

Application No. :
Reference No. :
(For official use)



FORM 5
ENVIRONMENTAL IMPACT ASSESSMENT ORDINANCE
(CHAPTER 499)
SECTION 13(1)

Application for Variation of an Environmental Permit

PART A PREVIOUS APPLICATIONS

No previous application for variation of an environmental permit.

The environmental permit was previously amended.

Application No. : VEP-321/2010, VEP-486/2015

PART B DETAILS OF APPLICANT

B1. Name : (person or company)
Chun Wo-CRGL-MBEC Joint Venture

[Note : In accordance with section 13(1) of the Ordinance, the person holding an environmental permit or a person who assumes responsibility for the designated project may apply for variation of the environmental permit.]

B2. Business Registration No. : (if applicable) [Redacted]

B3. Correspondence Address :
[Redacted]

B4. Name of Contact Person : [Redacted] **B5. Position of Contact Person :** [Redacted]

B6. Telephone No. : [Redacted] **B7. Fax No. :** [Redacted]

B8. E-mail Address : (if any) [Redacted]

PART C DETAILS OF CURRENT ENVIRONMENTAL PERMIT

C1. Name of the Current Environmental Permit Holder :
Chun Wo – CRGL – MBEC Joint Venture

C2. Application No. of the Current Environmental Permit : VEP-486/2015

C3. The Current Environmental Permit was Issued in : month / year
11 / 2015

Important Notes : Please submit the application together with

- (a) 3 copies of this completed form; and
- (b) appropriate fee as stipulated in the Environmental Impact Assessment (Fees) Regulation

to the Environmental Protection Department at the following address :

The EIA Ordinance Register Office,
27th floor, Southorn Centre, 130 Hennessy Road,
Wan Chai, Hong Kong

Tick (✓) the appropriate box
EPD185



PART D PROPOSED VARIATIONS TO THE CONDITIONS IN CURRENT ENVIRONMENTAL PERMIT

D1. Condition(s) in the Current Environmental Permit :	D2. Proposed Variation(s) :	D3. Reason for Variation(s) :	D4. Describe the environmental changes arising from the proposed variation(s) :	D5. Describe how the environment and the community might be affected by the proposed variation(s) :	D6. Describe how and to what extent the environmental performance requirements set out in the EIA report previously approved or project profile previously submitted for this project may be affected :	D7. Describe any additional measures proposed to eliminate, reduce or control any adverse environmental impact arising from the proposed variation(s) and to meet the requirements in the Technical Memorandum on Environmental Impact Assessment Process :
<p>Condition 2.10 To mitigate traffic noise from road operations, the following noise barriers and semi-noise enclosures shall be installed before the commencement of operation of the road project unless otherwise specified in this Permit:</p> <p>Figure 4a: Location of Direct Noise Mitigation Measures</p>	<p>Condition 2.10 To mitigate traffic noise from road operations, the following noise barriers and semi-noise enclosures shall be installed before the commencement of operation of the <u>corresponding road sections</u> unless otherwise specified in this Permit.</p> <p>Figure 4a: Location of Direct Noise Mitigation Measures <u>with a highlighted section of the proposed TTA to be implemented after CWB tunnel is opened</u></p>	<p>Please refer to the Section 2 of the attached Environmental Review Report</p>	<p>Please refer to the Section 3 of the attached Environmental Review Report</p>	<p>Please refer to the Section 3 of the attached Environmental Review Report</p>	<p>Please refer to the Section 3 of the attached Environmental Review Report</p>	<p>Please refer to the Section 3 of the attached Environmental Review Report</p>

PART E DECLARATION BY APPLICANT

E1. I hereby certify that the particulars given above are correct and true to the best of my knowledge and belief. I understand the environmental permit may be suspended, varied or cancelled if any information given above is false, misleading, wrong or incomplete.

[Redacted Signature]

Signature of Applicant

[Redacted Full Name]

Full Name in Block Letters

[Redacted Position]

Position



on behalf of

Chun Wo – CRGL – MBEC Joint Venture

Company Name and Chop (as appropriate)

10 May 2019

Date

NOTES :

1. A person who constructs or operates a designated project in Part I of Schedule 2 of the Ordinance or decommissions a designated project listed in Part II of Schedule 2 of the Ordinance without an environmental permit or contrary to the permit conditions commits an offence under the Ordinance and is liable to a maximum fine of \$5,000,000 and to a maximum imprisonment for 2 years.
2. A person for whom a designated project is constructed, operated or decommissioned and who permits the carrying out of the designated project in contravention of the Ordinance commits an offence and is liable to a maximum fine of \$5,000,000 and to a maximum imprisonment for 2 years.

