



PROJECT NO.: TCS00371/07

**DRAINAGE SERVICES DEPARTMENT (DSD)
CONTRACT NO. DC/2006/02
YUEN LONG, KAM TIN, NGAU TAM MEI AND TIN
SHUI WAI DRAINAGE IMPROVEMENTS, STAGE 1,
PHASE 2B – CHEUNG CHUN SAN TSUEN AND KAM
TSIN WAI**

FINAL EM&A SUMMARY REPORT – KT15

**PREPARED FOR
Chit Cheung Construction Company Limited**

Quality Index

Date	Reference No.	Prepared By	Certified By
17 August 2011	TCS00371/07/600/R1604v4	 Nicola Hon Environmental Consultant	 T.W. Tam Deputy Environmental Team Leader

Version	Date	Prepared by	Certified by	Description
1	26 Jun 2011	Nicola Hon	T.W. Tam	First submission
2	28 Jul 2011	Nicola Hon	T.W. Tam	Against IEC comments on 22 Jul 2011
3	12 Aug 2011	Nicola Hon	T.W. Tam	Against IEC comments on 1 Aug 2011
4	17 Aug 2011	Nicola Hon	T.W. Tam	Against IEC comments on 16 Aug 2011

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Attn: Ms. Jenny S.Y. Lui

17 August 2011

Dear Madam,

Contract No. DC/2006/02
Yuen Long, Kam Tin, Ngau Tam Mei and Tin Shui Wai Drainage Improvements, Stage 1, Phase 2B – Cheung Chun San Tsuen and Kam Tsin Wai

KT15 - Final EM&A Summary Report (Version 4)

We refer to the captioned report (Reference No. TCS00371/07/600/R1604v4) submitted by the Environmental Team Leader (ETL) via email on 17 August 2011. We have no further comment.

We hereby verify the captioned report as conforming to Condition 4.3 of the Environmental Permit No. EP-231/2005/A for your onward submission to EPD.

Should you have any queries, please do not hesitate to contact the undersigned or our Y W Fung at 3105 8544.

Yours faithfully,

Y T Tang
Independent Environmental Checker

cc Chit Cheung
AUES

Mr. P. Y. Cheng
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EXECUTIVE SUMMARY

- ES.01 Chit Cheung Construction Company Limited (CCC) was awarded the Drainage Services Department (DSD) Contract No. DC/2006/02 Yuen Long, Kam Tin, Ngau Tam Mei and Tin Shui Wai Drainage Improvements, Stage 1, Phase 2B – Cheung Chun San Tsuen and Kam Tsin Wai (hereinafter “the Project”) on 03 April 2007.
- ES.02 According to the contract specification requirements the Project should implemented an Environmental Monitoring & Audit (EM&A) program by an Independent Environmental Team (ET) throughout the construction period in compliance with the requirements as stated in the project particular specification, Environmental Permit (EP-231/2005/A) and EM&A Manual for KT15.

ENVIRONMENTAL PERFORMANCE CRITERIA

- ES.03 The baseline EM&A monitoring was carried out in compliance with the project EP and the EM&A Manual during the period from 27 April to 27 May 2007 for the Channel KT15 included the air quality, noise and stream water quality; and the baseline ecological monitoring was conducted on 24 and 26 May 2007. Action and Limit (A/L) levels for air, noise and stream water quality were developed according to the criteria set out in the EM&A Manual.

Action and Limit Levels for Air Quality Monitoring

Monitoring Location	Action Level ($\mu\text{g}/\text{m}^3$)		Limit Level ($\mu\text{g}/\text{m}^3$)	
	1-Hr	24-Hr	1-Hr	24-Hr
A10	> 307	> 165	> 500	> 260

Action and Limit Levels for Construction Noise Monitoring

Time Period	Action Level	Limit Level
0700-1900 hrs on normal weekdays	When one or more documented complaint is received	> 75 dB(A)

Action and Limit Levels for Water Quality Monitoring

Parameter	W9A (Control Station)		W9B (Impact Station)	
	Action Level	Limit Level	Action Level	Limit Level
Dissolved Oxygen (mg/l)	NA	NA	<0.3	<0.2
Turbidity (NTU)	NA	NA	>73.5*	>78.2**
pH	NA	NA	<7.0*	<7.1**
Suspended Solids (mg/L)	NA	NA	>148.4*	>158.9**
Ammonia Nitrogen ($\mu\text{g}/\text{L}$)	NA	NA	>30.9*	>32.2**
Zinc ($\mu\text{g}/\text{L}$)	NA	NA	>241.8*	>252.2**

Notes: * Alternative Action Level of the Turbidity, pH, Suspended Solid, Ammonia Nitrogen and Zinc are 120% of upstream control station of same day.

** Alternative Limit Level of the Turbidity, pH, Suspended Solid, Ammonia Nitrogen and Zinc are 130% of upstream control station of same day.

Action and Limit Levels for Construction Ecology Monitoring

Parameters	Action Level	Limit Level
Decrease in number of species of wetland birds of conservation importance from baseline.	20 – 40% of 2 species	> 40% of 2 species
Decrease in the total number of wetland birds of conservation importance from baseline.	20 – 40% of 1.2 individuals	> 40% of 1.2 individuals
Decrease in number of species of wetland fauna of conservation importance from baseline.	20 – 40% of 21 species	> 40% of 21 species
Decrease in the total number of wetland fauna of conservation importance from baseline.	20 – 40% of 44.99 individuals	> 40% of 44.99 individuals

PROGRESS OF THE EM&A PROGRAMME

- ES.04 The construction works of the Project was commenced on 20 July 2007 and construction activities which cause potential adverse environmental impact were completed on 19 December

2009 for a total of 30 months. This is the Final EM&A Summary Report prepared by Action-United Environmental Services & Consulting (AUES), the designated Environmental Team (hereinafter called the “ET”) for the Project. This report summarized the EM&A works of the Project undertaken during impact monitoring period from 20 July 2007 to 19 December 2009; and post- monitoring period from February 2010 to January 2011.

- ES.05 Environmental Monitoring and Audit Programme of the Project was conducted in accordance with the requirements set out in the EM&A Manual [382047/E/PP/Issue5]. The EM&A programme included the monitoring works of air quality, construction noise, water quality, ecology and waste management. Weekly site inspections were also conducted
- ES.06 Upon notification of completion by the Contractor, last site audit was conducted on 16 December 2009 which confirmed no works of environmental impact as remaining. Therefore, environmental aspects of impact monitoring ceased on 19 December 2009, except for the last ecological monitoring carried out on 21 December 2009.
- ES.07 The post- ecology monitoring was carried out monthly basis by Independent Environmental Checker in period from January 2010 to December 2010 in accordance with the EM&A Manual [382047/E/PP/Issue5] requirement.
- ES.08 The impact EM&A program was undertaken in accordance with the relevant EM&A manuals. A summary of the monitoring activities in the construction period is listed below:

Environmental Issues	Channel KT15
• 1-hour TSP Monitoring	444 monitoring events
• 24-hour TSP Monitoring	148 monitoring events (*)
• Noise Monitoring	147 monitoring events
• Water Quality Monitoring	250 monitoring days
• Ecology (wetland Bird)	30 survey days
• Ecology (Fauna)	9 survey days
• Site Inspection Audit by ET	127 occasions
• Site Monthly Audit by IEC	30 occasions

Remarks: (*) 1 event of power failure on 10 June 2008.

BREACHES OF ENVIRONMENTAL QUALITY CRITERIA

- ES.09 In the whole construction period, no breaches in the air quality and construction noise monitoring were recorded, however, a total of seven (7) Limit Level exceedances were found stream water quality monitoring. Investigations for the cause of the exceedances were conducted and it concluded that all the exceedances were not related to the works under the construction site of Channel KT15.
- ES.10 As ecology monitoring undertaken the construction stage, wetland bird of species or individual number was recorded 43 limit level of exceedances. Moreover, 3 Action and 11 Limit Levels exceedances were found for the wetland fauna group of individual and species. Although exceedances ecology of wetland bird and fauna were identified, no intrusions of construction activities into the wetland areas and adverse impact on the wetlands were found in the previous monthly monitoring. Therefore, the species and individual number non-compliance in wetland bird or fauna should not been caused by the project.
- ES.11 The summary of all environmental aspect exceedances in whole construction period is presented as follows:

Monitoring	Parameters	Action Level	Limit Level
Stream Water	Turbidity (NTU)	NA	2
	Suspended Solids (SS)	NA	4
	Ammonia Nitrogen	NA	1
Ecology	Wetland birds Number of species	NA	28

		Individual number	NA	15
	Wetland fauna	Number of species	2	5
		Individual number	1	6

ENVIRONMENTAL COMPLAINT, NOTIFICATIONS OF SUMMONS AND PROSECUTIONS

ES.12 In whole construction phase at the Channel KT15, no environmental complain or the notification of summon and prosecution was received by the Contractor, DSD and ER. Furthermore, minor deficiencies finding in the weekly site inspection and auditing were in general rectified within the specified deadlines. The compliance of environmental performance during construction works was therefore considered satisfactory.

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1 INTRODUCTION

BASIC PROJECT BACKGROUND

- 1.01 Chit Cheung Construction Company Limited (CCC) has been awarded the Drainage Services Department (DSD) Contract No. DC/2006/02 Yuen Long, Kam Tin, Ngau Tam Mei and Tin Shui Wai Drainage Improvements, Stage 1, Phase 2B – Cheung Chun San Tsuen and Kam Tsin Wai (hereinafter “the Project”) on 03 April 2007. The Project is the civil engineering infrastructure works for constructed two drainage channels KT2 and KT15 in Kam Tin, Yuen Long. The location of the project sites is presented in *Appendix A*.
- 1.02 This submission is only presented the Channel KT15 summarized the key environmental monitoring results throughout the construction phase in accordance with the EM&A Manual [382047/E/PP/Issue5] Section 10.5. According to the contract specification requirements the Project should implemented an Environmental Monitoring & Audit (EM&A) program by an Independent Environmental Team (ET) throughout the construction period in compliance with the requirements as stated in the project particular specification, Environmental Permit (EP-231/2005/A) and EM&A Manual for KT15.
- 1.03 The works to be executed at the propose drainage Channel KT15 mainly comprise the following:
- Construction of about 0.8 km secondary drainage channels;
 - Construction of DSD maintenances access;
 - Provisioning and re-provisioning of pedestrian crossings;
 - Associated ancillary works; and
 - Construction of temporary vehicular access in Portion 5 A1 of the site for vehicular access from Kam Sheung Road to Lot Nos. 398RP, 395 in DD106 which are adjacent to the site.
- 1.04 Action-United Environmental Services and Consulting (AUES) has been commissioned by CCC to be the Independent Environmental Team (ET) for implementation of the EM&A program in accordance with the requirements as set out in the contract particular specification, Environmental Permit (EP-231/2005/A), EM&A Manual for KT15 and the Environment Impact Assessment Ordinance (EIAO). Furthermore, ACEOM as Independent Environmental Checker (IEC) was ordered to carry out post- ecology monitoring by DSD.
- 1.05 The construction works of the Project was commenced on 20 July 2007 and construction activities which cause potential adverse environmental impact were completed on 19 December 2009 for a total of 30 months.
- 1.06 Upon notification of completion by the Contractor, last site audit was conducted on 16 December 2009 which confirmed no works of environmental significance remain was observed. The impact monitoring carried out by ET was ceased on 19 December 2009, except for ecological monitoring which was last carried out on 21 December 2009 during the Reporting Period.
- 1.07 The post- ecology monitoring was carried out monthly basis by Independent Environmental Checker in period from January 2010 to December 2010 in accordance with the EM&A Manual [382047/E/PP/Issue5] requirement.
- 1.08 This Final EM&A Report for Channel KT15 (Designated Project works) summarized the key environmental monitoring results throughout the construction phase and one year post-monitoring period in accordance with the EM&A Manual [382047/E/PP/Issue5] Section 10.5.

PROJECT ORGANISATION AND CONSTRUCTION PROGRESS

Environmental Management Organization

- 1.09 The organization chart and lines of communication with respect to the on-site environmental management is shown in *Appendix B*.

Major Works of Channel KT15 Undertaken during the Construction Period

- 1.10 Major construction activities implemented under the project site during the construction Period are presented as below and mile stone of construction program is attached in *Appendix C*.

ENVIRONMENTAL LICENSING

All the relevant environmental permits or licenses for the Project are listed in *Table 1-1*.

Table 1-1 Environmental Permit and Relevant Licenses Application for the Project

Item	License / Permit Description	Issued / Validity Period
1	Environmental Permit (EP-231/2005/A)	-
2	Air Pollution Control (Construction Dust)	Notified EPD on 09 July 2007
3	Chemical Waste Producer Registration WPN:5296-519-C3430-01 (Portion 8, Ma Fung Ling Road, Tong Yan San Tsuen, Yuen Long)	Registration on 20 April 2007
4	Chemical Waste Producer Registration WPN:5113-533-C3434-09 (Kam Tsin Wai, Kam Tin, Yuen Long)	Registration on 20 April 2007
5	Chemical Waste Producer Registration WPN:5213-424-C3431-01 (Portion 7, Birthing Area, Hoi Wan Road, Tuen Mun)	Registration on 20 April 2007
6	Water Pollution Control Ordinance (Discharge License No.: 1U450/1)	Obtained on 20 July 2007 & update on 20 June 2009
7	Billing Account for Disposal of Construction Waste (Account Number : 7005311)	Valid on 07 May 2007
8	Dumping at Sea Permit of Type 1 Contaminated Material (Permit No. EP/MD/08-051)	Validity period (10 Oct 07 – 09 Apr 2008)
9	Dumping at Sea Permit of Type 2 Contaminated Material (Permit No. EP/MD/08-044)	Validity period (02 Oct 07 – 01 Nov 07)
10	Dumping at Sea Permit of Type 2 Contaminated Material (Permit No. EP/MD/08-053)	Validity period (02 Nov 07 – 01 Dec 07)
11	Dumping at Sea Permit of Type 1 Contaminated Material (Permit No. EP/MD/09-027)	Validity period (13 Oct 08 – 12 Apr 09)
12	Dumping at Sea Permit of Type 2 Contaminated Material (Permit No. EP/MD/08-040)	Validity period (29 Dec 08 to 28 Jan 09)

REPORT STRUCTURE

- 1.11 This Report is structured as follows:

Section 1	Introduction
Section 2	Summary of Environmental Monitoring and Audit Program Requirements
Section 3	Environmental Impact Monitoring Results and Breaches of Quality Criteria
Section 4	Post- Construction of Ecology Monitoring
Section 5	Non-compliance, Complaints, Notifications of Summons and Successful Prosecutions
Section 6	Waste Management and Site Inspection & Audit
Section 7	Conclusions and Recommendations

2 SUMMARY OF ENVIRONMENTAL MONITORING AND AUDIT PROGRAM REQUIREMENTS

MONITORING PARAMETERS

- 2.01 Environmental monitoring and audit requirements are set out in the EM&A Manual. Air quality, construction noise, stream water quality and ecology have been identified to be the key environmental issues during the construction phase of the project. Furthermore, ecology monitoring is required to be carried out one year upon construction activities completion.
- 2.02 A summary of the EM&A requirements for air quality, construction noise, stream water quality and ecology monitoring are shown in **Table 2-1**.

Table 2-1 Summary of Monitoring Parameters

Environmental Aspect	Monitoring Parameters	
Air Quality	1-Hour and 24-Hour TSP	
Construction Noise	Leq _(30min) during normal working hours Supplementary data of L ₁₀ and L ₉₀ for reference.	
Stream Water Quality	In Situ Measurement	• Dissolved Oxygen Concentration (mg/L);
		• Dissolved Oxygen Saturation (% Sat);
		• Turbidity (NTU);
Laboratory Analysis	• pH;	
	• Salinity (%); Water Depth (m) and	
	• Temperature (°C).	
Ecology	Laboratory Analysis	• Suspended Solids (mg/L);
		• Ammonia Nitrogen (mg/L); and
		• Zinc (µg/L).
Ecology	<ul style="list-style-type: none"> • Monthly monitoring of construction activities adjacent to the wetland areas to identify any intrusions of construction activities into the wetland areas; • Monthly monitoring of wetland areas themselves to check that there is no adverse impact on the wetlands as a consequence of changes to the water table that are attributable to the project, if any; • Photographic records at six-month intervals; and • Monthly surveys of fauna in the wetland areas during the wet season (April to July inclusive) for reptiles, amphibians, dragonflies, and butterflies, and throughout the year for birds. 	

MONITORING LOCATIONS AND FREQUENCY

- 2.03 The EM&A Manual stipulation, air quality of the 24-Hour and 1-Hour (3 measurements) TSP monitoring are carried once every six days at one designated monitoring station A10; Leq_(30min) of construction noise monitoring is conducted once per week in normal daytime between 0700 and 1900 at one designated monitoring location (N10a). Moreover, Stream water quality monitoring is conducted to be taken at two locations W9A and W9B twice per week. The detailed of the air quality, construction noise and stream water quality monitoring stations is listed in **Table 2-2**.

Table 2-2 Air Quality, Noise & Stream Water Quality Monitoring Station/Locations

Air Quality Station	
A10	Village House in Tin Sam San Tsuen
Construction Noise Location	
N10*	Village House in Tin Sam San Tsuen
N10a	Village House in Tin Sam San Tsuen
Water Quality Locations	
W9A#	Tin Sam San Tsuen
W9B	Tin Sam San Tsuen

Remarks: * The noise ambient condition within the victim area without significant change. Due to the accessibility, noise monitoring was undertaken at N10a. Once the access is available, the impact noise monitoring will undertake at N10

Act as control station in impact monitoring

- 2.04 Ecological monitoring is conducted in the seasonal wetland area as shown in Project profile of KT15 Figure ATT 4-7.2). Bird survey should be conducted in monthly and other faunal groups (reptiles, amphibians, dragonflies and butterflies) are conducted in wet season (April to July inclusive).
- 2.05 The designated monitoring locations of the air quality, construction noise, stream water quality and ecology monitoring area are shown in **Appendix D**.
- 2.06 The meteorological data were obtained from the Lau Fau Shan Station of the Hong Kong Observatory (HKO).

ENVIRONMENTAL PERFORMANCE CRITERIA

- 2.07 The baseline EM&A monitoring was carried out in compliance with the project EP and the EM&A Manual during the period from 27 April to 27 May 2007 for the Channel KT15 included the air quality, noise and stream water quality; and the baseline ecological monitoring was conducted on 24 and 26 May 2007.
- 2.08 A summary of the Action/Limit (A/L) Levels for air quality, construction noise, stream water quality and ecology are shown in the **Tables 2-3, 2-4, 2-5 and 2-6**.

Table 2-3 Action and Limit Levels for Air Quality Monitoring

Monitoring Station	Action Level ($\mu\text{g}/\text{m}^3$)		Limit Level ($\mu\text{g}/\text{m}^3$)	
	1-Hour TSP	24-Hour TSP	1-Hour TSP	24-Hour TSP
A10	> 307	> 165	> 500	> 260

Table 2-4 Action and Limit Levels for Construction Noise Monitoring

Time Period	Action Level in dB(A)	Limit Level in dB(A)
0700-1900 hrs on normal weekdays	When one or more documented complaints are received	> 75* dB(A)

Note: * Reduces to 70dB(A) for schools and 65dB(A) during the school examination periods.

Table 2-5 Action and Limit Levels for Stream Water Quality Monitoring

Parameter	W9A (Control Station)		W9B (Impact Station)	
	Action Level	Limit Level	Action Level	Limit Level
Dissolved Oxygen (mg/l)	NA	NA	<0.3	<0.2
Turbidity (NTU)	NA	NA	>73.5*	>78.2**
pH	NA	NA	<7.0*	<7.1**
Suspended Solids (mg/L)	NA	NA	>148.4*	>158.9**
Ammonia Nitrogen ($\mu\text{g}/\text{L}$)	NA	NA	>30.9*	>32.2**
Zinc ($\mu\text{g}/\text{L}$)	NA	NA	>241.8*	>252.2**

Notes: * Alternative Action Level of the Turbidity, pH, Suspended Solid, Ammonia Nitrogen and Zinc are 120% of upstream control station of same day.

** Alternative Limit Level of the Turbidity, pH, Suspended Solid, Ammonia Nitrogen and Zinc are 130% of upstream control station of same day.

Table 2-6 Action and Limit Levels for Ecology Monitoring

Parameters	Action Level	Limit Level
Decrease in number of species of wetland birds of conservation importance from baseline.	20 – 40% of 2 species	> 40% of 2 species
Decrease in the total number of wetland birds of conservation importance from baseline.	20 – 40% of 1.2 individuals	> 40% of 1.2 individuals
Decrease in number of species of wetland fauna of conservation importance from baseline.	20 – 40% of 21 species	> 40% of 21 species
Decrease in the total number of wetland fauna of conservation importance from baseline.	20 – 40% of 44.99 individuals	> 40% of 44.99 individuals

EVENT ACTION PLAN

- 2.09 In case of non-compliance was found in the air quality, construction noise and water quality monitoring, more frequent monitoring as specified in the Action Plan is attached in **Appendix E**, shall be carried out. The additional monitoring shall be continued until the recorded noise levels are rectified or proved to be irrelevant to the construction activities. The ET, the ER and the Contractor shall undertake the relevant action in accordance with the Action Plan accordingly.

ENVIRONMENTAL MITIGATION MEASURES

- 2.10 CCC has committed to implement environmental protection and pollution control and mitigation measures as recommended in the PP, EP and the EM&A Manual. Continuous up-dating of the Mitigation Measures Implementation Schedules attached in the EM&A Manual is required under the PS. The updated Environmental Mitigation Measures Schedule is enclosed in **Appendix F**. During construction period, overall environmental mitigation measures implemented by CCC are summarized as follows:

Water Quality

- Wastewater were appropriately treated by treatment facilities;
- Drainage channels were provided to convey run-off into the treatment facilities;
- Drainage systems were regularly and adequately maintained.

Air Quality

- Vehicles were clear of mud and debris before leaving the site;
- Site vehicles were limited to 8 km/hr;
- Public roads around the site entrance/exit had been kept clean and free from dust;
- Dust suppression measures were properly provided to reduce dust emission from stockpile.

Noise

- Works and equipment were located to minimize noise nuisance from the nearest sensitive receiver;
- Idle equipment were either turned off or throttled down;
- Powered Mechanical Equipment were covered or shielded by appropriate acoustic materials if practicable.

Ecology

- During the construction activities near the seasonal wetland, mitigation measures of Ecology was considered and performed in accordance with EM&A Manual, Annex A ECO.1 and ECO.3.

Waste and Chemical Management

- Wastes were properly segregated into inert and non-inert in appropriate containers/areas;
- Excavated materials were reused where practicable.
- A chemical waste storage area had been provided on site;

General

- The site was generally kept tidy and clean.

3 ENVIRONMENTAL IMPACT MONITORING RESULTS AND BREACHES OF QUALITY CRITERIA

3.01 The environmental monitoring results were compared against the Action and Limit Levels established based on the baseline monitoring results and statutory criteria. In case the measured data triggered the environmental quality criteria, remedial actions will be followed according to the Event and Action Plan. In the construction period, the graphical plots of the trends of monitored parameter of 30 construction months are presented in *Appendix G*.

AIR QUALITY

3.02 In the construction period, there were total of 444 measurement events for 1-hour TSP at the designated location A10. Although there were total of 149 sampling events for 24-hour TSP undertaken at the designated location A10, only 148 events were successful as one sampling on 10 June 2008 due to power failure incident is no result to be provided. The summary of Air Quality of 1-hour and 24-hour TSP in the construction phase are presented in *Table 3-1* and *3-2*.

Table 3-1 Summaries of Air Quality 1-hour TSP in the Construction Period at the Designated Monitoring Location A10

Time Period	1-hour TSP ($\mu\text{g}/\text{m}^3$)				Dust Concentration detection ($\mu\text{g}/\text{m}^3$)			
	Min	Max	Mean	Total Events	0 – 100	100 – 200	200 – 300	Over than 300 but below Action Level
Jul 07 – Dec 07	32	299	136	87	39.1%	40.2%	20.7%	0.0%
Jan 08 – Jun 08	14	301	138	87	29.9%	50.6%	18.4%	1.1%
Jul 08 – Dec 08	18	242	93	93	58.1%	35.5%	6.5%	0.0%
Jan 09 – Jun 09	20	208	95	90	62.2%	34.4%	3.3%	0.0%
Jul 09 – Dec 09	34	279	100	87	79.3%	11.5%	9.2%	0.0%
Full Period	14	301	112	444	53.8%	34.5%	11.5%	0.2%
Recorded in the date	20 May 08	22 Feb 08	NA	NA	NA	NA	NA	NA

Table 3-2 Summaries of Air Quality 24-hour TSP in the Construction Period at the Designated Monitoring Location A10

Time Period	24-hour TSP ($\mu\text{g}/\text{m}^3$)				Dust Concentration detection ($\mu\text{g}/\text{m}^3$)			
	Min	Max	Mean	Total Events	0 – 50	50 – 100	100 – 150	Over than 150 but below Action Level
Jul 07 – Dec 07	12	164	55	28	50.0%	39.3%	7.1%	3.6%
Jan 08 – Jun 08	18	118	53	30	53.3%	33.3%	13.3%	0.0%
Jul 08 – Dec 08	9	141	48	32	65.6%	25.0%	9.4%	0.0%
Jan 09 – Jun 09	15	126	49	29	69.0%	20.7%	10.3%	0.0%
Jul 09 – Dec 09	7	164	53	29	62.1%	24.1%	3.4%	10.3%
Full Period	7	164	52	148*	60.1%	28.4%	8.8%	2.7%
Recorded in the date	20 Aug 09	20 Sep 07 & 7 Nov 09	NA	NA	NA	NA	NA	NA

* Total of 148 successful monitoring event

Table 3-3 Summaries of Breaches of Air Quality A/L Levels in the Construction Period

Location	Exceedance	1-hour TSP	24-hour TSP	Total
A10	Action Level	0	0	0
	Limit Level	0	0	0

3.03 As shown in *Table 3-1* and *3-2* and *Appendix G*, the monitoring results of 1-hour TSP and 24-hours TSP in the construction period fluctuated below the Action Levels respective of $306 \mu\text{g}/\text{m}^3$ and $165 \mu\text{g}/\text{m}^3$.

- 3.04 For 1-hour TSP monitoring, 301 $\mu\text{g}/\text{m}^3$ recorded on 22 February 2008 in the construction phase is highest dust concentration detectable. The average dust concentration in construction phase is 112 $\mu\text{g}/\text{m}^3$ of calculation. Moreover, over 88% monitoring results of 1-hour TSP dust concentration lower than 200 $\mu\text{g}/\text{m}^3$ to be recorded within a whole construction period.
- 3.05 Furthermore, 164 $\mu\text{g}/\text{m}^3$ dust concentration, recorded on 20 September 2007 and 7 November 2009 in the construction phase is highest dust concentration of 24-hour TSP monitoring. The average dust concentration in construction phase is 52 $\mu\text{g}/\text{m}^3$ of calculation. Moreover, over 88% monitoring results of 24-hour TSP dust concentration lower than 100 $\mu\text{g}/\text{m}^3$ to be recorded within a whole construction period.
- 3.06 The compliance of air quality performance during construction works was therefore considered satisfactory and no specific air quality corrective action was required during the construction period. The dust mitigation measures implemented in accordance with the PP, EP and the EM&A Manual by CCC is effective.

CONSTRUCTION NOISE

- 3.07 Since completed baseline noise monitoring, the designated monitoring station N10 access still yet available to carry out construction noise monitoring. Therefore construction noise monitoring was undertaken at N10a. In the construction phase, there were total of 147 measurement events of Leq30min construction noise monitoring at location N10a of the alternative noise receiver to carry out. Monitoring results are presented in graphic plots in *Appendix G*. The noise measurement in the construction period is summarized to show in *Table 3-4*.

Table 3-4 Summarized Construction Noise in the Construction Period

Time Period	Measurement Event	Leq30min of Construction Noise Level, dB(A)			The Status of Leq30min Noise Pressure, dB(A) to be recorded		
		Min	Max	Mean	> 40 ≤ 50	> 50 ≤ 60	> 60 ≤ 70
Jul 07 – Dec 07	29	44	65	51	41.4%	55.2%	3.4%
Jan 08 – Jun 08	29	46	65	53	24.1%	69.0%	6.9%
Jul 08 – Dec 08	31	41	64	49	71.0%	22.6%	6.5%
Jan 09 – Jun 09	29	43	55	49	72.4%	27.6%	0.0%
Jul 09 – Dec 09	29	44	60	49	72.4%	27.6%	0.0%
Full Period	147	41	65	50	56.5%	40.1%	3.4%

- 3.08 As shown in *Table 3-4* and *Appendix G*, all noise monitoring results fluctuated below the Limit Level. Moreover, there was no noise complaint relevant the construction activities received in the construction phase. At whole construction period, the sound pressure level below 60dB was recorded more than 95% measurement time at N10a. The noise mitigation measures implemented in accordance with the PP, EP and the EM&A Manual by CCC is effective. The compliance of construction noise performance during construction works was therefore considered satisfactory. No specific corrective action was to be recommended.

WATER QUALITY

- 3.09 Within the construction period, there were total of 250 days performed water quality monitoring include in-situ measurement and sampling at the designated locations W9A and W9B. All monitoring results are presented in graphic plots in *Appendix G*.
- 3.10 A summary of monitoring exceedances during construction phase for stream water quality monitoring is presented in *Table 3-5*, taken into account that W9A is set as the up-stream control station for W9B.

Table 3-5 Summaries of Exceedance of Water Quality Criteria during Construction Period at Impact Station W9B

Parameter Exceedance	Date of Exceeded	Concentration	Breach Criteria	Result of Control Station W9A at the date
Turbidity (NTU)	2 September 2008	721	Limit Level	164
	3 December 2008	113.5	Limit Level	11.5
Suspended Solids (mg/L)	2 September 2008	489	Limit Level	255
	2 October 2008	164	Limit Level	39
	15 October 2008	203	Limit Level	110
	3 December 2008	192	Limit Level	11
Ammonia Nitrogen (mg/L)	27 April 2009	54.6	Limit Level	20

Notes: Alternative Limit Level of the Turbidity, Suspended Solid and Ammonia Nitrogen are 130% of upstream control station of same day.

- 3.11 A total of seven (7) Limit Level exceedances, as including two Turbidity, four Suspended Solids and one Ammonia Nitrogen, were found stream water quality monitoring. Investigations for the cause of the exceedances were conducted that no excavation or major discharge on-site was observed during the site visit; also desilting facilities and proper mitigation measures were implemented on-site. Moreover, silty water from Kam Tin Nullah upstream always observed during sampling.
- 3.12 In December 2008, extra of the water sampling and in-situ measurement conducted at Kam Tin River upstream to investigation the relevant exceedance of Turbidity and SS. As results of Turbidity (390NTU) and SS (449mg/L) high concentration was also obtained. The limit level exceedance in ammonia nitrogen recorded on 27 April 2009, investigation report concluded that the exceedance was due to natural variation of the water quality.
- 3.13 All NOEs and the associated investigation reports were issued upon confirmation of the results and construction information. Breaches of water quality A/L Levels during the construction period are summarized in **Table 3-6**.

Table 3-6 Summaries of Breaches of the Existing Water Quality A/L Levels at W9B in Construction Period

Parameter	Channels KT15 – W9B		Remarks
	No. of Exceedance	Percentage of Non-compliance of parameter	
Dissolve Oxygen	0	0%	NA
Turbidity	2	0.8%	Exceedance not related the Project
pH	0	0%	NA
Suspended Solids	4	1.6%	Exceedance not related the Project
Ammonia	1	0.4%	Exceedance not related the Project
Zinc	0	0%	NA
Overall	7	2.8%	

- 3.14 As shown in **Table 3-6**, although the exceedances of water quality A/L Levels were found in the construction phase, consider the exceedances were not related to the works under Channel KT15. Therefore, the water quality mitigation measures implemented in accordance with the PP, EP and the EM&A Manual by CCC is effective. The compliance of water quality performance during construction works was therefore considered satisfactory. No specific corrective action was to be recommended.

ECOLOGY

- 3.15 In the Construction Phase, a total of 30 months of wetland dependent bird survey and 9 months of wetland fauna group survey were performed by the ecological specialist of the Environmental

Team. Moreover, every six months of photograph record in accordance with the EM&A Manual stipulation was conducted, and the last event of photograph record was taken in December 2009. Since commenced the EM&A program, total of 6 events (include baseline monitoring) of photograph were taken by the specialist.

- 3.16 Detail of the monitoring results has been presented in the Monthly EM&A Reports. Summarized the exceedances in the monitoring period is listed in **Table 3-7**.

Table 3-7 Summaries of Exceedances in Ecology Impact Monitoring

Taxa	Parameters	Exceedance		Breached of Construction Month
		Action Level	Limit Level	
Bird	Species no.	NA	28	<ul style="list-style-type: none"> • Aug, Sep, Oct, Nov and Dec of the 2007 • Jan, Feb, Mar, Apr, May, Jun, July, Aug, Sep, Oct, Nov and Dec of the 2008 • Jan, Feb, Mar, Apr, May, July, Aug, Sep, Oct, Nov and Dec of the 2009
	Individual no.	NA	15	<ul style="list-style-type: none"> • Aug, Sep and Dec of the 2007 • Jan, Feb, Mar, Apr, May, Aug, Nov and Dec of the 2008 • Jan, Mar, May, July of the 2009
Fauna	Species no.	2	5	<ul style="list-style-type: none"> • Apr, May, Jun^(*) and Jul^(*) of the 2008 • Apr, May, July of the 2009
	Individual no.	1	6	<ul style="list-style-type: none"> • Apr, May, Jun^(*) and Jul of the 2008 • Apr, May, July of the 2009
Total of Exceedance		3	54	

Remarks: ^(*) Action Level exceedance

- 3.17 As ecology monitoring undertaken the construction stage, wetland bird of species or individual number was recorded 43 limit level of exceedances. Moreover, 3 Action and 11 Limit Levels exceedances were found for the wetland fauna group of individual and species. Although exceedances ecology of wetland bird and fauna were identified, no intrusions of construction activities into the wetland areas and adverse impact on the wetlands were found in the previous monthly monitoring. Therefore, the species and individual number non-compliance in wetland bird or fauna should not been caused by the project.

4 OPERATION PHASE ECOLOGY MONITORING

4.01 As stipulated in the EM&A Manual, operation phase monitoring on ecological aspect is requested to be carried one year after substantial completion of construction of the Project. AECOM Asia Co., Ltd. (hereinafter ‘AECOM’) was commissioned by DSD as the Consultant perform operation ecological monitoring. The Final Operation Phase Ecological Monitoring Report as prepared by AECOM is provided in **Appendix H** of this Report.

MONITORING REQUIREMENT

4.02 As specified in the EM&A Manual, operation phase ecological monitoring would be conducted within the channel KT15 and in the wetland areas for one year after the completion of construction. Monthly surveys would be conducted during the wet season (April to July inclusive) for reptiles, amphibians, dragonflies and butterflies and monthly bird surveys would be conducted throughout the one year period. In addition, quarterly aquatic invertebrate surveys would be conducted within the section of KT15 where the rock bed to the channel was formed (surveys to be conducted four times during the one year monitoring period). The ecological monitoring frequency and requirements are described in **Table 4-1**.

Table 4-1 Operation Phase Ecological Monitoring Frequency and Requirements

Parameter	Frequency
Wetland Bird	Monthly surveys of one year monitoring period
Reptiles, amphibians, dragonflies and butterflies	Four months during the wet season April to July inclusive
Aquatic invertebrates and fish	Quarter of one year monitoring period

4.03 The Action/Limit (A/L) Levels criteria of operation phase of ecology monitoring is shown in **Table 4-2**.

Table 4-2 Action/ Limit Levels Criteria of Operation Phase of Ecology Monitoring

Parameters	Action Level	Limit Level
Decrease in number of species of wetland birds of conservation importance from baseline.	20 – 40% of 2 species	> 40% of 2 species
Decrease in the total number of wetland birds of conservation importance from baseline.	20 – 40% of 1.2 individuals	> 40% of 1.2 individuals
Decrease in number of species of wetland fauna of conservation importance from baseline.	20 – 40% of 21 species	> 40% of 21 species
Decrease in the total number of wetland fauna of conservation importance from baseline.	20 – 40% of 44.99 individuals	> 40% of 44.99 individuals

OPERATION ECOLOGY MONITORING AREA

4.04 The monitoring area is included the section of KT15 where a rock bed to the channel was formed and in the seasonal wetland areas as shown in Project profile of KT15 Figure ATT4-7.2. Graphic plot of the monitoring area is shown in **figure 3.3** of the Final Operation Phase Ecology Monitoring Report.

MONITORING EQUIPMENT

4.05 Standard portable field survey equipment is required for ecological monitoring as follows:

- Binoculars of not less than 8 x 30 magnification;
- Butterfly net (to confirm identities of butterflies and dragonflies);
- Hand net;
- Camera (films or digital); and
- Notebook and field survey forms.

METHODOLOGY OF OPERATION PHASE ECOLOGY MONITORING

4.06 The detailed monitoring methodology has been described in the Final Operation Phase Ecological

Monitoring Report. It was prepared in accordance with the EM&A Manual by AECOM.

THE SURVEY RESULTS AND CONCLUSION

- 4.07 Due to Channel KT15 construction under the Project was substantial completion on 19 December 2009. Hence, monitoring on ecology within channel KT15 and in the wetland areas during operation phase was started in February 2010 and terminated in January 2011 for a year.
- 4.08 Ecological monthly Operation Phase Monitoring was undertaken from February 2010 to January 2011 in conformance with EM&A Manual for KT15. For the one year of operation phase monitoring, there had 12 wetland bird surveys, 4 occasions of the reptiles, amphibians, dragonflies and butterflies measurement, and 4 events of aquatic invertebrates and fish monitoring, was undertaken by AECOM. The detailed survey results were summarized to the Final Operation Phase Ecological Monitoring Report.
- 4.09 According to the conclusion presented by AECOM, non-compliances with ecological criteria regarding the total number of wetland-dependent species (all reporting months) and total number of species of other terrestrial fauna (April 2010) were found. However, KT15 was attractive to and utilized by other wetland-dependent birds and terrestrial fauna. The exceedances were not caused by the operation of the channel. Therefore, implementation of specific action in the Event/Action Plan for Ecology was not required.

5 NON-COMPLIANCE, COMPLAINTS, NOTIFICATIONS OF SUMMONS AND SUCCESSFUL PROSECUTIONS

NON-COMPLIANCE

- 5.01 In the construction period, no Action/limit Levels exceedance was recorded in 24-hour and 1-hour TSP monitoring of air quality. Furthermore, all sound pressure level recorded at N10a was well below 75dB of the noise acceptance criteria. Moreover, in the construction period, noise complaint related construction activities under the Project has not received by the Contractor, ER, DSD or EPD. However, seven (7) Limit Level exceedances, as including two Turbidity, four Suspended Solids and one Ammonia Nitrogen, were found stream water quality monitoring. Investigation concluded that all of the exceedances were not related to the works under this project.
- 5.02 Furthermore, ecology monitoring undertaken the construction phase, wetland bird of species or individual number was recorded 43 limit level of exceedances. Moreover, 3 Action and 11 Limit Levels exceedances were found for the wetland fauna group of individual and species. Although exceedances ecology of wetland bird and fauna were identified, no intrusions of construction activities into the wetland areas and adverse impact on the wetlands were found in the previous monthly monitoring. Therefore, the species and individual number non-compliance in wetland bird or fauna should not been caused by the project.

ENVIRONMENTAL COMPLAINTS

- 5.03 During construction period, no any noise or dust or water quality complaint due the Project was recorded by the Contractor, ER, DSD or EPD. Therefore, no corrective action was required to undertake during the construction period.

NOTIFICATIONS OF SUMMONS AND SUCCESSFUL PROSECUTIONS

- 5.04 No notifications of summons and successful prosecutions were recorded during the construction period. No any associated remedial actions were recommended.

6 WASTE MANAGEMENT AND SITE INSPECTION & AUDIT**WASTE MANAGEMENT STATUS**

6.01 All types of waste arising from the construction work at Channel KT15 were classified into the following:

- Construction & Demolition (C&D) Material;
- Chemical Waste;
- General Refuse; and
- Excavated Soil and sediment Type 1 and Type 2

6.02 The quantity of all types waste generated, re-used, recycled and disposed for the construction site during the construction period detailed to show in **Table 6-1** below

Table 6-1 Summary of Quantities of All Types Waste Material Generated for the Project

Type of Waste	July - Dec 07	Jan - Jun 08	Jul - Dec 08	Jan - Jun 09	Jul - Dec 09	Total	Disposal Location
Broken Concrete (Inert) (m ³)	0	0	0	0	0	0	Public Filling
Reused in this Contract (Inert) (m ³)	0	0	0	0	0	0	N/A
Reused in other Projects (Inert) (m ³)	0	0	0	0	0	0	N/A
Disposal as Public Fill (Inert) (m ³)	7124	826	1141	0	0	9091	Tuen Mun Area 38
Recycled Metal (kg)	0.65	0.7	0	0	0	1.35	NA
Recycled Paper / Cardboard Packing (kg)	0	18	8	0	0	26	NA
Recycled Plastic (kg)	0	2.7	0	0	0	2.7	NENT Landfill
Chemical Wastes (kg)	0	0	0	0	0	0	License Collector
General Refuses (m ³)	339.5	42	168	28	203	780.5	NENT Landfill
Type 1 Materials (m ³)	0	0	23	0	0	23	East Sha Chau
Type 2 Materials (m ³)	365	0	18	265.5	0	648.5	East Sha Chau

SITE INSPECTION AND ENVIRONMENTAL AUDIT

6.03 According to the EM&A Manual Section 9.1.2, the environmental weekly site inspection should be formulation by ET Leader. Total 127 occasions of regular weekly site inspection were carried out by Environmental Team, the ER and the Contractor within the construction period. Which had 30 occasions were jointly performed with IEC site audit.

6.04 In the construction period, no non-compliance was recorded by the ET or IEC, 120 observations of minor deficiencies were found during regular weekly site inspection or monthly site audit. However, all deficiencies were in general rectified with the specified deadlines. The detailed audit findings were noted in the relevant Monthly EM&A Reports. The **Table 6-2** is show the obtained deficiencies frequency in the construction period

Table 6-2 Obtained Deficiencies Frequency in the Construction Period

Number of Deficiencies Finding in the Month	2007											
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
							1	4	4	9	11	3
Number of Deficiencies Finding in the Month	2008											
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
	4	2	4	4	4	4	5	2	2	2	1	4
Number of Deficiencies Finding in the Month	2009											
	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec
	4	5	8	5	8	4	6	3	4	1	2	0

6.05 Refer Table 6-2, the deficiencies finding in construction period is four per month, the average of deficiencies found in the weekly site inspection is 0.945. Therefore, the work performance during construction period is considered satisfactory and acceptance.

7 CONCLUSIONS AND RECOMMENDATIONS

CONCLUSIONS

- 7.01 Substantial completion of works in Channel KT15 of the Project was certified by the Engineer's Representative on 19 December 2009. Upon received the letter of notification, the EM&A programme of impact monitoring for Channel KT15 was ceased on 20 December 2009 except ecology monitoring. The last monitoring event was undertaken on 21 December 2009.
- 7.02 As stipulated in the EM&A Manual, operation phase monitoring on ecological aspect is requested to be carried one year after substantial completion of construction of the Project. Therefore, AECOM performed operation phase ecological monitoring between February 2010 and January 2011.
- 7.03 This Final EM&A Summary Report, summarized the results of environmental impact monitoring and audit in the issues of air quality, construction noise, water quality, ecological (construction phase and operation phase) and waste management of the Designated Project works throughout the construction (from 20 July 2007 to 19 December 2009) and the one year operation (from July 2007 to February 2011) periods. The report is submitted in accordance with the EM&A Manual.
- 7.04 Throughout construction period, air quality and construction noise of the environmental aspect performance was within the acceptance criteria. Although seven (7) Limit Level exceedances, as including two Turbidity, four Suspended Solids and one Ammonia Nitrogen, were found stream water quality monitoring, moreover wetland bird of species or individual number was recorded 43 Limit Level of exceedances and the wetland fauna group of individual or species were found three Action and 7 Limit Levels exceedances. According to site investigation as reported that all the exceedances were not caused from the project.
- 7.05 In the construction period, no non-compliance was recorded by the ET or IEC, 120 observations of minor deficiencies were found during regular weekly site inspection or monthly site audit. The deficiencies finding in construction period is four per month, the average of deficiencies found in the weekly site inspection is 0.945. All deficiencies were in general rectified with the specified deadlines.
- 7.06 During construction period, no noise or dust or water quality complaint due the Project was recorded by the Contractor, ER, DSD or EPD. Furthermore, no notifications of summons and successful prosecutions were recorded during the construction period.
- 7.07 Conclusion that performance of air quality, construction noise, stream water quality and ecological were fulfilled the environmental acceptance criteria as during construction period.
- 7.08 According to the conclusion presented by AECOM, non-compliances with ecological criteria regarding the total number of wetland-dependent species (all reporting months) and total number of species of other terrestrial fauna (April 2010) were found. However, KT15 was attractive to and utilized by other wetland-dependent birds and terrestrial fauna. The exceedances were not caused by the operation of the channel. Therefore, implementation of specific action in the Event/Action Plan for Ecology was not required.
- 7.09 Overall, the environmental performance of the Project during construction period is considered satisfactory and acceptance. Although, the exceedances of ecological were recorded in the Channel KT15 operation. Consider the exceedances should not be caused by the specific channel lining designs and the operation of the channel.

RECOMMENDATIONS

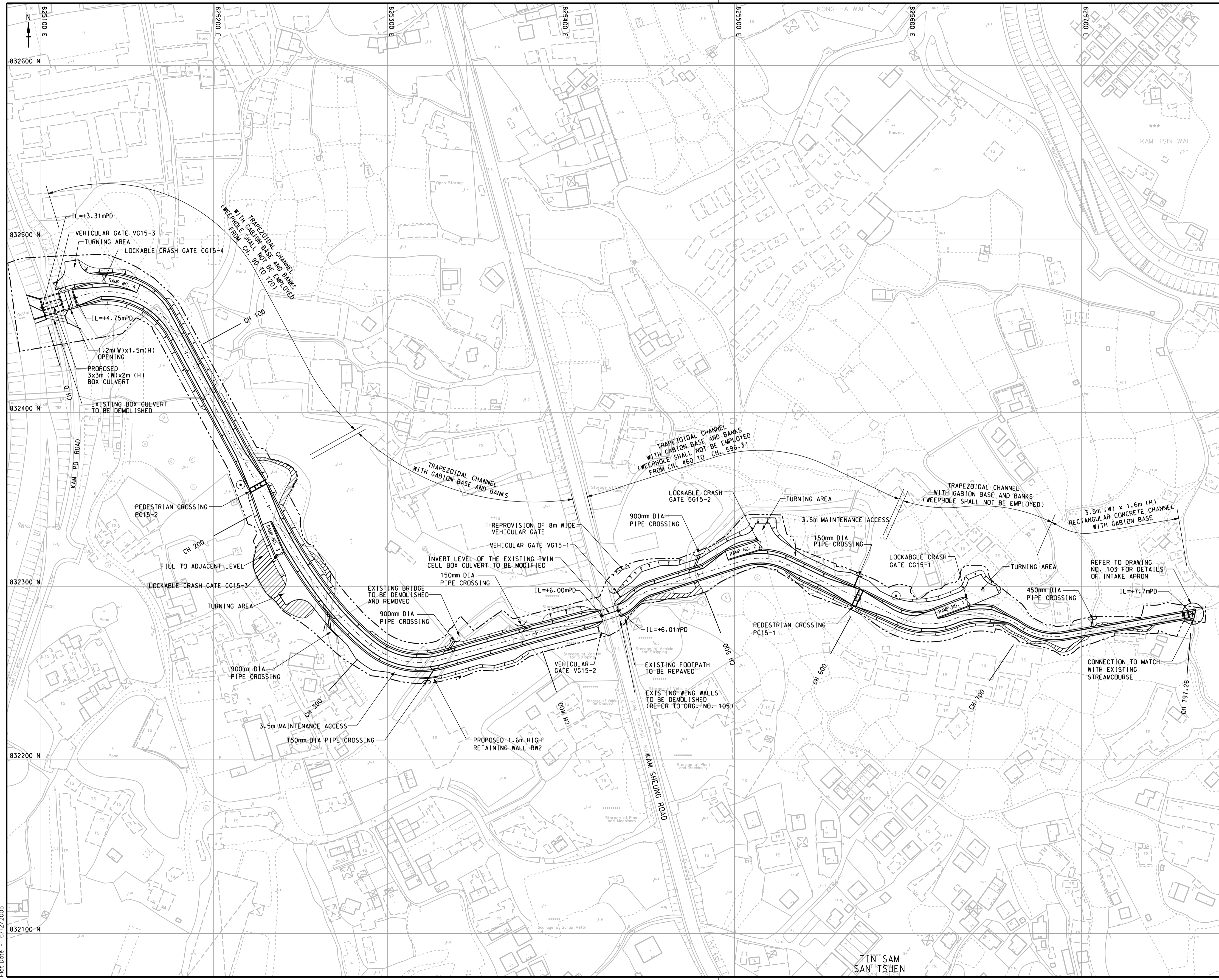
- 7.10 The construction phase monitoring (which includes air quality, construction noise, stream water quality, ecology of wetland fauna group and waste management) programme ensured that any

environmental impact to the receivers would be readily detected and timely actions could be taken to rectify any non-compliance. Assessment and analysis of monitoring results collected demonstrated the environmental acceptability of the Project. The regular site inspection and waste audit ensured that all the mitigation measures on waste management were effectively implemented.

- 7.11 The EM&A programme effectively monitored the environmental impacts from the construction phase of the Project and no particular recommendation was advised for the improvement of the programme
- 7.12 However, the project proponent should be considered the potential impacts in noise, air quality, water quality and other environmental issues identified in the EM&A Manual and to adopt the necessary mitigation measures recommended in the EIA and summarized in the EMIS during the maintenance period.
- 7.13 There were no air quality and water quality level prediction by the Project Profile at the designated monitoring stations, no comparison of EM&A data with EIA prediction could be made. For construction noise, measured results during the construction phase were in line with the predicted noise levels. Overall, the Project did not cause unacceptable environmental impacts or disturbance to air quality and noise in the vicinity of the Project site.

Appendix A

Location Plan of the Project Sites



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NOTES :
 1. REFER TO DRAWING NO. 020 FOR NOTES AND LEGENDS.

Revision	Date	Description	Initial
	Designed	Checked	Drawn
	SFL	KIL	MK
Date	12/05	12/05	12/05
Approved			

CONTRACT NO. DG200602

Contract title
 YUEN LONG, KAM TIN, NGAU TAM MEI AND TIN SHUI WAI DRAINAGE IMPROVEMENTS, STAGE 1, PHASE 2B - CHEUNG CHUN SAN TSUEN AND KAM TSIN WAI

Drawing title
 CHANNEL KT15 GENERAL LAYOUT PLAN

Drawing no.	Scale
021	1:1000 A1 1:2000 A3

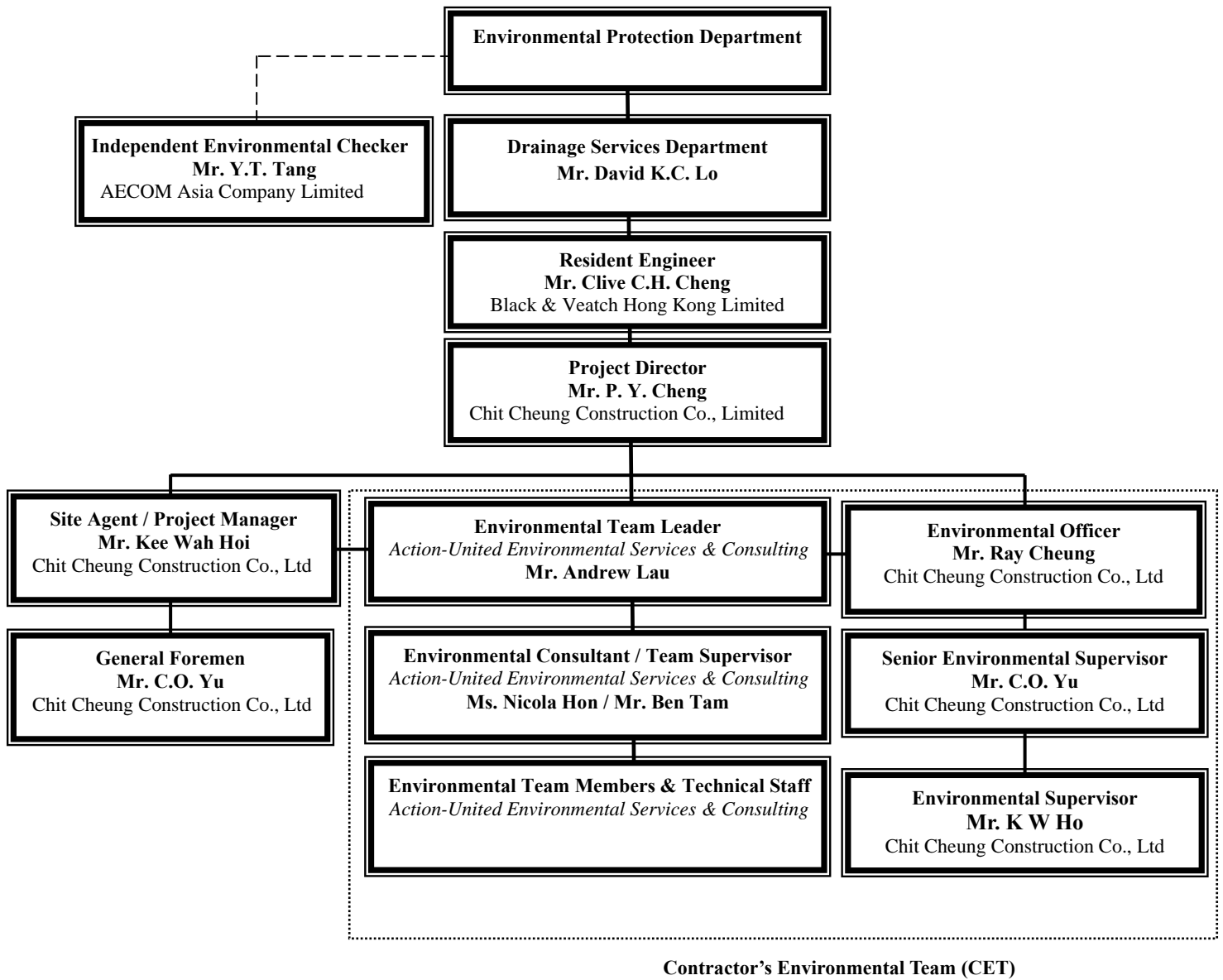
香港特別行政區政府渠務署
 THE GOVERNMENT OF THE HONG KONG SPECIAL ADMINISTRATIVE REGION
 DRAINAGE SERVICES DEPARTMENT

BLACK & VEATCH HONG KONG LIMITED
 博威工程顧問有限公司

Plot Date : 6/12/2005

Appendix B

**Environmental Management Organization and
Contacts of Key Personnel**



Contact Details of Key Personnel

Organization	Project Role	Name of Key Staff	Tel No.	Fax No.
DSD	Employer	Mr. David K.C. LO	2594-7254	2827-8526
B&V	Engineer	Mr. Kelvin N.F. LAU	2601-1000	2601-3988
B&V	Engineer's Representative	Mr. Clive C.H. CHENG	2478-9161	2478-9396
AECOM	Independent Environmental Checker	Mr. Y.T. Tang	3922-9393	2891-0305
CCC	Project Director	Mr. P.Y. CHENG	9023-4821	2403-1162
CCC	Project Manager	Mr. K.W. Hoi	6603-9711	2479-1365
CCC	Site Agent	Mr. K.W. Hoi	6603-9711	2479-1365
CCC	Site Engineer	Mr. Jimmy CHAN	9234-8632	2479-1365
CCC	Environmental Officer	Mr. Ray Cheung	6103-7404	2479-1365
CCC	Senior Environmental Supervisor	Mr. C. O. Yu	9026-9501	2479-1365
CCC	Environmental Supervisor	Mr. K W Ho	9016-0592	2479-1365
CCC	Safety Officer	Mr. C.C Lui	6086-4658	2479-1365
AUES	Environmental Team Leader	Andrew Lau	2959-6059	2959-6079
AUES	Ecologist	Vincent Lai	9406-9784	2959-6079
AUES	Environmental Team Supervisor	Ben Tam	2959-6059	2959-6079

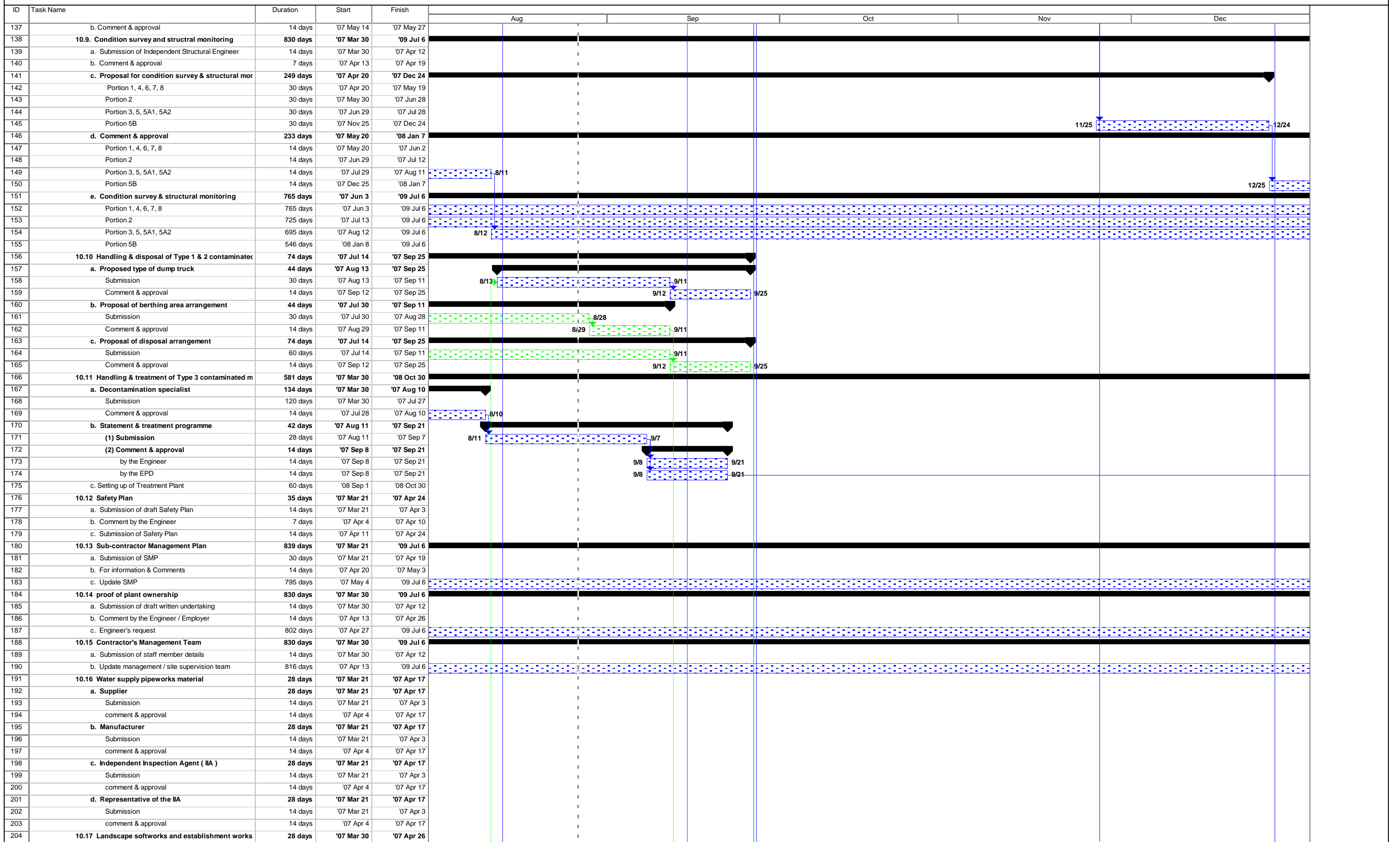
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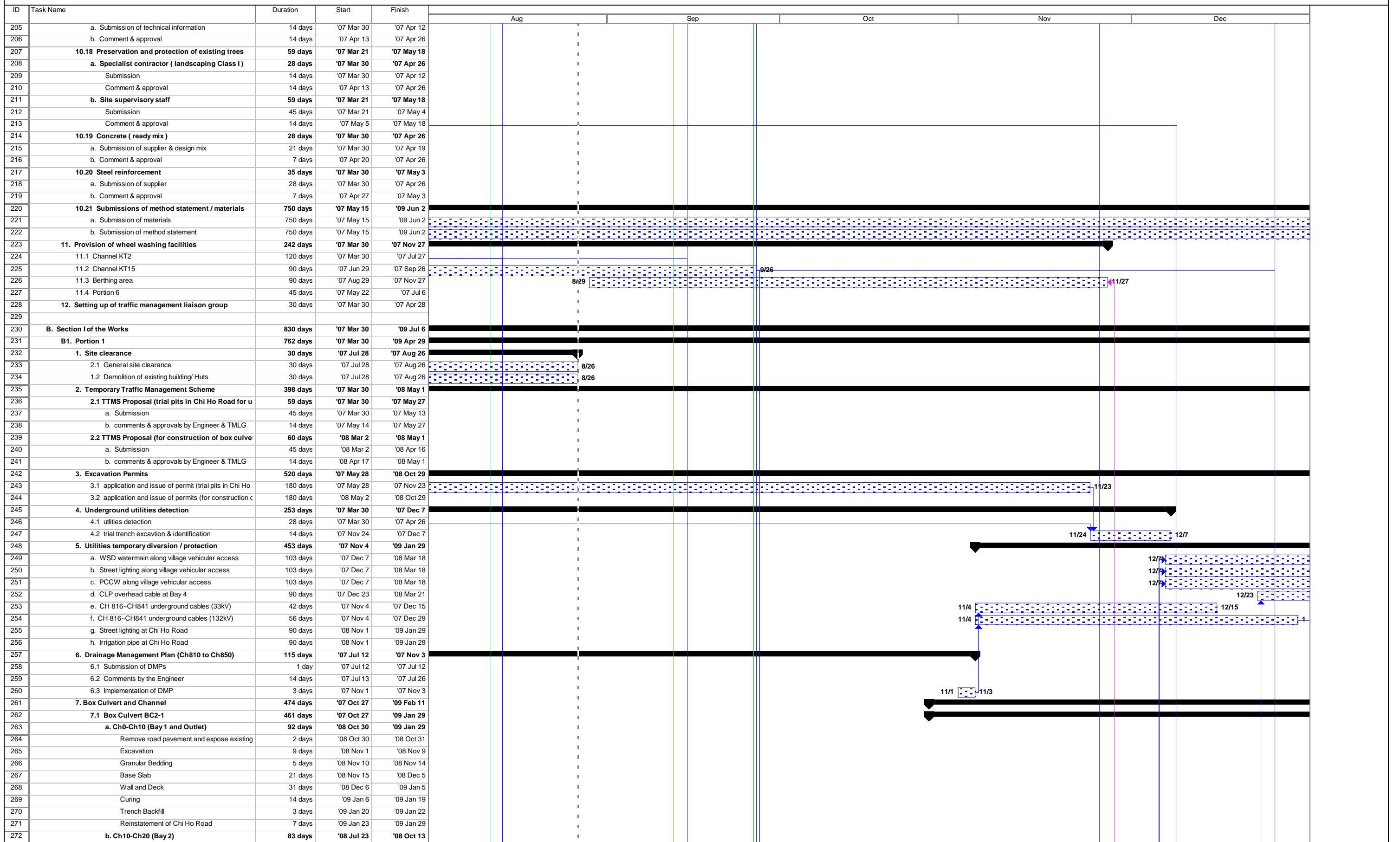
- DSD (Employer) - Drainage Services Department
 B&V(Engineer) - Black & Veatch Hong Kong Limited
 CCC (Contractor) - Chit Cheung Construction Company Limited.
 AECOM (IEC) - AECOM Asia Company Limited.
 AUES (ET) - Action-United Environmental Services & Consulting

