Shatin to Central Link – Tai Wai to Hung Hom Section

Monthly EM&A Report No. 1

(October 2012)

Certified by: ____Richard Kwan

Position: Environmental Team Leader

Date: 11 October 2012

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Shatin to Central Link – Tai Wai to Hung Hom Section

Monthly EM&A Report No. 1

(October 2012)

Verified by: ______ Tom Chapman

Position: Independent Environmental Checker

Date: 11 10 12

AECOM

Consultancy Agreement No. C11033

Shatin to Central Link - Tai Wai to Hung Hom Section [SCL(TAW-HUH)]

Monthly EM&A Report No. 1

[Period from 1 to 30 September 2012]

	Name	Signature		
Prepared & Checked:	Joanne Tsoi	1.7.		
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Version:	A Date:	11 October 2012		
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1 INTRODUCTION

1.1 Background

- 1.1.1 Shatin to Central Link Tai Wai to Hung Hom Section [SCL (TAW-HUH)], is an approximately 11 km long extension of the Ma On Shan Line (MOL) and connects the existing West Rail Line (WRL) at Hung Hom, forming a strategic east-west rail corridor and Shatin to Central Link Stabling Sidings at Hung Hom Freight Yard [SCL (HHS)] is a proposed stabling sidings for SCL (TAW HUH) at the former freight yard in Hung Hom (hereafter referred to as "the Project").
- 1.1.2 The EIA Reports for SCL (TAW-HUH) (Register No.: AEIAR-167/2012) and SCL (HHS) (Register No.: AEIAR-164/2012) were approved on 17 February 2012 under the Environmental Impact Assessment Ordinance (EIAO). Following the approval of the EIA Reports, an Environmental Permit (EP) was granted on 22 March 2012 (EP No: EP-438/2012) for the construction and operation of the SCL (TAW-HUH) and SCL (HHS). Variations of environmental permit (VEP) was subsequently applied and the latest Environmental Permit (EP No: EP-438/2012/A) was issued by Director of Environmental Protection (DEP) on 12 July 2012.

1.2 **Project Programme**

1.2.1 Three civil construction works contracts of the Project have been awarded since July 2012. The construction of the Project commenced in September 2012 and is expected to complete in 2018. **Table 1.1** summarises the information of the awarded Works Contracts.

Works Contract	Description	Construction Start Date	Contractor	Environmental Team
1101	Mei Tin Road Noise Cover	To be constructed	Sun Fook Kong Joint Venture (SFKJV)	EDMS Consulting Ltd. (EDMS)
1108A	Kai Tak Barging Point Facilities	September 2012	Concentric – Hong Kong River Joint Venture (CCL-HKR JV)	Cinotech Consultants Ltd. (Cinotech)
1109	Stations and Tunnels of Kowloon City Section	September 2012	Samsung-Hsin Chong JV (SHJV)	ERM-Hong Kong Limited (ERM)

 Table 1.1
 Summary of Awarded Works Contract

1.3 Purpose of the Report

1.3.1 The Environmental Monitoring and Audit (EM&A) programme for the Project commenced in September 2012. This is the first EM&A Report for the Project which summarises the EM&A works undertaken by the respective Contractor's ET during the period from 1 to 30 September 2012.

2 ENVIRONMENTAL MONITORING AND AUDIT

- 2.1.1 The first EM&A Reports for Works Contracts 1108A and1109 prepared by the respective Contractor's ET is provided in **Appendices A** and **B**, respectively. The EM&A Reports provide details of the project information, EM&A requirements, impact monitoring and audit results for the corresponding Contracts.
- 2.1.2 A summary of the major construction activities undertaken by the respective Contractors of various Works Contracts during the reporting period are presented in **Table 2.1**.

Works	Site	Construction Activities
Contract		
1103 ⁽¹⁾	N/A	N/A
1106 ⁽¹⁾	N/A	N/A
1108A	Kai Tak Barging Point Facilities (off-site temporary works area)	General site clearance
1109	Ma Tau Wai (MTW) Works Area	 Underneath Kowloon East Corridor – site clearance, diversion of existing utilities, road drainage construction, cross road ducting; Removal of central divider along Ma Tau Wai Road – removal of the existing concrete divider; MTW/TKW Road Garden – install and connect water supply for demolishing existing public toilet, tree felling, preparation for transplanting and predrilling for diaphragm wall panel.
	To Kwan Wan (TKW) Works Area	 Site preparation works - erection of site fencing & hoarding and site clearance.
1111 ⁽¹⁾	N/A	N/A

Table 2.1 Summary of Major Construction Activities in the R

Note:

(1) Construction works under the contract have yet to commence

N/A Not applicable

- 2.1.3 Impact monitoring for air quality and noise were conducted in accordance with the EM&A Manual in the reporting period. No exceedance of the Action/Limit Levels of 24-hr TSP and construction noise due to the Project construction was recorded during the reporting period. The air quality and construction noise results for this reporting month are summarized in **Tables 2.2** to **2.3**. Details of the monitoring requirements, locations, equipment, methodology and QA/QC Procedures are presented in the EM&A Reports as provided in **Appendices A** and **B**.
- 2.1.4 Since the construction works that have been identified by the Construction Noise Mitigation Measures Plan (CNMMP) to be potentially causing exceedance of noise criteria have yet to commence, continuous noise monitoring was not conducted in the reporting period. No water quality monitoring was carried out as no dredging activity was undertaken during the reporting month.
- 2.1.5 No environmental notification of summon, prosecution and valid complaint were received in the reporting period.
- 2.1.6 Regular site inspections were conducted by the respective Contractor's ET on a weekly basis to check the implementation of environmental pollution control and mitigation measures for the Project. No non-conformance was identified in the reporting period.

Monitoring Station ID	Location	TSP Concentration (μg/m³)	Action Level (μg/m³)	Limit Level (µg/m ³)	Exceedance due to the Project Construction (Yes/No)
Works Cont	ract 1103 ⁽¹⁾				
DMS-1	C.U.H.K.A.A. Thomas Cheung School	N/A	N/A	260	N/A
DMS-2	Price Memorial Catholic Primary School	N/A	N/A	260	N/A
Works Cont	ract 1106 ⁽¹⁾				
DMS-3	Hong Kong S.K.H Nursing Home ⁽²⁾	N/A	N/A	260	N/A
DMS-4	Block 1, Rhythm Garden	N/A	N/A	260	N/A
DMS-5	Block 1, Rhythm Garden ⁽³⁾	N/A	N/A	260	N/A
Works Cont	ract 1108A ⁽⁸⁾				
Works Cont	ract 1109				
DMS-6	No. 420 Prince Edward Road West ⁽⁴⁾	_(7)	156.8	260	_(7)
DMS-7	Parc 22 ⁽⁵⁾	_(7)	166.7	260	_(7)
DMS-8	SKH Good Shepherd Primary School	80 – 90	152.2	260	No
DMS-9	No. 26 Kowloon City Road ⁽⁶⁾	79 – 86	160.9	260	No
DMS-10	Chat Ma Mansion	80 - 88	170.4	260	No
Works Cont	ract 1111 ⁽¹⁾				
DMS-11	Wing Fung Building	N/A	N/A	260	N/A

Table 2.2	Summary o	f 24-Hour TS	P Monitoring	g Results in t	he Reporting	Period
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Note:

(1) Construction works under the contract have yet to commence

(2) Alternative monitoring location to Shek On House
(3) Alternative monitoring location to Canossa Primary School (San Po Kong)

(4) Alternative monitoring location to Prosperity House
(5) Alternative monitoring location to Skytower Tower 2

(6) Alternative monitoring location to Lucky Building

(7) No construction dust was conducted at DMS-6 and DMS-7 as construction works have not started in the To Kwa Wan (TKW) works area in the reporting period

(8) No TSP monitoring is required under this contract

N/A Not applicable

Table 2.3 Summary of Construction Noise Monitoring Results in the Reporting Period

Monitoring	Location	Location Noise Level (L _{Aeq} , _{30mins} , dB(A))		Limit Level	Exceedance due to the	
Station ID		Measured	Baseline	Corrected ⁽⁸⁾	(dB(A))	Project Construction (Yes/No)
Works Contr	act 1103 ⁽¹⁾					
NMS-CA-1	C.U.H.K.A.A. Thomas Cheung School	N/A	N/A	N/A	70 65 during examination period	N/A
NMS-CA-2	Price Memorial Catholic Primary School	N/A	N/A	N/A	70 65 during examination period	N/A
Works Contr	act 1106 ⁽¹⁾					
NMS-CA-3	Hong Kong S.K.H Nursing Home ⁽²⁾	N/A	N/A	N/A	75	N/A
NMS-CA-4	Block 1, Rhythm Garden	N/A	N/A	N/A	75	N/A
NMS-CA-5	Block 1, Rhythm Garden ⁽³⁾	N/A	N/A	N/A	75	N/A
Works Contr	act 1108A ⁽⁷⁾					
Works Contr	act 1109					
NMS-CA-6	No. 420 Prince Edward Road West ⁽⁴⁾	_(6)	76	- ⁽⁶⁾	75	_(6)
NMS-CA-7	Skytower Tower 2	-(6)	70	- ⁽⁶⁾	75	_(6)
NMS-CA-8	SKH Good Shepherd Primary School	73.5 – 75.3	75	63.5	70 65 during examination period	No
NMS-CA-9	Kong Yiu Mansion ⁽⁵⁾	71.3 – 71.6	69	67.4–68.1	75	No
NMS-CA-10	Chat Ma Mansion	74.9 – 76.9	77	- ⁽⁹⁾	75	No
Works Contr	act 1111 ⁽¹⁾					
MMS-CA-11	Wing Fung Building	N/A	N/A	N/A	75	N/A

Note:

(1) Construction works under the contract have yet to commence

(2) Alternative monitoring location to Shek On House

(3) Alternative monitoring location to Canossa Primary School (San Po Kong)

(4) Alternative monitoring location to Prosperity House

(5) Alternative monitoring location to Lucky Building

(6) No construction noise monitoring was conducted at NMS-CA-6 and NMS-CA-7 as construction works have not started in the TKW works area in the reporting period

(7) No construction noise monitoring is required under this contract

(8) Measured noise level is corrected against the corresponding baseline Level

(9) No correction was made as the measured noise levels were below the baseline noise levels

N/A Not applicable

3 IMPLEMENTATION STATUS ON THE ENVIRONMENTAL PROTECTION REQUIREMENTS

3.1.1 The respective Contractors have implemented all mitigation measures and requirements as stated in the EIA Reports, EM&A Manuals and EP (EP-438/2012/A). The status of required submissions under the EP as of the reporting period is summarized in **Table 3.1**.

EP Condition	Submission	Submission date
(EP-438/2012/A)		
Condition 1.12	Notification of Commencement Date of Construction of the Project	1 Aug 2012
Condition 2.3	Notification of Information of Community Liaison Groups	13 Jul 2012 (1 st submission) 31 Aug 2012 (2 nd submission)
Condition 2.7	Management Organisation of Main Construction Companies	27 Jul 2012 (1 st submission) 21 Aug 2012 (2 nd submission)
Condition 2.8	Construction Programme and EP Submission Schedule	27 Jul 2012
Condition 2.9	Construction Noise Mitigation Measures Plan (CNMMP)	1 Aug 2012 (1 st submission) 28 Sep 2012 (2 nd submission)
Condition 2.10	Continuous Noise Monitoring Plan (CNMP)	1 Aug 2012 (1 st submission) 28 Sep 2012 (2 nd submission)
Condition 2.11	Construction and Demolition Materials Management Plan (C&DMMP)	6 Jul 2012 (1st submission) 12 Sep 2012 (2 nd submission)
Condition 2.12	Sediment Management Plan	6 Jul 2012 (1st submission) 12 Sep 2012 (2 nd submission)
Condition 2.13	Visual, Landscape, Tree Planting & Tree Protection Plan	6 Jul 2012 (1st submission) 30 Aug 2012 (2 nd submission)
Condition 2.14	Transplantation Proposal for Plant Species of Conservation Importance	22 Aug 2012 (1 st submission)
Condition 2.16	Archaeological Action Plan(s) (AAP(s))	10 Aug 2012 (1 st submission) 3 Sep 2012 (2 nd submission)
Condition 2.23	Supplementary Contamination Assessment Report for New Territories South Animal Centre	28 Sep 2012
Condition 3.3	Baseline Monitoring Report (Works Contract 1109 - Stations and Tunnels of Kowloon City Section)	27 Jul 2012
Condition 3.3	Baseline Monitoring Report (Works Contract 1108A – Kai Tak Barging Point Facilities)	31 Jul 2012

 Table 3.1
 Summary of Status of Required Submissions

Appendix A

1st EM&A Report for Works Contract 1108A – Kai Tak Barging Point Facilities

Shatin to Central Link – Tai Wai to Hung Hom Section

Monthly EM&A Report No. 1

Works Contract 1108A – Kai Tak Barging Point Facilities

(September 2012)

Certified by: _	Chuphit	

Position: Contractor's Environmental Team Leader

Date: 11th October 2012

Concentric – Hong Kong River Joint Venture

Shatin to Central Link – Contract 1108A Kai Tak Barging Point Facilities

Monthly Environmental Monitoring and Audit Report for September 2012

(Version 3.0)

Certified By	Chynt
	(Contractor's Environmental Team Leader)
REMARKS:	

The information supplied and contained within this report is, to the best of our knowledge, correct at the time of printing.

CINOTECH accepts no responsibility for changes made to this report by third parties.

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EXECUTIVE SUMMARY

Introduction

 This is the 1st monthly Environmental Monitoring and Audit (EM&A) Report prepared by Cinotech Consultants Limited for MTR Contract no. 1108A "Shatin to Central Link - Kai Tak Barging Point Facilities". This report documents the findings of EM&A Works conducted in September 2012.

Summary of Construction Works undertaken during Reporting Month

- 2. The major site activities undertaken in the reporting month included:
 - General site clearance.

Environmental Monitoring and Audit Progress

- 3. A summary of the monitoring activities in this reporting period is listed below:
 - Water Quality Monitoring at each monitoring station......Nil

Water Quality

4. No water quality monitoring was carried out as no dredging activity was conducted during the reporting month.

Waste Management

5. Wastes generated from this Project include inert construction and demolition (C&D) materials and non-inert C&D materials. A total of 111 m³ of inert C&D materials and 285 m³ of non-inert C&D materials were generated during the reporting period. No chemical wastes were generated during the reporting period. Non-inert C&D materials are made up of general refuse, steel materials and paper/cardboard packaging materials.

Environmental Site Inspection

6. A monthly joint environmental site inspection was carried out by the representatives of the Contractor, the IEC and the ET. Details of the audit findings and implementation status are presented in Section 6.

Ecology/Landscape and Visual

7. Details of the audit findings and implementation status on Ecology/Landscape and Visual are presented in Section 6.

Environmental Exceedance/Non-conformance/Complaint/Summons and Prosecution

8. Summary of the events and action taken and key information in the reporting month is tabulated in **Table I** and **Table II** respectively.

Table I Summ	Summary Table for Events Recorded in the Reporting Month			
Parameter	No. of Exceedance		Action Taken	
	Action Level Limit Level			
Water Quality Monitoring	N/A	N/A	N/A	

Table II Summary Table for Key Information in the Reporting Month

Evont	Event Details		Action Takon	Status	Domont	
Event	Number	Nature	ACTION TAKEN	Status	кешагк	
Complaint received	0		N/A	N/A		
Changes to the assumptions and key construction / operation activities recorded	0		N/A	N/A		
Notifications of any summons & prosecutions	0		N/A	N/A		

Future Key Issues

- 9. Major site activities for the coming reporting month will include:
 - Borehole drilling for ground investigation;
 - Construction of pile foundation;
 - Erection of site hoardings;
 - Seabed dredging; and
 - Site formation and construction of concrete pavement.

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Cinotech

1 INTRODUCTION

1.1 Cinotech Consultants Limited (Cinotech) was appointed by Concentric – Hong Kong River JV as the Environmental Team (ET) to undertake the Environmental Monitoring and Audit (EM&A) programme during construction phase of the MTR Shatin to Central Link Works Contract 1108A –Kai Tak Barging Point Facilities (hereafter referred to the Project).

Purpose of the report

1.2 This is the first EM&A report which summarises the impact monitoring results and audit findings for the EM&A programme during the reporting period from 1 September to 30 September 2012.

Structure of the report

1.3 The structure of the report is as follows:

Section 1: Introduction - details the scope and structure of the report.

Section 2: **Project Information** - summarises background and scope of the project, site description, project organization and contact details, construction programme, the construction works undertaken and the status of Environmental Permits/Licenses during the reporting period.

Section 3: **Environmental Monitoring Requirement -** summarises the monitoring parameters, monitoring programmes, monitoring methodologies, monitoring frequency, monitoring locations, Action and Limit Levels, Event / Action Plans, environmental mitigation measures as recommended in the EIA report and relevant environmental requirements.

Section 4: Implementation Status on Environmental Mitigation Measures summarises the implementation of environmental protection measures during the reporting period.

Section 5: **Monitoring Results** - summarises the monitoring results obtained in the reporting period.

Section 6: Environmental Site Inspection - summarises the audit findings of the weekly site inspections undertaken within the reporting period.

Section 7: **Environmental Non-conformance** - summarises any monitoring exceedance, environmental complaints and environmental summons within the reporting period.

Section 8: **Future Key Issues -** summarises the impact forecast and monitoring schedule for the next three months.

Section 9: Conclusions and Recommendation

2 PROJECT INFORMATION

Background

- 2.1 The Shatin to Central Link Tai Wai to Hung Hom Section (hereafter referred to as SCL (TAW-HUH)) is an approximately 11 km long extension of the Ma On Shan Line and links up with the West Rail Line at Hung Hom forming a strategic east-west rail corridor. It is a Designated Project under the Environmental Impact Assessment Ordinance (Cap. 499) (EIAO).
- 2.2 The construction of the SCL (TAW-HUH) has been divided into a series of civil construction Works Contracts. In addition to the temporary work site in the vicinity of the tunnel and station structures, there are some off-site temporary works sites/areas to facilitate the construction process. This Works Contract 1108A is one of the off-site temporary works sites covers the construction and operation of barging facilities.

General Site Description

2.3 The site layout plan is presented in **Figure 1**.

Construction Programme and Activities

- 2.4 A summary of the major construction activities undertaken in this reporting period is shown as follows. The tentative construction programme is presented in **Appendix I**.
 - General site clearance.

Project Organisation

- 2.5 Different parties with different levels of involvement in the project organization include:
 - Engineer or Engineer's Representative (ER) MTR Corporation (MTRC)
 - Contractor's Environmental Team (ET) Cinotech Consultants Ltd. (Cinotech)
 - Independent Environmental Checker (IEC) Meinhardt Infrastructure & Environment Ltd. (Meinhardt)
 - Contractor Concentric Hong Kong River Joint Venture (CCL-HKR JV)

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2.6 The responsibilities of respective parties are detailed in Section 3 of the SCL (TAW-HUH) EM&A Manual.

2.7 The project organisation chart is shown as follows:



2.8 The key contacts of the Project are shown in **Table 2.1**.

Party	Role	Name	Position	Phone No.	Fax No.	
	ER	Mr. Peter IP	Construction Manager	3507 6889	2334 0323	
MTRC	Environmental Team	Mr. Richard KWAN	SCL Project Environmental Team Leader	2688 1283	2993 7577	
	Contractor's	Dr. Priscilla CHOY	Contractor's ET Leader	2151 2089		
Cinotech	Cinotech	Environmental Team	Ms. Ivy TAM	Project Coordinator and Audit Team Leader	2151 2090	3107 1388
Meinhardt	Independent	Mr. Tom CHAPMAN	Independent Environmental Checker	2858 0738	2540 1580	
	Meinnardt	Checker	Mr. Fredrick LEONG	Deputy Independent Environmental Checker	2859 1739	2540 1580
CCL HVD		Mr. T.S. LAM	Construction Manager	9655 5486		
JV	Contractor	Mr. C.Y. WONG	Environmental Officer	9199 3188	2398 8301	
		Ms. Jane ZHU	Quality Engineer	6207 3974		

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Table 2.1 Key Contacts of the Project

Status of Environmental Licences, Notification and Permits

2.9 A summary of the relevant permits, licences, and/or notifications on environmental protection for this Project is presented in **Table 2.2**.

Table 2.2 Status of Environmental Licences, Notification and Permits

Downit / Licongo No	Valid	Status	
Permit / License no.	From	То	Status
Environmental Permit (EP)			
EP-438/2012/A	12/7/2012	N/A	Valid
Consruction Noise Permit (CNP	')	•	
GW-RE0754-012	24/09/2012	23/03/2013	Valid
Notification pursuant to Air Pol	lution Control (Const	truction Dust) Regu	lation
N/A	22/08/2012	N/A	Receipt acknowledged by
			EPD
Billing Account for Construction	n Waste Disposal		
A/C# 7015860	29/08/2012	N/A	Valid
Registration of Chemical Waste	Producer		
WPN5213-286-C3752-01	17/09/2012	N/A	Valid

Note: Application of effluent discharge license for proposed discharge at barging point site has been submitted to EPD on 21/09/2012 and is under processing.

Summary of EM&A Requirements

- 2.10 The EM&A programme under 1108A require construction phase water quality monitoring as well as environmental site audits. The EM&A requirements are described in the following sections, including:
 - All monitoring parameters;
 - Action and Limit levels for all environmental parameters;
 - Event / Action Plans;
 - Environmental mitigation measures, as recommended in the project EIA study final report; and
 - Environmental requirements in contract documents.
- 2.11 The advice on the implementation status of environmental protection and pollution control/mitigation measures is summarized in Section 6 of this report.
- 2.12 This report presents the monitoring results, observations, locations, equipment, period, methodology and QA/QC procedures of the required monitoring parameters, namely water quality as well as audit works for the Project in the reporting month.

3 ENVIRONMENTAL MONITORING REQUIREMENTS

Water Quality Monitoring

Monitoring Location

3.1 In accordance with the EM&A Manual, marine water quality monitoring should be carried out while dredging activities are conducting. The water quality monitoring stations and control stations of Project are shown in **Figure 2**. The co-ordinates of the proposed monitoring stations (construction phase – dredging activities) are listed in **Table 3.1**. As shown in **Figure 2**, the proposed locations are classified as Impact Station and Control Station according to their functions.

Table 5.1 Water Quanty Monitoring Stations					
Station	Description	East	North	Parameters to be measured	
IS-1 ⁽¹⁾	Impact Station for Dredging Activities	838499	819333	DO, Turbidity, SS	
CS-1	Control Station for IS-1	838170	818903	DO, Turbidity, SS	
CS-2	Control Station for IS-1	838912	818997	DO, Turbidity, SS	

 Table 3.1
 Water Quality Monitoring Stations

Note: (1) As per Baseline Monitoring Report under consultancy agreement No. NEX/2213, there was a slight adjustment for the monitoring station IS-1 due to the site constraint as the original monitoring location (Easting: 838450, Northing: 819399) has been occupied by barges/dredgers of other projects.

Monitoring Parameters, Frequency and Programme

3.2 Water quality monitoring was conducted in accordance with the requirements stipulated in the approved SCL(TAW-HUH) EM&A Manual. **Table 3.2** summarized the monitoring frequency and water quality parameters for the impact monitoring. The monitoring schedule for the next reporting period is shown in **Appendix B**.

Fable 3.2	Water Quality	Impact Monitoring	g Programme

	Impact Monitoring
Monitoring Period	During dredging period
Monitoring Frequency	3 Days in a Week, at mid-flood and mid-ebb tides
Monitoring Locations	IS-1, CS-1, CS-2
Monitoring Parameters	DO, temperature, turbidity, pH, salinity and SS
Intervals between 2 Sets of Monitoring	Not less than 36 hours
Tide Range	Individual flood and ebb tides not less than 0.5m

Monitoring Equipment and Methodology

Dissolved Oxygen and Temperature Measuring Equipment

- 3.3 The instrument should be portable and weatherproof dissolved oxygen (DO) measuring instrument complete with cable and sensor, and use a DC power source. The equipment should be capable of measuring:
 - a DO level in the range of 0 20 mg/ L and 0 200% saturation; and
 - a temperature of 0 45 degree Celsius.
- 3.4 The equipment should have a membrane electrode with automatic temperature compensation complete with a cable.

3.5 Should salinity compensation not be built-in to the DO equipment, in-situ salinity should be measured to calibrate the DO equipment prior to each DO measurement.

Turbidity Measurement Instrument

3.6 The instrument should be a portable and weatherproof turbidity measuring instrument using a DC power source. It should have a photoelectric sensor capable of measuring turbidity between 0 - 1000 NTU (for example, Hach model 2100P or an approved similar instrument).

Water Sampler

3.7 A water sampler is required for SS monitoring. It should comprise a PVC cylinder, with a capacity of not less than 2 litres, which can be effectively sealed with latex cups at both ends. The sampler should have a positive latching system to keep it open and prevent premature closure until released by a messenger when the sampler is at the selected water depth (for example, Kahlsico Water Sampler or an approved similar instrument).

Water Depth Detector

3.8 A portable, battery-operated echo sounder should be used for the determination of water depth at each designated monitoring station. This unit can either be hand held or affixed to the bottom of the work boat, if the same vessel is to be used throughout the monitoring programme.

Salinity Measuring Equipment

3.9 A portable salinometer capable of measuring salinity in the range of 0 - 40 parts per thousand (ppt) should be provided for measuring salinity of the water at each monitoring location.

pH Measuring Equipment

3.10 A portable pH meter capable of measuring a range between 0.0 and 14.0 shall be provided to measure pH under the specified conditions (e.g., Orion Model 250A or an approved similar instrument).

Sample Containers and Storage

3.11 Water samples for SS determinations should be stored in high density polythene bottles with no preservative added, packed in ice (cooled to 4°C without being frozen) and shipment to the testing laboratory. The samples shall be delivered to the laboratory within 24 hours of collection and be analysed as soon as possible after collection.

Position Equipment

3.12 A hand-held or boat-fixed type digital Differential Global Positioning System (DGPS) with way point bearing indication and Radio Technical Commission for maritime (RTCM) Type 16 error message 'screen pop-up' facilities (for real-time auto-display of error messages and DGPS corrections from the Hong Kong Hydrographic Office), or other equipment instrument of similar accuracy, should be provided and used during marine water monitoring to ensure the monitoring vessel is at the correct location before taking measurements.

Calibration of In-Situ Instruments

3.13 The pH meter, DO meter and turbidimeter shall be checked and calibrated before use. DO meter and turbidimeter shall be certified by a laboratory accredited under HOKLAS or any other international accreditation scheme, and subsequently re-calibrated at 3

monthly intervals throughout all stages of the water quality monitoring. Responses of sensors and electrodes should be checked with certified standard solutions before each use. Wet bulb calibration for a DO meter shall be carried out before measurement at each monitoring location.

Back-up Equipment and Vessels

- 3.14 Sufficient stocks of spare parts shall be maintained for replacements when necessary. Backup monitoring equipment shall also be made available so that monitoring can proceed uninterrupted even when some equipment is under maintenance, calibration, malfunction, etc.
- 3.15 The water quality monitoring will involve three monitoring stations and measurements should be conducted within the prescribed tidal conditions in order to ensure the measurement/samples are representative. A multi-probe monitoring equipment set integrated with water sampler(s) is highly recommended to improve the monitoring efficiency. Depending on the actually operation, more than one field survey vessels might be required simultaneously to ensure the monitoring are conducted within the acceptable monitoring period. The ET shall also consider the use of unattended automatic sampling/monitoring devices at fixed stations where monitoring are required throughout the construction period. The use of such unattended automatic devices, however, shall be subject to the approval of the ER, IEC and EPD.

Laboratory Measurement / Analysis

3.16 At least 3 replicate samples from each independent sampling event are required for the suspended solids measurement which shall be carried in a HOKLAS or international accredited laboratory. Sufficient water samples shall be collected at the monitoring stations for carrying out the laboratory measurement and analysis. The laboratory determination work shall start within 24 hours after collection of the water samples. The analysis for SS is summarized in **Table 3.3**.

Table 3.3Laboratory a	nalysis for SS	
-----------------------	----------------	--

Parameters	Analytical Method	Reporting Limit
Suspended Solid (SS)	APHA 2540-D	0.1 mg/L

Action and Limit Levels

3.17 The action and limit levels for water quality monitoring are presented in Appendix A.

Event and Action Plan

3.18 Should non-compliance of the criteria occur, action in accordance with the Event and Action Plan in **Appendix E** shall be carried out.

Cultural Heritage

- 3.19 According to the location of the Project and EIA report, there are no terrestrial archaeological resources and built heritage resources in vicinity of the Project. Archaeological monitoring works and the implementation of mitigation measures during the construction and operation phases of the Project is, therefore, not required.
- 3.20 However, the Contractor shall allow a 25m separation distance between the proposed dredging area and the Kowloon Rock as specified in the approved SCL(TAW-HUH) EIA Report.

Landscape and Visual

3.21 In accordance with the EM&A Manual, the landscape and visual mitigation measures shall be implemented and a site inspection shall be conducted once every two weeks throughout the construction period. The implementation status is summarised in Table 6.1 of Section 6.

Ecology

3.22 In accordance with the EM&A Manual, weekly site audits should be conducted by the ET during construction phase of the Project to check the recommended mitigation measures should be properly implemented.

4 IMPLEMENTATION STATUS ON ENVIRONMENTAL PROTECTION REQUIREMENTS

4.1 The Contractor has implemented environmental mitigation measures and requirements as stated in the EIA Report, the Environmental Permit and EM&A Manual. The implementation status of the environmental mitigation measures during the reporting period is summarized in **Appendix F**. Status of required submissions under the Environmental Permit (EP) during the reporting period is presented in **Table 4.1**.

Event	Event Details		A ation Takan	Statura	Damardı
Event	Number	Nature	Action Taken	Status	кешагк
Status of submissions under EP	0	N/A	N/A	N/A	

Table 4.1 Status of Required Submissions under EP

5 MONITORING RESULTS

Water Quality

- 5.1 No water quality monitoring was carried out at the monitoring stations as the dredging activity was not commenced during the reporting period.
- 5.2 Action and Limit Levels for water quality monitoring were established in the baseline water quality monitoring conducted by MTR between 16 June 2012 and 14 July 2012 under consultancy agreement no. NEX/2213. Action and Limit Levels for water quality is summarised in **Appendix A**.
- 5.3 No water quality monitoring was carried out during the reporting period.

Waste Management

5.4 Waste generated from this Project includes inert construction and demolition (C&D) materials, non-inert C&D materials and dredging materials. Non-inert C&D materials are made up of general refuse, steel and paper/cardboard packaging materials. Steel materials generated from the project are also grouped into non-inert C&D materials as the materials were not disposed of with other inert C&D materials. With reference to relevant handling records and trip tickets of this Project, the quantities of different types of waste generated in the reporting month are summarised in **Table 5.1**. No paper/cardboard packaging, plastics and steel material were generated during the reporting period. Detail of waste management data is presented in **Appendix G**.

Reporting	Quantity						
Month	C&D	C&D Dredging		Dredging Chemical		led mater	rials
	Materials M (inert) ^(a) (i	Materials (non- inert) ^(b)	Quantity (in bulk volume)	Waste	Paper/ cardboard	Plastics	Metals
September 2012	$111 m^3$	$285 m^3$	$0 m^3$	0 <i>L</i>	0 <i>kg</i>	0 kg	0 kg

Table 5.1 Quantities of Waste Generated from the Project

Notes:

(a) Inert C&D materials include bricks, concrete, building debris, rubble and excavated soil.

(b) Non-inert C&D materials include steel, paper/cardboard packaging waste, plastics and other wastes such as general refuse. Steel materials generated from the project are grouped into non-inert C&D materials as the materials were not disposed of with other inert C&D materials.

Landscape and Visual

5.5 The observations and recommendations made during the audit sessions are summarized in **Table 6.1**.

Ecology

5.6 The observations and recommendations made during the audit sessions are summarized in **Table 6.1**.

6 **ENVIRONMENTAL SITE INSPECTION**

Site Audits

- 6.1 Site audits were carried out by ET on weekly basis to monitor the timely implementation of proper environmental management practices and mitigation measures in the Project site. The summaries of site audits are attached in Appendix D.
- Site audits were conducted on 3rd, 12th, 17th and 24th September 2012 by ET. A joint site 6.2 audit with the representative with IEC, ER, the Contractor and the ET was carried out on 12th September 2012. No site inspection was conducted by EPD during the reporting month. The details of observations during site audit can refer to Table 6.1.

Implementation Status of Environmental Mitigation Measures

- 6.3 According to the EIA Study Report, Environmental Permit and the EM&A Manual of the Project, the mitigation measures detailed in the documents are recommended to be implemented during the construction phase. An updated summary of the EMIS is provided in Appendix F.
- 6.4 During site inspections in the reporting month, no non-conformance was identified. The observations and recommendations made during the audit sessions are summarized in Table 6.1.

Parameters	Date	Observations and Recommendations	Follow-up	
Water Quality	17 Sep 2012	<u>Reminder:</u> Properly manage the site boundary to avoid surface runoff into the sea.	The observation was observed to be rectified by the Contractor during the audit session on 24 Sep 2012.	
Noise				
Ecology/Lan dscape and Visual	3 Sep 2012	<u>Reminder:</u> Fencing should be provided for protecting the retained tree.	The observation was observed to be rectified by the Contractor during the audit session on 12 Sep 2012.	
Air Quality	12 Sep 2012	<u>Reminder:</u> Adequate air quality mitigation measures should be provided at dust-generating construction works.	The observation was observed to be rectified by the Contractor during the audit session on 17 Sep 2012.	
Waste / Chemical Management				
Permits/Lice nses	3 Sep 2012	<u>Reminder:</u> Environmental Permit should be displayed conspicuously on site.	The observation was observed to be rectified by the Contractor during the audit session on 12 Sep 2012.	
IFC's abservation/recommendation.				

Table 6.1 **Observations and Recommendations of Site Audit**

observation/recommendation:

During the joint site audit on 12 Sep 2012, IEC's representative recommended to provide sand bags along the site boundary to de-site/avoid any muddy water into the sea.

7 ENVIRONMENTAL NON-CONFORMANCE

Summary of Exceedances

7.1 No impact monitoring was conducted in the reporting month. The template for summary of exceedance is provided in **Appendix C**.

Summary of Environmental Non-Compliance

7.2 No environmental non-compliance was recorded in the reporting month.

Summary of Environmental Complaint

7.3 No environmental related complaint, prosecution or notification of summons was received in the reporting month. The Complaint Log is presented in **Appendix H**.

Summary of Environmental Summon and Successful Prosecution

7.4 There was no environmental complaint, prosecution or notification of summons received since the Project commencement.

8 FUTURE KEY ISSUES

Key Issues in the Coming Month

- 8.1 Key issues to be considered in the coming month include:
 - Accumulation of C&D waste and general waste on site;
 - Accumulation of stagnant water in the site areas; and
 - Dust generated from excavation works, drilling works and stockpile of dusty materials;
 - Effluent discharge generated from surface runoff; and
 - Water quality impact in the vicinity of the seabed dredging activities.
 - Disposal of dredged sediment including those contaminated ones.

Monitoring Schedule for the Next Month

8.2 The tentative water quality impact monitoring schedule for the next month is shown in **Appendix B**.

Construction Programme for the Next Month

- 8.3 A tentative construction programme is provided in **Appendix I**. The major construction activities in the coming month will include:
 - Borehole drilling for ground investigation;
 - Construction of pile foundation;
 - Erection of site hoardings;
 - Seabed dredging; and
 - Site formation and construction of concrete pavement.

9 CONCLUSIONS AND RECOMMENDATIONS

Conclusions

- 9.1 The Environmental Monitoring and Audit (EM&A) Report presents the EM&A works undertaken during the period from 1 September 2012 to 30 September 2012 in accordance with EM&A Manual and the requirement under EP-438/2012/A.
- 9.2 No impact monitoring was conducted in the reporting month.
- 9.3 There was no environmental complaint, prosecution or notification of summons received.
- 9.4 The ET will keep track on the EM&A programme to ensure compliance of environmental requirements and the proper implementation of all necessary mitigation measures.

Recommendations

9.5 According to the environmental audit performed in the reporting month, the following recommendations were made:

Water Impact

• Manage the site boundary properly to avoid surface runoff into the sea.

Dust Impact

- Cover the excavated dusty materials or stockpile of dusty materials by impervious sheeting, or spray water on the dusty materials so as to maintain entire surface wet.
- Regularly spray with water on the surface of unpaved area.

Waste / Chemical Management

- Avoid and check for any accumulation of waste materials or rubbish on site.
- Avoid any discharge or accidental spillage of chemical waste or oil directly from the equipment.
- Provide drip tray with adequate capacity and maintain well for equipment and chemical waste.

Ecology

• Prevent encroachment onto adjacent habitats by delineation of work sites.

FIGURES

Barging Facility at Kai T	ak Runva		
Title SCL Contract 1108A The Shatin to Central Link - Kai Tak Barging Point Facilities	Scale N.T.S Date	Proposa No. MA12028 Figure	CINOTECH
Site Layout Plan	Oct-12	1	



APPENDIX A ACTION AND LIMIT LEVELS

APPENDIX A – Action and Limit Levels

Action and Limit Levels for Water Quality

Parameter	Action	Limit
DO in mg/L	Surface & Middle:	Surface & Middle:
	4.6	4
	(5 percentile of baseline data)	Bottom:
	Bottom:	2
	3.9	
	(5 percentile of baseline data)	
SS in mg/L	6.1	6.3
	(95 percentile of baseline data)	(99 percentile of baseline data)
Turbidity in NTU	4.8	5.0
	(95 percentile of baseline data)	(99 percentile of baseline data)

APPENDIX B WATER QUALITY MONITORING SCHEDULE
Shatin to Central Link – Contract 1108A Kai Tak Barging Point Facilities Tentative Impact Water Quality Monitoring for Dredging Works in October 2012

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
	1-Oct	2-Oct	3-Oct	4-Oct	5-Oct	6-Oct
7-Oct	8-Oct	9-Oct	10-Oct	11-Oct	12-Oct	13-Oct
	0.000	,	10 000		12 000	15 000
					Water Quality Monitoring	
					Mid-Ebb 09:41	
					Mid-Flood 16:24	
14-Oct	15-Oct	16-Oct	17-Oct	18-Oct	19-Oct	20-Oct
Water Quality Manitaring		Water Quality Manitoring		Water Quality Manitoring		
water Quanty Monitoring		water Quarty Monitoring		water Quanty Monitoring		
Mid-Ebb 11:16		Mid-Ebb 12.45		Mid-Ebb 14·15		
Mid-Flood 17:21		Mid-Flood 18:31		Mid-Flood 19:47		
21-Oct	22-Oct	23-Oct	24-Oct	25-Oct	26-Oct	27-Oct
	Water Quality Monitoring		Water Quality Monitoring		Water Quality Monitoring	
	Mid Ehh 05.22		Mid Ehb 08.04		Mid Ehb 00.55	
	Mid Flood 13:12		Mid-Ebb 08:04 Mid Elood 15:14		Mid Flood 16:26	
	15.12		Mid-1400d 15.14		10.20	
28-Oct	29-Oct	30-Oct	31-Oct			
	Water Quality Monitoring		Water Quality Monitoring			
	Mid-Ebb 11:55		Mid-Ebb 12:58			
	Mid-Flood 17:47		Mid-Flood 18:34			

The schedule may be changed due to unforeseen circumstances (adverse weather, etc)

Remark: 1) Reference was made to the tidal information of Hong Kong Observatory

2) The commencement date of the water quality monitoring works is subject to the dredging programme

APPENDIX C SUMMARY OF EXCEEDANCE

APPENIDX C – SUMMARY OF EXCEEDANCE

Reporting Month:

a) Exceedance Report for Water Quality Monitoring (NIL)

APPENDIX D SITE AUDIT SUMMARY

Inspection Information

Checklist Reference Number	120903
Date	3 September 2012 (Monday)
Time	16:45-17:45

Ref. No.	Non-Compliance	Related Item
		No.
-	None identified	-

Ref. No.	Remarks/Observations	Related Item
	Part B - Water Ouality	140,
	• No environmental deficiency was identified during the site inspection.	
	Part C - Ecology/Others	
120903-R02	• Fencing should be provided for protecting the retained tree.	C3
	Part D – Air Quality	
	• No environmental deficiency was identified during the site inspection.	
	Part E – Construction Noise Impact	
	• No environmental deficiency was identified during the site inspection.	
	Part F – Waste/Chemical Management	
	• No environmental deficiency was identified during the site inspection.	
	Part G - Permit / Licenses	
120903-R01	Environmental Permit should be displayed conspicuously on site.	G5
	Others • N/A	

	Name	Signature	Date
Recorded by	Ken Cheng	Ken	3 September 2012
Checked by	Dr. Priscilla Choy	N-Z	3 September 2012

Inspection Information	
Checklist Reference Number	120912
Date	12 September 2012 (Wednesday)
Time	14:00-14:30

Ref. No.	Non-Compliance	Related Item
		No.
_	None identified	_

Ref. No.	Remarks/Observations	Related Item No.
	Part B - Water Quality	
	• No environmental deficiency was identified during the site inspection.	
	Part C - Ecology/Others	
	• No environmental deficiency was identified during the site inspection.	
	Part D – Air Quality	
120912-R01	• Adequate air quality mitigation measures should be provided at dust-generating construction works.	D6
	Part E – Construction Noise Impact	
	• No environmental deficiency was identified during the site inspection.	
	Part F – Waste/Chemical Management	
	• No environmental deficiency was identified during the site inspection.	
	Part G - Permit / Licenses	
	• No environmental deficiency was identified during the site inspection.	
	Others	
	• Follow-up on previous audit section (Ref. No.:120903), all environmental deficiencies were rectified by the Contractor.	