Central-Wan Chai Bypass –Tunnel (North Point Section) and Island Eastern Corridor Link

Environmental Review Report for Alternative Arrangement for Installation of Noise Barriers and Semi-enclosures on the Island Eastern Corridor

1. Introduction

- 1.1 As stipulated in Condition 2.10 of Environmental Permit EP-364/2009/E (EP) and Further Environmental Permit FEP-07/364/2009/D (FEP), to mitigate traffic noise from road operation, the following noise barriers and semi-enclosures shall be installed before the commencement of operation of the road project unless otherwise specified in the EP and FEP:
- (a) about 235m length of noise semi-enclosure covering the westbound slip road from the Island Eastern Corridor (IEC);
 - (b) about 230m length of noise semi-enclosure covering the main carriageways (eastbound and westbound) of the Central-Wan Chai Bypass (CWB) and IEC;
 - (c) about 135m length of 5.5m high cantilevered noise barrier with 4.5m long cantilever inclined at 45° on the eastbound slip road to the IEC;
 - (d) about 95m length of 5.5m high cantilevered noise barrier with 1m long cantilever inclined at 45° on the eastbound slip road to the IEC;
 - (e) about 350m length of 3.5m high vertical noise barrier on the eastbound slip road to the IEC; and
 - (f) about 265m length of noise semi-enclosure covering the westbound slip road from the IEC shall be installed before the occupation of planned noise sensitive receivers (NSRs) in the Comprehensive Development Areas (CDA) near Oil Street, North Point, as shown in Figures 4a and 4b of the EP and FEP.
- 1.2 Due to existing site constraint, the noise semi-enclosure between IEC westbound Pier 17 and Pier 22 (i.e. portion of noise semi-enclosure in item (a) above) cannot be installed until some of the traffic lanes are diverted to CWB tunnel after tunnel commissioning so as to allow working space for installation. Alternative arrangement consists of re-sequencing of the noise enclosure installation is therefore required to suit actual site condition.
- 1.3 This Environmental Assessment aims to identify potential environmental impact due to the alternative arrangement on the installation of noise barriers and semi-enclosures with associated environmental mitigation measures.

2. Site Constraints and Alternative Arrangement on Noise Barrier / Semi-enclosure Installation

- 2.1 As mentioned in the EP, the scope of the Central - Wan Chai Bypass Project includes:
- (i) a dual three-lane trunk road, approximately 4.5 km in length, and tunnel approximately 3.7 km in length defined from the connection with the existing Rumsey Street Flyover in Central, through to a connection with the existing Island Eastern Corridor to the east of the Causeway Bay Typhoon Shelter (CBTS);
 - (ii) the Central Interchange near the Rumsey Street Flyover to provide road connections to the Central area;
 - (iii) tunnel control buildings and ventilation buildings;
 - (iv) slip roads to connect the CWB to the local road system in the Wan Chai North and Causeway Bay area;
 - (v) associated road lighting, road signing, traffic control and surveillance system; and
 - (vi) other associated works.

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- 2.2 As part of the works of the Project, noise barriers and semi-enclosures as stipulated in Condition 2.10 of the EP and FEP shall be installed before the commencement of operation of the road project.
- 2.3 As the IEC is the main traffic link between the Hong Kong Island East and Causeway Bay, due consideration shall be taken to avoid disruption to the existing traffic during the installation work of noise barriers and semi-enclosures. In view of this, temporary traffic arrangements (TTA) involving traffic lane closure on the IEC should be implemented to facilitate the installation work.
- 2.4 Amongst the required areas for noise barrier / semi-enclosure installation, the installation work along the IEC westbound at Pier 17 to Pier 22 is particularly complicated due to the limited space on the IEC. TTA involving closure of total 2 nos. traffic lanes will be required for such installation.
- 2.5 As the installation work requires closure of 2 traffic lanes at this location, the IEC westbound traffic towards Hing Fat Street and Victoria Park Road will be seriously affected prior to the commissioning of the CWB tunnel. Approval could not be granted from the Traffic Management Liaison Group (TMLG) members including Transport Department and Hong Kong Police Force based on such proposed traffic lane closure. The installation work can be carried out only after the commissioning of CWB tunnel which some of the road traffic will be diverted to the CWB tunnel to allow buffer for traffic lane closure on the IEC westbound.
- 2.6 Temporary Traffic Arrangement (TTA) at the concerned road sections between Piers 17 and 22 will be implemented after the CWB tunnel is opened due to traffic constraint (refer to **Figure 4a in Appendix 1**)
- 2.7 Due to above site constraint, the noise semi-enclosure between IEC westbound Pier 17 and Pier 22 (i.e. portion of noise semi-enclosure in item (a) of Condition 2.10 of the EP and FEP) will have to be installed until some of the traffic is diverted to the CWB tunnel after tunnel commissioning so as to allow working space for installation.