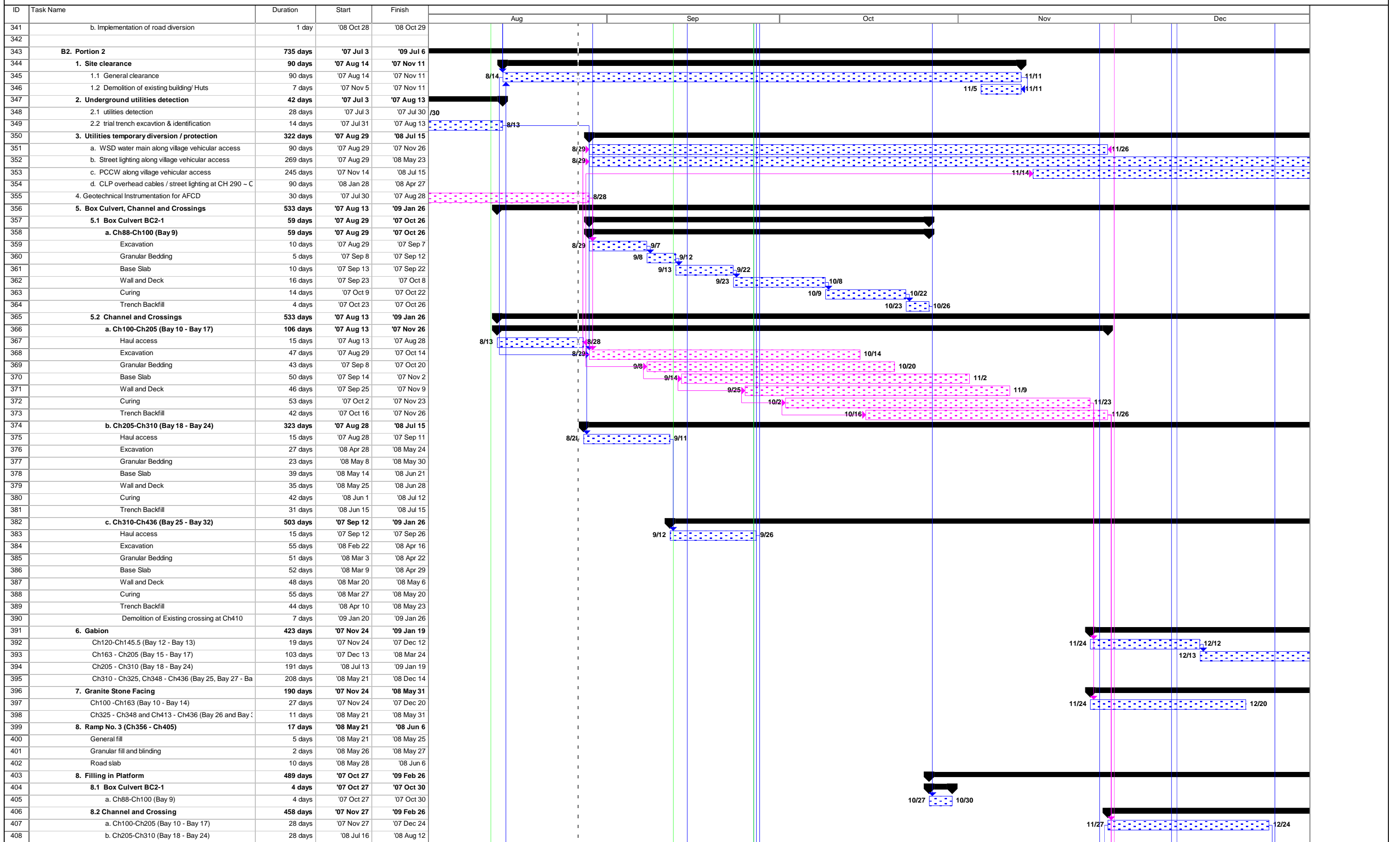
Appendix C

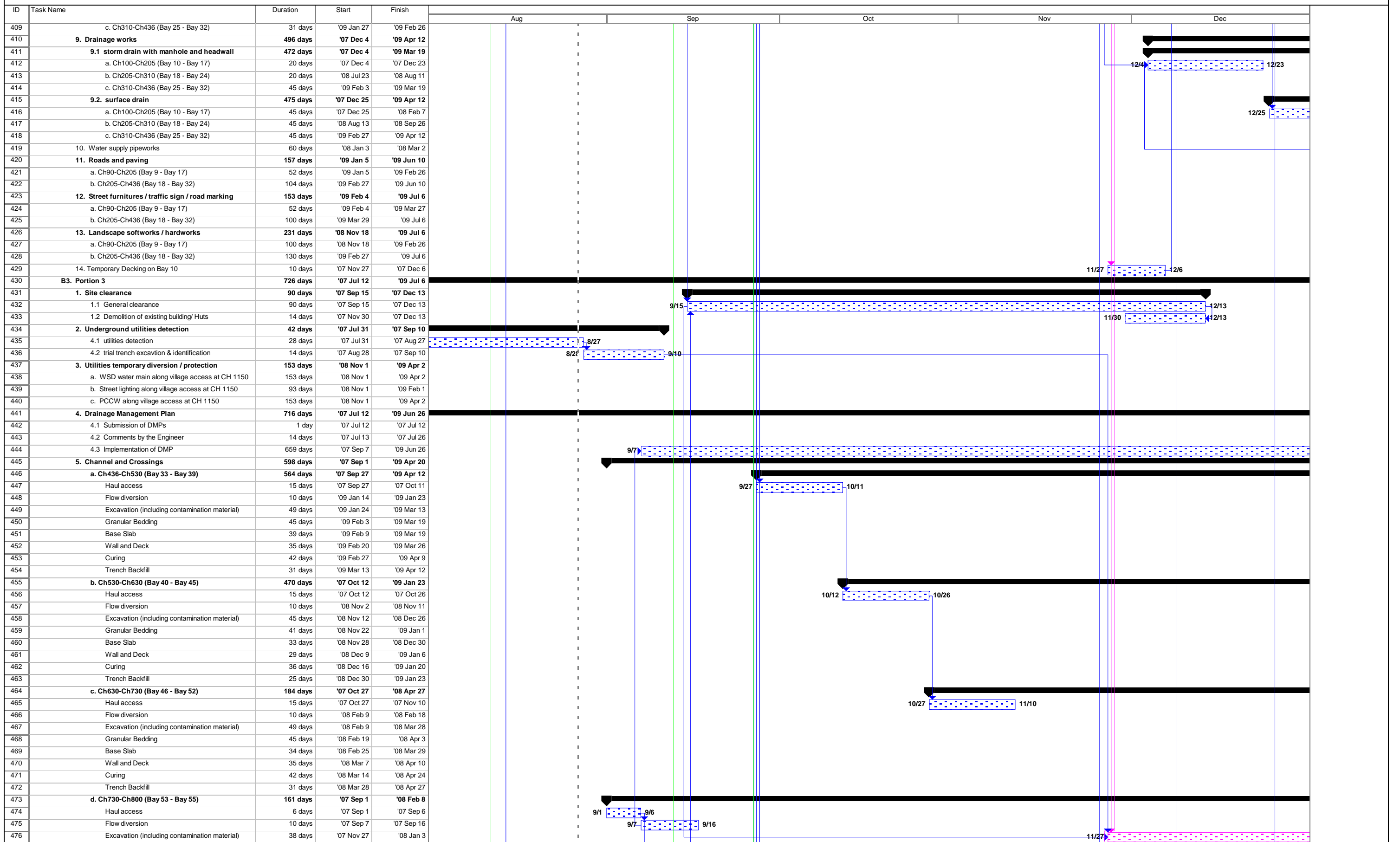
Construction Program

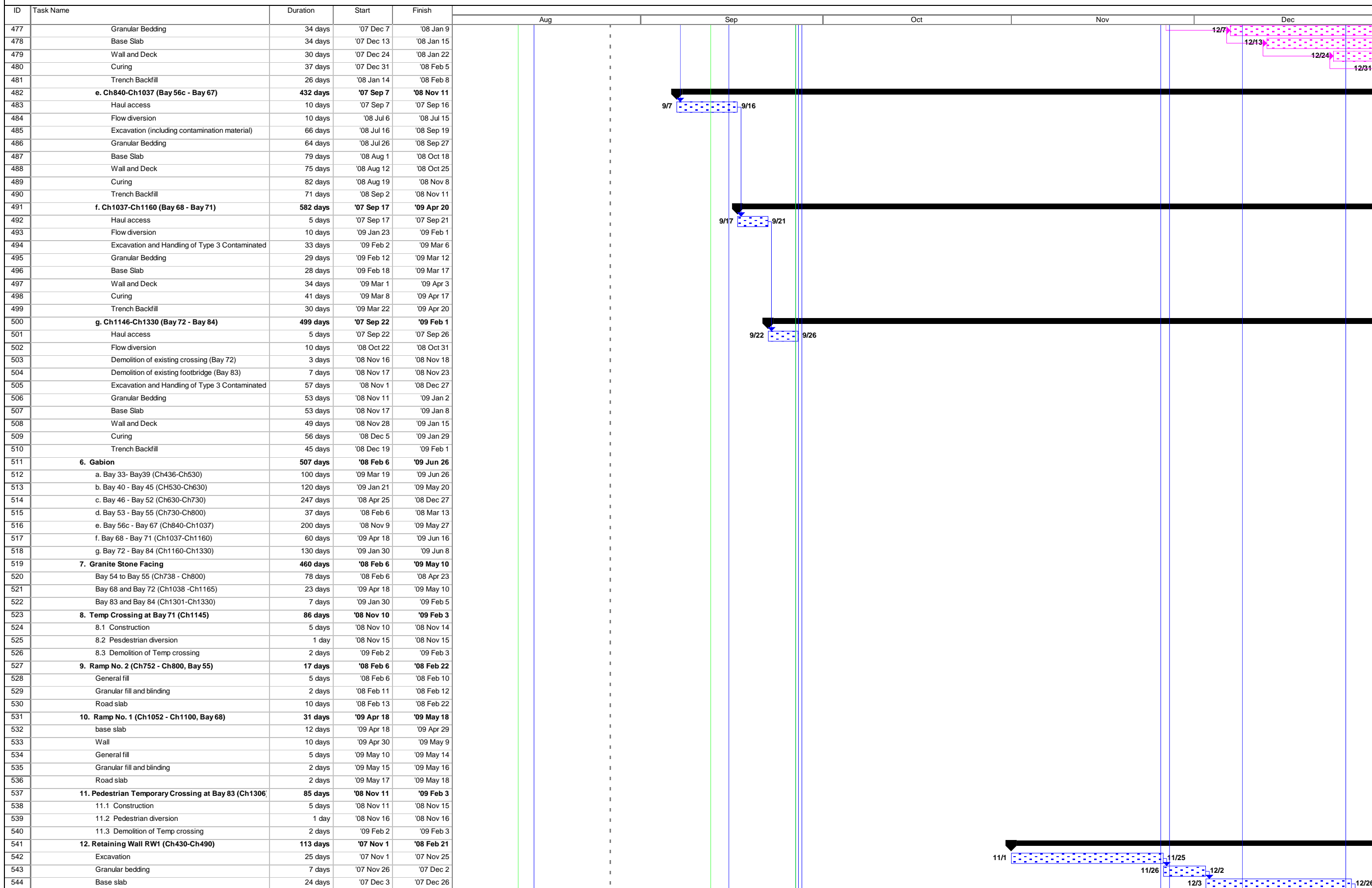
ID	Task Name	Duration	Start	Finish	Aug	Sep	Oct	Nov	Dec
1	Letter of Acceptance	1 day	'07 Mar 21	'07 Mar 21					
2	Date for commencement of Works	1 day	'07 Mar 30	'07 Mar 30					
3	Execution of Article of Agreement	1 day	'07 Apr 3	'07 Apr 3					
4									
5	Master Programme of the Works	839 days	'07 Mar 21	'09 Jul 6					
6									
7	Completion Dates	830 days	'07 Mar 30	'09 Jul 6					
8	Section I - portions 1, 2 and 3	830 days	'07 Mar 30	'09 Jul 6					
9	Section II - portions 4, 5 and 5C	830 days	'07 Mar 30	'09 Jul 6					
10	Section III - portions 5A1, 5A2 and 5B	740 days	'07 Jun 28	'09 Jul 6					
11	Section IV - temp vehicular access at portion 5A1	90 days	'07 Jun 28	'07 Sep 25			9/25		
12	Section V - preservation and protection of existing trees	830 days	'07 Mar 30	'09 Jul 6					
13									
14	Possession of Site	240 days	'07 Mar 30	'07 Nov 24					
15	Portion 1 - channel KT2	1 day	'07 Mar 30	'07 Mar 30					
16	Portion 2 - channel KT2	61 days	'07 Mar 30	'07 May 29					
17	Portion 3 - channel KT2	91 days	'07 Mar 30	'07 Jun 28					
18	Portion 4 - channel KT15	1 day	'07 Mar 30	'07 Mar 30					
19	Portion 5 - channel KT15	91 days	'07 Mar 30	'07 Jun 28					
20	Portion 5A1 - channel KT15	91 days	'07 Mar 30	'07 Jun 28					
21	Portion 5A2 - channel KT15	91 days	'07 Mar 30	'07 Jun 28					
22	Portion 5B - channel KT15	60 days	'07 Sep 26	'07 Nov 24		9/26			
23	Portion 5C - channel KT15	91 days	'07 Mar 30	'07 Jun 28					
24	Portion 6 - Temp Storage Area at Chi Ho Road	1 day	'07 Mar 30	'07 Mar 30					
25	Portion 7 - Berthing Area	1 day	'07 Mar 30	'07 Mar 30					
26	Portion 8 - Site Accommodation	1 day	'07 Mar 30	'07 Mar 30					
27									
28	A. Preliminary Works	839 days	'07 Mar 21	'09 Jul 6					
29	1. Setting out of Works	830 days	'07 Mar 30	'09 Jul 6					
30	2. Environmental Monitoring and Audit	830 days	'07 Mar 30	'09 Jul 6					
31	2.1 Establishment of Environmental Team	14 days	'07 Mar 30	'07 Apr 12					
32	2.2 approval by the Engineer	7 days	'07 Apr 13	'07 Apr 19					
33	2.3 Environmental baseline monitoring	77 days	'07 Apr 20	'07 Jul 5					
34	a. Technical proposal & methodology	7 days	'07 Apr 20	'07 Apr 26					
35	b. Approval by the Engineer	7 days	'07 Apr 27	'07 May 3					
36	c. Baseline monitoring	63 days	'07 May 4	'07 Jul 5					
37	2.4 Environmental impact monitoring and audit	730 days	'07 Jul 8	'09 Jul 6					
38	3. Environmental Management and Environmental Managi	73 days	'07 Mar 30	'07 Jun 10					
39	3.1 Submission of draft EMP	21 days	'07 Mar 30	'07 Apr 19					
40	3.2 Comment from the Engineer	7 days	'07 Apr 20	'07 Apr 26					
41	3.3 Submission of EMP	45 days	'07 Apr 27	'07 Jun 10					
42	4. Engineer's Accommodation	51 days	'07 Mar 30	'07 May 19					
43	4.1 Renovation	30 days	'07 Mar 30	'07 Apr 28					
44	4.2 Equipment	51 days	'07 Mar 30	'07 May 19					
45	a. Contract telephone	21 days	'07 Mar 30	'07 Apr 19					
46	b. Survey equipment	45 days	'07 Mar 30	'07 May 13					
47	c. Contract computer facilities	51 days	'07 Mar 30	'07 May 19					
48	submission	14 days	'07 Mar 30	'07 Apr 12					
49	approval	7 days	'07 Apr 13	'07 Apr 19					
50	installation	21 days	'07 Apr 22	'07 May 12					
51	testing & commissioning	7 days	'07 May 13	'07 May 19					
52	4.3 utilities servicing	33 days	'07 Mar 30	'07 May 1					
53	a. Water	1 day	'07 Mar 30	'07 Mar 30					
54	b. Electricity	1 day	'07 Mar 30	'07 Mar 30					
55	c. Telephone	33 days	'07 Mar 30	'07 May 1					
56	temporary service	32 days	'07 Mar 30	'07 Apr 30					
57	new service	19 days	'07 Apr 13	'07 May 1					
58	application	5 days	'07 Apr 13	'07 Apr 17					
59	installation	14 days	'07 Apr 18	'07 May 1					
60	d. Facsimile	33 days	'07 Mar 30	'07 May 1					
61	temporary service	32 days	'07 Mar 30	'07 Apr 30					
62	new service	19 days	'07 Apr 13	'07 May 1					
63	application	5 days	'07 Apr 13	'07 Apr 17					
64	installation	14 days	'07 Apr 18	'07 May 1					
65	e. Internet broadband	33 days	'07 Mar 30	'07 May 1					
66	temporary service (56K)	32 days	'07 Mar 30	'07 Apr 30					
67	new service	19 days	'07 Apr 13	'07 May 1					
68	application	5 days	'07 Apr 13	'07 Apr 17					

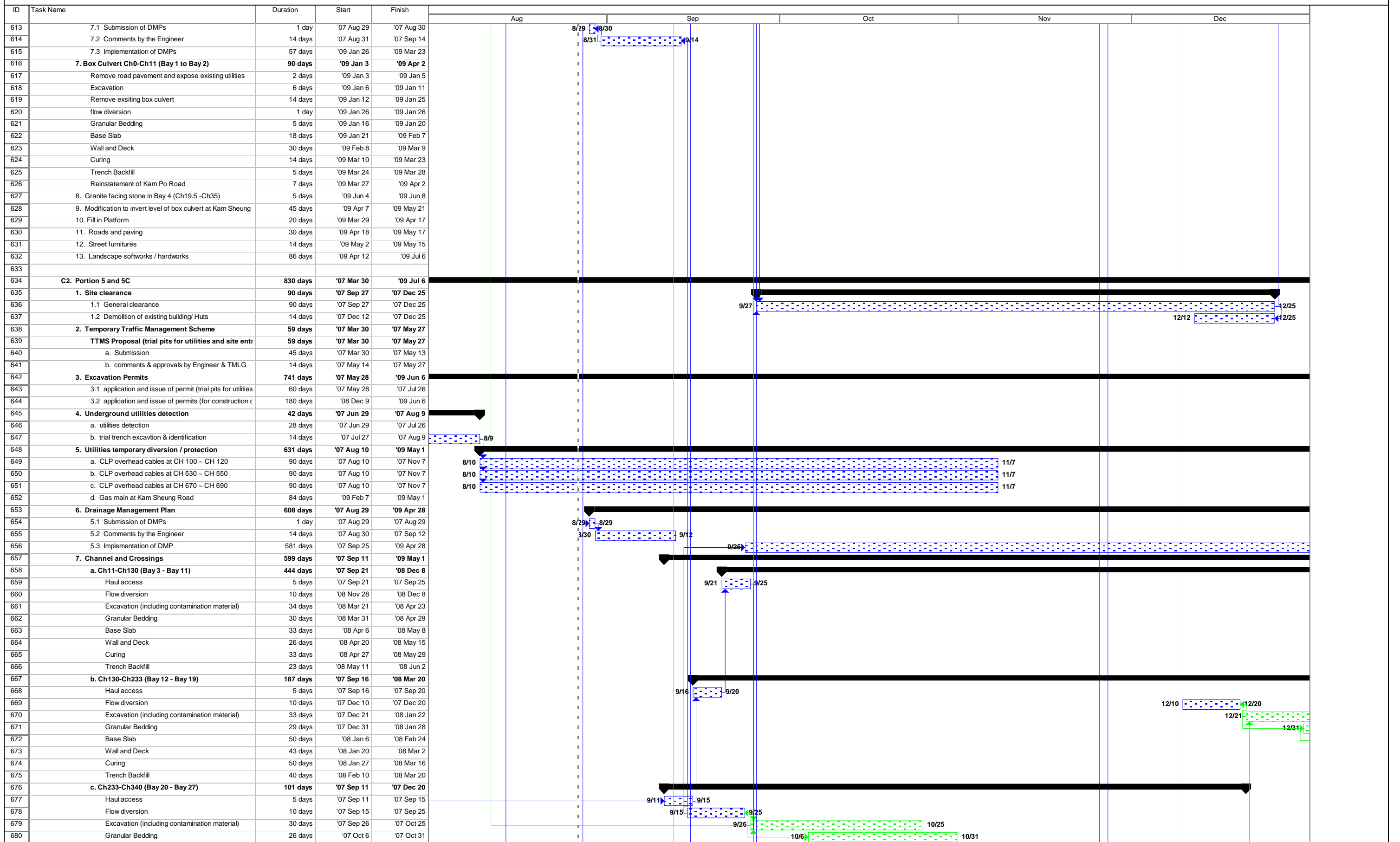


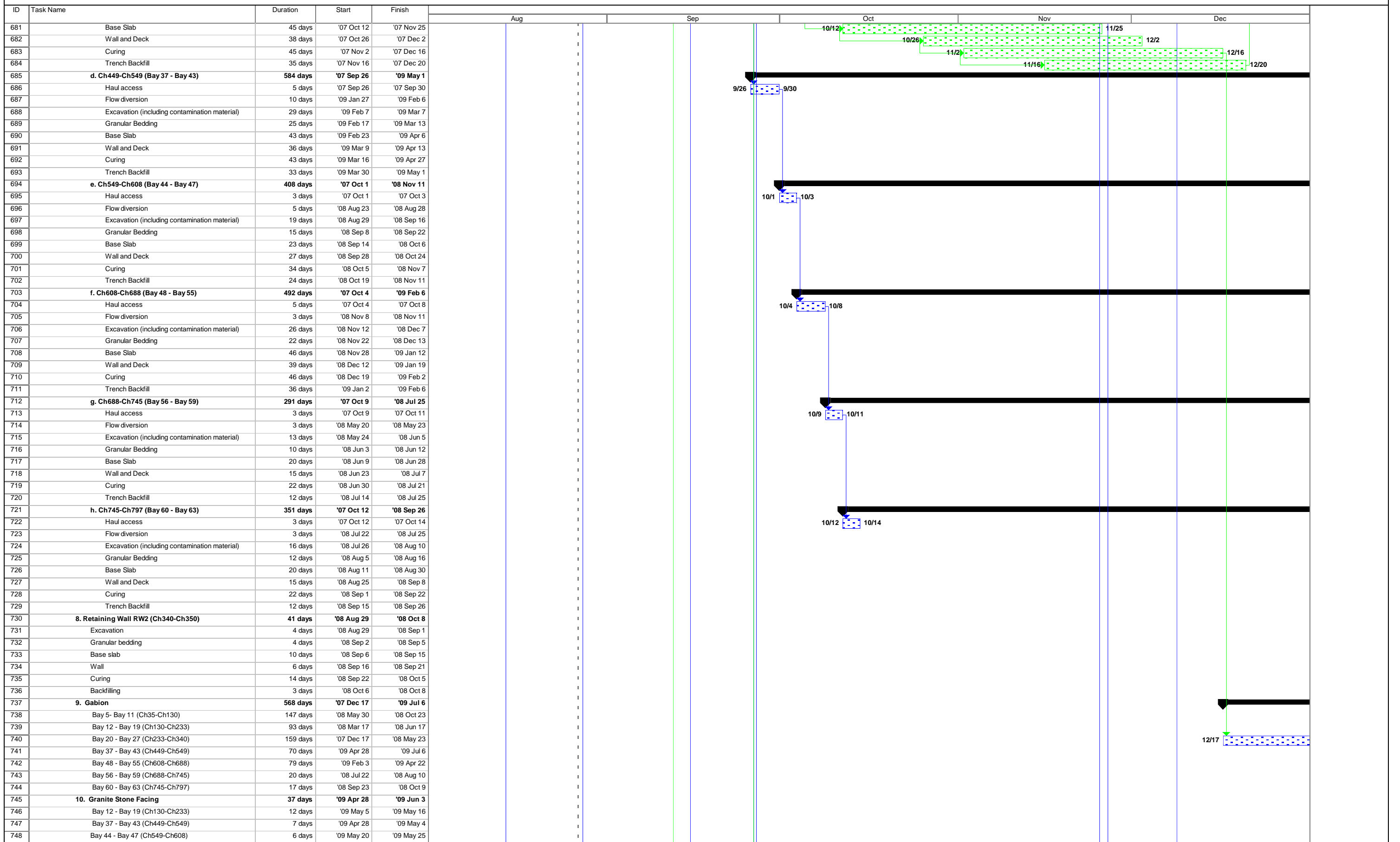




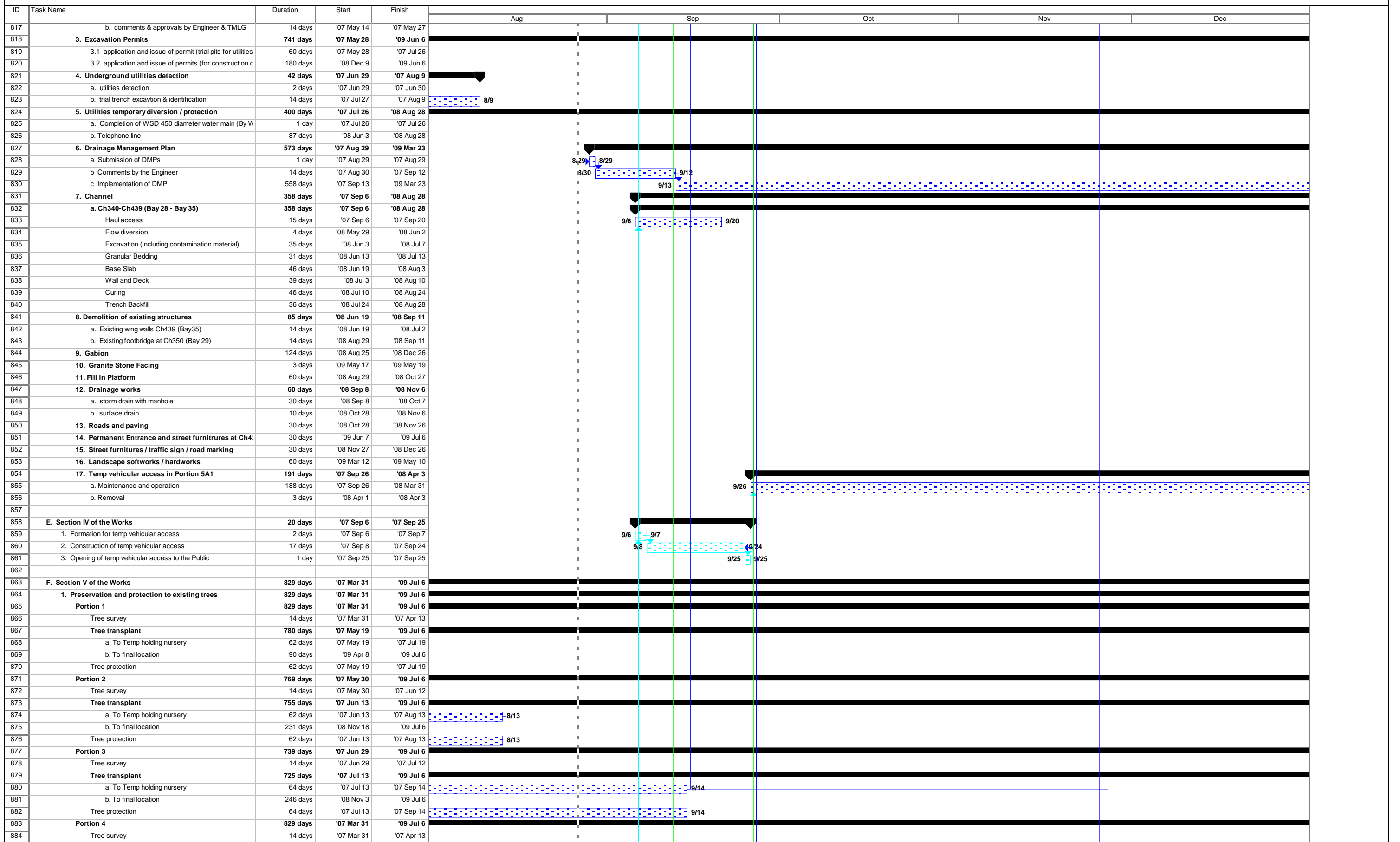


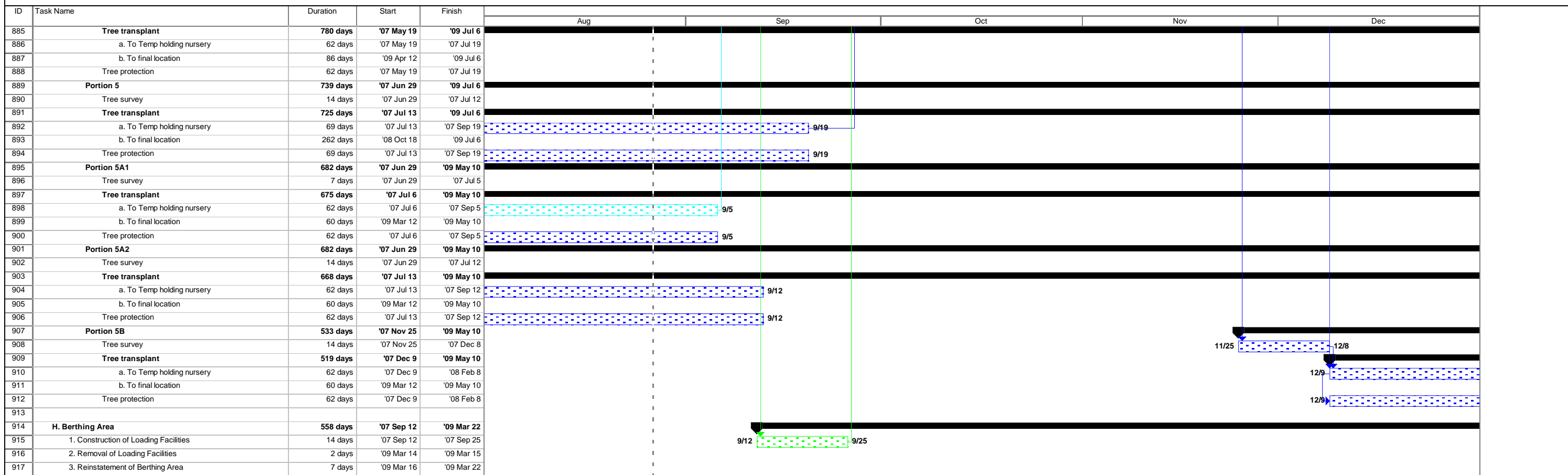






ID	Task Name	Duration	Start	Finish	Gantt Chart																		
					Aug	Sep	Oct	Nov	Dec														
749	Bay 48 - Bay 55 (Ch608-Ch688)	9 days	'09 May 26	'09 Jun 3																			
750	11. Ramp No. 1 (Ch650 - Ch675, Bay 52-Bay 53)	33 days	'09 Feb 3	'09 Mar 7																			
751	base slab	12 days	'09 Feb 3	'09 Feb 14																			
752	Wall	10 days	'09 Feb 15	'09 Feb 24																			
753	General fill	5 days	'09 Feb 25	'09 Mar 1																			
754	Granular fill and blinding	3 days	'09 Mar 2	'09 Mar 4																			
755	Road slab	3 days	'09 Mar 5	'09 Mar 7																			
756	12. Ramp No. 2 (Ch515 - Ch540, Bay 42)	33 days	'09 Apr 28	'09 May 30																			
757	base slab	12 days	'09 Apr 28	'09 May 9																			
758	Wall	10 days	'09 May 10	'09 May 19																			
759	General fill	5 days	'09 May 20	'09 May 24																			
760	Granular fill and blinding	3 days	'09 May 25	'09 May 27																			
761	Road slab	3 days	'09 May 28	'09 May 30																			
762	13. Ramp No. 3 (Ch210 - Ch235, Bay 18-Bay19)	33 days	'08 Mar 17	'08 Apr 18																			
763	base slab	12 days	'08 Mar 17	'08 Mar 28																			
764	Wall	10 days	'08 Mar 29	'08 Apr 7																			
765	General fill	5 days	'08 Apr 8	'08 Apr 12																			
766	Granular fill and blinding	3 days	'08 Apr 13	'08 Apr 15																			
767	Road slab	3 days	'08 Apr 16	'08 Apr 18																			
768	14 Ramp No. 4 (Ch20 - Ch45, Bay 4-Bay5)	28 days	'08 May 30	'08 Jun 26																			
769	General fill	7 days	'08 May 30	'08 Jun 5																			
770	Granular fill and blinding	4 days	'08 Jun 6	'08 Jun 9																			
771	Sloping side wall and road slab	17 days	'08 Jun 10	'08 Jun 26																			
772	15. Demolition of existing wing walls Ch449	14 days	'09 Feb 23	'09 Mar 8																			
773	16. Filling in Platform	123 days	'08 Jun 3	'08 Oct 3																			
774	a. Bay 3- Bay 27 (Ch11-Ch340)	34 days	'08 Jun 3	'08 Jul 6																			
775	b. Bay 37 - Bay 55 (Ch449-Ch688)	34 days	'08 Aug 29	'08 Oct 1																			
776	c. Bay 56 - Bay 63 (Ch688-Ch797)	7 days	'08 Sep 27	'08 Oct 3																			
777	17. Drainage works	146 days	'08 Jun 13	'08 Nov 5																			
778	17.1 storm drain with manhole and headwall	132 days	'08 Jun 13	'08 Oct 22																			
779	a. Bay 3- Bay 27 (Ch11-Ch340)	20 days	'08 Jun 13	'08 Jul 2																			
780	b. Bay 37 - Bay 55 (Ch449-Ch688)	45 days	'08 Sep 8	'08 Oct 22																			
781	c. Bay 56 - Bay 63 (Ch688-Ch797)	14 days	'08 Oct 4	'08 Oct 17																			
782	17.2 surface drain	122 days	'08 Jul 7	'08 Nov 5																			
783	a. Bay 3- Bay 27 (Ch11-Ch340)	34 days	'08 Jul 7	'08 Aug 9																			
784	b. Bay 37 - Bay 55 (Ch449-Ch688)	35 days	'08 Oct 2	'08 Nov 5																			
785	c. Bay 56 - Bay 63 (Ch688-Ch797)	14 days	'08 Oct 4	'08 Oct 17																			
786	18. Roads and paving	275 days	'08 Sep 28	'09 Jun 29																			
787	a. Ch233 - Ch340	30 days	'08 Sep 28	'08 Oct 27																			
788	b. Ch449 - Ch549	30 days	'08 Dec 1	'08 Dec 30																			
789	c. Ch549 - Ch609	30 days	'08 Nov 1	'08 Nov 30																			
790	d. Ch609 - Ch688	30 days	'08 Oct 2	'08 Oct 31																			
791	e. Permanent Entrance at Ch449	23 days	'09 Jun 7	'09 Jun 29																			
792	19. Street furnitures	252 days	'08 Oct 28	'09 Jul 6																			
793	a. Ch233 - Ch340	30 days	'08 Oct 28	'08 Nov 26																			
794	b. Ch449 - Ch549	30 days	'08 Dec 31	'09 Jan 29																			
795	c. Ch549 - Ch609	30 days	'08 Dec 1	'08 Dec 30																			
796	d. Ch609 - Ch688	30 days	'08 Nov 1	'08 Nov 30																			
797	e. Permanent Entrance at Ch449	7 days	'09 Jun 30	'09 Jul 6																			
798	20. Landscape softworks / hardworks	250 days	'08 Oct 18	'09 Jun 24																			
799	a. Ch35 - Ch340	45 days	'09 May 11	'09 Jun 24																			
800	b. Ch449 - Ch549	45 days	'09 Jan 26	'09 Mar 11																			
801	c. Ch549 - Ch609	45 days	'08 Dec 12	'09 Jan 25																			
802	d. Ch609 - Ch688	45 days	'08 Oct 28	'08 Dec 11																			
803	e. Ch688 - Ch797	10 days	'08 Oct 18	'08 Oct 27																			
804	21. Road Diversion in Kam Po Road	102 days	'08 Dec 23	'09 Apr 3																			
805	a. Temp Decking above Bay 3 and temp road paver	10 days	'08 Dec 23	'09 Jan 2																			
806	b. Implementation of road diversion	1 day	'09 Jan 2	'09 Jan 2																			
807	c. Removal of decking	1 day	'09 Apr 3	'09 Apr 3																			
808																							
809	D. Section III of the Works	830 days	'07 Mar 30	'09 Jul 6																			
810	D1. Portions 5A1, 5A2 and 5B	830 days	'07 Mar 30	'09 Jul 6																			
811	1. Site clearance	4 days	'07 Sep 6	'07 Sep 9																			
812	1.1 General site clearance	4 days	'07 Sep 6	'07 Sep 9																			
813	1.2 Demolition of existing building/ Huts	4 days	'07 Sep 6	'07 Sep 9																			
814	2. Temporary Traffic Management Scheme	59 days	'07 Mar 30	'07 May 27																			
815	TTMS Proposal (trial pits for utilities and site ent)	59 days	'07 Mar 30	'07 May 27																			
816	a. Submission	45 days	'07 Mar 30	'07 May 13																			





ID	Task Name	Duration	Start	Finish	Predecessors	Gantt Chart			
						Mar	Apr	May	Jun
1	Letter of Acceptance	1 day	Wed 21/3/07	Wed 21/3/07					
2	Date for commencement of Works	1 day	Fri 30/3/07	Fri 30/3/07					
3	Execution of Article of Agreement	1 day	Tue 3/4/07	Tue 3/4/07					
4									
5	Master Programme of the Works	839 days	Wed 21/3/07	Mon 6/7/09					
6									
7	Completion Dates	830 days	Fri 30/3/07	Mon 6/7/09					
8	Section I - portions 1, 2 and 3	830 days	Fri 30/3/07	Mon 6/7/09	2SS				
9	Section II - portions 4, 5 and 5C	830 days	Fri 30/3/07	Mon 6/7/09	2SS				
10	Section III - portions 5A1, 5A2 and 5B	740 days	Thu 28/6/07	Mon 6/7/09	20FS-1 day				
11	Section IV - temp vehicular access at portion 5A1	90 days	Thu 28/6/07	Tue 25/9/07	20FS-1 day				
12	Section V - preservation and protection of existing trees	830 days	Fri 30/3/07	Mon 6/7/09	2SS				
13									
14	Possession of Site	200 days	Fri 30/3/07	Mon 15/10/07					
15	Portion 1 - channel KT2	1 day	Fri 30/3/07	Fri 30/3/07	2SS				
16	Portion 2 - channel KT2	61 days	Fri 30/3/07	Tue 29/5/07	2SS				
17	Portion 3 - channel KT2	91 days	Fri 30/3/07	Thu 28/6/07	2SS				
18	Portion 4 - channel KT15	1 day	Fri 30/3/07	Fri 30/3/07	2SS				
19	Portion 5 - channel KT15	91 days	Fri 30/3/07	Thu 28/6/07	2SS				
20	Portion 5A1 - channel KT15	91 days	Fri 30/3/07	Thu 28/6/07	2SS				
21	Portion 5A2 - channel KT15	91 days	Fri 30/3/07	Thu 28/6/07	2SS				
22	Portion 5B - channel KT15	20 days	Wed 26/9/07	Mon 15/10/07	11				
23	Portion 5C - channel KT15	91 days	Fri 30/3/07	Thu 28/6/07	2SS				
24	Portion 6 - Temp Storage Area at Chi Ho Road	1 day	Fri 30/3/07	Fri 30/3/07	2SS				
25	Portion 7 - Berthing Area	1 day	Fri 30/3/07	Fri 30/3/07	2SS				
26	Portion 8 - Site Accommodation	1 day	Fri 30/3/07	Fri 30/3/07	2SS				
27									
28	A. Preliminary Works	839 days	Wed 21/3/07	Mon 6/7/09					
29	1. Setting out of Works	830 days	Fri 30/3/07	Mon 6/7/09	2SS				
30	2. Environmental Monitoring and Audit	830 days	Fri 30/3/07	Mon 6/7/09					
31	2.1 Establishment of Environmental Team	14 days	Fri 30/3/07	Thu 12/4/07	8SS				
32	2.2 approval by the Engineer	7 days	Fri 13/4/07	Thu 19/4/07	31				
33	2.3 Environmental baseline monitoring	77 days	Fri 20/4/07	Thu 5/7/07					
34	a. Technical proposal & methodology	7 days	Fri 20/4/07	Thu 26/4/07	32				
35	b. Approval by the Engineer	7 days	Fri 27/4/07	Thu 3/5/07	34				
36	c. Baseline monitoring	63 days	Fri 4/5/07	Thu 5/7/07	35				
37	2.4 Environmental impact monitoring and audit	730 days	Sun 8/7/07	Mon 6/7/09	36,8FF				
38	3. Environmental Management and Environmental Management Plan	73 days	Fri 30/3/07	Sun 10/6/07					
39	3.1 Submission of draft EMP	21 days	Fri 30/3/07	Thu 19/4/07	2SS				
40	3.2 Comment from the Engineer	7 days	Fri 20/4/07	Thu 26/4/07	39				
41	3.3 Submission of EMP	45 days	Fri 27/4/07	Sun 10/6/07	40				
42	4. Engineer's Accommodation	51 days	Fri 30/3/07	Sat 19/5/07					
43	4.1 Renovation	30 days	Fri 30/3/07	Sat 28/4/07	26SS				
44	4.2 Equipment	51 days	Fri 30/3/07	Sat 19/5/07					
45	a. Contract telephone	21 days	Fri 30/3/07	Thu 19/4/07	26SS				
46	b. Survey equipment	45 days	Fri 30/3/07	Sun 13/5/07	26SS				
47	c. Contract computer facilities	51 days	Fri 30/3/07	Sat 19/5/07					
48	submission	14 days	Fri 30/3/07	Thu 12/4/07	26SS				
49	approval	7 days	Fri 13/4/07	Thu 19/4/07	48				
50	installation	21 days	Sun 22/4/07	Sat 12/5/07	49,43FS-7 days				
51	testing & commissioning	7 days	Sun 13/5/07	Sat 19/5/07	50				
52	4.3 utilities servicing	33 days	Fri 30/3/07	Tue 1/5/07					
53	a. Water	1 day	Fri 30/3/07	Fri 30/3/07	26SS				
54	b. Electricity	1 day	Fri 30/3/07	Fri 30/3/07	26SS				
55	c. Telephone	33 days	Fri 30/3/07	Tue 1/5/07					
56	temporary service	32 days	Fri 30/3/07	Mon 30/4/07	26SS				
57	new service	19 days	Fri 13/4/07	Tue 1/5/07					
58	application	5 days	Fri 13/4/07	Tue 17/4/07	56SS+14 days				
59	installation	14 days	Wed 18/4/07	Tue 1/5/07	58				
60	d. Facsimile	33 days	Fri 30/3/07	Tue 1/5/07					
61	temporary service	32 days	Fri 30/3/07	Mon 30/4/07	26SS				
62	new service	19 days	Fri 13/4/07	Tue 1/5/07					
63	application	5 days	Fri 13/4/07	Tue 17/4/07	61SS+14 days				
64	installation	14 days	Wed 18/4/07	Tue 1/5/07	63				
65	e. Internet broadband	33 days	Fri 30/3/07	Tue 1/5/07					
66	temporary service (56K)	32 days	Fri 30/3/07	Mon 30/4/07	26SS				

Task Progress Summary Rolled Up Critical Task Rolled Up Progress External Tasks Group By Summary

Critical Task Milestone Rolled Up Task Rolled Up Milestone Split Project Summary Deadline

ID	Task Name	Duration	Start	Finish	Predecessors	Gantt Chart			
						Mar	Apr	May	Jun
67	new service	19 days	Fri 13/4/07	Tue 1/5/07					
68	application	5 days	Fri 13/4/07	Tue 17/4/07	66SS+14 days				
69	installation	14 days	Wed 18/4/07	Tue 1/5/07	68				
70	5. Contractor's Accommodation	45 days	Fri 30/3/07	Sun 13/5/07					
71	5.1 Provision	45 days	Fri 30/3/07	Sun 13/5/07					
72	a. Premises	45 days	Fri 30/3/07	Sun 13/5/07	26SS				
73	b. Toilet facilities	21 days	Mon 23/4/07	Sun 13/5/07	72FF				
74	c. Telephone service	30 days	Sat 14/4/07	Sun 13/5/07	72FF				
75	d. Facsimile service	30 days	Sat 14/4/07	Sun 13/5/07	72FF				
76	e. Internet broadband service	30 days	Sat 14/4/07	Sun 13/5/07	72FF				
77	f. Water	1 day	Fri 30/3/07	Fri 30/3/07	26SS				
78	g. electricity	1 day	Fri 30/3/07	Fri 30/3/07	26SS				
79	6. Transport (land) for the Engineer	124 days	Fri 30/3/07	Tue 31/7/07					
80	6.1 submission	7 days	Fri 30/3/07	Thu 5/4/07	2SS				
81	6.2 comment & approval	14 days	Fri 6/4/07	Thu 19/4/07	80				
82	6.3 delivery	103 days	Fri 20/4/07	Tue 31/7/07	81				
83	6.4 temp service	124 days	Fri 30/3/07	Tue 31/7/07	2SS,82FF				
84	7. Transport (land) for Public Works Regional Laboratory	124 days	Fri 30/3/07	Tue 31/7/07					
85	7.1 submission	7 days	Fri 30/3/07	Thu 5/4/07	2SS				
86	7.2 comment, approval & instruction	14 days	Fri 6/4/07	Thu 19/4/07	85				
87	7.3 delivery	103 days	Fri 20/4/07	Tue 31/7/07	86				
88	8. Signboard	150 days	Fri 30/3/07	Sun 26/8/07					
89	8.1 Major	150 days	Fri 30/3/07	Sun 26/8/07					
90	submission	90 days	Fri 30/3/07	Wed 27/6/07	2SS				
91	comment & approval	90 days	Sun 29/4/07	Fri 27/7/07	90SS+30 days				
92	erection	90 days	Tue 29/5/07	Sun 26/8/07	91SS+30 days				
93	8.2 Minor	150 days	Fri 30/3/07	Sun 26/8/07					
94	submission	90 days	Fri 30/3/07	Wed 27/6/07	2SS				
95	comment & approval	90 days	Sun 29/4/07	Fri 27/7/07	94SS+30 days				
96	erection	90 days	Tue 29/5/07	Sun 26/8/07	95SS+30 days				
97	9. Telephone hotline	15 days	Sun 29/4/07	Sun 13/5/07					
98	9.1 Engineer's instruction	1 day	Sun 29/4/07	Mon 30/4/07	99SF				
99	9.2 installation	14 days	Mon 30/4/07	Sun 13/5/07	74FF				
100	10. Contractual general submissions	839 days	Wed 21/3/07	Mon 6/7/09					
101	10.1 programmes	28 days	Wed 21/3/07	Tue 17/4/07					
102	a. GCC Clause 16 programme	14 days	Wed 21/3/07	Tue 3/4/07	1SS				
103	b. Works programme & financial programme	14 days	Wed 4/4/07	Tue 17/4/07	102				
104	c. 3-month rolling programme	14 days	Wed 4/4/07	Tue 17/4/07	102				
105	10.2 contractor's superintendence	14 days	Fri 30/3/07	Thu 12/4/07					
106	a. Agent	7 days	Fri 30/3/07	Thu 5/4/07	2SS				
107	b. Surveyor	14 days	Fri 30/3/07	Thu 12/4/07	2SS				
108	c. Sub-agent	14 days	Fri 30/3/07	Thu 12/4/07	2SS				
109	d. Geotechnical Engineer	7 days	Fri 30/3/07	Thu 5/4/07	2SS				
110	e. Geotechnical Supervisor	14 days	Fri 30/3/07	Thu 12/4/07	2SS				
111	f. Foreman - concrete	14 days	Fri 30/3/07	Thu 12/4/07	2SS				
112	g. Foreman - drainage	14 days	Fri 30/3/07	Thu 12/4/07	2SS				
113	h. Staff Organization Plan	14 days	Fri 30/3/07	Thu 12/4/07	2SS				
114	10.3 Safety Organization	14 days	Fri 30/3/07	Thu 12/4/07					
115	a. Safety Officer	14 days	Fri 30/3/07	Thu 12/4/07	2SS				
116	b. Safety Supervisor	14 days	Fri 30/3/07	Thu 12/4/07	2SS				
117	c. Safety Representative	14 days	Fri 30/3/07	Thu 12/4/07	2SS				
118	10.4 TTMS design	7 days	Fri 30/3/07	Thu 5/4/07					
119	a. Independent Traffic Consultant	7 days	Fri 30/3/07	Thu 5/4/07	2SS				
120	b. Traffic Engineer	7 days	Fri 30/3/07	Thu 5/4/07	2SS				
121	10.5 Assistant to Engineer	33 days	Fri 30/3/07	Tue 1/5/07					
122	a. Chainmen (4)	33 days	Fri 30/3/07	Tue 1/5/07	2SS				
123	b. Watchmen (2)	33 days	Fri 30/3/07	Tue 1/5/07	2SS				
124	c. Field assistant (1)	33 days	Fri 30/3/07	Tue 1/5/07	2SS				
125	d. Technical assistant (1)	33 days	Fri 30/3/07	Tue 1/5/07	2SS				
126	e. Clerical assistant (1)	33 days	Fri 30/3/07	Tue 1/5/07	2SS				
127	f. Office assistant (1)	33 days	Fri 30/3/07	Tue 1/5/07	2SS				
128	10.6 Underground service detection equipment	35 days	Fri 30/3/07	Thu 3/5/07					
129	a. Submission	7 days	Fri 30/3/07	Thu 5/4/07	2SS				
130	b. Comment & approval	14 days	Fri 6/4/07	Thu 19/4/07	129				
131	c. Provision	14 days	Fri 20/4/07	Thu 3/5/07	130				
132	10.7 Independent Checking of Temporary Works	28 days	Fri 30/3/07	Thu 26/4/07					
133	a. Submission of independent checking engineer	14 days	Fri 30/3/07	Thu 12/4/07	2SS				
134	b. Comment & approval	14 days	Fri 13/4/07	Thu 26/4/07	133				
135	10.8 Trip ticket system for C & D material	59 days	Fri 30/3/07	Sun 27/5/07					

Legend for Gantt Chart symbols:

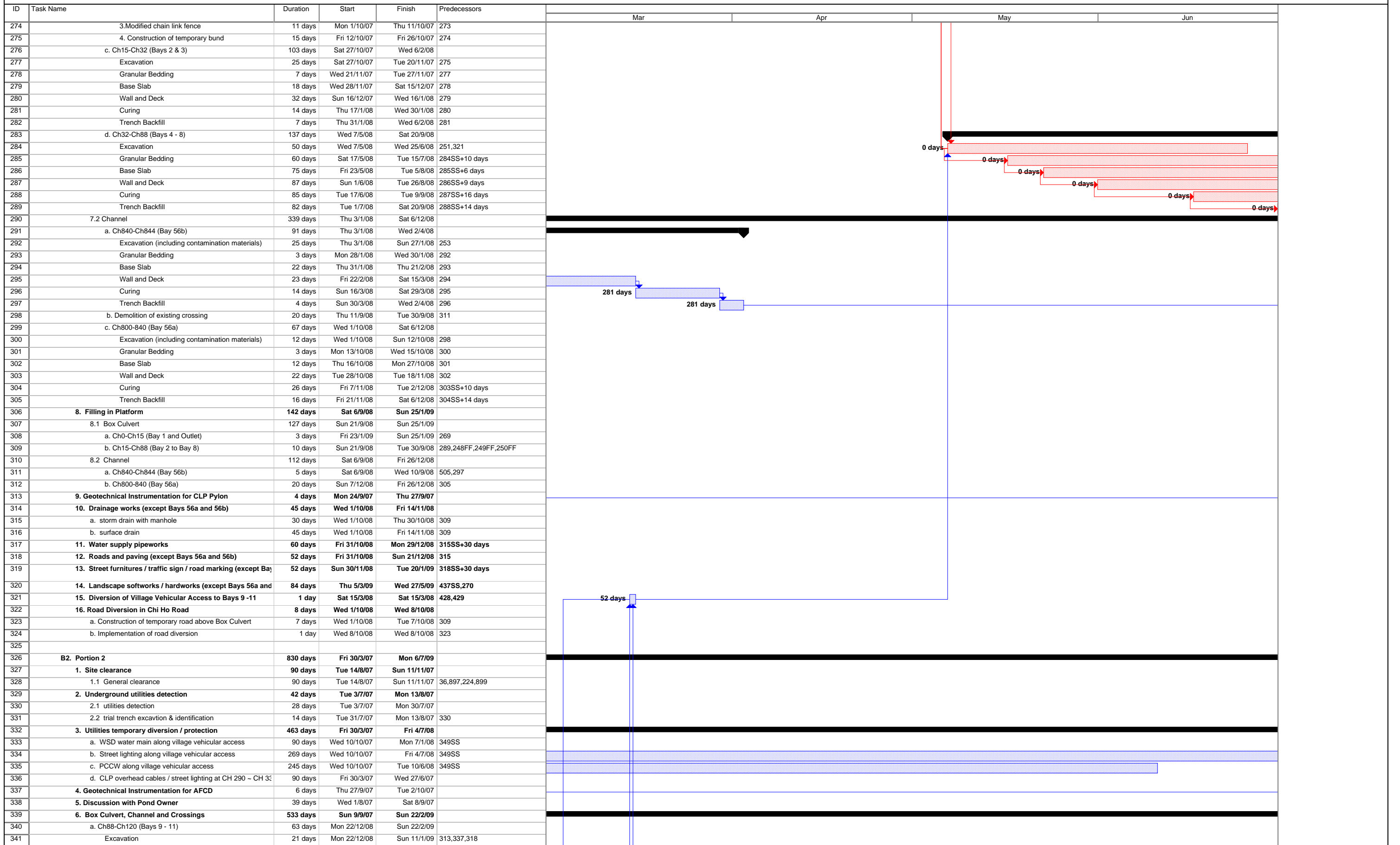
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- Progress: Black bar
- Summary: Thick black bar
- Rolled Up Critical Task: Red box
- Rolled Up Progress: Thick black bar
- External Tasks: Grey box
- Group By Summary: Thick black bar
- Critical Task: Red box
- Milestone: Diamond
- Rolled Up Task: Thick black bar
- Rolled Up Milestone: Diamond
- Split: Dotted line
- Project Summary: Thick black bar
- Deadline: Green arrow

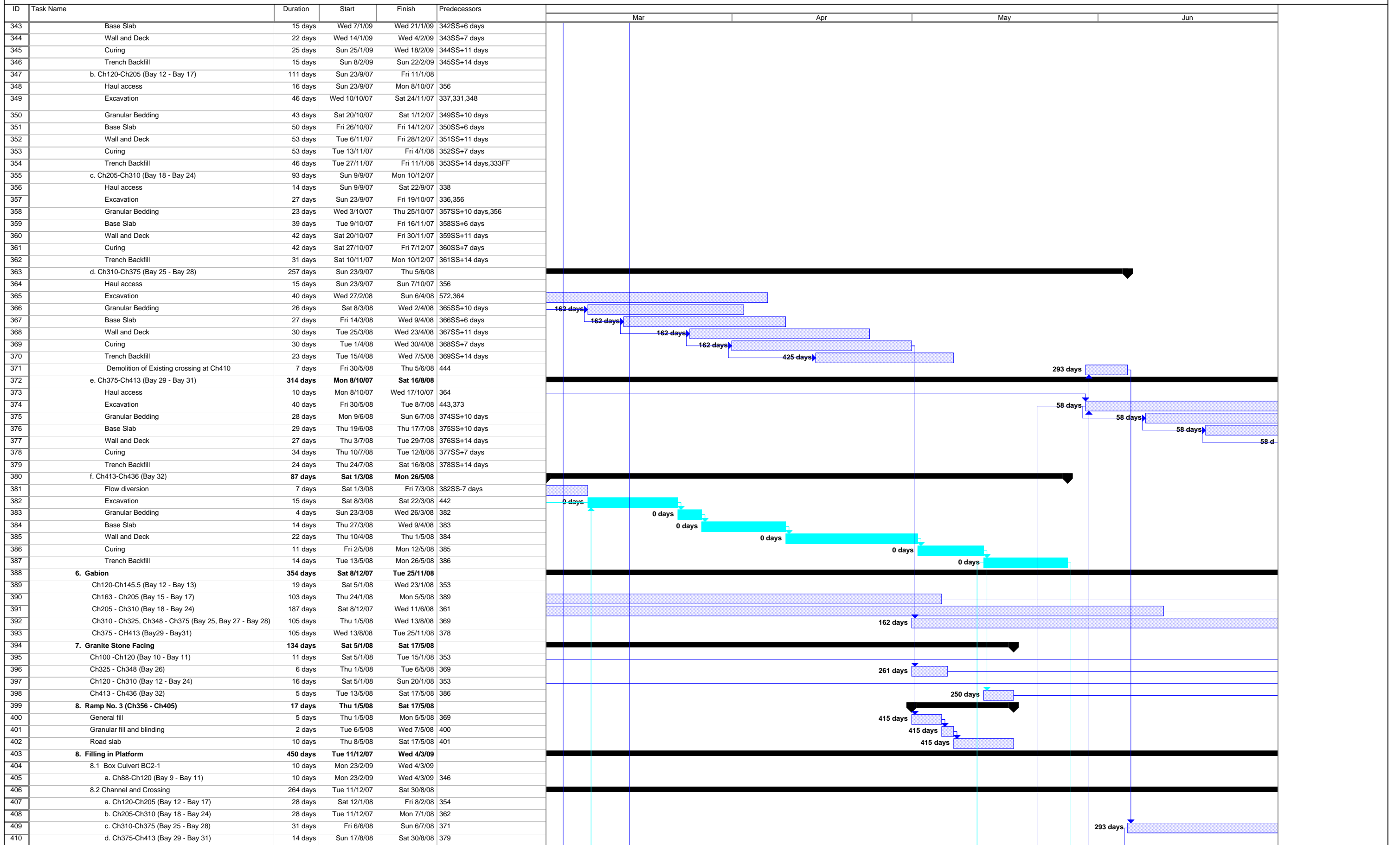
ID	Task Name	Duration	Start	Finish	Predecessors	Gantt Chart			
						Mar	Apr	May	Jun
136	a. Submission of site management plan	45 days	Fri 30/3/07	Sun 13/5/07	2SS				
137	b. Comment & approval	14 days	Mon 14/5/07	Sun 27/5/07	136				
138	10.9. Condition survey and structural monitoring	830 days	Fri 30/3/07	Mon 6/7/09					
139	a. Submission of Independent Structural Engineer	14 days	Fri 30/3/07	Thu 12/4/07	2SS				
140	b. Comment & approval	7 days	Fri 13/4/07	Thu 19/4/07	139				
141	c. Proposal for condition survey & structural monitoring	209 days	Fri 20/4/07	Wed 14/11/07					
142	Portion 1, 4, 6, 7, 8	30 days	Fri 20/4/07	Sat 19/5/07	140				
143	Portion 2	30 days	Wed 30/5/07	Thu 28/6/07	16				
144	Portion 3, 5, 5A1, 5A2	30 days	Fri 29/6/07	Sat 28/7/07	17,19,20,21				
145	Portion 5B	30 days	Tue 16/10/07	Wed 14/11/07	22				
146	d. Comment & approval	193 days	Sun 20/5/07	Wed 28/11/07					
147	Portion 1, 4, 6, 7, 8	14 days	Sun 20/5/07	Sat 2/6/07	142				
148	Portion 2	14 days	Fri 29/6/07	Thu 12/7/07	143				
149	Portion 3, 5, 5A1, 5A2	14 days	Sun 29/7/07	Sat 11/8/07	144				
150	Portion 5B	14 days	Thu 15/11/07	Wed 28/11/07	145				
151	e. Condition survey & structural monitoring	765 days	Sun 3/6/07	Mon 6/7/09					
152	Portion 1, 4, 6, 7, 8	765 days	Sun 3/6/07	Mon 6/7/09	147				
153	Portion 2	725 days	Fri 13/7/07	Mon 6/7/09	148				
154	Portion 3, 5, 5A1, 5A2	695 days	Sun 12/8/07	Mon 6/7/09	149				
155	Portion 5B	546 days	Thu 29/11/07	Wed 27/5/09	150				
156	10.10 Handling & disposal of Type 1 & 2 contaminated material:	74 days	Sat 14/7/07	Tue 25/9/07					
157	a. Proposed type of dump truck	44 days	Sun 15/7/07	Mon 27/8/07					
158	Submission	30 days	Sun 15/7/07	Mon 13/8/07	705SS-44 days				
159	Comment & approval	14 days	Tue 14/8/07	Mon 27/8/07	158				
160	b. Proposal of berthing area arrangement	44 days	Mon 30/7/07	Tue 11/9/07					
161	Submission	30 days	Mon 30/7/07	Tue 28/8/07					
162	Comment & approval	14 days	Wed 29/8/07	Tue 11/9/07	161				
163	c. Proposal of disposal arrangement	74 days	Sat 14/7/07	Tue 25/9/07					
164	Submission	60 days	Sat 14/7/07	Tue 11/9/07					
165	Comment & approval	14 days	Wed 12/9/07	Tue 25/9/07	164				
166	10.11 Handling & treatment of Type 3 contaminated material	581 days	Fri 30/3/07	Thu 30/10/08					
167	a. Decontamination specialist	134 days	Fri 30/3/07	Fri 10/8/07					
168	Submission	120 days	Fri 30/3/07	Fri 27/7/07	2SS				
169	Comment & approval	14 days	Sat 28/7/07	Fri 10/8/07	168				
170	b. Statement & treatment programme	42 days	Sat 11/8/07	Fri 21/9/07					
171	(1) Submission	28 days	Sat 11/8/07	Fri 7/9/07	169				
172	(2) Comment & approval	14 days	Sat 8/9/07	Fri 21/9/07					
173	by the Engineer	14 days	Sat 8/9/07	Fri 21/9/07	171				
174	by the EPD	14 days	Sat 8/9/07	Fri 21/9/07	171				
175	c. Setting up of Treatment Plant	60 days	Mon 1/9/08	Thu 30/10/08	174,529SS-61 days				
176	10.12 Safety Plan	35 days	Wed 21/3/07	Tue 24/4/07					
177	a. Submission of draft Safety Plan	14 days	Wed 21/3/07	Tue 3/4/07	1SS				
178	b. Comment by the Engineer	7 days	Wed 4/4/07	Tue 10/4/07	177				
179	c. Submission of Safety Plan	14 days	Wed 11/4/07	Tue 24/4/07	178				
180	10.13 Sub-contractor Management Plan	839 days	Wed 21/3/07	Mon 6/7/09					
181	a. Submission of SMP	30 days	Wed 21/3/07	Thu 19/4/07	1SS				
182	b. For information & Comments	14 days	Fri 20/4/07	Thu 3/5/07	181				
183	c. Update SMP	795 days	Fri 4/5/07	Mon 6/7/09	182				
184	10.14 proof of plant ownership	830 days	Fri 30/3/07	Mon 6/7/09					
185	a. Submission of draft written undertaking	14 days	Fri 30/3/07	Thu 12/4/07	2SS				
186	b. Comment by the Engineer / Employer	14 days	Fri 13/4/07	Thu 26/4/07	185				
187	c. Engineer's request	802 days	Fri 27/4/07	Mon 6/7/09	186				
188	10.15 Contractor's Management Team	830 days	Fri 30/3/07	Mon 6/7/09					
189	a. Submission of staff member details	14 days	Fri 30/3/07	Thu 12/4/07	2SS				
190	b. Update management / site supervision team	816 days	Fri 13/4/07	Mon 6/7/09	189				
191	10.16 Water supply pipeworks material	28 days	Wed 21/3/07	Tue 17/4/07					
192	a. Supplier	28 days	Wed 21/3/07	Tue 17/4/07					
193	Submission	14 days	Wed 21/3/07	Tue 3/4/07	1SS				
194	comment & approval	14 days	Wed 4/4/07	Tue 17/4/07	193				
195	b. Manufacturer	28 days	Wed 21/3/07	Tue 17/4/07					
196	Submission	14 days	Wed 21/3/07	Tue 3/4/07	1SS				
197	comment & approval	14 days	Wed 4/4/07	Tue 17/4/07	196				
198	c. Independent Inspection Agent (IIA)	28 days	Wed 21/3/07	Tue 17/4/07					
199	Submission	14 days	Wed 21/3/07	Tue 3/4/07	1SS				
200	comment & approval	14 days	Wed 4/4/07	Tue 17/4/07	199				
201	d. Representative of the IIA	28 days	Wed 21/3/07	Tue 17/4/07					
202	Submission	14 days	Wed 21/3/07	Tue 3/4/07	1SS				
203	comment & approval	14 days	Wed 4/4/07	Tue 17/4/07	202				

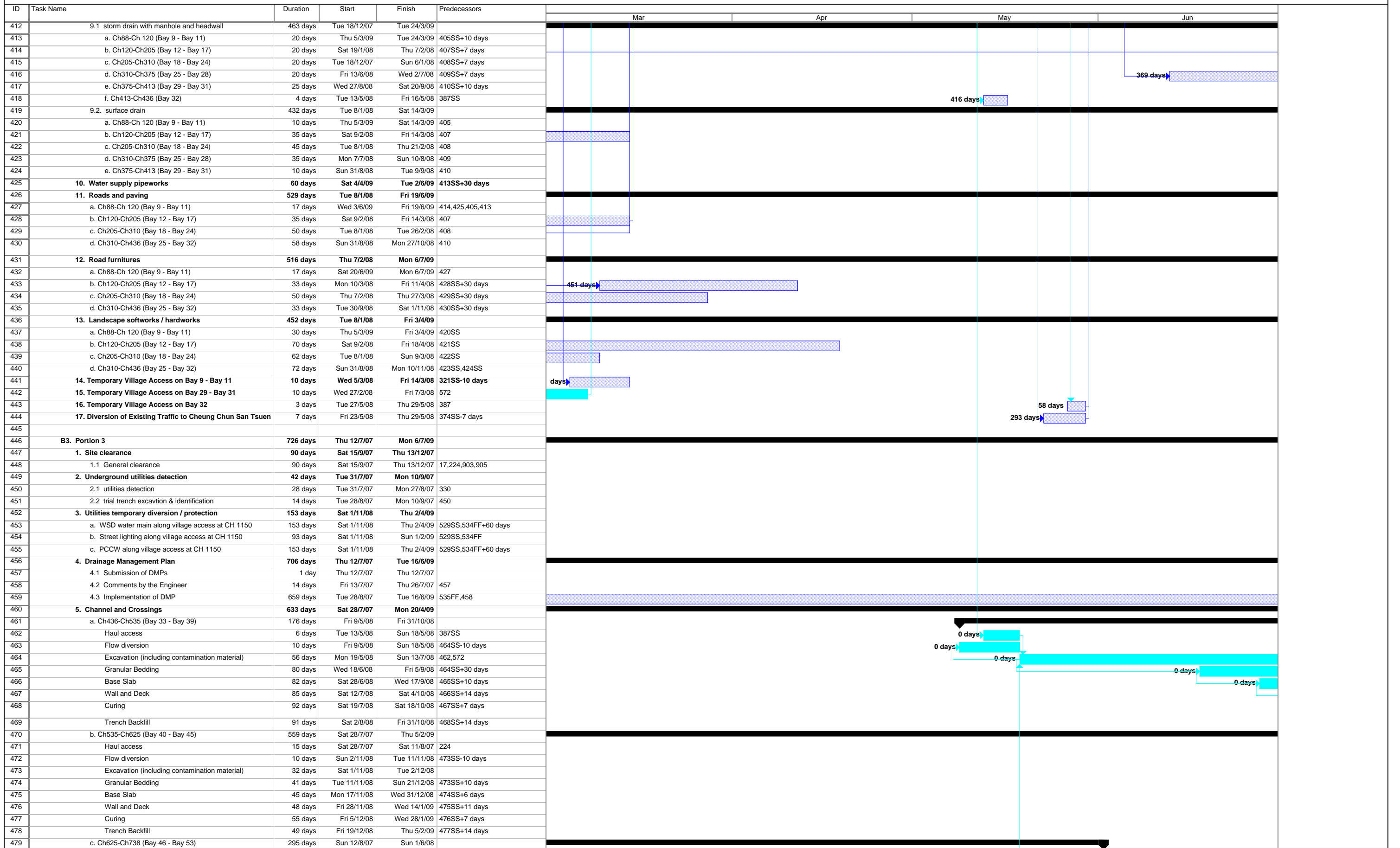
Task Progress Summary Rolled Up Critical Task Rolled Up Progress External Tasks Group By Summary
Critical Task Milestone Rolled Up Task Rolled Up Milestone Split Project Summary Deadline