	Name	Signature	Date
Recorded by	Ken Cheng	Cen	12 September 2012
Checked by	Dr. Priscilla Choy	NZ	12 September 2012

L

Inspection Information

Checklist Reference Number	120917
Date	17 September 2012 (Monday)
Time	16:45-17:25

Ref. No.	Non-Compliance	Related Item
		No.
	None identified	-

Ref. No.	Remarks/Observations	Related Item No.
	Part B - Water Quality	
120917-R01	• Properly manage the site boundary to avoid surface runoff into the sea.	B1, B4 & B15i
	Part C - Ecology/Others	
	• No environmental deficiency was identified during the site inspection.	
	Part D – Air Quality	
	• No environmental deficiency was identified during the site inspection.	
	Part E – Construction Noise Impact	
	• No environmental deficiency was identified during the site inspection.	
	Part F – Waste/Chemical Management	
	• No environmental deficiency was identified during the site inspection.	
	Part G - Permit / Licenses	
	• No environmental deficiency was identified during the site inspection.	
	Others	
	 Follow-up on previous audit section (Ref. No.:120912), all environmental deficiency was rectified by the Contractor. 	

Name	Signature	Date
Ken Cheng	Ken	17 September 2012
Dr. Priscilla Choy	NA	17 September 2012
	Name Ken Cheng Dr. Priscilla Choy	Name Signature Ken Cheng Ken Dr. Priscilla Choy NF

Inspection Information

Checklist Reference Number	120924
Date	24 September 2012 (Monday)
Time	16:45-17:30

Ref. No.	Non-Compliance	Related Item
		No.
-	None identified	-

Ref. No.	Remarks/Observations	Related Item No.
	Part B - Water Quality	
	• No environmental deficiency was identified during the site inspection.	
	Part C - Ecology/Others	
	• No environmental deficiency was identified during the site inspection.	
	Part D – Air Quality	
	• No environmental deficiency was identified during the site inspection.	
	Part E – Construction Noise Impact	
	• No environmental deficiency was identified during the site inspection.	
	Part F – Waste/Chemical Management	
	• No environmental deficiency was identified during the site inspection.	
	Part G - Permit / Licenses	
	• No environmental deficiency was identified during the site inspection.	
	Others	
	• Follow-up on previous audit section (Ref. No.:120917), all environmental deficiency was improved/rectified by the Contractor.	

	Name	Şignature	Date
Recorded by	Ken Cheng	Cen	24 September 2012
Checked by	Dr. Priscilla Choy	NT	24 September 2012

APPENDIX E EVENT AND ACTION PLANS

Event and	Action	Plan	for	Water	Quality
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Event	ET	IEC	ER	Contractor
Action level being exceeded by one sampling day	 Inform IEC, contractor and ER; Check monitoring data, all plant, equipment and Contractor's working methods; and Discuss remedial measures with IEC and Contractor and ER 	 Discuss with ET, ER and Contractor on the implemented mitigation measures; Review proposals on remedial measures submitted by Contractor and advise the ER accordingly; and Review and advise the ET and ER on the effectiveness of the implemented mitigation measures. 	 Discuss with IEC, ET and Contractor on the implemented mitigation measures; and Make agreement on the remedial measures to be implemented. Supervise the implementation of agreed remedial measures 	 Identify source(s) of impact; Inform the ER and confirm notification of the non-compliance in writing; Rectify unacceptable practice; Check all plant and equipment; Consider changes of working methods; Discuss with ER, ET and IEC and propose remedial measures to IEC and ER; and Implement the agreed mitigation measures.
Action level being exceeded by more than one consecutive sampling days	 Repeat in-situ measurement on next day of exceedance to confirm findings; Inform IEC, contractor and ER; Check monitoring data, all plant, equipment and Contractor's working methods; Discuss remedial measures with IEC, contractor and ER Ensure remedial measures are implemented 	 Discuss with ET Contractor and ER on the implemented mitigation measures; Review the proposed remedial measures submitted by Contractor and advise the ER accordingly; and Review and advise the ET and ER on the effectiveness of the implemented mitigation measures. 	 Discuss with ET, IEC and Contractor on the proposed mitigation measures; Make agreement on the remedial measures to be implemented; and Discuss with ET IEC and Contractor on the effectiveness of the implemented remedial measures. 	 Identify source(s) of impact; Inform the ER and confirm notification of the non-compliance in writing; Rectify unacceptable practice; Check all plant and equipment and consider changes of working methods; Discuss with ET, IEC and ER and submit proposal of remedial measures to ER and IEC within 3 working days of notification; and Implement the agreed mitigation measures.
Limit level being	1. Repeat measurement on next day	1. Discuss with ET, Contractor and	1. Discuss with IEC, ET and	1. Identify source(s) of impact;

Event	ET	IEC	ER	Contractor
exceeded by one sampling day	 of exceedance to confirm findings; Inform IEC, contractor and ER; Rectify unacceptable practice; Check monitoring data, all plant, equipment and Contractor's working methods; Consider changes of working methods Discuss mitigation measures with IEC, ER and Contractor; and Ensure the agreed remedial measures are implemented; 	 ER on possible remedial actions; Review the proposed remedial measures submitted by Contractor and advise the ER accordingly; and Review and advise the ET and ER on the effectiveness of the implemented mitigation measures. 	 Contractor on the implemented remedial measures; Request Contractor to critically review the working methods; Make agreement on the remedial measures to be implemented; and Discuss with ET, IEC and Contractor on the effectiveness of the implemented remedial measures. 	 Inform the ER and confirm notification of the non-compliance in writing; Rectify unacceptable practice; Check all plant and equipment and consider changes of working methods; Discuss with ET, IEC and ER and submit proposal of additional mitigation measures to ER within 3 working days of notification; and Implement the agreed remedial measures.
Limit level being exceeded by more than one consecutive sampling days	 Inform IEC, contractor, ER and EPD Check monitoring data, all plant, equipment and Contractor's working methods; Discuss mitigation measures with IEC, ER and Contractor; and Ensure mitigation measures are implemented; and Increase the monitoring frequency to daily until no exceedance of Limit Level for two consecutive days. 	 Discuss with ET, ER and Contractor on possible remedial actions; Review the proposed mitigation measures submitted by Contractor and advise the ER accordingly; and Review and advise the ET and ER on the effectiveness of the implemented mitigation measures. 	 Discuss with IEC, ET and Contractor on the implemented mitigation measures; Request Contractor to critically review the working methods; Make agreement on the remedial measures to be implemented; Discuss with ET and IEC on the effectiveness of the implemented mitigation measures; and Consider and instruct, if necessary, the Contractor to slow down or to stop all or part of the dredging activities until no exceedance of Limit level. 	 Identify source(s) of impact; Inform the ER and confirm notification of the non-compliance in writing; Rectify unacceptable practice; Check all plant and equipment and consider changes of working methods; Discuss with ET, IEC and ER and submit proposal of additional mitigation measures to ER and IEC within 3 working days of notification; Implement the agreed mitigation measures. As directed by the ER, to slow down or to stop all or part of the dredging activities until no exceedance of Limit level.

Event	ET	IEC	ER	Contractor
Non-conformity on one occasion	 Inform the Contractor, the IEC and the ER Discuss remedial actions with the IEC, the ER and the Contractor Monitor remedial actions until rectification has been completed 	 Check inspection report Check the Contractor's working method Discuss with the ET, ER and the Contractor on possible remedial measures Advise the ER on effectiveness of proposedremedial measures. 	 Confirm receipt of notification of non-conformity in writing Review and agree on the remedial measures proposed by the Contractor Supervise implementation of remedial measures 	 Identify Source and investigate the non-conformity Implement remedial measures Amend working methods agreed with the ER as appropriate Rectify damage and undertake any necessary replacement
Repeated Non-conformity	 Identify Source Inform the Contractor, the IEC and the ER Increase inspection frequency Discuss remedial actions with the IEC, the ER and the Contractor Monitor remedial actions until rectification has been completed If non-conformity stops, cease additional monitoring 	 Check inspection report Check the Contractor's working method Discuss with the ET and the Contractor on possible remedial measures Advise the ER on effectiveness of proposed remedial measures 	 Notify the Contractor In consultation with the ET and IEC, agree with the Contractor on the remedialmeasures to be implemented Supervise implementation of remedial measures. 	 Identify Source and investigate the non-conformity implement remedial measures Amend working methods agreed with the ER as appropriate Rectify damage and undertake any necessary replacement. Stop relevant portion of works as determined by the ER until the non-conformity is abated.

Event and Action Plan for Landscape and Visual during Construction Stage

Note:

ET – Environmental Team

IEC - Independent Environmental Checker

ER – Engineer/Engineer's Representative

APPENDIX F UPDATED ENVIRONMENTAL MITIGATION IMPLEMENTATION SCHEDULE

EIA Ref.	EM&A	Recommended Mitigation Measures	Objectives of the	Who to	Location of the	When to	What	Status
	Log Ref		recommended Measures &	implement the	measures	Implement	requirements	
			Main Concerns to address	measures?		the	or standards	
						measures?	for the	
							measures to	
							achieve?	
Ecology	Ecology (Pre-Construction Phase)							
S5.7	E3	Tree felling and vegetation removal	Minimize ecological	Contractor	Works sites	Prior to	• AFCD's	
		Precautionary checks of the vegetation for the presence of nesting bird	impacts		Kai Tak	site	requirements	
		species of conservation interest should be carried out before vegetation	to breeding bird		Barging Point	clearance		^
		clearance by an ecologist.	species of					
			conservation interest					
Ecology	(Construc	tion Phase)						
S5.7	E5	Good Site Practices	Minimise ecological	Contractor	All	During	ProPECC	
		Impact to any habitats or local fauna should be avoided by implementing	impacts		construction	Constructi	PN 1/94	
		good site practices, including the containment of silt runoff within the site			sites	on		
		boundary, the containment of contaminated soils for removal from the						
		site, appropriate storage of chemicals and chemical waste away from						
		sites of ecological value and the provision of sanitary facilities for on-site						
		workers. Adoption of such measures should permit waste to be suitably						
		contained within the site for subsequent removal and appropriate						
		disposal.						
		The following good site practices should also be implemented:						
		• Erection of temporary geotextile silt or sediment fences/oil traps						^
		around any earth-moving works to trap any sediments and prevent						
		them from entering watercourses in particular the Tei Lung Hau						

EIA Ref.	EM&A	Recommended Mitigation Measures	Objectives of the	Who to	Location of the	When to	What	Status
	Log Ref		recommended Measures &	implement the	measures	Implement	requirements	
			Main Concerns to address	measures?		the	or standards	
						measures?	for the	
							measures to	
							achieve?	
		stream;						
		Avoidance of soil storage against trees or close to waterbodies in						^
		particular the Tei Lung Hau stream;						
		Delineation of works site by erecting hoardings to prevent						^
		encroachment onto adjacent habitats and fence off areas which						
		have some ecological value.						
		No on-site burning of waste;						^
		• Waste and refuse in appropriate receptacles.						^
S5.7	E6	Sediment Removal	Reduce indirect	Contractor	Dredging Area	During	•TM-Water	
		• Use closed grab in dredging works.	impacts of suspended			Dredging		N/A ⁽²⁾
		• Install silt curtain during the dredging.	solids on sessile					N/A ⁽²⁾
			benthic and intertidal					
			fauna					
			Minimize marine					
			water					
			quality impacts					
Landscap	oe & Visua	al (Construction Phase)					•	•
S6.9.3	LV1	The following good site practices and measures for minimisation and	Minimize visual &	Contractor	Within Project	Constructi	•TM-EIAO	
		avoidance of potential impacts are recommended:	landscape impact		Site	on		
		Re-use of Existing Soil				stage		

EIA Ref.	EM&A	Recommended Mitigation Measures	Objectives of the	Who to	Location of the	When to	What	Status
	Log Ref		recommended Measures &	implement the	measures	Implement	requirements	
			Main Concerns to address	measures?		the	or standards	
						measures?	for the	
							measures to	
							achieve?	
		• For soil conservation, existing topsoil shall be re-used where						N/A ⁽²⁾
		possible for new planting areas within the project. The construction						
		program shall consider using the soil removed from one phase for						
		backfilling another. Suitable storage ground, gathering ground and						
		mixing ground may be set up on-site as necessary.						
		No-intrusion Zone						
		• To maximize protection to existing trees, ground vegetation and						^
		the associated under storey habitats, construction contracts may						
		designate "No-intrusion Zone" to various areas within the site						
		boundary with rigid and durable fencing for each individual						
		no-intrusion zone. The contractor should closely monitor and						
		restrict the site working staff from entering the "no-intrusion zone",						
		even for indirect construction activities and storage of equipment.						
		Protection of Retained Trees						
		• All retained trees should be recorded photographically at the						Λ
		commencement of the Contract, and carefully protected during the						
		construction period. Detailed tree protection specification shall be						
		allowed and included in the Contract Specification, which						
		specifying the tree protection requirement, submission and						
		approval system, and the tree monitoring system.						

EIA Ref.	EM&A	Recommended Mitigation Measures	Objectives of the	Who to	Location of the	When to	What	Status
	Log Ref		recommended Measures &	implement the	measures	Implement	requirements	
			Main Concerns to address	measures?		the	or standards	
						measures?	for the	
							measures to	
							achieve?	
		• The Contractor shall be required to submit, for approval, a detailed						^
		working method statement for the protection of trees prior to						
		undertaking any works adjacent to all retained trees, including						
		trees in contractor's works sites.						
S6.12	LV2	Decorative Hoarding	Minimize visual &	Contractor	Within Project	Detailed	• EIAO – TM	
		Erection of decorative screen during construction stage to screen	landscape impact		Site	design	•ETWB TCW	N/A ⁽²⁾
		off undesirable views of the construction site for visual and				and	2/2004	
		landscape sensitive areas. Hoarding should be designed to be				constructi	• ETWB	
		compatible with the existing urban context.				on stage	TCW	
		Management of facilities on work sites					3/2006	
		• To provide proper management of the facilities on the sites, give						N/A ⁽¹⁾
		control on the height and disposition/ arrangement of all facilities						
		on the works site to minimize visual impact to adjacent VSRs.						
Construc	tion Dust	Impact						
S7.6.5	D1	The contractor shall follow the procedures and requirements given in the	Minimize dust impact	Contractor	All	Constructi	• APCO	^
		Air Pollution Control (Construction Dust) Regulation	at the		Construction	on	To control	
			nearby sensitive		Sites	stage	the dust	
			receivers				impact to	
							meet	
							HKAQO and	

EIA Ref.	EM&A		Recommended Mitigation Measures	Objectives of the	Who to	Location of the	When to	What	Status
	Log Ref			recommended Measures &	implement the	measures	Implement	requirements	
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							measures?	for the	
								measures to	
								achieve?	
								TM-	
								EIA criteria	
S7.6.5	D2	Mitig	ation measures in form of regular watering under a good site	Minimize dust impact	Contractor	All	Constructi	• APCO	
		pract	tice should be adopted. Watering once per hour on exposed	at the		Construction	on	To control	
		work	sites and haul road in the Kowloon area should be conducted to	nearby sensitive		Sites	stage	the dust	
		achie	eve dust removal efficiencies of 91.7%. While the above watering	receivers				impact to	^
		frequ	uencies are to be followed, the extent of watering may vary					meet	
		depe	ending on actual site conditions but should be sufficient to maintain					HKAQO and	
		an e	quivalent intensity of no less than 1.8 L/m^2 to achieve the dust					TM-	
		remo	oval efficiency					EIA criteria	
S7.6.5	D3	•	Proper watering of exposed spoil should be undertaken throughout	Minimize dust impact	Contractor	All	Constructi	• APCO	^
			the construction phase;	at the		Construction	on	To control	
		•	Any excavated or stockpile of dusty material should be covered	nearby sensitive		Sites	stage	the dust	*
			entirely by impervious sheeting or sprayed with water to maintain	receivers				impact to	
			the entire surface wet and then removed or backfilled or reinstated					meet	
			where practicable within 24 hours of the excavation or unloading;					HKAQO and	
		•	Any dusty materials remaining after a stockpile is removed					TM-	^
			should be wetted with water and cleared from the surface of					EIA criteria	
			roads;						
		•	A stockpile of dusty material should not be extend beyond the						^

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	Log Ref			recommended Measures &	implement the	measures	Implement	requirements	
				Main Concerns to address	measures?		the	or standards	
							measures?	for the	
								measures to	
								achieve?	
			pedestrian barriers, fencing or traffic cones;						
		•	The load of dusty materials on a vehicle leaving a construction site						^
			should be covered entirely by impervious sheeting to ensure that						
			the dusty materials do not leak from the vehicle;						
		•	Where practicable, vehicle washing facilities with high pressure						N/A ⁽²⁾
			water jet should be provided at every discernible or designated						
			vehicle exit point. The area where vehicle washing takes place						
			and the road section between the washing facilities and the exit						
			point should be paved with concrete, bituminous materials or						
			hardcores;						
		•	When there are open excavation and reinstatement works,						N/A ⁽²⁾
			hoarding of not less than 2.4m high should be provided and						
			properly maintained as far as practicable along the site boundary						
			with provision for public crossing; Good site practice shall also be						
			adopted by the Contractor to ensure the conditions of the						
			hoardings are properly maintained throughout the construction						
			period;						
		•	The portion of any road leading only to construction site that is						^
			within 30m of a vehicle entrance or exit should be kept clear of						
			dusty materials;						

EIA Ref.	EM&A	Recommended Mitigation Measures	Objectives of the	Who to	Location of the	When to	What	Status
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			Main Concerns to address	measures?		the	or standards	
						measures?	for the	
							measures to	
							achieve?	
		Surfaces where any pneumatic or power-driven drilling, cutting,						N/A ⁽²⁾
		polishing or other mechanical breaking operation takes place						
		should be sprayed with water or a dust suppression chemical						
		continuously;						
		Any area that involves demolition activities should be sprayed with						N/A ⁽²⁾
		water or a dust suppression chemical immediately prior to, during						
		and immediately after the activities so as to maintain the entire						
		surface wet;						
		• Where a scaffolding is erected around the perimeter of a building						N/A ⁽²⁾
		under construction, effective dust screens, sheeting or netting						
		should be provided to enclose the scaffolding from the ground floor						
		level of the building, or a canopy should be provided from the first						
		floor level up to the highest level of the scaffolding;						
		Any skip hoist for material transport should be totally enclosed by						N/A ⁽²⁾
		impervious sheeting;						
		• Every stock of more than 20 bags of cement or dry pulverized fuel						N/A ⁽²⁾
		ash (PFA) should be covered entirely by impervious sheeting or						
		placed in an area sheltered on the top and the 3 sides;						
		Cement or dry PFA delivered in bulk should be stored in a closed						N/A ⁽²⁾
		silo fitted with an audible high level alarm which is interlocked						

EIA Ref.	EM&A	Recommended Mitigation Measures	Objectives of the	Who to	Location of the	When to	What	Status
	Log Ref		recommended Measures &	implement the	measures	Implement	requirements	
			Main Concerns to address	measures?		the	or standards	
						measures?	for the	
							measures to	
							achieve?	
		with the material filling line and no overfilling is allowed;						
		• Loading, unloading, transfer, handling or storage of bulk cement or						N/A ⁽²⁾
		dry PFA should be carried out in a totally enclosed system or						
		facility, and any vent or exhaust should be fitted with an effective						
		fabric filter or equivalent air pollution control system; and						
		• Exposed earth should be properly treated by compaction, turfing,						N/A ⁽²⁾
		hydroseeding, vegetation planting or sealing with latex, vinyl,						
		bitumen, shotcrete or other suitable surface stabiliser within six						
		months after the last construction activity on the construction site						
		or part of the construction site where the exposed earth lies.						
S7.6.5	D4	The following mitigation measures should be adopted to prevent fugitive	Control construction	Contractor	Kai Tak	Constructi	Air Pollution	
		dust emissions at barging point:	dust		Barging Point	on	Control	
		• All road surface within the barging facilities will be paved;				stage	(Construction	N/A ⁽²⁾
		• Dust enclosures will be provided for the loading ramp;					Dust)	N/A ⁽²⁾
		• Vehicles will be required to pass through designated wheels wash					Regulation	N/A ⁽²⁾
		facilities; and						
		Continuous water spray at the loading points						N/A ⁽²⁾
S7.6.5	D5	For the unloading of spoil from trucks at barging point, installation of	Minimize dust impact	Contractor	Barging Points	Constructi	• APCO	NI/A ⁽²⁾
		3-sided screen with top cover and the provision of water sprays at the	at the			on	To control	IN/A
		discharge point would be provided for an assumed 50% dust	nearby sensitive			stage	the dust	

Log Ref Log Ref Implement the measures Implement the measures? Implement the requirements Main Concerns to address measures? Implement the	tus
Main Concerns to address measures? the or standards for the measures measures? measures? <th></th>	
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suppression. receivers impact to HKAQO and TM-	
Meet HKAQO and TM-	
HKAQO and TM-	
TM-	
EIA criteria	
S7.6.5 D6 Implement regular dust monitoring under EM&A programme during the Monitoring of dust Contractor Selected Constructi • TM-EIA	Δ(1)
construction stage. impact representative on	1
dust stage	
monitoring	
station	
Construction Noise (Airborne)	
S8.3.6N1Implement the following good site practices:Control constructionContractorAllConstructi• Annex 5,	
only well-maintained plant should be operated on-site and plant airborne Construction on TM-EIA	١
should be serviced regularly during the construction programme; noise Sites stage	
machines and plant (such as trucks, cranes) that may be in	١
intermittent use should be shut down between work periods or	
should be throttled down to a minimum;	
plant known to emit noise strongly in one direction, where	$A^{(1)}$
possible, be orientated so that the noise is directed away from	
nearby NSRs;	

EIA Ref.	EM&A	Recommended Mitigation Measures	Objectives of the	Who to	Location of the	When to	What	Status
	Log Ref		recommended Measures &	implement the	measures	Implement	requirements	
			Main Concerns to address	measures?		the	or standards	
						measures?	for the	
							measures to	
							achieve?	
		silencers or mufflers on construction equipment should be properly						N/A ⁽²⁾
		fitted and maintained during the construction works;						
		mobile plant should be sited as far away from NSRs as possible						N/A ⁽¹⁾
		and practicable;						
		• material stockpiles, mobile container site office and other						N/A ⁽²⁾
		structures should be effectively utilised, where practicable, to						
		screen noise from on-site construction activities.						
S8.3.6	N2	Install temporary hoarding located on the site boundaries between noisy	Reduce the	Contractor	All	Constructi	• Annex 5,	N/A ⁽¹⁾
		construction activities and NSRs. The conditions of the hoardings shall	construction noise		Construction	on	TM-EIA	
		be properly maintained throughout the construction period.	levels at low-level zone		Sites	stage		
			of NSRs through					
			partial screening.					
S8.3.6	N3	Install movable noise barriers (typical design is wooden framed barrier	Screen the noisy plant	Contractor	All	Constructi	• Annex 5,	NT/A ⁽¹⁾
		with a small-cantilevered on a skid footing with 25mm thick internal sound	items to be used at all		Construction	on	TM-EIA	IN/A
		absorptive lining), acoustic mat or full enclosure, screen the noisy plants	construction sites		Sites	stage		
		including air compressor, generators and saw.						
S8.3.6	N4	Use "Quiet plants"	Reduce the noise	Contractor	All	Constructi	• Annex 5,	^
			levels of plant items		Construction	on	TM-EIA	
					Sites where	stage		

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	Log Ref		recommended Measures &	implement the	measures	Implement	requirements	
			Main Concerns to address	measures?		the	or standards	
						measures?	for the	
							measures to	
							achieve?	
					practicable			
S8.3.6	N5	Sequencing operation of construction plants where practicable.	Operate sequentially	Contractor	All	Constructi	• Annex 5,	^
			within the same work		Construction	on	TM-EIA	
			site to reduce		Sites where	stage		
			the construction		practicable			
			airborne					
			noise					
S8.3.6	N6	Implement a noise monitoring under EM&A programme.	Monitor the	Contractor	Selected	Constructi	•TM-EIA	N/A ⁽¹⁾
			construction noise		representative	on		
			levels at the selected		noise	stage		
			representative		monitoring			
			locations		station			
Water Qu	ality (Cor	nstruction Phase)				·		
S10.7.1	W1	In accordance with the Practice Noise for Professional Persons on	To minimize water	Contractor	All	Constructi	Water	
		Construction Site Drainage, Environmental Protection Department, 1994	quality impact from		construction	on	Pollution	
		(ProPECC PN1/94), construction phase mitigation measures shall	construction site runoff		sites	stage	Control	
		include the following:	and general		where		Ordinance	
		Construction Runoff and Site Drainage	construction activities		practicable		ProPECC	
		• At the start of site establishment (including the barging facilities),					PN1/94	*
		perimeter cut-off drains to direct off-site water around the site					• TM-EIAO	

EIA Ref.	EM&A	Recommended Mitigation Measures	Objectives of the	Who to	Location of the	When to	What	Status
	Log Ref		recommended Measures &	implement the	measures	Implement	requirements	
			Main Concerns to address	measures?		the	or standards	
						measures?	for the	
							measures to	
							achieve?	
		should be constructed with internal drainage works and erosion					TM-Water	
		and sedimentation control facilities implemented. Channels (both						
		temporary and permanent drainage pipes and culverts), earth						
		bunds or sand bag barriers should be provided on site to direct						
		stormwater to silt removal facilities. The design of the temporary						
		on-site drainage system will be undertaken by the contractor prior						
		to the commencement of construction.						
		• The dikes or embankments for flood protection should be						^
		implemented around the boundaries of earthwork areas.						
		Temporary ditches should be provided to facilitate the runoff						
		discharge into an appropriate watercourse, through a						
		site/sediment trap. The sediment/silt traps should be incorporated						
		in the permanent drainage channels to enhance deposition rates.						
		The design of efficient silt removal facilities should be based on the						
		guidelines in Appendix A1 of ProPECC PN 1/94, which states that						
		the retention time for silt/sand traps should be 5 minutes under						
		maximum flow conditions. Sizes may vary depending upon the						
		flow rate, but for a flow rate of 0.1 m^3/s a sedimentation						
		basin of $30m^3$ would be required and for a flow rate of 0.5 m^3/s						
		the basin would be 150 m^3 . The detailed design of the sand/silt						

EIA Ref.	EM&A		Recommended Mitigation Measures	Objectives of the	Who to	Location of the	When to	What	Status
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				Main Concerns to address	measures?		the	or standards	
							measures?	for the	
								measures to	
								achieve?	
			traps shall be undertaken by the contractor prior to the						
			commencement of construction.						
		•	All exposed earth areas should be completed and vegetated as						N/A ⁽²⁾
			soon as possible after earthworks have been completed, or						
			alternatively, within 14 days of the cessation of earthworks where						
			practicable. Exposed slope surfaces should be covered by						
			tarpaulin or other means.						
		•	The overall slope of the site should be kept to a minimum to						^
			reduce the erosive potential of surface water flows, and all traffic						
			areas and access roads protected by coarse stone ballast. An						
			additional advantage accruing from the use of crushed stone is the						
			positive traction gained during prolonged periods of inclement						
			weather and the reduction of surface sheet flows.						
		•	All drainage facilities and erosion and sediment control structures						N/A ⁽²⁾
			should be regularly inspected and maintained to ensure proper						
			and efficient operation at all times and particularly following						
			rainstorms. Deposited silt and grit should be removed regularly						
			and disposed of by spreading evenly over stable, vegetated areas.						
		•	Measures should be taken to minimise the ingress of site drainage						N/A ⁽²⁾
			into excavations. If the excavation of trenches in wet periods is						

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				Main Concerns to address	measures?		the	or standards	
							measures?	for the	
								measures to	
								achieve?	
			necessary, they should be dug and backfilled in short sections						
			wherever practicable. Water pumped out from trenches or						
			foundation excavations should be discharged into storm drains via						
			silt removal facilities.						
		•	Open stockpiles of construction materials (for example,						N/A ⁽²⁾
			aggregates, sand and fill material) of more than $50 \mathrm{m}^3$ should be						
			covered with tarpaulin or similar fabric during rainstorms.						
		•	Measures should be taken to prevent the washing away of						N/A ⁽²⁾
			construction materials, soil, silt or debris into any drainage system.						
			Manholes (including newly constructed ones) should always be						
			adequately covered and temporarily sealed so as to prevent silt,						
			construction materials or debris being washed into the drainage						
			system and storm runoff being directed into foul sewers						
		•	Precautions be taken at any time of year when rainstorms are						^
			likely, actions to be taken when a rainstorm is imminent or						
			forecasted, and actions to be taken during or after rainstorms are						
			summarised in Appendix A2 of ProPECC PN 1/94. Particular						
			attention should be paid to the control of silty surface runoff during						
			storm events, especially for areas located near steep slopes						
		•	All vehicles and plant should be cleaned before leaving a						^

EIA Ref.	EM&A		Recommended Mitigation Measures	Objectives of the	Who to	Location of the	When to	What	Status
	Log Ref			recommended Measures &	implement the	measures	Implement	requirements	
				Main Concerns to address	measures?		the	or standards	
							measures?	for the	
								measures to	
								achieve?	
			construction site to ensure no earth, mud, debris and the like is						
			deposited by them on roads. An adequately designed and sited						
			wheel washing facilities should be provided at every construction						
			site exit where practicable. Wash-water should have sand and						
			silt settled out and removed at least on a weekly basis to ensure						
			the continued efficiency of the process. The section of access						
			road leading to, and exiting from, the wheel-wash bay to the public						
			road should be paved with sufficient backfall toward the						
			wheel-wash bay to prevent vehicle tracking of soil and silty water						
			to public roads and drains.						
		•	Oil interceptors should be provided in the drainage system						N/A ⁽²⁾
			downstream of any oil/fuel pollution sources. The oil interceptors						
			should be emptied and cleaned regularly to prevent the release of						
			oil and grease into the storm water drainage system after						
			accidental spillage. A bypass should be provided for the oil						
			interceptors to prevent flushing during heavy rain.						
		•	Construction solid waste, debris and rubbish on site should be						^
			collected, handled and disposed of properly to avoid water quality						
			impacts.						
		•	All fuel tanks and storage areas should be provided with locks and						٨

EIA Ref.	EM&A	Recommended Mitigation Measures	Objectives of the	Who to	Location of the	When to	What	Status
	Log Ref		recommended Measures &	implement the	measures	Implement	requirements	
			Main Concerns to address	measures?		the	or standards	
						measures?	for the	
							measures to	
							achieve?	
		sited on sealed areas, within bunds of a capacity equal to 110% of						
		the storage capacity of the largest tank to prevent spilled fuel oils						
		from reaching water sensitive receivers nearby						
		All the earth works involving should be conducted sequentially to						N/A ⁽²⁾
		limit the amount of construction runoff generated from exposed						
		areas during the wet season (April to September) as far as						
		practicable.						
		Adopt best management practices.						^
S10.7.1	W3	Sewage Effluent	To minimize water	Contractor	All	Constructi	Water	
		Portable chemical toilets and sewage holding tanks are	quality from sewage		construction	on stage	Pollution	^
		recommended for handling the construction sewage generated by	effluent		sites where		Control	
		the workforce. A licensed contractor should be employed to			practicable		Ordinance	
		provide appropriate and adequate portable toilets and be					 TM-water 	
		responsible for appropriate disposal and maintenance.						
S10.7.1	W4	Groundwater from Contaminated Area:	To minimize	Contractor	Excavation	Constructi	Water	
		No direct discharge of groundwater from contaminated areas	groundwater		areas	on	Pollution	^
		should be adopted. Prior to the excavation works within these	quality impact from		where	stage	Control	
		potentially contaminated areas, the groundwater quality should be	contaminated area		contamination		Ordinance	
		reviewed with reference to the site investigation data in this EIA			is found.		 TM-water 	
		report for compliance to the Technical Memorandum on Standards					• TM-EIAO	

Log Ref Implement Implement Implement requirements Main Concerns to address measures? the or standards Implement Implement measures? for the Implement Implement measures? measures? Implement Implement measures? for the Implement Implement measures? measures? Implement Implement Implement measures? Implement Implement Implement Implement Implement Implement Implement Im	
Main Concerns to address measures? the or standards measures? for the measures to measures to	
measures? for the measures to measures to	
measures to	
achieve?	
for Effluents Discharged into Drainage on Sewerage Systems,	
Inland and Coastal Waters (TM-Water) and the existence of	
prohibited substance should be confirmed. The review results	
should be submitted to EPD for examination If the review results	
indicated that the groundwater to be generated from the	
excavation works would be contaminated, the contaminated	
groundwater should be either properly treated in compliance with	
the requirements of the TM-Water or properly recharged into the	
ground.	
If wastewater treatment is deployed, the wastewater treatment unit	N/A ⁽²⁾
shall deploy suitable treatment process (e.g. oil interceptor /	
activated carbon) to reduce the pollution level to an acceptable	
standard and remove any prohibited substances (e.g. TPH) to	
undetectable range. All treated effluent from wastewater treatment	
plant shall meet the requirements as stated in TM-Water and	
should be discharged into the foul sewers	
If groundwater recharging wells are deployed, recharging wells	N/A ⁽²⁾
should be installed as appropriate for recharging the contaminated	
groundwater back into the ground. The recharging wells should be	
selected at places where the groundwater quality will not be	

EIA Ref.	EM&A	Recommended Mitigation Measures	Objectives of the	Who to	Location of the	When to	What	Status
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						measures?	for the	
							measures to	
							achieve?	
		affected by the recharge operation as indicated in the Section 2.3						
		of TM-Water. The baseline groundwater quality shall be						
		determined prior to the selection of the recharge wells, and submit						
		a working plan (including the laboratory analytical results showing						
		the quality of groundwater at the proposed recharge location(s) as						
		well as the pollutant levels of groundwater to be recharged) to						
		EPD for agreement. Pollution levels of groundwater to be						
		recharged shall not be higher than pollutant levels of ambient						
		groundwater at the recharge well. Prior to recharge, any prohibited						
		substances such as TPH products should be removed as						
		necessary by installing the petrol interceptor. The Contractor						
		should apply for a discharge licence under the WPCO through the						
		Regional Office of EPD for groundwater recharge operation or						
		discharge of treated groundwater.						
S10.7.1	W5	Dredging Works	To minimize sediment	Contractor	Kai Tak	Dredging	Water	
		The following good practice shall apply for the dredging works:	suspension during		Barging Point	period	Pollution	
		Install efficient silt curtains at the point of seawall dredging to	dredging		during		Control	N/A ⁽²⁾
		control the dispersion of SS;			dredging		Ordinance	
		Implement water quality monitoring to ensure effective control of			works		• TM-EIAO	N/A ⁽²⁾
		water pollution and recommend additional mitigation measures						

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			Main Concerns to address	measures?		the	or standards	
						measures?	for the	
							measures to	
							achieve?	
		required;						
		• The decent speed of grabs should be controlled to minimize the						N/A ⁽²⁾
		seabed impact and to reduce the volume of over-dredging; and						
		All vessels should be sized so that adequate clearance is						N/A ⁽²⁾
		maintained between vessels and the seabed in all tide conditions,						
		to ensure that undue turbidity is not generated by turbulence from						
		vessel movement or propeller wash.						
S10.7.1	W6	Operation of Barging Facilities	To minimize water	Contractor	All barging	Constructi	Water	
		The following good practice shall apply for the barging facilities	quality impact from		facilities	on stage	Pollution	
		operations:	operation of				Control	
		All barges should be fitted with tight bottom seals to prevent	barging facility				Ordinance	N/A ⁽²⁾
		leakage of materials during transport;					• TM-EIA	
		• Barges or hoppers should not be filled to a level that will cause						N/A ⁽²⁾
		overflow of materials or polluted water during loading or						
		transportation;						
		All vessels should be sized so that adequate clearance is						N/A ⁽²⁾
		maintained between vessels and the seabed in all tide conditions,						
		to ensure that undue turbidity is not generated by turbulence from						
		vessel movement or propeller wash;						
		Loading of barges and hoppers should be controlled to prevent						N/A ⁽²⁾

EIA Ref.	EM&A	Recommended Mitigation Measures	Objectives of the	Who to	Location of the	When to	What	Status
	Log Ref		recommended Measures &	implement the	measures	Implement	requirements	
			Main Concerns to address	measures?		the	or standards	
						measures?	for the	
							measures to	
							achieve?	
		splashing of material into the surrounding water; and						
		Mitigation measures as outlined in W1 should be applied to						N/A ⁽²⁾
		minimise water quality impacts from site runoff and open stockpile						
		spoils at the proposed barging facilities where appropriate.						
S10.7.1	W7	In order to prevent accidental spillage of chemicals, the following is	To minimize water	Contractor	All	Constructi	Water	
		recommended:	quality		construction	on	Pollution	
		• All the tanks, containers, storage area should be bunded and the	impact from accidental		sites where	stage	Control	^
		locations should be locked as far as possible from the sensitive	spillage		practicable		Ordinance	
		watercourse and stormwater drains.					ProPECC	
		• The Contractor should register as a chemical waste producer if					PN1/94	^
		chemical wastes would be generated. Storage of chemical waste					• TM-EIAO	
		arising from the construction activities should be stored with					 TM-Water 	
		suitable labels and warnings.						
		Disposal of chemical wastes should be conducted in compliance						N/A ⁽²⁾
		with the requirements as stated in the Waste disposal (Chemical						
		Waste) (General) Regulation.						
S10.7.1	W8	Implement a marine water quality monitoring programme	Monitor marine water	Contractor	At identified	Prior to	Water	^
			quality		monitoring	and	Pollution	
			prior to and during		location	during	Control	
			dredging			dredging	Ordinance	

EIA Ref.	EM&A	Recommended Mitigation Measures	Objectives of the	Who to	Location of the	When to	What	Status
	Log Ref		recommended Measures &	implement the	measures	Implement	requirements	
			Main Concerns to address	measures?		the	or standards	
						measures?	for the	
							measures to	
							achieve?	
			period			period	 TM-water 	
							• EIA-TM	
Waste Ma	anagemer	nt (Construction Waste)						
S11.4.1.1	WM1	On-site sorting of C&D material	Separation of	Contractor	All	Constructi	• DEVB	
		Geological assessment should be carried out by competent	unsuitable rock from		construction	on	TC(W) No.	^
		persons on site during excavation to identify materials which are	ending up at concrete		sites	stage	6/2010	
		not suitable to use as aggregate in structural concrete (e.g.	batching plants and be					
		volcanic rock, Aplite dyke rock, etc). Volcanic rock and Aplite dyke	turned into concrete for					
		rock should be separated at the source sites as far as practicable	structural use					
		and stored at designated stockpile areas preventing them from						
		delivering to crushing facilities. The crushing plant operator should						
		also be reminded to set up measures to prevent unsuitable rock						
		from ended up at concrete batching plants and be turned into						
		concrete for structural use. Details regarding control measures at						
		source site and crushing facilities should be submitted by the						
		Contractors for the Engineer to review and agree. In addition, site						
		records should also be kept for the types of rock materials						
		excavated and the traceability of delivery will be ensured with the						
		implementation of Trip Ticket System and enforced by site						
		supervisory staff as stipulated under DEVB TC(W) No. 6/2010 for						

EIA Ref.	EM&A	Recommended Mitigation Measures	Objectives of the	Who to	Location of the	When to	What	Status
	Log Ref		recommended Measures &	implement the	measures	Implement	requirements	
			Main Concerns to address	measures?		the	or standards	
						measures?	for the	
							measures to	
							achieve?	
		tracking of the correct delivery to the rock crushing facilities for						
		processing into aggregates. Alternative disposal option for the						
		reuse of volcanic rock and Aplite Dyke rock, etc should also be						
		explored.						
S11.5.1	WM2	Construction and Demolition Material	Good site practice to	Contractor	All	Constructi	• Land	
		Maintain temporary stockpiles and reuse excavated fill material for	minimize the waste		construction	on	(Miscellaneo	^
		backfilling and reinstatement;	generation and recycle		sites	stage	us	
		Carry out on-site sorting;	the C&D materials as				Provisions)	^
		Make provisions in the Contract documents to allow and promote	far as practicable so as				Ordinance	^
		the use of recycled aggregates where appropriate;	to reduce the amount				 Waste 	
		Adopt 'Selective Demolition' technique to demolish the existing	for final disposal				Disposal	^
		structures and facilities with a view to recovering broken concrete					Ordinance	
		effectively for recycling purpose, where possible;					• ETWB	
		Implement a trip-ticket system for each works contract to ensure					TCW No.	^
		that the disposal of C&D materials are properly documented and					19/2005	
		verified; and						
		Implement an enhanced Waste Management Plan similar to						^
		ETWBTC (Works) No. 19/2005 – "Environmental Management on						
		Construction Sites" to encourage on-site sorting of C&D materials						
		and to minimize their generation during the course of construction.						