3. Potential Noise Impacts and Proposed Environmental Mitigation Measures

- 3.1 As mentioned in Section 2.6 above, the noise semi-enclosure between IEC westbound Pier 17 and Pier 22 (i.e. portion of noise semi-enclosure in item (a) of Condition 2.10 of the EP and FEP) will have to be installed until some of the traffic is diverted to the CWB tunnel after tunnel commissioning so as to allow working space for installation.
- 3.2 The remaining section of noise semi-enclosure between IEC westbound Pier 17 and Pier 22 will be completed as soon as possible after granting the approval from the TMLG members including Transport Department and Hong Kong Police Force on the traffic lane closure after CWB tunnel commissioning. Please refer to the attached works programme for the installation of noise semi-enclosure between IEC westbound Pier 17 and Pier 22 (**Appendix 3**).
- 3.3 To mitigate the construction noise impact for the installation of the remaining permanent noise semi-enclosures due to the incomplete noise semi-enclosure between IEC westbound Pier 17 and Pier 22, a 3.5m high vertical noise barrier with PMMA panels with same specification as the noise barriers in item (a) of Condition 2.10 of the EP and FEP will be installed along the edge of IEC Pier 17 to Pier 22 as temporary noise mitigation measures (refer to **Figures a and b in Appendix 1**) prior to the commencement work of above construction work.
- 3.4 An updated noise assessment of cumulative impacts due to construction work with reference to (i) Appendix 4.13 - Powered Mechanical Equipment (PME) for the Different Construction Tasks during Normal Daytime Working Hours (with Mitigation Measures), and (ii) Appendix 4.14 - Calculations and Results of Construction Noise Impacts During Normal Daytime Working Hour (with Mitigation Measures) of approved EIA report has been carried out (refer to **Appendix 2**). It is noted that the predicted cumulative construction noise level complies with the construction noise criteria, which is below 75dB(A) with the temporary noise mitigation measures properly in place.

Central-Wan Chai Bypass –Tunnel (North Point Section) and Island Eastern Corridor Link

- 3.5 In addition to the 3.5m high vertical noise barrier with PMMA panels with same specification as the noise barriers in item (a) of Condition 2.10 of the EP and FEP will be installed along the edge of IEC Pier 17 to Pier 22 as temporary noise mitigation measures, all practicable noise mitigation measures will be implemented if necessary to minimize the construction noise impact to nearby residents.
- 3.6 The proposed construction equipment list in **Appendix 2** is confirmed to be realistic, practical and practicable in completing the installation works of noise semi-enclosure between Pier 17 and 22 within the proposed schedule.
- 4. Conclusion**
- 4.1 With the temporary 3.5m high vertical noise barrier with PMMA panels placed as indicated in **Figures a** and **b** in **Appendix 1**, the construction noise arises from the installation of noise semi-enclosure between IEC westbound Pier 17 and Pier 22 complies with the construction noise criteria (75dB(A)).

