned ASRs within West Kowloon Cultural District including residential developments and fresh air intakes of the arts and cultural facilities and commercial developments. The nearest distances of the ASRs from the Project boundary is presented as below.

Potential Air Sensitive Receivers	**The Approximate Nearest Distances from the Project Boundary (m)**
Sorrento	225
The Harbourside	180
The Arch	335
The Waterfront	340
Fresh air intakes of the Cullinan	140
Fresh air intakes of International Commerce Centre	60
Planned ASRs within West Kowloon Cultural District within West Kowloon Cultural District including residential developments and fresh air intakes of the arts and cultural facilities and commercial developments	15

Note: The abovementioned air sensitive receivers are not exhaustive and indicative only, more potential air sensitive receivers will be identified in the EIA report.

4.3 Noise

4.3.1 Existing and planned NSRs with opened windows for ventilation will be included in the noise impact assessment, such as Sorrento, The Harbourside, and the planned residential developments within West Kowloon Cultural District. The nearest distances of the NSRs from the Project boundary is presented as below.

Potential Noise Sensitive Receivers	The Approximate Nearest Distances from the Project Boundary (m)
Sorrento	225
The Harbourside	180
Planned residential developments within West Kowloon Cultural District	280

Note: The abovementioned noise sensitive receivers are not exhaustive and indicative only, more potential noise sensitive receivers will be identified in the EIA report.

4.4 Water Quality

4.4.1 Major Water Sensitive Receivers in the vicinity of the Project will be included in the water quality impact assessment, such as New Yau Ma Tei Typhoon Shelter and Water Supplies Department Kowloon South flushing water intake.

4.5 Landscape and Visual

4.5.1 The landscape resources around the proposed works are mainly open waters and vegetation on reclaimed land.

4.5.2 Key potential VSRs to be affected shall include motorists and visitors at WHC and the WKCD, and residents of Kowloon Station at distant.

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

5.1 Mitigation Measures for the Project

5.1.1 Practicable and effective mitigation measures will be adopted for construction and operation of the Project, as necessary, to ensure compliance of relevant environmental standards. Possible key measures to be adopted, subject to studies, are listed below.

5.2 Air Quality

5.2.1 To minimize air quality impact to the identified ASRs as stated in **Section 4.2**, the following mitigation measures will be proposed.

Construction Phase

5.2.2 Dust mitigation measures as stipulated in the Air Pollution Control (Construction Dust) Regulation (Cap. 311R) will be implemented to control fugitive dust emission. Possible key measures include:

- Regular watering on all exposed and unpaved surface, particularly during dry weather;
- Frequent watering for particularly dusty construction areas and areas close to ASRs;
- Minimise temporary storage of stockpiles on site;
- Cover excavated or stockpile of dusty material by impervious sheeting or spraying with water to maintain the entire surface wet;
- Wheel washing facilities at the exit points of the site;
- Cover dusty materials on vehicles leaving the site; and
- Dust suppression measures.

5.2.3 Requirements stipulated in the Air Pollution Control (Non-road Mobile Machinery) (Emission) Regulation will also be followed to control potential emissions from non-road mobile machinery during construction phase where appropriate.

Operational Phase

5.2.4 Reference will be made to the Air Pollution Control Ordinance (APCO) (Cap. 311) and the Hong Kong Air Quality Objectives (AQOs) for the accepted levels of pollutants at the sensitive receivers. Mitigation requirements will be subject to the findings of the EIA, and the necessary performance and implementation of these measures will be documented in the EIA study.

5.3 Noise

Construction Phase

5.3.1 All practicable mitigation measures will be exhausted to minimize the construction noise impact, including:

- 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 locate noisy equipment and activities at farthest practicable distance, schedule 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.

Operational Phase

5.3.2 Potential noise impact from road traffic will be avoided or minimized with the implementation of noise mitigation measures, such as mitigation measures on the revised Austin Road Flyover, which will be subject to the findings of the EIA.

5.4 Water Quality

Construction Phase

5.4.1 During construction phase, mitigation measures for water quality impacts will be implemented in accordance with the *Practice Note for Professional Persons on Construction Site Drainage* (ProPECC PN 1/94).

