

#### Ref.: AACWBIECEM00 0 4729L.13

20 December 2013

Chun Wo – CRGL – MBEC Joint Venture Unit 2803-2804 28/F, Citicorp Centre 18 Whitefield Road North Point, Hong Kong

By Post and Fax (2570 8013)

Attention: Mr. David Lau

Dear Sir,

#### Re: FEP-07/364/2009/A Contract No. HY/2009/19 Central – Wan Chai Bypass – Tunnel (North Point Section) & Island Eastern **Corridor Link** Landscape Plan (Revision 3)

Reference is made to your submission of the Landscape Plan (Revision 3 dated 17 December 2013) to us through E-mail on 20 December 2013 for our review and comment.

Please be informed that we have no further comments on the captioned submission. We write to verify the captioned submission in accordance with Condition 2.13 of FEP-07/364/2009/A.

Please feel free to contact the undersigned should you have any queries.

Yours sincerely,

David Yeung Independent Environmental Checker

c.c.

HyD CEDD AECOM LAM

Mr. Jones Lai Mr. Robert Tsoi AECOM (CWB) Mr. Peter Poon Mr. Conrad Ng Mr. Raymond Dai (ETL) by fax: 2714 5289 by fax: 2577 5040 by fax: 3912 3010 by fax: 2691 2649 by fax: 2882 3331

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### Lam Geotechnics Limited

Ground Investigation & Instrumentation Professionals

G1120/CS/L613/FEP-07/364/2009/A • Ref Date • 20 December 2013

By Post and Fax (2570 8013)

#### **Chun Wo - CRGL - MBEC Joint Venture** Unit 2803-2804. 28/F, Citicorp Centre, 18 Whitfield Road, North Point, Hong Kong

#### Attn: Mr. David Lau, Project Manager

Dear Sir,

#### Contract No. HY/2009/19 Central – WanChai Bypass Tunnel (North Point Section) and Island Eastern Corridor Link Landscape Plan (Rev. 3)

Referring to the captioned submission dated 17 December 2013 received through email on 20 December 2013, we have reviewed your submitted details and hereby certified this submission in accordance with Condition 2.13 of FEP-07/364/2009/A.

Should you have any enquiry, please feel free to contact the undersigned at 2839 5666.

Yours faithfully,

Raymond Dai Environmental Team Leader

C.C.

HyD	- Mr. Jones Lai	(By Fax: 2714 5289)
CEDD	- Mr. Robert Tsoi	(By Fax: 2577 5040)
AECOM	- Mr. Frankie Fan	(By Fax: 2587 1877)
ENVIRON	- Mr. David Yeung	(By Fax: 3548 6988)







ISO 14001:2004



### **Responses to Comments from Planning Department**

Comn	nents received:	Responses:			
(1)	Progress photos would be forwarded to	Amended in section 5.3			
	PlanD on bi-monthly basis by the contractor via	last para. on p.5.			
	regular submission for the tree reports.				



俊和-中國中鐵-中鐵大橋局聯營 CHUN WO - CRGL - MBEC JOINT VENTURE

### LANDSCAPE PLAN

For

Contract No.: HY/2009/19

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

(Pursuant to the Further Environmental Permit - No. FEP-07/364/2009/A)

Issue No.:	0	Prepared by:	Approved by:				
Revision:	3	1)the	1-1-				
Date:	17/12/13	M.H. Isa	Paul Yu				
		Environmental Officer	Site Agent				
		Ĺ					
	C2, 5/F., He	ong Kong Spinners Industrial Building	g, 601-603 Tai Nan West Street,				

Cheung Sha Wan, Kowloon, Hong Kong.

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#### 1.0 Introduction

The purpose of this plan is to demonstrate design details, locations, implementation programme, maintenance and management schedules in accordance with the Condition 2.13 of the Further Environmental Permit No. FEP-07/364/2009/A

1.1 Project Description

This designated Project (HY/2009/19) is a part of the CWB project, which shall provide relief to the existing congestion along the East-West corridor and cater for the anticipate growth of traffic on Hong Kong Island.

#### 1.2 Scope of Work

The scope of the Project mainly includes:

- Construction of a 300-metre-long tunnel at North Point;
- Construction of an approach road to the tunnel;
- Modification of the section of Island Eastern Corridor between Hing Fat Street and Po Leung Kuk Yu Lee Mo Fan Memorial School;
- Modification of the junction of Victoria Park Road and Hing Fat Street;
- Demolition of Rumsey Street Flyover eastbound in Central;
- Sub-structure works of the East Ventilation Building and the foundation works of the Administration Building; and
- Associated works including landscaped deck, noise barriers, noise semi-enclosures, road drainage and landscaping works.
- The Preservation and Protection of Existing Trees

Master Greening Plan will not form part of the scope of this project. Top Landscape at Landscape Deck and Green Roof is expected to commence tentatively on 31/07/2017.

### 2.0 Landscape Mitigation Measures

The proposed landscape mitigation measures during construction phase include but are not limited to the list below:

- Erection of decorative screen hoarding
- Control of night-time lighting
- Tree Transplant, compensatory tree planting for trees felled and to protect existing trees to be retained during construction (**Refer Appendix E**)

#### 3.0 Visual Sensitive Receivers

The following visual sensitive receivers (VSRs) are likely to be affected during the construction phase of the project:

- C36 (Citicorp Centre);
- C37 (Victoria Centre);
- C52 (AIA Tower);
- C53 (Newton Hotel);
- C54 (Electric Centre);
- C54A (Sea View Estate);
- C/R14 (Viking Garden);
- C/R15 (50-52 Hing Fat Street);
- C/R16 (Mayson Garden Building);
- C/R17 (Gordon House);
- C/R18 (Belle House);
- GIC12 (Electric Road);
- R4 (Harbour Heights);
- R5 (Residential Properties fronting King Wah Road);
- R6 (City Garden);
- R7 (Provident Centre).

The above VSRs are mapped in Appendix B.

### 4.0 Source of Landscape / Visual Impacts

Sources of night-time lighting impact during construction phase would include:

- Site Investigations;
- Removal of existing dolphins;
- Installation of temporary piles and marine piling;
- Construction of box culvert at Watson Road;
- Surcharge activity at Portion V;
- Bored pile construction on land;

- Open-cut construction of tunnel;
- Substructure works for East Ventilation Building and foundation work to Administration Building;
- Construction of Diaphragm Wall;
- Concreting activities;
- Construction site traffic;
- Solar powered lighting including other lighting at site office; and
- <sup>1</sup>Signal sensor light on yellow marker buoys which are laid to mark the position of the anchors extending from the working vessels.

(1= Referring to Marine Department Notice No. 154 & 192 of 2010 and 23of 2011 .)

#### **5.0** Implementation Programme

- 5.1 Decorative Screen Hoarding:
  - Decorative screen hoarding will be erected between Watson Road and Oil Street (below the elevated road) and extending beyond Oil Street towards City Garden while typical hoarding of 2.4m high will also be erected at the above mentioned location but on backfilled areas near the sea. The tentative programme will be from 04 Aug 2011 to 28 Apr 2017. The location of the hoarding is shown in **Appendix C**.
  - Any existing decorative screen hoarding handed over after site possession will be maintained.
- 5.2 Night-time Lighting:
  - Night-time lighting control tentatively scheduled from 28 Apr 2011 till 28 Apr 2017.
- 5.3 Tree Preservation, Protection and Transplanting:
  - Tree Transplanting tentatively scheduled from 10 Nov 2011 till 28 Apr 2017 in accordance with the Concept Plan, Recommended Outline Development Plan (RODP) and Master Landscape Plan for greening the locality at the operation stage.
  - Tree Transplant, compensatory tree planting for trees felled and to protect existing trees to be retained during construction

Summary table for "Construction Phase Landscape and Visual Mitigation Measures" is attached after section 9.0

A tree monitoring report is submitted regularly for the trees transplanted and is a separate submission. Appendix E refers to the trees to be retained. For any tree fell or any compensating tree planting in the future. This will be included / updated in the Plan.

Tree preservation schedule and summary of protection method/measures is described in section 7.3

As the approved EIA has not identified any trees for this contract therefore trees felling, retained, etc. follows contracts requirement as shown in Appendix E.

As per comments from Planning Department (PlanD), progress photos would be forwarded to PlanD on bi-monthly basis by the contractor via regular submission for the tree reports.

### 6.0 Design and Fixing Details of Hoarding

The layout, alignment and design details of decorative screen hoarding are shown in **Appendix D**. The alignment or the installation of decorative hoarding at a number of locations could not be carried out because the alignment stated in the EP either interfered in the piling works or the portion of land has not been possessed yet. This has been discussed in details in a separate document – The Noise Management Plan. However, the hoardings are expected to be installed in stages tentatively from End April 2013. The Landscape Plan will be amended accordingly from time to time to reflect the graphical design of the decorating screed hoardings in the future.

#### 7.0 Maintenance and Management Schedule

7.1 Decorative Screen Hoarding:

Daily cleaning and weekly inspection will be carried out to prevent accumulation of debris and to maintain the apparent quality of the hoarding. Any damage found will be made good.

### 7.2 Night-time Lighting:

Floodlights will be checked every night to ensure that they are diverted away from sensitive receivers where practical.

Lighting installed for safety and security reasons will not cause disturbance to the public. Lighting, if needed, will be directed towards the work areas and away from the sensitive receivers where practical.

7.3 Tree Preservation, Protection and Transplanting:

The service of a specialist contractor "Pegasus Greenland Ltd." has been employed for tree transplanting to the designated nursery approved by the Engineer.