EIA Ref.	EM&A	Recommended Mitigation Measures	Objectives of the	Who to	Location of the	When to	What	Status
	Log Ref		recommended Measures &	implement the	measures	Implement	requirements	
			Main Concerns to address	measures?		the	or standards	
						measures?	for the	
							measures to	
							achieve?	
		In addition, disposal of the C&D materials onto any sensitive						^
		locations such as agricultural lands, etc. should be avoided. The						
		Contractor shall propose the final disposal sites to the Project						
		Proponent and get its approval before implementation						
S11.5.1	WM3	C&D Waste	Good site practice to	Contractor	All	Constructi	• Land	
		• Standard formwork or pre-fabrication should be used as far as	minimize the waste		construction	on	(Miscellaneo	^
		practicable in order to minimise the arising of C&D materials.	generation and recycle		sites	stage	us	
		The use of more durable formwork or plastic facing for the	the C&D materials as				Provisions)	
		construction works should be considered. Use of wooden	far as practicable so as				Ordinance	
		hoardings should not be used, as in other projects. Metal	to reduce the amount				Waste	
		hoarding should be used to enhance the possibility of recycling.	for final disposal				Disposal	
		The purchasing of construction materials will be carefully planned					Ordinance	
		in order to avoid over ordering and wastage.					• ETWB	
		The Contractor should recycle as much of the C&D materials as					TCW	^
		possible on-site. Public fill and C&D waste should be segregated					No.19/2005	
		and stored in different containers or skips to enhance reuse or						
		recycling of materials and their proper disposal. Where						
		practicable, concrete and masonry can be crushed and used as						
		fill. Steel reinforcement bar can be used by scrap steel mills.						
		Different areas of the sites should be considered for such						
EIA Ref.	EM&A	Recommended Mitigation Measures	Objectives of the	Who to	Location of the	When to	What	Status
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	Log Ref		recommended Measures &	implement the	measures	Implement	requirements	
			Main Concerns to address	measures?		the	or standards	
						measures?	for the	
							measures to	
							achieve?	
		segregation and storage.						
S11.5.1	WM4	General Refuse	Minimize production of	Contractor	All	Constructi	Waste	
		General refuse generated on-site should be stored in enclosed	the		construction	on	Disposal	^
		bins or compaction units separately from construction and	general refuse and		sites	stage	Ordinance	
		chemical wastes.	avoid					
		A reputable waste collector should be employed by the Contractor	odour, pest and litter					^
		to remove general refuse from the site, separately from	impacts					
		construction and chemical wastes, on a daily basis to minimize						
		odour, pest and litter impacts. Burning of refuse on construction						
		sites is prohibited by law.						
		Aluminium cans are often recovered from the waste stream by						^
		individual collectors if they are segregated and made easily						
		accessible. Separate labelled bins for their deposit should be						
		provided if feasible.						
		Office wastes can be reduced through the recycling of paper if						^
		volumes are large enough to warrant collection. Participation in a						
		local collection scheme should be considered by the Contractor.						
S11.5.1	WM6	Land-based and Marine-based Sediment	To control pollution due	Contractor	Within Project	Constructi	• ETWB	

EIA Ref.	EM&A	Recommended Mitigation Measures	Objectives of the	Who to	Location of the	When to	What	Status
	Log Ref		recommended Measures &	implement the	measures	Implement	requirements	
			Main Concerns to address	measures?		the	or standards	
						measures?	for the	
							measures to	
							achieve?	
		• All construction plant and equipment shall be design	ned and to		Site	on	TCW No.	^
		maintained to minimize the risk of silt, sediments, co	ontaminants or marine sediment		Area	Stage	34/2002	
		other pollutants being released into the water colum	n or deposited					
		in the locations other than designated location;						
		• All vessels shall be sized such that adequate draft is	s maintained					N/A ⁽²⁾
		between vessels and the sea bed at all states of the	tide to ensure					
		that undue turbidity is not generated by turbulence fi	rom vessel					
		movement or propeller wash;						
		• Before moving the vessels which are used for transp	porting					N/A ⁽²⁾
		dredged material, excess material shall be cleaned f	from the decks					
		and exposed fittings of vessels and the excess mate	erials shall					
		never be dumped into the sea except at the approve	ed locations;					
		Adequate freeboard shall be maintained on barges t	to ensure that					N/A ⁽²⁾
		decks are not washed by wave action.						
		The Contractors shall monitor all vessels transportin	ng material to					N/A ⁽²⁾
		ensure that no dumping outside the approved location	on takes place.					
		The Contractor shall keep and produce logs and oth	ner records to					
		demonstrate compliance and that journeys are cons	istent with					
		designated locations and copies of such records sha	all be					
		submitted to the engineers;						

EIA Ref.	EM&A	Recommended Mitigation Measures	Objectives of the	Who to	Location of the	When to	What	Status
	Log Ref		recommended Measures &	implement the	measures	Implement	requirements	
			Main Concerns to address	measures?		the	or standards	
						measures?	for the	
							measures to	
							achieve?	
		The Contractors shall comply with the conditions in the dumping						N/A ⁽²⁾
		licence.						
		• All bottom dumping vessels (Hopper barges) shall be fitted with						N/A ⁽²⁾
		tight fittings seals to their bottom openings to prevent leakage of						
		material;						
		• The material shall be placed into the disposal pit by bottom						N/A ⁽²⁾
		dumping;						
		Contaminated marine mud shall be transported by spit barge of						N/A ⁽²⁾
		not less than 750m ³ capacity and capable of rapid opening and						
		discharge at the disposal site;						
		• Discharge shall be undertaken rapidly and the hoppers shall be						N/A ⁽²⁾
		closed immediately. Material adhering to the sides of the hopper						
		shall not be washed out of the hopper and the hopper shall remain						
		closed until the barge returns to the disposal site.						
		• For Type 3 special disposal treatment, sealing of contaminant						N/A ⁽²⁾
		with geosynthetic containment before dropping into designated						
		mud pit would be a possible arrangement. A geosynthetic						
		containment method is a method whereby the sediments are						
		sealed in geosynthetic containers and, the containers would be						
		dropped into the designated contaminated mud pit where they						

EIA Ref.	EM&A		Recommended Mitigation Measures	Objectives of the	Who to	Location of the	When to	What	Status
	Log Ref			recommended Measures &	implement the	measures	Implement	requirements	
				Main Concerns to address	measures?		the	or standards	
							measures?	for the	
								measures to	
								achieve?	
			would be covered by further mud disposal and later by the mud pit						
			capping at the disposal site, thereby fulfilling the requirements for						
			fully confined mud disposal.						
S11.5.1	WM7	Cher	nical Waste	Control the chemical	Contractor	All	Constructi	Waste	
		•	Chemical waste that is produced, as defined by Schedule 1 of the	waste		Construction	on	Disposal	^
			Waste Disposal (Chemical Waste) (General) Regulation, should	and ensure proper		Sites	Stage	(Chemical	
			be handled in accordance with the Code of Practice on the	storage, handling and				Waste)	
			Packaging, Labelling and Storage of Chemical Wastes.	disposal.				(General)	
		•	Containers used for the storage of chemical wastes should be					Regulation	^
			suitable for the substance they are holding, resistant to corrosion,					Code of	
			maintained in a good condition, and securely closed; have a					Practice	
			capacity of less than 450 liters unless the specification has been					on the	
			approved by the EPD; and display a label in English and Chinese					Packaging,	
			in accordance with instructions prescribed in Schedule 2 of the					Labelling and	
			regulation.					Storage of	
		•	The storage area for chemical wastes should be clearly labelled					Chemical	^
			and used solely for the storage of chemical waste; enclosed on at					Waste	
			least 3 sides; have an impermeable floor and bunding of sufficient						
			capacity to accommodate 110% of the volume of the largest						
			container or 20 % of the total volume of waste stored in that area,						

EIA Ref.	EM&A	Recommended Mitigation Measures	Objectives of the	Who to	Location of the	When to	What	Status
	Log Ref		recommended Measures &	implement the	measures	Implement	requirements	
			Main Concerns to address	measures?		the	or standards	
						measures?	for the	
							measures to	
							achieve?	
		whichever is the greatest; have adequate ventilation; covered to						
		prevent rainfall entering; and arranged so that incompatible						
		materials are adequately separated.						
		Disposal of chemical waste should be via a licensed waste						^
		collector; be to a facility licensed to receive chemical waste, such						
		as the Chemical Waste Treatment Centre which also offers a						
		chemical waste collection service and can supply the necessary						
		storage containers; or be to a reuser of the waste, under approval						
		from the EPD.						

Remarks: ^

Compliance of mitigation measure

X Non-compliance of mitigation measure

• Non-compliance but rectified by the contractor

* Recommendation was made during site audit but improved/rectified by the contractor.

N/A⁽¹⁾ Not Applicable

 $N/A^{(2)}$ Not Applicable at this stage

APPENDIX G WASTE GENERATION IN THE REPORTING MONTH

Concentric – Hong Kong River Joint Venture

MTR SCL Contract 1108A Kai Tak Barging Point Facilities

		Actual Quanti	ties of Inert C&D	Materials Generat	ed Monthly			Actual Quantities of	C&D Wastes G	enerated Monthly	
Month	Total Quantity Generated	Hard Rock and Large Broken Concrete	Reused in the Contract	Reused in other Projects	Disposed as Public Fill	Imported Fill	Metals	Paper/ cardboard packaging	Plastics (see Note 3)	Chemical Waste	Others, e.g. general refuse
	(in '000m ³)	(in '000m ³)	(in '000m ³)	(in '000m ³)	(in '000m ³)	(in '000m ³)	(in '000 kg)	(in '000kg)	(in '000kg)	(in '000kg)	(in '000m ³)
Jan	0	0	0	0	0	0	0	0	0	0	0
Feb	0	0	0	0	0	0	0	0	0	0	0
Mar	0	0	0	0	0	0	0	0	0	0	0
Apr	0	0	0	0	0	0	0	0	0	0	0
May	0	0	0	0	0	0	0	0	0	0	0
June	0	0	0	0	0	0	0	0	0	0	0
Sub-total	0	0	0	0	0	0	0	0	0	0	0
July	0	0	0	0	0	0	0	0	0	0	0
Aug	0	0	0	0	0	0	0	0	0	0	0
Sept	0	0	0	0	0.111	0	0	0	0	0	0.285
Oct	0	0	0	0	0	0	0	0	0	0	0
Nov	0	0	0	0	0	0	0	0	0	0	0
Dec	0	0	0	0	0	0	0	0	0	0	0
G.Total	0	0	0	0	0.111	0	0	0	0	0	0.285

Monthly Summary Waste Flow Table for <u>2012</u> (year)

1

APPENDIX H COMPLAINT LOG

Appendix H - Complaint Log

Log Ref.	Date/Location	Complainant/ Date of Contact	Details of Complaint	Investigation/ Mitigation Action	File Closed

APPENDIX I TENTATIVE CONSTRUCTION PROGRAMME MTR

MTR SCL 1108A KAI TAK BARGING POINT FACILITIES

3 Month Roling Programme (Rev.02)

Act	Description	Orig	Early	Early Finish	Total Eloat	%	Cal.			2012
COMMENCEMENT & C	OMPLETION	Dui	Start	T IIIISII	Tioal			AUG	SEP	OCT NOV
Completion of the Works	3									
1108ACD01	Letter of Acceptance	0	10AUG12 A			100	2	Letter of Acceptance		
1108ACD02	Commencement of Contract	0	13AUG12 A			100	2	Commencement of Contr	act	
1108ACD03A	Completion of Specified Parts of the Works	0		14FEB13	1d	0	2	2		
1108ACD04B	Completion of 1st BPF for Operation	0		11DEC12	1d	0	2	2		
Time for Completion										
1108ACD04A	Completion of Specified Parts of the Works	187	13AUG12 A	14FEB13	1d	16	2	-		
1108ADC04B	Completion of 1st BPF for Operation	122	13AUG12 A	11DEC12	1d	25	2			
Time for Possession of	Works Area				1					
1108AAC11	Portion 1108A.W1	52	13AUG12 A	02OCT12	10d	58	2			Portion 1108A.W1
1108AAC12	Portion 1108A.W2	21	13AUG12 A	13AUG12 A		100	2	Portion 1108A.W2		
1108AAC13	Portion 1108A.W3	21	13AUG12 A	13AUG12 A		100	2	Portion 1108A.W3		
1108AAC14	Portion 1108A.W4 (Access Only)	21	13AUG12 A	13AUG12 A		100	2	Portion 1108A.W4 (Acces	s Only)	
1108AAC15	Portion 1108A.W5	52	13AUG12 A	02OCT12	10d	58	2			Portion 1108A.W5
1108AAC16	Portion 1108A.W6 (Access Only)	21	13AUG12 A	13AUG12 A		100	2	Portion 1108A.W6 (Acces	s Only)	
1108AAC17	Portion 1108A.W7 (Access Only)	21	13AUG12 A	13AUG12 A		100	2	Portion 1108A.W7 (Acces	s Only)	
+Vacation of Works Area	a									
		1215	01MAY13	28AUG16	0	0	2	2		
MILESTONES SCHEDU	LE									
1108AMSA11	Approval of EMP (G5.1.10)			101/01/10	10014		2			•
1108AMSA12	Approval of Quality Plan (G9.2.1)	0		10100/12	13010	0	2			Approval of EMP (G5.
1100AMSA12	Approval of Quality Fran (C3.2.1)	0		16NOV12	13810	0	2	- 		Approval of Quality Pl
	Approval of Method of Construction (G12.1.1)	0		14NOV12	1383d	0	2			Approval of Method of C
1108AMSA14		0		16NOV12	1381d	0	2			♦ Approval of Submissi
1108AMSA15	Approval of RMP (P24.3.1)	0		16NOV12	1381d	0	2			Approval of RMP (P24
1108AMSA16	Approval of DSCP (PS Appendix Q)	0		23NOV12	1374d	0	2	-		Approval of DS
1108AMSA21	Approval of Health & Safety Plan (G3.6.1)	0		12DEC12	1355d	0	2			
1108AMSA22	Approval of Preliminary MP (G4.6.1)	0		12DEC12	1355d	0	2	2		
Milestones for Cost Cer		I .								<u>ه</u>
		0		080CT12	1420d	0	2			Approval: Design of BPF
1108AMSB12	Approval: Operation Plan for BPF	0		200CT12	1408d	0	2	2		Approval: Operation Plan for BPF
EXECUTION OF OPTION	NS									
1108AOP101	Time for Execution of Option 1	15	134UG12 A	27AUG12 A		100	2	Time for Eve	aution of Ontion 1	
Option 02 - Use of Float	ing Landing Barge in WA3	10	TONOGIEN	EINOGIEN		100	L			
1108AOP200	Time for Execution of Option 2	30	13AUG12 A	11SEP12 A		100	2		Time for Execution	n of Option 2
1108AOP201	Extension of Time For Execution of Option 2	30	12SEP12 *	110CT12	1417d	0	2	2		Extension of Time For Execution of Option 2
1108AOP210	Review of MTIA Report	14	13AUG12 A	26AUG12 A		100	2	Beview of M	TIA Benort	
1108APD220	Seek Advice / No-objection from Marine Dept.	14	27AUG12 A	09SFP12 A		100	2		Seek Advice / No-o	hiertion from Marine Dent
1108APD221	Seek No-objection from CEDD	21	274UG12 A	11SEP12 A		100	1		Cook No objectio	
Value Engineering Propos						100			Seek NO-ODJECTIO	
+Reuse of Existing BPF	(Not Considered by MTR)									
		50	13AUG12 A	010CT12	32d	51	2			<u> </u>
Reuse of Existing Footir		1					1			
1108AVE210	Preliminary Agreement w/Contractor of CV/2007/03	5	11SEP12	15SEP12	48d	0	2		Preliminary A	Agreement w/Contractor of CV/2007/03

DEC	JAN	2013 FEB	MAR
٥		or con	npletion of Specified Pa
Completion of 1s	t BPF for Operation		
		Comp	pletion of Specified Part
Completion of 1st	BPF for Operation		
10)			
an (G9.2.1)			
onstruction (G12.1.	1)		
on Schedule			
3.1)			
CP (PS Appendix Q)		
Approval of Heal	th & Safety Plan (G3.6.1)		
Approval of Prei	iminary MP (G4.6.1)		

	Act ID	Description	Orig Dur	Early Start	Early Finish	Total Float	%	Cal.	2012
	1108AVE220	Coordination amongst DLO/HyD/CEDD/MTR	7	13SEP12	19SEP12	65d	0	2	Add SEP OCT NOV DEC JAIN
	1108AVE231	Proposal of Verification on Existing Footings	7	16SEP12	22SEP12	48d	0	2	
Ì	1108AVE232	RSE's Structural Appraisal	16	16SEP12	010CT12	53d	0	2	
	1108AVE240	Submission of Preliminary VE Proposal to MTR	3	10SEP12 A	12SEP12	51d	33	2	
ł	1108AVE251	Endorsement by CP of MTR	7	23SEP12	29SEP12	48d	0	2	Endorsement by CP of MTP
	1108AVE252	Approval by HvD (RDO)	14	23SEP12	060CT12	48d	0	2	
	1108AVE260	Acceptance of Preliminary VE Proposal by MTR	14	2002112	0100712	-00 53d	0	2	
	1108AVE271	Agreement on Terms & Conditions of VF w/MTB	21	1200010	0200712	500		2	
	1108AVE273	Formal Approval of VE by MTR	21	133LF12	0600T12	48d	0	2	
	Cost Centre A				0000112	400		_	
Γ	Preliminaries								
	1108AA1010	Submission of EMP	28	13AUG12 A	10SEP12 A		100	2	Submission of EMP
	1108AA1011	Approval of EMP	49	11SEP12	16NOV12	986d	0	1	Approval of EMP
	1108AA1020	Submission of Quality Plan	28	13AUG12 A	10SEP12 A		100	2	Submission of Quality Plan
	1108AA1021	Approval of Quality Plan	49	11SEP12	16NOV12	986d	0	1	Approval of Quality Plan
	1108AA1030	Submission of Method of Construction	28	13AUG12 A	17SEP12	1381d	75	2	Submission of Method of Construction
	1108AA1031	Approval of Method Construction	42	18SEP12	14NOV12	988d	0	1	Approval of Method Construction
	1108AA1040	Submission of Submission Schedule	28	13AUG12 A	04SEP12 A		100	2	Submission of Submission Schedule
Ì	1108AA1041	Approval of Submission Schedule	49	11SEP12	16NOV12	986d	0	1	Approval of Submission Schedule
	1108AA1050	Submission of Risk Mgt. Plan	28	13AUG12 A	10SEP12 A		100	2	Submission of Risk Mqt. Plan
Ì	1108AA1051	Approval of Risk Mgt. Plan	49	11SEP12	16NOV12	986d	0	1	Approval of Risk Mat Plan
	1108AA1060	Submission of DSCP	28	13AUG12 A	17SEP12	1372d	75	2	Submission of DSCP
ł	1108AA1061	Approval of DSCP	49	18SEP12	23NOV12	981d	0	1	
	1108AA2010	Submission of Health & Safety Plan	60	13AUG12 A	100CT12	1355d	50	2	Approval of Boot
	1108AA2011	Approval of Health & Safety Plan	45	110CT12	12DEC12	968d	0	1	Approval of Health & Safety Plan
	1108AA2020	Submission of Preliminary MP	60	13AUG12 A	100CT12	1355d	50	2	Submission of Preliminary MP
	1108AA2021	Approval of Preliminary MP	45	110CT12	12DEC12	968d	0	1	Approval of Preliminary MP
(Cost Centre B		I						
	Kai Tak BPF - Design &	Approval	1 1			1			
	1108AB1110		28	13AUG12 A	07SEP12 A		100	2	Submission: Design of BPF
	1108AB1121	Approval by HyD(RDO): Design of BPF	28	13AUG12 A	080CT12	18d	0	2	Approval by HyD(RDO): Design of BPF
-	1108AB1122	Approval by CEDD: Effect on Extg. Seawall	28	11SEP12	080CT12	2d	0	2	Approval by CEDD: Effect on Extg. Seawall
	1108AB1130	Submission of Hoardings/Signboards Design	35	13AUG12 A	12SEP12	27d	94	2	Submission of Hoardings/Signboards Design
	1108AB1131	Approval of Hoardings/Signboards Design	7	13SEP12	21SEP12	19d	0	1	Approval of Hoardings/Signboards Design
	1108AB1140	Submission of Haul Road Design	35	13AUG12 A	04SEP12 A		100	2	Submission of Haul Road Design
	1108AB1141	Approval of Haul Road Design	7	11SEP12	19SEP12	17d	0	1	Approval of Haul Road Design
	1108AB1200	Submission of Operation Plan	70	13AUG12 A	200CT12	33d	43	2	Submission of Operation Plan
	1108AB1201	Approval of Operation Plan	14	220CT12	08NOV12	24d	0	1	Approval of Operation Plan
	Kai Tak BPF - Works Are	eas 1108A.W1 & W5		0000710	0005010	101		2	
	1108AB2111	Frontion of New & Modification of Extra Hearding	50	0900112	U3DEC12	180	0	2	Manufacture of BPF #1 & #2
	1109002111	Site Clearance and Medification of Site Levent	28	0300112	3000 [12	10d	0	2	Erection of New & Modification of Extg. Hoarding
	11094 P0101		21	030CT12	2300712	10d	0	2	Site Clearance and Modification of Site Layout
	1100AB2121	Ground Investigation (If necessary)	7	03OCT12	090CT12	10d	0	2	Ground Investigation (if necessary)
	1108AB2122		21	100CT12	300CT12	10d	0	2	Foundation for BPF#1
	1108AB2123		14	310CT12	13NOV12	10d	0	2	Pile Test for BPF#1
	1108AB2124	Substructures for BPF#1	14	14NOV12	27NOV12	10d	0	2	Substructures for BPF#1
	1108AB2125	Erection of BPF#1	28	28NOV12	25DEC12	10d	0	2	Erection of BPF#1
	1108AB2126	Testing & Commisioning of BPF#1	7	26DEC12	01JAN13	45d	0	2	Testing & Com

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11094 P2122		Dur	Start	Finish	Float	%	Cal.	2012
TIUOADZIGZ	Foundation for BPF#2	14	310CT12	13NOV12	24d	0	2	AUG SEP OCT NOV 2
1108AB2133	Pile Test for BPF#2 (if necessary)	14	14NOV12	27NOV12	24d	0	2	2
1108AB2134	Substructures for BPF#2	14	28NOV12	11DEC12	24d	0	2	2
1108AB2135	Erection of BPF#2	28	26DFC12	22,JAN13	10d	0	2	2
1108AB2136	Testing & Commisioning of BPF#2	7	23.IAN13	29.IAN13	17d	0	2	2
1108AB2140	Beautification and Landscaping Works	28	09 14113	05EEB13	10d	0	2	2
1108AB2191	Operation of BPF#1	0	02.IAN13		45d	0	2	2
1108AB2192	Operation of BPF#2	0	30.IAN13		17d	0	2	2
Kai Tak BPF - Works Area	as 1108A.W2 & W3	`	000,4110			ů		
1108AB2201	Manufacture of BPF#3	42	11SEP12	220CT12	23d	0	2	2 Manufacture of BPF#3
1108AB2211	Site Clearance and Formation	42	03SEP12 A	100CT12	38d	29	2	2 Site Clearance and Formation
1108AB2212	Erection of Hoarding & Project Signboards	42	22SEP12	02NOV12	27d	0	2	2 Erection of Hoardin
1108AB2221	Foundation for BPF#3	28	09OCT12	05NOV12	2d	0	2	2 Foundation for F
1108AB2222	Erection of BPF#3	35	06NOV12	10DEC12	2d	0	2	2
1108AB2223	Beautification and Landscaping Works	28	13NOV12	10DEC12	67d	0	2	2
1108AB2299	Operation of BPF#3	0	11DEC12		2d	0	2	2
Kai Tak BPF - Works Area	as 1108A.W2 & W3 (Option)	1 1		I		ĩ		
1108AB2202	Manufacture Floating Landing Barge #3 (Option)	60	11SEP12	09NOV12	33d	0	2	2 Manufacture
1108AB2213	Site Clearance and Formation	28	03SEP12 A	110CT12	27d	29	2	2 Site Clearance and Formation
1108AB2231	Concrete Slab for Plank Gang to F.L.Barge	14	120CT12	250CT12	27d	0	2	2 Concrete Slab for Plank Ga
1108AB2232	Erection of Temp. Plank Gang to F.L.Barge	14	260CT12	08NOV12	34d	0	2	2 Erection of To
1108AB2233	Construction Roads & Pavements	21	260CT12	15NOV12	27d	0	2	2 Constr
1108AB2234	Installation of Weighbridge System	14	260CT12	08NOV12	1389d	0	2	2
1108AB2235	Installation of CCTV	14	260CT12	08NOV12	1389d	0	2	2 Installation o
1108AB2236	Beautification and Landscaping Works	14	02NOV12	15NOV12	27d	0	2	2 Beauti
1108AB2239	Earlier Operation of BPF#3	0		15NOV12	27d	0	2	2 A Farti
ai Tak BPF - Works Area	as 1108A.W4, W6 & W7			I	II			
1108AB3301	Construction of Temporary Access Roads	60	20SEP12	18NOV12	24d	0	2	2 Cor
ai Tak BPF - Dredging /	Area							
1108AB2401	Application of Dumping License	62	13AUG12 A	120CT12	20d	48	2	2 Application of Dumping License
1108AB2402	Baseline WQM by MTR	0		10SEP12 A		100	2	2 Baseline WQM by MTR
1108AB2403	Submission & Approval: Method Statement	56	13AUG12 A	06OCT12	12d	54	2	2 Submission & Approval: Method Statement
1108AB2410	Procurement of Geotubes	21	30SEP12	200CT12	12d	0	2	2 Procurement of Geotubes
1108AB2421	Initial Echo-Sounding Survey	7	30SEP12	06OCT12	26d	0	2	2 Initial Echo-Sounding Survey
1108AB2422	Final Echo-Sounding Survey	7	03DEC12	11DEC12	969d	0	1	1
1108AB2431	Dredging of Type 1 Sediment	1	210CT12	210CT12	12d	0	2	2 Dredging of Type 1 Sediment
1108AB2432	Dredging of Type 2 Sediment	20	220CT12	10NOV12	12d	0	2	2 Dredging o
1108AB2433	Dredging of Type 3 Sediment - Stage 1	20	11NOV12	30NOV12	12d	0	2	2
1108AB2434	Dredging of Type 3 Sediment - Stage 2	0	01DEC12	30NOV12	75d	0	2	2
1108AB2441	Disposal of Type 1 Sediment	1	220CT12	220CT12	76d	0	2	2 Disposal of Type 1 Sediment
	Disposal of Type 2 Sediment	20	230CT12	11NOV12	76d	0	2	2 Disposal of
1108AB2442		1 1						
1108AB2442 1108AB2443	Disposal of Type 3 Sediment	20	13NOV12	02DEC12	75d	0	2	2

 Start date
 10AUG12

 Finish date
 26SEP16

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 11SEP12

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 23SEP12
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Appendix B

1st EM&A Report for Works Contract 1109 – Stations and Tunnels of Kowloon City Section MTR Corporation Limited

Shatin to Central Link – Tai Wai to Hung Hom Section

Monthly EM&A Report No. 1

Works Contract 1109 - Stations and Tunnels of

Kowloon City Section

(October 2012)

Certified by: <u>Winnie Ko</u>

Position: <u>Environmental Team Leader</u>

Date: <u>12 October 2012</u>

MONTHLY EM&A REPORT

Samsung-Hsin Chong JV

Shatin to Central Link (SCL) - Tai Wai to Hung Hom Section: Works Contract 1109 – Stations and Tunnels of Kowloon City Section *First Monthly EM&A Report*

October 2012

Environmental Resources Management

16/F DCH Commercial Centre 25 Westlands Road Quarry Bay, Hong Kong Telephone: (852) 2271 3000 Facsimile: (852) 2723 5660 E-mail: post.hk@erm.com http://www.erm.com

MONTHLY EM&A REPORT

Samsung-Hsin Chong JV

Shatin to Central Link (SCL) - Tai Wai to Hung Hom Section: Works Contract 1109 – Stations and Tunnels of Kowloon City Section *First Monthly EM&A Report*

October 2012

Reference 0171181

For and on behalf of ERM-Hong Kong, Limited		
Approved by:	Frank Wan	
Signed:	Warchert T.	
Position:	Partner	
Date:	12 October 2012	

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EXECUTIVE SUMMARY

The construction works of **MTR Shatin to Central Link Works Contract 1109 – Stations and Tunnels of Kowloon City Section** commenced on 1 September 2012. This is the first monthly Environmental Monitoring and Audit (EM&A) report presenting the EM&A works carried out during the period from 1 September 2012 to 30 September 2012 in accordance with the EM&A Manual.

Summary of Construction Works undertaken during the Reporting Month

The major construction works undertaken during the reporting month include:

Ma Tau Wai (MTW) Works Area

- Underneath Kowloon East Corridor site clearance, diversion of existing utilities, road drainage construction, cross road ducting;
- Removal of central divider along Ma Tau Wai Road removal of the existing concrete divider; and
- MTW/TKW Road Garden install and connect water supply, preparation works for demolishing existing public toilet, tree felling, preparation for transplanting and predrill for diaphragm wall panel.

To Kwa Wan (TKW) Works Area

• Site preparation works – site clearance and erection of site fencing and hoarding.

Regular Construction Noise and Construction Dust Monitoring

A summary of the monitoring activities in this reporting period is listed below:

• Regular construction noise monitoring during normal working hours

•	NMS-CA-6	- times (1)
•	NMS-CA-7	- times (1)
•	NMS-CA-8	4 times
•	NMS-CA-9	2 times
•	NMS-CA-10	4 times
Cor	nstruction Dust (24-hour TSP) Monitoring	
•	DMS-6	- times (1)
•	DMS-7	- times (1)
•	DMS-8	5 times
•	DMS-9	3 times
•	DMS-10	5 times

No exceedance of the Action and Limit Levels of regular noise monitoring and 24-hour TSP monitoring was recorded during the reporting period.

 Since the construction works have not started in the To Kwa Wan works area in the reporting month, therefore, no regular construction noise and dust monitoring were carried out at NMS-CA-6, NMS-CA-7, DMS-6 and DMS-7.

Continuous Noise Monitoring

As construction works that have been identified by the Construction Noise Mitigation Measures Plan (CNMMP) to be potentially causing exceedance of noise criteria have not commenced during this reporting month, no continuous noise monitoring was carried out.

Cultural Heritage

As tunnelling works have not yet commenced, no vibration monitoring was carried out during the reporting month.

Waste Management

Wastes generated from this Project include inert construction and demolition (C&D) materials and non-inert C&D materials. A total of 4m³ of inert C&D materials and 144m³ of non-inert C&D materials were generated during the reporting period. No chemical waste was generated during the reporting period. Non-inert C&D materials are made up of general refuse and vegetative waste. The inert C&D materials generated from the Project was disposed of at TKO137 Fill Bank and non-inert C&D materials were disposed of at NENT Landfill. In addition, 5,300kg of plastics were sent to Yan Oi Tong at EcoPark for recycling purpose.

Landscape and Visual

Most of necessary mitigation measures have been implemented and follow-up actions recommended to the Contractor have been conducted by the Contractor. Details of the audit findings and implementation status are presented in *Section 5*.

Environmental Site Inspection

Joint weekly site inspections were conducted by representatives of the Contractor, Engineer and Contractor's ET on 3, 10, 17 and 24 September 2012. The representative of the IEC joined the site inspection on 10 September 2012. Details of the audit findings and implementation status are presented in *Section 6*.

Non-conformance/Compliant/Summons and Prosecution

No non-compliance event was recorded during the reporting period.

No environmental complaint and summons/prosecutions was received in this reporting period.

Future Key Issues

Works to be undertaken in the next reporting month include:

Ma Tau Wai (MTW) Works Area

• Underneath East Kowloon Corridor - site clearance, diversion of existing utilities, road drainage construction, cross road ducting;

- Removal of central divider along Ma Tau Wai Road removal of the existing concrete divider;
- MTW/TKW Road Garden installing and connecting water supply, demolishing existing public toilet, tree felling, preparing for transplanting and predrilling for diaphragm wall panel.

To Kwa Wan (TKW) Works Area

- General work excavation of the trial pits for underground utilities and concrete pavement;
- Site preparation work erection of site fencing & hoarding and site clearance;
- Demolition and site clearance tree felling and preparation for transplanting;
- Piling pre-drilling; and
- Preparation of tunnelling works bored piling for Tunnel Boring Machine (TBM) shaft and pipe piling for TBM shaft.

1 INTRODUCTION

ERM-Hong Kong, Limited (ERM) was appointed by Samsung-Hsin Chong JV (SSHCJV) as the Environmental Team (Contractor's ET) to undertake the Environmental Monitoring and Audit (EM&A) programme during the construction phase of the **MTR Shatin to Central Link (SCL) Works Contract 1109 – Stations and Tunnels of Kowloon City Section** (the Project).

1.1 PURPOSE OF THE REPORT

This is the first EM&A report which summarises the monitoring results and audit findings during the reporting period from 1 September to 30 September 2012.

1.2 STRUCTURE OF THE REPORT

Section 1 : Introduction

It details the purpose and structure of the report.

Section 2: Project Information

It summarises the background and scope of the project, site description, project organization and contact details, construction programme, construction works undertaken and status of the Environmental Permits/Licenses during the reporting period.

Section 3: Environmental Monitoring Requirement

It summarises the monitoring parameters, programmes, methodologies, frequency, locations, Action and Limit Levels, Event / Action Plans.

Section 4: **Implementation Status of Environmental Mitigation Measures** It summarises the implementation of environmental protection measures during the reporting period.

Section 5 : **Monitoring Results** It summarises the monitoring results obtained in the reporting period.

Section 6 : **Environmental Site Inspection** It summarises the audit findings of the weekly site inspections undertaken within the reporting period.

Section 7: Environmental Non-conformance

It summarises any monitoring exceedance, environmental complaints and environmental summons within the reporting period.

Section 8: Future Key Issues

It summarises the forecast of environmental impact and monitoring schedule for the next three months.

Section 9: Conclusions

2.1 BACKGROUND

The Shatin to Central Link – Tai Wai to Hung Hom Section (hereafter referred to as SCL (TAW-HUH)) is an extension of the Ma On Shan Line and is approximately 11 km long. It links up with the West Rail Line at Hung Hom forming a strategic east-west rail corridor. It is a Designated Project under the *Environmental Impact Assessment Ordinance* (Cap. 499) (EIAO).

The construction of the SCL (TAW-HUH) has been divided into a series of civil construction Works Contracts and this Works Contract 1109 covers the construction of stations in To Kwa Wan (TKW) and Ma Tau Wai (MTW), and the tunnels between TKW station and Ho Man Tin station (HOM).

2.2 GENERAL SITE DESCRIPTION

For the Works Contract 1109, the alignment runs from TKW station below Ma Tau Chung Road/Ma Tau Wai Road towards the west, reaching the MTW station. After leaving MTW station, the alignment passes Ko Shan Road and joins the HOM station at the intersection of Fat Kwong Street and Shun Yung Street. The underground sections of the alignment between TKW and HOM stations will be constructed by bored tunnelling. Both the TKW and MTW stations will be constructed by cut-and-cover method.

The alignment and works area for the Works Contract 1109 are shown in *Annex A*.

2.3 CONSTRUCTION PROGRAMME AND ACTIVITIES

A summary of the major construction activities undertaken in this reporting period is shown in *Table 2.1*. The construction programme is presented in *Annex B*.

Table 2.1Summary of the Construction Activities Undertaken during the Reporting
Month

Co	nstruction Activities Undertaken
Ma	Tau Wai (MTW) Works Area
•	Underneath Kowloon East Corridor - site clearance, diversion of existing utilities, road
	drainage construction and cross road ducting;
•	Removal of central divider along Ma Tau Wai Road - removal of the existing concrete
	divider; and
•	MTW/TKW Road Garden - installing and connecting water supply, preparation works
	for demolishing existing public toilet, tree felling, preparation for transplanting and
	predrill for diaphragm wall panel.

Construction Activities Undertaken

To Kwa Wan (TKW) Works Area

• Site preparation work – site clearance and erection of site fencing and hoarding.

2.4 PROJECT ORGANISATION

The project organization chart and contact details are shown in *Annex C*.

2.5 STATUS OF ENVIRONMENTAL LICENCES, NOTIFICATION AND PERMITS

A summary of the relevant permits, licences, and/or notifications on environmental protection for this Project since the commencement of the construction works in September 2012 is presented in *Table 2.2*.

Table 2.2Summary of the Status of Environmental Licence, Notification, Permit and
Documentations

Permit/ Licences/	Reference	Validity Period	Remarks
Notification			
Environmental	EP-438/2012/A	Throughout the	-
Permit		Contract	
Notification of	348516	7 Aug 2012 – 30	-
Construction Works		Apr 2017	
under the Air			
Pollution Control			
(Construction Dust)			
Regulation			
Wastewater Discharge	Licence		
Site at MTW			Application was made on
			13 Aug 2012 and is
			pending for EPD's
			approval
Site at TKW	-	-	Application was made on
			13 Aug 2012 and pending
			for EPD's approval
Chemical Waste Produ	cer Registration		
Site at MTW	5213-286-S3682-01	Throughout the	
		Contract	
Site at TKW	5213-242-S3682-02	Throughout the	-
		Contract	
Construction Noise	-	-	Application was made
Permit			on 7 Aug 2012 and is
			pending for EPD's
			approval
Billing Account for	7015758	Throughout the	-
Disposal of		Contract	
Construction Waste			

3 ENVIRONMENTAL MONITORING REQUIREMENTS

3.1 REGULAR CONSTRUCTION NOISE MONITORING

3.1.1 Monitoring Location

In accordance with the EM&A Manual, monitoring of construction noise impact should be conducted at the designated monitoring stations. Since access to some of the proposed monitoring locations stated in the EM&A Manual were rejected or not available; alternative locations, were proposed and agreed by the ER (Engineer's Representative), IEC (Independent Environmental Checker) and EPD (Environmental Protection Department). The construction noise monitoring locations are listed in *Table 3.1* and shown in *Annex D*. The noise sensitive receivers (NSRs) related to this Works Contract are also shown in *Annex D*.

Table 3.1Regular Construction Noise Monitoring Location

Proposed Regular Construction Noise Monitoring Location	Description	Type of Measurement
NMS-CA-6 ^(a)	No. 420 Prince Edward Road West	Façade
NMS-CA-7	Skytower Tower 2	Façade
NMS-CA-8	SKH Good Shepherd Primary School	Façade
NMS-CA-9 (b)	Kong Yiu Mansion	Façade
NMS-CA-10	Chat Ma Mansion	Façade

Notes:

- (a) Access to the monitoring location (Prosperity House) originally proposed in the approved EM&A Manual was denied during the baseline monitoring. Furthermore, the alternative location, No. 420 Prince Edward Road West, used in the baseline monitoring was also not available as access permission was rejected by the owner of the building. Another location (No.16-23 Nam Kok Road) has been proposed by Contractor's ET and access has been granted. A proposal for this alternative location is prepared and the Contractor's ET is awaiting agreement by the IEC. The proposal will be submitted to EPD in October.
- (b) As the Incorporated Owners Association of the monitoring location (i.e. Lucky Building) originally proposed in the approved EM&A Manual did not reply to our request for access to their premise, an alternative location, Kong Yiu Mansion, was proposed and approved by the ER and agreed by the IEC and EPD.

3.1.2 Monitoring Parameter and Frequency

Weekly construction noise monitoring was conducted in accordance with the requirements stipulated in the EM&A Manual. If works are to be carried out during restricted hours, the conditions stipulated in the construction noise permit issued by the Noise Control Authority have to be followed. The monitoring schedule for this reporting period is shown in *Annex E*.

The construction noise levels were measured in terms of A-weighted equivalent continuous sound pressure level (L_{eq}) in decibels dB(A). $L_{eq (30min)}$

was used as the monitoring metric for the time period between 0700 – 1900 hours on normal weekdays. The measured noise levels were logged every 5 minutes throughout the monitoring period.

3.1.3 Monitoring Equipment and Methodology

Construction noise measurements were conducted in accordance with the calibration and measurement procedures as stated in *Annex – General Calibration and Measurement Procedures* of *Technical Memorandum on Noise from Construction Work other than Percussive Piling* (*GW-TM*) issued under the *Noise Control Ordinance* (*NCO*) (Cap 400).

