Contract No.: HY/2009/11
Central – Wanchai Bypass, North Point Reclamation

LANDSCAPE PLAN

	Name	Signature
Prepared by:	China Harbour Engineering Co., Ltd. – China Road and Bridge Corporation Joint Venture	

Table of Content

1.0 Introduction

Under the Condition 2.24 of Environmental Permit No. EP-356/2009 and under the Condition 2.17 of Further Environmental Permit No. FEP-01/356/2009, a landscape plan should be submitted one month before the commencement of the corresponding parts of landscape works of the Project. In accordance to the Environmental Impact Assessment (EIA) Report and Section 8.5 of the (EM&A) Environmental Monitoring and Auditing Manual, the landscape mitigation measures is proposed to mitigate the visual impacts of construction site / structure and construction activities for the North Point Reclamation.

2.0 Proposed Mitigation Measures

Erection of special site hoardings

A. Scope

There are approximately 260m long special site hoarding to be constructed under the existing Island Eastern Corridor between Watson Road and Harbour Grand Hong Kong. The layout plan refers to the Appendix A (scale 1:1000).

B. Details of Mitigation Measure

The special site hoarding consists of 3 layers of concrete blocks with total height 4.5m and 5.75 approximate high absorptive noise barriers on top of the concrete blocks and to be covered aesthetic professional graphic designed decorative panel. Detail for the special site hoarding refers to the Appendix B (as shown in the working drawing).

C. Sequence of Work

The installation of concrete blocks will start from the east side (SOP1) to west side (SOP5). When a section of three-layer concrete blocks is completed, the erection of steelworks on its top and the construction of planter are started afterwards. The placing of concrete block and erection of steelworks are carried out at the same time in different place to facilitate the progress of works. The programme of the construction of special site hoarding refers to Appendix C.

	EASTING	NORTHING
SOP1	837694.369	816727.501
SOP2	837742.786	816686.796
SOP3	837630.284	816557.357
SOP4	837622.817	816556.834

SOP5	837598.510	816577.961

The special site hoarding will interface with the Island East Corridor and are erected with proper graphic design in which match with the surrounding environment.

Design of the graphic banners refer to the Appendix D and location of design of graphic banner refers to Appendix E (scale 1:1000).

D. The Construction of Special Site Hoarding

i. We will submit the exact arrangements of the precast concrete block locations based on the actual site conditions for confirmation prior to construction.

ii. The final confirmed arrangement will be set out on site for construction accordingly.

iii. There is level difference in existing ground level along the proposed alignment of the hoarding. A concrete blinding layer is constructed on the existing surface for levelling the foundation of the concrete blocks. In case there is step change in the existing ground level, the proposed top level of blinding layer may also have a step change. The details of the foundation level will be submitted in separated letter for the Engineer's comments.

iv. Precast concrete block is fabricated in the approved casting yard in China and delivered to the Site by barge.

v. The concrete block is unloaded from the barge by crane lorry and temporary stocked in the site area.

vi. Another crane lorry then transports the precast concrete blocks to their designated positions, lifts and places them one by one.

vii. After a set of the three- layer blocks are placed at the final location, the blocks will be connected by M30 bolts with 200x450x20mm thk steel plates according to the Contract Drawing. For the bolts location higher than 2m, a self propelled scissor lift will be deployed to enable the worker reach the level and screw the nuts.

viii. Pre-fabricated 305x305x97UC steel posts is lifted by crane lorry with the nylon sling passing through the second 200x200 SHS from the top of the post. The post will be slowly lifted to top of the concrete blocks. Meanwhile, a singler standing on the scissor lift and looking the moving post guides the crane operator carefully to ensure the soffit of the viaduct will not be damaged.

ix. After completion of inserting the steel posts to the bolts, worker standing on the scissor lift then adjust the level and verticality of the post by using the leveling nuts under the base plate of the post. All nuts for holding down bolts will be securely tightened.

x. Grouting the 25mm gap between post base plate and concrete block by non-shrink cement grout. The area below the steel base plates shall be dry, clean and dry from rust immediately before grouting.

xi. Fix the 250x250x5m thick plate at the vertical face of the precast concrete block by 4 nos. of M12 bolts.

xii. Welding the 76x38 channel to the pre-fixed 50x50x5mm angle at both the precast concrete blocks and the 305x305x97UC steel posts.

xiii. Assembly the noise panel with 3mm thick aluminum backing plate.

xiv. Installing the assembled 1960Lx500Wx45mm thick (typical) absorptive noise panels on the steel posts.

xv. Installing galvanized corrugated steel sheeting at the external faces to cover up the absorptive noise panels and concrete blocks.

Finally, installing the approved exterior aesthetic professional graphic designed decorative panel on top of the corrugated steel sheeting with the aid of movable scaffoldings/scissor platforms to complete the construction of special site hoarding

3.0 Introduction

Under the Condition 2.24 of Environmental Permit No. EP-356/2009 and under the Condition 2.17 of Further Environmental Permit No. FEP-01/356/2009, a landscape plan should be submitted one month before the commencement of the corresponding parts of landscape works of the Project. In accordance to the Environmental Impact Assessment (EIA) Report and Section 8.5 of the (EM&A) Environmental Monitoring and Auditing Manual, the landscape mitigation measures is proposed to mitigate the visual impacts of construction site / structure and construction activities for the North Point Reclamation.

4.0 Proposed Mitigation Measures

Construction Lights (used at night times) includes

A. All outdoor floodlights for the construction site (include dredging works) shall be equipped with adjustable shield and shall be carefully controlled to minimize unnecessary glare to the surrounding at night, especially to the residents of the adjacent hotels and residential areas.

Marine base

A.1) The floodlight of the dredger (grab) were mounted on the vessel and in accordance to the letter with ref. no. (13) L/M 9/2010 in PA/S 909/2/10/13, entitled Site Investigation, Dredging and Reclamation Works of North Point. The detailed of the letter were listed in 2.0F.

A.2) All of the floodlights which mounted on the dredger (grab) were illuminated during operation of dredger at night and the direction of light scattered to the open sea (The photographic record of floodlights mounted on the dredger and please refers to Appendix K). Because of the location of dredging and / or reclamation works change time by time (The programme of dredging works and / reclamation works, please refer to the Appendix J).

Land base

A.3) Actually, all of the construction activities would cease after the hours 1900 and floodlight that can be found is the access to the Harbour Height only. Water filled type temporary barrier with warning lantern and the solar powered pole lighting would be used to show the access road to the Harbour Height and such of illuminations alert the drivers not to collide to the special site hoarding. This is the safety reason to protect the drivers and pedestrians on site rather than night-time lighting impact.

A.4) The water filled type temporary barrier with warning lantern showed the construction site areas of special site hoarding (Location Plan of water filled type

temporary barrier with warning lantern and solar powered pole lighting refers to Appendix H).

A.5) Except the mentioned water filled type temporary barrier, there won't be any other glare / light would illuminate at night.

A.6) Special site hoarding is construction by CHEC-CRBC JV and it last for the end of the Contract (i.e. the permanent works). One more graphic banner with dimension 8m (W) x 130m (L) will attach to the special site hoarding, there will be no any glare / lighting will be installed on the banner (The graphic banner refers to Appendix D).

B. The colour temperature of outdoor floodlight shall be uniform to minimize the visual impact to the surrounding at night.

C. The operation time for the floodlights shall be minimized to reduce the nuisance or glare to the surrounding at night.

D. The orientation and position of floodlights shall not be directly faced to the existing resident areas / premises and adjacent hotels. The location of Tung Lo Wan Fireboat Station will closed after 7 o' clock and the Community Lairison Center will close after 6 o' clock. That means most of the floodlight generated from site were come from the access to Harbour Height. The location plan of water filled type temporary barrier with warning lantern were set along the access to Harbour Height (Please refers to Appendix H). Location of the solar powered pole lighting refers to the Appendix F and the specification of the solar powered pole lighting refers to the Appendix G.

E. All of the floodlights used in the dredger because of safety reasons in order to provide a sufficient signal for the marine vessels / boats and yacht not to close to the dredger and the associated anchorage wire.

F. According to Marine Department, the letter with ref. no. (13) L/M 9/2010 in PA/S 909/2/10/13, entitled Site Investigation, Dredging and Reclamation Works of North Point,

F.1) anchors of the barges shall not be extended outside the confined works area, and yellow marker buoys fitted with yellow flashing lights shall be laid to the mark the positions of the anchors;

F.2) it stated that yellow flashing lights one at each corner of the derrick barges and jack-up platforms shall be established to indicate the positions of barges or the platform and

F.3) small floating markers, yellow in colour and fitted with yellow flashing lights shall be laid to mark the extent of the silt curtains.

G. According to the Code of Practice for the "Lighting, Signing and Guarding of Road Works", fourth issue 2006 in which issued by Highways Department, Hong Kong Special Administrative Region, it stated that:

G.1) During the hours of darkness or at night times of poor visibility, all obstruction or road works must be properly delineated with prescribed road hazard warning lanterns to indicate to road users the limits of the works.

G.2) The colour of the light shown by a lantern shall be amber and the external surfaces of the body of the lantern shall be coloured yellow. Each lantern shall be fitted with a supplementary reflector of at least $50cm^2$ in area which must appear under headlamp illumination to be of a similar colour to the light emitted by the lantern.

G.3) Lanterns may show an intermittent or revolving light. Flashing lanterns should have a flashing rate of 90 -150 times per minute.

G.4) Lanterns should be placed at regular intervals along the line of obstructions or road works. Individual lanterns should normally be placed midways between successive traffic cones (and therefore follow the same 3m, 9m and 18m spacing) when placed approximately parallel to the line of traffic.

G.5) Lanterns should face oncoming vehicles and should be mounted on stands or cones, with the centre of lens not exceeding 1.2m above the road surface, except that on roads with approach speed over 70km/h, mounting in cones is the only accepted method. When placed in front sign, lanterns should not obscure the face of the sign.

G.6) Kerosene burning lanterns are not permitted for the lighting of road works.

G.7) Low intensity battery operated lamps are used in combination with traffic cones or cylinders to delineate the temporary edge of the carriageway. On temporary edges of footway delineated by pedestrian barriers, a lantern should be placed near each corner of the delineated area, and additional lanterns should be placed along the edges exceeding 4m in length so that the spacing between lanterns is not more than 4m.

G.8) High intensity battery operated beacons are used to draw attention to the hazard existing at a particular site and to warn drivers to take special care. They should not be used as means of delineating works.

G.9) High intensity battery operated beacons of the unidirectional type should be used to supplement signs indicating the beginning of a temporary diversion on expressways or roads other than expressways with approach speed over 85km/h. On roads with approach speed over 85km/h, two such beacons should be mounted on top of each barricade sign with the light source facing oncoming traffic. The beacons should be kept operating at all time when the temporary diversion is in place. On expressway, a flashing arrow sigh should be used, instead of a pair of beacons, and placed on top of the barricade sign.

H. Temporary lighting at access to Harbour Heights

All of the water filled type temporary barrier with warning lantern were checked on a daily basis regularly before the site closed and such lantern will illuminate at night only. In addition, the solar powered pole lighting, the life span of the LED last for 50,000 hours and the lighting angle is 150° on the ground floor. The provision of the water filled type temporary barrier with warning lantern in order to provide a sufficient signal for the vehicle drivers not to close to the concrete block and the plastic fencing of the special site hoarding as a safety reason.

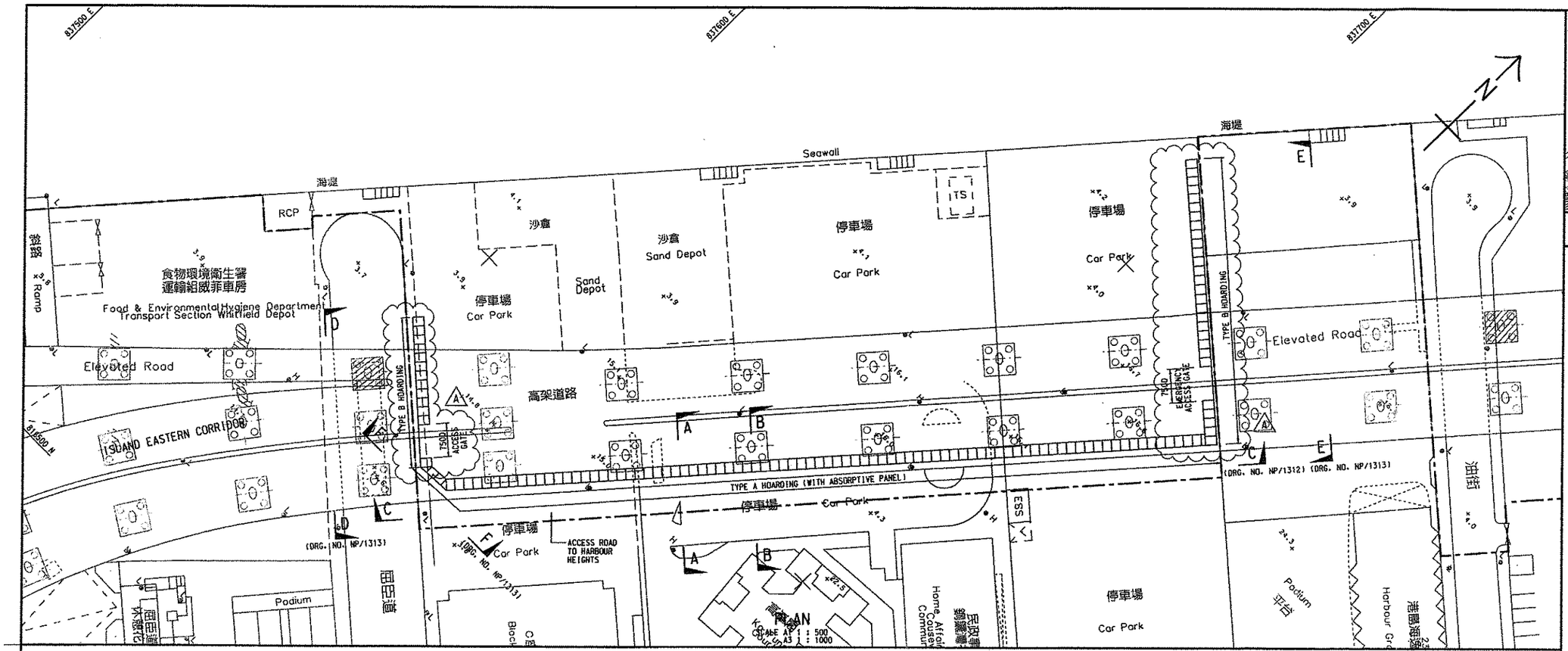
H.1) The locations of the light pole are changed to close to the site boundary in order to maintain the maximum expose to the sunlight for storing more electricity. The light pole model no. YZY-TY-028 equipped with battery 33-12 (12V33AR). Location of the solar powered pole lighting refers to the Appendix F and the specification of the solar powered pole lighting refers to the Appendix G.