The specialist contractor employed will prepare and submit a Tree Survey Report for approval by the Engineer for subsequent submission to Planning Department which will include the survey schedules, location plans for the trees and their receptor sites, methodology of transplanting, photos showing trees to be transplanted and the like. Details shall be referred in separate submission.

The Landscape Plan will be amended in future according to the final master landscape design at least 1 month prior to the relevant work commencement.

Tree Transplant, compensatory tree planting for trees felled and to protect existing trees to be retained during construction.

#### 8.0 Control of Impact

The following measures will be implemented where practicable to minimise impact:

- (i) Control of night-time lighting Carefully planning of any night-time work will be adopted to minimize the use of unnatural lighting;
- (ii) The need of using equipment headlights / lightings will be assessed for optimum usage and to minimize the number of unnatural lighting;
- (iii) Where lightings are needed, these will be aimed away from the visual sensitive receivers where necessary;
- (iv) For floodlights mounted on the barges, the direction of light will be oriented to open sea where possible;
- (v) Signal sensor light would be attached on buoys for ensuring safe navigation;
- (vi) Solar powered lighting including other lighting at the site office will be oriented away from VSRs.
- (vii) Erection of decorative screen hoarding comparable with the surrounding setting.
- (viii) Tree Transplant, compensatory tree planting for trees felled and to protect existing trees to be retained during construction.

The construction phase mitigation measures are in compliance with relevant requirements in EIA Reports. The alignment or the installation of decorative hoarding at a number of locations could not be carried out because the alignment stated in the EP either interfered in the piling works or the portion of land has not been possessed yet. However, in general the hoardings are expected to be installed in stages after the area is occupied in April 2013 tentatively except for the area near the Electric Centre as the hoardings needed to erect is on the box culvert under construction and hoardings can be erected in Early 2014 (tentatively).

The Landscape Plan will be amended accordingly from time to time to reflect the graphical design of the decorating screed hoardings in the future.

Permanent landscape work is expected to commence tentatively on 31/07/2017. The landscape Plan will be amended within 1 month after the design of the permanent landscape features for construction become available.

However, the operation phase mitigation measures as mentioned in EIA reports will be carried out by other contractor(s) under separate contract(s).

#### 9.0 On Site Supervision

The lighting impact will be monitored and assessed by designated person during night-time construction work. Upon any public concerns or complaints, lights will be repositioned, redirected or shielded where necessary.

Please refer to the Implementation Schedule attached below.

Implementation Schedule for Landscape and Visual

EIA	Environmental						ages	Relevant	Implementation	Cross-	
Ref	Protection Measures / Mitigation Measures	Timing	Agent	Des	C	0	Dec	Legislation and Guidelines	status	Reference to Landscape Plan	
Constru	uction Phase										
For the	Whole Project										
Table 10.5	CM1 Topsoil, where identified, shall be stripped and stored for re-use in the construction of the soft landscape works, where practical.	Work site / During Construction Phase	Contractor	V	V			EIAO TM	Will be implemented if identified		
Table 10.5	CM2 Existing trees to be retained on site shall be carefully protected during construction.	Work site / During Construction Phase	Contractor	$\checkmark$	V			EIAO TM	Implemented	Section 2.0, 5.3, 7.3 &8.0(viii)	
Table 10.5	CM3 Trees unavoidably affected by the works shall be transplanted where practical.	Work site / During Construction Phase	Contractor	$\checkmark$	$\checkmark$			EIAO TM	In progress	Section 2.0, 5.3, 7.3 &8.0(viii)	
Table 10.5	CM4 Compensatory tree planting shall be provided to compensate for felled trees.	Work site / During Construction Phase	Contractor	V	V			EIAO TM	Will be implemented if tree felling is needed	Section 2.0, 5.3, 7.3 &8.0(viii)	
Table 10.5	CM5 Control of night- time lighting.	Work site / During Construction Phase	Contractor		V			EIAO TM	Implemented	Section 2.0, 5.2, 7.2 & 8.0(i)(ii)(iii)(iv)( v)( vi)	
Table 10.5	CM6 Erection of decorative screen hoarding compatible with the surrounding setting.	Work site / During Construction Phase	Contractor		V			EIAO TM	In progress	Section 2.0, 5.1, 7.1 &8.0(vii)	

For DP1	– CWB (Within the Project	t Boundary)						
Table 10.5	CM1 Topsoil, where identified, shall be stripped and stored for re-use in the construction of the soft landscape works, where practical.	Work site / During Construction Phase	Contractor		V	EIAO ГМ	Will be implemented if identified	
Table 10.5	CM2 Existing trees to be retained on site shall be carefully protected during construction.	Work site / During Construction Phase	Contractor	V	N	EIAO TM	Implemented	Section 2.0, 5.3, 7.3 &8.0(viii)
Table 10.5	CM3 Trees unavoidably affected by the works shall be transplanted where practical.	Work site / During Construction Phase	Contractor	$\checkmark$	$\checkmark$	EIAO TM	In progress	Section 2.0, 5.3, 7.3 &8.0(viii)
Table 10.5	CM4 Compensatory tree planting shall be provided to compensate for felled trees.	Work site / During Construction Phase	Contractor	V	$\checkmark$	EIAO TM	Will be implemented if tree felling is needed	Section 2.0, 5.3, 7.3 &8.0(viii)
Table 10.5	CM5 Control of night- time lighting	Work site / During Construction Phase	Contractor		$\checkmark$	EIAO TM	Implemented	Section 2.0, 5.2, 7.2 &8.0(i)(ii)(iii)(iv )(v)(vi)
Table 10.5	CM6 Erection of decorative screen hoarding compatible with the surrounding setting.	Work site / During Construction Phase	Contractor		V	EIAO TM	In progress	Section 2.0, 5.1, 7.1 &8.0(vii)