The sound level meters and calibrator used for the noise measurement, as listed in *Table 3.2*, compile with the IEC 651: 1979 and 804:1985 (Type 1) specification. The calibration certificates of the sound level meters are included in *Annex F*.

Table 3.2Noise Monitoring Equipment

Monitoring Stations ^(a)	Monitoring Equipment (Sound Level Meter and Calibrator)
NMS-CA-8, NMS-CA-9	Calibrator: NC 73 (Serial No. 10997142)
and NMS-CA-10	Sound Level Meter: NL 18 (Serial No. 00360030) or NL 31 (Serial No. 00410224)
Note:	
(a) Since the construction works have not started in TKW works area in the reporting month,	

(a) Since the construction works have not started in TKW works area in the reporting month, no construction noise monitoring was conducted at NMS-CA-6 and NMS-CA-7.

Immediately prior to and following the noise measurements, the accuracy of the measurement equipment was checked using an acoustic calibrator generating a known sound pressure level at a known frequency.

Measurements were accepted when the calibration level from before and after the noise measurement agreed to within 1.0 dB(A).

3.1.4 Action and Limit Levels

The Action and Limit Levels are presented in *Table 3.3* and the Event / Action Plan (EAP) for noise monitoring is presented in *Annex G*.

Table 3.3Action and Limit Levels for Noise Monitoring

Time Period	Regular Noise Monitoring Location	Action Level	Limit Level
0700 - 1900 hours on normal	NMS-CA-6	When one documented valid complaint is received	75 dB(A)
weekdays	NMS-CA-7	When one documented valid complaint is received	75 dB(A)
	NMS-CA-8	When one documented	70 dB(A)
		valid complaint is received	65 dB(A) during examination period
	NMS-CA-9	When one documented valid complaint is received	75 dB(A)
	NMS-CA-10	When one documented valid complaint is received	75 dB(A)

Note:

(a) If works are to be carried out during restricted hours, the conditions stipulated in the construction noise permit issued by the Noise Control Authority have to be followed.

3.2 CONTINUOUS NOISE MONITORING

3.2.1 Monitoring Location

With reference to the Continuous Noise Monitoring Plan (CNMP) and EP Condition 2.10, continuous noise monitoring should be conducted during the construction of the SCL (TAW-HUH) under Works Contract 1109 at nine noise sensitive receivers (NSRs), where the predicted residual air-borne construction noise impacts exceed the relevant noise criteria The proposed continuous noise monitoring locations are presented in *Table 3.4* and shown in *Annex D*.

Table 3.4 Proposed Continuous Noise Monitoring Locations

Continuous Noise Monitoring Location ^(a)	Description
TKW-3-2(A)	No. 420 Prince Edward Road West
MTW-12-3	Lucky Mansion
MTW-12-4	352-354 Ma Tau Wai Rd (East Façade)
MTW-12-4-1(A)	Merricourt (59 Maidstone Road)
MTW-12-10	Lucky Building (South Façade)
MTW-12-10-1	Lucky Building (East Façade)
MTW-12-11	Jing Ming Building
MTW-16-1	SKH Good Shepherd Primary School
HOM-2-1-A	Faerie Court (East Façade)
Note:	
(a) The final monitoring locations will be su	bject to the latest Continuous Noise Monitoring

Plan (CNMP).

3.2.2 Monitoring Parameter and Frequency

Continuous monitoring of $L_{eq 30min}$ noise levels will be carried out at the nine NSRs identified in *Table 3.4* during the normal construction working hours (0700 – 1900 Monday to Saturday). The measurement period for the

continuous noise monitoring programme recommended in the CNMP are presented in *Table 3.5*. If works are to be carried out during restricted hours, the conditions stipulated in the construction noise permit issued by the Noise Control Authority have to be followed.

3.2.3 Monitoring Equipment and Methodology

In accordance to the Technical Memorandum (TM) issued under the *Noise Control Ordinance* (NCO), sound level meters in compliance with the International Electrotechnical Commission Publications 651:1979 (Type 1) and 804:1985 (Type 1) specifications will be used for carrying out the noise monitoring.

Immediately prior to the noise measurement, the accuracy of the sound level meter will be checked using an acoustic calibrator, which generated a known sound pressure level at a known frequency. The accuracy of the sound level meter will also be checked on an annual-basis. Measurements will be accepted as valid only if the calibration level before and after the noise measurement agrees to within 1.0 dB. Noise measurements will be made in accordance with standard acoustical principles and practices in relation to weather conditions.

3.2.4 Action and Limit Levels

The Action/Limit Levels for the continuous noise monitoring programme recommended in the CNMP are presented in *Table 3.5*.

Proposed Continuous Noise Monitoring Stations	Description	Action / Limit Level ^(a)	Measurement Period ^(a)
TKW-3-2(A)	No. 420 Prince Edward Road West	80	Sept 2014 – Dec 2014
MTW-12-3	Lucky Mansion	80	Aug 2014 – Jan 2015,
			Mar 2015 – Jun 2015
MTW-12-4	352-354 Ma Tau Wai Rd (East Façade)	80	Aug 2014 – Jun 2015
MTW-12-4-1(A)	Merricourt (59 Maidstone Road)	82	Oct 2014,
			Dec 2014 – Jun 2015
MTW-12-10	Lucky Building (South Façade)	84	Mar 2015 – Apr 2015,
			Sept 2015 – Jan 2016
MTW-12-10-1	Lucky Building (East Façade)	80	Dec 2014 - May 2015,
			Sept 2015 – Jan 2016
MTW-12-11	Jing Ming Building	81	Sept 2014 – Jun 2015
MTW-16-1	SKH Good Shepherd Primary	78	Apr 2013 – Dec 2013,
	School		Aug 2014 – Mar 2016
HOM-2-1-A	Faerie Court (East Façade)	78	Mar 2013 – Feb 2014
Note:			
Note: (a) The A/L Levels and Measurement Periods will be subject to the latest CNMMP and CNMP.			

Table 3.5Action/Limit Levels for Continuous Noise Monitoring (a)

The Event/Action Plan (EAP) for continuous noise monitoring is presented in *Annex G*.

3.3 CONSTRUCTION DUST MONITORING

3.3.1 Monitoring Location

The proposed dust monitoring stations for the construction phase of the Project, as recommended in the approved EM&A Manual, are listed in *Table 3.6* and shown in *Annex D*. The proposed locations have been agreed with the ER, Environmental Protection Department (EPD) and Independent Environmental Checker (IEC).

Table 3.6Construction Dust Monitoring Location

Proposed Construction Dust Monitoring Location	Description
DMS-6 (a)	No. 420 Prince Edward Road West
DMS-7	Parc 22
DMS-8	SKH Good Shepherd Primary School
DMS-9 ^(b)	No. 26 Kowloon city road
DMS-10	Chat Ma Mansion

Notes:

- (a) Access to the monitoring location (i.e. Prosperity House) originally proposed in the approved EM&A Manual was denied during the baseline monitoring. Furthermore, the alternative location, No. 420 Prince Edward Road West, used in the baseline monitoring was also not available as access permission was rejected by the owner of the building. Another location (Katherine Building) is proposed and access has been granted. A proposal for this alternative location is prepared and the Contractor's ET is awaiting agreement by the IEC. The proposal will be submitted to EPD in October.
- (b) As the Incorporated Owners Association of the originally proposed monitoring location (i.e. Lucky Building) did not reply to our request for access to their premise, an alternative location, No. 26 Kowloon City Road, was proposed and it has been approved by the ER and agreed by the IEC and EPD.

3.3.2 Monitoring Parameter and Frequency

The construction dust monitoring (in terms of Total Suspended Particulates (TSP)) was conducted at the designated monitoring stations in accordance with the requirements stipulated in the EM&A Manual. The 24-hour TSP levels were monitored at the frequency and duration stated in *Table 3.7*. The TSP monitoring was conducted as per the schedule presented in *Annex E*.

Table 3.7 Construction Dust Monitoring Parameters and Frequency

Monitoring Period	Duration	Parameter	Frequency
Dust Monitoring	Throughout the construction period of the Project	24-hour TSP	Once per 6 days

3.3.3 Monitoring Equipment

24-hour averaged TSP monitoring was performed at the designated monitoring stations using High Volume Samplers (HVS) with the appropriate

sampling inlets installed, located. The performance specification of HVS complied with the standard method "*Determination of Suspended Particulate Matter in the Atmosphere (High Volume Method)*" as stipulated in *US EPA Standard Title 40, Code of Federation Regulations Chapter 1 (Part 50 Appendix B). Table 3.8* summarises the equipment that were deployed for the 24-hour averaged monitoring.

Table 3.8Construction Dust Monitoring Equipment

Monitoring Location	g Location Monitoring Equipment (HVS and Calibrator)	
24-hr TSP		
DMS-6	_ (a)	
DMS-7	_ (a)	
DMS-8	TE-5170 (Serial No. 3572), CM-AIR-43 (Serial No. 0438320)	
DMS-9	TE-5170 (Serial No. 0814), CM-AIR-43 (Serial No. 0438320)	
DMS-10	TE-5170 (Serial No. 3573), CM-AIR-43 (Serial No. 0438320)	
Note:		
(a) Since the construct	tion works have not started in the TKW works area in the reporting	

(a) Since the construction works have not started in the TKW works area in the reporting month, no construction dust monitoring was conducted at DMS-6 and DMS-7.

3.3.4 Monitoring Methodology

All HVSs were free-standing with no obstruction.

The following criteria were considered in the installation of the HVSs:

- appropriate support to secure the samplers against gusty wind needed to be provided at the monitoring stations;
- a minimum of 2m separation from walls, parapets and penthouses was required for rooftop samplers;
- no furnace or incinerator flues was nearby;
- airflow around the sampler was unrestricted; and
- permission could be obtained to set up the samplers and gain access to the monitoring stations.

Preparation of Filter Papers

- glass fibre filters were labelled and sufficient filters that were clean and without pinholes were selected;
- all filters were equilibrated in the conditioning environment for 24 hours before weighing. The conditioning environment temperature was around 25°C and not varied by more than ± 3°C; the relative humidity (RH) was 40%; and
- SGS Hong Kong Ltd, a HOKLAS accredited laboratory, implemented comprehensive quality assurance and quality control programmes on the filters.

Field Monitoring

- the power supply was checked to ensure that the HVSs were working properly;
- the filter holder and the area surrounding the filter were cleaned;
- the filter holder was removed by loosening the foul bolts and a new filter, with stamped number upward, on a supporting screen was aligned carefully;
- the filter was properly aligned on the screen so that the gasket formed an airtight seal on the outer edges of the filter;
- the swing bolts were fastened to hold the filter holder down to the frame. The pressure applied should be sufficient to avoid air leakage at the edges;
- the shelter lid was closed and secured with the aluminium strip;
- the HVSs were warmed-up for about 5 minutes to establish runtemperature conditions;
- a new flowrate record sheet was inserted into the flow recorder;
- the flow rates of the HVSs were checked and adjusted to between 1.22 -1.37 m³min⁻¹, which was within the range specified in the EM&A Manual (i.e. 0.6 – 1.7 m³min⁻¹);
- the programmable timer was set for a sampling period of 24 hours ± 1 hour, and the starting time, weather condition and the filter number were recorded;
- the initial elapsed time was recorded;
- at the end of sampling, the sampled filter was removed carefully and folder in half l so that only surfaces with collected particulate matter were in contact;
- the filter paper was then placed in a clean plastic envelope and sealed;
- all monitoring information was recorded on a standard data sheet; and
- the filters were sent to SGS Hong Kong Ltd for analysis.

Maintenance and Calibration

- the HVSs and their accessories were maintained in a good working condition. For example, motor brushes were replaced routinely and electrical wiring was checked to ensure a continuous power supply; and
- the flow rate of each HVS with mass flow controller was calibrated using an orifice calibrator. Initial calibrations of the dust monitoring

equipment were conducted upon installation and prior to commissioning. Five-point calibration was carried out for HVSs using CM-AIR-43 Calibration Kit. HVSs are calibrated every six-month. The calibration records for the HVSs are given in *Annex F*.

Wind Data Monitoring

• Average wind data (wind speed and direction) during the monitoring period were obtained from the meteorological station at Kai Tak from the Hong Kong Observatory (HKO) and were presented in *Annex J*.

3.3.5 Action and Limit Levels

The Action and Limit levels have been established and presented in *Table 3.9*.

Table 3.9Action and Limit Levels for Dust Monitoring

Parameters	Dust Monitoring Station	Action Level (µg m ⁻³) ^(a)	Limit Level (µg m ⁻³) ^(a)
24-hour TSP	DMS-6	156.8	260
	DMS-7	166.7	260
	DMS-8	152.2	260
	DMS-9	160.9	260
	DMS-10	170.4	260
1-hour TSP (b)	DMS-6	288.8	500
	DMS-7	289.7	500
	DMS-8	300.0	500
	DMS-9	303.0	500
	DMS-10	294.7	500

Notes:

(a) Reference to the Baseline Monitoring Report submitted in July 2012.

(b) Action and Limit Levels for 1-hour TSP will only be used when 1-hour TSP is required to be monitored when one documented valid complaint is received.

The Event/Action Plan (EAP) for dust monitoring is presented in *Annex G*.

3.4 CULTURAL HERITAGE

In accordance with the EM&A Manual, appropriate vibration monitoring on the identified built heritage will be agreed with the Building Department (BD)/Geotechnical Engineering Office (GEO) under the requirement of Buildings Ordinance and/or Blasting Permit as appropriate. Vibration levels will be controlled to appropriate levels. Vibration monitoring will be carried out by the Contractor. The structures requiring vibration monitoring during the relevant tunneling work for this Works Contract include S.K.H. Holy Trinity Church and Old Fast East Flying Training School.

3.5 LANDSCAPE AND VISUAL

In accordance with the EM&A Manual, the landscape and visual mitigation measures shall be implemented and a site inspection shall be conducted once

every two weeks throughout the construction period. The implementation status is given in *Annex H*.

IMPLEMENTATION STATUS ON THE ENVIRONMENTAL PROTECTION REQUIREMENTS

The Contractor has implemented all environmental mitigation measures and requirements as stated in the EIA Report, the Environmental Permit and EM&A Manual. The implementation status of the environmental mitigation measures for this Works Contract during the reporting period is summarized in *Annex H*. The status of required submissions under the EP for this Works Contract during the reporting period in *Table 4.1*.

EP Condition	Submission	Submission Date
Condition 2.9	Construction Noise Mitigation Measures Plan (CNMMP)	1 Aug 2012 (1 st submission)
		28 Sep 2012 (2nd submission)
Condition 2.10	Continuous Noise Monitoring Plan	1 Aug 2012 (1st submission)
		28 Sep 2012 (2nd submission)
Condition 2.16	Archaeological Action Plan(s) (AAP(s))	10 Aug 2012 (1st submission)
		3 Sep 2012 (2 nd submission)
Condition 3.3	Baseline Monitoring Report (1109)	27 Jul 2012

Table 4.1Status of Required Submission under Works Contract 1109

4
5 MONITORING RESULTS

5.1 **REGULAR CONSTRUCTION NOISE MONITORING**

A total of 10 sets of 30-minute construction noise measurements were carried out at the monitoring stations during normal weekdays of the reporting period. The monitoring results together with graphical presentations are presented in *Annex I*. Since the construction works have not started in the Ma Tau Wai area in the reporting month, therefore, no regular construction noise monitoring was conducted at NMS-CA-6 and NMS-CA-7.

No exceedance of the Action and Limit Levels of construction noise was recorded during the reporting period.

5.2 CONTINUOUS NOISE MONITORING

As the construction works that have been identified by the Construction Noise Mitigation Measures Plan (CNMMP) to be potentially causing exceedance of noise criteria have not commenced during this reporting month, no continuous noise monitoring was carried out.

5.3 CONSTRUCTION DUST MONITORING

A total of 13 sets of 24-hr TSP monitorings were carried out at the designated monitoring stations during normal weekdays of the reporting period. The monitoring results together with graphical presentations are presented in *Annex J* and a summary of the dust monitoring results in this reporting month is given in *Table 5.1*.

Monitoring Station	24-hour TSP measured, μg	Monitoring Results m ^{-3 (a)}	Action Level, µgm ⁻³	Limit Level, µgm ⁻³
	Average	Range		
DMS-6 (a)	-	-	156.8	260
DMS-7 (a)	-	-	166.7	260
DMS-8	84	80 - 90	152.2	260
DMS-9	82	79 – 86	160.9	260
DMS-10	84	80 - 88	170.4	260
Note:				

Table 5.1Summary of the Dust Monitoring Results in this Reporting Month

(a) Since the construction works have not started in the TKW works area in the reporting month, therefore, no construction dust monitoring was conducted at DMS-6 and DMS-7.

No exceedance of the Action and Limit Levels of the 24-hr TSP was recorded during the reporting period.

5.4 CULTURAL HERITAGE

As tunnelling works have not commenced, no vibration monitoring was conducted during the reporting month.

5.5 WASTE MANAGEMENT

Waste generated from this Project includes inert construction and demolition (C&D) materials, and non-inert C&D materials. Non-inert C&D materials are made up of general refuse and vegetative wastes. Steel materials generated from the project are also grouped into non-inert C&D materials as the materials were not disposed of with other inert C&D materials. With reference to relevant handling records and trip tickets of this Project, the quantities of different types of waste generated in the reporting month are summarised in *Table 5.2*. The inert C&D materials generated from the Project was disposed of at TKO137 Fill Bank and non-inert C&D materials were disposed of at NENT Landfill. *5*,300kg plastics were sent to Yan Oi Tong at EcoPark for recycling purpose. No paper/cardboard packaging and steel material was generated during the reporting period. Detail of waste management data is presented in *Annex K*.

Table 5.2Quantities of Waste Generated from the Project

Repo	rting			Quar	ntity					
Mont	h	C&D	C&D	Chemical	Recycle	led materials				
		Materials	Materials	Waste	Paper/cardboard	Plastics	Metals			
		(inert) ^(a)	(non-inert) ^(b)							
Septe	mber	4 m ³	144 m ³	0 L	0 kg	5,300 kg	0 kg			
2012										
Notes	5:									
(a)	Inert C&	D materials ir	clude bricks, cor	ncrete, build	ling debris, rubble	and excava	ted soil.			
(b)) Non-inert C&D materials include steel, paper/cardboard packaging waste, plastics and									
	other wastes such as general refuse and vegetative wastes. No paper/cardboard									

packaging and steel material was generated.

5.6 LANDSCAPE AND VISUAL

Bi-weekly inspection of the implementation of landscape and visual mitigation measures were conducted on 3 and 17 September 2012. Most of the mitigation measures given in *Annex H* have been implemented. Actions that were found to be required are listed below:

3 September 2012

- Construction material was stored near Trees MT0115, MT 0116 and MT 0117 at Ma Tau Wai Road/To Kwa Wan Road Garden. The Contractor was reminded to move the materials away from the trees and install sufficient tree protection zone in order to protect the trees.
- Tree protection zone of the retained tree MT0134 was observed to be insufficient considering the size of the tree at Ma Tau Wai Road/To Kwa

Wan Road Garden. The Contractor was reminded to adjust the size of the tree protection zone in order to protect the tree sufficiently.

<u>17 September 2012</u>

• Workers walked inside the tree protection zone of the transplant trees nos. 47, 48 and 49 at Ma Tau Wai Road/To Kwa Wan Road Garden. The Contractor was reminded not to enter the tree protection zone.

Joint weekly site inspections were conducted by representatives of the Contractor, Engineer and Contractor's ET on 3, 10, 17 and 24 September 2012. The representative of the IEC joined the site inspection on 10 September 2012. There was no non-compliance recorded during the site inspections.

Major findings and recommendations are summarized as follows:

3 September 2012

- Stagnant water was observed inside the drip trays of an engine and chemical drum. The Contractor was reminded to remove the stagnant water and cover them with impervious sheet during rainy days. The stagnant water has been removed, as confirmed by the Contractor's ET during the site inspection on 10 September.
- A pile of excavated soil was not fully covered by an impervious sheet at Ma Tau Wai Road/To Kwa Wan Road Garden. The Contractor was reminded to cover the pile sufficiently. The pile of excavated soil bas been sufficiently covered by impervious sheet, as confirmed by the Contractor's ET during the site inspection on 10 September.

10 September 2012

There was no major observation but the IEC has provided the following reminders:

- Temporary hoarding had been erected at Ma Tau Wai Road/To Kwa Wan Road Garden. The Contractor was reminded by the IEC to erect the permanent hoarding as soon as possible, especially before the commencement of the underground utility work. According to the Contractor's latest plan, traffic diversion work instead of the underground utility work will be conducted, Hence, the installation of permanent hoarding will not be affected.
- The Contractor was reminded by the IEC to provide proper a chemical waste storage area (e.g. chemical waste) on site as soon as possible. The chemical waste storage has been ordered and it will be installed on site.
- The Contractor was reminded by the IEC to provide sufficient watering to suppress dust generation during the demolition of concrete pavement and removal of plants on site. Water spraying has been conducted to suppress dust generation on site, as confirmed by the Contractor's ET during site inspection on 17 September.
- The Contractor was reminded by the IEC to make sure that noise measures are provided and consistent with the submitted/endorsed CNMMP to all works sites.

17 September 2012

• Stagnant water was observed inside the blocked drainage channels at Ma Tau Wai Road/To Kwa Wan Road Garden. The Contractor was reminded to clean the channels regularly. The stagnant water inside the blocked drainage channels at Ma Tau Wai Road/To Kwa Wan Road Garden has been removed, as confirmed by the Contractor's ET during site inspection on 24 September.

24 September 2012

- Stagnant water was observed inside a drip tray at Ma Tau Wai Road/To Kwa Wan Road Garden. The Contractor was reminded to remove the stagnant water and cover the chemical drum and drip tray with an impervious sheet. The stagnant water has been cleared properly and the chemical drum and drip tray were covered with impervious sheet. The completion of the rectified action was confirmed by the Contractor's ET during site inspection on 3 October.
- Manual wheel washing took place at the site exit of Ma Tau Wai Road/To Kwa Wan Road Garden. The Contractor explained small amount of water was utilized for wheel washing and the number of truck leaving the site was small. Proper channel for collecting wastewater generated from wheel washing is under construction and the Contractor was advised that the channel should be provided as soon as possible.

All follow-up actions being requested by Contractor's ET and IEC during site inspection were undertaken as reported by the Contractor and observed in the weekly site inspection conducted in the reporting period.

7 ENVIRONMENTAL NON-CONFORMANCE

7.1 SUMMARY OF MONITORING EXCEEDANCE

No exceedance of Action and Limit Levels of regular construction noise and 24-hour TSP monitoring was recorded during the reporting month.

7.2 SUMMARY OF ENVIRONMENTAL NON-COMPLIANCE

No non-compliance event was recorded during the reporting month.

7.3 SUMMARY OF ENVIRONMENTAL COMPLAINT

No complaint was documented during the reporting month. The cumulative environmental complaint log is shown in *Annex M*.

7.4 SUMMARY OF ENVIRONMENTAL SUMMON AND SUCCESSFUL PROSECUTION

No summon was received during the reporting month. The cumulative summons/prosecution log is shown in *Annex M*.

8.1 KEY ISSUES FOR THE COMING MONTH

Works to be undertaken in the next reporting month are summarized in *Table 8.1*.

Table 8.1 Construction Works to be undertaken in the Next Reporting Month

Work to be taken

Work in MTW Area

- Underneath Kowloon East Corridor site clearance, diversion of existing utilities, road drainage construction and cross road ducting;
- Removal of central divider along Ma Tau Wai Road removal of the existing concrete divider; and
- MTW/TKW Road Garden install and connect water supply, demolish existing public toilet, tree felling, preparation for transplanting and predrill for diaphragm wall panel.

Work in TKW Area

- General Work excavation of the trial pits for underground utilities and concrete pavement;
- Site Preparation Work erection of site fencing & hoarding and site clearance;
- Demolition and site Clearance tree felling and preparation for transplanting;
- Piling pre-drilling; and
- Preparation of tunnelling works bored piling for Tunnel Boring Machine (TBM) shaft and pipe piling for TBM shaft

Potential environmental impacts arising from the above construction activities are mainly associated with dust, construction noise and waste management.

8.2 MONITORING SCHEDULE FOR THE NEXT MONTH

The tentative schedule of regular construction noise monitoring and 24-hour TSP monitoring in the next reporting period is presented in *Annex E*. The regular construction noise monitoring and 24-hour TSP monitoring will be conducted at the same monitoring locations in the next reporting period.

8.3 CONSTRUCTION PROGRAMME FOR THE NEXT MONTH

The most updated construction programme for the Project is presented in *Annex B*.

This 1st monthly Environmental Monitoring and Audit (EM&A) Report presents the EM&A works undertaken during the period from 1 September 2012 to 30 September 2012 in accordance with the EM&A Manual and the requirement under EP-438/2012/A.

No exceedance of the Action and Limit Levels of regular construction noise was recorded at the designated monitoring stations during the reporting period.

No exceedance of the Action and Limit Levels of 24-hour TSP monitoring was recorded at the designated monitoring stations during the reporting period.

No non-compliance event was recorded during the reporting period.

No complaint and summons/prosecution was received during the reporting period.

The Contractor's ET will keep track on the EM&A programme to ensure compliance of environmental requirements and the proper implementation of all necessary mitigation measures.

Annex A

The Alignment and Works Area for Works Contract



Annex B

Construction Programme for the Reporting Month and the Coming Month⁽¹⁾

⁽¹⁾ Sung Wong Toi and To Kwa Wan Stations in the programme mean To Kwa Wan and Ma Tau Wai Stations in the Monthly EM&A Report respectively.



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THREE MONTH ROLLING PROGRAMME -AUGUST 2012 (Resubmission)

SAMSUNG - HSIN CHONG JOINT VENTURE

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	of Works														
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	of Works														
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01103.7071	of Works	10 / lug 12 / l		//0	0				♦						
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01109.ACA2a	of Works	15-Aug-12 A	100	1%	0				▼						
								<u>X</u>	<u> X</u>						l
01109.ACA2b	Access date to Works Area 1109.A2b Within 17 weeks from Commencement of Works	15-Aug-12 A	100)%	0				8						
01109.ACA2c	Access date to Works Area 1109.A2c Within 17 weeks from Commencement of Works	15-Aug-12 A	100)%	0				*						
01109.ACA2d	Access date to Works Area 1109.A2d Within 17 weeks from Commencement	15-Aug-12 A	100)%	0				8						
	01 WORS														
01109.ACA2e	Access date to Works Area 1109.A2e Within 17 weeks from Commencement	15-Aug-12 A	100)%	0				8						
	of Works														
01109.ACW3b	Access date to Works Area 1109.W3b Within 3 weeks from Commencement	15-Aug-12 A	100)%	0			·}·····	*						
	of Works														
01109.ACW3c	Access date to Works Area 1109.W3c Within 3 weeks from Commencement	15-Aug-12 A	100)%	0				÷		*				
	of Works				-										
01109 ACW3d	Access date to Works Area 1109 W3d Within 3 weeks from Commercement	15-Aug-12 A	10/	1%	0			<u> </u>	•						
01100.40100	of Works	.0 / ug-12 /			5				♦						
01100 4014/42-	Access data to Works Area 1100 W/2 (Partian KY 2020 and KY 2020)	01 Soc 10*		,	0			<u> </u>	<u> </u>						
UTTUS.ACW13a	ACCESS Gale to WORKS AFEA FILES.WV3 (PORTION KX 2629 and KX 2552)	01-Sep-12"	0	70	U				♦						
								<u>X</u>	<u> X</u>		.				l <u>.</u>
01109.ACW3	Access date to Works Area 1109.W3 (Portion KX 2628)	15-Oct-12*	00	6	0						<	>			•
01109.ACW2	Access date to Works Area 1109.W2 (Wk42/12;21Oct12)	21-Oct-12*	09	6	0									♦	•
01109.ACW10	Access date to Works Area 1109.W10 Within 12 weeks from	24-Oct-12*	00	6	0									♦	
AD251109.W17	Access date to Works Area 1109.W17 Within 17 weeks from	01-Nov-12*	00	6	0			XIIIII	X				1		
	Commencement of Works														
1109- 08 Aug 1.X.	0 Specified Milestone Dates							<u> }</u>							
1109- 08 Aug 1.X.1	0.10 CC-A Milestones														
1109MA01a	A1(a)-Approval of Environ. Management plan (G5.1.10),(Wk41/12,14 Oct12)		14-Oct-12* 0°	6	0									8	\$
								X///////							

ut. MTD 1100	2 rage 2 UI 10 3 MDD Aug with baseline 1 Eiller TASK filter 3 Menth Leekeb	ead						MT	< Corpo	oratio	n Lim	ited							
ut: MTR 1109	3 MRP Aug with baseline_1Fliter: TASK fliter: 3-Month Lookan	ead.			Shat	tin to	Centr	al Link	- 1109	SUW	/ткм	/ Statio	ons and	l Tunne	ls				
	Activity Name	Start	Finish	Activity % Complete	Remainin Duration	g Jul 23	Jui 30	Aug 06	1 Aug 13	Aug 20	Aug	27 Sep	03 Sep	2 10 Sep 17	Sep 24	Oct 01	Oct 08	3 Oct 15	
1109MA01b	A1(b)-Approval of Quality Plan A1(G9.2.1) (Wk41/12,14 Oct12)		14-Oct-12*	0%	0												8	1-1-1-1-1	
1109MA01c	A1(c) -Approval of Method of Construction A1(G12.1.1)(Wk41/12,14 Oct12)		14-Oct-12*	0%	0												\$		
1109MA01d	A1/d)-Annoval of Submission Schedule A1/G12 11 1)/Wk41/12 14 Oct 2)		14-Oct-12*	0%	0												•		
TrosmAuru			14-00-12	078	0												•		
1109MA01e	A1(e)-Approval of System Assurance & Risk Management Plan A1(P25.3.1)(Wk41/12,14 Oct12)		14-Oct-12*	0%	0												\$		
1109MA01f	A1(f)-Approval of Design for Safety & Constructability Plan A1(PS Appendix O)(Wk4/(2:14 Oct 2)		14-Oct-12*	0%	0												*		
1109- 08 Aug 1 X 1	a)(nterinz) in Oct2)																		_
01109.MSB01	B1-Archaeological Action Plan for archaeological survey-cum-excavation approved.(Wk37/12;16Sep12)		16-Sep-12*	0%	0									*					
1109- 08 Aug 1.X.1	10.30 CC-C Milestones																		_
1109MC01	C1-TTMS implemented to close 3 traffic lanes at Ma Tau Wai Road.(Wk46/12;18Nov12)		18-Nov-12*	0%	0														
109-08 Aug 1		ENTS																	_
1109-08 Aug 1.A.	16 TKW Station - Initial Mobilisation Submission and Approvals Submit Application for EPD discharge licence for TKW	13-Aug-12 A		100%	0				•										
01109.PD1000	Submit Application for water connection MTW/TKW Road garden (incl excavation permit?)	15-Aug-12 A		100%	0		♦		•										
01109.PD1130	Submit Application for water connection to main TKW station site	15-Aug-12 A		100%	0				•										
1100- 08 Aug 1 & 1	16 12 Trace (Submission)											_							
01109.PD1010	Appoint Independent Tree Specialist (ITS) (P46.5)	11-Jul-12 A	07-Aug-12 A	100%	0														
01109.PD1090	Review the TRA (Tree Removal Application) (P46.2)	03-Aug-12 A	31-Aug-12	50%	7							.							
		, , , , , , , , , , , , , , , , , , ,																	
01109.PD1370	Obtain Tree Felling permit for MTW Rd/TKW Rd Garden (P46.1)	25-Aug-12	23-Sep-12	0%	30														
1109- 08 Aug 1.A.1	16.1 Trees (Approval)																		_
01109.PD1080	Review & Approve Independent Tree Specialist (ITS) (P46.5)	07-Aug-12 A	15-Aug-12 A	100%	0														
1109- 08 Aug 1.A.	10 General & Site Wide																		-
01109-08 Aug 1.A.1	Submit Performance Bond	01-Aug-12 A	31-Aug-12	76.67%	7			<u></u>	<u></u>										
01109.PD1200	Submit Professional Indemnity Insurance	01-Aug-12 A	07-Sep-12	53.33%	14			<u>X</u>											
1109- 08 Aug 1.A.1 01109.PD1170	10.2 Specified Requirements Provide vehicles & drivers for the Engineer's staff (P42.1)	31-Jul-12 A	01-Aug-12 A	100%	0														
01109.PD1150	Establish site accomodation for the Engineer's staff	01-Aug-12 A	30-Oct-12	25.56%	67														
01109.PD1160	Establish infomation centre in Kowloon City district	01-Aug-12 A	30-Oct-12	25.56%	67			<u>x</u>	<u>A</u>	X X									
1109- 08 Aug 1.A.1	10.20 Survey & Instrumentation																		_
01109.PD1210	Submit Survey Control (G1.8.2)	02-Aug-12 A	08-Oct-12	25%	45			<u></u>											
01109.PD1380	Initial site survey	13-Aug-12 A	06-Sep-12	45.83%	13														
01109.PD1400	Conduct initial site surveys, inc utility detection	15-Aug-12 A	05-Sep-12	20%	10														
01109.PD1410	Install, or take over, geotechnical instrumentation and take baseline readings	16-Aug-12 A	30-Aug-12	58.33%	5					 									
01109.PD1490	Submit Initial Site Survey (P4.1)	07-Sep-12	26-Sep-12	0%	20														
1109- 08 Aug 1.A.1	10.30 Site Establishment Activities						8//////////////////////////////////////		<u> </u>					Data		Revision		Char	
		S	AMSUN	IG - HS	IN CH	IONG	i JOIN.	I VEN	URE					Sen	3MR AUG	12a		RY	-160
SAMSU		IONTH	ROLLIN	G PRO	GRAN	MME	-AUG	UST 20)12 (Re	subm	issior	ו)		Sep	3MR AUG	i12a		-	RY



Date: 25-Aug-1	2 Page 3 of 18	bood						MTR	Corp	oratio	on Lin	nited						
JI: WIR 1109 -	3 MRP Aug with baseline_1Filter: TASK lifter: 3-Month Looka	anead.			Shat	in to C	Centra	al Link	- 1109	SUM	//тки	V Stat	ions ar	nd Tunr	nels			
	Activity Name	Start	Finish	Activity % Complete	Remaining Duration	g Jul 23	Jul 30	Aug 06	1 Aug 13		20 Au	g 27 S	ep 03 Se	2 p 10 Sep TESSMIT	0 17 Sep 2	4 Oct 0		3 0 C
01109.PD1230	Establish site office facilities, inc first aid, smart card readers, etc	13-Aug-12 A	17-Oct-12	10%	43													
01109.PD1240	Project establishment and deployment	13-Aug-12 A	07-Feb-13	6.93%	137													
01109.PD1350	Erect fencing or hoarding (1109.W3b, 1109.W3c, 1109.W3d, 1109.W4, 1109.W11, 1109.W12, 1109.W13)	13-Aug-12 A	01-Oct-12	0%	38													
01109.PD1220	Install initial construction utility services	14-Aug-12 A	14-Sep-12	25%	18													
01109.PD1390	Establish satellite container offices if required.	14-Aug-12 A	02-Sep-12	50%	9					<u></u>	i							
01109.PD1660	Establish Engineer's office (Structural components)	07-Oct-12	13-Dec-12	0%	68													
01109.PD1650	Construct Interim Project Office	08-Oct-12	19-Nov-12	0%	36													
109- 08 Aug 1.A	3 Management Systems																	
01109.PD3380	Prepare & Submit dwgs for bikwork, glazed walls, metal wall panels,louvers,ceilings /stonework	16-Oct-12		0%	0												\$	•
01109.PD3410	Prepare & Submit Permanent Works Material Control Schs (as per GS Clause G4.16.1)	16-Oct-12		0%	0												\$	•
1109- 08 Aug 1.A.:	3.3 Quality Assurance - Submission																	
01109.PD2020	Submit Quality Assurance Plan (G9.2.1)	01-Aug-12 A	13-Aug-12 A	100%	0													
01109.PD2030	Submit Survey Quality Plan (G1.14.1)	01-Aug-12 A	07-Aug-12 A	100%	0													
1109- 08 Aug 1.A.:	3.14 Quality Assurance - Approval																	
01109.PD2640	Review & Approve Quality Assurance Plan (G9.2.1)	14-Aug-12 A	31-Aug-12	50%	7													
01109.PD2650	Review & Approve Survey Quality Plan (G1.14.1)	25-Aug-12	07-Sep-12	0%	14													
1109- 08 Aug 1.A.:	3.4 Construction (incl Geotech) - Submission																	
01109.PD1870	Submit Method of Construction (G12.1.1)	01-Aug-12 A	29-Aug-12	82.14%	5													
01109.PD2900	Submit Contractor's submission schedule (G12.11.1)	01-Aug-12 A	03-Aug-12 A	100%	0													
01109.PD1880	Submit details of Survey Manager for approval (G1.13.1)	01-Aug-12 A	21-Aug-12 A	100%	0				<u>}</u>			-						
01109.PD1890	Submit Site Supervision Plan (P2.3)	01-Aug-12 A	08-Aug-12 A	100%	0													
01109.PD2250	Survey of existing geotechnical features (P4.3.1)	14-Aug-12 A	06-Sep-12	14.29%	12													
01109.PD3060	Appoint a Temporary Works Co-ordinator (P30.1 & G11.6.1)	11-Sep-12	28-Sep-12	0%	18				<u></u>							<u> </u>		
1109- 08 Aug 1.A.:	3.15 Construction (incl Geotech) - Approval																	
01109.PD2280	Review & Approve Site Supervision Plan (P2.3)	04-Aug-12 A	15-Aug-12 A	100%	0													
01109.PD2770	Review & Approve details of Survey Manager for approval (G1.13.1)	25-Aug-12	07-Sep-12*	0%	14									_				
01109.PD2690	Review & Approve Method of Construction (G12.1.1)	30-Aug-12	10-Sep-12	0%	12						=							
01109.PD2410	Review & Approve existing geotechnical features	06-Sep-12	20-Sep-12	0%	14						·····	•						
01109.PD3310	Review & Approve Contractor's submission schedule (G12.11.1)	29-Sep-12	12-Oct-12	0%	14													_
01109.PD3320	Review & Approve Temporary Works Co-ordinator (P30.1 & G11.6.1)	29-Sep-12	12-Oct-12	0%	14													_
1109- 08 Aug 1.A.:	3.5 Building Condition Survey - Submission																	
01109.PD2040	Appoint Building condition surveyor	01-Aug-12 A	22-Aug-12 A	100%	0													
		S	SAMSUN	IG - HS	IN CH	IONG	IOINT	VENT	URE		al i	1		Da	ate	Revi	sion	C
SAMSU		-		-			-	-						Sep	3MR A	UG12a		R`
	THREE I	MONTH	ROLLIN	G PRO	GRAN	/ME -/	AUGL	JST 20 2	12 (Re	subn	nissio	n)						-+



1109- 08 Aug 1.A.3.7 Programme - Subn	ission
	1
SAMSUNG	
Samsung - Hsin Chong Joint Venture	

Data Date: 25-Aug-12 Page 4 of 18

THREE MONTH ROLLING PROGRAMME -AUGUST 2012 (Resubmission)

Date	Revision	Checked	ſ
Sen	3MR AUG12a	RY	i
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REE MONTH ROLLI	NG PROGRAMME	-AUGUST 2012 (Resubmission)	

SAMSUNG - HSIN CHONG JOINT VENTURE

ıg-12	13-Sep-12	0%	14				

01109.PD2720	Submit spoil disposal plan (P17.5.1)	25-Aug-12	25-Aug-12	0%	1			• -	
1109-08 Aug 1.A.3.	17 Environmental - Approval								
01109.PD2660	Review & Approve Environmental Management Plan (G5.1.10)	25-Aug-12	07-Sep-12	0%	14				
01109.PD2680	Review & Approve Waste Management Plan (P17.4.1 G5.6.2)	25-Aug-12	07-Sep-12	0%	14				
01109.PD2750	Review & Approve spoil disposal plan (P17.5.1)	25-Aug-12	08-Sep-12	0%	14				
01109.PD2670	Review & Approve Water Pollution Ctrl Measures & Monitoring Plan (G5.5.5)	30-Aug-12	13-Sep-12	0%	14				
01109.PD2760	Review & Approve Air Quality Management Plan (P22.35 G5.4.1)	31-Aug-12	13-Sep-12	0%	14			-	