Operational Phase

5.4.2 Proper drainage systems with silt traps and oil interceptors should be installed, maintained and cleaned at regular intervals. The design of the operational phase mitigation measures should also follow the *Practice Note for Professional Persons on Drainage Plans subject to Comment by EPD* (ProPECC Note PN 5/93), which provide useful non-statutory guidelines for pollution control on different types of discharge to minimize water quality impact from proposed drainage systems.

5.5 Waste Management Implications

5.5.1 Possible key measures to reduce the quantities of C&D materials, chemical waste, general refuse, etc. for offsite disposal include:

- Sorting and reuse on site as far as practicable;
- Handle by registered and licensed waste hauliers under Waste Disposal Ordinance (Cap. 354) and Waste Disposal (Chemical Waste) (General) Regulation (Cap. 354C);
- Nomination of an approved person for waste management;
- Separate chemical wastes for handling and treatment at licensed facilities;
- Proper record system for wastes generated, recycled and disposed of;
- Ticket-trip system in accordance with Development Bureau Technical Circular No. 6/2010 Trip Ticket System for Disposal of Construction & Demolition Materials;
- Waste Management Plan in accordance with ETWB TCW No. 19/2005 Environmental Management on Construction Sites;
- Segregate different types of waste for storage;
- Recycle unused chemicals with remaining functional capacity;

- Use of non-timber form work; and
- Proper storage and site practices.

5.6 Cultural Heritage

5.6.1 No archaeological impacts or impacts to built heritage features are anticipated, therefore no mitigation measure would be considered necessary.

5.7 Landscape and Visual

5.7.1 Possible key measures to reduce potential landscape and visual impacts include:

Construction Phase

- Minimize disturbance to significant landscape resources is part of the design;
- Optimize construction activities, e.g. minimizing extent of temporary works area, installing site hoardings and minimizing illumination on non-target areas;
- Minimize construction periods where possible; and
- Early establishment of planting areas as far as appropriate.

Operational Phase

- Provision of greening, aesthetic architectural design of aboveground structures to enhance landscape and visual aesthetic of the area in proximity;
- Sensitive lighting design and installation to minimize spilling onto nearby residential developments; and
- Tree preservation in accordance with Development Bureau Technical Circular (Works) No. 7/2015 – Tree Preservation.