Reference:

Technical Memorandum on Environmental Impact Assessment Process, published by EPD, HKSAR

A Guide to the EIA Ordinance, published by EPD, HKSAR

Technical Memorandum on Noise from Construction Work other than Percussive Piling

END

Appendix 1

1. **Figure a - Elevation for 3.5m high noise barrier between Piers 17 and 22 as temporary noise mitigation**
2. **Figure b - Section for 3.5m high noise barrier between Piers 17 and 22 as temporary noise mitigation**
3. **Figure 4a - Location of Direct Mitigation Measures**

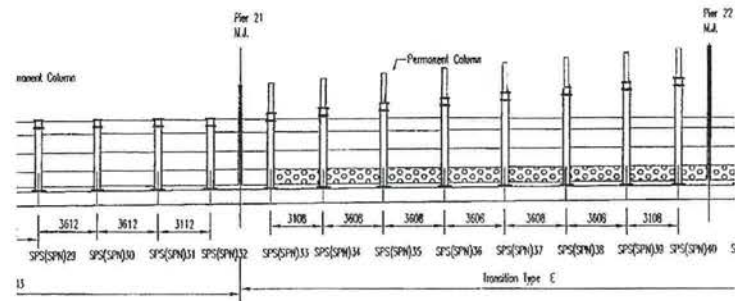
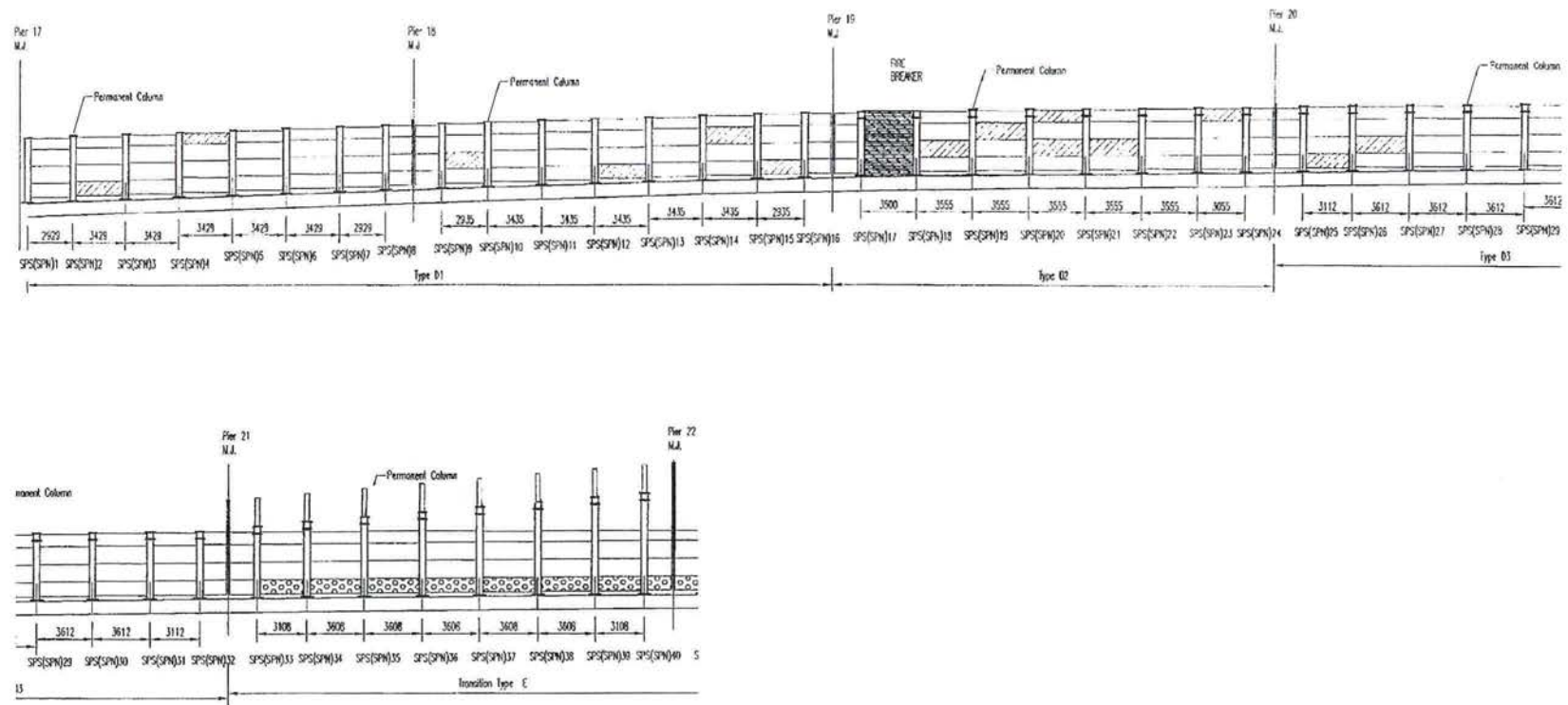