Layout: MTR 1109 - 3	3 MRP Aug with baseline_1Filter: TASK filter: 3-Month Lookah	iead.			Shati	in to Central Link- 1109 SUW/TKW Stations and Tunnels
Act ID	Activity Name	Start	Finish	Activity % Complete	Remaining Duration	1 1 2 3 Jul 23 Jul 30 Aug 06 Aug 13 Aug 20 Aug 27 Sep 03 Sep 10 Sep 17 Sep 24 Oct 01 Oct 08 Oct 15 Intersection Transform
1109- 08 Aug 1.A.3	3.5.1 Existing Buildings and Structures (EBS) - Submission					
01109.PDA3100	EBS Condition Survey - Prepare & Submit Building condition surveyor	01-Aug-12 A	22-Aug-12 A	100%	0	
	(P29.3.4)	Ū	0			
01109.PDA3110	EBS Contingency Plan - Prepare & Submit for works in vicinity of EBS	31-Aug-12	06-Oct-12	0%	30	
	(P11.5.4)					
01100 PDA 4290	EPS Condition Survey SSHC N/ receive Bapart from MTB	21 Aug 12*		09/	0	
01109.PDA4260	EBS Condition Survey - SSHCJV receive Report from MTR	31-Aug-12		0%	0	
01109.PDA4290	EBS Condition Survey - SSHCJV Review Condition Survey and discuss with	31-Aug-12	08-Sep-12	0%	8	
	MTR					
01109.PDA4300	EBS Condition Survey - SSHCJV agree protection measures with MTR	31-Aug-12	08-Sep-12	0%	8	
01109.PDA4310	EBS Condition Survey - SSHCJV prepare details of Prot Measures (in acc w	10-Sep-12	14-Sep-12	0%	5	
	ETWB)				-	
01109.PDA4320	EBS Condition Survey - Govmt review, comment & app of Protection	15-Sep-12	13-Oct-12	0%	23	
	measures					
01100 PDA 4220	EPS Condition Survey Install protection measures	15 Oct 12	21 Oct 12	09/	14	
01103.1 DA4550	Ebb condition survey - install protection measures	13-00-12	51-00-12	078	14	
01109.PDA3120	EBS Condition Survey - Investigation to confirm no exist piles/obstructions to	18-Oct-12	20-Nov-12	0%	28	
	proposed TBM tunnels					
01109.PDA4340	EBS Condition Survey - Establish baseline readings	01-Nov-12	30-Nov-12	0%	26	
1109- 08 Aug 1.A.3.	16 Building Condition Survey - Approval					
01109.PD2550	Review & Approve Building condition surveyor	25-Aua-12	07-Sep-12	0%	14	
1109- 08 Aug 1.A.3	3.16.2 Existing Buildings and Structures (EBS) - Approval					
01109.PDA3150	EBS Structural Survey - Review Employer's Structural Survey report	01-Aug-12 A	11-Oct-12	35%	39	
01100 PDA 3130	EBS Condition Survey - Review & Approve Building condition surveyor (by	25-Aug-12	10-Sep-12	0%	14	
01103.1 DA3130	MTR)	23-Aug-12	10-06p-12	078	14	
01109.PDA3140	EBS Condition Survey - Review and comment on Employer's Condition	11-Sep-12	17-Oct-12	0%	30	
	Survey (P4.28, P30 + App AM)					
01100 55 1 1070			17.0.10			
01109.PDA4270	EBS Contingency Plan - Approve the Contingency plan for works in vicinity of EBS (P11.5.4)	08-Oct-12	17-Dec-12	0%	60	
1109- 08 Aug 1.A.3.	6 Environmental - Submission					
01109.PD1670	Apply for a Ground water discharge licence (P11.7.8)	11-Jul-12 A	13-Aug-12 A	100%	0	
01109.PD1900	Submit Environmental Management Plan (G5.1.10)	01-Aug-12 A	09-Aug-12 A	100%	0	
01109 PD1910	Submit Air Quality Management Plan (P22 35 G5 4 1)	01-Aug-12 A	30-Aug-12	80%	6	
		017.0g 1271	00 / lug 12	0070	Ŭ	
01109.PD1920	Submit Water Pollution Ctrl Measures & Monitoring Plan (P22.43 G5.5.5)	01-Aug-12 A	30-Aug-12	79.29%	6	
01100 551000	Submit Maste Massement Disp (D47.4.4.05.0.0)	01 Aug 10 1	00 Aug 10 A	1000/	0	
01109.PD1930	Submit waste Management Plan (P17.4.1 G5.6.2)	01-Aug-12 A	09-Aug-12 A	100%	U	
01109.PD2720	Submit spoil disposal plan (P17.5.1)	25-Aug-12	25-Aug-12	0%	1	
		-				
1109- 08 Aug 1.A.3.	17 Environmental - Approval					
01109.PD2660	Review & Approve Environmental Management Plan (G5.1.10)	25-Aug-12	07-Sep-12	0%	14	

MTR Corporation Limited



Data Date: 25-Aug-1	12 Page 5 of 18							MT	R Corp	orati	on L	imite	d						
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Act ID	Activity Name	Start	Finish	Activity % Complete	Remainin Duration	g Jul 23 J TFISISIMIT	Jul 30	Aug 06	1 Aug 13 SISIMIT TIF	Aug:	20 FISIS MIT	Aug 27	Sep 03	2 Sep 10	Sep 17	Sep 24	Oct 01	Oct 08	3 Oct 15 SMIT T F S S
01109.PD1680	Prepare & Submit first Three-Month Rolling Programme (G4.8.1)	11-Jul-12 A	25-Jul-12 A	100%	0	1	1.1.1.1.1									-1-1-1-1-1-1			
01109.PD1690	Prepare & Submit Time-chainage Programme (G4.11.1)	11-Jul-12 A	08-Sep-12	75%	15			<u>}</u>											
01109.PD1700	Prepare & Submit Preliminary Master Programme (G4.6.1)	11-Jul-12 A	08-Sep-12	75%	15														
01109.PD1940	Prepare & Submit Preliminary ABWF Programme (CoC 15)	25-Jul-12 A	05-Sep-12	57.14%	12		·····	<u>}</u>											
01109.PD2730	Prepare & Submit Co-ordinated installation programme (CoC 15)	25-Jul-12 A	05-Sep-12	57.14%	12														
1109- 08 Aug 1.A.	.3.18 Programme - Approval																		
01109.PD1860	Review & Approve 3 month rolling programme (CoC 15)	01-Aug-12 A	06-Aug-12 A	100%	0														
01109.PD2710	Review & Approve Preliminary ABWF Programme (CoC 15)	06-Sep-12	19-Sep-12	0%	14														
01109.PD2940	Review & Approve Time-chainage Programme (G4.11.1)	09-Sep-12	22-Sep-12	0%	14														
01109.PD2950	Review & Approve Preliminary Master Programme (G4.6.1)	09-Sep-12	22-Sep-12	0%	14														
01109.PD3050	Review & Approve Co-ordinated installation programme (CoC 15)	20-Sep-12	03-Oct-12	0%	14														
1109- 08 Aug 1.A.	.3.8 Other Specified Requirements - Submission																		
01109.PD2000	Arrange a formal risk workshop (within 2M)	01-Aug-12 A	18-Sep-12	58.33%	25												3		
1109- 08 Aug 1.A.	3.9 System Assurance - Submission	1																	
01109.PD1990	Submit System Assurance Plan (P25 + Appx P)	01-Aug-12 A	10-Aug-12 A	100%	0							-							
1109-08 Aug 1.A. 01109.PD2700	.3.20 System Assurance - Approval Review & Approve System Assurance Plan (P25 + Appx P)	25-Aug-12	07-Sep-12	0%	14														
	·······																		
1109-08 Aug 1.A.	13.11 Design Management - Submission	11- Jul-12 A	31- Jul-12 A	100%	0			<u></u>											
		11 001 12 /		10070															
01109.PD1950	Appoint an ICE (P7.12, G12,2.3)	11-JUI-12 A	30-JUI-12 A	100%	0														
01109.PD1720	Submit preliminary design programme (PS App Z2.1)	11-Jul-12 A	24-Jul-12 A	100%	0														
01109.PD1960	Submit Schedule of Designs (PS App Z2.5)	11-Jul-12 A	31-Jul-12 A	100%	0														
01109.PD1730	Design for Safety and Constructability Plan System Assurance (PS App Q) include in System Assurance	11-Jul-12 A	03-Aug-12 A	100%	0														
01109.PD1970	Appoint an RGE (P4.3.1)	25-Aug-12	25-Aug-12	0%	1		•				0								
1109- 08 Aug 1.A.	3.22 Design Management - Approval																		
01109.PD1820	Review & Approve Preliminary design programme (PS App Z2.1)	25-Jul-12 A	13-Aug-12 A	100%	0														
01109.PD1790	Review & Approve for Approval details of TTA Consultant (P19.2)	01-Aug-12 A	10-Aug-12 A	100%	0														
01109.PD2260	Review & Approve System Assurance Plan (PS App Q)	25-Aug-12	07-Sep-12	0%	14														
01109.PD2390	Review & Approve Schedule of Designs (PS App Z2.5)	25-Aug-12	07-Sep-12	0%	14														
1109- 08 Aug 1.A.	3.12 Sub-Contractors - Submission																		
01109.PD1980	Submit Subcontractor Management Plan (PS App S)	01-Aug-12 A	01-Sep-12	73.68%	8														
1109- 08 Aug 1.A. 01109.PD2790	.3.23 Sub-Contractors - Approval Review & Approve Subcontractor Management Plan (PS App S)	02-Sep-12	15-Sep-12	0%	14														
1109- 08 Aug 1 A	.3.13 Health & Safety - Submission																		
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	Layout: MTR 1109 -	3 MRP Aug with baseline_1Filter: TASK filter: 3-Month Lo	okahead.			Shat	in to	Cent	ral Link	- 1109	suw	//TKW Stations and Tunnels	
Normal Market	Act ID	Activity Name	Start	Finish	Activity % Complete	Remaining Duration	Jul 23	Jul 30	Aug 06	1 Aug 13	Aug 2	2 20 Aug 27 Sep 03 Sep 10 Sep 17 Sep 24 Oct 01 Oct 08	3 Oct 15
Image Image <t< td=""><td>01109.PD2010</td><td>Submit Health and Safety Plan (G3.6.1)</td><td>01-Aug-12 A</td><td>30-Sep-12</td><td>38.33%</td><td>37</td><td>TFSS</td><td></td><td></td><td></td><td></td><td>FSSMT TESSMT TESSMT TESSMT TESSMT TESS T TESS T TESS</td><td><u>SSMT TFSSM</u>T</td></t<>	01109.PD2010	Submit Health and Safety Plan (G3.6.1)	01-Aug-12 A	30-Sep-12	38.33%	37	TFSS					FSSMT TESSMT TESSMT TESSMT TESSMT TESS T TESS T TESS	<u>SSMT TFSSM</u> T
	1100 09 Aug 1 A 3	2 24 Maalih 9 Safadu Annzauni											
Normal Property Normal Arrow (Normal Property) Normal	01109-08 Aug 1.A.	Review & Approve Health and Safety Plan (G3.6.1)	01-Oct-12	14-Oct-12	0%	14				+	+		
National Status National S	1109- 08 Aug 1.A	2 Procurement											
Contract Contract <td< td=""><td>1109- 08 Aug 1.A. 01109.PD2060</td><td>2.3 Initial Subcontracts Bid and award - Site Surveys</td><td>01-Aug-12 A</td><td>10-Aug-12 A</td><td>100%</td><td>0</td><td></td><td></td><td></td><td>4</td><td><u></u></td><td><u>l</u></td><td></td></td<>	1109- 08 Aug 1.A. 01109.PD2060	2.3 Initial Subcontracts Bid and award - Site Surveys	01-Aug-12 A	10-Aug-12 A	100%	0				4	<u></u>	<u>l</u>	
100.0000 90.000000 90.000000 90.00000 90.00000 90.00000 90.00000 90.00000 90.00000 90.00000 90.00000 90.00000 90.00000 90.00000 90.00000 90.00000 90.00000 90.00000 90.00000 90.00000 <				-									
	01109.PD2070	Bid and award - Geotechnical Instrumentation and Monitoring	01-Aug-12 A	15-Aug-12 A	100%	0		·····		<u></u>			
No. 1000 No. 1000 <th< td=""><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></th<>													
CHURTAGE Alage 20 Alage 20 <td< td=""><td>01109.PD2570</td><td>Bid and award - Formwork, Rebar and Concreting</td><td>01-Aug-12 A</td><td>14-Aug-12 A</td><td>100%</td><td>0</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></td<>	01109.PD2570	Bid and award - Formwork, Rebar and Concreting	01-Aug-12 A	14-Aug-12 A	100%	0							
0100000000000000000000000000000000000	01100 002000	Did and sward Design Office	01 Aug 12 A	20 Aug 12	00.000/	5				<u>À</u>			
9 00000 0eter Adversation Openantial 0.40 g 2 A 000 g 2 A <	01109.PD2080	bid and award - Project Office	01-Aug-12 A	30-Aug-12	03.33%	5							
OutputAnd August	01109.PD2090	Confirm subcontract for Diaphragm Wall works	01-Aug-12 A	08-Aug-12 A	100%	0							
91997038 Oxfm Strukture Soperitories 924 912 956 92 9 <td< td=""><td></td><td></td><td>Ŭ</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></td<>			Ŭ										
	01109.PD2420	Confirm consultants' appointments	09-Aug-12 A		100%	0			•		\$		
0100702000 Read and Farthering and minimum Ram RAm 10 RA													
11111 1111 1111 1111 1111 1111 11111 1111	01109.PD2560	Bid and award - Earthworks	25-Aug-12	28-Sep-12	0%	30							
$ \begin{array}{c c c c c c c c c c c c c c c c c c c $													
PrisePare	01109.PD2580	Bid and award - TTMS operation and maintenance	25-Aug-12	28-Sep-12	0%	30							
1110 11100 1110 1110	01109.PD2780	Bid and award - Construction Power Supplies from CLP	31-Aug-12	06-Oct-12	0%	30							
01100 PD030 Bet and ansat - free Pelag 17-0p-12 0.0p-12			<u>-</u> -										
$ \begin{array}{c c c c c c c c c c c c c c c c c c c $	01109.PD3100	Bid and award - Bored Piling	17-Sep-12	12-Oct-12	0%	21							
N100 P0379 Read added - Guade Section Contra plant Sequence 198,912 726-73 95,4 21 N100 P0379 Read added - Guade Section Contra plant Sequence 198,912 726-73 95,4 10													
0108 P2280 8/8 Processer 959-12 748-13 0% 100 10	01109.PD3120	Bid and award - Ground treatment Drainage and dewatering	17-Sep-12	12-Oct-12	0%	21							
0110104/2020 SAM - Process and mobile Grand Lucin plant & equipment 29 Sep 12 27 Aber 13 0% 100 01108/2020 Gild and assel - utily devesors 02-Dat 2 26-Oa 12 0% 21 20 <													
01010 P05100 diad ansati - utatippeding weaks 02.04:2 20.04:2 0.00 2	01109.PD2930	SUW - Procure and mobilize Grout Curtain plant & equipment	29-Sep-12	27-Mar-13	0%	180							
10108 P0340 Bid and ansati- watterprofing webs 00-12 12-Nor 12 0% 30 30 20	01109.PD3130	Bid and award - utility diversions	02-Oct-12	26-Oct-12	0%	21				<u>.</u>			
01109.P03400 Bid and awed - materiproding works 09-Oc1 2 24-Nor 12 0% 30 A <td< td=""><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></td<>													
Interface	01109.PD3440	Bid and award - waterproofing works	08-Oct-12	12-Nov-12	0%	30							
11000 PL2820 Optimize Concentre stapping OI Aug-12A 15-Aug-12A 100/h OI OI Aug-12A 15-Aug-12A 100/h OI Image: Concentre stapping Image: Concentre stapping <th< td=""><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td></th<>													
01102/D280 Column 3 Colores appyr 01-Aug-12A 10-Aug-12A 28-Sep-12 0% 30 10-Aug-12A 10-Aug-12A 28-Sep-12 0% 30 10-Aug-12A 28-Sep-12 0% 30 10-Aug-12A 28-Sep-12 0% 30 10-Aug-12A 10-Aug-12A <td>1109- 08 Aug 1.A.</td> <td>2.2 Concrete Construction Materials</td> <td></td> <td>1.5.4.40.4</td> <td>1000/</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td>	1109- 08 Aug 1.A.	2.2 Concrete Construction Materials		1.5.4.40.4	1000/								
01109 PD28700 Bid and award - Temporary works structural ateed and sheet plies 06-Aug-12A 16-Sep-12 30% 21	01109.PD2880	Confirm SC - Concrete supply	01-Aug-12 A	15-Aug-12 A	100%	0							
01108 PD2270 Bid and award - Reinforcing steel suppliers 08-Jug-12A 28-Sep-12 0% 30 000000000000000000000000000000000000	01109.PD2100	Bid and award - Temporary works structural steel and sheet piles	06-Aug-12 A	18-Sep-12	30%	21		·····		<u> </u>			
01109 PD2870 Bid and awaid - Reinforcing steel suppliers 08-Aug-12A 28-Sep-12 0% 30 <td></td> <td></td> <td>Ŭ</td> <td></td>			Ŭ										
Image: state of the state	01109.PD2870	Bid and award - Reinforcing steel suppliers	08-Aug-12 A	28-Sep-12	0%	30				<u></u>	<u></u>		
01109.PD2110 Bid and avaid - Major construction plant and equipment 13. Aug-12 A 28-Sep-12 0% 30													
1109-08 Aug 1AA. Method Statements 01-Aug-12A 23-Aug-12 100% 0	01109.PD2110	Bid and award - Major construction plant and equipment	13-Aug-12 A	28-Sep-12	0%	30							
11/9- US Aug 1.A.X. Mothod Statements Integration of the statements Submission Image: Submission													
01109.PD2120 SUW - Prepare and submit Pre-drilling method statement 01-Aug-12 A 23-Aug-12 A 100% 0	1109- 08 Aug 1.A. 1109- 08 Aug 1.A.	4.4 Method Statements 4.3 SUW - Method statements Submission											
01109.PD6930 SUW - Prepare and submit Tree Feling method statement 01-Aug-12 A 29-Aug-12 50% 5	01109.PD2120	SUW - Prepare and submit Pre-drilling method statement	01-Aug-12 A	23-Aug-12 A	100%	0							
01109.PD6300 SUW - Prepare and submit Tree Felling method statement 01-Aug-12 A 29-Aug-12 50% 5													
01109.PD2130 SUW - Prepare and submit Grout Curtain method statement 13-Aug-12 A 31-Aug-12 A 30% 7	01109.PD6930	SUW - Prepare and submit Tree Felling method statement	01-Aug-12 A	29-Aug-12	50%	5							
01109-D2130 SUW - Prepare and Submit Global Curtain method statement 15-Aug+12 30% 7 1<	01100 802120	SLIW Propose and submit Crout Curtain method statement	12 Aug 12 A	21 Aug 12	20%/	7						······································	
1109-08 Aug 1.A.4.5 SUW - Method Statements Approval Image: Constraint of the statement of the s	01109.PD2130	Sow - Frepare and Subrill Grout Curtain method Statement	13-Aug-12 A	31-AUG-12	30%								
01109.PD2530 SUW - Review & Approval of Pre-drilling method statement 25-Aug-12 12-Sep-12 0% 14 01109.PD1800 SUW - Review & approval of Tree Treament/Felling Reports 30-Aug-12 26-Sep-12 0% 28	1109- 08 Aug 1.A.4	4.5 SUW - Method Statements Approval											
Image: Displaying the series of the	01109.PD2530	SUW - Review & Approval of Pre-drilling method statement	25-Aug-12	12-Sep-12	0%	14							
01109.PD1800 SUW - Review & approval of Tree Treament/Felling Reports 30-Aug-12 26-Sep-12 0% 28													
	01109.PD1800	SUW - Review & approval of Tree Treament/Felling Reports	30-Aug-12	26-Sep-12	0%	28							
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Samsung - Hsin Chong Joint Venture

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Data Date: 25-Aug-	12 Page 7 of 18					MTR Corporation Limited
.ayout: MTR 1109 -	3 MRP Aug with baseline_1Filter: TASK filter: 3-Month Lookah	ead.			Shat	tin to Central Link- 1109 SUW/TKW Stations and Tunnels
Act ID	Activity Name	Start	Finish	Activity % Complete	Remainin Duration	yg2222
01109.PD2350	SUW - Review & Approval of Grout Curtain method statement	01-Sep-12	28-Sep-12	0%	28	
C1109_SA111	SUW - Review & approval of Method Statement for SUW Station Works	09-Nov-12	06-Dec-12	0%	28	
1109- 08 Aug 1.A	4.4 SUW - Site Establishment Submission					
01109.PD2180	SUW - Prepare & Submit Site Gate design details inc in fencing	01-Aug-12 A	06-Aug-12 A	100%	0	
01109.PD2200	SUW - Prepare & Submit Site Fencing design details	01-Aug-12 A	16-Aug-12 A	100%	0	
01109.PD2210	SUW - Prepare & Submit Wheel washing faciliy design details	01-Aug-12 A	16-Aug-12 A	100%	0	
01109.PD2190	SUW - Prepare & Submit Site Hoarding design details	01-Aug-12 A	14-Aug-12 A	100%	0	
1109- 08 Aug 1 A	4.6. SI IW - Site Fetablichment Annroval					
01109.PD2290	SUW - Review & approval of Site Gate(s)	07-Aug-12 A	07-Sep-12	50%	14	
01109.PD2300	SUW - Review & approval of site hoarding	07-Aug-12 A	07-Sep-12	50%	14	
01100 002220		17 Aug 10 A	07 Sep 12	500(14	
01109.PD2320	SUVY - Keview & approval of the wheel wash racinities	17-Aug-12 A	07-Sep-12	50%	14	
01109.PD2310	SUW - Review & approval of site fencing	21-Aug-12 A	07-Sep-12	50%	14	
1109- 08 Aug 1.A	.4.1 TKW - Method Statement Submission					
01109.PD1770	Receive additional SI information from MTR and review	11-Jul-12 A	24-Jul-12 A	100%	0	
01109.PD1830	TKW - Prepare and submit Diaphragm Wall method statement	01-Aug-12 A	10-Sep-12	50%	14	
01109.PD2150	TKW - Prepare & Submit Method Statement TKW Park Works	01-Aug-12 A	14-Sep-12	0%	21	
01109.PD2160	TKW - Prepare & Submit Method Statement for SUW Station Works	01-Aug-12 A	14-Sep-12	0%	21	
01109.PD2170	TKW - Prepare & Submit Tree Transplant/Felling Method Statements	01-Aug-12 A	25-Aug-12	100%	0	
01109-08 Aug 1.A 01109.PD2840	A.2 IKW - Method Statement Approval TKW - Review & Approval of Diaphragm Wall method statement	11-Sep-12	15-Oct-12	0%	28	
1109- 08 Aug 1 A	4.7 Tunnel - Method Statement Submission					
01109.PD3500	Tunnel - Prepare & Submit Tunnel Construction Method Statement (P7.3.21)	01-Aug-12 A	29-Oct-12	26.67%	66	
1100-08 Aug						
1109- 08 Aug 1.E	3.1 SUW Station Construction Works					
1109- 08 Aug 1.B	.1.0 General Activities					
01109.PD2740	Set up steel fixaing Yard for TKW D/Wall cages	15-Oct-12	14-Nov-12	0%	30	
110914061	Start Fabricating panel cages (in SUW)		14-Nov-12	0%	0	
1109- 08 Aug 1.	B.1.0.1 Initial Survey Works					
01109.PD2590	Topographic record survey for SUW areas	25-Aug-12	22-Sep-12	0%	25	
01109.PD2600	Photographic record survey for SUW areas	25-Aug-12	22-Sep-12	0%	25	
01109.PD2610	Visual joint survey of highways structures in SUW areas	25-Aug-12	28-Sep-12	0%	30	
01109.PD2620	Initial survey of Structures to be retained in SUW areas	25-Aug-12	28-Sep-12	0%	30	
21.00.1.22320				0,0		
01109.PD2630	Initial survey of dump concentrations in SUW related areas	25-Aug-12	06-Nov-12	0%	60	

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Samsung - Hsin Chong Joint Ventu

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Date: 25-Aug-12	2 Page 8 of 18							MTR Corporation Li	mit	ed						
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)	Activity Name	Start	Finish	Activity % Complete	Remainin Duration	g Jul 23		1 Jul 30 Aug 06 Aug 13 Aug 20 A LTTTELENTITELECTITELECTITE	Aug 27	Sep 0	Sep 10	2 Sep 17	Sep 24	Oct 01	Oct 08	3 Oct 15
01109.PD2800	CCTV Record Survey of Public drains	31-Aug-12	05-Oct-12	0%	28										<u>s i i i i i i i s</u>	
01109.PD2810	Excavation of Trial Pits for utility Services in SUW areas	31-Aug-12	26-Oct-12	0%	45											
01100 PD2820	Evenuation of Trial Dite for underground structures in SIIW, areas	31-Aug-12	26-Oct-12	0%	45											
01109.FD2020		51-Aug-12	20-06-12	078	45											
1109- 08 Aug 1.B.1	1.1 Site Preparation															
01109-08 Aug 1.B.	Trial Pits Excavation	03-Sep-12	19-Sep-12	0%	14											
01109.PD2890	Fabrication & erection of site hoarding to handed over areas	08-Sep-12	15-Oct-12	0%	30					-						
01109.PD3090	Construction of Site wheel wash facilities	14-Sep-12	10-Oct-12	0%	21						-					
01400 550000	Estimation 0 constitutes (O'the O states to be added sources)	00.0-1.10	00 Nov 40													
01109.PD3330		02-00-12	00-INOV-12	0%	30											
01109.PD3340	Erection of site fencing to handed over areas	02-Oct-12	23-Nov-12	0%	45											
C1109_GS018	Establish D/Wall rebar cage steel fixing area	24-Nov-12	10-Dec-12	0%	14											
1109- 08 Aug 1.B.	1.1.1 Demolition and Site Clearance															
1109- 08 Aug 1.8 01109.PD2440	SUW - Fell Trees	27-Sep-12	08-Dec-12	0%	60		<u>.</u>									
01103.1 D2440	Sow - Feil nees	27-3ep-12	00-060-12	078	00											
01109.PD3070	Prepare trees for transplanting Stage 1	27-Sep-12	03-Nov-12	0%	30											
01109.PD3290	Prepare trees for transplanting Stage 2	16-Oct-12	20-Nov-12	0%	30											
C1109_UD045	Prepare trees for transplanting Stage 3	10-Nov-12	14-Dec-12	0%	30											
1109- 08 Aug 1.B.	1.1.4 Install Monitoring Instruments/Take Initial Readings															
01109.PD2140	Prepare and submit monitoring works method statement	30-Jul-12 A	07-Aug-12 A	100%	0											
			00.0 10													
01109.PD2340	Review & Approval of monitoring works method statement	25-Aug-12	26-Sep-12	0%	28											
01109.PD3020	Approval of monitoring scheme	19-Sep-12	26-Sep-12	0%	7											
01100 002140	lastell manifestra instrum aste Asia initial madiana - Dart 2, CL 04 to 42	07 Can 40	01 Nev 12	0%										<u></u>		
01109.PD3140	instali monitoring instruments/take initial readings ; Part 2- GL 04 to 12	27-Sep-12	01-INOV-12	0%	20											
01109.PD3150	Install monitoring instruments/take initial readings ; Part 3- GL 12 to 19	27-Sep-12	21-Nov-12	0%	45											
01109 PD3160	Install monitoring instruments/take initial readings - Part 4- GL 10 to 24	27-Sen-12	01-Nov-12	0%	28											
01103.1 23100		27-3ep-12	01-100-12	078	20											
01109.PD3170	Install monitoring instruments/take initial readings ; Part 1 - GL 01 to 04 / cofferdam areas)	27-Sep-12	01-Nov-12	0%	28										<i>i</i>	
													····			
01109.PD3180	Install monitoring instruments/take initial readings; Archeological Study Area	27-Sep-12	21-Nov-12	0%	45											
C1109_PD210	Install monitoring instruments/ initial readings works complete		21-Nov-12*	0%	0											
1109-08 Aug 1.B. 01109.PD1740	Appoint Archaeological Survey expert	11-Jul-12 A	01-Aug-12 A	100%	0											
01109.PD1750	Archeological Survey Works (Summary Bar)	11-Jul-12 A	09-May-13	8.81%	207											
01109.PD1810	Review & Approval of Archaeological Action Plan (AAP)	02-Aug-12 A	10-Aug-12 A	100%	0											
	······································															
01109.PD1780	Prepare and submit Archaeological Action Plan (AAP) / Desktop Study	02-Aug-12 A	09-Aug-12 A	100%	0											
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Act ID	Activity Name	Start	Finish	Activity % Complete	Remaining Duration	g Jul 23			1 S Aug	13 Aug	j 20 Au	Ig 27	Sep 03	Sep 10	2 Sep 17	Sep 24	Oct 01			
01109.PD2330	Application of License for Archeological Works	10-Aug-12 A	05-Oct-12	29.17%	34								1 1 5					<u>49 </u>		1994
01109.PD3360	Excavation for Archaeological survey (Summary Bar)		06-Oct-12	0%	0													;		
01109.PD3370	Archaeological Investigation / Survey (Portion 1)	06-Oct-12	06-Nov-12	0%	26															_
C1109_AS055	Handling , preserving and storing of ceramic shreds and other findings	07-Nov-12	13-Apr-13	0%	126															
C1109_AS030	Archaeological Investigation / Survey (Portion 2)	07-Nov-12	06-Dec-12	0%	26															
C1109_AS060	Rescure Excavation (Suvey Area Portion 1a)	07-Nov-12	30-Nov-12	0%	21															
1109- 08 Aug 1.B.1	1.2 Station - Excavation and Foundation																			
1109- 08 Aug 1.E	B.1.2.2.1 Pre-drilling Works																			_
01109.PD3210	Pre-drilling of Main Station areas ;111,011m2 (Summary bar)	15-Oct-12	17-Jan-13	0%	77															
01109.PD3220	Pre-drilling for station foundation piles (Part 1- GL 01 to 04) Pre-drilling of Entrance and Adit areas (Summary bar)	15-Oct-12	01-Nov-12	0%	71														•	
0110011 20200		10 000 12		0,0																
01109.PD3240	Pre-drilling for Adit C works (Part 1 GL07 to 14)	15-Oct-12	01-Nov-12	0%	14														•	
C1109_GI034	Pre-drilling for station foundaton piles(Part 2- GL 04 to 12)	01-Nov-12	17-Nov-12	0%	14															+
C1109_GI040	Pre-drilling works Archeological Study Area	01-Nov-12	08-Jan-13	0%	55															
C1109_GI204	Pre-drilling for Adit C works (Part 2 & 3;GL 01 to 07)	01-Nov-12	09-Nov-12	0%	7															
C1109_GI206	Pre-drilling for Adit B works (GL 01 to 11)	09-Nov-12	24-Nov-12	0%	13															
C1109_GI036	Pre-drilling for station foundaton piles (Part 3- GL 12 to 19)	17-Nov-12	03-Dec-12	0%	13															
C1109_GI208	Pre-drilling for Adit B works (GL11 to 20)	24-Nov-12	12-Dec-12	0%	15															
C1109_GI210	Pre-drilling for AditB works (GL20 to 31)	24-Nov-12	29-Dec-12	0%	28															
1109- 08 Aug 1.B.	.1.2.1 TBM Launch Shaft Works																			
01109.PD2830	TBM Launch shaft - Site survey, hoarding, clearance and monitoring stations	16-Oct-12	22-Oct-12	0%	6							_		_						
1109-08 Aug 1.E 01109.PD3260	B.1.2.1.2 Bored Piling for TBM Shaft TBM Launch shaft - Gang 3 - Bored Piling P24 to 28 (5nr) 5d/pile	24-Oct-12	21-Nov-12	0%	25						<mark></mark>									
01109.PD3270	TBM Launch shaft - Gang 2 - Bored Piling P79 to 84 (5nr) 5d/pile	24-Oct-12	21-Nov-12	0%	25														=	
1100- 08 Aug 1 E	P 1 2 1 3 Dine nilling for TDM Shoft Area																			
01109.PD3010	TBM Launch shaft - Gang 1 - Pipe Piles Zone E - P1 to 16 (16nr) 1.5d/pile	24-Oct-12	20-Nov-12	0%	24															
11096540	TBM Launch shaft - Gang 1 - Pipe Piles Zone E - P17 to 32 (16nr) 1.5d/pile	21-Nov-12	18-Dec-12	0%	24													=		
1109-08 Aug 1.B.	.6 Others																			
01109.PD6940	Preparation Works	01-Aug-12 A	11-Sep-12	40%	15															
01109.PD6950	Site Clearance	12-Sep-12	19-Sep-12	0%	7															
01109.PD6960	Concrete Pavement	20-Sep-12	08-Oct-12	0%	14													-		
	<u> </u>																			
		S	SAMSUN	IG - HS	IN CH	IONG	i JOIN	T VEN	ITURE						Date		Revisi	on	Che	cked
SAMSU															Sep	3MR AL	JG12a			
Samsung - Hsin Ch	hong Joint Venture	ΛΟΝΤΗ	ROLLIN	g pro	GRAN	MME	-AUG	UST 2	012 (I	Resubi	missio	n)								



ia Date: 25-Aug-12	2 MDD Augustith hans	1 Filton TACK filton 2 Marshel and the	bee						MT	R Corp	oratio	on Limi	ted							
uut: IVITK TTU9	S WIRP AUG WILD DASELING	2 Filler: TASK Hiller: 3-MONTH LOOKAP	eau.			Shat	in to	Centr	al Link	- 1109	SUW	/ткw	Station	s and T	Tunnel	S				
D	Activity Name		Start	Finish	Activity % Complete	Remaining Duration	g Jul 23	Jul 30	Aug 06	1 Aug 13 S MIT TFS	Aug 20) Aug 27	Sep 03	Sep 10	2 Sep 17	Sep 24	Oct 01	Oct 08	3 Oct 15 SMIT TFS	s v
01109.PD6970	Fencing & Gate		09-Oct-12	16-Oct-12	0%	7														
01109.PD6980	External Vehicle gate & Run	in	17-Oct-12	02-Nov-12	0%	14														
1109-08 Aug 1	1.C CC-C - TKW STAT	TION, ENTRANCES AND ADITS											_							t
1109-08 Aug 1.C.	.20 TTMS	and Approval of TTNC																		Ţ
01109.PD5000	Submission, Discussion and	Liaison of Ma Tau Wai Road Stage 1 Phase 1,	16-Aug-12 A	06-Sep-12	40.91%	13											+			
01109.PD5010	SUBMISSION / Approval of Mc	J24-01 to 04	16-Aug-12 A	06-Sep-12	40.91%	13														
01109.PD5020	Submission / Approval of Mc	volified Junction of Farm Road / Tin Kwong Road,	16-Aug-12 A	06-Sep-12	40.91%	13														
04400 005000	SCESEG/1109/SHJV/TKR/02	21-01 to 02	10.0	00.0	40.040/															
01109.PD5030	Kwong Road, SCLSLG/1109	Voltied Junction of Kau Pui Lung Road / Tin /SHJV/TKR/022-03 to 04	16-Aug-12 A	06-Sep-12	40.91%	13														
01109.PD5040	Submission / Approval of Mo Road, SCLSLG/1109/SHJV/	dified Junction of Farm Road / Ma Tau Wai MTW/023-01 to 02	16-Aug-12 A	06-Sep-12	40.91%	13														
01109.PD5050	Submission / Approval of Mo Road, SCLSLG/1109/SHJV/	odified Junction of Chi Kiang Street / Ma Tau Wai MTW/007-01 to 02	16-Aug-12 A	06-Sep-12	40.91%	13														
01109.PD5060	Submission / Approval of Mo Road, SCLSLG/1109/SHJV/	odified Junction of Lok Shan Road / Ma Tau Wai TKR/009-03 to 04	16-Aug-12 A	06-Sep-12	40.91%	13														
01109.PD5070	Submission / Approval of Mo Kwong Road to Farm Road /	odified Junction from Kau Pui Lung Road / Tin / Ma Tau Wai Road, SCLSL	16-Aug-12 A	06-Sep-12	40.91%	13														
01109.PD5080	Submission / Approval of TT SCLSLG/1109/SHJV/KSS/07	MS at Kiang Su Street, ??-03	25-Aug-12	01-Sep-12	0%	8							9							
01109.PD5090	Approval by SLG Monthly Me	eeting, SCLSLG/1109/SHJV/MTW/024-01 to 04	07-Sep-12	14-Sep-12	0%	8				4										
1109- 08 Aug 1.C.2	20.2 Application od Suspens	ion / Relocation / Reprovision of Parking Spac	es																	+
01109.PD5100	Submission, Discussion and	Liaison of Affected Public Transport stations	16-Aug-12 A	30-Aug-12	60%	6														
01109.PD5120	Application of Suspension / I	Relocation / Reprovision of Parking Spaces	31-Aug-12	23-Sep-12	0%	24														
01109.PD5130	Approval of TTMS drawings	by SLG, SCLSLG/1109/SHJV/TKW/033-01 to 02	31-Aug-12	07-Sep-12	0%	8														
01109.PD5160	RMA Application of Suspens	sion of Affected Parking Spaces	17-Sep-12	23-Sep-12	0%	7										3				
01109.PD5170	Implementation of TTMS Dra with Road Marking Modificat	awings, SCLSLG/1109/SHJV/TKW/033-01 to 02 ion	24-Sep-12	28-Sep-12	0%	5										-				
1109- 08 Aug 1.C.2	20.3 Liaison With Public Trar	nsport Parties																		+
01109.PD5110	Submission, Discussion and	Liaison of Affected Public Transport stations	16-Aug-12 A	30-Aug-12	60%	6														Î
01109.PD5140	Approval of TTMS drawings	by SLG, SCLSLG/1109/SHJV/TKW/037-01 to 02	31-Aug-12	09-Sep-12	0%	10														
01109.PD5150	Liaise with Transportation Pa	arties for the proposed routing, stops and	10-Sep-12	28-Sep-12	0%	19														
1109-08 Aug 1 C	.1 TKW Station																			-
1109- 08 Aug 1.C.1	1.21 ENGINEERING DESIGN,	OPERATION PLAN & REQUIRED FACILITIES	SUBMISSION																	t
1109- 08 Aug 1.C. 01109.PD5220	2.1.21.1 Engineering Design Preparation, Review and Sut	omission of Engineering Design of Stage 1.3a	15-Aug-12 A	29-Aug-12	70.59%	5														
01109.PD5470	Approval of Engineering Des	sign of Stage 1.3a	30-Aug-12	13-Sep-12	0%	15														
1109- 08 Aug 1 C	1.21.2 Operation Plan Subm	ission																		+
01109.PD5230	Preparation, Review and Sut	omission of Operation Plan	15-Aug-12 A	29-Aug-12	58.33%	5														
01109.PD5400	Review / Approval of Operat	ion Plan by MTRC / SLG	30-Aug-12	04-Sep-12	0%	6							-							
1109- 08 Aug 1.C	.1.21.3 Submission of Signal	ised Junction Design (EMSD, TCD)																		-
			9	SAMSUN	IG - HS	IN CH	IONG	i JOIN		URE					Date		Revisior	<u></u>	Check	ed
SAMSU			_		-										Sep	3MR AUC	j12a		RY	
Simou		THREE M	IONTH		G PRO	GRAN	ИМЕ	-AUG	UST 20	12 (Re	subm	ission)							_	
Samsung - Hsin Ch	hong Joint Venture									,										—

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Oct 22	Oct 29	Nov 05	4 Nov 12	Nov 19	5 Nov 26
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THREE MONTH ROLLING PROGRAMME -AUGUST 2012 (Resubmission)

SAMSUNG - HSIN CHONG JOINT VENTURE

Date		Revisio	n	Chec	ked	Ap
Sep	3MR AUG	12a		RY		H,

Receiving and Payment of Demand Note 20-Sep-12 26-Sep-12 0% 7 Confirmation of Works Order by TCD and EMSD 27-Sep-12 05-Oct-12 0% 9 E-Prom Fabrication by TCD 25 30-Oct-12 06-Oct-12 0% 01109.PD5880 Liaision with EMSD for the Delivery of Light Poles and Oil Drums to site 06-Oct-12 30-Oct-12 0% 25 1109- 08 Aug 1.C.1.21.4 Temporary Street Lightings Design Preparation, Review and Submission of Temporary Lighting Design 15-Aug-12 A 02-Sep-12 52.63% 9 Liaision with Mak Hang Kee for Removal / Relocation of Existing Street Lightings 30-Aug-12 05-Sep-12 0% 7 Review / Approval of Temporary Lighting Design to Hyd Lighting Division 03-Sep-12 09-Sep-12 0% 7 Quotation Prepared by Hyd Lighting Division 06-Sep-12 12-Sep-12 0% 7 Review / Approval of Temporary Street Lighting Design by Hyd Lighting Division 10-Sep-12 0% 7 16-Sep-12 Receiving and Acceptance of Quotation by SS-HC-JV 13-Sep-12 19-Sep-12 0% 7 1 Receiving and Payment of Demand Note 20-Sep-12 26-Sep-12 0% 7 9 Confirmation of Works Order by Hyd Lighting Division 27-Sep-12 05-Oct-12 0% 18 Liaision with Mak Hang Kee for Removal / Relocation of Existing Street 06-Oct-12 23-Oct-12 0% Lightings 25 Installation of Temporary Street Lightings 24-Oct-12 17-Nov-12 0% 1109- 08 Aug 1.C.1.21.5 Variable Message Signs (VMS) Preparation, Review and Submission of System of VMS 15-Aug-12 A 26-Aug-12 83.33% 2 01109.PD5430 Review / Approval of VMS System by SLG 27-Aug-12 02-Sep-12 0% 7 03-Sep-12 7 01109.PD5530 Sample Demonstration by Supplier 09-Sep-12 0% 01109.PD5620 Liaison with affected Tunnels for the arrangement of VMS 6 10-Sep-12 15-Sep-12 0% Production of Workstation and Sign Board (Off Site) 02-Oct-12 0% 23 10-Sep-12 Delivery of Sign Board and Workstation 03-Oct-12 07-Oct-12 0% 5 01109.PD5970 Installation of Sign Boards on site 08-Oct-12 21-Oct-12 0% 14 14 01109.PD5980 Set Up of Workstation at Site Office (At SUW) 08-Oct-12 21-Oct-12 0% 01109.PD6200 Testing and Commissioning 22-Oct-12 27-Oct-12 0% 6 1109- 08 Aug 1.C.1.21.6 Centralised Co-Ordinated Television Camera (CCTV)

Activity % Complete

28.57%

0%

0%

0%

20-Aug-12 A 29-Aug-12

05-Sep-12

12-Sep-12

19-Sep-12

30-Aug-12

06-Sep-12

13-Sep-12

Duration

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Data Date: 25-Aug-12 Page 11 of 18 Layout: MTR 1109 - 3 MRP Aug with baseline_1 --Filter: TASK filter: 3-Month Lookahead.