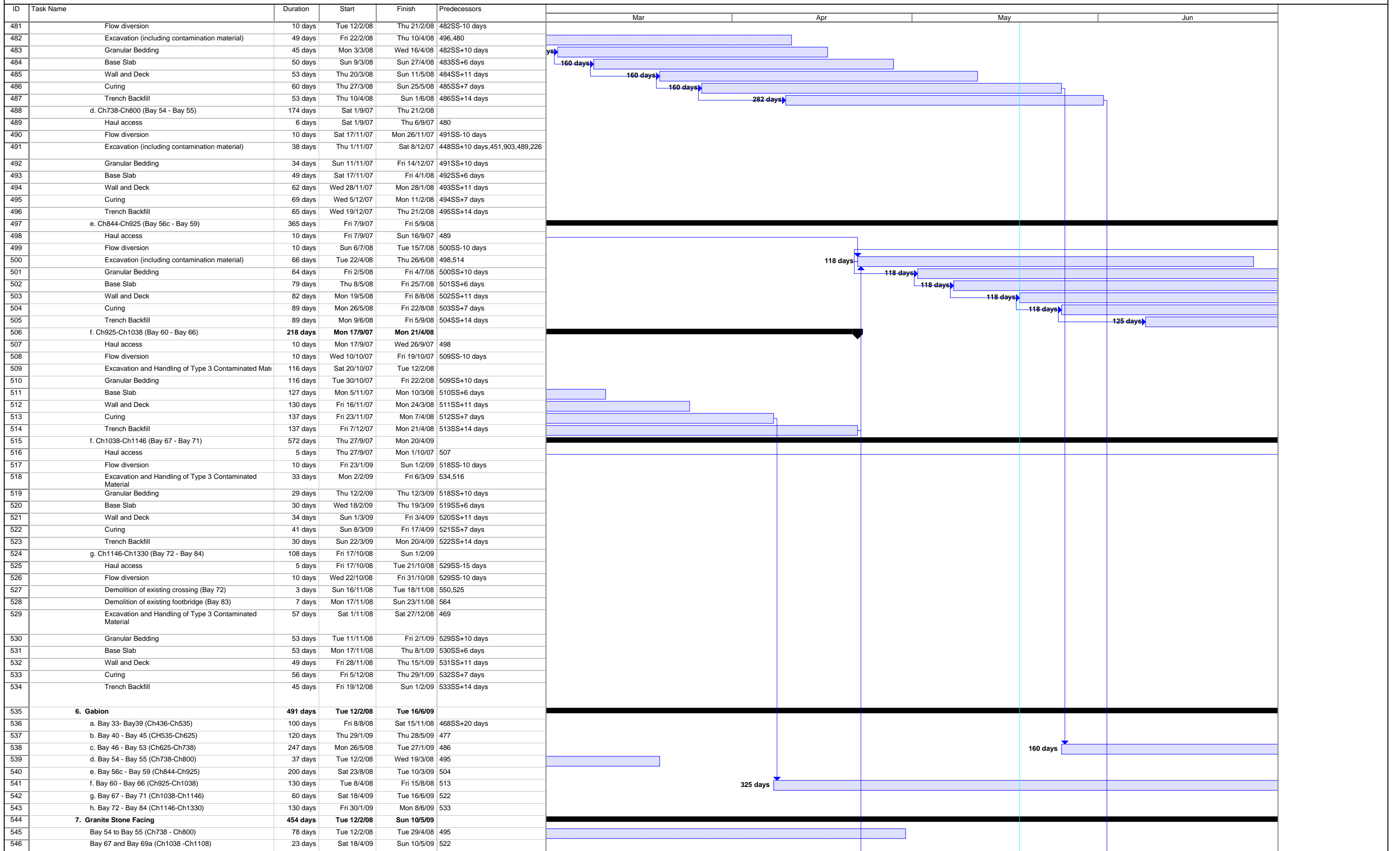
ID	Task Name	Duration	Start	Finish	Predecessors	Gantt Chart			
						Mar	Apr	May	Jun
205	a. Submission of technical information	14 days	Fri 30/3/07	Thu 12/4/07	2SS				
206	b. Comment & approval	14 days	Fri 13/4/07	Thu 26/4/07	205				
207	10.18 Preservation and protection of existing trees	59 days	Wed 21/3/07	Fri 18/5/07					
208	a. Specialist contractor (landscaping Class I)	28 days	Fri 30/3/07	Thu 26/4/07					
209	Submission	14 days	Fri 30/3/07	Thu 12/4/07	2SS				
210	Comment & approval	14 days	Fri 13/4/07	Thu 26/4/07	209				
211	b. Site supervisory staff	59 days	Wed 21/3/07	Fri 18/5/07					
212	Submission	45 days	Wed 21/3/07	Fri 4/5/07	1SS				
213	Comment & approval	14 days	Sat 5/5/07	Fri 18/5/07	212				
214	10.19 Concrete (ready mix)	28 days	Fri 30/3/07	Thu 26/4/07					
215	a. Submission of supplier & design mix	21 days	Fri 30/3/07	Thu 19/4/07	2SS				
216	b. Comment & approval	7 days	Fri 20/4/07	Thu 26/4/07	215				
217	10.20 Steel reinforcement	35 days	Fri 30/3/07	Thu 3/5/07					
218	a. Submission of supplier	28 days	Fri 30/3/07	Thu 26/4/07	2SS				
219	b. Comment & approval	7 days	Fri 27/4/07	Thu 3/5/07	218				
220	10.21 Submissions of method statement / materials	750 days	Tue 15/5/07	Tue 2/6/09					
221	a. Submission of materials	750 days	Tue 15/5/07	Tue 2/6/09	15FS+45 days				
222	b. Submission of method statement	750 days	Tue 15/5/07	Tue 2/6/09	15FS+45 days				
223	11. Provision of wheel washing facilities	180 days	Fri 30/3/07	Tue 25/9/07					
224	11.1 Channel KT2	120 days	Fri 30/3/07	Fri 27/7/07	2SS				
225	11.2 Channel KT15	90 days	Thu 28/6/07	Tue 25/9/07	19FS-1 day				
226	11.3 Berthing area	90 days	Fri 30/3/07	Wed 27/6/07	2SS				
227	11.4 Portion 6	45 days	Fri 30/3/07	Sun 13/5/07	2SS				
228	12. Setting up of traffic management liaison group	30 days	Fri 30/3/07	Sat 28/4/07	2SS				
229									
230	B. Section I of the Works	830 days	Fri 30/3/07	Mon 6/7/09					
231	B1. Portion 1	790 days	Fri 30/3/07	Wed 27/5/09					
232	1. Site clearance	30 days	Sat 28/7/07	Sun 26/8/07					
233	1.1 General site clearance	30 days	Sat 28/7/07	Sun 26/8/07	36,224,893,891				
234	2. Temporary Traffic Management Scheme	59 days	Fri 30/3/07	Sun 27/5/07					
235	2.1 TTMS Proposal (trial pits in Chi Ho Road for utilities)	59 days	Fri 30/3/07	Sun 27/5/07					
236	a. Submission	45 days	Fri 30/3/07	Sun 13/5/07	2SS				
237	b. comments & approvals by Engineer & TMLG	14 days	Mon 14/5/07	Sun 27/5/07	236				
238	2.2 TTMS Proposal (for construction of box culvert)	59 days	Fri 30/3/07	Sun 27/5/07					
239	a. Submission	45 days	Fri 30/3/07	Sun 13/5/07					
240	b. comments & approvals by Engineer & TMLG	14 days	Mon 14/5/07	Sun 27/5/07	239				
241	3. Excavation Permits	521 days	Mon 28/5/07	Wed 29/10/08					
242	3.1 application and issue of permit (trial pits in Chi Ho Road)	180 days	Mon 28/5/07	Fri 23/11/07	237				
243	3.2 application and issue of permits (for construction of box culvert)	180 days	Sat 3/5/08	Wed 29/10/08	240				
244	4. Underground utilities detection	253 days	Fri 30/3/07	Fri 7/12/07					
245	4.1 utilities detection	28 days	Fri 30/3/07	Thu 26/4/07	2SS				
246	4.2 trial trench excavation & identification	14 days	Sat 24/11/07	Fri 7/12/07	245,242				
247	5. Utilities temporary diversion / protection	493 days	Thu 27/9/07	Sat 31/1/09					
248	a. WSD watermain along village vehicular access	103 days	Wed 7/5/08	Sun 17/8/08	284SS				
249	b. Street lighting along village vehicular access	103 days	Wed 7/5/08	Sun 17/8/08	284SS				
250	c. PCW along village vehicular access	103 days	Wed 7/5/08	Sun 17/8/08	284SS				
251	d. CLP overhead cable at Bay 4	90 days	Thu 7/2/08	Tue 6/5/08	282				
252	e. CH 816-CH841 underground cables (33kV)	42 days	Thu 27/9/07	Wed 7/11/07	259				
253	f. CH 816-CH841 underground cables (132kV)	56 days	Thu 8/11/07	Wed 2/1/08	252				
254	g. Street lighting at Chi Ho Road	92 days	Sat 1/11/08	Sat 31/1/09	264SS,246				
255	h. Irrigation pipe at Chi Ho Road	92 days	Sat 1/11/08	Sat 31/1/09	264SS				
256	6. Drainage Management Plan (Ch810 to Ch850)	77 days	Thu 12/7/07	Wed 26/9/07					
257	6.1 Submission of DMPs	1 day	Thu 12/7/07	Thu 12/7/07					
258	6.2 Comments by the Engineer	14 days	Fri 13/7/07	Thu 26/7/07	257				
259	6.3 Implementation of DMP	3 days	Mon 24/9/07	Wed 26/9/07	258SF				
260	7. Box Culvert and Channel	550 days	Wed 1/8/07	Sat 31/1/09					
261	7.1 Box Culvert BC2-1	550 days	Wed 1/8/07	Sat 31/1/09					
262	a. Ch0-Ch15 (Bay 1 and Outlet)	94 days	Thu 30/10/08	Sat 31/1/09					
263	Remove road pavement and expose existing utiliti	2 days	Thu 30/10/08	Fri 31/10/08	243,324				
264	Excavation	9 days	Sat 1/11/08	Sun 9/11/08	263				
265	Granular Bedding	5 days	Mon 10/11/08	Fri 14/11/08	264				
266	Base Slab	21 days	Sat 15/11/08	Fri 5/12/08	265				
267	Wall and Deck	31 days	Sat 6/12/08	Mon 5/1/09	266				
268	Curing	14 days	Tue 6/1/09	Mon 19/1/09	267				
269	Trench Backfill	3 days	Tue 20/1/09	Thu 22/1/09	268,390FF,391FF,392FF,395FF,3				
270	Reinstatement of Chi Ho Road	6 days	Mon 26/1/09	Sat 31/1/09	254FF,255FF,308				
271	b. Temporary Bund in AFCD Pond	87 days	Wed 1/8/07	Fri 26/10/07					
272	1. Proposal	31 days	Wed 1/8/07	Fri 31/8/07					

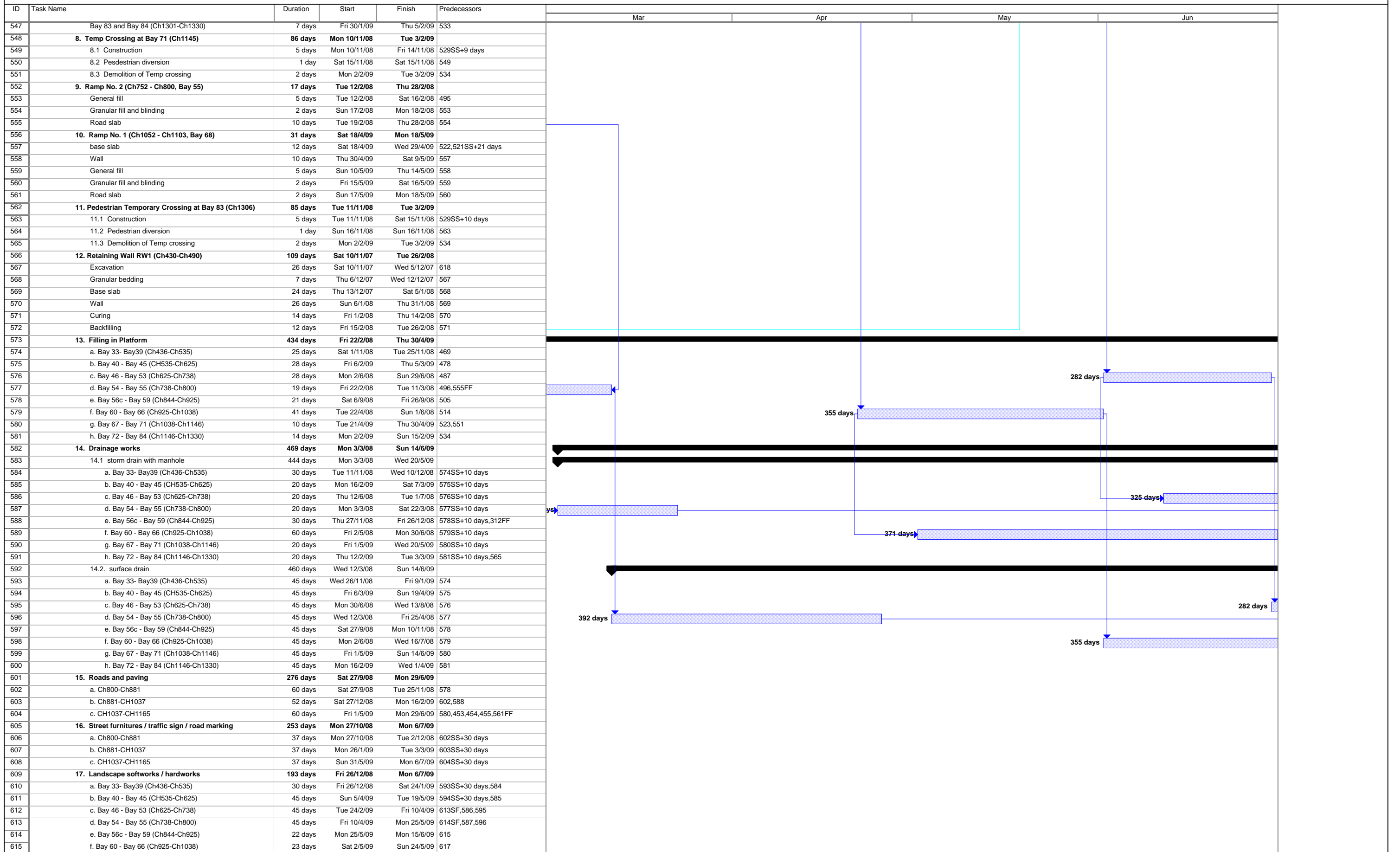
Task Progress Summary Rolled Up Critical Task Rolled Up Progress External Tasks Group By Summary
Critical Task Milestone Rolled Up Task Rolled Up Milestone Split Project Summary Deadline











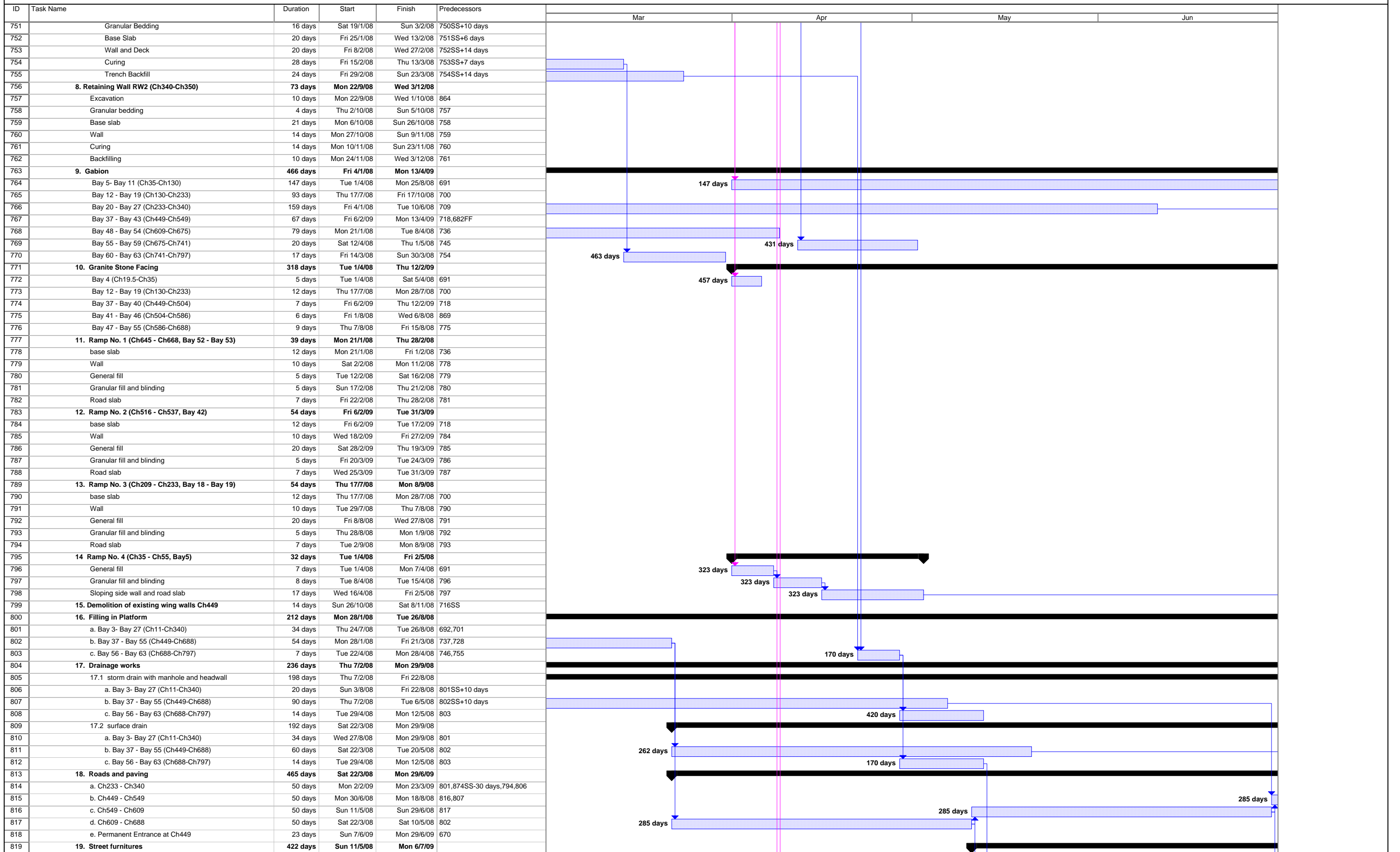
ID	Task Name	Duration	Start	Finish	Predecessors	Gantt Chart			
						Mar	Apr	May	Jun
616	g. Bay 67 - Bay 71 (Ch1038-Ch1146)	45 days	Sat 23/5/09	Mon 6/7/09	599SS+22 days				
617	h. Bay 72 - Bay 84 (Ch1146-Ch1330)	45 days	Wed 18/3/09	Fri 1/5/09	600SS+30 days				
618	18. Lower down existing village access	9 days	Thu 1/11/07	Fri 9/11/07					
619	C. Section II of the Works	830 days	Fri 30/3/07	Mon 6/7/09					
620	C1. Portion 4	812 days	Fri 30/3/07	Thu 18/6/09					
621	1. Site clearance	14 days	Wed 26/9/07	Tue 9/10/07					
622	1.1 General clearance	14 days	Wed 26/9/07	Tue 9/10/07	225,36,909,911				
623	2. Temporary Traffic Management Scheme	60 days	Fri 30/3/07	Mon 28/5/07					
624	2.1 TTMS Proposal (trial pits for utilities and site entrance ir	59 days	Sat 31/3/07	Mon 28/5/07					
625	a. Submission	45 days	Sat 31/3/07	Mon 14/5/07	18				
626	b. comments & approvals by Engineer & TMLG	14 days	Tue 15/5/07	Mon 28/5/07	625				
627	2.2 TTMS Proposal (for construction of box culvert)	59 days	Fri 30/3/07	Sun 27/5/07					
628	a. Submission	45 days	Fri 30/3/07	Sun 13/5/07					
629	b. comments & approvals by Engineer & TMLG	14 days	Mon 14/5/07	Sun 27/5/07	628				
630	3. Excavation Permits	520 days	Tue 29/5/07	Wed 29/10/08					
631	3.1 application and issue of permit (trial pits for utilities and site entrance in Kam Po Road)	60 days	Tue 29/5/07	Fri 27/7/07	626				
632	3.2 application and issue of permits (for construction of box culvert)	180 days	Sat 3/5/08	Wed 29/10/08	629				
633	4. Underground utilities detection	43 days	Fri 29/6/07	Fri 10/8/07					
634	4.1 utilities detection	28 days	Fri 29/6/07	Fri 27/7/07	635SF-1 day				
635	4.2 trial trench excavation & identification	14 days	Sat 28/7/07	Fri 10/8/07	631				
636	5. Utilities temporary diversion / protection	85 days	Sat 1/11/08	Sat 24/1/09					
637	a. WSD water main along Kam Po Road	85 days	Sat 1/11/08	Sat 24/1/09	646SS				
638	b. Street lighting along Kam Po Road	85 days	Sat 1/11/08	Sat 24/1/09	646SS				
639	c. DSD storm Drain	85 days	Sat 1/11/08	Sat 24/1/09	646SS				
640	6. Drainage Management Plan	662 days	Fri 30/3/07	Mon 19/1/09					
641	6.1 Submission of DMPs	1 day	Fri 30/3/07	Fri 30/3/07					
642	6.2 Comments by the Engineer	14 days	Sat 31/3/07	Fri 13/4/07	641				
643	6.3 Implementation of DMPs	57 days	Mon 24/11/08	Mon 19/1/09	647,642				
644	7. Box Culvert Ch0-Ch15 (Bay 1 and Outlet)	94 days	Thu 30/10/08	Sat 31/1/09					
645	Remove road pavement and expose existing utilities	2 days	Thu 30/10/08	Fri 31/10/08	635,632,833				
646	Excavation	8 days	Sat 1/11/08	Sat 8/11/08	645,622				
647	Remove existing box culvert	14 days	Mon 10/11/08	Sun 23/11/08	648				
648	flow diversion	1 day	Sun 9/11/08	Sun 9/11/08	646				
649	Granular Bedding	5 days	Fri 14/11/08	Tue 18/11/08	647SS+4 days				
650	Base Slab	18 days	Wed 19/11/08	Sat 6/12/08	649				
651	Wall and Deck	30 days	Sun 7/12/08	Mon 5/1/09	650				
652	Curing	14 days	Tue 6/1/09	Mon 19/1/09	651				
653	Trench Backfill	5 days	Tue 20/1/09	Sat 24/1/09	652,637FF,638FF,639FF,647,764				
654	Reinstatement of Kam Po Road	7 days	Sun 25/1/09	Sat 31/1/09	653				
655	9. Modification to invert level of box culvert at Kam Sheung	45 days	Fri 9/1/09	Sun 22/2/09	716				
656	10. Fill in Platform	30 days	Mon 2/2/09	Tue 3/3/09	653,834				
657	11. Roads and paving	30 days	Wed 4/3/09	Thu 2/4/09	656,798				
658	12. Street furnitures	14 days	Fri 3/4/09	Thu 16/4/09	657				
659	13. Landscape softworks / hardworks	77 days	Fri 3/4/09	Thu 18/6/09	657				
660									
661	C2. Portion 5 and 5C	830 days	Fri 30/3/07	Mon 6/7/09					
662	1. Site clearance	90 days	Thu 20/9/07	Tue 18/12/07					
663	1.1 General clearance	90 days	Thu 20/9/07	Tue 18/12/07	36,225SS+75 days,915,917				
664	2. Temporary Traffic Management Scheme	59 days	Fri 30/3/07	Sun 27/5/07					
665	TTMS Proposal (trial pits for utilities and site entrance in Ka	59 days	Fri 30/3/07	Sun 27/5/07					
666	a. Submission	45 days	Fri 30/3/07	Sun 13/5/07	2SS				
667	b. comments & approvals by Engineer & TMLG	14 days	Mon 14/5/07	Sun 27/5/07	666				
668	3. Excavation Permits	741 days	Mon 28/5/07	Sat 6/6/09					
669	3.1 application and issue of permit (trial pits for utilities and temporary site entrance in Kam Sheung Road)	60 days	Mon 28/5/07	Thu 26/7/07	667				
670	3.2 application and issue of permits (for construction of permanent entrance)	180 days	Tue 9/12/08	Sat 6/6/09	7FS-210 days				
671	4. Underground utilities detection	42 days	Fri 29/6/07	Thu 9/8/07					
672	a. utilities detection	28 days	Fri 29/6/07	Thu 26/7/07	19				
673	b. trial trench excavation & identification	14 days	Fri 27/7/07	Thu 9/8/07	669,672				
674	5. Utilities temporary diversion / protection	553 days	Fri 10/8/07	Thu 12/2/09					
675	a. CLP overhead cables at CH 100 - CH 120	90 days	Fri 10/8/07	Wed 7/11/07	673				
676	b. CLP overhead cables at CH 530 - CH 550	90 days	Fri 10/8/07	Wed 7/11/07	673				
677	c. CLP overhead cables at CH 670 - CH 690	90 days	Fri 10/8/07	Wed 7/11/07	673				
678	d. Gas main at Kam Sheung Road	84 days	Fri 21/11/08	Thu 12/2/09	714SS,719FF				
679	6. Drainage Management Plan	722 days	Fri 30/3/07	Fri 20/3/09					
680	5.1 Submission of DMPs	1 day	Fri 30/3/07	Fri 30/3/07	641SS				
681	5.2 Comments by the Engineer	14 days	Sat 31/3/07	Fri 13/4/07	680				

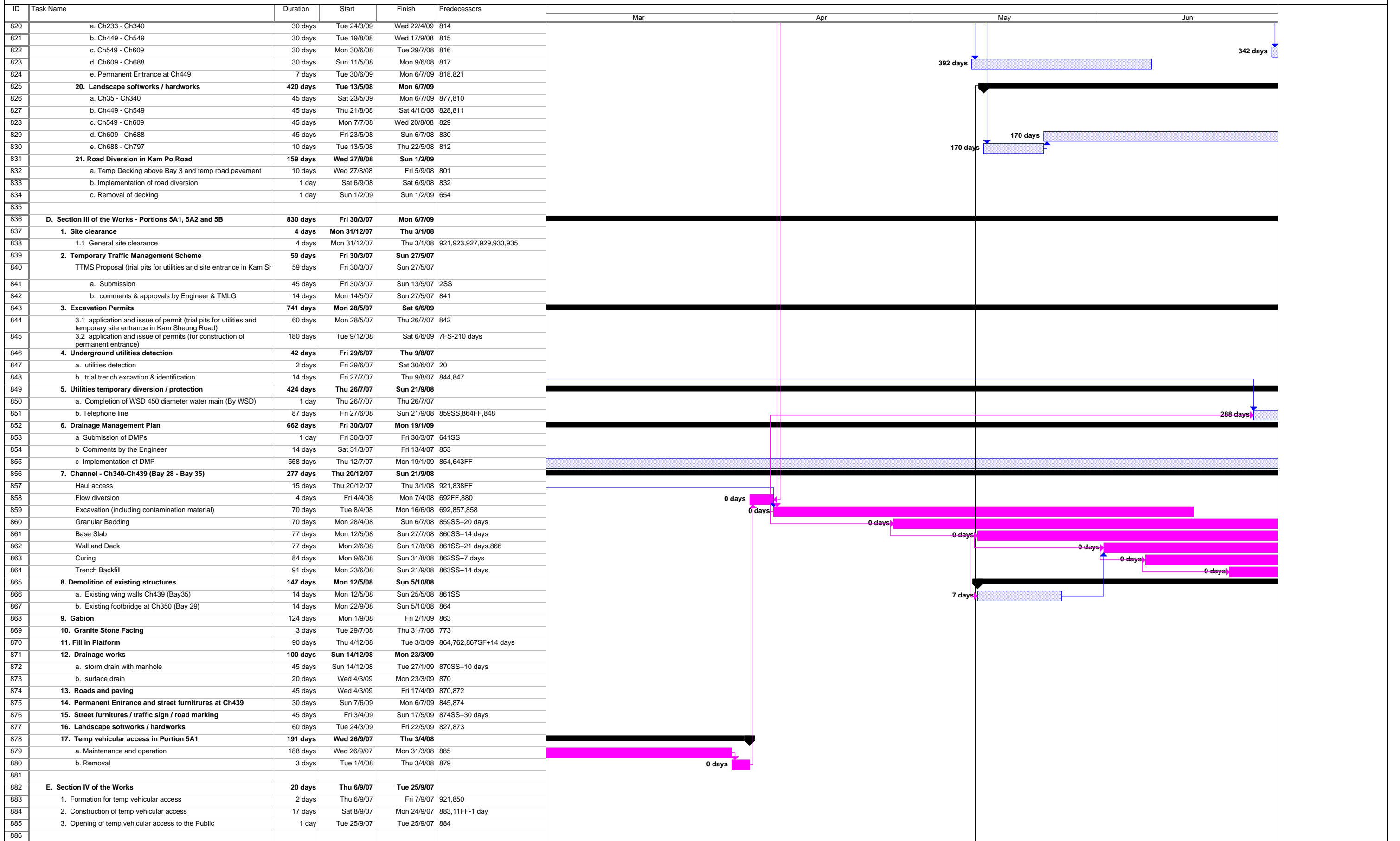
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Task: Progress Summary Rolled Up Critical Task Rolled Up Progress External Tasks Group By Summary

Critical Task: Milestone Rolled Up Task: Rolled Up Milestone Split: Project Summary Deadline







Task Progress Summary Rolled Up Critical Task Rolled Up Progress External Tasks Group By Summary

Critical Task Milestone Rolled Up Task Rolled Up Milestone Split Project Summary Deadline

ID	Task Name	Duration	Start	Finish	Predecessors	Gantt Chart			
						Mar	Apr	May	Jun
887	F. Section V of the Works - Preservation and protection to existing trees	804 days	Sat 31/3/07	Thu 11/6/09					
888	1. Portion 1	789 days	Sat 31/3/07	Wed 27/5/09					
889	1.1 Tree survey	14 days	Sat 31/3/07	Fri 13/4/07	15				
890	1.2 Tree transplant	740 days	Sat 19/5/07	Wed 27/5/09					
891	a. To Temp holding nursery	62 days	Sat 19/5/07	Thu 19/7/07	889,213				
892	b. To final location	90 days	Fri 27/2/09	Wed 27/5/09	320FF				
893	1.3 Tree protection	62 days	Sat 19/5/07	Thu 19/7/07	891SS				
894	2. Portion 2	454 days	Wed 30/5/07	Mon 25/8/08					
895	2.1 Tree survey	14 days	Wed 30/5/07	Tue 12/6/07	16				
896	2.2 Tree transplant	440 days	Wed 13/6/07	Mon 25/8/08					
897	a. To Temp holding nursery	62 days	Wed 13/6/07	Mon 13/8/07	895,213,227				
898	b. To final location	231 days	Tue 8/1/08	Mon 25/8/08	436SS				
899	2.3 Tree protection	62 days	Wed 13/6/07	Mon 13/8/07	897SS				
900	3. Portion 3	697 days	Fri 29/6/07	Mon 25/5/09					
901	3.1 Tree survey	14 days	Fri 29/6/07	Thu 12/7/07	17				
902	3.2 Tree transplant	683 days	Fri 13/7/07	Mon 25/5/09					
903	a. To Temp holding nursery	64 days	Fri 13/7/07	Fri 14/9/07	901,213				
904	b. To final location	151 days	Fri 26/12/08	Mon 25/5/09	609SS				
905	3.3 Tree protection	64 days	Fri 13/7/07	Fri 14/9/07	903SS				
906	4. Portion 4	804 days	Sat 31/3/07	Thu 11/6/09					
907	4.1 Tree survey	14 days	Sat 31/3/07	Fri 13/4/07	18				
908	4.2 Tree transplant	755 days	Sat 19/5/07	Thu 11/6/09					
909	a. To Temp holding nursery	62 days	Sat 19/5/07	Thu 19/7/07	907,213				
910	b. To final location	70 days	Fri 3/4/09	Thu 11/6/09	659SS				
911	4.3 Tree protection	62 days	Sat 19/5/07	Thu 19/7/07	909SS				
912	5. Portion 5	559 days	Fri 29/6/07	Wed 7/1/09					
913	5.1 Tree survey	14 days	Fri 29/6/07	Thu 12/7/07	19				
914	5.2 Tree transplant	545 days	Fri 13/7/07	Wed 7/1/09					
915	a. To Temp holding nursery	69 days	Fri 13/7/07	Wed 19/9/07	913,213				
916	b. To final location	240 days	Tue 13/5/08	Wed 7/1/09	825SS				
917	5.3 Tree protection	69 days	Fri 13/7/07	Wed 19/9/07	915SS				
918	6. Portion 5A1	694 days	Fri 29/6/07	Fri 22/5/09					
919	6.1 Tree survey	7 days	Fri 29/6/07	Thu 5/7/07	20				
920	6.2 Tree transplant	687 days	Fri 6/7/07	Fri 22/5/09					
921	a. To Temp holding nursery	62 days	Fri 6/7/07	Wed 5/9/07	919,213				
922	b. To final location	60 days	Tue 24/3/09	Fri 22/5/09	877SS				
923	6.3 Tree protection	62 days	Fri 6/7/07	Wed 5/9/07	921SS				
924	7. Portion 5A2	694 days	Fri 29/6/07	Fri 22/5/09					
925	7.1 Tree survey	14 days	Fri 29/6/07	Thu 12/7/07	21				
926	7.2 Tree transplant	680 days	Fri 13/7/07	Fri 22/5/09					
927	a. To Temp holding nursery	62 days	Fri 13/7/07	Wed 12/9/07	925,213				
928	b. To final location	60 days	Tue 24/3/09	Fri 22/5/09	877SS				
929	7.3 Tree protection	62 days	Fri 13/7/07	Wed 12/9/07	927SS				
930	8. Portion 5B	585 days	Tue 16/10/07	Fri 22/5/09					
931	8.1 Tree survey	14 days	Tue 16/10/07	Mon 29/10/07	22				
932	8.2 Tree transplant	571 days	Tue 30/10/07	Fri 22/5/09					
933	a. To Temp holding nursery	62 days	Tue 30/10/07	Sun 30/12/07	931,213				
934	b. To final location	60 days	Tue 24/3/09	Fri 22/5/09	877SS				
935	8.3 Tree protection	62 days	Tue 30/10/07	Sun 30/12/07	933SS				
936									
937	G. Berthing Area	148 days	Wed 12/9/07	Wed 6/2/08					
938	1. Construction of Loading Facilities	27 days	Wed 12/9/07	Mon 8/10/07	162				
939	2. Removal of Loading Facilities	2 days	Tue 29/1/08	Wed 30/1/08	750,73				
940	3. Reinstatement of Berthing Area	7 days	Thu 31/1/08	Wed 6/2/08	939				

ID	Task Name	Duration	Start	Finish	Predecessors	Gantt Chart			
						Aug	Sep	Oct	Nov
1	Letter of Acceptance	1 day	Wed 21/3/07	Wed 21/3/07					
2	Date for commencement of Works	1 day	Fri 30/3/07	Fri 30/3/07					
3	Execution of Article of Agreement	1 day	Tue 3/4/07	Tue 3/4/07					
4									
5	Master Programme of the Works	850 days	Wed 21/3/07	Fri 17/7/09					
6									
7	Completion Dates	841 days	Fri 30/3/07	Fri 17/7/09					
8	Section I - portions 1, 2 and 3	841 days	Fri 30/3/07	Fri 17/7/09	2SS				
9	Section II - portions 4, 5 and 5C	841 days	Fri 30/3/07	Fri 17/7/09	2SS				
10	Section III - portions 5A1, 5A2 and 5B	740 days	Thu 28/6/07	Mon 6/7/09	20FS-1 day				
11	Section IV - temp vehicular access at portion 5A1	90 days	Thu 28/6/07	Tue 25/9/07	20FS-1 day				
12	Section V - preservation and protection of existing trees	841 days	Fri 30/3/07	Fri 17/7/09	2SS				
13									
14	Possession of Site	200 days	Fri 30/3/07	Mon 15/10/07					
15	Portion 1 - channel KT2	1 day	Fri 30/3/07	Fri 30/3/07	2SS				
16	Portion 2 - channel KT2	61 days	Fri 30/3/07	Tue 29/5/07	2SS				
17	Portion 3 - channel KT2	91 days	Fri 30/3/07	Thu 28/6/07	2SS				
18	Portion 4 - channel KT15	1 day	Fri 30/3/07	Fri 30/3/07	2SS				
19	Portion 5 - channel KT15	91 days	Fri 30/3/07	Thu 28/6/07	2SS				
20	Portion 5A1 - channel KT15	91 days	Fri 30/3/07	Thu 28/6/07	2SS				
21	Portion 5A2 - channel KT15	91 days	Fri 30/3/07	Thu 28/6/07	2SS				
22	Portion 5B - channel KT15	20 days	Wed 26/9/07	Mon 15/10/07	11				
23	Portion 5C - channel KT15	91 days	Fri 30/3/07	Thu 28/6/07	2SS				
24	Portion 6 - Temp Storage Area at Chi Ho Road	1 day	Fri 30/3/07	Fri 30/3/07	2SS				
25	Portion 7 - Berthing Area	1 day	Fri 30/3/07	Fri 30/3/07	2SS				
26	Portion 8 - Site Accommodation	1 day	Fri 30/3/07	Fri 30/3/07	2SS				
27									
28	A. Preliminary Works	850 days	Wed 21/3/07	Fri 17/7/09					
29	1. Setting out of Works	841 days	Fri 30/3/07	Fri 17/7/09	2SS				
30	2. Environmental Monitoring and Audit	841 days	Fri 30/3/07	Fri 17/7/09					
31	2.1 Establishment of Environmental Team	14 days	Fri 30/3/07	Thu 12/4/07	8SS				
32	2.2 approval by the Engineer	7 days	Fri 13/4/07	Thu 19/4/07	31				
33	2.3 Environmental baseline monitoring	77 days	Fri 20/4/07	Thu 5/7/07					
34	a. Technical proposal & methodology	7 days	Fri 20/4/07	Thu 26/4/07	32				
35	b. Approval by the Engineer	7 days	Fri 27/4/07	Thu 3/5/07	34				
36	c. Baseline monitoring	63 days	Fri 4/5/07	Thu 5/7/07	35				
37	2.4 Environmental impact monitoring and audit	730 days	Thu 19/7/07	Fri 17/7/09	36,8FF				
38	3. Environmental Management and Environmental Management Plan	73 days	Fri 30/3/07	Sun 10/6/07					
39	3.1 Submission of draft EMP	21 days	Fri 30/3/07	Thu 19/4/07	2SS				
40	3.2 Comment from the Engineer	7 days	Fri 20/4/07	Thu 26/4/07	39				
41	3.3 Submission of EMP	45 days	Fri 27/4/07	Sun 10/6/07	40				
42	4. Engineer's Accommodation	51 days	Fri 30/3/07	Sat 19/5/07					
43	4.1 Renovation	30 days	Fri 30/3/07	Sat 28/4/07	26SS				
44	4.2 Equipment	51 days	Fri 30/3/07	Sat 19/5/07					
45	a. Contract telephone	21 days	Fri 30/3/07	Thu 19/4/07	26SS				
46	b. Survey equipment	45 days	Fri 30/3/07	Sun 13/5/07	26SS				
47	c. Contract computer facilities	51 days	Fri 30/3/07	Sat 19/5/07					
48	submission	14 days	Fri 30/3/07	Thu 12/4/07	26SS				
49	approval	7 days	Fri 13/4/07	Thu 19/4/07	48				
50	installation	21 days	Sun 22/4/07	Sat 12/5/07	49,43FS-7 days				
51	testing & commissioning	7 days	Sun 13/5/07	Sat 19/5/07	50				
52	4.3 utilities servicing	33 days	Fri 30/3/07	Tue 1/5/07					
53	a. Water	1 day	Fri 30/3/07	Fri 30/3/07	26SS				
54	b. Electricity	1 day	Fri 30/3/07	Fri 30/3/07	26SS				
55	c. Telephone	33 days	Fri 30/3/07	Tue 1/5/07					
56	temporary service	32 days	Fri 30/3/07	Mon 30/4/07	26SS				
57	new service	19 days	Fri 13/4/07	Tue 1/5/07					
58	application	5 days	Fri 13/4/07	Tue 17/4/07	56SS+14 days				
59	installation	14 days	Wed 18/4/07	Tue 1/5/07	58				
60	d. Facsimile	33 days	Fri 30/3/07	Tue 1/5/07					
61	temporary service	32 days	Fri 30/3/07	Mon 30/4/07	26SS				
62	new service	19 days	Fri 13/4/07	Tue 1/5/07					
63	application	5 days	Fri 13/4/07	Tue 17/4/07	61SS+14 days				
64	installation	14 days	Wed 18/4/07	Tue 1/5/07	63				
65	e. Internet broadband	33 days	Fri 30/3/07	Tue 1/5/07					
66	temporary service (56K)	32 days	Fri 30/3/07	Mon 30/4/07	26SS				

Task Progress Summary Rolled Up Critical Task Rolled Up Progress External Tasks Group By Summary
Critical Task Milestone Rolled Up Task Rolled Up Milestone Split Project Summary Deadline

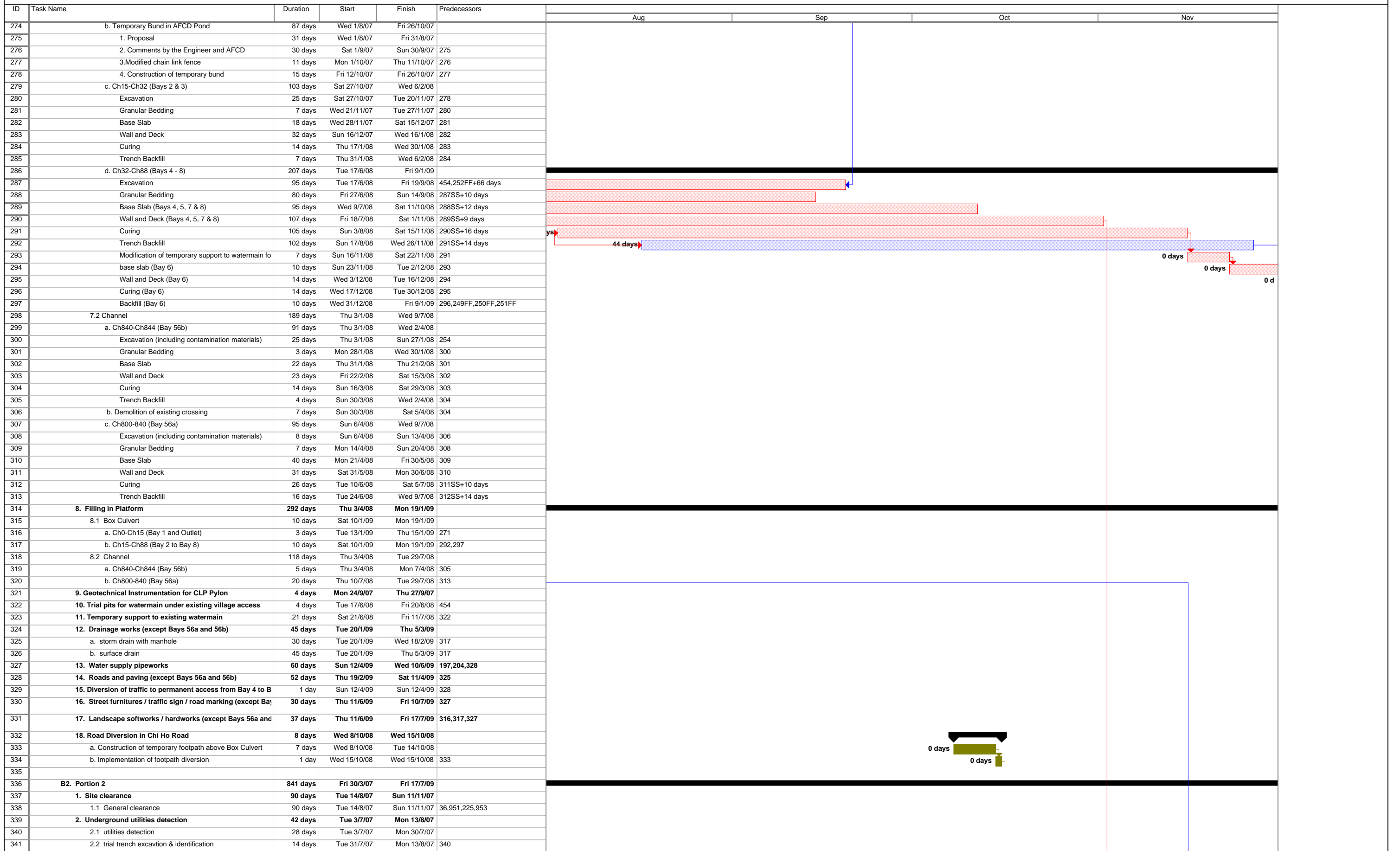
ID	Task Name	Duration	Start	Finish	Predecessors				
						Aug	Sep	Oct	Nov
67	new service	19 days	Fri 13/4/07	Tue 1/5/07					
68	application	5 days	Fri 13/4/07	Tue 17/4/07	66SS+14 days				
69	installation	14 days	Wed 18/4/07	Tue 1/5/07	68				
70	5. Contractor's Accommodation	45 days	Fri 30/3/07	Sun 13/5/07					
71	5.1 Provision	45 days	Fri 30/3/07	Sun 13/5/07					
72	a. Premises	45 days	Fri 30/3/07	Sun 13/5/07	26SS				
73	b. Toilet facilities	21 days	Mon 23/4/07	Sun 13/5/07	72FF				
74	c. Telephone service	30 days	Sat 14/4/07	Sun 13/5/07	72FF				
75	d. Facsimile service	30 days	Sat 14/4/07	Sun 13/5/07	72FF				
76	e. Internet broadband service	30 days	Sat 14/4/07	Sun 13/5/07	72FF				
77	f. Water	1 day	Fri 30/3/07	Fri 30/3/07	26SS				
78	g. electricity	1 day	Fri 30/3/07	Fri 30/3/07	26SS				
79	6. Transport (land) for the Engineer	124 days	Fri 30/3/07	Tue 31/7/07					
80	6.1 submission	7 days	Fri 30/3/07	Thu 5/4/07	2SS				
81	6.2 comment & approval	14 days	Fri 6/4/07	Thu 19/4/07	80				
82	6.3 delivery	103 days	Fri 20/4/07	Tue 31/7/07	81				
83	6.4 temp service	124 days	Fri 30/3/07	Tue 31/7/07	2SS,82FF				
84	7. Transport (land) for Public Works Regional Laboratory	124 days	Fri 30/3/07	Tue 31/7/07					
85	7.1 submission	7 days	Fri 30/3/07	Thu 5/4/07	2SS				
86	7.2 comment, approval & instruction	14 days	Fri 6/4/07	Thu 19/4/07	85				
87	7.3 delivery	103 days	Fri 20/4/07	Tue 31/7/07	86				
88	8. Signboard	150 days	Fri 30/3/07	Sun 26/8/07					
89	8.1 Major	150 days	Fri 30/3/07	Sun 26/8/07					
90	submission	90 days	Fri 30/3/07	Wed 27/6/07	2SS				
91	comment & approval	90 days	Sun 29/4/07	Fri 27/7/07	90SS+30 days				
92	erection	90 days	Tue 29/5/07	Sun 26/8/07	91SS+30 days				
93	8.2 Minor	150 days	Fri 30/3/07	Sun 26/8/07					
94	submission	90 days	Fri 30/3/07	Wed 27/6/07	2SS				
95	comment & approval	90 days	Sun 29/4/07	Fri 27/7/07	94SS+30 days				
96	erection	90 days	Tue 29/5/07	Sun 26/8/07	95SS+30 days				
97	9. Telephone hotline	15 days	Sun 29/4/07	Sun 13/5/07					
98	9.1 Engineer's instruction	1 day	Sun 29/4/07	Mon 30/4/07	99SF				
99	9.2 installation	14 days	Mon 30/4/07	Sun 13/5/07	74FF				
100	10. Contractual general submissions	850 days	Wed 21/3/07	Fri 17/7/09					
101	10.1 programmes	28 days	Wed 21/3/07	Tue 17/4/07					
102	a. GCC Clause 16 programme	14 days	Wed 21/3/07	Tue 3/4/07	1SS				
103	b. Works programme & financial programme	14 days	Wed 4/4/07	Tue 17/4/07	102				
104	c. 3-month rolling programme	14 days	Wed 4/4/07	Tue 17/4/07	102				
105	10.2 contractor's superintendence	14 days	Fri 30/3/07	Thu 12/4/07					
106	a. Agent	7 days	Fri 30/3/07	Thu 5/4/07	2SS				
107	b. Surveyor	14 days	Fri 30/3/07	Thu 12/4/07	2SS				
108	c. Sub-agent	14 days	Fri 30/3/07	Thu 12/4/07	2SS				
109	d. Geotechnical Engineer	7 days	Fri 30/3/07	Thu 5/4/07	2SS				
110	e. Geotechnical Supervisor	14 days	Fri 30/3/07	Thu 12/4/07	2SS				
111	f. Foreman - concrete	14 days	Fri 30/3/07	Thu 12/4/07	2SS				
112	g. Foreman - drainage	14 days	Fri 30/3/07	Thu 12/4/07	2SS				
113	h. Staff Organization Plan	14 days	Fri 30/3/07	Thu 12/4/07	2SS				
114	10.3 Safety Organization	14 days	Fri 30/3/07	Thu 12/4/07					
115	a. Safety Officer	14 days	Fri 30/3/07	Thu 12/4/07	2SS				
116	b. Safety Supervisor	14 days	Fri 30/3/07	Thu 12/4/07	2SS				
117	c. Safety Representative	14 days	Fri 30/3/07	Thu 12/4/07	2SS				
118	10.4 TTMS design	7 days	Fri 30/3/07	Thu 5/4/07					
119	a. Independent Traffic Consultant	7 days	Fri 30/3/07	Thu 5/4/07	2SS				
120	b. Traffic Engineer	7 days	Fri 30/3/07	Thu 5/4/07	2SS				
121	10.5 Assistant to Engineer	33 days	Fri 30/3/07	Tue 1/5/07					
122	a. Chainmen (4)	33 days	Fri 30/3/07	Tue 1/5/07	2SS				
123	b. Watchmen (2)	33 days	Fri 30/3/07	Tue 1/5/07	2SS				
124	c. Field assistant (1)	33 days	Fri 30/3/07	Tue 1/5/07	2SS				
125	d. Technical assistant (1)	33 days	Fri 30/3/07	Tue 1/5/07	2SS				
126	e. Clerical assistant (1)	33 days	Fri 30/3/07	Tue 1/5/07	2SS				
127	f. Office assistant (1)	33 days	Fri 30/3/07	Tue 1/5/07	2SS				
128	10.6 Underground service detection equipment	35 days	Fri 30/3/07	Thu 3/5/07					
129	a. Submission	7 days	Fri 30/3/07	Thu 5/4/07	2SS				
130	b. Comment & approval	14 days	Fri 6/4/07	Thu 19/4/07	129				
131	c. Provision	14 days	Fri 20/4/07	Thu 3/5/07	130				
132	10.7 Independent Checking of Temporary Works	28 days	Fri 30/3/07	Thu 26/4/07					
133	a. Submission of independent checking engineer	14 days	Fri 30/3/07	Thu 12/4/07	2SS				
134	b. Comment & approval	14 days	Fri 13/4/07	Thu 26/4/07	133				
135	10.8 Trip ticket system for C & D material	59 days	Fri 30/3/07	Sun 27/5/07					

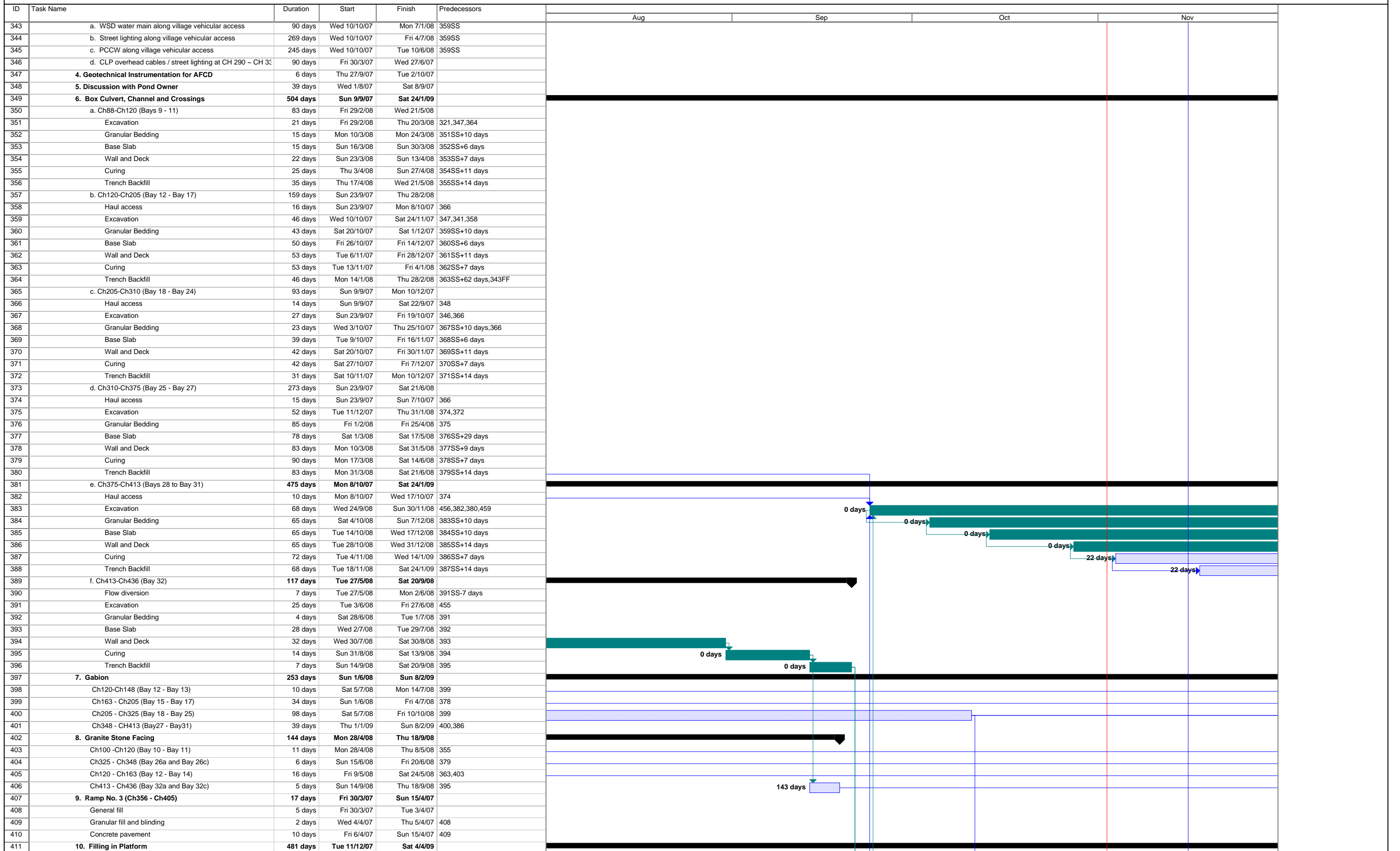
Task Progress Summary Rolled Up Critical Task Rolled Up Progress External Tasks Group By Summary
Critical Task Milestone Rolled Up Task Rolled Up Milestone Split Project Summary Deadline

ID	Task Name	Duration	Start	Finish	Predecessors	Gantt Chart			
						Aug	Sep	Oct	Nov
136	a. Submission of site management plan	45 days	Fri 30/3/07	Sun 13/5/07	2SS				
137	b. Comment & approval	14 days	Mon 14/5/07	Sun 27/5/07	136				
138	10.9. Condition survey and structural monitoring	841 days	Fri 30/3/07	Fri 17/7/09					
139	a. Submission of Independent Structural Engineer	14 days	Fri 30/3/07	Thu 12/4/07	2SS				
140	b. Comment & approval	7 days	Fri 13/4/07	Thu 19/4/07	139				
141	c. Proposal for condition survey & structural monitoring	209 days	Fri 20/4/07	Wed 14/11/07					
142	Portion 1, 4, 6, 7, 8	30 days	Fri 20/4/07	Sat 19/5/07	140				
143	Portion 2	30 days	Wed 30/5/07	Thu 28/6/07	16				
144	Portion 3, 5, 5A1, 5A2	30 days	Fri 29/6/07	Sat 28/7/07	17,19,20,21				
145	Portion 5B	30 days	Tue 16/10/07	Wed 14/11/07	22				
146	d. Comment & approval	193 days	Sun 20/5/07	Wed 28/11/07					
147	Portion 1, 4, 6, 7, 8	14 days	Sun 20/5/07	Sat 2/6/07	142				
148	Portion 2	14 days	Fri 29/6/07	Thu 12/7/07	143				
149	Portion 3, 5, 5A1, 5A2	14 days	Sun 29/7/07	Sat 11/8/07	144				
150	Portion 5B	14 days	Thu 15/11/07	Wed 28/11/07	145				
151	e. Condition survey & structural monitoring	776 days	Sun 3/6/07	Fri 17/7/09					
152	Portion 1, 4, 6, 7, 8	776 days	Sun 3/6/07	Fri 17/7/09	147				
153	Portion 2	736 days	Fri 13/7/07	Fri 17/7/09	148				
154	Portion 3, 5, 5A1, 5A2	706 days	Sun 12/8/07	Fri 17/7/09	149				
155	Portion 5B	597 days	Thu 29/11/07	Fri 17/7/09	150				
156	10.10 Handling & disposal of Type 1 & 2 contaminated material:	74 days	Sat 14/7/07	Tue 25/9/07					
157	a. Proposed type of dump truck	44 days	Sun 15/7/07	Mon 27/8/07					
158	Submission	30 days	Sun 15/7/07	Mon 13/8/07	757SS-44 days				
159	Comment & approval	14 days	Tue 14/8/07	Mon 27/8/07	158				
160	b. Proposal of berthing area arrangement	44 days	Mon 30/7/07	Tue 11/9/07					
161	Submission	30 days	Mon 30/7/07	Tue 28/8/07					
162	Comment & approval	14 days	Wed 29/8/07	Tue 11/9/07	161				
163	c. Proposal of disposal arrangement	74 days	Sat 14/7/07	Tue 25/9/07					
164	Submission	60 days	Sat 14/7/07	Tue 11/9/07					
165	Comment & approval	14 days	Wed 12/9/07	Tue 25/9/07	164				
166	10.11 Type 3 contaminated material	290 days	Fri 30/3/07	Sun 13/1/08					
167	a. Decontamination specialist	134 days	Fri 30/3/07	Fri 10/8/07					
168	Submission	120 days	Fri 30/3/07	Fri 27/7/07	2SS				
169	Comment & approval	14 days	Sat 28/7/07	Fri 10/8/07	168				
170	b. Statement & treatment programme	42 days	Sat 11/8/07	Fri 21/9/07					
171	(1) Submission	28 days	Sat 11/8/07	Fri 7/9/07	169				
172	(2) Comment & approval	14 days	Sat 8/9/07	Fri 21/9/07					
173	by the Engineer	14 days	Sat 8/9/07	Fri 21/9/07	171				
174	by the EPD	14 days	Sat 8/9/07	Fri 21/9/07	171				
175	c. Setting up of Treatment Plant	60 days	Thu 15/11/07	Sun 13/1/08	174				
176	10.12 Safety Plan	35 days	Wed 21/3/07	Tue 24/4/07					
177	a. Submission of draft Safety Plan	14 days	Wed 21/3/07	Tue 3/4/07	1SS				
178	b. Comment by the Engineer	7 days	Wed 4/4/07	Tue 10/4/07	177				
179	c. Submission of Safety Plan	14 days	Wed 11/4/07	Tue 24/4/07	178				
180	10.13 Sub-contractor Management Plan	850 days	Wed 21/3/07	Fri 17/7/09					
181	a. Submission of SMP	30 days	Wed 21/3/07	Thu 19/4/07	1SS				
182	b. For information & Comments	14 days	Fri 20/4/07	Thu 3/5/07	181				
183	c. Update SMP	806 days	Fri 4/5/07	Fri 17/7/09	182				
184	10.14 proof of plant ownership	841 days	Fri 30/3/07	Fri 17/7/09					
185	a. Submission of draft written undertaking	14 days	Fri 30/3/07	Thu 12/4/07	2SS				
186	b. Comment by the Engineer / Employer	14 days	Fri 13/4/07	Thu 26/4/07	185				
187	c. Engineer's request	813 days	Fri 27/4/07	Fri 17/7/09	186				
188	10.15 Contractor's Management Team	841 days	Fri 30/3/07	Fri 17/7/09					
189	a. Submission of staff member details	14 days	Fri 30/3/07	Thu 12/4/07	2SS				
190	b. Update management / site supervision team	827 days	Fri 13/4/07	Fri 17/7/09	189				
191	10.16 Water supply pipeworks material	651 days	Wed 21/3/07	Tue 30/12/08					
192	a. Supplier	28 days	Wed 21/3/07	Tue 17/4/07					
193	Submission	14 days	Wed 21/3/07	Tue 3/4/07	1SS				
194	comment & approval	14 days	Wed 4/4/07	Tue 17/4/07	193				
195	b. Manufacturer	28 days	Wed 21/3/07	Tue 17/4/07					
196	Submission	14 days	Wed 21/3/07	Tue 3/4/07	1SS				
197	comment & approval	14 days	Wed 4/4/07	Tue 17/4/07	196				
198	c. Independent Inspection Agent (IIA)	28 days	Wed 21/3/07	Tue 17/4/07					
199	Submission	14 days	Wed 21/3/07	Tue 3/4/07	1SS				
200	comment & approval	14 days	Wed 4/4/07	Tue 17/4/07	199				
201	d. Representative of the IIA	28 days	Wed 21/3/07	Tue 17/4/07					
202	Submission	14 days	Wed 21/3/07	Tue 3/4/07	1SS				
203	comment & approval	14 days	Wed 4/4/07	Tue 17/4/07	202				

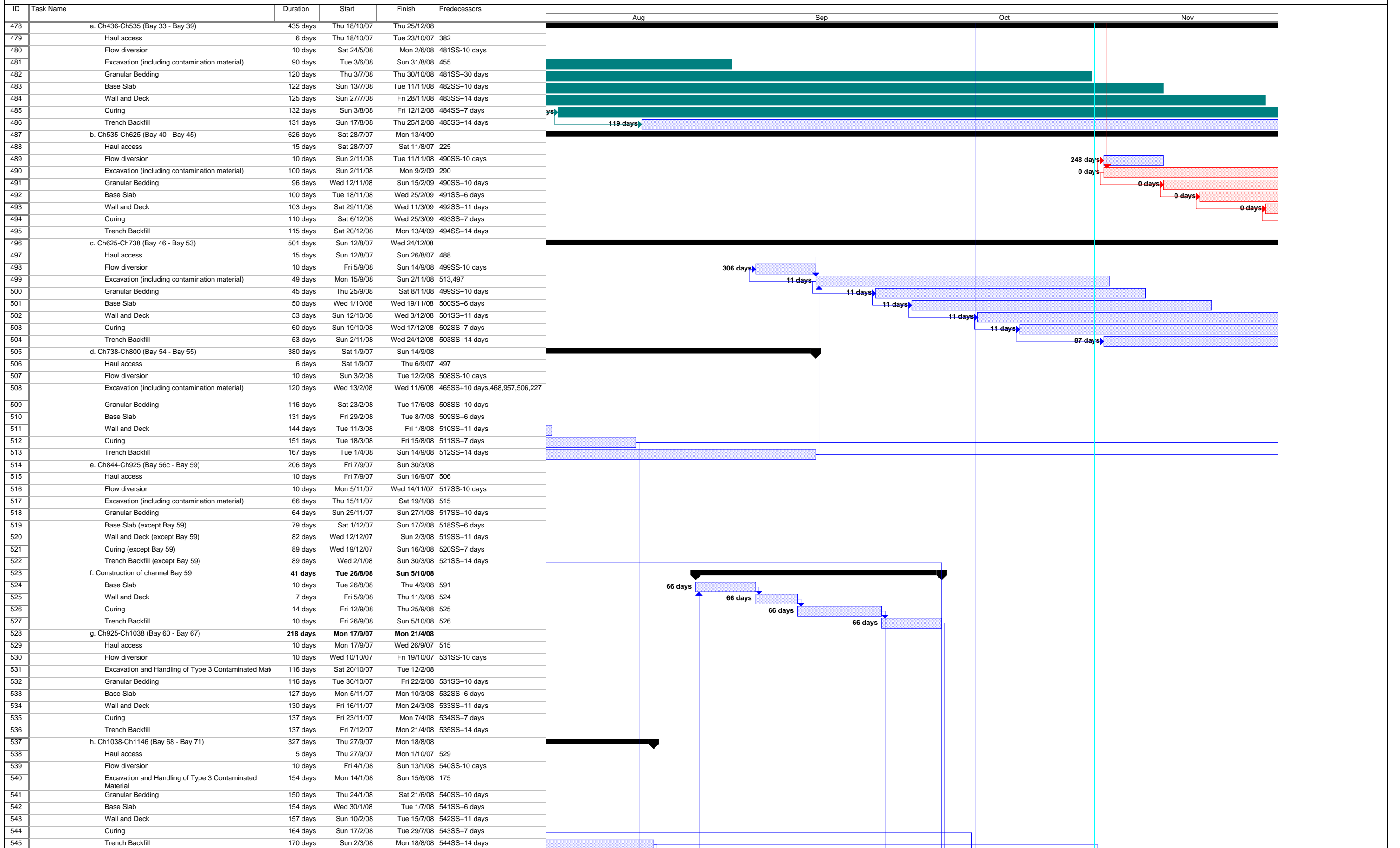
ID	Task Name	Duration	Start	Finish	Predecessors	Gantt Chart			
						Aug	Sep	Oct	Nov
205	10.17 Landscape softworks and establishment works	28 days	Fri 30/3/07	Thu 26/4/07					
206	a. Submission of technical information	14 days	Fri 30/3/07	Thu 12/4/07	2SS				
207	b. Comment & approval	14 days	Fri 13/4/07	Thu 26/4/07	206				
208	10.18 Preservation and protection of existing trees	59 days	Wed 21/3/07	Fri 18/5/07					
209	a. Specialist contractor (landscaping Class I)	28 days	Fri 30/3/07	Thu 26/4/07					
210	Submission	14 days	Fri 30/3/07	Thu 12/4/07	2SS				
211	Comment & approval	14 days	Fri 13/4/07	Thu 26/4/07	210				
212	b. Site supervisory staff	59 days	Wed 21/3/07	Fri 18/5/07					
213	Submission	45 days	Wed 21/3/07	Fri 4/5/07	1SS				
214	Comment & approval	14 days	Sat 5/5/07	Fri 18/5/07	213				
215	10.19 Concrete (ready mix)	28 days	Fri 30/3/07	Thu 26/4/07					
216	a. Submission of supplier & design mix	21 days	Fri 30/3/07	Thu 19/4/07	2SS				
217	b. Comment & approval	7 days	Fri 20/4/07	Thu 26/4/07	216				
218	10.20 Steel reinforcement	35 days	Fri 30/3/07	Thu 3/5/07					
219	a. Submission of supplier	28 days	Fri 30/3/07	Thu 26/4/07	2SS				
220	b. Comment & approval	7 days	Fri 27/4/07	Thu 3/5/07	219				
221	10.21 Submissions of method statement / materials	750 days	Tue 15/5/07	Tue 2/6/09					
222	a. Submission of materials	750 days	Tue 15/5/07	Tue 2/6/09	15FS+45 days				
223	b. Submission of method statement	750 days	Tue 15/5/07	Tue 2/6/09	15FS+45 days				
224	11. Provision of wheel washing facilities	180 days	Fri 30/3/07	Tue 25/9/07					
225	11.1 Channel KT2	120 days	Fri 30/3/07	Fri 27/7/07	2SS				
226	11.2 Channel KT15	90 days	Thu 28/6/07	Tue 25/9/07	19FS-1 day				
227	11.3 Berthing area	90 days	Fri 30/3/07	Wed 27/6/07	2SS				
228	11.4 Portion 6	45 days	Fri 30/3/07	Sun 13/5/07	2SS				
229	12. Setting up of traffic management liaison group	30 days	Fri 30/3/07	Sat 28/4/07	2SS				
230									
231	B. Section I of the Works	841 days	Fri 30/3/07	Fri 17/7/09					
232	B1. Portion 1	841 days	Fri 30/3/07	Fri 17/7/09					
233	1. Site clearance	30 days	Sat 28/7/07	Sun 26/8/07					
234	1.1 General site clearance	30 days	Sat 28/7/07	Sun 26/8/07	36,225,947,945				
235	2. Temporary Traffic Management Scheme	59 days	Fri 30/3/07	Sun 27/5/07					
236	2.1 TTMS Proposal (trial pits in Chi Ho Road for utilities)	59 days	Fri 30/3/07	Sun 27/5/07					
237	a. Submission	45 days	Fri 30/3/07	Sun 13/5/07	2SS				
238	b. comments & approvals by Engineer & TMLG	14 days	Mon 14/5/07	Sun 27/5/07	237				
239	2.2 TTMS Proposal (for construction of box culvert)	59 days	Fri 30/3/07	Sun 27/5/07					
240	a. Submission	45 days	Fri 30/3/07	Sun 13/5/07					
241	b. comments & approvals by Engineer & TMLG	14 days	Mon 14/5/07	Sun 27/5/07	240				
242	3. Excavation Permits	507 days	Mon 28/5/07	Wed 15/10/08					
243	3.1 application and issue of permit (trial pits in Chi Ho Road	180 days	Mon 28/5/07	Fri 23/11/07	238				
244	3.2 application and issue of permits (for construction of box culvert)	180 days	Sat 19/4/08	Wed 15/10/08	241				
245	4. Underground utilities detection	253 days	Fri 30/3/07	Fri 7/12/07					
246	4.1 utilities detection	28 days	Fri 30/3/07	Thu 26/4/07	2SS				
247	4.2 trial trench excavation & identification	14 days	Sat 24/11/07	Fri 7/12/07	246,243				
248	5. Utilities temporary diversion / protection	474 days	Thu 27/9/07	Mon 12/1/09					
249	a. WSD watermain along village vehicular access	207 days	Tue 17/6/08	Fri 9/1/09	287SS				
250	b. Street lighting along village vehicular access	207 days	Tue 17/6/08	Fri 9/1/09	287SS				
251	c. PCCW along village vehicular access	207 days	Tue 17/6/08	Fri 9/1/09	287SS				
252	d. CLP overhead cable at Bay 4	160 days	Thu 7/2/08	Tue 15/7/08	285				
253	e. CH 816-CH841 underground cables (33kV)	42 days	Thu 27/9/07	Wed 7/11/07	260				
254	f. CH 816-CH841 underground cables (132kV)	56 days	Thu 8/11/07	Wed 2/1/08	253				
255	g. Street lighting at Chi Ho Road	87 days	Sat 18/10/08	Mon 12/1/09	266SS,247				
256	h. Irrigation pipe at Chi Ho Road	87 days	Sat 18/10/08	Mon 12/1/09	266SS				
257	6. Drainage Management Plan (Ch810 to Ch850)	77 days	Thu 12/7/07	Wed 26/9/07					
258	6.1 Submission of DMPs	1 day	Thu 12/7/07	Thu 12/7/07					
259	6.2 Comments by the Engineer	14 days	Fri 13/7/07	Thu 26/7/07	258				
260	6.3 Implementation of DMP	3 days	Mon 24/9/07	Wed 26/9/07	259SF				
261	7. Box Culvert and Channel	558 days	Wed 1/8/07	Sun 8/2/09					
262	7.1 Box Culvert BC2-1	558 days	Wed 1/8/07	Sun 8/2/09					
263	a. Ch0-Ch15 (Bay 1 and Outlet)	134 days	Sun 28/9/08	Sun 8/2/09					
264	Construction of cofferdam	20 days	Sun 28/9/08	Fri 17/10/08					
265	Remove road pavement and expose existing utiliti	2 days	Thu 16/10/08	Fri 17/10/08	244,334				
266	Excavation	9 days	Sat 18/10/08	Sun 26/10/08	265,264				
267	Granular Bedding	5 days	Mon 27/10/08	Fri 31/10/08	266				
268	Base Slab	21 days	Sat 1/11/08	Fri 21/11/08	267				
269	Wall and Deck	31 days	Sat 22/11/08	Mon 22/12/08	268				
270	Curing	14 days	Tue 23/12/08	Mon 5/1/09	269				
271	Trench Backfill	7 days	Tue 6/1/09	Mon 12/1/09	270				
272	Reinstatement of Chi Ho Road	13 days	Tue 13/1/09	Sun 25/1/09	271,255,256				

