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

REVISED NOISE MANAGEMENT PLAN

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

Table of Content

Appendix

1.0 Introduction

Under the requirement of Condition 2.16 of the Further Environmental Permit No. FEP-01/356/2009 for the Project "Wan Chai Development Phase II and Central-Wan Chai Bypass - North Point Reclamation", China Harbour Engineering Company Limited – China Road and Bridge Corporation Joint Venture (the Contractor) has submitted Noise Management Plan to EPD for deposited on 1st March 2010

The abovementioned contract entitled "North Point Reclamation" (Contract No. HY/2009/11) – as a part of the "permanent and temporary reclamation works including associated dredging and backfilling works in Wan Chai Development Phase II (WDII) area" which is covered by in the Environmental Permit No. EP-356/2009. China Harbour Engineering Company Limited – China Road and Bridge Corporation Joint Venture (CHEC-CRBC JV, hereafter JV) grants a further environmental permit (No. FEP-01/356/2009). Under the Part C of the FEP, JV prepares a noise management plan in order to fulfill the FEP condition. This NMP provide an evaluation of the potential noise impacts arising during construction and operation phases. The construction noise levels have been predicted based on the estimate of the construction plants used and assessed against the EIAO-TM noise criteria. Appropriate mitigation measures have been recommended where adverse impacts are predicted. ***Please refer to the general layout plan on Appendix A.***

2.0 Environmental Legislation, Policies, Plans, Standards and Criteria

Noise impacts were assessed in accordance with the criteria and methodology given in the Technical Memoranda made under the Noise Control Ordinance (NCO), and EIAO-TM.

2.1 The NCO provides the statutory framework for noise control. This defines statutory limits applicable to equipment used during the construction and operation phases of the Project. The NCO invokes four Technical Memoranda, which define the technical means for noise assessment

2.2 Technical Memorandum on Noise from Places other than Domestic Premises, Public Places or Construction Sites (IND-TM)

2.3 Technical Memorandum on Noise from Construction Work in Designated Areas (DA-TM) and

2.4 Technical Memorandum on Noise from Construction Work other than Percussive Piling (GW-TM).

The NCO and the accompanying Technical Memoranda provide a mechanism for assessing noise levels and provide the statutory power to control noise

2.5 The NCO provides the statutory framework for noise control of construction work other than percussive piling using powered mechanical equipment (PME) between the hours of 1900 and 0700 or at any time on Sundays and a general holiday (that is,

restricted hours). Noise control on construction activities taking place at other times is subject to the Criteria for Evaluating Noise Impact stated in Table 1B of Annex 5 in the EIAO-TM. The noise limit is 75 dB(A) $L_{eq\ (30\ minutes)}$ at the facades of dwellings and 70 dB(A) $L_{eq\ (30\ minutes)}$ at the facades of schools (65 dB(A) during examinations). The construction noise criteria are summarised in Table 1.

Table 1 - Daytime Construction Noise Criteria

Uses	Noise Level in Leq(30-minutes), dB(A)
Domestic premises	75
Educational Institution	70
Educational Institution (during examination)	65

2.6 Between 1900 and 0700 hours and all day on Sundays and public holidays, activities involving the use of powered mechanical equipment (PME) for the purpose of carrying out construction work is prohibited unless a Construction Noise Permit (CNP) has been obtained. A CNP may be granted provided that the Acceptable Noise Level (ANL) for the noise sensitive receivers (NSRs) can be complied with. ANLs are assigned depending upon the Area Sensitivity Ratings (ASRs). The corresponding basic noise levels (BNLs) for evening and night time periods are given in Table 2.

Table 2 - Construction Noise Criteria for Activity other than Percussive Piling

Time Period	Basic Noise Level (BNLs)		
	ASR A	ASR B	ASR C
Evening (1900 to 2300 hours) (1)	60	65	70
Night (2300 to 0700 hours)	45	50	55

2.7 With regard to the assessments of the construction noise impact during restricted hours and operation noise impact, the NCO designates acceptable noise levels for Noise Sensitive Receivers (NSRs) on the basis of an Area Sensitivity Rating (ASR), based on the characteristics of the area within which they are located such as rural, village, low-density residential, or urban (see Table 1). Within these areas, the presence of "influencing factors" (such as the presence of industrial activities or major roads) can further affect the ASR and hence the acceptable noise level.

Table 3 Area Sensitivity Ratings (ASRs)

Type of Area Containing NSR	Degree to which NSR is affected by Influencing Factor		
	Not Affected	Indirectly Affected	Directly Affected
Rural Area	A	B	B
Urban Area	B	C	C
Low density residential area consisting of low-rise or isolated high-rise developments	A	B	C
Area other than those above	B	B	C

3.0 Noise Sensitive Receivers

In order to evaluate the construction and operational noise impacts from the Project alignments, representative existing and planned noise sensitive receivers (NSRs) within 300m from the boundary of the Project (Study Area) are identified for assessment. NSRs have been identified for assessment because it would provide acoustic shielding to those receivers at further distance behind. As the centrally air-conditioned buildings do not rely on opened windows for ventilation, the noise standard as stipulated in Table 1 of EIAO-TM would not be applicable, and hence these buildings have not been identified for noise impact assessment. The locations of those NSRs were listed in ***Appendix G***.

Table 4 Noise Sensitive Receiver(s) NSRs within site area.

Noise Sensitive Receiver(s) NSRs	Section	Location	Use
N16	Tin Hau	Victoria Centre	Residential
N17	Tin Hau	Harbour Heights	Residential
N18	North Point	City Garden, Block 10	Residential

4.0 Identification of Major Construction Activities

Based on the section 4.7 and 4.8 of the EIA report and the following construction activities of the captioned Project are considered needing further noise mitigation and there are:

4.1 Temporary seawall construction, filling behind seawall for whole of WDII construction and

4.2 Drainage culverts construction.

According to the construction activities listed in 4.1 & 4.2, the details of breakdown of abovementioned construction activities as the follow:

a) Dredging for reclamation areas and seawalls;

b) Seawall Construction

c) Installation of Caisson Seawall (Construction of Caisson which is precast in Panyu of mainland China;

d) Filling behind Seawall and

e) Drainage Culvert Construction Works.

The details of the drainage culvert construction works:

- Open Channel T – Blockwork Wall Layout, pplease refer to the ***Appendix B***,
- Open Channel U – Blockwork Wall Layout, please refer to the ***Appendix C***,
- Open Channel V – Blockwork Wall Layout, please refer to the Appendix D,
- Seawall Layout & Setting Out Plan, please refer to the Appendix E and
- Dredging Layout, please refer to the ***Appendix F*** for details

5.0 Predication and Evaluation of Environmental Impacts

For Based on the EIA report, the construction works carried out of the project during normal daytime working hours by the North Point Reclamation (HY/2009/11) had been listed above. All of the works conducted beyond daytime, (i.e. restricted hour) will further apply Construction Noise Permit (CNP) individually from EPD and will not mention in this management plan.

Details prediction of noise level refers to the EIA report, section 4.7 – 4.8.

Elaboration of the plants list for individual construction activities will specify through the submission of Method Statement (hereafter MS) to the Engineer Representative (ER) Office, Environmental Team (ET) and Independent Environmental Checker (IEC) for further approval and endorsement before carrying out works. The construction schedule showed in ***Appendix H***.

6.0 Mitigation of Environmental Impacts

i) CHEC-CRBC JV will take all possible preventive measures on site in order to minimize the probably noise nuisance arising from the construction activities.

ii) Construction of caisson seawall in Panyu of mainland China and minimize the chance on – site casting on – site. In addition, lower the usage of the concrete concrete lorry mixer and poker vibrator.

iii) Modification of the construction procedures. Approval was made by ER that the construction of the culvert will precast in the mainland China and replace casting on – site. In addition, lower the usage of the concrete concrete lorry mixer and poker vibrator.

iv) Shipment of the caisson seawall via the marine – based journey in order to lower the generation of noise from a long vehicles and minimize the chance of traffic congestion and far away from the public.

v) The construction plants and equipment use on –site will shut down / turn off when not in use. All cover panel, hoods and covers of the construct ion plant such as air compressor and generator during in use.

vi) The construction plants and equipment use on –site will be check and maintain in a good condition in order to minimize the noise generation during operation of the powered mechanical equipment.

vii) The construction plants and equipment use on – site will far away from the noise sensitive receiver in order to lower the noise impact from the operation of the power mechanical equipment.

viii) Whole contract of North Point Reclamation split into several stages in order to shorten the period of construction and minimize the noise effect to the neighborhood resident and education institution.

~ END ~

APPENDIX A

LAYOUT PLAN

816800 N 837400 E

817000 N 837600 E

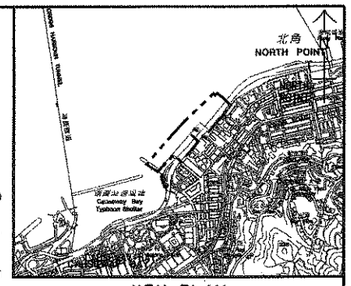
816600 N

NOTES:

1. ALL LEVELS ARE IN METRES WITH REFERENCE TO HONG KONG PRINCIPAL DATUM.
2. ALL COORDINATES GIVEN ARE ACCORDING TO HONG KONG (1980) GRID IN METRES.
3. DETAILS OF DRAINAGE WORKS SHALL REFER TO DRG. Nos. 60095653/NP/2001, 2002, 2011, 2012, AND 2021 TO 2024.
4. DETAILS OF SEAWALL WORKS SHALL REFER TO DRG. Nos. 60095653/NP/6011, 6012, 6021, 6022, 6031, 6032, 6041 TO 6053, 6061 TO 6068, 6081, 6082, 6101 TO 6109, 6131 TO 6132, 6151, 6152, 6171 AND 6172.
5. DETAILS OF RECLAMATION WORKS SHALL REFER TO DRG. Nos. 60095653/NP/6201, 6205 TO 6207 AND 6210 TO 6216.
6. EXACT LOCATION OF THE RELOCATED NAVIGATION LIGHT SHALL BE DIRECTED BY THE ENGINEER ON SITE.

LEGEND:

- SITE BOUNDARY
- (+3.90) EXISTING LEVEL (mPD)
- PROPOSED OPEN CHANNEL



KEY PLAN
SCALE 1 : 20000

PROPOSED OPEN CHANNEL T
PROVISION WORKS FOR FUTURE 1500 DIA. OUTFALL
PROPOSED SEAWALL COPE LINE
PROPOSED AREA OF RECLAMATION
PROPOSED OPEN CHANNEL U
PERMANENT LOCATION FOR RELOCATED NAVIGATION LIGHT
PROPOSED LANDING STEP
PROPOSED LANDING STEP
EXISTING MARINE RCP TO BE REPROVISIONED
EXISTING NAVIGATION LIGHT TO BE RELOCATED
ISLAND EASTERN CORRIDOR
EXISTING ACCESS TO HARBOUR HEIGHT
ACCESS ROAD TO HARBOUR HEIGHT'S CARPARK AND HOME AFFAIRS DEPT. CAUSEWAY BAY COMMUNITY CENTRE
COMMUNITY LIAISON CENTRE
LOCATION OF REPROVISIONED MARINE RCP
KING WAN ROAD
WANG ON ROAD
ELECTRIC ROAD
KING MING ROAD
HING TAI STREET
OIL STREET
POWER STREET
WATSON ROAD
WHITFIELD ROAD
FOOK YUM ROAD
Elevated Road
Seawall
Car Park
Podium
Outlet

REV. 修訂	DESCRIPTION 內容修訂	DESIGNED 設計	DATE 日期
A	WORKING DRAWING	RC	DEC 09
-	TENDER DRAWING	RC	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

GENERAL LAYOUT

AECOM

DRG.NO. 圖紙編號 60095653/NP/1001A

DESIGNED BY 設計	TTF	CONTRACT NO. 合約編號	HY/2009/11
DRAWN BY 繪圖	LJ	P. Dir. APPROVED 批准人	CW
SCALE 比例	A1 1 : 1000 A3 1 : 2000	STATUS 狀態	WORKING DRAWING
DIMENSIONS ARE IN 尺寸單位	METRES		

Plot File by : ZHENGCD 2009-9-22

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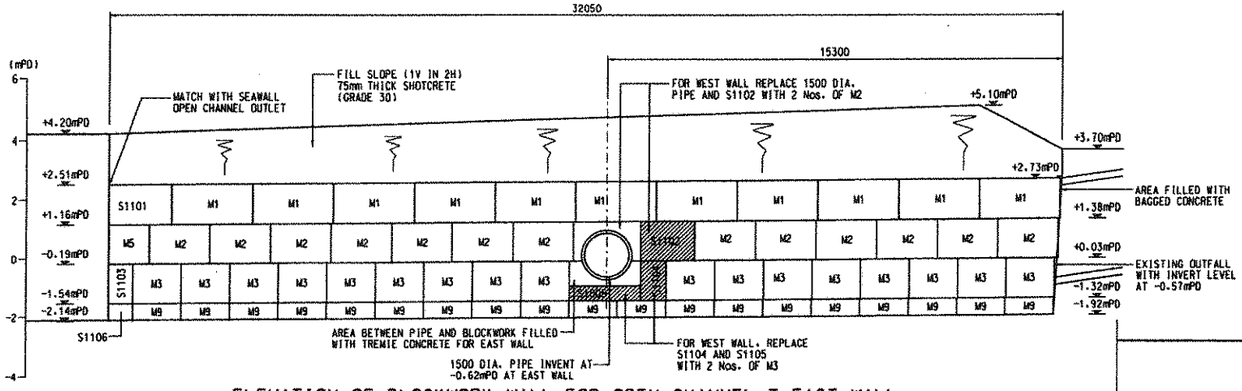
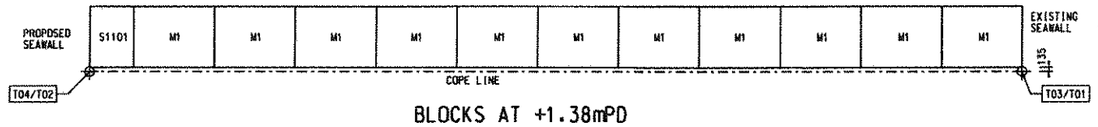
APPENDIX B

OPEN CHANNEL T – BLOCKWORK WALL LAYOUT



ELEVATION OF BLOCKWORK WALL FOR OPEN CHANNEL T-EAST WALL
(SIMILAR FOR WEST WALL EXCEPT AS NOTED)
N.T.S.