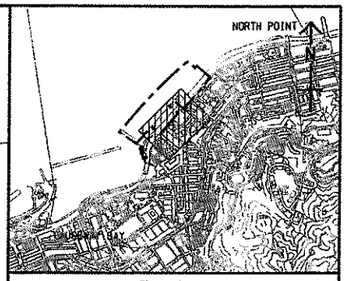
~ END ~

APPENDIX A

SPECIAL SITE HOARDING

LAYOUT PLAN





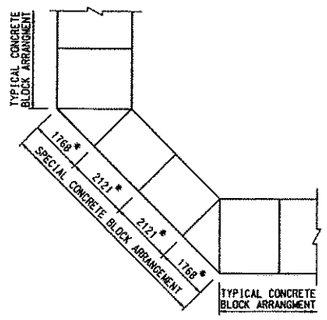
KEY PLAN
SCALE 1 : 20000

NOTES:

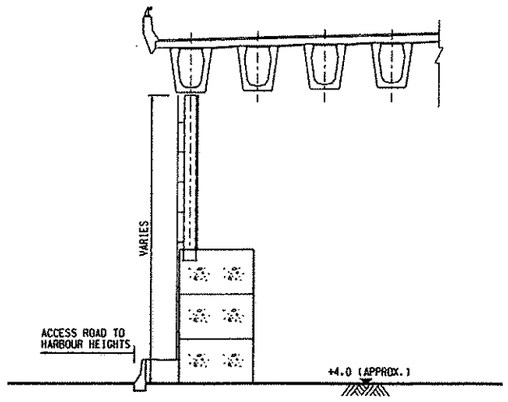
1. SETTING OUT COORDINATE REFER DRG. NO. 60095653/NP/1302.
2. DIMENSION MARKED WITH * TO BE VERIFIED ON SITE.
3. FOR GENERAL NOTES, PLEASE REFER TO DRG. NO. 60095653/NP/1310.
4. THIS DRAWING IS TO BE READ IN CONJUNCTION WITH DRG. NO. 60095653/NP/1312 TO 1316.

LEGEND:

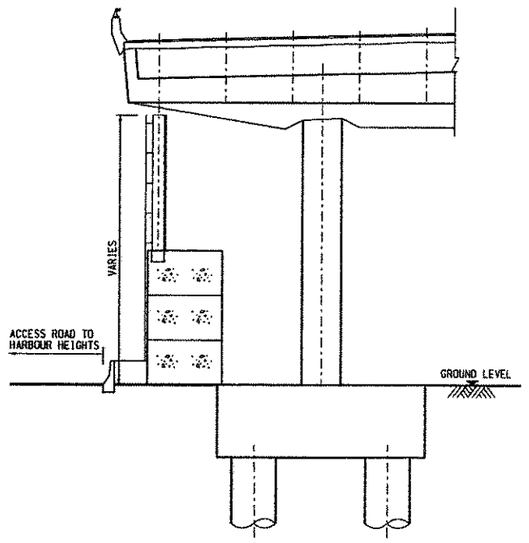
SITE BOUNDARY



PRECAST CONCRETE BLOCK ARRANGEMENT AT SPLAY
SCALE A1 1 : 100
A3 1 : 200



SECTION A - A
TYPICAL SECTION FOR HOARDING
SCALE A1 1 : 100
A3 1 : 200



SECTION B - B
TYPICAL SECTION FOR HOARDING
AT EXISTING PIER LOCATION
SCALE A1 1 : 100
A3 1 : 200

B	WORKING DRAWING		BCC	DEC 09
A	TENDER ADDENDUM NO.1	RC	BCC	OCT 09
–	TENDER DRAWING	RC	BCC	SEP 09
REV. 修訂	DESCRIPTION 內容修訂	D.C. CHECKED 核對	P.I.C. APPROVED 批准	DATE 日期

Highways Department 路政署
Major Works Project Management Office

CENTRAL - WAN CHAI BYPASS AND IEC LINK

CENTRAL - WAN CHAI BYPASS - NORTH POINT RECLAMATION

SPECIAL SITE HOARDING

AECOM

DRG.NO. 圖紙編號 60095653/NP/1311B

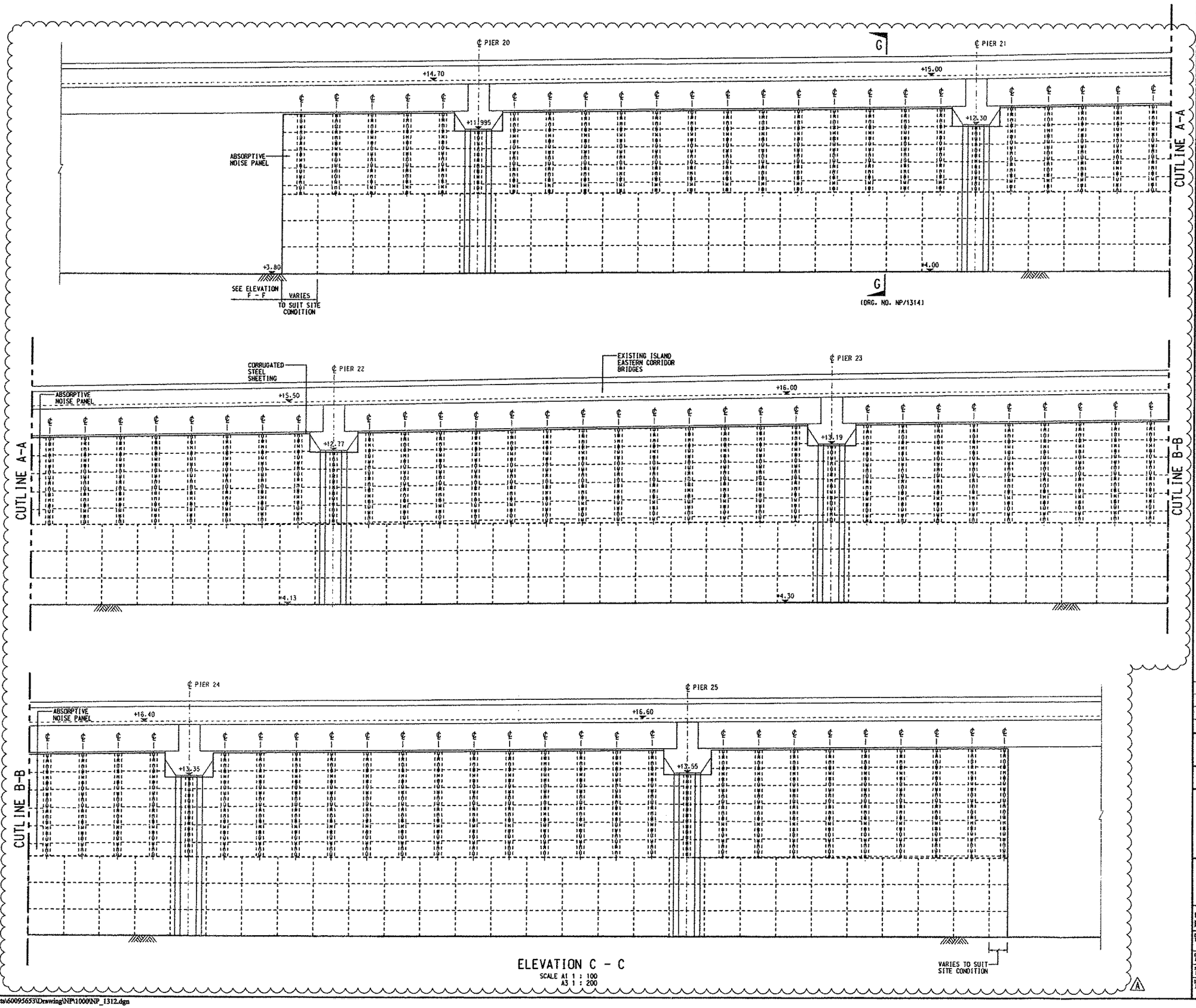
DESIGNED BY 設計 VLMK	CONTRACT NO. 合約編號 HY/2009/11	P. DIR. APPROVED 批准人 CW
DRAWN BY 繪圖 ZML	STATUS 狀態 WORKING DRAWING	
SCALE 比例 A1 AS SHOWN A3 AS SHOWN		
DIMENSIONS ARE IN 尺寸單位 METRES	© COPYRIGHT RESERVED 版權所有	

Plot File by : LEUK 2009-10-22

p:\projects\60095653\Drawing\NP\1000\NP_1311.dgn

APPENDIX B

DETAILS FOR THE SPECIAL SITE HOARDING



ELEVATION C - C

SCALE At 1 : 100
A3 1 : 200

NOTES:

1. FOR GENERAL NOTES, PLEASE REFER TO DRG. NO. 60095653/NP/1310.
2. THIS DRAWING IS TO BE READ IN CONJUNCTION WITH DRG. NO. 60095653/NP/1311 AND 1313 TO 1316.
3. THE MAXIMUM ALLOWABLE HORIZONTAL GAP BETWEEN PRECAST CONCRETE BLOCKS SHALL BE 50mm.
4. THE PRECAST CONCRETE BLOCK LOCATIONS SHOWN ON THE DRAWING ARE INDICATIVE ONLY. THE CONTRACTOR SHALL PROPOSE AND SUBMIT THE EXACT ARRANGEMENTS TO THE ENGINEER FOR APPROVAL PRIOR TO ERECTION BASED ON THE ACTUAL SITE CONDITIONS.
5. THE MAXIMUM ALLOWABLE GAP BETWEEN THE TOP OF HOARDING AND THE BRIDGE SOFFIT SHALL BE A MAXIMUM OF 300mm.

A

REV. 修訂	DESCRIPTION 內容修訂	BY 繪圖	CHECKED 核對	DATE 日期
B	WORKING DRAWING		BCC	DEC 09
A	TENDER ADDENDUM NO. 1	RC	BCC	OCT 09
-	TENDER DRAWING	RC	BCC	SEP 09

Highways Department 路政署
Major Works Project Management Office

CENTRAL - WAN CHAI BYPASS AND IEC LINK

CENTRAL - WAN CHAI BYPASS - NORTH POINT RECLAMATION

DETAILS FOR SPECIAL SITE HOARDING

SHEET 1 OF 5

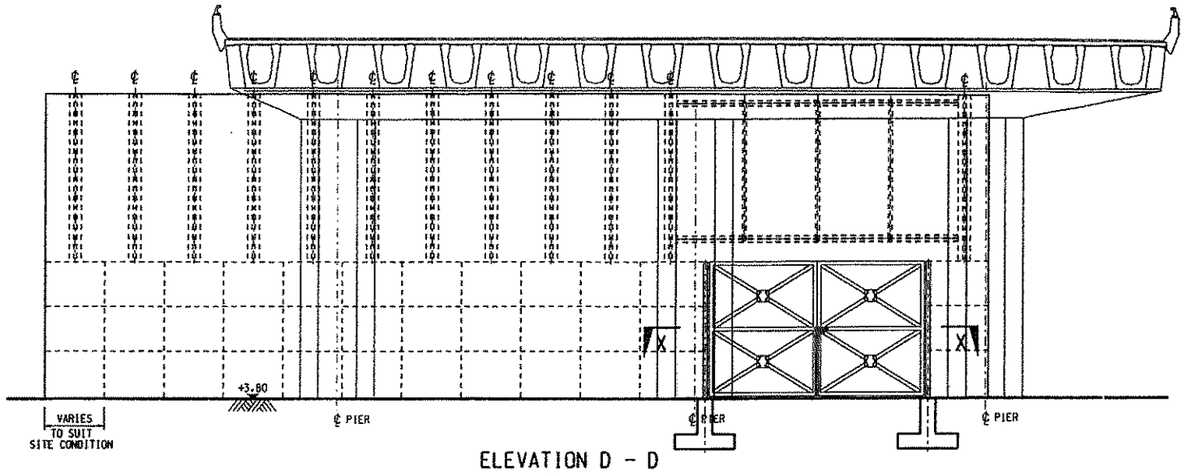
AECOM

DRG.NO. 圖紙編號 60095653/NP/1312B

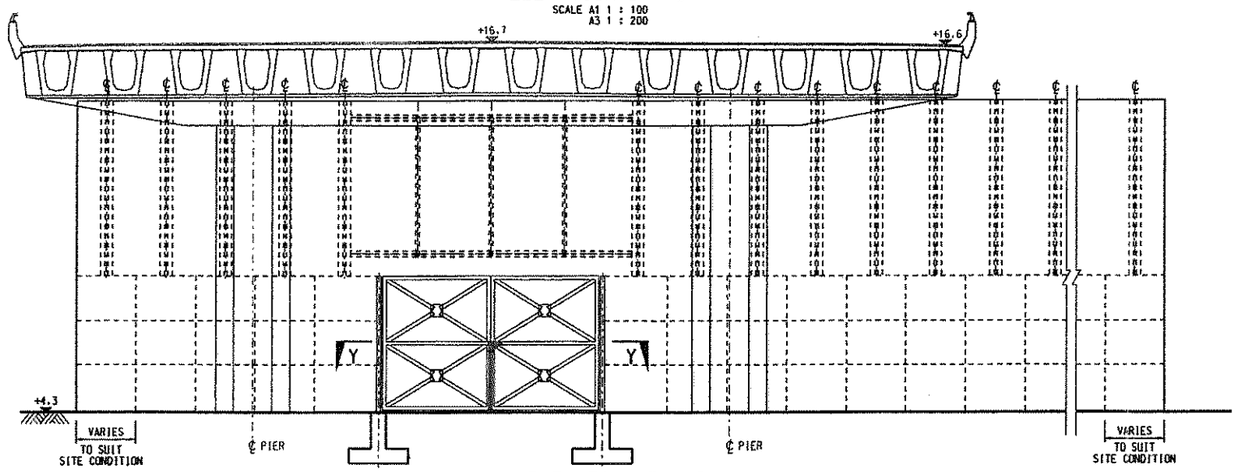
DESIGNED BY 設計	VLWK	CONTRACT NO. 合約編號	HY/2009/11
DRAWN BY 繪圖	NHP	CHK'D BY 核對	CW
SCALE 比例	A1 1 : 100 A3 1 : 200	STATUS 階段	WORKING DRAWING
DIMENSIONS ARE IN 尺寸單位	MILLIMETRES		

Plot File by : LIUYX 2009-10-22

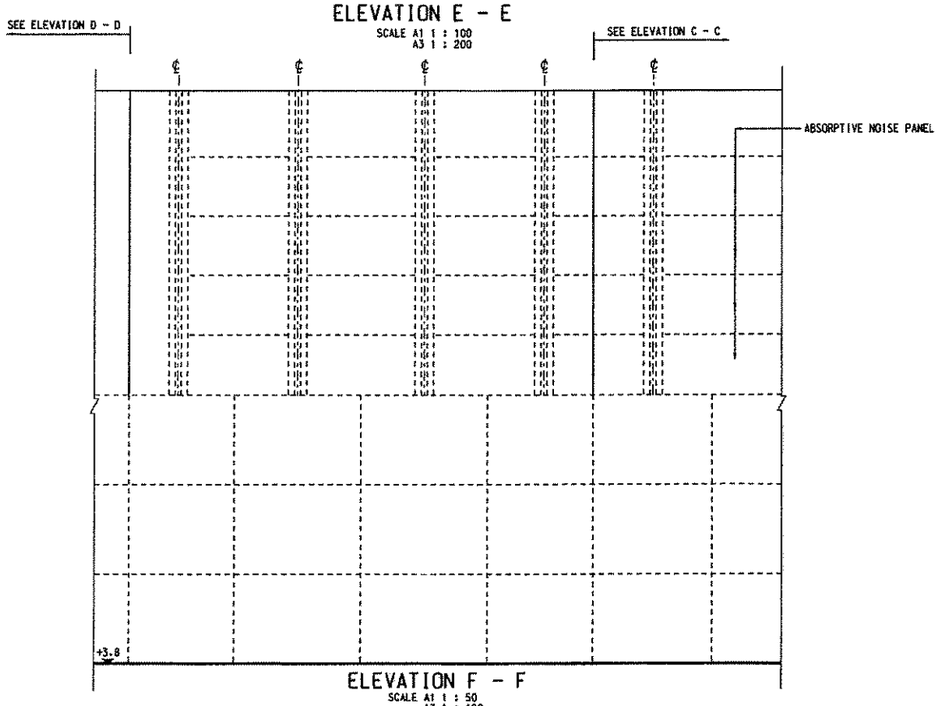
p:\projects\60095653\Drawing\NP\1000\NP_1312.dgn



