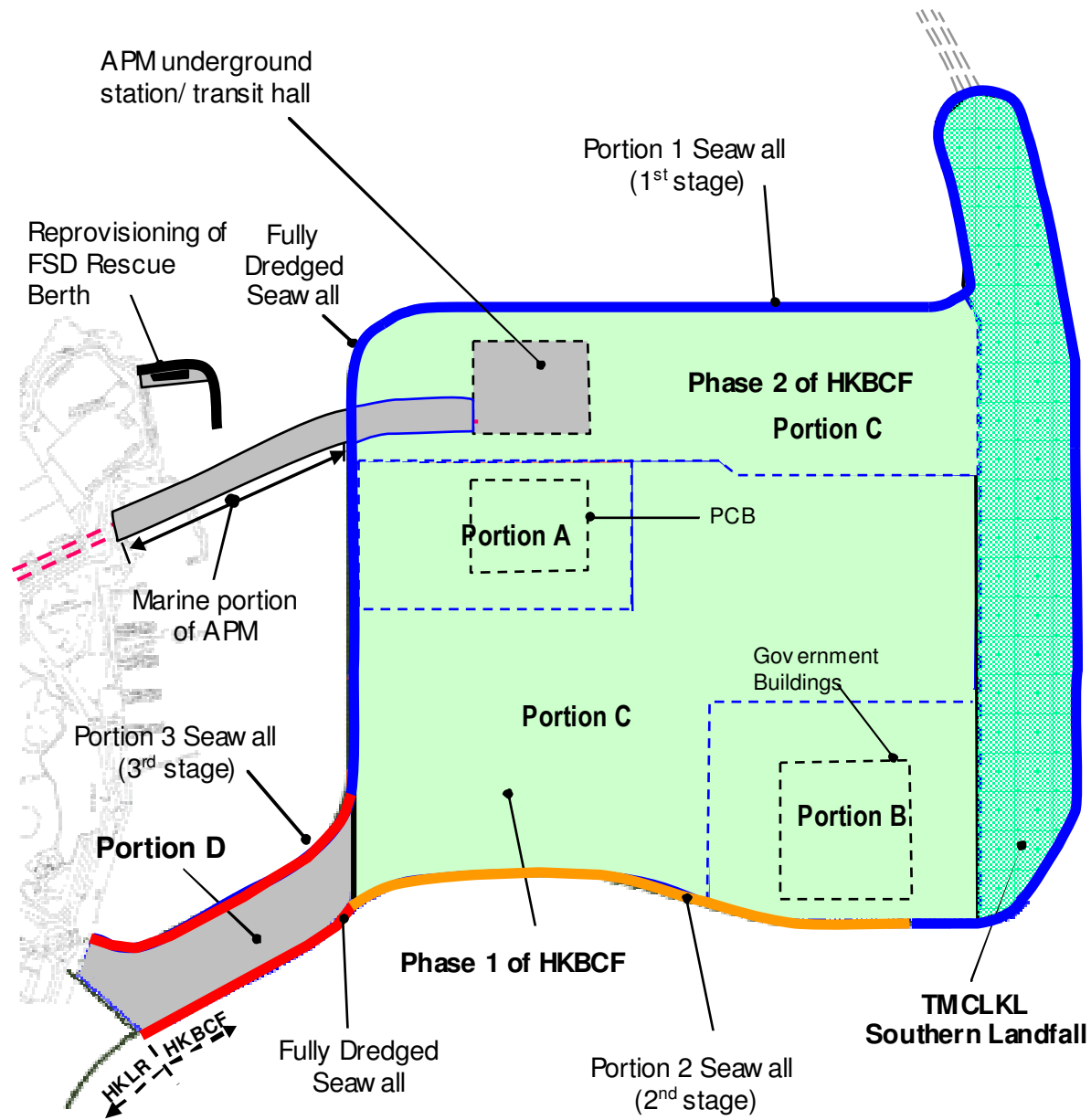


APPENDIX E2

**Typical Arrangement of
HKBCF Sequence B**



- Fully dredged
 - Non-dredged (with Band Drains)
 - Portion 1 seawall
 - Portion 2 seawall
 - Portion 3 seawall
- } Fully dredged

Phase 1 of HKBCF

Seawall – Fully Dredged

Reclamation:

- Portion A – Non-dredged (with band drains)
- Portion B – Non-dredged (with band drains)
- Portion C – Non-dredged (with band drains)
- Portion D – Fully dredged
- FSD Rescue Berth – Fully dredged

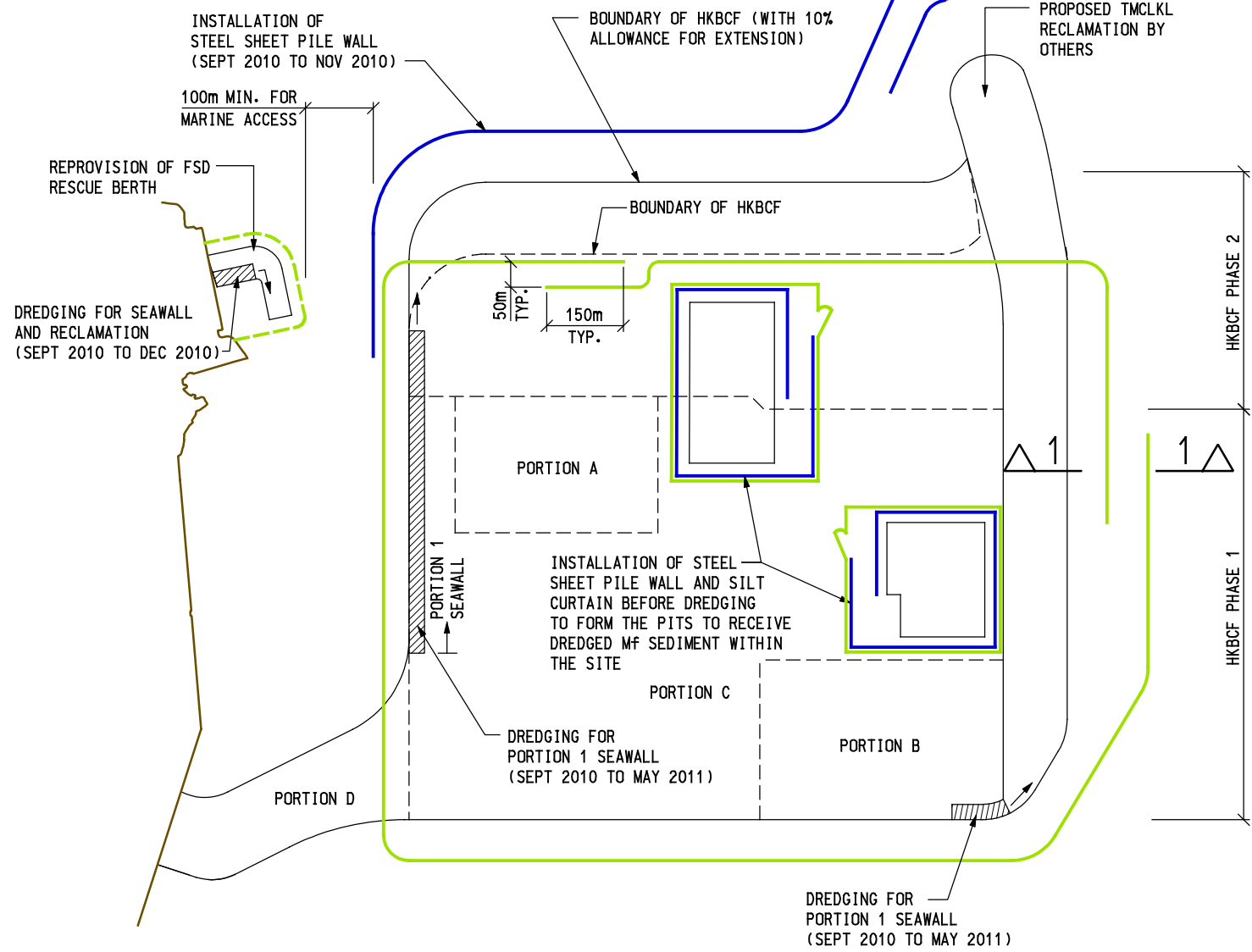
Phase 2 of HKBCF

Seawall – Fully dredged

Reclamation – Non-dredged (with band drains) except the areas at underground APM station and tunnel by fully dredged.