BLOCKS AT +1.38mPD
(SIMILAR FOR EAST AND WEST WALLS)
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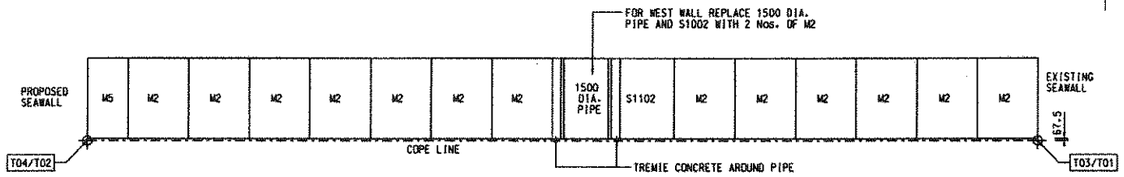

BLOCKS AT +0.03mPD
(SIMILAR FOR WEST WALL EXCEPT AS NOTED)
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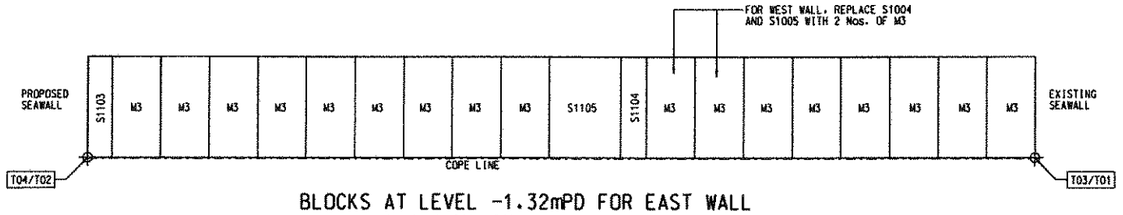

BLOCKS AT LEVEL -1.32mPD FOR EAST WALL
(SIMILAR FOR WEST WALL EXCEPT AS NOTED)
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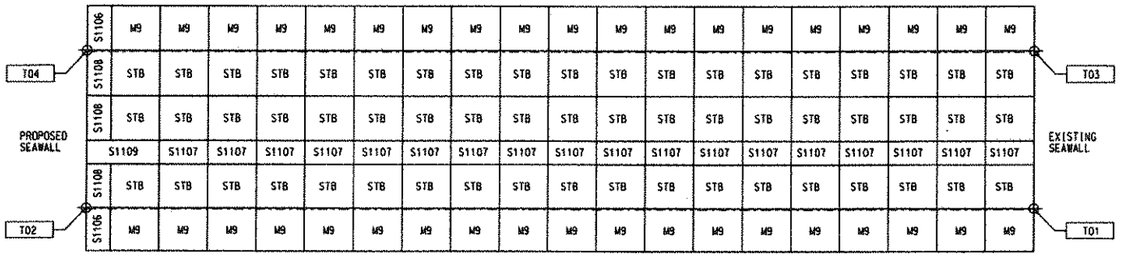


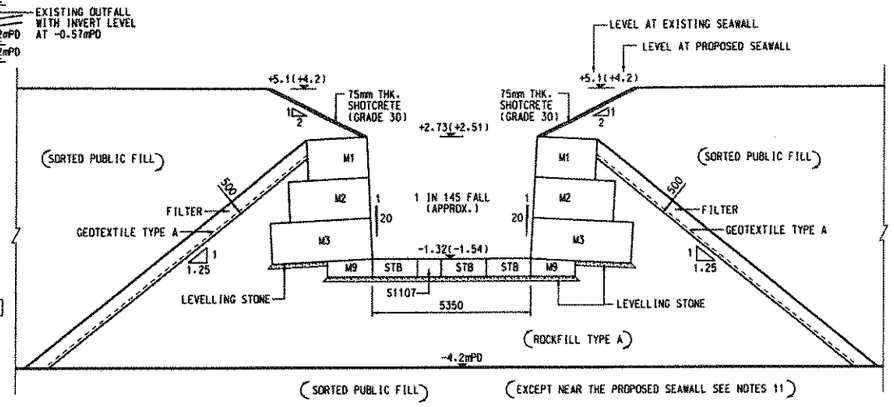
BASE BLOCKS LAYOUT PLAN FOR OPEN CHANNEL T (AT LEVEL -1.92MPD)
N.T.S.

PRECASTED BLOCK DETAILS FOR OPEN CHANNEL BLOCKWORK WALL

BLOCK TYPE	X1	X2	X3	Y1	Y2	Z1	Z2	ANGLE θ	ANGLE β	FIGURE No.
S1101	2100	-	-	2025	-	1350		-	-	1
S1102	1805	-	-	2700	-	1350		-	-	1
S1103	800	-	-	3375	-	1350		-	-	1
S1104	850	-	-	3375	-	1350		-	-	1
S1105	2390	-	-	3375	-	500		-	-	1
S1106	800	-	-	1500	-	600	525	-	-	12
S1107	1620	-	-	800	-	600		-	-	1
S1108	800	-	-	1500	-	600		-	-	1
S1109	2430	-	-	800	-	600		-	-	1
STB	1620	-	-	1500	-	600		-	-	1

SETTING OUT POINT

SETTING OUT POINT	EASTING	NORTHING
T01	837562.43	816582.35
T02	837538.24	816603.38
T03	837565.92	816586.40
T04	837541.74	816607.42



TYPICAL SECTION FOR OPEN CHANNEL T
N.T.S.

NOTES:

1. ALL DIMENSIONS ARE IN MILLIMETRES UNLESS OTHERWISE STATED.
2. ALL LEVEL ARE IN METRES ABOVE PRINCIPAL DATUM (mPD).
3. FOR DETAILS OF BLOCKWORK FOUNDATION AND SLIP JOINT DETAILS REFER TO DRAWING No. 60095653/NP/6151.
4. THIS DRAWING SHALL BE READ IN CONJUNCTION WITH DRAWING Nos. 60095653/NP/2001, 2002, 2021 TO 2023, 6131 AND 6132.
5. THE SHEAR KEY IS NOT SHOWN ON THE FIGURES FOR CLARITY.
6. THE DIMENSIONS OF PRECAST CONCRETE BLOCKS INCLUDING SPECIAL BLOCKS ARE NOMINAL ONLY AND SHALL BE ADJUSTED AS NECESSARY BY THE CONTRACTOR IN ORDER TO ACHIEVE SEAWALL DIMENSIONS SHOWN IN THE PLANS, ELEVATIONS AND SECTIONS.
7. DETAILS OF LIFTING ARRANGEMENTS SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL (NO REINFORCEMENT IS ALLOWED TO BE INSTALLED IN THE PRECAST BLOCK FOR PURPOSE OF LIFTING).
8. ALL EXPOSED CORNERS OF CHANNEL WALL BLOCKS SHALL BE CHAMFERED 40m x 40m.
9. UNLESS OTHERWISE STATED, CONCRETE FOR PRECAST CONCRETE BLOCKS SHALL BE DESIGN MIX OF GRADE 20/40.
10. FOR DIMENSIONS OF STANDARD PRECAST SEAWALL BLOCKS M1 TO M9 REFER CEDD STANDARD DRAWING Nos. C3010/1D, 2C, 3C, 4C AND 5C.
11. ROCKFILL FOUNDATION FOR THE BLOCK WORK CHANNEL WALLS SHALL MEET THE PROFILE OF THE ROCKFILL FOR THE PROPOSED SEAWALL AS SHOWN IN DRAWING Nos. 60095653/NP/6021 AND 6022.

REV. 修訂	DESCRIPTION 內容修訂	BY 由	CHECKED 核對	DATE 日期
A	WORKING DRAWING	RC	BCC	DEC 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

OPEN CHANNEL T - BLOCKWORK WALL LAYOUT

AECOM

DRG.NO. 圖紙編號: 60095653/NP/2021A

DESIGNED BY 設計	TTF	CONTRACT NO. 合約編號	HY/2009/11
CHK. BY, APPROVED 核對人	CW	DRAWN BY 繪圖	ZCD
SCALE 比例	AS SHOWN	STATUS 狀態	WORKING DRAWING
DIMENSIONS ARE IN 尺寸單位	MILLIMETRES		

Plot File by : ZHONGCD 2009-9-22

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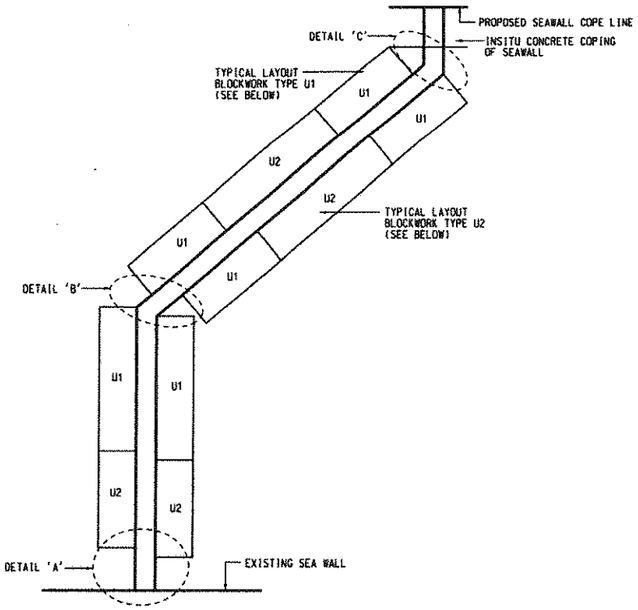
APPENDIX C

OPEN CHANNEL U – BLOCKWORK WALL LAYOUT



TYPICAL BLOCKWORK LAYOUT OF OPEN CHANNEL U
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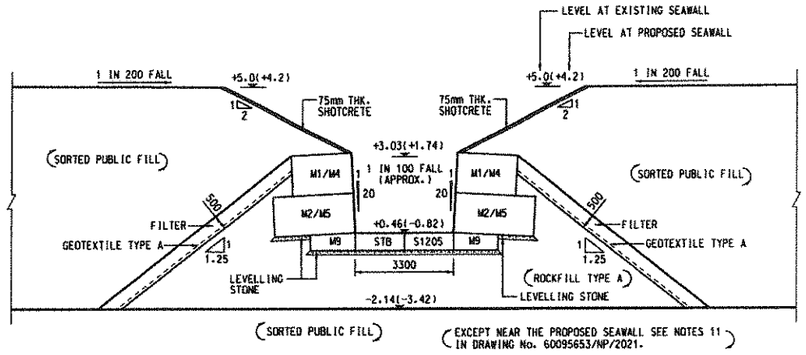

TYPICAL SECTION FOR OPEN CHANNEL U
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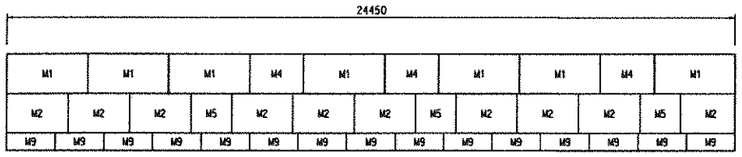

TYPICAL ELEVATION OF BLOCKWORK WALL TYPE U1
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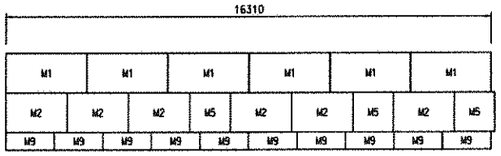
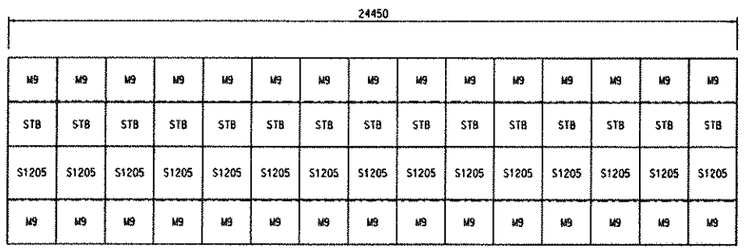
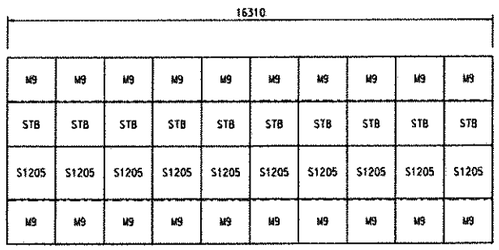


TYPICAL ELEVATION OF BLOCKWORK WALL TYPE U2
N.T.S.



TYPICAL BLOCKS AT CHANNEL BASE FOR WALL TYPE U1
N.T.S.



TYPICAL BLOCKS AT CHANNEL BASE FOR WALL TYPE U2
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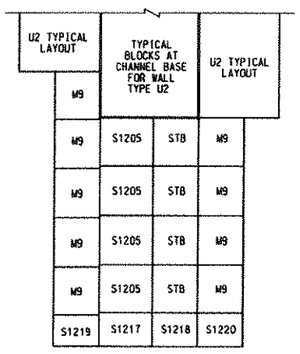

DETAIL 'A' LAYER 1
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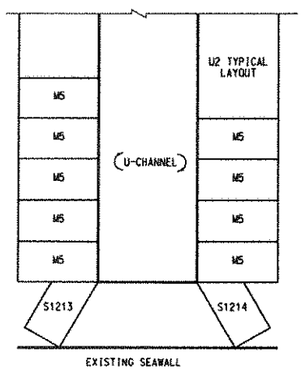

DETAIL 'A' LAYER 2
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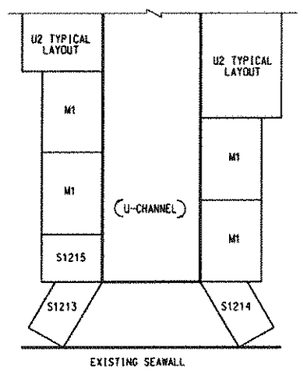


DETAIL 'A' LAYER 3
N.T.S.

PRECAST BLOCK DETAILS FOR OPEN CHANNEL WALL

BLOCK TYPE	X1	X2	X3	Y1	Y2	Z1	Z2	ANGLE	ANGLE B	FIGURE No.
S1201	1205	–	–	1305	–	600	–	–	–	1
S1202	800	–	–	1500	–	600	–	132	–	3
S1203	700	1075	–	1770	–	600	–	138	132	9
S1204	1455	–	–	1350	–	600	–	–	–	1
S1205	1620	–	–	1770	–	600	–	–	–	1
S1206	1205	–	–	1350	–	1350	–	132	–	3
S1207	2293	–	–	1350	–	1350	–	48	–	3
S1208	1335	–	–	1350	–	1350	–	140	–	3
S1209	2115	–	–	1350	–	1350	–	40	–	4
S1210	3830	–	–	1770	–	600	–	40	–	4
S1211	1600	1540	–	1500	–	600	–	130	140	9
S1212	635	–	–	1500	–	600	–	–	–	1
S1213	1795	–	–	1350	–	1350	–	120	–	3
S1214	1795	–	–	1350	–	1350	–	120	–	3
S1215	1560	–	–	2025	–	1350	–	–	–	1
S1216	1620	–	–	1770	–	600	–	–	–	1
S1217	1140	–	–	1770	–	600	–	–	–	1
S1218	1140	–	–	1500	–	600	–	–	–	1
S1219	1060	–	–	1500	–	600	–	–	–	1
S1220	1140	–	–	1500	–	600	–	–	–	1
STB	1620	–	–	1500	–	600	–	–	–	1

NOTES:

1. ALL DIMENSIONS ARE IN MILLIMETRES UNLESS OTHERWISE STATED.
2. THIS DRAWING SHALL BE READ IN CONJUNCTION WITH DRAWING Nos. 60095653/NP/2001, 2002, 2021 TO 2023, 6131 & 6132.
3. FOR GENERAL NOTES REFER TO DRAWING No. 60095653/NP/2021.

REV. 版次	DESCRIPTION 內容摘要	DESIGNED 設計	CHECKED 核對	DATE 日期
A	WORKING DRAWING	RC	RCC	DEC 09
-	TENDER DRAWING	RC	RCC	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

OPEN CHANNEL U - BLOCKWORK WALL LAYOUT

SHEET 1 OF 2

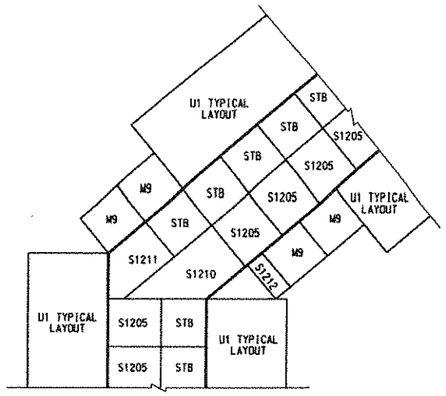
AECOM

DRG.NO. 60095653/NP/2022A

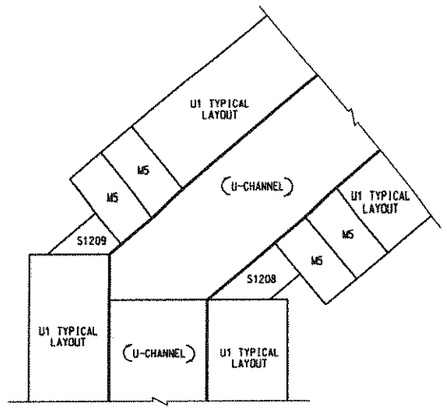
DESIGNED BY 設計	CONTRACT NO. 合約編號	CHK. BY APPROVED 核對
TTF	HY/2009/11	CW
DRAWN BY 繪圖	STATUS 狀態	
ZCD	WORKING DRAWING	
SCALE 比例		
AS SHOWN		
DIMENSIONS ARE IN 尺寸單位	© COPYRIGHT RESERVED 版權所有	
MILLIMETRES		

Plot File by : ZHEONGCD 2009-9-22

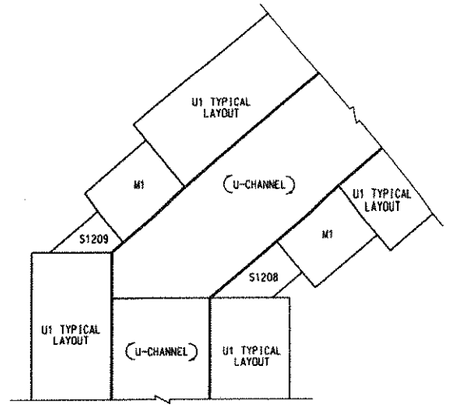
p:\projects\60095653\drawing\np\2000\NP_2022.dgn



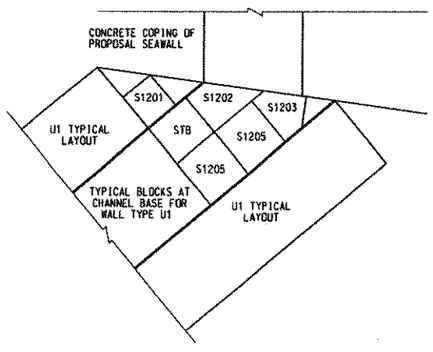
DETAIL 'B' LAYER 1
N.T.S.