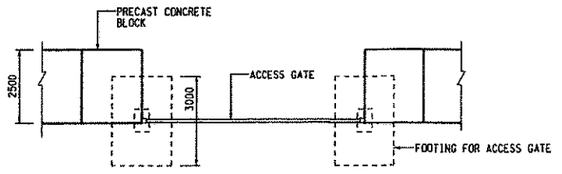
ELEVATION D - D
SCALE A1 1 : 100
A3 1 : 200



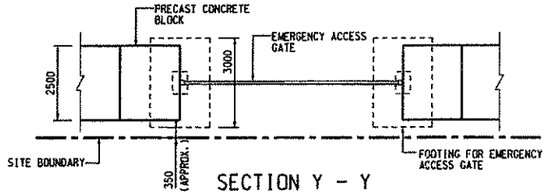
ELEVATION E - E
SCALE A1 1 : 100
A3 1 : 200



ELEVATION F - F
SCALE A1 1 : 50
A3 1 : 100



SECTION X - X
SCALE A1 1 : 100
A3 1 : 200



SECTION Y - Y
SCALE A1 1 : 100
A3 1 : 200

NOTES:

1. FOR GENERAL NOTES, PLEASE REFER TO DRG. NO. 60095653/NP/1310.
2. THIS DRAWING IS TO BE READ IN CONJUNCTION WITH DRG. NO. 60095653/NP/1311, 1312, 1314 TO 1316.
3. THE MAXIMUM ALLOWABLE HORIZONTAL GAP BETWEEN PRECAST CONCRETE BLOCKS SHALL BE 50mm.
4. THE PRECAST CONCRETE BLOCK LOCATIONS SHOWN ON THE DRAWING ARE INDICATIVE ONLY. THE CONTRACTOR SHALL PROPOSE AND SUBMIT THE EXACT ARRANGEMENTS PRIOR TO ERECTION BASED ON THE ACTUAL SITE CONDITIONS.
5. THE MAXIMUM ALLOWABLE GAP BETWEEN THE TOP OF HOARDING AND THE BRIDGE SOFFIT SHALL BE A MAXIMUM OF 300mm.

A

A

REV. 修訂	DESCRIPTION 內容摘要	BY C.E.	CHKD P.S.E. 核對	DATE 日期
B	WORKING DRAWING	RC	BCC	DEC 09
A	TENDER ADDENDUM NO. 1	RC	BCC	OCT 09
-	TENDER DRAWING	RC	BCC	SEP 09

Highways Department 路政署
Major Works Project Management Office

CENTRAL - WAN CHAI BYPASS AND IEC LINK

CENTRAL - WAN CHAI BYPASS - NORTH POINT RECLAMATION

DETAILS FOR SPECIAL SITE HOARDING

SHEET 2 OF 5

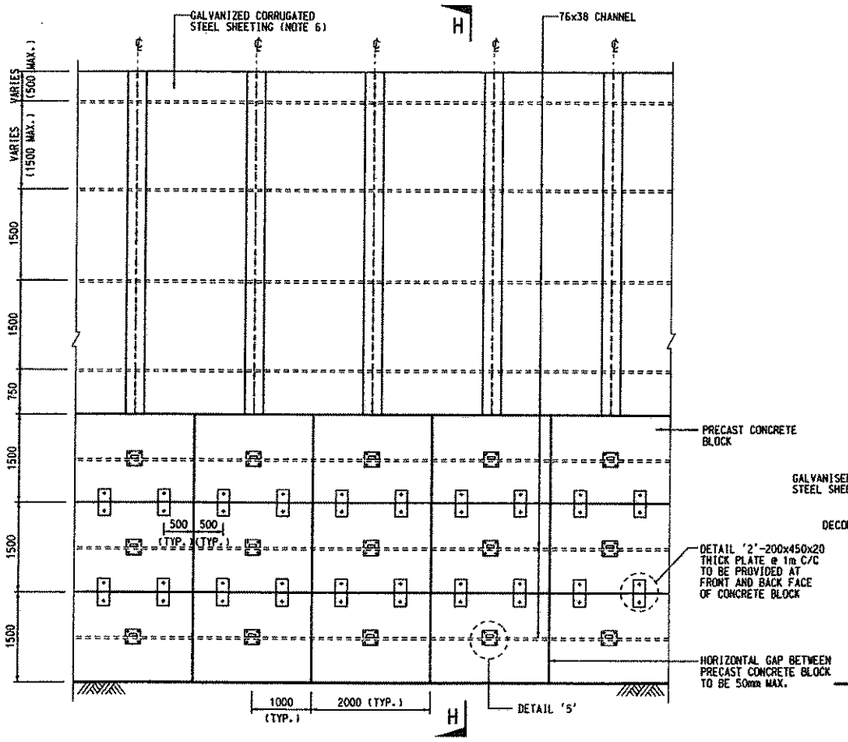
AECOM

DRG.NO. 圖紙編號 60095653/NP/1313B

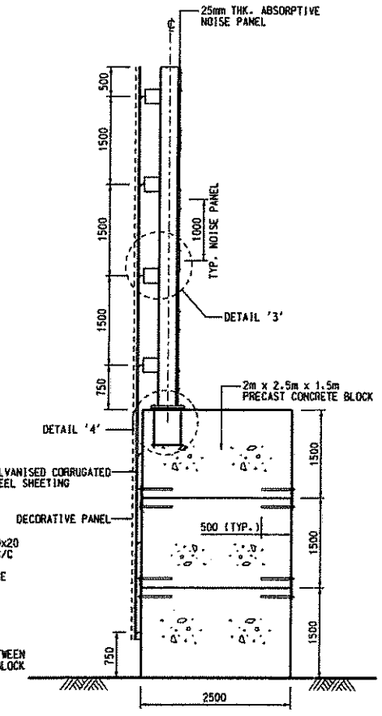
DESIGNED BY 設計	VLMK	CONTRACT NO. 合約編號	HY/2009/11
DRAWN BY 繪圖	WYP	P. DIV. APPROVED 助理署長	CW
SCALE 比例	A1 AS SHOWN A3 AS SHOWN	STATUS 狀態	WORKING DRAWING
DIMENSIONS ARE IN 尺寸單位	MILLIMETRES		

Plot file by: LIUDX 2009-10-22

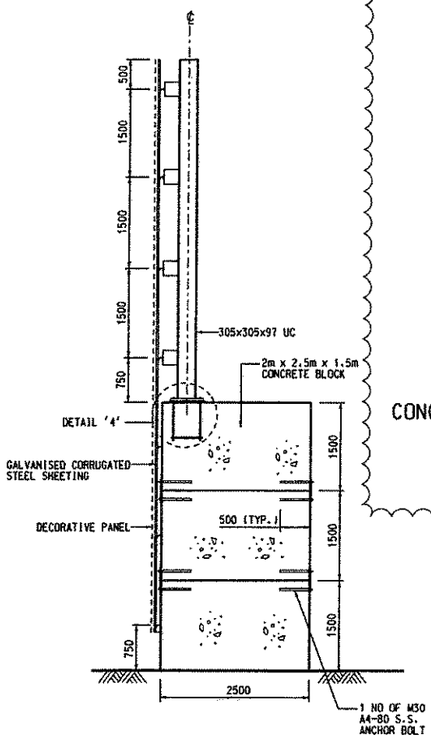
p:\projects\60095653\Drawing\NP\1000\NP_1313.dgn



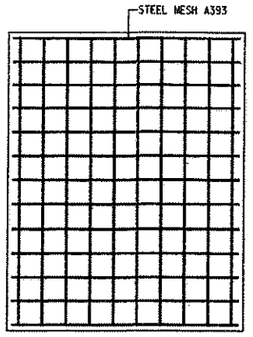
ELEVATION
(VIEW FACING CORRUGATED STEEL SHEETING)
SCALE A1 1 : 50
A3 1 : 100



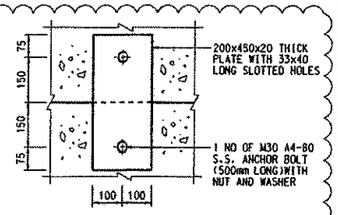
SECTION G - G
(SEE DRG. NO. NP/1312)
SCALE A1 1 : 50
A3 1 : 100



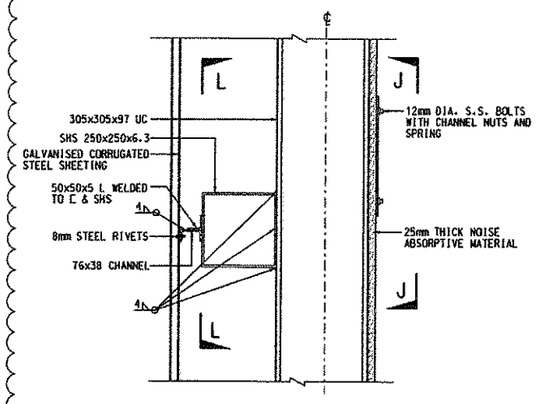
SECTION H - H
SCALE A1 1 : 50
A3 1 : 100



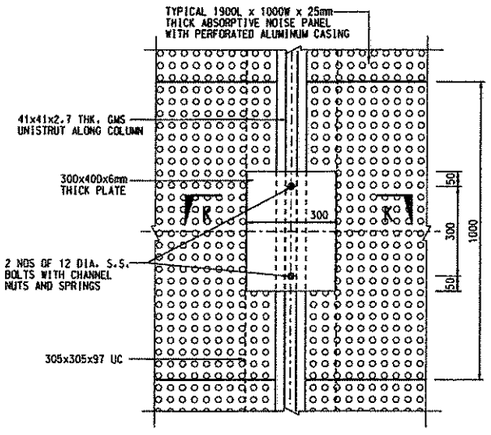
CONCRETE BLOCK REINFORCEMENT
(STEEL MESH A393 TO BE PROVIDED FOR ALL SIX SIDES OF CONCRETE BLOCK)
SCALE A1 1 : 25
A3 1 : 50



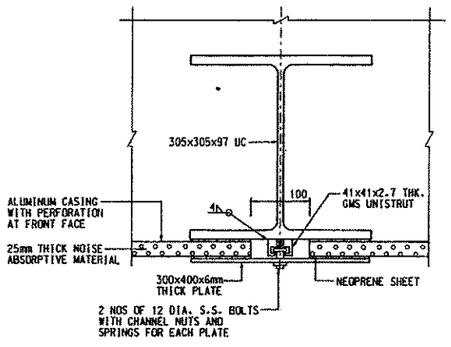
DETAIL '2'
SCALE A1 1 : 10
A3 1 : 20



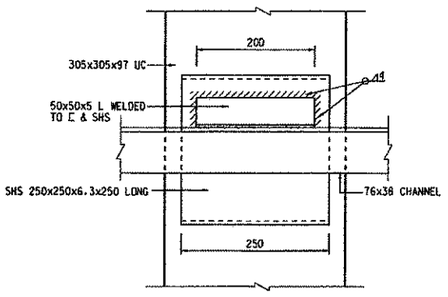
DETAIL '3'
SCALE A1 1 : 10
A3 1 : 20



ELEVATION J - J
SCALE A1 1 : 10
A3 1 : 20



SECTION K - K
FIXING DETAIL FOR ABSORPTIVE NOISE PANELS
SCALE A1 1 : 5
A3 1 : 10



SECTION L - L
SCALE A1 1 : 5
A3 1 : 10

NOTES:

1. FOR GENERAL NOTES, PLEASE REFER TO DRG. NO. 60095653/NP/1310.
2. THIS DRAWING IS TO BE READ IN CONJUNCTION WITH DRG. NO. 60095653/NP/1311 TO 1313, 1315 TO 1316.
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 30%.
6. CORRUGATED STEEL SHEETING SHALL HAVE SECTION MODULUS NOT LESS THAN 4000mm³/m. THE SHEETING SHALL BE TO BS3083 B/3 6350.
7. THE EXTERIOR DESIGN OF DECORATIVE PANEL AND ITS FIXING DETAIL TO THE CORRUGATED STEEL SHEETING SHALL BE CARRIED OUT BY THE CONTRACTOR. REFER TO NOTE 7.1 OF DRAWING 60095653/NP/1310.

A

REV. 修訂	DESCRIPTION 內容摘要	BY 繪圖	CHECKED 核對	DATE 日期
B	WORKING DRAWING	BCC	BCC	DEC 09
A	TENDER ADDENDUM NO.1	RC	BCC	OCT 09
-	TENDER DRAWING	RC	BCC	SEP 09

Highways Department 路政署
Major Works Project Management Office

CENTRAL - WAN CHAI BYPASS AND IEC LINK

CENTRAL - WAN CHAI BYPASS - NORTH POINT RECLAMATION

DETAILS FOR SPECIAL SITE HOARDING

SHEET 3 OF 5

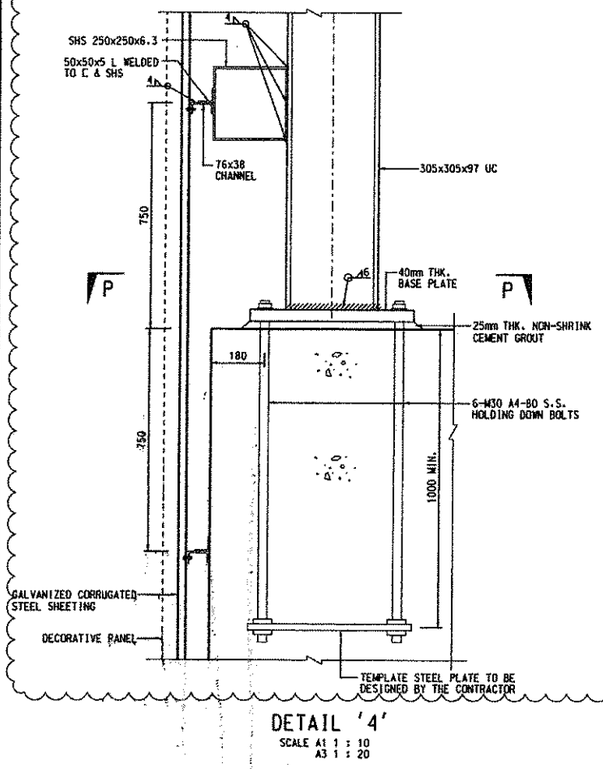
AECOM

DRG.NO. 圖紙編號 60095653/NP/1314B

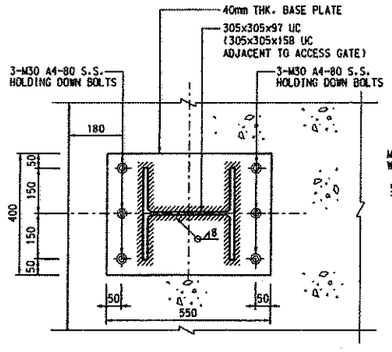
DESIGNED BY 設計 VLMK	CONTRACT NO. 合約編號 HY/2009/11	P. Dir. APPROVED 負責人 CW	
DRAWN BY 繪圖 WYP	STATUS 狀況 WORKING DRAWING		
SCALE 比例 A1 AS SHOWN A3 AS SHOWN			
DIMENSIONS ARE IN 尺寸單位 MILLIMETRES	© COPYRIGHT RESERVED 版權所有		