Activities		Year 2010				Year 2011				Year 2012				Year 2013				Year 2014				Year 2015				Year 2016																										
		A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O	N	D	J	F	M	A	M	J	J	A	S	O
Hong Kong Boundary Crossing Facilities (Seq. B)																																																				
Seawalls	Mobilisation and preparation																																																			
	Seawall dredging (Portion 1)	█																																																		
	Seawall filling (Portion 1)			█																																																
	Seawall dredging (Portion 2)							█																																												
	Seawall filling (Portion 2)									█																																										
	Seawall dredging (Portion 3)									█																																										
	Seawall filling (Portion 3)											█																																								
Phase 1 Portion A	Sand blanket																																																			
	Reclamation filling									█																																										
Phase 1 Portion B	Sand blanket																																																			
	Reclamation filling											█																																								
Phase 1 Portion C	Sand blanket																																																			
	Reclamation filling											█																																								
Phase 1 Portion D	Dredging																																																			
	Reclamation filling											█																																								
Phase 2	Sand blanket																																																			
	Reclamation filling											█																																								
Pits for Mf sediment	Install sheet piles	█																																																		
	Dredging to form the Mf pits	█																																																		
	Redeposition of Mf sediments within the pits			█																																																
	Remove sheet piles after capping by sandfill											█																																								
APM & FSD berth	Dredging for seawall and reclamation (FSD)	█																																																		
	Seawall filling (FSD)			█																																																
	Reclamation filling (FSD)			█																																																
	Dredging for APM (by IMT Method)									█																																										
Filling for APM after installation of IMT										█																																										

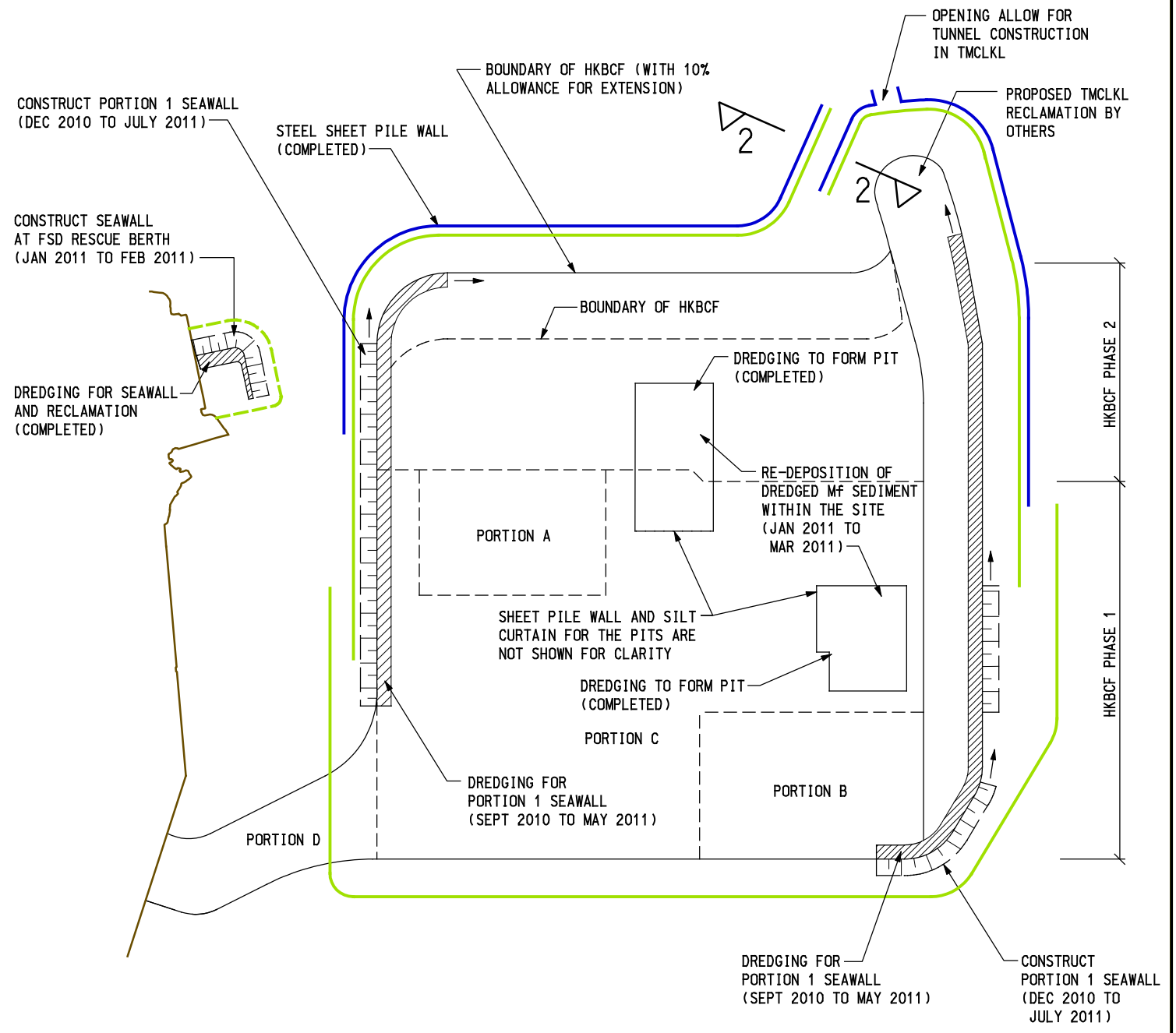
Remarks: Dredging activity
 Filling activity
 Other activities



NOTE:
 FIRST MEASURE: CAGE TYPE SILT CURTAIN FOR ALL GRAB DREDGERS (SEE TYPICAL SECTION ATTACHED)
 SECOND MEASURE: SINGLE SILT CURTAIN AROUND THE SITE (SEE TYPICAL SECTION ATTACHED)

LEGEND:
 [Blue line] STEEL SHEET PILE WALL
 [Green line] SINGLE SILT CURTAIN
 [Hatched box] DREDGED AREA

STAGE 1 (ON OCT 2010)



NOTE:
 FIRST MEASURE: CAGE TYPE SILT CURTAIN FOR ALL GRAB DREDGERS (SEE TYPICAL SECTION ATTACHED)
 SECOND MEASURE: SINGLE SILT CURTAIN AROUND THE SITE (SEE TYPICAL SECTION ATTACHED)

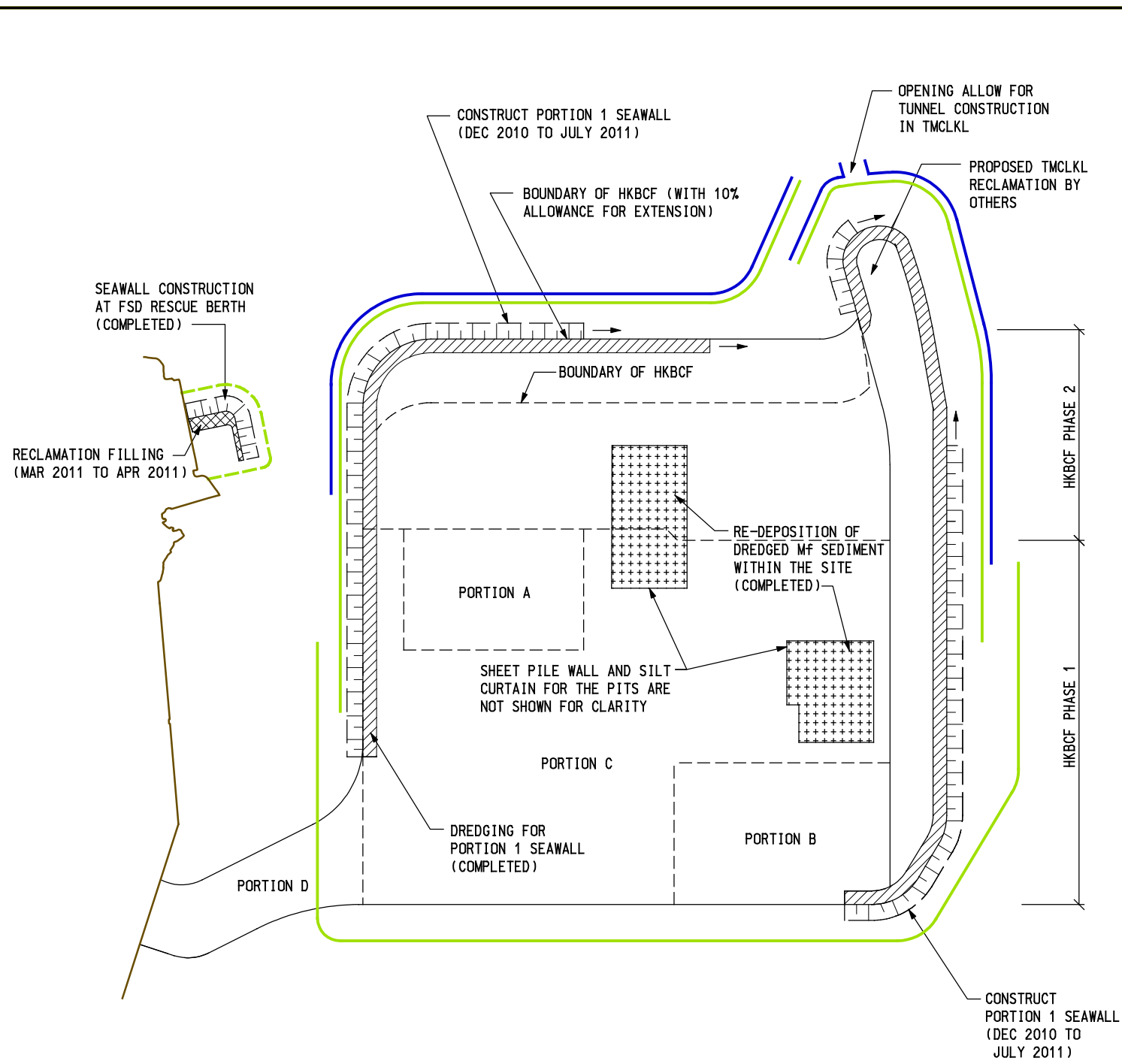
LEGEND:
 [Blue line] STEEL SHEET PILE WALL
 [Green line] SINGLE SILT CURTAIN
 [Hatched box] DREDGED AREA
 [Dashed line] COMPLETED SLOPING SEAWALL
 [Box with +] RE-DEPOSITION OF DREDGED MF SEDIMENT