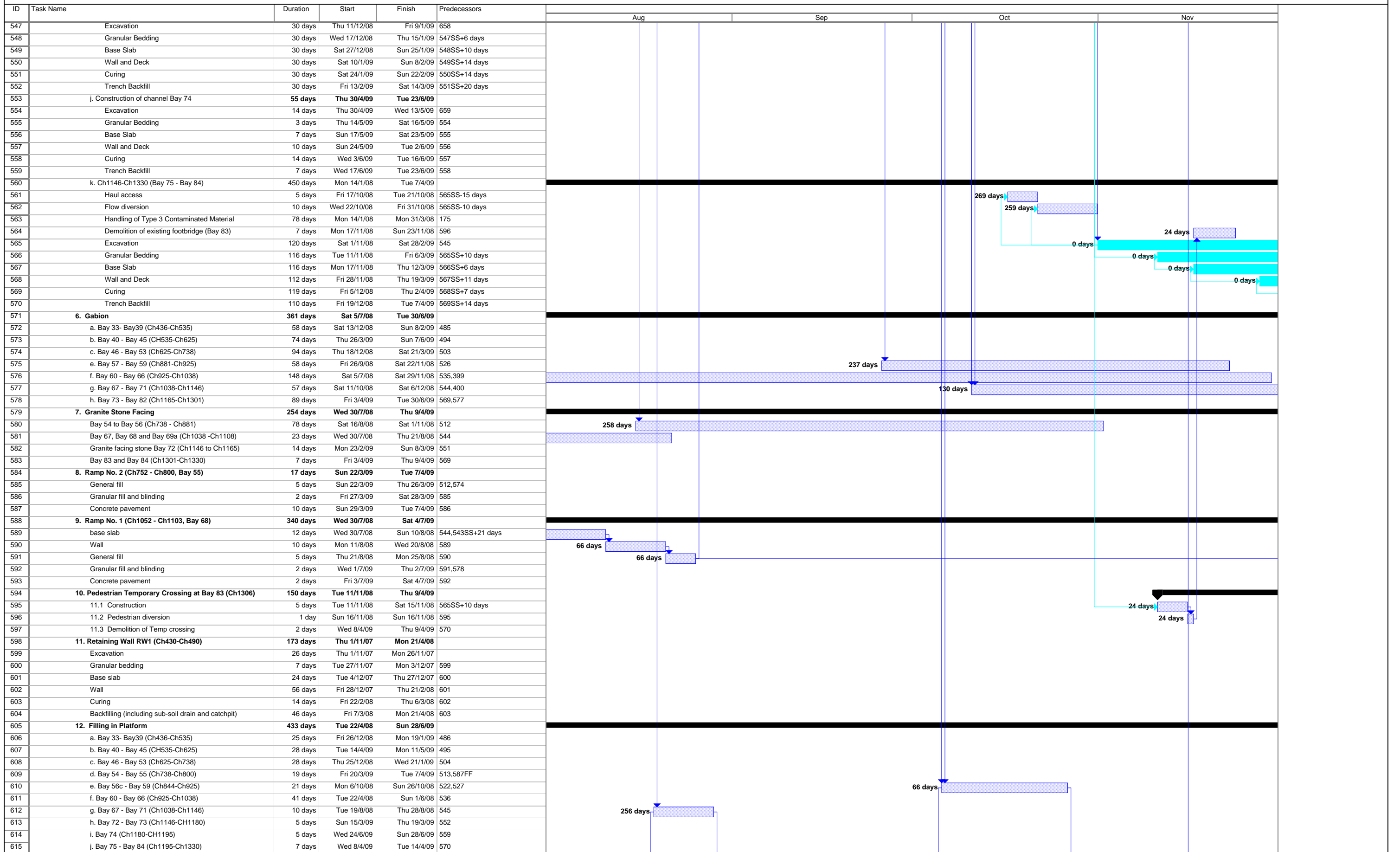
Task Progress Summary Rolled Up Critical Task Rolled Up Progress External Tasks Group By Summary
Critical Task Milestone Rolled Up Task Rolled Up Milestone Split Project Summary Deadline

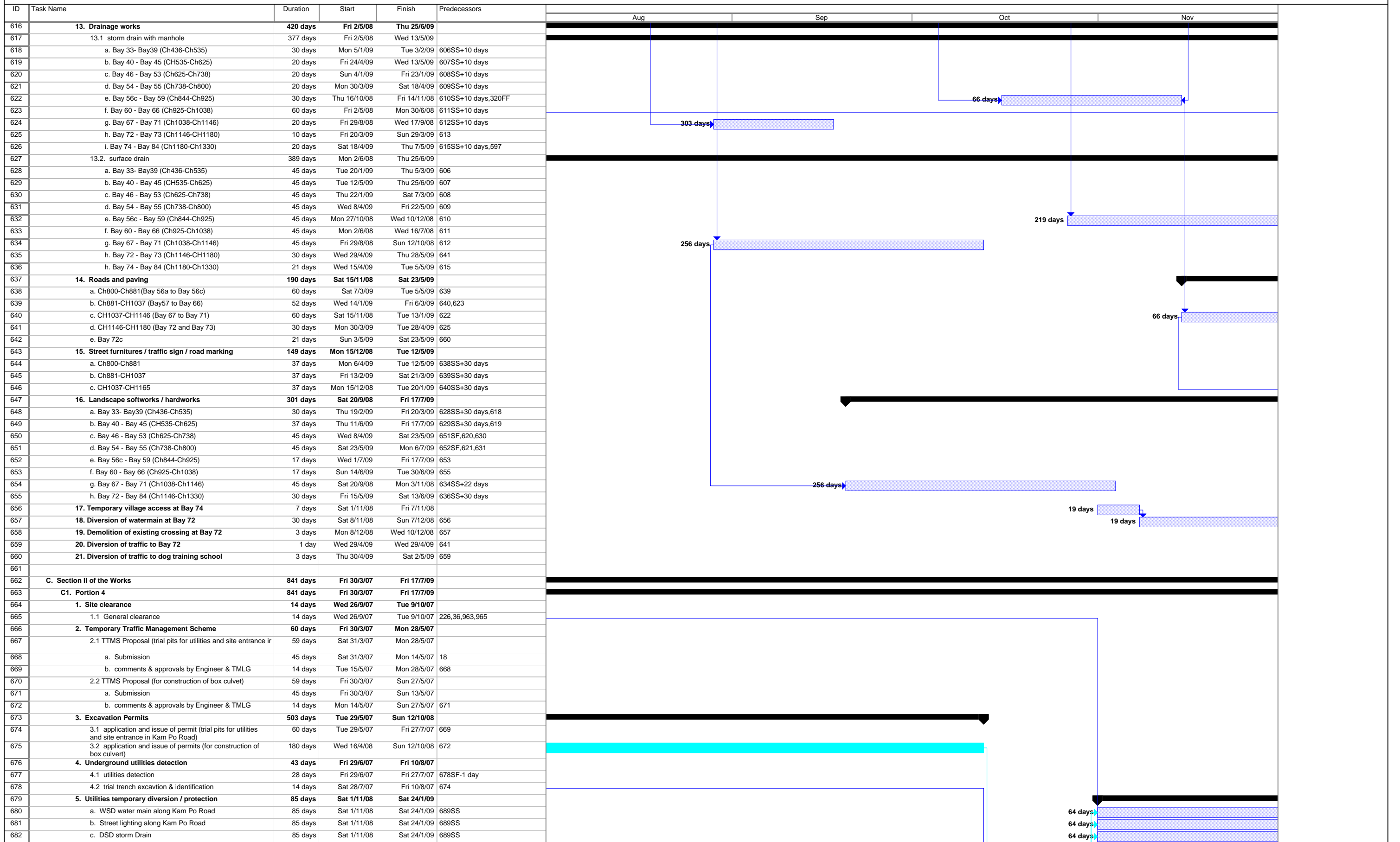




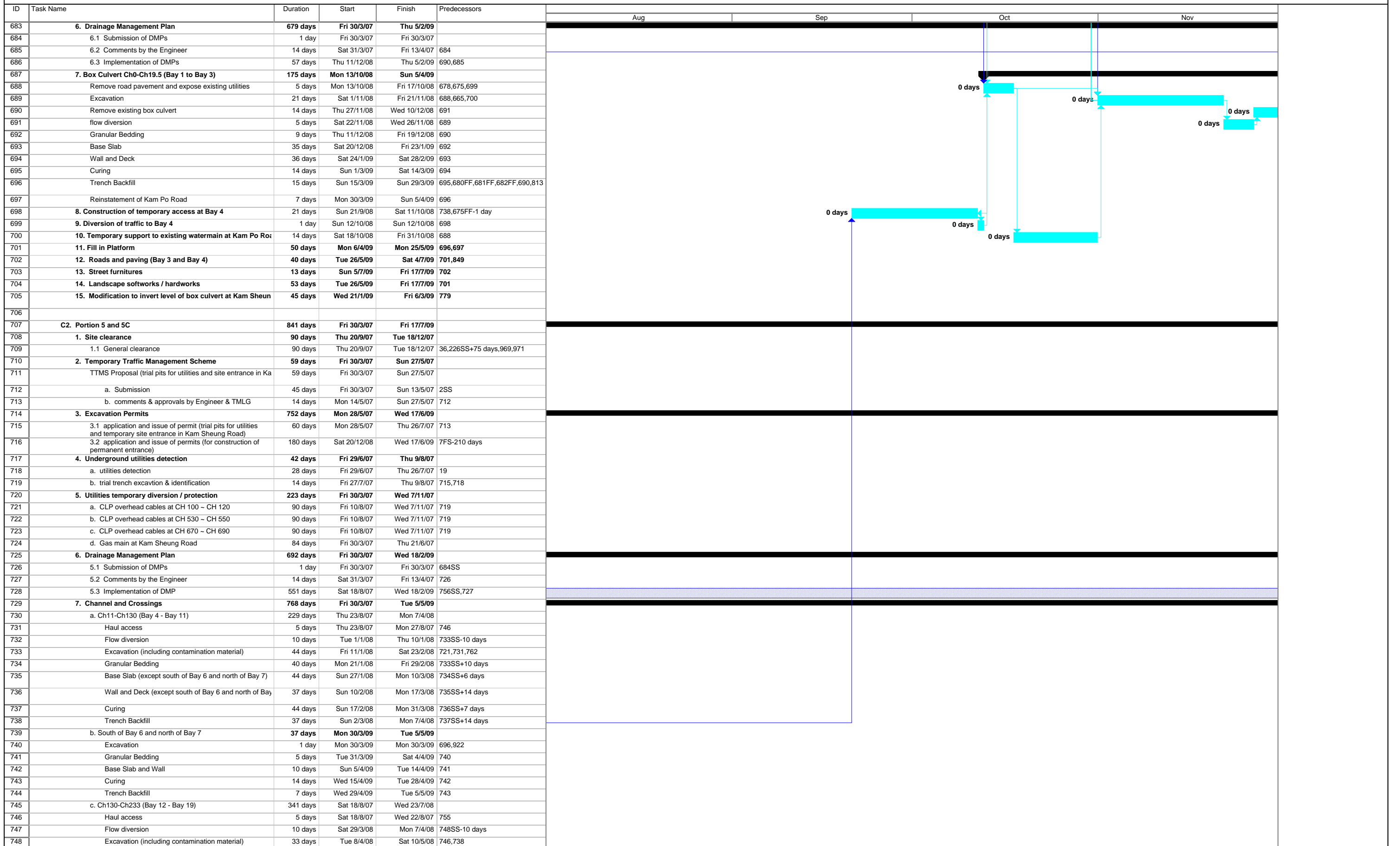
ID	Task Name	Duration	Start	Finish	Predecessors	Gantt Chart			
						Aug	Sep	Oct	Nov
412	10.1 Box Culvert BC2-1	10 days	Thu 22/5/08	Sat 31/5/08					
413	a. Ch88-Ch120 (South of Bay 9 - Bay 11)	10 days	Thu 22/5/08	Sat 31/5/08	356				
414	10.2 Channel and Crossing	481 days	Tue 11/12/07	Sat 4/4/09					
415	a. Ch120-Ch205 (Bay 12 - Bay 17)	90 days	Fri 29/2/08	Wed 28/5/08	364				
416	b. Ch205-Ch310 (Bay 18 - Bay 24)	118 days	Tue 11/12/07	Sun 6/4/08	372				
417	c. Ch310-Ch361 (Bay 25 - Bay 27)	31 days	Sun 22/6/08	Tue 22/7/08	380				
418	d. Ch361-Ch413 (Bay 28 - Bay 31)	48 days	Mon 16/2/09	Sat 4/4/09	388,461				
419	11. Drainage works	439 days	Mon 7/4/08	Fri 19/6/09					
420	11.1 storm drain with manhole and headwall	384 days	Mon 7/4/08	Sat 25/4/09					
421	a. Ch88-Ch 120 (Bay 9 - Bay 11)	20 days	Sun 1/6/08	Fri 20/6/08	413				
422	b. Ch120-Ch205 (Bay 12 - Bay 17)	20 days	Thu 29/5/08	Tue 17/6/08	415				
423	c. Ch205-Ch310 (Bay 18 - Bay 24)	20 days	Mon 7/4/08	Sat 26/4/08	416				
424	d. Ch310-Ch361 (Bay 25 - Bay 27)	20 days	Wed 23/7/08	Mon 11/8/08	417				
425	e. Ch361-Ch436 (Bay 28 - Bay 32)	21 days	Sun 5/4/09	Sat 25/4/09	418				
426	11.2. surface drain	389 days	Tue 27/5/08	Fri 19/6/09					
427	a. Ch88-Ch 120 (Bay 9 - Bay 11)	10 days	Sun 8/3/09	Tue 17/3/09	413,435				
428	b. Ch120-Ch190 (Bay 12 - Bay 16)	10 days	Thu 23/4/09	Sat 2/5/09	415,436				
429	c. Ch190-Ch348 (Bay 17 - Bay 26)	15 days	Tue 27/5/08	Tue 10/6/08	416,437				
430	d. Ch348-Ch390 (Bay 27 - Bay 29)	10 days	Wed 23/7/08	Fri 1/8/08	417,438				
431	e. Ch390-Ch436 (Bay 30 - Bay 32)	10 days	Wed 10/6/09	Fri 19/6/09	418,439				
432	12.1. Water supply pipeworks (Bay 9 to Bay 26)	60 days	Thu 23/4/09	Sun 21/6/09	435,436,437,204				
433	12.2. Water supply pipeworks (Bay 27 to Bay 32)	14 days	Sun 26/4/09	Sat 9/5/09	424,425,204				
434	13. Roads and paving	803 days	Fri 30/3/07	Tue 9/6/09					
435	a. Ch88-Ch 148 (Bay 9 - Bay 13)	17 days	Thu 19/2/09	Sat 7/3/09	422,413,421,325				
436	b. Ch148-Ch190 (Bay 14 - Bay 16)	10 days	Mon 13/4/09	Wed 22/4/09	415,329				
437	c. Ch190-Ch348 (Bay 17 - Bay 26)	50 days	Mon 7/4/08	Mon 26/5/08	416				
438	d. Ch348-Ch390 (Bay 27 - Bay 29)	10 days	Fri 30/3/07	Sun 8/4/07					
439	e. Ch390-Ch436 (Bay 30 to Bay 32)	45 days	Sun 26/4/09	Tue 9/6/09	424,425				
440	14. Road furnitures	808 days	Mon 9/4/07	Wed 24/6/09					
441	a. Ch88-Ch 120 (Bay 9 - Bay 11)	17 days	Sun 8/3/09	Tue 24/3/09	435				
442	b. Ch120-Ch205 (Bay 12 - Bay 17)	33 days	Thu 23/4/09	Mon 25/5/09	436				
443	c. Ch205-Ch348 (Bay 18 - Bay 26)	50 days	Tue 27/5/08	Tue 15/7/08	437				
444	d. Ch348-Ch390 (Bay 27 - Bay 29)	33 days	Mon 9/4/07	Fri 11/5/07	438				
445	e. Ch390-Ch436 (Bay 30 - Bay 32)	15 days	Wed 10/6/09	Wed 24/6/09	439				
446	15. Landscape softworks / hardworks	132 days	Sun 8/3/09	Fri 17/7/09					
447	a. Ch88-Ch 120 (Bay 9 - Bay 11)	30 days	Sun 8/3/09	Mon 6/4/09	427SS				
448	b. Ch120-Ch205 (Bay 12 - Bay 17)	70 days	Thu 23/4/09	Wed 1/7/09	428SS				
449	c. Ch205-Ch310 (Bay 18 - Bay 24)	62 days	Thu 23/4/09	Tue 23/6/09	448SS				
450	d. Ch310-Ch436 (Bay 25 - Bay 32)	38 days	Wed 10/6/09	Fri 17/7/09	430SS,431SS				
451	16. Final trimming of north platform from Bay 26 to Bay 32	26 days	Wed 10/6/09	Sun 5/7/09	439				
452	17. Construct temporary access (Bay 5 to Bay 14)	25 days	Thu 22/5/08	Sun 15/6/08	356,364				
453	18. Removal of existing public light controller near Bay 14	1 day	Sun 15/6/08	Sun 15/6/08					
454	19. Traffic diversion at north of Bay 5 to Bay 14	1 day	Mon 16/6/08	Mon 16/6/08	453,452				
455	20. Temporary Village Access on Bay 28 - Bay 30	2 days	Sun 1/6/08	Mon 2/6/08	378				
456	21. Temporary Village Access on Bay 32	3 days	Sun 21/9/08	Tue 23/9/08	396				
457	22. Diversion of traffic to permanent access between Bay 1	1 day	Sun 25/1/09	Sun 25/1/09	388,437				
458	23. Temporary pipe crossing at south of Bay 30	4 days	Wed 17/9/08	Sat 20/9/08	459SS-4 days				
459	24. Diversion of traffic from Cheung Chun San Chuen to the	1 day	Sun 21/9/08	Sun 21/9/08	396				
460	25. Diversion of existing stream to constructed channel	4 days	Mon 9/2/09	Thu 12/2/09	401,273,398,399,400,403,404,405				
461	26. Demolition of existing vehicular bridge	3 days	Fri 13/2/09	Sun 15/2/09	460				
462									
463	B3. Portion 3	737 days	Thu 12/7/07	Fri 17/7/09					
464	1. Site clearance	90 days	Sat 15/9/07	Thu 13/12/07					
465	1.1 General clearance	90 days	Sat 15/9/07	Thu 13/12/07	17,225,957,959				
466	2. Underground utilities detection	42 days	Tue 31/7/07	Mon 10/9/07					
467	2.1 utilities detection	28 days	Tue 31/7/07	Mon 27/8/07	340				
468	2.2 trial trench excavation & identification	14 days	Tue 28/8/07	Mon 10/9/07	467				
469	3. Utilities temporary diversion / protection	153 days	Mon 5/1/09	Sat 6/6/09					
470	a. WSD water main along village access at CH 1150	153 days	Mon 5/1/09	Sat 6/6/09	565SS,570FF+60 days				
471	b. Street lighting along village access at CH 1150	93 days	Mon 5/1/09	Tue 7/4/09	565SS,570FF				
472	c. PCCW along village access at CH 1150	153 days	Mon 5/1/09	Sat 6/6/09	565SS,570FF+60 days				
473	4. Drainage Management Plan	720 days	Thu 12/7/07	Tue 30/6/09					
474	4.1 Submission of DMPs	1 day	Thu 12/7/07	Thu 12/7/07					
475	4.2 Comments by the Engineer	14 days	Fri 13/7/07	Thu 26/7/07	474				
476	4.3 Implementation of DMP	659 days	Tue 11/9/07	Tue 30/6/09	571FF,475				
477	5. Channel and Crossings	697 days	Sat 28/7/07	Tue 23/6/09					





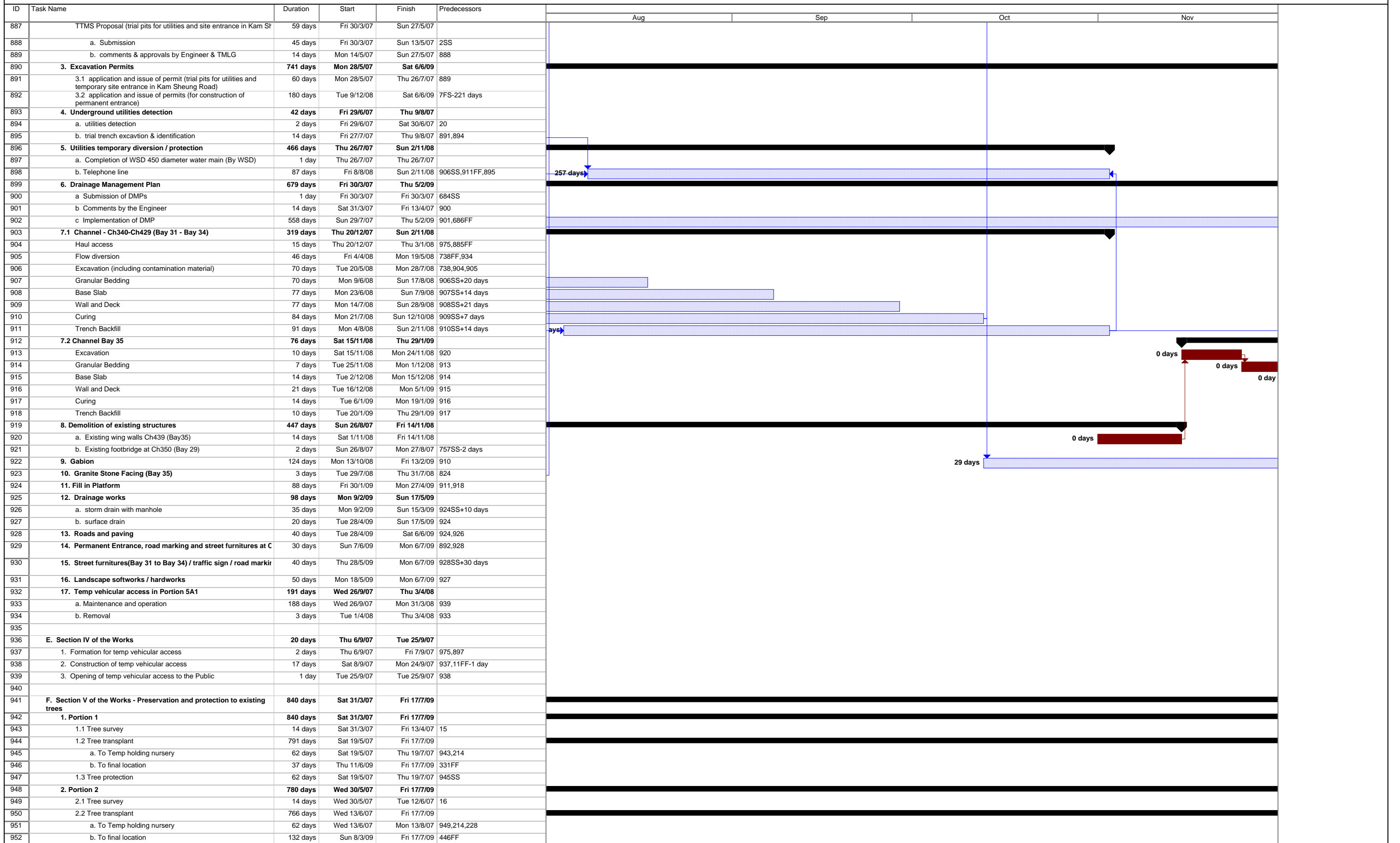


Task Progress Summary Rolled Up Critical Task Rolled Up Progress External Tasks Group By Summary
Critical Task Milestone Rolled Up Task Rolled Up Milestone Split Project Summary Deadline





ID	Task Name	Duration	Start	Finish	Predecessors	Aug	Sep	Oct	Nov
818	Bay 44 - Bay 45 (Ch549-Ch576)	15 days	Mon 21/1/08	Mon 4/2/08	800				
819	Gabion Bay 50 to Bay 54 (Ch631 to Ch675)	28 days	Mon 21/1/08	Sun 17/2/08	800				
820	Bay 56 - Bay 59 (Ch688-Ch741)	10 days	Thu 4/12/08	Sat 13/12/08	809				
821	Bay 60 - Bay 62 (Ch741-Ch786)	7 days	Thu 4/12/08	Wed 10/12/08	809				
822	9. Granite Stone Facing	505 days	Fri 30/3/07	Fri 15/8/08		97			
823	Bay 4 and Bay 5 (Ch19.5-Ch55)	5 days	Tue 1/4/08	Sat 5/4/08	737				
824	Bay 15 - Bay 19 (Ch166-Ch233)	12 days	Thu 17/7/08	Mon 28/7/08	752				
825	Bay 37 (Ch449-Ch464)	7 days	Fri 30/3/07	Thu 5/4/07					
826	Bay 41, Bay 42 and Bay 46 (Ch504-Ch586)	6 days	Fri 1/8/08	Wed 6/8/08	923				
827	Bay 47 - Bay 55 (Ch586-Ch688)	9 days	Thu 7/8/08	Fri 15/8/08	826				
828	10. Ramp No. 1 (Ch645 - Ch668, Bay 52 - Bay 53)	337 days	Mon 21/1/08	Mon 22/12/08		207			
829	base slab	12 days	Mon 21/1/08	Fri 1/2/08	800				
830	Wall	10 days	Sat 2/2/08	Mon 11/2/08	829				
831	General fill	5 days	Tue 12/2/08	Sat 16/2/08	830				
832	Granular fill and blinding	5 days	Thu 11/12/08	Mon 15/12/08	821				
833	Concrete pavement	7 days	Tue 16/12/08	Mon 22/12/08	832				
834	11. Ramp No. 2 (Ch516 - Ch537, Bay 42)	324 days	Fri 30/3/07	Sat 16/2/08					
835	base slab	12 days	Fri 30/3/07	Tue 10/4/07					
836	Wall	10 days	Wed 11/4/07	Fri 20/4/07	835				
837	General fill	20 days	Sat 21/4/07	Thu 10/5/07	836				
838	Granular fill and blinding	5 days	Tue 5/2/08	Sat 9/2/08	818				
839	Concrete pavement	7 days	Sun 10/2/08	Sat 16/2/08	838				
840	12. Ramp No. 3 (Ch209 - Ch233, Bay 18 - Bay 19)	224 days	Thu 17/7/08	Wed 25/2/09					
841	base slab	12 days	Thu 17/7/08	Mon 28/7/08	752				
842	Wall	10 days	Tue 29/7/08	Thu 7/8/08	841				
843	General fill	20 days	Fri 8/8/08	Wed 27/8/08	842				
844	Granular fill and blinding	5 days	Sat 14/2/09	Wed 18/2/09	922				
845	Concrete pavement	7 days	Thu 19/2/09	Wed 25/2/09	844				
846	13 Ramp No. 4 (Ch35 - Ch55, Bay5)	160 days	Tue 1/4/08	Sun 7/9/08					
847	General fill	7 days	Tue 1/4/08	Mon 7/4/08	737				
848	Subbase	8 days	Thu 14/8/08	Thu 21/8/08	814				
849	Concrete pavement	17 days	Fri 22/8/08	Sun 7/9/08	848				
850	14. Demolition of existing wing walls Ch449	30 days	Wed 1/10/08	Thu 30/10/08					
851	15. Filling in Platform	150 days	Thu 24/7/08	Sat 20/12/08					
852	a. Bay 3- Bay 27 (Ch11-Ch340)	34 days	Thu 24/7/08	Tue 26/8/08	738,753				
853	b. Bay 38 - Bay 55 (Ch464-Ch688)	20 days	Sat 20/9/08	Thu 9/10/08	801,792,768,775				
854	c. Bay 56 - Bay 63 (Ch688-Ch797)	7 days	Sun 14/12/08	Sat 20/12/08	810				
855	16. Drainage works	154 days	Sun 3/8/08	Sat 3/1/09					
856	16.1 storm drain with manhole and headwall	154 days	Sun 3/8/08	Sat 3/1/09					
857	a. Bay 3- Bay 27 (Ch11-Ch340)	20 days	Sun 3/8/08	Fri 22/8/08	852SS+10 days				
858	b. Bay 37 - Bay 55 (Ch449-Ch688)	30 days	Tue 30/9/08	Wed 29/10/08	853SS+10 days				
859	c. Bay 56 - Bay 63 (Ch688-Ch797)	14 days	Sun 21/12/08	Sat 3/1/09	854				
860	16.2 surface drain	130 days	Wed 27/8/08	Sat 3/1/09					
861	a. Bay 3- Bay 27 (Ch11-Ch340)	34 days	Wed 27/8/08	Mon 29/9/08	852				
862	b. Bay 37 - Bay 55 (Ch449-Ch688)	60 days	Fri 10/10/08	Mon 8/12/08	853				
863	c. Bay 56 - Bay 63 (Ch688-Ch797)	14 days	Sun 21/12/08	Sat 3/1/09	854				
864	17. Roads and paving	188 days	Sun 4/1/09	Fri 10/7/09					
865	a. Ch233 - Ch340	50 days	Sun 29/3/09	Sun 17/5/09	852,845,857,928SS-30 days				
866	b. Ch464 - Ch549	50 days	Tue 14/4/09	Tue 2/6/09	867,858				
867	c. Ch549 - Ch609	50 days	Mon 23/2/09	Mon 13/4/09	868				
868	d. Ch609 - Ch688	50 days	Sun 4/1/09	Sun 22/2/09	859				
869	e. Permanent Entrance at Ch449 to Ch464	23 days	Thu 18/6/09	Fri 10/7/09	716,783,866				
870	18. Street furnitures	145 days	Mon 23/2/09	Fri 17/7/09					
871	a. Ch233 - Ch340	30 days	Mon 18/5/09	Tue 16/6/09	865				
872	b. Ch449 - Ch549	30 days	Wed 3/6/09	Thu 2/7/09	866				
873	c. Ch549 - Ch609	30 days	Tue 14/4/09	Wed 13/5/09	867				
874	d. Ch609 - Ch688	30 days	Mon 23/2/09	Tue 24/3/09	868				
875	e. Permanent Entrance at Ch449	7 days	Sat 11/7/09	Fri 17/7/09	869,872				
876	19. Landscape softworks / hardworks	195 days	Sun 4/1/09	Fri 17/7/09					
877	a. Ch35 - Ch340	53 days	Tue 26/5/09	Fri 17/7/09	861,704SS				
878	b. Ch449 - Ch549	45 days	Wed 3/6/09	Fri 17/7/09	862,866				
879	c. Ch549 - Ch609	45 days	Tue 14/4/09	Thu 28/5/09	867				
880	d. Ch609 - Ch688	45 days	Mon 23/2/09	Wed 8/4/09	868				
881	e. Ch688 - Ch797	10 days	Sun 4/1/09	Tue 13/1/09	863				
882									
883	D. Section III of the Works - Portions 5A1, 5A2 and 5B	830 days	Fri 30/3/07	Mon 6/7/09					
884	1. Site clearance	4 days	Mon 31/12/07	Thu 3/1/08					
885	1.1 General site clearance	4 days	Mon 31/12/07	Thu 3/1/08	975,977,981,983,987,989				
886	2. Temporary Traffic Management Scheme	59 days	Fri 30/3/07	Sun 27/5/07					



ID	Task Name	Duration	Start	Finish	Predecessors	Gantt Chart			
						Aug	Sep	Oct	Nov
953	2.3 Tree protection	62 days	Wed 13/6/07	Mon 13/8/07	951SS				
954	3. Portion 3	750 days	Fri 29/6/07	Fri 17/7/09					
955	3.1 Tree survey	14 days	Fri 29/6/07	Thu 12/7/07	17				
956	3.2 Tree transplant	736 days	Fri 13/7/07	Fri 17/7/09					
957	a. To Temp holding nursery	64 days	Fri 13/7/07	Fri 14/9/07	955,214				
958	b. To final location	301 days	Sat 20/9/08	Fri 17/7/09	647FF	0 days			
959	3.3 Tree protection	64 days	Fri 13/7/07	Fri 14/9/07	957SS				
960	4. Portion 4	840 days	Sat 31/3/07	Fri 17/7/09					
961	4.1 Tree survey	14 days	Sat 31/3/07	Fri 13/4/07	18				
962	4.2 Tree transplant	791 days	Sat 19/5/07	Fri 17/7/09					
963	a. To Temp holding nursery	62 days	Sat 19/5/07	Thu 19/7/07	961,214				
964	b. To final location	53 days	Tue 26/5/09	Fri 17/7/09	704FF				
965	4.3 Tree protection	62 days	Sat 19/5/07	Thu 19/7/07	963SS				
966	5. Portion 5	750 days	Fri 29/6/07	Fri 17/7/09					
967	5.1 Tree survey	14 days	Fri 29/6/07	Thu 12/7/07	19				
968	5.2 Tree transplant	736 days	Fri 13/7/07	Fri 17/7/09					
969	a. To Temp holding nursery	69 days	Fri 13/7/07	Wed 19/9/07	967,214				
970	b. To final location	195 days	Sun 4/1/09	Fri 17/7/09	876FF				
971	5.3 Tree protection	69 days	Fri 13/7/07	Wed 19/9/07	969SS				
972	6. Portion 5A1	739 days	Fri 29/6/07	Mon 6/7/09					
973	6.1 Tree survey	7 days	Fri 29/6/07	Thu 5/7/07	20				
974	6.2 Tree transplant	732 days	Fri 6/7/07	Mon 6/7/09					
975	a. To Temp holding nursery	62 days	Fri 6/7/07	Wed 5/9/07	973,214				
976	b. To final location	61 days	Thu 7/5/09	Mon 6/7/09	931FF				
977	6.3 Tree protection	62 days	Fri 6/7/07	Wed 5/9/07	975SS				
978	7. Portion 5A2	739 days	Fri 29/6/07	Mon 6/7/09					
979	7.1 Tree survey	14 days	Fri 29/6/07	Thu 12/7/07	21				
980	7.2 Tree transplant	725 days	Fri 13/7/07	Mon 6/7/09					
981	a. To Temp holding nursery	62 days	Fri 13/7/07	Wed 12/9/07	979,214				
982	b. To final location	61 days	Thu 7/5/09	Mon 6/7/09	931FF				
983	7.3 Tree protection	62 days	Fri 13/7/07	Wed 12/9/07	981SS				
984	8. Portion 5B	630 days	Tue 16/10/07	Mon 6/7/09					
985	8.1 Tree survey	14 days	Tue 16/10/07	Mon 29/10/07	22				
986	8.2 Tree transplant	616 days	Tue 30/10/07	Mon 6/7/09					
987	a. To Temp holding nursery	62 days	Tue 30/10/07	Sun 30/12/07	985,214				
988	b. To final location	61 days	Thu 7/5/09	Mon 6/7/09	931FF				
989	8.3 Tree protection	62 days	Tue 30/10/07	Sun 30/12/07	987SS				
990									
991	G. Berthing Area	148 days	Mon 14/5/07	Mon 8/10/07					
992	1. Construction of Loading Facilities	27 days	Wed 12/9/07	Mon 8/10/07	162				
993	2. Removal of Loading Facilities	2 days	Mon 14/5/07	Tue 15/5/07	73				
994	3. Reinstatement of Berthing Area	7 days	Wed 16/5/07	Tue 22/5/07	993				

ID	Task Name	Duration	Start	Finish	Predecessors	2009			
						Oct	Nov	Dec	Jan
1	Letter of Acceptance	1 day	Wed 21/3/07	Wed 21/3/07					
2	Date for commencement of Works	1 day	Fri 30/3/07	Fri 30/3/07					
3	Execution of Article of Agreement	1 day	Tue 3/4/07	Tue 3/4/07					
4									
5	Master Programme of the Works	902 days	Wed 21/3/07	Mon 7/9/09					
6									
7	Completion Dates	893 days	Fri 30/3/07	Mon 7/9/09					
8	Section I - portions 1, 2 and 3	893 days	Fri 30/3/07	Mon 7/9/09	2SS				
9	Section II - portions 4, 5 and 5C	893 days	Fri 30/3/07	Mon 7/9/09	2SS				
10	Section III - portions 5A1, 5A2 and 5B	740 days	Thu 28/6/07	Mon 6/7/09	20FS-1 day				
11	Section IV - temp vehicular access at portion 5A1	90 days	Thu 28/6/07	Tue 25/9/07	20FS-1 day				
12	Section V - preservation and protection of existing trees	893 days	Fri 30/3/07	Mon 7/9/09	2SS				
13									
14	Possession of Site	200 days	Fri 30/3/07	Mon 15/10/07					
15	Portion 1 - channel KT2	1 day	Fri 30/3/07	Fri 30/3/07	2SS				
16	Portion 2 - channel KT2	61 days	Fri 30/3/07	Tue 29/5/07	2SS				
17	Portion 3 - channel KT2	91 days	Fri 30/3/07	Thu 28/6/07	2SS				
18	Portion 4 - channel KT15	1 day	Fri 30/3/07	Fri 30/3/07	2SS				
19	Portion 5 - channel KT15	91 days	Fri 30/3/07	Thu 28/6/07	2SS				
20	Portion 5A1 - channel KT15	91 days	Fri 30/3/07	Thu 28/6/07	2SS				
21	Portion 5A2 - channel KT15	91 days	Fri 30/3/07	Thu 28/6/07	2SS				
22	Portion 5B - channel KT15	20 days	Wed 26/9/07	Mon 15/10/07	11				
23	Portion 5C - channel KT15	91 days	Fri 30/3/07	Thu 28/6/07	2SS				
24	Portion 6 - Temp Storage Area at Chi Ho Road	1 day	Fri 30/3/07	Fri 30/3/07	2SS				
25	Portion 7 - Berthing Area	1 day	Fri 30/3/07	Fri 30/3/07	2SS				
26	Portion 8 - Site Accommodation	1 day	Fri 30/3/07	Fri 30/3/07	2SS				
27									
28	A. Preliminary Works	902 days	Wed 21/3/07	Mon 7/9/09					
29	1. Setting out of Works	893 days	Fri 30/3/07	Mon 7/9/09	2SS				
30	2. Environmental Monitoring and Audit	893 days	Fri 30/3/07	Mon 7/9/09					
31	2.1 Establishment of Environmental Team	14 days	Fri 30/3/07	Thu 12/4/07	8SS				
32	2.2 approval by the Engineer	7 days	Fri 13/4/07	Thu 19/4/07	31				
33	2.3 Environmental baseline monitoring	77 days	Fri 20/4/07	Thu 5/7/07					
34	a. Technical proposal & methodology	7 days	Fri 20/4/07	Thu 26/4/07	32				
35	b. Approval by the Engineer	7 days	Fri 27/4/07	Thu 3/5/07	34				
36	c. Baseline monitoring	63 days	Fri 4/5/07	Thu 5/7/07	35				
37	2.4 Environmental impact monitoring and audit	777 days	Tue 24/7/07	Mon 7/9/09	36,8FF				
38	3. Environmental Management and Environmental Management Plan	73 days	Fri 30/3/07	Sun 10/6/07					
39	3.1 Submission of draft EMP	21 days	Fri 30/3/07	Thu 19/4/07	2SS				
40	3.2 Comment from the Engineer	7 days	Fri 20/4/07	Thu 26/4/07	39				
41	3.3 Submission of EMP	45 days	Fri 27/4/07	Sun 10/6/07	40				
42	4. Engineer's Accommodation	51 days	Fri 30/3/07	Sat 19/5/07					
43	4.1 Renovation	30 days	Fri 30/3/07	Sat 28/4/07	26SS				
44	4.2 Equipment	51 days	Fri 30/3/07	Sat 19/5/07					
45	a. Contract telephone	21 days	Fri 30/3/07	Thu 19/4/07	26SS				
46	b. Survey equipment	45 days	Fri 30/3/07	Sun 13/5/07	26SS				
47	c. Contract computer facilities	51 days	Fri 30/3/07	Sat 19/5/07					
48	submission	14 days	Fri 30/3/07	Thu 12/4/07	26SS				
49	approval	7 days	Fri 13/4/07	Thu 19/4/07	48				
50	installation	21 days	Sun 22/4/07	Sat 12/5/07	49,43FS-7 days				
51	testing & commissioning	7 days	Sun 13/5/07	Sat 19/5/07	50				
52	4.3 utilities servicing	33 days	Fri 30/3/07	Tue 1/5/07					
53	a. Water	1 day	Fri 30/3/07	Fri 30/3/07	26SS				
54	b. Electricity	1 day	Fri 30/3/07	Fri 30/3/07	26SS				
55	c. Telephone	33 days	Fri 30/3/07	Tue 1/5/07					
56	temporary service	32 days	Fri 30/3/07	Mon 30/4/07	26SS				
57	new service	19 days	Fri 13/4/07	Tue 1/5/07					
58	application	5 days	Fri 13/4/07	Tue 17/4/07	56SS+14 days				
59	installation	14 days	Wed 18/4/07	Tue 1/5/07	58				
60	d. Facsimile	33 days	Fri 30/3/07	Tue 1/5/07					
61	temporary service	32 days	Fri 30/3/07	Mon 30/4/07	26SS				
62	new service	19 days	Fri 13/4/07	Tue 1/5/07					
63	application	5 days	Fri 13/4/07	Tue 17/4/07	61SS+14 days				
64	installation	14 days	Wed 18/4/07	Tue 1/5/07	63				
65	e. Internet broadband	33 days	Fri 30/3/07	Tue 1/5/07					
66	temporary service (56K)	32 days	Fri 30/3/07	Mon 30/4/07	26SS				

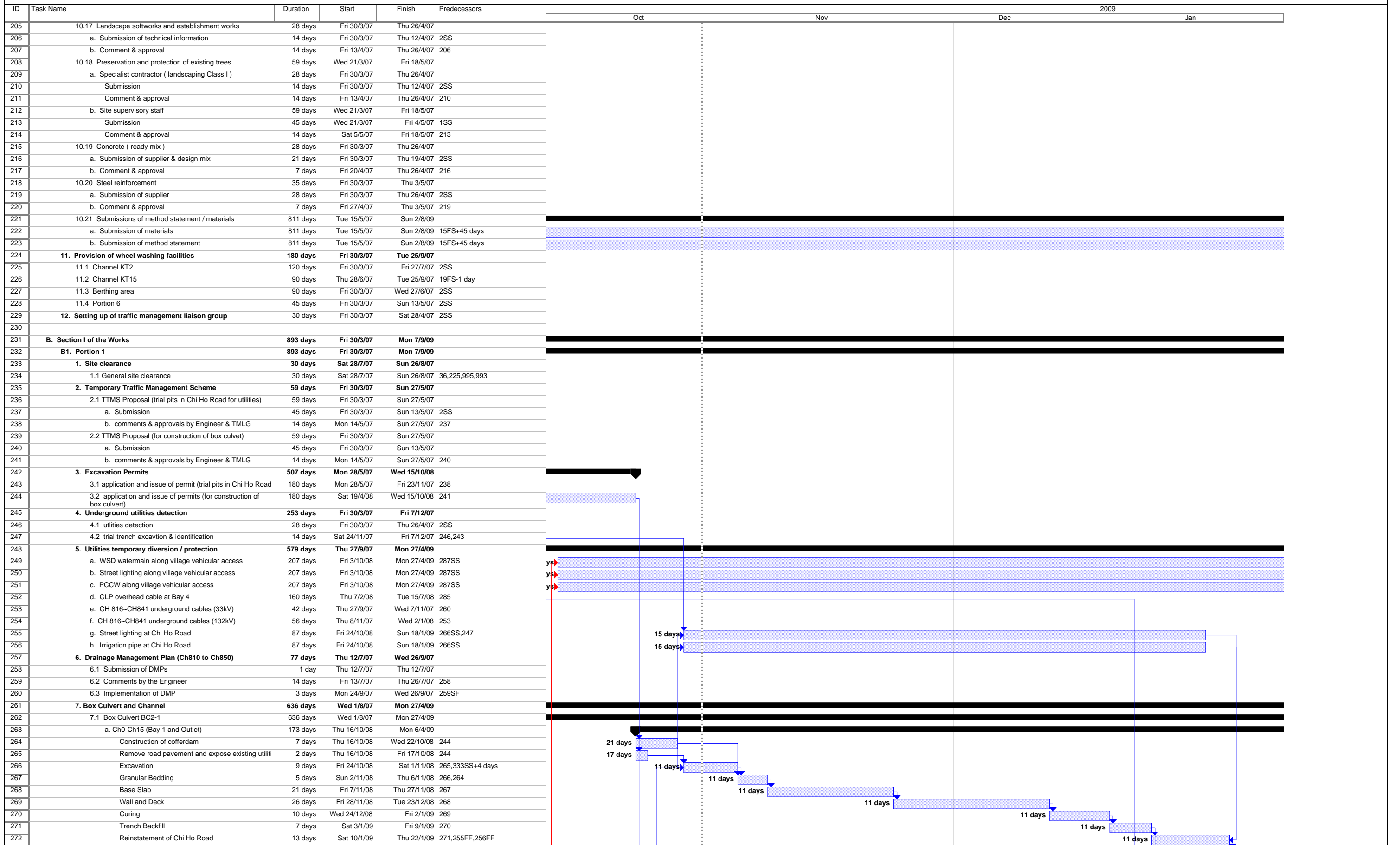
Task		Progress		Summary		Rolled Up Critical Task		Rolled Up Progress		External Tasks		Group By Summary	
Critical Task		Milestone		Rolled Up Task		Rolled Up Milestone		Split		Project Summary		Deadline	

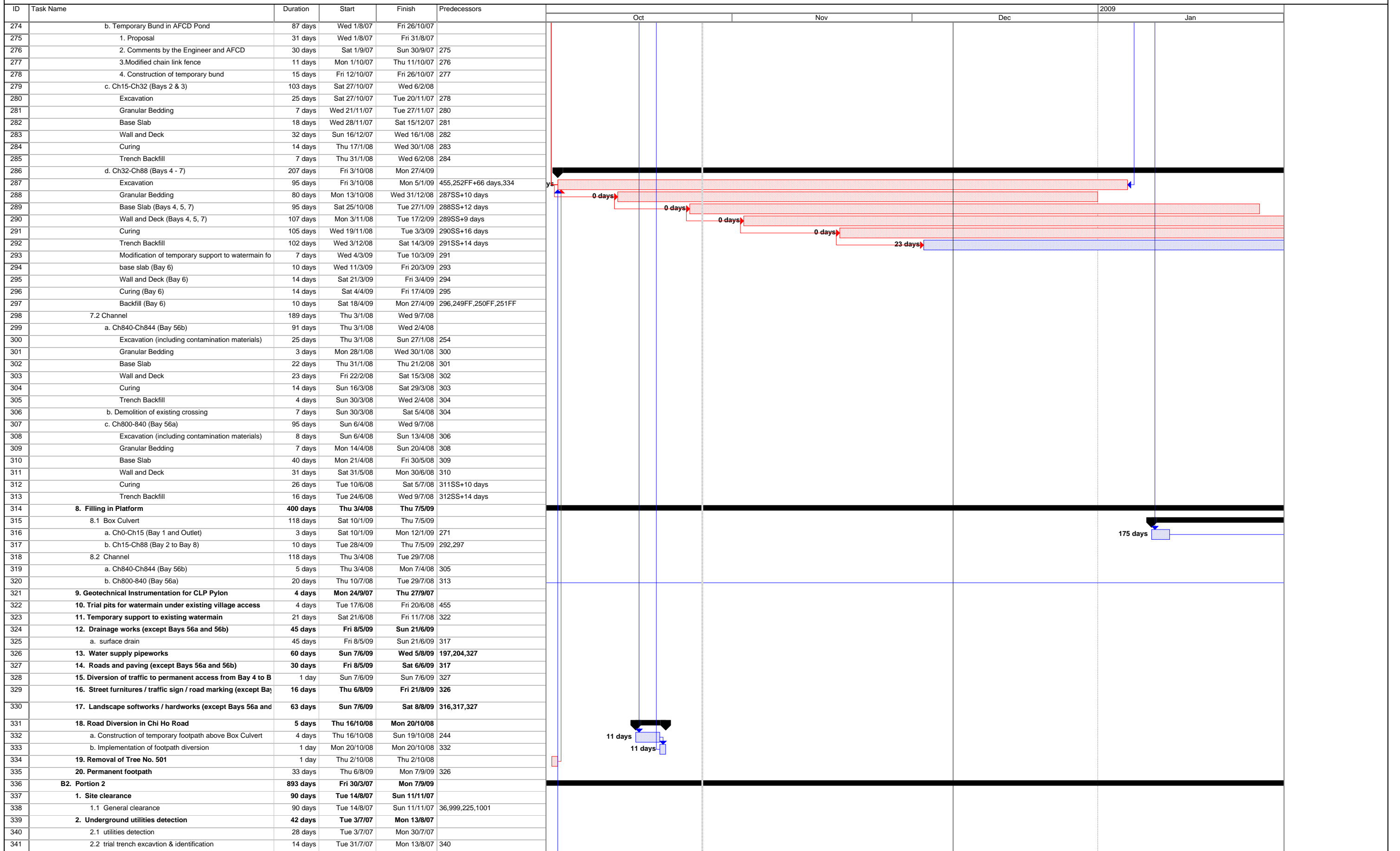
ID	Task Name	Duration	Start	Finish	Predecessors	2009			
						Oct	Nov	Dec	Jan
67	new service	19 days	Fri 13/4/07	Tue 1/5/07					
68	application	5 days	Fri 13/4/07	Tue 17/4/07	66SS+14 days				
69	installation	14 days	Wed 18/4/07	Tue 1/5/07	68				
70	5. Contractor's Accommodation	45 days	Fri 30/3/07	Sun 13/5/07					
71	5.1 Provision	45 days	Fri 30/3/07	Sun 13/5/07					
72	a. Premises	45 days	Fri 30/3/07	Sun 13/5/07	26SS				
73	b. Toilet facilities	21 days	Mon 23/4/07	Sun 13/5/07	72FF				
74	c. Telephone service	30 days	Sat 14/4/07	Sun 13/5/07	72FF				
75	d. Facsimile service	30 days	Sat 14/4/07	Sun 13/5/07	72FF				
76	e. Internet broadband service	30 days	Sat 14/4/07	Sun 13/5/07	72FF				
77	f. Water	1 day	Fri 30/3/07	Fri 30/3/07	26SS				
78	g. electricity	1 day	Fri 30/3/07	Fri 30/3/07	26SS				
79	6. Transport (land) for the Engineer	124 days	Fri 30/3/07	Tue 31/7/07					
80	6.1 submission	7 days	Fri 30/3/07	Thu 5/4/07	2SS				
81	6.2 comment & approval	14 days	Fri 6/4/07	Thu 19/4/07	80				
82	6.3 delivery	103 days	Fri 20/4/07	Tue 31/7/07	81				
83	6.4 temp service	124 days	Fri 30/3/07	Tue 31/7/07	2SS,82FF				
84	7. Transport (land) for Public Works Regional Laboratory	124 days	Fri 30/3/07	Tue 31/7/07					
85	7.1 submission	7 days	Fri 30/3/07	Thu 5/4/07	2SS				
86	7.2 comment, approval & instruction	14 days	Fri 6/4/07	Thu 19/4/07	85				
87	7.3 delivery	103 days	Fri 20/4/07	Tue 31/7/07	86				
88	8. Signboard	150 days	Fri 30/3/07	Sun 26/8/07					
89	8.1 Major	150 days	Fri 30/3/07	Sun 26/8/07					
90	submission	90 days	Fri 30/3/07	Wed 27/6/07	2SS				
91	comment & approval	90 days	Sun 29/4/07	Fri 27/7/07	90SS+30 days				
92	erection	90 days	Tue 29/5/07	Sun 26/8/07	91SS+30 days				
93	8.2 Minor	150 days	Fri 30/3/07	Sun 26/8/07					
94	submission	90 days	Fri 30/3/07	Wed 27/6/07	2SS				
95	comment & approval	90 days	Sun 29/4/07	Fri 27/7/07	94SS+30 days				
96	erection	90 days	Tue 29/5/07	Sun 26/8/07	95SS+30 days				
97	9. Telephone hotline	15 days	Sun 29/4/07	Sun 13/5/07					
98	9.1 Engineer's instruction	1 day	Sun 29/4/07	Mon 30/4/07	99SF				
99	9.2 installation	14 days	Mon 30/4/07	Sun 13/5/07	74FF				
100	10. Contractual general submissions	902 days	Wed 21/3/07	Mon 7/9/09					
101	10.1 programmes	28 days	Wed 21/3/07	Tue 17/4/07					
102	a. GCC Clause 16 programme	14 days	Wed 21/3/07	Tue 3/4/07	1SS				
103	b. Works programme & financial programme	14 days	Wed 4/4/07	Tue 17/4/07	102				
104	c. 3-month rolling programme	14 days	Wed 4/4/07	Tue 17/4/07	102				
105	10.2 contractor's superintendence	14 days	Fri 30/3/07	Thu 12/4/07					
106	a. Agent	7 days	Fri 30/3/07	Thu 5/4/07	2SS				
107	b. Surveyor	14 days	Fri 30/3/07	Thu 12/4/07	2SS				
108	c. Sub-agent	14 days	Fri 30/3/07	Thu 12/4/07	2SS				
109	d. Geotechnical Engineer	7 days	Fri 30/3/07	Thu 5/4/07	2SS				
110	e. Geotechnical Supervisor	14 days	Fri 30/3/07	Thu 12/4/07	2SS				
111	f. Foreman - concrete	14 days	Fri 30/3/07	Thu 12/4/07	2SS				
112	g. Foreman - drainage	14 days	Fri 30/3/07	Thu 12/4/07	2SS				
113	h. Staff Organization Plan	14 days	Fri 30/3/07	Thu 12/4/07	2SS				
114	10.3 Safety Organization	14 days	Fri 30/3/07	Thu 12/4/07					
115	a. Safety Officer	14 days	Fri 30/3/07	Thu 12/4/07	2SS				
116	b. Safety Supervisor	14 days	Fri 30/3/07	Thu 12/4/07	2SS				
117	c. Safety Representative	14 days	Fri 30/3/07	Thu 12/4/07	2SS				
118	10.4 TTMS design	7 days	Fri 30/3/07	Thu 5/4/07					
119	a. Independent Traffic Consultant	7 days	Fri 30/3/07	Thu 5/4/07	2SS				
120	b. Traffic Engineer	7 days	Fri 30/3/07	Thu 5/4/07	2SS				
121	10.5 Assistant to Engineer	33 days	Fri 30/3/07	Tue 1/5/07					
122	a. Chainmen (4)	33 days	Fri 30/3/07	Tue 1/5/07	2SS				
123	b. Watchmen (2)	33 days	Fri 30/3/07	Tue 1/5/07	2SS				
124	c. Field assistant (1)	33 days	Fri 30/3/07	Tue 1/5/07	2SS				
125	d. Technical assistant (1)	33 days	Fri 30/3/07	Tue 1/5/07	2SS				
126	e. Clerical assistant (1)	33 days	Fri 30/3/07	Tue 1/5/07	2SS				
127	f. Office assistant (1)	33 days	Fri 30/3/07	Tue 1/5/07	2SS				
128	10.6 Underground service detection equipment	35 days	Fri 30/3/07	Thu 3/5/07					
129	a. Submission	7 days	Fri 30/3/07	Thu 5/4/07	2SS				
130	b. Comment & approval	14 days	Fri 6/4/07	Thu 19/4/07	129				
131	c. Provision	14 days	Fri 20/4/07	Thu 3/5/07	130				
132	10.7 Independent Checking of Temporary Works	28 days	Fri 30/3/07	Thu 26/4/07					
133	a. Submission of independent checking engineer	14 days	Fri 30/3/07	Thu 12/4/07	2SS				
134	b. Comment & approval	14 days	Fri 13/4/07	Thu 26/4/07	133				
135	10.8 Trip ticket system for C & D material	59 days	Fri 30/3/07	Sun 27/5/07					

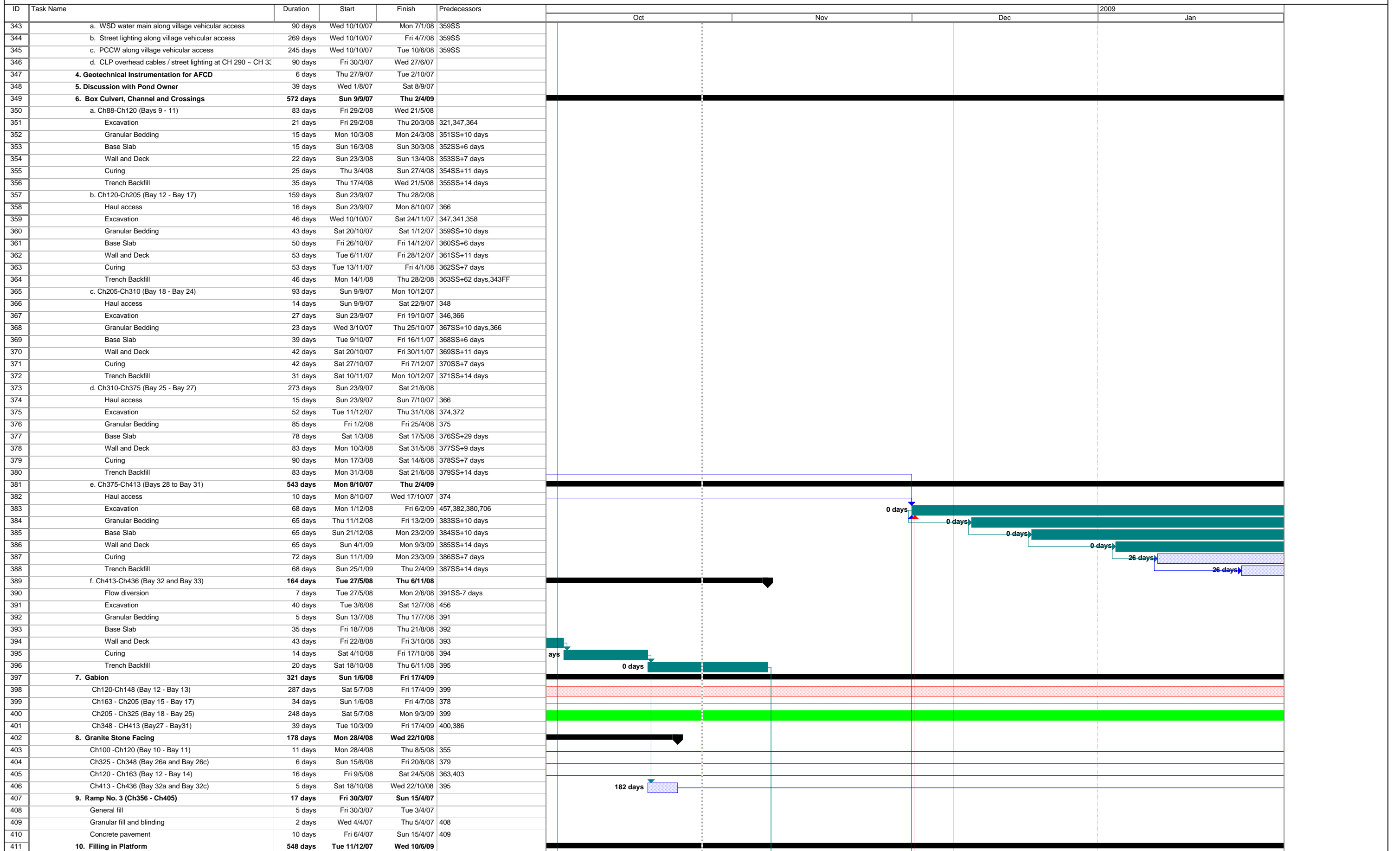
Task Progress Summary Rolled Up Critical Task Rolled Up Progress External Tasks Group By Summary

Critical Task Milestone Rolled Up Task Rolled Up Milestone Split Project Summary Deadline