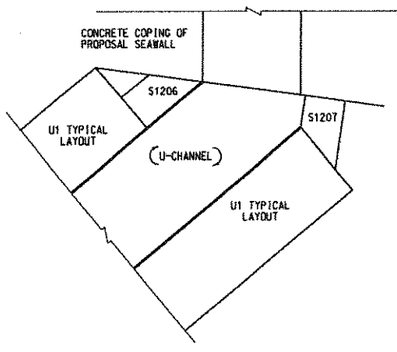
DETAIL 'B' LAYER 2
N.T.S.



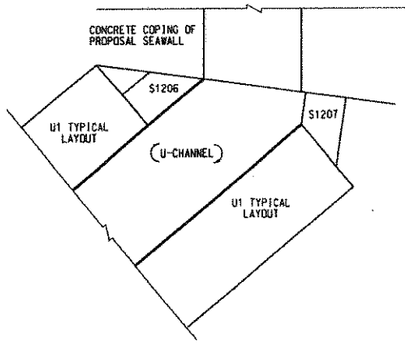
DETAIL 'B' LAYER 3
N.T.S.



DETAIL 'C' LAYER 1
N.T.S.



DETAIL 'C' LAYER 2
N.T.S.



DETAIL 'C' LAYER 3
N.T.S.

NOTES:

1. ALL DIMENSIONS ARE IN MILLIMETRES UNLESS OTHERWISE STATED.
2. THIS DRAWING SHALL BE READ IN CONJUNCTION WITH DRAWING Nos. 60095653/NP/2001, 2002, 2021 TO 2023, 6131 & 6132.
3. FOR GENERAL NOTES REFER TO DRAWING No. 60095653/NP/2021.

REV. 修訂	DESCRIPTION 內容修訂	CHECKED 核查	DATE 日期
A	WORKING DRAWING	RC SCC	DEC 09
-	TENDER DRAWING	RC SCC	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

OPEN CHANNEL U - BLOCKWORK WALL LAYOUT

SHEET 2 OF 2

AECOM

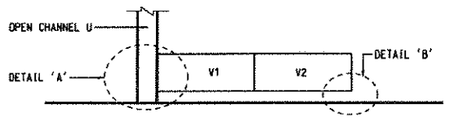
DRG.NO. 圖紙編號	60095653/NP/2023A
DESIGNED BY 設計	TTF
CONTRACT NO. 合約編號	HY/2009/11
P. DIV. APPROVED 部門人	CW
DRAWN BY 繪圖	ZCD
STATUS 狀態	WORKING DRAWING
SCALE 比例	AS SHOWN
DIMENSIONS ARE IN 尺寸單位	MILLIMETRES

Plot File by:: ZHEONGCD 2009-9-22

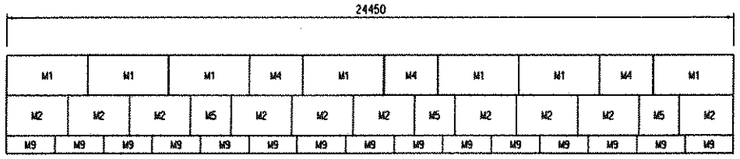
p:\projects\60095653\drawing\np\2000\NP_2023.dgn

APPENDIX D

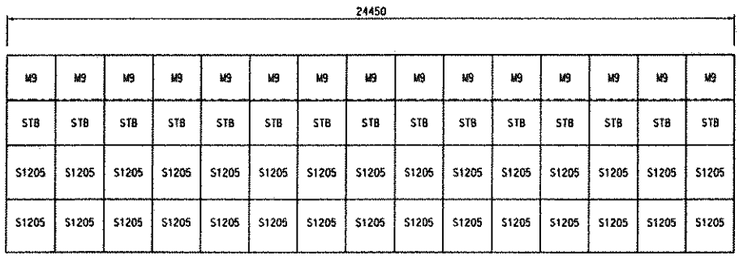
OPEN CHANNEL V – BLOCKWORK WALL LAYOUT



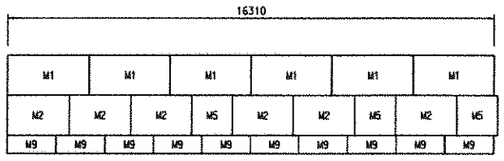
TYPICAL BLOCKWORK LAYOUT OF OPEN CHANNEL V
N.T.S.



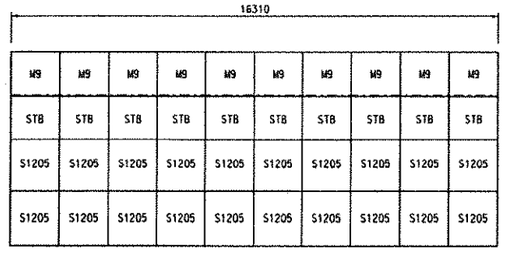
TYPICAL ELEVATION OF BLOCKWORK WALL TYPE V1
N.T.S.



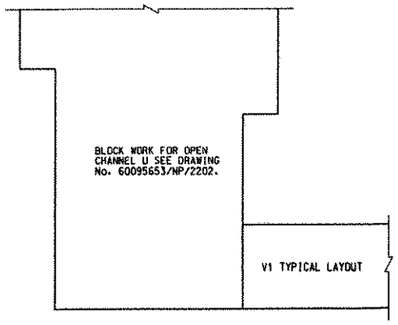
TYPICAL BLOCKS AT CHANNEL BASE FOR WALL TYPE V1
N.T.S.



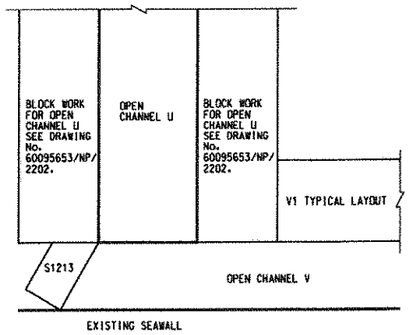
TYPICAL ELEVATION OF BLOCKWORK WALL TYPE V2
N.T.S.



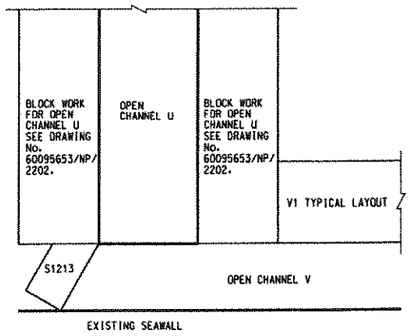
TYPICAL BLOCKS AT CHANNEL BASE FOR WALL TYPE V2
N.T.S.



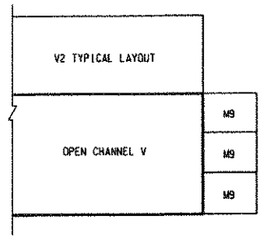
DETAIL 'A' LAYER 1
N.T.S.



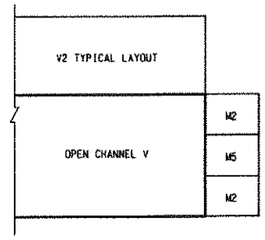
DETAIL 'A' LAYER 2
N.T.S.



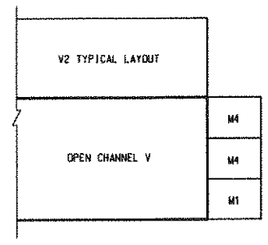
DETAIL 'A' LAYER 3
N.T.S.



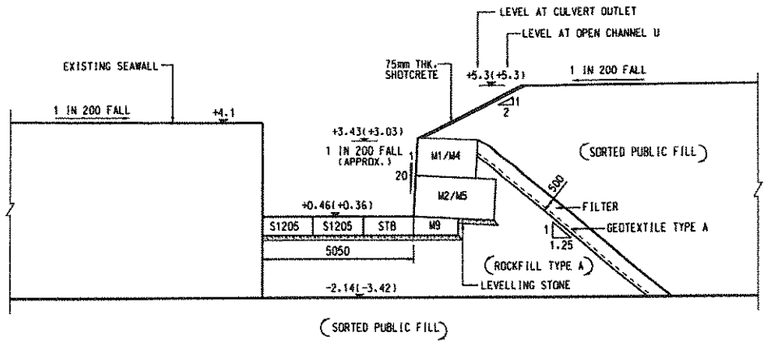
DETAIL 'B' LAYER 1
N.T.S.



DETAIL 'B' LAYER 2
N.T.S.



DETAIL 'B' LAYER 3
N.T.S.



TYPICAL SECTION FOR OPEN CHANNEL V
N.T.S.

NOTES:

1. ALL DIMENSIONS ARE IN MILLIMETRES UNLESS OTHERWISE STATED.
2. THIS DRAWING SHALL BE READ IN CONJUNCTION WITH DRAWING Nos. 60095653/NP/2001, 2002, 2021 TO 2023, 6131 & 6132.
3. FOR GENERAL NOTES REFER TO DRAWING No. 60095653/NP/2021.
4. FOR SPECIAL BLOCK WORK SEE DRAWING No. 60095653/NP/2021.
5. THE CONSTRUCTION OF CHANNEL V IS SUBJECT TO THE INSTRUCTION OF THE ENGINEER.

REV. 修訂	DESCRIPTION 內容摘要	CHECKED 核對	DATE 日期
A	WORKING DRAWING	RC ACC	DEC 09
-	TENDER DRAWING	RC ACC	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

OPEN CHANNEL V - BLOCKWORK WALL LAYOUT

AECOM

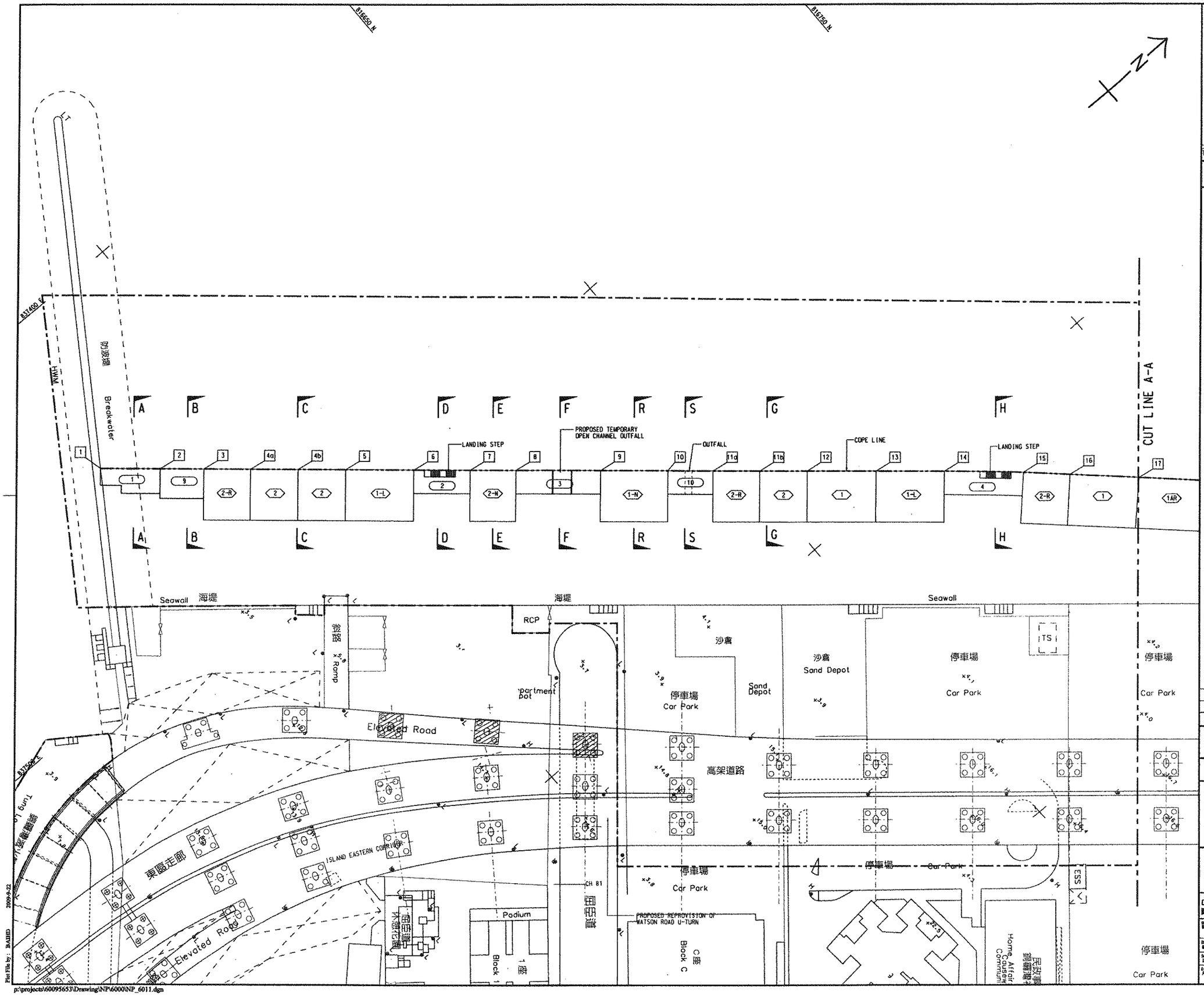
DRG.NO. 圖紙編號	60095653/NP/2024A
DESIGNED BY 設計	TTF
CONTRACT NO. 合約編號	HY/2009/11
P. DIV. APPROVED 部門核准	CW
DRAWN BY 繪圖	CJH
STATUS 狀態	WORKING DRAWING
SCALE 比例	AS SHOWN
DIMENSIONS ARE IN 尺寸單位	MILLIMETRES

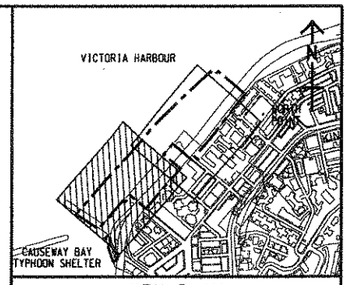
Plot File by : ZISONGCD 2009-9-22

p:\projects\60095653\drawing\np\2000\NP_2024.dgn

APPENDIX E

SEAWALL LAYOUT & SETTING OUT PLAN





KEY PLAN
SCALE 1 : 10000

NOTES:

1. THIS DRAWING TO BE READ IN CONJUNCTION WITH DRAWING NOS. 60095653/NP/6012.
2. ALL LEVELS ARE IN METRES WITH REFERENCE TO PRINCIPAL DATUM.
3. ALL COORDINATES ARE GIVEN TO HONG KONG METRIC GRID IN METRES.
4. ALL DIMENSIONS ARE IN METRES UNLESS OTHERWISE NOTED.
5. FOR SEAWALL SECTIONS REFER DRAWING NOS. 60095653/NP/6021 & 6022.
6. FOR CAISSON SEAWALL DETAILS REFER DRAWING NOS. 60095653/NP/6041 TO 6053.
7. FOR SEAWALL BLOCK LAYOUT REFER DRAWING NOS. 60095653/NP/6101 TO 6109.