01109.PD5350 Preparation, Review and Submission of Signalised Junction Design

Quotation Prepared by TCD & EMSD

Review / Approval of Signalised Junction Design by TCD / EMSD

Receiving and Acceptance of Quotation by SS-HC-JV

01109.PD5410

01109.PD5500

01109.PD5590

01109.PD5680

01109.PD5770

01109.PD5870

01109.PD5240

01109.PD5420

01109.PD5510

01109.PD5520

01109.PD5600

01109.PD5610

01109.PD5690

01109.PD5780

01109.PD5890

01109.PD6190

01109.PD5250

01109.PD5630

01109.PD5900

Shatin to Central Link- 1109 SUW/TKW Stations and Tunnels

ul 23 Jul 30 Aug 06 Aug 13 Aug 20 Aug 27 Sep 03 Sep 10 Sep 17 Sep 24 Oct 01 Oct 08 Oct 15 TIFISISMIT ITIFISISMIT ITIFISISMIT ITIFISISMIT ITIFISISMIT ITIFISISMIT ITIFISISMIT ITIFISIS IT ITIFISIS IT ITIFISISMIT ITIFISISMI

MTR Corporation Limited

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Approv	ed					
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			Early	Bar \blacklozenge	◆ SOL	stone

Data Date: 25-Aug-12	2 Page 12 of 18						MT	R Corporat	on Limit	ed							
Layout: MTR 1109 - 3	3 MRP Aug with baseline_1Filter: TASK filter: 3-Month Look	kahead.			Shat	in to C	entral Linl	k- 1109 SU\	v/ткw s	Stations and T	unnels						K
Act ID	Activity Name	Start	Finish	Activity % Complete	Remaining Duration	Jul 23	Jul 30 Aug 06	1 Aug 13 Aug	20 Aug 27	2 Sep 03 Sep 10	Sep 17	Sep 24 Oct 01	3 Oct 08 Oct 15	Oct 22	Oct 29 Nov 05	4 Nov 12	5 Nov 19 Nov 26
01109.PD5260	Preparation, Review and Submission of System of CCTV	15-Aug-12 A	A 26-Aug-12	83.33%	2						<u>, , , , , , , , , , , , , , , , , , , </u>						
01109.PD5440	Review / Approval of CCTV System by SLG	27-Aug-12	02-Sep-12	0%	7												
01109.PD5540	Sample Demonstration by Supplier	03-Sep-12	09-Sep-12	0%	7												
01109.PD5640	Production of Camera (Off Site)	10-Sep-12	02-Oct-12	0%	23												
01109.PD5910	Delivery of Camera	03-Oct-12	07-Oct-12	0%	5]				
01109.PD5990	Installation of Cameras on site	08-Oct-12	21-Oct-12	0%	14												
01109.PD6000	Set Up of Workstation at Site Office (at SUW) and link to TD / HKPF	08-Oct-12	21-Oct-12	0%	14												
01109.PD6210	Testing and Commissioning	22-Oct-12	27-Oct-12	0%	6												
1109- 08 Aug 1.C.	.1.21.7 Vehicle Recognition System (VRS)																
01109.PD5270	Preparation, Review and Submission of System of VRS	15-Aug-12 A	A 26-Aug-12	83.33%	2												
01109.PD5450	Review / Approval of VRS System by SLG	27-Aug-12	02-Sep-12	0%	7												
01109.PD5550	Sample Demonstration by Supplier	03-Sep-12	09-Sep-12	0%	7												
01109.PD5650	Production of Camera (Off Site)	10-Sep-12	02-Oct-12	0%	23						<u>.</u>						
01109.PD5920	Delivery of Camera	03-Oct-12	07-Oct-12	0%	5]				
01109.PD6010	Installation of Carneras on site	08-Oct-12	21-Oct-12	0%	14												
01109.PD6020	Set Up of Workstation at Site Office (at SUW) and link to TD / HKPF	08-Oct-12	21-Oct-12	0%	14												
01109.PD6220	Testing and Commissioning	22-Oct-12	27-Oct-12	0%	6												
1109- 08 Aug 1.C.1	1.22 SITE CONSTRUCTION WORKS																
1109- 08 Aug 1.C. 01109.PD6530	1.22.1 Road Construction @ Ma Tau Wai Road / Chi Kiang Street (Under Submission / Approval of Works area at Ma Tau Wai Road, 2010 Under Devide The Wat The Wat The Area Control of the Con	03-Aug-12	A 11-Aug-12 A	100%	0												
01109.PD5180	RMA Application for Implementation	09-Aug-12 A	A 16-Aug-12 A	100%	0												
01109.PD5310	Implementation of TTMS, SCLSLG/1109/SHJV/005-01 to 02	17-Aug-12 A	A 31-Dec-12	5.84%	129												
01109.PD5320	Removal of Existing Planter	17-Aug-12 A	A 31-Aug-12	53.33%	7												
01109.PD5330	Site CLearance	17-Aug-12 A	A 31-Aug-12	53.33%	7												
01109.PD5480	Diversion of Existing Utilities	01-Sep-12	03-Oct-12	0%	33												
01109.PD5790	Excavation to required Road Formation for Sub-Base Laying	24-Sep-12	14-Oct-12	0%	21												
01109.PD5800	Road Drainage Construction	24-Sep-12	21-Oct-12	0%	28												
01109.PD5810	Cabling, Installation of Signal Lights witnin Works Area (by EMSD)	24-Sep-12	07-Oct-12	0%	14								ו				
01109.PD6080	Sub-Base Laying	15-Oct-12	21-Oct-12	0%	7												
01109.PD6090	Cross-Road Ducting	15-Oct-12	21-Oct-12	0%	7												
											Date	Revisio	n Cheo	ked Approved			Critical Par
CARCHA			JANUJUN	IU - 1131				IUNL			Sep 3N	/IR AUG12a	RY	HY	Actua	I Work 💠	
Samsung - Hsin Ch	three three	ΜΟΝΤΙ	H ROLLIN	g pro	GRAN	1ME -A	UGUST 20	012 (Resub	mission)						Early	Bar \blacklozenge	 Milestone
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01109.PD6240 Asphalt Laying - Road Base

01109.PD6320 Asphalt Laying - Base Course

01109.PD6360 Asphalt Laying - Wearing

01109.PD6490 Road Marking within Works Area

01109.PD6330 Installation / Relocation of Temporary Street Lightings

01109.PD6450 Cabling, Installation of Signal Lights witnin Works Area (by EMSD)

01109.PD6500 Temporary Traffic Signs Installation (within Works Area, and at Nearby Location with covered)

01109.PD6510 Place Traffic Barriers / Traffic Cones within Works Area

 International of Central Divider Along Ma Tau wai Road

 01109.PD5360
 Implementation of TTMS at Ma Tau Wai Road,

 SCLSLG/1109/MTR/MTW/006-03, (10:00-16:00)
 SCLSLG/1109/MTR/MTW/006-03, (10:00-16:00)

01109.PD5380 Removal of Existing Steel Barriers within closes area

Data Date: 25-Aug-12 Page 13 of 18

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Date	Revision	Checked
Sep	3MR AUG12a	RY

IRFE MONTH ROLLING PROGRAMME -AUGUST 2012	(Resubmission)	
	(1163001111331011)	

SAMSUNG - HSIN CHONG JOINT VENTURE

22-Oct-12

29-Oct-12

29-Oct-12

02-Nov-12

05-Nov-12

07-Nov-12

07-Nov-12

07-Nov-12

20-Aug-12 A 08-Sep-12

21-Aug-12 A 26-Aug-12

28-Oct-12

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ayout: MTR 1109 -	3 MRP Aug with baseline_1Filter: TASK filter: 3-Month Lool	kahead.			Shat	in to C	entr	al Link	- 1109	SUW	/tkw	Statio	ons a	nd T	unnels	5			
Act ID	Activity Name	Start	Finish	Activity % Complete	Remaining Duration	Jul 23	Jul 30	Aug 06	1 Aug 13	Aug 20	Aug 2	27 Sep	03 S	2 Sep 10	Sep 17	Sep 24	Oct 01	Oct 08	3 Oct 15 SMIT T FIS
01109.PD6230	Asphalt Laying - Road Base	22-Oct-12	28-Oct-12	0%	7								1.1						<u></u>
01109.PD6300	Asphalt Laying - Base Course	29-Oct-12	01-Nov-12	0%	4														
01109.PD6310	Installation / Relocation of Temporary Street Lightings	29-Oct-12	06-Nov-12	0%	9														-
01109.PD6350	Asphalt Laying - Wearing	02-Nov-12	06-Nov-12	0%	5														
01109.PD6440	Installation of Signal Lights witnin Works Area	05-Nov-12	09-Nov-12	0%	5														
01109.PD6460	Road Marking within Works Area	07-Nov-12	08-Nov-12	0%	2														
01109.PD6470	Temporary Traffic Signs Installation (within Works Area, and at Nearby Location with covered)	07-Nov-12	09-Nov-12	0%	3														
01109.PD6480	Place Traffic Barriers / Traffic Cones within Works Area	07-Nov-12	09-Nov-12	0%	3														
1109- 08 Aug 1.C	.1.22.2 Road Construction @ Ma Tau Wai Road / Chi Liang Street (With	in to Kwa Wan Roa	d Garden)											_					
01109.PD5200	Implementation of TTMS Works area at Ma Tau Wai Road, SCLSLG/1109/MTR/TKW/001-03	13-Aug-12 A	31-Dec-12	8.51%	129														
01109.PD5210	Removal of Existing Planter, Facilities, Playground etc.	13-Aug-12 A	31-Aug-12	63.16%	7														
01109.PD5340	Site CLearance	17-Aug-12 A	31-Aug-12	53.33%	7														
01109.PD5490	Diversion of Existing Utilities	01-Sep-12	03-Oct-12	0%	33														
01109.PD5820	Excavation to required Road Formation for Sub-Base Laying	24-Sep-12	14-Oct-12	0%	21														٥
01109.PD5830	Road Drainage Construction	24-Sep-12	21-Oct-12	0%	28														
01109.PD5840	Ductings / Drawpits Construction of Signal Lights within Works Area	24-Sep-12	07-Oct-12	0%	14														
01109.PD6100	Sub-Base Laying	15-Oct-12	21-Oct-12	0%	7														
01109.PD6110	Cross-Road Ducting	15-Oct-12	21-Oct-12	0%	7			<u></u>						• • • • • • • • • • • • • • • • • • • •					

MTR Corporation Limited



Data Date: 25-Aug-12 Page 14 of 18									MT	R Corp	oratio	on Lim	ited						
Lay	yout: MTR 1109 - 3	3 MRP Aug with baseline_1Filter: TASK filter: 3-Month Lookal	head.			Shat	in to	Cent	ral Lin	k- 110	9 SUW	//TKW	Statio	ns and	Tunnel	S			
Act	ID	Activity Name	Start	Finish	Activity % Complete	Remaining Duration	g Jul 23	Jul 30		1 Aug 13			7 Sep 03	Sep 10	2 Sep 17	Sep 24	Oct 01	Oct 08	3 Oct 15
	01109.PD5460	Removal of Existing Concrete Divider	27-Aug-12	02-Sep-12	0%	7								<u>33 M I I F (</u>					<u>1 </u>
	01109.PD5560	Backfill the broken area by Asphalt	03-Sep-12	05-Sep-12	0%	3													
	01109.PD5570	Implementation of TTMS at Ma Tau Wai Road, SCLSLG/1109/MTR/MTW/006-05, (10:00-16:00)	06-Sep-12	24-Sep-12	0%	19										-			
	01109.PD5580	Removal of Existing Steel Barriers within closes area	06-Sep-12	09-Sep-12	0%	4													
	01109.PD5660	Removal of Existing Concrete Divider	10-Sep-12	13-Sep-12	0%	4													
	01109.PD5670	Lay Ductings and Drawpits for modification Junction of Ma Tau Wai Road / Farm Road	14-Sep-12	18-Sep-12	0%	5													
	01109.PD5740	Backfill the broken area by Asphalt	19-Sep-12	21-Sep-12	0%	3													
	01109.PD5750	Implementation of TTMS at Ma Tau Wai Road, SCLSLG/1109/MTR/MTW/006-04, (10:00-16:00)	22-Sep-12	10-Oct-12	0%	19													
	01109.PD5760	Removal of Existing Steel Barriers within closes area	22-Sep-12	26-Sep-12	0%	5													
	01109.PD5860	Removal of Existing Concrete Divider	27-Sep-12	02-Oct-12	0%	6													
	01109.PD5930	Backfill the broken area by Asphalt	03-Oct-12	07-Oct-12	0%	5													
	01109.PD6030	Implementation of TTMS at Ma Tau Wai Road, SCLSLG/1109/MTR/MTW/006-02, (10:00-16:00)	08-Oct-12	25-Oct-12	0%	18													
	01109.PD6040	Removal of Existing Steel Barriers within closes area	08-Oct-12	11-Oct-12	0%	4													
	01109.PD6070	Removal of Existing Concrete Divider	12-Oct-12	17-Oct-12	0%	6													
	01109.PD6160	Backfill the broken area by Asphalt	18-Oct-12	22-Oct-12	0%	5													
	01109.PD6260	Implementation of TTMS at Ma Tau Wai Road, SCLSLG/1109/MTR/MTW/006-01, (10:00-16:00)	23-Oct-12	09-Nov-12	0%	18													
	01109.PD6270	Removal of Existing Steel Barriers within closes area	23-Oct-12	26-Oct-12	0%	4													
	01109.PD6280	Removal of Existing Concrete Divider	27-Oct-12	01-Nov-12	0%	6													
	01109.PD6370	Backfill the broken area by Asphalt	02-Nov-12	06-Nov-12	0%	5													
	1109- 08 Aug 1.C.	1.22.4 Modified Junction of Ma Tau Wai Road / Farm Road												_	_				
	01109.PD5280	Implementation of TTMS at Ma Tau Wai Road, SCLSLG/1109/MTR/MTW/008-01 for Ductings and Draw Pits Works	16-Aug-12 A	06-Oct-12	17.31%	43													
	01109.PD6120	Cablings for modified junction by EMSD, SCLSLG/1109/MTR/MTW/023-02	15-Oct-12	26-Oct-12	0%	12													
	01109.PD6410	Implementation of TTMS of Modified Junction, SCLSLG/1109/MTR/MTW/023-01	03-Nov-12	03-Nov-12	0%	1													
	1100 08 Aug 1 C	1 22 5 Mediled Junction of Tin Kweng Bood / Form Bood																	
	01109.PD5290	Implementation of TTMS at Ma Tau Wai Road, SCLSLG/1109/MTR/TKR/011-02 for Ductings and Draw Pits Works	16-Aug-12 A	01-Sep-12	52.94%	8													
	01109.PD5850	Implementation of TTMS at Ma Tau Wai Road, SCLSLG/1109/MTR/TKR/011-01 for Ductings and Draw Pits Works, construction of	24-Sep-12	29-Sep-12	0%	6													
	01109.PD6130	Implementation of TTMS at Ma Tau Wai Road, SCLSLG/1109/MTR/TKR/011-03 for Ductings and Draw Pits Works, construction of	15-Oct-12	20-Oct-12	0%	6													
	01109.PD6140	Cablings for modified junction by EMSD, SCLSLG/1109/MTR/MTW/021-02	15-Oct-12	26-Oct-12	0%	12													
	01109.PD6420	Implementation of TTMS of Modified Junction, SCLSLG/1109/MTR/MTW/021-01	03-Nov-12	03-Nov-12	0%	1													
	1109- 08 Aug 1.C	.1.22.6 Modified Junction of Kau Pui Lung Road / Tin Kwong Road																	
												-	•				_		-
			9	SAMSUN	IG - HS	IN CH	IONG	i JOIN	IT VEN	TURE					Date	2110 110	Revisior	1	
	SAMSU												_		Sep	SIVIR AUC	o i Zd		
	Sameuna Hair Ok	there lead to the second secon	/IONTH	I ROLLIN	g pro	GRAN	ИМЕ	-AUG	UST 2	012 (R	esubn	nission)						
	Samsung • risih Cr	nong vont venture																	



Data Date: 25-Aug-12 Lavout: MTR 1109 - 3	2 Page 15 of 18 3 MRP Aug with baseline 1Filter: TASK filter: 3-Month Looka	ahead.					MTR											
					Shati	in to C	entral Link-	1109	SUW	I/TKW Stations and Tr	unnel	S						
Act ID	Activity Name	Start	Finish	Activity % Complete	Remaining Duration	Jul 23	Jul 30 Aug 06	1 Aug 13 MIT TIFISI	Aug:	2 20 Aug 27 Sep 03 Sep 10 FISISIMITI TIFISISIMITI TIFISIS	Sep 17	Sep 24	Oct 01 Oc	3 ct 08 Oct 15 TIFISISMIT TIFISIS	Oct22	Dct29 Nov	4 05 Nov12	5 Nov 19 Nov 26 MIT TIFISISMIT TIFISIS
01109.PD5300	Implementation of TTMS across Tin Kwong Road, SCLSLG/1109/MTR/TKR/010-08 to 09 for Ductings & Drawpits Works	16-Aug-12 A	06-Oct-12	17.31%	43										<u></u>			
01109.PD5370	Implementation of TTMS across Tin Kwong Road, SCLSLG/1109/MTR/TKR/010-01 to 04 for Ductings Works	20-Aug-12 A	06-Oct-12	10.42%	43													
01109.PD5940	Implementation of TTMS across Tin Kwong Road, SCLSLG/1109/MTR/TKR/010-05 to 07 for Ductings & Drawpits Works	03-Oct-12	21-Oct-12	0%	19							-]			
01109.PD6250	Construct The Crossing Island @ Kau Pui Lang Road	22-Oct-12	28-Oct-12	0%	7													
01109.PD6340	Cablings for modified junction by EMSD, SCLSLG/1109/MTR/TKR/022-04	29-Oct-12	02-Nov-12	0%	5							-						
01109.PD6430	Implementation of TTMS of Modified Junction, SCLSLG/1109/MTR/TKR/022-03	03-Nov-12	03-Nov-12	0%	1											0		
1109- 08 Aug 1.C.	1.22.7 Modified Junction of Sheung Shing Street / Tin Kwong Road (If N	ecessary)					······											
01109.PD5950	Implementation of TTMS at Sheung Shing Street Footpath, SCLSLG/1109/MTR/SSS/039-01 for Ductings Works	03-Oct-12	07-Oct-12	0%	5													
01109.PD6050	Implementation of TTMS at Sheung Shing Street, SCLSG/1109/MTR/SSS/038-01 for Ductings and Draw Pits Works, construction	08-Oct-12	14-Oct-12	0%	7													
01109.PD6150	Cablings for modified junction by EMSD, SCLSLG/1109/MTR/MTW/022-04	15-Oct-12	20-Oct-12	0%	6													
01109.PD6180	Implementation of TTMS of Modified Junction, SCLSLG/1109/MTR/MTW/023-01	20-Oct-12	27-Oct-12	0%	8													
01109- 08 Aug 1.C.	In 22.8 Implementation of Riang Su Street Implementation of TTMS at Kiang Su Street, SCLSLG/1109/MTR/KSS/0??-(01 27-Oct-12	03-Nov-12	0%	8													
	with Road Marking Modification																	
1109- 08 Aug 1.C. 01109.PD5960	1.22.9 Modified Junction of MA Tau Wai Road / Lok Shan Road Implementation of TTMS across Ma Tau Wau Road,	03-Oct-12	07-Oct-12	0%	5													
01109.PD6060	SCLSLG/1109/MTR/MTW/041-01 for Ductings Work	08-Oct-12	13-Oct-12	0%	6													
	SCLSLG/1109/MTR/MTW/041-02 for Ductings Work																	
1109-08 Aug 1.C. 01109.PD5700	1.22.10 Ductings Works for Modification Junction near Ma Tau Wai Road Implementation of TTMS at Ma Tau Wau Road.	1 / Chi Kiang Stre 17-Sep-12	29-Sep-12	0%	13													
01109.PD5710	SCLSLG/1109/MTR/MTW/042-01 for Ductings Work	17-Sep-12	29-Sep-12	0%	13													
01109.PD5720	SCLSLG/1109/MTR/MTW/042-02 for Ductings Work	17-Sep-12	29-Sep-12	0%	13													
01109.PD5730	SCLSLG/1109/MTR/MTW/042-03 for Ductings Work	17-Sep-12	06-Oct-12	0%	20													
1100- 08 Aug 1 C 1	SCLSLG/1109/MTR/MTW/042-04 to 06 for Ductings Work (10:00 to 16:00)																	
1109- 08 Aug 1.C.	123.1 Area Takeover from MTRC, W11																	
01109.PD5190	Area Takeover from MTRC, W11	13-Aug-12 A		100%	0													
1109- 08 Aug 1.C.	1.23.2 Area Takeover from MTRC, W13																	
01109.PD5390	Area Takeover from MTRC, W13	25-Aug-12		0%	0													
1109- 08 Aug 1.C.	1.23.3 Implementing of Klang Su Street																	
01109.PD6380	Implementation of Kiang Su Street		03-Nov-12*	0%	0											•		
1109- 08 Aug 1.C.	1.23.4 Implementation of Modified Junctions @ Sheung Shing Street																	
01109.PD6170	Implementation of Modified Junctions at Sheung Shing Street		27-Oct-12*	0%	0										•			
1109- 08 Aug 1.C.	1.23.5 Implementation of Modified Junctions @ Kau Pui Lung Road / Tin	Twong Road																
01109.PD6390	Implementation of Modified Junctions at Kau Pui Lung Road / Tin Kwong Road		10-Nov-12*	0%	0												•	
1109- 08 Aug 1.C. 01109.PD6400	1.23.6 Implementation of Modified Junctions and Reverse Diversion of F Implementation of Modified Junctions and Reverse Diversion of Farm Road	arm Road	10-Nov-12*	0%	0												•	
1109-08 Aug 1 C	1 23.7 Implementation of MTWR Stage 1 Phase 1																	
	· · · · · · · · · · · · · · · · · · ·					(//////////////////////////////////////	x::::::::::X::::::::::::::::::::::::::	<u>,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,</u>		4			:					
			SAMSUN	NG - HS	IN CH	ONG I	OINT VENT	URE			Date		Revision	Check	ed Approved		JUL 🗖	Critical Bar
SAMSUN	ТЦОССИ	МОМТЦ			GPAN))) (Pa	suba	nission)	Sep	3MR AUG1	12a	RY	HY		Actual Work 💠	♦ JUL Milestone
Samsung - Hsin Ch	iong Joint Venture														Early Bar Milestone			

unnels		*	M	TR	
Sep 17 Sep 24 Oct 01 SMT TFSSMIT TFSS T TFSS	3 Oct 08 Oct 15 TFSSMTTTFSSM	Oct 22 Oc T T F S S M T	ct 29 Nov 05 T F S S M T T F S S	4 Nov 12 Nov 19 MT T FSSMT TFS	5 Nov 26 M T T F S S
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Date Revision	Checked	Approved		0.1	ical Dar
Sep 3MR AUG12a	RY	HY	Actua	I Work ♦ ♦ JUL Bar ♦ ♦ Mile	. Milestone estone



THREE MONTH ROLLING PROGRAMME -AUGUST 2012 (Resubmission)

ALICULT 2012 (Desubusies)

SAMSUNG - HSIN CHONG JOINT VENTURE

 Date
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 Image: Sep
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Data Date: 25-Aug-1	2 Page 16 of 18		MTR Corporation Limited																	
ayout: MTR 1109 -	3 MRP Aug with baseline_1Filter: TASK filter: 3-Month Lookat	nead.			Shat	in to C	Centr	al Lini	(- 1109	SUW	/ТКV	V Sta	ations	s and ٦	「unnel	S				
ActID	Activity Name	Start	Finish	Activity % Complete	Remaining Duration	Jul 23	Jul 30	Aug 06	1 Aug 13	Aug 2		g 27	Sep 03	2 Sep 10	Sep 17	Sep 24	Oct 01	Oct 08	3 Oct 15	
01109.PD6520	Implementation of MTWR Stage 1 Phase 1		17-Nov-12*	0%	0				S M S					5 M I I F S		<u>s m i i i s</u>	<u> S </u> F S	<u> 5 1 1 F 5 </u> :		SI
1109- 08 Aug 1.C.	1.14 MTW/TKW Road Garden (site portion W13 + W14)																			
01109.PD1840	TKW - Install & connect water supply to MTW/TKW Road garden site	03-Aug-12 A	03-Oct-12	16.67%	40															
01109.PD1850	TKW - Obtain discharge licence	06-Aug-12 A	07-Nov-12	17.58%	75															
01109.PD2360	TKW - W13 & W14 Site Establishment & Hoarding	15-Aug-12 A	31-Aug-12	0%	6															
01109.PD2430	TKW - Demolish existing Public Toilet	22-Sep-12	15-Oct-12	0%	18									-						
01109.PD3030	TKW - Tree Felling	24-Sep-12	09-Oct-12	0%	12															
01109.PD3040	TKW - Prepare trees for transplanting Stage 1	24-Sep-12	31-Oct-12	0%	30															
01109.PD3250	Stg 1 (Pre TTM1) - Construct bentonite pipe trench under Chi Kiang St (stg 1)) 10-Oct-12	07-Nov-12	0%	24															
01109.PD3280	TKW - Prepare trees for transplanting Stage 2	12-Oct-12	16-Nov-12	0%	30											_				
01109.PD3420	TKW - Mobilization of initial bentonite tanks & D-Wall Equipment	16-Oct-12	12-Dec-12	0%	48															
01109.PD6730	TKW - Prepare trees for transplanting Stage 3	07-Nov-12	11-Dec-12	0%	30															
A2435	Stg 2 (TTM Stg 1) - Construct bentonite pipe trench under Chi Kiang St (stg 2) 16-Nov-12	13-Dec-12	0%	24															
1109- 08 Aug 1.C.	1.15 Predrilling for DWall - Stage 1 - East Side												-							
01109.PD6740	TKW Garden - D Wall Panels P1, P2, P143 to P156 - 22 nr holes - 3 Rigs	01-Sep-12	17-Sep-12	0%	14															
01109.PD6830	Confirmation of founfing levels - TKW garden early Predrill	18-Sep-12	03-Oct-12	0%	12															
01109.PD6750	E1 Ent D Bathes 1&2 - Panels P11 to 13, 125, 128 to 134, 159 - 16nr + 4 MP holes - 3 rigs	09-Nov-12	27-Nov-12	0%	16															
1109- 08 Aug 1.C.	1.24 D/Wall Advance Works																		Í	
01109.PD6910	Trial Pits	17-Nov-12	14-Dec-12	0%	24															
01109.PD6920	Excavation and Construction of Guide walls	17-Nov-12	14-Dec-12	0%	24															
1109-08 Aug 1.C.	1.16 Existing Utility Diversion Works																		<u> </u>	_
11093840	TKW-FD401/401P - Divert 600dia sewer	16-Nov-12	29-Nov-12	0%	12															
110913581	TKW-SD502 - P132 - Storm Drain Support Insitu	16-Nov-12	29-Nov-12	0%	12															
01109.PD6850	Divert storm drains and sewers	17-Nov-12	07-Dec-12	0%	18															
110913511	TKW-FD402/402P - Divert 600dia sewer	23-Nov-12	06-Dec-12	0%	12															
110913631	TKW-SD506 - P117 - Support In-suitu/abandon	23-Nov-12	06-Dec-12	0%	12															-
110913651	TKW-SD510 - 975dia SD - P91 - Support & Monitor during Construction	23-Nov-12	23-Nov-12	0%	1															
1109- 08 Aug 1.C	C.1.16.2 Water Supply												-							t
110913721	TKW-FW101 - P10, P135 - Exist 450dia Fresh Water Main - Temp support during construction	16-Nov-12	29-Nov-12	0%	12															
01109.PD6860	Support & monitor existing water mains	17-Nov-12	07-Dec-12	0%	18															-



Data Date: 25-Aug	-12 Page 17 of 18						MTR Corporation Limited
Layout: MTR 1109	- 3 MRP Aug with baseline_1Filter: TASK filter: 3-Month Lookal	head.			Shat	in to	Central Link- 1109 SUW/TKW Stations and Tunnels
Act ID	Activity Name	Start	Finish	Activity % Complete	Remainin Duration	Jul 23	2 2 0 1 3 1 3 1 3 1 3 1 3 1 3 1 3 1 3 1 3 1
110913681	TKW-FW501 - P10 + P135 - 6" Fresh Water Main - Suport & monitor during construction	23-Nov-12	06-Dec-12	0%	12		
110913771	TKW-SW101/101P - P89 - Relocate exist 200dia Salt Watermain	23-Nov-12	13-Dec-12	0%	18		
1109- 08 Aug 1 110913801	C.1.16.3 Power Supply TKW-CLP405 - P13 & P132 - (Existing Abandoned 66 kV) - Remove	16-Nov-12	22-Nov-12	0%	6		
110913811	TKW-CLP406 - P9 & P135 - (Existing Abandoned 33 kV) - Remove	16-Nov-12	22-Nov-12	0%	6		
110913821	TKW-CLP407 - P9 & P135 - (Existing Abandoned 33 kV) - Remove	16-Nov-12	22-Nov-12	0%	6		
110913831	TKW-CLP602 - P123 - New 132 kV supply - Install	16-Nov-12	13-Dec-12	0%	24		
110913841	TKW-CLP114 - P104 - (Existing Abandoned 33 kV) - Remove	16-Nov-12	22-Nov-12	0%	6		
110913851	TKW-CLP503 - P61 & P87 - 11 kV Supply - Support insitu	16-Nov-12	22-Nov-12	0%	6		
110913861	TKW-CLP505 - P76 to P93 - 11 kV Supply - Slew & support	16-Nov-12	29-Nov-12	0%	12		
110913871	TKW-CLP506 - P76 to P93 - 415V - Slew & support	16-Nov-12	22-Nov-12	0%	6		
01109.PD6870) Remove existing abandoned power cables	17-Nov-12	04-Dec-12	0%	18		
110913781	TKW-CLP401 - P7 & P142 - (11kV) Locally Slew	23-Nov-12	13-Dec-12	0%	18		
110913791	TKW-CLP404 - P7 & P142 - (415 V) - Support in-situ & close monitoring	23-Nov-12	13-Dec-12	0%	18		
1109- 08 Aug 1 01109.PD6890	C.1.16.4 Gas Supply TKW Garden - Check existing gas main abandoned (TKW-GAS401)	27-Oct-12	29-Oct-12	0%	3		
01109.PD6900	Divert & Abandon existing gas mains	17-Nov-12	04-Dec-12	0%	18		
110913881	TKW-GAS401 - P155, P156, P138 - Exist MP400 Gas Main - Abandon	23-Nov-12	13-Dec-12	0%	18		
110913891	TKW-GAS503 - P42 & P108 - Temporarily Abandon	23-Nov-12	13-Dec-12	0%	18		
110913911	TKW-GAS505 - Proposed LPA300 Gas Main	23-Nov-12	13-Dec-12	0%	18		
110913921	TKW-GAS506 - P78, P77, P76 - Exist LPA300 Gas Main - Abandon	23-Nov-12	29-Nov-12	0%	6		
110913931	TKW-GAS602 - Proposed MP315PE Gas Main - Subject to discussion	23-Nov-12	29-Nov-12	0%	6		
1109- 08 Aug 1	.C.1.16.5 Telecommunication System	40 Nov 40	00 Nov 40	00/	40		
110913941	TKW-HGC401 - P142 & P4,5,6 - Lelecom Cable - Siew & Support	16-Nov-12	29-Nov-12	0%	12		
01109 PD6880	Slew & Support Telecom cables	17-Nov-12	29-NOV-12	0%	12		
1109- 08 Aug 1	C.1.2 Station - Excavation and Foundation						
1109- 08 Aug 1	.C.1.2.2 Diaphragm Wall						
1109- 08 Aug 1109- 08 Aug	1.C.1.2.2.2 Diaphragm Wall during TTMS Stage 1 1.C.1.2.2.2.1 Area E1 (Station)						
C1109_DWI	2201 Area E1 - Prelim Wks; Site Investigation & Approval	23-Nov-12	07-Jan-13	0%	36		
C1109_DWI	202 Area E1 - Preliminary Works; Excavation for Trial trench and guide walls	23-Nov-12	07-Jan-13	0%	36		



Samsung - Hsin Chong Joint Venture

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Data [ate: 25-Aug-12	Page 18 of 18		MTR Corporation Limited													
Layou	:: MTR 1109 - 3	BMRP Aug with baseline_1Filter: TASK filter: 3-Month L	ookahead.			Shat	in to Central Link- 1109 SUW/TKW Stations and Tunnels										
Act ID		Activity Name	Start	Finish	Activity % Complete	Remaining Duration	g 1 2 3 Jul 23 Jul 30 Aug 06 Aug 13 Aug 20 Aug 27 Sep 03 Sep 10 Sep 17 Sep 24 Oct 01 Oct 08 Oct 15 ITERSISMIT ITERSISMIT ITERSISMIT ITERSISMIT ITERSISMIT ITERSISMIT ITERSISMIT ITERSISMIT ITERSISMIT ITERSISMIT										
	C1109_DWP20	2 Area E1 - Utility Works	23-Nov-12	07-Jan-13	0%	36											
	1109- 08 Aug 1.0	C.1.2.2.2.8 Area E1 (Ent D)															
	C1109_DWP62	Prelimilary Works; Investigation and Approval	23-Nov-12	07-Jan-13	0%	36											
	C1109 DWP63	7 Prelimilary Works: Excavation for trial trench and ouide walls	23-Nov-12	07-Jan-13	0%	36											
	1109- 08 Aug 1.0	C.1.2.2.2.2 Area E2 & E4	23-Nov-12	07- Jan-13	0%	36											
	01103_DW122		23-1107-12	07-041-15	078	50											
	C1109_DWP22	4 Preliminary Excavation of trial trench for guide wall	23-Nov-12	07-Jan-13	0%	36											
	C1109 DWP22	5 Litility works (Trial nits)	23-Nov-12	07- Jan-13	0%	36											
	01100_011122		20110712	of call to	0,0												
	1109- 08 Aug 1.0	C.1.2.2.27 Area E6															
	C1109_DWP31	Preliminary Investigation & Approval	23-Nov-12	29-Dec-12	0%	30											
	C1400 DWD22	(Desirana - Wadra - Fuen ation for Trial ten ab and wide wells	22 Nev 42	20 Dec 12	00/	20											
	C1109_DWF32	u Freiminnary Works, Excavation for Friar tiench and guide waits	23-1100-12	29-Det-12	078	30											
	C1109_DWP32	1 Utility works	23-Nov-12	29-Dec-12	0%	30											
	1109- 08 Aug 1.0	C.1.2.2.2.3 Area E3-1															
	C1109_DWP24	3 Preliminary Investigation & Approval	23-Nov-12	07-Jan-13	0%	36											
	C1109_DWP24	4 Preliminary Works; Excavation for Trial trench and guide walls	23-Nov-12	07-Jan-13	0%	36											
	1109- 08 Aug 1.0	C.1.2.2.9 Area E3-2															
	C1109_DWP77	Prelimilary Works; Investigation and Approval	23-Nov-12	07-Jan-13	0%	36											
	C1400 DWD70	Desimilary Waday Sugaration for trial transh and quide wells	00 Nev 10	07 lon 12	00/	20											
	C1109_DWF78		23-1100-12	07-3an-13	078	30											
	C1109_DWP79	7 Utility works (TKW-FD101, TWK-SW101)	23-Nov-12	07-Jan-13	0%	36											
	1109- 08 Aug 1.0	C.1.2.2.2.10 Area E3-3															
	C1109_DWP92	Prelimilary Works; Investigation and Approval	23-Nov-12	07-Jan-13	0%	36											
	C1109_DWP93	Prelimilary Works; Excavation for trial trench and guide walls	23-Nov-12	07-Jan-13	0%	36											
	C1109_DWP94	7 Utility works (TKW-FD101, TWK-SW101)	23-Nov-12	07-Jan-13	0%	36											
14	00-08 Aug 1	D. CC.D. BORED TUNNELS EDOM SUW STATIO															
- 1	09-08 Aug 1.D.:	Procurement of Specialised Construction Machinery															
	109- 08 Aug 1.D.1	1 Procurement of Specialised Construction Machinery															
	1109- 08 Aug 1.D.	1.1.1 Off-site															
	01109.PD3510	Provide Full details of the TBM for Approval	01-Aug-12 A	29-Oct-12	26.67%	66											
	01109.PD3480	Study Slurry Treatment System	07-Aug-12 A	23-Oct-12	0%	60											
	01109 PD3490	Study TBM Progrement Option	14-Aug-12 A	23-Oct-12	0%	60											
	01103.1 20430		147/ldg 127/	20 001 12	070	00											
	01109.PD6700	TBM Down + Up track SUW to HOM - Place order for TBM		29-Oct-12	0%	0											
	01109.PD6710	STP (Slurry Treatment Plant) - Place Order		29-Oct-12	0%	0											
	01109.PD6720	STP (Manufacture)	30-Oct-12	29-Jul-13	0%	273											

	SAMSUNG - HSIN CHONG JOINT VENTURE	Date	Revision	Checked
		Sep	3MR AUG12a	RY
SAMSUNG	THREE MONTH ROLLING PROGRAMME -AUGUST 2012 (Resubmission)			
Compung Hain Chang Jaint Venture				
Samsung - Insin Ghong Joint Venture				



Annex C

Project Organization Chart and Contact Detail

Annex C Project Organization of SCL Works Contract 1109



Annex D

Locations of Monitoring Stations for Noise and Dust Monitoring








Annex E

Monitoring Schedule of the Reporting Period and the Next Month

DMS-8 & NMS-CA-8

Monitoring Month : Sep 2012

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
						01-Sep
02-Son	03-500	04-Son	05-800	06-500	07-Son	08-500
02-360	03-3ep	04-060	00-0ep	00-0ep	07-360	00-06
					24-hr TSP Monitoring	
					Noise Monitoring	
09-Sep	10-Sep	11-Sep	12-Sep	13-Sep	14-Sep	15-Sep
				24-hr TSP Monitoring		
				Noise Monitoring		
16-Sep	17-Sep	18-Sep	19-Sep	20-Sep	21-Sep	22-Sep
			24 br TSP Monitoring			
			Noise Monitoring			
			Noise Montoning			
23-Sep	24-Sep	25-Sep	26-Sep	27-Sep	28-Sep	29-Sep
		24 br TSD Manitaring				
		Noise Monitoring				24-br TSP Monitoring
		Noise Monitoring				24 m for Montolling
30-Sep						

DMS-9 &NMS-CA-9

Monitoring Month : Sep 2012

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
						01-Sep
02-Sep	03-Sep	04-Sep	05-Sep	06-Sep	07-Sep	08-Sep
09-Sep	10-Sep	11-Sep	12-Sep	13-Sep	14-Sep	15-Sep
16-Sep	17-Sep	18-Sep	19-Sep	20-Sep	21-Sep	22-Sep
					1.000	22 000
					24-hr TSP Monitoring	
					Noise Monitoring	
23-Sep	24-Sep	25-Sep	26-Sep	27-Sep	28-Sep	29-Sep
· · · · · · · · · · · · · · · · · · ·						-
		24-hr TSP Monitoring				
		Noise Monitoring				24-hr TSP Monitoring
30-Sep						

DMS-10 & NMS-CA-10

Monitoring Month : Sep 2012

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
						01-Sep
02-Sep	03-Sep	04-Sep	05-Sep	06-Sep	07-Sep	08-Sep
					24-br TSP Monitoring	
					Noise Monitoring	
					Noise Monitoring	
09-Sep	10-Sep	11-Sep	12-Sep	13-Sep	14-Sep	15-Sep
				24-hr TSP Monitoring		
				Noise Monitoring		
16-Sep	17-Sep	18-Sep	19-Sep	20-Sep	21-Sep	22-Sep
			24-hr TSP Monitoring			
			Noise Monitoring			
23-Son	24-Sen	25-Son	26-Sep	27-Sen	28-Sen	29-Son
23-3ep	24-0ep	23-060	20-060	27-360	20-060	23-3ep
		24-hr TSP Monitoring				
		Noise Monitoring				24-hr TSP Monitoring
		Ç				
30-Sep						
				1		

DMS-8 & NMS-CA-8

Monitoring Month : Oct 2012

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
	01-Oct	02-Oct	03-Oct	04-Oct	05-Oct	06-Oct
	The day following the Chinese Mid-Autumn Festival	The day following National Day			24-hr TSP Monitoring Noise Monitoring	
07-Oct	08-Oct	09-Oct	10-Oct	11-Oct	12-Oct	13-Oct
				24-hr TSP Monitoring Noise Monitoring		
14-Oct	15-Oct	16-Oct	17-Oct	18-Oct	19-Oct	20-Oct
			24-hr TSP Monitoring Noise Monitoring			
21-Oct	22-Oct	23-Oct	24-Oct	25-Oct	26-Oct	27-Oct
	24-hr TSP Monitoring Noise Monitoring	Chung Yeung Festival				24-hr TSP Monitoring
28-Oct	29-Oct	30-Oct	31-Oct			

DMS-9 & NMS-CA-9

Monitoring Month : Oct 2012

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
	01-Oct	02-Oct	03-Oct	04-Oct	05-Oct	06-Oct
	The day following the Chinese Mid-Autumn Festival	The day following National Day			24-hr TSP Monitoring Noise Monitoring	
07-Oct	08-Oct	09-Oct	10-Oct	11-Oct	12-Oct	13-Oct
				24-hr TSP Monitoring Noise Monitoring		
14-Oct	15-Oct	16-Oct	17-Oct	18-Oct	19-Oct	20-Oct
			24-hr TSP Monitoring Noise Monitoring			
21-Oct	22-Oct	23-Oct	24-Oct	25-Oct	26-Oct	27-Oct
	24-hr TSP Monitoring Noise Monitoring	Chung Yeung Festival				24-hr TSP Monitoring
28-Oct	29-Oct	30-Oct	31-Oct			

DMS-10 & NMS-CA-10

Monitoring Month : Oct 2012

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
	01-Oct	02-Oct	03-Oct	04-Oct	05-Oct	06-Oct
	The day following the Chinese Mid-Autumn Festival	The day following National Day			24-hr TSP Monitoring Noise Monitoring	
07-Oct	08-Oct	09-Oct	10-Oct	11-Oct	12-Oct	13-Oct
				24-hr TSP Monitoring Noise Monitoring		
14-Oct	15-Oct	16-Oct	17-Oct	18-Oct	19-Oct	20-Oct
			24-hr TSP Monitoring Noise Monitoring			
21-Oct	22-Oct	23-Oct	24-Oct	25-Oct	26-Oct	27-Oct
	24-hr TSP Monitoring Noise Monitoring	Chung Yeung Festival				24-hr TSP Monitoring
28-Oct	29-Oct	30-Oct	31-Oct			

Annex F

Calibration Reports

Annex F Calibration Reports

Dust Monitoring Equipment

Monitoring Station ID	Location	Monitoring Equipment		Last Calibration Date	Next Calibration Date
24-hr TSP (a)		HVS	Calibrator		
DMS-8	SHK Good Shepherd Primary School	TE-5170 (S/N 3572)	CM-AIR-43 (S/N 0438320)	7 Sept 2012	7 Feb 2013
DMS-9	No. 26 Kowloon City Road	TE-5170 (S/N 0814)	CM-AIR-43 (S/N 0438320)	21 Sept 2012	21 Feb 2013
DMS-10	Chat Ma Mansion	TE-5170 (S/N 3573)	CM-AIR-43 (S/N 0438320)	7 Sept 2012	7 Feb 2013
Note:					
(a) Since the constructio	n works have not been started in TKW wo	rks area in the reporting mon	th, therefore, no construction dust r	nonitoring was conducted at	t DMS-6 and DMS-7.