# LANDSCAPE PLAN

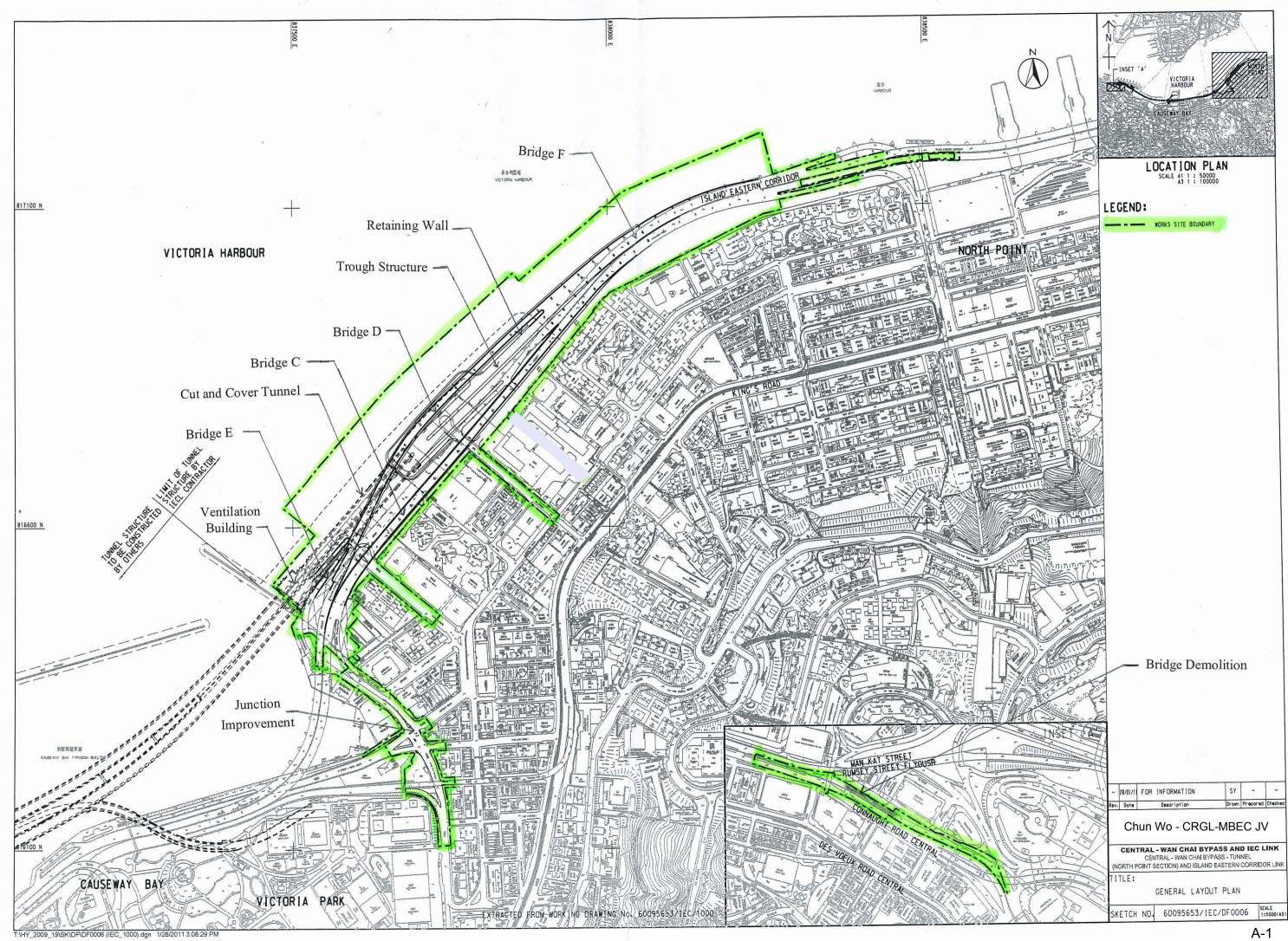
### For

Contract No.: HY/2009/19

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

### Appendix A

**Project Site Boundary** 



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# LANDSCAPE PLAN

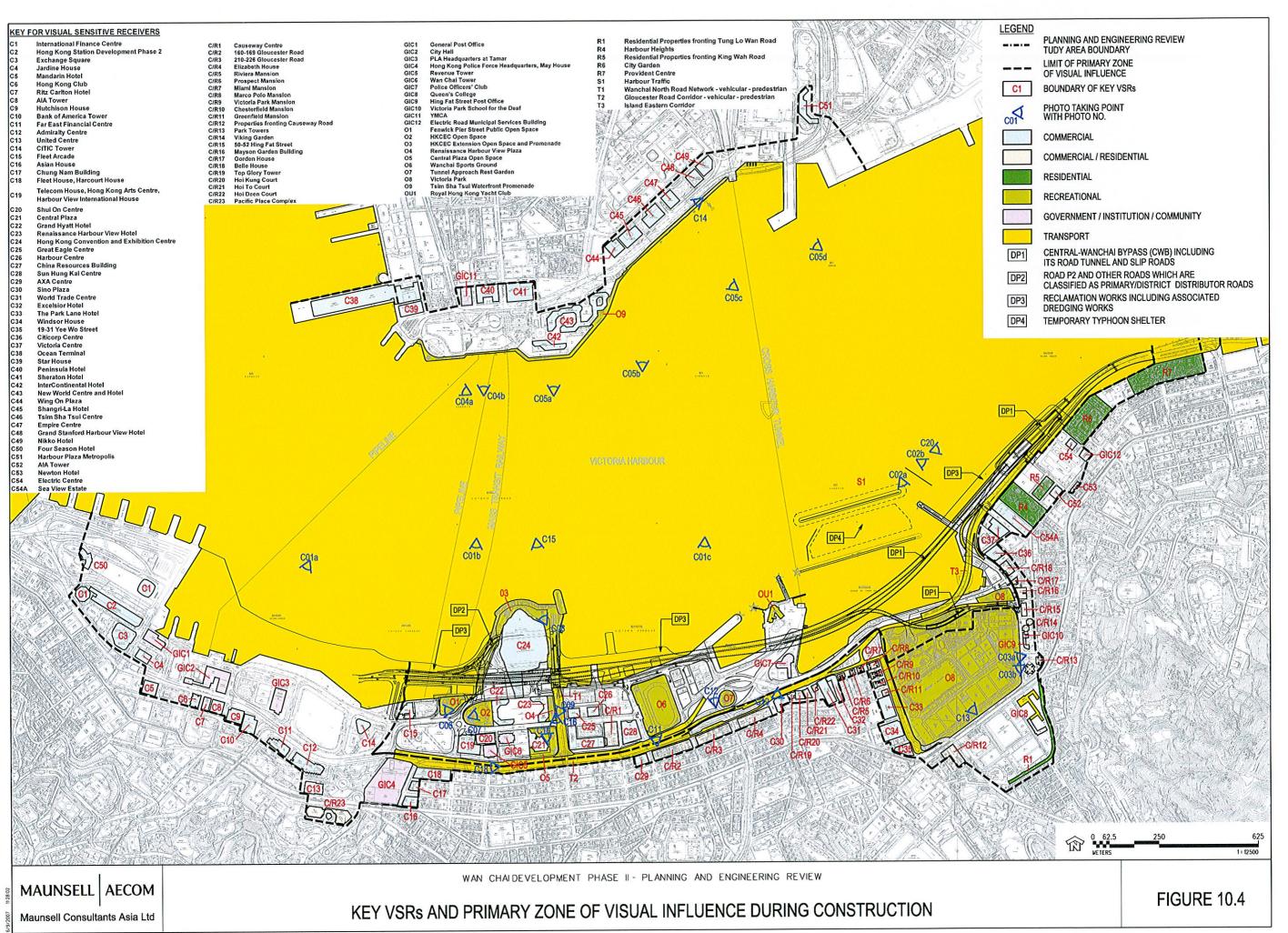
### For

Contract No.: HY/2009/19

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

### **Appendix B**

**Location Plan of Visual Sensitive Receivers** 



FLE : d:\wonchai\DGN\FIGURE 10-4.dgn



# LANDSCAPE PLAN

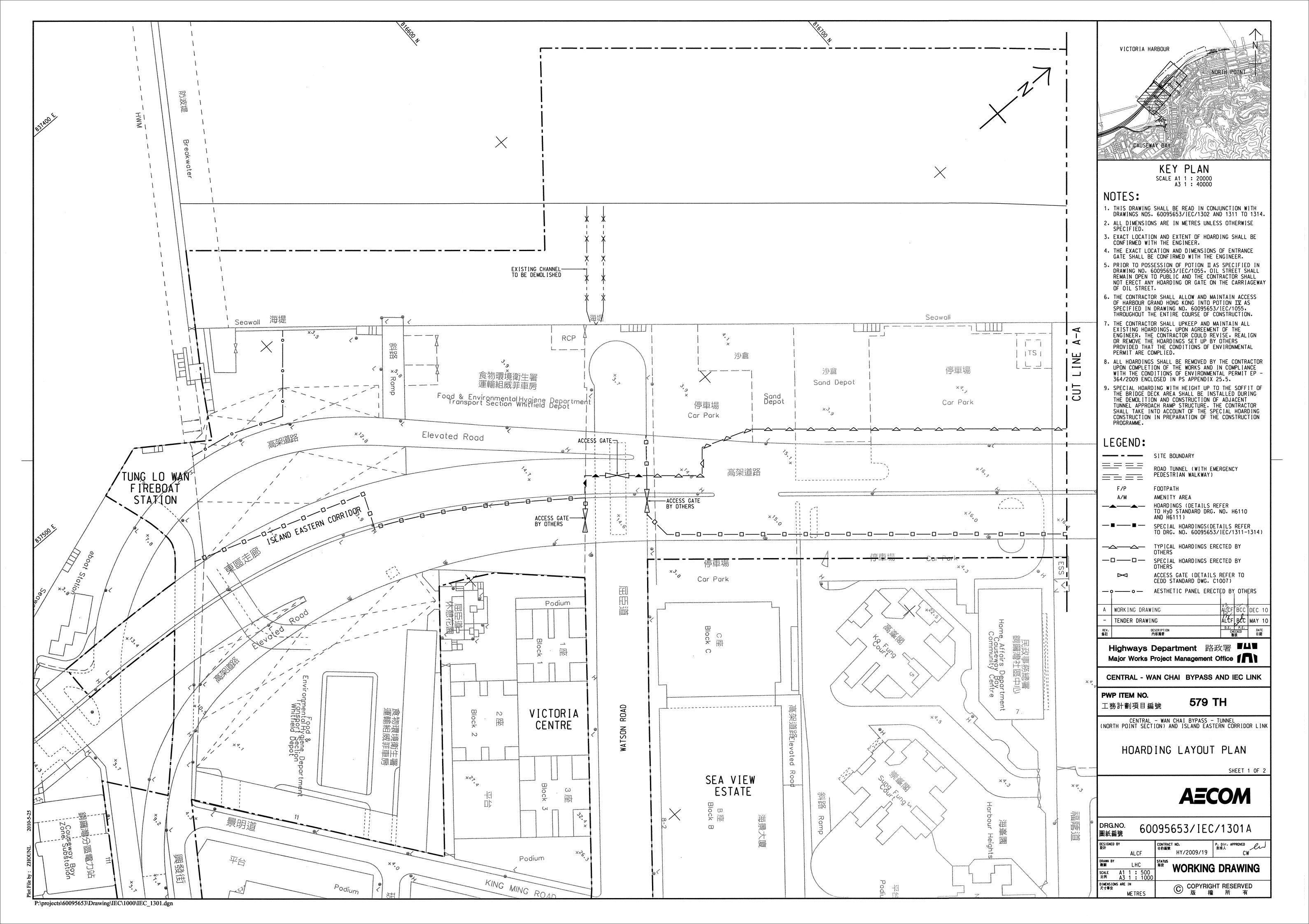
### For

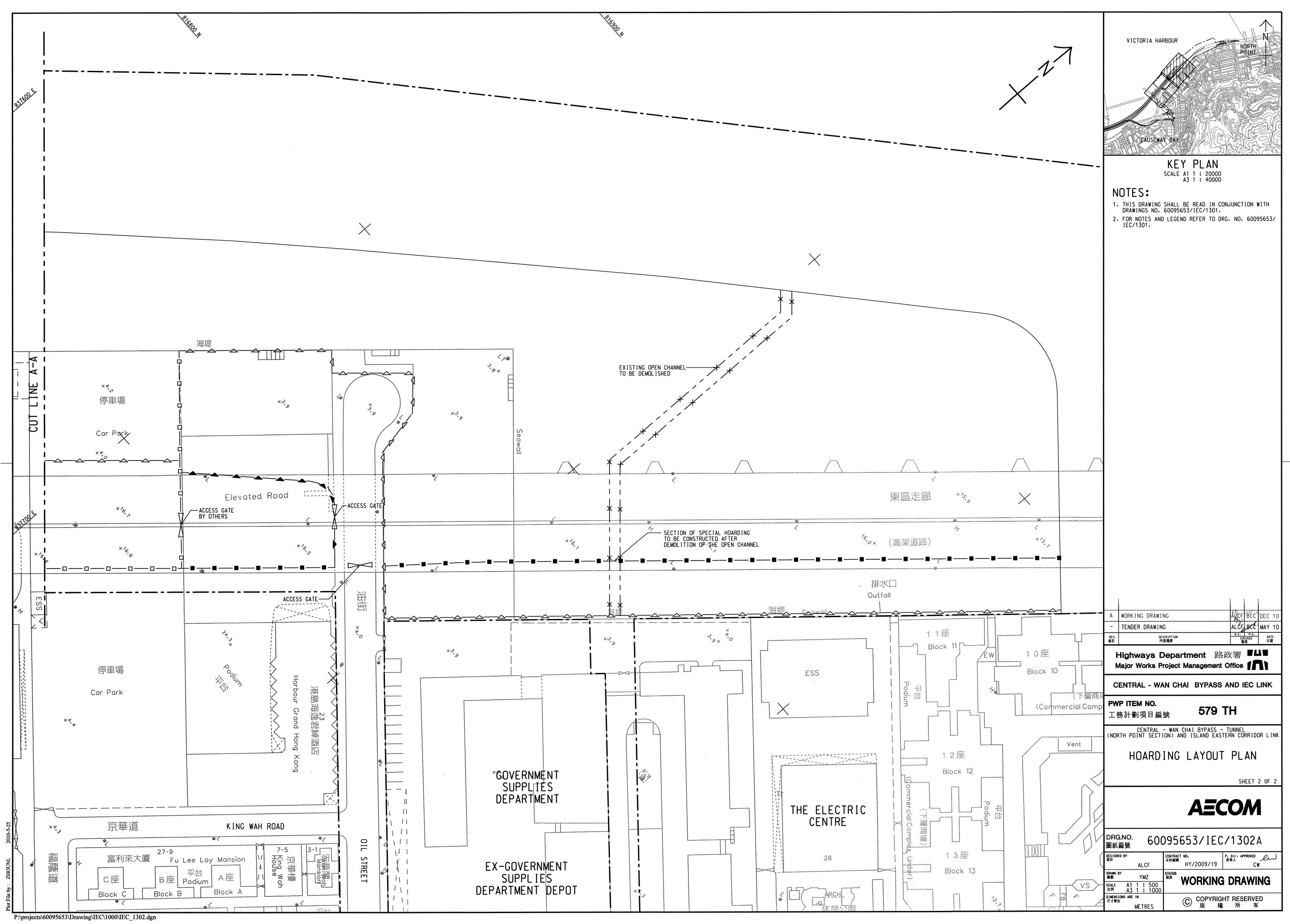
Contract No.: HY/2009/19

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

## Appendix C

Location Plan of Decorative Screen Hoarding







# LANDSCAPE PLAN

### For

Contract No.: HY/2009/19

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

### **Appendix D**

**Design Details of Decorative Screen Hoarding** 

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	4 DIMENSIONS ARE IN MILLIMETERS UNLESS OTHERWISE NOTED.													
	5 SETTING OUT DIMENSIONS, LEVELS, COORDINATES ARE TO BE CALCULATED BY THE CONTRACTOR. NO INFORMATION SHOULD BE SCALED PHYSICALLY OR ELECTRONICALLY FROM THE DRAWINGS OR FILES.													
	ONCRETE: 1 ALL REFERENCES OF STANDARD DRAWING SHALL BE REFERRED TO THE LATEST VERSION OF THAT STANDARD DRAWING.													
5.1	FOOTING GRADE 40/20, COVER 45MM													
	PRECAST CONCRETE BLOCKGRADE 30/20, COVER 35MMBLINDING LAYERGRADE 10/20													
3.2	BLINDING LAYER GRADE 10/20 CONCRETE GRADES SPECIFIED ARE THE REQUIRED MINIMUM 28 DAYS CHARACTERISTIC STRENGTHS IN MPA AND THE MAXIMUM SIZE OF AGGREGATE IN mm. THE REACTIVE ALKALI OF CONCRETE EXPRESSED AS THE EQUIVALENT SODIUM OXIDE PER CUBIC METRE OF CONCRETE SHALL NOT EXCEED 3KG.											5		
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	T B	TOP BOTTOM	~											5
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	16 20	560 700	45		660 825	53								
	25	875	70	5	1030	82	25							S 8
	32 40	1115 1395	90		1315 1645		055 115							8
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	16	560	470	785	660	1120	940	660	530	925	745	1320	1060	
	20 25	700 875	565 705	980 1225	795 990	1400 1750	1130 1410	825 1030	660 825	1155 1445	925 1155	1650 2060	1320 1650	
	32 40	1115 1395	900 1125	1565 1955	1260 1575	2230 2790	1800 2250	1315 1645	1055 1315	1845 2305	1480 1845	2630 3290	2110 2630	
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	ALL DIMEN	SIONS AND	LEVELS IN		AS CONSTRUC		ING DOWN BOLT E CONTRACTOR	POSITIO	NS					
5.2	INCORPORA	TED ONTO	WORKSHOP D	RAWINGS.			PULATED IN TH	F SPENIE						
J• C	SHOULD NO	T BE REPL	ACED WITH	OTHER SE	CTIONS COMP	LYING WI	TH OTHER STAN	DARDS UN	LESS					
5.3	SECTION SI	HALL COMP	PECIFIED. LY WITH BS	ALL STRUC EN 1002	CTURAL STEE 5:1993 AND	L MEMBER BS EN 10	S AND ALL STR 210 PART 1 AN	UCTURAL D PART 2	HOLLOW RESPECTIVELY	1.				
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- 5.3.1 HOLLOW SECTIONS :GRADE S355JOH OR EQUIVALENT 5.3.2 SECTIONS OTHER THAN :GRADE S355JO OR EQUIVALENT
- HOLLOW SECTIONS 5.3.3 PLATES FOR STRUCTURAL :GRADE S355JO OR EQUIVALENT
- ELEMENTS 5.3.4 PLATES FOR NONSTRU- :GRADE S355JO OR EQUIVALENT
- CTURAL ELEMENT 5.3.5 CONNECTION BOLTS
- :STAINLESS STEEL GRADE A4-80(BS EN ISO 3506-1 & 2)
- 5.4 IN ACCORDANCE WITH BS EN 10025:1993.THE CONTRACTOR IS RESPONSIBLE FOR DETEMINING THE NOTCH TOUCHNESS AND THE CHARPY IMPACT REOUIREMENTS OF THE STEEL. (i.e. SELECTION OF STEEL SUBGRADE). THE STEEL SHOULD SATISFY THE REOUIREMENTS OF CLAUSE 2.4.4 OF BS 5950 : PART 1 : 1990 BASED ON A MINMUN TEMPERATURE OF 10° C.