LEGEND:

- SITE BOUNDARY
- COPE LINE
- 11 — SETTING OUT POINT
- 1 — CAISSON SEAWALL TYPE1
- 1 — BLOCKWORK WALL TYPE 1

SETTING OUT POINT	COORDINATES	
	EASTING	NORTHING
1	837447.105	816509.201
2	837458.435	816522.236
3	837466.700	816531.746
4a	837475.533	816541.909
4b	837484.521	816552.249
5	837493.508	816562.589
6	837506.473	816577.507
7	837517.173	816589.817
8	837525.852	816599.803
9	837541.891	816618.257
10	837554.703	816632.997
11a	837563.257	816642.839
11b	837572.090	816653.002
12	837581.077	816663.342
13	837594.197	816678.438
14	837607.163	816693.355
15	837622.414	816710.488
16	837631.697	816720.245

REV. 修訂	DESCRIPTION 內容修訂	BY 由	CHKD'D 核實	DATE 日期
A	WORKING DRAWING	RC	BCC	DEC 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

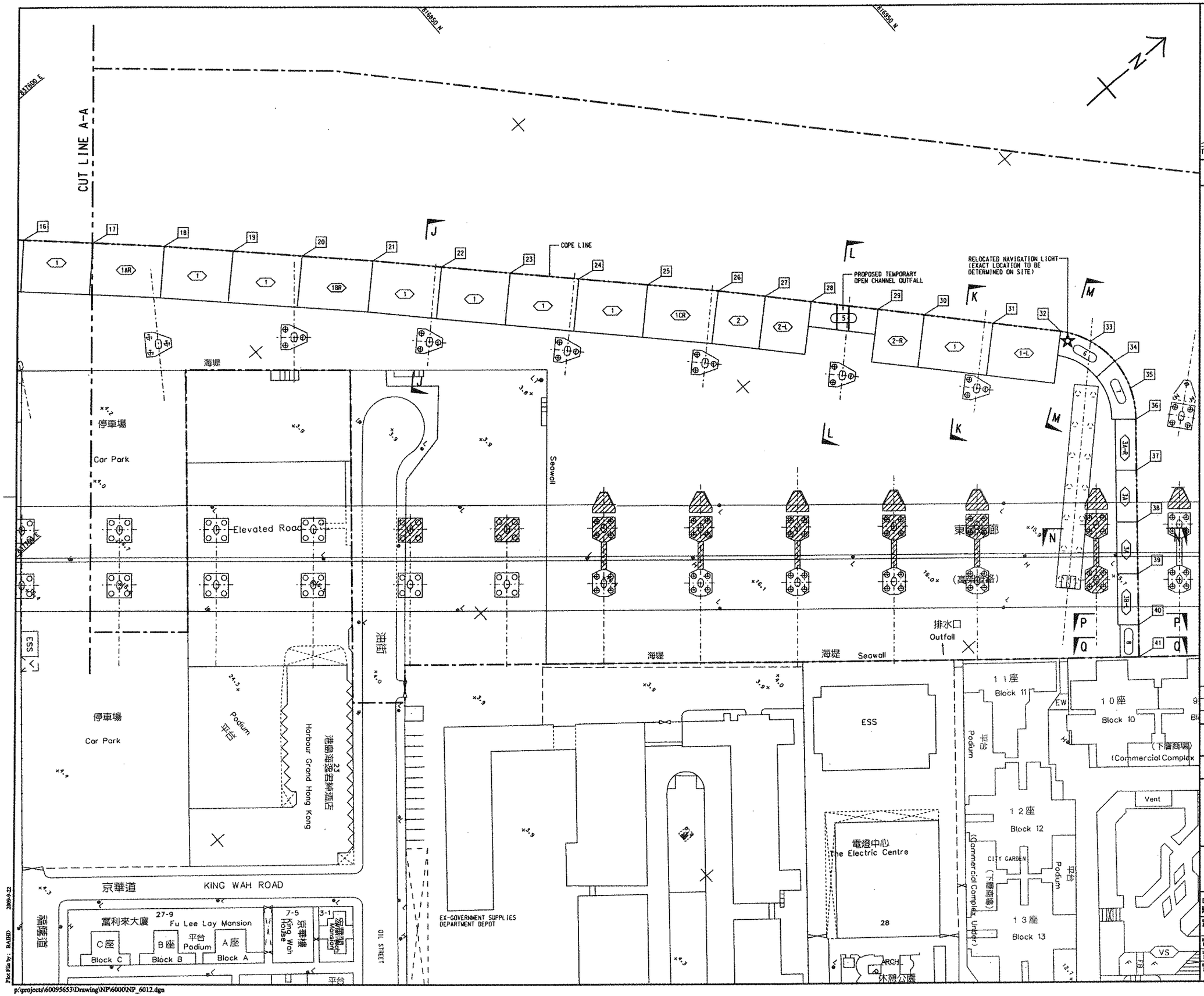
SEAWALL LAYOUT & SETTING OUT PLAN

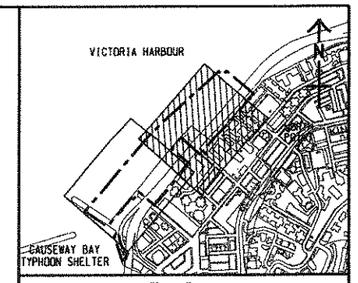
SHEET 1 OF 2

AECOM

DRG.NO. 圖紙編號 60095653/NP/6011A

DESIGNED BY 設計	VLMK	CONTRACT NO. 合約編號	HY/2009/11
DRAWN BY 繪圖	NHP	P. M'R. APPROVED 負責人	CW
SCALE 比例	A1 1 : 500 A3 1 : 1000	STATUS 狀態	WORKING DRAWING
DIMENSIONS ARE IN 尺寸單位	METRES		





KEY PLAN
SCALE 1 : 10000

NOTES:

1. THIS DRAWING TO BE READ IN CONJUNCTION WITH DRAWING NO. 60095653/NP/6011.
2. FOR LEGEND AND GENERAL NOTES REFER DRAWING NO. 60095653/NP/6011.

SETTING OUT POINT	COORDINATES	
	EASTING	NORTHING
17	837645.485	816734.738
18	837659.619	816749.593
19	837673.694	816763.808
20	837687.770	816778.023
21	837702.198	816792.594
22	837716.589	816806.483
23	837730.979	816820.372
24	837745.370	816834.262
25	837759.759	816848.149
26	837774.511	816862.388
27	837784.644	816871.607
28	837794.603	816880.669
29	837809.058	816893.820
30	837819.017	816902.882
31	837833.810	816916.342
32	837848.430	816929.643
33	837856.264	816934.299
34	837865.235	816935.903
35	837874.197	816934.252
36	837882.007	816929.555
37	837893.313	816920.058
38	837904.800	816910.409
39	837916.287	816900.760
40	837927.594	816891.263
41	837934.655	816885.332

REV.	DESCRIPTION	BY	CHECKED	DATE
A	WORKING DRAWING	RC	BCC	DEC 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

SEAWALL LAYOUT & SETTING OUT PLAN

SHEET 2 OF 2

AECOM

DRG.NO. 60095653/NP/6012A

DESIGNED BY	VLMK	CONTRACT NO.	HY/2009/11
DRAWN BY	CJX	CHK'D BY APPROVED	CW
SCALE	A1 1 : 500 A3 1 : 1000	STATUS	WORKING DRAWING
DIMENSIONS ARE IN	METRES		

Plot File by: RAEID 2009-12-22

p:\projects\60095653\Drawing\NP\6000\NP_6012.dgn

APPENDIX F

DREDGING LAYOUT

816800 N 817400 E

816600 N

817000 N 817600 E

SETTING OUT POINT	EASTING	NORTHING
S51	837848.430	816929.643
S52	837776.963	816795.040

LEGEND:

- SITE BOUNDARY
- PROPOSED SEAWALL COPE LINE
- DREDGED SLOPE
- -3 INDICATIVE DREDGED LEVEL
- DREDGING AREA A
- DREDGING AREA B
- DREDGING AREA C
- S36 SETTING OUT POINT

NOTES:

1. ALL LEVELS ARE IN METRES WITH REFERENCE TO HONG KONG PRINCIPAL DATUM.
2. ALL COORDINATES ARE GIVEN TO HONG KONG (1980) GRID IN METRES.
3. FOR SECTIONS REFER DRG. Nos. 60095653/NP/6206 TO 6207.
4. TOE LINE OF DREDGING FOR ROCKFILL FOUNDATION OF SEAWALL SHALL REFER TO SEAWALL DETAILS IN DRAWING Nos. 60095653/NP/6021, 6022, 6031 AND 6032.
5. SITE INVESTIGATION DETAILED ON DRG. No. 60095653/NP/6210 SHALL BE CARRIED OUT AND DREDGED LEVELS ARE TO BE DETERMINED BY THE ENGINEER PRIOR TO DREDGING.
6. THE DREDGED LEVELS GIVEN IN THIS DRAWING ARE INDICATIVE ONLY. DREDGING SHOULD BE CARRIED OUT TO BASE OF SOFT CLAY. UPON RECEVING THE FIELDWORK RESULTS OF SITE INVESTIGATION AS STATED IN NOTE 5, THE ENGINEER WILL PROVIDE THE TARGET DREDGED LEVEL ACCORDING TO THE FOLLOWING CRITERIA:
   i. WITHIN DREDGING AREA A. $Q_c \geq 0.7MPa$.
   ii. WITHIN DREDGING AREA B. $Q_c \geq 0.5MPa$.
   iii. WITHIN DREDGING AREA C. $Q_c \geq 0.04MPa$.
   WHERE Q_c IS THE NET CONE RESISTANCE FROM CONTINUOUS PIEZOCONE PENETRATION TESTS.
7. DREDGED SIDE SLOPE SHALL BE MAINTAINED IN A STABLE CONDITION AND THE GRADIENT SHALL BE AS STEEP AS POSSIBLE.
8. DREDGED SIDE SLOPE AT THE ROCKFILL MATERIAL OF EXISTING BREAK WATER AND SEAWALL SHALL NOT BE STEEPER THAN 1 VERTICAL ON 1.5 HORIZONTAL UNLESS OTHERWISE SPECIFIED.
9. EXISTING VERTICAL SEAWALL, PARAPET WALL AND BOLLARD SHALL BE RETAINED. FURNITURE AT THE EXISTING LANDING STEPS INCLUDING WOODEN FENDERS, PLASTIC FENDERS, PLASTIC LANDING STEPS AND HAND RAILINGS SHALL BE REMOVED. BERM STONE AND ARMOUR ROCK IN FRONT OF THE EXISTING SEAWALL COPE LINE SHALL BE REMOVED PRIOR TO RECLAMATION.
10. EXISTING NAVIGATION LIGHT NEAR OIL STREET SHALL BE REMOVED DURING THE RECLAMATION. THE NAVIGATION LIGHT POLE SHALL BE RELOCATED TO THE COPING OF THE PROPOSED SEAWALL AT THE LOCATION AS SHOWN ON DRAWING No. 60095653/NP/1001. INSTALLATION DETAILS SHALL REFER TO CEDD STANDARD DRAWING NO. C3018 OR AS AGREED WITH THE ENGINEER ON SITE. THE LAMP OF THE NAVIGATION LIGHT WILL BE TAKEN OFF AND INSTALLED BY THE MARINE DEPARTMENT. THE CONTRACTOR SHALL COORDINATE WITH MARINE DEPARTMENT ON THE PROGRAMME FOR THE REMOVAL AND INSTALLATION OF THE LAMP OF THE NAVIGATION LIGHT.

EXISTING NAVIGATION LIGHT TO BE RELOCATED (SEE NOTE 10)

VARIES (SEE NOTE 4)

PROPOSED SEAWALL COPE LINE

EASTERN CORRIDOR

KING WAN ROAD

WANG ON ROAD

ELECTRIC ROAD

WATSON ROAD

KING MING ROAD

WHITFIELD ROAD

OIL STREET

POWER STREET

REV. 版別	DESCRIPTION 內容摘要	BY 由	CHKD'D 核對	DATE 日期
A	WORKING DRAWING	MC	BCC	DEC 09
-	TENDER DRAWING	MC	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

DREDGING LAYOUT

AECOM

DRG.NO. 圖紙編號 60095653/NP/6205A

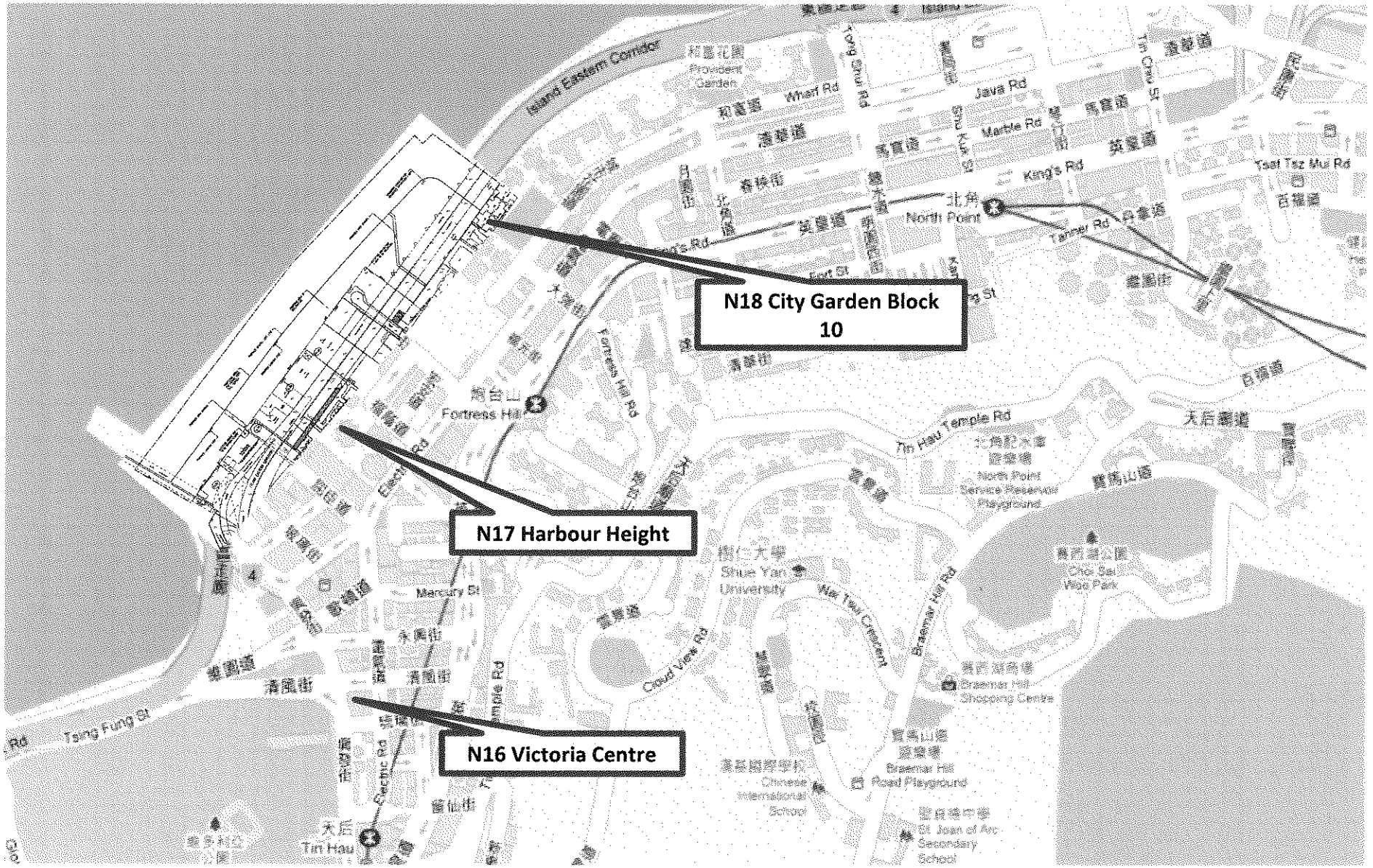
DESIGNED BY 設計	TTF
DRAWN BY 繪圖	WZP
SCALE 比例	A1 1 : 1000 A3 1 : 2000
DIMENSIONS ARE IN 尺寸單位	METRES AND MILLIMETRES
CONTRACT NO. 合同編號	HY/2009/11
STATUS 狀態	WORKING DRAWING