Noise Monitoring Equipment

Monitoring Station ID	Monitoring Equipment	Model & Serial No.	Last Calibration Date	Next Calibration Date
NMS-CA-8 - NMS-CA-10 ^(a)	Calibrator	Rion NC-73 (S/N 10997142)	9 July 2012	9 July 2013
	Sound Level Meter	Rion NL-31 (S/N (00410224)	15 June 2012	15 June 2013
		Rion NL-18 (S/N 00360030)	13 June 2012	13 June 2013

(a) Since the construction works have not been started in Sung Wong Toi area in the reporting month, therefore, no construction dust monitoring was conducted at DMS-6 and 7.

High-Volume TSP Sampler 5-Point Calibration Record

Location Calibrated by Date	:	DMS-8(SHK Good Shepherd Primary School) P.F.Yeung
Date	·	01107/2012
Sampler		
Model	:	TE-5170
Serial Number	:	S/N 3572
Calibration Orfice and Standard C	Calibration	n Relationship
Serial Number	:	1378
Service Date	:	22 Feb 2012
Slope (m)	:	1.99405
Intercept (b)	:	-0.00397
Correlation Coefficient(r)	:	0.99984
Standard Condition		
Pstd (hpa)	:	1013
Tstd (K)	:	298.18
Calibration Condition		
Pa (hpa)	:	1013
Ta(K)	:	299

Resistance Plate		dH [green liquid]	Z	X=Qstd	IC	Y
		(inch water)		(cubic meter/min)		
1	18 holes	11.8	3.429	1.722	60	59.9
2	13 holes	9.2	3.028	1.521	54	53.9
3	10 holes	6.8	2.603	1.308	48	47.9
4	7 holes	4.4	2.094	1.052	41	40.9
5	5 holes	2.2	1.481	0.745	32	31.9

Sampler Calibration Relationship

Slope(m):<u>28.429</u> Intercept(b):<u>10.836</u>

Correlation Coefficient(r): 0.9998

Checked by: Magnum Fan

Date: 10/09/2012

High-Volume TSP Sampler 5-Point Calibration Record

Location	:	DMS-10(Chat Ma Mansion)
Calibrated by	:	P.F.Yeung
Date	:	07/09/2012
<u>Sampler</u>		
Model	:	TE-5170
Serial Number	:	S/N 3573
Calibration Orfice and Standard C	Calibratio	n Relationship
Serial Number	:	1378
Service Date	:	22 Feb 2012
Slope (m)	:	1.99405
Intercept (b)	:	-0.00397
Correlation Coefficient(r)	:	0.99984
Standard Condition		
Pstd (hpa)	:	1013
Tstd (K)	:	298.18
Calibration Condition		
Pa (hpa)	:	1013
Ta(K)	:	299

Resistance Plate		dH [green liquid]	Z	X=Qstd	IC	Y
		(inch water)		(cubic meter/min)		
1	18 holes	11.4	3.371	1.692	59	58.9
2	13 holes	9.1	3.012	1.512	53	52.9
3	10 holes	6.9	2.622	1.317	47	46.9
4	7 holes	4.5	2.118	1.064	39	38.9
5	5 holes	2.7	1.640	0.825	32	31.9

Sampler Calibration Relationship

Slope(m):<u>31.054</u> Intercept(b): <u>6.109</u>

Correlation Coefficient(r): 0.9998

Checked by: Magnum Fan

Date: 10/09/2012

High-Volume TSP Sampler 5-Point Calibration Record

Location	:	DMS-9(No. 26 Kowloon City Road)
Calibrated by	:	P.F.Yeung
Date	:	21/09/2012
<u>Sampler</u>		
Model	:	TE-5170
Serial Number	:	S/N 0814
Calibration Orfice and Standard	<u>Calibrati</u>	on Relationship
Serial Number	:	1378
Service Date	:	22 Feb 2012
Slope (m)	:	1.99405
Intercept (b)	:	-0.00397
Correlation Coefficient(r)	:	0.99984
Standard Condition		
Pstd (hpa)	:	1013
Tstd (K)	:	298.18
Calibration Condition		
Pa (hpa)	:	1010
Ta(K)	:	300

Resistance Plate		dH [green liquid]	Z	X=Qstd	IC	Y
		(inch water)		(cubic meter/min)		
1	18 holes	12.4	3.500	1.757	65	64.6
2	13 holes	9.2	3.015	1.514	56	55.7
3	10 holes	7.2	2.667	1.340	50	49.7
4	7 holes	4.5	2.109	1.059	40	39.8
5	5 holes	2.7	1.633	0.821	30	29.8

Sampler Calibration Relationship

Slope(m):<u>36.768</u> Intercept(b):<u>0.175</u>

Correlation Coefficient(r): 0.9995

Checked by: Magnum Fan

Date: 23/09/2012

	NVIRONMENTAL SCH				TISCH EP 145 SOU VILLAGE 513.467 877.263 513.467 WWW.TIS	NVIROMENTAL, INC. ITH MIAMI AVE. OF CLEVES, OH 45002 2,9000 8,7610 TOLL FREE 7,9009 FAX SCH-ENV.COM
	••	AIR POLLUT	ION MONITORING	EQUIPMENT		
	ORIFICE 7	TRANSFER STAN	NDARD CERT	IFICATION	WORKSHEET I	E-5025A
Date - Fe Operator	eb 22, 2012 Tisch	Rootsmeter Orifice I.I	s/N 0.	438320 1378	Ta (K) - Pa (mm) -	295 ÷ 740.41
PLATE OR Run #	VOLUME START (m3)	VOLUME STOP (m3)	DIFF VOLUME (m3)	DIFF TIME (min)	METER DIFF Hg (mm)	ORFICE DIFF H2O (in.)
1 2 3 4 5	NA NA NA NA	NA NA NA NA NA	1.00 1.00 1.00 1.00 1.00	1.3940 0.9740 0.8720 0.8340 0.6870	3.2 6.4 8.0 8.8 12.8	2.00 4.00 5.00 5.50 8.00
>					1	-
	-	D	ATA TABULA	TION	and white many	nd tour
Vstd	(x axis) Qstd	(y axis)		= Va	(x axis) Qa	(y axis)
0.9799 0.9756 0.9734 0.9724 0.9671	0.7029 1.0017 1.1163 1.1660, 1.4077	1.4029 1.9841 2.2183 2.3265 2.8059		0.9957 0.9914 0.9891 0.9881 0.9827	0.7142 \1.0178 1.1343 1.1848 1.4304	0.8927 1.2624 1.4114 1.4803 1.7853
Qstd slo intercep coeffici	ppe (m) = bt (b) = ent (r) =	1.99405 -0.00397 0.99984		Qa slop intercep coeffici	be (m) = bt.(b) = .ent (r) =	1.24864 -0.00252 = 0.99984
y axis =	SQRT [H2O (Pa/760) (298/	Ta)]	y axis =	SQRT [H20 (1	[a/Pa)]

CALCULATIONS

Vstd = Diff. Vol[(Pa-Diff. Hg)/760](298/Ta) Qstd = Vstd/Time

2

Va = Diff Vol [(Pa-Diff Hg)/Pa] Qa = Va/Time

For subsequent flow rate calculations:

Qstd = $1/m\{ [SQRT(H2O(Pa/760)(298/Ta))] - b \}$ Qa = $1/m\{ [SQRT(H2O(Ta/Pa)] - b \}$



輝創工程有限公司 Sun Creation Engineering Limited

Calibration and Testing Laboratory

Certificate of Calibration 校正證書

Certificate No. : C123580 證書編號

ITEM TESTED / 送檢項目		(Job No. / 序引編號:IC12-1472)
Description / 儀器名稱	:	Sound Level Meter
Manufacturer / 製造商	:	Rion
Model No. / 型號	:	NL-31
Serial No. / 編號	:	00410224
Supplied By / 委託者	:	Envirotech Services Co.
		Shop 6, G/F., Casio Mansion, 209 Shaukeiwan Road,
		Hong Kong

TEST CONDITIONS / 測試條件

Temperature / 溫度 : Line Voltage / 電壓 :

(23 ± 2)°C

Relative Humidity / 相對濕度 : (55 ± 20)%

TEST SPECIFICATIONS / 測試規範

Calibration check

DATE OF TEST / 測試日期 : 15 June 2012

TEST RESULTS / 測試結果

The results apply to the particular unit-under-test only. All results are within manufacturer's specification. The results are detailed in the subsequent page(s).

The test equipment used for calibration are traceable to National Standards via :

- The Government of The Hong Kong Special Administrative Region Standard & Calibration Laboratory
- Rohde & Schwarz Laboratory, Germany
- Fluke Precision Measurement Ltd., UK
- Fluke Everett Service Center, USA
- Agilent Technologies, USA

Tested By 測試

L K Yeung

K C Lee

Certified By 核證

Date of Issue 簽發日期

:

15 June 2012

The test equipment used for calibration are traceable to the Nation Standards as specified in this certificate. This certificate shall not be reproduced except in full, without the prior written approval of this laboratory.

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Certificate No. : C123580 證書編號

- 1. The unit-under-test (UUT) was allowed to stabilize in the laboratory for over 12 hours, and switched on to warm up for over 10 minutes before the commencement of the test.
- 2. Self-calibration was performed before the test.
- 3. The results presented are the mean of 3 measurements at each calibration point.
- 4. Test equipment :

<u>Equipment ID</u> CL280 CL281 Description 40 MHz Arbitrary Waveform Generator Multifunction Acoustic Calibrator Certificate No. C120016 DC110233

- 5. Test procedure : MA101N.
- 6. Results :
- 6.1 Sound Pressure Level
- 6.1.1 Reference Sound Pressure Level

UUT Setting				Applied Value		UUT	IEC 61672 Class 1
Range	Mode	Frequency	Time	Level	Freq.	Reading	Spec.
(dB)		Weighting	Weighting	(dB)	(kHz)	(dB)	(dB)
30 - 120	LA	А	Fast	94.00	1	93.7	± 1.1

6.1.2 Linearity

	UU	JT Setting		Applied	l Value	UUT
Range	Mode	Frequency	Time	Level	Freq.	Reading
(dB)		Weighting	Weighting	(dB)	(kHz)	(dB)
30 - 120	L _A	A	Fast	94.00	1	93.7 (Ref.)
				104.00]	103.7
-				114.00		113.7

IEC 61672 Class 1 Spec. : \pm 0.6 dB per 10 dB step and \pm 1.1 dB for overall different.

6.2 Time Weighting

UUT Setting			Applied Value		UUT	IEC 61672 Class 1	
Range	Mode	Frequency	Time	Level	Freq.	Reading	Spec.
(dB)		Weighting	Weighting	(dB)	(kHz)	(dB)	(dB)
30 - 120	L _A	A	Fast	94.00	1	93.7	Ref.
			Slow			93.6	± 0.3

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Sun Creation Engineering Limited - Calibration & Testing Laboratory

c o 4F, Tsing Shan Wan Exchange Building, 1 Hing On Lane, Tuen Mun, New Territories, Hong Kong 輝創工程有限公司 – 校正及檢測實驗所



輝創工程有限公司

Sun Creation Engineering Limited

Calibration and Testing Laboratory

Certificate of Calibration 校正證書

Certificate No.: C123580 證書編號

6.3 Frequency Weighting

6.3.1 A-Weighting

UUT Setting				Appl	ied Value	UUT	IEC 61672 Class 1
Range (dB)	Mode	Frequency Weighting	Time Weighting	Level (dB)	Freq.	Reading (dB)	Spec. (dB)
30 - 120	LA	A	Fast	94.00	63 Hz	67.3	-26.2 ± 1.5
					125 Hz	77.4	-16.1 ± 1.5
		() (1 54			250 Hz	85.0	-8.6 ± 1.4
					500 Hz	90.4	-3.2 ± 1.4
					1 kHz	93.7	Ref.
					2 kHz	95.0	$+1.2 \pm 1.6$
					4 kHz	94.8	$+1.0 \pm 1.6$
		1.1.1			8 kHz	92.7	-1.1 (+2.1;-3.1)
					12.5 kHz	89.8	-4.3(+3.0:-6.0)

6.3.2 C-Weighting

	UU	T Setting		Applied Value		UUT	IEC 61672 Class 1
Range	Mode	Frequency	Time	Level	Freq.	Reading	Spec.
(ub)		weighting	weighting	(UD)		(ub)	(UD)
30 - 120	L _C	C	Fast	94.00	63 Hz	92.8	-0.8 ± 1.5
					125 Hz	93.5	-0.2 ± 1.5
-					250 Hz	93.7	0.0 ± 1.4
					500 Hz	93.8	0.0 ± 1.4
					1 kHz	93.7	Ref.
					2 kHz	93.6	-0.2 ± 1.6
		1			4 kHz	93.1	-0.8 ± 1.6
					8 kHz	90.8	-3.0 (+2.1;-3.1)
					12.5 kHz	88.0	-6.2 (+3.0 ; -6.0)

Remarks : - Mfr's Spec. : IEC 61672 Class 1

- Uncertainties of Applied Value	94 dB	· 63 Hz - 125 Hz		+0.35 dB
encertainties of Appliea value .	JA GD	250 Hz - 500 Hz	÷	$\pm 0.30 \text{ dB}$
		1 kHz	:	± 0.20 dB
		2 kHz - 4 kHz	:	± 0.35 dB
		8 kHz	:	± 0.45 dB
		12.5 kHz	:	± 0.70 dB
	104 dB	: 1 kHz	:	$\pm 0.10 \text{ dB}$ (Ref. 94 dB)
	114 dB	: 1 kHz	:	$\pm 0.10 \text{ dB}$ (Ref. 94 dB)

- The uncertainties are for a confidence probability of not less than 95 %.

Note :

The values given in this Certificate only relate to the values measured at the time of the test and any uncertainties quoted will not include allowance for the equipment long term drift, variations with environment changes, vibration and shock during transportation, overloading, mis-handling, or the capability of any other laboratory to repeat the measurement. Sun Creation Engineering Limited shall not be liable for any loss or damage resulting from the use of the equipment.

The test equipment used for calibration are traceable to the Nation Standards as specified in this certificate. This certificate shall not be reproduced except in full, without the prior written approval of this laboratory.

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Certificate No. : C123522 證書編號

	ITEM TESTED / 送檢項目 Description / 儀器名稱 : Manufacturer / 製造商 : Model No. / 型號 : Serial No. / 編號 : Supplied By / 委託者 :	 (Job No. / 序引編號: IC12-1472) Precision Integrating Sound Level Met Rion NL-18 00360030 Envirotech Services Co. Shop 6, G/F., Casio Mansion, 209 Sha 	er ukeiwan Road,					
		Hong Kong	,					
	TEST CONDITIONS / 測 Temperature / 溫度 : (2 Line Voltage / 電壓 :	試條件 :3 ± 2)°C -	Relative Humidity / 相對濕度 :	(55 ± 20)%				
TEST SPECIFICATIONS / 測試規範 Calibration check								
	DATE OF TEST / 測試日期 : 13 June 2012							

TEST RESULTS / 測試結果

The results apply to the particular unit-under-test only. All results are within manufacturer's specification. The results are detailed in the subsequent page(s).

The test equipment used for calibration are traceable to National Standards via :

K C Lee

- The Government of The Hong Kong Special Administrative Region Standard & Calibration Laboratory
- Rohde & Schwarz Laboratory, Germany
- Fluke Precision Measurement Ltd., UK
- Fluke Everett Service Center, USA
- Agilent Technologies, USA

L K Yeung

Certified By 核證

Tested By 測試

> Date of Issue 簽發日期

:

15 June 2012

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Certificate No. : C123522 證書編號

- 1. The unit-under-test (UUT) was allowed to stabilize in the laboratory for over 12 hours, and switched on to warm up for over 10 minutes before the commencement of the test.
- 2. Self-calibration was performed before the test.
- 3. The results presented are the mean of 3 measurements at each calibration point.
- 4. Test equipment :

<u>Equipment ID</u>	<u>Description</u>	<u>Certificate No.</u>
CL280	40 MHz Arbitrary Waveform Generator	C120016
CL281	Multifunction Acoustic Calibrator	DC110233

- 5. Test procedure : MA101N.
- 6. Results :
- Sound Pressure Level 6.1
- 6.1.1 Reference Sound Pressure Level

	UU	JT Setting		Applied Value		UUT	IEC 60651 Type 1
Range	Mode	Frequency	Time	Level	Freq.	Reading	Spec.
(dB)		Weighting	Weighting	(dB)	(kHz)	(dB)	(dB)
50 - 110	LA	А	Fast	94.00	1	93.8	± 0.7

6.1.2 Linearity

	UU	JT Setting		Applied	l Value	UUT
Range	Mode	Frequency	Time	Level	Freq.	Reading
(dB)		Weighting	Weighting	(dB)	(kHz)	(dB)
60 - 120	LA	A	Fast	94.00	1	93.9 (Ref.)
				104.00		103.9
				114.00		113.8

IEC 60651 Type 1 Spec. : ± 0.4 dB per 10 dB step and ± 0.7 dB for overall different.

6.2 Time Weighting

6.2.1 Continuous Signal

	UU	T Setting		Applied Value		UUT	IEC 60651 Type 1
Range	Mode	Frequency	Time	Level	Freq.	Reading	Spec.
(dB)		Weighting	Weighting	(dB)	(kHz)	(dB)	(dB)
50 - 110	LA	А	Fast	94.00	1	93.8	Ref.
			Slow			93.8	± 0.1

Sun Creation Engineering Limited - Calibration & Testing Laboratory

c'o 4/F. Tsing Shan Wan Exchange Building, 1 Hing On Lane, Tuen Mun, New Territories, Hong Kong 輝創工程有限公司 – 校正及檢測實驗所

c/o 香港新界屯門興安里一號青山灣機樓四樓

Tel/電話: 2927 2606 Fax/傳真: 2744 8986 E-mail/電郵: callab@suncreation.com Website/網址: www.suncreation.com

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Certificate No.: C123522 證書編號

6.2.2 Tone Burst Signal (2 kHz)

	UU	T Setting		Applied Value		UUT	IEC 60651 Type 1
Range	Mode	Frequency	Time	Level	Level Burst		Spec.
(dB)		Weighting	ig Weighting (dB) Duration		(dB)	(dB)	
50 -110	LA	А	Fast	106.00	Continuous	106.0	Ref.
	LAmx				200 ms	105.1	-1.0 ± 1.0
	LA		Slow		Continuous	106.0	Ref.
	LAmx				500 ms	102.5	-4.1 ± 1.0

6.3 Frequency Weighting

6.3.1 A-Weighting

UUT Setting				Applied Value		UUT	IEC 60651 Type 1
Range	Mode	Frequency	Time	Level	Freq.	Reading	Spec.
(dB)		Weighting	Weighting	(dB)		(dB)	(dB)
50 - 110	LA	А	Fast	94.00	31.5 Hz	54.1	-39.4 ± 1.5
					63 Hz	67.4	-26.2 ± 1.5
					125 Hz	77.5	-16.1 ± 1.0
					250 Hz	85.1	-8.6 ± 1.0
					500 Hz	90.5	-3.2 ± 1.0
					1 kHz	93.8	Ref.
					2 kHz	95.1	$+1.2 \pm 1.0$
					4 kHz	94.8	$+1.0 \pm 1.0$
					8 kHz	92.7	-1.1 (+1.5 ; -3.0)
					12.5 kHz	89.4	-4.3 (+3.0 ; -6.0)

6.3.2 C-Weighting

	UUT Setting				ied Value	UUT	IEC 60651 Type 1
Range	Mode	Frequency	Time	Level	Freq.	Reading	Spec.
(dB)		Weighting	Weighting	(dB)		(dB)	(dB)
50 - 110	LC	С	Fast	94.00	31.5 Hz	90.7	-3.0 ± 1.5
					63 Hz	93.0	-0.8 ± 1.5
					125 Hz	93.6	-0.2 ± 1.0
					250 Hz	93.8	0.0 ± 1.0
					500 Hz	93.9	0.0 ± 1.0
					1 kHz	93.9	Ref.
2					2 kHz	93.7	-0.2 ± 1.0
					4 kHz	93.1	-0.8 ± 1.0
					8 kHz	90.8	-3.0 (+1.5 ; -3.0)
					12.5 kHz	87.6	-6.2 (+3.0 ; -6.0)

本證書所載校正用之測試器材均可溯源至國際標準。局部複印本證書需先獲本實驗所書面批准。

Sun Creation Engineering Limited - Calibration & Testing Laboratory

c/o 4/F, Tsing Shan Wan Exchange Building, 1 Hing On Lane, Tuen Mun, New Territories, Hong Kong

輝創工程有限公司 – 校正及檢測實驗所 c/o 香港新界屯門興安里一號青山灣機樓四樓

Tel/電話: 2927 2606 Fax/傳真: 2744 8986

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Calibration and Testing Laboratory

Certificate of Calibration 校正證書

Certificate No. : C123522 證書編號

6.4 Time Averaging

	UU	T Setting					UUT	IEC 60804		
Range	Mode	Frequency	Integrating	Freq.	Burst	Burst	Burst	Equivalent	Reading	Type 1
(dB)		Weighting	Time	(kHz)	Duration	Duty	Level	Level	(dB)	Spec.
					(ms)	Factor	(dB)	(dB)		(dB)
50 - 110	LAeq	А	10 sec.	4	1	1/10	110	100	100.1	± 0.5
						1/10 ²		90	89.9	± 0.5
			60 sec.			1/10 ³		80	79.6	± 1.0
			5 min.			1/104		70	69.8	± 1.0

Remarks : - Mfr's Spec. : IEC 60651 Type 1 & IEC 60804 Type 1

- Uncertainties of Applied Value :	94 dB	: 31.5 Hz - 125 Hz	: =	± 0.35 dB
		250 Hz - 500 Hz	: =	± 0.30 dB
		1 kHz	: =	± 0.20 dB
		2 kHz - 4 kHz	: =	± 0.35 dB
		8 kHz	: =	± 0.45 dB
		12.5 kHz	: =	± 0.70 dB
	104 dB	: 1 kHz	: =	± 0.10 dB (Ref. 94 dB)
	114 dB	: 1 kHz	: 3	± 0.10 dB (Ref. 94 dB)
	Burst eq	uivalent level	: =	± 0.2 dB (Ref. 110 dB
			(continuous sound level)

- The uncertainties are for a confidence probability of not less than 95 %.

Note :

The values given in this Certificate only relate to the values measured at the time of the test and any uncertainties quoted will not include allowance for the equipment long term drift, variations with environment changes, vibration and shock during transportation, overloading, mis-handling, or the capability of any other laboratory to repeat the measurement. Sun Creation Engineering Limited shall not be liable for any loss or damage resulting from the use of the equipment.

The test equipment used for calibration are traceable to the Nation Standards as specified in this certificate. This certificate shall not be reproduced except in full, without the prior written approval of this laboratory.

本證書所載校正用之測試器材均可溯源至國際標準。局部複印本證書需先獲本實驗所書面批准。



輝創工程有限公司 Sun Creation Engineering Limited

Calibration and Testing Laboratory

Certificate of Calibration 校正證書

Certificate No. : C124011 證書編號

ITEM TESTED / 送檢功	頁目	(Job No. / 序引編號 :IC12-1674)
Description / 儀器名稱	:	Sound Level Calibrator
Manufacturer / 製造商	:	Rion
Model No. / 型號	:	NC-73
Serial No. / 編號	:	10997142
Supplied By / 委託者	:	Envirotech Services Co.
		Shop 6, G/F., Casio Mansion, 209 Shaukeiwan Road,
		Hong Kong

TEST CONDITIONS / 測試條件

Temperature / 溫度 : (23 ± 2)°C Line Voltage / 電壓 : --- Relative Humidity / 相對濕度 : (55 ± 20)%

TEST SPECIFICATIONS / 測試規範

Calibration check

DATE OF TEST / 測試日期 : 9 July 2012

TEST RESULTS / 測試結果

The results apply to the particular unit-under-test only. All results are within manufacturer's specification. The results are detailed in the subsequent page(s).

The test equipment used for calibration are traceable to National Standards via :

- The Government of The Hong Kong Special Administrative Region Standard & Calibration Laboratory
- Rohde & Schwarz Laboratory, Germany
- Fluke Everett Service Center, USA
- Agilent Technologies, USA

L K Yeung

Certified By 核證

Tested By 測試

> Date of Issue : 簽發日期

10 July 2012

The test equipment used for calibration are traceable to the Nation Standards as specified in this certificate. This certificate shall not be reproduced except in full, without the prior written approval of this laboratory.

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K C Lee



Sun Creation Engineering Limited

Calibration and Testing Laboratory

Certificate of Calibration 校正證書

Certificate No. : C124011 證書編號

- The unit-under-test (UUT) was allowed to stabilize in the laboratory for over 12 hours before the commencement 1 of the test.
- 2. The results presented are the mean of 3 measurements at each calibration point.
- 3. Test equipment :

Equipment ID CL130 CL281 TST150A

Description Universal Counter Multifunction Acoustic Calibrator Measuring Amplifier

Certificate No. C123541 DC110233 C120886

- 4. Test procedure : MA100N.
- 5. Results :

Sound Level Accuracy 5.1

UUT	Measured Value	Mfr's Spec.	Uncertainty of Measured Value
Nominal Value	(dB)	(dB)	(dB)
94 dB, 1 kHz	94.0	± 0.5	± 0.2

5.2 Frequency Accuracy

UUT Nominal Value	Measured Value	Mfr's	Uncertainty of Measured Value
(kHz)	(kHz)	Spec.	(Hz)
1	0.990	1 kHz ± 2 %	± 1

Remark : The uncertainties are for a confidence probability of not less than 95 %.

Note :

The values given in this Certificate only relate to the values measured at the time of the test and any uncertainties quoted will not include allowance for the equipment long term drift, variations with environment changes, vibration and shock during transportation, overloading, mis-handling, or the capability of any other laboratory to repeat the measurement. Sun Creation Engineering Limited shall not be liable for any loss or damage resulting from the use of the equipment.

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The test equipment used for calibration are traceable to the Nation Standards as specified in this certificate. This certificate shall not be reproduced except in full, without the prior

Annex G

Summary of Event/ Action Plans

EVENT	Action										
	Contractor's Environmental Team (Contractor's ET)	Independent Environmental Checker (IEC)	Engineer Representative (ER)	The Contractor							
Exceeding Action Level	 Notify the IEC, Contractor and ER; Discuss with the ER, IEC and Contractor on the remedial measures required; Increase the monitoring frequency to check mitigation effectiveness. 	 Review the investigation results submitted by the contractor; Review and advise the ET and ER on the effectiveness of the remedial measures proposed by the Contractor. 	 Confirm receipt of notification of complaint in writing; Notify the Contractor, IEC and ET; Review and agree on the remedial measures proposed by the Contractor; Supervise the implementation of remedial measures. 	 Investigate the complaint and propose remedial measures; Report the results of investigation to the IEC, ET and ER; Submit noise mitigation proposals to the ER with copy to the IEC and ET within 3 working days of notification; Implement noise mitigation proposals. 							
Exceeding Limit Level	 Notify the IEC, Contractor and EPD; Repeat measurement to confirm findings; Increase the monitoring frequency; Carry out analysis of the Contractor's working procedures to determine possible mitigation to be implemented; Arrange meeting with the IEC, Contractor and ER to discuss the remedial measures to be taken; Inform the IEC, ER and EPD the causes and actions taken for the exceedances Assess the effectiveness of the Contractor's remedial measures and keep the IEC, ER and EPD 	 Check the monitoring data submitted by the ET; Check the Contractor's working method; Discuss with the ET, ER, and Contractor on the potential remedial measures; Review and advise the ET and ER on the effectiveness of the remedial measures proposed by the Contractor 	 Confirm receipt of notification of exceedance in writing; Notify the Contractor, IEC and ET; In consultation with the ET and IEC, agree with the Contractor on the remedial measures to be implemented; Supervise the implementation of remedial measures; 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. 	 Identify reason(s) and investigate the causes of exceedance; Take immediate action to avoid further exceedance; Submit proposals for remedial measures to the ER with a copy to the IEC and ET within three working days of notification; Implement the agreed proposals; Revise and resubmit proposals if problem still not under control; Stop the relevant portion of works as determined by the ER until the exceedance is abated. 							

Annex G1 Even and Action Plan for Regular Construction Noise Monitoring

Event	Ac	tion						
	Co (Co	ntractor's Environmental Team ontractor's ET)	Independent Environmental Checker Engineer Representative (ER) (IEC)			gineer Representative (ER)	Th	e Contractor
Exceeding Action/Limit	1. 2.	Notify the IEC, Contractor and ER Identify source and investigate the	1.	Check the monitoring data submitted by the ET;	1.	Confirm receipt of notification of exceedance in writing	1.	Identify reason and investigate the causes of exceedance
Level		causes of exceedance	2.	Check the Contractor's working	2.	 Notify the Contractor, and IEC In consultation with the ET and IEC, agree with the Contractor on the remedial measures to be implemented Ensure the proper implementation of remedial measures 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 	2.	Take immediate action to avoid
	3.	Inform the IEC, ER and Contractor the causes and actions taken for the exceedances	3.	method; Discuss with the ER, ET and Contractor on the potential remedial measures Review and advise the ET and ER on the effectiveness of the remedial measures proposed by the Contractor.	3.		3.	further exceedance Submit proposals for remedial measures to the ER with copy to the
	4.	Carry out analysis of Contractor's working procedures to determine	4.		4.		4.	IEC and E1 of notification Implement the agreed proposals
	5.	possible mitigation to be implemented Arrange meeting with the IEC, Contractor and ER to discuss the remedial measures to be taken if	1.		5.		5. 6. 7.	Liaise with ER to optimize the effectiveness of the agreed mitigation Revise and resubmit proposals if
	6.	Assess the effectiveness of the Contractor's remedial measures and keep the IEC and ER informed of the results						problem still not under control Stop the relevant portion of works as determined by the ER until the exceedance is abated
	7.	Repeat measurement to confirm findings if exceedance is caused by the 1109 works and if necessary						

Annex G2 Event and Action Plan for Continuous Noise Monitoring

Event	Α	ction						
	C	ontractor's Environmental Team	In	dependent Environmental Checker	En	gineer Representative (ER)	T	he Contractor
	(C	Contractor's ET)	(II	EC)				
Action Level								
Exceedance for one sample	1.	Inform the IEC, Contractor and ER;	1.	Check the monitoring data submitted by the ET;	1.	Confirm receipt of notifications of exceedance in writing;	1.	Identify reason(s), investigate the causes of exceedance and
	2.	Discuss with the Contractor,	2.	Check the Contractor's working				propose remedial measures;
		IEC and ER on the remedial		method;			2.	Implement remedial measures;
		measures required;	3.	Review and advise the ET and ER on			3.	Amend working methods and
	3.	Repeat measurement to confirm findings;		the effectiveness of the proposed remedial measures.				agree them with the ER as appropriate.
	4.	Increase the monitoring						•• •
		frequency						
Exceedance for two or more	1.	Inform the IEC, Contractor and ER.	1.	Check the monitoring data submitted	1.	Confirm receipt of notification of	1.	Identify reasons and investigate
consecutive sumples	2	Discuss with the FR IEC and	2	Check the Contractor's working	2	Notify the Contractor IEC and ET:	2	Submit proposals of remedial
	۷.	Contractor on the remedial	2.	method:	2.	Review and agree on the remedial	2.	measures to the FR with a conv
		mossures required.	З	Review and advise the ET and ER on	0.	measures proposed by the		to the ET and IEC within three
	3	Ropost mossurements to	5.	the effectiveness of the proposed		Contractor:		working days of potification:
	5.	confirm findings:		romodial moasuros	1	Supervise the Implementation of	3	Implement the agreed proposals:
	4	Increase the monitoring		Temediai measures.	ч.	remedial measures	3. 4	Amend proposal as appropriate
	т.	froquency to daily:				Temediai measures.	т.	Anene proposar as appropriate.
	5	If exceedence continues						
	5.	arrange mosting with the IEC						
		EP and Contractory						
	6	EK and Contractor,						
	о.	in exceedance stops, the						
		requency will						
		resume normal.						

Annex G3 Event and Action Plan for Construction Dust Monitoring

Event	Action			
	Contractor's Environmental Team	Independent Environmental Checker	Engineer Representative (ER)	The Contractor
	(Contractor's ET)	(IEC)		
Limit Level				
Exceedance for one sample	 Inform the IEC, Contractor and ER; Repeat measurement to confirm findings; Increase the monitoring frequency to daily; Discuss with the ER, IEC and contractor on the remedial measures and assess the effectiveness. 	 Check the monitoring data submitted by the ET; Check the Contractor's working method; Discuss with the ET, ER and Contractor on possible remedial measures; Review and advise the ER and ET on the effectiveness of Contractor's remedial measures. 	 Confirm receipt of notification of exceedance in writing; Notify the Contractor, IEC and ET; Review and agree on the remedial measures proposed by the Contractor; Supervise the implementation of remedial measures. 	 Identify reason(s) and investigate the causes of exceedance; Take immediate action to avoid further exceedance; Submit proposals of remedial measures to ER with a copy to the ET and IEC within three working days of notification; Implement the agreed proposals; Amend proposal if appropriate.
Exceedance for two or more consecutive samples	 Notify the IEC, Contractor and EPD; Repeat measurement to confirm findings; Increase the monitoring frequency to daily; Carry out analysis of the Contractor's working procedures with the ER to determine possible mitigation to be implemented; Arrange meeting with the IEC, Contractor and ER to discuss the remedial measures to be taken; Review the effectiveness of the Contractor's remedial measures and keep the IEC, EPD and ER informed of the results; If exceedance stops, the monitoring frequency will resume normal. 	 Check the monitoring data submitted by the ET; Check the Contractor's working method; Discuss with the ET, ER, and Contractor on the potential remedial measures; Review and advise the ER and ET on the effectiveness of Contractor's remedial measures. 	 Confirm receipt of notification of exceedance in writing; Notify the Contractor, IEC and ET; In consultation with the ET and IEC, agree with the Contractor on the remedial measures to be implemented; Supervise the implementation of remedial measures; 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. 	 Identify reason(s) and investigate the causes of exceedance; Take immediate action to avoid further exceedance; Submit proposals of remedial measures to the ER with a copy to the IEC and ET within three working days of notification; Implement the agreed proposals; Revise and resubmit proposals if problem still not under control; Stop the relevant portion of works as determined by the ER until the exceedance is abated.

Event	Action			
	Contractor's Environmental Team	Independent Environmental Checker	Engineer Representative (ER)	The Contractor
	(Contractor's ET)	(IEC)		
Non-conformity on one occasion	 Inform the Contractor, the IEC and the ER. Discuss remedial actions with the IEC EB and Contractor. 	 Check the inspection report. Check the Contractor's working method. Discuss prick the ET_ED and 	 Confirm receipt of notifications of nonconformity in writing. Review and agree on the remedial 	 Identify reasons and investigate the non-conformity. Implement remedial measures
	 Monitor remedial actions until rectification has been completed. 	 Discuss with the E1, ER and Contractor on possible remedial measures. Advise the ER on the effectiveness of proposed remedial measures. 	Contractor.Supervise the implementation of remedial measures.	 Amend Working methods and agree them with the ER as appropriate. Rectify the damage and undertake any necessary replacement.
Repeated Nonconformity	 Identify Reasons. Inform the Contractor, IEC and ER. Increase the inspection frequency. Discuss remedial actions with the IEC, ER and Contractor. Monitor remedial actions until rectification has been completed. If non-conformity stops, the inspection frequency return to normal (ie,. Once every two weeks) 	 Check the inspection report. Check the Contractor's working method. Discuss with the ET and Contractor on possible remedial measures. Advise the ER on the effectiveness of proposed remedial measures. 	 Notify the Contractor. In consultation with the ET and IEC, agree with the Contractor on the remedial measures to be implemented. Supervise the implementation of remedial measures. 	 Identify Reasons and investigate the non-conformity. Implement remedial measures. Amend working methods and agree them with the ER as appropriate. Rectify the damage and undertake any necessary replacement. Stop relevant works as determined by the ER until the non-conformity is abated.

Annex G4 Event and Action Plan for Landscape and Visual during the Construction Phase

Annex H

Summary of Implementation Status

Annex H Environmental Mitigation Implementation Status – SCL Works Contract 1109 (Stations and Tunnels of Kowloon City Section)

Note: Reference has been made to the approved SCL (TAW-HUH) EM&A Manual.