Figure a - Elevation for 3.5m High Noise Barrier Between Piers 17 and 22 as Temporary Noise Mitigation

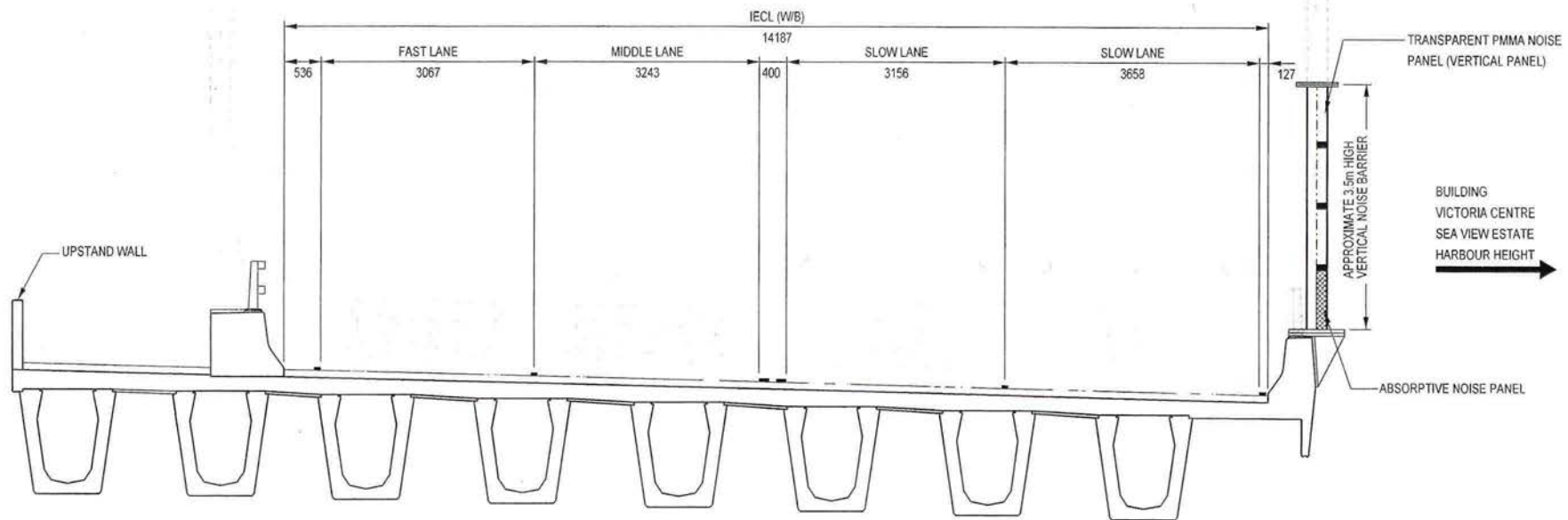
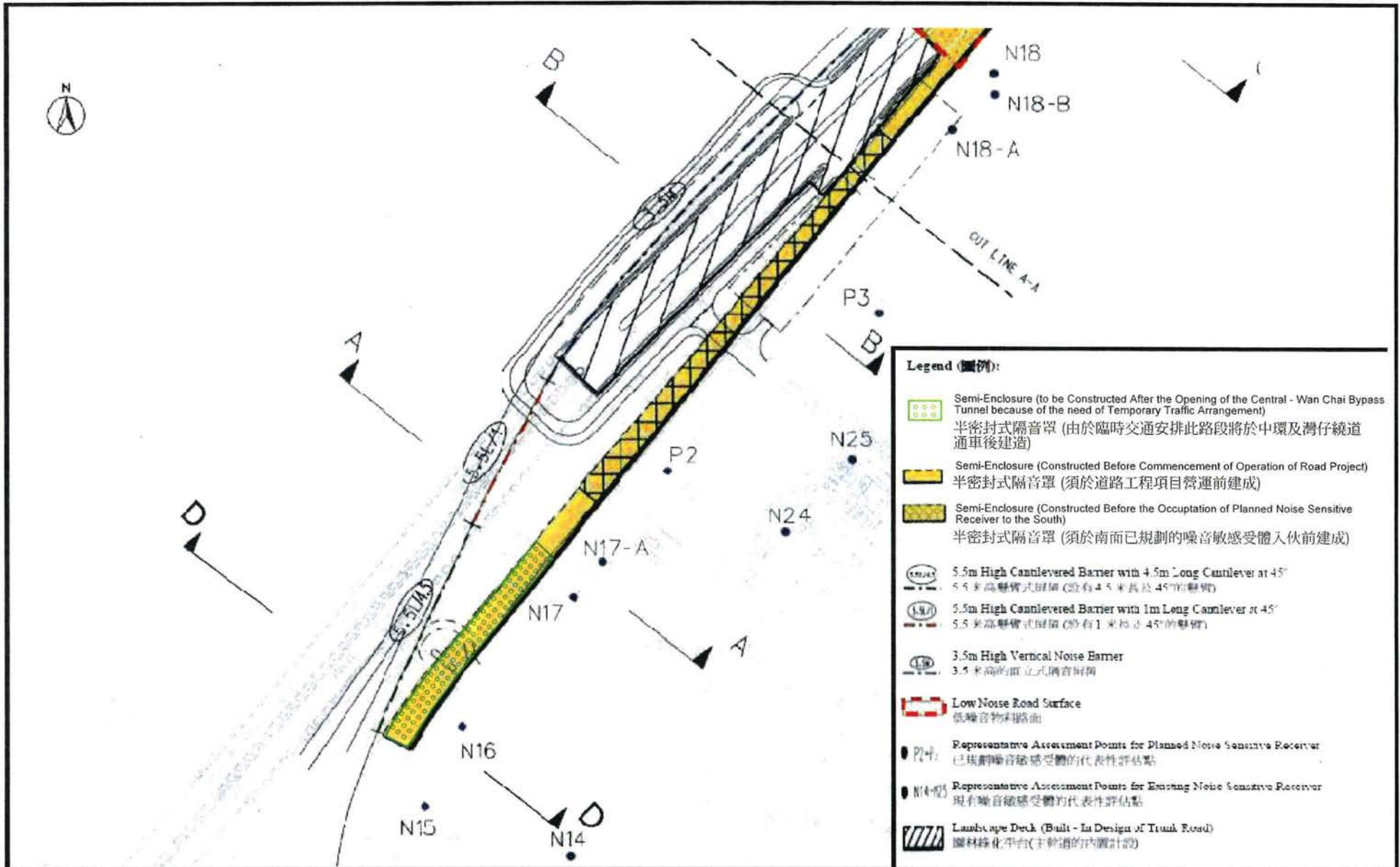