STAGE 2 (ON FEB 2011)

Printed by : *o*
 File name : J:\425308\ARUP\CIVIL\SKETCH\Reg\Conc1 on 25308-SK-41-301A.dgn
 29/7/2009

	路政署 HIGHWAYS DEPARTMENT 港珠澳大橋香港工程管理局 Hong Kong - Zhuhai - Macao Bridge Hong Kong Project Management Office	Job Title Agreement No. CE 14/2008 (CE) Hong Kong-Zhuhai-Macao Bridge Hong Kong Boundary Crossing Facilities - Investigation	Drawing Title ANTICIPATED CONSTRUCTION SEQUENCE OF HKBCF (SEQUENCE B)	Drawn CN Checked SK Date 02/09 Approved AK	Drawing No. 25308/041/301A
				Scale 1:12500 on A3	Status PRELIMINARY Rev. A
					Rev. Description Date

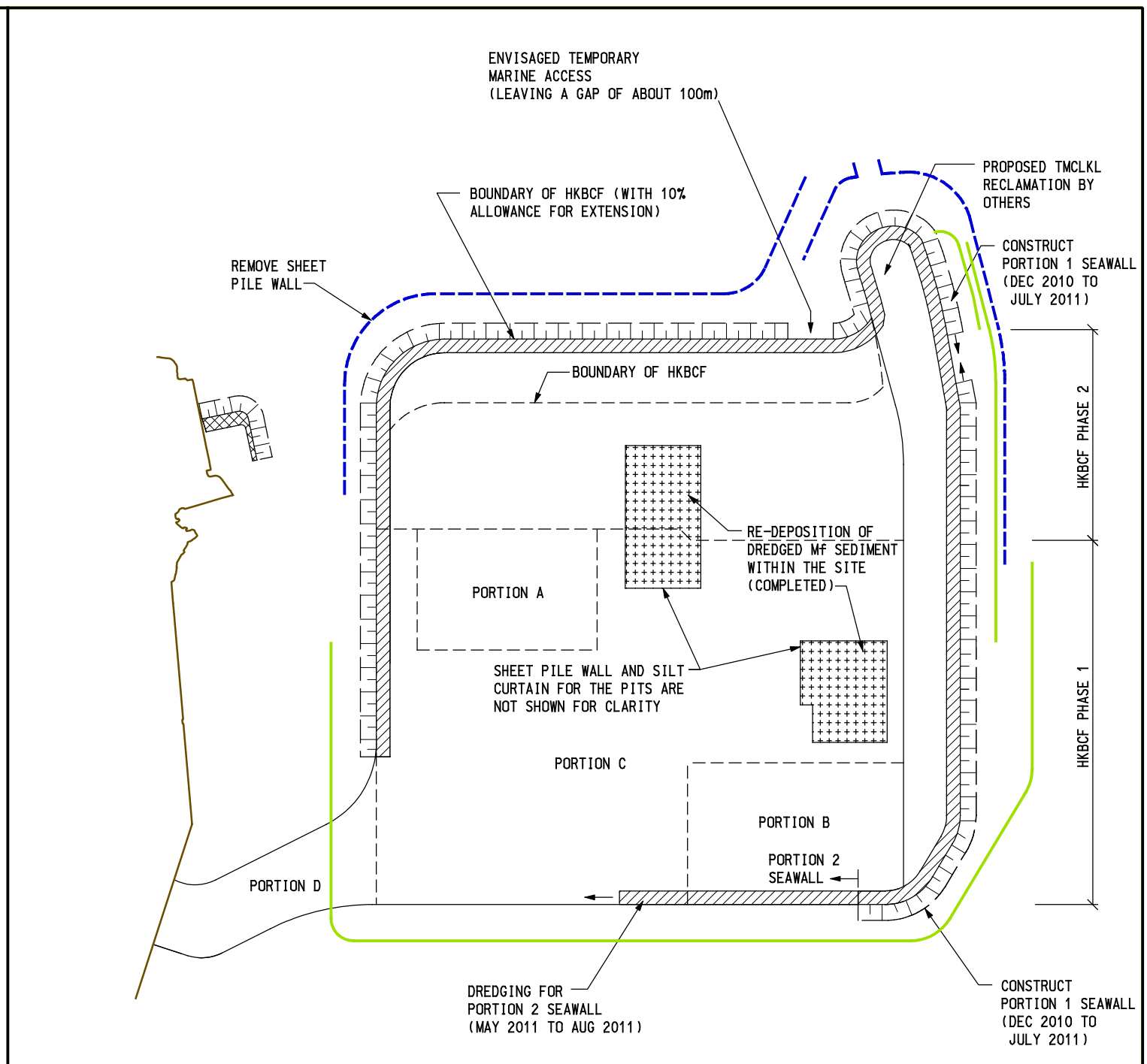
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 29/7/2009



NOTE:
 FIRST MEASURE: CAGE TYPE SILT CURTAIN FOR ALL GRAB DREDGERS (SEE TYPICAL SECTION ATTACHED)
 SECOND MEASURE: SINGLE SILT CURTAIN AROUND THE SITE (SEE TYPICAL SECTION ATTACHED)

STAGE 3 (ON APR 2011)

- LEGEND:**
- STEEL SHEET PILE WALL
 - SINGLE SILT CURTAIN
 - DREDGED AREA
 - COMPLETED SLOPING SEAWALL
 - RE-DEPOSITION OF DREDGED MF SEDIMENT
 - RECLAMATION WORKS COMPLETED



NOTE:
 FIRST MEASURE: CAGE TYPE SILT CURTAIN FOR ALL GRAB DREDGERS (SEE TYPICAL SECTION ATTACHED)
 SECOND MEASURE: SINGLE SILT CURTAIN AROUND THE SITE (SEE TYPICAL SECTION ATTACHED)

STAGE 4 (ON JUNE 2011)

- LEGEND:**
- STEEL SHEET PILE WALL
 - SINGLE SILT CURTAIN
 - DREDGED AREA
 - COMPLETED SLOPING SEAWALL
 - RE-DEPOSITION OF DREDGED MF SEDIMENT
 - RECLAMATION WORKS COMPLETED

路政署
HIGHWAYS DEPARTMENT
 港珠澳大橋香港工程管理局
 Hong Kong - Zhuhai - Macao Bridge
 Hong Kong Project Management Office