- THE CONTRACTOR IS RESPONSIBLE FOR ENSURING THAT THE STEEL HAS ADEQUATE THROUGH TNICKNESS PROPERTIES TO SATISFY THE THROUGH THICKNESS PROPERTIES AND WELDING SEQUENCE THAT THE MATERIAL, AT OR ADJACENT TO WELDED LOCATIONS, IS FREE OF LAMINATIONS CENTERLINE SEGEGATION OR OTHER CRACE LINE INDICATIONS ON COMPLETION OF WELDING. THE CONTRACTOR IS RESPONSIBLE FOR DETERMININING THE QUALITY CLASS OF STEEL WITH ENHANCED THROUGH THICKNESS PROPERTIES (EN 10164) WHICH MAY BE REQUIRED COMPATIBLE WITH HIS CHOSEN METHOD OF WORKING. NOT LESS THAN THREE WEEKS PRIOR TO ORDERING THE STEEL, THE CONTRACTOR SHOULD SUBMIT A REPORT FOR REVIEW. WHICH DOCUMENTS THE SUBGRADE SELECTION AND THE STRATEGY (MATERIAL SELECTION, WELDING PROCEDURE AND INSPETION) WHICH WOULD BE IMPLEMENTED FOR CONTROLLING THE THROUGH THICKNESS STRESS DURING WELDING AND ENSURING THAT THE ABOVE CRITERIA ARE SATISFIED.
- 5.5 STAINLESS STEEL SHALL COMPLY WITH THE STANDARDS AS STIPULATED IN THE SPECIFICATIONS 5.6 ALL STAINLESS STEEL BOLTS AND RETAINING SCREWS SHALL BE GRADE A4-80 STAINLESS STEEL TO BS EN ISO 3506-1 & 2 WITH COMPATIBLE STAINLESS STEEL WASHERS, A NYLON OR OTHER APPROVED PLASTICS WASHER IS TO BE PROVIDED BETWEEN THE SURFACES OF ANY
- DIFFERENT METAL SUCH AS ALUMINIUM ALLOY, STAINLESS STEEL AND GALVANIZED STEEL.
- 5.7 UNLESS OTHERWISE SPECIFIED IN THE DRAWINGS, ALL FASTENERS SHALL BE STAINLESS STEEL BOLTS OR HSFG BOLTS AS APPROVED BY THE ENGINEER, HSFG BOLTS SHALL BE PROTECTED WITH ELECTROPLATED ZINC PLATE FOR THE BOLTS AND CADMIUM PLATE FOR THE NUTS TO BS 3382.
- 5.8 THE DIAMETER OF A BOLT HOLE SHALL BE 2mm LARGER THAN THE NOMINAL DIAMETER OF THE BOLT, UNLESS SHOWN OTHERWISE.
- 5.9 THE THREAD OF ALL RETAINING (BOLTS WITHOUT NUTS) SHOULD BE COATED WITH AN EPOXY RESIN ADHESIVE IMMEDIATELY PRIOR TO TIGHTENING. MANUFACTURERS DETAILS OF THE ADHESIVE SHOULD BE AGREED WITH THE ENGINEER.
- 5.10 AT SLOTTED HOLE CONNECTIONS EITHER SELF LOCKING NUTS SHOULD BE USED OR THE BOLTS NUTS SHOULD BE COATED WITH EPOXY RESIN ADHESIVE IMMEDIATELY PRIOR TO TIGHTENING.
- 5.11 ALL WELDING SHALL BE CARRIED OUT BY CERTIFIED WELDERS AS DESCRIBED IN THE SPECIFICATION.
- 5.12 WELDING FOR CARBON MANGANESE STEEL SHALL COMPLY WITH BS EN 1011-1:1998 AND BS EN 1011-2:2001 CONTINUOUS FILLET WELD SHALL BE USED 6mm UNLESS OTHERWISE SPECIFIED. WELD SHALL BE GRADE E51 ELECTRODES WITH CAPACITY OF 255N/mm. 5.13 THE SYMBOLS FOR WELDING ARE IN ACCORDANCE WITH BS EN 13622.
- 5.14 BUTT WELDS ARE TO BE COMPLETED PENETRATION WELDS PRODUCED BY METHODS APPROVED BY THE ENGINEER AFTER DEMONSTRATION AT PROCEDURE TRIALS.
- 5.15 WELDING CONSUMABLES SHOULD PRODUCE DEPOSITED WELD METAL HAVING MECHANICAL PROPERTIES NOT INFERIOR THE MINIMA OF THE PARENT METAL.
- 5.16 TOLERANCES ARE IN ACCORDANCE WITH THE SPECIFICATION.
- 5.17 THE CONTRACTOR SHOULD BE RESPONSIBLE FOR THE PROVISION OF ALL PACKING TO ACHIEVE ADEQUATE TOLERANCE AT THE CONNECTIONS.
- 5.18 STEELWORK IS CORROSION PROPECTED AS DESCRIBED IN THE SPECIFICATION.
- 5.19 CORROSION PROTECTION IS APPLIED TO THE INSIDE SURFACES OF ALL HOLES.
- 5.20 DETAILS OF PAINT ARE USED SHOULD BE APPROVED BY THE ENGINEER PRIOR TO APPLICATION TO THE STEELWORK.
- 5.21 STEEL WHICH IS CAST-IN SHOULD REMAIN UNPAINTED. THE STEEL SHOULD BE BLAST CLEANED (EITHER PRIOR TO OR AFTER FABRICATION) TO THE STANDARDS AS STIPULATED IN THE SPECIFICATIONS. 5.22 IMMEDIATELY PRIOR TO ERECTION ALL STEELWORK SHOULD BE SPRAY WASHED WITH WATER AND DETERGENT, THEN SPRAY RINSED WITH CLEAN WATER.