Plot File by : ZENGCD 2009-A-22

p:\projects\60095653\drawing\NP\6000\NP_6205.dgn

APPENDIX G

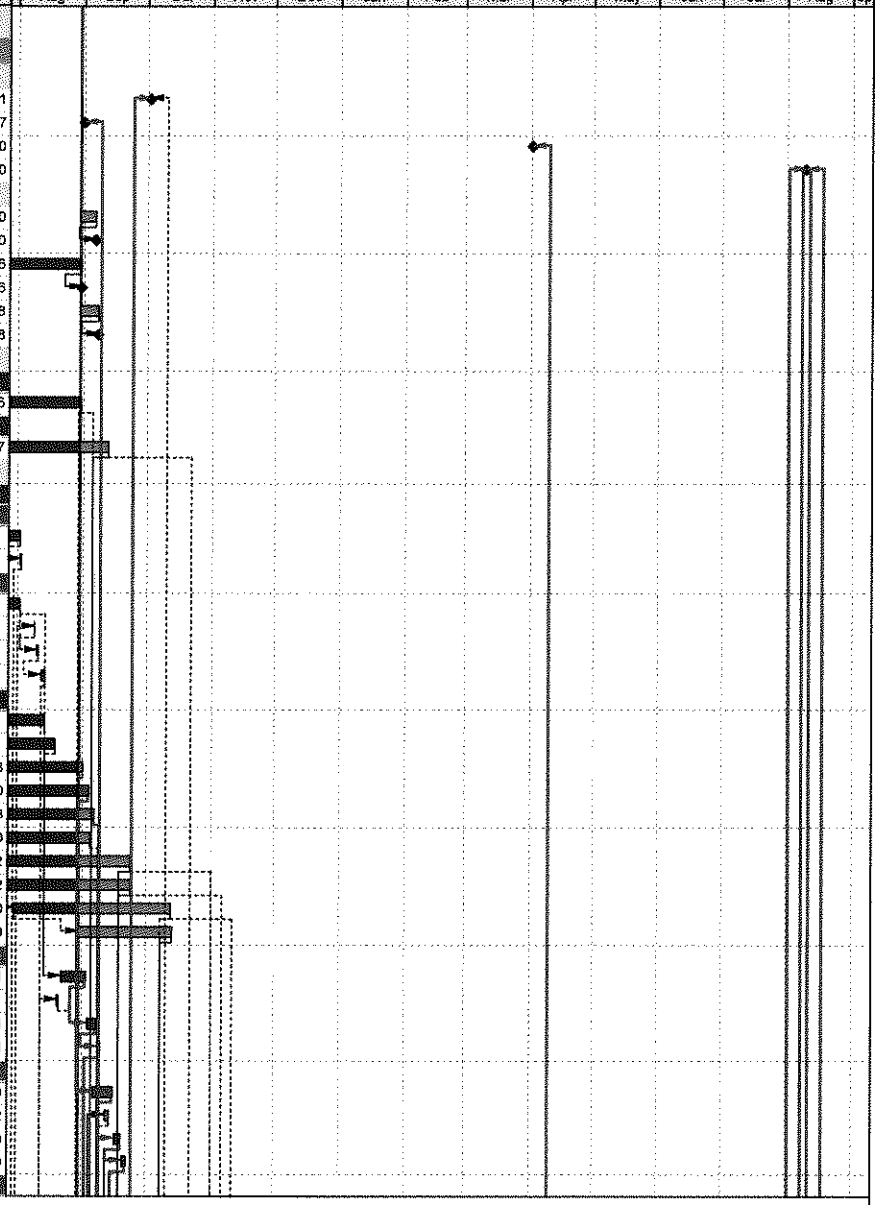
NOISE SENSITIVE RECEIVER (NSRs)


N18 City Garden Block 10
N17 Harbour Height
N16 Victoria Centre
Island Eastern Corridor
North Point
Fortress Hill
Tin Hau
Shue Yan University
Braemar Hill Shopping Centre
Chinese International School
St. Joan of Arc Secondary School
North Point Service Reservoir Playground
Chai Wan Wan Park
Braemar Hill Road Playground
Tin Hau Temple Rd
Fortress Hill Rd
Electric Rd
Cloud View Rd
Braemar Hill Rd
Mercury St
Tong Fung St
King's Rd
Marble Rd
Java Rd
Tai Koo Shing Rd
Yeat Tsz Mui Rd

APPENDIX H

CONSTRUCTION SCHEDULES

Activity ID	Activity Name	Original Duration	Remaining Duration	Start	Finish	Total Float
Detailed Works Programme ver.2 updated 30August2010						
PRELIMINARIES						
COMPLETION SECTION OF WORKS						
K11000	Completion Section I of Works	0	0		02-Oct-10*	1
K11050	Completion Section IA of Works	0	0		31-Aug-10*	-27
K11100	Completion Section II of Works	0	0		01-Apr-11*	0
K11200	Completion Section III of Works	0	0		09-Aug-11*	0
GENERAL SUBMISSION						
24180	Prepare weather protection scheme	7	7	30-Aug-10	06-Sep-10	20
24200	Submit weather protection scheme	0	0		06-Sep-10*	20
24280	Prepare deliver weather protection system	44	1	18-Dec-09 A	30-Aug-10	26
24300	Deliver weather protection system	0	0		30-Aug-10*	26
26500	Prepare proposal for location and its area for holding pre-work activities	8	8	30-Aug-10*	07-Sep-10	18
26600	Submit proposal for location and its area for holding pre-work activities	0	0		07-Sep-10*	18
TEMPORARY AND CONTRACTOR DESIGN						
TEMPORARY WORKS DESIGN						
20600	Sub. & consent temp works dsgn for protection & precautionary measures to e	28	1	07-Jun-10 A	30-Aug-10	6
CONTRACTOR DESIGN						
21000	Sub. & app. steel protection ties for IEC protection by the Engineer	28	14	06-Jul-10 A	12-Sep-10	47
PRE-CAST CAISSON SEAWALL						
Package 1 of Caisson Seawall C1-C6 & C9-10 8nrs						
Package 1, Bargeload 3 C5 & C6 (Type 2-N & 1-N)						
A03018	Rolling caisson seawalls onto Barge C5 & C6	5	0	28-Jul-10 A	02-Aug-10 A	
A03020	Tow Barge to HK C5 & C6	2	0	02-Aug-10 A	03-Aug-10 A	
Package 1, Bargeload 4 C9 & C10 (Type 1 & 1-L)						
A00940	Painting & Install BT C9 & C10	12	0	21-Jul-10 A	02-Aug-10 A	
A03500	Tow Barge Back to yard C9 & C10	2	0	09-Aug-10 A	09-Aug-10 A	
A04000	Rolling Caisson seawalls onto Barge C9 & C10	5	0	10-Aug-10 A	11-Aug-10 A	
A04010	Tow Barge to HK C9 & C10	2	0	12-Aug-10 A	14-Aug-10 A	
Package 2 of Caisson Seawall C7-C8 & C11-18 10nrs						
A04100	Casting Cassion Seawall C7 (Type 2-R)	45	0	01-Jul-10 A	14-Aug-10 A	
A04200	Casting Cassion Seawall C8 (Type 2)	45	0	06-Jul-10 A	19-Aug-10 A	
A04300	Casting Cassion Seawall C11 (Type 2-R)	45	2	15-Jul-10 A	31-Aug-10	3
A05100	Casting Cassion Seawall C12 (Type 1)	45	5	20-Jul-10 A	03-Sep-10	0
A05200	Casting Cassion Seawall C13 (Type 1AR)	45	8	18-Jul-10 A	06-Sep-10	8
A05300	Casting Cassion Seawall C14 (Type 1)	45	6	30-Jun-10 A	04-Sep-10	10
A05400	Casting Cassion Seawall C15 (Type 1)	45	25	21-Jul-10 A	23-Sep-10	2
A05500	Casting Cassion Seawall C16 (Type 1BR)	45	25	26-Jul-10 A	23-Sep-10	2
A05600	Casting Cassion Seawall C17 (Type 1)	45	44	31-Jul-10 A	12-Oct-10	20
A05620	Casting Cassion Seawall C18 (Type 1)	45	45	30-Aug-10	13-Oct-10	20
Package 2, Bargeload 1 C7 & C8 (Type 2-R & 2)						
A04400	Painting & Install BT C7 & C8	12	4	22-Aug-10 A	02-Sep-10	1
A04420	Tow Barge Back to yard C7 & C8	2	0	20-Aug-10 A	21-Aug-10 A	
A04440	Rolling Caisson seawalls onto Barge C7 & C8	5	5	03-Sep-10	07-Sep-10	1
A04600	Tow Barge to HK C7 & C8	2	2	08-Sep-10	09-Sep-10	1
Package 2, Bargeload 2 C11 & C12 (Type 2-R & 1)						
A05010	Painting & Install BT C11 & C12	10	10	06-Sep-10	15-Sep-10	0
A05020	Tow Barge Back to yard C11 & C12	2	2	12-Sep-10	13-Sep-10	2
A05040	Rolling Caisson seawalls onto Barge C11 & C12	4	4	16-Sep-10	19-Sep-10	0
A05060	Tow Barge to HK C11 & C12	2	2	20-Sep-10	21-Sep-10	0
Package 2, Bargeload 3 C13 & C14 (Type 1AR & 1)						



Level Effort | Remaining Work | Milestone
Actual Work | Critical Remaining Work

TASK filter: Works Programme.

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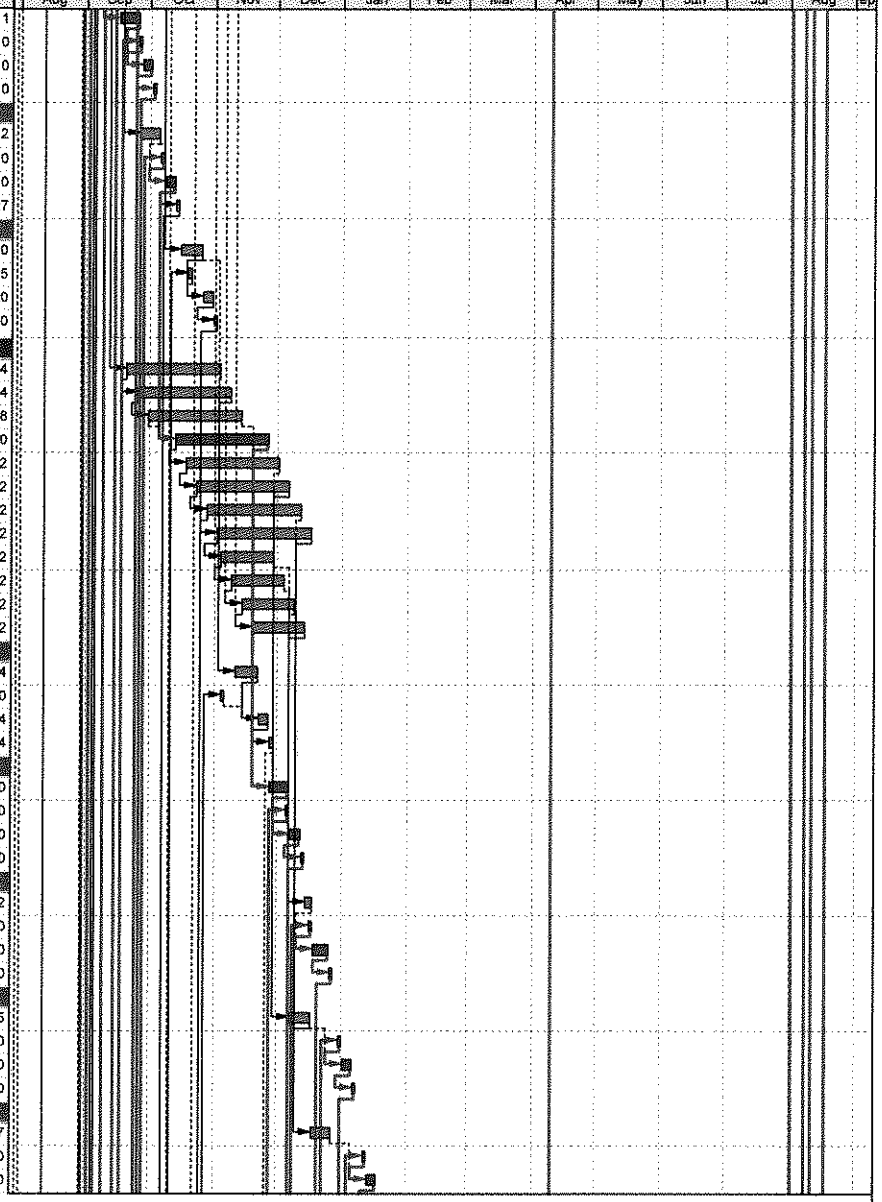
Activity ID	Activity Name	Original Duration	Remaining Duration	Start	Finish	Total Float
A05070	Painting & Install BT C13 & C14	10	10	16-Sep-10	25-Sep-10	1
A05080	Tow Barge Back to yard C13 & C14	2	2	25-Sep-10	26-Sep-10	0
A05120	Rolling Caisson seawalls onto Barge C13 & C14	5	5	27-Sep-10	01-Oct-10	0
A05140	Tow Barge to HK C13 & C14	2	2	02-Oct-10	03-Oct-10	0
	Package 2 Bargeload 4 C15 & C16 (Type 1 & 1BR)					
A05150	Painting & Install BT C15 & C16	10	10	26-Sep-10	05-Oct-10	2
A05160	Tow Barge Back to yard C15 & C16	2	2	06-Oct-10	07-Oct-10	0
A05180	Rolling Caisson seawalls onto Barge C15 & C16	5	5	08-Oct-10	12-Oct-10	0
A05220	Tow Barge to HK C15 & C16	2	2	13-Oct-10	14-Oct-10	27
	Package 2 Bargeload 5 C17 & C18 (Type 1 x 2)					
A05230	Painting & Install BT C17 & C18	10	10	16-Oct-10	25-Oct-10	20
A05240	Tow Barge Back to yard C17 & C18	2	2	19-Oct-10	20-Oct-10	25
A05260	Rolling Caisson seawalls onto Barge C17 & C18	5	5	26-Oct-10	30-Oct-10	20
A05280	Tow Barge to HK C17 & C18	2	2	31-Oct-10	01-Nov-10	20
	Package 3 of Caisson Seawall C19-C22 & C23-28 12nrs					
A08100	Casting Cassion Seawall C19 (Type 1)	45	45	20-Sep-10	03-Nov-10	4
A08200	Casting Cassion Seawall C20 (Type 1)	45	45	25-Sep-10	08-Nov-10	4
A08300	Casting Cassion Seawall C21 (Type 1CR)	45	45	30-Sep-10	13-Nov-10	8
A08400	Casting Cassion Seawall C22 (Type 2)	45	45	13-Oct-10	26-Nov-10	0
A08500	Casting Cassion Seawall C23 (Type 2-L)	45	45	18-Oct-10	01-Dec-10	2
A09500	Casting Cassion Seawall C24 (Type 2-R)	45	45	23-Oct-10	06-Dec-10	2
A09600	Casting Cassion Seawall C25 (Type 1)	45	45	28-Oct-10	11-Dec-10	2
A09700	Casting Cassion Seawall C26 (Type 1-L)	45	45	02-Nov-10	16-Dec-10	2
A09800	Casting Cassion Seawall C27 (Type 3A-R)	25	25	04-Nov-10	28-Nov-10	2
A09900	Casting Cassion Seawall C28 (Type 3A)	25	25	09-Nov-10	03-Dec-10	2
A10000	Casting Cassion Seawall C29 (Type 3A)	25	25	14-Nov-10	08-Dec-10	2
A10100	Casting Cassion Seawall C30 (Type 3B-L)	25	25	19-Nov-10	13-Dec-10	2
	Package 3 Bargeload 1 C19 & C20 (Type R1 x 2)					
A05700	Painting & Install BT C19 & C20	11	11	11-Nov-10	21-Nov-10	4
A05710	Tow Barge Back to yard C19 & C20	2	2	04-Nov-10	05-Nov-10	20
A05900	Rolling caisson seawalls onto Barge C19 & C20	5	5	22-Nov-10	26-Nov-10	4
A06100	Tow Barge to HK C19 & C20	2	2	27-Nov-10	28-Nov-10	4
	Package 3 Bargeload 2 C21 & C22 (Type R1CR & R2)					
A08600	Painting & Install BT C21 & C22	10	10	27-Nov-10	06-Dec-10	0
A08700	Tow Barge Back to yard C21 & C22	2	2	05-Dec-10	06-Dec-10	0
A08800	Rolling caisson seawalls onto Barge C21 & C22	5	5	07-Dec-10	11-Dec-10	0
A09000	Tow Barge to HK C21 & C22	2	2	12-Dec-10	13-Dec-10	0
	Package 3 Bargeload 3 C27, C28, C29 & C30 (Type 3A-R, 3A x2, 3B-L)					
A10200	Painting & Install BT C27, C28, C29 & C30	4	4	14-Dec-10	17-Dec-10	2
A10300	Tow Barge Back to yard C27, C28, C29 & C30	2	2	16-Dec-10	17-Dec-10	0
A10400	Rolling caisson seawalls onto Barge C27, C28, C29 & C30	8	8	18-Dec-10	25-Dec-10	0
A10600	Tow Barge to HK C27, C28, C29 & C30	2	2	26-Dec-10	27-Dec-10	0
	Package 3 Bargeload 4 C23 & C24 (Type 2-L & 2-R)					
A20930	Painting & Install BT C23 & C24	10	10	07-Dec-10	16-Dec-10	15
A20940	Tow Barge Back to yard C23 & C24	2	2	30-Dec-10	31-Dec-10	0
A20950	Rolling caisson seawalls onto Barge C23 & C24	5	5	01-Jan-11	05-Jan-11	0
A20960	Tow Barge to HK C23 & C24	2	2	06-Jan-11	07-Jan-11	0
	Package 3 Bargeload 5 C25 & C26 (Type 1 & 1-L)					
A20970	Painting & Install BT C25 & C26	10	10	17-Dec-10	26-Dec-10	17
A20980	Tow Barge Back to yard C25 & C26	2	2	11-Jan-11	12-Jan-11	0
A20990	Rolling caisson seawalls onto Barge C25 & C26	5	5	13-Jan-11	17-Jan-11	0