ARUP Ove Arup & Partners
 Hong Kong Limited

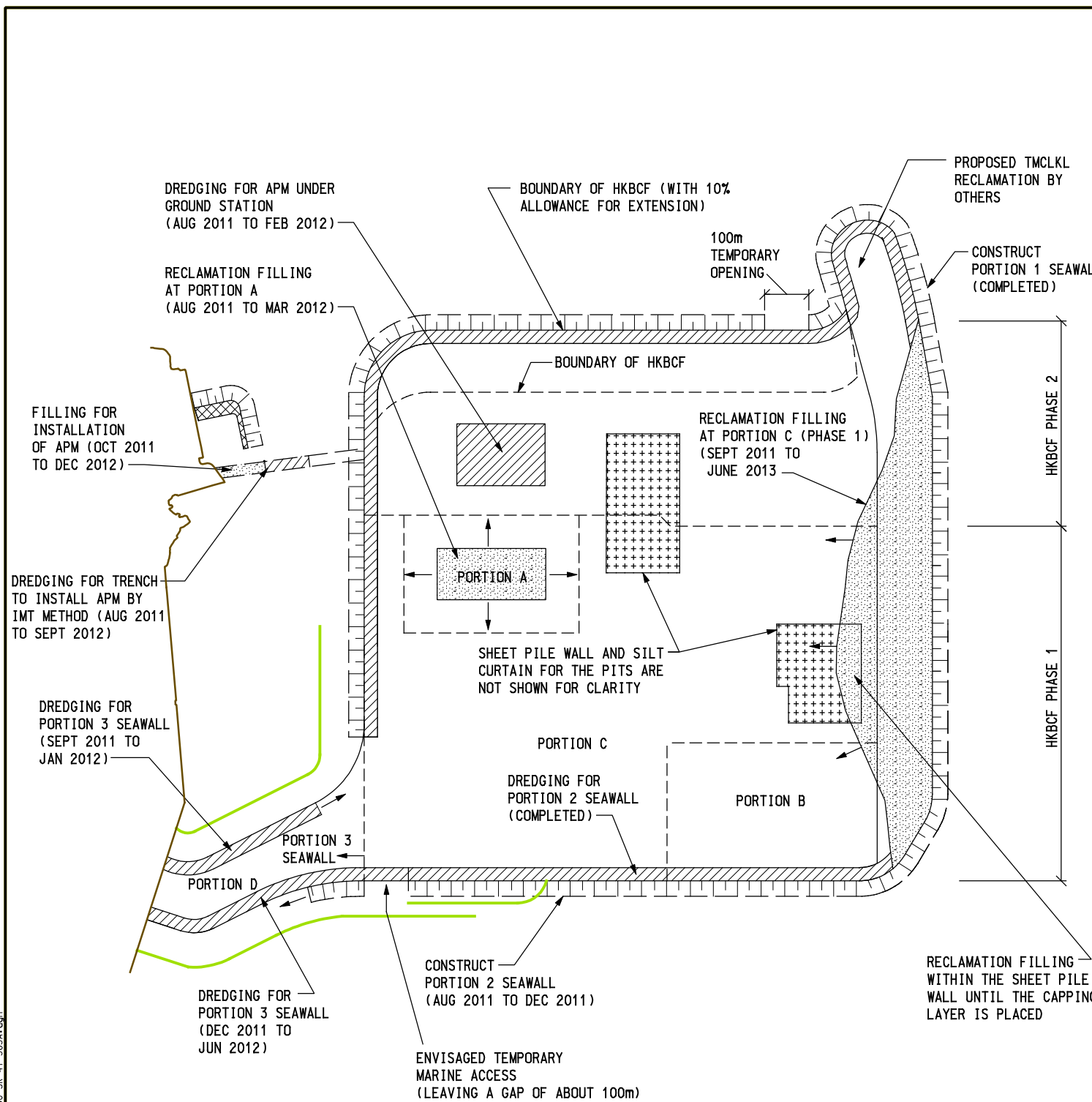
Job Title
Agreement No. CE 14/2008 (CE)
Hong Kong-Zhuhai-Macao Bridge Hong Kong
Boundary Crossing Facilities - Investigation

Drawing Title
ANTICIPATED CONSTRUCTION
SEQUENCE OF HKBCF (SEQUENCE B)

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Checked	SK	Approved	AK
Rev.	A	DESCRIPTION	02/09

Scale
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Drawing No.
25308/041/302A
 Status
PRELIMINARY
 Rev. **A**

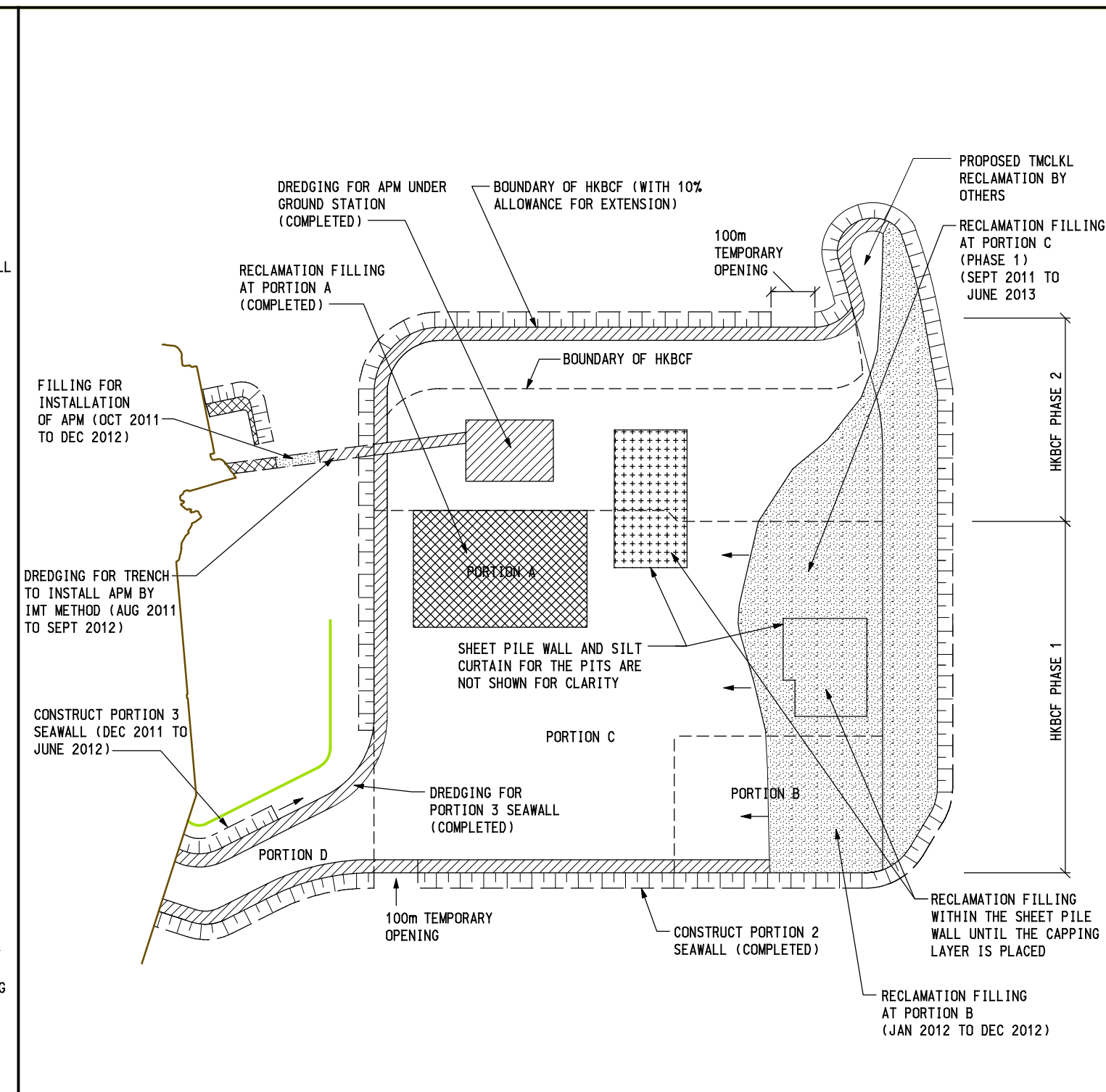


NOTE:
 FIRST MEASURE: CAGE TYPE SILT CURTAIN FOR ALL GRAB DREDGERS (SEE TYPICAL SECTION ATTACHED)
 SECOND MEASURE: SINGLE SILT CURTAIN AROUND THE SITE (SEE TYPICAL SECTION ATTACHED)

LEGEND:

- STEEL SHEET PILE WALL
- SINGLE SILT CURTAIN
- DREDGED AREA
- COMPLETED SLOPING SEAWALL
- RECLAMATION FILLING AREA
- RECLAMATION WORKS COMPLETED
- RE-DEPOSITION OF DREDGED MF SEDIMENT