# PRECAST CONCRETE BLOCK:

- 6.1 PRECAST CONCRETE BLOCKS SHALL BE REINFORCED WITH STEEL FABRIC TO B.S. 4483 TYPE A 393 ON ALL SIDES. 6.2 PRECAST CONCRETE BLOCKS SHALL BE SET ON GROUND WITH AN ALLOWABLE BEARING CAPACITY GREATER THAN 350 KPG UNLESS PERMITTED BY THE ENGINEER. PLATE LOAD TESTS SHALL BE CARRIED OUT TO VERIFY THE SOIL BEARING CAPACITY TO THE SATISFACTION OF THE ENGINEER.
- 6.3 THE CONTRACTOR SHALL DESIGN AND PROVIDE THE LIFTING EYES TO THE PRECAST CONCRETE BLOCK. THE DETAILS SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL PRIOR TO CONSTRUCTION.

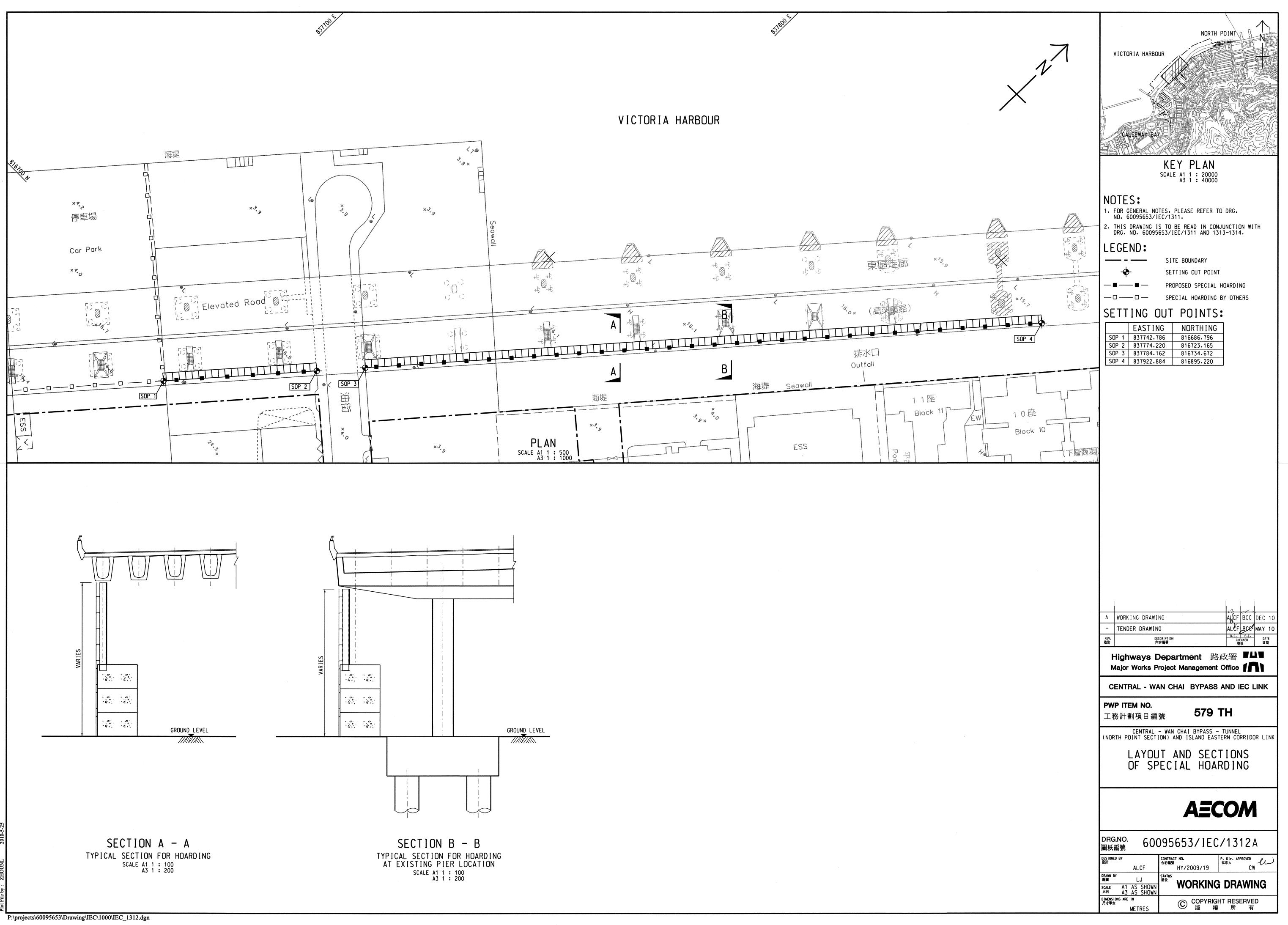
# EXTERIOR DESIGN OF HOARDING:

7.1 PURSUANT TO THE PARTICULAR SPECIFICATION, THE CONTRACTOR SHALL PROVIDE 3 ALTERNATIVE OPTIONS OF AESTHETIC PROFESSIONAL GRAPHIC DESIGNS FOR THE SPECIAL HOARDING.

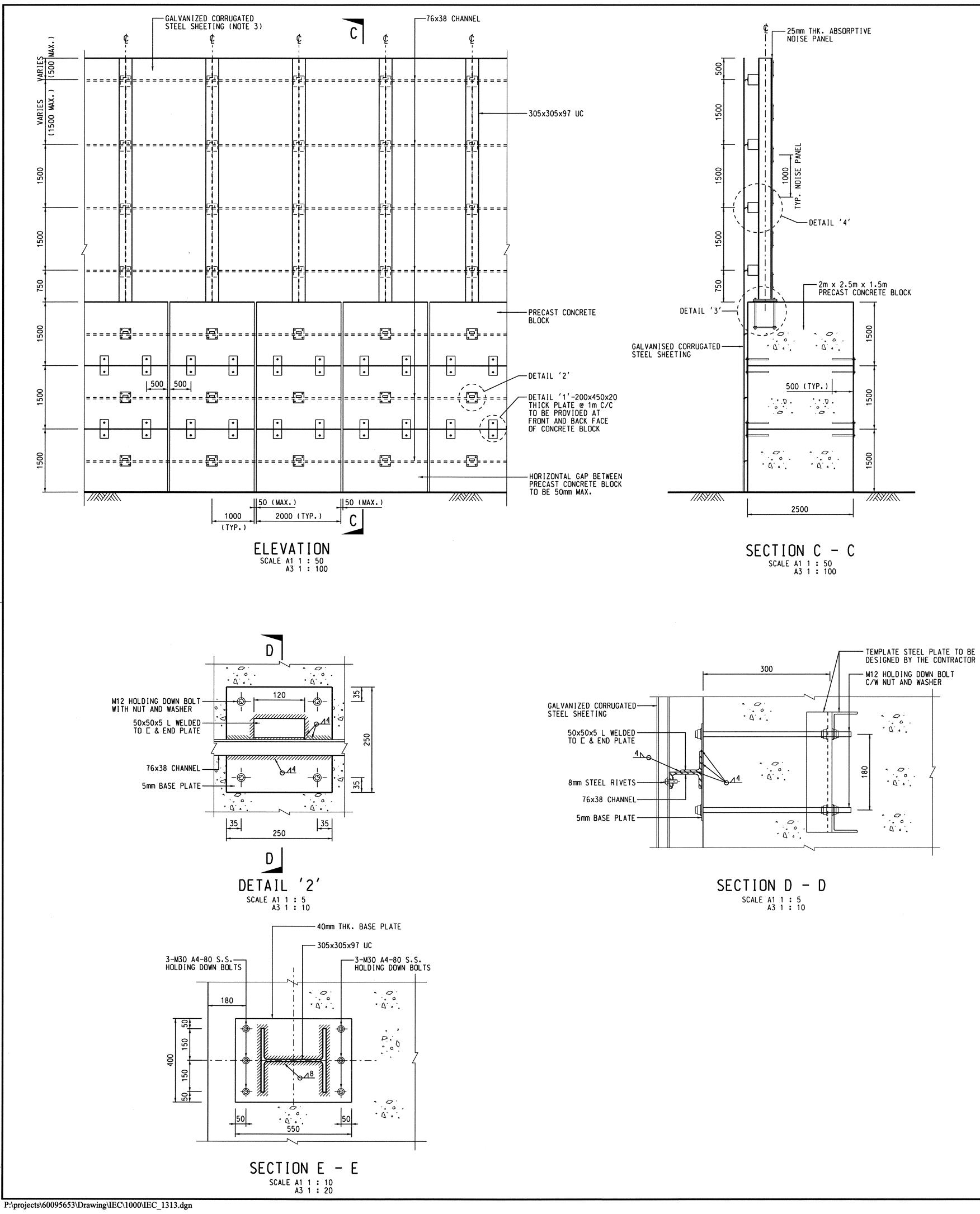
# SPECIAL HOARDINGS:

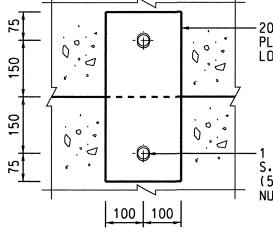
- 3.1. FOR STANDARD HOARDINGS, DETAILS SHALL BE REFERRED TO HyD STANDARD DRAWINGS H6110 AND H6111.
- 8.2. FOR SPECIAL HOARDING, REFER TO DRAWINGS 60095653/IEC/1312-1314. A. THE SPECIAL HOARDING, SHALL BE ERECTED UP TO THE BRIDGE DECK SOFFIT OF THE EXISTING ISLAND EASTERN CORRIDOR, LEAVING 300mm (MAX.) BETWEEN THE DECK SOFFIT AND THE TOP OF HOARDING.
- B. ALL FRAME WORKS OF THE SPECIAL HOARDINGS SHALL BE GRADE S355JO TO EN 10025 AND PAINTED WITH PAINT SYSTEM A STATED IN CLAUSE 18.63 OF G.S. 2006.

NOTE:
<ol> <li>THIS DRAWING IS TO BE READ IN CONJUNCTION WITH DNG. ND. 60095653/IEC/1301 &amp; 1302 AND 1312-1314.</li> </ol>
A WORKING DRAWING ALCF BCC DEC 10
TENDER DRAWING     TENDER DRAWING     AL 05 DEC MAY 10     DESCRIPTION     DESCRIPTION
Highways Department 路政署 ——— Major Works Project Management Office ( )
CENTRAL - WAN CHAI BYPASS AND IEC LINK
PWP ITEM NO. 工務計劃項目編號 579 TH
CENTRAL - WAN CHAI BYPASS - TUNNEL
(NORTH POINT SECTION) AND ISLAND EASTERN CORRIDOR LINK
GENERAL NOTES FOR
SPECIAL HOARDING
AECOM
DRG.NO. 60005653/150/1311/
圖紙編號 60095655/IEC/IJIIA
DESIGNED BY 設計         CONTRACT NO. 合約編號         P. Dir. APPROVED 批准人         LUL           ALCF         HY/2009/19         CW
CRAWN BY MM YMZ SCALE YMZ STATUS SCALE
Scale 比例 N.T.S.
DIMENSIONS ARE IN 尺寸單位

