## **MATERIALAB CONSULTANTS LIMITED**

Room 723 & 725, 7/F, Block B, Profit Industrial Building, 1-15 Kwai Fung Crescent, Kwai Fong, : (852)-24508238 : (852)-24508032 Tel Fax

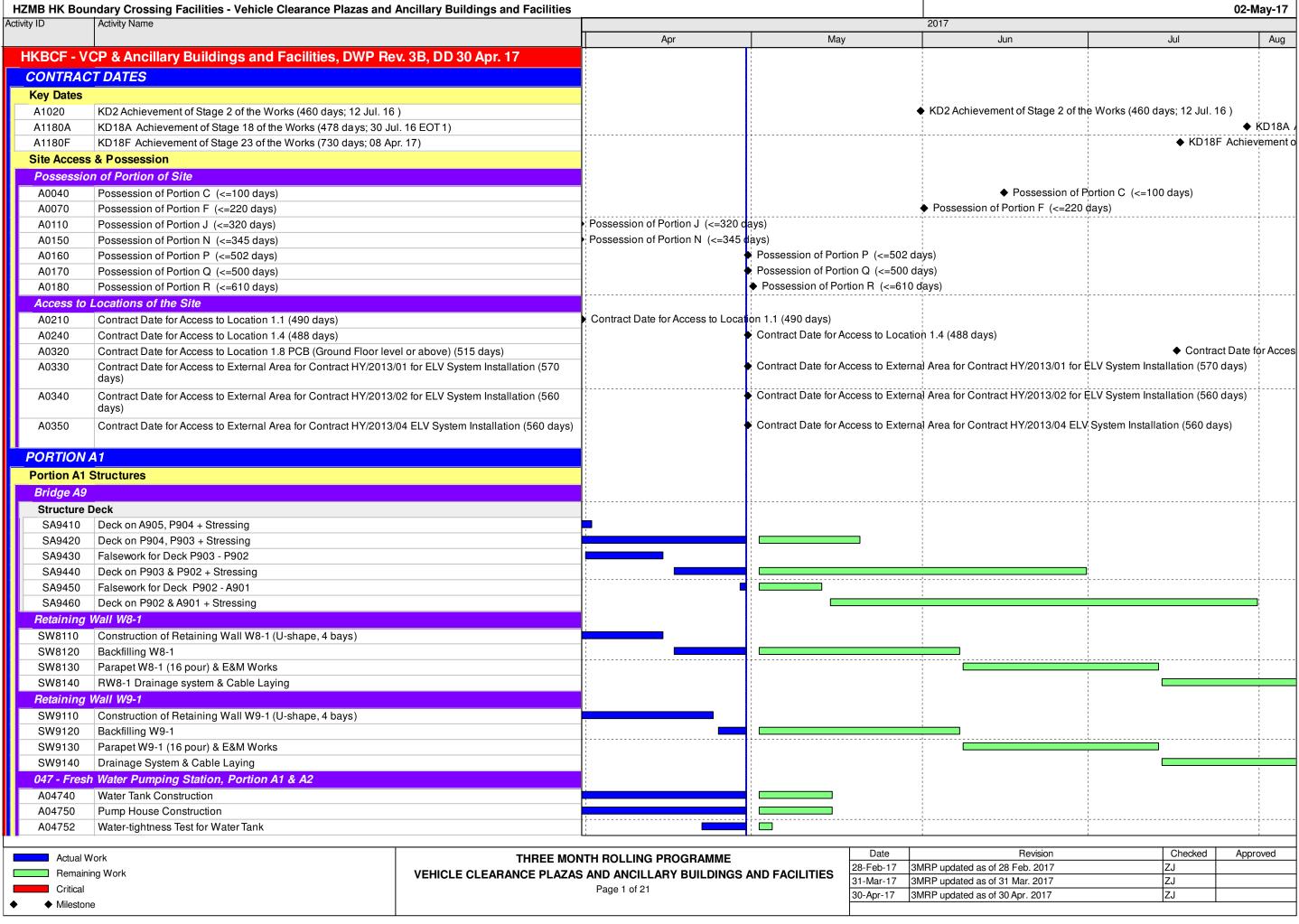
Hong Kong. Email : mcl@fugro.com

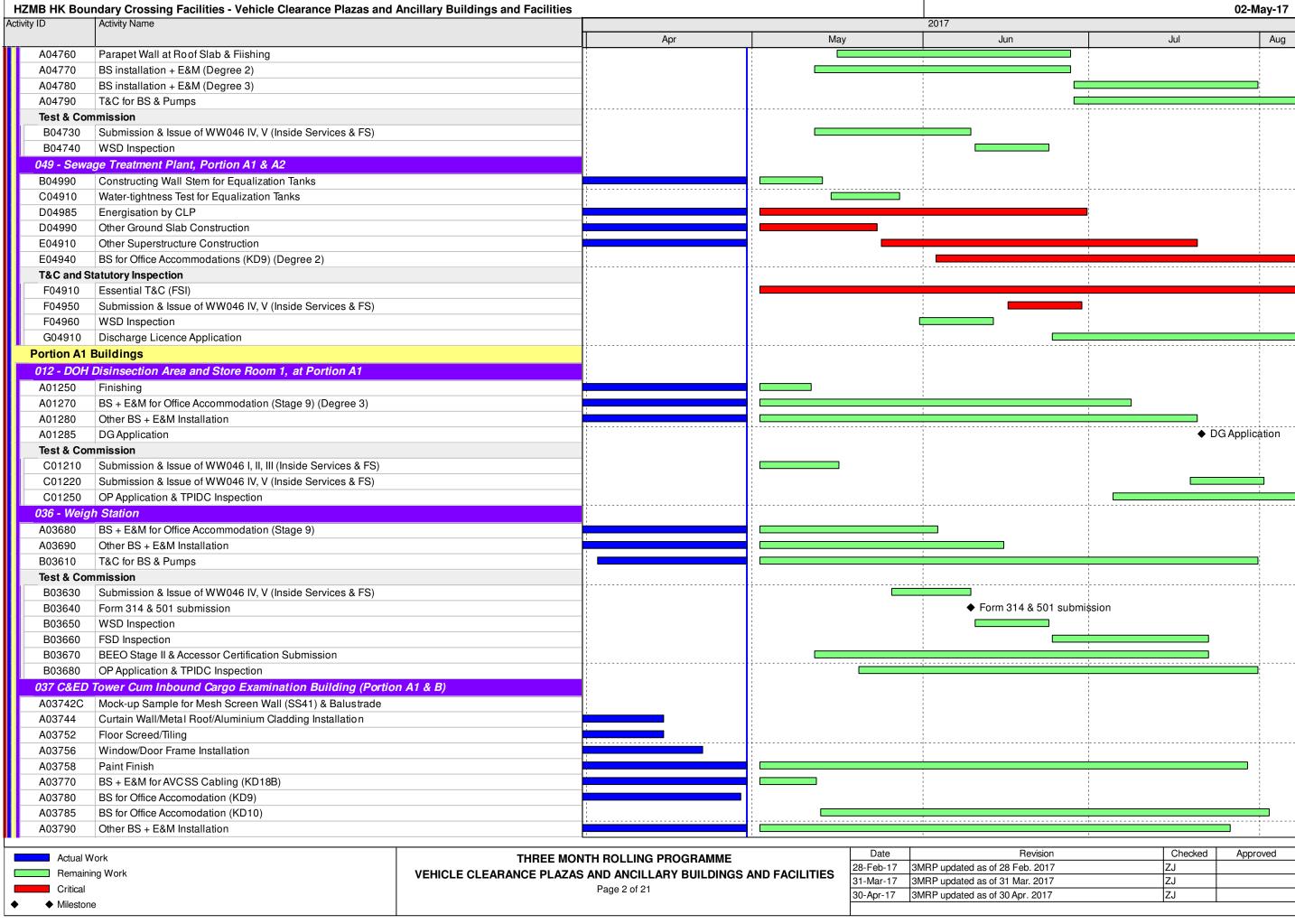


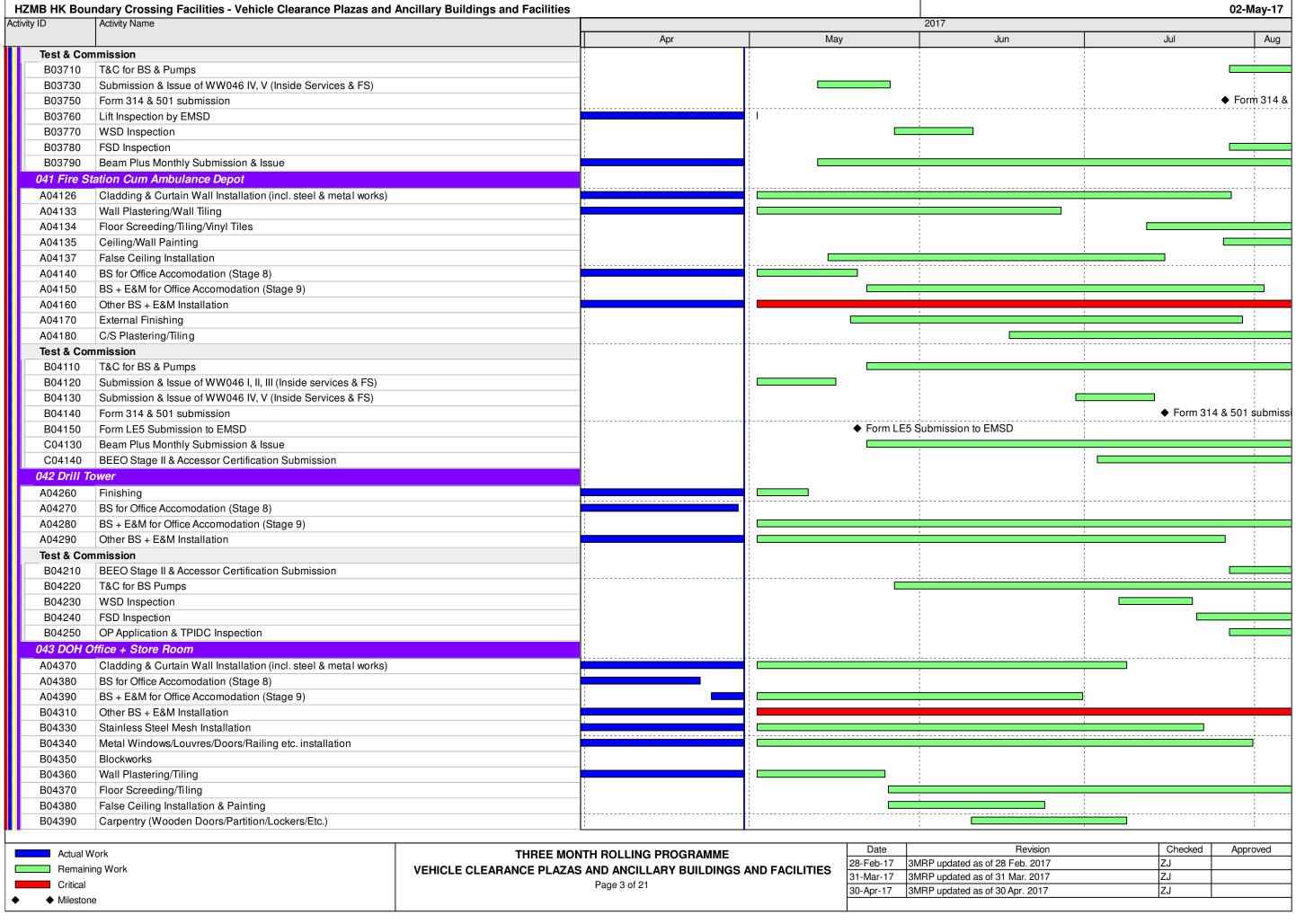
Report No.: 0165/15/ED/0783

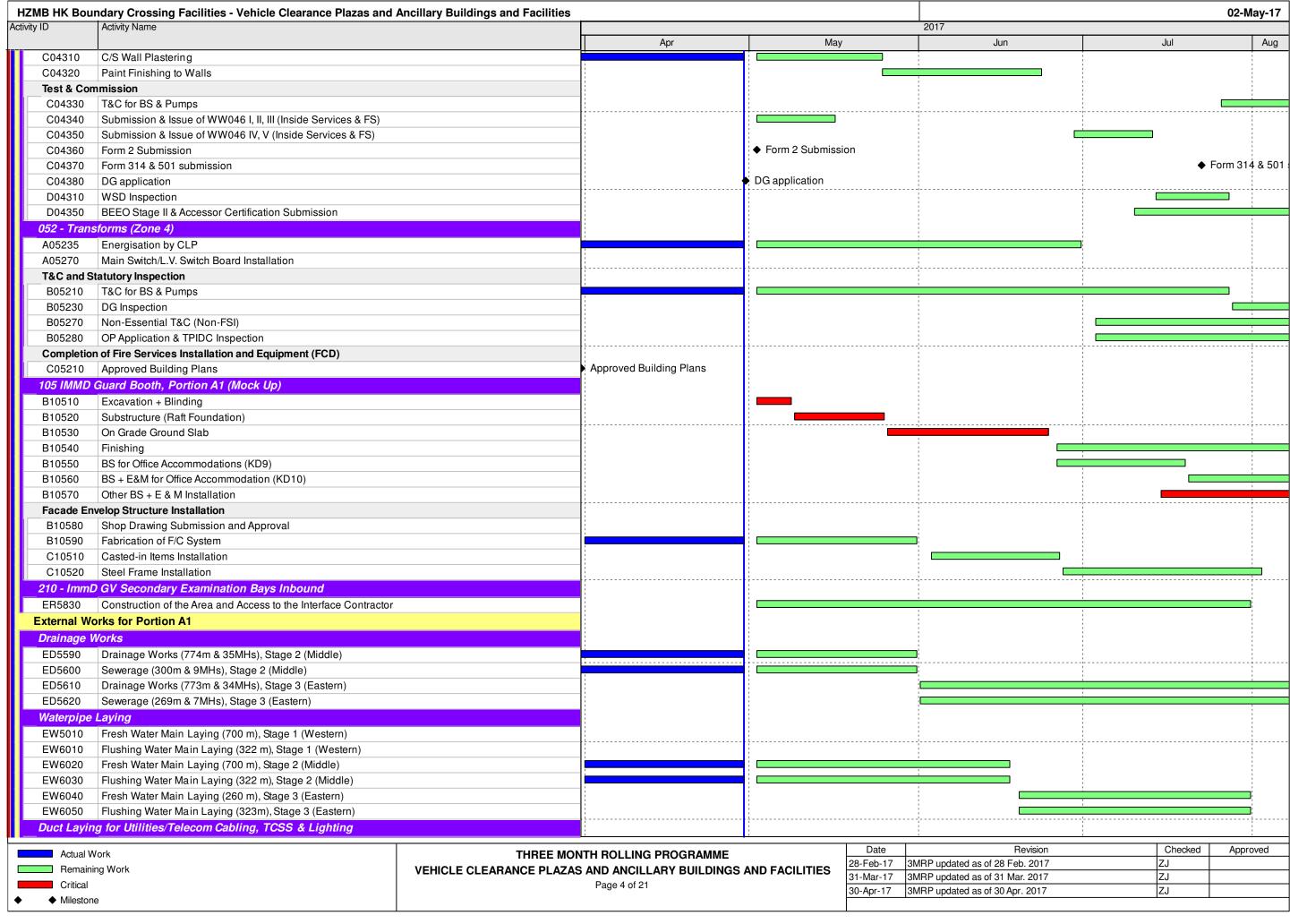
**Appendix C** 

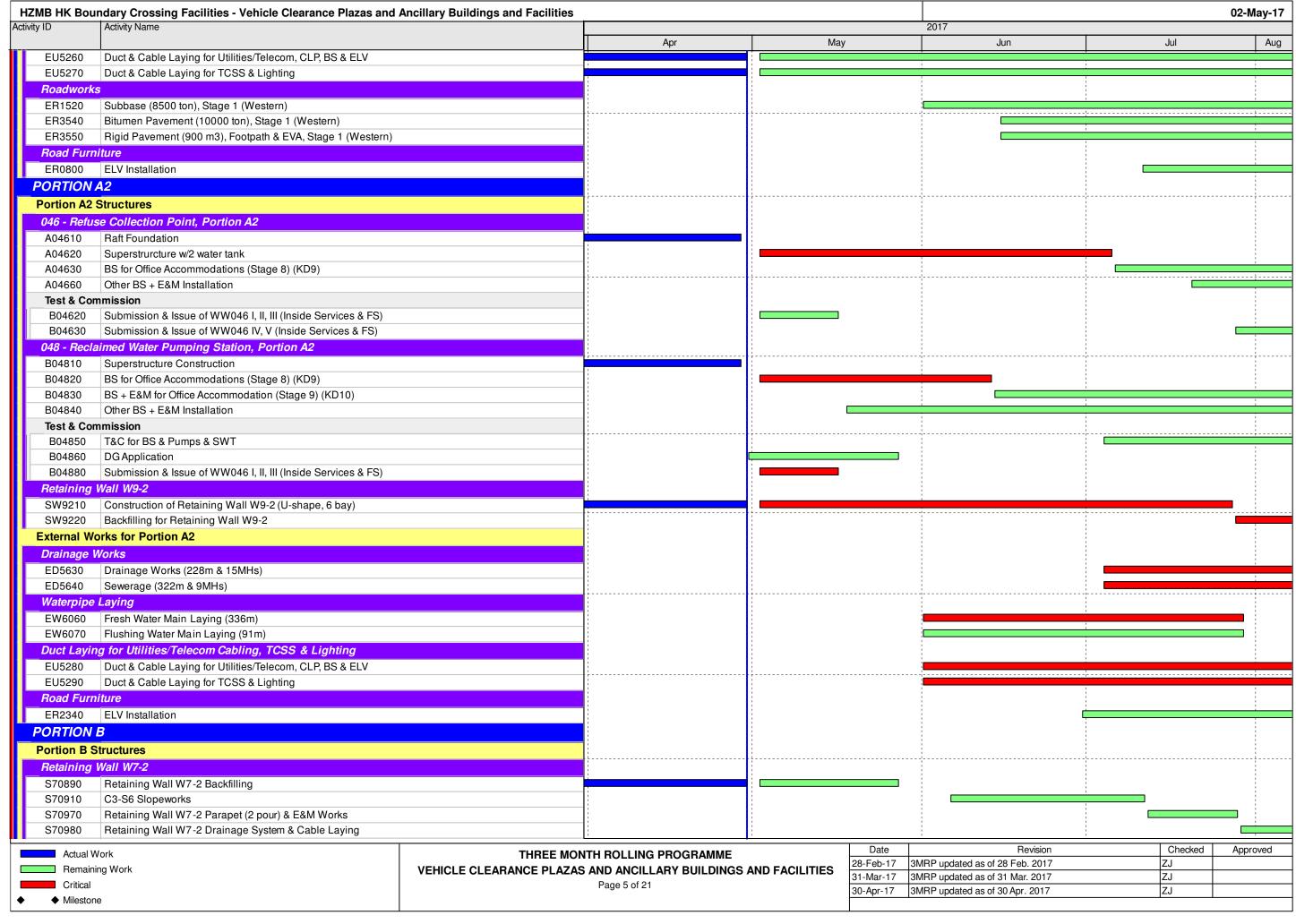
**Construction Programme** 

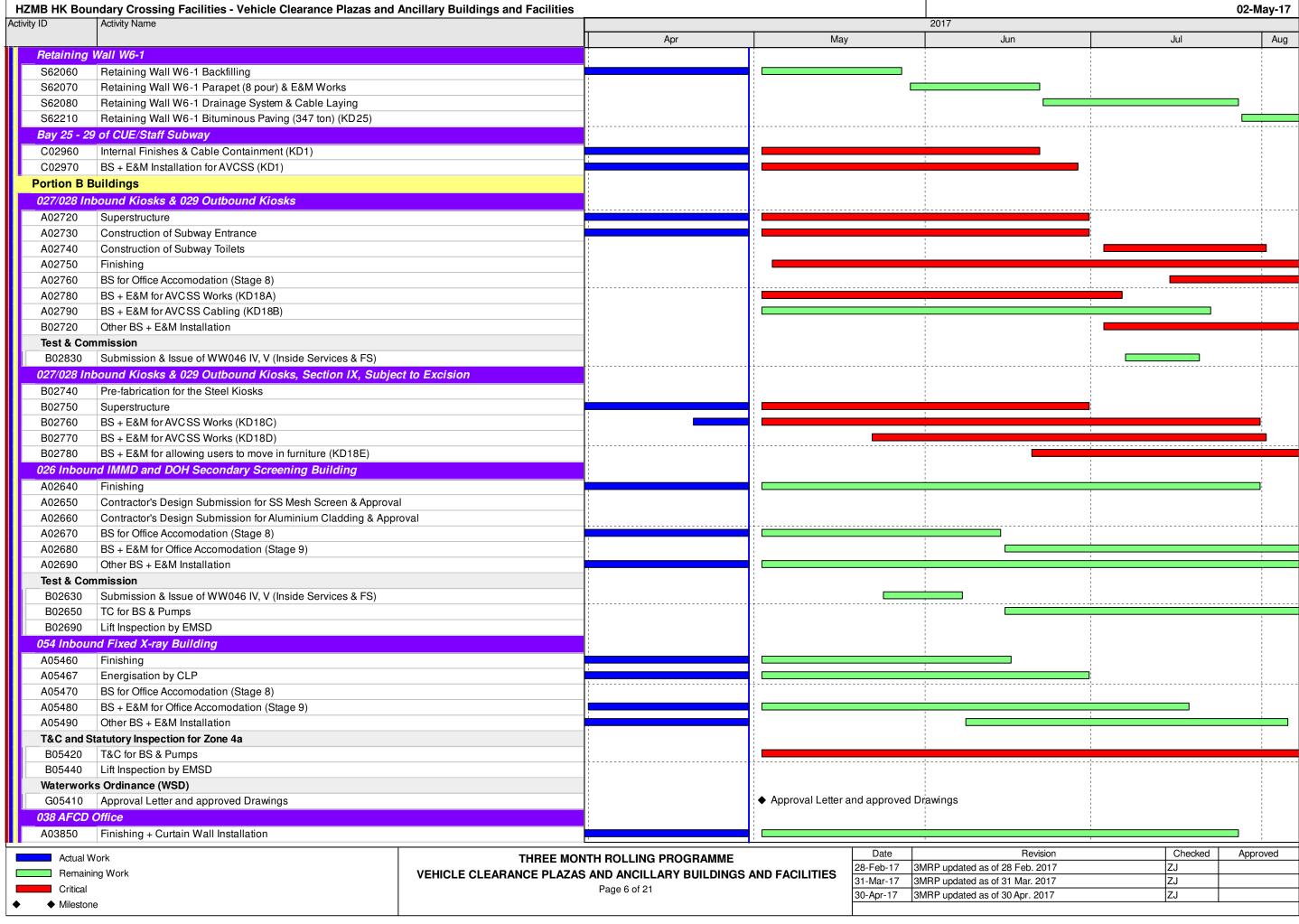


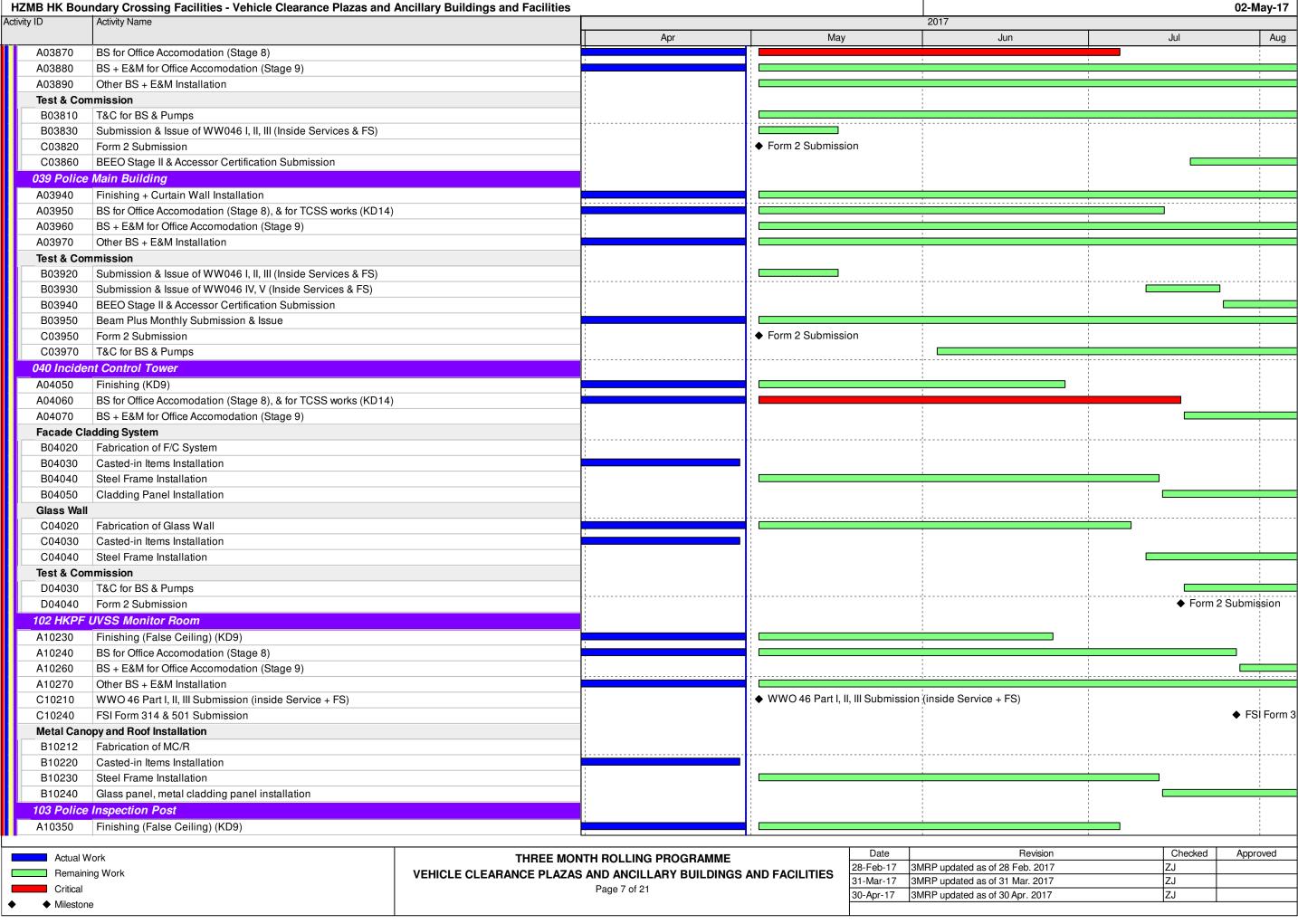


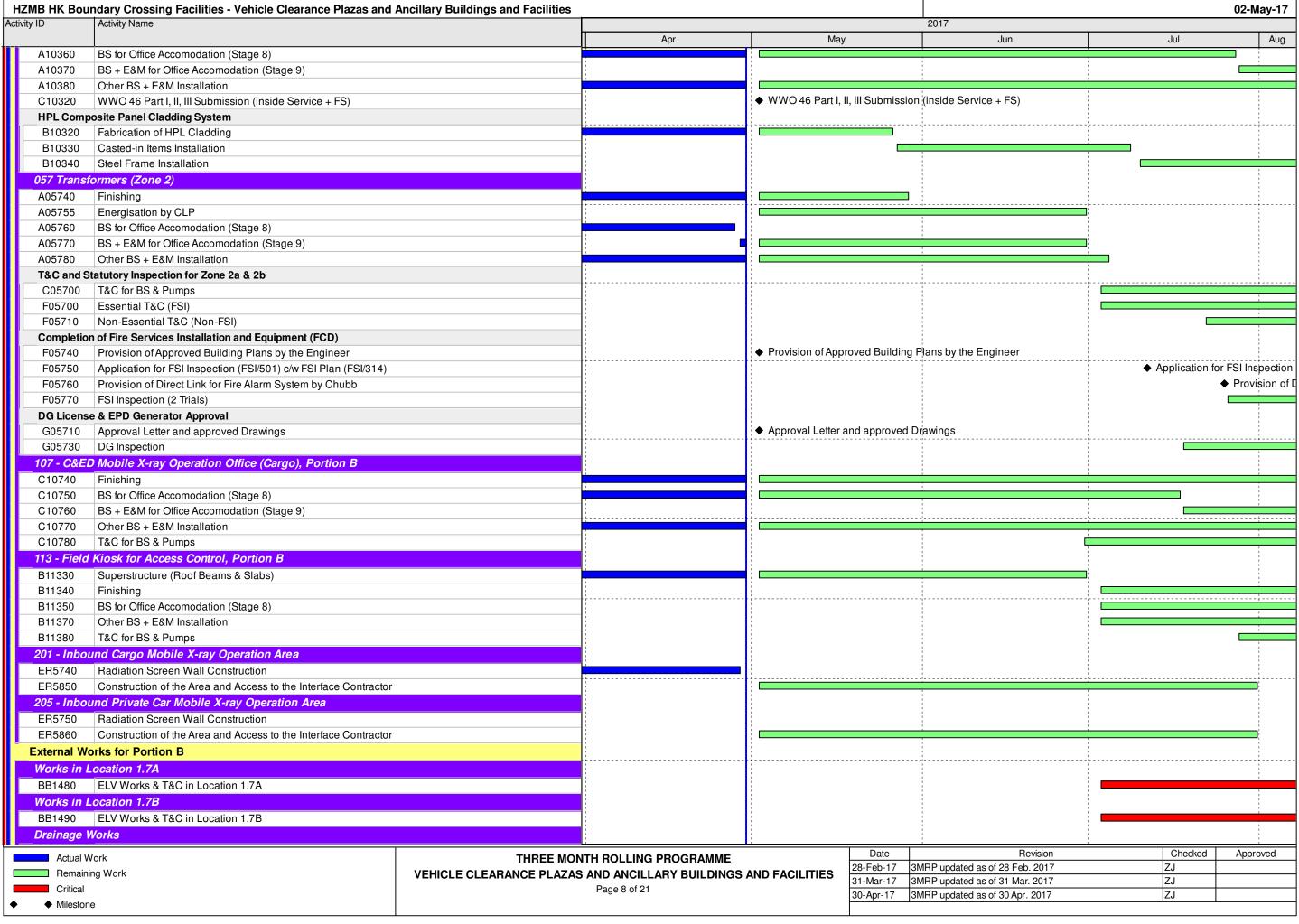


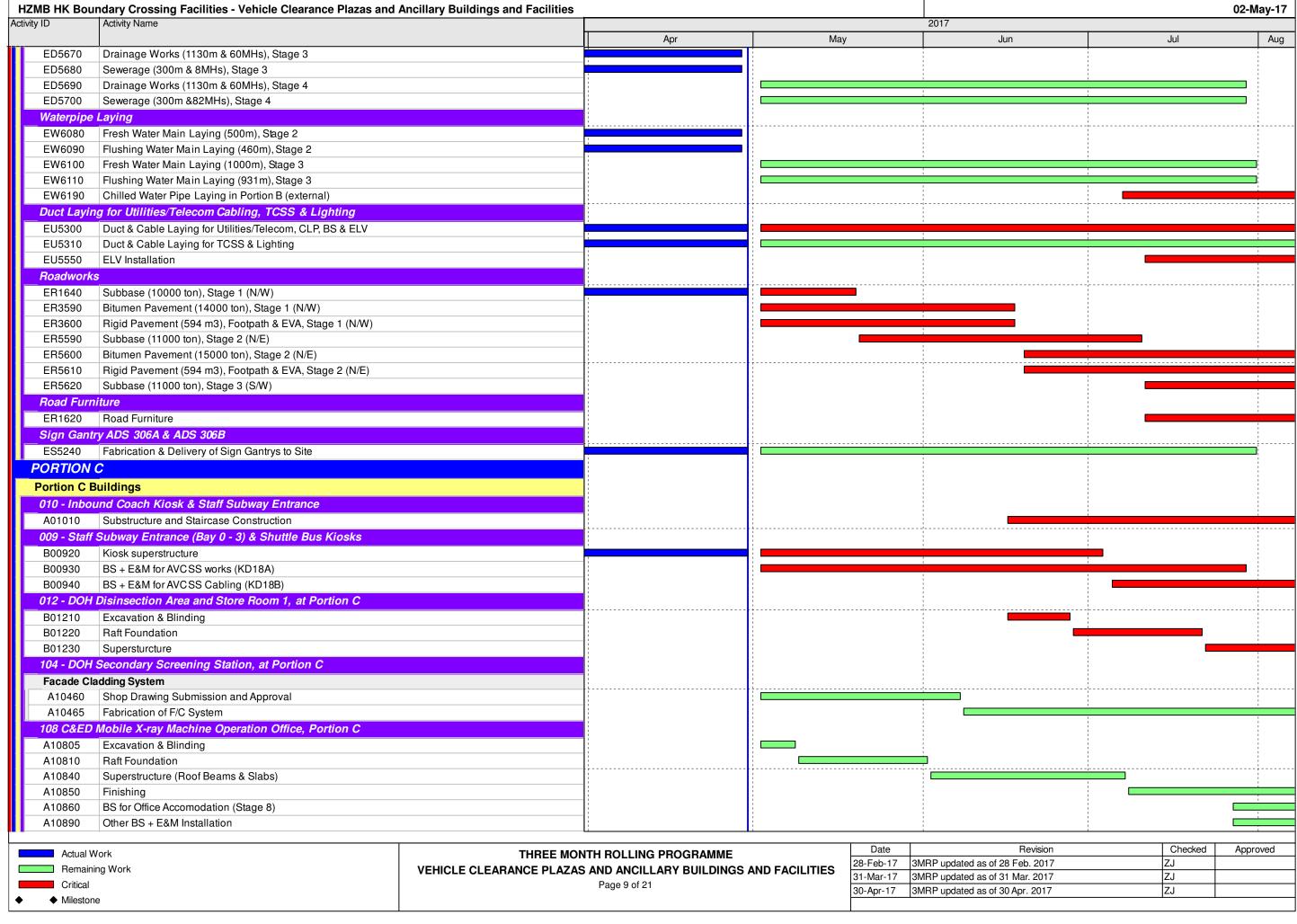


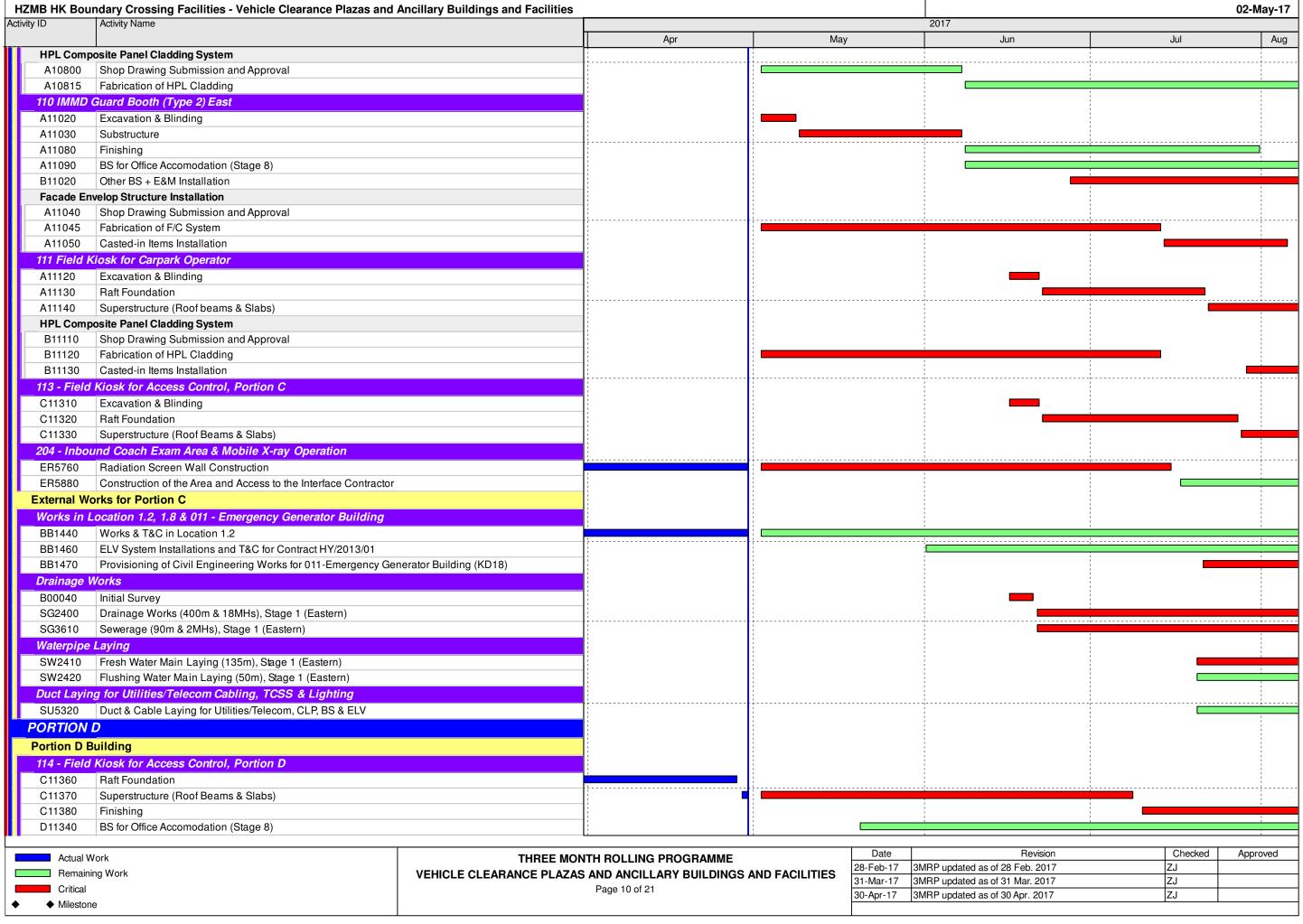


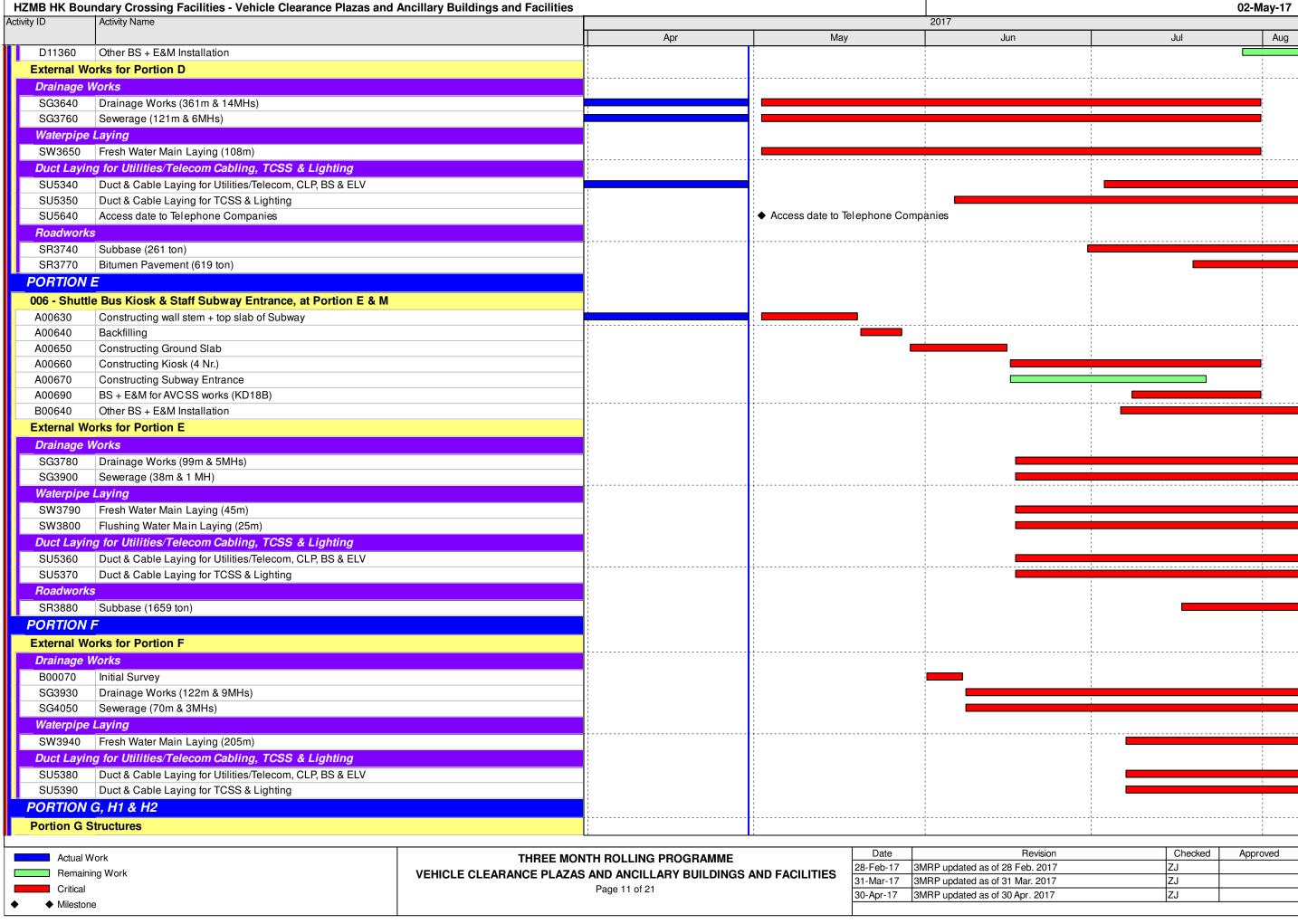




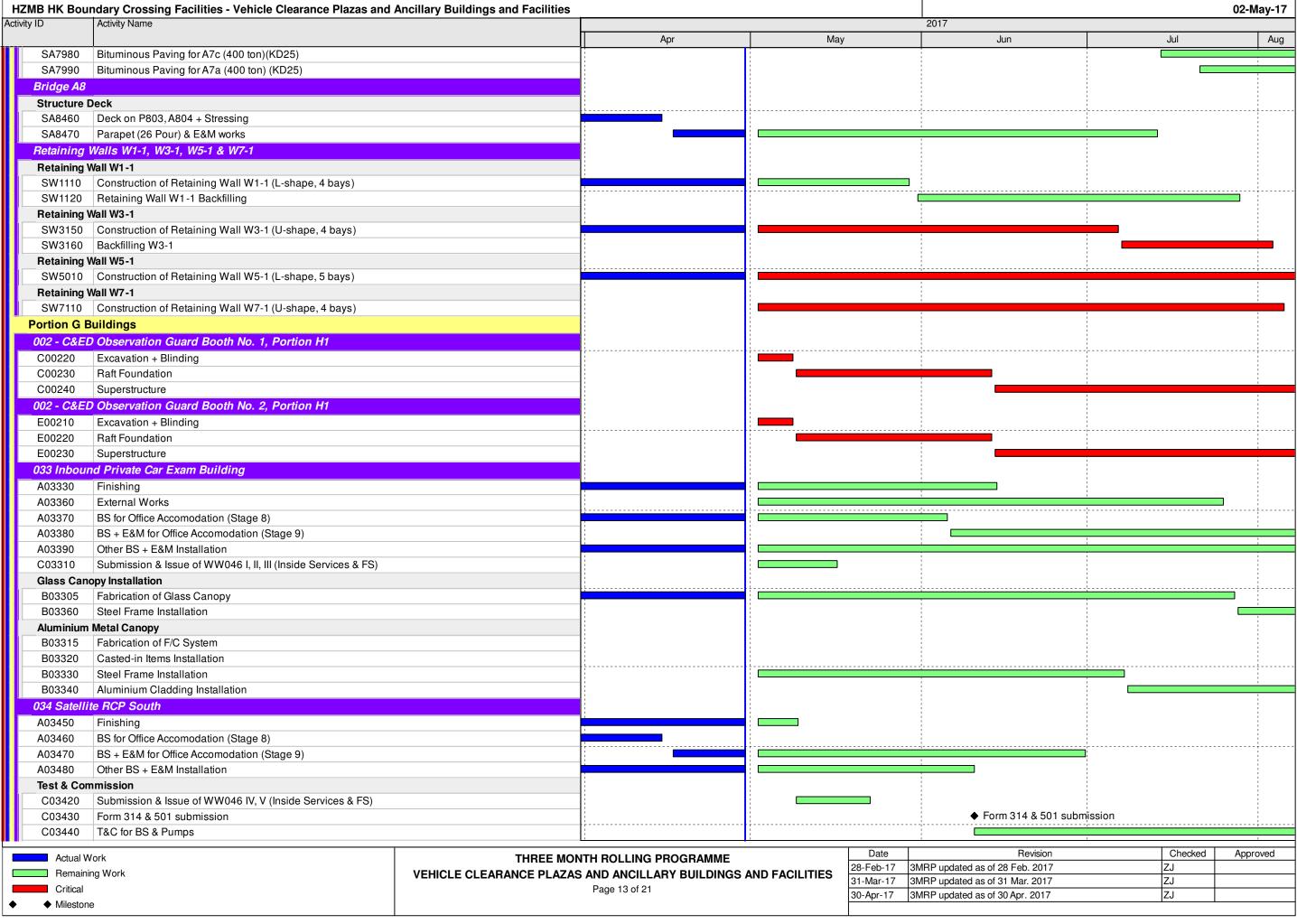


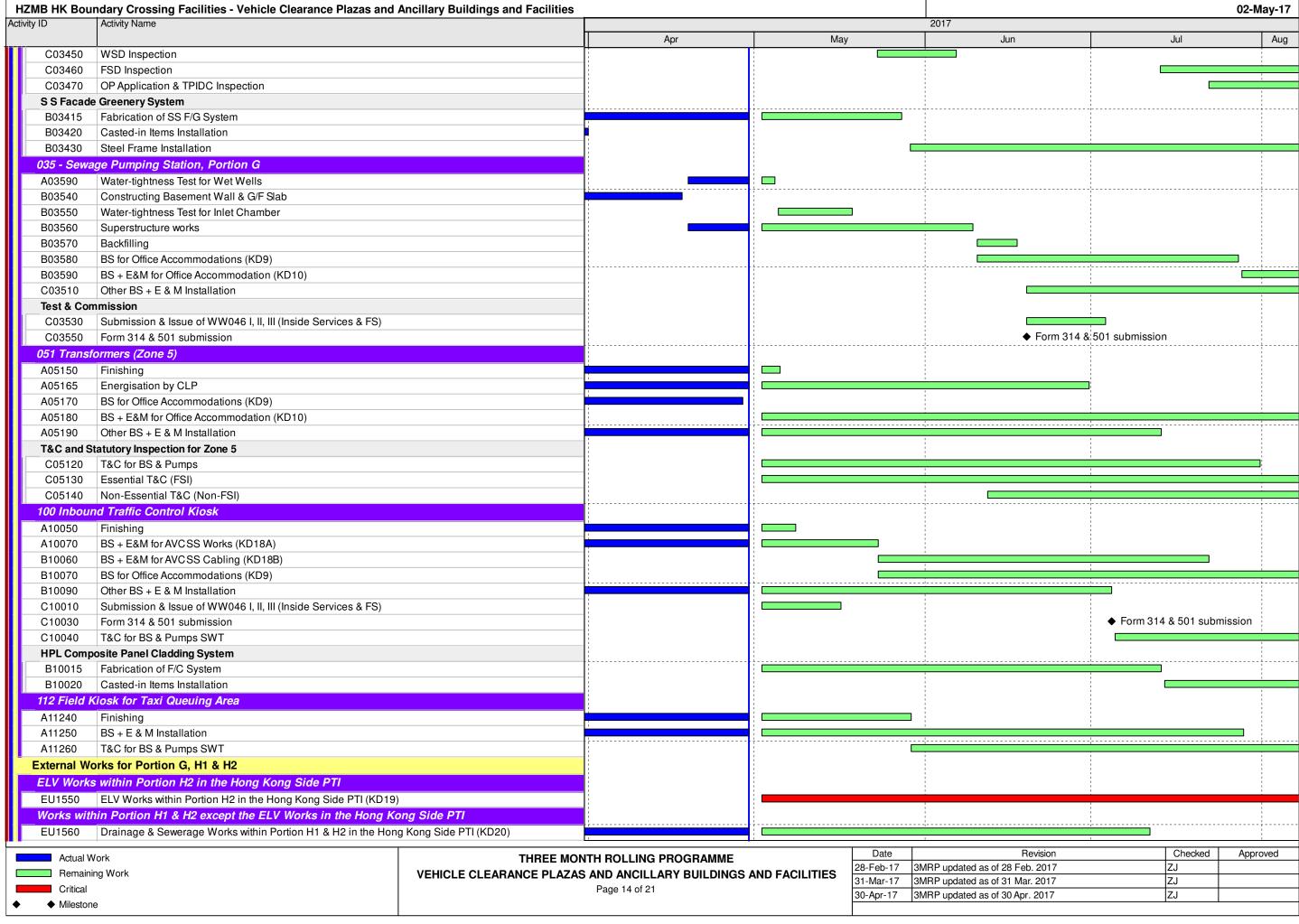


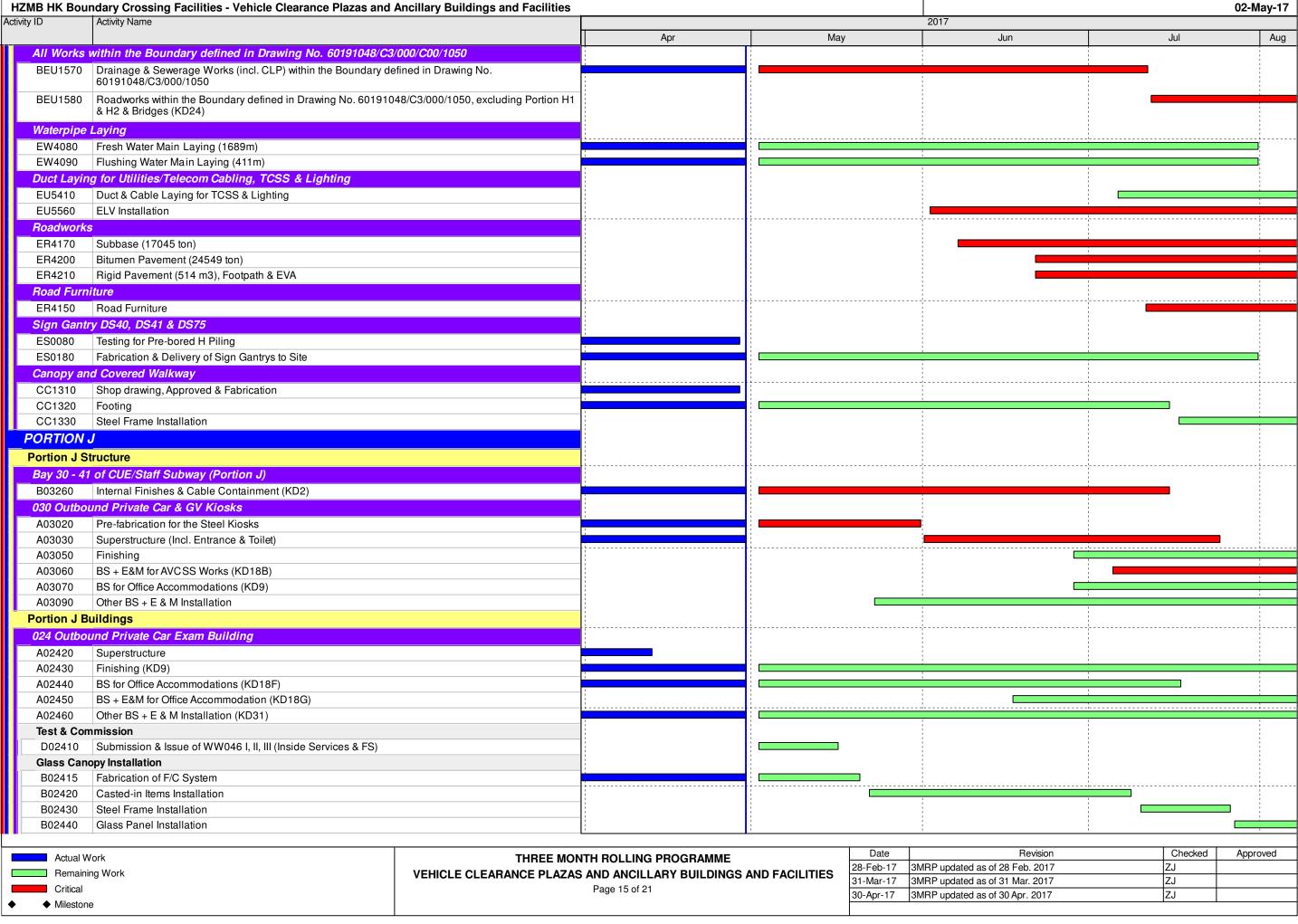


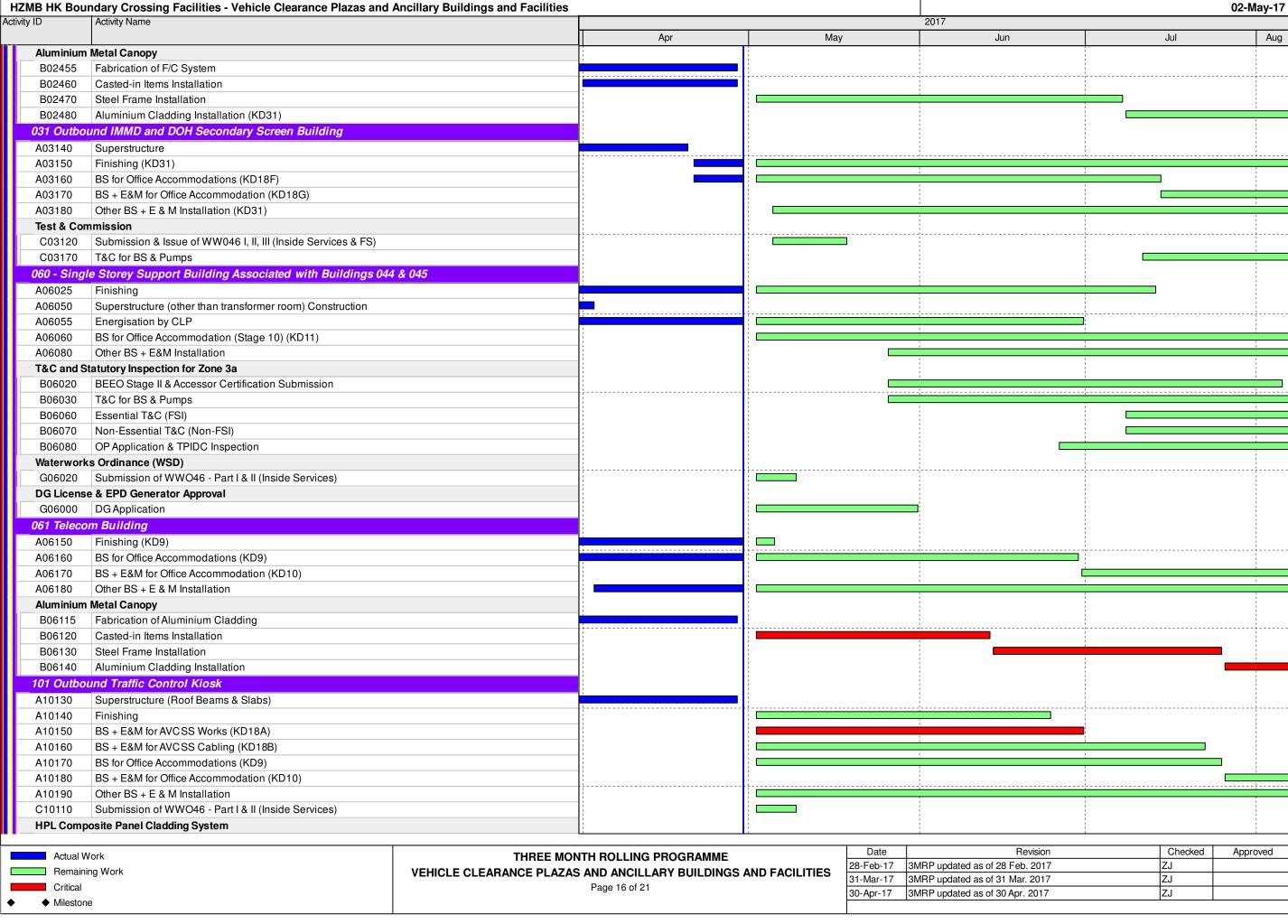


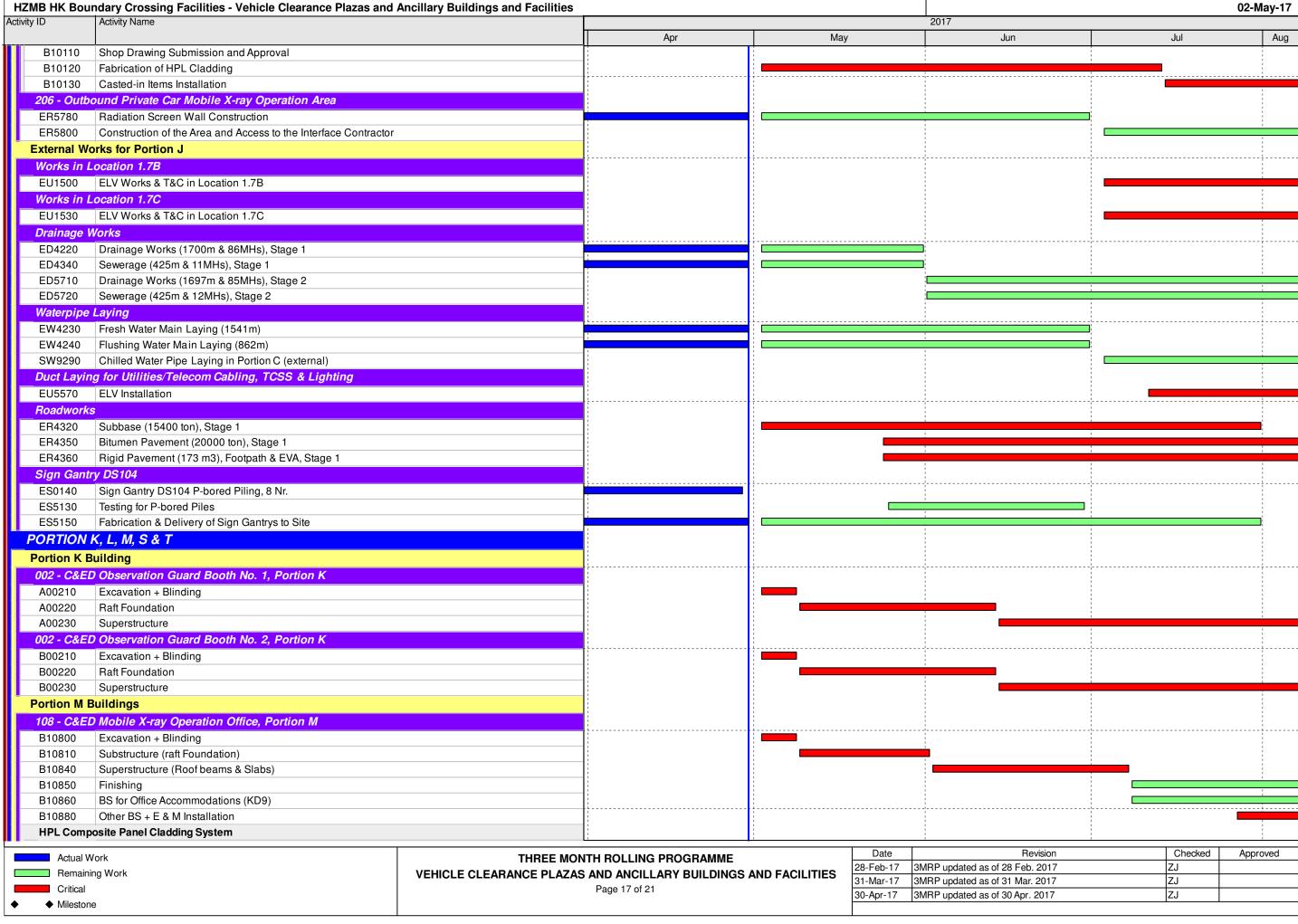


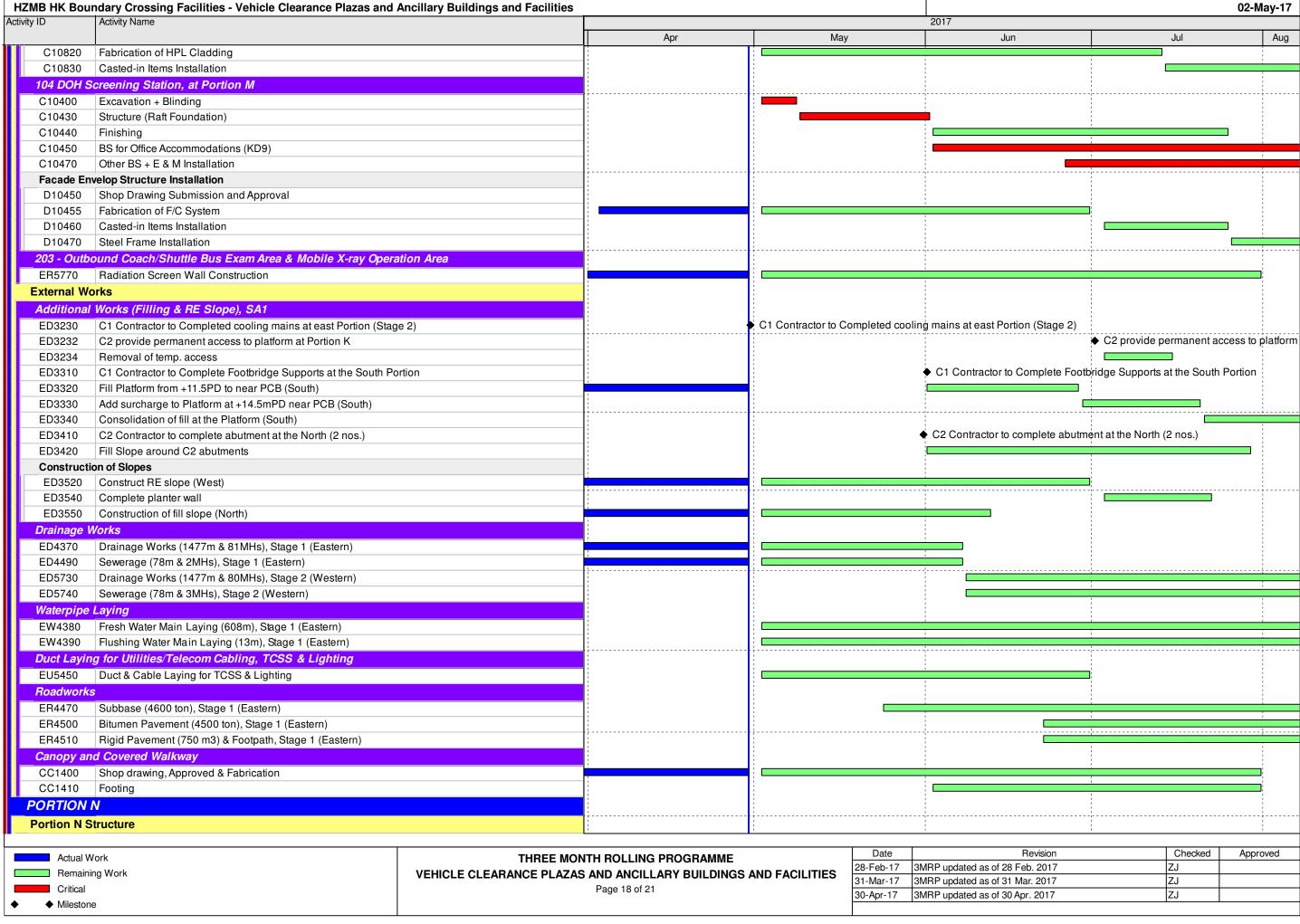


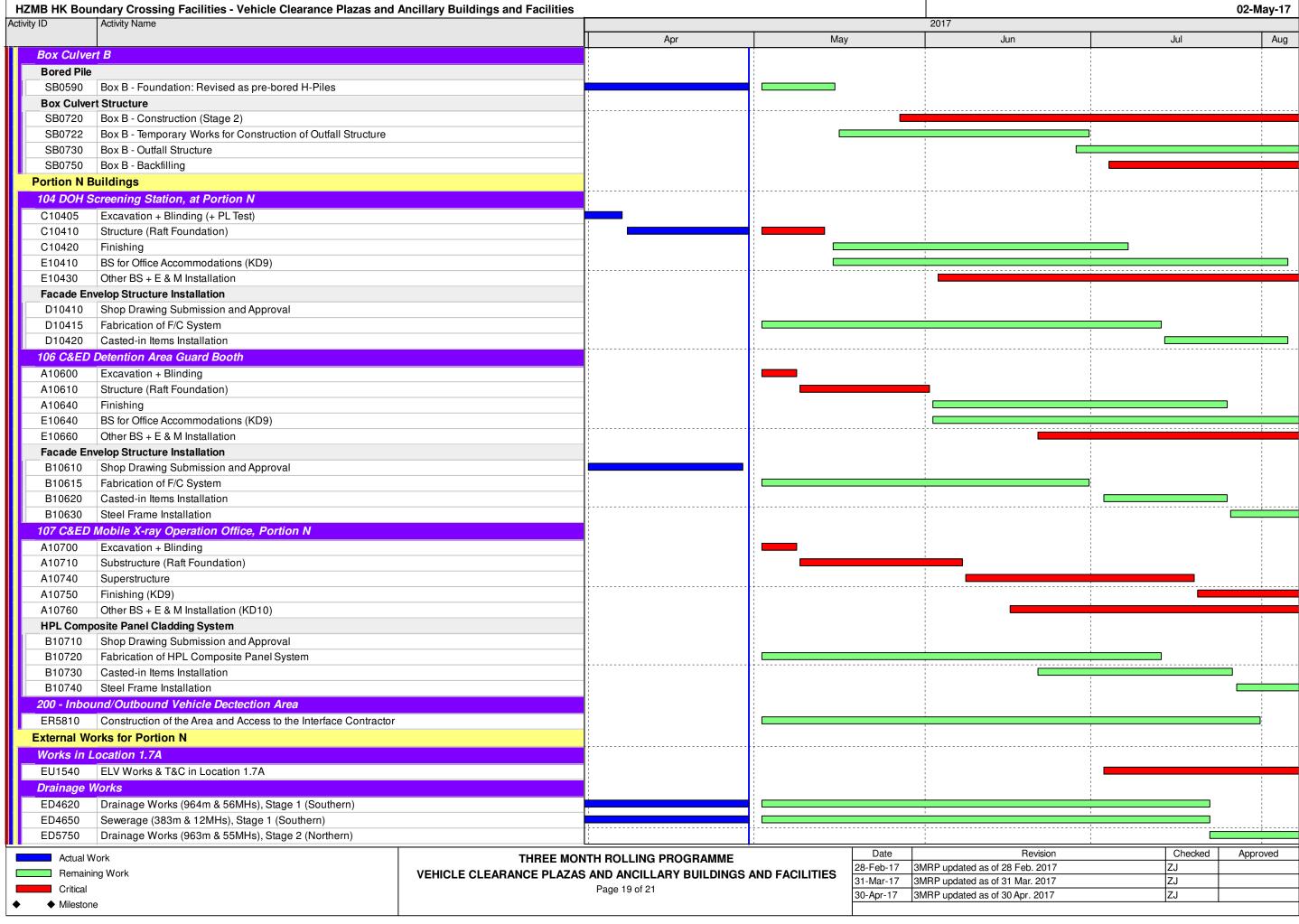


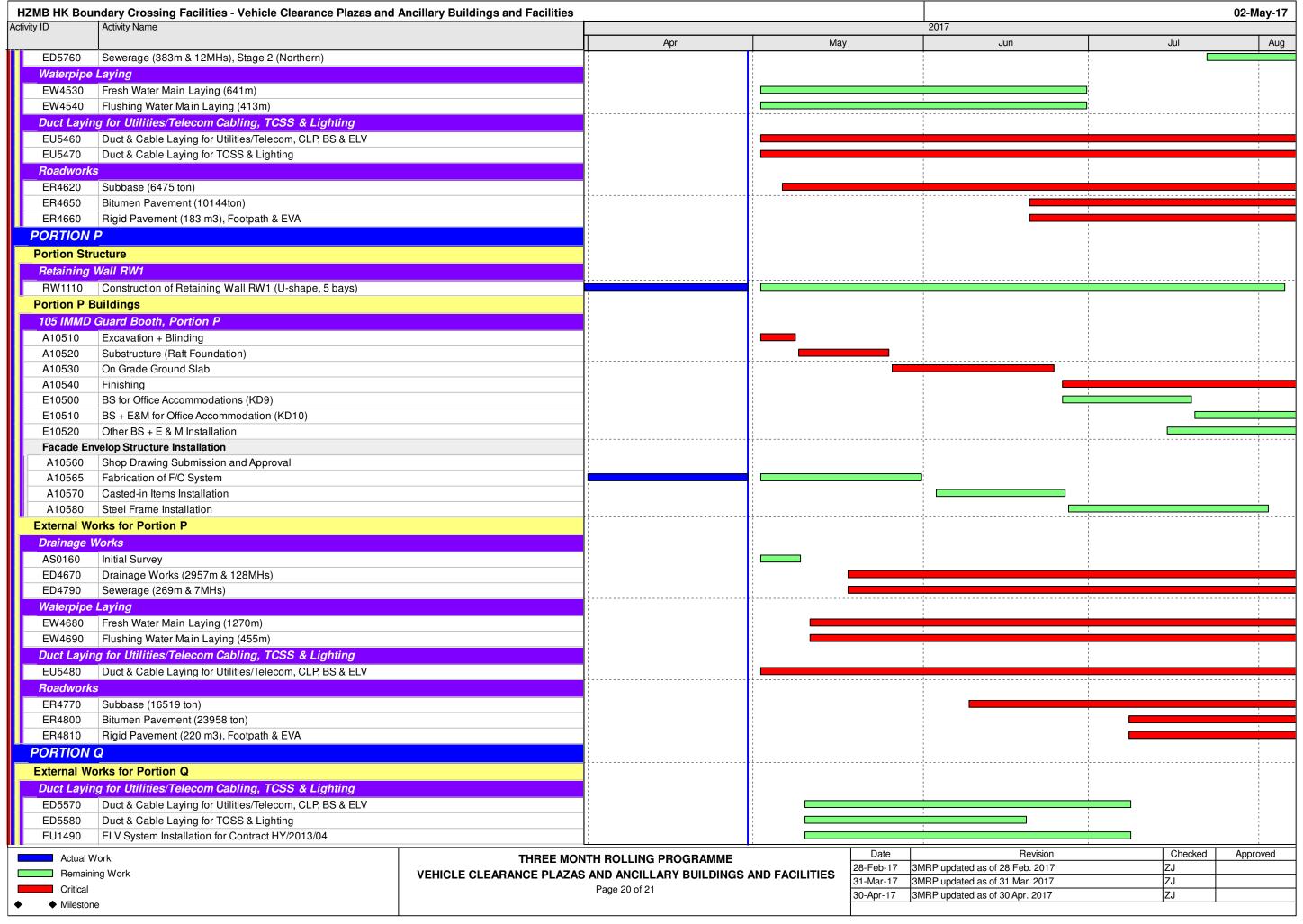


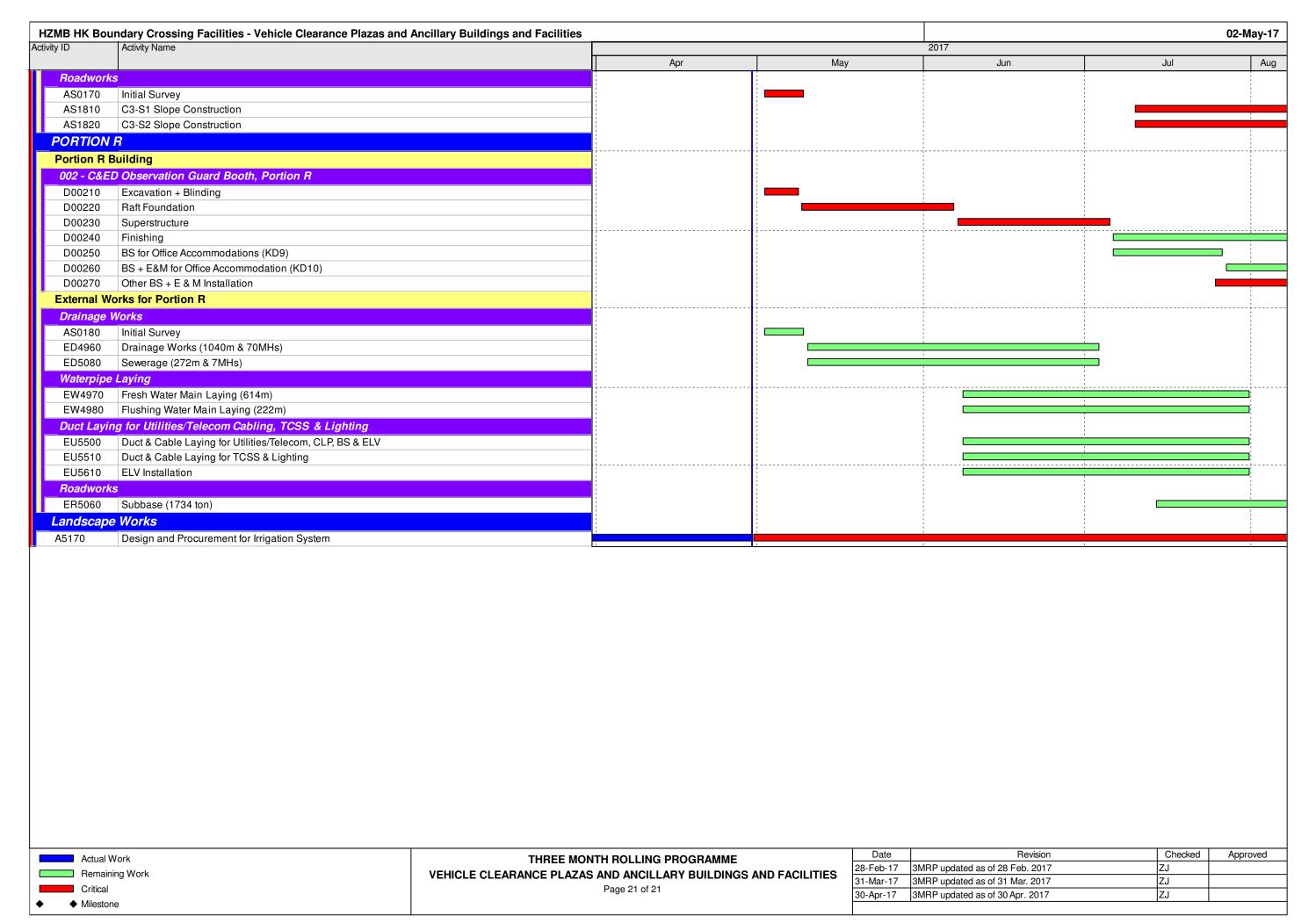


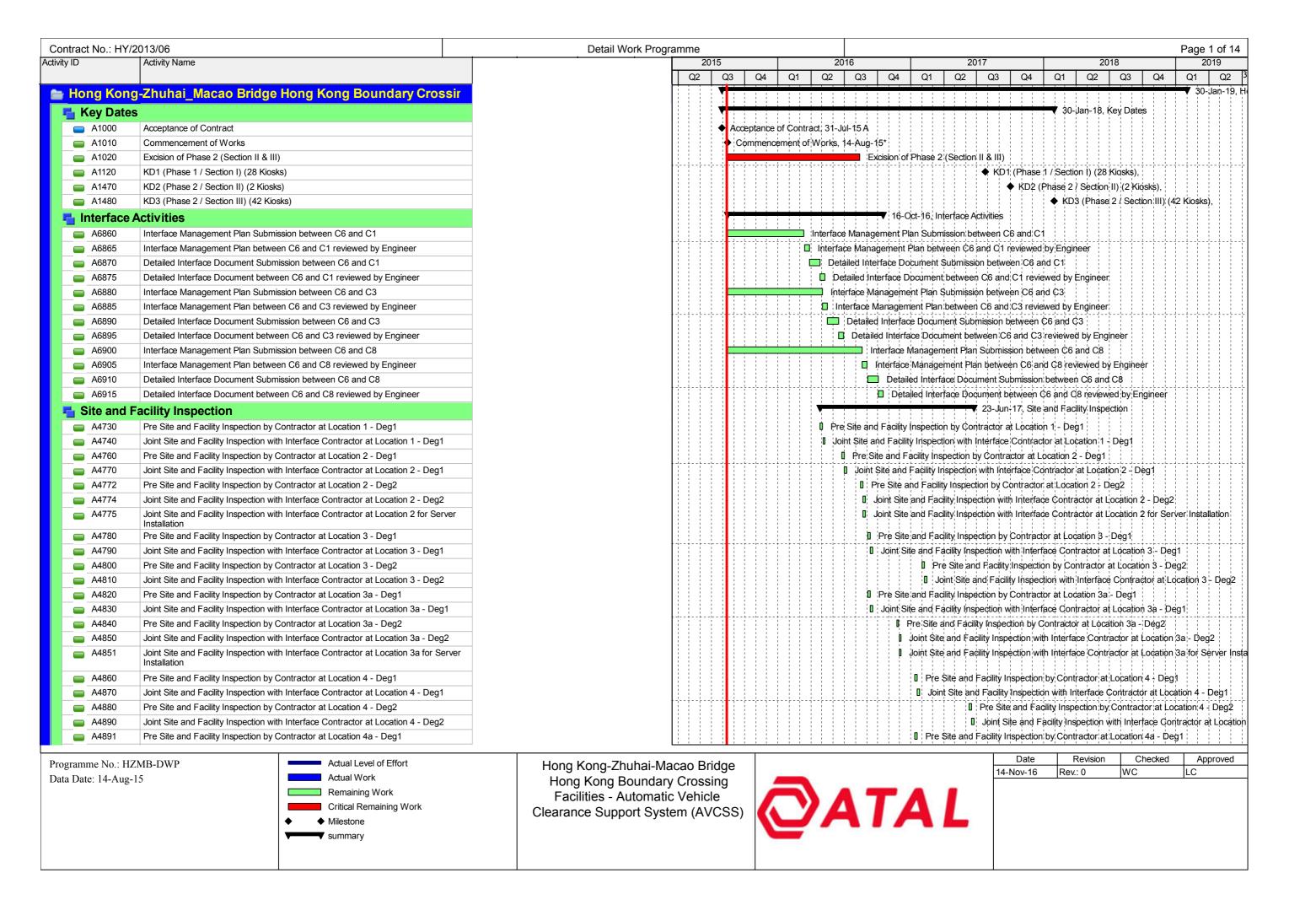












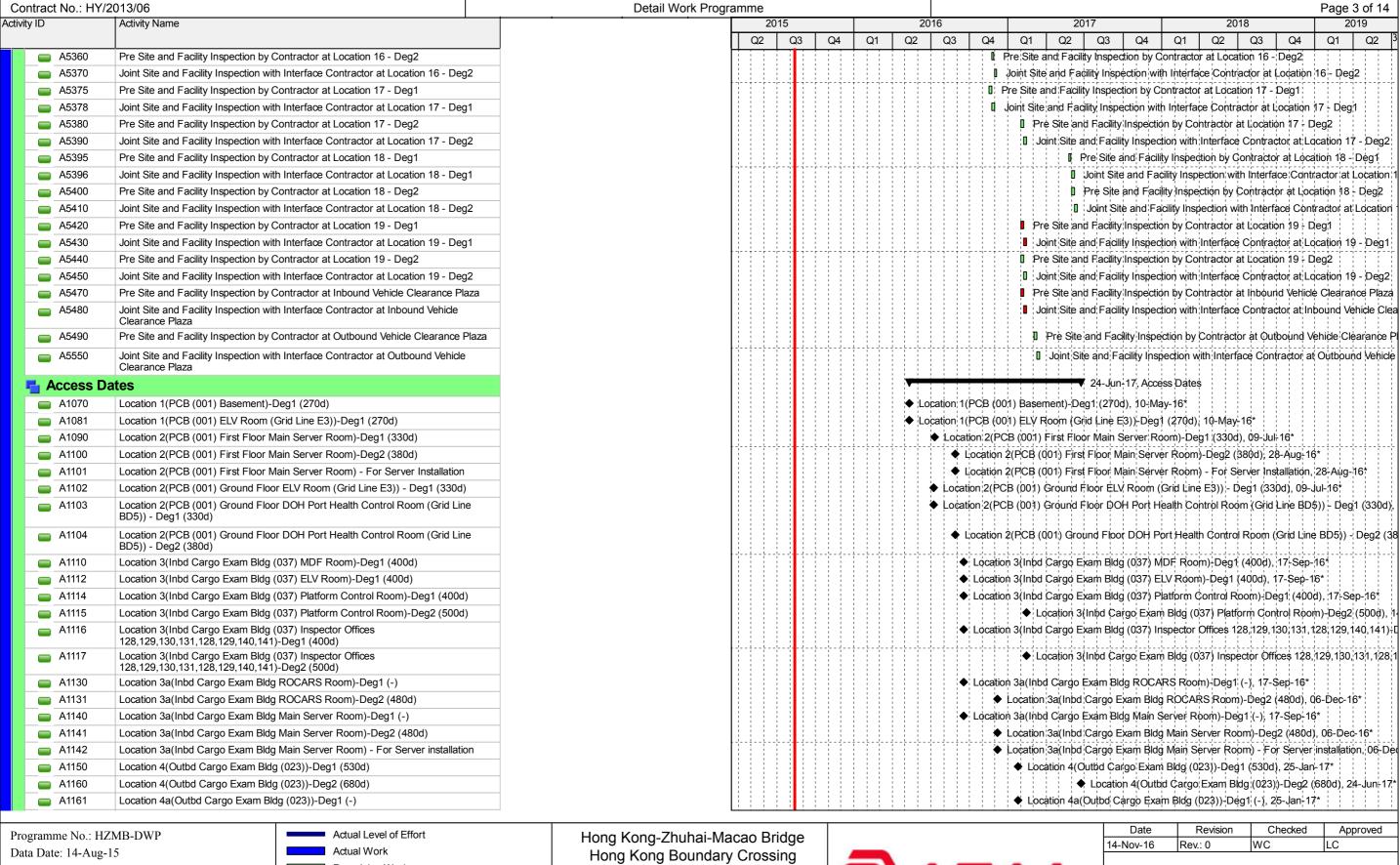
Contract No.: HY/2013/06		Detail Work Programme									Page 2 of 14
Activity ID	Activity Name	20	15			2016		2017		2018	2019
		Q2	Q3	Q4	Q1	Q2 Q3 Q4	Q1 Q2	Q3	Q4 Q1	Q2 Q3	Q4 Q1 Q2 3
A4892	Joint Site and Facility Inspection with Interface Contractor at Location 4a - Deg1						Joint Site a	nd Facility Ins	spection with In	iterface Contracto	r at Location 4a - Deg1