STAGE 5 (ON DEC 2011)



NOTE:
 FIRST MEASURE: CAGE TYPE SILT CURTAIN FOR ALL GRAB DREDGERS (SEE TYPICAL SECTION ATTACHED)
 SECOND MEASURE: SINGLE SILT CURTAIN AROUND THE SITE (SEE TYPICAL SECTION ATTACHED)

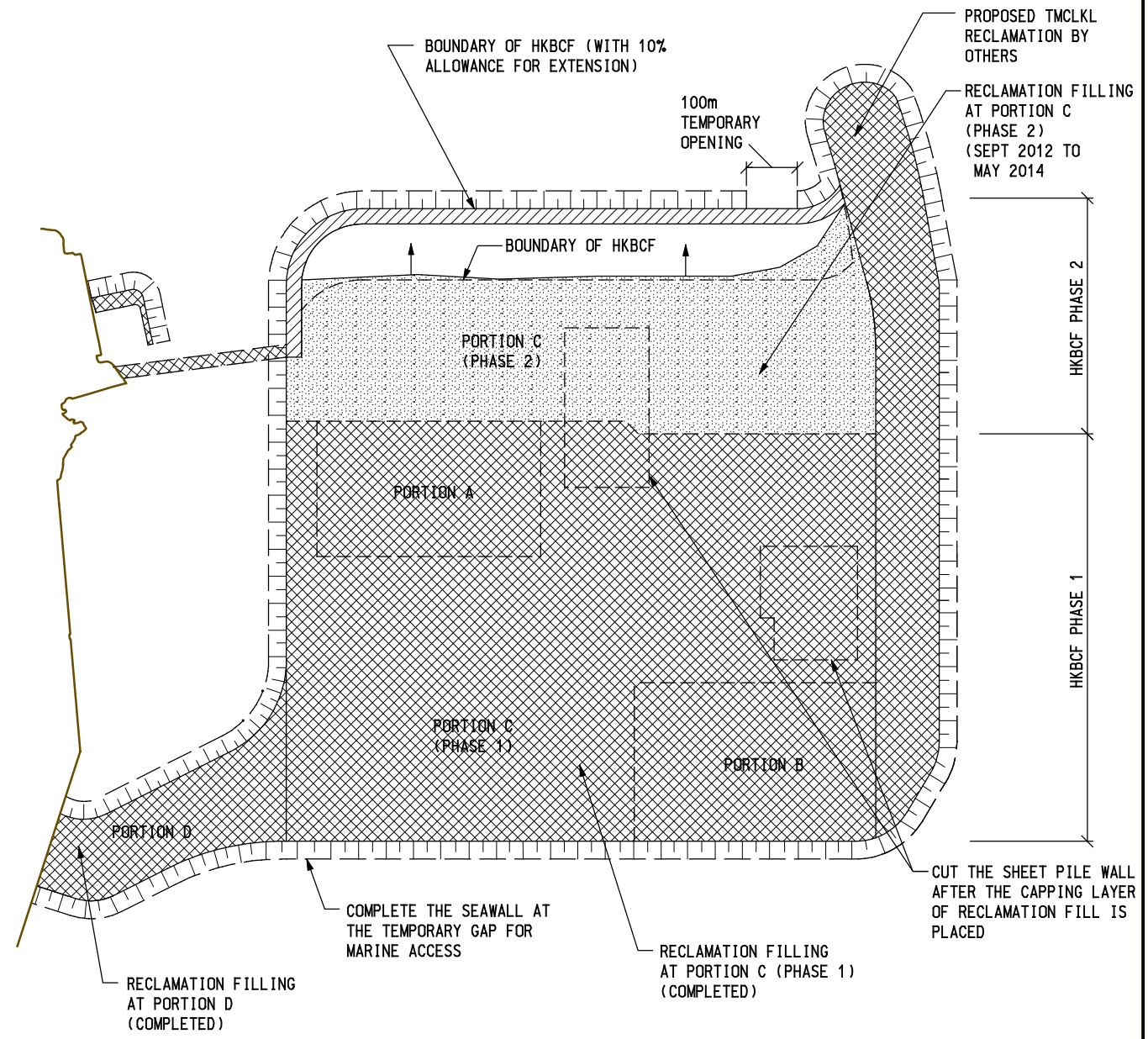
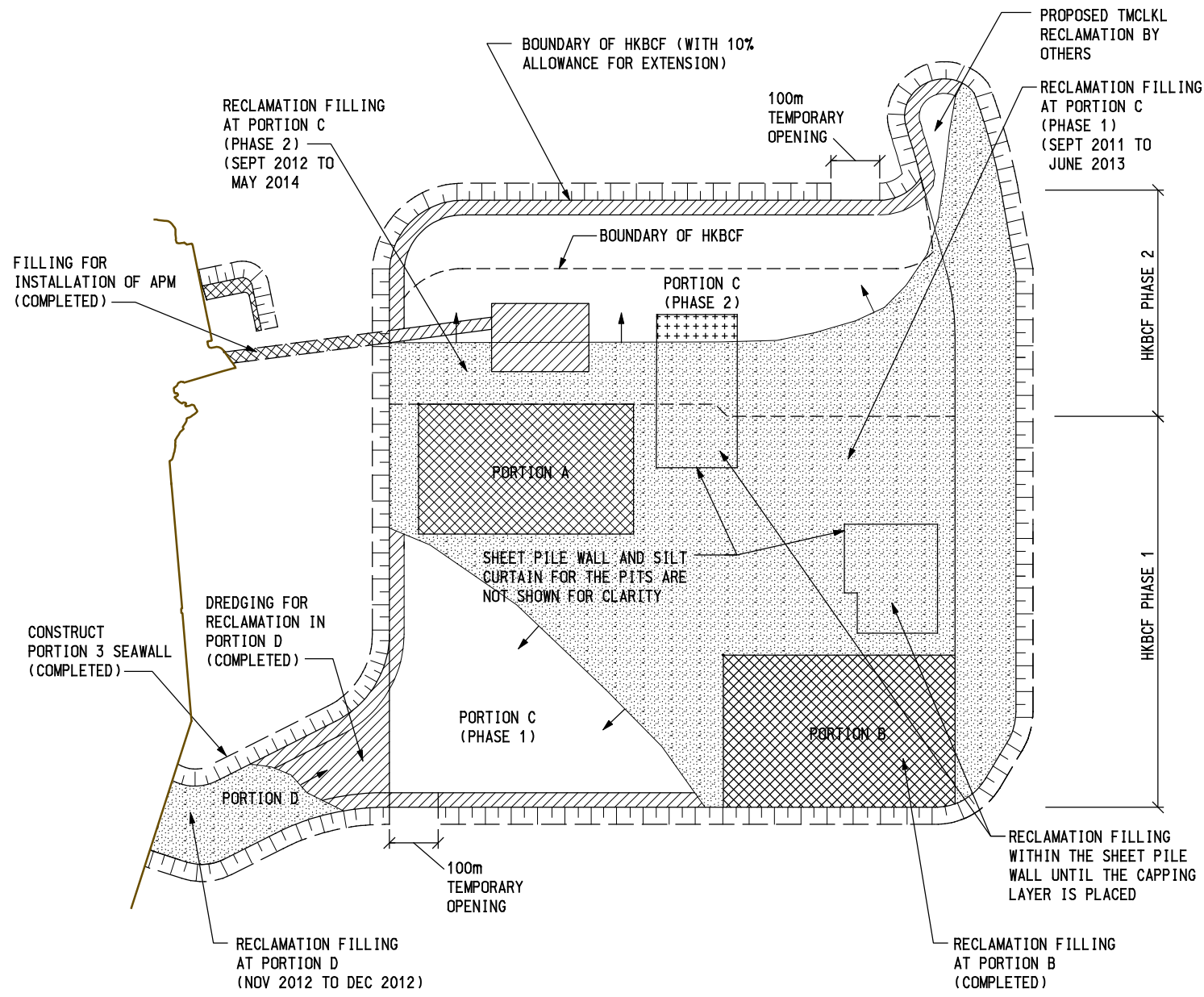
LEGEND:

- SINGLE SILT CURTAIN
- DREDGED AREA
- COMPLETED SLOPING SEAWALL
- RECLAMATION FILLING AREA
- RECLAMATION WORKS COMPLETED
- RE-DEPOSITION OF DREDGED MF SEDIMENT

STAGE 6 (ON APR 2012)