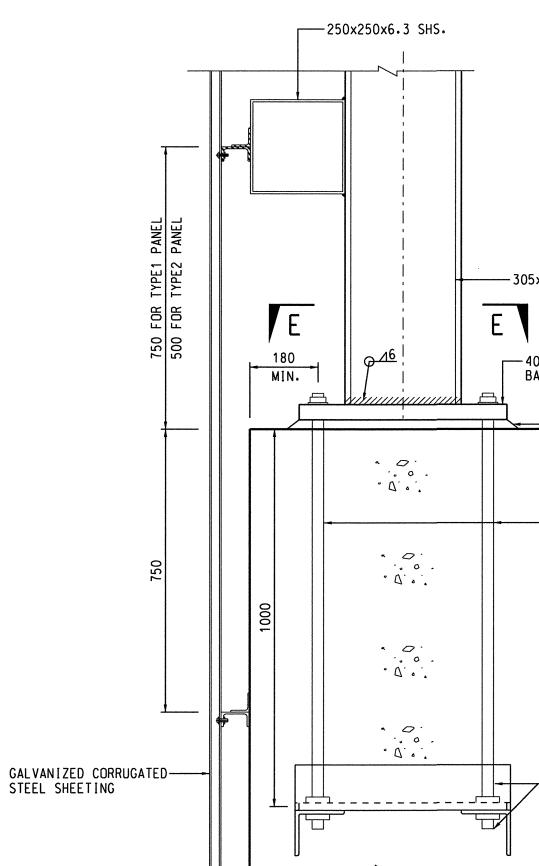






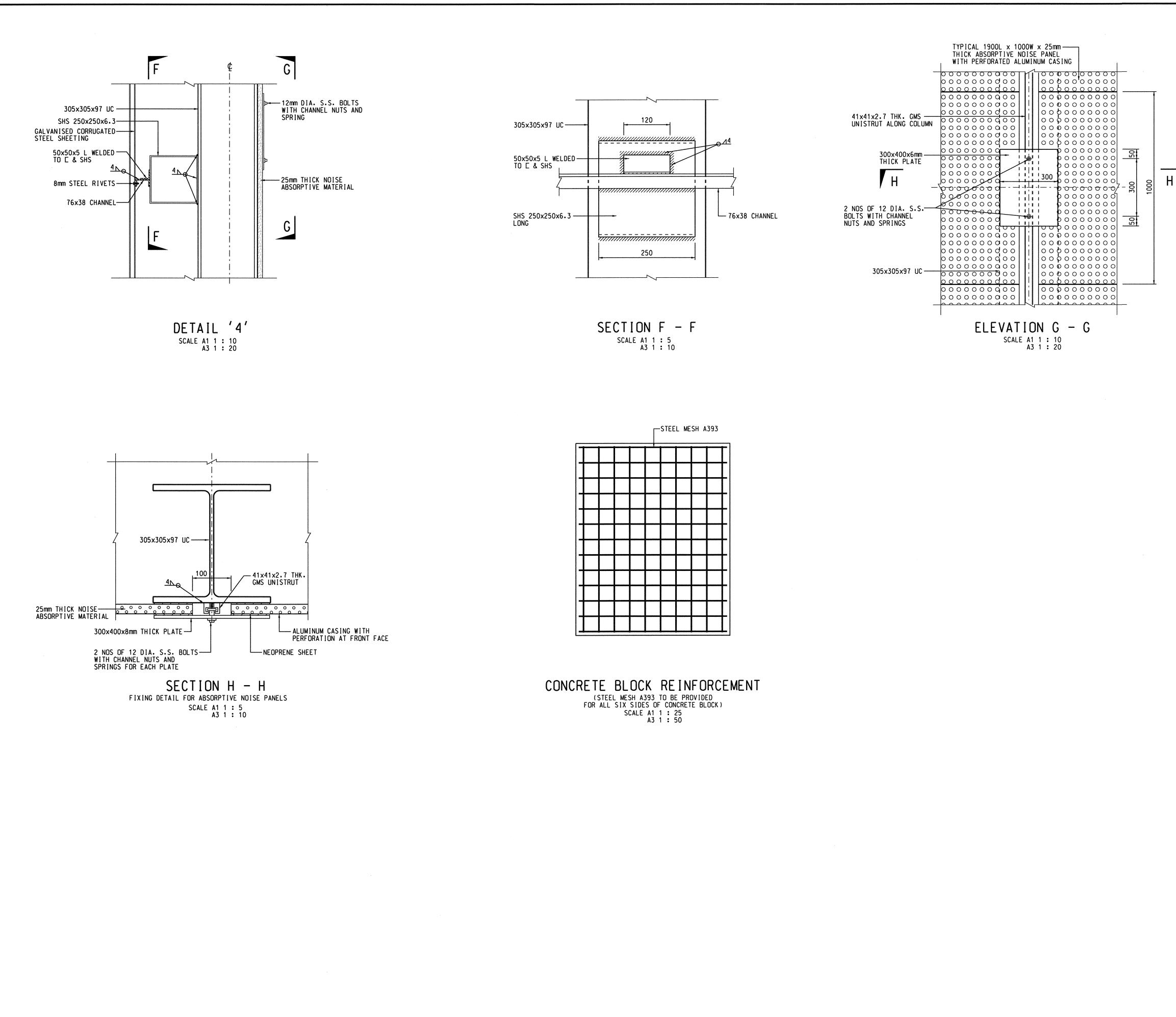


DETAIL '1' SCALE A1 1 : 10 A3 1 : 20



DETAIL '3' SCALE A1 1 : 10 A3 1 : 20

	NOTES: 1. REFER TO DRAWING 60095653/IEC/1311 FOR GEN	FRAI
	<ul> <li>NOTES.</li> <li>2. THIS DRAWING IS TO BE READ IN CONJUNCTION DRG. NO. 60095653/IEC/1311-1312 AND 1314.</li> <li>3. CORRUGATED STEEL SHEETING SHALL HAVE SECTION MODULUS NOT LESS THAN 4000mm<sup>3</sup>/m. THE SHEET</li> </ul>	WITH ON
	SHALL BE TO BS3083 8/3 G350.	INC
00x450x20 THICK LATE WITH 33x40 ONG SLOTTED HOLES		
ND DF M30 A4-80		
S.S. ANCHOR BOLT 500mm LONG)WITH IUT AND WASHER		
5x305x97 UC		
IOmm THK. BASE PLATE		
25mm THK. NON-SHRINK CEMENT GROUT		
		1
TEMPLATE STEEL PLATE TO BE DESIGNED BY THE CONTRACTOR	A WORKING DRAWING AUCF BCC - TENDER DRAWING ALOF BCC	
	REV.     DESCRIPTION 内容構要     D.E.     P.E.       Highways Department     路政署     ■▲	一 DATE 日期
	Major Works Project Management Office	
	PWP ITEM NO.         579 TH           工務計劃項目編號         579 TH	
	CENTRAL - WAN CHAI BYPASS - TUNNEL (NORTH POINT SECTION) AND ISLAND EASTERN CORRID	OR LINK
	DETAILS OF SPECIAL HOARDING	1 05 0
	AECON	1 OF 2
	DRG.NO. 60095653/IEC/1313 圖紙編號 60095653/IEC/1313	A
	DESIGNED BY 政計 ALCF DRAWN BY CONTRACT ND. 合約編號 HY/2009/19 P. Dir. APPROVED 批准人	CW CW
	SCALE A1 AS SHOWN 比例 A3 AS SHOWN DIMENSIONS ARE IN R寸単位 COPYRIGHT RESERVE	ED
	R H MILLIMETRES COPYRIGHT RESERVI	



NOTES: 1. REFER TO DRAWING 60095653/IEC/1311 FOR GENERAL NOTES. 2. THIS DRAWING IS TO BE READ IN CONJUNCTION WITH DRG. NO. 60095653/IEC/1311-1313. 3. THE NOISE ABSORPTIVE MATERIAL SHALL BE AN APPROVED TYPE OF ROCKWOOL HAVING A SUPERFICIAL DENSITY OF NO LESS THAN 14 KG/m2 AND A THICKNESS OF 25mm. 4. THE CONTRACTOR SHALL DESIGN THE ALUMINUM CASING THAT HOUSES THE NOISE ABSORPTIVE MATERIAL BASED ON THE USE OF 1mm THICK ALUMINUM SHEET WITH PERFORATION AT THE FRONT (FACING THE TEMPORARY CARPARK) AND 3mm THICK ALUMINUM BACKING PLATE. THE GRADE OF ALUMINUM SHALL BE GRADE 5083. 6082(T6) OR 3003H18. 5. THE PERFORATION OF THE ALUMINUM SHEET AT THE FRONT SHALL BE 36%. ALCF BCC DEC 1 A WORKING DRAWING ALCF BCC MAY 10 D.E. P.E. DATE CHECKED DATE 復核 日期 TENDER DRAWING DESCRIPTION 內容摘要 REV. 修訂 Highways Department 路政署 ■44■ Major Works Project Management Office CENTRAL - WAN CHAI BYPASS AND IEC LINK PWP ITEM NO. 579 TH 工務計劃項目編號 CENTRAL - WAN CHAI BYPASS - TUNNEL (NORTH POINT SECTION) AND ISLAND EASTERN CORRIDOR LINK DETAILS OF SPECIAL HOARDING SHEET 2 OF 2 AECOM DRG.NO. 60095653/IEC/1314A 圖紙編號 DESIGNED BY 影計 P. Dir. APPROVED 化 批准人 CONTRACT NO. 合約編號 HY/2009/19 CW ALCF DRAWN BY 輪面 STATUS 階段 YMZ WORKING DRAWING scale A1 AS SHOWN 比例 A3 AS SHOWN DIMENSIONS ARE IN 尺寸單位 C COPYRIGHT RESERVED 版 權 所 有 MILLIMETRES

	NERAL : THIS DRAWING					H THE CON	TRACT SPECIF	ICATION AN	D PARTICUL	AR				5
1.2	REQUIREMENTS					S ARE APP	LICABLE TO SP	PECIAL SIT	E HOARDING	ONLY.				5
	ALL REFERENC	_				FERRED TO	THE LATEST V	VERSION OF	THAT STAN	IDARD DRAWIN	G.			5
	MENSION ALL REFERENCE					ERRED TO	THE LATEST V	VERSION OF	THAT STAN	IDARD DRAWIN	G.			5
	2 LEVELS ARE IN METRES RELATIVE TO HONG KONG PRINCIPAL DATUM (mPD) UNLESS OTHERWISE NOTED.											5		
	3 CHAINAGES ARE IN METRES. 4 DIMENSIONS ARE IN MILLIMETERS UNLESS OTHERWISE NOTED.													
2.5	.5 SETTING OUT DIMENSIONS, LEVELS, COORDINATES ARE TO BE CALCULATED BY THE CONTRACTOR. NO INFORMATION SHOULD BE SCALED PHYSICALLY OR ELECTRONICALLY FROM THE DRAWINGS OR FILES.													
	CONCRETE:													
3.1	1 ALL REFERENCES OF STANDARD DRAWING SHALL BE REFERRED TO THE LATEST VERSION OF THAT STANDARD DRAWING. FOOTING GRADE 40/20, COVER 45MM													
	PRECAST CONCRETE BLOCKGRADE 30/20, COVER 35MMBLINDING LAYERGRADE 10/20													
3.2	CONCRETE GRADES SPECIFIED ARE THE REQUIRED MINIMUM 28 DAYS CHARACTERISTIC STRENGTHS IN MPA AND THE MAXIMUM SIZE OF AGGREGATE IN mm. THE REACTIVE ALKALI OF CONCRETE EXPRESSED AS THE EQUIVALENT SODIUM													5 5
3.3	MAXIMUM SIZE OF AGGREGATE IN MM. THE REACTIVE ALKALI OF CONCRETE EXPRESSED AS THE EQUIVALENT SUDIUM OXIDE PER CUBIC METRE OF CONCRETE SHALL NOT EXCEED 3KG. CONSTITUENT MATERIALS, MIX DESIGN AND TESTING REQUIREMENTS ARE DEFINED IN THE HONG KONG GOVERNMENT GENERAL SPECIFICATION FOR CIVIL ENGINEERING WORKS 2006 EDITION.													J
3.4	CONCRETE FIN	VISHES	FOR PRECAS	T CONCRE	TE BLOCK SI	HALL BE U	3 OR F3, AND				IN			5
3.5	BLINDING CON						ICATION FOR ( RWISE.	JIVIL ENGI	NEERING WU	IRN 3 2006.				5
• <b>RE</b>						TION STAN	DARD CS2 : 19	מה הב ווהא						5
7.1	<b></b>	TYPE O				TION STAN		555 U 10M						5
			TEEL BAR OF			50								5
	F	SPECIF	TO BS4483	TERISTIC		OF STRUCT	URAL							5
		SPECIF	ABRIC fy T IED CHARAC ABRIC fy T	TERISTIC	STRENGTH I	OF WRAPPI	NG							5
4.2	STEEL REINFO AND SHALL BE						OF CONSTRUCT	ION STANDA	RD CS2:199	5				5
4.3	REINFORCEMEN	NT NOTA		FOLLOWS										5
ту	NO. OF BARS PE OF BAR (SE				BAG	BAR SPACING	LOCATION (SE	E 4.6)						5
		BAR DI	AMETER		BAR MARK		AND DOES NOT	г						5
1.1		IOW THE	PRECISE LI	OCATION	OF BARS. I	JNLESS OT	HERWISE INDIC							5- 5-
4.5	TOP OR NEAR ALL OTHER BA			AS										5
4.6	ABBREVIATION T	NS: TOP												5
4.7	BARS SHALL E													P
4.8	THE CONTRACT TO BE LAPPED	) ELSEW	HERE.											6
4.0			GRADE: fcu											0
	BAR DIAMETER TE	AN INSION	CHORAGE LEN		ANCHO TENSION	DRAGE LEN COMPRE								6
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	16	560 700	450	-	660 825	53	60							7.
	25	875	705	5	1030	82	25							S 8.
		1115 1395	900		1315 1645		15							8.
4.9	MINIMUM LAP OTHERWISE ON			US BAR S	IZES ARE AS	S FOLLOWS	UNLESS SHOWN	<b>i</b>						
	BAR		1	T	ADE: fcu>=		0 <b>*</b> A	E		CONCRETE GR		- <u></u>	0 * D	
			P LENGTH OMPRESSION				COMPRESSION		<u>LENGTH</u> COMPRESSION		* D OMPRESSION		0 * B COMPRESSION	
		400 450	350 390	560 630	490 550	800 900	750 780	415 495	350 395	585 700	490 555	830 990	700 790	
		560 700	470 565	785 980	660 795	1120 1400	940 1130	660 825	530 660	925 1155	745 925	1320 1650	1060 1320	
	25	875	705	1225 1565	990 1260	1750	1410 1800	1030	825	1445	1155	2060	1650	
		1115 1395	1125	1955	1575	2790	2250	1315 1645	1315	2305	1845	2630 3290	2110 2630	
	THE LAP LENG			A OR 1.4	B IF ANY OF	THE FOL	LOWING							
		AS INT	ENDED TO BI	E CAST I	S LESS THAN	N TWICE T	HE BAR SIZE.							
		BARS IS	LESS THEN	150mm.								_		
		LESS T	HAN TWICE	THE BAR	SIZE.			<b>,</b>					中環灣仔縛 Central-Wan Chai B	
4.10	LENGTH OF 2.	OA OR	2.0B SHOUL	D BE USE	D.		APPLY THE LAF	, ,						
	THE ENGINEER	<b>}.</b>		ייטו ש	_ , _,,W111EL	/ ₩IIΠUU	ALL NUVAL UP			-1	1	<b>inh</b>		
	ALL DIMENSIC	_	LEVELS IN	CLUDING	AS CONSTRUC	TFD אחוים.	י חסק או או א	ΓΡΩΟΙΤΙΟΝ	ς					
	AFFECTING NE	W STEE ) onto	LWORK SHOUL WORKSHOP DF	LD BE CH RAWINGS.	ECKED ON SI	TE BY TH	E CONTRACTOR				E			
5.2	HOT ROLLED S SHOULD NOT E APPROVED BY	BE REPL	ACED WITH (				PULATED IN TH TH OTHER STAN					A CONTRACTOR		
5.3	UNLESS OTHER	RWISE S	PECIFIED. /	ALL STRU EN 1002	CTURAL STEE 5:1993 AND	EL MEMBER BS EN 10	S AND ALL STR 210 PART 1 AN	RUCTURAL H	DLLOW RESPECTIVE	LY.	-	6 1 5		-
	MEMBI			GRAD	E									