Plot File by: LIUYX 2009-10-22

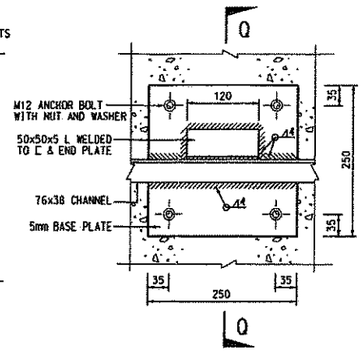
p:\projects\60095653\Drawing\NP\1000\NP_1314.dgn



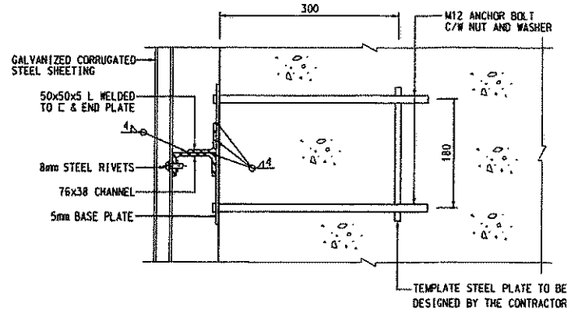
DETAIL '4'
SCALE A1 1 : 10
A3 1 : 20



SECTION P - P
SCALE A1 1 : 10
A3 1 : 20



DETAIL '5'
SCALE A1 1 : 5
A3 1 : 10



SECTION Q - Q
SCALE A1 1 : 5
A3 1 : 10

A

NOTES:

1. FOR GENERAL NOTES, PLEASE REFER TO DRG. NO. 60095653/NP/1310.
2. THIS DRAWING IS TO BE READ IN CONJUNCTION WITH DRG. NO. 60095653/NP/1311 TO 1314 AND 1316.

REV. 修訂	DESCRIPTION 內容修訂	BY 繪	CHK'D 核對	DATE 日期
B	WORKING DRAWING	RC	BCC	DEC 09
A	TENDER ADDENDUM NO. 1	RC	BCC	OCT 09
-	TENDER DRAWING	RC	BCC	SEP 09

Highways Department 路政署
Major Works Project Management Office

CENTRAL - WAN CHAI BYPASS AND IEC LINK

CENTRAL - WAN CHAI BYPASS - NORTH POINT RECLAMATION

DETAILS FOR SPECIAL SITE HOARDING

SHEET 4 OF 5

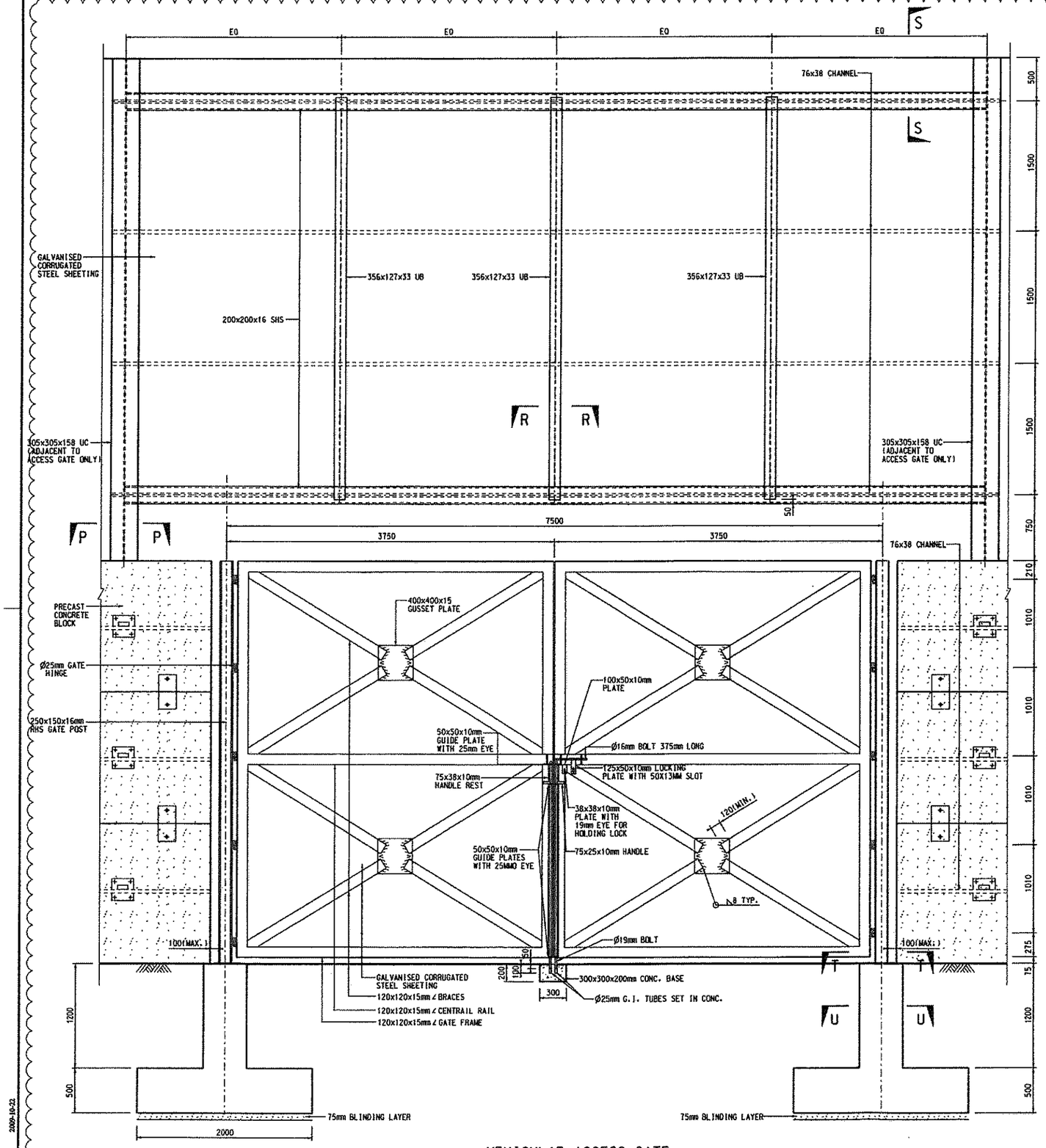
AECOM

DRG.NO. 圖紙編號 60095653/NP/1315B

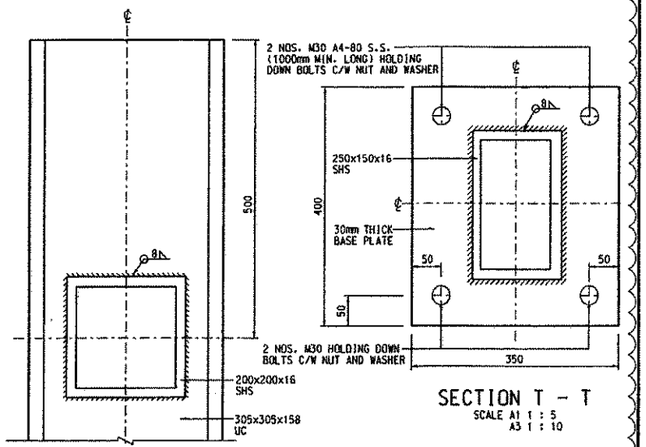
DESIGNED BY 設計	VLMK	CONTRACT NO. 合約編號	HY/2009/11
P. DIV. APPROVED 批准人	CW	DRAWN BY 繪圖	CJX
STATUS 狀況	WORKING DRAWING	SCALE 比例	A1 AS SHOWN A3 AS SHOWN
DIMENSIONS ARE IN 尺寸單位	MILLIMETRES		

Plot File by : LAUX 2009-10-22

p:\projects\60095653\Drawing\NP\1000\NP_1315.dgn

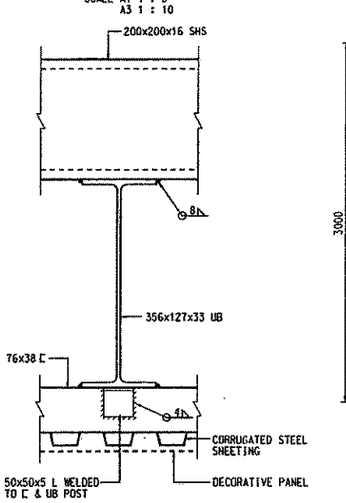


VEHICULAR ACCESS GATE
SCALE A1 1 : 25
A3 1 : 50



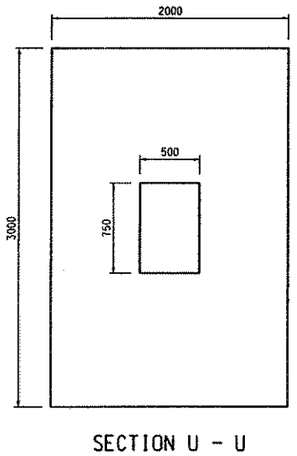
SECTION S - S
SCALE A1 1 : 5
A3 1 : 10

SECTION T - T
SCALE A1 1 : 5
A3 1 : 10

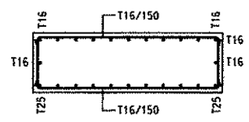


SECTION R - R
SCALE A1 1 : 5
A3 1 : 10

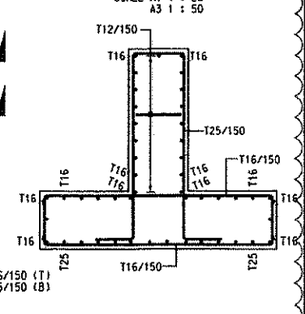
PLAN VIEW OF REINFORCEMENT OF FOOTING FOR ACCESS GATE
SCALE A1 1 : 25
A3 1 : 50



SECTION U - U
SCALE A1 1 : 25
A3 1 : 50



SECTION M - M
SCALE A1 1 : 25
A3 1 : 50



SECTION N - N
REINFORCEMENT DETAILS OF FOOTING FOR ACCESS GATE
SCALE A1 1 : 25
A3 1 : 50

NOTES:

1. FOR GENERAL NOTES, PLEASE REFER TO DRG. NO. 60095653/NP/1310.
2. THIS DRAWING IS TO BE READ IN CONJUNCTION WITH DRG. NO. 60095653/NP/1311 TO 1315.

REV.	DESCRIPTION	BY	CHECKED	DATE
B	WORKING DRAWING	RC	BCC	DEC 09
A	TENDER ADDENDUM NO.1	RC	BCC	OCT 09
-	TENDER DRAWING	RC	BCC	SEP 09

Highways Department 路政署
Major Works Project Management Office

CENTRAL - WAN CHAI BYPASS AND IEC LINK

CENTRAL - WAN CHAI BYPASS - NORTH POINT RECLAMATION

DETAILS FOR SPECIAL SITE HOARDING

SHEET 5 OF 5

AECOM

DRG.NO. 圖紙編號 60095653/NP/1316B

DESIGNED BY 設計	VLMK	CONTRACT NO. 合約編號	HY/2009/11
DRAWN BY 繪圖	CJX	P. M./C. APPROVED 批准	CW
SCALE 比例	A1 AS SHOWN A3 AS SHOWN	STATUS 狀態	WORKING DRAWING
DIMENSIONS ARE IN 尺寸單位	MILLIMETRES	© COPYRIGHT RESERVED 版權所有	

2009-10-22
Plot File by : LIUJX
A
p:\projects\60095653\Drawing\NP\1000\NP_1316.dgn

APPENDIX C

PROGRAMME OF THE SPECIAL SITE HOARDING

ID	Task Name	Duration	Start	Finish	Predecessors
1	Construction of Special Hoarding	51 days	Mon 8/2/10	Fri 16/4/10	
2	Delivery of Concrete Blocks	32 days	Mon 8/2/10	Sat 20/3/10	
3	1st Barge (70nrs)	0 days	Mon 8/2/10	Mon 8/2/10	
4	2nd Barge (79nrs)	0 days	Mon 1/3/10	Mon 1/3/10	
5	3rd Barge (100nrs)	0 days	Tue 9/3/10	Tue 9/3/10	
6	4th Barge (69nrs)	0 days	Mon 15/3/10	Mon 15/3/10	
7	5th Barge (69nrs)	0 days	Sat 20/3/10	Sat 20/3/10	
8					
9	Installation of Concrete Blocks	28 days	Tue 23/2/10	Fri 26/3/10	
10	Installation from 1st Barge	4 days	Tue 23/2/10	Fri 26/2/10	3
11	Installation from 2nd Barge	4 days	Tue 2/3/10	Fri 5/3/10	10,4
12	Installation from 3rd Barge	5 days	Wed 10/3/10	Mon 15/3/10	11,5
13	Installation from 4th Barge	4 days	Tue 16/3/10	Fri 19/3/10	12,6
14	Installation from 5th Barge	4 days	Tue 23/3/10	Fri 26/3/10	13,7,32
15					
16	Installation of Steel Column	16 days	Fri 19/3/10	Sat 10/4/10	
17	Installation of steel column for 1st barge	3 days	Fri 19/3/10	Mon 22/3/10	10
18	Installation of steel column for 2nd barge	3 days	Tue 23/3/10	Thu 25/3/10	11,17
19	Installation of steel column for 3rd barge	4 days	Fri 26/3/10	Tue 30/3/10	18,12
20	Installation of steel column for 4th barge	3 days	Wed 31/3/10	Wed 7/4/10	19,13
21	Installation of steel column for 5th barge	3 days	Thu 8/4/10	Sat 10/4/10	20,14
22					
23	Installation of Absorptive panel	16 days	Thu 25/3/10	Fri 16/4/10	
24	Installation of Absorptive panel for 1st Barge	3 days	Thu 25/3/10	Sat 27/3/10	
25	Installation of Absorptive panel for 2nd Barge	3 days	Mon 29/3/10	Wed 31/3/10	24,18
26	Installation of Absorptive panel for 3rd Barge	4 days	Thu 1/4/10	Fri 9/4/10	25,19
27	Installation of Absorptive panel for 4th Barge	3 days	Sat 10/4/10	Tue 13/4/10	26,20
28	Installation of Absorptive panel for 5th Barge	3 days	Wed 14/4/10	Fri 16/4/10	27,21
29					
30	Exterior finish od decorative panel	10 days	Wed 31/3/10	Thu 15/4/10	19
31					
32	Construction of new access for Harbour Height	11 days	Wed 10/3/10	Mon 22/3/10	

Project: Programme of Special Hoardi
Date: Wed 10/3/10

Task
Split
Progress
Milestone
Summary
Project Summary
External Tasks
External Milestone
Deadline