Level Effort | Remaining Work | Milestone
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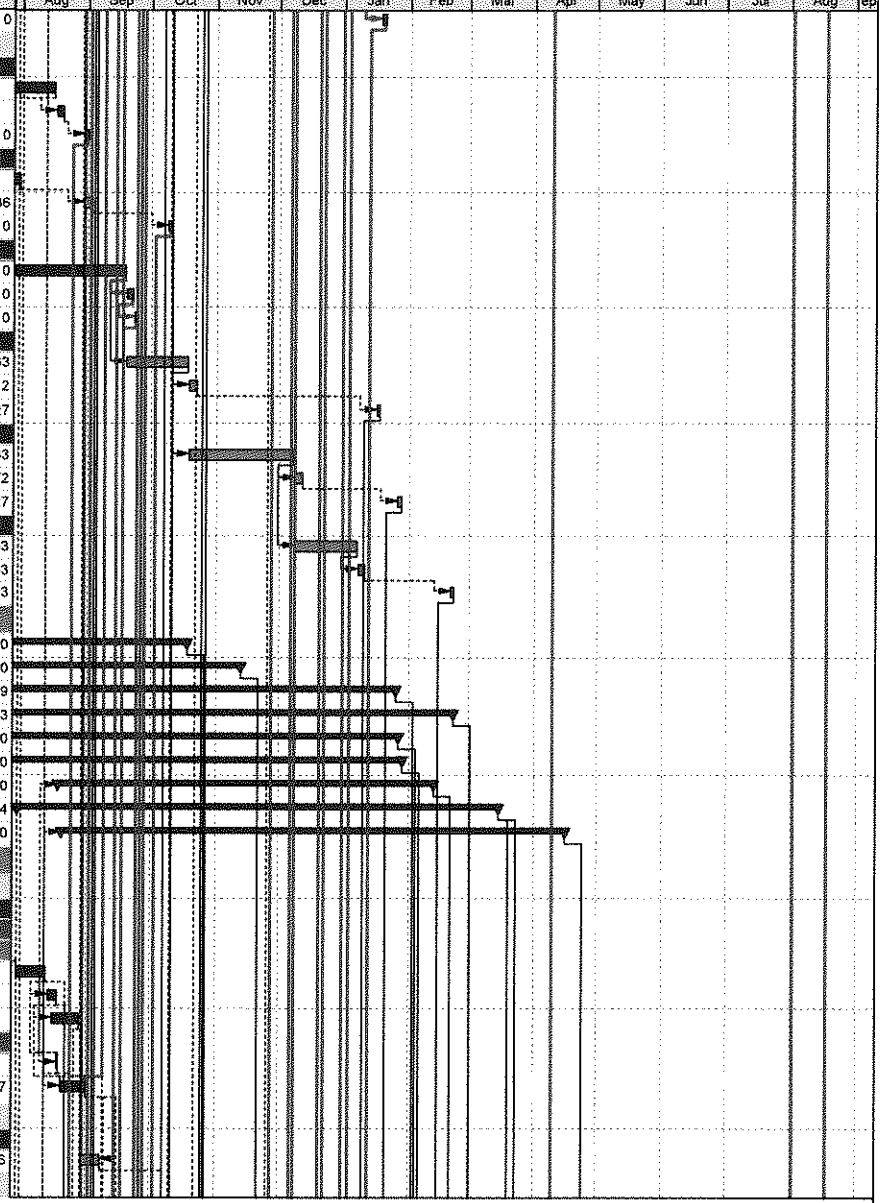
Activity ID	Activity Name	Original Duration	Remaining Duration	Start	Finish	Total Float
A21000	Tow Barge to HK C25 & C26	2	2	18-Jan-11	19-Jan-11	0
	PRE-CAST SEAWALL BLOCK					
	4th Barge of Seawall Block B3, Type 3					
A20400	Casting Seawall Block B3 185nrs	30	0	20-Jul-10 A	16-Aug-10 A	
A20410	Curing Seawall Block B3	4	0	17-Aug-10 A	20-Aug-10 A	
A20420	Transport seawall block B3 to site	2	2	30-Aug-10	31-Aug-10	0
	5th Barge of Seawall Block B10, Type 10					
A20500	Casting Seawall Block B10 103nrs	30	0	30-Jun-10 A	31-Jul-10 A	
A20510	Curing Seawall Block B10	4	4	30-Aug-10	02-Sep-10	36
A20520	Transport seawall block B10 to site	2	2	09-Oct-10	10-Oct-10	0
	6th Barge of Seawall Block B4, Type 4					
A20600	Casting Seawall Block B4 192nrs	30	20	29-Jul-10 A	18-Sep-10	0
A20610	Curing Seawall Block B4	4	4	19-Sep-10	22-Sep-10	0
A20620	Transport seawall block B4 to site	2	2	23-Sep-10	24-Sep-10	0
	7th Barge of Seawall Block B5, Type 5					
A20800	Casting Seawall Block B5 151nrs	30	30	19-Sep-10	18-Oct-10	63
A20810	Curing Seawall Block B5	4	4	19-Oct-10	22-Oct-10	112
A20820	Transport seawall block B5 to site	2	2	16-Jan-11	17-Jan-11	27
	8th Barge of Seawall Block B6&B7, Type 6 & 7					
A20900	Casting Seawall Block B6 & B7 260nrs	50	50	19-Oct-10	07-Dec-10	63
A20910	Curing Seawall Block B6 & B7	4	4	08-Dec-10	11-Dec-10	72
A20920	Transport seawall block B6 & B7 to site	2	2	26-Jan-11	27-Jan-11	27
	9th Barge of Seawall Block B8, Type 8					
A20700	Casting Seawall Block B8 25nrs	30	30	08-Dec-10	06-Jan-11	63
A20710	Curing Seawall Block B8	4	4	07-Jan-11	10-Jan-11	63
A20720	Transport seawall block B8 to site	2	2	20-Feb-11	21-Feb-11	23
	Overall Construction					
C0010	DREDGING	185	50	16-Mar-10 A	18-Oct-10	0
C0020	ROCKFILL GRADE 400	197	75	06-May-10 A	12-Nov-10	0
C0030	LEVELING STONE & TOE BLOCKS	296	149	10-May-10 A	25-Jan-11	29
C0040	INSTALL SEAWALL BLOCKS	307	176	15-May-10 A	21-Feb-11	23
C0050	INSTALL CAISSON SEAWALLS	189	150	06-Jul-10 A	26-Jan-11	0
C0060	ROCKFILL GRADE 200	193	152	10-Jul-10 A	28-Jan-11	0
C0070	RECLAMATION UP TO -6.65MPD	179	167	18-Aug-10 A	12-Feb-11	0
C0080	ROCKFILL TYPE A & GEOTEXTILE	205	198	30-Jul-10 A	15-Mar-11	104
C0090	RECLAMATION FROM -6.65MPD UPTO FINISH LEVEL	263	229	20-Aug-10 A	15-Apr-11	0
	SECTION 1A OF WORKS (230 DAYS)					
	SEAWALLS AND RECLAMATION WORKS					
	PORTION NPR1A					
	SEAWALL CONSTRUCTION					
	Package 1					
12860	Rockfill type A, geotextile type A & filter layer below -6.65mPD	4	0	30-Jul-10 A	13-Aug-10 A	
15160	Rockfill type A, geotextile type A & filter layer above -6.65mPD	4	0	14-Aug-10 A	18-Aug-10 A	
15170	Seawall bermstone, 0.5T armour and filter layer	8	0	16-Aug-10 A	29-Aug-10 A	
	RECLAMATION					
15300	Reclamation upto -6.65mPD	2	0	18-Aug-10 A	19-Aug-10 A	
15500	Reclamation upto finish level (27000m3)	4	2	20-Aug-10 A	31-Aug-10	-27
	DRAINAGE WORKS					
	PORTION NPR1A					
15900	Construct 375 U-channel	8	8	30-Aug-10	07-Sep-10	126
	COPINGS					



Level Effort | Remaining Work | Milestone
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TASK filter: Works Programme.

Data Date : 30-Aug-10

Activity ID	Activity Name	Original Duration	Remaining Duration	Start	Finish	Total Float
PORTION NPR1A						
15700	Mass concrete copings (SP1-2 & 2-3)	21	0	02-Aug-10 A	29-Aug-10 A	
SECTION 1 OF WORKS (290 DAYS)						
SEAWALLS AND RECLAMATION WORKS						
PORTION NPR1						
SEAWALL CONSTRUCTION						
Package 1, Bargeload 1 C1 & C2						
42290	Rockfill type A, geotextile type A & filter layer below -6.65mPD C1 & C2	2	2	30-Aug-10	31-Aug-10	0
42300	Rockfill type A, geotextile type A & filter layer above -6.65mPD C1 & C2	2	2	01-Sep-10	02-Sep-10	0
42310	Seawall bermstone, 0.5T armour and filter layer C1 & C2	6	6	03-Sep-10	09-Sep-10	0
42320	Install removal slotted panel C1 & C2	4	4	03-Sep-10	07-Sep-10	14
Package 1, Bargeload 2 C3 & C4						
42340	Rockfill type A, geotextile type A & filter layer below -6.65mPD C3 & C4	2	2	01-Sep-10	02-Sep-10	4
42350	Rockfill type A, geotextile type A & filter layer above -6.65mPD C3 & C4	2	2	03-Sep-10	04-Sep-10	4
42360	Seawall bermstone, 0.5T armour and filter layer C3 & C4	6	6	10-Sep-10	16-Sep-10	0
42370	Install removal slotted panel C3 & C4	4	4	08-Sep-10	11-Sep-10	14
Package 1, Bargeload 3 C5 & C6						
12930	Leveling Stone & Toe Block C5 & C6	6	0	28-Jul-10 A	30-Jul-10 A	
12944	Float Out caisson seawalls C5 & C6	2	0	07-Aug-10 A	09-Aug-10 A	
12954	Install caisson seawall C5	2	0	09-Aug-10 A	11-Aug-10 A	
42380	Rockfill G200 inside caisson seawall C5	1	1	30-Aug-10	30-Aug-10	9
42390	Rockfill type A, geotextile type A & filter layer below -6.65mPD C5	2	2	06-Sep-10	07-Sep-10	4
42400	Rockfill type A, geotextile type A & filter layer above -6.65mPD C5	5	5	08-Sep-10	13-Sep-10	9
42410	Seawall bermstone, 0.5T armour and filter layer C5	6	6	25-Sep-10	02-Oct-10	0
42420	Install removal slotted panel C5	2	2	14-Sep-10	15-Sep-10	13
Seawall Block Installation Type 2 SP6-7						
13810	Install Seawall Blocks B2	7	0	11-Aug-10 A	29-Aug-10 A	
42430	Rockfill type A, geotextile type A & filter layer below -6.65mPD B2	2	2	03-Sep-10	04-Sep-10	4
42440	Rockfill type A, geotextile type A & filter layer above -6.65mPD B2	2	2	06-Sep-10	07-Sep-10	8
42450	Seawall bermstone, 0.5T armour and filter layer B2	6	6	17-Sep-10	24-Sep-10	0
42460	Mass Concrete Copings B2	10	10	30-Aug-10	09-Sep-10	2
RECLAMATION						
15400	Reclamation upto -6.65mPD	14	14	01-Sep-10	16-Sep-10	1
15600	Reclamation upto finish level (40,500m3)	22	22	17-Sep-10	14-Oct-10	30
DRAINAGE WORKS						
PORTION NPR1						
16000	Construct 375 U-channel	12	12	15-Oct-10	29-Oct-10	96
LANDING STEPS						
PORTION NPR1						
40000	Landing Steps Construction	12	12	10-Sep-10	24-Sep-10	2
FENDERS AND RUBBER STEPS						
PORTION NPR1						
42000	Fenders and Rubber Step Installation	6	6	25-Sep-10	30-Sep-10	3
SECTION 2 OF WORKS (470 DAYS)						
SEAWALLS AND RECLAMATION WORKS						
PORTION NPR2						
SEAWALL CONSTRUCTION						
12400	Seawall foundation rockfill grade 400 (41082m3)	11	6	01-Jun-10 A	04-Sep-10	42
13100	Rockfill Survey checking	6	8	01-Jul-10 A	07-Sep-10	42
Seawall Block Installation B3						
43270	Leveling Stone & Toe Block B3	4	0	01-Aug-10 A	04-Aug-10 A	