- :GRADE S355JOH OR EQUIVALENT 5.3.1 HOLLOW SECTIONS .3.2 SECTIONS OTHER THAN :GRADE S355JO OR EQUIVALENT HOLLOW SECTIONS 5.3.3 PLATES FOR STRUCTURAL :GRADE S355JO OR EQUIVALENT ELEMENTS
- .3.4 PLATES FOR NONSTRU- :GRADE S355JD OR EQUIVALENT CTURAL ELEMENT
- 5.3.5 CONNECTION BOLTS
- :STAINLESS STEEL GRADE A4-80(BS EN ISO 3506-1 & 2)
- 5.4 IN ACCORDANCE WITH BS EN 10025:1993.THE CONTRACTOR IS RESPONSIBLE FOR DETEMINING THE NOTCH TOUCHNESS AND THE CHARPY IMPACT REOUIREMENTS OF THE STEEL. (i.e. SELECTION OF STEEL SUBGRADE). THE STEEL SHOULD SATISFY THE REOUIREMENTS OF CLAUSE 2.4.4 OF BS 5950 : PART 1 : 1990 BASED ON A MINMUN TEMPERATURE OF 10° C.
- THE CONTRACTOR IS RESPONSIBLE FOR ENSURING THAT THE STEEL HAS ADEQUATE THROUGH TNICKNESS PROPERTIES TO SATISFY THE THROUGH THICKNESS PROPERTIES AND WELDING SEQUENCE THAT THE MATERIAL, AT OR ADJACENT TO WELDED LOCATIONS, IS FREE OF LAMINATIONS CENTERLINE SEGEGATION OR OTHER CRACE LINE INDICATIONS ON COMPLETION OF WELDING. THE CONTRACTOR IS RESPONSIBLE FOR DETERMININING THE QUALITY CLASS OF STEEL WITH ENHANCED THROUGH THICKNESS PROPERTIES (EN 10164) WHICH MAY BE REQUIRED COMPATIBLE WITH HIS CHOSEN METHOD OF WORKING. NOT LESS THAN THREE WEEKS PRIOR TO ORDERING THE STEEL, THE CONTRACTOR SHOULD SUBMIT A REPORT FOR REVIEW, WHICH DOCUMENTS THE SUBGRADE SELECTION AND THE STRATEGY (MATERIAL SELECTION, WELDING PROCEDURE AND INSPETION) WHICH WOULD BE IMPLEMENTED FOR CONTROLLING THE THROUGH THICKNESS STRESS DURING WELDING AND ENSURING THAT THE ABOVE CRITERIA ARE SATISFIED.
- 5.5 STAINLESS STEEL SHALL COMPLY WITH THE STANDARDS AS STIPULATED IN THE SPECIFICATIONS 5.6 ALL STAINLESS STEEL BOLTS AND RETAINING SCREWS SHALL BE GRADE A4-80 STAINLESS STEEL TO BS EN ISO 3506-1 & 2 WITH COMPATIBLE STAINLESS STEEL WASHERS, A NYLON OR OTHER APPROVED PLASTICS WASHER IS TO BE PROVIDED BETWEEN THE SURFACES OF ANY
- DIFFERENT METAL SUCH AS ALUMINIUM ALLOY, STAINLESS STEEL AND GALVANIZED STEEL.
- 5.7 UNLESS OTHERWISE SPECIFIED IN THE DRAWINGS, ALL FASTENERS SHALL BE STAINLESS STEEL BOLTS OR HSFG BOLTS AS APPROVED BY THE ENGINEER, HSFG BOLTS SHALL BE PROTECTED WITH ELECTROPLATED ZINC PLATE FOR THE BOLTS AND CADMIUM PLATE FOR THE NUTS TO BS 3382.
- 5.8 THE DIAMETER OF A BOLT HOLE SHALL BE 2mm LARGER THAN THE NOMINAL DIAMETER OF THE BOLT, UNLESS SHOWN OTHERWISE.
- 5.9 THE THREAD OF ALL RETAINING (BOLTS WITHOUT NUTS) SHOULD BE COATED WITH AN EPOXY RESIN ADHESIVE IMMEDIATELY PRIOR TO TIGHTENING. MANUFACTURERS DETAILS OF THE ADHESIVE SHOULD BE AGREED WITH THE ENGINEER.
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# EXTERIOR DESIGN OF HOARDING:

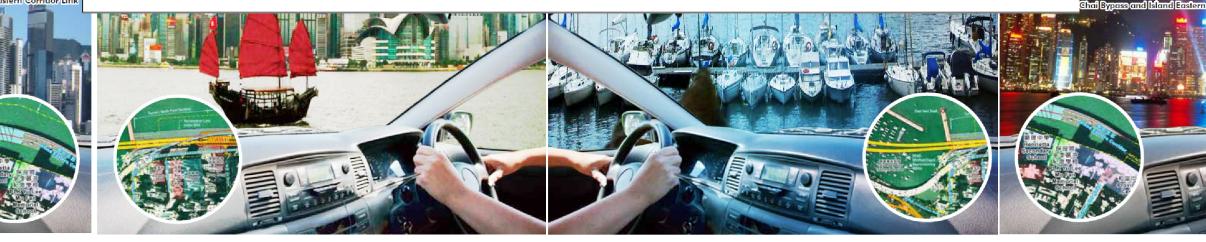
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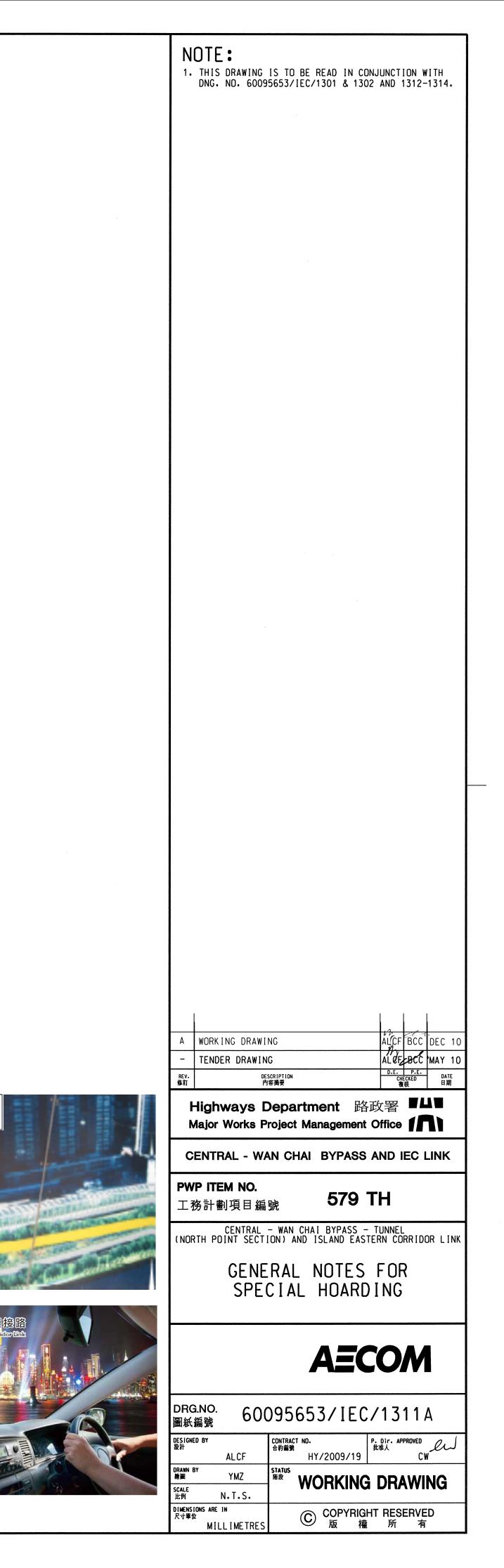
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Proposed Graphical Design of Decorative Screen Hoardings & Future Tree Transplanting (By HY/2009/19) き 廊 連 接 路 **P總道及東區走廊連接**|







俊和-中國中鐵-中鐵大橋局聯營 CHUN WO - CRGL - MBEC JOINT VENTURE

### LANDSCAPE PLAN

### For

Contract No.: HY/2009/19

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

### Appendix E

Location Plan of Trees to Retain / Transplant