APPENDIX D

DESIGN OF GRAPHIC BANNER

EC Rev.	SP Rev.	Date 日期	Description 內容修改	Drawn 繪圖	Checked 核對

Client

Highways Department
The Government of Hong Kong Special Administrative Region

Consultant Engineer

AECOM

Contractor

CHEC-CRBC JV

Project Title

Contract No. HY/2009/11
Central - Wan Chai Bypass
Northpoint Reclamation

Drawing Title

Appendix D - Sheet 1 of 7

Design of Graphic Banner

EC Project Drawing No.		Revision
Drawing No. 圖則編號		
Designed 設計	Drawn 繪圖	Checked 核對	Scale 比例
Approved 批准		Date 日期	Status 狀況

No. 編號	By 由	Date 日期	Description 修改說明	Drawn 繪圖	Checked 核對

Client

Highways Department
The Government of Hong Kong Special Administrative Region

Consultant Engineer

AECOM

Contractor

CHEC-CRBC JV

Project Title

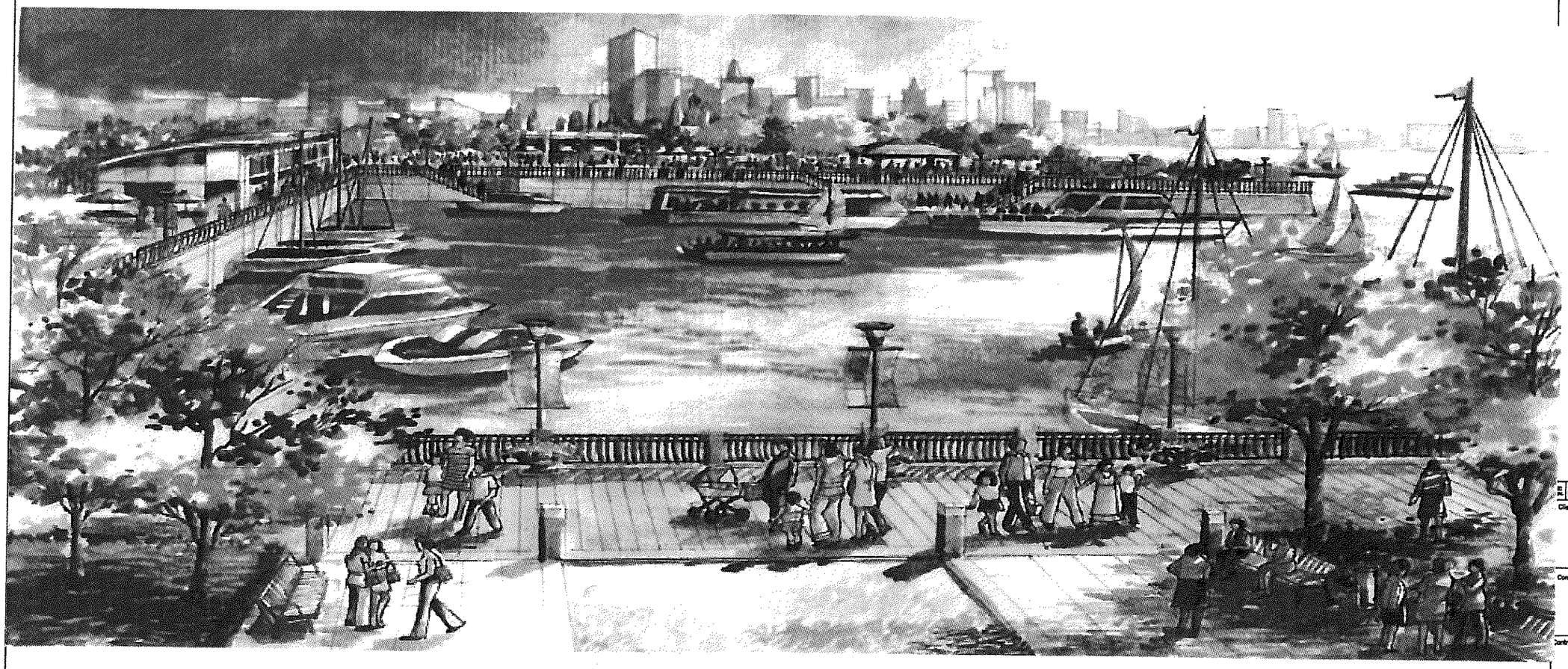
Contract No. HY/2009/11
Central - Wan Chai Bypass
Northpoint Reclamation

Drawing Title

Appendix D - Sheet 2 of 7

Design of Graphic Banner

EC Project Engineer's No.		Revision
Drawing No. 圖則編號		
Designed 設計	Drawn 繪圖	Checked 核對	Scale 比例 1:55
Approved 批准		Date 日期	Status 狀況



No. 編號	Date 日期	Description 內容簡要	Drawn 繪圖	Checked 核對

Client

Highways Department
The Government of Hong Kong Special Administrative Region

Consultant Engineer

AECOM

Contractor

CHEC-CRBC JV

Project Title

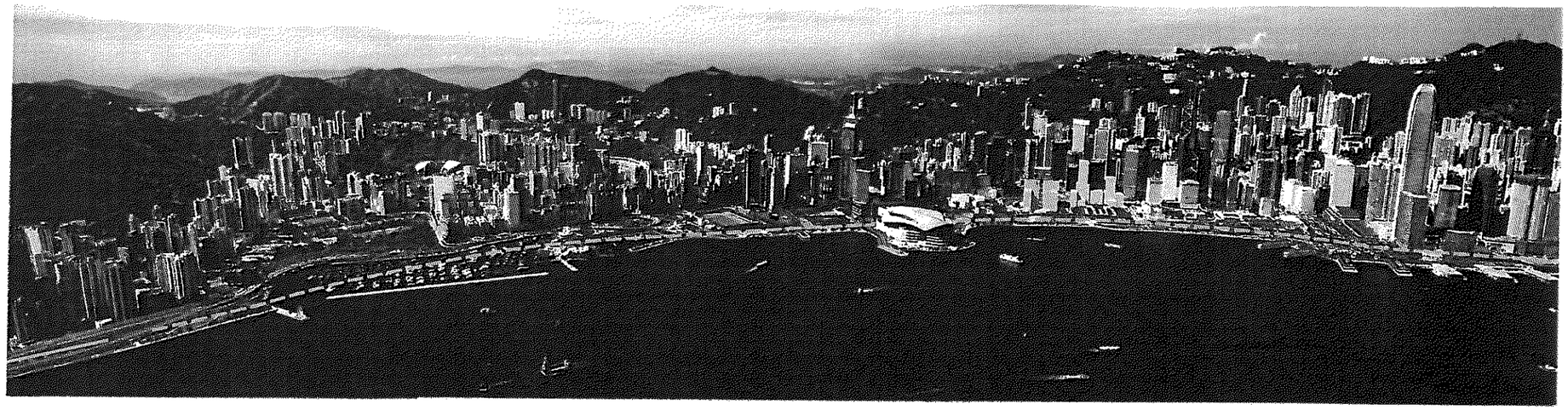
Contract No. HY/2009/11
Central - Wan Chai Bypass
Northpoint Reclamation

Drawing Title

Appendix D - Sheet 3 of 7

Design of Graphic Banner

EC Project Number(s) 工程合約編號			Revision
Drawing No. 圖則編號			
Designed 設計	Drawn 繪圖	Checked 核對	Scale 比例 1:55
Approved 批准		Date 日期	Status 狀態



EC Rev.	Par Rev.	Date 日期	Description 內容修改	Drawn 繪圖	Checked 核對

Client

Highways Department
The Government of Hong Kong Special Administrative Region

Consultant Engineer

AECOM

Contractor

CHEC-CRBC JV

Project Title

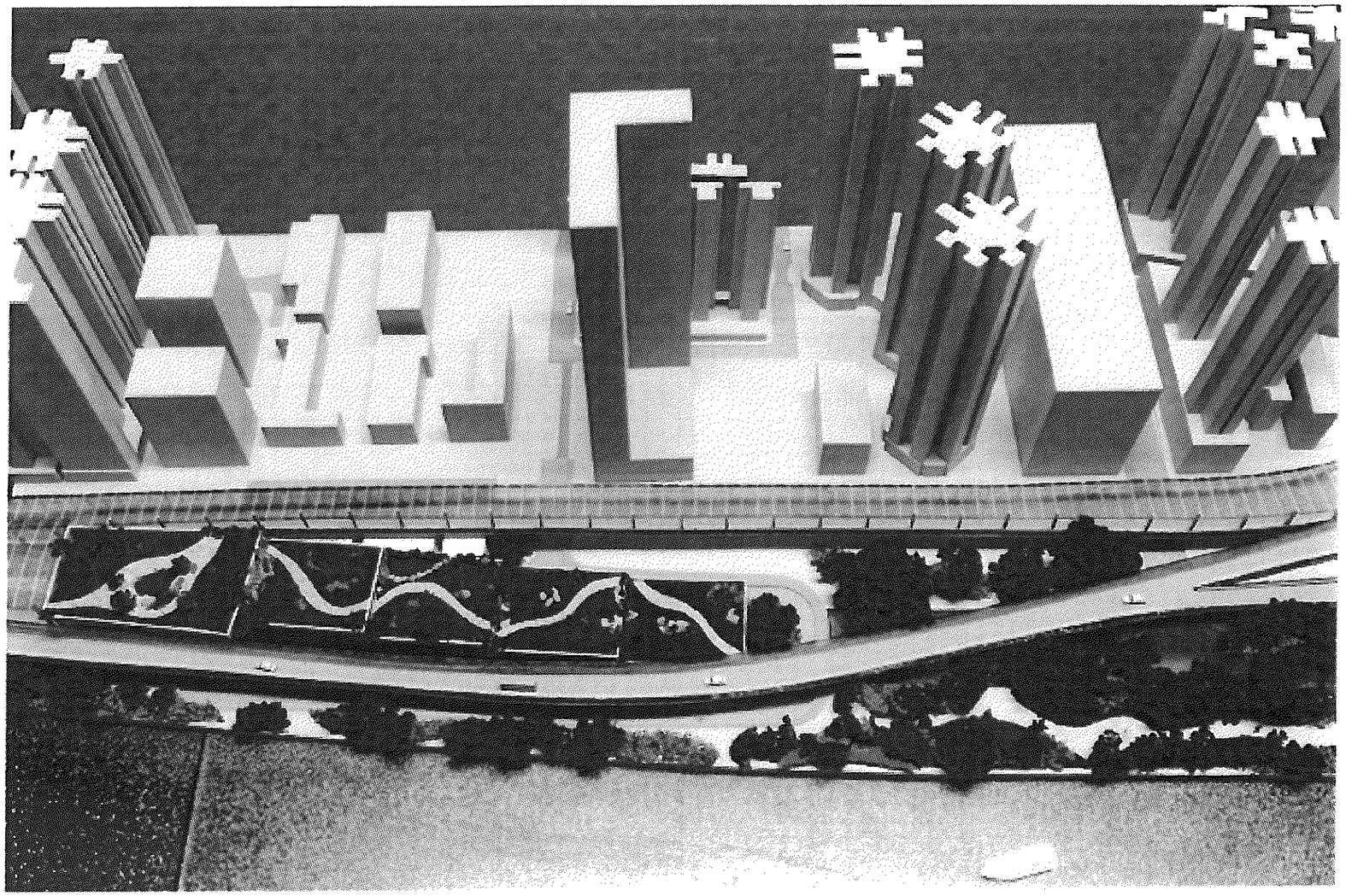
Contract No. HY/2009/11
Central - Wan Chai Bypass
Northpoint Reclamation

Drawing Title

Appendix D - Sheet 4 of 7

Design of Graphic Banner

EC Project Drawing No. 設計文件圖則編號		Revision
Drawing No. 圖則編號		
Designed 設計	Drawn 繪圖	Checked 核對	Scale 1:100 比例
Approved 批准		Date 日期	Status 狀況



EC Rev.	EC 修訂	Date 日期	Description 修訂事項	Drawn 繪圖	Checked 核對

Client

Highways Department
The Government of Hong Kong Special Administrative Region

Consultant Engineer

AECOM

Contractor

CHEC-CRBC JV

Project Title

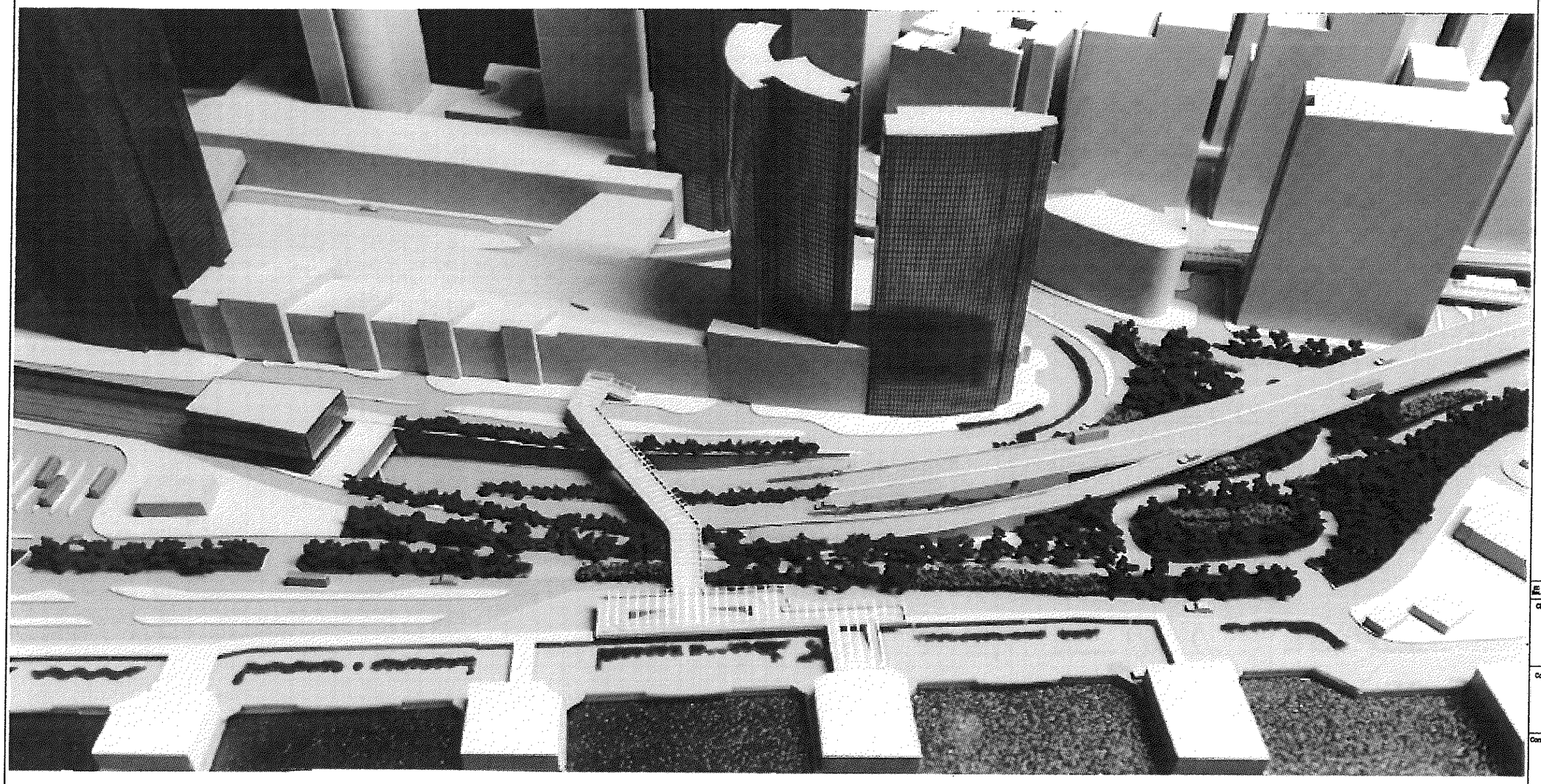
Contract No. HY/2009/11
Central - Wan Chai Bypass
Northpoint Reclamation