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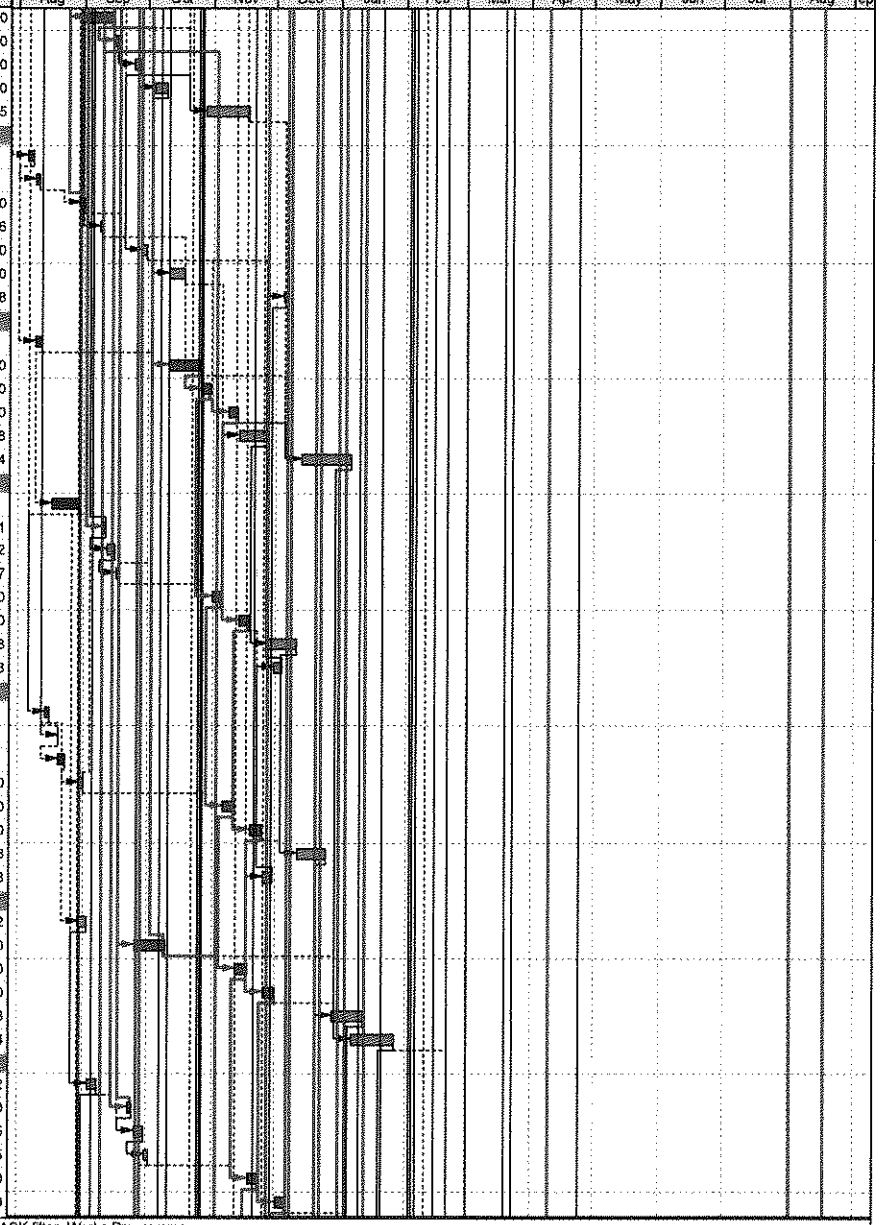
43280	Install Seawall Blocks B3	12	12	01-Sep-10	14-Sep-10	0
43290	Rockfill type A, geotextile type A & filter layer below -6.65mPD B3	2	2	15-Sep-10	16-Sep-10	0
43300	Rockfill type A, geotextile type A & filter layer above -6.65mPD B3	3	3	24-Sep-10	27-Sep-10	30
43310	Seawall bermstone, 0.5T armour and filter layer B3	6	6	04-Oct-10	09-Oct-10	40
43320	Mass concrete coping B3	18	18	28-Oct-10	17-Nov-10	45
Package 1 Bargeload 3 C6 (reinstall)						
42008	Leveling Stone & Toe Block C6	4	0	05-Aug-10 A	08-Aug-10 A	
42010	Install caisson seawall C6	2	0	09-Aug-10 A	11-Aug-10 A	
42470	Rockfill G200 inside caisson seawall C6	2	2	30-Aug-10	31-Aug-10	0
42480	Rockfill type A, geotextile type A & filter layer below -6.65mPD C6	2	2	08-Sep-10	09-Sep-10	6
42490	Rockfill type A, geotextile type A & filter layer above -6.65mPD C6	3	3	28-Sep-10	30-Sep-10	30
42500	Seawall bermstone, 0.5T armour and filter layer C6	6	6	11-Oct-10	18-Oct-10	40
42510	Install removal slotted panel C6	2	2	04-Dec-10	06-Dec-10	78
Seawall Block Installation B10						
17308	Leveling Stone & Toe Block B10	4	0	09-Aug-10 A	12-Aug-10 A	
17310	Install Seawall Blocks B10	12	12	11-Oct-10	25-Oct-10	0
42820	Rockfill type A, geotextile type A & filter layer below -6.65mPD B10	5	5	26-Oct-10	30-Oct-10	0
42830	Rockfill type A, geotextile type A & filter layer above -6.65mPD B10	5	5	08-Nov-10	12-Nov-10	0
42840	Seawall bermstone, 0.5T armour and filter layer B10	12	12	13-Nov-10	26-Nov-10	18
42845	Mass concrete coping B10	18	18	13-Dec-10	05-Jan-11	24
Package 2 Bargeload 1 C7 & C8						
17810	Leveling Stone & Toe Block C7 & C8	4	0	17-Aug-10 A	30-Aug-10 A	
17820	Float Out caisson seawalls C7 & C8	2	2	10-Sep-10	11-Sep-10	1
17830	Install caisson seawalls C7 & C8	4	4	12-Sep-10	15-Sep-10	22
42570	Rockfill G200 inside caisson seawall C7 & C8	2	2	16-Sep-10	17-Sep-10	17
42580	Rockfill type A, geotextile type A & filter layer below -6.65mPD C7 & C8	5	5	01-Nov-10	05-Nov-10	0
42590	Rockfill type A, geotextile type A & filter layer above -6.65mPD C7 & C8	5	5	13-Nov-10	18-Nov-10	0
42600	Seawall bermstone, 0.5T armour and filter layer C7 & C8	12	12	27-Nov-10	10-Dec-10	18
42610	Install removal slotted panel C7 & C8	4	4	30-Nov-10	03-Dec-10	78
Package 1 Bargeload 4 C9 & C10						
17230	Leveling Stone & Toe Block C9 & C10	4	0	14-Aug-10 A	16-Aug-10 A	
42020	Float Out caisson seawalls C9 & C10	2	0	20-Aug-10 A	20-Aug-10 A	
42030	Install caisson seawall C9 & C10	4	0	20-Aug-10 A	23-Aug-10 A	
42520	Rockfill G200 inside caisson seawall C9 & C10	2	2	30-Aug-10	31-Aug-10	20
42530	Rockfill type A, geotextile type A & filter layer below -6.65mPD C9 & C10	5	5	06-Nov-10	11-Nov-10	0
42540	Rockfill type A, geotextile type A & filter layer above -6.65mPD C9 & C10	5	5	19-Nov-10	24-Nov-10	0
42550	Seawall bermstone, 0.5T armour and filter layer C9 & C10	12	12	11-Dec-10	24-Dec-10	18
42560	Install removal slotted panel C9 & C10	4	4	25-Nov-10	29-Nov-10	78
Seawall Block Installation B4						
17318	Leveling Stone & Toe Bloc B4	4	4	30-Aug-10	02-Sep-10	12
17320	Install Seawall Blocks B4	12	12	25-Sep-10	09-Oct-10	0
42850	Rockfill type A, geotextile type A & filter layer below -6.65mPD B4	5	5	12-Nov-10	17-Nov-10	0
42860	Rockfill type A, geotextile type A & filter layer above -6.65mPD B4	5	5	25-Nov-10	30-Nov-10	0
42870	Seawall bermstone, 0.5T armour and filter layer B4	12	12	28-Dec-10	11-Jan-11	18
42880	Mass concrete coping B4	18	18	06-Jan-11	26-Jan-11	24
Package 2 Bargeload 2 C11 & C12						
42040	Leveling Stone & Toe Block C11 & C12	4	4	03-Sep-10	07-Sep-10	12
42050	Float Out caisson seawalls C11 & C12	2	2	22-Sep-10	24-Sep-10	0
42060	Install caisson seawalls C11 & C12	4	4	25-Sep-10	29-Sep-10	35
42620	Rockfill G200 inside caisson seawall C11 & C12	2	2	30-Sep-10	02-Oct-10	35
42630	Rockfill type A, geotextile type A & filter layer below -6.65mPD C11 & C12	5	5	18-Nov-10	23-Nov-10	0
42640	Rockfill type A, geotextile type A & filter layer above -6.65mPD C11 & C12	5	5	01-Dec-10	06-Dec-10	0



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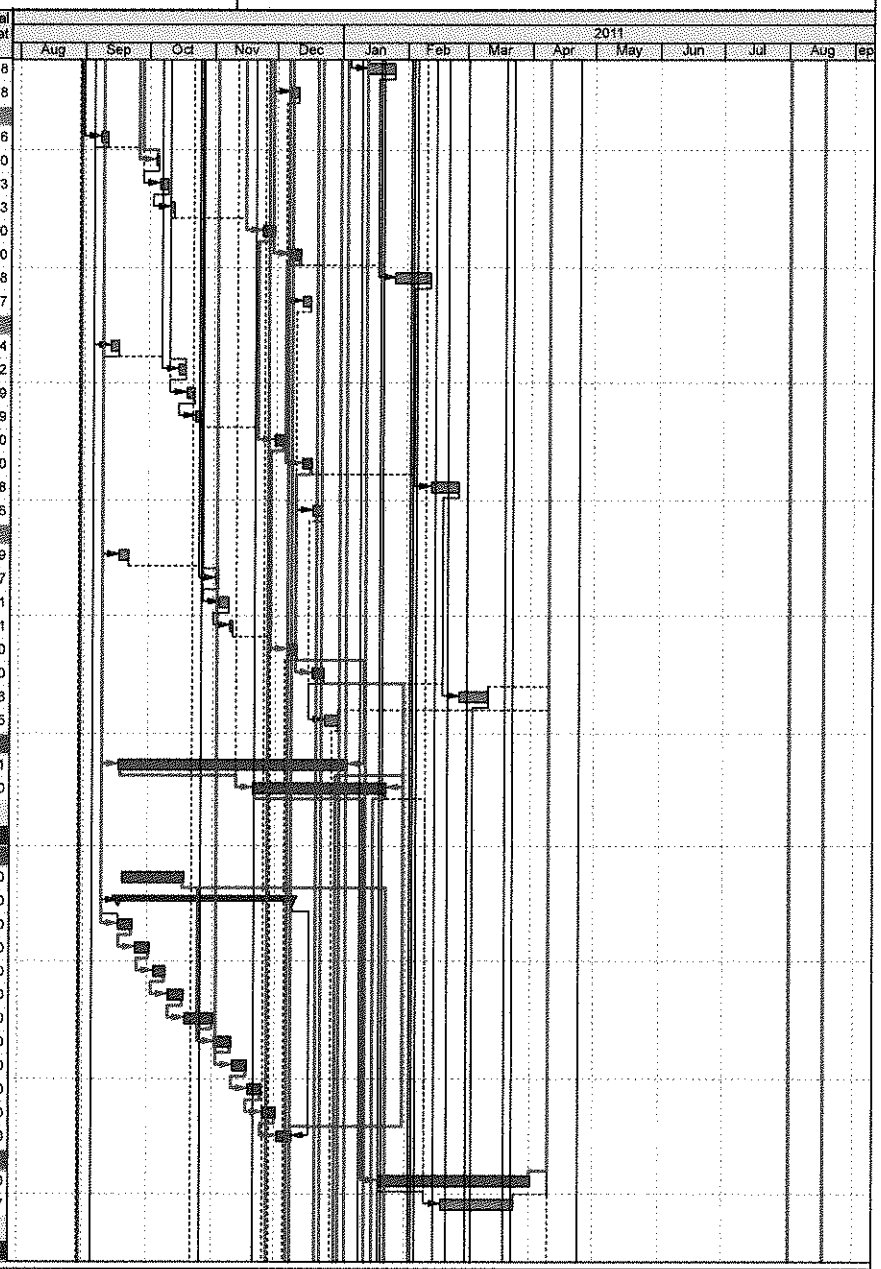
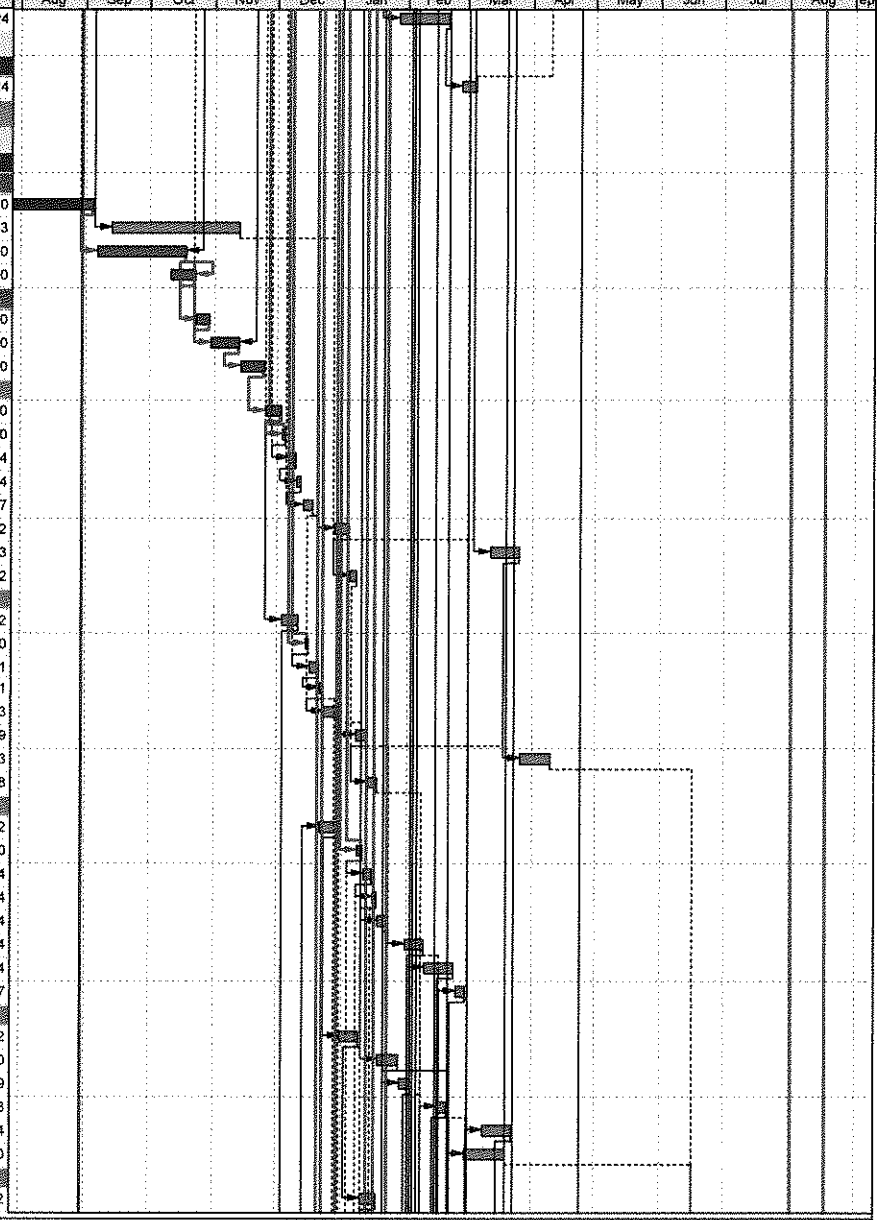
TASK filter: Works Programme.

Data Date : 30-Aug-10

Activity ID	Activity Name	Original Duration	Remaining Duration	Start	Finish	Total Float
42650	Seawall bermstone, 0.5T armour and filter layer C11 & C12	12	12	12-Jan-11	25-Jan-11	18
42660	Install removal slotted panel C11 & C12	4	4	07-Dec-10	10-Dec-10	78
	Package 2 Bargeload 3 C13 & C14					
42070	Leveling Stone & Toe Block C13 & C14	4	4	08-Sep-10	11-Sep-10	16
42080	Float Out caisson seawalls C13 & C14	2	2	04-Oct-10	05-Oct-10	0
42090	Install caisson seawalls C13 & C14	4	4	06-Oct-10	09-Oct-10	33
42670	Rockfill G200 inside caisson seawall C13 & C14	2	2	11-Oct-10	12-Oct-10	33
42680	Rockfill type A, geotextile type A & filter layer below -6.65mPD C13 & C14	5	5	24-Nov-10	29-Nov-10	0
42690	Rockfill type A, geotextile type A & filter layer above -6.65mPD C13 & C14	5	5	07-Dec-10	11-Dec-10	0
42700	Seawall bermstone, 0.5T armour and filter layer C13 & C14	12	12	26-Jan-11	11-Feb-11	18
42710	Install removal slotted panel C13 & C14	4	4	13-Dec-10	16-Dec-10	77
	Package 2 Bargeload 4 C15 & C16					
42100	Leveling Stone & Toe Block C15 & C16	4	4	13-Sep-10	16-Sep-10	44
42110	Float Out caisson seawalls C15 & C16	2	2	15-Oct-10	18-Oct-10	22
42120	Install caisson seawalls C15 & C16	4	4	19-Oct-10	22-Oct-10	29
42720	Rockfill G200 inside caisson seawall C15 & C16	2	2	23-Oct-10	25-Oct-10	29
42730	Rockfill type A, geotextile type A & filter layer below -6.65mPD C15 & C16	5	5	30-Nov-10	04-Dec-10	0
42740	Rockfill type A, geotextile type A & filter layer above -6.65mPD C15 & C16	5	5	13-Dec-10	17-Dec-10	0
42750	Seawall bermstone, 0.5T armour and filter layer C15 & C16	12	12	12-Feb-11	25-Feb-11	18
42760	Install removal slotted panel C15 & C16	4	4	16-Dec-10	22-Dec-10	76
	Package 2 Bargeload 5 C17 & C18					
42130	Leveling Stone & Toe Block C17 & C18	4	4	17-Sep-10	21-Sep-10	49
42140	Float Out caisson seawalls C17 & C18	2	2	02-Nov-10	03-Nov-10	17
42150	Install caisson seawalls C17 & C18	4	4	04-Nov-10	08-Nov-10	21
42770	Rockfill G200 inside caisson seawall C17 & C18	2	2	09-Nov-10	10-Nov-10	21
42780	Rockfill type A, geotextile type A & filter layer below -6.65mPD C17 & C18	5	5	06-Dec-10	10-Dec-10	0
42790	Rockfill type A, geotextile type A & filter layer above -6.65mPD C17 & C18	5	5	18-Dec-10	23-Dec-10	0
42800	Seawall bermstone, 0.5T armour and filter layer C17 & C18	12	12	26-Feb-11	11-Mar-11	18
42810	Install removal slotted panel C17 & C18	4	4	24-Dec-10	30-Dec-10	75
	RECLAMATION					
17500	Reclamation upto -6.65mPD	87	87	17-Sep-10	03-Jan-11	1
17600	Reclamation upto finish level (94500m3)	52	52	20-Nov-10	22-Jan-11	0
	DRAINAGE WORKS					
	PORTION NPR2					
	Open Channel T					
18290	Casting blockwork wall for open channel T	30	30	19-Sep-10	18-Oct-10	0
18300	Construct open channel T	68	68	17-Sep-10	08-Dec-10	0
18310	Rockfill Type A for bottom of open channel T	6	6	17-Sep-10	24-Sep-10	0
18320	Rockfill Type A west side of open channel T (Extra rock mound for platform)	6	6	25-Sep-10	02-Oct-10	0
18330	Geotextile Type A & Filter west side of platform	6	6	04-Oct-10	09-Oct-10	0
18340	Public fill up to west side of platform	6	6	11-Oct-10	18-Oct-10	0
18350	Leveling Stone for channel T	12	12	19-Oct-10	01-Nov-10	0
18360	Blockwork wall for bottom and west side of open channel T	8	8	02-Nov-10	10-Nov-10	0
18370	Rockfill Type A behind west side of open channel T	6	6	11-Nov-10	17-Nov-10	0
18380	Blockfwork wall east side of open channel T	6	6	18-Nov-10	24-Nov-10	0
18390	Rockfill Type A behind east side of open channel T	6	6	25-Nov-10	01-Dec-10	0
18395	Geotextile Type A & Filter east side of open channel T	6	6	02-Dec-10	08-Dec-10	0
	Land Drainage					
18400	Construct 1200 & 1500 main drainage & connect to channel T	60	60	19-Jan-11	01-Apr-11	0
18500	Construct 750 & 900 dainage & connect to main drain	30	30	18-Feb-11	24-Mar-11	7
	LANDING STEPS					
	PORTION NPR2					