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				Checked SK	Approved AK	
A FIRST ISSUE 02/09				Rev. Description Date		



NOTE:

FIRST MEASURE: CAGE TYPE SILT CURTAIN FOR ALL GRAB DREDGERS (SEE TYPICAL SECTION ATTACHED)

SECOND MEASURE: SINGLE SILT CURTAIN AROUND THE SITE (SEE TYPICAL SECTION ATTACHED)

- LEGEND:
- DREDGED AREA
 - COMPLETED SLOPING SEAWALL
 - RECLAMATION FILLING AREA
 - RECLAMATION WORKS COMPLETED
 - RE-DEPOSITION OF DREDGED MF SEDIMENT

STAGE 7 (ON DEC 2012)

NOTE:

FIRST MEASURE: CAGE TYPE SILT CURTAIN FOR ALL GRAB DREDGERS (SEE TYPICAL SECTION ATTACHED)

SECOND MEASURE: SINGLE SILT CURTAIN AROUND THE SITE (SEE TYPICAL SECTION ATTACHED)

- LEGEND:
- DREDGED AREA
 - COMPLETED SLOPING SEAWALL
 - RECLAMATION FILLING AREA
 - RECLAMATION WORKS COMPLETED
 - RE-DEPOSITION OF DREDGED MF SEDIMENT

STAGE 8 (ON DEC 2013)



Job Title
Agreement No. CE 14/2008 (CE)
Hong Kong-Zhuhai-Macao Bridge Hong Kong
Boundary Crossing Facilities - Investigation

Drawing Title
ANTICIPATED CONSTRUCTION
SEQUENCE OF HKBCF (SEQUENCE B)

Drawn	CN	Date	02/09	Drawing No. 25308/041/304A
Checked	SK	Approved	AK	
Rev.	A	DESCRIPTION	DATE	Status PRELIMINARY
				Rev. A
Scale			1:12500 on A3	

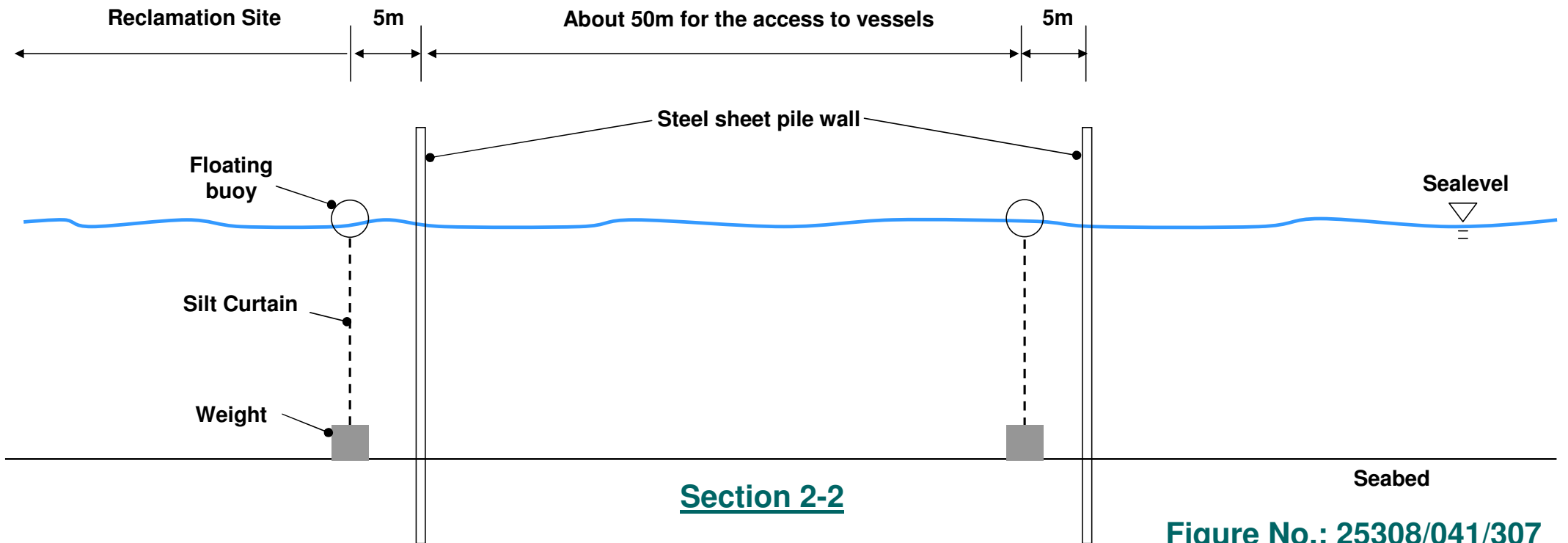
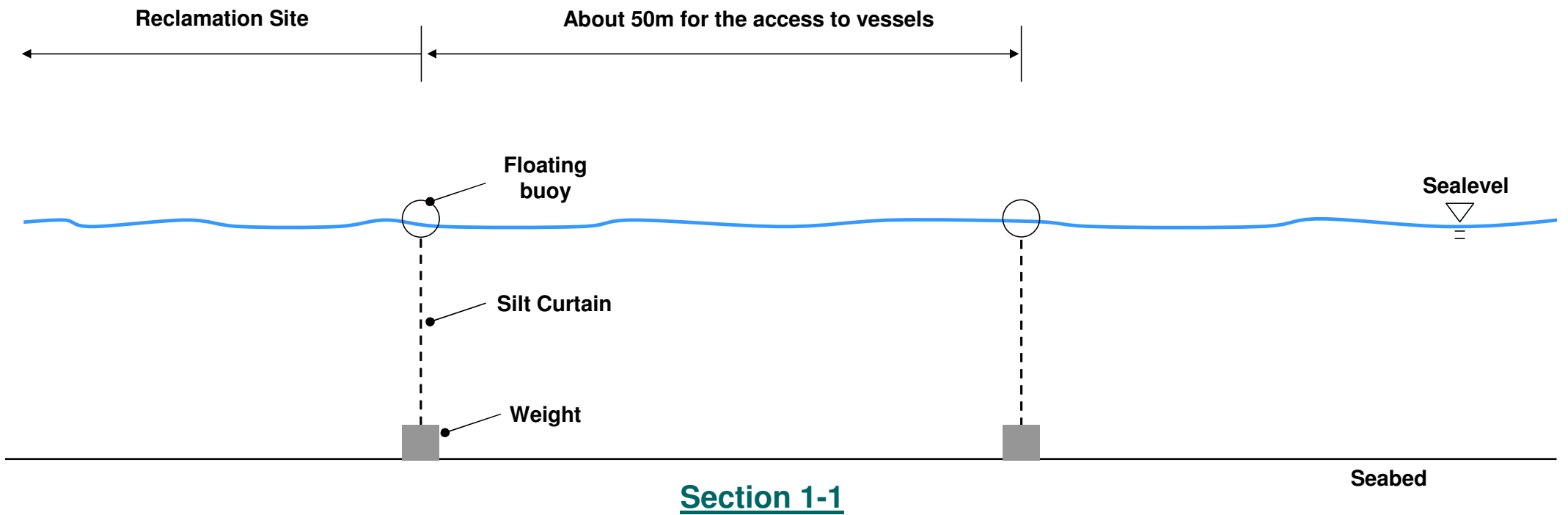
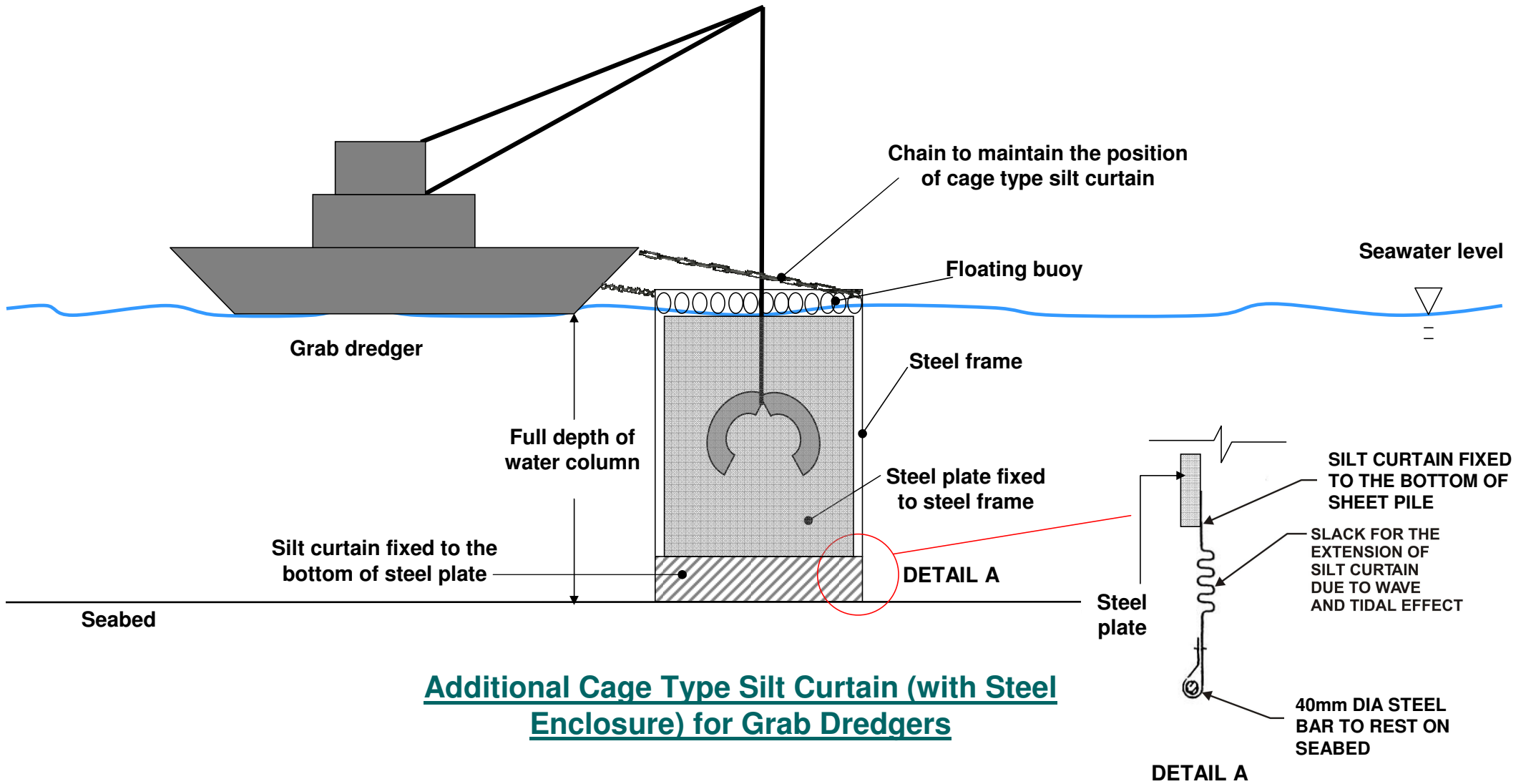