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

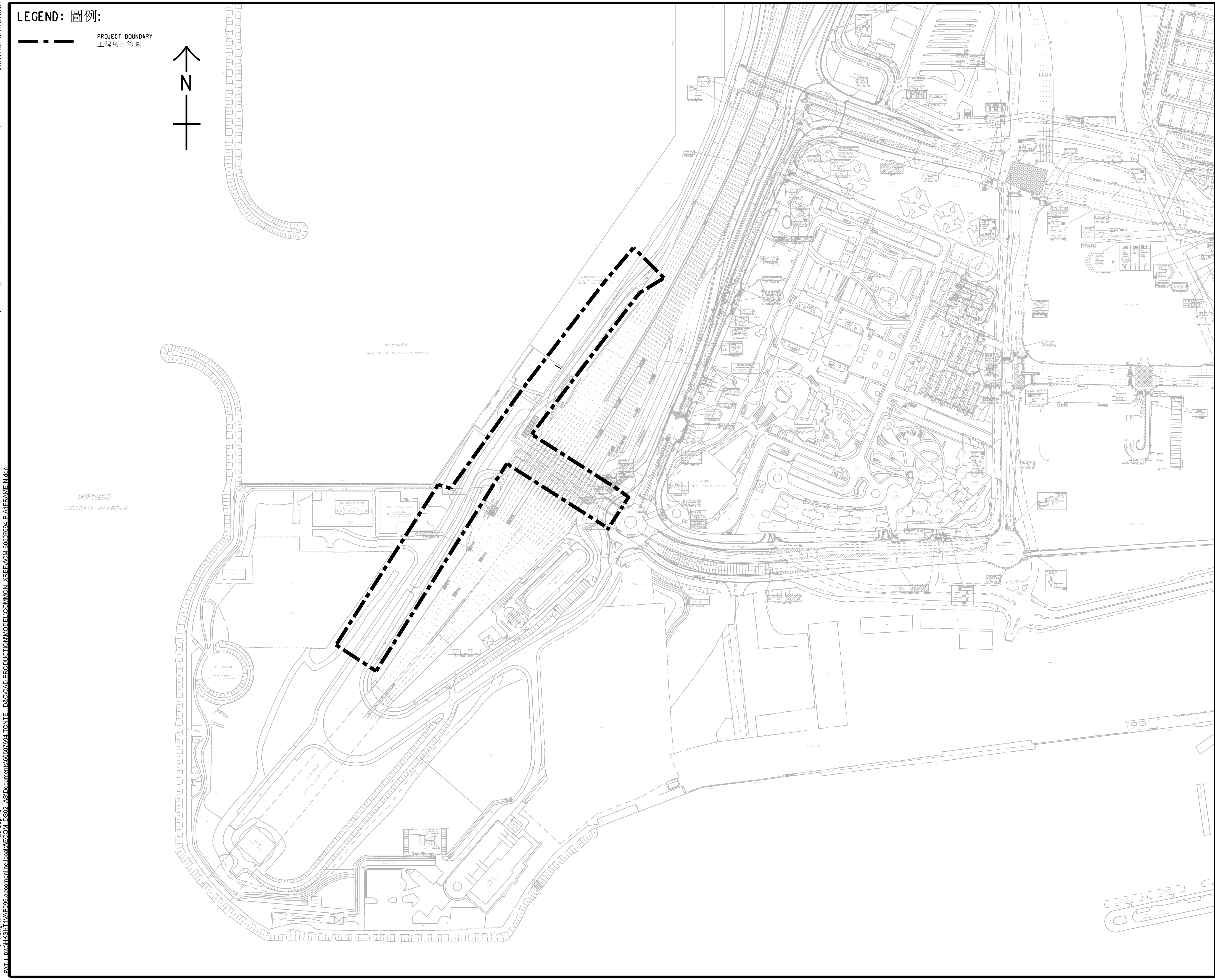
5.8.1 Subject to the findings of detailed impact assessments, control measures will be identified to mitigate the impacts to acceptable levels. The possible severity, distribution and duration of environmental effects such as beneficial and adverse effects; short and long term effects; secondary and induced effects; cumulative effects and trans-boundary effects from committed projects, and further implications will be considered and addressed in the EIA, where applicable.

6 USE OF PREVIOUSLY APPROVED EIA REPORTS

6.1.1 Relevant EIA reports would be made reference to as appropriate in the course of the EIA study for the Project including:

- Proposed Road Improvement Works in West Kowloon Reclamation Development Phase 1 (Register No.: AEIAR-179/2013);
- West Kowloon Cultural District (Register No.: AEIAR-178/2013);
- Central Kowloon Route (Register No.: AEIAR-171/2013); and
- Road Works at West Kowloon (Register No.: AEIAR-141/2009)

Figure



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AECOM

PROJECT 項目

DESIGN AND ADMINISTRATION OF THE CONSTRUCTION OF NEW EXIT ROAD AND ASSOCIATED WORKS ADJOINING TO THE WEST KOWLOON CULTURAL DISTRICT DEVELOPMENT
西九龍文化區發展新出口道路及相關工程的設計與管理

CLIENT 業主

westKowloon
西九文化區

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ISSUE/REVISION 修訂

I/R 修訂	DATE 日期	DESCRIPTION 內容摘要	CHK. 復核

STATUS 狀況

SCALE 比例 — A1 1 : 2000

DIMENSION UNIT 尺寸單位 — METRE

KEY PLAN 索引圖

PROJECT NO. 項目編號 — 60588677

CONTRACT NO. 合約編號

SHEET TITLE 圖紙名稱

LOCATION OF THE PROJECT
工程項目位置

SHEET NUMBER 圖紙編號

60588677/PP/FIGURE 1 圖1