Drawing Title

Appendix D - Sheet 5 of 7

Design of Graphic Banner

EC Project Drawing No. 工程圖編號				Revision
Drawing No. 圖則編號				
Designed 設計	Drawn 繪圖	Checked 核對	Scale 1:50 比例	
Approved 批准		Date 日期	Status 狀況	



No.	Date	Description	Drawn	Checked

Client

Highways Department
The Government of Hong Kong Special Administrative Region

Consultant Engineer

AECOM

Contractor

CHEC-CRBC JV

Project Title

Contract No. HY/2009/11
Central - Wan Chai Bypass
Northpoint Reclamation

Drawing Title

Appendix D - Sheet 6 of 7

Design of Graphic Banner

EC Project Drawing No.				Revision
Drawing No.				
Designed	Drawn	Checked	Scale 1:50	
Approved		Date	Status	

路政署

HIGHWAYS
DEPARTMENT

EC Rev.	JV Rev.	Date 日期	Description 內容修改	Drawn 繪圖	Checked 核對

Client

Highways Department
The Government of Hong Kong Special Administrative Region

Consultant Engineer

AECOM

Contractor

CHEC-CRBC JV

Project Title

Contract No. HY/2009/11
Central - Wan Chai Bypass
Northpoint Reclamation

Drawing Title

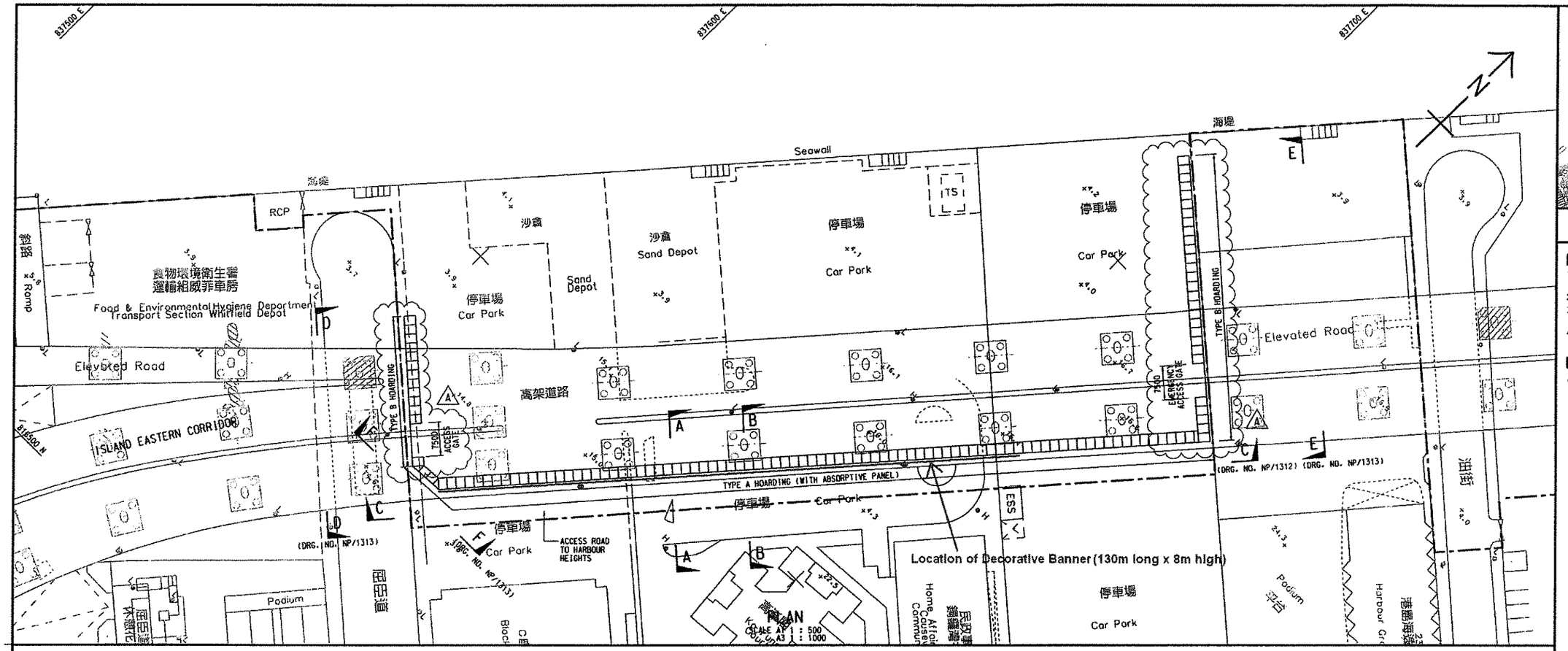
Appendix D - Sheet 7 of 7

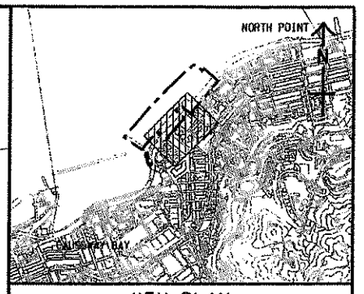
Design of Graphic Banner

EC Project Drawing No. 合約圖則編號		Revision
Drawing No. 圖則編號		
Designed 設計	Drawn 繪圖	Checked 核對	Scale 比例 1:55
Approved 批准		Date 日期	Status 狀況

APPENDIX E

LOCATION OF DESIGN OF GRAPHIC BANNER





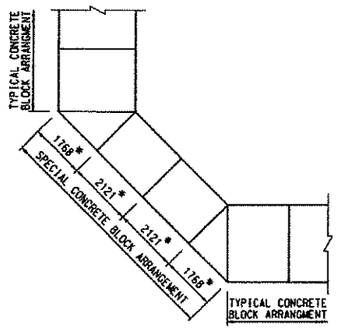
KEY PLAN
SCALE 1 : 20000

NOTES:

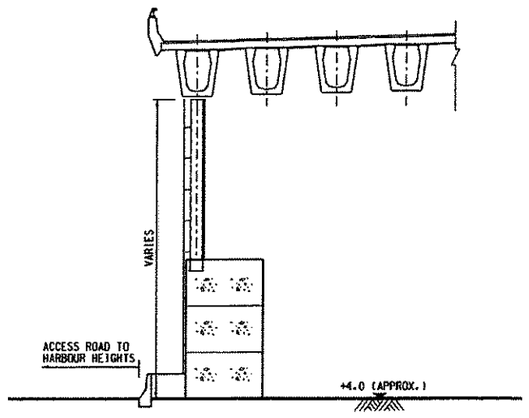
1. SETTING OUT COORDINATE REFER DRG. NO. 60095653/NP/1302.
2. DIMENSION MARKED WITH * TO BE VERIFIED ON SITE.
3. FOR GENERAL NOTES, PLEASE REFER TO DRG. NO. 60095653/NP/1310.
4. THIS DRAWING IS TO BE READ IN CONJUNCTION WITH DRG. NO. 60095653/NP/1312 TO 1316.

LEGEND:

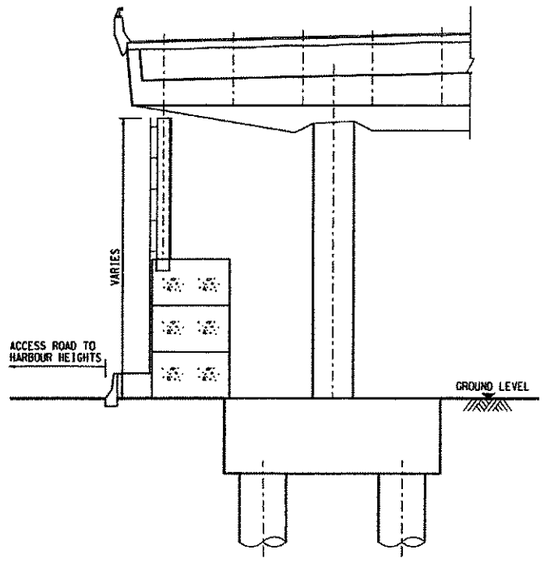
SITE BOUNDARY



PRECAST CONCRETE BLOCK ARRANGEMENT AT SPLAY
SCALE A1 1 : 100
A3 1 : 200



SECTION A - A
TYPICAL SECTION FOR HOARDING
SCALE A1 1 : 100
A3 1 : 200



SECTION B - B
TYPICAL SECTION FOR HOARDING
AT EXISTING PIER LOCATION
SCALE A1 1 : 100
A3 1 : 200

B	WORKING DRAWING	RC	BCC	DEC 09
A	TENDER ADDENDUM NO.1	RC	BCC	OCT 09
-	TENDER DRAWING	RC	BCC	SEP 09
REV. 修訂	DESCRIPTION 內容摘要	CHKD 核對	APPD 批准	DATE 日期

Highways Department 路政署
Major Works Project Management Office

CENTRAL - WAN CHAI BYPASS AND IEC LINK

CENTRAL - WAN CHAI BYPASS - NORTH POINT RECLAMATION

SPECIAL SITE HOARDING

AECOM

DRG.NO. 圖紙編號 60095653/NP/1311B

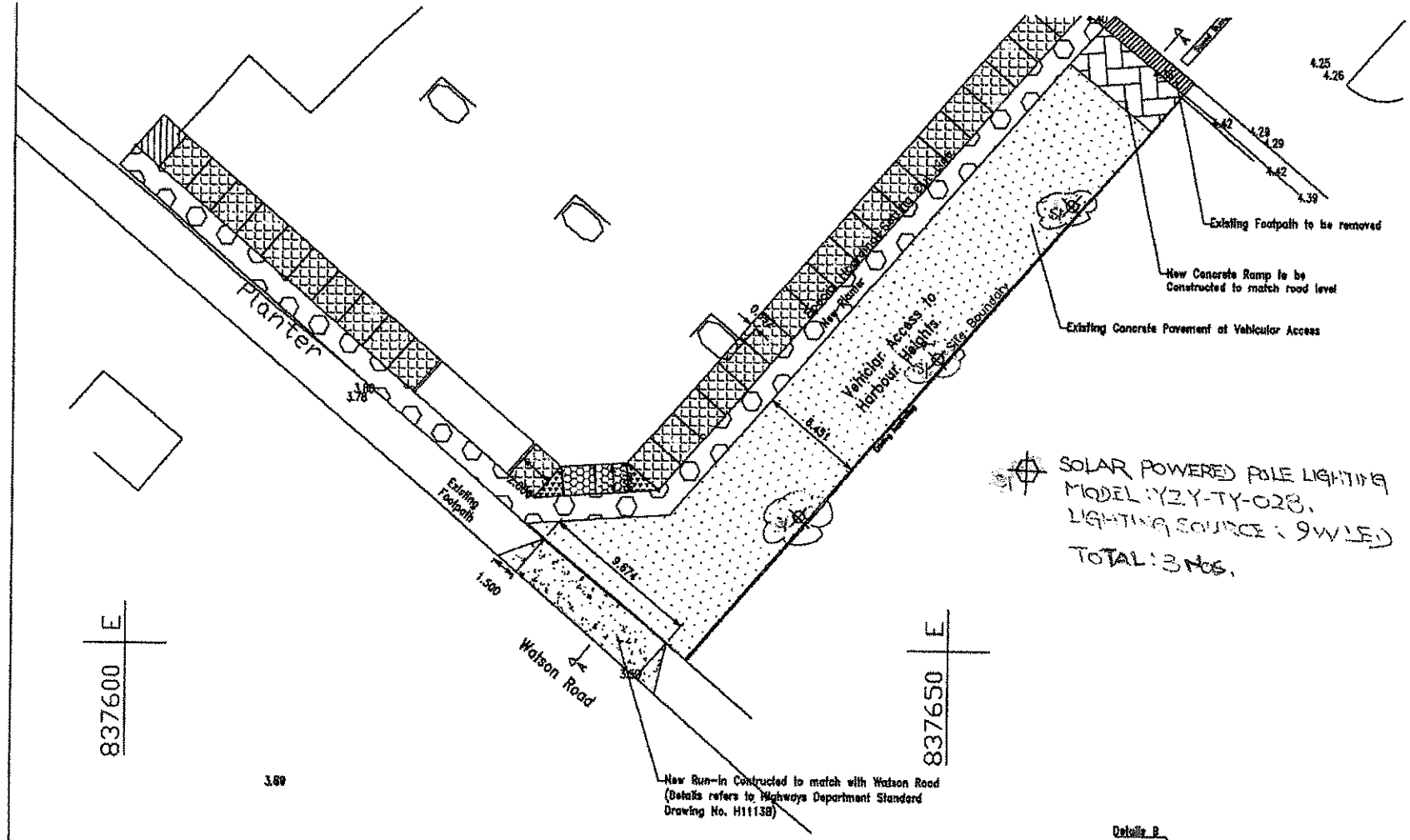
DESIGNED BY 設計	VLMK	CONTRACT NO. 合約編號	HY/2009/11
P. DIV. APPROVED 部門人	CW		
DRAWN BY 繪圖	ZNL	STATUS 階段	WORKING DRAWING
SCALE 比例	A1 AS SHOWN A3 AS SHOWN		
DIMENSIONS ARE IN 尺寸單位	METRES		

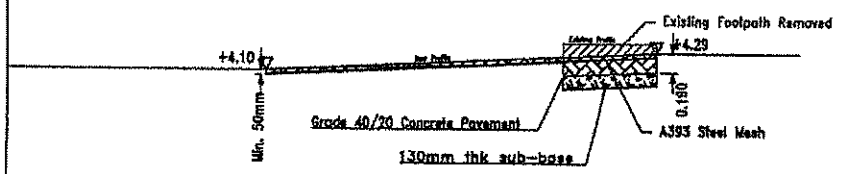
Plot File by: LUDX 2009-10-22

m:\projects\60095653\Drawing\NP\1000\NP_1311.dgn

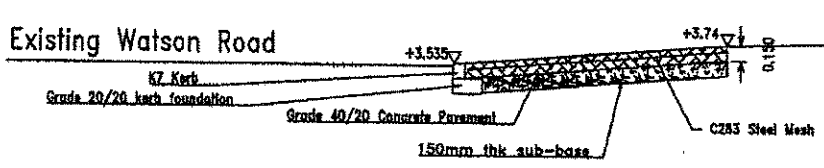
APPENDIX F

LOCATION OF SOLAR POWERED POLE LIGHTING





Details B Scale 1:50



Details A Scale 1:50

Highways Department

AECOM

CHEC-CRBC JV

Contract No. HY/2009/11
Central - Wan Chai Bypass
Northpoint Reclamation

Layout Plan and Details of Vehicular Access to Harbour Heights

CHEC-CRBC-SK-0013

APPENDIX G

SPECIFICATION OF SOLAR POWERED POLE LIGHTING

MAXGRAND

Your Lighting Solutions

MAXGRAND LIMITED
萬迪有限公司
19/F, Millennium Trade Centre,
56 Kwai Cheong Road,
Kwai Chung, N.T., Hong Kong
Tel: (852)3927-6363
Fax: (852)392-76371
info@maxgrand.com.hk
www.maxgrand.com.hk