Figure No.: 25308/041/307

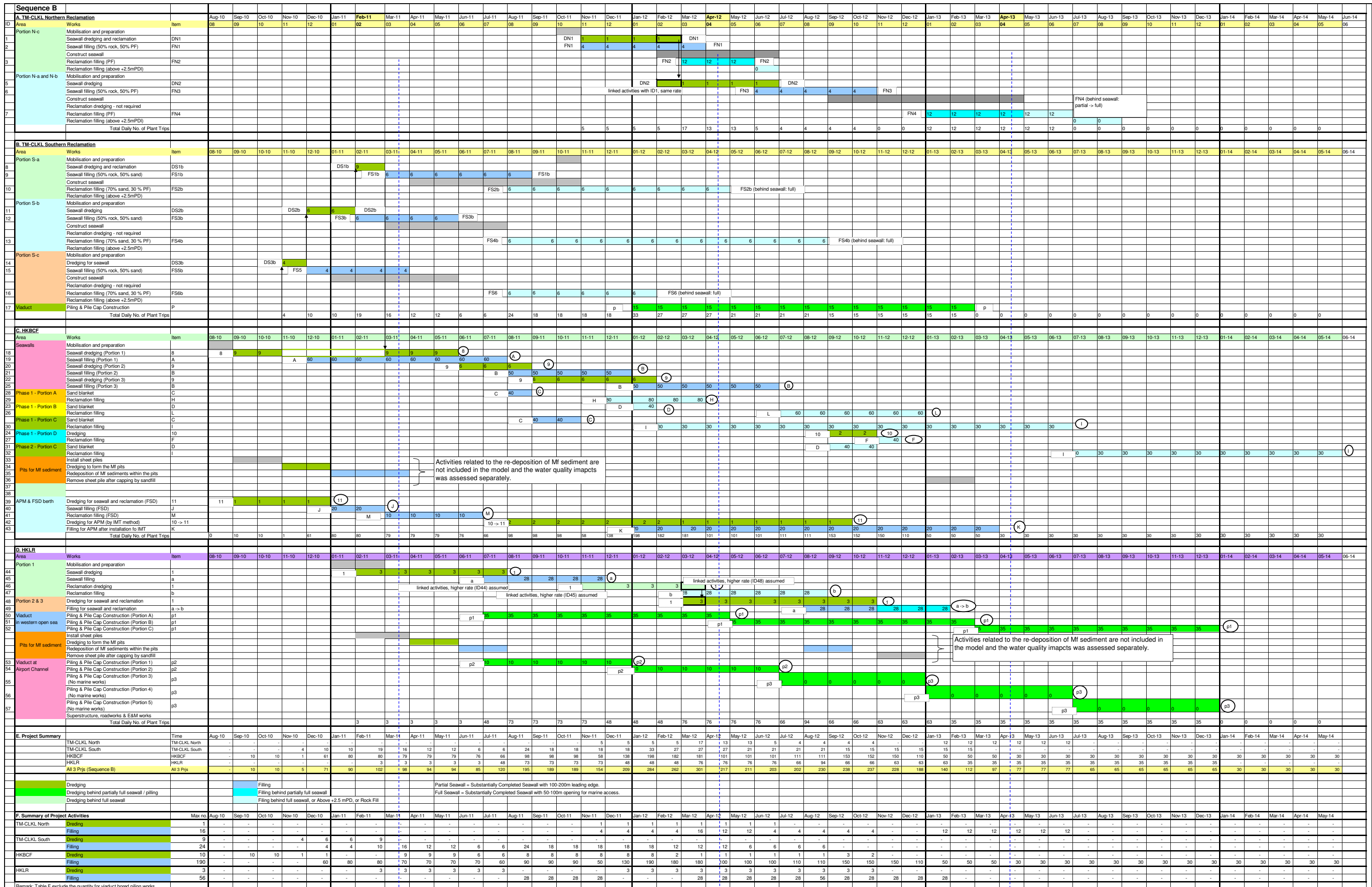


Additional Cage Type Silt Curtain (with Steel Enclosure) for Grab Dredgers

Sequence B			Aug-10	Sep-10	Oct-10	Nov-10	Dec-10	Jan-11	Feb-11	Mar-11	Apr-11	May-11	Jun-11	Jul-11	Aug-11	Sep-11	Oct-11	Nov-11	Dec-11	Jan-12	Feb-12	Mar-12	Apr-12	May-12	Jun-12	Jul-12	Aug-12	Sep-12	Oct-12	Nov-12	Dec-12	Jan-13	Feb-13	Mar-13	Apr-13	May-13	Jun-13	Jul-13	Aug-13	Sep-13	Oct-13	Nov-13	Dec-13	Jan-14	Feb-14	Mar-14	Apr-14	May-14	Jun-14
A. TM-CLKL Northern Reclamation																																																	
Area	Works	Item																																															
Portion N-c	Mobilisation and preparation	DN1																																															
	Seawall dredging and reclamation	DN1																																															
	Seawall filling (50% rock, 50% PF)	FN1																																															
	Construct seawall	FN2																																															
	Reclamation filling (PF)	FN2																																															
	Reclamation filling (above +2.5mPD)	FN2																																															
Portion N-a and N-b	Mobilisation and preparation	DN2																																															
	Seawall dredging	FN3																																															
	Seawall filling (50% rock, 50% PF)	FN3																																															
	Construct seawall	FN3																																															
	Reclamation dredging - not required	FN4																																															
	Reclamation filling (PF)	FN4																																															
	Reclamation filling (above +2.5mPD)	FN4																																															
	Total Daily Production Rate																																																
B. TM-CLKL Southern Reclamation																																																	
Area	Works	Item																																															
Portion S-a	Mobilisation and preparation	DS1b																																															
	Seawall dredging and reclamation	FS1b																																															
	Seawall filling (50% rock, 50% sand)	FS1b																																															
	Construct seawall	FS2b																																															
	Reclamation filling (70% sand, 30% PF)	FS2b																																															
	Reclamation filling (above +2.5mPD)	FS2b																																															
Portion S-b	Mobilisation and preparation	DS2b																																															
	Seawall dredging	FS3b																																															
	Seawall filling (50% rock, 50% sand)	FS3b																																															
	Construct seawall	FS4b																																															
	Reclamation dredging - not required	FS4b																																															
	Reclamation filling (70% sand, 30% PF)	FS4b																																															
	Reclamation filling (above +2.5mPD)	FS4b																																															
Portion S-c	Mobilisation and preparation	DS3b																																															
	Dredging for seawall	FS5																																															
	Seawall filling (50% rock, 50% sand)	FS5																																															
	Construct seawall	FS6																																															
	Reclamation dredging - not required	FS6																																															
	Reclamation filling (70% sand, 30% PF)	FS6																																															
	Reclamation filling (above +2.5mPD)	FS6																																															
Viaduct	Piling & Pile Cap Construction	P																																															
	Total Daily Production Rate																																																
C. HKBCF																																																	
Area	Works	Item																																															
Seawalls	Mobilisation and preparation	A																																															
	Seawall dredging (Portion 1)	A																																															
	Seawall filling (Portion 1)	A																																															
	Seawall dredging (Portion 2)	B																																															
	Seawall filling (Portion 2)	B																																															
	Seawall dredging (Portion 3)	C																																															
	Seawall filling (Portion 3)	C																																															
Phase 1 - Portion A	Sand blanket	H																																															
	Reclamation filling	H																																															
Phase 1 - Portion B	Sand blanket	D																																															