■ A4900	Pre Site and Facility Inspection by Contractor at Location 4a - Deg2						Pr	e Site and Fa	cility Inspection	n by Contractor at	Location 4a - Deg2
<b>A</b> 4910	Joint Site and Facility Inspection with Interface Contractor at Location 4a - Deg2							oint Site and I	Facility Inspecti	ion with Interface (	Contractor at Location 4a
■ A4920	Pre Site and Facility Inspection by Contractor at Location 5 - Deg1					Pre Site and Fa	acility Inspection	by Contractor	at Location 5	- Deg1	
■ A4930	Joint Site and Facility Inspection with Interface Contractor at Location 5 - Deg1					I Join't Site and I	Facility Inspection	n with Interfac	e Contractor a	at Location 5 - Dec	<b>31</b>
<b>A</b> 4940	Pre Site and Facility Inspection by Contractor at Location 5 - Deg2					<b>1</b> Pr	re Site and Facili	ty Inspection I	by Contractor	at Location 5 - De	g2
<b>A</b> 4950	Joint Site and Facility Inspection with Interface Contractor at Location 5 - Deg2					J	oint Site and Fac	cility Inspection	n with Interface	Contractor at Lo	cation 5 - Deg2
<b>A</b> 4960	Pre Site and Facility Inspection by Contractor at Location 6 - Deg1					1 Pre Site	and Facility Ins	pection by Co	ntractor at Loc	ation 6 - Deg1	
<b>A</b> 4970	Joint Site and Facility Inspection with Interface Contractor at Location 6 - Deg1					☐ Joint S	ite and Facility In	spection with	Interface Con	tractor at Location	6 - Deg1
<b>A</b> 4980	Pre Site and Facility Inspection by Contractor at Location 6 - Deg2					□ Pre	e Site and Facilit	y Inspection b	y Contractor a	t Location 6 - Deg	2