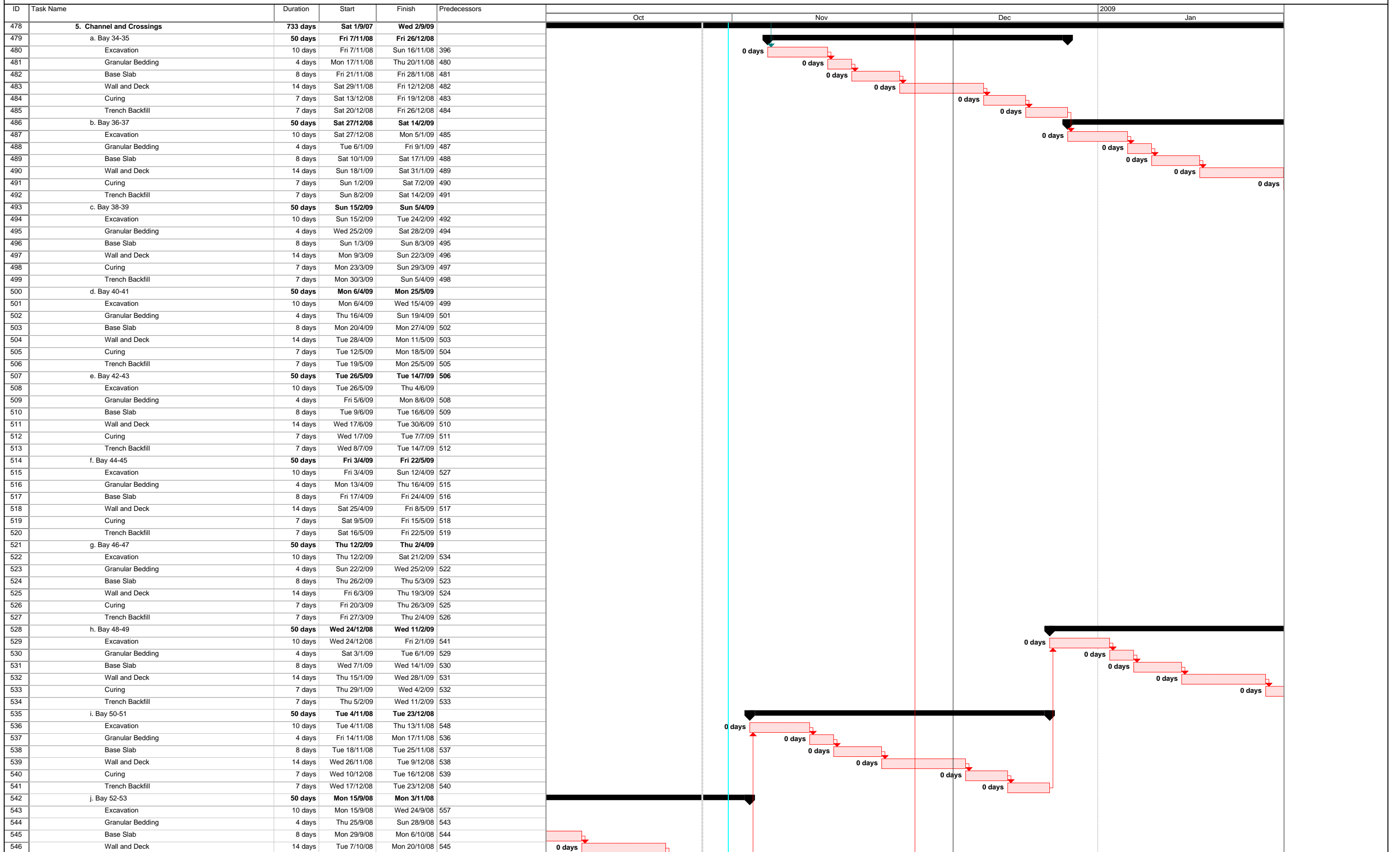
ID	Task Name	Duration	Start	Finish	Predecessors	2009			
						Oct	Nov	Dec	Jan
136	a. Submission of site management plan	45 days	Fri 30/3/07	Sun 13/5/07	2SS				
137	b. Comment & approval	14 days	Mon 14/5/07	Sun 27/5/07	136				
138	10.9. Condition survey and structural monitoring	893 days	Fri 30/3/07	Mon 7/9/09					
139	a. Submission of Independent Structural Engineer	14 days	Fri 30/3/07	Thu 12/4/07	2SS				
140	b. Comment & approval	7 days	Fri 13/4/07	Thu 19/4/07	139				
141	c. Proposal for condition survey & structural monitoring	209 days	Fri 20/4/07	Wed 14/11/07					
142	Portion 1, 4, 6, 7, 8	30 days	Fri 20/4/07	Sat 19/5/07	140				
143	Portion 2	30 days	Wed 30/5/07	Thu 28/6/07	16				
144	Portion 3, 5	30 days	Fri 29/6/07	Sat 28/7/07	17,19,20,21				
145	Portion 5A1, 5A2 and 5B	30 days	Tue 16/10/07	Wed 14/11/07	22				
146	d. Comment & approval	193 days	Sun 20/5/07	Wed 28/11/07					
147	Portion 1, 4, 6, 7, 8	14 days	Sun 20/5/07	Sat 2/6/07	142				
148	Portion 2	14 days	Fri 29/6/07	Thu 12/7/07	143				
149	Portion 3, 5	14 days	Sun 29/7/07	Sat 11/8/07	144				
150	Portion 5A1, 5A2 and 5B	14 days	Thu 15/11/07	Wed 28/11/07	145				
151	e. Condition survey & structural monitoring	828 days	Sun 3/6/07	Mon 7/9/09					
152	Portion 1, 4, 6, 7, 8	828 days	Sun 3/6/07	Mon 7/9/09	147				
153	Portion 2	788 days	Fri 13/7/07	Mon 7/9/09	148				
154	Portion 3, 5	758 days	Sun 12/8/07	Mon 7/9/09	149				
155	Portion 5A1, 5A2 and 5B	586 days	Thu 29/11/07	Mon 6/7/09	150				
156	10.10 Handling & disposal of Type 1 & 2 contaminated material:	74 days	Sat 14/7/07	Tue 25/9/07					
157	a. Proposed type of dump truck	44 days	Sun 15/7/07	Mon 27/8/07					
158	Submission	30 days	Sun 15/7/07	Mon 13/8/07	804SS-44 days				
159	Comment & approval	14 days	Tue 14/8/07	Mon 27/8/07	158				
160	b. Proposal of berthing area arrangement	44 days	Mon 30/7/07	Tue 11/9/07					
161	Submission	30 days	Mon 30/7/07	Tue 28/8/07					
162	Comment & approval	14 days	Wed 29/8/07	Tue 11/9/07	161				
163	c. Proposal of disposal arrangement	74 days	Sat 14/7/07	Tue 25/9/07					
164	Submission	60 days	Sat 14/7/07	Tue 11/9/07					
165	Comment & approval	14 days	Wed 12/9/07	Tue 25/9/07	164				
166	10.11 Type 3 contaminated material	290 days	Fri 30/3/07	Sun 13/1/08					
167	a. Decontamination specialist	134 days	Fri 30/3/07	Fri 10/8/07					
168	Submission	120 days	Fri 30/3/07	Fri 27/7/07	2SS				
169	Comment & approval	14 days	Sat 28/7/07	Fri 10/8/07	168				
170	b. Statement & treatment programme	42 days	Sat 11/8/07	Fri 21/9/07					
171	(1) Submission	28 days	Sat 11/8/07	Fri 7/9/07	169				
172	(2) Comment & approval	14 days	Sat 8/9/07	Fri 21/9/07					
173	by the Engineer	14 days	Sat 8/9/07	Fri 21/9/07	171				
174	by the EPD	14 days	Sat 8/9/07	Fri 21/9/07	171				
175	c. Setting up of Treatment Plant	60 days	Thu 15/11/07	Sun 13/1/08	174				
176	10.12 Safety Plan	35 days	Wed 21/3/07	Tue 24/4/07					
177	a. Submission of draft Safety Plan	14 days	Wed 21/3/07	Tue 3/4/07	1SS				
178	b. Comment by the Engineer	7 days	Wed 4/4/07	Tue 10/4/07	177				
179	c. Submission of Safety Plan	14 days	Wed 11/4/07	Tue 24/4/07	178				
180	10.13 Sub-contractor Management Plan	902 days	Wed 21/3/07	Mon 7/9/09					
181	a. Submission of SMP	30 days	Wed 21/3/07	Thu 19/4/07	1SS				
182	b. For information & Comments	14 days	Fri 20/4/07	Thu 3/5/07	181				
183	c. Update SMP	858 days	Fri 4/5/07	Mon 7/9/09	182				
184	10.14 proof of plant ownership	893 days	Fri 30/3/07	Mon 7/9/09					
185	a. Submission of draft written undertaking	14 days	Fri 30/3/07	Thu 12/4/07	2SS				
186	b. Comment by the Engineer / Employer	14 days	Fri 13/4/07	Thu 26/4/07	185				
187	c. Engineer's request	865 days	Fri 27/4/07	Mon 7/9/09	186				
188	10.15 Contractor's Management Team	893 days	Fri 30/3/07	Mon 7/9/09					
189	a. Submission of staff member details	14 days	Fri 30/3/07	Thu 12/4/07	2SS				
190	b. Update management / site supervision team	879 days	Fri 13/4/07	Mon 7/9/09	189				
191	10.16 Water supply pipeworks material	651 days	Wed 21/3/07	Tue 30/12/08					
192	a. Supplier	28 days	Wed 21/3/07	Tue 17/4/07					
193	Submission	14 days	Wed 21/3/07	Tue 3/4/07	1SS				
194	comment & approval	14 days	Wed 4/4/07	Tue 17/4/07	193				
195	b. Manufacturer	28 days	Wed 21/3/07	Tue 17/4/07					
196	Submission	14 days	Wed 21/3/07	Tue 3/4/07	1SS				
197	comment & approval	14 days	Wed 4/4/07	Tue 17/4/07	196				
198	c. Independent Inspection Agent (IIA)	28 days	Wed 21/3/07	Tue 17/4/07					
199	Submission	14 days	Wed 21/3/07	Tue 3/4/07	1SS				
200	comment & approval	14 days	Wed 4/4/07	Tue 17/4/07	199				
201	d. Representative of the IIA	28 days	Wed 21/3/07	Tue 17/4/07					
202	Submission	14 days	Wed 21/3/07	Tue 3/4/07	1SS				
203	comment & approval	14 days	Wed 4/4/07	Tue 17/4/07	202				

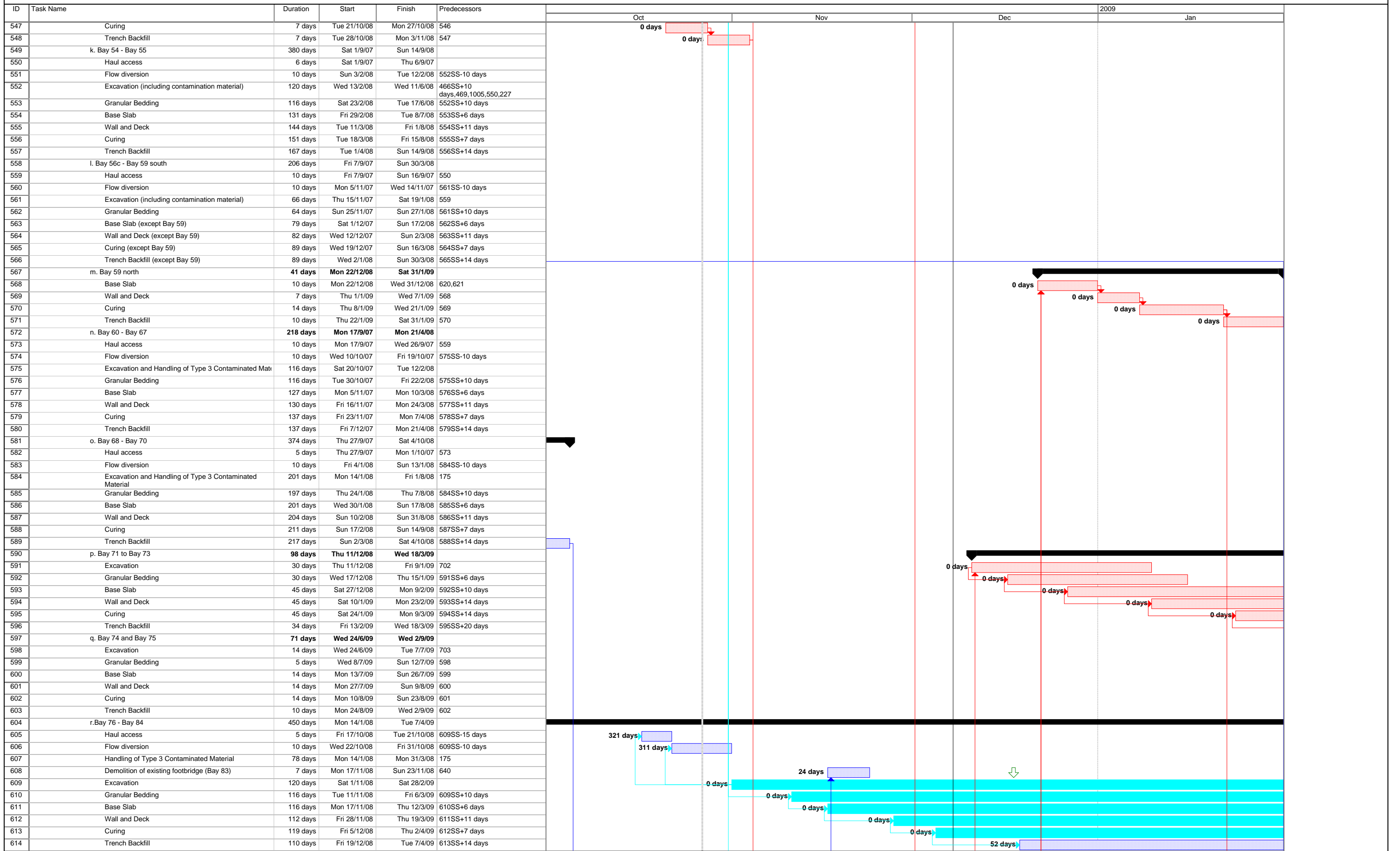


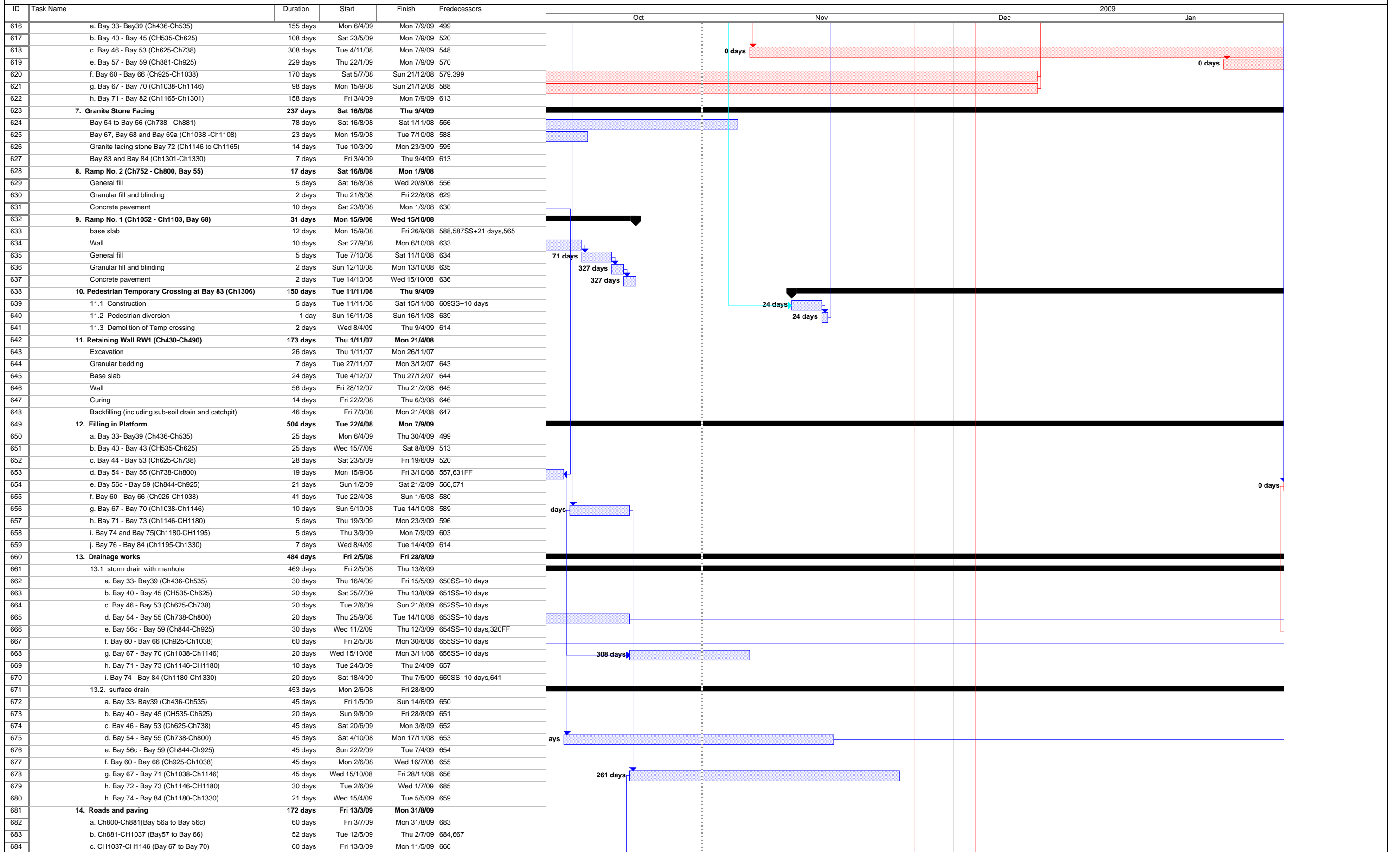


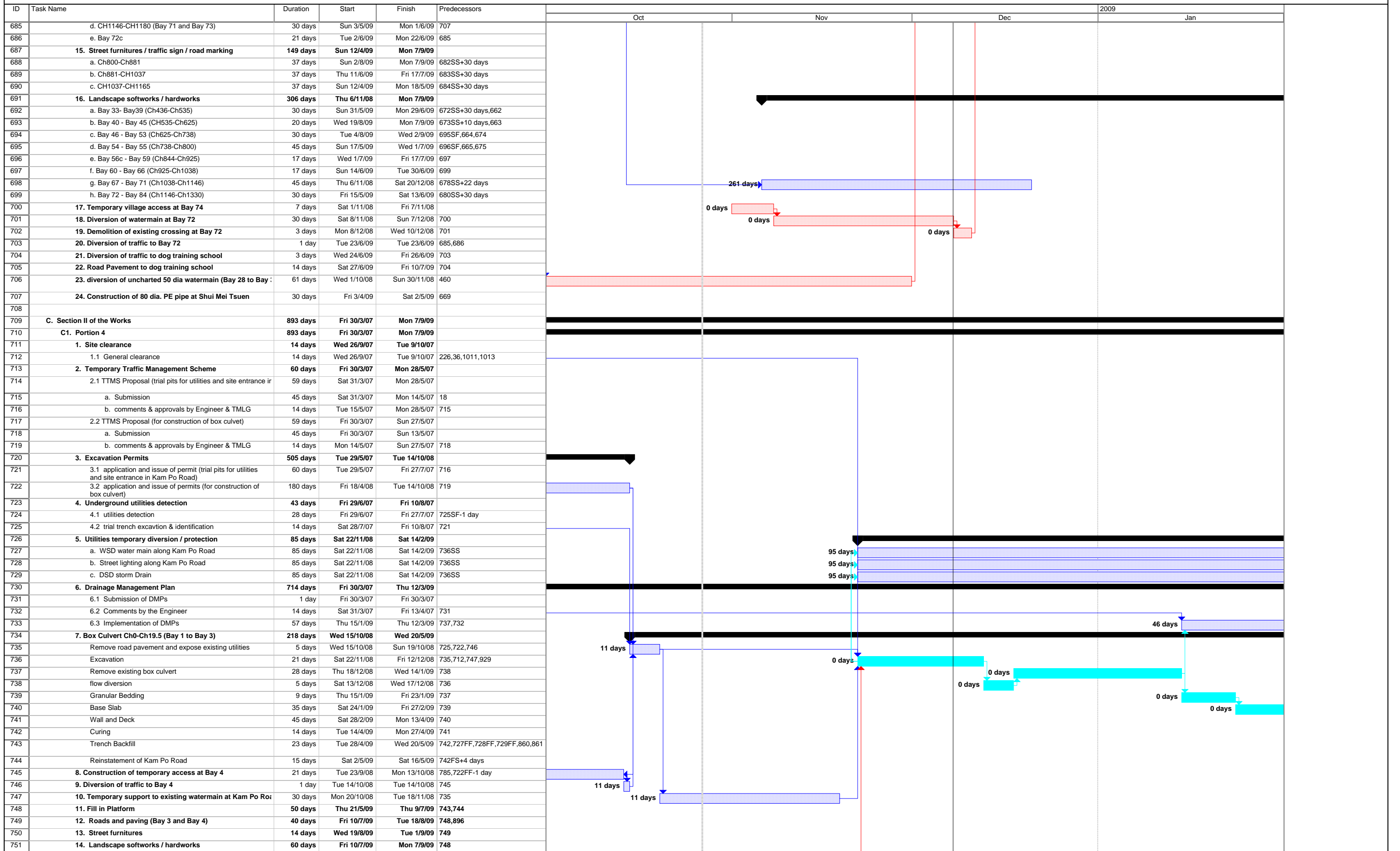


ID	Task Name	Duration	Start	Finish	Predecessors	2009			
						Oct	Nov	Dec	Jan
412	10.1 Box Culvert BC2-1	10 days	Thu 22/5/08	Sat 31/5/08					
413	a. Ch88-Ch120 (South of Bay 9 - Bay 11)	10 days	Thu 22/5/08	Sat 31/5/08	356				
414	10.2 Channel and Crossing	548 days	Tue 11/12/07	Wed 10/6/09					
415	a. Ch120-Ch205 (Bay 12 - Bay 17)	90 days	Fri 29/2/08	Wed 28/5/08	364				
416	b. Ch205-Ch310 (Bay 18 - Bay 24)	118 days	Tue 11/12/07	Sun 6/4/08	372				
417	c. Ch310-Ch361 (Bay 25 - Bay 27)	31 days	Sun 22/6/08	Tue 22/7/08	380				
418	d. Ch361-Ch413 (Bay 28 - Bay 31)	48 days	Fri 24/4/09	Wed 10/6/09	388,462				
419	11. Drainage works	451 days	Mon 7/4/08	Wed 1/7/09					
420	11.1 storm drain with manhole and headwall	451 days	Mon 7/4/08	Wed 1/7/09					
421	a. Ch88-Ch 120 (Bay 9 - Bay 11)	20 days	Sun 1/6/08	Fri 20/6/08	413				
422	b. Ch120-Ch205 (Bay 12 - Bay 17)	20 days	Thu 29/5/08	Tue 17/6/08	415				
423	c. Ch205-Ch310 (Bay 18 - Bay 24)	20 days	Mon 7/4/08	Sat 26/4/08	416				
424	d. Ch310-Ch361 (Bay 25 - Bay 27)	20 days	Wed 23/7/08	Mon 11/8/08	417				
425	e. Ch361-Ch436 (Bay 28 - Bay 32)	21 days	Thu 11/6/09	Wed 1/7/09	418				
426	11.2. surface drain	397 days	Tue 27/5/08	Sat 27/6/09					
427	a. Ch88-Ch 120 (Bay 9 - Bay 11)	10 days	Mon 25/5/09	Wed 3/6/09	413,435				
428	b. Ch120-Ch190 (Bay 12 - Bay 16)	10 days	Thu 18/6/09	Sat 27/6/09	415,436				
429	c. Ch190-Ch348 (Bay 17 - Bay 26)	15 days	Tue 27/5/08	Tue 10/6/08	416,437				
430	d. Ch348-Ch390 (Bay 27 - Bay 29)	10 days	Thu 11/6/09	Sat 20/6/09	418				
431	e. Ch390-Ch436 (Bay 30 - Bay 32)	10 days	Thu 11/6/09	Sat 20/6/09	418				
432	12.1. Water supply pipeworks (Bay 9 to Bay 26)	60 days	Thu 18/6/09	Sun 16/8/09	435,436,437,204				
433	12.2. Water supply pipeworks (Bay 27 to Bay 32)	14 days	Thu 2/7/09	Wed 15/7/09	424,425,204				
434	13. Roads and paving	496 days	Mon 7/4/08	Sat 15/8/09					
435	a. Ch88-Ch 148 (Bay 9 - Bay 13)	17 days	Fri 8/5/09	Sun 24/5/09	422,413,421,317				
436	b. Ch148-Ch190 (Bay 14 - Bay 16)	10 days	Mon 8/6/09	Wed 17/6/09	415,328				
437	c. Ch190-Ch348 (Bay 17 - Bay 26)	50 days	Mon 7/4/08	Mon 26/5/08	416				
438	d. Ch348-Ch390 (Bay 27 - Bay 29)	10 days	Thu 2/7/09	Sat 11/7/09	458,425				
439	e. Ch390-Ch436 (Bay 30 to Bay 32)	45 days	Thu 2/7/09	Sat 15/8/09	425				
440	14. Road furnitures	461 days	Tue 27/5/08	Sun 30/8/09					
441	a. Ch88-Ch 120 (Bay 9 - Bay 11)	17 days	Mon 25/5/09	Wed 10/6/09	435				
442	b. Ch120-Ch205 (Bay 12 - Bay 17)	33 days	Thu 18/6/09	Mon 20/7/09	436				
443	c. Ch205-Ch348 (Bay 18 - Bay 26)	50 days	Tue 27/5/08	Tue 15/7/08	437				
444	d. Ch348-Ch390 (Bay 27 - Bay 29)	33 days	Sun 12/7/09	Thu 13/8/09	438				
445	e. Ch390-Ch436 (Bay 30 - Bay 32)	15 days	Sun 16/8/09	Sun 30/8/09	439				
446	15. Landscape softworks / hardworks	106 days	Mon 25/5/09	Mon 7/9/09					
447	a. Ch88-Ch 120 (Bay 9 - Bay 11)	30 days	Mon 25/5/09	Tue 23/6/09	427SS				
448	b. Ch120-Ch205 (Bay 12 - Bay 17)	70 days	Thu 18/6/09	Wed 26/8/09	428SS				
449	c. Ch205-Ch310 (Bay 18 - Bay 24)	62 days	Thu 18/6/09	Tue 18/8/09	448SS				
450	d. Ch310-Ch436 (Bay 25 - Bay 32) south	38 days	Thu 11/6/09	Sat 18/7/09	430SS,431SS				
451	e. Ch310-Ch436 (Bay 25 - Bay 32) north	8 days	Mon 31/8/09	Mon 7/9/09	452				
452	16. Final trimming of north platform from Bay 26 to Bay 32	15 days	Sun 16/8/09	Sun 30/8/09	439				
453	17. Construct temporary access (Bay 5 to Bay 14)	25 days	Thu 22/5/08	Sun 15/6/08	356,364				
454	18. Removal of existing public light controller near Bay 14	1 day	Sun 15/6/08	Sun 15/6/08					
455	19. Traffic diversion at north of Bay 5 to Bay 14	1 day	Mon 16/6/08	Mon 16/6/08	454,453				
456	20. Temporary Village Access on Bay 28 - Bay 30	2 days	Sun 1/6/08	Mon 2/6/08	378				
457	21. Temporary Village Access on Bay 32	3 days	Fri 7/11/08	Sun 9/11/08	396				
458	22. Diversion of traffic to permanent access between Bay 1	1 day	Fri 3/4/09	Fri 3/4/09	388,437				
459	23. Temporary pipe crossing at south of Bay 30	4 days	Thu 28/8/08	Sun 31/8/08	460SS-4 days				
460	24. Diversion of traffic from Cheung Chun San Chuen to the	1 day	Mon 1/9/08	Mon 1/9/08					
461	25. Diversion of existing stream to constructed channel	3 days	Sat 18/4/09	Mon 20/4/09	401,273,398,399,400,403,404,405				
462	26. Demolition of existing vehicular bridge	3 days	Tue 21/4/09	Thu 23/4/09	461				
463									
464	B3. Portion 3	789 days	Thu 12/7/07	Mon 7/9/09					
465	1. Site clearance	90 days	Sat 15/9/07	Thu 13/12/07					
466	1.1 General clearance	90 days	Sat 15/9/07	Thu 13/12/07	17,225,1005,1007				
467	2. Underground utilities detection	42 days	Tue 31/7/07	Mon 10/9/07					
468	2.1 utilities detection	28 days	Tue 31/7/07	Mon 27/8/07	340				
469	2.2 trial trench excavation & identification	14 days	Tue 28/8/07	Mon 10/9/07	468				
470	3. Utilities temporary diversion / protection	153 days	Mon 5/1/09	Sat 6/6/09					
471	a. WSD water main along village access at CH 1150	153 days	Mon 5/1/09	Sat 6/6/09	609SS,614FF+60 days				
472	b. Street lighting along village access at CH 1150	93 days	Mon 5/1/09	Tue 7/4/09	609SS,614FF				
473	c. PCCW along village access at CH 1150	153 days	Mon 5/1/09	Sat 6/6/09	609SS,614FF+60 days				
474	4. Drainage Management Plan	789 days	Thu 12/7/07	Mon 7/9/09					
475	4.1 Submission of DMPs	1 day	Thu 12/7/07	Thu 12/7/07					
476	4.2 Comments by the Engineer	14 days	Fri 13/7/07	Thu 26/7/07	475				
477	4.3 Implementation of DMP	659 days	Mon 19/11/07	Mon 7/9/09	615FF,476				







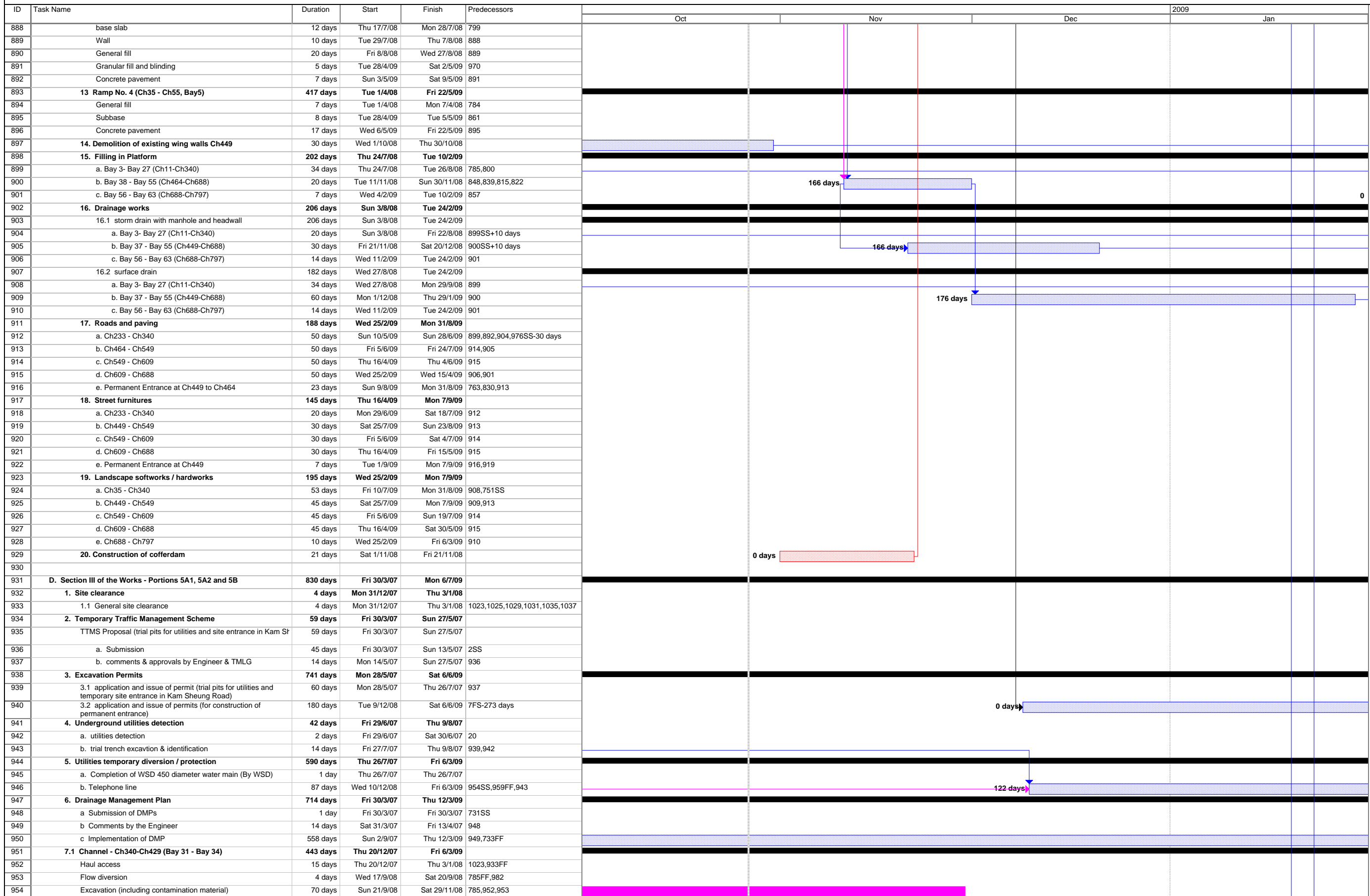


ID	Task Name	Duration	Start	Finish	Predecessors	2009			
						Oct	Nov	Dec	Jan
752	15. Modification to invert level of box culvert at Kam Sheun	45 days	Fri 19/6/09	Sun 2/8/09	826,963				
753									
754	C2. Portion 5 and 5C	893 days	Fri 30/3/07	Mon 7/9/09					
755	1. Site clearance	90 days	Thu 20/9/07	Tue 18/12/07					
756	1.1 General clearance	90 days	Thu 20/9/07	Tue 18/12/07	36,226SS+75 days,1017,1019				
757	2. Temporary Traffic Management Scheme	59 days	Fri 30/3/07	Sun 27/5/07					
758	TTMS Proposal (trial pits for utilities and site entrance in Ka	59 days	Fri 30/3/07	Sun 27/5/07					
759	a. Submission	45 days	Fri 30/3/07	Sun 13/5/07	2SS				
760	b. comments & approvals by Engineer & TMLG	14 days	Mon 14/5/07	Sun 27/5/07	759				
761	3. Excavation Permits	804 days	Mon 28/5/07	Sat 8/8/09					
762	3.1 application and issue of permit (trial pits for utilities and temporary site entrance in Kam Sheung Road)	60 days	Mon 28/5/07	Thu 26/7/07	760				
763	3.2 application and issue of permits (for construction of permanent entrance)	180 days	Tue 10/2/09	Sat 8/8/09	7FS-210 days				
764	4. Underground utilities detection	42 days	Fri 29/6/07	Thu 9/8/07					
765	a. utilities detection	28 days	Fri 29/6/07	Thu 26/7/07	19				
766	b. trial trench excavation & identification	14 days	Fri 27/7/07	Thu 9/8/07	762,765				
767	5. Utilities temporary diversion / protection	223 days	Fri 30/3/07	Wed 7/11/07					
768	a. CLP overhead cables at CH 100 - CH 120	90 days	Fri 10/8/07	Wed 7/11/07	766				
769	b. CLP overhead cables at CH 530 - CH 550	90 days	Fri 10/8/07	Wed 7/11/07	766				
770	c. CLP overhead cables at CH 670 - CH 690	90 days	Fri 10/8/07	Wed 7/11/07	766				
771	d. Gas main at Kam Sheung Road	84 days	Fri 30/3/07	Thu 21/6/07					
772	6. Drainage Management Plan	692 days	Fri 30/3/07	Wed 18/2/09					
773	5.1 Submission of DMPs	1 day	Fri 30/3/07	Fri 30/3/07	731SS				
774	5.2 Comments by the Engineer	14 days	Sat 31/3/07	Fri 13/4/07	773				
775	5.3 Implementation of DMP	551 days	Sat 18/8/07	Wed 18/2/09	803SS,774				
776	7. Channel and Crossings	863 days	Fri 30/3/07	Sat 8/8/09					
777	a. Ch11-Ch130 (Bay 4 - Bay 11)	229 days	Thu 23/8/07	Mon 7/4/08					
778	Haul access	5 days	Thu 23/8/07	Mon 27/8/07	793				
779	Flow diversion	10 days	Tue 1/1/08	Thu 10/1/08	780SS-10 days				
780	Excavation (including contamination material)	44 days	Fri 11/1/08	Sat 23/2/08	768,778,809				
781	Granular Bedding	40 days	Mon 21/1/08	Fri 29/2/08	780SS+10 days				
782	Base Slab (except south of Bay 6 and north of Bay 7)	44 days	Sun 27/1/08	Mon 10/3/08	781SS+6 days				
783	Wall and Deck (except south of Bay 6 and north of Bay	37 days	Sun 10/2/08	Mon 17/3/08	782SS+14 days				
784	Curing	44 days	Sun 17/2/08	Mon 31/3/08	783SS+7 days				
785	Trench Backfill	37 days	Sun 2/3/08	Mon 7/4/08	784SS+14 days				
786	b. South of Bay 6 and north of Bay 7	53 days	Thu 21/5/09	Sun 12/7/09					
787	Excavation	4 days	Thu 21/5/09	Sun 24/5/09	743,970				
788	Granular Bedding	5 days	Mon 25/5/09	Fri 29/5/09	787				
789	Base Slab and Wall	10 days	Sat 30/5/09	Mon 8/6/09	788				
790	Curing	14 days	Tue 9/6/09	Mon 22/6/09	789				
791	Trench Backfill	20 days	Tue 23/6/09	Sun 12/7/09	790				
792	c. Ch130-Ch233 (Bay 12 - Bay 19)	341 days	Sat 18/8/07	Wed 23/7/08					
793	Haul access	5 days	Sat 18/8/07	Wed 22/8/07	802				
794	Flow diversion	10 days	Sat 29/3/08	Mon 7/4/08	795SS-10 days				
795	Excavation (including contamination material)	33 days	Tue 8/4/08	Sat 10/5/08	793,785				
796	Granular Bedding	29 days	Fri 18/4/08	Fri 16/5/08	795SS+10 days				
797	Base Slab	50 days	Thu 24/4/08	Thu 12/6/08	796SS+6 days				
798	Wall and Deck	56 days	Thu 8/5/08	Wed 2/7/08	797SS+14 days				
799	Curing	63 days	Thu 15/5/08	Wed 16/7/08	798SS+7 days				
800	Trench Backfill	56 days	Thu 29/5/08	Wed 23/7/08	799SS+14 days				
801	d. Ch233-Ch340 (Bay 20 - Bay 30)	151 days	Mon 13/8/07	Thu 10/1/08					
802	Haul access	5 days	Mon 13/8/07	Fri 17/8/07	804SS-15 days				
803	Flow diversion	10 days	Sat 18/8/07	Mon 27/8/07	802				
804	Excavation (including contamination material)	60 days	Tue 28/8/07	Fri 26/10/07					
805	Granular Bedding	70 days	Fri 7/9/07	Thu 15/11/07	804SS+10 days				
806	Base Slab	78 days	Thu 13/9/07	Thu 29/11/07	805SS+6 days				
807	Wall and Deck	85 days	Thu 27/9/07	Thu 20/12/07	806SS+14 days				
808	Curing	92 days	Thu 4/10/07	Thu 3/1/08	807SS+7 days				
809	Trench Backfill	85 days	Thu 18/10/07	Thu 10/1/08	808SS+14 days				
810	e. North of Bay 38 and Bay 39	95 days	Thu 5/6/08	Sun 7/9/08					
811	Excavation	28 days	Thu 5/6/08	Wed 2/7/08	848SS+97 days				
812	Granular Bedding	10 days	Thu 3/7/08	Sat 12/7/08	811				
813	Base Slab and Wall	24 days	Sun 13/7/08	Tue 5/8/08	812				
814	Curing	14 days	Wed 6/8/08	Tue 19/8/08	813				
815	Trench Backfill	17 days	Wed 20/8/08	Fri 5/9/08	814				
816	Forming site access at north of Bay 38 and Bay 39	2 days	Sat 6/9/08	Sun 7/9/08	815				
817	f. South of Bay 38 and Bay 39, and Bay 40	64 days	Mon 8/9/08	Mon 10/11/08					

ID	Task Name	Duration	Start	Finish	Predecessors	Oct	Nov	Dec	2009	Jan
819	Granular Bedding	8 days	Mon 22/9/08	Mon 29/9/08	818					
820	Base Slab and Wall	21 days	Tue 30/9/08	Mon 20/10/08	819					
821	Curing	14 days	Tue 21/10/08	Mon 3/11/08	820					
822	Trench Backfill	7 days	Tue 4/11/08	Mon 10/11/08	821					
823	g. Bay 37	89 days	Tue 12/5/09	Sat 8/8/09						
824	Excavation	21 days	Tue 12/5/09	Mon 1/6/09	897,867					
825	Granular Bedding	7 days	Tue 2/6/09	Mon 8/6/09	824					
826	Base Slab	10 days	Tue 9/6/09	Thu 18/6/09	825					
827	Wall and Deck	15 days	Fri 19/6/09	Fri 3/7/09	826					
828	Curing	14 days	Sat 4/7/09	Fri 17/7/09	827,775FF					
829	Trench Backfill	10 days	Sat 18/7/09	Mon 27/7/09	828					
830	Filling Platform Bay 37	12 days	Tue 28/7/09	Sat 8/8/09	829					
831	h. Ch504-Ch586 (Bay 41 - Bay 46)	285 days	Fri 30/3/07	Tue 8/1/08						
832	Haul access	3 days	Fri 30/3/07	Sun 1/4/07						
833	Flow diversion	5 days	Fri 7/9/07	Tue 11/9/07	834SS-10 days					
834	Excavation (including contamination material)	45 days	Mon 17/9/07	Wed 31/10/07						
835	Granular Bedding	55 days	Thu 27/9/07	Tue 20/11/07	834SS+10 days					
836	Base Slab	63 days	Wed 3/10/07	Tue 4/12/07	835SS+6 days					
837	Wall and Deck	63 days	Wed 17/10/07	Tue 18/12/07	836SS+14 days					
838	Curing	70 days	Wed 24/10/07	Tue 1/1/08	837SS+7 days					
839	Trench Backfill	63 days	Wed 7/11/07	Tue 8/1/08	838SS+14 days					
840	i. Ch586-Ch675 (Bay 47 - Bay 57)	393 days	Mon 2/4/07	Mon 28/4/08						
841	Haul access	5 days	Mon 2/4/07	Fri 6/4/07	832					
842	Flow diversion	3 days	Sun 30/12/07	Tue 1/1/08	843SS-10 days					
843	Excavation (including contamination material)	60 days	Wed 9/1/08	Sat 8/3/08	1040,839					
844	Granular Bedding	60 days	Sat 19/1/08	Tue 18/3/08	843SS+10 days					
845	Base Slab	60 days	Fri 25/1/08	Mon 24/3/08	844SS+6 days					
846	Wall and Deck	60 days	Fri 8/2/08	Mon 7/4/08	845SS+14 days					
847	Curing	67 days	Fri 15/2/08	Mon 21/4/08	846SS+7 days					
848	Trench Backfill	60 days	Fri 29/2/08	Mon 28/4/08	847SS+14 days					
849	j. Ch675-Ch797 (Bay 58 - Bay 63)	669 days	Sat 7/4/07	Tue 3/2/09						
850	Haul access	3 days	Sat 7/4/07	Mon 9/4/07	841					
851	Flow diversion	3 days	Fri 5/9/08	Sun 7/9/08	852SS-3 days					
852	Excavation (including contamination material)	83 days	Mon 8/9/08	Sat 29/11/08	850,848,816					
853	Granular Bedding	90 days	Thu 18/9/08	Tue 16/12/08	852SS+10 days					
854	Base Slab	95 days	Wed 24/9/08	Sat 27/12/08	853SS+6 days					
855	Wall and Deck	95 days	Wed 8/10/08	Sat 10/1/09	854SS+14 days					
856	Curing	102 days	Wed 15/10/08	Sat 24/1/09	855SS+7 days					
857	Trench Backfill	98 days	Wed 29/10/08	Tue 3/2/09	856SS+14 days					
858	8. Gabion	613 days	Fri 4/1/08	Mon 7/9/09						
859	Bay 5- Bay 7 (Ch35-Ch75)	77 days	Tue 23/6/09	Mon 7/9/09	790					
860	Bay 8- Bay 11 (Ch75-Ch130)	392 days	Tue 1/4/08	Mon 27/4/09	784					
861	Bay 12 - Bay 19 (Ch130-Ch233)	285 days	Thu 17/7/08	Mon 27/4/09	799					
862	Bay 20 - Bay 27 (Ch233-Ch340)	480 days	Fri 4/1/08	Mon 27/4/09	808					
863	Bay 28 to Bay 30 (Ch340 to Ch380)	206 days	Sat 14/2/09	Mon 7/9/09	958					
864	Bay 38 - Bay 43 (Ch464-Ch549)	322 days	Tue 21/10/08	Mon 7/9/09	820					
865	Bay 44 - Bay 45 (Ch549-Ch576)	492 days	Tue 22/4/08	Wed 26/8/09	847					
866	Bay 50 to Bay 54 (Ch631 to Ch675)	504 days	Tue 22/4/08	Mon 7/9/09	847					
867	Bay 56 - Bay 59 (Ch688-Ch741)	107 days	Sun 25/1/09	Mon 11/5/09	856					
868	Bay 60 - Bay 62 (Ch741-Ch786)	214 days	Sun 25/1/09	Wed 26/8/09	856					
869	9. Granite Stone Facing	680 days	Fri 30/3/07	Fri 6/2/09						
870	Bay 4 and Bay 5 (Ch19.5-Ch55)	5 days	Tue 1/4/08	Sat 5/4/08	784					
871	Bay 15 - Bay 19 (Ch166-Ch233)	12 days	Thu 17/7/08	Mon 28/7/08	799					
872	Bay 37 (Ch449-Ch464)	7 days	Fri 30/3/07	Thu 5/4/07						
873	Bay 41, Bay 42 and Bay 46 (Ch504-Ch586)	6 days	Fri 23/1/09	Wed 28/1/09	971					
874	Bay 47 - Bay 55 (Ch586-Ch688)	9 days	Thu 29/1/09	Fri 6/2/09	873					
875	10. Ramp No. 1 (Ch645 - Ch668, Bay 52 - Bay 53)	504 days	Tue 22/4/08	Mon 7/9/09						
876	base slab	12 days	Tue 22/4/08	Sat 3/5/08	847					
877	Wall	10 days	Sun 4/5/08	Tue 13/5/08	876					
878	General fill	5 days	Wed 14/5/08	Sun 18/5/08	877					
879	Granular fill and blinding	5 days	Thu 27/8/09	Mon 31/8/09	868					
880	Concrete pavement	7 days	Tue 1/9/09	Mon 7/9/09	879					
881	11. Ramp No. 2 (Ch516 - Ch537, Bay 42)	893 days	Fri 30/3/07	Mon 7/9/09						
882	base slab	12 days	Fri 30/3/07	Tue 10/4/07						
883	Wall	10 days	Wed 11/4/07	Fri 20/4/07	882					
884	General fill	20 days	Sat 21/4/07	Thu 10/5/07	883					
885	Granular fill and blinding	5 days	Thu 27/8/09	Mon 31/8/09	865					
886	Concrete pavement	7 days	Tue 1/9/09	Mon 7/9/09	885					
887	12. Ramp No. 3 (Ch209 - Ch233, Bay 18 - Bay 19)	297 days	Thu 17/7/08	Sat 9/5/09						

Project: PROGRAMME OF WORKS
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Task: Progress (Blue), Milestone (Red), Summary (Black), Rolled Up Task (Blue), Rolled Up Milestone (Red), External Tasks (Grey), Group By Summary (Black), Critical Task (Red), Milestone (Red), Rolled Up Task (Blue), Rolled Up Milestone (Red), Split (Dotted), Project Summary (Grey), Deadline (Black)





ID	Task Name	Duration	Start	Finish	Predecessors	2009			
						Oct	Nov	Dec	Jan
1022	6.2 Tree transplant	732 days	Fri 6/7/07	Mon 6/7/09					
1023	a. To Temp holding nursery	62 days	Fri 6/7/07	Wed 5/9/07	1021,214				
1024	b. To final location	61 days	Thu 7/5/09	Mon 6/7/09	979FF				
1025	6.3 Tree protection	62 days	Fri 6/7/07	Wed 5/9/07	1023SS				
1026	7. Portion 5A2	739 days	Fri 29/6/07	Mon 6/7/09					
1027	7.1 Tree survey	14 days	Fri 29/6/07	Thu 12/7/07	21				
1028	7.2 Tree transplant	725 days	Fri 13/7/07	Mon 6/7/09					
1029	a. To Temp holding nursery	62 days	Fri 13/7/07	Wed 12/9/07	1027,214				
1030	b. To final location	61 days	Thu 7/5/09	Mon 6/7/09	979FF				
1031	7.3 Tree protection	62 days	Fri 13/7/07	Wed 12/9/07	1029SS				
1032	8. Portion 5B	630 days	Tue 16/10/07	Mon 6/7/09					
1033	8.1 Tree survey	14 days	Tue 16/10/07	Mon 29/10/07	22				
1034	8.2 Tree transplant	616 days	Tue 30/10/07	Mon 6/7/09					
1035	a. To Temp holding nursery	62 days	Tue 30/10/07	Sun 30/12/07	1033,214				
1036	b. To final location	61 days	Thu 7/5/09	Mon 6/7/09	979FF				
1037	8.3 Tree protection	62 days	Tue 30/10/07	Sun 30/12/07	1035SS				
1038									
1039	G. Berthing Area	545 days	Wed 12/9/07	Mon 9/3/09					
1040	1. Construction of Loading Facilities	27 days	Wed 12/9/07	Mon 8/10/07	162				
1041	2. Removal of Loading Facilities	2 days	Sun 1/3/09	Mon 2/3/09	609				
1042	3. Reinstatement of Berthing Area	7 days	Tue 3/3/09	Mon 9/3/09	1041				

ID	Task Name	Duration	Start	Finish	Predecessors	2009			
						Jan	Feb	Mar	Apr
1	Letter of Acceptance	1 day	Wed 21/3/07	Wed 21/3/07					
2	Date for commencement of Works	1 day	Fri 30/3/07	Fri 30/3/07					
3	Execution of Article of Agreement	1 day	Tue 3/4/07	Tue 3/4/07					
4									
5	Master Programme of the Works	902 days	Wed 21/3/07	Mon 7/9/09					
6									
7	Completion Dates	893 days	Fri 30/3/07	Mon 7/9/09					
8	Section I - portions 1, 2 and 3	893 days	Fri 30/3/07	Mon 7/9/09	2SS				
9	Section II - portions 4, 5 and 5C	893 days	Fri 30/3/07	Mon 7/9/09	2SS				
10	Section III - portions 5A1, 5A2 and 5B	740 days	Thu 28/6/07	Mon 6/7/09	20FS-1 day				
11	Section IV - temp vehicular access at portion 5A1	90 days	Thu 28/6/07	Tue 25/9/07	20FS-1 day				
12	Section V - preservation and protection of existing trees	893 days	Fri 30/3/07	Mon 7/9/09	2SS				
13									
14	Possession of Site	200 days	Fri 30/3/07	Mon 15/10/07					
15	Portion 1 - channel KT2	1 day	Fri 30/3/07	Fri 30/3/07	2SS				
16	Portion 2 - channel KT2	61 days	Fri 30/3/07	Tue 29/5/07	2SS				
17	Portion 3 - channel KT2	91 days	Fri 30/3/07	Thu 28/6/07	2SS				
18	Portion 4 - channel KT15	1 day	Fri 30/3/07	Fri 30/3/07	2SS				
19	Portion 5 - channel KT15	91 days	Fri 30/3/07	Thu 28/6/07	2SS				
20	Portion 5A1 - channel KT15	91 days	Fri 30/3/07	Thu 28/6/07	2SS				
21	Portion 5A2 - channel KT15	91 days	Fri 30/3/07	Thu 28/6/07	2SS				
22	Portion 5B - channel KT15	20 days	Wed 26/9/07	Mon 15/10/07	11				
23	Portion 5C - channel KT15	91 days	Fri 30/3/07	Thu 28/6/07	2SS				
24	Portion 6 - Temp Storage Area at Chi Ho Road	1 day	Fri 30/3/07	Fri 30/3/07	2SS				
25	Portion 7 - Berthing Area	1 day	Fri 30/3/07	Fri 30/3/07	2SS				
26	Portion 8 - Site Accommodation	1 day	Fri 30/3/07	Fri 30/3/07	2SS				
27									
28	A. Preliminary Works	902 days	Wed 21/3/07	Mon 7/9/09					
29	1. Setting out of Works	893 days	Fri 30/3/07	Mon 7/9/09	2SS				
30	2. Environmental Monitoring and Audit	893 days	Fri 30/3/07	Mon 7/9/09					
31	2.1 Establishment of Environmental Team	14 days	Fri 30/3/07	Thu 12/4/07	8SS				
32	2.2 approval by the Engineer	7 days	Fri 13/4/07	Thu 19/4/07	31				
33	2.3 Environmental baseline monitoring	77 days	Fri 20/4/07	Thu 5/7/07					
34	a. Technical proposal & methodology	7 days	Fri 20/4/07	Thu 26/4/07	32				
35	b. Approval by the Engineer	7 days	Fri 27/4/07	Thu 3/5/07	34				
36	c. Baseline monitoring	63 days	Fri 4/5/07	Thu 5/7/07	35				
37	2.4 Environmental impact monitoring and audit	777 days	Tue 24/7/07	Mon 7/9/09	36,8FF				
38	3. Environmental Management and Environmental Management Plan	73 days	Fri 30/3/07	Sun 10/6/07					
39	3.1 Submission of draft EMP	21 days	Fri 30/3/07	Thu 19/4/07	2SS				
40	3.2 Comment from the Engineer	7 days	Fri 20/4/07	Thu 26/4/07	39				
41	3.3 Submission of EMP	45 days	Fri 27/4/07	Sun 10/6/07	40				
42	4. Engineer's Accommodation	51 days	Fri 30/3/07	Sat 19/5/07					
43	4.1 Renovation	30 days	Fri 30/3/07	Sat 28/4/07	26SS				
44	4.2 Equipment	51 days	Fri 30/3/07	Sat 19/5/07					
45	a. Contract telephone	21 days	Fri 30/3/07	Thu 19/4/07	26SS				
46	b. Survey equipment	45 days	Fri 30/3/07	Sun 13/5/07	26SS				
47	c. Contract computer facilities	51 days	Fri 30/3/07	Sat 19/5/07					
48	submission	14 days	Fri 30/3/07	Thu 12/4/07	26SS				
49	approval	7 days	Fri 13/4/07	Thu 19/4/07	48				
50	installation	21 days	Sun 22/4/07	Sat 12/5/07	49,43FS-7 days				
51	testing & commissioning	7 days	Sun 13/5/07	Sat 19/5/07	50				
52	4.3 utilities servicing	33 days	Fri 30/3/07	Tue 1/5/07					
53	a. Water	1 day	Fri 30/3/07	Fri 30/3/07	26SS				
54	b. Electricity	1 day	Fri 30/3/07	Fri 30/3/07	26SS				
55	c. Telephone	33 days	Fri 30/3/07	Tue 1/5/07					
56	temporary service	32 days	Fri 30/3/07	Mon 30/4/07	26SS				
57	new service	19 days	Fri 13/4/07	Tue 1/5/07					
58	application	5 days	Fri 13/4/07	Tue 17/4/07	56SS+14 days				
59	installation	14 days	Wed 18/4/07	Tue 1/5/07	58				
60	d. Facsimile	33 days	Fri 30/3/07	Tue 1/5/07					
61	temporary service	32 days	Fri 30/3/07	Mon 30/4/07	26SS				
62	new service	19 days	Fri 13/4/07	Tue 1/5/07					
63	application	5 days	Fri 13/4/07	Tue 17/4/07	61SS+14 days				
64	installation	14 days	Wed 18/4/07	Tue 1/5/07	63				
65	e. Internet broadband	33 days	Fri 30/3/07	Tue 1/5/07					
66	temporary service (56K)	32 days	Fri 30/3/07	Mon 30/4/07	26SS				

ID	Task Name	Duration	Start	Finish	Predecessors	2009			
						Jan	Feb	Mar	Apr
67	new service	19 days	Fri 13/4/07	Tue 1/5/07					
68	application	5 days	Fri 13/4/07	Tue 17/4/07	66SS+14 days				
69	installation	14 days	Wed 18/4/07	Tue 1/5/07	68				
70	5. Contractor's Accommodation	45 days	Fri 30/3/07	Sun 13/5/07					
71	5.1 Provision	45 days	Fri 30/3/07	Sun 13/5/07					
72	a. Premises	45 days	Fri 30/3/07	Sun 13/5/07	26SS				
73	b. Toilet facilities	21 days	Mon 23/4/07	Sun 13/5/07	72FF				
74	c. Telephone service	30 days	Sat 14/4/07	Sun 13/5/07	72FF				
75	d. Facsimile service	30 days	Sat 14/4/07	Sun 13/5/07	72FF				
76	e. Internet broadband service	30 days	Sat 14/4/07	Sun 13/5/07	72FF				
77	f. Water	1 day	Fri 30/3/07	Fri 30/3/07	26SS				
78	g. electricity	1 day	Fri 30/3/07	Fri 30/3/07	26SS				
79	6. Transport (land) for the Engineer	124 days	Fri 30/3/07	Tue 31/7/07					
80	6.1 submission	7 days	Fri 30/3/07	Thu 5/4/07	2SS				
81	6.2 comment & approval	14 days	Fri 6/4/07	Thu 19/4/07	80				
82	6.3 delivery	103 days	Fri 20/4/07	Tue 31/7/07	81				
83	6.4 temp service	124 days	Fri 30/3/07	Tue 31/7/07	2SS,82FF				
84	7. Transport (land) for Public Works Regional Laboratory	124 days	Fri 30/3/07	Tue 31/7/07					
85	7.1 submission	7 days	Fri 30/3/07	Thu 5/4/07	2SS				
86	7.2 comment, approval & instruction	14 days	Fri 6/4/07	Thu 19/4/07	85				
87	7.3 delivery	103 days	Fri 20/4/07	Tue 31/7/07	86				
88	8. Signboard	150 days	Fri 30/3/07	Sun 26/8/07					
89	8.1 Major	150 days	Fri 30/3/07	Sun 26/8/07					
90	submission	90 days	Fri 30/3/07	Wed 27/6/07	2SS				
91	comment & approval	90 days	Sun 29/4/07	Fri 27/7/07	90SS+30 days				
92	erection	90 days	Tue 29/5/07	Sun 26/8/07	91SS+30 days				
93	8.2 Minor	150 days	Fri 30/3/07	Sun 26/8/07					
94	submission	90 days	Fri 30/3/07	Wed 27/6/07	2SS				
95	comment & approval	90 days	Sun 29/4/07	Fri 27/7/07	94SS+30 days				
96	erection	90 days	Tue 29/5/07	Sun 26/8/07	95SS+30 days				
97	9. Telephone hotline	15 days	Sun 29/4/07	Sun 13/5/07					
98	9.1 Engineer's instruction	1 day	Sun 29/4/07	Mon 30/4/07	99SF				
99	9.2 installation	14 days	Mon 30/4/07	Sun 13/5/07	74FF				
100	10. Contractual general submissions	902 days	Wed 21/3/07	Mon 7/9/09					
101	10.1 programmes	28 days	Wed 21/3/07	Tue 17/4/07					
102	a. GCC Clause 16 programme	14 days	Wed 21/3/07	Tue 3/4/07	1SS				
103	b. Works programme & financial programme	14 days	Wed 4/4/07	Tue 17/4/07	102				
104	c. 3-month rolling programme	14 days	Wed 4/4/07	Tue 17/4/07	102				
105	10.2 contractor's superintendence	14 days	Fri 30/3/07	Thu 12/4/07					
106	a. Agent	7 days	Fri 30/3/07	Thu 5/4/07	2SS				
107	b. Surveyor	14 days	Fri 30/3/07	Thu 12/4/07	2SS				
108	c. Sub-agent	14 days	Fri 30/3/07	Thu 12/4/07	2SS				
109	d. Geotechnical Engineer	7 days	Fri 30/3/07	Thu 5/4/07	2SS				
110	e. Geotechnical Supervisor	14 days	Fri 30/3/07	Thu 12/4/07	2SS				
111	f. Foreman - concrete	14 days	Fri 30/3/07	Thu 12/4/07	2SS				
112	g. Foreman - drainage	14 days	Fri 30/3/07	Thu 12/4/07	2SS				
113	h. Staff Organization Plan	14 days	Fri 30/3/07	Thu 12/4/07	2SS				
114	10.3 Safety Organization	14 days	Fri 30/3/07	Thu 12/4/07					
115	a. Safety Officer	14 days	Fri 30/3/07	Thu 12/4/07	2SS				
116	b. Safety Supervisor	14 days	Fri 30/3/07	Thu 12/4/07	2SS				
117	c. Safety Representative	14 days	Fri 30/3/07	Thu 12/4/07	2SS				
118	10.4 TTMS design	7 days	Fri 30/3/07	Thu 5/4/07					
119	a. Independent Traffic Consultant	7 days	Fri 30/3/07	Thu 5/4/07	2SS				
120	b. Traffic Engineer	7 days	Fri 30/3/07	Thu 5/4/07	2SS				
121	10.5 Assistant to Engineer	33 days	Fri 30/3/07	Tue 1/5/07					
122	a. Chainmen (4)	33 days	Fri 30/3/07	Tue 1/5/07	2SS				
123	b. Watchmen (2)	33 days	Fri 30/3/07	Tue 1/5/07	2SS				
124	c. Field assistant (1)	33 days	Fri 30/3/07	Tue 1/5/07	2SS				
125	d. Technical assistant (1)	33 days	Fri 30/3/07	Tue 1/5/07	2SS				
126	e. Clerical assistant (1)	33 days	Fri 30/3/07	Tue 1/5/07	2SS				
127	f. Office assistant (1)	33 days	Fri 30/3/07	Tue 1/5/07	2SS				
128	10.6 Underground service detection equipment	35 days	Fri 30/3/07	Thu 3/5/07					
129	a. Submission	7 days	Fri 30/3/07	Thu 5/4/07	2SS				
130	b. Comment & approval	14 days	Fri 6/4/07	Thu 19/4/07	129				
131	c. Provision	14 days	Fri 20/4/07	Thu 3/5/07	130				
132	10.7 Independent Checking of Temporary Works	28 days	Fri 30/3/07	Thu 26/4/07					
133	a. Submission of independent checking engineer	14 days	Fri 30/3/07	Thu 12/4/07	2SS				
134	b. Comment & approval	14 days	Fri 13/4/07	Thu 26/4/07	133				
135	10.8 Trip ticket system for C & D material	59 days	Fri 30/3/07	Sun 27/5/07					

Task Progress Summary Rolled Up Critical Task Rolled Up Progress External Tasks Group By Summary

Critical Task Milestone Rolled Up Task Rolled Up Milestone Split Project Summary Deadline

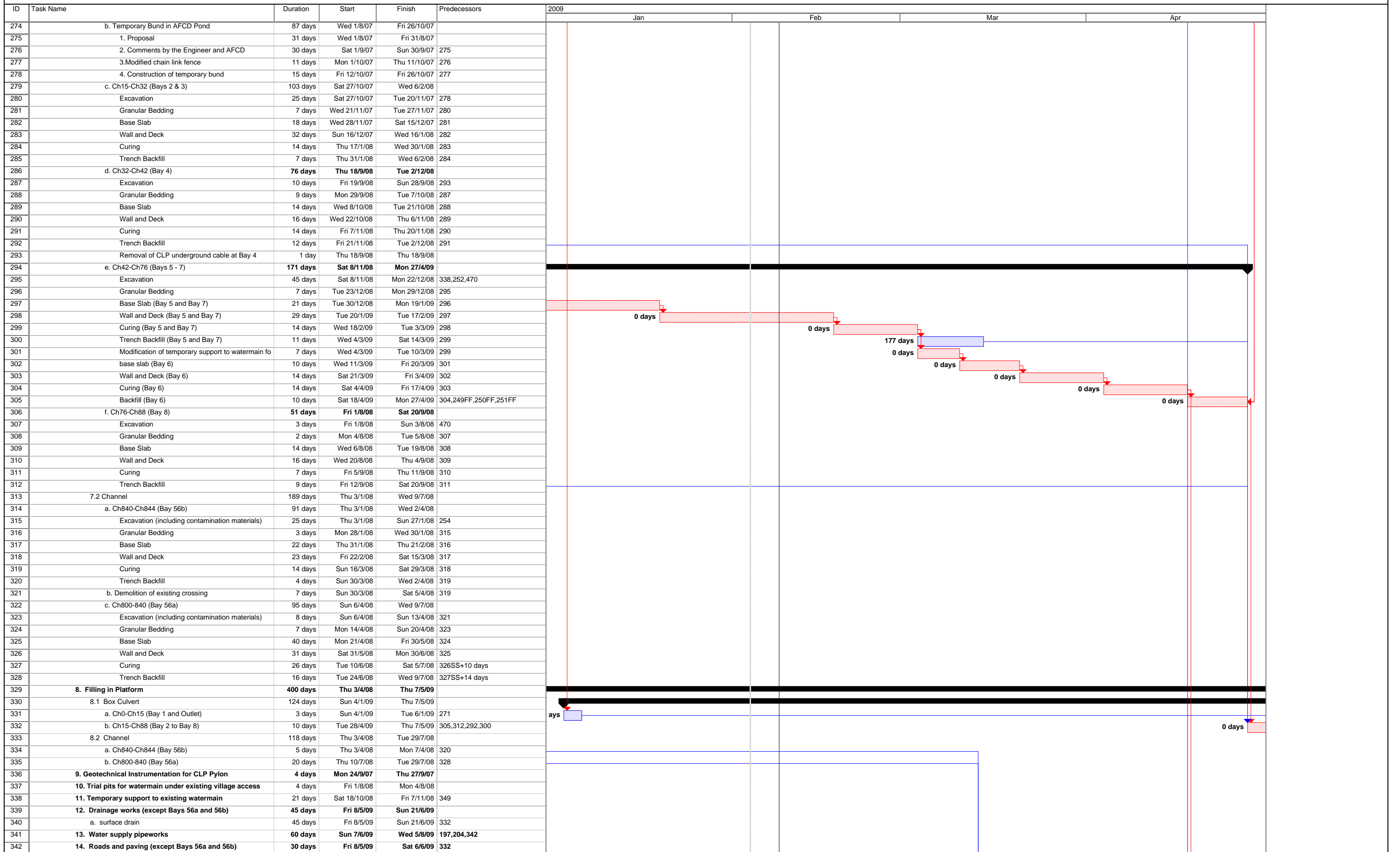
ID	Task Name	Duration	Start	Finish	Predecessors	2009			
						Jan	Feb	Mar	Apr
136	a. Submission of site management plan	45 days	Fri 30/3/07	Sun 13/5/07	2SS				
137	b. Comment & approval	14 days	Mon 14/5/07	Sun 27/5/07	136				
138	10.9. Condition survey and structural monitoring	893 days	Fri 30/3/07	Mon 7/9/09					
139	a. Submission of Independent Structural Engineer	14 days	Fri 30/3/07	Thu 12/4/07	2SS				
140	b. Comment & approval	7 days	Fri 13/4/07	Thu 19/4/07	139				
141	c. Proposal for condition survey & structural monitoring	209 days	Fri 20/4/07	Wed 14/11/07					
142	Portion 1, 4, 6, 7, 8	30 days	Fri 20/4/07	Sat 19/5/07	140				
143	Portion 2	30 days	Wed 30/5/07	Thu 28/6/07	16				
144	Portion 3, 5	30 days	Fri 29/6/07	Sat 28/7/07	17,19,20,21				
145	Portion 5A1, 5A2 and 5B	30 days	Tue 16/10/07	Wed 14/11/07	22				
146	d. Comment & approval	193 days	Sun 20/5/07	Wed 28/11/07					
147	Portion 1, 4, 6, 7, 8	14 days	Sun 20/5/07	Sat 2/6/07	142				
148	Portion 2	14 days	Fri 29/6/07	Thu 12/7/07	143				
149	Portion 3, 5	14 days	Sun 29/7/07	Sat 11/8/07	144				
150	Portion 5A1, 5A2 and 5B	14 days	Thu 15/11/07	Wed 28/11/07	145				
151	e. Condition survey & structural monitoring	828 days	Sun 3/6/07	Mon 7/9/09					
152	Portion 1, 4, 6, 7, 8	828 days	Sun 3/6/07	Mon 7/9/09	147				
153	Portion 2	788 days	Fri 13/7/07	Mon 7/9/09	148				
154	Portion 3, 5	758 days	Sun 12/8/07	Mon 7/9/09	149				
155	Portion 5A1, 5A2 and 5B	586 days	Thu 29/11/07	Mon 6/7/09	150				
156	10.10 Handling & disposal of Type 1 & 2 contaminated material:	74 days	Sat 14/7/07	Tue 25/9/07					
157	a. Proposed type of dump truck	44 days	Sun 15/7/07	Mon 27/8/07					
158	Submission	30 days	Sun 15/7/07	Mon 13/8/07	832SS-44 days				
159	Comment & approval	14 days	Tue 14/8/07	Mon 27/8/07	158				
160	b. Proposal of berthing area arrangement	44 days	Mon 30/7/07	Tue 11/9/07					
161	Submission	30 days	Mon 30/7/07	Tue 28/8/07					
162	Comment & approval	14 days	Wed 29/8/07	Tue 11/9/07	161				
163	c. Proposal of disposal arrangement	74 days	Sat 14/7/07	Tue 25/9/07					
164	Submission	60 days	Sat 14/7/07	Tue 11/9/07					
165	Comment & approval	14 days	Wed 12/9/07	Tue 25/9/07	164				
166	10.11 Type 3 contaminated material	290 days	Fri 30/3/07	Sun 13/1/08					
167	a. Decontamination specialist	134 days	Fri 30/3/07	Fri 10/8/07					
168	Submission	120 days	Fri 30/3/07	Fri 27/7/07	2SS				
169	Comment & approval	14 days	Sat 28/7/07	Fri 10/8/07	168				
170	b. Statement & treatment programme	42 days	Sat 11/8/07	Fri 21/9/07					
171	(1) Submission	28 days	Sat 11/8/07	Fri 7/9/07	169				
172	(2) Comment & approval	14 days	Sat 8/9/07	Fri 21/9/07					
173	by the Engineer	14 days	Sat 8/9/07	Fri 21/9/07	171				
174	by the EPD	14 days	Sat 8/9/07	Fri 21/9/07	171				
175	c. Setting up of Treatment Plant	60 days	Thu 15/11/07	Sun 13/1/08	174				
176	10.12 Safety Plan	35 days	Wed 21/3/07	Tue 24/4/07					
177	a. Submission of draft Safety Plan	14 days	Wed 21/3/07	Tue 3/4/07	1SS				
178	b. Comment by the Engineer	7 days	Wed 4/4/07	Tue 10/4/07	177				
179	c. Submission of Safety Plan	14 days	Wed 11/4/07	Tue 24/4/07	178				
180	10.13 Sub-contractor Management Plan	902 days	Wed 21/3/07	Mon 7/9/09					
181	a. Submission of SMP	30 days	Wed 21/3/07	Thu 19/4/07	1SS				
182	b. For information & Comments	14 days	Fri 20/4/07	Thu 3/5/07	181				
183	c. Update SMP	858 days	Fri 4/5/07	Mon 7/9/09	182				
184	10.14 proof of plant ownership	893 days	Fri 30/3/07	Mon 7/9/09					
185	a. Submission of draft written undertaking	14 days	Fri 30/3/07	Thu 12/4/07	2SS				
186	b. Comment by the Engineer / Employer	14 days	Fri 13/4/07	Thu 26/4/07	185				
187	c. Engineer's request	865 days	Fri 27/4/07	Mon 7/9/09	186				
188	10.15 Contractor's Management Team	893 days	Fri 30/3/07	Mon 7/9/09					
189	a. Submission of staff member details	14 days	Fri 30/3/07	Thu 12/4/07	2SS				
190	b. Update management / site supervision team	879 days	Fri 13/4/07	Mon 7/9/09	189				
191	10.16 Water supply pipeworks material	651 days	Wed 21/3/07	Tue 30/12/08					
192	a. Supplier	28 days	Wed 21/3/07	Tue 17/4/07					
193	Submission	14 days	Wed 21/3/07	Tue 3/4/07	1SS				
194	comment & approval	14 days	Wed 4/4/07	Tue 17/4/07	193				
195	b. Manufacturer	28 days	Wed 21/3/07	Tue 17/4/07					
196	Submission	14 days	Wed 21/3/07	Tue 3/4/07	1SS				
197	comment & approval	14 days	Wed 4/4/07	Tue 17/4/07	196				
198	c. Independent Inspection Agent (IIA)	28 days	Wed 21/3/07	Tue 17/4/07					
199	Submission	14 days	Wed 21/3/07	Tue 3/4/07	1SS				
200	comment & approval	14 days	Wed 4/4/07	Tue 17/4/07	199				
201	d. Representative of the IIA	28 days	Wed 21/3/07	Tue 17/4/07					
202	Submission	14 days	Wed 21/3/07	Tue 3/4/07	1SS				
203	comment & approval	14 days	Wed 4/4/07	Tue 17/4/07	202				