	Reclamation filling	D																																															
Phase 1 - Portion C	Sand blanket	C																																															
	Reclamation filling	C																																															
Phase 1 - Portion D	Dredging	I																																															
	Reclamation filling	I																																															
Phase 2 - Portion C	Sand blanket	F																																															
	Reclamation filling	F																																															
	Sand blanket	D																																															
	Reclamation filling	D																																															
	Install sheet piles	I																																															
	Dredging to form the MI pits	I																																															
	Redeposition of MI sediments within the pits	I																																															
	Remove sheet pile after capping by sandfill	I																																															
	Total Daily Production Rate																																																
D. HKLR																																																	
Area	Works	Item																																															
Portion 1	Mobilisation and preparation	1																																															
	Seawall filling	a																																															
	Reclamation dredging	1																																															
	Reclamation filling	b																																															
Portion 2 & 3	Dredging for seawall and reclamation	1																																															
	Filling for seawall and reclamation	a -> b																																															
Viaduct	Piling & Pile Cap Construction (Portion A)	p1																																															
In western open sea	Piling & Pile Cap Construction (Portion B)	p1																																															
	Piling & Pile Cap Construction (Portion C)	p1																																															
	Install sheet piles	p1																																															
	Dredging to form the MI pits	p1																																															
	Redeposition of MI sediments within the pits	p1																																															
	Remove sheet pile after capping by sandfill	p1																																															
Viaduct at Airport Channel	Piling & Pile Cap Construction (Portion 1)	p2																																															
	Piling & Pile Cap Construction (Portion 2)	p2																																															
	Piling & Pile Cap Construction (Portion 3)	p2																																															
	(No marine works)	p2																																															
	Piling & Pile Cap Construction (Portion 4)	p3																																															
	(No marine works)	p3																																															
	Piling & Pile Cap Construction (Portion 5)	p3																																															
	(No marine works)	p3																																															
	Superstructure, roadworks & E&M works																																																
	Total Daily Production Rate																																																
E. Project Summary																																																	
TM-CLKL North	Dredging	7,200																																															
TM-CLKL South	Filling	16,000																																															
HKBCF	Dredging	64,800																																															
HKBCF	Filling	24,000																																															
HKLR	Dredging	21,600																																															
HKLR	Filling	56,000																																															
F. Summary of Project Activities																																																	
Max rate																																																	
TM-CLKL North	Dredging	7,200																																															
TM-CLKL South	Filling	16,000																																															
HKBCF	Dredging	72,000																																															
HKBCF	Filling	190,000																																															
HKLR	Dredging	21,600																																															
HKLR	Filling	56,000																																															

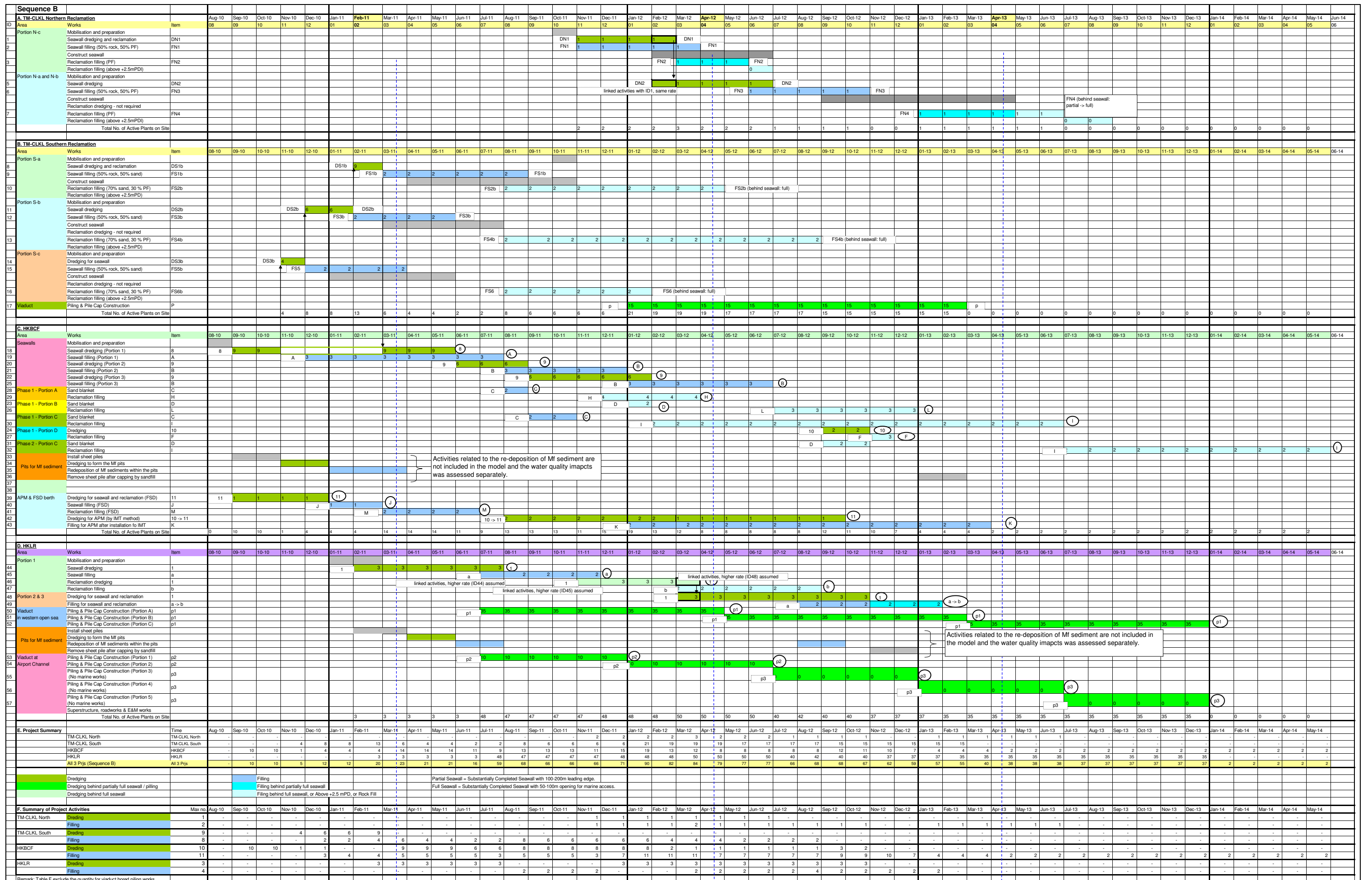
Overall Programme for TM-CLKL + HKBCF + HKLR - Maximum Daily Production Rate (bulked volume, m3/day) (Sequence B)

Figure 1b



Overall Programme for TM-CLKL + HKBCF + HKLR - Daily No. of Plant Trips (Sequence B)

Figure 1c



Overall Programme for TM-CLKL + HKBCF + HKLR - No. of Active Dredging/Filling Plants on Site (Sequence B)

Figure 1d