■ A4990	Joint Site and Facility Inspection with Interface Contractor at Location 6 - Deg2		-			jo	int Site and Faci	lity Inspection	with Interface	Contractor at Loc	ation 6 - Deg2
■ A5000	Pre Site and Facility Inspection by Contractor at Location 7 - Deg1					Pre Site and Facility	Inspection by C	ontractor at L	ocation 7 - De	g1	
<b>A</b> 5010	Joint Site and Facility Inspection with Interface Contractor at Location 7 - Deg1			[ ]		<ol> <li>Joint Site and Facili</li> </ol>	ty Inspection with	n Interface Co	ontractor at Lo	cation:7 - Deg1	
■ A5020	Pre Site and Facility Inspection by Contractor at Location 8 - Deg1					☐ Pre S	Site and Facility I	nspection by	Contractor at I	ocation 8 - Deg1	
<b>A</b> 5030	Joint Site and Facility Inspection with Interface Contractor at Location 8 - Deg1					☐ Join	t Site and Facility	/ Inspection w	ith Interface C	ontractor at Locat	ion 8 - Deg1
■ A5040	Pre Site and Facility Inspection by Contractor at Location 8 - Deg2						1 1 1 1 <b>1</b> 1	Pre Site and F	acility Inspection	on by Contractor a	t Location 8 - Deg2
■ A5050	Joint Site and Facility Inspection with Interface Contractor at Location 8 - Deg2							Joint Site and	Facility Inspec	tion with Interface	Contractor at Location 8 -
■ A5060	Pre Site and Facility Inspection by Contractor at Location 9 - Deg1						Pre Site and	Facility Inspe	ction by Contra	actor at Location 9	- Deg1