Figure b - Section for 3.5m High Noise Barrier Between Piers 17 and 22 as Temporary Noise Mitigation

- ISSUED FOR INFORMATION		KSL	KYL
No.	Date	Description	Drawn/Prepared/Checked
AECOM			
CENTRAL - WAN CHAI BYPASS AND IEC LINK CONTRACT NO. HK2008/15 CENTRAL - WAN CHAI BYPASS - TUNNEL NORTH POINT SECTION AND ISLAND EASTERN CORRIDOR LINK			
TITLE: EXISTING STAGE OF SEMI-NOISE ENCLOSURE NEAR VICTORIA CENTRE, SEA VIEW ESTATE AND HARBOUR HEIGHT			
SKETCH NO.	60095653/IEC/DF1473	SCALE	1:1000 (A3) 1:1800 (A2)



Project Title: Central-Wanchai Bypass (CWB) Including Its Road Tunnel and Slip Roads
 工程項目名稱：中環灣仔繞道包括其行車隧道及連接路

Figure 4a: Locations of Direct Noise Mitigation Measures
 圖 4a: 直接噪音緩解措施位置圖

Appendix 2

Noise Assessment on Installation of Noise Semi-enclosure between Pier 17 and 22

Reference No. 1

Powered Mechanical Equipment (PME) for Different Construction Tasks during Normal Daytime Working Hours (With Mitigation Measures)

NSR: N17 Harbour Heights

Section 6.0 Construction of IECL

6.2 IEC Connection Work

6.2D Noise Enclosure / Noise Barrier Installation

Powered Mechanical Equipment (PME)	TM Ref. Identification Code	SWL (dB(A))	Quantity	On-time %	*Reduction	Total SWL (dB(A))
Lorry with crane, 5.5 tonne < gross vehicle weight <= 38 tonne	-	105	1	100%	5	100.0
Cherry picker (electric)	-	88	2	100%	5	86.0
Winch (electric)	CNP 262	95	1	100%	0	95.0
Drill, hand-held (battery)	-	89	4	100%	0	95.0
Grinder (electric)	CNP 066	98	2	100%	0	101.0
						104.7

*Remark: Negative 5 dB(A) correction for the effect of vertical noise barrier with PMMA panels as temporary noise mitigation is applied to the Predicted Noise Level.