Task Progress Summary Rolled Up Critical Task Rolled Up Progress External Tasks Group By Summary

Critical Task Milestone Rolled Up Task Rolled Up Milestone Split Project Summary Deadline

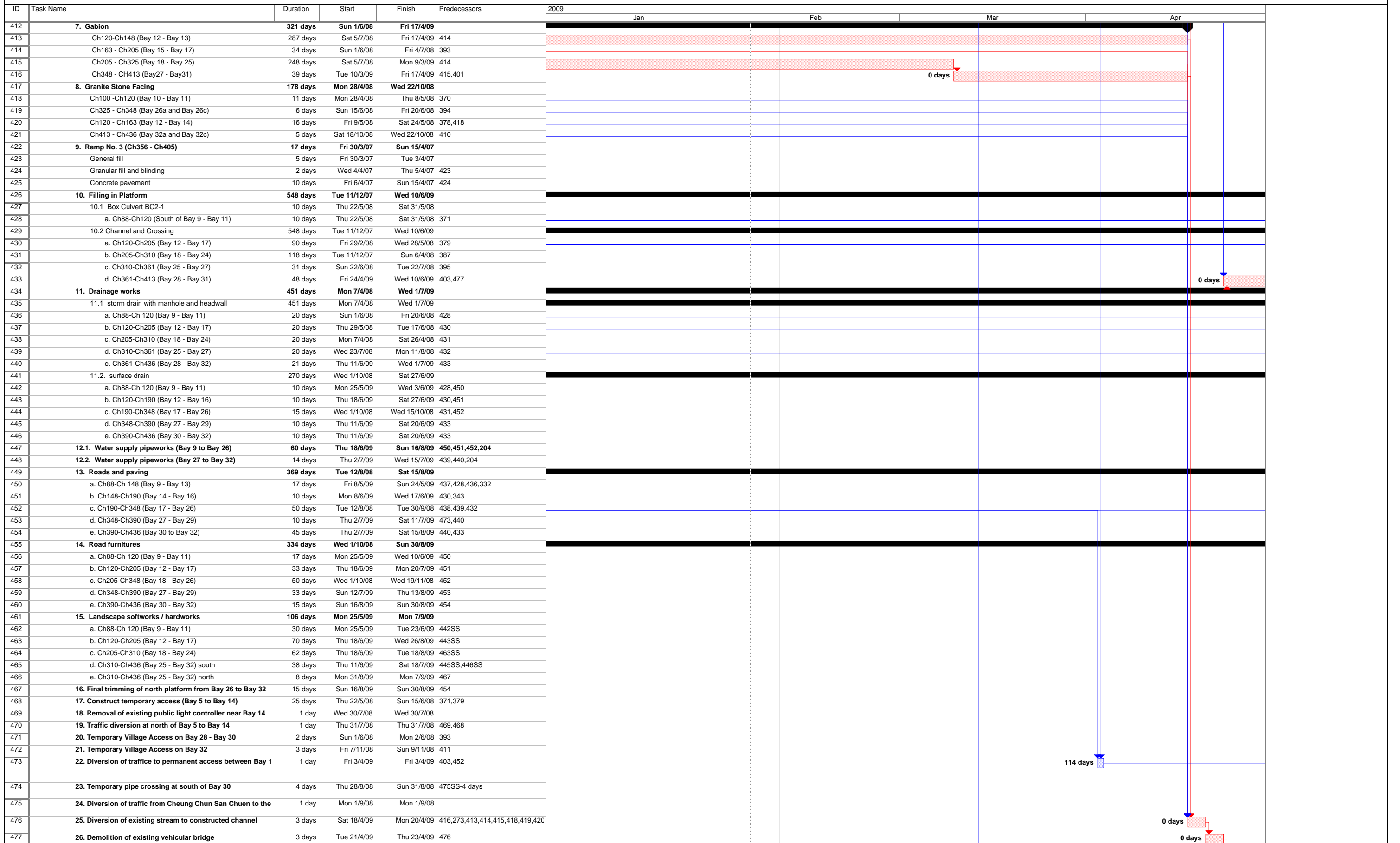
ID	Task Name	Duration	Start	Finish	Predecessors	2009			
						Jan	Feb	Mar	Apr
205	10.17 Landscape softworks and establishment works	28 days	Fri 30/3/07	Thu 26/4/07					
206	a. Submission of technical information	14 days	Fri 30/3/07	Thu 12/4/07	2SS				
207	b. Comment & approval	14 days	Fri 13/4/07	Thu 26/4/07	206				
208	10.18 Preservation and protection of existing trees	59 days	Wed 21/3/07	Fri 18/5/07					
209	a. Specialist contractor (landscaping Class I)	28 days	Fri 30/3/07	Thu 26/4/07					
210	Submission	14 days	Fri 30/3/07	Thu 12/4/07	2SS				
211	Comment & approval	14 days	Fri 13/4/07	Thu 26/4/07	210				
212	b. Site supervisory staff	59 days	Wed 21/3/07	Fri 18/5/07					
213	Submission	45 days	Wed 21/3/07	Fri 4/5/07	1SS				
214	Comment & approval	14 days	Sat 5/5/07	Fri 18/5/07	213				
215	10.19 Concrete (ready mix)	28 days	Fri 30/3/07	Thu 26/4/07					
216	a. Submission of supplier & design mix	21 days	Fri 30/3/07	Thu 19/4/07	2SS				
217	b. Comment & approval	7 days	Fri 20/4/07	Thu 26/4/07	216				
218	10.20 Steel reinforcement	35 days	Fri 30/3/07	Thu 3/5/07					
219	a. Submission of supplier	28 days	Fri 30/3/07	Thu 26/4/07	2SS				
220	b. Comment & approval	7 days	Fri 27/4/07	Thu 3/5/07	219				
221	10.21 Submissions of method statement / materials	811 days	Tue 15/5/07	Sun 2/8/09					
222	a. Submission of materials	811 days	Tue 15/5/07	Sun 2/8/09	15FS+45 days				
223	b. Submission of method statement	811 days	Tue 15/5/07	Sun 2/8/09	15FS+45 days				
224	11. Provision of wheel washing facilities	180 days	Fri 30/3/07	Tue 25/9/07					
225	11.1 Channel KT2	120 days	Fri 30/3/07	Fri 27/7/07	2SS				
226	11.2 Channel KT15	90 days	Thu 28/6/07	Tue 25/9/07	19FS-1 day				
227	11.3 Berthing area	90 days	Fri 30/3/07	Wed 27/6/07	2SS				
228	11.4 Portion 6	45 days	Fri 30/3/07	Sun 13/5/07	2SS				
229	12. Setting up of traffic management liaison group	30 days	Fri 30/3/07	Sat 28/4/07	2SS				
230									
231	B. Section I of the Works	893 days	Fri 30/3/07	Mon 7/9/09					
232	B1. Portion 1	893 days	Fri 30/3/07	Mon 7/9/09					
233	1. Site clearance	30 days	Sat 28/7/07	Sun 26/8/07					
234	1.1 General site clearance	30 days	Sat 28/7/07	Sun 26/8/07	36,225,1021,1019				
235	2. Temporary Traffic Management Scheme	59 days	Fri 30/3/07	Sun 27/5/07					
236	2.1 TTMS Proposal (trial pits in Chi Ho Road for utilities)	59 days	Fri 30/3/07	Sun 27/5/07					
237	a. Submission	45 days	Fri 30/3/07	Sun 13/5/07	2SS				
238	b. comments & approvals by Engineer & TMLG	14 days	Mon 14/5/07	Sun 27/5/07	237				
239	2.2 TTMS Proposal (for construction of box culvert)	59 days	Fri 30/3/07	Sun 27/5/07					
240	a. Submission	45 days	Fri 30/3/07	Sun 13/5/07					
241	b. comments & approvals by Engineer & TMLG	14 days	Mon 14/5/07	Sun 27/5/07	240				
242	3. Excavation Permits	507 days	Mon 28/5/07	Wed 15/10/08					
243	3.1 application and issue of permit (trial pits in Chi Ho Road	180 days	Mon 28/5/07	Fri 23/11/07	238				
244	3.2 application and issue of permits (for construction of box culvert)	180 days	Sat 19/4/08	Wed 15/10/08	241				
245	4. Underground utilities detection	253 days	Fri 30/3/07	Fri 7/12/07					
246	4.1 utilities detection	28 days	Fri 30/3/07	Thu 26/4/07	2SS				
247	4.2 trial trench excavation & identification	14 days	Sat 24/11/07	Fri 7/12/07	246,243				
248	5. Utilities temporary diversion / protection	579 days	Thu 27/9/07	Mon 27/4/09					
249	a. WSD watermain along village vehicular access	171 days	Sat 8/11/08	Mon 27/4/09	338				
250	b. Street lighting along village vehicular access	171 days	Sat 8/11/08	Mon 27/4/09	295SS				
251	c. PCCW along village vehicular access	171 days	Sat 8/11/08	Mon 27/4/09	295SS				
252	d. CLP overhead cable at Bay 4	160 days	Thu 7/2/08	Tue 15/7/08	285				
253	e. CH 816-CH841 underground cables (33kV)	42 days	Thu 27/9/07	Wed 7/11/07	260				
254	f. CH 816-CH841 underground cables (132kV)	56 days	Thu 8/11/07	Wed 2/1/08	253				
255	g. Street lighting at Chi Ho Road	86 days	Thu 23/10/08	Fri 16/1/09	266SS,247				
256	h. Irrigation pipe at Chi Ho Road	86 days	Thu 23/10/08	Fri 16/1/09	266SS				
257	6. Drainage Management Plan (Ch810 to Ch850)	77 days	Thu 12/7/07	Wed 26/9/07					
258	6.1 Submission of DMPs	1 day	Thu 12/7/07	Thu 12/7/07					
259	6.2 Comments by the Engineer	14 days	Fri 13/7/07	Thu 26/7/07	258				
260	6.3 Implementation of DMP	3 days	Mon 24/9/07	Wed 26/9/07	259SF				
261	7. Box Culvert and Channel	636 days	Wed 1/8/07	Mon 27/4/09					
262	7.1 Box Culvert BC2-1	636 days	Wed 1/8/07	Mon 27/4/09	78				
263	a. Ch0-Ch15 (Bay 1 and Outlet)	167 days	Thu 16/10/08	Tue 31/3/09					
264	Construction of cofferdam	7 days	Thu 16/10/08	Wed 22/10/08	244				
265	Remove road pavement and expose existing utiliti	7 days	Thu 16/10/08	Wed 22/10/08	244				
266	Excavation	9 days	Thu 23/10/08	Fri 31/10/08	265,348,264				
267	Granular Bedding	4 days	Sat 1/11/08	Tue 4/11/08	266				
268	Base Slab	21 days	Wed 5/11/08	Tue 25/11/08	267				
269	Wall and Deck	22 days	Wed 26/11/08	Wed 17/12/08	268				
270	Curing	10 days	Thu 18/12/08	Sat 27/12/08	269				
271	Trench Backfill	7 days	Sun 28/12/08	Sat 3/1/09	270				
272	Reinstatement of Chi Ho Road	13 days	Sun 4/1/09	Fri 16/1/09	271,255FF,256FF				

Task		Progress		Summary		Rolled Up Critical Task		Rolled Up Progress		External Tasks		Group By Summary	
Critical Task		Milestone		Rolled Up Task		Rolled Up Milestone		Split		Project Summary		Deadline	



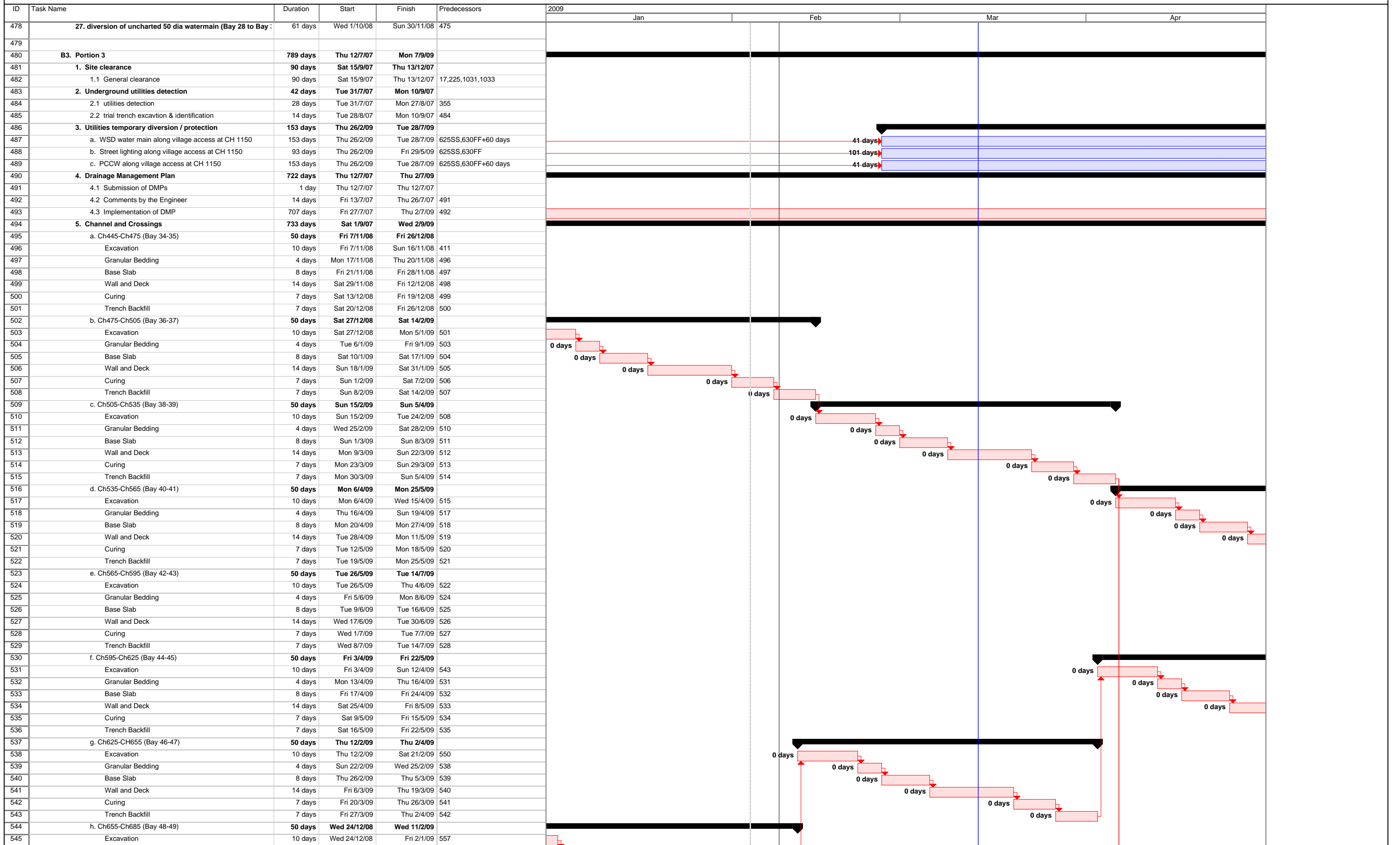
ID	Task Name	Duration	Start	Finish	Predecessors	2009			
						Jan	Feb	Mar	Apr
343	15. Diversion of traffic to permanent access from Bay 4 to B	1 day	Sun 7/6/09	Sun 7/6/09	342				
344	16. Street furnitures / traffic sign / road marking (except Bay 4)	16 days	Thu 6/8/09	Fri 21/8/09	341				
345	17. Landscape softworks / hardworks (except Bays 56a and 56b)	63 days	Sun 7/6/09	Sat 8/8/09	331,332,342				
346	18. Road Diversion in Chi Ho Road	5 days	Thu 16/10/08	Mon 20/10/08					
347	a. Construction of temporary footpath above Box Culvert	4 days	Thu 16/10/08	Sun 19/10/08	244				
348	b. Implementation of footpath diversion	1 day	Mon 20/10/08	Mon 20/10/08	347				
349	19. Removal of Tree No. 501	2 days	Thu 16/10/08	Fri 17/10/08					
350	20. Permanent footpath	33 days	Thu 6/8/09	Mon 7/9/09	341				
351	B2. Portion 2	893 days	Fri 30/3/07	Mon 7/9/09					
352	1. Site clearance	90 days	Tue 14/8/07	Sun 11/11/07					
353	1.1 General clearance	90 days	Tue 14/8/07	Sun 11/11/07	36,1025,225,1027				
354	2. Underground utilities detection	42 days	Tue 3/7/07	Mon 13/8/07					
355	2.1 utilities detection	28 days	Tue 3/7/07	Mon 30/7/07					
356	2.2 trial trench excavation & identification	14 days	Tue 31/7/07	Mon 13/8/07	355				
357	3. Utilities temporary diversion / protection	463 days	Fri 30/3/07	Fri 4/7/08					
358	a. WSD water main along village vehicular access	90 days	Wed 10/10/07	Mon 7/1/08	374SS				
359	b. Street lighting along village vehicular access	269 days	Wed 10/10/07	Fri 4/7/08	374SS				
360	c. PCCW along village vehicular access	245 days	Wed 10/10/07	Tue 10/6/08	374SS				
361	d. CLP overhead cables / street lighting at CH 290 - CH 300	90 days	Fri 30/3/07	Wed 27/6/07					
362	4. Geotechnical Instrumentation for AFCD	6 days	Thu 27/9/07	Tue 2/10/07					
363	5. Discussion with Pond Owner	39 days	Wed 1/8/07	Sat 8/9/07					
364	6. Box Culvert, Channel and Crossings	572 days	Sun 9/9/07	Thu 2/4/09					
365	a. Ch88-Ch120 (Bays 9 - 11)	83 days	Fri 29/2/08	Wed 21/5/08					
366	Excavation	21 days	Fri 29/2/08	Thu 20/3/08	336,362,379				
367	Granular Bedding	15 days	Mon 10/3/08	Mon 24/3/08	366SS+10 days				
368	Base Slab	15 days	Sun 16/3/08	Sun 30/3/08	367SS+6 days				
369	Wall and Deck	22 days	Sun 23/3/08	Sun 13/4/08	368SS+7 days				
370	Curing	25 days	Thu 3/4/08	Sun 27/4/08	369SS+11 days				
371	Trench Backfill	35 days	Thu 17/4/08	Wed 21/5/08	370SS+14 days				
372	b. Ch120-Ch205 (Bay 12 - Bay 17)	159 days	Sun 23/9/07	Thu 28/2/08					
373	Haul access	16 days	Sun 23/9/07	Mon 8/10/07	381				
374	Excavation	46 days	Wed 10/10/07	Sat 24/11/07	362,356,373				
375	Granular Bedding	43 days	Sat 20/10/07	Sat 1/12/07	374SS+10 days				
376	Base Slab	50 days	Fri 26/10/07	Fri 14/12/07	375SS+6 days				
377	Wall and Deck	53 days	Tue 6/11/07	Fri 28/12/07	376SS+11 days				
378	Curing	53 days	Tue 13/11/07	Fri 4/1/08	377SS+7 days				
379	Trench Backfill	46 days	Mon 14/1/08	Thu 28/2/08	378SS+62 days,358FF				
380	c. Ch205-Ch310 (Bay 18 - Bay 24)	93 days	Sun 9/9/07	Mon 10/12/07					
381	Haul access	14 days	Sun 9/9/07	Sat 22/9/07	363				
382	Excavation	27 days	Sun 23/9/07	Fri 19/10/07	361,381				
383	Granular Bedding	23 days	Wed 3/10/07	Thu 25/10/07	382SS+10 days,381				
384	Base Slab	39 days	Tue 9/10/07	Fri 16/11/07	383SS+6 days				
385	Wall and Deck	42 days	Sat 20/10/07	Fri 30/11/07	384SS+11 days				
386	Curing	42 days	Sat 27/10/07	Fri 7/12/07	385SS+7 days				
387	Trench Backfill	31 days	Sat 10/11/07	Mon 10/12/07	386SS+14 days				
388	d. Ch310-Ch361 (Bay 25 - Bay 27)	273 days	Sun 23/9/07	Sat 21/6/08					
389	Haul access	15 days	Sun 23/9/07	Sun 7/10/07	381				
390	Excavation	52 days	Tue 11/12/07	Thu 31/1/08	389,387				
391	Granular Bedding	85 days	Fri 1/2/08	Fri 25/4/08	390				
392	Base Slab	78 days	Sat 1/3/08	Sat 17/5/08	391SS+29 days				
393	Wall and Deck	83 days	Mon 10/3/08	Sat 31/5/08	392SS+9 days				
394	Curing	90 days	Mon 17/3/08	Sat 14/6/08	393SS+7 days				
395	Trench Backfill	83 days	Mon 31/3/08	Sat 21/6/08	394SS+14 days				
396	e. Ch361-Ch413 (Bays 28 to Bay 31)	543 days	Mon 8/10/07	Thu 2/4/09					
397	Haul access	10 days	Mon 8/10/07	Wed 17/10/07	389				
398	Excavation	68 days	Mon 1/12/08	Fri 6/2/09	472,397,395,478				
399	Granular Bedding	65 days	Thu 11/12/08	Fri 13/2/09	398SS+10 days				
400	Base Slab	65 days	Sun 21/12/08	Mon 23/2/09	399SS+10 days				
401	Wall and Deck	65 days	Sun 4/1/09	Mon 9/3/09	400SS+14 days				
402	Curing	72 days	Sun 11/1/09	Mon 23/3/09	401SS+7 days				
403	Trench Backfill	68 days	Sun 25/1/09	Thu 2/4/09	402SS+14 days				
404	f. Ch413-Ch445 (Bay 32 and Bay 33)	164 days	Tue 27/5/08	Thu 6/11/08					
405	Flow diversion	7 days	Tue 27/5/08	Mon 2/6/08	406SS-7 days				
406	Excavation	40 days	Tue 3/6/08	Sat 12/7/08	471				
407	Granular Bedding	5 days	Sun 13/7/08	Thu 17/7/08	406				
408	Base Slab	35 days	Fri 18/7/08	Thu 21/8/08	407				
409	Wall and Deck	43 days	Fri 22/8/08	Fri 3/10/08	408				
410	Curing	14 days	Sat 4/10/08	Fri 17/10/08	409				

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Critical Task Milestone Rolled Up Task Rolled Up Milestone Split Project Summary Deadline

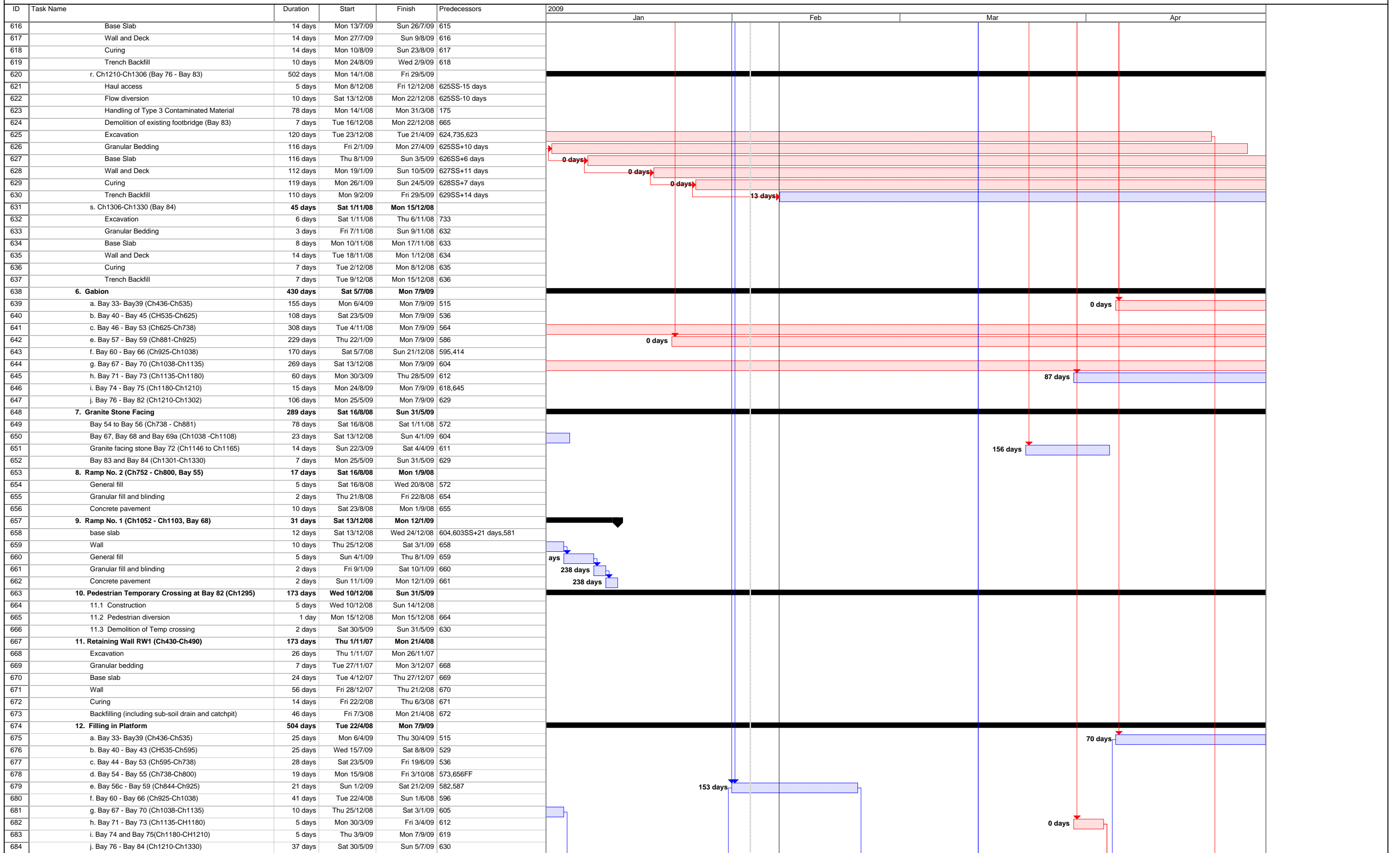


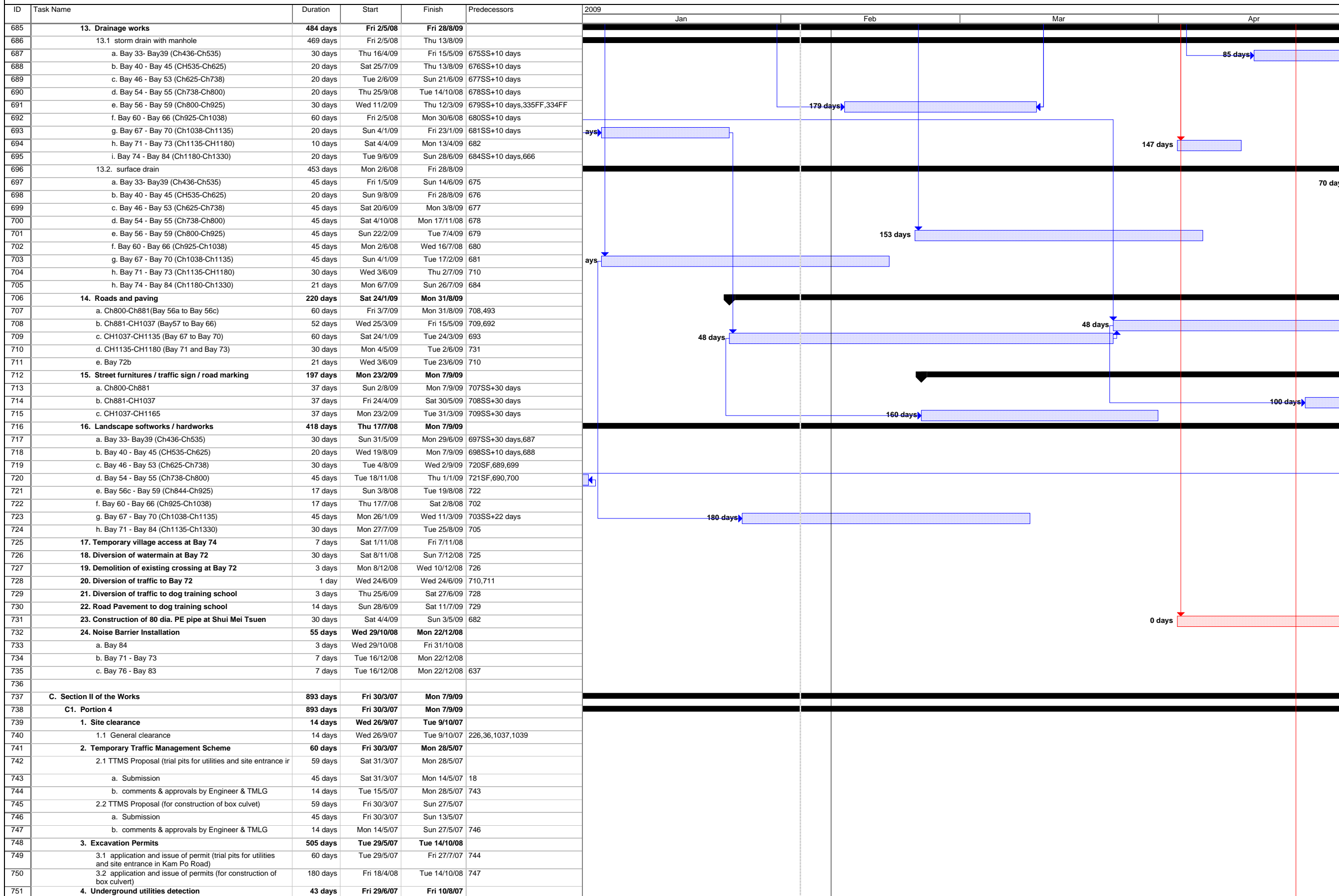
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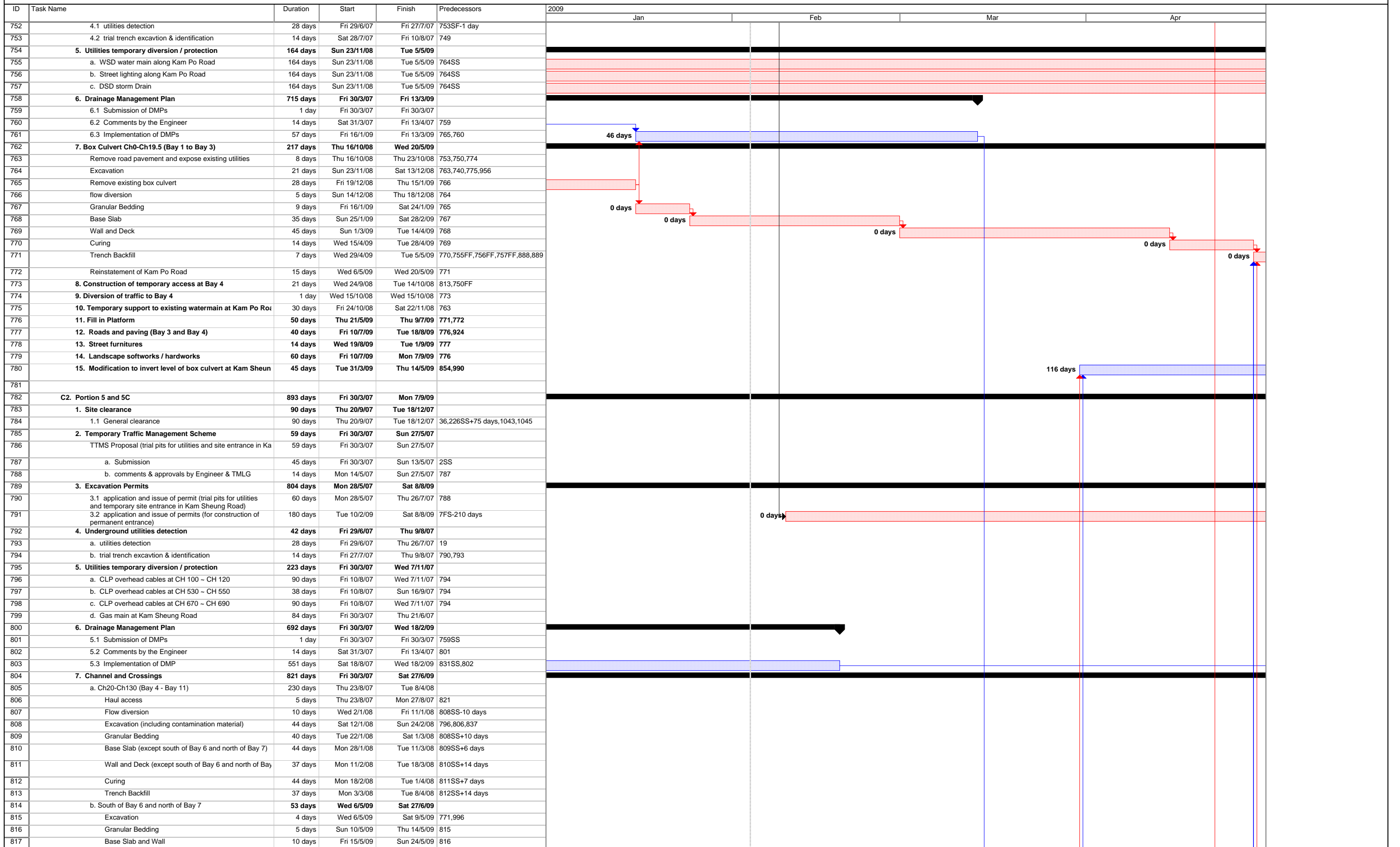
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- Progress: Black box
- Summary: Thick black box
- Rolled Up Critical Task: Red box
- Rolled Up Progress: Thick black box
- External Tasks: Grey box
- Group By Summary: Thick black box
- Critical Task: Red box
- Milestone: Blue box
- Rolled Up Task: Thick black box
- Rolled Up Milestone: Blue box
- Rolled Up Milestone: Red box
- Split: Dotted line
- Project Summary: Thick black box
- Deadline: Thick black box











ID	Task Name	Duration	Start	Finish	Predecessors	2009			
						Jan	Feb	Mar	Apr
818	Curing	14 days	Mon 25/5/09	Sun 7/6/09	817				
819	Trench Backfill	20 days	Mon 8/6/09	Sat 27/6/09	818				
820	c. Ch130-Ch233 (Bay 12 - Bay 19)	342 days	Sat 18/8/07	Thu 24/7/08					
821	Haul access	5 days	Sat 18/8/07	Wed 22/8/07	830				
822	Flow diversion	10 days	Sun 30/3/08	Tue 8/4/08	823SS-10 days				
823	Excavation (including contamination material)	33 days	Wed 9/4/08	Sun 11/5/08	821,813				
824	Granular Bedding	29 days	Sat 19/4/08	Sat 17/5/08	823SS+10 days				
825	Base Slab	50 days	Fri 25/4/08	Fri 13/6/08	824SS+6 days				
826	Wall and Deck	56 days	Fri 9/5/08	Thu 3/7/08	825SS+14 days				
827	Curing	63 days	Fri 16/5/08	Thu 17/7/08	826SS+7 days				
828	Trench Backfill	56 days	Fri 30/5/08	Thu 24/7/08	827SS+14 days				
829	d. Ch233-Ch380 (Bay 20 - Bay 30)	152 days	Mon 13/8/07	Fri 11/1/08					
830	Haul access	5 days	Mon 13/8/07	Fri 17/8/07	832SS-15 days				
831	Flow diversion	10 days	Sat 18/8/07	Mon 27/8/07	830				
832	Excavation (including contamination material)	60 days	Tue 28/8/07	Fri 26/10/07					
833	Granular Bedding	70 days	Fri 7/9/07	Thu 15/11/07	832SS+10 days				
834	Base Slab	78 days	Thu 13/9/07	Thu 29/11/07	833SS+6 days				
835	Wall and Deck	85 days	Thu 27/9/07	Thu 20/12/07	834SS+14 days				
836	Curing	92 days	Thu 4/10/07	Thu 3/1/08	835SS+7 days				
837	Trench Backfill	86 days	Thu 18/10/07	Fri 11/1/08	836SS+14 days				
838	e. Ch464-Ch489 (North of Bay 38 and Bay 39)	95 days	Thu 5/6/08	Sun 7/9/08					
839	Excavation	28 days	Thu 5/6/08	Wed 2/7/08	876SS+97 days				
840	Granular Bedding	10 days	Thu 3/7/08	Sat 12/7/08	839				
841	Base Slab and Wall	24 days	Sun 13/7/08	Tue 5/8/08	840				
842	Curing	14 days	Wed 6/8/08	Tue 19/8/08	841				
843	Trench Backfill	17 days	Wed 20/8/08	Fri 5/9/08	842				
844	Forming site access at north of Bay 38 and Bay 39	2 days	Sat 6/9/08	Sun 7/9/08	843				
845	f. Ch464-CH504 (Bay 40, South of Bay 38 and Bay 39)	146 days	Mon 8/9/08	Sat 31/1/09					
846	Excavation	97 days	Mon 8/9/08	Sat 13/12/08	844				
847	Granular Bedding	97 days	Mon 22/9/08	Sat 27/12/08	846SS+14 days				
848	Base Slab and Wall	96 days	Tue 30/9/08	Sat 3/1/09	847SS+8 days				
849	Curing	96 days	Tue 21/10/08	Sat 24/1/09	848SS+21 days				
850	Trench Backfill	96 days	Tue 28/10/08	Sat 31/1/09	849SS+7 days				
851	g. Ch449-Ch464 (Bay 37)	124 days	Sun 1/2/09	Thu 4/6/09					
852	Excavation	21 days	Sun 1/2/09	Sat 21/2/09	850				
853	Granular Bedding	7 days	Sun 22/2/09	Sat 28/2/09	852				
854	Base Slab	30 days	Sun 1/3/09	Mon 30/3/09	853				
855	Wall and Deck	30 days	Tue 31/3/09	Wed 29/4/09	854				
856	Curing	14 days	Thu 30/4/09	Wed 13/5/09	855,803FF				
857	Trench Backfill	10 days	Thu 14/5/09	Sat 23/5/09	856				
858	Filling Platform Bay 37	12 days	Sun 24/5/09	Thu 4/6/09	857				
859	h. Ch504-Ch586 (Bay 41 - Bay 46)	285 days	Fri 30/3/07	Tue 8/1/08					
860	Haul access	3 days	Fri 30/3/07	Sun 1/4/07					
861	Flow diversion	5 days	Fri 7/9/07	Tue 11/9/07	862SS-10 days				
862	Excavation (including contamination material)	45 days	Mon 17/9/07	Wed 31/10/07	797				
863	Granular Bedding	55 days	Thu 27/9/07	Tue 20/11/07	862SS+10 days				
864	Base Slab	63 days	Wed 3/10/07	Tue 4/12/07	863SS+6 days				
865	Wall and Deck	63 days	Wed 17/10/07	Tue 18/12/07	864SS+14 days				
866	Curing	70 days	Wed 24/10/07	Tue 1/1/08	865SS+7 days				
867	Trench Backfill	63 days	Wed 7/11/07	Tue 8/1/08	866SS+14 days				
868	i. Ch586-Ch712 (Bay 47 - Bay 57)	393 days	Mon 2/4/07	Mon 28/4/08					
869	Haul access	5 days	Mon 2/4/07	Fri 6/4/07	860				
870	Flow diversion	3 days	Sun 30/12/07	Tue 1/1/08	871SS-10 days				
871	Excavation (including contamination material)	60 days	Wed 9/1/08	Sat 8/3/08	1066,867,798				
872	Granular Bedding	60 days	Sat 19/1/08	Tue 18/3/08	871SS+10 days				
873	Base Slab	60 days	Fri 25/1/08	Mon 24/3/08	872SS+6 days				
874	Wall and Deck	60 days	Fri 8/2/08	Mon 7/4/08	873SS+14 days				
875	Curing	67 days	Fri 15/2/08	Mon 21/4/08	874SS+7 days				
876	Trench Backfill	60 days	Fri 29/2/08	Mon 28/4/08	875SS+14 days				
877	j. Ch712-Ch799 (Bay 58 - Bay 63)	699 days	Sat 7/4/07	Thu 5/3/09					
878	Haul access	3 days	Sat 7/4/07	Mon 9/4/07	869				
879	Flow diversion	3 days	Fri 5/9/08	Sun 7/9/08	880SS-3 days				
880	Excavation (including contamination material)	134 days	Mon 8/9/08	Mon 19/1/09	878,876,844				
881	Granular Bedding	134 days	Thu 18/9/08	Thu 29/1/09	880SS+10 days				
882	Base Slab	134 days	Wed 24/9/08	Wed 4/2/09	881SS+6 days				
883	Wall and Deck	125 days	Wed 8/10/08	Mon 9/2/09	882SS+14 days				
884	Curing	132 days	Wed 15/10/08	Mon 23/2/09	883SS+7 days				
885	Trench Backfill	128 days	Wed 29/10/08	Thu 5/3/09	884SS+14 days				
886	8. Gabion	613 days	Fri 4/1/08	Mon 7/9/09					

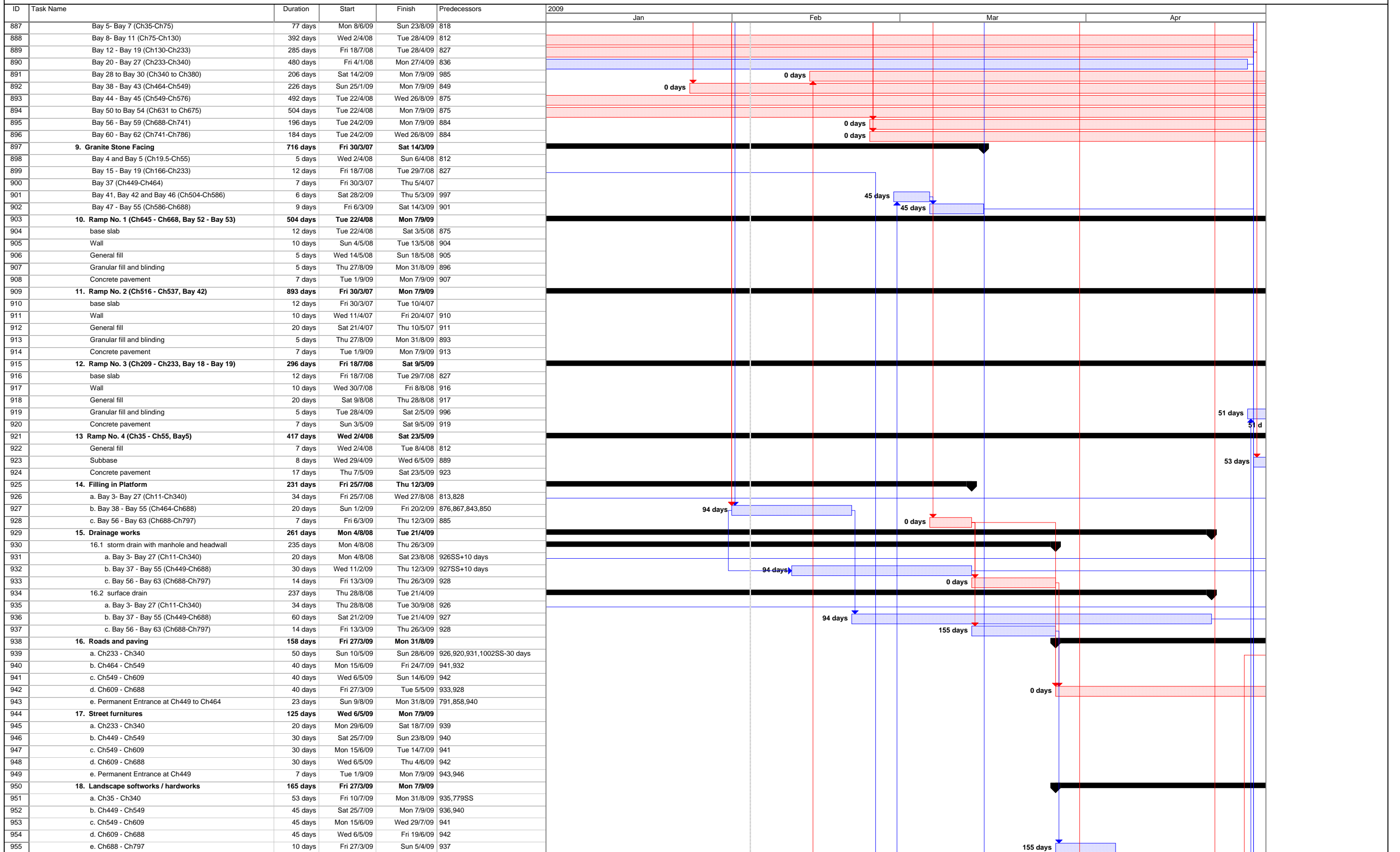
Project: PROGRAMME OF WORKS
Page: 13 of 16

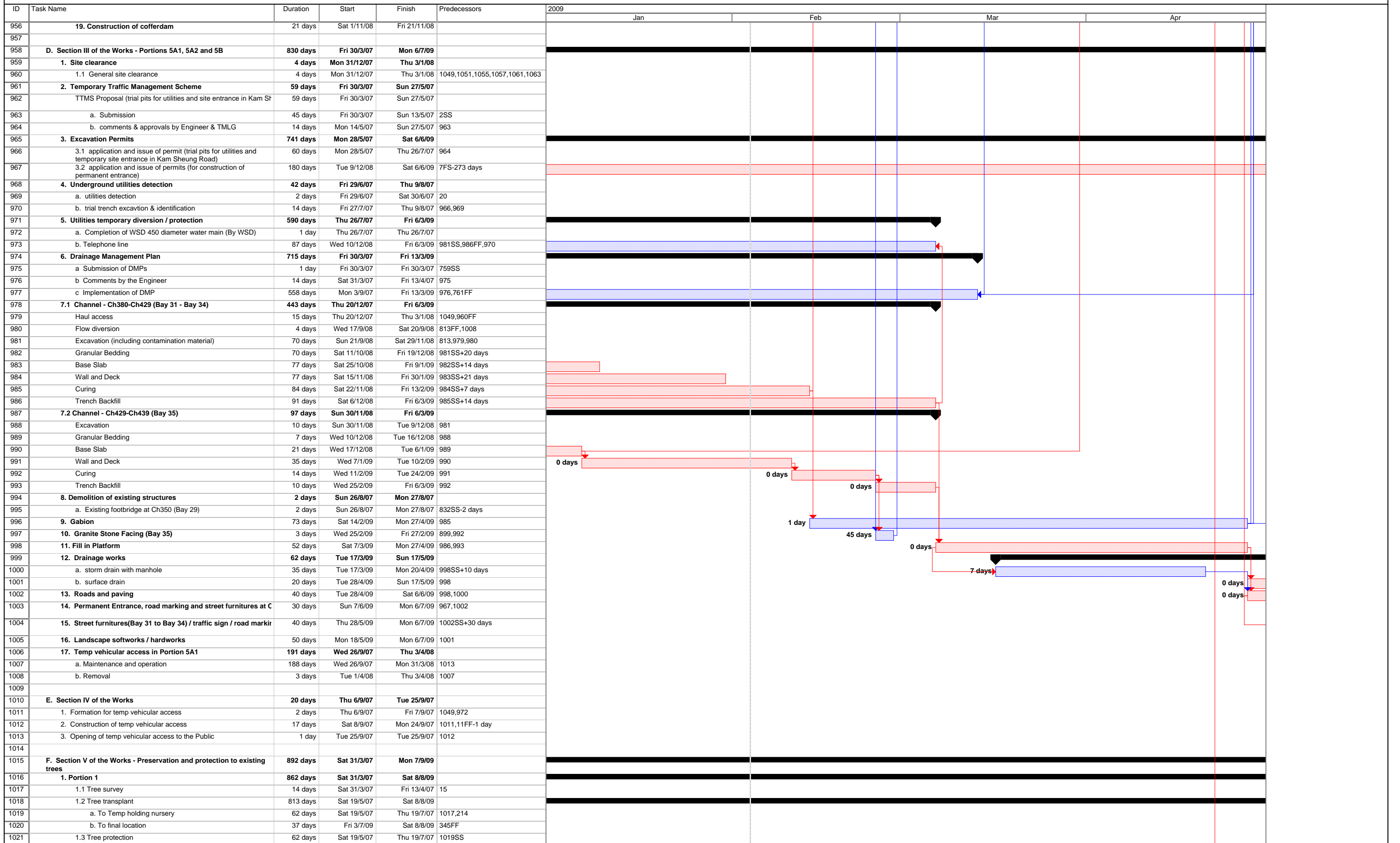
Task: Progress
 Critical Task: Milestone

Summary:
 Rolled Up Task:
 Rolled Up Milestone:

Rolled Up Critical Task:
 Rolled Up Progress:
 Split:

External Tasks:
 Project Summary:
 Group By Summary:
 Deadline:





Task Progress Summary Rolled Up Critical Task Rolled Up Progress External Tasks Group By Summary
 Critical Task Milestone Rolled Up Task Rolled Up Milestone Split Project Summary Deadline

ID	Task Name	Duration	Start	Finish	Predecessors	2009			
						Jan	Feb	Mar	Apr
1022	2. Portion 2	832 days	Wed 30/5/07	Mon 7/9/09					
1023	2.1 Tree survey	14 days	Wed 30/5/07	Tue 12/6/07	16				
1024	2.2 Tree transplant	818 days	Wed 13/6/07	Mon 7/9/09					
1025	a. To Temp holding nursery	62 days	Wed 13/6/07	Mon 13/8/07	1023,214,228				
1026	b. To final location	132 days	Wed 29/4/09	Mon 7/9/09	461FF				0 days
1027	2.3 Tree protection	62 days	Wed 13/6/07	Mon 13/8/07	1025SS				
1028	3. Portion 3	802 days	Fri 29/6/07	Mon 7/9/09					
1029	3.1 Tree survey	14 days	Fri 29/6/07	Thu 12/7/07	17				
1030	3.2 Tree transplant	788 days	Fri 13/7/07	Mon 7/9/09					
1031	a. To Temp holding nursery	64 days	Fri 13/7/07	Fri 14/9/07	1029,214				
1032	b. To final location	301 days	Tue 11/11/08	Mon 7/9/09	716FF				
1033	3.3 Tree protection	64 days	Fri 13/7/07	Fri 14/9/07	1031SS				
1034	4. Portion 4	892 days	Sat 31/3/07	Mon 7/9/09					
1035	4.1 Tree survey	14 days	Sat 31/3/07	Fri 13/4/07	18				
1036	4.2 Tree transplant	843 days	Sat 19/5/07	Mon 7/9/09					
1037	a. To Temp holding nursery	62 days	Sat 19/5/07	Thu 19/7/07	1035,214				
1038	b. To final location	53 days	Fri 17/7/09	Mon 7/9/09	779FF				
1039	4.3 Tree protection	62 days	Sat 19/5/07	Thu 19/7/07	1037SS				
1040	5. Portion 5	802 days	Fri 29/6/07	Mon 7/9/09					
1041	5.1 Tree survey	14 days	Fri 29/6/07	Thu 12/7/07	19				
1042	5.2 Tree transplant	788 days	Fri 13/7/07	Mon 7/9/09					
1043	a. To Temp holding nursery	69 days	Fri 13/7/07	Wed 19/9/07	1041,214				
1044	b. To final location	195 days	Wed 25/2/09	Mon 7/9/09	950FF				0 days
1045	5.3 Tree protection	69 days	Fri 13/7/07	Wed 19/9/07	1043SS				
1046	6. Portion 5A1	739 days	Fri 29/6/07	Mon 6/7/09					
1047	6.1 Tree survey	7 days	Fri 29/6/07	Thu 5/7/07	20				
1048	6.2 Tree transplant	732 days	Fri 6/7/07	Mon 6/7/09					
1049	a. To Temp holding nursery	62 days	Fri 6/7/07	Wed 5/9/07	1047,214				
1050	b. To final location	61 days	Thu 7/5/09	Mon 6/7/09	1005FF				
1051	6.3 Tree protection	62 days	Fri 6/7/07	Wed 5/9/07	1049SS				
1052	7. Portion 5A2	739 days	Fri 29/6/07	Mon 6/7/09					
1053	7.1 Tree survey	14 days	Fri 29/6/07	Thu 12/7/07	21				
1054	7.2 Tree transplant	725 days	Fri 13/7/07	Mon 6/7/09					
1055	a. To Temp holding nursery	62 days	Fri 13/7/07	Wed 12/9/07	1053,214				
1056	b. To final location	61 days	Thu 7/5/09	Mon 6/7/09	1005FF				
1057	7.3 Tree protection	62 days	Fri 13/7/07	Wed 12/9/07	1055SS				
1058	8. Portion 5B	630 days	Tue 16/10/07	Mon 6/7/09					
1059	8.1 Tree survey	14 days	Tue 16/10/07	Mon 29/10/07	22				
1060	8.2 Tree transplant	616 days	Tue 30/10/07	Mon 6/7/09					
1061	a. To Temp holding nursery	62 days	Tue 30/10/07	Sun 30/12/07	1059,214				
1062	b. To final location	61 days	Thu 7/5/09	Mon 6/7/09	1005FF				
1063	8.3 Tree protection	62 days	Tue 30/10/07	Sun 30/12/07	1061SS				
1064									
1065	G. Berthing Area	597 days	Wed 12/9/07	Thu 30/4/09					
1066	1. Construction of Loading Facilities	27 days	Wed 12/9/07	Mon 8/10/07	162				
1067	2. Removal of Loading Facilities	2 days	Wed 22/4/09	Thu 23/4/09	625				130 days
1068	3. Reinstatement of Berthing Area	7 days	Fri 24/4/09	Thu 30/4/09	1067				130 days

PROGRAMME OF WORKS - MP06

Contract No. : DC / 2006 / 02

Contract Title : Yuen Long, Kam Tin, Ngau Tam Mei and Tin Shui Wai Drainage Improvements,
Stage 1, Phase 2B - Cheung Chun San Tsuen and Kam Tsin Wai

ID	Task Name	Duration	Start	Finish	Predecessors	Jun '09				Jul '09				Aug '09				Sep '09	
						31	7	14	21	28	5	12	19	26	2	9	16	23	30
1	Letter of Acceptance	1 day	Wed 21/3/07	Wed 21/3/07															
2	Date for commencement of Works	1 day	Fri 30/3/07	Fri 30/3/07															
3	Execution of Article of Agreement	1 day	Tue 3/4/07	Tue 3/4/07															
4																			
5	Master Program of Works	965 days	Fri 30/3/07	Wed 18/11/09															
6																			
7	Completion Dates	905 days	Fri 30/3/07	Sat 19/9/09															
8	Section I - portions 1, 2 and 3	905 days	Fri 30/3/07	Sat 19/9/09															
9	Section II - portions 4, 5 and 5C	905 days	Fri 30/3/07	Sat 19/9/09															
10	Section III - portions 5A1, 5A2 and 5B	746 days	Thu 28/6/07	Sun 12/7/09	20FS-1 day														
11	Section IV - temp vehicular access at portion 5A1	90 days	Thu 28/6/07	Tue 25/9/07	20FS-1 day														
12	Section V - preservation and protection of existing trees	905 days	Fri 30/3/07	Sat 19/9/09															
13																			
14	Possession of Site	200 days	Fri 30/3/07	Mon 15/10/07															
15	Portion 1 - channel KT2	1 day	Fri 30/3/07	Fri 30/3/07															
16	Portion 2 - channel KT2	61 days	Fri 30/3/07	Tue 29/5/07															
17	Portion 3 - channel KT2	91 days	Fri 30/3/07	Thu 28/6/07															
18	Portion 4 - channel KT15	1 day	Fri 30/3/07	Fri 30/3/07															
19	Portion 5 - channel KT15	91 days	Fri 30/3/07	Thu 28/6/07															
20	Portion 5A1 - channel KT15	91 days	Fri 30/3/07	Thu 28/6/07															
21	Portion 5A2 - channel KT15	91 days	Fri 30/3/07	Thu 28/6/07															
22	Portion 5B - channel KT15	20 days	Wed 26/9/07	Mon 15/10/07	11														
23	Portion 5C - channel KT15	91 days	Fri 30/3/07	Thu 28/6/07															
24	Portion 6 - Temp Storage Area at Chi Ho Road	1 day	Fri 30/3/07	Fri 30/3/07															
25	Portion 7 - Berthing Area	1 day	Fri 30/3/07	Fri 30/3/07															
26	Portion 8 - Site Accommodation	1 day	Fri 30/3/07	Fri 30/3/07															
27																			
28	Section I of Works	230 days	Mon 2/2/09	Sat 19/9/09															
29	Drainage Works, Waterworks and Roadworks in vicinity of Cheung Chun San Tsuen access	230 days	Mon 2/2/09	Sat 19/9/09															
30	Backfill above Box Culvert Bay 4-6 up to formation	88 days	Mon 2/2/09	Thu 30/4/09															
31	Opening of Bay 1 to Kam Tin River	0 days	Mon 23/3/09	Mon 23/3/09															
32	Divert Traffic to Bay 32b	0 days	Mon 2/2/09	Mon 2/2/09															
33	Stage 1	162 days	Mon 2/2/09	Mon 13/7/09															
34	Construct the Channel Bay 28-29	68 days	Mon 2/2/09	Fri 10/4/09	32														
35	Divert Traffic to Temporary Access at North bank from Bay 14 to Bay 32	0 days	Tue 14/4/09	Tue 14/4/09															
36	Removal of existing crossing(yellow bridge)	5 days	Tue 14/4/09	Sat 18/4/09	31,35														
37	Fill the existing stream bed to road formation near Crossing VC2-3 (Bay 33-Bay 36)	39 days	Sun 19/4/09	Wed 27/5/09	36														
38	Drainage Works	162 days	Mon 2/2/09	Mon 13/7/09															
39	Construct Dia370 Drainage Pipe CP2-1A to CP2-1 and the catchpits	5 days	Mon 2/2/09	Fri 6/2/09															
40	Construct Half long U-channel CP2-1A.1	5 days	Sat 7/2/09	Wed 11/2/09	39														
41	Construct Dia375 Drainage Pipe CP2-1B to CP2-3	3 days	Mon 2/2/09	Wed 4/2/09															
42	Construct U-channel CP2-1B.1 & CP2-1B.2	14 days	Thu 5/2/09	Wed 18/2/09	41														
43	Construct Dia375 Drainage Pipe from Bay 27	4 days	Sat 11/4/09	Tue 14/4/09	34														
44	Construct gullies G2-1 & G2-2 and dia150 pipes towards CP2-4	4 days	Fri 10/7/09	Mon 13/7/09	43,64														
45	Construct Part of Dia150 Drainage Pipe towards Outlet 2-1	4 days	Thu 28/5/09	Sun 31/5/09	37														
46	Construct Part of Dia600 Drainage Pipe towards Catchpit CP2-4A	4 days	Thu 28/5/09	Sun 31/5/09	37														
47	Construct Gullies G2-3 & G2-4 and Dia150mm Pipes towards CP2-4A	4 days	Thu 11/6/09	Sun 14/6/09	51														
48	Construct part of U-channel CP2-4A.2(near permanent access's end)	2 days	Thu 28/5/09	Fri 29/5/09	37														
49	Waterworks	41 days	Fri 1/5/09	Wed 10/6/09															
50	Construct Watermain from Ch0 to Ch92	27 days	Fri 1/5/09	Wed 27/5/09	30														
51	Construct Watermain from Ch340 to Ch380	10 days	Mon 1/6/09	Wed 10/6/09	45,46,37														
52	Construct the Permanent Road Pavement	101 days	Tue 31/3/09	Thu 9/7/09															
53	Ch40-Ch80 (Panel Nos. RA4 & RA5)	5 days	Mon 13/4/09	Fri 17/4/09															

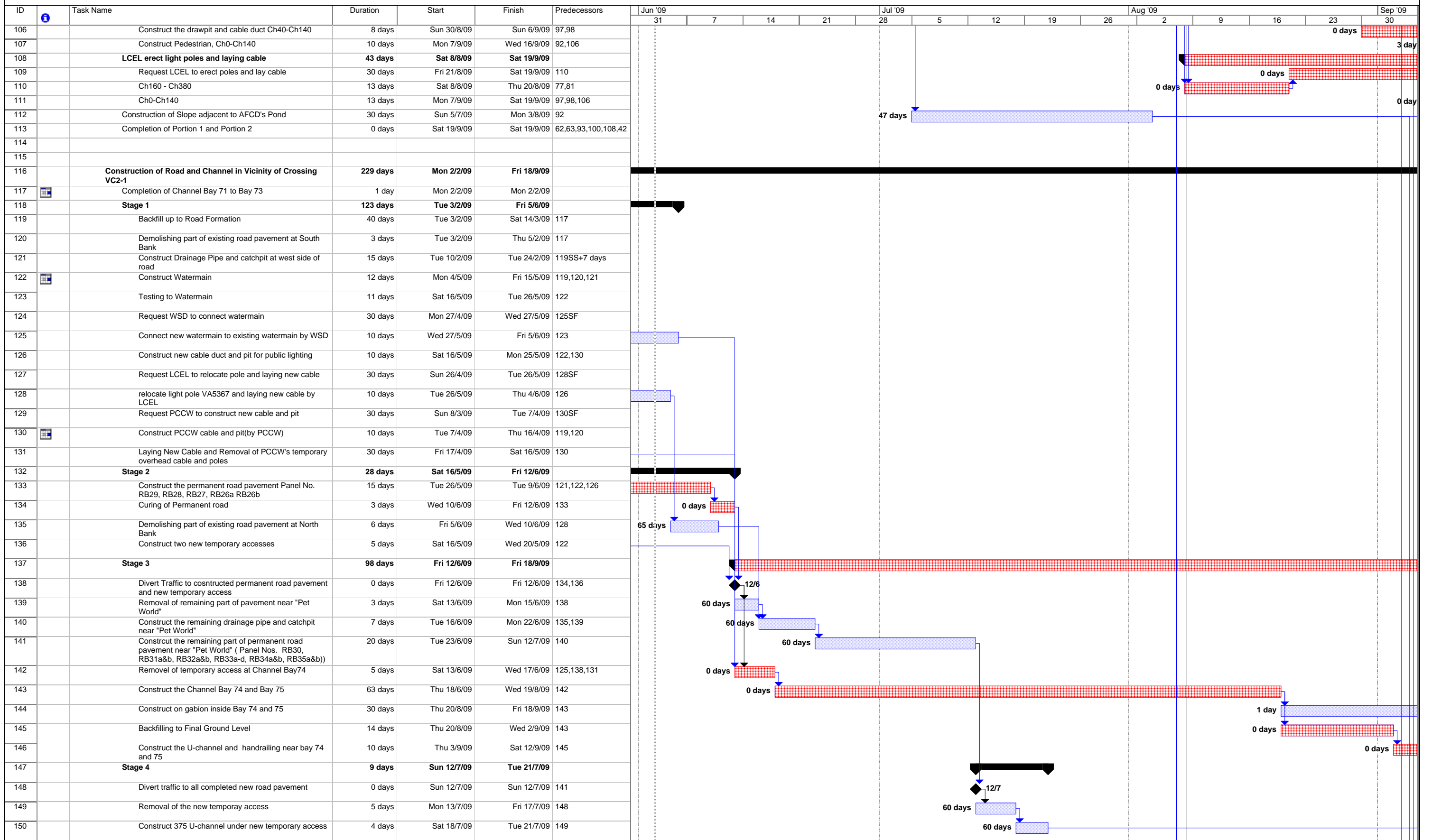
Project: Programme of Works - MP06(
Date: Wed 3/6/09

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

PROGRAMME OF WORKS - MP06

Contract No. : DC / 2006 / 02

Contract Title : Yuen Long, Kam Tin, Ngau Tam Mei and Tin Shui Wai Drainage Improvements,
Stage 1, Phase 2B - Cheung Chun San Tsuen and Kam Tsin Wai