■ A5070	Joint Site and Facility Inspection with Interface Contractor at Location 9 - Deg1						I Joint Site an	nd Facility Insp	ection with Int	erface Contractor	at Location 9 - Deg1
■ A5080	Pre Site and Facility Inspection by Contractor at Location 9 - Deg2							Pre Site and	Facility Inspec	tion by Contractor	at Location 9 - Deg2
■ A5090	Joint Site and Facility Inspection with Interface Contractor at Location 9 - Deg2						i i i i i i	Joint Site an	nd Facility Inspe	ection with Interfac	e Contractor at Location 9
<b>A</b> 5100	Pre Site and Facility Inspection by Contractor at Location 10 - Deg1					G 1	Pre Site and Fac	cility Inspection	n by Contracto	r at Location 10 -	Deg1
<b>A</b> 5110	Joint Site and Facility Inspection with Interface Contractor at Location 10 - Deg1				<del></del>		Joint Site and F	acility Inspecti	ion with Interfa	ice Contractor at L	ocation 10 - Deg1
<b>A</b> 5120	Pre Site and Facility Inspection by Contractor at Location 10 - Deg2						☐ Pre Site a	and Facility Ins	spection by Co	ntractor at Locatio	n 10 - Deg2
<b>A</b> 5130	Joint Site and Facility Inspection with Interface Contractor at Location 10 - Deg2						Joint Site	and Facility I	nspection with	Interface Contrac	tor at Location 10 - Deg2
<b>A</b> 5140	Pre Site and Facility Inspection by Contractor at Location 11 - Deg1					☐ Pre Site	and Facility Ins	pection by Co	ntractor at Loc	ation 11 - Deg1	
A5150	Joint Site and Facility Inspection with Interface Contractor at Location 11 - Deg1					☐ Joint S	ite and Facility In	spection with	Interface Con	tractor at Location	11 - Deg1