Appendix 3

Tentative Works Programme for the Installation of Noise Semi- enclosure between Pier 17 and 22

Activity ID	Activity Name	Original Duration	Week																												
			1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29

Detailed Works Programme (Rev. F)

10 - SECTION X OF THE WORKS

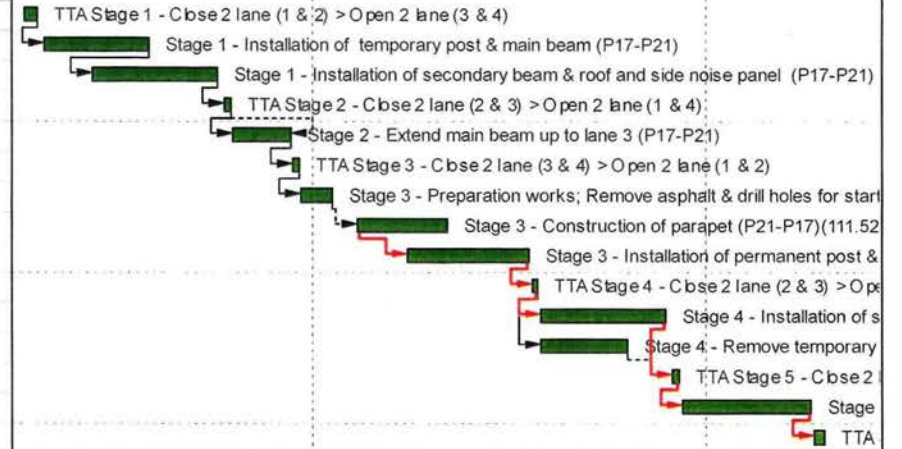
10.3 - Middle Bridge (Bridge F)

10.3.2 - Bridge Construction

Outstanding Works

Bridge C1 (P17 to P21)

1210-3000	TTA Stage 1 - Cbse 2 lane (1 & 2) > Open 2 lane (3 & 4)	4
1210-3120	Stage 1 - Installation of temporary post & main beam (P17-P21)	21
1210-3240	Stage 1 - Installation of secondary beam & roof and side noise panel (P17-P21)	25
1210-3280	TTA Stage 2 - Cbse 2 lane (2 & 3) > Open 2 lane (1 & 4)	2
1210-3320	Stage 2 - Extend main beam up to lane 3 (P17-P21)	12
1210-3360	TTA Stage 3 - Cbse 2 lane (3 & 4) > Open 2 lane (1 & 2)	2
1210-3400	Stage 3 - Preparation works; Remove asphalt & drill holes for starter bars (P17-P21)	6
1210-3440	Stage 3 - Construction of parapet (P21-P17)(111.52m)	19
1210-3480	Stage 3 - Installation of permanent post & main beam (P21-P17)	25
1210-3520	TTA Stage 4 - Cbse 2 lane (2 & 3) > Open 2 lane (1 & 4)	2
1210-3560	Stage 4 - Installation of secondary beam & noise panel (P17-P21)	25
1210-3600	Stage 4 - Remove temporary post (P17-P21)	18
1210-3640	TTA Stage 5 - Cbse 2 lane (3 & 4) > Open 2 lane (1 & 2)	2
1210-3680	Stage 5 - Installation of secondary beam & noise panel (P17-P21)	25
1210-3800	TTA Stage 6 - Cbse 2 lane (1 & 2) > Open 2 lane (3 & 4)	2



- Actual Work
- Remaining Work
- Milestone

**HY/2009/19 - Central-Wan Chai Bypass -
Tunnel (North Point Section) and Island Eastern Corridor Link
Bridge C1 Single Noise Enclosure Installation**

Project ID: 3MRP-02/2019-1
 Project Name: Detailed Works Programme (Rev. F)
 Layout: 2019-05-08 VEP application for SNE construction
 Pages: Page 1 of 1
 Date: 08-May-19