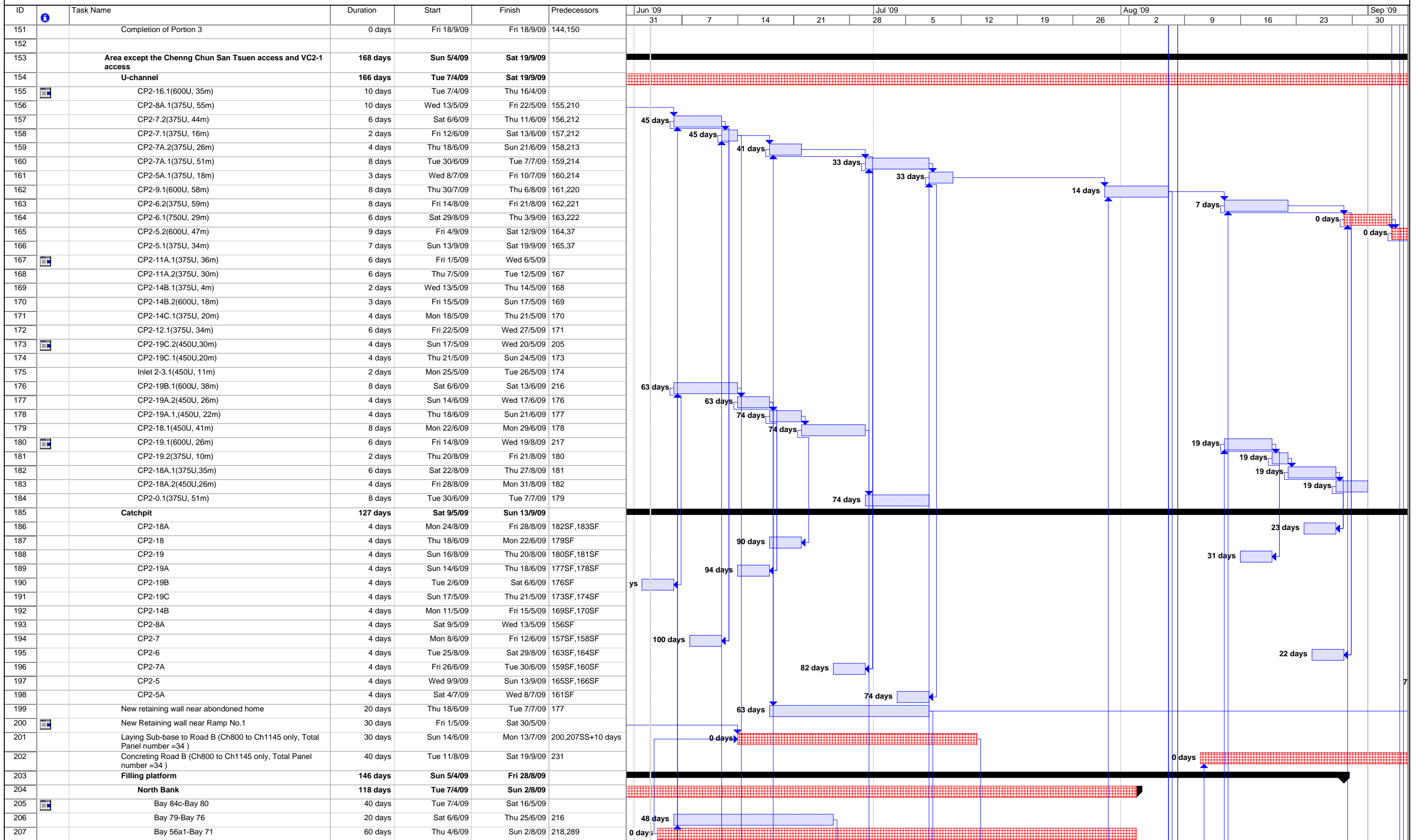
Project: Programme of Works - MP06(
Date: Wed 3/6/09

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

PROGRAMME OF WORKS - MP06

Contract No. : DC / 2006 / 02

Contract Title : Yuen Long, Kam Tin, Ngau Tam Mei and Tin Shui Wai Drainage Improvements,
Stage 1, Phase 2B - Cheung Chun San Tsuen and Kam Tsui Wai



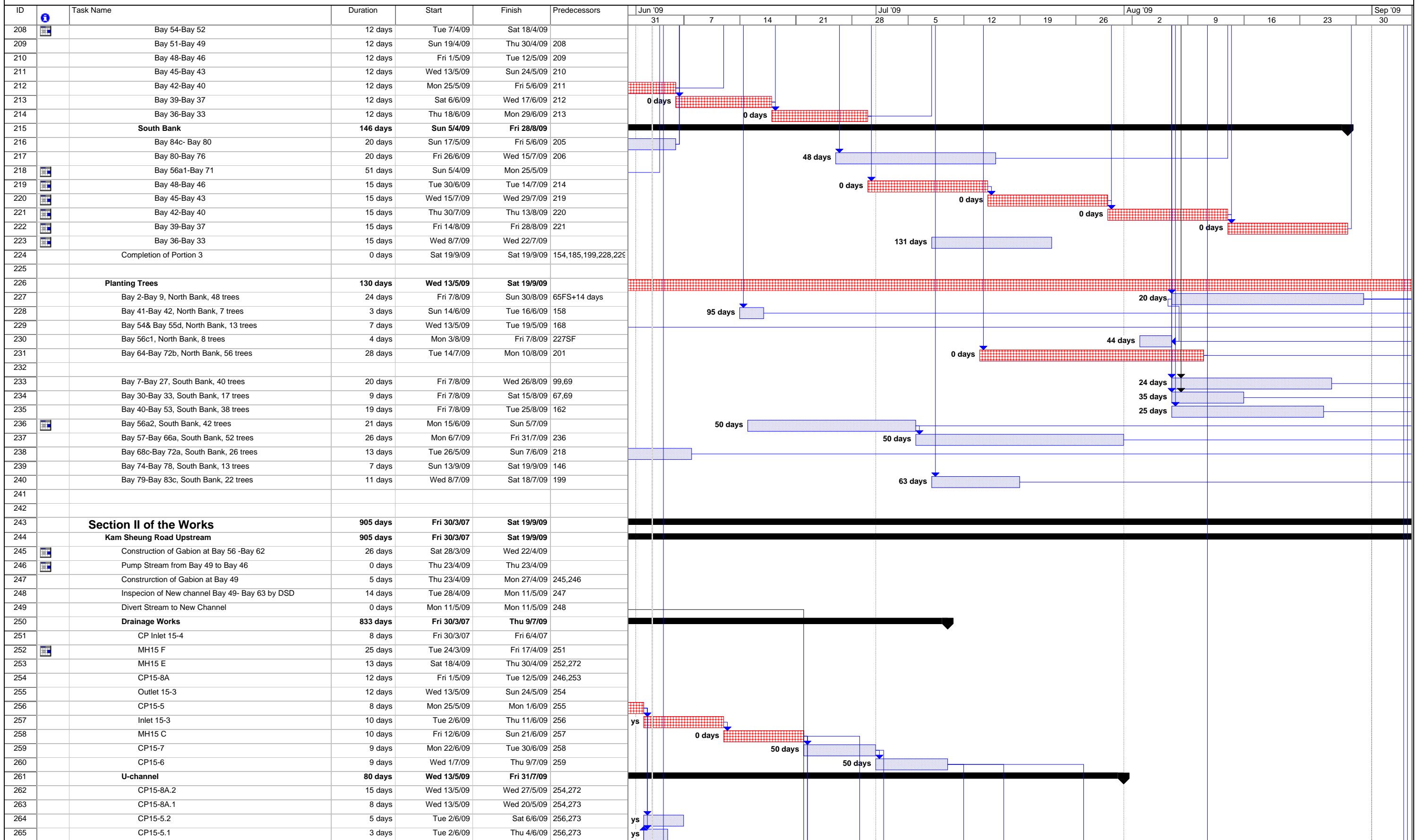
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PROGRAMME OF WORKS - MP06

Contract No. : DC / 2006 / 02

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Stage 1, Phase 2B - Cheung Chun San Tsuen and Kam Tsin Wai



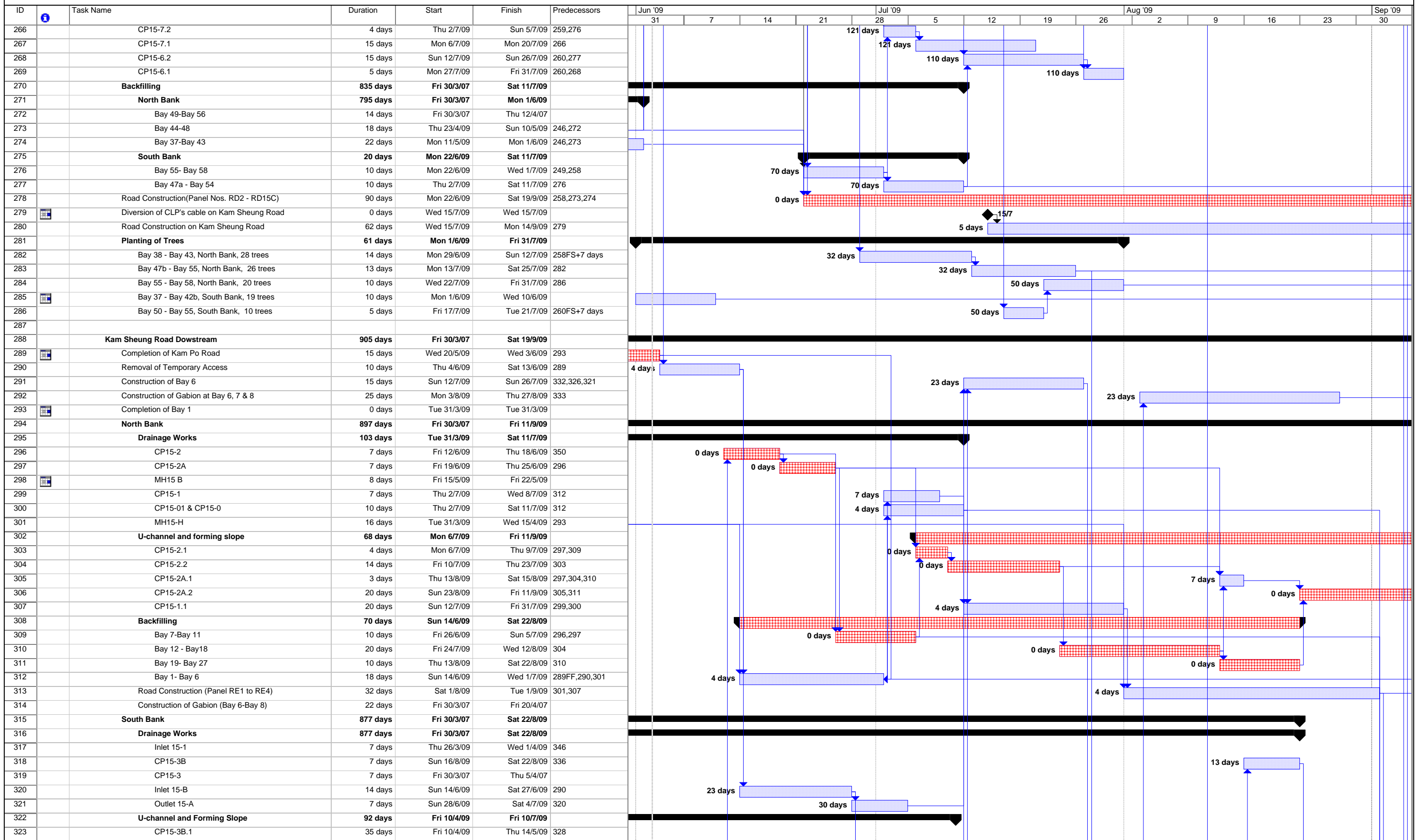
Project: Programme of Works - MP06
Date: Wed 3/6/09



PROGRAMME OF WORKS - MP06

Contract No. : DC / 2006 / 02

Contract Title : Yuen Long, Kam Tin, Ngau Tam Mei and Tin Shui Wai Drainage Improvements,
Stage 1, Phase 2B - Cheung Chun San Tsuen and Kam Tsin Wai



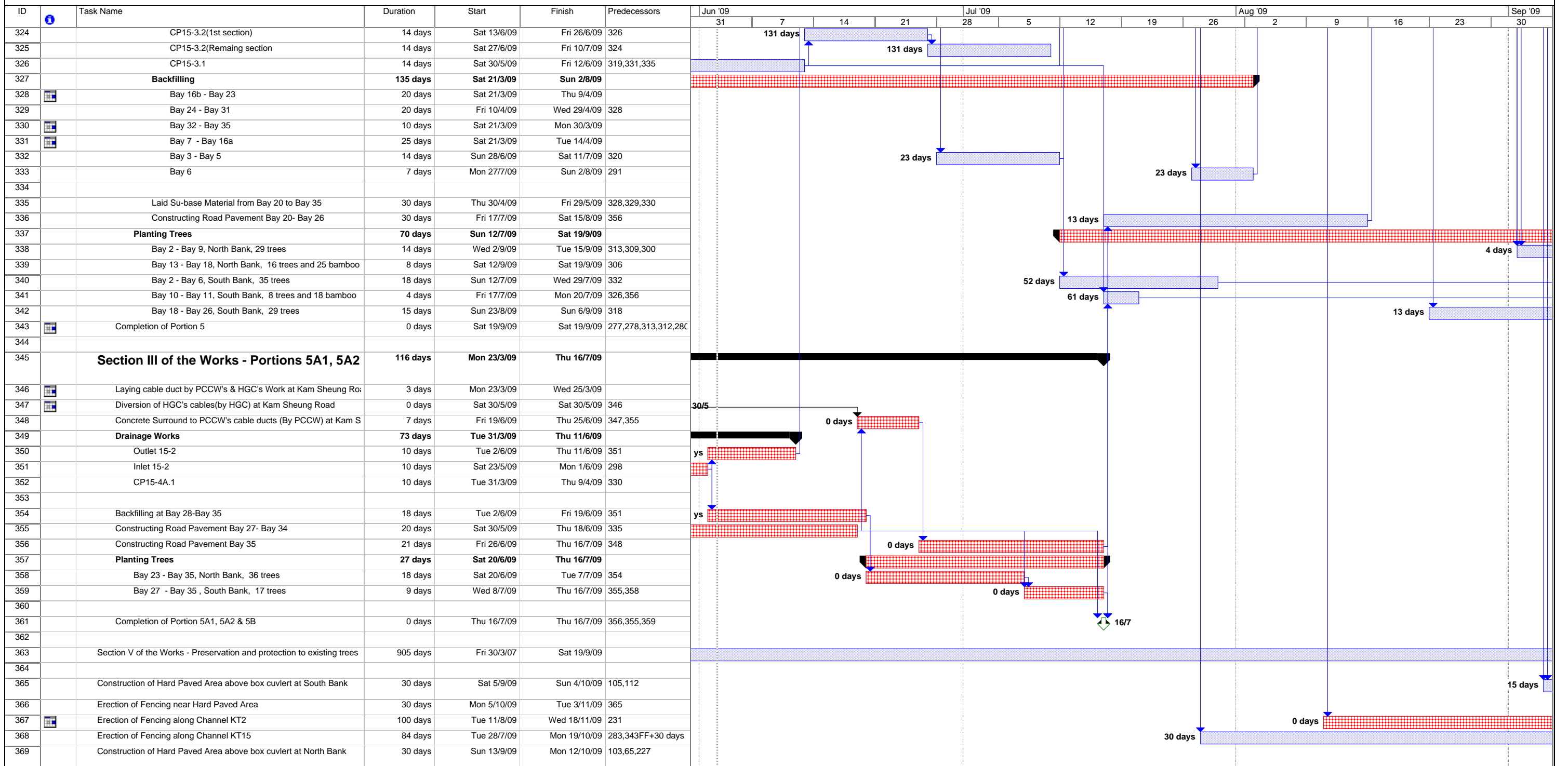
Project: Programme of Works - MP06
Date: Wed 3/6/09



PROGRAMME OF WORKS - MP06

Contract No. : DC / 2006 / 02

Contract Title : Yuen Long, Kam Tin, Ngau Tam Mei and Tin Shui Wai Drainage Improvements,
Stage 1, Phase 2B - Cheung Chun San Tsuen and Kam Tsin Wai



Project: Programme of Works - MP06(
Date: Wed 3/6/09

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

ID	Task Name	Duration	Start	Finish	Predecessors	Successors	% Complete	December 2009												January 2010							Febr					
								27	30	3	6	9	12	15	18	21	24	27	30	2	5	8	11	14	17	20	23	26	29	1		
1	Remaining Works In Channel KT15	121 days	Mon 30/11/09	Thu 22/4/10			30%																									
2	Installation of Vehicular Gate 2 nos	3 days	Wed 9/12/09	Fri 11/12/09			19	100%																								
3	fabricate and delivery of catcpit cover and U-channel cover	14 days	Mon 30/11/09	Tue 15/12/09			4	100%																								
4	Installation of covers to catchpits	1 day	Wed 16/12/09	Wed 16/12/09	3		20	100%																								
5	Installation of Safety Chain at Box Culvert	1 day	Sat 5/12/09	Sat 5/12/09			25	100%																								
6	Installation of Survey Markers and Chainage Marker Plates	2 days	Fri 4/12/09	Sat 5/12/09			26	100%																								
7	Perparation Works for DSD Inspection	3 days	Wed 9/12/09	Fri 11/12/09				100%																								
8																																
9	Granolithic Paving at PC15-1 and PC15-2	4 days	Thu 24/12/09	Wed 30/12/09	36		41	50%																								
10	Construction Works by CLP	90 days	Mon 30/11/09	Wed 17/3/10			11	10%																								
11	Hard Paving the maintenance Access near Kam Sheung Road	30 days	Thu 18/3/10	Wed 21/4/10	10		13,43	0%																								
12	Installation of Chain Link Fencing	6 days	Mon 30/11/09	Sat 5/12/09				90%																								
13	Road Marking	1 day	Thu 22/4/10	Thu 22/4/10	11			0%																								
14	Joint Sealant to road slab	3 days	Mon 30/11/09	Wed 2/12/09				0%																								
15	Planting remaining new trees	10 days	Mon 14/12/09	Thu 24/12/09				80%																								
16	Hydroseeding	2 days	Mon 7/12/09	Tue 8/12/09				100%																								
17																																
18	Remaining Works In Channel KT2	121 days	Mon 30/11/09	Thu 22/4/10				68%																								
19	Installation of Vehicular Gate 2 nos and Lockable Crash Gate 2 nos	4 days	Sat 12/12/09	Wed 16/12/09	2		42	50%																								
20	Installation of covers to catchpits	3 days	Thu 17/12/09	Sat 19/12/09	4			95%																								
21	construction of U-channel CP2-1A.1, 10m	1 day	Fri 4/12/09	Fri 4/12/09	21		22	100%																								
22	construction of U-channel CP2-6.2, 15m	1 day	Sat 5/12/09	Sat 5/12/09	21		23	100%																								
23	construction of U-channel CP2-9.1, 15m	2 days	Mon 7/12/09	Tue 8/12/09	22		24	100%																								
24	construction of U-channel CP2-11A.1, 80m	8 days	Wed 9/12/09	Thu 17/12/09	23		46,31SS+2 days	100%																								
25	installation of safety chain at box culvert	1 day	Mon 7/12/09	Mon 7/12/09	5			100%																								
26	installation of survey markers and chainage marker plates	1 day	Mon 7/12/09	Mon 7/12/09	6		29	100%																								
27	installation of tubular amenity railings	8 days	Mon 30/11/09	Tue 8/12/09			28	80%																								
28	installation of remaining type II railing at Channel and Refuse Collection Point	3 days	Wed 9/12/09	Fri 11/12/09	27		30	100%																								
29	installation of flooding warning signs	5 days	Tue 8/12/09	Sat 12/12/09	26			100%																								
30	Providing spot weld to the installed type II railing	10 days	Sat 12/12/09	Wed 23/12/09	28		40	50%																								
31	Desilting Channel	6 days	Fri 11/12/09	Thu 17/12/09	24SS+2 days		36,34	100%																								
32	Clear Drainage Pipe for CCTV Inspection	15 days	Mon 30/11/09	Wed 16/12/09			33	95%																								
33	submission of CCTV Report	1 day	Thu 17/12/09	Thu 17/12/09	32			95%																								
34	exposing sealed weepholes at chanenl base slab	2 days	Fri 18/12/09	Sat 19/12/09	31		35	100%																								
35	Removal of Temporary Flapvalve	3 days	Mon 21/12/09	Wed 23/12/09	34			90%																								
36	Preparartion Works for DSD Inspection	5 days	Fri 18/12/09	Wed 23/12/09	31		9	50%																								
37																																
38	Clearing AFCD' s Pond	14 days	Mon 30/11/09	Tue 15/12/09				100%																								
39	Triming Slope from Ch1000 to CH800	10 days	Mon 30/11/09	Thu 10/12/09			46	100%																								
40	installation of remaining type II railing from Ch800 to Ch1250	15 days	Thu 24/12/09	Wed 13/1/10	30			50%																								
41	construct pavement at all crossing	4 days	Thu 31/12/09	Tue 5/1/10	9		44,47	100%																								
42	installation of chain link fence	30 days	Thu 17/12/09	Sat 23/1/10	19			50%																								
43	Road marking	1 day	Thu 22/4/10	Thu 22/4/10	11			0%																								
44	Joint Sealant	7 days	Wed 6/1/10	Wed 13/1/10	41			100%																								
45	Planting remaining new trees	10 days	Mon 14/12/09	Thu 24/12/09				80%																								
46	hydroseeding	6 days	Fri 18/12/09	Thu 24/12/09	24,39			90%																								
47	Construct remaining Pedestrian near VC2-1	5 days	Wed 6/1/10	Mon 11/1/10	41			0%																								
48	Housekeeping	45 days	Mon 30/11/09	Sat 23/1/10				35%																								

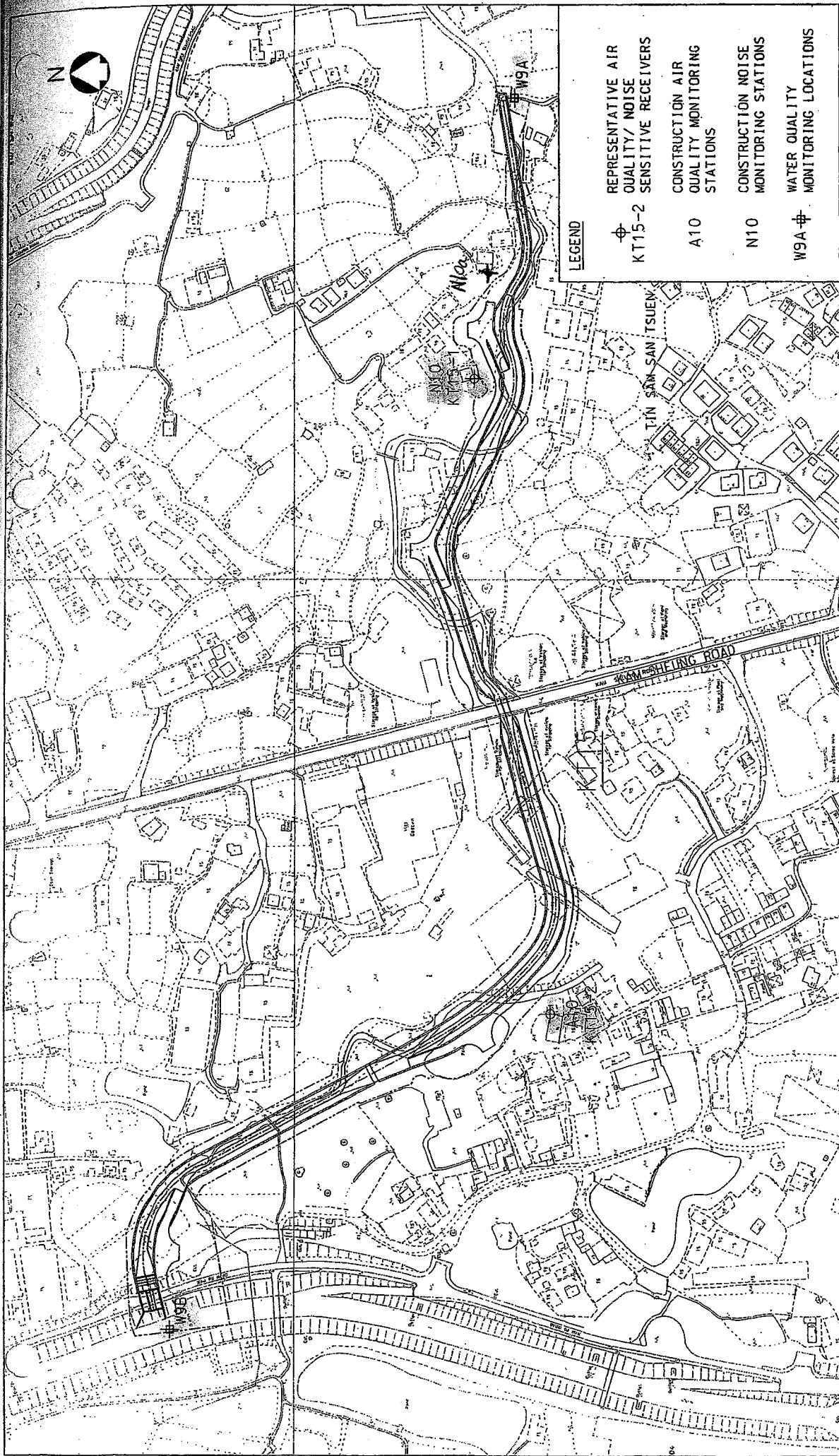
Program for Remaining Works at Channel KT2 and KT15 (Rev.C)
 Date: Fri 18/12/09

Task: Progress: Summary: External Tasks: Deadline:

Split: Milestone: Project Summary: External Milestone:

Appendix D

Designated Monitoring Locations of the Air Quality, Construction Noise, Stream Water Quality and Ecological Monitoring Area



LEGEND


- ⊕ REPRESENTATIVE AIR QUALITY/ NOISE SENSITIVE RECEIVERS
- ⊕ KT15-2
- ⊕ A10 CONSTRUCTION AIR QUALITY MONITORING STATIONS
- ⊕ N10 CONSTRUCTION NOISE MONITORING STATIONS
- ⊕ W9A ⊕ WATER QUALITY MONITORING LOCATIONS

Figure No.	ATT4-4.3	Revision	-
Reference	-	File Name	3820470201-137.DGN
Prepared	WYC	Checked	MC
Date	DEC. 2002	Scale	1 : 2000

**CONSTRUCTION PHASE AIR QUALITY/NOISE/WATER QUALITY
 MONITORING LOCATIONS AT KT15**

YUEN LONG, KAM TIN,
 NGAU TAM MEI AND TIN SHUI WAI
 DRAINAGE IMPROVEMENT, STAGE 1, PHASE 2B

BLACK & VEATCH HONG KONG LIMITED
 博威工程顧問有限公司



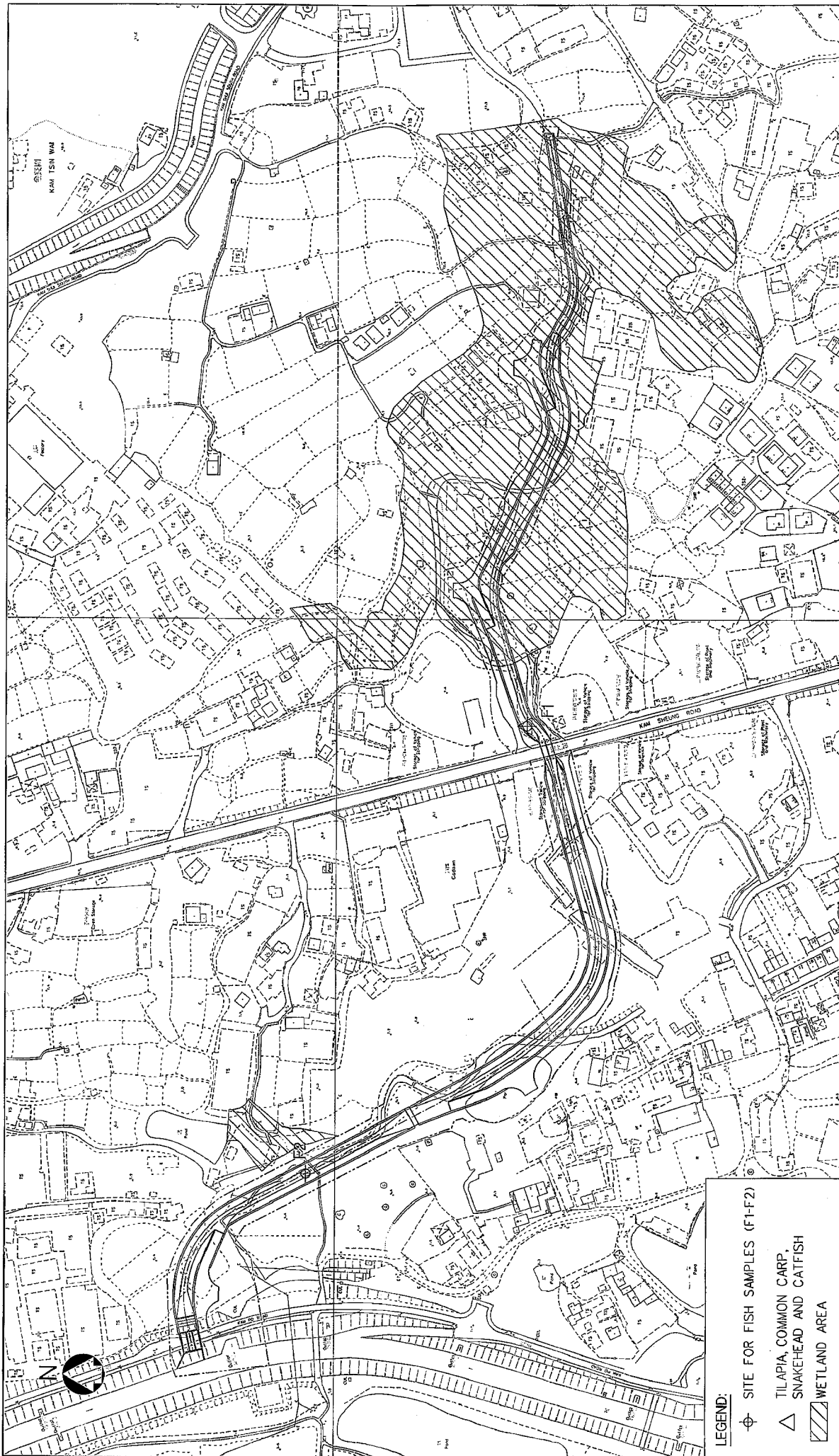


Figure No.	3.3	Revision	0
Reference		File Name	3820470201-114.DGN
Prepared	AEC	Checked	WYC
Date	MAR. 2003	Scale	1 : 2000


Title :

ECOLOGICAL MONITORING AREA KT15

LEGEND:

- ⊕ SITE FOR FISH SAMPLES (F1-F2)
- △ TILAPIA, COMMON CARP, SNAKEHEAD AND CATFISH
- ▨ WETLAND AREA

YUEN LONG, KAM TIN,
NGAU TAM MEI AND TIN SHUI WAI
DRAINAGE IMPROVEMENT, STAGE1, PHASE 2B

 **BLACK & VEATCH HONG KONG LIMITED**
博威工程顧問有限公司

Appendix E

Event Action Plan

Event/Action Plan for Air Quality

EVENT	ACTION			
	ET	IEC	Engineer	Contractor
ACTION LEVEL				
1. Exceedance for one sample	<ol style="list-style-type: none"> Identify source Inform IEC and Engineer Repeat measurement to confirm finding Increase monitoring frequency to daily 	<ol style="list-style-type: none"> Check monitoring data submitted by ET Check Contractor's working method 	Notify Contractor	<ol style="list-style-type: none"> Rectify any unacceptable practice Amend working methods if appropriate
2. Exceedance for two or more consecutive samples	<ol style="list-style-type: none"> Identify source Inform IEC and Engineer Repeat measurements to confirm findings Increase monitoring frequency to daily Discuss with IEC and Contractor on remedial actions required If exceedance continues, arrange meeting with IEC and Engineer If exceedance stops, cease additional monitoring 	<ol style="list-style-type: none"> Check monitoring data submitted by ET Check Contractor's working method Discuss with ET and Contractor on possible remedial measures Advice Engineer on the effectiveness of the proposed remedial measures Supervise implementation of remedial measures 	<ol style="list-style-type: none"> Confirm receipt of notification of failure in writing Notify Contractor Ensure remedial measures properly implemented 	<ol style="list-style-type: none"> Submit proposals for remedial actions to IEC within 3 working days of notification Implement the agreed proposals Amend proposal if appropriate
LIMIT LEVEL				
1. Exceedance for one sample	<ol style="list-style-type: none"> Identify source Inform Engineer and EPD Repeat measurement to confirm finding Increase monitoring frequency to daily Assess effectiveness of Contractor's remedial actions and keep IEC, EPD and Engineer informed of the results 	<ol style="list-style-type: none"> Check monitoring data submitted by ET Check Contractor's working method Discuss with ET and Contractor on possible remedial measures Advice Engineer on the effectiveness of the proposed remedial measures Supervise implementation of remedial measures 	<ol style="list-style-type: none"> Confirm receipt of notification of failure in writing Notify Contractor Ensure remedial measures properly implemented 	<ol style="list-style-type: none"> Take immediate action to avoid further exceedance Submit proposals for remedial actions to IEC within 3 working days of notification Implement the agreed proposals Amend proposal if appropriate
2. Exceedance for two or more consecutive samples	<ol style="list-style-type: none"> Notify IEC, Engineer and EPD Identify source Repeat measurement to confirm findings Increase monitoring frequency to daily Carry out analysis of Contractor's working procedures to determine possible mitigation to be implemented. Arrange meeting with IEC and Engineer to discuss the remedial actions to be taken Assess effectiveness of Contractor's remedial actions and keep IEC, EPD and Engineer informed of the results If exceedance stops, cease additional monitoring 	<ol style="list-style-type: none"> Discuss amongst Engineer, ET and Contractor on potential remedial actions Review Contractor's remedial actions whether necessary to assure their effectiveness and advice the Engineer accordingly Supervise implementation of remedial measures 	<ol style="list-style-type: none"> Confirm receipt of notification of failure in writing Notify Contractor In consultation with the IEC, agree with the Contractor on the remedial measures to be implemented Discuss amongst Environmental Team Leader and the Contractor potential remedial actions Ensure remedial measures properly implemented If exceedance continues, consider what portion of the work is responsible and instruct the Contractor to stop that portion of work until the exceedance is abated 	<ol style="list-style-type: none"> Take immediate action to avoid further exceedance Submit proposals for remedial actions to IEC within 3 working days of notification Implement the agreed proposals Resubmit proposals if problem still not under control Stop the relevant portion of works as determined by the Engineer until the exceedance is abated

Event/Action Plan for Construction Noise

EVENT	ACTION			
	ET Leader	IEC	Engineer	Contractor
ACTION LEVEL	<ol style="list-style-type: none"> 1. Notify Contractor and Engineer 2. Carry out investigation 3. Report the results of investigation to the IEC and Contractor 4. Discuss with the Contractor and formulate remedial measures 5. Increase monitoring frequency to check mitigation effectiveness 	<ol style="list-style-type: none"> 1. Review the analysed results submitted by ET 2. Review the proposed remedial measures by the Contractor and advice the Engineer accordingly 3. Supervise implementation of remedial measures 	<ol style="list-style-type: none"> 1. Confirm receipt of notification of failure in writing 2. Notify Contractor 3. Require Contractor to propose remedial measures for the analysed noise problem 4. Ensure remedial measures properly implemented 	<ol style="list-style-type: none"> 1. Submit noise mitigation proposals for remedial actions to IEC 2. Implement the agreed proposals
LIMIT LEVEL	<ol style="list-style-type: none"> 1. Notify IEC, Engineer, EPD and Contractor 2. Identify source 3. Repeat measurement to confirm findings 4. Increase monitoring frequency 5. Carry out analysis of Contractor's working procedures to determine possible mitigation to be implemented 6. Inform IEC, Engineer and EPD the causes & actions taken for the exceedances 7. Assess effectiveness of Contractor's remedial actions and keep IEC, EPD and Engineer informed of the results 8. If exceedance stops, cease additional monitoring 	<ol style="list-style-type: none"> 1. Discuss amongst Engineer, ET and Contractor on potential remedial actions 2. Review Contractor's remedial actions whether necessary to assure their effectiveness and advice the Engineer accordingly 3. Supervise implementation of remedial measures 	<ol style="list-style-type: none"> 1. Confirm receipt of notification of failure in writing 2. Notify Contractor 3. Require Contractor to propose remedial measures for the analysed noise problem 4. Ensure remedial measures properly implemented 5. If exceedance continues, consider what portion of the work is responsible and instruct the Contractor to stop that portion of work until the exceedance is abated 	<ol style="list-style-type: none"> 1. Take immediate action to avoid further exceedance 2. Submit proposals for remedial actions to IEC within 3 working days of notification 3. Implement the agreed proposals 4. Resubmit proposals if problem still not under control 5. Stop the relevant portion of works as determined by the Engineer until the exceedance is abated

Event and Action Plan for Stream Water Quality

Event	ET Leader	IEC	Engineer	Contractor
ACTION LEVEL (being exceeded by one sampling day)	<ol style="list-style-type: none"> 1. Repeat in-situ measurement to confirm findings 2. Identify source(s) of impact 3. Inform IEC and Contractor 4. Check monitoring data, all plant, equipment and Contractor's working methods 5. Discuss mitigation measures IEC and Contractor 6. Repeat measurement on next day of exceedance 	<ol style="list-style-type: none"> 1. Discuss with ET and Contractor on the mitigation measures 2. Review proposals on mitigation measures submitted by Contractor and advice Engineer accordingly 3. Assess the effectiveness of the implemented mitigation measures 	<ol style="list-style-type: none"> 1. Discuss with IEC on the proposed mitigation measures 2. Make agreement on the mitigation measures to be implemented 	<ol style="list-style-type: none"> 1. Inform Engineer and confirm notification of the non-compliance in writing 2. Rectify unacceptable practice 3. Check all plant and equipment 4. Consider changes of working methods 5. Discuss with ET and Contractor and propose mitigation measures to IEC and Engineer 6. Implement the agreed mitigation measures
ACTION LEVEL (being exceeded by more than one sampling day)	<ol style="list-style-type: none"> 1. Repeat in-situ measurement to confirm findings 2. Identify source(s) of impact 3. Inform IEC, Contractor and EPD 4. Check monitoring data, all plant, equipment and Contractor's working methods 5. Discuss mitigation measures IEC, Engineer and Contractor 6. Repeat measurement on next day of exceedance 7. Ensure mitigation measures are implemented 8. Prepare to increase the monitoring frequency to daily 9. Repeat measurement on next day of exceedance 	<ol style="list-style-type: none"> 1. Discuss with ET and Contractor on the mitigation measures 2. Review proposals on mitigation measures submitted by Contractor and advice Engineer accordingly 3. Assess the effectiveness of the implemented mitigation measures 	<ol style="list-style-type: none"> 1. Discuss with IEC on the proposed mitigation measures 2. Make agreement on the mitigation measures to be implemented 3. Assess the effectiveness of the implemented mitigation measures 	<ol style="list-style-type: none"> 1. Inform Engineer and confirm notification of the non-compliance in writing 2. Rectify unacceptable practice 3. Check all plant and equipment 4. Consider changes of working methods 5. Discuss with ET and IEC and propose mitigation measures to IEC and Engineer within 3 working days 6. Implement the agreed mitigation measures
LIMIT LEVEL (being exceeded by one sampling days)	<ol style="list-style-type: none"> 1. Repeat in-situ measurement to confirm findings 2. Identify source(s) of impact 3. Inform IEC, Contractor and EPD 4. Check monitoring data, all plant, equipment and Contractor's working methods 5. Discuss mitigation measures IEC, Engineer and Contractor 6. Ensure mitigation measures are implemented 7. Increase the monitoring frequency to daily until no exceedance of Limit Level 	<ol style="list-style-type: none"> 1. Discuss with ET and Contractor on the mitigation measures 2. Review proposals on mitigation measures submitted by Contractor and advice Engineer accordingly 3. Assess the effectiveness of the implemented mitigation measures 	<ol style="list-style-type: none"> 1. Discuss with IEC, ET and Contractor on the proposed mitigation measures 2. Request Contractor to critically review the working methods 3. Make agreement on the mitigation measures to be implemented 4. Assess the effectiveness of the implemented mitigation measures 	<ol style="list-style-type: none"> 1. Inform Engineer and confirm notification of the non-compliance in writing 2. Rectify unacceptable practice 3. Check all plant and equipment 4. Consider changes of working methods 5. Discuss with ET, IEC and Engineer and propose mitigation measures to IEC and Engineer within 3 working days 6. Implement the agreed mitigation measures
LIMIT LEVEL (being exceeded by more than one sampling days)	<ol style="list-style-type: none"> 1. Repeat in-situ measurement to confirm findings; 2. Identify source(s) of impact; 3. Inform Contractor, Engineer, IEC and EPD; 4. Check monitoring data, all plant, equipment and Contractor's working methods; 5. Discuss mitigation measures with IEC, Engineer and Contractor; 6. Ensure mitigation measures are implemented; 7. Increase the monitoring frequency to daily until no exceedance of Limit Level 	<ol style="list-style-type: none"> 1. Discuss with ET and Contractor on the mitigation measures 2. Review proposals on mitigation measures submitted by Contractor and advice Engineer accordingly 3. Assess the effectiveness of the implemented mitigation measures 	<ol style="list-style-type: none"> 1. Discuss with IEC, ET and Contractor on the proposed mitigation measures 2. Request Contractor to critically review the working methods 3. Make agreement on the mitigation measures to be implemented 4. Assess the effectiveness of the implemented mitigation measures 5. Consider and instruct, if necessary, the Contractor to slow down or to stop all or part of the construction activities until daily until no exceedance of Limit Level 	<ol style="list-style-type: none"> 1. Inform Engineer and confirm notification of the non-compliance in writing 2. Rectify unacceptable practice 3. Check all plant and equipment 4. Consider changes of working methods 5. Discuss with ET, IEC and Engineer and propose mitigation measures to IEC and Engineer within 3 working days Propose mitigation measures to Engineer within 3 working days 6. Implement the agreed mitigation measures; 7. As directed by Engineer, to slow down or to stop all or part of the construction activities

Appendix F

Mitigation Measure Implementation Schedule

Mitigation Measure Implementation Schedule – Construction Noise

Construction Noise Impact Mitigation							
Item Ref:	Mitigation Measures	Objectives of Proposed Measures	Location/Duration of Measures/Timing of Completion of Measures	Implementation Agent(s)	Implementation Stage		Relevant Legislation & Guidelines
					Construction	Operation	
Noise 1	<p>The Contractor is required to adopt Level 1 and 2 site-specific direct technical measures as specified below during the construction phase</p> <p><i>Level 1 Mitigation Measures</i></p> <ul style="list-style-type: none"> The use of equipment with sound power level lower than that stipulated in the Technical Memorandum on Noise from Construction Works Other Than Percussive Piling is recommended as the first level mitigation (Level 1 mitigation) for all construction works under this Project. Quiet plant is defined as PME whose actual sound power level is less than the value specified in the Technical Memorandum on Noise from Construction Works Other Than Percussive Piling for the same piece of equipment. BS5228 also provides examples of quiet construction plant and their sound power level. The quiet plant used in the noise calculation including the BS5228 reference number is shown in Attachment 1 for reference <p><i>Level 2 Mitigation Measures</i></p> <ul style="list-style-type: none"> In addition to the use of quiet plant purpose-built site noise barriers shall be used as hoarding where construction works would be undertaken close (about 30m or less) to the NSRs (Figure 5.4). Temporary noise barrier with a minimum height of 3m shall be erected along the part of site boundary closest to the NSRs. Notwithstanding the required minimum height these barriers shall be constructed in a way such that no construction works and PME can be visible from the NSRs nearby. The minimum height is estimated assuming the construction equipment 	Prevent noise impact at sensitive receivers	To be implemented at the works site of KT15 during the Construction Phase (Figure 5.4 show locations of proposed temporary noise barriers.)	Construction Contractor	√		EIAO

Construction Noise Impact Mitigation							
Item Ref:	Mitigation Measures	Objectives of Proposed Measures	Location/Duration of Measures/Timing of Completion of Measures	Implementation Agent(s)	Implementation Stage		Relevant Legislation & Guidelines
					Construction	Operation	
Noise 1 (Cont'd)	<p>activities will be located on the channel bed 2m below the surrounding ground level.</p> <ul style="list-style-type: none"> Stationary equipment shall be placed on the channel bed during construction works. For the construction works which are predicted to exceed 75dB(A) (Leq30min) at nearby NSR and whose line of sight cannot be blocked by the temporary noise barrier (i.e. further away from the hoardings), movable (mobile) noise barrier of more than 3m high shall be provided. A typical example is shown in Figure 5.7. 	Prevent noise impact at sensitive receivers	To be implemented at the works site of KT15 during the Construction Phase (Figure 5.5 show locations of proposed temporary noise barriers.)	Construction Contractor	√		EIAO

Mitigation Measure Implementation Schedule – Air Quality

Air Quality Impact Mitigation							
Item Ref:	Mitigation Measures	Objectives of Proposed Measures	Location/Duration of Measures/Timing of Completion of Measures	Implementation Agent(s)	Implementation Stage		Relevant Legislation & Guidelines
					Construction	Operation	
Air 1	The Contractor shall prevent dust nuisance arising from the construction activities. The Contractor is required to follow all the requirements for dust control stipulated in the Air Pollution Control (Construction Dust) Regulation	Prevent dust nuisance	To be implemented at all works are of KT15 site during the Construction Phase.	Construction Contractor	√		Air Pollution Control Ordinance Air Pollution Control (Construction Dust Regulation)
Air 2	The following dust suppression measures shall be installed as part of construction practice, and these shall be incorporated in the Contract Specification and implemented to minimize dust nuisance to within acceptable levels. i) The Contractor shall frequently clean and water the site to minimise fugitive dust emissions. ii) Effective water sprays shall be used during the delivery and handling of aggregate, and other similar materials, when dust is likely to be created and to dampen all stored materials during dry and windy weather. iii) Watering of exposed surfaces shall be exercised at least three times a day. iv) Areas within the site where there is a regular movement of vehicles must be regularly watered at minimum three times a day. v) The Contractor shall restrict all motorised vehicles within the site, excluding those on public roads, to a maximum speed of 15 km per hour and confine haulage and delivery vehicles to designated road ways inside the site. vi) Any stockpiles of construction materials that are likely to generate fugitive dust shall be covered with tarpaulins including the materials on lorries or trucks. vii) Wheel washing facilities shall be installed and	Prevent dust nuisance	To be implemented at all works are of KT15 site during the Construction Phase.	Construction Contractor	√		Air Pollution Control Ordinance Air Pollution Control (Construction Dust Regulation)

Air Quality Impact Mitigation							
Item Ref:	Mitigation Measures	Objectives of Proposed Measures	Location/Duration of Measures/Timing of Completion of Measures	Implementation Agent(s)	Implementation Stage		Relevant Legislation & Guidelines
					Construction	Operation	
Air 2 (Cont'd)	<p>used by all vehicles leaving the site. No earth, mud, debris, dust and the like shall be deposited on public roads. Water in the wheel cleaning facility shall be changed at frequent intervals and sediments shall be removed regularly. The Contractor shall submit details of proposals for the wheel cleaning facility. Such wheel washing facilities shall be usable prior to any earthworks excavating activity on the site. The Contractor shall also provide a hard-surfaced road between any washing facility and the public road.</p> <p>viii) Any materials dropped on paved roads will need to be cleaned up immediately to prevent dust nuisance.</p>	Prevent dust nuisance	To be implemented at all works are of KT15 site during the Construction Phase.	Construction Contractor	√		<p>Air Pollution Control Ordinance</p> <p>Air Pollution Control (Construction Dust Regulation)</p>

Mitigation Measure Implementation Schedule – Water Quality

Water Quality Impact Mitigation							
Item Ref:	Mitigation Measures	Objectives of Proposed Measures	Location/Duration of Measures/Timing of Completion of Measures	Implementation Agent(s)	Implementation Stage		Relevant Legislation & Guidelines
					Construction	Operation	
Water 1	Wash facilities for workers and wheel wash waste result in muddy construction site runoff. Temporary earth hunds and sand barriers shall be used to direct such runoff to a designated settlement area within the site.	Prevent additional pollution load being added to stream due to KT14 works	To be implemented at the works sites of KT15 during the Construction Phase	Construction Contractor	√		WPCO & ProPECC PN1/94
Water 1 (Cont'd)	The settlement area shall be located within the temporary site area. Construction site runoff shall be settled in this settlement area, while runoff from the surface should be channelled through a local site drainage system into the settlement area. When solids build up in the settlement area, and certainly before the onset of the wet season (Apr-Oct) solids shall be excavated from the base of the settlement area. No excavation shall be allowed in rainy weather.	Prevent additional pollution load being added to stream due to KT14 works	To be implemented at the works sites of KT15 during the Construction Phase	Construction Contractor	√		WPCO & ProPECC PN1/94

Mitigation Measure Implementation Schedule – Waste Management

Waste Management							
Item Ref:	Mitigation Measures	Objectives of Proposed Measures	Location/Duration of Measures/Timing of Completion of Measures	Implementation Agent(s)	Implementation Stage		Relevant Legislation & Guidelines
					Construction	Operation	
	<p><i>Waste Management Plan</i></p> <p>Upon appointment, the main contractor of each construction contract should submit a Waste Management Plan (WMP) to the Engineer for approval. The WMP shall describe the arrangements for avoidance, reuse, recovery and recycling, storage, collection, treatment and disposal of different categories of waste to be generated from the construction activities and shall take into account the recommended mitigation measures in the Project Profile report. Such a management plan shall incorporate site specific factors, such as the designation of areas for segregation and temporary storage of reusable and recyclable materials. All mitigation measures numbered Waste 1 to 6 shall be included in the WMP</p>	<p>Planning for waste reduction, re-use, recycling and proper disposal and form compliance with Waste Disposal Ordinance and other guideline.</p>	<p>To be implemented at the works sites of KT15 during the Construction Phase.</p>	<p>Construction Contractor</p>	<p>√</p>		<p>WBTC No. 2/93, 2/93B, 16/96, 4/98, 4/98A, 25/99, 25/99A, 25/99C, 12/2000, 19/2001</p> <p>ETWB TC No. 33/2002, 34/2002, 15/2003, 31/2004</p>
Waste 1	<p>i) Trip-ticket system – In order to monitor the disposal of C&D and solid wastes at public filling facilities and landfills, and control fly-tipping, a trip-ticket system shall be included.</p> <p>ii) Records of wastes – A recording system for the amount of wastes generated, recycled and disposed (including the disposal sites) shall be proposed.</p> <p>iii) Training – Training should be provided to workers about the concepts of site cleanliness and appropriate waste management procedure, including waste reduction, reuse and recycling.</p>	<p>Planning for waste reduction, re-use, recycling and proper disposal and form compliance with Waste Disposal Ordinance and other guideline.</p>	<p>To be implemented at the works sites of KT15 during the Construction Phase.</p>	<p>Construction Contractor</p>	<p>√</p>		<p>WBTC No. 2/93, 2/93B, 16/96, 4/98, 4/98A, 25/99, 25/99A, 25/99C, 12/2000, 19/2001</p> <p>ETWB TC No. 33/2002, 34/2002, 15/2003, 31/2004</p>
Waste 2	<p><i>Site Clearance Waste / Demolition Waste</i></p> <p>All construction waste shall be sorted on site into inert and non-inert components. Non-inert materials (wood, glass, metals and plastics) shall be recycled or reused and disposed to landfill only as a last resort. Inert materials (soil, rubble, sand, rock, brick and</p>	<p>Planning for waste reduction, re-use, recycling and proper disposal and form</p>	<p>To be implemented at the works sites of KT15 during the Construction Phase.</p>	<p>Construction Contractor</p>	<p>√</p>		<p>WBTC No. 2/93, 2/93B, 16/96, 4/98, 4/98A, 25/99, 25/99A,</p>

Waste Management							
Item Ref:	Mitigation Measures	Objectives of Proposed Measures	Location/Duration of Measures/Timing of Completion of Measures	Implementation Agent(s)	Implementation Stage		Relevant Legislation & Guidelines
					Construction	Operation	
	concrete) shall be separated and reused on site prior to final disposal at public filling facilities. The final disposal site for public fill shall be the Public Filling Facility at Tuen Mun Area 38. The final disposal site for construction and demolition waste shall be the North East New Territories (NENT) Landfill.	compliance with Waste Disposal Ordinance and other guideline.					25/99C, 12/2000, 19/2001 ETWB(TC) W No. 33/2002, 34/2002, 15/2003, 31/2004
Waste 3	Excavated Material Any excavated material from the stream shall not be stockpiled, and shall be removed from site on the same day. The material shall be stored in covered impermeable skips while awaiting removal from site. Any leachate from skips shall be treated to meet discharge standard from Government sewers before being collected along with toilet waste by licensed contractor.	Planning for waste reduction, re-use, recycling and proper disposal and form compliance with Waste Disposal Ordinance and other guideline. Planning for waste reduction, re-use, recycling and proper disposal and form compliance with Waste Disposal Ordinance and other guideline.	To be implemented at the works sites of KT15 during the Construction Stage. To be implemented at the works sites of KT15 during the Construction Stage	Construction Contractor during Construction Stage Construction Contractor during Construction Stage	√ √		ETWB(TC) W No. 34/2002, WBTC 12/2000 ETWB(TC) W No. 34/2002, WBTC 12/2000
Waste 4	<i>Recycling the Use of Non-Reusable Materials on Site</i> Hoarding, shutters, form works and false works made of reusable materials such as steel or plastic concrete panels shall be used as a preferred alternative to non-reusable materials such as wood and timber, with reference to WBTC No. 19/2001 – Metallic Site Hoarding and Signboards.	Planning for waste reduction, re-use, recycling and proper disposal and form compliance with Waste Disposal Ordinance and	To be implemented at the works sites of KT15 during the Construction Phase	Construction Contractor	√		WBTC 19/2001

Waste Management							
Item Ref:	Mitigation Measures	Objectives of Proposed Measures	Location/Duration of Measures/Timing of Completion of Measures	Implementation Agent(s)	Implementation Stage		Relevant Legislation & Guidelines
					Construction	Operation	
		other guideline					
Waste 5	<p><i>Chemical Waste</i></p> <p>Any Contractor generating waste oil, lubricants, paints or other chemicals as a result of his activities should register in a chemical waste producer. Storage, handling, transport and disposal of chemical waste should be arranged in accordance with the Code of Practice on the Packaging, Labelling and Storage of Chemical Wastes published by EPD. Chemical waste should be collected by licensed collector.</p> <p>The Contractor shall provide a storage area with hard standing, impermeable surface for storing chemicals on site to prevent inadvertent release of waste oil or other chemicals into nearby water bodies. Oil and fuel bunkers should be bunded and/or enclosed on three sides to prevent discharge due to accidental spillages or breaches of tanks. Bunded area should be of sufficient capacity to accommodate 110% of the volume of the largest container or 20% of the total volume of waste, whichever is largest. For construction plant that is likely to leak oil, absorbent inert materials e.g. sand, shall be placed beneath it. This material should be replaced on a regular basis and the contaminated material disposed as chemical wastes. Storage areas should have adequate ventilation and be covered to prevent rain entering.</p>	Planning for waste reduction, re-use, recycling and proper disposal and form compliance with Waste Disposal Ordinance and other guideline	To be implemented at the works sites of KT15 during the Construction Phase	Construction Contractor	√		WDO Waste Disposal (Chemical Waste) General Regulation)
Waste 6	Domestic garbage generated by site staff shall be stored at dry locations in covered impermeable skips. It should be collected daily and disposed to the nearest Refuse Collection Point or arranged for collection by licensed contractors. The Engineer is responsible for checking that no chemical waste, sewage, excavated material or sorted reusable material is disposed as domestic garbage.	Planning for waste reduction, re-use, recycling and proper disposal and form compliance with Waste Disposal Ordinance and other guideline	To be implemented at all of KT15 construction site	Construction Contractor	√		Public Health and Municipal Services Ordinance

Mitigation Measure Implementation Schedule – Landscape / Visual

Landscape / Visual Impact Mitigation							
Item Ref:	Mitigation Measures	Objectives of Proposed Measures	Location/Duration of Measures/Timing of Completion of Measures	Implementation Agent(s)	Implementation Stage		Relevant Legislation & Guidelines
					Construction	Operation	
Land 1	A survey of existing trees shall be completed in accordance with Works Branch Technical Circular No. 14/2002. Management and Maintenance of Natural Vegetation and Landscape Works, and Tree Preservation during detailed design stage. The results of the survey shall form consideration in the detail design for the proposed Secondary Channels KT14, in order that any significant trees shall be protected during both the design and construction periods. Parameters assessed in the survey shall include species, health, form, transplant-ability and amenity value (assessed according to form, size, age, condition and situation of the tree). All surveyed trees should be checked with species listed under the “Animals and Plants (Protection of Endangered Species) Ordinance (CAP 187)” and Forestry and Countryside Ordinance (CAP. 96)” to ensure that no endangered species are affected. Where tree felling is unavoidable, compensatory planting proposal shall be prepared and submitted to EPD and LandsD for approval.	Ensure protection of trees. Ensure protection of trees	To be implemented along KT15 during the Detail Design Phase and Construction Phase. To be implemented along KT15 during the Detail Design Phase and Construction Phase.	Construction Contractor to follow the results during construction Construction Contractor to follow the results during construction		√ √	Works Bureau Technical Circular No. 14/2002 Works Bureau Technical Circular No. 14/2002

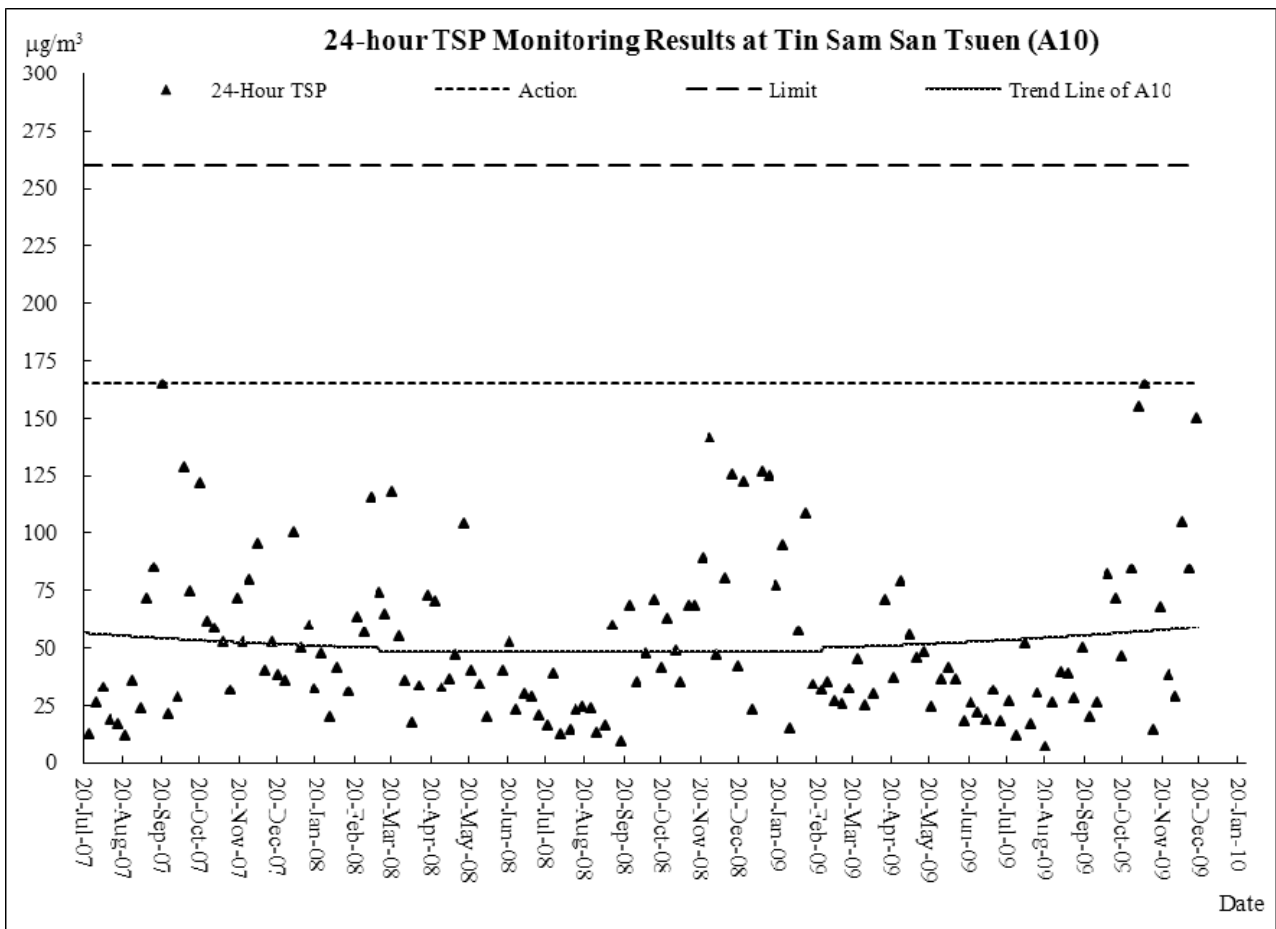
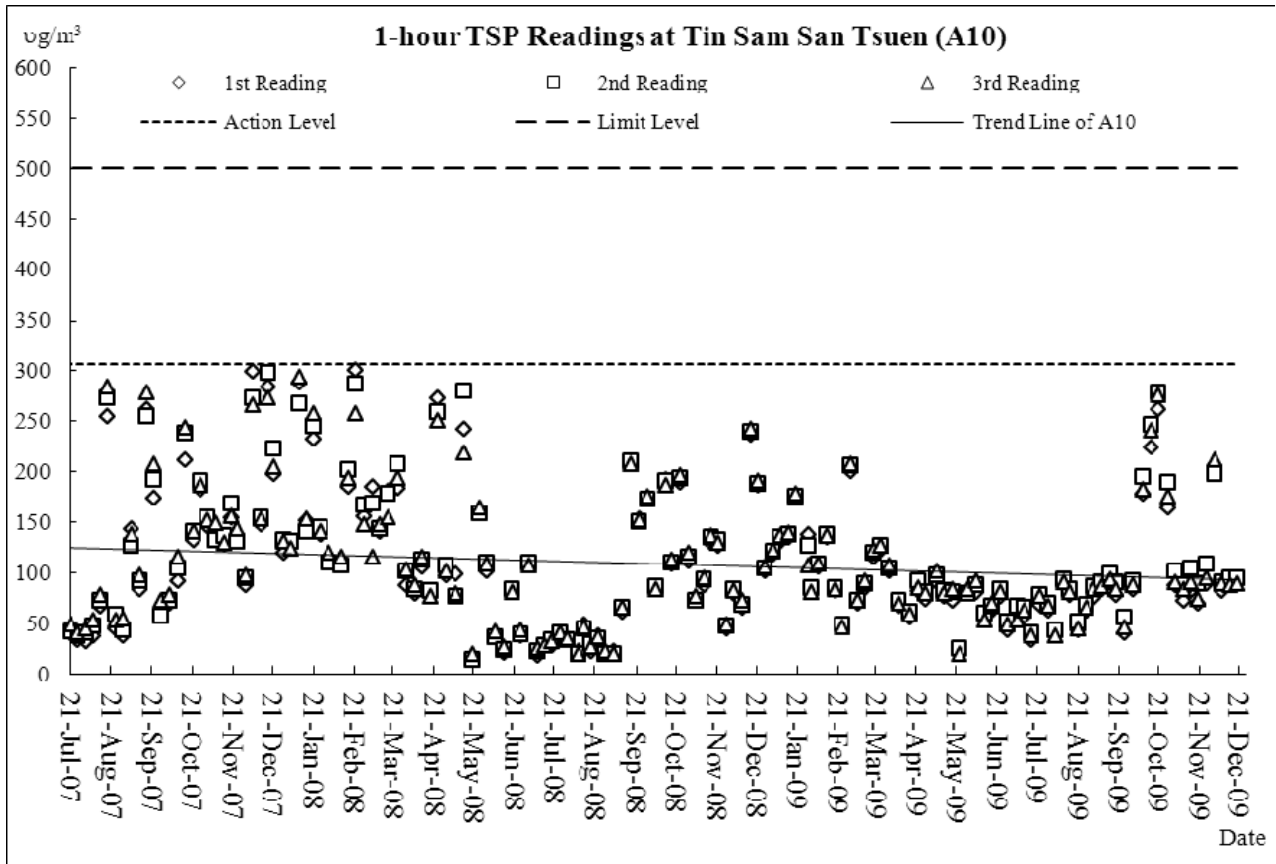
Note:

- EIAO Environmental Impact Assessment Ordinance
WDO Waste Disposal Ordinance
WPCO Water Pollution Control Ordinance
TMEIA Technical Memorandum on Environmental Impact Assessment Process