■ A5160	Pre Site and Facility Inspection by Contractor at Location 11 - Deg2			i - i - i	;; <u>;</u>		Pre Site and Fac	cility Inspection	n by Contracto	r at Location 11 -	Deg2
■ A5170	Joint Site and Facility Inspection with Interface Contractor at Location 11 - Deg2						Joint Site and F	acility Inspecti	ion with Interfa	ce Contractor at L	ocation 11 - Deg2
A5180	Pre Site and Facility Inspection by Contractor at Location 12 - Deg1						and Facility Ins	1 1 1 1			
A5190	Joint Site and Facility Inspection with Interface Contractor at Location 12 - Deg1									tractor at Location	12 - Deg1
A5200	Pre Site and Facility Inspection by Contractor at Location 12 - Deg2							1 1 1 1		r at Location 12 -	
A5210	Joint Site and Facility Inspection with Interface Contractor at Location 12 - Deg2				<del></del>						ocation 12 - Deg2
■ A5220	Pre Site and Facility Inspection by Contractor at Location 13 - Deg1							1 1 1 1		r at Location 13 -	
A5230	Joint Site and Facility Inspection with Interface Contractor at Location 13 - Deg1						1 1 1 1 1 1	i i i i			ocation 13 - Deg1
■ A5240	Pre Site and Facility Inspection by Contractor at Location 13 - Deg2							1 1 1 1		ntractor at Locatio	
■ A5250	Joint Site and Facility Inspection with Interface Contractor at Location 13 - Deg2							1 1 1 1			tor at Location 13 - Deg2
A5260	Pre Site and Facility Inspection by Contractor at Location 14 - Deg1				<del></del>			- + +	i r ii r i	by Contractor at L	
■ A5270	Joint Site and Facility Inspection with Interface Contractor at Location 14 - Deg1							1 1 1 1			ontractor at Location 14 - D