*

\checkmark	Compliance of	Mitigation Measures									
<>	Compliance of	Mitigation but need improvement									
x	Non-compliance of Mitigation Measures										
A 1	Non-compliance of Mitigation Measures but rectified by Samsung-Hsin Chong JV										
Δ	Deficiency of N	Aitigation Measures but rectified by Samsung-Hs	in Chong JV								
N/A	Not Applicable	e in Reporting Period									
EIA Re	f. EM&A Log Ref*	Recommended Mitigation Measures	Objectives of the Recommended Measures & Main Concerns to address	Who to implement the measures?	Location of the implementation of measures	When to implement the measures?	Implementation Status				
Cultura	al Heritage Im	pact									
S4.9	СН3	Submit an Archaeological Action Plan Conduct survey-cum-excavation and additional boreholes/trenches investigation at the Sacred Hill (North) Study Area prior to construction.	Salvage cultural remains at the Sacred Hill (North) Study Area	Contractor	Sacred Hill (North) Area	Prior to the Construction Phase of TKW and associated tunnels	\checkmark				
Ecology	y (Construction	n Phase)									
	E5	<u>Good Site Practices</u> Impact on any habitats or local fauna should be avoided by implementing good site practices, including the containment of silt runoff within the site boundary, containment of contaminated soils for removal from the site, appropriate storage of chemicals and chemical waste away from sites of ecological value and the provision of sanitary facilities for on-site workers. Adoption of such measures should permit waste to be suitably contained within the site for subsequent removal and appropriate disposal.	Minimise ecological impacts	Contractor	All construction sites	Construction Stage	√				

EIA Ref.	EM&A Log Ref*	Recommended Mitigation Measures	Objectives of the Recommended Measures & Main Concerns to address	Who to implement the measures?	Location of the implementation of measures	When to implement the measures?	Implementation Status
		The following good site practices should also be implemented:					
		 Erection of temporary geotextile silt or sediment fences/oil traps around earthmoving works to trap sediments and prevent them from entering watercourses; Avoidance of soil storage against trees or close to water bodies; Delineation of works site by erecting hoardings to prevent encroachment onto adjacent habitats and fence off areas which have some ecological value e.g. tunnel on hill at top of slope stabilisation works; No on-site burning of waste; Store waste and refuse in appropriate receptacles. 					
Landscap	e & Visual ((Construction Phase)					
S6.9.3	LV1	The following good site practices and measures for minimisation and avoidance of potential impacts are recommended:	Minimize visual & landscape impact	Contractor	Within Project Site	Construction Stage	Δ
		 <u>Re-use of Existing Soil</u> For soil conservation, existing topsoil shall be re-used where possible for new planting areas within the project. The construction program shall consider using the soil removed from one phase for backfilling another. Suitable storage ground, gathering ground and mixing 					

EIA Ref.	EM&A Log Ref*	Recommended Mitigation Measures	Objectives of the Recommended Measures & Main Concerns to address	Who to implement the	Location of the implementation of measures	When to implement the measures?	Implementation Status
				measures?			

ground may be set up on-site as necessary.

No-intrusion Zone

• To maximize protection to existing trees, ground vegetation and associated under storey habitats, construction contracts may designate "No-intrusion Zone" to various areas within the site boundary with rigid and durable fencing . The contractor should closely monitor and restrict the site working staff from entering the "nointrusion zone", even for indirect construction activities and storage of equipment.

Protection of Retained Trees

- All retained trees including trees in contractor's works sites should be recorded and photographed at the commencement of the Contract, and carefully protected during the construction period. Detailed tree protection specification shall be allowed and included in the Contract Specification, which specifies the tree protection requirement, submission and approval system, and the tree monitoring system.
- The Contractor shall be required to submit, for approval, a detailed working method statement for the protection of trees prior to undertaking any works adjacent to all retained trees, including

EIA Ref.	EM&A Log Ref*	Recommended Mitigation Measures	Objectives of the Recommended Measures & Main Concerns to address	Who to implement the measures?	Location of the implementation of measures	When to implement the measures?	Implementation Status
S6.12	LV2	 trees in Contractor's works sites. <u>Decorative Hoarding</u> Erection of decorative screen in visual and landscape sensitive areas during the construction stage to screen off undesirable views of the construction site . Hoarding should be designed to be compatible with the existing urban context. 	Minimize visual & landscape impact	Contractor	Within Project Site	Construction Stage	~
		 Management of facilities on work sites To provide proper management of the on-site facilities, control the height and disposition/ arrangement of all facilities on the works site to minimize visual impact to adjacent Visual Sensitive Receivers (VSRs). 					
		 Tree Transplanting Trees of high to medium survival rates that would be affected by the works shall be transplanted where possible and practicable. Tree transplanting proposal including the final locations for the transplanted trees shall be submitted separately to seek relevant government department's approval, in accordance with ETWB TCW No 3/2006. 					
Construct	tion Dust						
S7.6.5	D1	The contractor shall follow the procedures and requirements given in the Air Pollution Control (Construction Dust) Regulation.	Minimize dust impact at the nearby sensitive receivers	Contractor	All construction sites	Construction stage	~

EIA Ref.	EM&A Log Ref*	Recommended Mitigation Measures	Objectives of the Recommended Measures & Main Concerns to address	Who to implement the measures?	Location of the implementation of measures	When to implement the measures?	Implementation Status
S7.6.5	D2	Mitigation measures in form of regular watering under a good site practice should be adopted. Watering once per hour on exposed worksites and haul roads in the Kowloon area should be conducted to achieve dust removal efficiencies of 91.7%. While the above watering frequencies are to be followed, the extent of watering may vary depending on actual site conditions but should be sufficient to maintain an equivalent intensity of no less than 1.8 1/m ² to achieve the dust removal efficiency	Minimize dust impact at the nearby sensitive receivers	Contractor	All construction sites	Construction stage	V
S7.6.5	D3	 Proper watering of exposed spoil should be undertaken throughout the construction phase; Any excavated or stockpile of dusty material should be covered entirely by an impervious sheeting or sprayed with water to maintain an entirely wet surface and then removed or backfilled or reinstated where practicable within 24 hours of the excavation or unloading; Any dusty materials remaining after a stockpile has been removed should be wetted with water and cleared from the surface of roads; A stockpile of dusty materials should not be extended beyond the pedestrian barriers, fencing or traffic cones. The load of dusty materials on a vehicle leaving a construction site should be covered entirely by an impervious 	Minimize dust impact at the nearby sensitive receivers	Contractor	All construction sites	Construction stage	Δ

EIA Ref.	EM&A Log Ref*	Recommended Mitigation Measures	Objectives of the Recommended Measures & Main Concerns to address	Who to implement the measures?	Location of the implementation of measures	When to implement the measures?	Implementation Status
		 sheeting to ensure that the dusty materials do not leak from the vehicle; Where practicable, vehicle washing facilities with high pressure water jet should be provided at every discernible or designated vehicle exit point. The area where vehicle washing takes place and the road section between the washing facilities and the exit point should be paved with concrete, bituminous materials or hardcores; When there are open excavation and reinstatement works, hoarding of not less than 2.4m high should be provided and properly maintained as far as practicable along the site boundary with provision for public crossing. Good site practice shall also be adopted by the Contractor to ensure the conditions of the hoardings are properly maintained throughout the construction period; The portion of any road which leads only to construction site and is within 30m of a vehicle entrance or exit should be kept clear of dusty materials; Surfaces where any pneumatic or powerdriven drilling, cutting, polishing or other mechanical breaking operations take place should be sprayed with water or a dust suppression chemical continuously; 					
		activities should be sprayed with water or					
EIA Ref.	EM&A Log Ref*	Recommended Mitigation Measures	Objectives of the Recommended Measures & Main Concerns to address	Who to implement the measures?	Location of the implementation of measures	When to implement the measures?	Implementation Status
----------	------------------	--	---	---	--	---------------------------------	--------------------------
		 a dust suppression chemical immediately prior to, during and immediately after the activities so as to maintain an entirely wet surface Where a scaffolding is erected around the perimeter of a building under construction, effective dust screens, sheeting or netting should be provided to enclose the scaffolding from the ground floor level of the building upward, or a canopy should be provided from the first floor level up to the highest level of the scaffolding; Any skip hoist for material transport should be totally enclosed by an impervious sheeting; Every stock of more than 20 bags of cement or dry pulverised fuel ash (PFA) should be covered entirely by an impervious sheeting or placed in an area sheltered on the top and 3 sides; Cement or dry PFA delivered in bulk should be stored in a closed silo fitted with an audible high level alarm which is interlocked with the material filling line and no overfilling is allowed; Loading, unloading, transfer, handling or storage of bulk cement or dry PFA should be carried out in a totally enclosed system or facility, and any vent or exhaust should be fitted with an effective fabric filter or equivalent air pollution control system; 					

EIA Ref.	EM&A Log Ref*	Recommended Mitigation Measures	Objectives of the Recommended Measures & Main Concerns to address	Who to implement the measures?	Location of the implementation of measures	When to implement the measures?	Implementation Status
		 and Exposed earth should be properly treated by compaction, turfing, hydroseeding, vegetation planting or sealing with latex, vinyl, bitumen, shotcrete or other suitable surface stabiliser within six months after the last construction activity on the construction site or part of the construction site where the exposed earth lies 					
S7.6.5	D6	Implement regular dust monitoring under EM&A programme during the construction stage.	Monitoring of dust impact	Contractor	Selected representative dust monitoring station	Construction stage	\checkmark
EP Conditio n 2.18(a)	D7	Watering once every working hour for active works areas, exposed areas and paved haul roads shall be provided in Kowloon area to keep these active works areas, exposed areas and paved haul roads wet.	Minimize construction dust impact	Contractor	All construction sites	Construction stage	\checkmark
EP Conditio n 2.19	D8	All diesel fuelled construction plant, including marine vessels if possible, used by the contractors within the works areas of the Project shall be powered by ultra low sulphur diesel fuel.	Minimize aerial emissions of sulphur dioxide from construction plant	Contractor	All construction sites	Construction stage	~
Construct	ion Noise (A	Airborne)					
S8.3.6	N1	 Implement the following good site practices: only well-maintained plant should be operated on-site and plant should be serviced regularly during the construction programme; machines and plant (such as trucks, cranes) that may be in intermittent use should be shut down between work 	Control construction airborne noise	Contractor	All construction sites	Construction stage	~

EIA Ref.	EM&A Log Ref*	Recommended Mitigation Measures	Objectives of the Recommended Measures & Main Concerns to address	Who to implement the measures?	Location of the implementation of measures	When to implement the measures?	Implementation Status
		periods or should be throttled down to a minimum;					
		 plant known to emit noise strongly in one direction, where possible, should be orientated so that the noise is directed away from nearby NSRs; 					
		 silencers or mufflers on construction equipment should be properly fitted and maintained during the period of construction works; 					
		 mobile plant should be sited as far away from NSRs as possible and practicable; material stockpiles, mobile container site office and other structures should be effectively utilised, where practicable, to screen noise from on-site construction activities 					
S8.3.6	N2	Install temporary hoarding located on the site boundaries between noisy construction activities and NSRs. The conditions of the hoardings shall be properly maintained throughout the construction period.	Reduce the construction noise levels at low-level zone of NSRs through partial screening.	Contractor	All construction sites	Construction stage	\checkmark
S8.3.6	N3	Install movable noise barriers (typical design is wooden framed barrier with a small- cantilevered on a skid footing with 25mm thick internal sound absorptive lining), acoustic mat or full enclosure, screen the noisy plants including air compressor, generators and saw.	Screen the noisy plant items to be used at all construction sites	Contractor	All construction sites where practicable	Construction stage	N/A
S8.3.6	N4	Use "Quiet plants"	Reduce the noise levels of plant items	Contractor	All construction sites where practicable	Construction stage	\checkmark
S8.3.6	N5	Sequencing operation of construction plants	Operate sequentially within	Contractor	Contractor All	Construction stage	\checkmark

EIA Ref.	EM&A Log Ref*	Recommended Mitigation Measures	Objectives of the Recommended Measures & Main Concerns to address	Who to implement the measures?	Location of the implementation of measures	When to implement the measures?	Implementation Status
		where practicable.	the same work site to reduce the construction airborne noise		construction sites where practicable		
S8.3.6	N6	Implement noise monitoring under EM&A programme.	Monitor the construction noise levels at the selected representative locations	Contractor	Selected representative noise monitoring station	Construction stage	\checkmark
Water Qu	ality						
S10.7.1	W1	 In accordance with the Practice Noise for Professional Persons on Construction Site Drainage, Environmental Protection Department, 1994 (ProPECC PN1/94), construction phase mitigation measures shall include the following: <u>Construction Runoffs and Site Drainage</u> At the start of the site establishment, perimeter cut-off drains to direct off-site water around the site should be constructed with internal drainage works and erosion and sedimentation control facilities implemented. Channels (both temporary and permanent drainage pipes and culverts), earth bunds or sand bag barriers should be provided on site to direct stormwater to silt removal facilities. The design of the temporary on-site drainage system will be undertaken by the Contractor prior to the commencement of construction. The dikes or embankments for flood protection should be implemented around the boundaries of earthwork areas. Temporary ditches should be provided to 	To minimize water quality impact from construction site runoffs and general construction activities	Contractor	All construction sites where practicable	Construction stage	

EIA Ref.	EM&A Log Ref*	Recommended Mitigation Measures	Objectives of the Recommended Measures &	Who to implement	Location of the implementation of	When to implement the measures?	Implementation Status
			Main Concerns to address	the measures?	measures		
		 facilitate the runoff discharge into an appropriate watercourse, through a site/sediment trap. The sediment/silt traps should be incorporated in the permanent drainage channels to enhance deposition rates. The design of efficient silt removal facilities should be based on the guidelines in Appendix A1 of ProPECC PN 1/94, which states that the retention time for silt/sand traps should be 5 minutes under maximum flow conditions. Sizes may vary depending upon the flow rate, but for a flow rate of 0.1 m³/s, a sedimentation basin of 30m³ would be required and for a flow rate of 0.5 m³/s the basin would be 150 m³. The detailed design of the sand/silt traps shall be undertaken by the Contractor prior to the commencement of construction. All exposed earth areas should be completed and vegetated as soon as possible after earthworks have been completed, and definitely, within 14 days of the cessation of earthworks where practicable. Exposed slope surfaces should be covered by tarpaulin or other means. The overall slope of the site should be kept to a minimum to reduce the erosive potential of surface water flows, and all 		measures?			
		tranic areas and access roads protected by					

EIA Ref.	EM&A Log Ref*	Recommended Mitigation Measures	Objectives of the Recommended Measures & Main Concerns to address	Who to implement the measures?	Location of the implementation of measures	When to implement the measures?	Implementation Status
		coarse stone ballast. An additional					
		advantage from the use of crushed stone is					
		the positive traction gained during					
		prolonged periods of inclement weather					
		and the reduction of surface sheet flows.					
		• All drainage facilities and erosion and					
		sediment control structures should be					
		regularly inspected and maintained to					
		ensure proper and efficient operations at					
		all times and particularly following					
		rainstorms. Deposited silts and grits					
		should be removed regularly and					
		disposed of by spreading them evenly					
		over stable, vegetated areas.					
		Measures should be taken to minimise the					
		ingress of site drainage into excavations.					
		If the excavation of trenches in wet periods					
		is necessary, trenches should be dug and					
		backfilled in short sections wherever					
		practicable. Water pumped out from					
		trenches or foundation excavations should					
		be discharged into storm drains via silt					
		removal facilities.					
		Open stockpiles of construction materials					
		(for example, aggregates, sand and fill					
		material) of more than 50m ³ should be					
		covered with tarpaulin or similar fabric					
		during rainstorms. Measures should be					
		taken to prevent the washing away of					
		construction materials, soil, silt or debris					
		into any drainage system.					
		 Manholes (including newly constructed 					

EIA Ref.	EM&A Log Ref*	Recommended Mitigation Measures	Objectives of the Recommended Measures & Main Concerns to address	Who to implement the measures?	Location of the implementation of measures	When to implement the measures?	Implementation Status
		 ones) should always be adequately covered and temporarily sealed so as to prevent silt, construction materials or debris being washed into the drainage system and storm runoff being directed into foul sewers. Precautions should be taken at any time of year when rainstorms are likely. Actions to be taken when a rainstorm is imminent or forecasted, and actions to be taken during or after rainstorms are summarised in Appendix A2 of ProPECC PN 1/94. Particular attention should be paid to the control of silty surface runoffs during storm events, especially for areas located near steep slopes. All vehicles and plant should be cleaned before leaving a construction site to ensure that no earth, mud, debris and the like is deposited by them on roads. An adequately designed and sited wheel washing facilities should be provided at every construction site exit where practicable. Wash-water should have sand and silt settled out and removed at least on a weekly basis to ensure the continued efficiency of the process. The section of access road leading to, and exiting from, the wheel-wash bay to the public road should be paved with sufficient backfall toward the wheel-wash bay to prevent vehicle tracking of soil and 					

EIA Ref.	EM&A Log Ref*	Recommended Mitigation Measures	Objectives of the Recommended Measures & Main Concerns to address	Who to implement the measures?	Location of the implementation of measures	When to implement the measures?	Implementation Status
		 silty water to public roads and drains. Oil interceptors should be provided in the drainage system downstream of any oil/fuel pollution sources. The oil interceptors should be emptied and cleaned regularly to prevent the release of oil and grease into the storm water drainage system after accidental spillage. A bypass should be provided for the oil interceptors to prevent flushing during heavy rain. Construction solid waste, debris and rubbish on site should be collected, handled and disposed of properly to avoid water quality impacts. All fuel tanks and storage areas should be provided with locks and sited in sealed areas, within bunds of a capacity equal to 110% of the storage capacity of the largest tank to prevent spilled fuel oils from reaching nearby water sensitive receivers. All the earth works should be conducted sequentially to limit the amount of construction runoffs generated from exposed areas during the wet season (April to September) as far as practicable. 					
S10.7.1	W2	 <u>Tunnelling Works</u> Uncontaminated discharge should pass through sedimentation tanks prior to offsite discharge. The wastewater with a high concentration 	To minimize construction water quality impact from tunnelling works	Contractor	All tunnelling portion	Construction stage	N/A

EIA Ref.	EM&A Log Ref*	Recommended Mitigation Measures	Objectives of the Recommended Measures & Main Concerns to address	Who to implement the measures?	Location of the implementation of measures	When to implement the measures?	Implementation Status
		of suspended solids should be treated (e.g.					
		by sedimentation tanks with sufficient					
		retention time) before discharge. Oil					
		interceptors would also be required to					
		remove oil, lubricants and grease from the					
		wastewater.					
		• Direct discharge of the bentonite slurry (as					
		a result of D-wall and bored tunnelling					
		construction) is not allowed. The slurry					
		should be reconditioned and reused					
		wherever practicable. Temporary storage					
		locations (typically a properly closed					
		warehouse) should be provided on site for					
		any unused bentonite that needs to be					
		transported away after all the related					
		construction activities have been					
		completed. The requirements in					
		ProPECC PN 1/94 should be adhered to in					
		the handling and disposal of bentonite					
		slurries.					
S10.7.1	W3	Sewage Effluent	To minimize water quality	Contractor	All construction sites	Construction stage	\checkmark
		Portable chemical toilets and sewage	from sewage effluent		where practicable		
		holding tanks are recommended for					
		handling the construction sewage					
		generated by the workforce. A licensed					
		contractor should be employed to provide					
		appropriate and adequate portable toilets					
		and be responsible for their appropriate					
		disposal and maintenance.					
S10.7.1	W4	Groundwater from Contaminated Area in	To minimize groundwater	Contractor	Excavation areas	Construction	N/A
		case contamination is found:	quality impact from		where contamination	stage	
		 No direct discharge of groundwater from 	contaminated area		is found.		

EIA Ref.	EM&A Log Ref*	Recommended Mitigation Measures	Objectives of the Recommended Measures & Main Concerns to address	Who to implement the measures?	Location of the implementation of measures	When to implement the measures?	Implementation Status
		contaminated areas is allowed. Prior to the					
		excavation works within potentially					
		contaminated areas, the groundwater					
		quality should be reviewed with reference					
		to the site investigation data in the EIA					
		report for compliance and the Technical					
		Memorandum on Standards for Effluents					
		Discharged into Drainage on Sewerage					
		Systems, Inland and Coastal Waters (TM-					
		Water). The existence of prohibited					
		substance should be confirmed. The					
		review results should be submitted to EPD					
		for examination if the review results					
		indicate that the groundwater to be					
		generated from the excavation works					
		would be contaminated. The contaminated					
		groundwater should be either properly					
		treated in compliance with the					
		requirements of the TM-Water or properly					
		recharged into the ground.					
		• If wastewater treatment is deployed, the					
		wastewater treatment unit shall deploy					
		suitable treatment process (e.g. oil					
		interceptor / activated carbon) to reduce					
		the pollution level to an acceptable					
		standard and remove any prohibited					
		substances (e.g. total petroleum					
		hydrocarbon (TPH)) to undetectable					
		range. All treated effluent from the					
		wastewater treatment plant shall meet the					
		requirements as stated in TM Water and					
		should be discharged into the foul sewers.					

EIA Ref.	EM&A Log Ref*	Recommended Mitigation Measures	Objectives of the Recommended Measures & Main Concerns to address	Who to implement the measures?	Location of the implementation of measures	When to implement the measures?	Implementation Status
		• If groundwater recharging wells are					
		deployed, recharging wells should be					
		installed as appropriate for recharging the					
		contaminated groundwater back into the					
		ground. The recharging wells should be					
		selected at places where the groundwater					
		quality will not be affected by the recharge					
		operation as indicated in the Section 2.3 of					
		TM-Water. The baseline groundwater					
		quality shall be determined prior to the					
		selection of the recharge wells. It is					
		necessary to submit a working plan					
		(including the laboratory analytical results					
		showing the quality of groundwater at the					
		proposed recharge location(s) as well as					
		the pollutant levels of groundwater to be					
		recharged) to EPD for agreement.					
		Pollution levels of groundwater to be					
		recharged shall not be higher than the					
		pollutant levels of ambient groundwater at					
		the recharge well. Prior to recharge, any					
		prohibited substances such as TPH					
		products should be removed as necessary					
		by installing the petrol interceptor. The					
		Contractor should apply for a discharge					
		licence under the Water Pollution Control					
		Ordinance (WPCO) through the Regional					
		Office of EPD for groundwater recharge					
		operation or discharge of treated					
		groundwater.					
S10.7.1	W7	In order to prevent accidental spillage of	To minimize water quality	Contractor	All construction sites	Construction stage	\checkmark
		chemicals, the following is recommended:	impact from accidental		where practicable		

EIA Ref.	EM&A Log Ref*	Recommended Mitigation Measures	Objectives of the Recommended Measures & Main Concerns to address	Who to implement the measures?	Location of the implementation of measures	When to implement the measures?	Implementation Status
		 All the tanks, containers, storage area should be bunded and the locations should be locked as far as possible from the sensitive watercourse and stormwater drains. The Contractor should register as a chemical waste producer if chemical wastes would be generated. Storage of chemical waste arising from the construction activities should be stored with suitable labels and warnings. Disposal of chemical wastes should be conducted in compliance with the requirements as stated in the Waste disposal (Chemical Waste) (General) Regulation. 	spillage				
Waste Ma	anagement (Construction Waste)					
S11.4.1.1	WM1	 <u>On-site sorting of C&D (Construction and</u> <u>Demolition) material</u> Geological assessment should be carried out by competent persons on site during excavation to identify materials which are not suitable to use as aggregate in structural concrete (e.g. volcanic rock, Aplite dyke rock, etc). Volcanic rock and Aplite dyke rock should be separated at the source sites as far as practicable and stored in the designated stockpile areas avoiding delivering them to crushing facilities. The crushing plant operator should also be reminded to set up measures to prevent unsuitable rock from 	Separation of unsuitable rock from ending up at Concrete batching plants and be turned into concrete for structural use	Contractor	All construction sites	Construction stage	~

EIA Ref.	EM&A Log Ref*	Recommended Mitigation Measures	Objectives of the Recommended Measures & Main Concerns to address	Who to implement the measures?	Location of the implementation of measures	When to implement the measures?	Implementation Status
		being ended up at concrete batching plants and turned into concrete for structural use. Details regarding control measures at source sites and crushing facilities should be submitted by the Contractors for the Engineer to review and agree. In addition, site records should also be kept for the types of rock materials excavated. The traceability of delivery will be ensured via the implementation of Trip Ticket System and enforcement by site supervisory staff as stipulated under DEVB TC(W) No. 6/2010 for tracking of the correct delivery to the rock crushing facilities for processing into aggregates. Alternative disposal option for the reuse of volcanic rock and Aplite Dyke rock, etc should also be explored.					
S11.5.1	WM2	 <u>Construction and Demolition (C&D)</u> <u>Material</u> Maintain temporary stockpiles and reuse excavated fill material for backfilling and reinstatement; Carry out on-site sorting; Make provisions in the Contract documents to allow and promote the use of recycled aggregates where appropriate; Adopt 'Selective Demolition' technique to demolish the existing structures and facilities with a view to recovering broken concrete effectively for recycling purpose, where possible; 	Good site practice to minimize waste generation and recycle C&D materials as far as practicable so as to reduce the amount for final disposal	Contractor	All construction sites	Construction stage	\checkmark

EIA Ref.	EM&A Log Ref*	Recommended Mitigation Measures	Objectives of the Recommended Measures & Main Concerns to address	Who to implement the measures?	Location of the implementation of measures	When to implement the measures?	Implementation Status
S11.5.1	WM3	 Implement a trip-ticket system for each works contract to ensure that the disposal of C&D materials are properly documented and verified; Implement an enhanced Waste management Plan similar to ETWBTC (Works) No. 19/2005 – "Environmental Management on Construction Sites" to encourage on-site sorting of C&D materials and minimize waste generation during the course of construction. Disposal of the C&D materials to any sensitive locations such as agricultural lands, etc. should be avoided. The Contractor shall propose the final disposal sites to the Project Proponent and get his approval before implementation C&D Waste Standard formwork or pre-fabrication should be used as far as practicable in order to minimise the arising of C&D materials. The use of more durable formwork or plastic facing for the construction works should be used to enhance the possibility of recycling. The purchase of construction materials will be carefully planned in order to avoid over ordering and wastage. The Contractor should recycle as much of the C&D materials as possible on-site. 	Good site practice to minimize waste generation and recycle C&D materials as far as practicable so as to reduce the amount for final disposal	Contractor	All construction sites	Construction stage	\checkmark

EIA Ref.	EM&A Log Ref*	Recommended Mitigation Measures	Objectives of the Recommended Measures & Main Concerns to address	Who to implement the measures?	Location of the implementation of measures	When to implement the measures?	Implementation Status
		Public fill and C&D waste should be segregated and stored in different containers or skips to enhance reuse or recycling of materials and their proper disposal. Where practicable, concrete and masonry can be crushed and used as fill. Steel reinforcement bar can be used by scrap steel mills. Different areas of the sites should be considered for such segregation and storage.					
S11.5.1	WM4	 <u>General Refuse</u> General refuse generated on-site should be stored in enclosed bins or compaction units separately from construction and chemical wastes. A reputable waste collector should be employed by the Contractor to remove general refuse from the site, separately from construction and chemical wastes, on a daily basis to minimize odour, pest and litter impacts. Burning of refuse on construction sites is prohibited by law. Aluminium cans are often recovered from the waste stream by individual collectors if they are segregated and made easily accessible. Separate labelled bins for their deposit should be provided if feasible. Office wastes can be reduced through the recycling of paper if volumes are large enough to warrant collection. Participation in a local collection scheme 	Minimize the production of general refuse and minimise odour, pest and litter impacts	Contractor	All construction sites	Construction stage	1

EIA Ref.	EM&A Log Ref*	Recommended Mitigation Measures	Objectives of the Recommended Measures & Main Concerns to address	Who to implement the measures?	Location of the implementation of measures	When to implement the measures?	Implementation Status
S11.5.1	WM7	 should be considered by the Contractor. <u>Chemical Waste</u> Chemical waste as defined by Schedule 1 of the Waste Disposal (Chemical Waste) (General) Regulation, that is produced should be handled in accordance with the Code of Practice on the Packaging, Labelling and Storage of Chemical Wastes. Containers used for the storage of chemical wastes should be suitable for the substance they are holding, resistant to corrosion, maintained in a good condition, and securely closed. They should have a capacity of less than 450 litres unless the specification has been approved by the EPD. A label in English and Chinese should be displayed in accordance with instructions prescribed in Schedule 2 of the regulation. The storage area for chemical wastes should be clearly labelled and used solely for the storage of chemical waste; enclosed on at least 3 sides. It should also have an impermeable floor and bunding of sufficient capacity to accommodate 110% of the volume of the largest container or 	Main Concerns to address Control the chemical waste and ensure proper storage, handling and disposal.	the measures? Contractor	measures All construction sites	Construction stage	Δ
		20 % of the total volume of waste stored in that area, whichever is the greatest. It should have adequate ventilation and be covered to prevent rainfall entering; and arranged so that incompatible materials are adequately separated.					

EIA Ref.	EM&A Log Ref*	Recommended Mitigation Measures	Objectives of the Recommended Measures & Main Concerns to address	Who to implement the measures?	Location of the implementation of measures	When to implement the measures?	Implementation Status
		Disposal of chemical waste should be via a					
		licensed waste collector; to a facility					
		licensed to receive chemical waste, such as					
		the Chemical Waste Treatment Centre					
		(which also offers a chemical waste					
		collection service and can supply the					
		necessary storage containers); or to a					
		reuser of the waste, under the approval					
		from the EPD.					

Annex I

Regular Noise Monitoring Results

Annex I Regular Noise Monitoring Results

Ctation		CI/LI Cood Chambard Drimany Cabaal
Station	INIVIS-CA-8	SKH GOOD Shepherd Philliary School

Date	Start Time	End Time	Weather	Measured Noise level (dB(A)), Leq(30 min)	Baseline (dB(A)), Leq(30 min)	Corrected Leq(dBA) ^(a)	Major Construction Noise Source(s) Observed	Other Noise Source(s) Observed	Temp. (℃)	Wind Speed (m/s)	Noise Meter Model / ID	Calibrator Model / ID
07-Sep-12	14:25	14:55	Cloudy	74.6	75.0	-(b)	-	Traffic noise	30	0.4	NL-31 00410224	NC-73 10997142
13-Sep-12	8:50	9:20	Sunny	73.5	75.0	-(b)	-	Traffic noise	33	0.5	NL-18 00360030	NC-73 10997142
19-Sep-12	13:45	14:15	Cloudy	73.6	75.0	-(b)	-	Traffic noise	28	0.5	NL-18 00360030	NC-73 10997142
25-Sep-12	8:57	9:27	Fine	75.3	75.0	63.5	-	Traffic noise	29	0.5	NL-18 00360030	NC-73 10997142

Remarks:(a) The Measured Leq is corrected against the corresponding Baseline Level.(b) No correction was made as the measured noise levels were below the baseline noise levels.

Station NMS-CA-9 Kong Yiu Mansion

Date ^(c)	Start Time	End Time	Weather	Measured Noise level (dB(A)), Leq(30 min)	Baseline (dB(A)), Leq(30 min)	Corrected Leq(dBA) ^(a)	Major Construction Noise Source(s) Observed	Other Noise Source(s) Observed	Temp. (℃)	Wind Speed (m/s)	Noise Meter Model / ID	Calibrator Model / ID
21-Sep-12	17:30	18:00	Cloudy	71.3	69.0	67.4	-	Traffic noise	29	0.5	NL-18 00360030	NC-73 10997142
25-Sep-12	9:35	10:05	Fine	71.6	69.0	68.1	Site investigation	Traffic noise	29	0.8	NL-18 00360030	NC-73 10997142

Remarks:
(a) The Measured Leq is corrected against the corresponding Baseline Level.
(b) No correction was made as the measured noise levels were below the baseline noise levels.
(c) Monitoring in September 2012 was started on 21 September 2012 due to the construction works in Ma Tau Wai Road area has not yet commenced, therefore noise monitoring is not required.

Station NMS-CA-10 Chat Ma Mansion

Date	Start Time	End Time	Weather	Measured Noise level (dB(A)), Leq(30 min)	Baseline (dB(A)), Leq(30 min)	Corrected Leq(dBA) ^(a)	Major Construction Noise Source(s) Observed	Other Noise Source(s) Observed	Temp. (℃)	Wind Speed (m/s)	Noise Meter Model / ID	Calibrator Model / ID
07-Sep-12	14:00	14:30	Cloudy	76.9	77.0	-(b)	-	Traffic noise	30	0.3	NL-31 00410224	NC-73 10997142
13-Sep-12	9:35	10:05	Sunny	75.6	77.0	-(b)	-	Traffic noise	33	0.5	NL-18 00360030	NC-73 10997142
19-Sep-12	13:00	13:30	Cloudy	74.9	77.0	-(b)	-	Traffic noise	28	0.8	NL-18 00360030	NC-73 10997142
25-Sep-12	8:05	8:35	Fine	76.2	77.0	-(b)	Site Investigation	Traffic noise	29	0.8	NL-18 00360030	NC-73 10997142

Remarks:(a) The Measured Leq is corrected against the corresponding Baseline Level.(b) No correction was made as the measured noise levels were below the baseline noise levels.



Regular Noise Monitoring Results at NMS-CA-8 (Leq, 30min) during Normal Working Hours



Regular Noise Monitoring Results at NMS-CA-9 (Leq, 30min)) during Normal Working Hours



Normal Weekdays Regular Noise Monitoring Results at NMS-CA-10 (Leq, 30min) during Normal Working Hours

Annex J

Construction Dust Monitoring Results

Construction Dust Monitoring Results Annex J

Station DMS-8 SKH Good Shepherd Primary School

Star	t	Fini	sh	Weather	Filter W	eight (g)	Elapse Rea	ed Time Iding	Sampling Time	F	low Rate (m	³ /min)	TSP Conc.	Action Level	Limit Level	Observations / Remarks	Sampler	Filter
Date	Time	Date	Time		Initial	Final	Initial	Final	(hrs)	Initial	Final	Average	(µg/m ³)	(µg/m ³)	$(\mu q/m^3)$		ID	ID
07-Sep-12	8:30	08-Sep-12	8:30	Cloudy	2.7819	2.9411	259.11	283.11	24.00	1.23	1.23	1.23	90	152.2	260	Construction work in progress	3572	5157
13-Sep-12	9:00	14-Sep-12	9:00	Sunny	2.7588	2.9085	283.11	307.11	24.00	1.23	1.23	1.23	85	152.2	260	Construction work in progress	3572	5157
19-Sep-12	13:50	20-Sep-12	13:50	Cloudy	2.7521	2.9034	307.11	331.11	24.00	1.23	1.23	1.23	85	152.2	260	Construction work in progress	3572	5301
25-Sep-12	9:00	26-Sep-12	9:00	Fine	2.7431	2.8866	331.11	355.11	24.00	1.23	1.23	1.23	81	152.2	260	Construction work in progress	3572	5321
29-Sep-12	9:20	30-Sep-12	9:20	Sunny	2.7688	2.9098	355.11	379.11	24.00	1.23	1.23	1.23	80	152.2	260	Construction work in progress	3572	5416
												Average	84					
												Minimum	80					
												Maximum	90	1				

Station DMS-9 No. 26 Kowloon city road

							Elapsed Time		Sampling					Action	Limit	Observations /		
Star	t	Finis	sh	Weather	Filter W	eight (g)	Rea	ding	Time	F	low Rate (m	³ /min)	TSP Conc.	Level	Level	Remarks	Sampler	Filter
Date	Time	Date	Time		Initial	Final	Initial	Final	(hrs)	Initial	Final	Average	(µg/m ³)	(µg/m ³)	(µg/m ³)		ID	ID
																Construction		
21-Sep-12	17:15	22-Sep-12	17:15	Cloudy	2.7681	2.9110	11025.39	11049.39	24.00	1.25	1.25	1.25	79	160.9	260	work in progress	0814	5228
																Construction		
25-Sep-12	8:47	26-Sep-12	8:47	Fine	2.7559	2.9101	11049.40	11073.40	24.00	1.25	1.25	1.25	86	160.9	260	work in progress	0814	5417
																Construction		
29-Sep-12	9:12	30-Sep-12	9:12	Sunny	2.7657	2.9091	11073.40	11097.40	24.00	1.25	1.25	1.25	80	160.9	260	work in progress	0814	5419
												Average	82					
												Minimum	79					
												Maximum	86					

Monitoring in September 2012 was started on 21 September 2012 due to the construction works in Ma Tau Wai Road area has not yet commenced, therefore dust monitoring is not required. Remark:

80

88

Minimum

Maximum

Station DMS-10 Chat Ma Mansion

							Elapse	d Time	Sampling					Action	Limit	Observations /		
Start	t	Finis	sh	Weather	Filter W	eight (g)	Rea	ding	Time	F	low Rate (m	³ /min)	TSP Conc.	Level	Level	Remarks	Sampler	Filter
Date	Time	Date	Time		Initial	tial Final In		Final	(hrs)	Initial	Final	Average	(µg/m ³)	(µg/m ³)	(µg/m ³)		ID	ID
																Construction		
07-Sep-12	8:10	08-Sep-12	8:10	Cloudy	2.7863	2.9311	203.20	227.20	24.00	1.22	1.22	1.22	82	170.4	260	work in progress	3573	5099
																Construction		
13-Sep-12	9:42	14-Sep-12	9:42	Sunny	2.7741	2.9149	277.20	301.20	24.00	1.22	1.22	1.22	80	170.4	260	work in progress	3573	5158
																Construction		
19-Sep-12	13:05	20-Sep-12	13:05	Cloudy	2.7486	2.9000	301.20	325.20	24.00	1.22	1.22	1.22	86	170.4	260	work in progress	3573	5302
																Construction		
25-Sep-12	8:10	26-Sep-12	8:10	Fine	2.7459	2.9006	325.20	349.20	24.00	1.22	1.22	1.22	88	170.4	260	work in progress	3573	5320
																Construction		
29-Sep-12	9:00	30-Sep-12	9:00	Sunny	2.7748	2.9211	349.20	373.20	24.00	1.22	1.22	1.22	83	170.4	260	work in progress	3573	5415
												Average	84					

Construction Dust Monitoring Results DMS-8 (SKH Good Shepherd Primary School)



Construction Dust Monitoring Results DMS-9 (No. 26 Kowloon city road)



Construction Dust Monitoring Results DMS-10 (Chat Ma Mansion)



Annex K

Waste Flow Table

Annex K – Waste Flow Table

	Actual Quantities of Inert C&D Materials Generated Monthly						Actual Quantities of Non-inert C&D Wastes Generated Monthly				
Month	Total Quantity Generated	Hard Rocks and Large Broken Concrete (See Note 3)	Reused in the Contract	Reused in other Projects	Disposed as Public Fill (See Note 5)	Imported Fill	Metals	Paper/ cardboard packaging	Plastics (see Note 2)	Chemical Waste	Others, e.g. general refuse (See Note 5)
	(in '000m3)	(in '000m ³)	(in '000m ³)	(in '000m ³)	(in '000m ³)	(in '000m ³)	(in '000kg)	(in '000kg)	(in '000kg)	(in'000kg)	(in '000m ³)
Jan											
Feb											
Mar											
Apr											
May											
June											
July											
Aug											
Sub-total											
Sept	0.004	0.000	0.000	0.000	0.004	0.000	0.000	0.000	5.300	0.000	0.144
Oct											
Nov											
Dec											
Total	0.004	0.000	0.000	0.000	0.004	0.000	0.000	0.000	5.300	0.000	0.144

Monthly Summary Waste Flow Table for the year 2012

Notes:

-1

-2

- All excavated materials to be sorted for recovering the inert portion of C&D materials, e.g. hard rocks, soil and broken concrete, for reuse on the Site or disposal to designated outlets;
- All metallic waste to be recovered for collection by recycling contractors;
- All cardboard and paper packaging (for plant, equipment and materials) to be recovered, properly stockpiled in dry and covered condition to prevent cross contamination;
- All chemical wastes to be collected and properly disposed of by specialist contractors; and
- All demolition debris to be stored to recover broken concrete, reinforcement bars, mechanical and electrical fittings, hardware as well as other fitting / materials that have established recycling outlets.
- Plastics refer to plastic bottles/containers, plastic sheets/foam from packaging material.
- Broken concrete for recycling into aggregates.
- -4 The waste flow table shall also include C&D materials that are specified in the Contract to be imported for use at the Site.
- -5 Density Assumption: 1.6(kg/l) for Public Fill and 0.9(kg/l) for General Refuse

The performance targets are given below:

Annex L

Environmental Complaint, Environmental Summon and Prosecution

Annex L Environmental Complaint, Environmental Summon and Prosecution Log

Reporting Month	Number of Complaints in Reporting Month	Number of Summons/Prosecutions in Reporting Month
September 2012	0	0
Overall Total	0	0