Items	YZY-TY-028	Product picture (only for reference, standard as the final finished products)
Solar panel	Mono/polycrystalline silicon power: 45Wp	
Battery	High efficiency, maintenance free lead acid battery 12V 40AH	
Solar Controller	12V 5A, IP67 and over charge and discharge protection、waterproof and temperature compensation and so on ,totally 16 functions.	
Solar panel frame	3×3CM angle Iron (hot dip galvanized type, ejecting plastic)	
Lamp	aluminum, ejection plastic, IP54	
Lighting source	9WLED lamp*1PCS, lighting angel:150°super brightness LEDs, life time:50,000hours	
cable	2.5mm^2×1solar professional use(silicon rubber with purple copper cable)	
The pole	3M Steel, hot dip galvanization, ejection plastic	
packing	Cartons+ high density exported fiberboard and carton box	
Working mode	Rated works for 5Hours and then automatically shifts to the energy saving mode and works till the day coming	
reliability	Working efficiency is up 100% / year. Normal working efficiency is up 95% / year	
Working temperature	-30℃—70℃	
Refer to Sun radiation	3.9KWH/M^2.D	
Delivery time	1 month (depends on your order quantity) after received the deposit	

YZY-TY-028

Specifications

Nominal Voltage		12V
Rated Capacity(10 hour rate)		33AH
Dimension	Total Height (with terminals)	175mm(6.89inches)
	Height	171mm(6.73inches)
	Length	196mm(7.72inches)
	Width	131mm(5.16inches)
Weight		approx.11.7kg

Characteristics

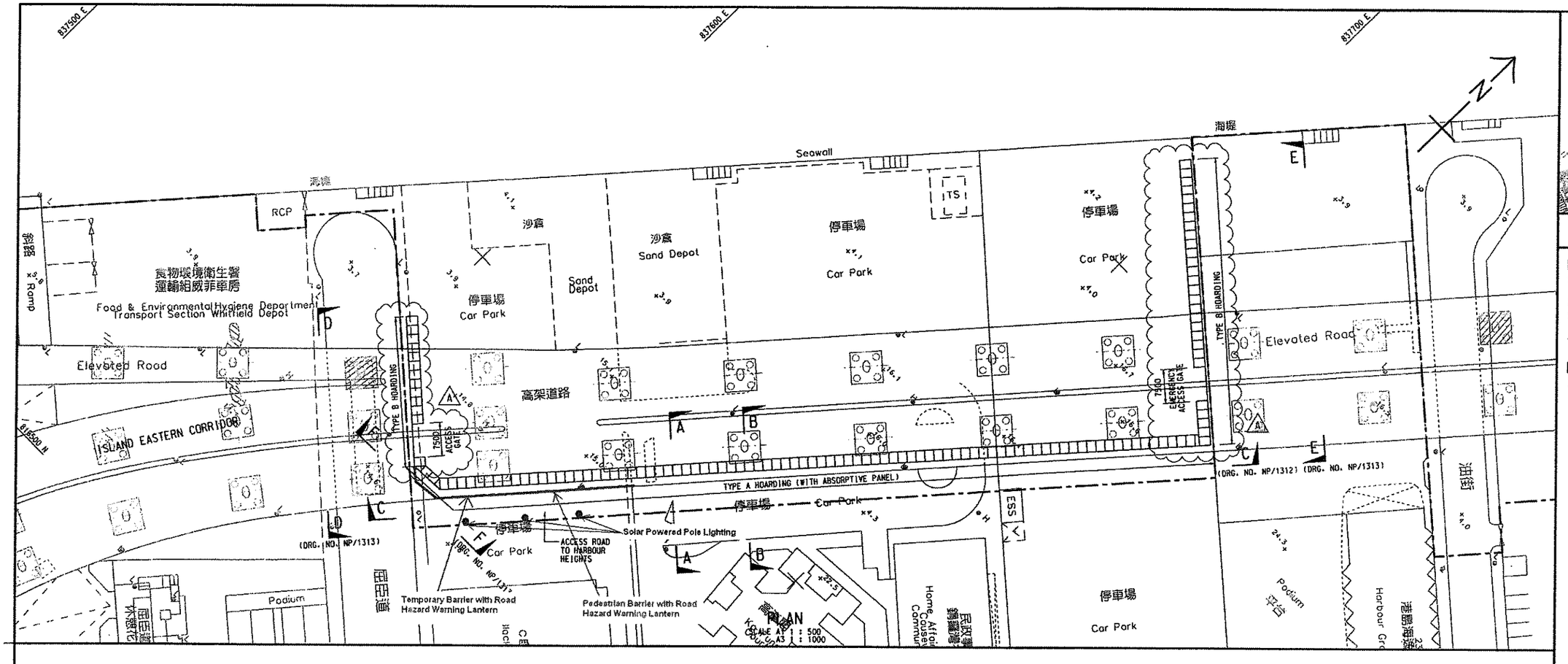
Capacity 77°F(25°C)	10 hour rate(3.3A)	33AH
	5 hour rate(5.7A)	28.1AH
	1 hour rate(19.8A)	19.8AH
	15 min rate(57A)	14.25AH
Internal Resistance	Full charged Battery 77°F(25°C)	9mΩ
Capacity affected by Temperature (10 hour rate)	104°F(40°C)	102%
	77°F(25°C)	100%
	32°F(0°C)	85%
	5°F(-15°C)	65%
Self-Discharge 77°F(25°C)	Capacity after 3 month storage	91%
	Capacity after 6 month storage	82%
	Capacity after 12 month storage	64%
Max. Discharge Current 77°F(25°C)	99A	
Terminal	Standard	L2
	Optional	C1
Charging (Constant Voltage)	Cycle	14.5~14.9V (<6.62A)
	Float	13.6V~13.8V/77°F(25°C)

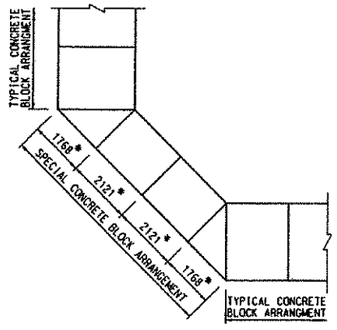
Constant wattage discharge (Watts/battery @ 25°C)

EV/CELL	5min	10min	30min	1H	3H	5H	8H	10H	20H
1.85V	600.0	472.7	249.6	210.2	73.4	58.4	32.8	37.4	19.0
1.80V	736.2	539.1	274.5	216.7	73.7	60.1	32.8	37.5	19.2
1.75V	780.0	553.1	287.0	221.5	79.0	67.2	34.1	39.6	20.3
1.70V	834.1	577.5	294.2	233.6	79.0	68.4	35.1	39.7	20.7
1.60V	924.1	622.4	304.7	234.7	79.5	69.7	35.1	40.0	20.9

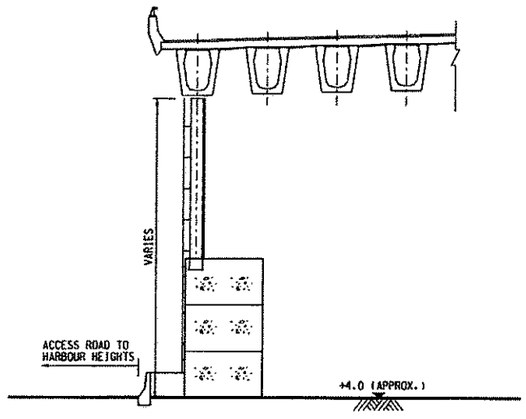
APPENDIX H

LOCATION PLAN OF
WATER FILLED TYPE TEMPORARY BARRIER WITH WARNING SIGNAL LANTERN AND SOLAR POWERED POLE LIGHTING

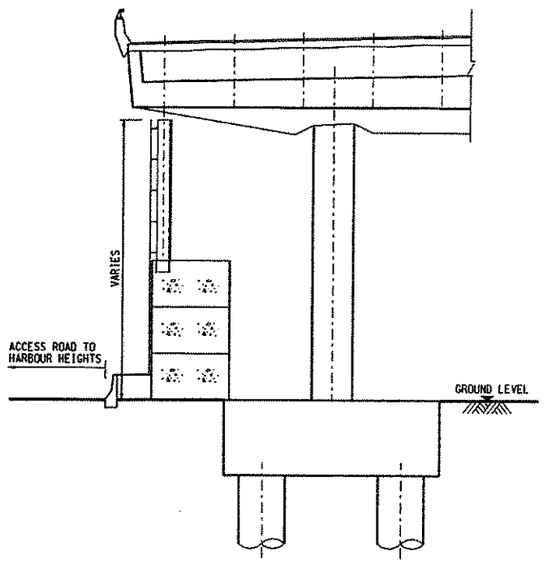




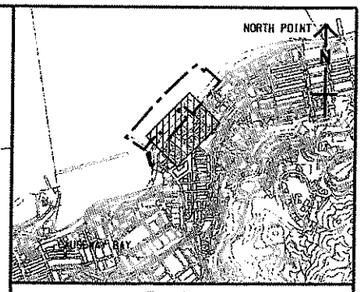
PRECAST CONCRETE BLOCK ARRANGEMENT AT SPLAY
SCALE A1 1 : 100
A3 1 : 200



SECTION A - A
TYPICAL SECTION FOR HOARDING
SCALE A1 1 : 100
A3 1 : 200



SECTION B - B
TYPICAL SECTION FOR HOARDING
AT EXISTING PIER LOCATION
SCALE A1 1 : 100
A3 1 : 200



KEY PLAN
SCALE 1 : 20000

NOTES:
1. SETTING OUT COORDINATE REFER DRG. NO. 60095653/NP/1302.
2. DIMENSION MARKED WITH * TO BE VERIFIED ON SITE.
3. FOR GENERAL NOTES, PLEASE REFER TO DRG. NO. 60095653/NP/1310.
4. THIS DRAWING IS TO BE READ IN CONJUNCTION WITH DRG. NO. 60095653/NP/1312 TO 1316.

LEGEND:
SITE BOUNDARY

REV. 修訂	DESCRIPTION 內容摘要	BY	CHECKED 審核	DATE 日期
B	WORKING DRAWING		BCC	DEC 09
A	TENDER ADDENDUM NO.1	RC	BCC	OCT 09
-	TENDER DRAWING	RC	BCC	SEP 09

Highways Department 路政署
Major Works Project Management Office

CENTRAL - WAN CHAI BYPASS AND IEC LINK

CENTRAL - WAN CHAI BYPASS - NORTH POINT RECLAMATION

SPECIAL SITE HOARDING

AECOM

DRG.NO. 圖紙編號 60095653/NP/1311B

DESIGNED BY 設計	VLMK	CONTRACT NO. 合約編號	HY/2009/11
DRAWN BY 繪圖	ZNL	STATUS 狀態	WORKING DRAWING
SCALE 比例	A1 AS SHOWN A3 AS SHOWN		
DIMENSIONS ARE IN 尺寸單位	METRES		

Plot File by: LTOX 2009-10-22

n:\projects\60095653\Drawing\NP\1000\NP 1311.dgn

APPENDIX I

MAINTENANCE AND MANAGEMENT SCHEDULES

CHEC-CRBC JV

Date : 25th August 2010
Our Ref. : CHEC-CRBC JV/C-257/01.22/001264

Environmental Protection Department
Environmental Impact Assessment Office
27/F.,Southorn
130 Hennessy Road,
Wan Chai, Hong Kong

Fax : 2591 0558

Attn.: Mr. Victor Yeung / Raymond Lai

Dear Sirs,

Contract No. HY/2009/11
Central-Wan Chai Bypass – North Point Reclamation
Submission of Supplementary Information – Revised Management & Maintenance Schedule for Submitted Revised Landscape Plan

Refer to our letter with our ref. CHEC-CRBC JV/C-257/01.22/000888 dated 30th June 2010 to EIAO regarding to the subject entitled "Submission of Revised Landscape Plan" for deposition, we are please to attach herewith a revised management and maintenance schedule as a supplementary information and this captioned revised schedule replace the Appendix I of the aforementioned revised landscape plan.

Additional information of the captioned revised schedule provides the responsibilities for the special site hoarding were stated in this submission.

Thank you for your kind attention and please feel free and don't hesitate to contact our Environmental Officer – Mr. C.M. Wong at 9717 7986 should you have any further queries.

Yours faithfully,
For and on behalf of
China Harbour Engineering Company Limited –
China Road and Bridge Corporation Joint Venture

Daniel Cheung
Site Agent

Encl.

DC/WCM/sy

c.c.

CEDD	Mr. Patrick Keung	by email (pkeung@cedd.gov.hk)
Hyd	Mr. Jones Lai	by email (se4cwb.mw@hyd.gov.hk)
AECOM	Mr. Stephen Lai	by email (stephen.lai@aecom.com)
	Mr. Kelvin Cheng	by email (kelvin.cheng@aecom.com)
	Mr. David Kwan	by hand
LAM	Mr. Raymond Dai	by email (raymonddai@lamenviro.com)
ENVIRON	Mr. David Yeung	by email (dyeung@environcorp.com)

Maintenance and management schedules

A) For special site hoarding

1) For specific items need to be maintained and inspected are under Establishment Works as shown in the following table.

Items	Maintained/ Operated by	Frequency
Inspection of establishment works	Joint inspection with the Contractor and the Engineer	Once per month
Firming up plant	The Contractor	Once per month / after heavy rain or wind
Control of Weeding	Removed by the Contractor / instructed by the Engineer	At once if identified / under instruction by the Engineer
Security of stakes, ties & guys	the Contractor	Once per month
Replacement of plants	instructed by the Engineer	when required
Pruning	instructed by the Engineer	when required
Watering	The Contractor	provided if necessary / as required by the Engineer

2) All of portions of special site hoarding (including concrete blocks, absorptive panel, graphic banner & planting) would be inspected at least twice per week.

3) The time of replacement of graphic banner will be within 7 working days after observed damage and /or worn out.

4) No any warning lanterns, floodlights will be installed on the special site hoarding.

5) CHEC-CRBC JV will provide the abovementioned measures till handover (end of the works under FEP-01/356/2009) this special site hoarding to next Contractor / or governmental department. The Landscape Plan will then revises and submit to EPD for further deposition where appropriate.

B) For Construction Lights (used at night times)

1) All of the water filled type temporary barrier with warning lantern were maintenance and checked on a daily basis regularly before the site closed.