■ A5300	Pre Site and Facility Inspection by Contractor at Location 15 - Deg1					1 Pre Site	and Facility Ins	- i - i - i - i -			
A5310	Joint Site and Facility Inspection with Interface Contractor at Location 15 - Deg1								: : : : :	tractor at Location	15 - Deg1
A5320	Pre Site and Facility Inspection by Contractor at Location 15 - Deg2						1 1 1 1 1 1	1 1 1 1		r at Location 15 -	
A5330	Joint Site and Facility Inspection with Interface Contractor at Location 15 - Deg2	1				- i i i i i i i i <u>i</u>	- 6 - 56 - 65 - 6 - 66 - 65		i	iiiiii	ocation 15:- Deg2
A5340	Pre Site and Facility Inspection by Contractor at Location 16 - Deg1						and Facility Ins	1 1 1 1 1			
A5350	Joint Site and Facility Inspection with Interface Contractor at Location 16 - Deg1							1 1 1 1		tractor at Location	16 - Dea1
7,0000			i i	<u>. i i </u>	<u> </u>	i i i i i i i i i i i i i i i i i i i	Grant Goliny II	יייייייייייייייייייייייייייייייייייייי			יי די ד
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Programme No.: HZ		Hong Kong-Zhuhai-Macao Bri	•					14-No	v-16 Rev.	: 0 WC	LC
Data Date: 14-Aug-	13 Adual Work	Hong Kong Boundary Crossi	ına	4						-	<del></del>

Data Date: 14-Aug-15

Remaining Work Critical Remaining Work summary



Date	Revision	Checked	Approved
14-Nov-16	Rev.: 0	WC	LC



Actual Work

Remaining Work

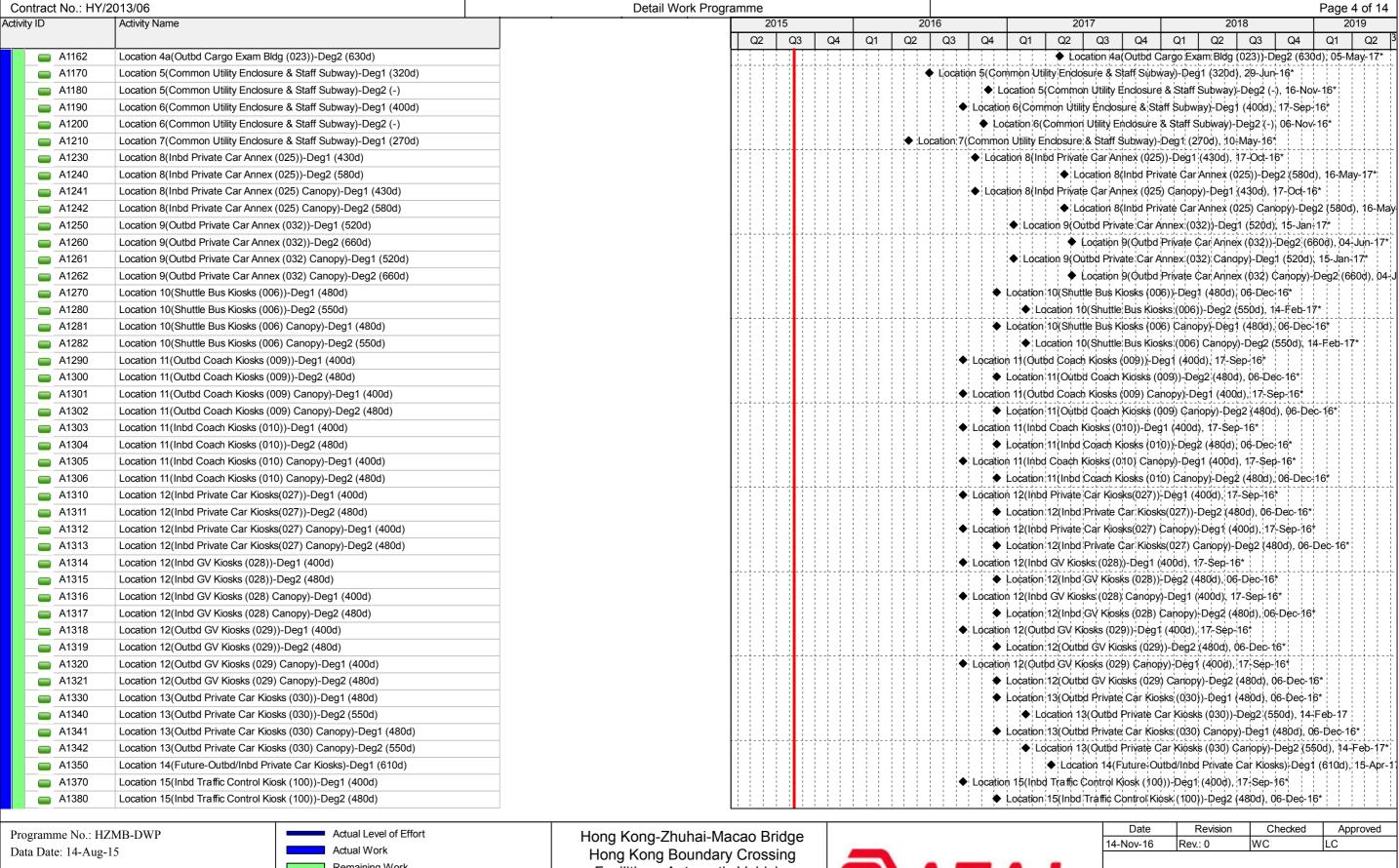
Critical Remaining Work

Milestone

summary

Hong Kong-Zhuhai-Macao Bridge Hong Kong Boundary Crossing Facilities - Automatic Vehicle Clearance Support System (AVCSS)