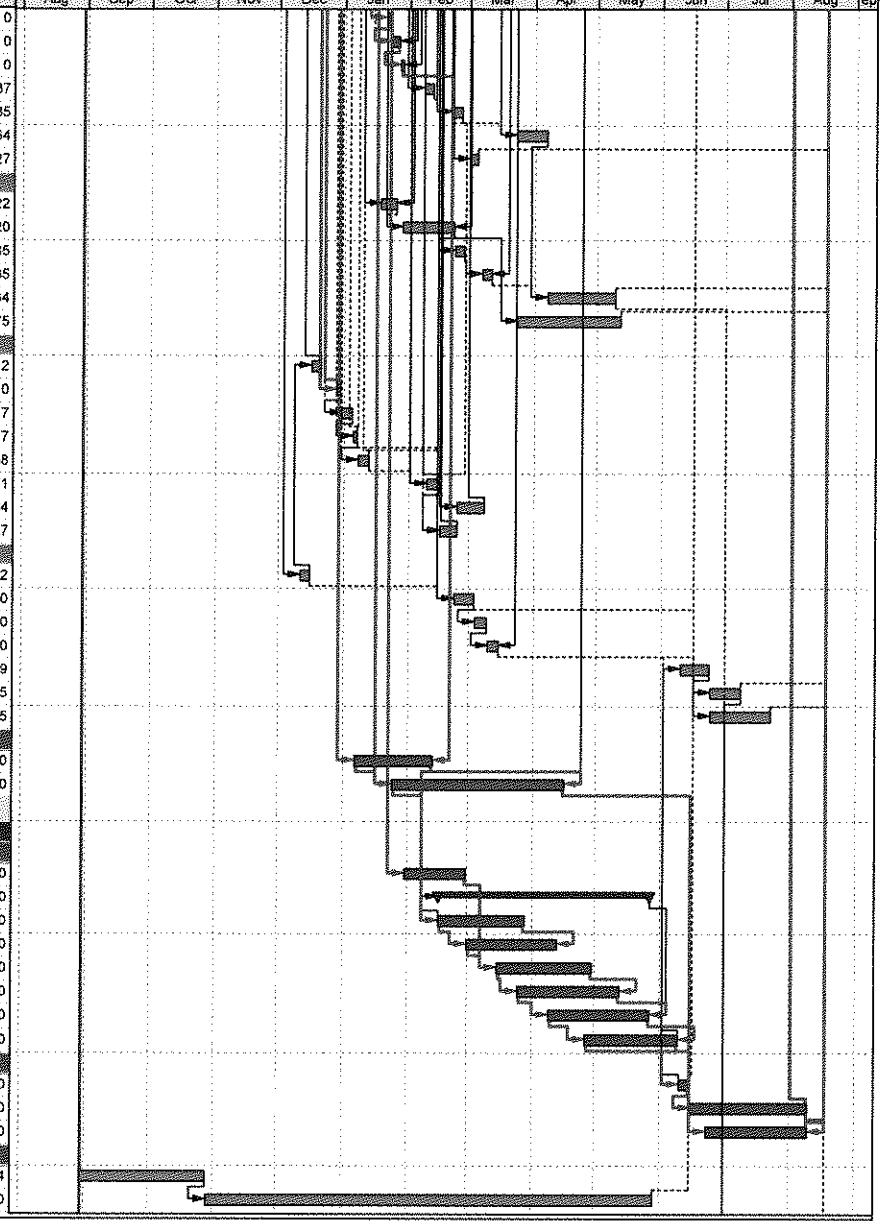


Activity ID	Activity Name	Original Duration	Remaining Duration	Start	Finish	Total Float
18110	Landing Steps Construction	18	18	27-Jan-11	19-Feb-11	24
FENDERS AND RUBBER STEPS						
PORTION NPR2						
18120	Fenders and Rubber Step Installation	6	6	26-Feb-11	04-Mar-11	24
SECTION 3 OF WORKS (600 DAYS)						
SEAWALLS AND RECLAMATION WORKS						
PORTION NPR3						
DREDGING						
11428	Dredging in Portion NPR3 (98844m3)	34	6	25-Jun-10 A	04-Sep-10	0
11430	Protection & Precautionary measures for Existing Island Eastern Corridor	50	50	13-Sep-10	12-Nov-10	43
11500	Dredging in Portion NPR3 under Viaduct	34	34	06-Sep-10	18-Oct-10	0
11510	Prepare and submit Dredging Report	10	10	11-Oct-10	22-Oct-10	0
SEAWALL CONSTRUCTION						
12600	Laying geotextile Type A	6	6	23-Oct-10	29-Oct-10	0
12700	Seawall foundation rockfill grade 400 (35482m3)	12	12	30-Oct-10	12-Nov-10	0
13000	Rockfill survey checking	10	10	13-Nov-10	24-Nov-10	0
Package 3 Bargeload 1 C19 & C20						
13010	Leveling Stone & Toe Block C19 & C20	7	7	25-Nov-10	02-Dec-10	0
13020	Float Out caisson walls C19 & C20	2	2	03-Dec-10	04-Dec-10	0
13030	Install caisson seawalls C19 & C20	4	4	06-Dec-10	09-Dec-10	14
42890	Rockfill G200 inside caisson seawall C19 & C20	2	2	10-Dec-10	11-Dec-10	14
42900	Rockfill type A, geotextile type A & filter layer below -6.65mPD C19 & C20	5	5	13-Dec-10	17-Dec-10	77
42910	Rockfill type A, geotextile type A & filter layer above -6.65mPD C19 & C20	5	5	28-Dec-10	03-Jan-11	82
42920	Seawall bermstone, 0.5T armour and filter layer C19 & C20	12	12	12-Mar-11	25-Mar-11	73
42930	Install removal slotted panel C19 & C20	4	4	04-Jan-11	07-Jan-11	152
Package 3 Bargeload 2 C21 & C22						
42160	Leveling Stone & Toe Block C21 & C22	7	7	03-Dec-10	10-Dec-10	2
42170	Float Out caisson walls C21 & C22	2	2	14-Dec-10	15-Dec-10	0
42180	Install caisson seawalls C21 & C22	4	4	16-Dec-10	20-Dec-10	11
42940	Rockfill G200 inside caisson seawall C21 & C22	2	2	21-Dec-10	22-Dec-10	11
42950	Rockfill type A, geotextile type A & filter layer below -6.65mPD C21 & C22	5	5	23-Dec-10	30-Dec-10	73
42960	Rockfill type A, geotextile type A & filter layer above -6.65mPD C21 & C22	5	5	07-Jan-11	12-Jan-11	79
42970	Seawall bermstone, 0.5T armour and filter layer C21 & C22	12	12	26-Mar-11	09-Apr-11	73
42980	Install removal slotted panel C21 & C22	4	4	13-Jan-11	17-Jan-11	148
Package 3 Bargeload 4 C23 & C24						
42220	Leveling Stone & Toe Block C23 & C24	7	7	21-Dec-10	30-Dec-10	2
42230	Float Out caisson walls C23 & C24	2	2	08-Jan-11	10-Jan-11	0
42240	Install caisson seawalls C23 & C24	4	4	11-Jan-11	14-Jan-11	4
43040	Rockfill G200 inside caisson seawall C23 & C24	2	2	15-Jan-11	17-Jan-11	4
43050	Rockfill type A, geotextile type A & filter layer below -6.65mPD C23 & C24	5	5	18-Jan-11	22-Jan-11	64
43060	Rockfill type A, geotextile type A & filter layer above -6.65mPD C23 & C24	5	5	31-Jan-11	08-Feb-11	64
43070	Seawall bermstone, 0.5T armour and filter layer C23 & C24	12	12	09-Feb-11	22-Feb-11	64
43080	Install removal slotted panel C23 & C24	4	4	24-Feb-11	28-Feb-11	127
Seawall Block Installation B5						
14053	Leveling Stone & Toe Block B5	7	7	31-Dec-10	08-Jan-11	2
14055	Install Seawall Blocks B5	9	9	18-Jan-11	27-Jan-11	20
43140	Rockfill type A, geotextile type A & filter layer below -6.65mPD B5	5	5	28-Jan-11	02-Feb-11	79
43150	Rockfill type A, geotextile type A & filter layer above -6.65mPD B5	5	5	15-Feb-11	19-Feb-11	78
43160	Seawall bermstone, 0.5T armour and filter layer B5	12	12	09-Mar-11	22-Mar-11	64
43170	Mass concrete coping B5	18	18	28-Feb-11	19-Mar-11	90
Package 3 Bargeload 5 C25 & C26						
42250	Leveling Stone & Toe Block C25 & C26	7	7	10-Jan-11	17-Jan-11	2



Detailed Works Programme ver.2 updated 30August2010 | Works Programme

Activity ID	Activity Name	Original Duration	Remaining Duration	Start	Finish	Total Float
42260	Float Out caisson walls C25 & C26	2	2	20-Jan-11	21-Jan-11	0
42270	Install caisson seawalls C25 & C26	4	4	22-Jan-11	26-Jan-11	0
43090	Rockfill G200 inside caisson seawall C25 & C26	2	2	27-Jan-11	28-Jan-11	0
43100	Rockfill type A, geotextile type A & filter layer below -6.65mPD C25 & C26	5	5	07-Feb-11	11-Feb-11	87
43110	Rockfill type A, geotextile type A & filter layer above -6.65mPD C25 & C26	5	5	21-Feb-11	25-Feb-11	85
43120	Seawall bermstone, 0.5T armour and filter layer C25 & C26	12	12	23-Mar-11	06-Apr-11	64
43130	Install removal slotted panel C25 & C26	4	4	01-Mar-11	04-Mar-11	127
	Seawall Block Installation B6 & B7					
14058	Leveling Stone & Toe Block B6 & B7	7	7	18-Jan-11	25-Jan-11	22
14060	Install Seawall Blocks B6 & B7	18	18	28-Jan-11	21-Feb-11	20
43180	Rockfill type A, geotextile type A & filter layer below -6.65mPD B6 & B7	5	5	22-Feb-11	26-Feb-11	85
43190	Rockfill type A, geotextile type A & filter layer above -6.65mPD B6 & B7	5	5	07-Mar-11	11-Mar-11	85
43200	Seawall bermstone, 0.5T armour and filter layer B6 & B7	24	24	07-Apr-11	09-May-11	64
43210	Mass concrete coping B6 & B7	36	36	24-Mar-11	11-May-11	75
	Package 3 Barge load 3 C27, C28, C29 & C30					
42190	Leveling Stone & Toe Block C27, C28, C29 & C30	4	4	16-Dec-10	20-Dec-10	2
42200	Float Out caisson walls C27, C28, C29 & C30	2	2	28-Dec-10	29-Dec-10	0
42210	Install caisson seawalls C27, C28, C29 & C30	4	4	30-Dec-10	04-Jan-11	7
42990	Rockfill G200 inside caisson seawall C27, C28, C29 & C30	2	2	05-Jan-11	06-Jan-11	7
43000	Rockfill type A, geotextile type A & filter layer below -6.65mPD C27, C28, C29 &	5	5	07-Jan-11	12-Jan-11	68
43010	Rockfill type A, geotextile type A & filter layer above -6.65mPD C27, C28, C29 &	5	5	09-Feb-11	14-Feb-11	71
43020	SeaSeawall bermstone, 0.5T armour and filter layer C27, C28, C29 & C30	12	12	23-Feb-11	08-Mar-11	64
43030	Install removal slotted panel C27, C28, C29 & C30	8	8	15-Feb-11	23-Feb-11	127
	Seawall Block Installation B8					
14068	Leveling Stone & Toe Block B8	4	4	11-Dec-10	15-Dec-10	2
14070	Install Seawall Blocks B8	9	9	22-Feb-11	03-Mar-11	20
43220	Rockfill type A, geotextile type A & filter layer below -6.65mPD B8	5	5	04-Mar-11	09-Mar-11	20
43230	Rockfill type A, geotextile type A & filter layer above -6.65mPD B8	5	5	10-Mar-11	15-Mar-11	20
43232	Construction of outstanding seawall	14	14	10-Jun-11	23-Jun-11	19
43240	Seawall bermstone, 0.5T armour and filter layer B8	12	12	24-Jun-11	08-Jul-11	15
43250	Mass concrete coping B8	24	24	24-Jun-11	22-Jul-11	15
	RECLAMATION					
17900	Reclamation upto -6.65mPD	30	30	06-Jan-11	12-Feb-11	0
18000	Reclamation upto finish level (108,000m3)	67	67	24-Jan-11	15-Apr-11	0
	DRAINAGE WORKS					
	PORTION NPR3					
	Open Channel U&V					
18590	Casting Blockwork Walls for open channel U & V	30	30	30-Jan-11	28-Feb-11	0
18600	CONSTRUCT OPEN CHANNEL U & V	81	81	15-Feb-11	26-May-11	0
18610	Rockfill Type A for open channel U & V	36	36	15-Feb-11	28-Mar-11	0
18620	Leveling Stone for open channel U & V	36	36	01-Mar-11	12-Apr-11	0
18630	Blockwork wall for open channel U & V	36	36	15-Mar-11	29-Apr-11	0
18640	Rockfill Type A behind open channel U & V	36	36	25-Mar-11	12-May-11	0
18650	Geotextile Type A & Filter of open channel U & V	36	36	09-Apr-11	26-May-11	0
18660	Backfill behind open channel U&V	36	36	26-Apr-11	09-Jun-11	0
	Reclamation Area					
18670	Removal of temporary channel and reinstatement	5	5	10-Jun-11	14-Jun-11	0
18680	Construction of 450 Drainage	56	56	15-Jun-11	09-Aug-11	0
19210	Construct 300 & 375 half round U-channel	40	40	23-Jun-11	09-Aug-11	0
	Existing Land Area					
19270	Method Statement/Temp work designs and approval	60	60	30-Aug-10*	28-Oct-10	24
19280	Drainage Works	170	170	29-Oct-10	28-May-11	20



Level Effort | Remaining Work | Milestone
Actual Work | Critical Remaining Work

TASK filter: Works Programme.

Data Date : 30-Aug-10

Activity ID	Activity Name	Original Duration	Remaining Duration	Start	Finish	Total Float
PERMANENT RELOCATION OF NAVIGATION LIGHT						
21700	Permanent relocation navigation light	12	12	09-Jul-11	22-Jul-11	15