2) Battery replacement for the warning lantern is a must when the lantern out of service and

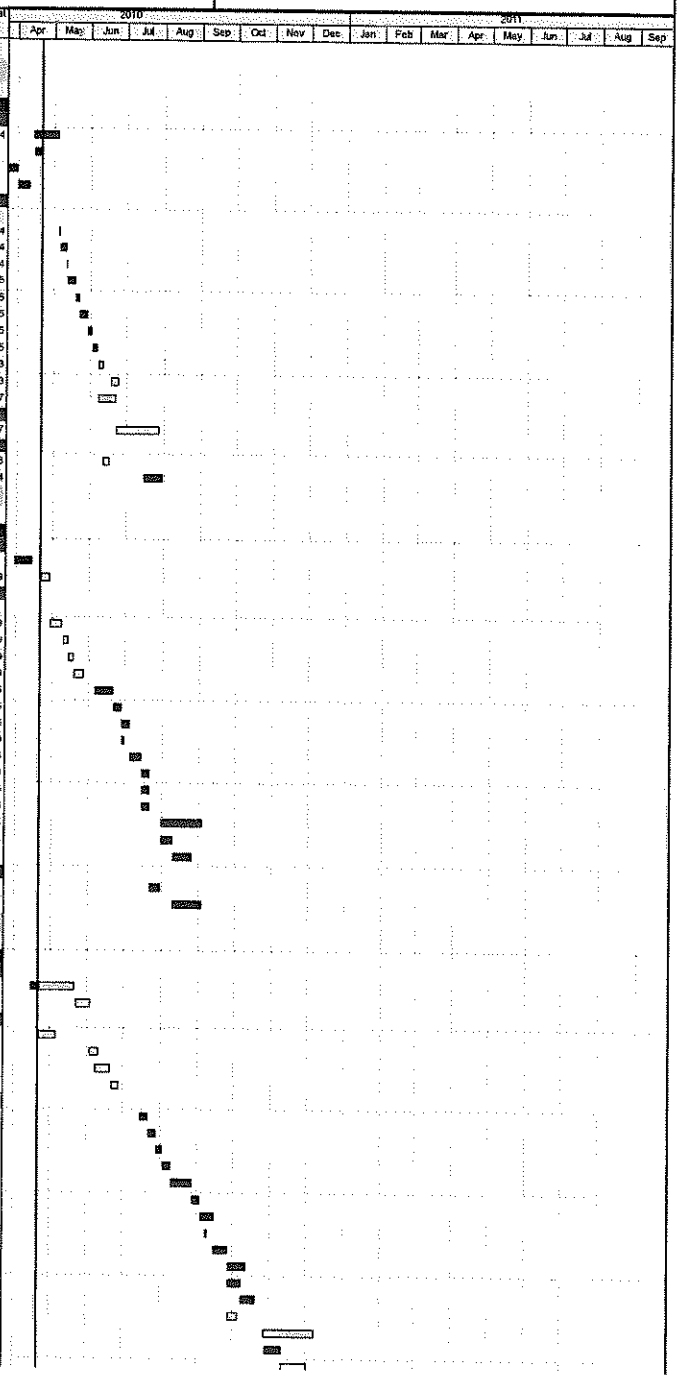
3) About 10 numbers of warning lanterns are kept in stock for ad hoc installation and replacement.

APPENDIX J

THE PROGRAMME OF DREDGING WORKS

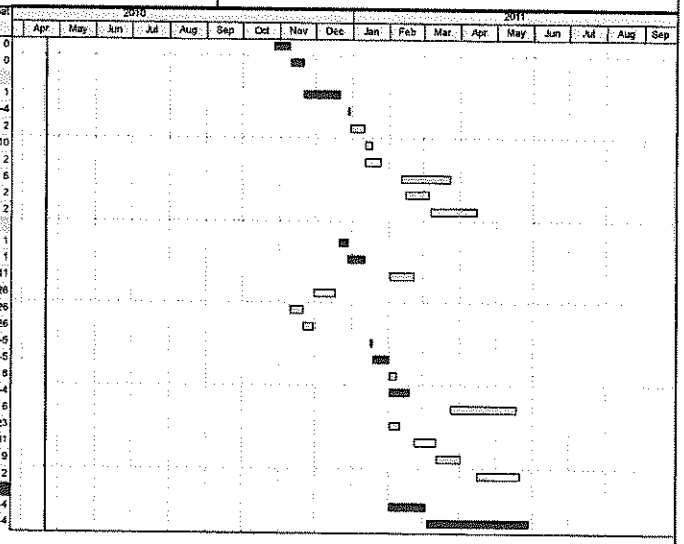
Updated Works Programme upto 20Apr2010 from | Works Programme | 29-Apr-10 17:28

Activity ID	Activity Name	Original Duration	Remaining Duration	Start	Finish	Total Float
	Updated Works Programme upto 20Apr2010 from details programme rev1					
	SECTION 1A OF WORKS (230 DAYS)					
	SEAWALLS AND RECLAMATION WORKS					
	PORTION NPR1A					
	DREDGING					
10300	Remove of existing Causeway Bay East breakwater (4605m3)	9	10	14-Apr-10 A	03-May-10	-4
10310	Suspension of removal of existing Causeway Bay East breakw	7	0	15-Apr-10 A	20-Apr-10 A	
11100	Dredging in Portion NPR1A (10,200m3)	7	0	16-Mar-10 A	31-Mar-10 A	
11200	Prepare & Submit Dredging Report	7	0	01-Apr-10 A	10-Apr-10 A	
	SEAWALL CONSTRUCTION					
	Package 1					
11700	Laying geotextile Type A	2	2	04-May-10	05-May-10	-4
11800	Seawall foundation rockfill grade 400 (3734m3)	4	4	06-May-10	10-May-10	-4
12800	Rockfill slope survey checking	1	1	11-May-10	11-May-10	-4
12810	Levelling Stone & Toe Block SP 2-3	1	1	12-May-10	12-May-10	-5
12820	Install Seawall Blocks SP 2-3 (-7.5mPD to -5.3mPD)	3	3	19-May-10	21-May-10	-5
12830	Levelling Stone & Toe Block SP 1-2	7	7	22-May-10	28-May-10	-5
12840	Install Seawall Blocks SP 1-2	4	4	29-May-10	01-Jun-10	-5
12850	Install Seawall Blocks SP 2-3 (-3.95mPD to +0.1mPD)	4	4	02-Jun-10	05-Jun-10	-5
12860	Geotextile type A & filter layer below -6.65mPD	4	4	07-Jun-10	10-Jun-10	13
15160	Rockfill type A, geotextile type A & filter layer above -6.65mPD	6	6	17-Jun-10	23-Jun-10	13
15170	Seawall foundation 0.5T armour and filter layer below -6.65mP	12	12	07-Jun-10	21-Jun-10	7
	CONSTRUCT CAUSEWAY BAY EAST BREAKWATER					
16100	Construct Causeway Bay East breakwater	30	30	22-Jun-10	27-Jul-10	7
	RECLAMATION					
15300	Reclamation upto -6.65mPD	4	4	11-Jun-10	15-Jun-10	13
15500	Reclamation upto finish level (27000m3)	14	14	15-Jul-10	30-Jul-10	-4
	SECTION 1 OF WORKS (290 DAYS)					
	SEAWALLS AND RECLAMATION WORKS					
	PORTION NPR1					
	DREDGING					
11300	Dredging in Portion NPR1 (37066m3)	10	0	30-Mar-10 A	14-Apr-10 A	
11320	Prepare & Submit Dredging Report	7	7	21-Apr-10	28-Apr-10	19
	SEAWALL CONSTRUCTION					
	Package 1 SP3-6 & 7-8 6nrs					
11900	Remove existing seawall berm stone	8	8	29-Apr-10	08-May-10	19
12000	Laying geotextile Type A	4	4	10-May-10	13-May-10	19
12100	Seawall foundation rockfill grade 400 (1307 1m3)	4	4	14-May-10	18-May-10	19
12300	Rockfill slope survey checking	6	5	19-May-10	25-May-10	19
12310	Levelling Stone & Toe Block SP 3-6	15	15	05-Jun-10	23-Jun-10	-5
12920	Levelling Stone & Toe Block SP 6-7	7	7	21-Jun-10	27-Jun-10	-5
12930	Levelling Stone & Toe Block SP 7-8	7	7	28-Jun-10	04-Jul-10	-5
12940	Float Out caisson seawalls (SP3-6 & 7-8) 5nrs	2	2	28-Jun-10	29-Jun-10	0
12950	Install caisson seawall (SP 3 to 6 & 7 to 8) 5 nos.	10	10	05-Jul-10	14-Jul-10	-5
13800	Rockfill grade 200 inside caisson seawall	6	6	15-Jul-10	21-Jul-10	-4
13810	Install Seawall Blocks SP6-7	7	7	15-Jul-10	21-Jul-10	-5
13820	Geotextile type A & filter layer below -6.65mPD	6	6	15-Jul-10	21-Jul-10	-4
14700	Construct in-situ caisson seawall (SP3 to 6 & 7 to 8) 5nos	30	30	21-Jul-10	03-Sep-10	-4
15200	Rockfill type A, geotextile type A & filter layer above -6.65mPD	8	8	31-Jul-10	09-Aug-10	-4
15250	Seawall foundation 0.5T armour and filter layer below -6.65mP	14	14	10-Aug-10	25-Aug-10	-1
	RECLAMATION					
15400	Reclamation upto -6.65mPD	8	8	22-Jul-10	30-Jul-10	-4
15600	Reclamation upto finish level (40500m3)	22	22	10-Aug-10	03-Sep-10	-4
	SECTION 2 OF WORKS (470 DAYS)					
	SEAWALLS AND RECLAMATION WORKS					
	PORTION NPR2					
	DREDGING					
11400	Dredging in Portion NPR2 (86488m3)	25	25	15-Apr-10 A	20-May-10	11
11420	Prepare and submit Dredging Report	10	10	22-May-10	02-Jun-10	11
	SEAWALL CONSTRUCTION					
12200	Remove existing seawall berm stone	12	12	21-Apr-10	05-May-10	24
12300	Laying geotextile Type A	6	6	03-Jun-10	09-Jun-10	11
12480	Seawall foundation rockfill grade 400 (41082m3)	11	11	07-Jun-10	19-Jun-10	10
13100	Rockfill slope survey checking	6	6	21-Jun-10	26-Jun-10	10
	Package 2 SP9-10, 11a-14 & 15-16 6nrs					
17210	Levelling Stone & Toe Block SP 8-9	7	7	15-Jul-10	21-Jul-10	-5
17220	Install Seawall Blocks SP8-9	7	7	22-Jul-10	28-Jul-10	-5
17230	Levelling Stone & Toe Block SP 9-10	5	5	29-Jul-10	02-Aug-10	-5
17240	Levelling Stone & Toe Block SP10-11a	7	7	03-Aug-10	09-Aug-10	-5
17250	Levelling Stone & Toe Block SP 11a-14	12	12	10-Aug-10	27-Aug-10	-5
17260	Levelling Stone & Toe Block SP 14-15	7	7	28-Aug-10	03-Sep-10	-5
17270	Levelling Stone & Toe Block SP 15-17	11	11	04-Sep-10	14-Sep-10	-5
17280	Float Out caisson seawalls (SP9-16) 6nrs	2	2	09-Sep-10	09-Sep-10	0
17290	Install caisson seawalls (SP9-16) 6nrs	12	12	15-Sep-10	28-Sep-10	-5
17300	Rockfill grade 200 inside caisson seawall SP9-16 6nrs	12	12	27-Sep-10	11-Oct-10	-2
17310	Install Seawall Blocks SP 10-11a	11	11	27-Sep-10	07-Oct-10	-5
17320	Install Seawall Blocks SP14-15	12	12	08-Oct-10	19-Oct-10	-5
17330	Geotextile type A & filter layer below -6.65mPD	6	6	27-Sep-10	04-Oct-10	4
17500	Construct in-situ caisson seawall (SP9 to SP16) 6nrs	36	36	27-Oct-10	07-Dec-10	11
17700	Rockfill type A, geotextile type A & filter layer above -6.65mPD	12	12	28-Oct-10	10-Nov-10	1
17750	Seawall foundation 0.5T armour and filter layer below -6.65mP	18	18	11-Nov-10	01-Dec-10	80



Updated Works Programme upto 20Apr2010 from	Works Programme	29-Apr-10 17:28

Activity ID	Activity Name	Original Duration	Remaining Duration	Start	Finish	Total Float
12700	Seawall foundation rockfill grade 400 (35482m3)	12	12	27-Oct-10	09-Nov-10	0
13000	Rockfill Slope survey checking	10	10	10-Nov-10	20-Nov-10	0
Package 4 SP22-28 6nrs						
13010	Levelling Stone & Toe Block SP 22-28	30	30	21-Nov-10*	20-Dec-10	1
13020	Float Out caisson walls SP22 to 28 6nrs	2	2	28-Dec-10	29-Dec-10	-4
13030	Install the caisson walls SP22 to 28 6nrs	12	12	30-Dec-10	10-Jan-11	2
13090	Geotextile type A & filter layer below -6.65mPD	6	6	11-Jan-11	18-Jan-11	10
17400	Rockfill grade 200 inside caisson seawall	12	12	11-Jan-11	24-Jan-11	2
17450	Construct in-situ caisson wall (SP22 to 28) 6nos	36	36	10-Feb-11	23-Mar-11	6
17800	Rockfill type A, geotextile type A & filter layer above -6.65mPD	18	18	14-Feb-11	05-Mar-11	2
17850	Seawall foundation 0.5T armour and filter layer below -6.65mP	30	30	07-Mar-11	14-Apr-11	2
Package 5 SP29-32 & 36-40 7nrs						
13040	Levelling Stone & Toe Block SP 28-29	7	7	21-Dec-10	27-Dec-10	1
13050	Levelling Stone & Toe Block SP29-32	15	15	28-Dec-10	11-Jan-11	1
13060	Levelling Stone & Toe Block SP 33-36	21	21	01-Feb-11	21-Feb-11	11
13070	Levelling Stone & Toe Block SP36-40	18	18	30-Nov-10	17-Dec-10	26
13080	Levelling Stone & Toe Block SP40-41	11	11	10-Nov-10*	20-Nov-10	26
14010	Install Seawall Blocks SP 40-41	9	9	21-Nov-10	29-Nov-10	26
14020	Float Out caisson seawalls SP29-32 & 36-40 7nrs	3	2	16-Jan-11	17-Jan-11	-5
14030	Install caisson seawalls SP29-32 & 36-40 7nrs	14	14	18-Jan-11	31-Jan-11	-5
14032	Geotextile type A & filter layer below -6.65mPD	6	6	01-Feb-11	08-Feb-11	6
14040	Rockfill grade 200 inside caisson seawall	12	12	01-Feb-11	17-Feb-11	-4
14050	Construct in-situ caisson wall (SP29-32 & 36-40) 7nrs	42	42	24-Mar-11	17-May-11	6
14055	Install Seawall Blocks SP28-29	9	9	01-Feb-11	09-Feb-11	23
14060	Install Seawall Blocks SP 32-36	18	18	22-Feb-11	11-Mar-11	11
14070	Rockfill type A, geotextile type A & filter layer above -6.65mPD	18	18	12-Mar-11	31-Mar-11	9
14090	Seawall foundation 0.5T armour and filter layer below -6.65mp	30	30	15-Apr-11	20-May-11	2
RECLAMATION						
17900	Reclamation upto -6.65mPD	24	24	01-Feb-11	03-Mar-11	-4
18000	Reclamation upto finish level (108000m3)	67	67	05-Mar-11	28-May-11	-4



APPENDIX K

THE PHOTOGRAPHIC RECORD OF FLOODLIGHTS MOUNTED ON THE DREDGER

The photographic record of floodlights mounted on the dredger

Photo 01

Photo 02

Photo 03