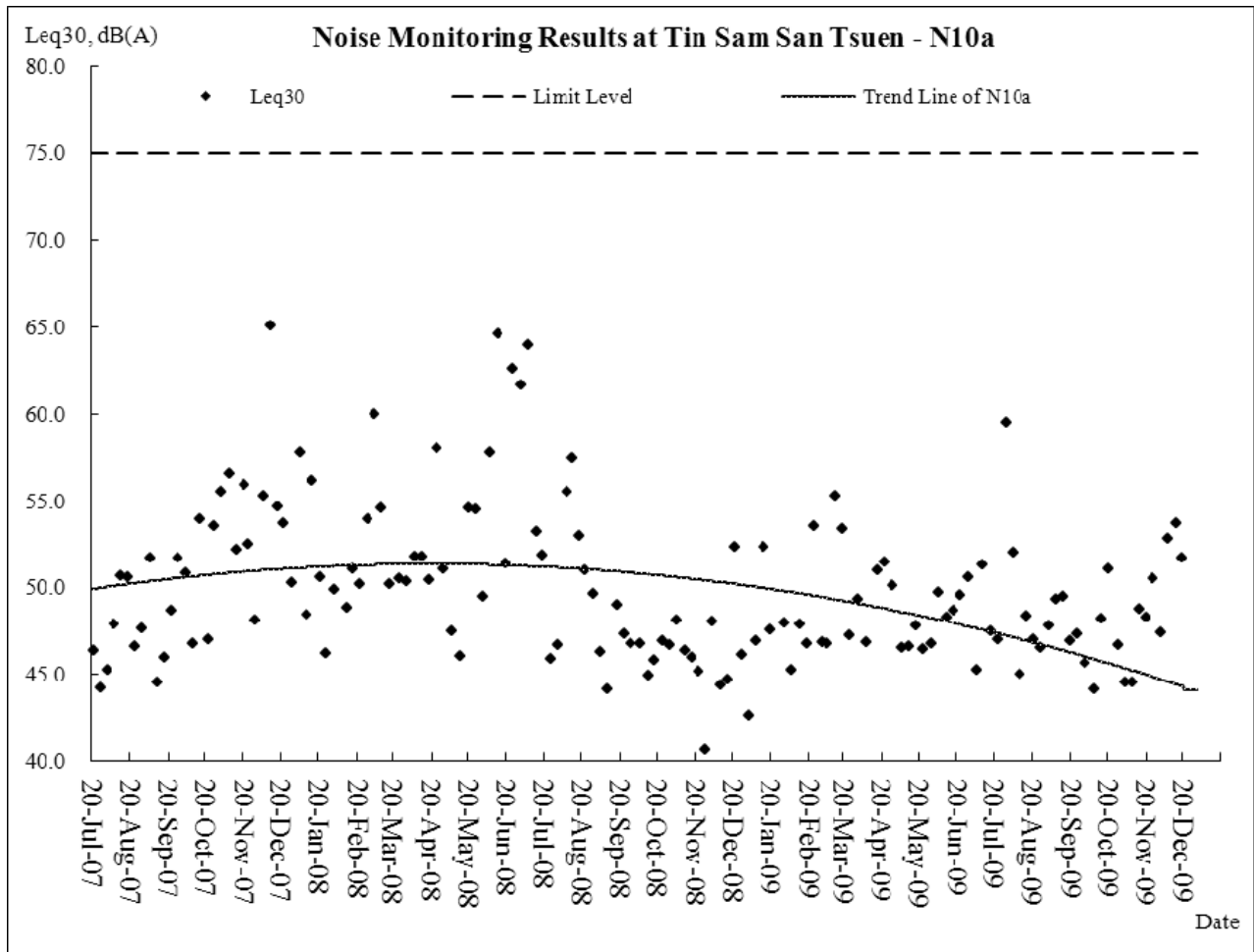
Appendix F

Graphical plot of the all monitored parameters

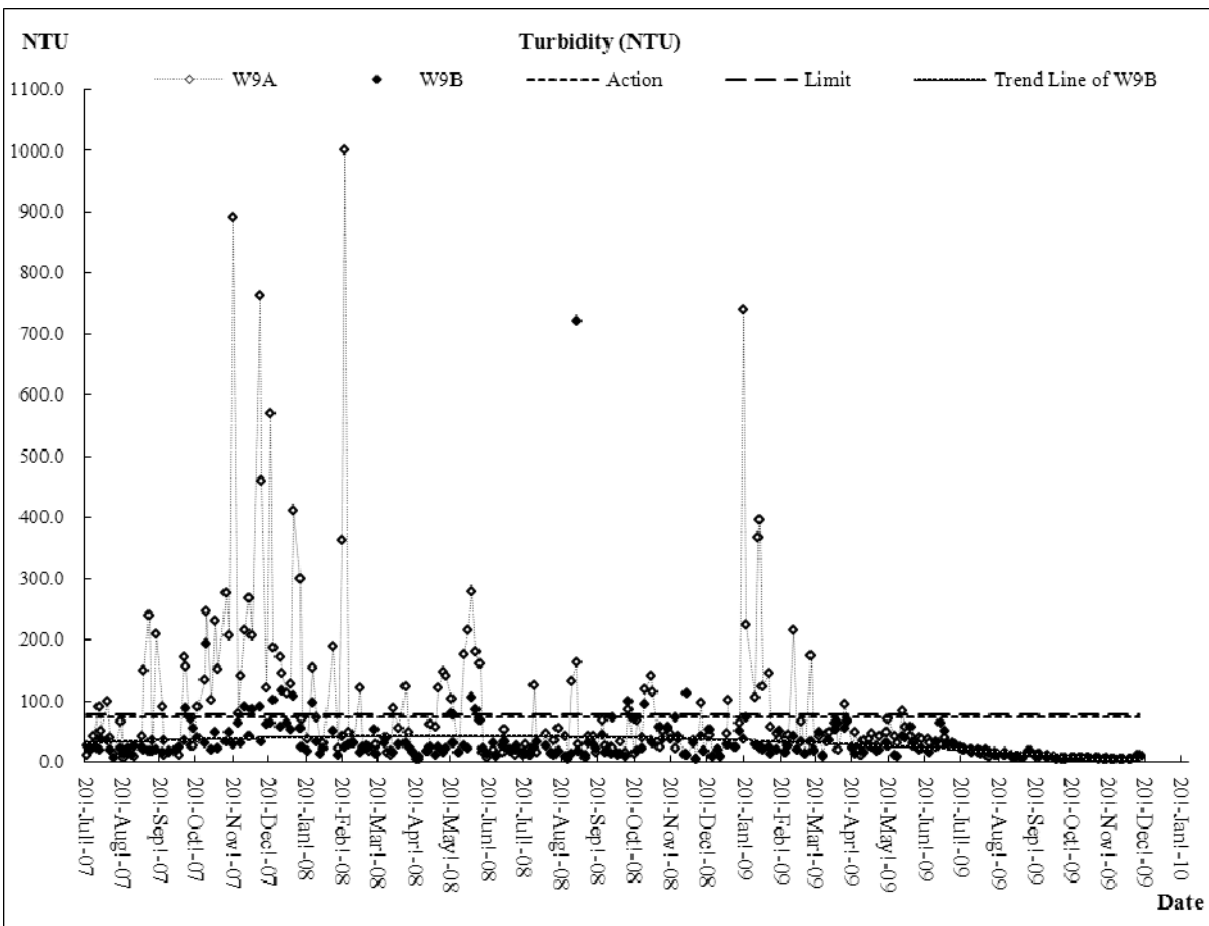
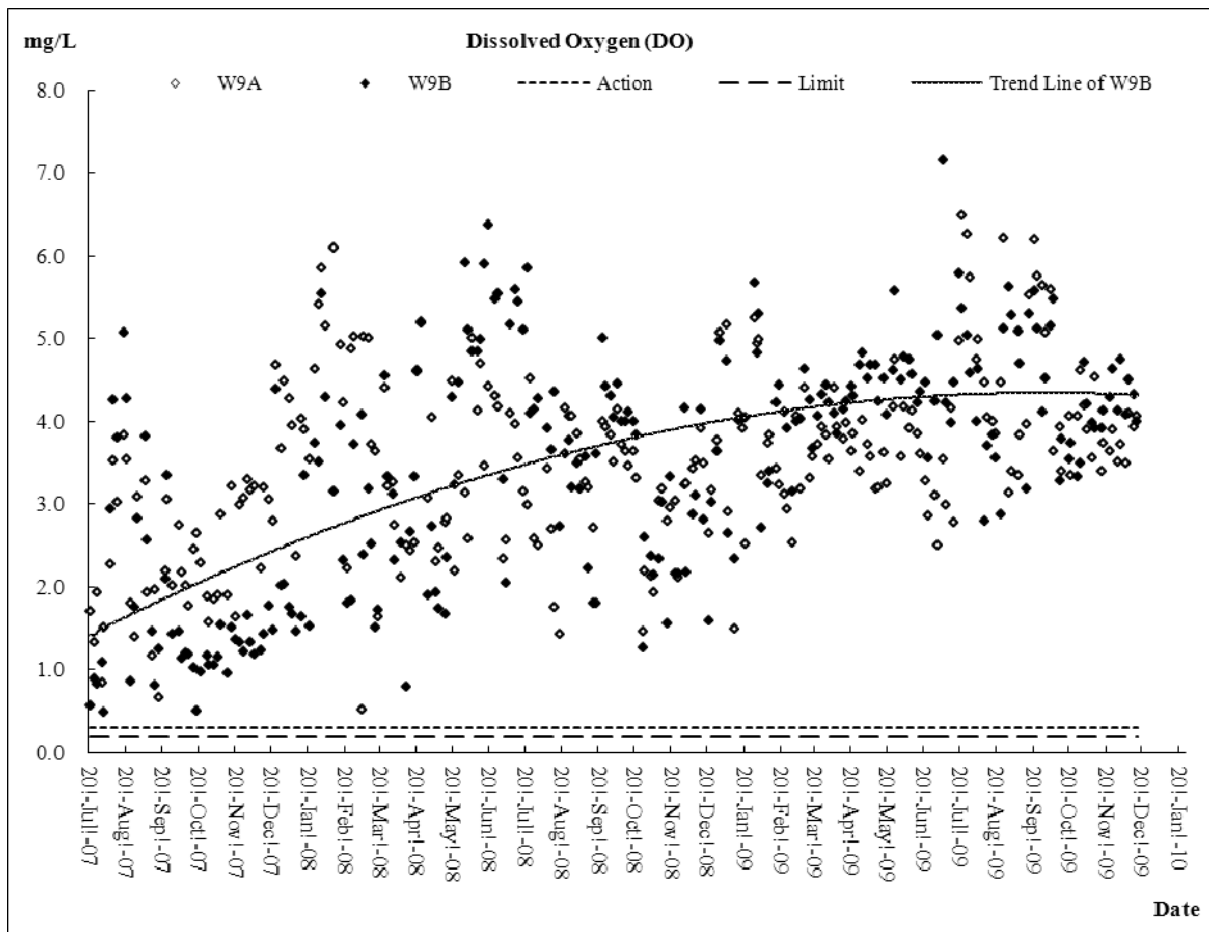
Air Quality

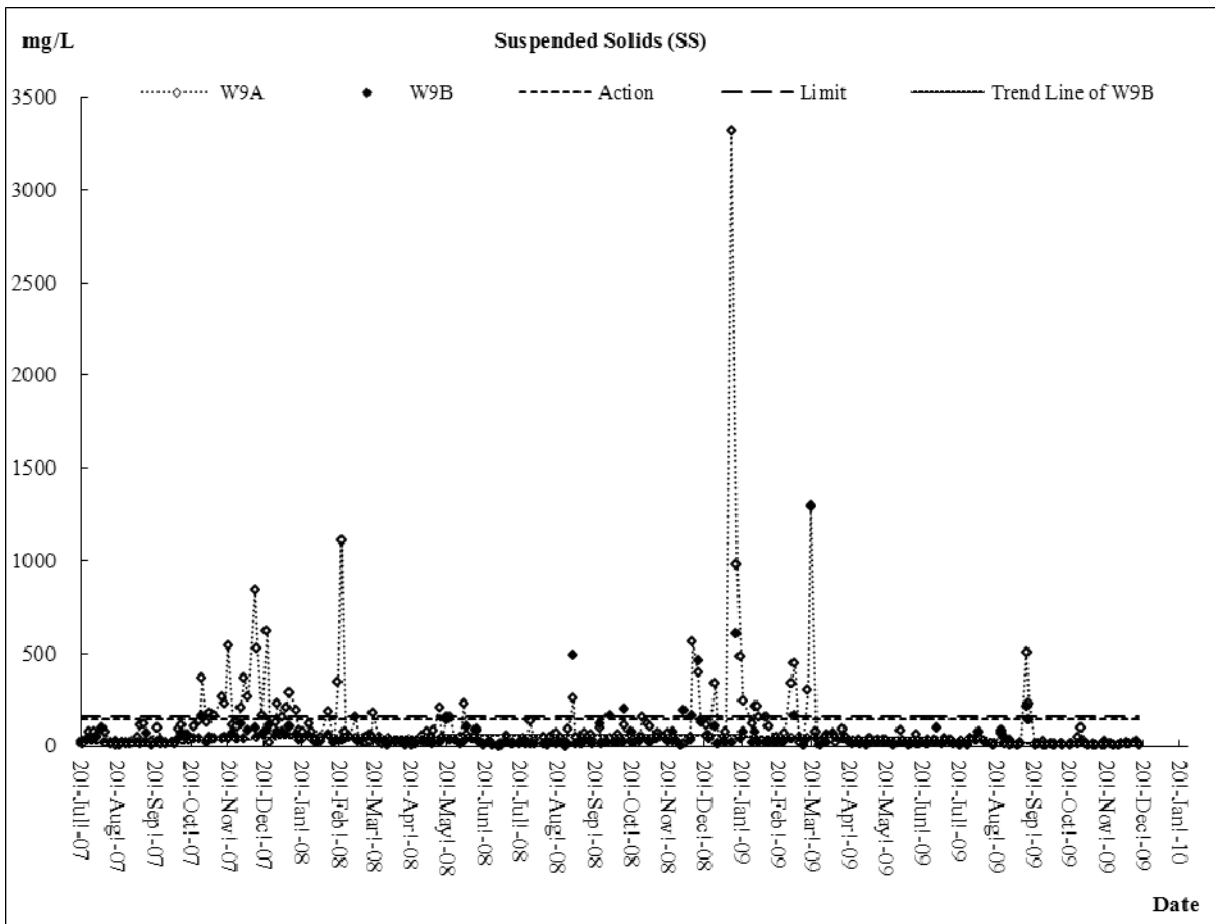
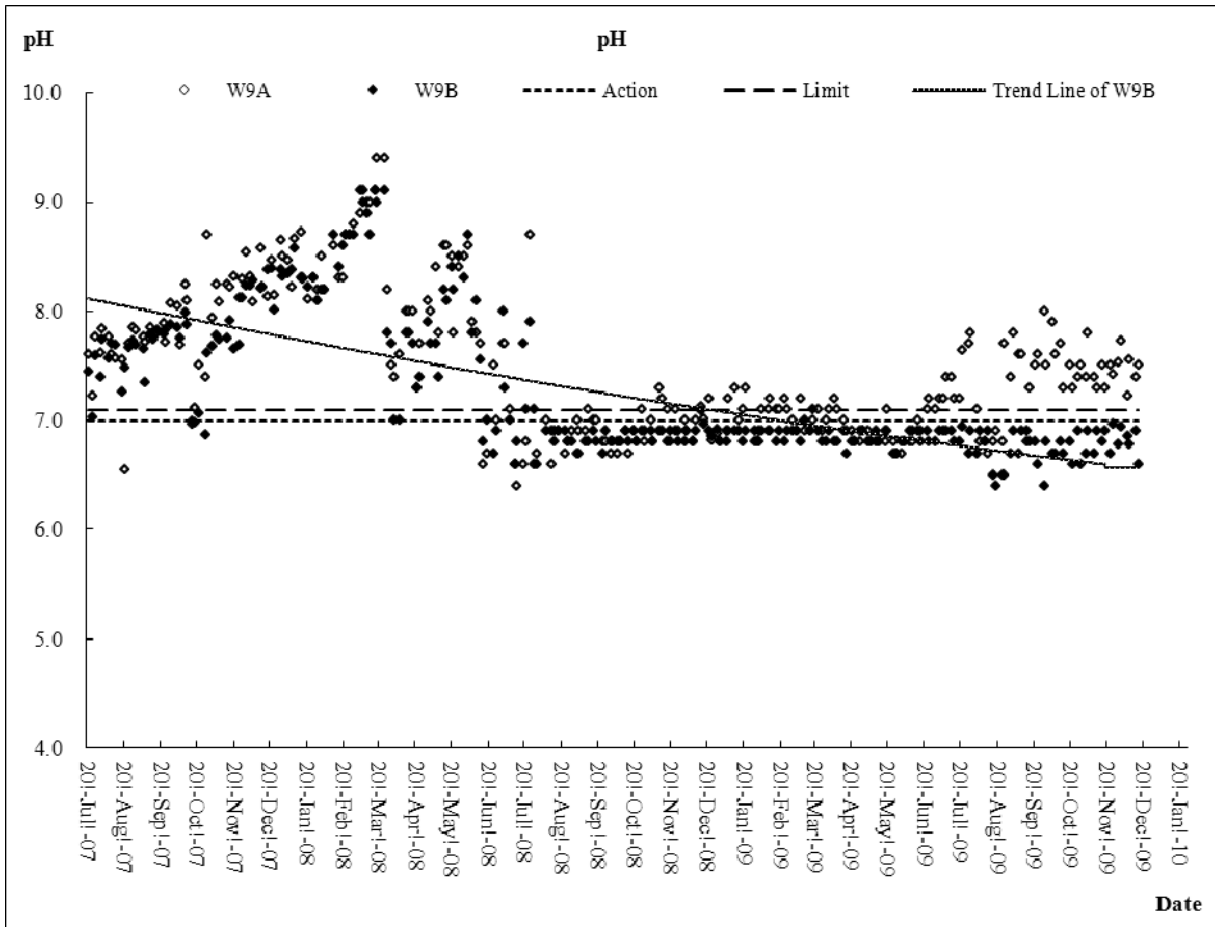


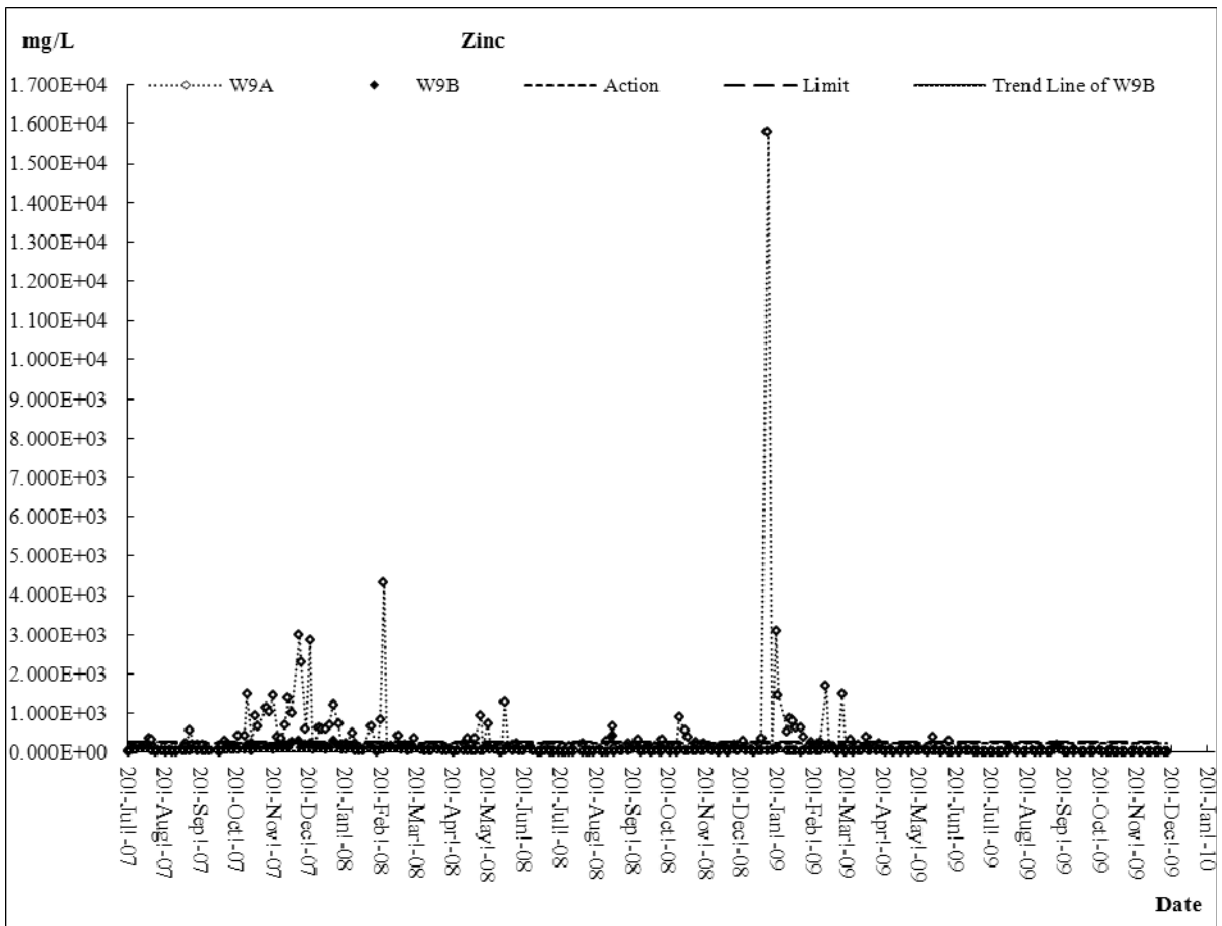
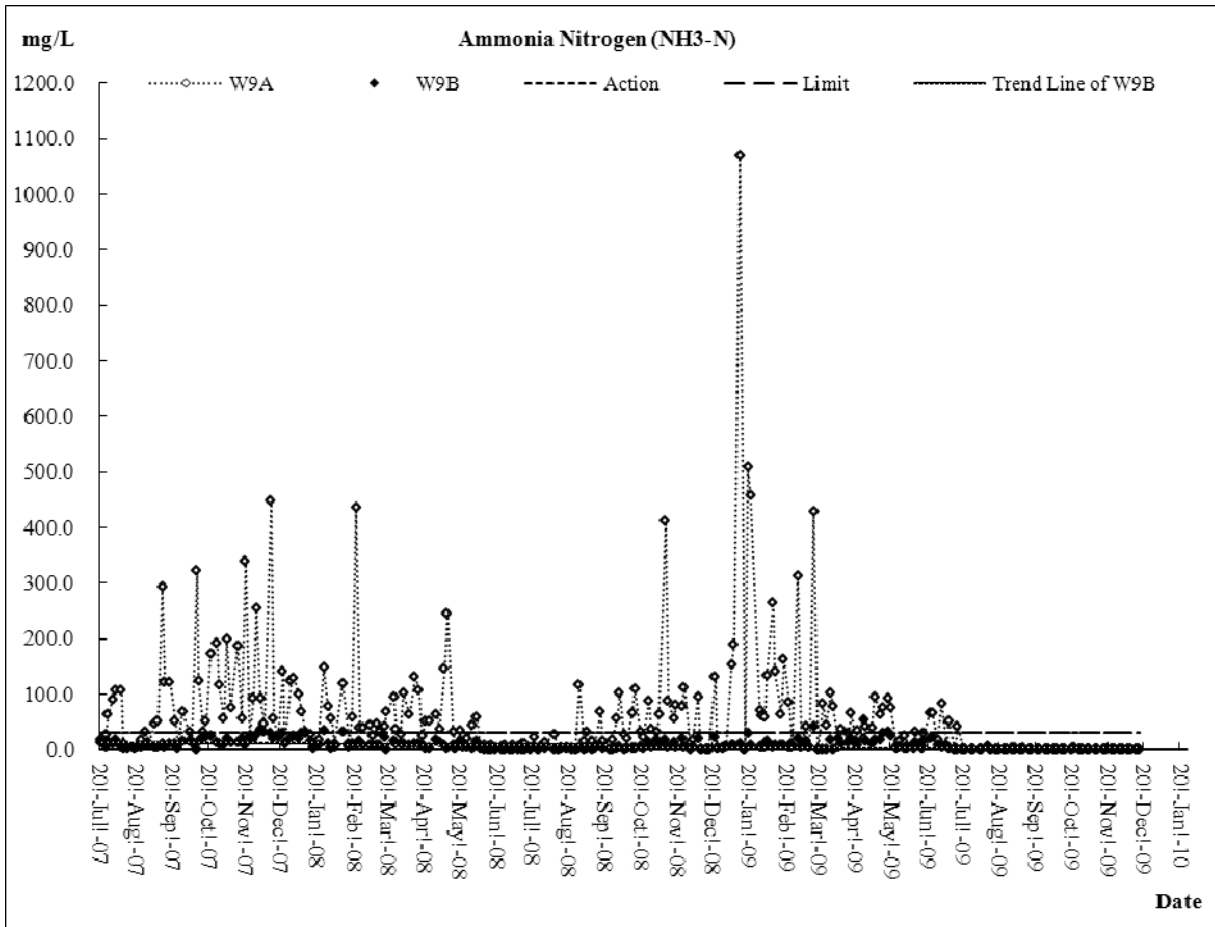
Construction Noise



Stream Water Quality







Appendix H

Final Operation Phase Ecological Monitoring Report

Drainage Services Department

**Contract No. DC/2006/02
Yuen Long, Kam Tin, Ngau Tam Mei
and Tin Shui Wai Drainage
Improvements, Stage 1, Phase 2B –
Cheung Chun San Tsuen and Kam Tsin Wai**

**KT15 – Final Operation Phase
Ecological Monitoring Report (Feb 2010 – Jan 2011)**

June 2011

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Reviewed & Approved:	Gigi Lam	

Version: Final

Date: 1 June 2010

Disclaimer

This **report** is prepared for **Drainage Services Department** and is given for its sole benefit in relation to and pursuant to **Contract No. DC/2006/02 Yuen Long, Kam Tin, Ngau Tam Mei and Tin Shui Wai Drainage Improvements, Stage 1, Phase 2B – Cheung Chun San Tsuen and Kam Tsin Wai** and may not be disclosed to, quoted to or relied upon by any person other than **Drainage Services Department** without our prior written consent. No person (other than **Drainage Services Department**) into whose possession a copy of this **report** comes may rely on this **report** without our express written consent and **Drainage Services Department** may not rely on it for any purpose other than as described above.

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EXECUTIVE SUMMARY

AECOM Asia Co. Ltd. was commissioned by Drainage Services Department (DSD) as the Consultant to provide operational monitoring on ecological aspect as stipulated in the Environmental Monitoring and Audit (EM&A) Manuals for a period of one year after substantial completion of the works under Contract No. DC/2006/02 – Yuen Long, Kam Tin, Ngau Tam Mei and Tin Shui Wai Drainage Improvements, Stage 1, Phase 2B – Cheung Chun San Tsuen and Kam Tsin Wai (the Contract). This Final Operation Phase Ecological Monitoring Report summarizes the operation phase ecological monitoring results at KT15 from February 2010 to January 2011.

Non-compliances with the ecological criteria regarding the total number of wetland-dependent species (all reporting months) and total number of species of other terrestrial fauna (April 2010) were found. However, KT15 was attractive to and utilized by other wetland-dependent birds and terrestrial fauna. The exceedances were not caused by the operation of the channel. Therefore, implementation of specific action in the Event/Action Plan for Ecology was not required.

1 INTRODUCTION

1.1 Background

- 1.1.1 Drainage Services Department (DSD) constructed two secondary channels in Kam Tin. The works were implemented under Contract No. DC/2006/02 – Yuen Long, Kam Tin, Ngau Tam Mei and Tin Shui Wai Drainage Improvements, Stage 1, Phase 2B – Cheung Chun San Tsuen and Kam Tsin Wai (the Contract). The works mainly comprised the construction of two secondary drainage channels (Channel KT2 and KT15), associated roadworks, footpaths, drainage, water works and landscape works alongside the channels. The Contract might have impacts on water, noise, ecology, waste and air during the construction stage as well as operational stage given the fairly close proximity of the sensitive receivers in the vicinity of the works boundary. Environmental Monitoring and Audit (EM&A) programme was implemented under the Contract.
- 1.1.2 AECOM Asia Co. Ltd. was commissioned by DSD as the Consultant to provide operational monitoring on ecological aspect as stipulated in the EM&A Manuals for a period of one year after substantial completion of the Contract.
- 1.1.3 This Final Operation Phase Ecological Monitoring Report summarizes the operation phase ecological monitoring results at KT15 from February 2010 to January 2011.

2 ECOLOGICAL MONITORING

2.1 Monitoring Requirements

- 2.1.1 As specified in the EM&A Manual, operation phase ecological monitoring would be conducted within the channel KT15 and in the wetland areas for one year after the completion of construction.
- 2.1.2 Monthly surveys would be conducted during the wet season (April to July inclusive) for reptiles, amphibians, dragonflies and butterflies and monthly bird surveys would be conducted throughout the one year period. In addition, quarterly aquatic invertebrate surveys would be conducted within the section of KT15 where the rock bed to the channel was formed (surveys to be conducted four times during the one year monitoring period).
- 2.1.3 The specific channel lining designs as described in the Project Profile would be verified to see if they were implemented at design and construction stage.
- 2.1.4 The ecological monitoring schedule is given in **Table 1**.

Table 1 Ecological Monitoring Schedule

Parameter	Feb 2010	Mar 2010	Apr 2010	May 2010	Jun 2010	Jul 2010	Aug 2010	Sep 2010	Oct 2010	Nov 2010	Dec 2010	Jan 2011
Birds												
Reptiles												
Amphibians												
Dragonflies												
Butterflies												
Aquatic Invertebrates and Fish												

2.1.5 A summary of the Action and Limit Levels for ecology are shown in **Tables 2**.

Table 2 Action and Limit Levels for Ecology

Parameters	Action Level	Limit Level
Decrease in the total number of wetland-dependent species or individuals of the surveyed faunal groups from baseline	20 – 40%	>40%

2.2 Monitoring Areas

2.2.1 The monitoring area would be the section of KT15 where the rock bed to the channel was formed and the seasonal wetland area shown in **Figure 3.3**.

2.3 Monitoring Equipment

2.3.1 The following standard portable field survey equipment is required for ecological monitoring:

- Binoculars of not less than 8 x 30 magnification;
- Butterfly net (to confirm identities of butterflies and dragonflies);
- Hand net;
- Camera (films or digital); and
- Notebook and field survey forms.

2.4 Monitoring Methodology

2.4.1 In line with the baseline study, walk-through fauna survey would be conducted along the channel where the rock bed was formed and within the seasonal wetland areas. Methodology for fauna survey is given in **Table 3**.

Table 3 Methodology for Fauna Survey

Bird Survey	Survey walk would be made along the channel and the seasonal wetland area shown in Figure 3.3 .
Parameters	- Species Identity - Abundance
Reptile and Amphibian Surveys	Potential microhabitats and refugia for reptiles and amphibians in monitoring area would be actively searched. All reptiles and amphibians sighted or heard would be recorded.
Parameters	- Species Identity

	- Abundance
Dragonfly and Butterfly Surveys	Survey walk would be made along the channel. Species was identified by direct observation. For those species with identification difficulties, a butterfly net would be used to collect specimen for identification (and subsequent release on site). (Note: Emphasis would be given to dragonflies and butterflies on or near the channel.)
Parameters	- Species Identity - Abundance
Aquatic Invertebrate and Fish Survey	A hand net would be used to collect macroinvertebrates dislodging from the rocks or drifted on water surface. Aquatic invertebrate survey would be conducted at 2 sampling locations F1 and F2 (Figure 3.3 refers). (Note: Only the moderately polluted and the less polluted sections would be sampled.)
Parameters	- Species Identity - Relative Abundance

2.5 Monitoring Results

2.5.1 The number of bird species and individuals recorded during the operation phase ecological monitoring period is summarized in **Table 4**. The bird species and their abundance recorded are summarized in **Table 5**. The wetland-dependent species and other bird species recorded in wet and dry seasons are listed in **Table 6** and **Table 7**. Details of the monitoring results were presented in the Monthly Operation Phase Ecological Monitoring Reports (Feb 2010 – Jan 2011). KT15 is attractive to wetland-dependent birds. It was found that most wetland-dependent birds were recorded along the channel in both wet and dry seasons (**Table 6** refers). The low water level and scattered vegetation on the channel bed might provided suitable feeding and roosting grounds for the wetland-dependent birds.

Table 4 Summary of Number of Bird Species and Individuals Recorded during the Operation Phase Ecological Monitoring Period

	Abundance											
	Feb 10	Mar 10	Apr 10	May 10	Jun 10	Jul 10	Aug 10	Sep 10	Oct 10	Nov 10	Dec 10	Jan 11
Number of Species	22 (2)	25 (5)	28 (2)	22 (3)	21 (4)	21 (3)	19 (4)	23 (5)	16 (5)	28 (10)	19 (5)	21 (7)
Number of Individuals	122 (7)	133 (17)	156 (4)	111 (3)	99 (8)	128 (12)	90 (10)	109 (13)	104 (17)	128 (37)	92 (13)	88 (26)
Number of Species of Wetland-dependent Birds recorded in Channel	2	5	2	3	3	3	4	5	5	9	4	7
Number of Individuals of Wetland-dependent Birds recorded in Channel	7	16	4	3	7	11	10	13	17	36	11	26
Number of Species of Wetland-dependent Birds recorded in Other Habitats	0	1	0	0	1	1	0	0	0	1	2	0
Number of Individuals of Wetland-dependent Birds recorded in Other Habitats	0	1	0	0	1	1	0	0	0	1	2	0

Note:

- The numbers in brackets denote the number of wetland-dependent species / individuals.

Table 5 Bird Species Recorded during the Operation Phase Ecological Monitoring Period

Common Name ⁽¹⁾	Scientific Name	Distribution in Hong Kong	Level of Concern ⁽²⁾	Abundance												
				Feb 10	Mar 10	Apr 10	May 10	Jun 10	Jul 10	Aug 10	Sep 10	Oct 10	Nov 10	Dec 10	Jan 11	
Cattle Egret ^{#*}	<i>Bubulcus ibis</i>	Common	(LC)	-	-	-	-	-	-	-	-	-	-	-	-	-
Chinese Pond Heron ^{#*}	<i>Ardeola bacchus</i>	Common	PRC (RC)	-	-	-	1	3	8	4	2	-	1	-	1	
White-breasted Waterhen [#]	<i>Amauromis phoenicurus</i>	Common	-	-	2	-	1	1	3	3	3	2	5	1	3	
Spotted Dove	<i>Streptopelia chinensis</i>	Abundant	-	6	8	4	4	5	2	1	5	3	5	9	4	
Barn Swallow	<i>Hirundo rustica</i>	Abundant	-	3	2	7	-	1	2	-	-	-	-	-	-	
White Wagtail	<i>Motacilla alba</i>	Common	-	19	12	4	12	-	13	8	7	8	9	10	2	
Red-whiskered Bulbul	<i>Pycnonotus jocosus</i>	Abundant	-	8	18	16	23	16	11	33	17	6	22	11	7	
Chinese Bulbul	<i>Pycnonotus sinensis</i>	Abundant	-	15	9	6	2	4	5	1	6	8	10	5	8	
Long-tailed Shrike	<i>Lanius schach</i>	Common	-	-	-	-	-	-	2	-	1	-	-	-	-	
Oriental Magpie Robin	<i>Copsychus saularis</i>	Abundant	-	10	11	13	10	9	6	3	5	2	4	2	11	
Common Tailorbird	<i>Orthotomus sutorius</i>	Common	-	3	8	2	1	1	5	-	2	-	-	1	-	
Eurasian Tree Sparrow	<i>Passer montanus</i>	Abundant	-	5	4	11	20	24	4	13	13	10	2	6	-	
Black-collared Starling	<i>Sturnus nigricollis</i>	Common	-	4	2	2	6	1	9	3	2	35	12	6	-	
Crested Myna	<i>Acridotheres cristatellus</i>	Common	-	3	-	1	1	1	3	2	5	-	-	3	-	
Grey Heron ^{#*}	<i>Ardea cinerea</i>	Common	PRC	-	-	-	-	-	-	-	-	-	-	1	-	
Great Egret ^{#*}	<i>Egretta alba</i>	Common	PRC (RC)	-	-	-	-	-	-	-	-	-	1	-	-	
Little Egret ^{#*}	<i>Egretta garzetta</i>	Common	PRC (RC)	6	5	3	-	-	-	-	1	1	8	5	3	
Black-crowned Night Heron ^{#*}	<i>Nycticorax nycticorax</i>	Common	(LC)	-	-	-	-	-	-	2	-	-	-	-	-	
Black Kite ^{#*}	<i>Milvus migrans</i>	Common	(RC)	1	2	-	1	-	-	-	-	-	1	-	-	
Besra	<i>Accipiter virgatus</i>	Scarce	-	-	-	1	-	-	-	-	-	-	-	-	-	
Greater Painted-snipe ^{#*}	<i>Rostratula benghalensis</i>	Passage migrant and winter visitor	LC	-	-	-	-	-	-	-	2	8	8	-	3	
Green Sandpiper [#]	<i>Tringa ochropus</i>	Uncommon	-	-	6	-	-	-	-	1	-	-	5	4	4	
Wood Sandpiper ^{#*}	<i>Tringa glareola</i>	Common	LC	-	2	1	-	-	1	-	5	3	4	-	11	
Common Sandpiper [#]	<i>Actitis hypoleucos</i>	Common	-	-	-	-	-	-	-	-	-	3	3	-	1	
Common Snipe [#]	<i>Gallinago gallinago</i>	Common	-	-	-	-	-	3	-	-	-	-	1	2	-	
Large Hawk Cuckoo	<i>Hierococcyx sparveriioides</i>	Common	-	-	-	1	1	-	-	-	-	-	-	-	-	
Common Koel	<i>Eudynamis scolopacea</i>	Common	-	2	5	3	5	1	-	-	-	-	-	-	-	
Greater Coucal	<i>Centropus sinensis</i>	Common	-	-	1	1	2	1	1	-	-	-	-	-	-	
White-throated Kingfisher ^{#*}	<i>Halcyon smyrnenis</i>	Common	(LC)	-	-	-	-	1	-	-	-	-	-	-	-	
Yellow Wagtail	<i>Motacilla flava</i>	Common	-	3	3	11	3	-	-	-	-	4	1	1	2	
Grey Wagtail	<i>Motacilla cinerea</i>	Common	-	-	3	1	-	-	-	-	-	-	-	-	2	
Olive-backed Pipit	<i>Anthus hodgsoni</i>	Common	-	2	-	-	-	-	-	-	-	-	-	-	1	
Scarlet Minivet	<i>Pericrocotus flammeus</i>	Common	-	-	-	3	-	-	-	-	-	-	-	-	-	
Common Stonechat	<i>Saxicola torquata</i>	Common	-	-	-	-	-	-	-	-	-	-	1	1	-	
Common Blackbird	<i>Turdus merula</i>	Common	-	-	-	-	-	-	-	-	-	-	4	-	-	

Common Name ⁽¹⁾	Scientific Name	Distribution in Hong Kong	Level of Concern ⁽²⁾	Abundance											
				Feb 10	Mar 10	Apr 10	May 10	Jun 10	Jul 10	Aug 10	Sep 10	Oct 10	Nov 10	Dec 10	Jan 11
Masked Laughingthrush	<i>Garrulax perspicillatus</i>	Abundant	-	2	7	7	3	9	2	1	2	1	2	-	5
Zitting Cisticola*	<i>Cisticola juncidis</i>	Common	LC	-	-	-	-	1	-	-	-	-	-	-	-
Yellow-bellied Prinia	<i>Prinia flaviventris</i>	Common	-	8	11	21	5	3	8	5	4	3	5	9	3
Plain Prinia	<i>Prinia inornata</i>	Common	-	-	1	2	1	2	1	1	1	-	-	-	-
Dusky Warbler	<i>Phylloscopus fuscatus</i>	Common	-	1	-	1	-	-	-	-	-	-	-	-	-
Pallas's Leaf Warbler	<i>Phylloscopus proregulus</i>	Common	-	1	-	-	-	-	-	-	-	-	-	-	-
Yellow-browed Warbler	<i>Phylloscopus inornatus</i>	Common	-	5	3	1	-	-	-	-	-	-	1	2	2
Grey-streaked Flycatcher	<i>Muscicapa griseisticta</i>	Uncommon	-	-	-	1	-	-	-	-	-	-	-	-	-
Great Tit	<i>Parus major</i>	Common	-	1	-	-	-	-	-	5	1	-	1	-	2
Fork-tailed Sunbird	<i>Aethopyga christinae</i>	Common	-	-	-	-	-	-	-	-	2	-	2	-	-
Japanese White-eye	<i>Zosterops japonica</i>	Abundant	-	14	5	8	2	-	38	2	17	7	3	13	11
Scaly-breasted Munia	<i>Lonchura punctulata</i>	Common	-	-	-	22	5	9	2	1	5	-	6	-	-
Common Myna	<i>Acridotheres tristis</i>	Uncommon	-	-	-	-	-	-	-	-	-	-	-	-	2
Black Drongo	<i>Dicrurus macrocercus</i>	Common	-	-	2	-	-	-	-	-	-	-	-	-	-
Common Magpie	<i>Pica pica</i>	Common	-	-	1	2	2	3	2	1	1	-	1	-	-

Note:

- Wetland-dependent species recorded with abundance during the baseline survey are bolded.
 - Fellowes *et al.* (2002): RC=Regional Concern; LC=Local Concern; PRC=Potential Regional Concern
Letters in parentheses indicate that the assessment is on the basis of restrictedness in breeding and/or roosting sites rather than in general occurrence.
- # Wetland-dependent species
* Species of conservation interest

Table 6 Total Number of Wetland-dependent Bird Species Recorded in Different Habitats in Wet and Dry Seasons

Common Name ⁽¹⁾	Scientific Name	Distribution in Hong Kong	Level of Concern ⁽²⁾	Abundance			
				Wet Season		Dry Season	
				Channel	Other Habitats#	Channel	Other Habitats#
Cattle Egret*	<i>Bubulcus ibis</i>	Common	(LC)	-	-	-	-
Chinese Pond Heron*	<i>Ardeola bacchus</i>	Common	PRC (RC)	11	1	8	-
White-breasted Waterhen	<i>Amauromis phoenicurus</i>	Common	-	5	-	17	2
Grey Heron*	<i>Ardea cinerea</i>	Common	PRC	-	-	1	-
Great Egret*	<i>Egretta alba</i>	Common	PRC (RC)	-	-	1	-
Little Egret*	<i>Egretta garzetta</i>	Common	PRC (RC)	3	-	28	1
Black-crowned Night Heron*	<i>Nycticorax nycticorax</i>	Common	(LC)	-	-	2	-
Black Kite*	<i>Milvus migrans</i>	Common	(RC)	1	-	3	1
Greater Painted-snipe*	<i>Rostratula benghalensis</i>	Passage migrant and winter visitor	LC	-	-	21	-
Green Sandpiper	<i>Tringa ochropus</i>	Uncommon	-	-	-	20	-
Wood Sandpiper*	<i>Tringa glareola</i>	Common	LC	2	-	25	-

Common Name ⁽¹⁾	Scientific Name	Distribution in Hong Kong	Level of Concern ⁽²⁾	Abundance			
				Wet Season		Dry Season	
				Channel	Other Habitats [#]	Channel	Other Habitats [#]
Common Sandpiper	<i>Actitis hypoleucos</i>	Common	-	-	-	7	-
Common Snipe	<i>Gallinago gallinago</i>	Common	-	3	-	3	-
White-throated Kingfisher*	<i>Halcyon smymensis</i>	Common	(LC)	-	1	-	-
No. of species:				6	2	12	3
No. of individuals:				25	2	136	4

Note:

- Wetland-dependent species recorded with abundance during the baseline survey are bolded.
 - Fellowes *et al.* (2002): RC=Regional Concern; LC=Local Concern; PRC=Potential Regional Concern
Letters in parentheses indicate that the assessment is on the basis of restrictedness in breeding and/or roosting sites rather than in general occurrence.
- * Species of conservation interest
"Other habitats" refer to habitats other than the channel, including the previously identified seasonal wetland

Table 7 Total Number of Bird Species (Other Than Wetland-dependent Species) Recorded in Different Habitats in Wet and Dry Seasons

Common Name	Scientific Name	Distribution in Hong Kong	Level of Concern ⁽¹⁾	Abundance			
				Wet Season		Dry Season	
				Channel	Other Habitats [#]	Channel	Other Habitats [#]
Spotted Dove	<i>Streptopelia chinensis</i>	Abundant	-	4	11	13	28
Barn Swallow	<i>Hirundo rustica</i>	Abundant	-	10	-	5	-
White Wagtail	<i>Motacilla alba</i>	Common	-	28	1	70	5
Red-whiskered Bulbul	<i>Pycnonotus jocosus</i>	Abundant	-	7	59	13	109
Chinese Bulbul	<i>Pycnonotus sinensis</i>	Abundant	-	6	11	6	56
Long-tailed Shrike	<i>Lanius schach</i>	Common	-	-	2	7	4
Oriental Magpie Robin	<i>Copsychus saularis</i>	Abundant	-	9	29	17	21
Common Tailorbird	<i>Orthotomus sutorius</i>	Common	-	-	9	-	14
Eurasian Tree Sparrow	<i>Passer montanus</i>	Abundant	-	18	41	12	41
Black-collared Starling	<i>Sturnus nigricollis</i>	Common	-	-	18	4	60
Crested Myna	<i>Acridotheres cristatellus</i>	Common	-	1	5	1	12
Besra	<i>Accipiter virgatus</i>	Scarce	-	-	1	-	-
Large Hawk Cuckoo	<i>Hierococcyx sparveriioides</i>	Common	-	-	2	-	-
Common Koel	<i>Eudynamys scolopacea</i>	Common	-	-	9	-	7
Greater Coucal	<i>Centropus sinensis</i>	Common	-	-	5	-	1
Yellow Wagtail	<i>Motacilla flava</i>	Common	-	13	1	14	-
Grey Wagtail	<i>Motacilla cinerea</i>	Common	-	1	-	5	-
Olive-backed Pipit	<i>Anthus hodgsoni</i>	Common	-	-	-	-	3
Scarlet Minivet	<i>Pericrocotus flammeus</i>	Common	-	-	3	-	-
Common Stonechat	<i>Saxicola torquata</i>	Common	-	-	-	1	1
Common Blackbird	<i>Turdus merula</i>	Common	-	-	-	-	4

Common Name	Scientific Name	Distribution in Hong Kong	Level of Concern ⁽¹⁾	Abundance			
				Wet Season		Dry Season	
				Channel	Other Habitats [#]	Channel	Other Habitats [#]
Masked Laughingthrush	<i>Garrulax perspicillatus</i>	Abundant	-	-	21	3	17
Zitting Cisticola*	<i>Cisticola juncidis</i>	Common	LC	-	1	-	-
Yellow-bellied Prinia	<i>Prinia flaviventris</i>	Common	-	1	36	-	48
Plain Prinia	<i>Prinia inornata</i>	Common	-	1	5	-	3
Dusky Warbler	<i>Phylloscopus fuscatus</i>	Common	-	-	1	-	1
Pallas's Leaf Warbler	<i>Phylloscopus proregulus</i>	Common	-	-	-	-	1
Yellow-browed Warbler	<i>Phylloscopus inornatus</i>	Common	-	-	1	-	13
Grey-streaked Flycatcher	<i>Muscicapa griseisticta</i>	Uncommon	-	1	-	-	-
Great Tit	<i>Parus major</i>	Common	-	-	2	-	10
Fork-tailed Sunbird	<i>Aethopyga christinae</i>	Common	-	-	-	-	4
Japanese White-eye	<i>Zosterops japonica</i>	Abundant	-	-	48	-	72
Scaly-breasted Munia	<i>Lonchura punctulata</i>	Common	-	36	-	6	6
Common Myna	<i>Acridotheres tristis</i>	Uncommon	-	-	-	-	2
Black Drongo	<i>Dicrurus macrocercus</i>	Common	-	-	-	-	2
Common Magpie	<i>Pica pica</i>	Common	-	-	9	1	3
No. of species:				14	25	16	28
No. of individuals:				136	331	178	548

Note:

- Fellowes *et al.* (2002): RC=Regional Concern; LC=Local Concern; PRC=Potential Regional Concern
Letters in parentheses indicate that the assessment is on the basis of restrictedness in breeding and/or roosting sites rather than in general occurrence.
- * Species of conservation interest
- # "Other habitats" refer to habitats other than the channel, including the previously identified seasonal wetland

Other Fauna Surveys

2.5.2 Surveys on other faunal groups were conducted from April to July 2010. The number of species and individuals recorded during the operation phase ecological monitoring period is summarized in **Table 8**. The species of other faunal groups and their abundance recorded during the monitoring period are summarized in **Table 9**. Details of the monitoring results were presented in the Monthly Operation Phase Ecological Monitoring Reports (Feb 2010 – Jan 2011).

Table 8 Summary of Number of Species and Individuals of Other Terrestrial Fauna Recorded during the Operation Phase Ecological Monitoring Period

	Abundance			
	Apr 2010	May 2010	Jun 2010	Jul 2010
Number of Species	15	18	17	22
Number of Individuals	125	98	133	221
Number of Species recorded in Channel	11	9	5	14
Number of Individuals recorded in Channel	65	55	75	170
Number of Species recorded in Other Habitats	8	10	14	15
Number of Individuals of	60	43	58	51

recorded in Other Habitats		
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Table 9 Terrestrial Fauna Recorded during the Operation Phase Ecological Monitoring Period

Common Name	Scientific Name	Distribution in Hong Kong	Level of Concern ⁽¹⁾	Abundance			
				Apr 2010	May 2010	Jun 2010	Jul 2010
Herpetofauna							
Asian Common Toad	<i>Bufo melanostictus</i>	Abundant	-	-	-	-	1 (road-killed)
Checkered Keelback	<i>Xenochrophis piscator</i>	Widely distributed	-	-	1	-	-
Dragonflies							
Common Bluetail	<i>Ischnura senegalensis</i>	Abundant	-	-	7	2	1
Common Red Skimmer	<i>Orthetrum pruinosum neglectum</i>	Abundant	-	1	19	28	69
Wandering Glider	<i>Pantala flavescens</i>	Abundant	-	2	-	15	17
Crimson Dropwing	<i>Trithemis aurora</i>	Abundant	-	2	-	-	1
Pale-spotted Emperor	<i>Anax guttatus</i>	Abundant	-	8	3	-	22
Common Flangetail	<i>Ictinogomphus pertinax</i>	Abundant	-	-	1	-	2
Asian Amberwing	<i>Brachythemis contaminata</i>	Abundant	-	-	-	-	7
Crimson Darter	<i>Crocothemis servilia servilia</i>	Abundant	-	1	10	26	15
Green Skimmer	<i>Orthetrum sabina sabina</i>	Common	-	11	13	18	37
Variegated Flutterer	<i>Rhyothemis variegata arria</i>	Common	-	-	2	3	-
Indigo Dropwing	<i>Trithemis festiva</i>	Abundant	-	-	-	-	1
Butterflies							
Common Bluebottle	<i>Graphium sarpedon sarpedon</i>	Common	-	1	-	-	-
Common Mormon	<i>Papilio polytes polytes</i>	Common	-	3	2	4	3
Lemon Emigrant	<i>Catopsilia pomona pomona</i>	Common	-	1	-	1	14
Common Grass Yellow	<i>Eurema hecabe hecabe</i>	Common	-	1	5	9	7
Pale Grass Blue	<i>Zizeeria maha serica</i>	Common	-	-	2	-	1
Dark Brand Bush Brown	<i>Mycalesis mineus mineus</i>	Common	-	-	-	-	1
Angled Castor	<i>Ariadne ariadne alterna</i>	Common	-	-	1	3	5
Great Mormon	<i>Papilio memnon agenor</i>	Common	-	-	-	-	1
Paris Peacock	<i>Papilio paris paris</i>	Common	-	-	1	-	-
Red-base Jezebel	<i>Delias pasithoe pasithoe</i>	Common	-	1	-	-	-
Indian Cabbage White	<i>Pieris canidia canidia</i>	Common	-	66	19	10	13
Great Orange Tip	<i>Hebomoia glaucippe glaucippe</i>	Common	-	-	1	6	1
Long-tailed Blue	<i>Lampides boeticus</i>	Common	-	3	9	-	1
Common Hedge Blue	<i>Acytolepis puspa gisca</i>	Common	-	22	-	-	-
Plum Judy	<i>Abisara echerius echerius</i>	Common	-	2	1	-	-
Common Palmfly	<i>Elymnias hypermnestra hainana</i>	Common	-	-	-	4	-
Common Five-ring	<i>Ypthima baldus baldus</i>	Common	-	-	-	1	-
Great Egg-fly	<i>Hypolimnas bolina kezia</i>	Common	-	-	-	1	-
Common Sailer	<i>Neptis hylas hylas</i>	Common	-	-	-	1	1

Common Name	Scientific Name	Distribution in Hong Kong	Level of Concern ⁽¹⁾	Abundance			
				Apr 2010	May 2010	Jun 2010	Jul 2010
Red Ring Skirt	<i>Hestina assimilis assimilis</i>	Common	-	-	1	1	-

Note:

1. Fellowes *et al.* (2002)

Aquatic Invertebrates and Fish Survey

- 2.5.3 Aquatic invertebrates and fish surveys were conducted in February, May, August and November 2010 during the monitoring period. A total of 10 taxa of aquatic invertebrates (dominated by Oligochaeta and Chironomidae) were recorded. All of them were tolerant to poor water quality. In addition, 2 fish species *Poecilia reticulata* and *Clarias* sp. were also recorded in the downstream, which was also tolerant to poor water quality (Table 10 refers).

Table 10 Freshwater Communities Recorded at KT15 during the Operation Phase Ecological Monitoring Period

Taxa	Species / Family Name	Common Name	Apr 2010		May 2010		Jun 2010		Jul 2010	
			F2	F1	F2	F1	F2	F1	F2	F1
Lower Invertebrates										
Oligochaeta			++++	+++	++++	++	++++	++	++++	++
Hydrachnida		Water Mites	+++		++		++			
Hirudinea		Leeches	++		++					
Snails										
Prosobranchia	<i>Pomacea canaliculata</i> (Ampullariidae)		+++							
	<i>Pomacea lineata</i> (Ampullariidae)				+++		+++		++	
	Viviparidae		++		++		++		++	
Pulmonata	<i>Physella acuta</i> (Physidae)			+++		+++		+++		
	Planorbidae		+++++	++	+++++	++	++++	++	+++	++
Insects										
Diptera (True flies)	Chironomidae	Non-biting midges		+++++		++++	++	++++	++	+++
	<i>Ptilomera tigrina</i>				++		+++	++	+	
Fishes										
	<i>Poecilia reticulata</i> (Poeciliidae)		++		+		+		++	
	<i>Clarias</i> sp. (Clariidae)				+++		+			

Note:

1. Locations of channel surveyed were shown in Figure 3.3.
2. F1=Upstream; F2=Downstream
3. Code of Abundance: +=Rare; ++=Occasional; +++=Common; ++++=Abundant; ++++=Dominant

- 2.5.4 Non-compliances with the ecological criteria were found in all reporting months throughout the operation phase ecological monitoring period. A summary of the exceedances is presented in **Table 11**.
- 2.5.5 Although the Limit Level regarding the number of species and/or individuals of wetland birds of conservation importance from baseline were breached in all reporting months, it was unrealistic to judge the Action and Limit Levels by decrease in the number of species or individuals of wetland-dependent species (as there were only 2 species of wetland-dependent birds recorded with abundance during the baseline study). In addition, the seasonal wetland area previously identified adjacent to KT15 has been changed to different habitat types such as grassland, village house and dry agricultural land. No seasonal wetland exists in the current survey area. The reduction in suitable wetland habitats for Cattle Egret and Chinese Pond Heron might have resulted in the exceedances.
- 2.5.6 Besides the 2 species of wetland birds reported with abundance in the baseline, 8 other wetland-dependent species of conservation importance (Grey Heron, Great Egret, Little Egret, Black-crowned Night Heron, Black Kite, Greater Painted-snipe, Wood Sandpiper and White-throated Kingfisher) were recorded along the channel during the operation phase ecological monitoring period. Therefore, KT15 was attractive to and utilized by other wetland birds. It was concluded that the exceedances were not caused by the operation of the channel. Implementation of specific action in the Event/Action Plan for Ecology was not required. KT15 with current management measures are attractive to wetland-dependent birds.
- 2.5.7 Meanwhile, Action Level regarding the number of species of other terrestrial fauna was breached in April 2010. The reduction in nearby wetland habitats and the disturbance from the nearby construction activities during the monitoring in April 2010 might have resulted in the exceedance. In addition, the channel demonstrated fair ecological function in terms of providing habitat for butterfly and dragonfly when compared with the surrounding habitats. A total of 65 individuals from 11 dragonfly and butterfly species were recorded along the channel in April 2010, where no dragonfly and similar number of butterfly species and individuals had been recorded in other habitats in April 2010 (**Table 12** refers). Therefore, KT15 was attractive to and utilized by other terrestrial fauna. It was concluded that the exceedance was not caused by the operation of the channel. Implementation of specific action in the Event/Action Plan for Ecology was not required.

Table 11 Summary of Exceedances during the Operation Phase Ecological Monitoring Period

Survey Period	Taxa	Parameters	Action Level	Limit Level	Exceedance	Implementation of Environmental Protection / Mitigation Measures
Feb 2010	Bird	No. of species	-	Breach	Limit Level	-
		No. of individuals	-	Breach	Limit Level	-
Mar 2010	Bird	No. of species	-	Breach	Limit Level	-
		No. of individuals	-	Breach	Limit Level	-
Apr 2010	Bird	No. of species	-	Breach	Limit Level	-
		No. of individuals	-	Breach	Limit Level	-
	Other surveyed faunal groups from baseline	No. of species	Breach	-	Action Level	Breach
		No. of individuals	-	-	-	-
May 2010	Bird	No. of species	-	Breach	Limit Level	-
		No. of individuals	-	Breach	Limit Level	-
	Other surveyed faunal groups from baseline	No. of species	-	-	-	-
		No. of individuals	-	-	-	-
Jun 2010	Bird	No. of species	-	Breach	Limit Level	-

Survey Period	Taxa	Parameters	Action Level	Limit Level	Exceedance	Implementation of Environmental Protection / Mitigation Measures
	Other surveyed faunal groups from baseline	No. of individuals	-	-	-	-
		No. of species	-	-	-	-
		No. of individuals	-	-	-	-
Jul 2010	Bird	No. of species	-	Breach	Limit Level	-
		No. of individuals	-	-	-	-
	Other surveyed faunal groups from baseline	No. of species	-	-	-	-
		No. of individuals	-	-	-	-
Aug 2010	Bird	No. of species	-	Breach	Limit Level	-
		No. of individuals	-	-	-	-
Sep 2010	Bird	No. of species	-	Breach	Limit Level	-
		No. of individuals	-	-	-	-
Oct 2010	Bird	No. of species	-	Breach	Limit Level	-
		No. of individuals	-	Breach	Limit Level	-
Nov 2010	Bird	No. of species	-	Breach	Limit Level	-
		No. of individuals	-	-	-	-
Dec 2010	Bird	No. of species	-	Breach	Limit Level	-
		No. of individuals	-	Breach	Limit Level	-
Jan 2011	Bird	No. of species	-	Breach	Limit Level	-
		No. of individuals	-	-	-	-

Table 12 Terrestrial Fauna Recorded during the Operation Phase Ecological Monitoring Period

Common Name	Scientific Name	Abundance							
		Apr 2010		May 2010		Jun 2010		Jul 2010	
		Channel	Other Habitats#	Channel	Other Habitats#	Channel	Other Habitats#	Channel	Other Habitats#
Herpetofauna									
Asian Common Toad	<i>Bufo melanostictus</i>	-	-	-	-	-	-	-	1
Checkered Keelback	<i>Xenochrophis piscator</i>	-	-	1	-	-	-	-	-
	No. of species:	0	0	1	0	0	0	0	1
	No. of individuals:	0	0	1	0	0	0	0	1
Dragonflies									
Common Bluetail	<i>Ischnura senegalensis</i>	-	-	5	2	-	2	-	1
Common Red Skimmer	<i>Orthetrum pruinosum neglectum</i>	1	-	19	-	28	-	69	-
Wandering Glider	<i>Pantala flavescens</i>	2	-	-	-	-	15	12	5
Crimson Dropwing	<i>Trithemis aurora</i>	2	-	-	-	-	-	1	-
Pale-spotted Emperor	<i>Anax guttatus</i>	8	-	3	-	-	-	22	-
Common Flangetail	<i>Ictinogomphus pertinax</i>	-	-	1	-	-	-	2	-
Asian Amberwing	<i>Brachythemis contaminata</i>	-	-	-	-	-	-	7	-
Crimson Darter	<i>Crocothemis servilia servilia</i>	1	-	10	-	26	-	15	-
Green Skimmer	<i>Orthetrum sabina sabina</i>	11	-	13	-	18	-	32	5
Variiegated Flutterer	<i>Rhyothemis variegata arria</i>	-	-	2	-	2	1	-	-

Common Name	Scientific Name	Abundance							
		Apr 2010		May 2010		Jun 2010		Jul 2010	
		Channel	Other Habitats [#]	Channel	Other Habitats [#]	Channel	Other Habitats [#]	Channel	Other Habitats [#]
Indigo Dropwing	<i>Trithemis festiva</i>	-	-	-	-	-	-	1	-
No. of species:		6	0	7	1	4	3	9	3
No. of individuals:		25	0	53	2	74	18	161	11
Butterflies									
Common Bluebottle	<i>Graphium sarpedon sarpedon</i>	1	-	-	-	-	-	-	-
Common Mormon	<i>Papilio polytes polytes</i>	1	2	-	2	1	3	2	1
Lemon Emigrant	<i>Catopsilia pomona pomona</i>	-	1	-	-	-	1	2	12
Common Grass Yellow	<i>Eurema hecabe hecabe</i>	-	1	-	5	-	9	1	6
Pale Grass Blue	<i>Zizeeria maha serica</i>	-	-	-	2	-	-	-	1
Dark Brand Bush Brown	<i>Mycalesis mineus mineus</i>	-	-	-	-	-	-	-	1
Angled Castor	<i>Ariadne ariadne alterna</i>	-	-	-	1	-	3	1	4
Great Mormon	<i>Papilio memnon agenor</i>	-	-	-	-	-	-	-	1
Paris Peacock	<i>Papilio paris paris</i>	-	-	1	-	-	-	-	-
Red-base Jezebel	<i>Delias pasithoe pasithoe</i>	-	1	-	-	-	-	-	-
Indian Cabbage White	<i>Pieris canidia canidia</i>	29	37	-	19	-	10	3	10
Great Orange Tip	<i>Hebomoia glaucippe glaucippe</i>	-	-	-	1	-	6	-	1
Long-tailed Blue	<i>Lampides boeticus</i>	2	1	-	9	-	-	-	1
Common Hedge Blue	<i>Acytolepis puspa gisca</i>	7	15	-	-	-	-	-	-
Plum Judy	<i>Abisara echerius echerius</i>	-	2	-	1	-	-	-	-
Common Palmfly	<i>Elymnias hypermnestra hainana</i>	-	-	-	-	-	4	-	-
Common Five-ring	<i>Ypthima baldus baldus</i>	-	-	-	-	-	1	-	-
Great Egg-fly	<i>Hypolimnas bolina kezia</i>	-	-	-	-	-	1	-	-
Common Sailer	<i>Neptis hylas hylas</i>	-	-	-	-	-	1	-	1
Red Ring Skirt	<i>Hestina assimilis assimilis</i>	-	-	-	1	-	1	-	-
No. of species:		5	8	1	9	1	11	5	11
No. of individuals:		40	60	1	41	1	40	9	39

[#] "Other habitats" refer to habitats other than the channel, including the previously identified seasonal wetland

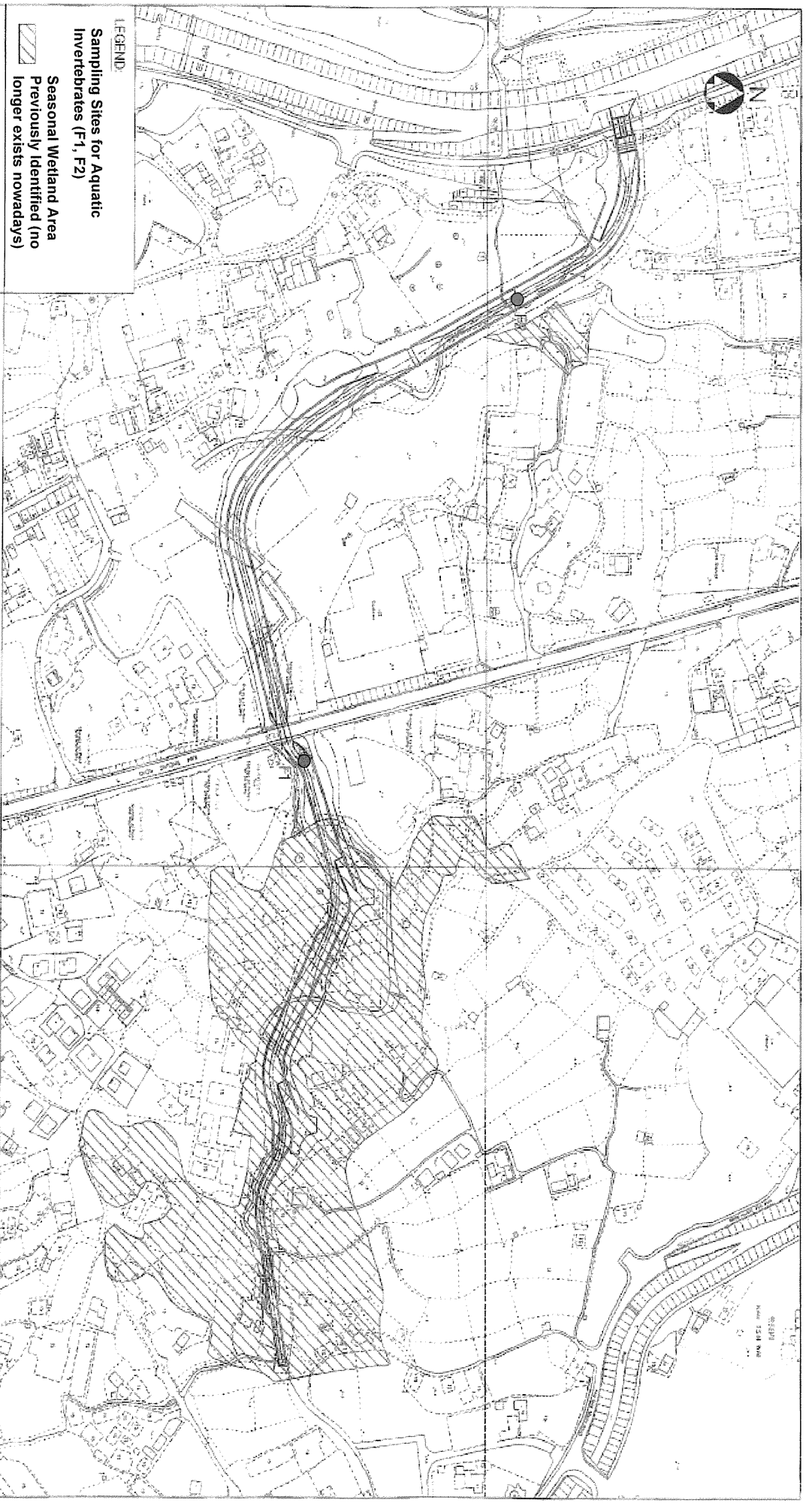
2.5.8 The specific channel lining designs as described in the Project Profile were implemented at design and construction stage (**Appendix 1** refers).

3 CONCLUSION

Monthly Operation Phase Ecological Monitoring was undertaken from February 2010 to January 2011 in conformance with the EM&A Manual for KT15. Non-compliances with the ecological criteria regarding the total number of wetland-dependent species (all reporting months) and total number of species of other terrestrial fauna (April 2010) were found. However, KT15 was attractive to and utilized by other wetland-dependent birds and terrestrial

fauna. The exceedances were not caused by the operation of the channel. Therefore, implementation of specific action in the Event/Action Plan for Ecology was not required.

Figures and Appendices



LEGEND:

Sampling Sites for Aquatic Invertebrates (F1, F2)

Seasonal Wetland Area Previously Identified (no longer exists nowadays)

NGAU TAI HEI AND TIN SHUI WAI
DRAINAGE IMPROVEMENT, STAGE 2B



BLACK & VEATCH HONG KONG LIMITED
黑域工程顧問有限公司

ECOLOGICAL MONITORING AREA KT15

Title :

Figure No.	3.3	Revision	0
Reference		File Name	SB204 70201-114.DGN
Prepared	AEC	Checked	WYC
Date	MAR. 2003	Scale	1 : 2000



Existing condition of KT15



Specific channel lining designs as described in the Project Profile



Specific channel lining designs as described in the Project Profile

	Contract No. DC/2006/02 Yuen Long, Kam Tin, Ngau Tam Mei and Tin Shui Wai Drainage Improvements, Stage 1, Phase 2B – Cheung Chun San Tsuen and Kam Tsin Wai	SCALE	N.T.S.	DATE	Apr-11
	Representative Photographs taken at KT15	CHECK	-	DRAWN	CMH
		JOB NO.	60023871	DRAWING No.	Appendix 1




Specific channel lining designs as described in the Project Profile



Specific channel lining designs as described in the Project Profile



Specific channel lining designs as described in the Project Profile

	Contract No. DC/2006/02 Yuen Long, Kam Tin, Ngau Tam Mei and Tin Shui Wai Drainage Improvements, Stage 1, Phase 2B – Cheung Chun San Tsuen and Kam Tsin Wai	SCALE	N.T.S.	DATE	Apr-11
	Representative Photographs taken at KT15	CHECK	-	DRAWN	CMH
		JOB NO.	60023871	DRAWING No.	Appendix 1



Specific channel lining designs as described in the Project Profile



Grassland within wetland area previously identified



Village house within wetland area previously identified

	Contract No. DC/2006/02 Yuen Long, Kam Tin, Ngau Tam Mei and Tin Shui Wai Drainage Improvements, Stage 1, Phase 2B – Cheung Chun San Tsuen and Kam Tsin Wai	SCALE	N.T.S.	DATE	Apr-11
	Representative Photographs taken at KT15	CHECK	-	DRAWN	CMH
		JOB NO.	60023871	DRAWING No.	Appendix 1



Village house within wetland area previously identified



Dry agricultural land within wetland area previously identified



Dry agricultural land within wetland area previously identified

	Contract No. DC/2006/02 Yuen Long, Kam Tin, Ngau Tam Mei and Tin Shui Wai Drainage Improvements, Stage 1, Phase 2B – Cheung Chun San Tsuen and Kam Tsin Wai	SCALE	N.T.S.	DATE	Apr-11
	Representative Photographs taken at KT15	CHECK	-	DRAWN	CMH
		JOB NO.	60023871	DRAWING No.	Appendix 1