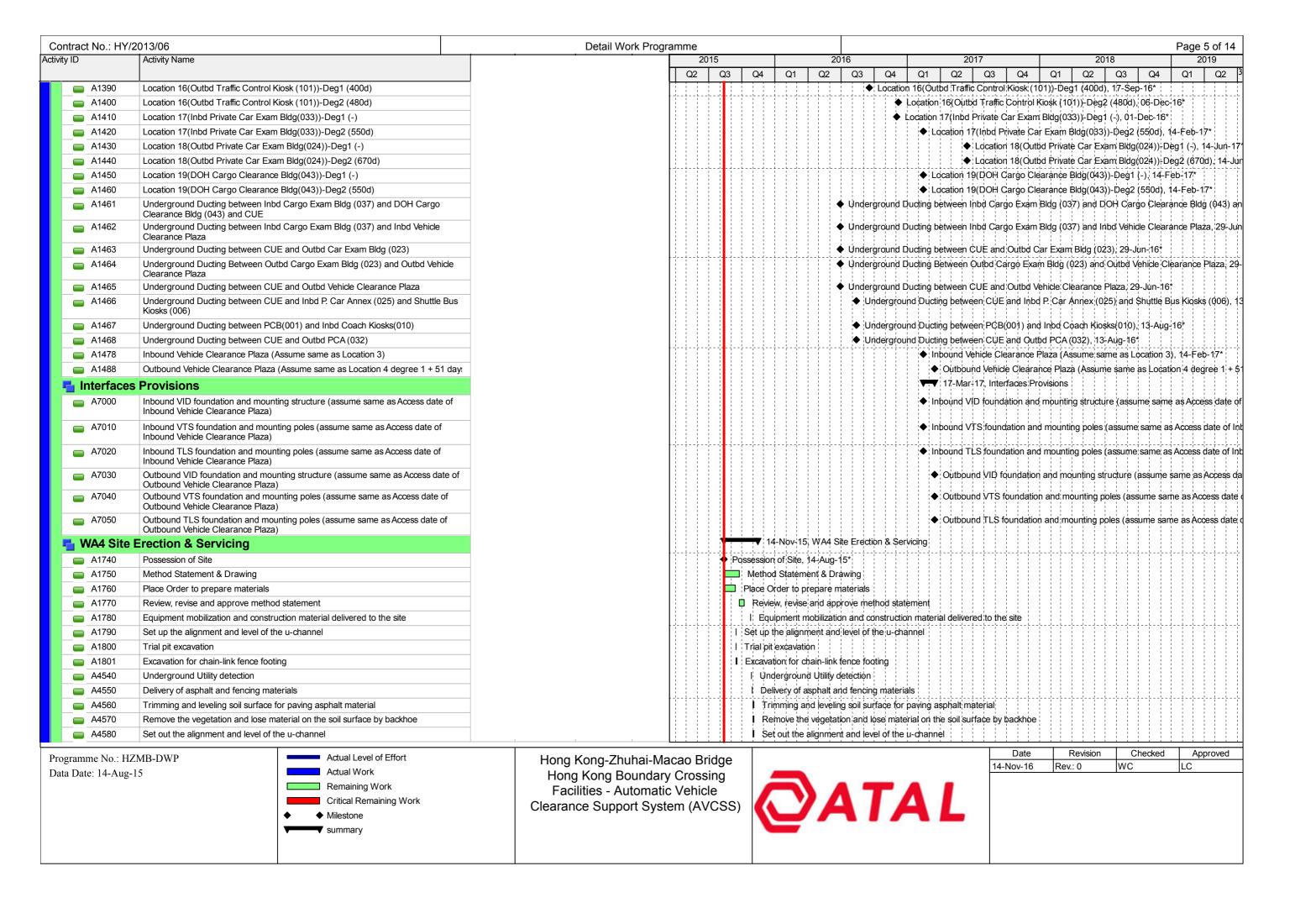


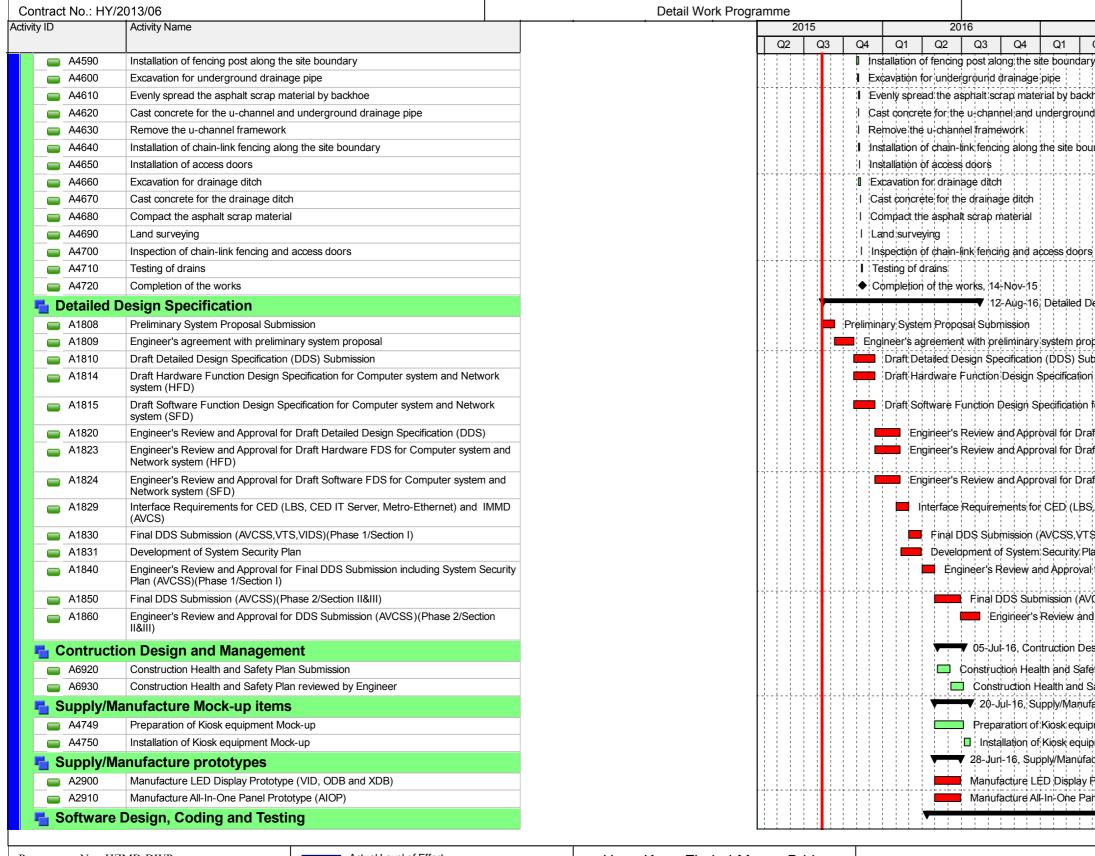


Remaining Work Critical Remaining Work ◆ Milestone summary

Facilities - Automatic Vehicle Clearance Support System (AVCSS)







I Excavation for underground drainage pipe I Evenly spread the asphalt scrap material by backhoe Cast concrete for the u-channel and underground drainage pipe Remove the u-channel framework Installation of chain-link fencing along the site boundary Installation of access doors Excavation for drainage ditch I Cast concrete for the drainage ditch I Compact the asphalt scrap material I Land surveying I Inspection of chain-link fencing and access doors I Testing of drains Completion of the works, 14-Nov-15 ■ 12-Aug-16, Detailed Design Specification Preliminary System Proposal Submission Engineer's agreement with preliminary system proposal Draft Detailed Design Specification (DDS) Submission Draft Hardware Function Design Specification for Computer system and Network system (HFD) Draft Software Function Design Specification for Computer system and Network system (SFD) Engineer's Review and Approval for Draft Detailed Design Specification (DDS) Engineer's Review and Approval for Draft Handware FDS for Computer system and Network system (HFD) Engineer's Review and Approval for Draft Software FDS for Computer system and Network system (SFD): Interface Requirements for CED (LBS, CED IT Server, Metro-Ethernet) and IMMD (AVC\$) Final DD\$ Submission (AVCSS,VT\$,VID\$)(Phase 1/Section I) Development of System Security Plan Engineer's Review and Approval for Final DDS Submission including System Security Plan (AVCSS) (Phase Final DD\$ Submission (AVCSS)(Phase 2/Section II&III) Engineer's Review and Approval for DDS Submission (AVCSS)(Phase 2/Section [I&II]) 05-Jul-16, Contruction Design and Management Construction Health and Safety Plan Submission Construction Health and Safety Plan reviewed by Engineer 20-Jul-16, Supply/Manufacture Mock-up items Preparation of Kiosk equipment Mock-up Installation of Kiosk equipment Mock-up ▼ 28-Jun-16, Supply/Manufacture prototypes Manufacture LED Display Prototype (VID, ODB and XDB) Manufacture All-In-One Panel Prototype (AIOP) ▼ 22-May-17, Software Design, Coding and Testing

2017

Q3

Q2

2016

Q3

Q4

Q2

Programme No.: HZMB-DWP Data Date: 14-Aug-15

 Actual Level of Effort Actual Work Remaining Work Critical Remaining Work Milestone summary

Hong Kong-Zhuhai-Macao Bridge Hong Kong Boundary Crossing Facilities - Automatic Vehicle Clearance Support System (AVCSS)



14-Nov-16 Rev.: 0 WC LC	Date	Revision	Checked	Approved
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2019

Q2

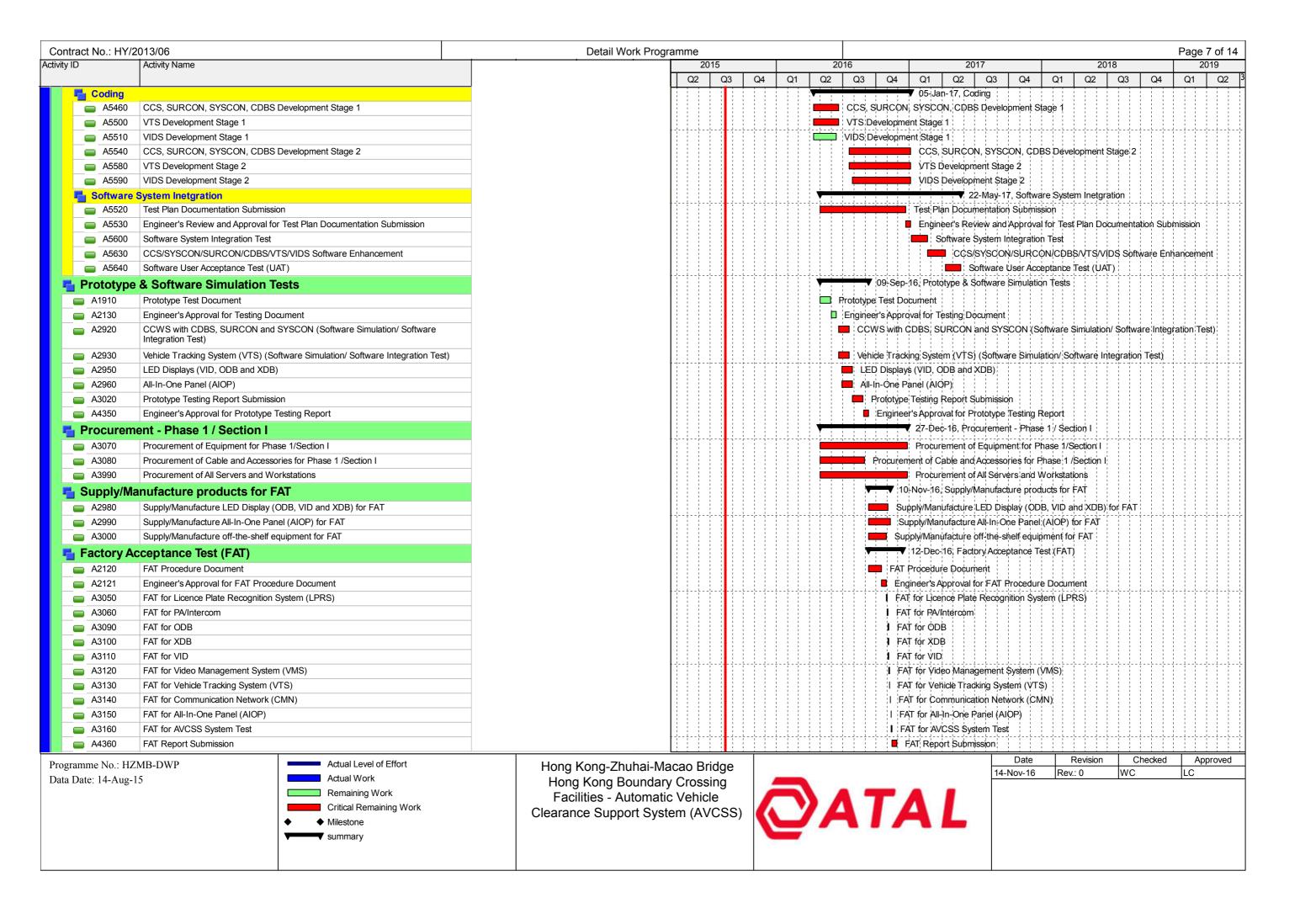
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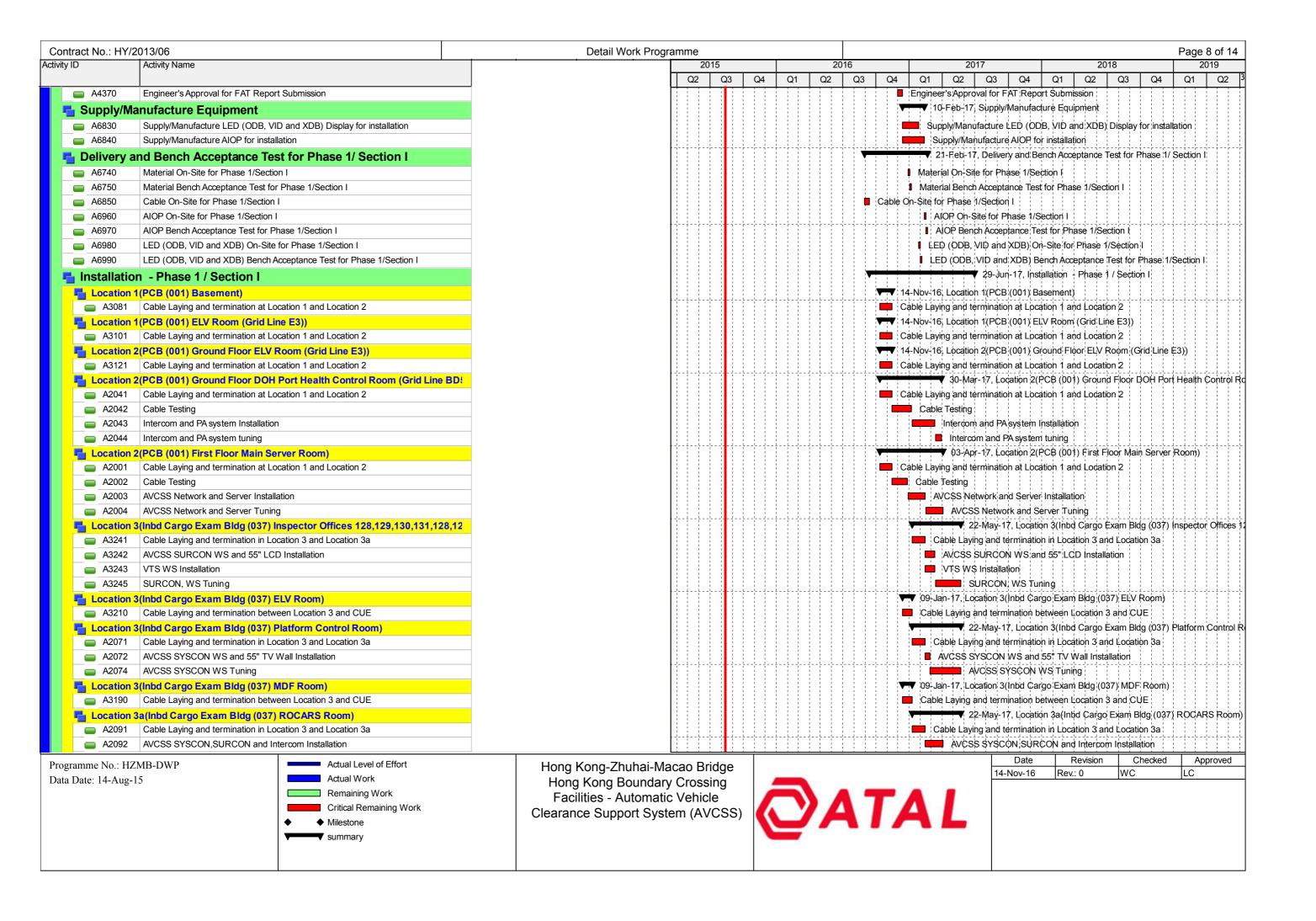
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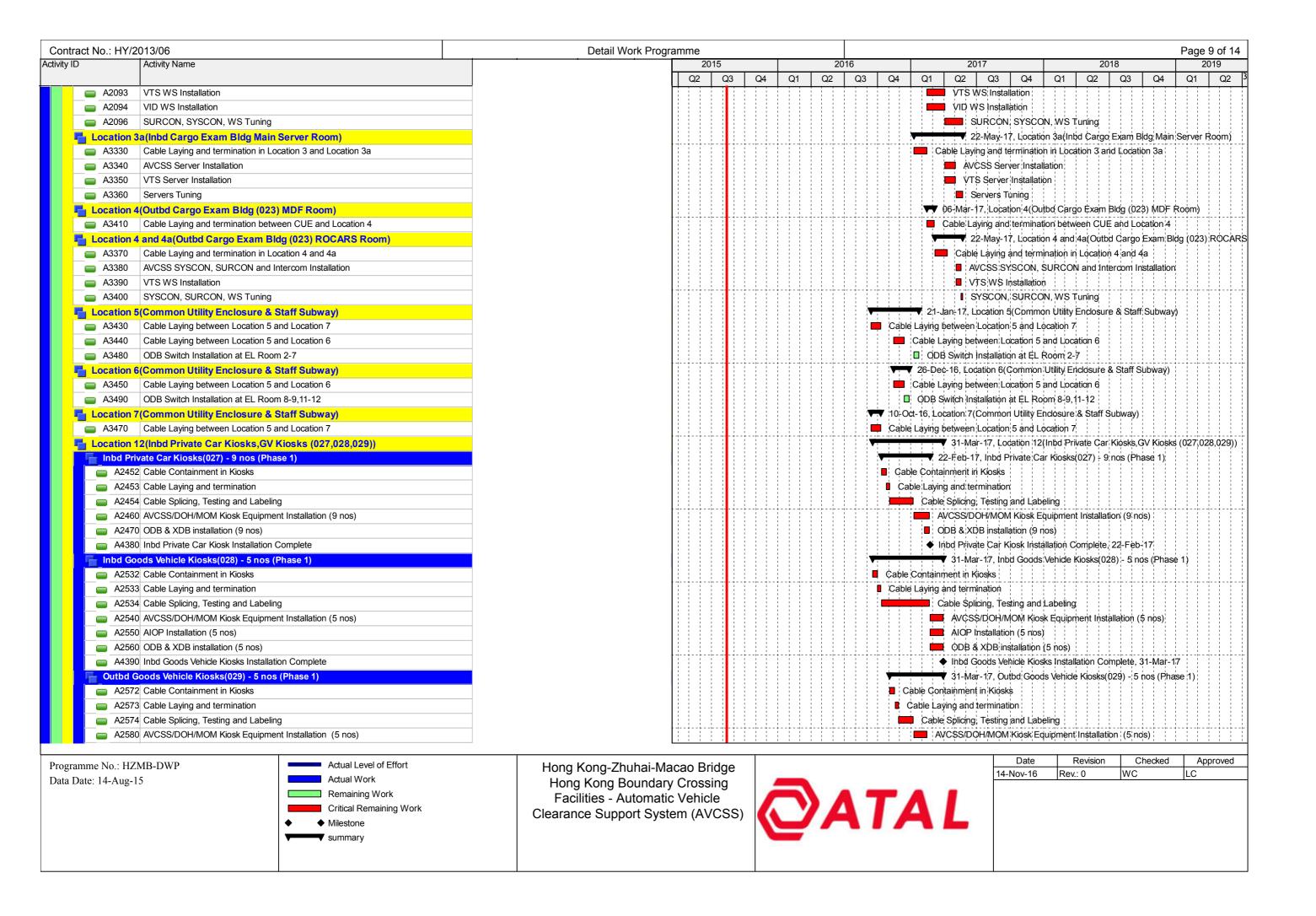
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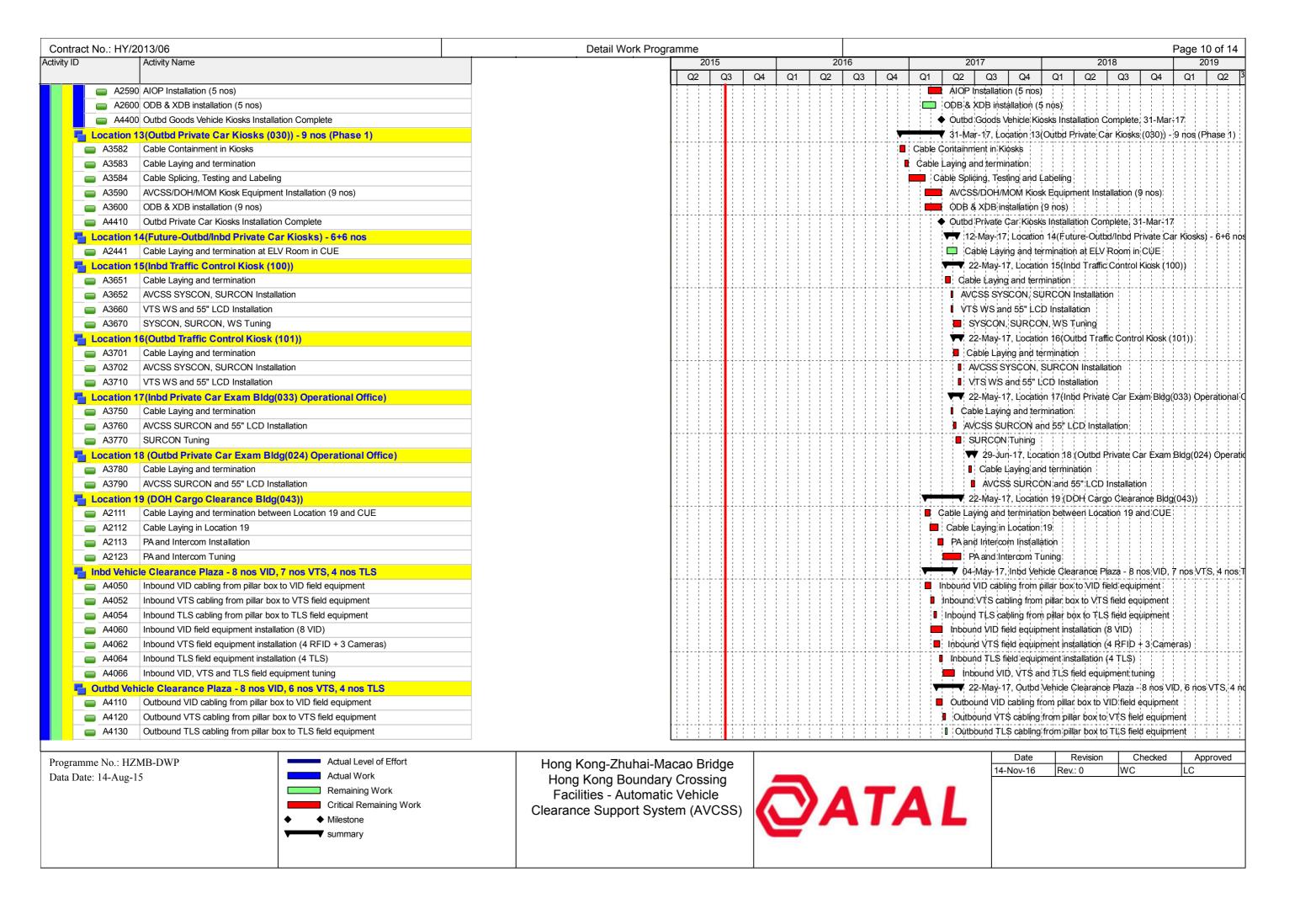
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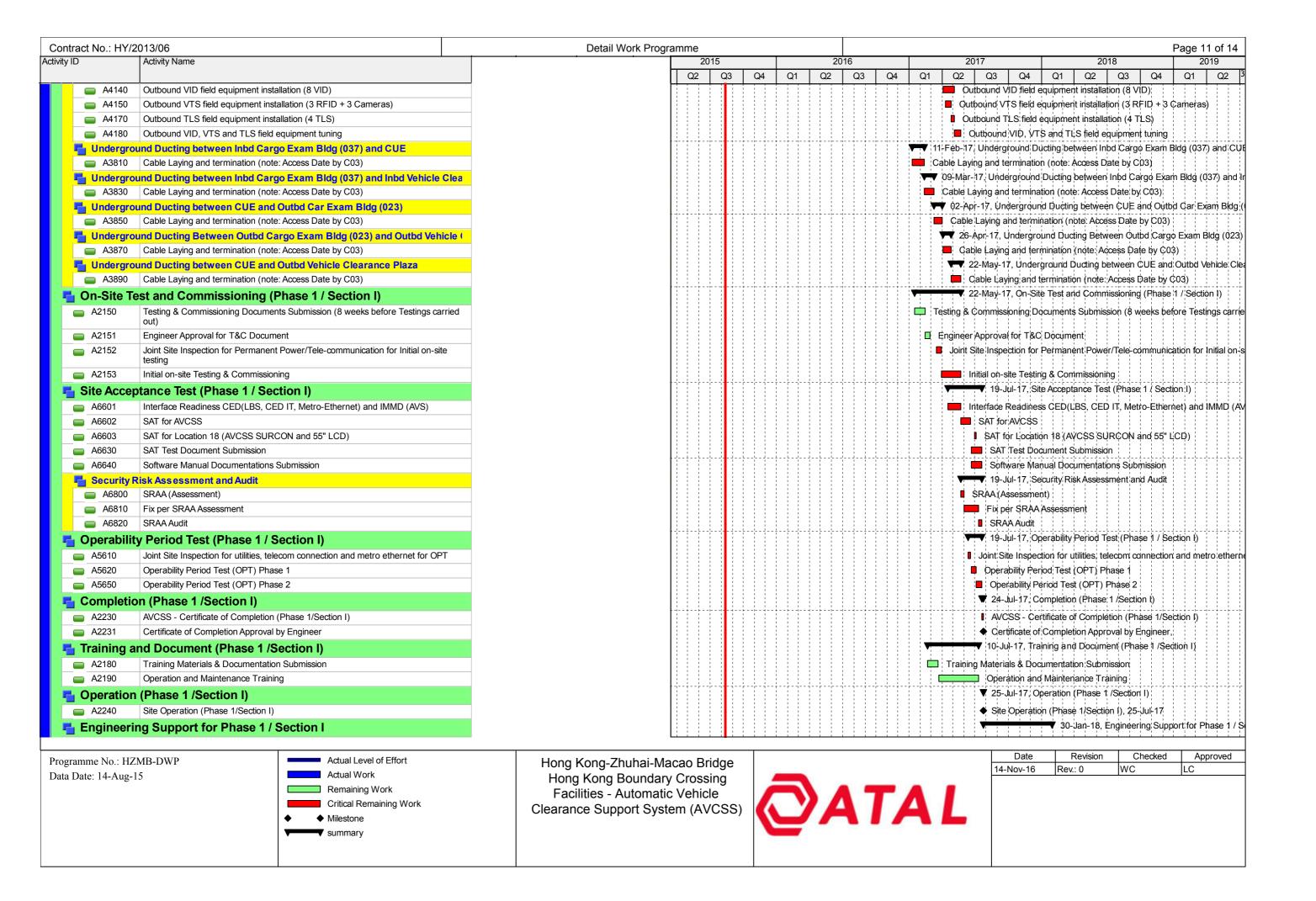
Q1

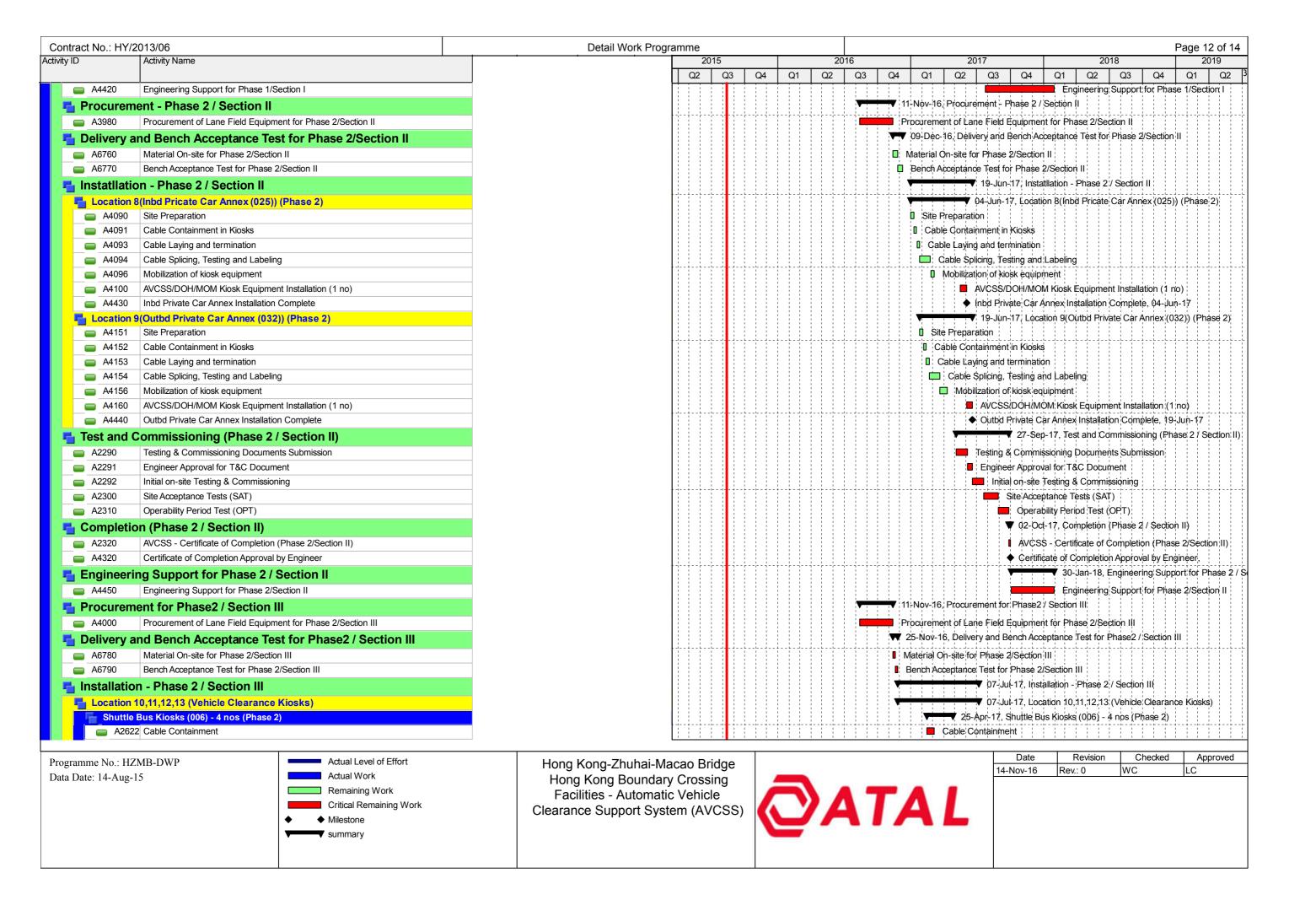


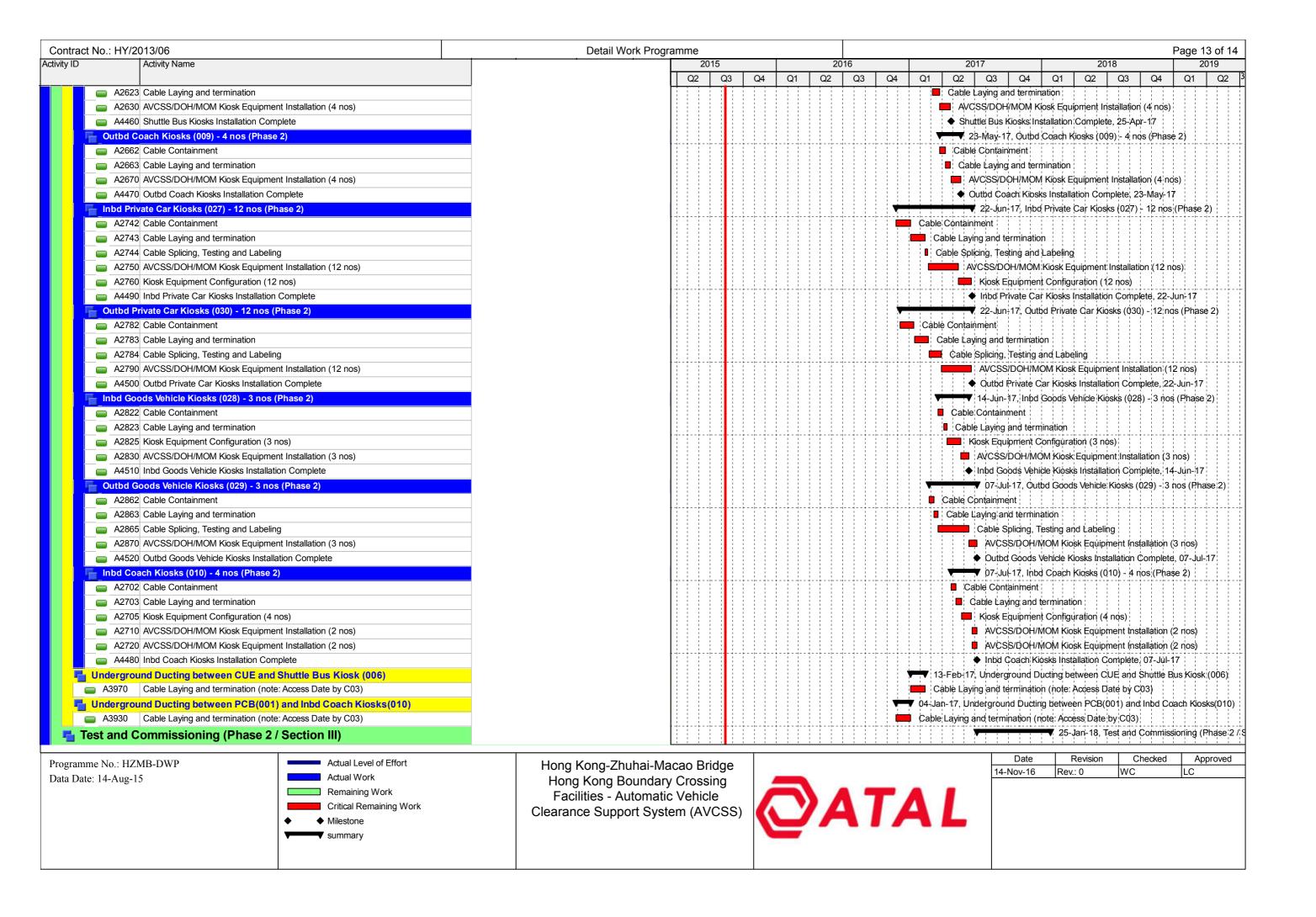


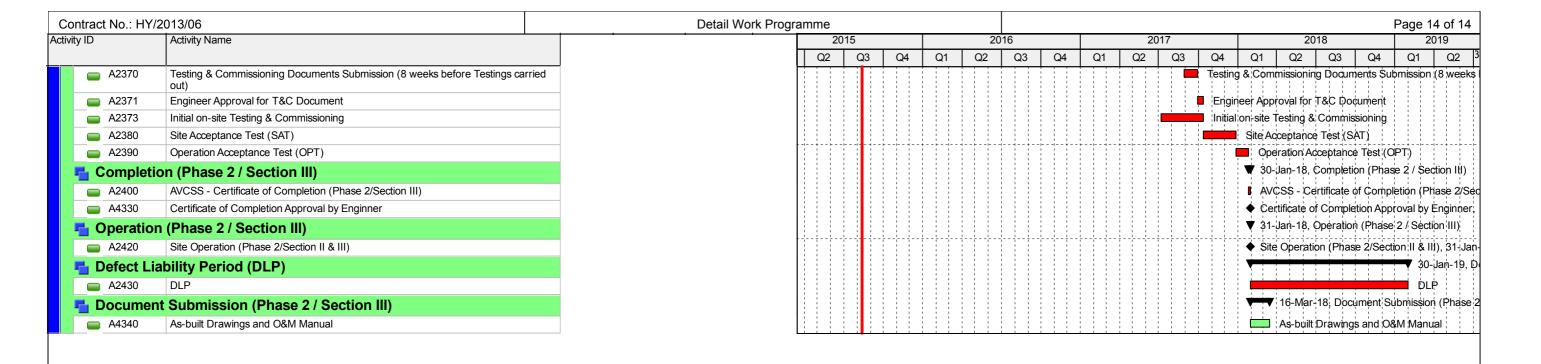












Programme No.: HZMB-DWP Data Date: 14-Aug-15

Actual Level of Effort

Actual Work

Remaining Work

Critical Remaining Work

Milestone

summary

Hong Kong-Zhuhai-Macao Bridge Hong Kong Boundary Crossing Facilities - Automatic Vehicle Clearance Support System (AVCSS)



Date	Revision	Checked	Approved
14-Nov-16	Rev.: 0	WC	LC